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2 ATTACHMENT NO. 5b
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5 National Committee on Uniform Traffic Control Devices
6 RWSTC RECOMMENDATION
7 REVIEW OF NPA PUBLISHED JANUARY 2, 2008
8 VERSION OF MUTCD WITH CHANGES SHOWN IN BLUE AND
9 STRIKEOUTS SHOWN IN RED
10

11 TECHNICAL COMMITTEE: NCUTCD Regulatory/Warning Signs Technical
12 Committee
13

14 DATE OF ACTION: (TASK FORCE) 6-6-08
15

16 TASK FORCE MEMBERS: Tom Heydel Chair, Doug Bartlett, Herman Hill,
17 Scott Kuznicki, Rich Meredith, Bob Canfield, Mike Moule, Randy McCourt (ITE
18 Liaison.
19

20 RWSTC APPROVAL DATE: 6-19-08

21 COUNCIL APPROVAL DATE: 1-12-08 and 6-21-08

22 ORIGIN OF REQUEST: RWSTC Task Force and RWSTC
23

24 MUTCD SECTIONS: Part 2B, Figures 2B-1 through 2B-35, and Tables
25 2B-1, 2B-2 and 2B-3.
26

27 SUMMARY:
28

29 FHWA published a Notice of Rulemarking in the Federal Register on January 2, 2008,
30 covering the MUTCD Revisions for the 2009 Manual. The RWSTC has reviewed this
31 proposal Part of the NPA providing the following comments on behalf of the National
32 Committee on Uniform Traffic Control Devices.
33

34
35 The following is the actual complete text as published by FHWA in the NPA for the
36 MUTCD. Blue text is new text. Strikeout-red is text eliminated. Green highlight are
37 FHWA editorial comments.
38

39 Color Code: Previously approved Council Revisions (January 12, 2008)
40 Approved by Council June 21, 2008
41
42
43

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

46 **2007 NOTICE OF PROPOSED AMENDMENTS**
47 **MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES**

48 **LIST OF PARTS, CHAPTERS, AND SECTIONS**

- 49 **CHAPTER 2B. REGULATORY SIGNS**
50 **Section 2B.01 Application of Regulatory Signs**
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53 **Section 2B.04 Right-of-Way at Intersections**
54 **Section 2B.05 STOP Sign (R1-1) and ALL WAY Plaque (R1-3P)**
55 **Section 2B.06 STOP Sign Applications**
56 **Section 2B.07 Multiway Stop Applications**
57 **Section 2B.08 YIELD Sign (R1-2)**
58 **Section 2B.09 YIELD Sign Applications**
59 **Section 2B.10 STOP Sign or YIELD Sign Placement**
60 **Section 2B.11 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs**
61 **(R1-5 Series)**
62 **Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-**
63 **9, and R1-9a)**
64 **Section 2B.13 Speed Limit Sign (R2-1)**
65 **Section 2B.14 Truck Speed Limit Plaque (R2-2P)**
66 **Section 2B.15 Night Speed Limit Plaque (R2-3P)**
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68 **Section 2B.17 FINES HIGHER Plaque (R2-6P)**
69 **Section 2B.18 Movement Prohibition Signs (R3-1 through R3-4, R3-18, and R3-27)**
70 **Section 2B.19 Intersection Lane Control Signs (R3-5 through R3-8)**
71 **Section 2B.20 Mandatory Movement Lane Control Signs (R3-5, R3-5a, R3-7, and**
72 **R3-20)**
73 **Section 2B.21 Optional Movement Lane Control Sign (R3-6)**
74 **Section 2B.22 Advance Intersection Lane Control Signs (R3-8 Series)**
75 **Section 2B.23 RIGHT (LEFT) LANE MUST EXIT Sign (R3-33)**
76 **Section 2B.24 Two-Way Left Turn Only Signs (R3-9a, R3-9b)**
77 **Section 2B.25 Reversible Lane Control Signs (R3-9d, R3-9f through R3-9i)**
78 **Section 2B.26 Regulatory Signs for Preferential Lanes – General**
79 **Section 2B.27 Preferential Lane Vehicle Occupancy Definition Signs (R3-10 Series**
80 **and R3-13 Series)**
81 **Section 2B.28 Preferential Lane Periods of Operation Signs (R3-11 Series and R3-**
82 **14 Series)**
83 **Section 2B.29 Preferential Lane Advance Signs (R3-12, R3-12e, R3-12f, R3-15 R3-**
84 **15a, and R3-15d)**
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86 **12g, R3-12h, R3-15b, R3-15c, and R3-15e)**
87 **Section 2B.31 Regulatory Signs for Toll Plazas**
88 **Section 2B.32 Regulatory Signs for Managed Lanes and ETC Only Lanes**

- 89 Section 2B.33 Jughandle Signs (R3-23, R3-24, R3-25, and R3-26 Series)
- 90 Section 2B.34 Do Not Pass Sign (R4-1)
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- 92 15)
- 93 Section 2B.36 DO NOT DRIVE ON SHOULDER Sign (R4-17) and DO NOT PASS
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- 95 Section 2B.37 PASS WITH CARE Sign (R4-2)
- 96 Section 2B.38 SLOWER TRAFFIC KEEP RIGHT Sign (R4-3) and KEEP RIGHT
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- 98 Section 2B.39 TRUCKS USE RIGHT LANE Sign (R4-5)
- 99 Section 2B.40 Keep Right and Keep Left Signs (R4-7, R4-8)
- 100 Section 2B.41 STAY IN LANE Sign (R4-9)
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- 103 Section 2B.44 DO NOT ENTER Sign (R5-1)
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- 107 Section 2B.48 Wrong-Way Traffic Control at Interchange Ramps
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- 109 Section 2B.50 Roundabout Directional Arrow Signs (R6-4, R6-4a, and R6-4b)
- 110 Section 2B.51 Roundabout Circulation Plaque (R6-5P)
- 111 Section 2B.52 Examples of Roundabout Signing
- 112 Section 2B.53 Parking, Standing, and Stopping Signs (R7 and R8 Series)
- 113 Section 2B.54 Design of Parking, Standing, and Stopping Signs
- 114 Section 2B.55 Placement of Parking, Stopping, and Standing Signs
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- 116 Section 2B.57 WALK ON LEFT FACING TRAFFIC and No Hitchhiking Signs
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- 121 Section 2B.61 Ramp Metering Signs (R10-28 and R10-29)
- 122 Section 2B.62 KEEP OFF MEDIAN Sign (R11-1)
- 123 Section 2B.63 ROAD CLOSED Sign (R11-2) and LOCAL TRAFFIC ONLY Signs
- 124 (R11-3 Series, R11-4)
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- 128 Section 2B.67 Hazardous Material Signs (R14-2, R14-3)
- 129 Section 2B.68 National Network Signs (R14-4, R14-5)
- 130 Section 2B.69 Headlight Use Signs (R16-5 through R16-12)
- 131 Section 2B.70 Miscellaneous Regulatory Signs
- 132

CHAPTER 2B. REGULATORY SIGNS

- 133
- 134 Section 2B.01 Application of Regulatory Signs – [Approved by Council 1-12-08](#)

135 Standard:

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

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

141 Regulatory signs shall be retroreflective or illuminated (see Section 2A.07) to show the
142 same shape and similar color by both day and night, unless specifically stated otherwise in
143 the text discussion of a particular sign or group of signs (see Section 2A.07).

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

146 Section 2B.02 Design of Regulatory Signs. Approved by Council 1-12-08

147 Support Standard:

148 ~~Most Regulatory signs are shall be~~ rectangular, ~~with the longer dimension vertical~~
149 ~~unless specifically designated otherwise. The shapes and colors of regulatory signs are~~
150 ~~listed in Tables 2A-3 and 2A-4, respectively. Exceptions are specifically noted in the~~
151 ~~following Sections: Regulatory signs shall be designed in accordance with the sizes, shapes,~~
152 ~~colors, and legends contained in the “Standard Highway Signs and Markings” book (see~~
153 ~~Section 1A.11).~~

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

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

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

160 Support:

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

162 Guidance:

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

166 Section 2B.03 Size of Regulatory Signs – Approved by Council 6-21-08 shown in
167 yellow highlight.

168

169 Standard:

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

172 Guidance:

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

175 Option:

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

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

181 ~~Signs larger than those shown in Table 2B-1 may be used (see Section 2A.11).~~

182 Support:

183 [Section 2A.11](#) contains information regarding the applicability of the various columns in
184 [Table 2B-1](#).

185 **Standard:**

186 **The minimum sizes for certain regulatory signs facing traffic on multi-lane conventional**
187 **roads, shall be as shown in [Table 2B-2](#), [Table 2B-1](#)**

188 Reason: Combine table 2B-1 and Table 2B-2 by adding a column in Table 2B-1 for the multi-
189 lane conventional roads. See table revisions

190 **A minimum size of 900 x 900 mm (36 x 36 in) shall be used for STOP signs on**
191 **sideroads (one, two or more lanes) that face multi-lane approaches, highways with**
192 **speed limits of 45 MPH or higher. For multi-lane highways or streets with speed**
193 **limits of 40 MPH or less, the STOP signs on the sideroad approaches shall follow the**
194 **sizes shown in Table 2B-1. STOP signs that face traffic on the multi-lane highway**
195 **shall be a minimum size of 900 x 900 mm (36 x 36 in).**

196
197 Reason: To provide clarity that the 36 x 36 stop sign is required on the sideroad
198 approaching a multi-lane highway not just stop signs on the multi-lane highway. Could
199 be construed as stop signs on the multi-lane highway rather than the sideroad
200 approaches. Clarify that it is all sideroad approaches not just multi-lane approaches.
201 Also, as to not place an undue burden on municipalities with lower speed (40 mph or
202 less) multi-lane arterials, streets or highways; the stop sign on the sideroad approach to a
203 multi-lane highway does not need to be 36 x 36, but can be 30 x 30 if that sideroad is a
204 low speed roadway. The purpose of the larger 36 x 36 stop signs for sideroad
205 approaches is to improve safety at multi-lane highways by reducing the number of
206 vehicles running stop signs approaching a high speed multi-lane highway. A reduction in
207 crashes of 19% has been proven by FHWA as a result of increased STOP sign sizes.
208

209 **[Section 2B.04 Right-of-Way at Intersections. Approved by Council 1-12-08.](#)**

210
211 Support:

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

220
221 Guidance:

222 [Engineering judgment should be used to establish intersection control. The following factors](#)
223 [should be considered:](#)

- 224 [A. Vehicular, bicycle, and pedestrian traffic volumes on all approaches;](#)
- 225 [B. Number and angle of approaches;](#)
- 226 [C. Approach speeds;](#)
- 227 [D. Sight distance available on each approach; and](#)
- 228 [C. Reported crash experience.](#)

229 STOP or YIELD signs should be used [at an intersection](#) if [engineering judgment indicates](#)
230 [that one or more of the following conditions exist:](#) [relocated from Section 2B.05](#)

- 231 [A. An](#) intersection of a less important road with a main road where application of the normal
232 right-of-way rule would not be expected to provide reasonable compliance with the law;
- 233 [B. A](#) street entering a [designated](#) through highway or street; [and/or](#)
- 234 [C. An](#) unsignalized intersection in a signalized area. [and/or](#)
- 235 [D. High speeds, restricted view, or crash records indicate a need for control by the STOP](#)
236 [sign.](#)

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

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

249 STOP or YIELD signs should not be used for speed control. [relocated from Section 2B.05](#)

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

254 A STOP or YIELD sign should not be installed on the [major street](#) [higher volume roadway](#)
255 unless justified by an [traffic](#) engineering study. [relocated from Section 2B.05](#)

256 Support:

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

- 260 [A. Stopping Controlling](#) the direction that conflicts the most with established pedestrian
261 crossing activity or school walking routes;
- 262 [B. Stopping Controlling](#) the direction that has obscured vision, dips, or bumps that already
263 require drivers to use lower operating speeds; [and](#)
- 264 [C. Stopping the direction that has the longest distance of uninterrupted flow approaching the](#)
265 [intersection; and](#)
- 266 [C. Stopping Controlling](#) the direction that has the best sight distance [from a controlled](#)
267 [position to observe](#) conflicting traffic.

268 [Standard:](#)

269 Because the potential for conflicting commands could create driver confusion, STOP or
270 YIELD signs shall not be ~~installed at intersections where used in conjunction with any~~
271 traffic control signals ~~are installed and operating operation~~, except ~~as noted in Section~~
272 ~~4D.01~~, in the following cases: ~~relocated from Section 2B.05~~

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

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

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

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

289 Option:

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

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

298 Section ~~2B.04~~ 2B.05 STOP Sign (R1-1) and ALL WAY Plaque (R1-3P) Approved
299 by Council 1-12-08.

300

301 Standard:

302 When ~~a sign is used to indicate that traffic is~~ it is determined that a full stop is always
303 required ~~to stop on an approach to an intersection~~, a STOP (R1-1) sign (see Figure 2B-1)
304 shall be used.

305 The STOP sign shall be an octagon with a white legend and border on a red
306 background.

307 Secondary legends shall not be used on STOP sign faces. ~~If appropriate, a supplemental~~
308 ~~plaque (R1-3 or R1-4) shall be used to display a secondary legend. If the number of~~
309 ~~approach legs controlled by STOP signs at an intersection is three or more, the numeral on~~
310 ~~the supplemental plaque, if used, shall correspond to the actual number of legs controlled~~
311 ~~by STOP signs.~~

312 At intersections where all approaches are controlled by STOP signs (see Section 2B.07),
313 an ALL WAY supplemental plaque (R1-3P ~~or R1-4~~) shall be mounted below each STOP

314 sign. ~~Such~~ The ALL WAY plaques (see Figure 2B-1) shall have a white legend and border
315 on a red background. ~~the 2nd sentence was relocated from the previous paragraph~~

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

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

320 ~~Option:~~

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

323 Support:

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

326 Guidance:

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

331 Option:

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

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

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

339 Approved by Council 1-12-08 with revisions shown in blue highlight.

340

341 Guidance:

342 ~~STOP signs should be installed in a manner that minimizes the numbers of vehicles having to~~
343 ~~stop.~~ At intersections where a full stop is not necessary at all times, consideration should first be
344 given to using less restrictive measures such as YIELD signs (see Sections 2B.08 and 2B.09).

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

348 A. The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per
349 day;

350 B. A restricted view exists that requires road users on the minor-street approach to stop in
351 order to adequately observe conflicting traffic on the through street or highway; and/or

352 C. Crash records indicate that 3 or more crashes that are susceptible to correction by the
353 installation of a STOP sign have been reported within a 12-month period, or that 5 or
354 more such crashes have been reported within a 2-year period. Such crashes include right-
355 angle collisions involving road users on the minor-street approach failing to yield the
356 right-of-way to traffic on the through street or highway.

357 Support:

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

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

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

365 **Approved by Council 1-12-08**

366 **Standard:**

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

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

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

373 **Guidance:**

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

376 **Support:**

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

379 **Guidance:**

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

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

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

386 ~~Where there is a marked crosswalk at the intersection, the STOP sign should be installed in~~
387 ~~advance of the crosswalk line nearest to the approaching traffic.~~

388 **Option:**

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

393 **Support:**

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

395 **Section 2B.07 Multiway Stop Applications Approved by Council 1-12-08**

396

397 Support:

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

402 The restrictions on the use of STOP signs described in Section 2B.04 also apply to multiway
403 stop applications.

404 Guidance:

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

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

- 408 A. Where traffic control signals are justified, the multiway stop is an interim measure that
409 can be installed quickly to control traffic while arrangements are being made for the
410 installation of the traffic control signal.
- 411 B. ~~A crash problem, as indicated by 5~~ Five or more reported crashes in a 12-month period
412 that are susceptible to correction by a multiway stop installation. Such crashes include
413 right-turn ~~edited to increase clarity~~ and left-turn collisions as well as right-angle
414 collisions.
- 415 C. Minimum volumes:
 - 416 1. The vehicular volume entering the intersection from the major street approaches
417 (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of
418 an average day; and
 - 419 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection
420 from the minor street approaches (total of both approaches) averages at least 200
421 units per hour for the same 8 hours, with an average delay to minor-street vehicular
422 traffic of at least 30 seconds per vehicle during the highest hour; but
 - 423 3. If the 85th-percentile approach speed of the major-street traffic exceeds 65 km/h or
424 exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the above
425 values.
- 426 D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied
427 to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

428 Option:

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

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

439 Section 2B.08 **YIELD Sign (R1-2)** ~~Approved by Council 1-12-08~~

440

441 Standard:

442 The YIELD (R1-2) sign (see Figure 2B-1) shall be a downward-pointing equilateral
443 triangle with a wide red border and the legend YIELD in red on a white background.

444 Support:

445 The YIELD sign assigns right-of-way to traffic on certain approaches to an intersection.
446 Vehicles controlled by a YIELD sign need to slow down to a speed that is reasonable for the
447 existing conditions or stop when necessary to avoid interfering with conflicting traffic.

448 **Section 2B.09 YIELD Sign Applications Approved by Council 1-12-08. Additional**
449 **revisions approved by Council June 21, 2008 shown in Yellow highlight.**

450
451 Option:

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

- 454 A. ~~When the ability to see all potentially conflicting traffic is sufficient to allow a road user~~
455 ~~traveling at the posted speed, the 85th percentile speed, or the statutory speed to pass~~
456 ~~through the intersection or to stop in a reasonably safe manner~~ On the approaches to a
457 through street or highway where conditions are such that a stop is not always required.
458 ~~B. If controlling a merge type movement on the entering roadway where acceleration~~
459 ~~geometry and/or sight distance is not adequate for merging traffic operation.~~
460 B. At the second crossroad of a divided highway, where the median width at the intersection
461 is 9 m (30 ft) or greater. In this case, a STOP or YIELD sign may be installed at the
462 entrance to the first roadway of a divided highway, and a YIELD sign may be installed at
463 the entrance to the second roadway.
464 C. For ~~On~~ a channelized turn lane that is separated from the adjacent travel lanes by an
465 island, even if the adjacent lanes at the intersection are controlled by a highway traffic
466 control signal or by a STOP sign.
467 D. At an intersection where a special problem exists and where engineering judgment
468 indicates the problem to be susceptible to correction by the use of the YIELD sign.
469 D. Facing the entering roadway for a merge-type movement if engineering judgment
470 indicates that control is needed because acceleration geometry and/or sight distance is not
471 adequate for merging traffic operation.

472
473 **Reason: Editorial**

474 **Standard:**

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

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

480 **Approved by Council 1-12-08. Additional Revisions in Yellow highlight, approved**
481 **by Council June 21, 2008**

482 **Standard:**

483 The STOP or YIELD sign shall be installed on the near side of the intersection on the
484 right-hand ~~edited to increase clarity~~ side of the approach to which it applies. ~~YIELD signs~~
485 ~~shall be placed on both the left and right sides of approaches to roundabout intersections~~
486 ~~with more than one lane on the signed approach where raised splitter islands are available~~
487 ~~on the left side of the approach.~~ When the STOP or YIELD sign is installed at this required
488 location and the sign visibility is restricted, a Stop Ahead sign shall be installed in advance
489 of the STOP sign or a Yield Ahead sign (see Section 2C.35) shall be installed in advance of
490 the YIELD sign (see Section 2C.35).

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

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

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

498 Guidance:

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

504 Option:

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

508 Support:

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

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

512 Guidance:

513 Stop lines (see Section 3B.16), when used to supplement a STOP sign, should be located as
514 described in Section 3B.16 at a point where the road user should stop. Yield lines (see Section
515 3B.16), when used to supplement a YIELD sign, should be located as described in Section 3B.16
516 at a point where the road user should yield (see Section 3B.16).

517 Reason for change: Language in 3B.16 says “the point behind which
518 vehicles are required to stop” and the language above says “where
519 road user should stop”. To avoid a discrepancy in Part 2B and 3B,
520 eliminate the language in 2B and reference Section 3B.16.

521 Where there is a marked crosswalk at the intersection, the STOP sign should be installed in
522 advance of the crosswalk line nearest to the approaching traffic.

523 Except at roundabouts ~~intersections,~~ deleted to increase consistency where there is a marked
524 crosswalk at the intersection, the YIELD sign should be installed in advance of the crosswalk line
525 nearest to the approaching traffic. this paragraph and the next paragraph were switched to provide
526 better continuity

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

529 ~~At a roundabout intersection, to prevent circulating vehicles from yielding unnecessarily, the~~
530 ~~face of the YIELD sign should not be visible from the circulatory roadway.~~ deleted because it is
531 covered by the previous paragraph

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

534 Option:

535 [If a raised splitter island is available on the left-hand side of a single lane roundabout](#)
536 [approach, an additional YIELD sign may be placed on the left-hand side of the approach.](#)

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

545 **Standard:**

546 [Two Multiple STOP signs or two multiple YIELD signs shall not be placed on the same](#)
547 [support facing in the same direction to provide extra emphasis.](#)

548 **Reason for change:** Could be more than two. The use of the phrase “to provide extra
549 emphasis” is not needed since we don’t need to state the reason for not placing more than
550 one STOP sign on a support.
551
552

553 **Support:**

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

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

558 [Approved by Council 1-12-08 with modifications shown in blue highlight.](#)
559 [Additional Revisions in Yellow highlight approved by Council 6-21-08.](#)

560 **Standard:**

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

566 [The Stop Here for Pedestrians shall only be used where the law specifically requires](#)
567 [that a driver must stop for a pedestrian in a crosswalk.](#)

568
569 **Guidance:**

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

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

576 **Option:**

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

580 **Standard:**

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

584 **Standard:**

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

588 **Option:**

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

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

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

597 **Reason for change in 2B.11 - SSR # 3 synthesis of signs was approved by RWSTC in June**
598 **2007 ready for sponsors. Language is consistent with that approved by RWSTC.**
599 **Provides clarification for the use of STOP versus YIELD based on state laws as**
600 **appropriate. Avoids warning sign blocking the regulatory sign when both are used.**

601 **Reason for change in the STANDARD statement: To clarify that the crossing is mid-block.**

602
603 **Figure 3B-16 – add the R1-5b and R1-5c (stop here for pedestrians) as an additional**
604 **detail in Figure 3B-16. The present Figure only shows the YIELD HERE TO**
605 **PEDESTRIANS application.**

606 **Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-**
607 **9, and R1-9a)**

608 **Approved by Council 1-12-08 with modifications shown in blue highlight.**

609 **Option:**

610 The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign or the Overhead Pedestrian Crossing
611 (R1-9 or R1-9a) sign (see Figure 2B-2) may be used to remind road users of laws regarding right-
612 of-way at an unsignalized pedestrian ~~crossing~~ crosswalk. The legend STATE LAW may be
613 ~~shown displayed~~ edited to increase consistency at the top of the R1-6 and R1-6a signs, if
614 applicable. On the R1-6 and R1-6a signs, the legends STOP ~~FOR~~ or YIELD ~~TO~~ may be used ~~in~~
615 ~~conjunction with~~ instead of edited to increase clarity the appropriate STOP sign or YIELD sign
616 symbol.

617 **Guidance:**

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

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

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

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

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

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

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

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

640 Guidance:

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

643 Option:

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

647 **Standard:**

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

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

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

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

665 Support:

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

668 **Standard:**

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

672 Option:

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

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

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

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

684 **Section 2B.13 Speed Limit Sign (R2-1) Revisions in yellow highlight approved by**
685 **Council June 21, 2008**

686

687 Standard:

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

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

696 Speed Limit (R2-1) signs, indicating speed limits for which posting is required by law,
697 shall be located at the points of change from one speed limit to another. **relocated from**
698 **Section 2B.18**

699 At the downstream end of the section to which a speed limit applies, a Speed Limit sign
700 showing the next speed limit shall be installed. Additional Speed Limit signs shall be
701 installed beyond major intersections and at other locations where it is necessary to remind
702 road users of the speed limit that is applicable. **relocated from Section 2B.18**

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

706 Support:

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

708 A. Statutorily – a maximum speed limit applicable to a particular class of road, such as
709 freeways or city streets, that is established by State law; or

710 B. As altered speed zones – based on engineering speed studies.

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

713 Option:

714 If a jurisdiction has a policy of installing Speed Limit signs only on the streets that enter a
715 city, neighborhood, or residential area to indicate the speed limit that is applicable to the entire
716 city, neighborhood, or residential area unless otherwise posted, a CITYWIDE (R2-5aP),

717 [NEIGHBORHOOD \(R2-5bP\)](#), or [RESIDENTIAL \(R2-5cP\)](#) plaque may be mounted above the
718 [Speed Limit sign](#) and an [UNLESS OTHERWISE POSTED \(R2-5P\)](#) plaque may be mounted
719 below the [Speed Limit sign](#) (see [Figure 2B-1](#)).

720 Guidance:

721 [A Reduced Speed Limit Ahead \(W3-5 or W3-5a\) sign](#) (see [Section 2C.37](#)) should be used to
722 [inform road users of a reduced speed zone where the speed limit is being reduced by more than](#)
723 [20 km/h or by more than 10 mph, or where engineering judgment indicates the need for advance](#)
724 [notice to comply with the posted speed limit ahead.](#)

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

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

733 When a speed limit [within a speed zone is posted](#) [is to be posted](#), it should be within 10 km/h
734 or 5 mph of the 85th-percentile speed [or the upper limit of the 16 km/h or 10 MPH pace](#) of free-
735 flowing traffic.

736 [Speed limit signs should not be used to warn of an advisory speed for a roadway](#)
737 [condition. Section 2C.46 covers advisory speed plaques for these roadway conditions.](#)

738 [Efforts should be made to coordinate the implementation of speed zones with the](#)
739 [enforcement policies of enforcement agencies.](#)

740 Option:

741 Other factors that may be considered when establishing or [re-evaluating](#) speed limits are the
742 following:

- 743 A. Road characteristics, shoulder condition, grade, alignment, and sight distance;
- 744 B. The [pace speed](#);
- 745 C. Roadside development and environment;
- 746 D. Parking practices and pedestrian activity; and
- 747 E. Reported crash experience for at least a 12-month period.

748

749 [Guidance:](#)

750 [The list of factors above, if used to justify a speed limit that is less than the 85th percentile speed,](#)
751 [should not be used to set the speed limit below the 67th percentile speed.](#)

752

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

756 A changeable message sign that changes the speed limit for traffic and ambient conditions
757 may be installed provided that the appropriate speed limit is [shown displayed](#) [edited to increase](#)
758 [consistency](#) at the proper times.

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

761 Guidance:

762 If a changeable message sign displaying approach speeds is installed, the legend YOUR
763 SPEED XX km/h (MPH) or such similar legend should be ~~shown~~ displayed. ~~edited to increase~~
764 consistency. The color of the changeable message legend should be a yellow legend on a black
765 background or the reverse of these colors.

766 Support:

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

770 Support:

771 The WORK ZONE plaque intended for installation above a Speed limit sign (R2-1) is
772 discussed in Section 6F-12.

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

775
776 FHWA added text related to Altered speed zones but doesn't define it in Section 1A.13
777 definitions. FHWA should add a definition to the MUTCD as follows: Altered speed
778 zone: "A speed limit established on the basis of an engineering study that modifies the
779 speed limit from a statutory speed limit."

780 Reason for changes: Recommend changing the language as proposed by task force
781 December 2007 and approved by RWSTC on Jan 9, 2008. Language to read as shown in
782 the yellow text above.

783 NPA text shown in blue in the 1st two paragraphs of the STANDARD were approved by
784 Council January 2007.

785

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

787 Approved by Council 1-12-08

788 Standard:

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

793

794 **Section 2B.15 Night Speed Limit Sign Plaque (R2-3P) Approved by Council 1-12-08**

795

796 Standard:

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

799 Guidance:

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

802 Option:

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

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

806 [Approved by Council 1-12-08](#)

807

808 **Standard:**

809 A Minimum Speed Limit (R2-4P) ~~sign~~ [plaque](#) (see Figure 2B-3) shall be displayed only
810 in combination with a Speed Limit sign.

811 Option:

812 Where engineering judgment determines that slow speeds on a highway might impede the
813 normal and reasonable movement of traffic, the Minimum Speed Limit ~~sign~~ [plaque](#) may be
814 installed below a Speed Limit (R2-1) sign to indicate the minimum legal speed. If desired, ~~these~~
815 ~~two signs~~ the Speed Limit sign and the Minimum Speed Limit [plaque](#) may be combined on the
816 R2-4a sign (see Figure 2B-3).

817 **Section 2B.17 FINES HIGHER Plaque (R2-6P) [Approved by Council 1-12-08](#)**

818

819 Option:

820 The FINES HIGHER (R2-6P) plaque (see Figure 2B-1) may be used to advise road users
821 when increased fines are imposed for traffic violations within designated roadway segments.

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

824 The following may be mounted below the FINES HIGHER plaque:

- 825 A. A supplemental plaque specifying the times that the higher fines are in effect (similar to
826 the S4-1P plaque shown in Figure 7B-1), or
827 B. A supplemental plaque WHEN CHILDREN (WORKERS) ARE PRESENT, or
828 C. A supplemental plaque WHEN FLASHING (similar to the S4-4P plaque shown in Figure
829 7B-1) if used in conjunction with a yellow flashing beacon.

830 The legend FINES HIGHER may be replaced by ~~multiple values such as~~ FINES DOUBLE
831 (R2-6aP) ~~or FINES TRIPLE, or by a specific value such as \$150 \$XX FINE (R2-6bP), or another~~
832 [legend appropriate to the specific regulation \(see Figure 2B-1\).](#)

833 **Standard:**

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

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

838 The FINES HIGHER plaque shall include a SCHOOL, WORK ZONE, or other
839 applicable designated zone plaque mounted above the applicable regulatory or warning
840 sign. The SCHOOL supplemental plaque shall be rectangular in shape with a black legend
841 and border on a ~~yellow or~~ fluorescent yellow-green background (same as the S4-3P plaque
842 [described in Section 7B.14](#)). The WORK ZONE supplemental plaque ([see Section 6F.12](#))
843 shall be rectangular in shape with a black legend and border on an orange background.

844 Guidance:

845 If used, the FINES HIGHER plaque should be located at the beginning of the temporary
846 traffic control zone, school zone, or other applicable designated zone and just beyond any
847 interchanges, major intersections, or other major traffic generators.

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

851 Support:

852 [Section 6F.12 contains information regarding other signs associated with increased fines for](#)
853 [traffic violations in temporary traffic control zones.](#)

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

856 Approved by Council June 21, 2008

857 **Standard:**

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

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

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

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

868 Approved by Council 1-12-08 with modifications shown in blue highlight

869 Additional revisions shown in yellow highlight approved by Council June 21,
870 2008.

871

872 **Standard:**

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

875 **Guidance:**

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

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

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

884 Except as noted in the Option Guidance below for signalized locations, edited to maintain
885 accuracy if NO TURNS (R3-3) signs (see Figure 2B-3) are used, two signs should be used, one at
886 a location specified for a No Right Turn sign and one at a location specified for a No Left Turn
887 sign.

888 If No U-Turn (R3-4) signs (see Figure 2B-3) or combination No U-Turn/No Left Turn (R3-
889 18) signs (see Figure 2B-3) are used, at least one should be used at a location specified for No
890 Left Turn signs. this paragraph and the next paragraph were combined

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

893 Option:

894 If both left turns and U-turns are prohibited, the R3-18 sign may be used instead of separate
895 R3-2 and R3-4 signs. this paragraph was relocated to increase continuity

896 Guidance:

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

900 Reason for change: Council approved deleting the R3-27 sign January 12,
901 2008. However, this sign should be allowed for those situations where
902 prohibiting an ahead movement is needed. Therefore, RWSTC recommends
903 accepting the text as written in the NPA. Part of Synthesis of Sign.

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

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

912 Option:

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

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

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

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

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

928 Standard:

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

932 Support:

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

938
939 **The language that states “If turn prohibition signs are installed in conjunction with**
940 **traffic signals” is added to clarify the use of turn prohibition signs.**

941 **Under the support statement, the ONE WAY sign for roundabouts is changed to R6-1R**
942 **and R6-2R since the proper direction is right.**

943 **Figure 2B-16 – Add an R6-2R one way sign for roundabout applications.**

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

945 **Approved by Council 1-12-08 with modification note to figure shown in [blue](#)**
946 **highlight. Additional changes shown in [yellow highlight](#), approved by Council**
947 **June 2008**

948 **INTRODUCTION: compliance periods text: (Page 581) of the NPA text, for phase-**
949 **in periods) Add text shown in yellow as follows:**

950 [Section 2B.19 Intersection Lane Control Signs \(R3-5 through R3-8\)—overhead lane-use](#)
951 [signs should be provided for lane drops **where through lanes become mandatory turn**](#)
952 [lanes and shared through/turn lanes at signalized locations—10 years from the effective](#)
953 [date of the Final Rule for the 2009 MUTCD.](#)

954
955 REASON: “lane drops” are often considered the physical reduction in the number of through
956 lanes through a taper that reduces the width of a lane to zero, where W4-2 signs would be used.
957 Trap lanes (or drop lanes, a term used for freeways) are a reduction in the number of through
958 lanes by means of a lane use converting into some mandatory condition for leaving the roadway.
959 Edited to improve consistency and eliminate confusion

960

961 **Standard:**

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

966 **Intersection Lane Control signs (see Figure 2B-4) shall have three applications:**

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

970 **Guidance:**

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

973 [On signalized approaches where **through lanes become mandatory turn lanes** **lane drops,**](#)
974 [multiple-lane turns involving shared **lanes for through-and-turning movements lanes,** or other](#)
975 [lane-use regulations **are present** that would be unexpected by unfamiliar road users **are present,**](#)
976 [overhead lane control signs should be installed at the signalized location over the appropriate](#)
977 [lanes or projections thereof and in advance of the intersection over the appropriate lanes.](#)

978 Where overhead mounting on the approach is impractical for the advance and/or intersection
979 lane-use signs, one of the following alternatives should be employed: post-mounted R3-8 series
980 signs should be installed in prominent locations in advance of the intersection and oversized
981 versions should be considered.

982 **A.** In the case of multiple-lane turns involving lanes from which through and turning movements
983 can be made, the post mounted Advance Intersection Lane Control (R3-8 series) sign should be
984 used in a prominent location in advance of the intersection. Consideration should be given to the
985 installation of oversized versions in accordance with Table 2B-1.

986 **B.** In the case of lane drops where through lanes become mandatory turn lanes, an initial mandatory
987 movement lane control (R3-7) sign followed by either an additional R3-7 sign or a mandatory
988 movement lane control (R3-5) symbol sign with the appropriate supplemental plaques (R3-5bP
989 or R3-5fP), adjacent to the lane to which the mandatory movement restriction applies, should be
990 used.

991 **REASON:** Use of R3-8 signs could be more confusing in areas where three-lane roadways
992 add a left turn lane but have a right-hand trap lane. Many agencies use the “B”
993 method above to sign trap lanes and it works well.

994 **Standard:**

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

997 **Option:**

998 Where the number of through lanes on an approach is two or less, the Intersection Lane
999 Control signs (R3-5, R3-6, or R3-8) may be overhead or ~~ground~~ post-mounted. **edited to increase**
1000 **consistency**

1001 Intersection Lane Control signs may be omitted where:

- 1002 **A.** ~~Turning bays have~~ A turn bay has been provided by physical construction or pavement
1003 markings, and
1004 **B.** Only the road users using such turning bays are permitted to make a ~~similar~~ similar turn in that
1005 direction.

1006 At roundabouts, Intersection Lane Control (R3-5, R3-6, and R3-8 series) signs may display
1007 any of the arrow symbol options shown in Figure 2B-5.

1008 **Figure 2B-5 – change the label on the arrow from “Normal” to say “Standard”.**

1009 **Reason for change to Figure 2B-5 – to be consistent with Part 3 terminology for arrows.**

1010 **Section ~~2B.21~~ 2B.20 Mandatory Movement Lane Control Signs (R3-5, R3-5a, and**
1011 **R3-7, and R3-20) Revisions shown in yellow highlight approved by Council June**
1012 **21, 2008**

1013 **Standard:**

1014 If used, the Mandatory Movement Lane Control (R3-5, R3-5a, and R3-7) signs (see
1015 Figure 2B-4) shall indicate only those the single vehicle movements that are is required
1016 from each the lane. If used, the Mandatory Movement Lane Control sign and shall be
1017 located in advance of the intersection, such as near the upstream end of the mandatory

1022 movement lane, and/or at the intersection where the regulation applies. When the
1023 mandatory movement applies to lanes exclusively designated for HOV traffic, the R3-5cP
1024 supplemental plaque shall be used. When the mandatory movement applies to lanes that
1025 are not HOV facilities, but are lanes exclusively designated for buses and/or taxis, the word
1026 message R3-5dP and/or R3-5gP supplemental plaques shall be used.

1027 Where the number of lanes available to through traffic on an approach is three or more,
1028 Mandatory Movement Lane Control (R3-5 and R3-5a) symbol signs, if used, shall be
1029 mounted overhead (see Section 2B.19). The R3-7 word message sign shall be for **ground**
1030 post-mounting **edited to increase consistency** only.

1031 The Mandatory Movement Lane Control (R3-7) sign shall include the legend RIGHT
1032 (LEFT) LANE MUST TURN RIGHT (LEFT). The Mandatory Movement Lane Control
1033 ~~symbol signs~~ (R3-5 and R3-5a) **symbol signs edited to increase consistency** shall include the
1034 legend ONLY

1035 **Guidance:**

1036 If the R3-5 or R3-5a **edited to increase consistency** sign is **ground post-mounted edited to**
1037 **increase consistency** on a **multi-lane two-lane edited to increase consistency** approach, a
1038 supplemental plaque (see Figure 2B-4), such as LEFT LANE (R3-5bP), HOV 2+ (R3-5cP),
1039 TAXI LANE (R3-5dP), CENTER LANE (R3-5eP), RIGHT LANE (R3-5fP), BUS LANE (R3-
1040 5gP), or ~~LEFT 2 BOTH~~ **edited to increase consistency** LANES, indicating the lane with the
1041 appropriate movement ~~shall~~ **should** be added ~~below~~ **above**.

1042 .
1043 **Guidance:**

1044 Mandatory Movement Lane Control signs should be accompanied by lane-use arrow
1045 markings, especially where traffic volumes are high, where there is a high percentage of
1046 commercial vehicles, or where other distractions exist.

1047 **Use of the Mandatory Movement Lane Control (R3-7) word message sign should be limited**
1048 **to locations where an upstream through lane becomes a lane dedicated to a mandatory turn**
1049 **movement at a downstream location. Use of the R3-7 sign should be avoided adjacent to through**
1050 **lanes in advance of the or at the upstream end of turn lane tapers, within turn lane tapers, and**
1051 **adjacent to and along the full width of exclusive turn bays provided by physical construction or**
1052 **pavement markings.**

1053 **Mandatory Lane Movement Control (R3-5) symbol signs, with supplemental plaques (R3-**
1054 **5bP or R3-5fP) should be mounted adjacent to and along only the full width of the turn lane..**

1055 **REASON:** The R3-7 signs are being misused throughout the country. A careful reading of
1056 both the AASHTO Guide to Geometric Design and the ITE Traffic Engineering
1057 Handbook indicate that turn lanes are not considered the “right lane”
1058 Inappropriate placement of both the R3-7 and R3-5 signs leads to driver
1059 confusion. [Editorial note: use of word “existing” was eliminated from first
1060 sentence of first paragraph and replaced with upstream, to indicate that this
1061 guidance is spatial and not related to changes in traffic control over time]
1062
1063

1064 **Option:**

1065 The Straight Through Only (R3-5a) sign may be used to require a road user in a particular
1066 lane to proceed straight through an intersection.

1067 When the Mandatory Movement Lane Control sign for a left-turn lane is installed back-to-
1068 back with a Keep Right (R4-7) sign, the dimensions of the Mandatory Movement Lane Control
1069 (R3-5) sign may be the same as the Keep Right sign.

1070 ~~Except for the R3-7 sign, Mandatory Movement Lane Control signs may be overhead or~~
1071 ~~ground mounted.~~ replaced by new 2nd paragraph of Standard above

1072 The diamond symbol may be used instead of the word message HOV on the R3-5cP
1073 supplemental plaque.

1074 The BEGIN RIGHT TURN LANE (R3-20R) sign (see Figure 2B-4) may be post-mounted on
1075 the right-hand side of the roadway at the upstream end of the turn lane taper of a mandatory right-
1076 turn lane for enforcement purposes. The BEGIN LEFT TURN LANE (R3-20L) sign (see Figure
1077 2B-4) may be post-mounted on a median (or on the left-hand side of the roadway for a one-way
1078 street) at the upstream end of the turn lane taper of a mandatory left-turn lane for enforcement
1079 purposes.

1080 REASON: These signs are best mounted at the beginning of the turn lane taper. Mounting at
1081 the beginning of the full-width defeats the purpose of the sign, which is to keep
1082 motorists not intending to make turning movements from entering the lane when
1083 they are unable to see the lane or judge that a lane taper is taking place.

1084 Section ~~2B.22~~ 2B.21 Optional Movement Lane Control Sign (R3-6)

1085 Revisions shown in yellow highlight approved by Council June 21, 2008.

1086 Standard:

1087 If used, the Optional Movement Lane Control (R3-6) sign (see Figure 2B-4) shall be
1088 used for two or more movements from a specific lane or to emphasize permitted
1089 movements. If used, the Optional Movement Lane Control sign shall be located in advance
1090 of the intersection, such as near the upstream end of an adjacent mandatory movement
1091 lane, and/or added to increase clarity at the intersection where the regulation applies.

1092 If used, the Optional Movement Lane Control sign shall indicate all permissible
1093 movements from specific lanes.

1094 Optional Movement Lane Control signs shall be used for two or more movements from
1095 a specific lane where a movement, not normally allowed, is permitted.

1096 The Optional Movement Lane Control sign shall not be used alone to effect a turn
1097 prohibition.

1098 Where the number of lanes available to through traffic on an approach is three or more,
1099 Optional Movement Lane Control (R3-6) signs, if used, shall be mounted overhead (see
1100 Section 2B.19).

1101 If the Optional Movement Lane Control sign is post-mounted on a multi- two-lane
1102 approach, a supplemental plaque (see Figure 2B-4), such as LEFT LANE (R3-5bP), HOV
1103 2+ (R3-5cP), TAXI LANE (R3-5dP), CENTER LANE (R3-5eP), RIGHT LANE (R3-5fP), or
1104 BUS LANE (R3-5gP), indicating the lane with the appropriate movements shall be added
1105 below above the R3-6 sign.

1106 Reason for change: If a CENTER LANE sign is used there has to be more than 2 lanes.
1107 Therefore, change 2 lanes to multi lanes. The sign is more prominent when placed above and the
1108 message flows better. This is also consistent with existing practice for R3-8 signs.
1109 Option:

1110

1111 The word message OK may be used within the border in combination with the arrow symbols
1112 of the R3-6 sign.

1113 Standard:

1114 Because more than one movement is permitted from the lane, the word message ONLY
1115 shall not be used on an Optional Movement Lane Control sign.

1116

1117

1118 **Section ~~2B.23~~ 2B.22 Advance Intersection Lane Control Signs (R3-8 Series)**

1119 **Revisions shown in yellow highlight, approved by Council June 21, 2008.**

1120

1121 Option:

1122 Advance Intersection Lane Control (R3-8, R3-8a, and R3-8b) signs (see Figure 2B-4) may be
1123 used to indicate the configuration of all lanes ahead.

1124 The word messages ONLY, OK, THRU, ALL, or HOV 2+ may be used within the border in
1125 combination with the arrow symbols of the R3-8 sign series. The HOV 2+ (R3-5cP)
1126 supplemental plaque may be installed at the top outside border of the R3-8 sign over the
1127 applicable lane **designation on the sign**. The diamond symbol may be used instead of the word
1128 message HOV. The minimum allowable vehicle occupancy requirement may vary based on the
1129 level established for a particular facility.

1130 Guidance:

1131 **If used, An** Advance Intersection Lane Control sign should be placed at an adequate distance
1132 in advance of the intersection so that road users can select the appropriate lane. **If used, The**
1133 Advance Intersection Lane Control sign should be installed either in advance of the tapers or at
1134 the beginning of the turn lane.

1135 Option:

1136 An Advance Intersection Lane Control sign may be repeated closer to the intersection for
1137 additional emphasis. In lieu of repeating Advance Intersection Lane Control signs, post-mounted
1138 Mandatory Lane Movement Control (R3-5) symbol signs, with supplemental plaques (R3-5bP or
1139 R3-5fP), may be used adjacent to and along only the full width of turn lanes to which the
1140 indicated movements apply.

1141

1142 **REASON:** In many areas, insufficient room exists to permit placement of these signs
1143 adjacent to the full width of the turn lanes. The R3-5 signs can be used to
1144 reinforce turn lane restrictions imposed by the Advance Intersection Lane
1145 Control sign.

1146 **The “if used” is not necessary.**

1147

1148

1149 Standard:

1150 Where the number of lanes available to through traffic on an approach is three or more,
1151 Advance Intersection Lane Control signs (R3-8 Series), if used, shall not be mounted
1152 overhead (see Section 2B.19).

1153

1154 **Reason:** This Standard might be confusing with Section 2B.19 option statement.

1155 **Accordingly, the language change in the standard above is recommended to clarify.**

1156
1157 **Section 2B.23 RIGHT (LEFT) LANE MUST EXIT Sign (R3-33).**
1158 **Approved by Council 1-12-08. Additional revisions shown in yellow highlight,**
1159 **approved by Council June 21, 2008.**
1160 Option:
1161 A RIGHT (LEFT) LANE MUST EXIT (R3-33) sign (see Figure 2B-4) may be used to
1162 inform road users that traffic in the right-hand (left-hand) lane of a roadway that is approaching a
1163 grade-separated interchange is required to depart the roadway on the exit ramp at the next
1164 interchange.
1165 Support:
1166 Section 2C.42 contains information regarding a warning sign that can be used in advance of
1167 lane drops at grade-separated interchanges.

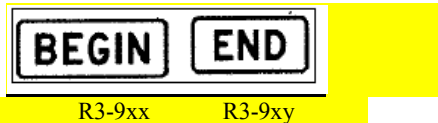
1168 **REASON: Section 2C.42 is recommended to be deleted.**

1169 **Section 2B.24 Two-Way Left Turn Only Signs (R3-9a, R3-9b)**
1170 **Approved by Council 1-12-08**
1171 Guidance:
1172 Two-Way Left Turn Only (R3-9a or R3-9b) signs (see Figure 2B-6) should be used in
1173 conjunction with the required pavement markings where a nonreversible lane is reserved for the
1174 exclusive use of left-turning vehicles in either direction and is not used for passing, overtaking, or
1175 through travel.
1176 Option:
1177 The ~~ground-~~ post-mounted ~~edited to increase consistency~~ R3-9b sign may be used as an
1178 alternate to or a supplement to the overhead-~~mounted~~ ~~edited to increase consistency~~ R3-9a sign.
1179 The legend BEGIN or END may be used within the border of the main sign itself, or on a ~~plaque~~
1180 an M4-6 or M4-14 auxiliary sign (see Sections 2D.22 and 2D.23) mounted immediately above it.
1181 Support:
1182 Signing is especially helpful to drivers in areas where the two-way left turn only maneuver is
1183 new, in areas subject to environmental conditions that frequently obscure the pavement markings,
1184 and on peripheral streets with two-way left turn only lanes leading to an extensive system of
1185 routes with two-way left turn only lanes.
1186 **Section 2B.XX BEGIN or END Plaques (R3-9xx and R3-9xy).**
1187
1188 **Yellow highlight were approved by Council June 21, 2008.**
1189
1190 Option:
1191 The BEGIN (R3-9xx) or END (R3-9xy) plaque may be used to supplement a
1192 regulatory sign to indicate where the regulatory condition begins or ends.
1193
1194 Standard:
1195 When used, the BEGIN and END plaque shall be mounted directly above a
1196 regulatory sign.
1197

1198 **FIGURE 2B-6: Add an R3-9xx (BEGIN) and R3-9xy (END) plaques as shown**
1199 **above. The R3-9xy plaque will be the same as the M4-6 END**
1200 **plaque shown in Figure 2D-4**

1201
1202 **Table 2B-1 – Add R3-9xx and R3-9xy as shown below:**
1203

1204 **Reason for revision: SSR # 15 approved by RWSTC on June 20, 2007 .Was to go to**
1205 **sponsors but did not. RSWSTC recommends the following language in a separate**
1206 **Section to allow the use of the begin and end plaque for any regulatory sign.**
1207 **Language to read per above:**



1208
1209 R3-9xx R3-9xy
1210
1211 Recommended design
1212

1213 **Section 2B.25 Reversible Lane Control Signs (R3-9d, R3-9f through R3-9i)**
1214 **Approved by Council 1-12-08**

1215 Option:
1216 A reversible lane may be used for through traffic (with left turns either permitted or
1217 prohibited) in alternating directions during different periods of the day, and the lane may be used
1218 for exclusive left turns in one or both directions during other periods of the day as well.
1219 Reversible Lane Control (R3-9d, R3-9f through R3-9i) signs (see Figure 2B-6) may either be
1220 static type or changeable message type. These signs may be either **ground post-mounted** or
1221 overhead **mounted. edited to increase consistency**

1222 **Standard:**
1223 **Ground- Post-mounted edited to increase consistency** Reversible Lane Control signs
1224 **shall be used only as a supplement to overhead signs or signals. Ground- Post-mounted**
1225 **edited to increase consistency** signs shall be identical in design to the overhead signs and an
1226 **additional legend such as CENTER LANE shall be added to the sign (R3-9f) to indicate**
1227 **which lane is controlled. For both word messages and symbols, this legend shall be at the**
1228 **top of the sign.**

1229 **Where it is determined by an engineering study that lane-use control signals or physical**
1230 **barriers are not necessary, the lane shall be controlled by overhead Reversible Lane**
1231 **Control signs (see Figure 2B-7).**

1232 Option:
1233 Reversing traffic flow may be controlled with pavement markings and Reversible Lane
1234 Control signs (without the use of lane control signals), when all of the following conditions are
1235 met:
1236 A. Only one lane is being reversed,
1237 B. An engineering study indicates that the use of Reversible Lane Control signs alone would
1238 result in an acceptable level of safety and efficiency, and

1239 C. There are no unusual or complex operations in the reversible lane pattern.

1240 **Standard:**

1241 Reversible Lane Control signs shall contain the legend or symbols designating the
1242 allowable uses of the lane and the time periods such uses are allowed. Where symbols and
1243 legend are used, their meanings shall be as shown in Table 2B-3.

1244 Reversible Lane Control signs shall consist of a white background with a black legend
1245 and border, except for the R3-9d sign, where the color red is used.

1246 Symbol signs, such as the R3-9d sign, shall consist of the appropriate symbol in the
1247 upper portion of the sign with the appropriate times of the day and days of the week below
1248 it. All times of the day and days of the week shall be accounted for on the sign to eliminate
1249 confusion to the road user.

1250 In situations where more than one message is conveyed to the road user, such as on the
1251 R3-9d sign, the sign legend shall be arranged as follows:

1252 A. The prohibition or restriction message is the primary legend and shall be on the top
1253 for word message signs and to the far left for symbol signs.

1254 B. The permissive use message shall be ~~shown~~ displayed edited to increase consistency
1255 as the second legend, and

1256 C. The OTHER TIMES message shall be ~~shown~~ displayed edited to increase
1257 consistency at the bottom for word message signs and to the far right for symbol
1258 signs.

1259 **Option:**

1260 The symbol signs may also include a downward pointing arrow with the legend THIS LANE.
1261 The term OTHER TIMES may be used for either the symbol or word message sign.

1262 **Standard:**

1263 A Reversible Lane Control sign shall be mounted over the center of the lane that is
1264 being reversed and shall be perpendicular to the roadway alignment.

1265 If the vertical or horizontal alignment is curved to the degree that a driver would be
1266 unable to see at least one sign, and preferably two signs, then additional overhead signs
1267 shall be installed. The placement of the signs shall be such that the driver will have a
1268 definite indication of the lanes specifically reserved for use at any given time. Special
1269 consideration shall be given to major generators introducing traffic between the normal
1270 sign placement.

1271 Transitions at the entry to and exit from a section of roadway with reversible lanes shall
1272 be carefully reviewed, and advance signs shall be installed to notify or warn drivers of the
1273 boundaries of the reversible lane controls. The R3-9g or R3-9h signs shall be used for this
1274 purpose.

1275 **Option:**

1276 More than one sign may be used at the termination of the reversible lane to emphasize the
1277 importance of the message (R3-9i).

1278 **Standard:**

1279 Flashing beacons, if used to accentuate the overhead Reversible Lane Control signs,
1280 shall comply with the applicable requirements for flashing beacons in Chapter 4L.

1281 When used in conjunction with Reversible Lane Control signs, the Turn Prohibition
1282 signs (R3-1 to R3-4, R3-18) shall be mounted overhead and separate from the Reversible
1283 Lane Control signs. The Turn Prohibition signs shall be designed and installed in
1284 accordance with Section 2B.18.

1285 **Guidance:**

1286 For additional emphasis, a supplemental plaque stating the distance of the prohibition, such as
1287 NEXT 1.6 km (NEXT 1 MILE), should be added to the Turn Prohibition signs that are used in
1288 conjunction with Reversible Lane Control signs.

1289 If used, overhead signs should be located at intervals not greater than 400 m (0.25 mi). The
1290 bottom of the overhead Reversible Lane Control signs should not be more than 5.8 m (19 ft)
1291 above the pavement grade.

1292 Where more than one sign is used at the termination of a reversible lane, they should be at
1293 least 75 m (250 ft) apart. Longer distances between signs are appropriate for streets with speeds
1294 over 60 km/h (35 mph), but the separation should not exceed 300 m (1,000 ft).

1295 ~~Because~~ editorial revision to increase consistency left-turning vehicles have a significant
1296 impact on the safety and efficiency of a reversible lane operation, if an exclusive left-turn lane or
1297 two-way left-turn lane cannot be incorporated into the lane-use pattern for a particular peak or
1298 off-peak period, consideration should be given to prohibiting left turns and U-turns during that
1299 time period.

1300 **Section 2B.26 Regulatory Signs for Preferential Only Lanes – General Signs (R3-10**
1301 **through R3-15)** existing Sections 2B.26 through 2B.28 have been edited;
1302 paragraphs have been relocated within and between these Sections and the text
1303 has been reorganized into five Sections

1304 Revisions shown in Yellow (as proposed by G/MI technical committee) . Approved
1305 by Council June 21, 2008

1306 Support:

1307 Preferential ~~only~~ lanes are lanes designated exclusively for special traffic uses such as high-
1308 occupancy vehicles (HOVs), vehicles using an electronic toll collection system payment method,
1309 vehicles equipped with electronic toll collection (ETC) transponders, light rail, buses, taxis, or
1310 bicycles. Preferential ~~only~~ lane treatments might be as simple as restricting a turning lane to a
1311 certain class of vehicles during peak periods, or as sophisticated as providing a separate roadway
1312 system within a highway corridor for certain vehicles.

1313 ~~HOV Preferential lanes may take many forms depending on the level of usage and the design~~
1314 ~~of the facility. They may might be barrier-separated (on a separate alignment or~~ physically
1315 ~~separated from the other travel lanes by a barrier or median), or they may be concurrent with~~
1316 ~~other travel lanes and be buffer-separated (separated from the adjacent general purpose lanes only~~
1317 ~~by a narrow buffer area created with longitudinal pavement markings), or contiguous (separated~~
1318 ~~from the adjacent general purpose lanes only by a lane line). Physically-separated HOV~~
1319 ~~Preferential lanes may might be operated in a constant direction or may be operated as reversible~~
1320 ~~lanes. Some reversible preferential lanes on a divided highway might be operated counter-flow to~~
1321 ~~the direction of traffic on the immediately adjacent general purpose lanes. this paragraph was~~
1322 ~~relocated from Section 2B.27~~

1323 ~~HOV Preferential lanes may might be operated on a 24-hour basis, for extended periods of~~
1324 ~~the day, during peak travel periods only, during special events, or during other activities. this~~
1325 ~~paragraph was relocated from Section 2B.27~~

1326 ~~A managed lane operated on a real-time basis in response to changing conditions might be~~
1327 ~~operated as an HOV lane, with or without other requirements such as tolling or vehicle type, for a~~
1328 ~~period of time as needed. Additional information regarding signs for managed lanes is contained~~
1329 ~~in Sections 2B.32 and 2E.61.~~

1330 Information regarding Preferential ~~Only~~ Lane signs for bicycle lanes is contained in Section
1331 9B.04.

1332 Sections 2E.51 through 2E.54 contains additional provisions regarding signing signs for
1333 preferential **only** lanes on freeway and expressway facilities. Figures 2E-35 through 2E-43 show
1334 application and placement examples for Preferential **Only** Lane signs for a variety of preferential
1335 **only** lane situations. ~~this paragraph was relocated from Section 2B.28~~

1336 ~~Option:~~

1337 ~~Preferential only lane assignments may be made on a full-time or part-time basis.~~

1338 **Standard:**

1339 **When a preferential **only** lane is established, the Preferential **Only** Lane regulatory**
1340 **signs (see Figure 2B-8) and pavement markings (see Sections 3B.24 and 3B.25) for these**
1341 **lanes shall be used to advise road users.**

1342 Support:

1343 Preferential Lane (R3-10 series through R3-15 series) regulatory signs consist of
1344 several different general types of regulatory signs as follows (see Figure 2B-8):

1345 A. Vehicle Occupancy Definition signs define the vehicle occupancy requirements
1346 applicable to an HOV lane (such as “2 OR MORE PERSONS PER VEHICLE”)
1347 or types of single-occupant vehicles (such as motorcycles or ILEVs) that are
1348 allowed to use an HOV lane (see Section 2B.27).

1349 B. Periods of Operation signs notify road users of the days and hours during which
1350 the preferential restrictions are in effect (see Section 2B.28).

1351 C. Preferential Lane Advance signs notify road users that a preferential lane
1352 restriction begins ahead (see Section 2B.29).

1353 D. Preferential Lane Ends signs notify users of the termination point of the
1354 preferential lane restrictions (see Section 2B.30).

1355 **Standard:**

1356 **Regulatory signs applicable only to a preferential lane shall be distinguished**
1357 **from regulatory signs applicable to general purpose lanes by the inclusion of the**
1358 **applicable symbol(s) and/or word(s) (see Figure 2B-8).**

1359 Support:

1360 The symbol and word message that appears on a particular Preferential **Only** Lane regulatory
1361 sign will vary based on the specific type of allowed traffic and on other related operational
1362 constraints that have been established for a particular lane, such as an HOV lane, a bus lane, ~~or~~ a
1363 taxi lane, ~~or an~~ **Electronic Toll Collection (ETC) only lane**. ~~Section 2B.27 contains information~~
1364 ~~regarding the restriction of the use of the diamond symbol to HOV lanes only. The requirements~~
1365 ~~for guide and regulatory signs in advance of all preferential only lanes on freeways are provided~~
1366 ~~in Section 2E.59. Sections 2B.32, 2D.26, and 2E.51 through 2E.61 contain additional provisions~~
1367 ~~regarding signs and pictographs used with ETC only lanes.~~

1368 **Standard:**

1369 ~~At the end of a preferential only lane, a Lane Ends (R3-12a or R3-15a) sign shall be~~
1370 ~~used.~~

1371 Option:

1372 Changeable message signs may ~~be used to~~ supplement, substitute for, or be used in
1373 combination with static Preferential Lane regulatory signs where travel conditions change or
1374 where multiple types of operational strategies (such as variable occupancy requirements, vehicle
1375 types, or pricing policies) are used and varied throughout the day or week, or on a real-time basis,
1376 to manage the use of, control of, or access to preferential ~~only~~ lanes.

1377 Support:

1378 Figure 2B-8 10 illustrates examples of changeable messages in combination with static
1379 Preferential Lane regulatory signs.

1380

1381 Figure 2B-8 – add options of changeable message signs per attached examples from FHWA
1382 Kevin Sylvester.

1383

1384 **Standard:**

1385 **When changeable message signs (see Section 2A.07 Chapter 2M) are used as regulatory**
1386 **signs for preferential ~~only~~ lanes, they shall be the required sign size and shall display the**
1387 **required letter height and legend format that corresponds to the type of roadway facility**
1388 **and design speed.**

1389 **Guidance:**

1390 When Preferential ~~Only~~ Lane regulatory signs are used on conventional roads, the decision
1391 regarding whether to use a ~~specific ground-~~ post-mounted edited to increase consistency or
1392 overhead version of a particular type of sign should be based on an engineering study that
1393 considers the available space, the existing signs for the adjoining adjacent general purpose traffic
1394 lanes, roadway and traffic characteristics, the proximity to existing overhead signing signs, the
1395 ability to install overhead signs, and any other unique local factors. this paragraph was relocated
1396 from Section 2B.28

1397 ~~The decision to use a specific ground-mounted or overhead sign for a preferential only lane~~
1398 ~~should be based on an engineering study that considers the available space, the existing signs for~~
1399 ~~adjoining general purpose lanes, roadway and traffic characteristics, the proximity of other~~
1400 ~~overhead signing, the ability to install overhead signs, and any other unique local factors.~~

1401 ~~Ground-mounted Preferential Only Lane (R3-10, R3-11, and R3-12 series) signs should be~~
1402 ~~installed where preferential only lanes are implemented on freeways, expressways, and~~
1403 ~~conventional roads.~~

1404 If overhead regulatory signs applicable only to a preferential lane are located in
1405 approximately the same longitudinal position along the highway as overhead signs applicable
1406 only to the general purpose lanes, the signs for the preferential lane should be separated laterally
1407 from the signs for the general purpose lanes to the maximum extent practical to minimize
1408 conflicting information.

1409 **Standard:**

1410 If used, overhead Preferential ~~Only~~ Lane (R3-13 series, R3-14 series, and R3-15 series)
1411 regulatory signs shall ~~only be installed along preferential only lanes on freeways and~~
1412 ~~expressways. These overhead signs shall~~ be installed on the side of the roadway where the
1413 entrance to the preferential ~~only~~ lane is located and any appropriate adjustments shall be
1414 made to the sign message. ~~The sign sizes shall differ between freeways and expressways as~~
1415 ~~provided in Table 2B-1 to reflect the different design speeds for each type of roadway.~~ this
1416 paragraph was relocated from Section 2B.28

1417 Option:

1418 [Where a median of sufficient width is available, the R3-13 series and R3-15 series signs may](#)
1419 [be post-mounted.](#)

1420 Support:

1421 The sizes for Preferential ~~Only~~ Lane [regulatory](#) signs will differ to reflect the design speeds
1422 for each type of roadway facility. Table 2B-1 provides sizes for each type of roadway facility.

1423 [Guidance:](#)

1424 [The edges of Preferential Lane regulatory signs that are post-mounted on a median barrier](#)
1425 [should not project beyond the outer edges of the barrier, including in areas where lateral clearance](#)
1426 [is limited.](#)

1427 [Option:](#)

1428 [Where lateral clearance is limited, Preferential Lane regulatory signs that](#)
1429 [are post-mounted on a median barrier and that are 1800 mm \(72 in\) or less](#)
1430 [in width may be skewed up to 45 degrees in order to fit within the barrier](#)
1431 [width or may be mounted with a vertical clearance of not less than 5.443 m](#)
1432 [\(14 17 ft\) to the sign over the entire width of the pavement and shoulders.](#)

1433 Guidance:

1434 [Where lateral clearance is limited, Preferential Lane regulatory signs that are post-mounted](#)
1435 [on a median barrier and that are wider than 1800 mm \(72 in\) should be mounted with a vertical](#)
1436 [clearance of not less than 5.443 m \(14 17 ft\) to the sign over the entire width of the pavement](#)
1437 [and shoulders.](#)

1438 [On conventional roadways,](#) Preferential ~~Only~~ Lane [regulatory](#) sign spacing should be
1439 determined by engineering judgment based on prevailing speed, block length, distances from
1440 adjacent intersections, and other [site-specific](#) considerations.

1441 [Support:](#)

1442 [Sections 2B.27 and 2B.28 contain provisions regarding the placement of Preferential Lane](#)
1443 [regulatory signs on freeways and expressways.](#)

1444 **Standard:**

1445 **The R3-10, R3-11, R3-11a, R3-11e, R3-13, R3-13a, R3-14, and R3-14a signs illustrated**
1446 **in Figure 2B-8 that incorporate the diamond symbol shall be used exclusively with**
1447 **preferential ~~only~~ lanes for high-occupancy vehicles to indicate the particular occupancy**
1448 **requirement and time restrictions applying to that lane. The R3-10a, R3-11b, and R3-14b**
1449 **signs illustrated in Figure 2B-8 that do not have a diamond symbol shall be used in**
1450 **situations where a [with preferential ~~only~~ lanes is that are not an HOV lanes, but is are](#)**
1451 **designated for use by other types of vehicles (such as bus and/or taxi use).**

1452 **Option:**

1453 Agencies may select from either the HOV abbreviation or the diamond symbol, [or use both,](#)
1454 [to reference the HOV lane designation. ~~this paragraph was relocated from Section 2B.27~~](#)

1455 ~~The diamond symbol may be used instead of the word message HOV.~~

1456 **Standard:**

1457 **When the diamond symbol (or HOV abbreviation) is used without text on the ~~ground-~~**
1458 **~~post-mounted~~ [edited to increase consistency](#) Preferential ~~Only~~ Lane (R3-10 series, R3-11**
1459 **series, and R3-12 series) [regulatory](#) signs, it shall be centered on the top line of the sign.**
1460 **When the diamond symbol (or HOV abbreviation) is used with associated text on the**
1461 **~~ground- post-mounted~~ [edited to increase consistency](#) Preferential ~~Only~~ Lane (R3-10 series,**

1462 R3-11 series, and R3-12 series) regulatory signs, it shall appear to the left of the associated
1463 text. When the diamond symbol is used on the overhead Preferential ~~Only~~ Lane (R3-13,
1464 R3-13a, R3-14, and R3-14a) regulatory signs, it shall appear in the top left quadrant. The
1465 diamond symbol for the R3-15, ~~and R3-15a, R3-15b, and R3-15c~~ signs shall appear on the
1466 left side of the sign. The diamond symbol shall not be used on the bus, taxi, or bicycle
1467 Preferential ~~Only~~ Lane signs. ~~the sequence of the last two sentences was reversed~~

1468 The Vehicle Occupancy Definition, Periods of Operation, and Preferential Lane
1469 Advance regulatory signs for HOV signs (see Section 2B.26) lanes shall display the
1470 minimum allowable vehicle occupancy requirement established for each HOV lane, ~~The~~
1471 ~~vehicle occupancy requirement established for an HOV lane shall be referenced~~ displayed
1472 immediately after the word message HOV or the diamond symbol. ~~The diamond symbol~~
1473 ~~shall be restricted for use with HOV lanes only.~~ ~~this paragraph is a combination of two~~
1474 ~~paragraphs that were relocated from Section 2B.27~~

1475 Support:

1476 The agencies that own and operate ~~preferential-only HOV lanes for high-occupancy vehicles~~
1477 ~~(HOV lanes) shall~~ have the authority and responsibility to determine how they are operated and
1478 the occupancy requirements ~~for vehicles operating in HOV lanes. The minimum occupancy~~
1479 ~~requirement shall be two occupants per vehicle.~~ Information about federal requirements for
1480 certain types of single-occupant vehicles to be eligible to use HOV lanes that receive Federal-aid
1481 program funding and about requirements associated with proposed significant changes to the
1482 operation of an existing HOV lane and certain vehicles are contained in the "Federal-Aid
1483 Highway Program Guidance on High Occupancy Vehicle (HOV) Lanes" (see Section 1A.11).
1484 ~~this paragraph was relocated from Section 2B.27~~

1485 Option:

1486 ~~The ground-mounted Preferential-Only Lane Operational (R3-11 series) signs and the~~
1487 ~~overhead Preferential-Only Lane Operational (R3-14 series) signs may be used to supplement~~
1488 ~~changeable message signs that are used to convey preferential-only lane restrictions.~~

1489 Support:

1490 ~~Figures 2E-46 through 2E-52 show example signing layouts using the R3-10 through R3-15~~
1491 ~~series signs for various preferential-only lane applications.~~

1492

1493 **Section 2B.27 Preferential Only Lanes for High Occupancy Vehicles (HOVs)**
1494 **Vehicle Occupancy Definition Signs (R3-10 Series and R3-13 Series)**

1495 **Revisions shown in Yellow highlight (as proposed by G/MI technical committee).**
1496 **Approved by Council June 21, 2008**

1497

1498 **Standard:**

1499 ~~The R3-10, R3-10b, R3-13, and R3-13a~~ Vehicle Occupancy Definition signs ~~(see Figure~~
1500 ~~2B-8) shall be used in situations where agencies determine that it is appropriate to provide a~~
1501 ~~sign that defines the operational strategy (such as minimum occupancy or types of vehicles)~~
1502 ~~that is being used to manage or regulate the vehicles that are permitted allowed to use a~~
1503 ~~preferential-only an HOV or managed lane.~~ ~~this paragraph was relocated from Section~~
1504 ~~2B.26~~

1505 **Guidance:**

1506 The Inherently Low Emission Vehicle (ILEV) ~~(R3-10b R3-10a)~~ sign ~~(See Figure 2B-8)~~
1507 should be used ~~to indicate that~~ when it is permissible for a properly labeled and certified ILEV,

1508 regardless of the number of occupants, to use an HOV lane. [When used](#), the ILEV signs should
1509 be ~~ground-~~ ~~post-mounted~~ ~~edited to increase consistency~~ in advance of and at intervals along the
1510 HOV lane based upon engineering judgment [and the placement of other Preferential Lane](#)
1511 [regulatory signs](#). The ~~R3-10b~~ R3-10a sign is only applicable to HOV lanes and should not to be
1512 used with other preferential ~~only~~ lane applications. ~~this paragraph was relocated from Section~~
1513 ~~2B.26~~

1514 Support:

1515 ~~Inherently low emission vehicles~~ ILEVs are defined by the Environmental Protection Agency
1516 (EPA) as vehicles having no fuel vapor (hydrocarbon) emissions. ~~These vehicles must and are~~
1517 ~~certified by the EPA as~~ meeting the emissions standards and requirements specified in 40 CFR
1518 88-311-93 and 40 CFR 88.312-93(c). ~~this paragraph was relocated from Section 2B.26~~

1519 Guidance:

1520 The legend format of the R3-10 and R3-13 signs should have ~~this~~ [the following](#) sequence:
1521 ~~this paragraph was relocated from Section 2B.26~~

- 1522 A. Top Line: "HOV 2+ ONLY" (or 3+ or 4+ if appropriate)
1523 B. Bottom Lines: "2 OR MORE PERSONS PER VEHICLE" (or 3 or 4 if appropriate)

1524 [The legend format of the R3-13a sign should have the following sequence:](#)

- 1525 [A. Top Line: "HOV 2+ ONLY" \(or 3+ or 4+ if appropriate\)](#)
1526 [B. Middle Lines: "2 OR MORE PERSONS PER VEHICLE" \(or 3 or 4 if appropriate\)](#)
1527 [C. Bottom Lines: Times and days the occupancy restriction is in effect](#)

1528

1529 [Support:](#)

1530 [Section 2B.32 contains information regarding modifications of the legends of Vehicle](#)
1531 [Occupancy Definition signs when single-occupant ~~ETC-equipped~~ vehicles are allowed to](#)
1532 [use an HOV lane by paying a toll fee.](#)

1533 **Standard:**

1534 [For barrier- or buffer-separated preferential lanes, an overhead Vehicle Occupancy](#)
1535 [Definition \(R3-13 or R3-13a\) sign, ~~which defines the occupancy requirement,~~ shall be](#)
1536 [installed at least 800 m \(0.5 mi\) in advance of the beginning of or initial entry point to an](#)
1537 [HOV lane. These signs shall only be displayed in advance of the beginning of or initial](#)
1538 [entry point to HOV lanes.](#) ~~this paragraph was relocated from Section 2B.28~~

1539 Option:

1540 For barrier-separated ~~preferential only~~ HOV lanes, [the sequence of a post-mounted Periods of](#)
1541 [Operation \(R3-11a\) sign followed by a ~~ground-~~ ~~post-mounted~~ ~~edited to increase consistency~~](#)
1542 [Vehicle Occupancy Definition \(R3-10\) signs ~~defining the occupancy requirement may be~~](#)
1543 [alternated in series with Preferential Only Lane Operational \(R3-11, R3-11a, R3-11b, or R3-11c\)](#)
1544 [signs. These signs may be located at intervals of approximately ~~1 km~~ 800 m \(0.6 0.5 mi\) along](#)
1545 [the length of the ~~preferential only~~ HOV lane, at intermediate entry points, and at designated](#)
1546 [enforcement areas as defined by the operating agency.](#) ~~this paragraph was relocated from Section~~
1547 ~~2B.28~~

1548 **Standard:**

1549 [For buffer-separated HOV lanes, the sequence of a post-mounted Periods of Operation](#)
1550 [\(R3-11a\) sign followed by a ~~Ground-~~ ~~post-mounted~~ ~~edited to increase consistency~~ Vehicle](#)
1551 [Occupancy Definition \(R3-10\) signs ~~defining the occupancy requirement~~ shall be located](#)

1552 ~~and alternated with Preferential Only Lane Operational (R3-11 series) signs in series at~~
1553 ~~intervals not greater than 1-km 800 m (0.6 0.5 mi) along the length of the preferential-only~~
1554 ~~buffer-separated HOV lane, at designated gaps in the buffer where vehicles are allowed to~~
1555 ~~legally access the preferential-only HOV lane, and within designated enforcement areas as~~
1556 ~~defined by the operating agency. this sentence came from a paragraph in Section 2B.28~~

1557 ~~For concurrent-flow preferential-only contiguous HOV lanes, the sequence of a post-~~
1558 ~~mounted Periods of Operation (R3-11a) sign followed by a ground- post-mounted edited to~~
1559 ~~increase consistency Vehicle Occupancy Definition (R3-10) signs defining the occupancy~~
1560 ~~requirement, and ILEV (R3-10a) signs if appropriate, shall be located and alternated with~~
1561 ~~Preferential Only Lane Operational (R3-11 series) signs in series at intervals not greater~~
1562 ~~than 1-km 800 m (0.6 0.5 mi) along the length of the preferential-only HOV lane. this~~
1563 ~~paragraph was relocated from Section 2B.28~~

1564 Guidance:

1565 The signs within each Preferential Lane regulatory sign sequence should be separated by a
1566 distance of not less than 245 m (800 ft) and not more than 300 m (1,000 ft).

1567 Standard:

1568 For all types of direct access ramps that provide access to or lead to preferential-only
1569 HOV lanes, a ground- post-mounted edited to increase consistency Vehicle Occupancy
1570 Definition (R3-10) sign defining the occupancy requirement, and an ILEV (R3-10a) sign if
1571 appropriate, and a Preferential Only Lane Operational (R3-11 series) sign shall be used at
1572 the beginning or initial entry point for all types of the direct access ramps that provide
1573 access or lead to preferential-only lanes. this paragraph was relocated from Section 2B.28

1574 Standard:

1575 The requirements for a minimum number of occupants in a vehicle to use an HOV lane
1576 shall be in effect for most, or all, of at least one of the usual times of the day when the
1577 demand to travel is greatest (such as morning or afternoon peak travel periods) and the
1578 traffic congestion problems on the roadway and adjoining transportation corridor are at
1579 their worst.

1580 The Federal Highway Administration (FHWA) shall be consulted if a significant
1581 operational change is proposed that could reasonably be expected to affect a specific HOV
1582 lane or portions of the HOV system that were funded or approved by FHWA. This shall
1583 include portions of the local, regional, or Federal aid highway system, where operational
1584 changes might significantly impact the operation of one HOV lane or portions of the
1585 regional HOV system. To assure consistency with the provisions of Titles 23 and 49 of the
1586 United States Code (U.S.C), the important issues and possible impacts of any significant
1587 operational changes shall be reviewed to determine if any Federal approval is required.

1588 In accordance with the "Federal Aid Highway Program Guidance on High Occupancy
1589 Vehicle (HOV) Lanes" (see Section 1A.11), a proposed test or demonstration project that
1590 seeks to significantly change the operation of the HOV lanes for any length of time shall
1591 require a Federal review as outlined in Section 2 of the "Federal Aid Highway Program
1592 Guidance on High Occupancy Vehicle (HOV) Lanes" prior to initiating such a test or
1593 demonstration project. Also in accordance with the Federal Aid Highway Program
1594 Guidance on HOV lanes, any proposal to significantly change the operation of an HOV lane
1595 shall require some form of Federal review, which might require potential action.

1596 Support:

1597 FHWA Division Offices, with involvement from the Federal Transit Administration (FTA),
1598 are responsible for reviewing proposals to significantly change the operation of HOV lanes.
1599 Federal interests in this review include commitments made during the National Environmental

1600 Policy Act process as described in Title 23 CFR, Part 771, in project agreements, transportation
1601 planning requirements, and transportation conformity requirements under the Clean Air Act (40
1602 CFR, Part 51);

1603 Proposals to adjust only the HOV lane hours of operation during the day (for example, minor
1604 changes in hours during peak travel periods) or the occupancy requirements (for example, HOV
1605 3+ to HOV 2+) are not typically considered significant operational changes and might not require
1606 an explicit Federal review or approval.

1607 Any action that has the potential to adversely affect the area's flow of traffic, roadway and
1608 traveler safety, or the environment might be considered to be a significant operational change.
1609 Any proposal to significantly adjust the hours of operation, or to convert an HOV lane to a
1610 general purpose travel lane, would be considered a significant operational change to the original
1611 project design concept or scope. Examples of significant operational changes could include:

- 1612 A. Switching from 24-hour HOV lane operations to only a portion of the day or week;
- 1613 B. Implementing a pricing option to an existing HOV lane (such as HOT lane or toll lane);
- 1614 C. Significantly reducing the hours of operation of an HOV lane that is operational during
1615 only one peak travel period; or
- 1616 D. Managing or operating the HOV lane in a manner that renders it functionally inoperable
1617 or obsolete (such as not providing enforcement of the occupancy requirement);

1618 **Guidance:**

1619 An engineering study based on the current and estimated future travel demand for a corridor
1620 and facility should be the basis for determining when, during a typical day, there should be a
1621 minimum occupancy requirement for a vehicle to use an HOV lane.

1622 **Support:**

1623 Inherently low emission vehicle (ILEV) eligibility, testing and certification requirements,
1624 labeling, and other regulatory provisions are developed and administered through the
1625 Environmental Protection Agency (EPA). EPA is the only entity with the authority to certify
1626 ILEVs. Vehicle manufacturers must request the EPA to grant an ILEV certification for any
1627 vehicle to be considered and labeled as meeting those standards. According to the EPA, 1996
1628 was the first year that they certified any ILEVs. EPA regulations specify that ILEVs must meet
1629 the emission standards specified in 40 CFR 88.311-93 and their labeling must be in accordance
1630 with 40 CFR 88.312-93(e). EPA established the ILEV concept to recognize vehicles with no fuel
1631 vapor (hydrocarbons) emissions. Zero emission vehicles (electric powered vehicles) that have no
1632 emissions are the only other type of clean fuel vehicles that are allowed to use HOV lanes.

1633 **Standard:**

1634 ~~Agencies shall permit a vehicle with less than the required number of occupants to~~
1635 ~~operate on HOV lanes if:~~

- 1636 ~~A. The vehicle is properly labeled and certified as an ILEV and the lane is not a bus~~
1637 ~~only HOV lane, or~~
- 1638 ~~B. The HOV lanes are part of a project that is participating in the FHWA Value~~
1639 ~~Pricing Pilot Program (see Section 2 of the "Federal Aid Highway Program~~
1640 ~~Guidance on High Occupancy Vehicle (HOV) Lanes");~~

1641 ~~Motorcycles shall be permitted to use HOV lanes that receive Federal aid program~~
1642 ~~funding.~~

1643 **REASON:** As recommended by G/MI.

1644 **Section 2B.28 Preferential Only Lane Periods of Operation Signs Applications and**
1645 **Placement (R3-11 Series and R3-14 Series)**

1646 Revisions shown in yellow highlight by G/MI technical committee. Approved by
1647 Council June 21, 2008

1648 Guidance:

1649 The sizes of the ~~ground- post-~~mounted ~~edited to increase consistency~~ ~~Preferential-Only Lane~~
1650 ~~Operational~~ ~~Periods of Operation~~ (R3-11 series) signs should remain consistent to accommodate
1651 any manual addition or ~~subtraction~~ ~~removal~~ of a single line of text for each sign. ~~this paragraph~~
1652 ~~was relocated from Section 2B.26~~

1653 Support:

1654 Consistent sign sizes are beneficial for agencies when ordering sign materials, as well as
1655 when making text changes to existing signs if changes occur to operating times or occupancy
1656 restrictions in the future. For example, the R3-11c sign has space for one line located below “24
1657 HOURS” if an agency desires to add additional information (such as “MON – FRI”), yet the R3-
1658 11c sign has the same dimensions as the other R3-11 series signs. ~~this paragraph was relocated~~
1659 ~~from Section 2B.26~~

1660 Standard:

1661 When used, the ~~ground- post-~~mounted ~~edited to increase consistency~~ ~~Preferential-Only~~
1662 ~~Lane-Operational~~ ~~Periods of Operation~~ (R3-11 series) signs shall be located adjacent to the
1663 preferential ~~only~~ lane, and the overhead ~~Preferential-Only Lane-Operational~~ ~~Periods of~~
1664 ~~Operation~~ (R3-14 series) signs shall be mounted directly over the lane. ~~this paragraph was~~
1665 ~~relocated from Section 2B.26~~

1666 The legend format of the ~~ground- post-~~mounted ~~edited to increase consistency~~
1667 ~~Preferential-Only Lane-Operational~~ ~~Periods of Operation~~ (R3-11 series) signs shall have the
1668 following sequence: ~~this paragraph was relocated from Section 2B.26~~

- 1669 A. Top Lines: Lanes applicable, such as “RIGHT LANE” or “~~2~~ RIGHT ~~2~~ LANES” or
1670 “THIS LANE”
1671 B. Middle Lines: Eligible uses, such as “HOV 2+ ONLY” (or 3+ or 4+ ~~if appropriate~~)
1672 or “BUSES ONLY” or other applicable ~~uses or eligible~~ turning movements
1673 C. Bottom Lines: Applicable times and days, such as “7 ~~AM~~ – 9 AM” or “6:30 ~~AM~~ –
1674 9:30 AM, MON-FRI”

1675 The legend format of the overhead ~~Preferential-Only Lane-Operational~~ ~~Periods of~~
1676 ~~Operation~~ (R3-14 series) signs shall have the following sequence: ~~this paragraph was~~
1677 ~~relocated from Section 2B.26~~

- 1678 A. Top Line: Eligible uses, such as “HOV 2+ ONLY” (or 3+ or 4+ ~~if appropriate~~) or
1679 “BUSES ONLY” or other ~~types of vehicles~~ ~~applicable uses or eligible turning~~
1680 ~~movements~~
1681 B. Bottom Lines: Applicable times and days, with the time and day placed above the
1682 down arrow, such as “7 ~~AM~~ – 9 AM” or “6:30 ~~AM~~ – 9:30 AM, MON-FRI” (When
1683 the operating periods exceed the available line width, the hours and days of the
1684 week shall be stacked as shown for the R3-14a sign in Figure 2B-8.)

1685 Option:

1686 Where additional movements are permitted from a preferential ~~only~~ lane on an approach to an
1687 intersection, the format and words used in the legend in the middle lines on the ~~ground- post-~~
1688 ~~mounted~~ ~~edited to increase consistency~~ ~~Preferential-Only Lane-Operational~~ ~~Periods of Operation~~
1689 (R3-11 series) signs and on the ~~top line of the~~ overhead ~~Preferential-Only Lane-Operational~~
1690 ~~Periods of Operation~~ (R3-14 series) signs may be modified to accommodate the permitted
1691 movements (such as “~~HOV 2+ AND~~ RIGHT TURNS ONLY”). ~~this paragraph was relocated~~
1692 ~~from Section 2B.26~~

1693 A MOTORCYCLES ALLOWED (R3-11P) plaque may be used where motorcycles,
1694 regardless of the number of occupants, are allowed to use an HOV lane.

1695 **Standard:**

1696 If used, the MOTORCYCLES ALLOWED plaque shall be mounted below a post-
1697 mounted Preferential Lane Periods of Operation (R3-11, R3-11a, or R3-11c) sign.

1698
1699 **Guidance:**

1700 For all barrier-separated and buffer-separated preferential only lanes, except for those preferential
1701 lanes which operate continuously, an overhead ~~Preferential Only Lane Operational~~ Periods of
1702 Operation (R3-14 series) sign shall should be used at the beginning or initial entry point, and at
1703 any intermediate ~~access~~ entry points or gaps in the barrier where vehicles are allowed to legally
1704 access the barrier-separated or buffer-separated preferential only lanes.

1705 **Option:**

1706 For all barrier-separated and buffer-separated preferential lanes, Ground- post-mounted ~~edited to~~
1707 ~~increase consistency~~ Preferential Only Lane Operational Periods of Operation (R3-11 series)
1708 signs shall may be used only as a supplement to the overhead signs at the beginning or initial
1709 entry point, or at any intermediate ~~access~~ entry points or gaps in the barrier or buffer.

1710 ~~For buffer-separated preferential only lanes (painted buffer of 0.6 m (2 ft) or more), an~~
1711 ~~overhead Preferential Only Lane Operational (R3-14 series) sign shall be used at the~~
1712 ~~beginning or initial entry point, and at intermediate access points or gaps where vehicles are~~
1713 ~~allowed to legally access the buffer-separated preferential only lane. this paragraph was~~
1714 ~~incorporated into the previous paragraph~~

1715
1716 **Guidance:**

1717 Except as described in the Option below, for contiguous preferential lanes, including those
1718 where a preferential lane is added to the roadway (see Figure 2E-39 for HOV lanes) and those
1719 where a general purpose lane transitions into a preferential lane (see Figure 2E-40 for HOV
1720 lanes), an overhead Periods of Operation (R3-14 Series) sign shall should be used at the
1721 beginning or initial entry point of the preferential lane, except for those preferential lanes which
1722 operate continuously.

1723 **Guidance:**

1724 Except as described in the Option below, overhead (R3-14 series) or post-mounted (R3-11
1725 series) Periods of Operation signs should be installed at periodic intervals along the length of a
1726 contiguous preferential lane, except for those preferential lanes which operate continuously.

1727
1728 **Option:**

1729 Additional overhead (R3-14 series) or post-mounted (R3-11 series) Periods of Operation
1730 signs may be provided along the length of any type of preferential lane.

1731 On conventional roads, the overhead Periods of Operation (R3-14 series) signs may be
1732 installed at the beginning or entry points and/or at intermediate points along preferential lanes in
1733 any geometric configuration.

1734 For lanes that are continuously operated exclusively as HOV facilities, the Period of
1735 Operation signs should read "24 HOURS" as the lane is enforced at all times.

1736 **Standard:**

1737 **Guidance:**

Commented [kf1]: We're recommending changing all of these Periods of Operation signs to Guidance out of concerns for driver information overload in the overall approach to preferential lane entrances. These signs seem like the least important.

1738 For all types of direct access ramps that provide access to or lead to preferential lanes, a post-
1739 mounted Periods of Operation (R3-11 series) sign ~~shall~~ **should** be used at the beginning or initial
1740 entry point of the direct access ramp **except for those preferential lanes which operate**
1741 **continuously**. For lanes that are exclusively operated as HOV facilities, the Period of Operation
1742 sign should read "24 HOURS" when the lane is enforced at all times.

1743
1744 Option:

1745 For direct access ramps to preferential **only** lanes, an overhead **Preferential Only Lane**
1746 ~~operational~~ Periods of Operation (R3-14 series) sign may be used at the beginning or initial entry
1747 point to supplement the required ~~ground-~~ post-mounted **edited to increase consistency** signs.

1748 Lane-use control signals (see Chapter 4M) may be used at access points to preferential lanes
1749 to indicate that a ramp or access roadway leading to the preferential lane or facility, or one or
1750 more specific lanes of the facility, are open or closed (See Figure 2E.41).

1751
1752 **Changeable message sign elements supplementing or integrated within static signs may be**
1753 **used at access points to preferential lanes to indicate that a ramp or access roadway leading to or**
1754 **from the preferential lane or facility, or one or more specific lanes of the facility, are open or**
1755 **closed (See Figure 2E.45).**

1756
1757 **Support:**
1758 **Section 2E.51 provides additional information regarding Preferential Lane Guide Signs.**
1759

1760 **Standard:**
1761 **A ground-mounted Preferential Only Lane Operational (R3-11, R3-11a, R3-11b, or R3-**
1762 **11d) sign shall be installed at the beginning, initial entry point, intermediate access points,**
1763 **and direct access ramps to all types of preferential only lanes. The overhead Preferential**
1764 **Only Lane Operational (R3-14 series) signs shall be installed only at the beginning or initial**
1765 **entry point to all types of preferential only lanes.**

1766 **Option:**
1767 **Additional ground-mounted Preferential Only Lane (R3-10, R3-11, R3-11a, R3-11b, or R3-**
1768 **11c) signs may be provided along the length of a preferential only lane.**

1769 **For barrier-separated reversible-flow preferential only lanes, Preferential Only Lane signs**
1770 **may be either static or changeable message type.**

1771 **For buffer-separated preferential only lanes, overhead Preferential Only Lane Operational**
1772 **(R3-14 series) signs may be used at specific locations and intervals along the length of the**
1773 **preferential only lane to supplement the ground-mounted R3-10 signs defining the occupancy**
1774 **requirement and the Preferential Only Lane Operational (R3-11 series) signs based on an**
1775 **engineering study.**

1776 **For concurrent-flow preferential only lanes, overhead Preferential Only Lane Operational**
1777 **(R3-14 series) signs may be used at specific locations and intervals along the length of the**
1778 **preferential only lane to supplement the ground-mounted R3-10 signs defining the occupancy**
1779 **requirement and the Preferential Only Lane Operational (R3-11 series) signs based on an**
1780 **engineering study.**

1781 **Support:**
1782 **Section 2B-26 contains provisions regarding the use of changeable message signs for**
1783 **preferential only lanes.**

1784 Section 2B.29 Preferential Lane Advance Signs (R3-12, R3-12e, R3-12f, R3-15 R3-
1785 15a, and R3-15d)

1786 Revisions shown in yellow highlight. Approved by Council June 21, 2008

1787 Guidance:

1788 The Preferential ~~Only Lane Ahead Advance (R3-10a, R3-12, R3-12e, R3-12f, and R3-15, R3-~~
1789 ~~15a, and R3-15d)~~ signs should be used for advance notification of a general purpose lane that
1790 becomes a preferential ~~only lanes~~ (see Figure 2E-40). ~~this paragraph was relocated from Section~~
1791 ~~2B.26~~

1792 The Preferential Lane Advance (R3-12, R3-12f, R3-15, and R3-15d) signs should be used for
1793 advance notification of a barrier-separated, buffer-separated, or contiguous preferential lane that
1794 is added to the general purpose lanes.

1795 Option:

1796 The legends on the R3-12f and R3-15d signs may be modified to suit the type of preferential
1797 lane.

1798 ~~Overhead Preferential Only Lane Ahead (R3-15) signs may be placed approximately 1.6 km~~
1799 ~~(1 mi) and 3.2 km (2 mi) in advance of the beginning or initial entry points to any type of~~
1800 ~~preferential only lane. this paragraph was relocated from Section 2B.28~~

1801 ~~The ground-mounted Preferential Only Lane Ahead (R3-12) sign may be installed at a~~
1802 ~~minimum of 1.6 km (1 mi) in advance of the beginning or initial entry point to any type of~~
1803 ~~preferential only lane. this paragraph was relocated from Section 2B.28~~

1804 Guidance:

1805 ~~For all barrier-separated preferential only lanes, an overhead Preferential Only Lane Ahead~~
1806 ~~(R3-15) sign should be installed and located at least 1.6 km (1 mi) in advance of the beginning or~~
1807 ~~initial entry point. this paragraph was relocated from Section 2B.28~~

1808 On conventional roads, for general purpose lanes that become preferential lanes, a post-
1809 mounted (R3-12e) or overhead (R3-15a) Preferential Lane Advance sign should be installed in
1810 advance of the beginning of or initial entry point to the preferential lane at a distance determined
1811 by engineering judgment based on prevailing speed, traffic characteristics, and other site-specific
1812 considerations. The distance selected should provide adequate opportunity for ineligible vehicles
1813 to vacate the lane prior to the beginning of the restriction.

1814 On freeways and expressways, for general purpose lanes that become preferential lanes, an
1815 overhead Preferential Lane Advance (R3-15a) sign should be installed at least 1.6 km (1 mi) in
1816 advance of the beginning of the preferential lane restriction.

1817 Option:

1818 Additional post-mounted or overhead Preferential Lane Advance signs may be placed farther
1819 in advance of or closer to the beginning or initial entry points to a preferential lane.

1820 **REASON: "Prevailing" is not defined in MUTCD.**

1821 Section 2B.30 Preferential Lane **Begins and Ends** Signs (R3-12a, R3-12b, R3-12c,
1822 R3-12d, R3-12g, R3-12h, R3-15b, R3-15c, and R3-15e) **Revisions shown in**
1823 **yellow.** (as proposed by G/MI). Approved by Council June 21, 2008

1824 **Standard:**

1825 **An overhead Preferential Lane Begins (R3-15) shall be installed at at least 1600 m (1.0**
1826 **mi) in advance of the beginning of a preferential lane.**

1827 **A post-mounted Preferential Lane sign with a supplemental "BEGINS ½ MILE"**
1828 **plaque shall be installed at least 800 m (0.5 mi) in advance of the beginning of the**
1829 **preferential lane.**

1830 **The A ground- post-mounted edited to increase consistency Preferential Only Lane**
1831 **Ends 800 m (1/2 Mile) (R3-12b or R3-12h) sign shall be installed at least 800 m (0.5 mi) in**
1832 **advance of the termination of an HOV a preferential lane. this paragraph was relocated**
1833 **from Section 2B.28**

1834 **Except as noted in the Option below, The a ground- post-mounted edited to increase**
1835 **consistency Preferential Only Lane Ends (R3-12a or R3-12g) sign shall be installed at the**
1836 **point where the a preferential only lane and restriction ends and traffic must merge into the**
1837 **general purpose lanes.**

1838 **All longitudinal pavement markings, as well as word and symbol pavement markings,**
1839 **associated with the preferential only lane shall end where the R3-12a sign designating the**
1840 **end of the preferential only lane restriction is installed. this deleted sentence is now covered**
1841 **in Chapter 3B**

1842 **A post-mounted Preferential Lane Ends (R3-12d) sign shall be installed at least 800 m**
1843 **(0.5 mi) in advance of the point where a preferential lane restriction ends and the lane**
1844 **becomes a general purpose lane.**

1845 **Except as noted in the Option below, a post-mounted Preferential Lane Ends (R3-12c)**
1846 **sign shall be installed at the point where a preferential lane restriction ends and the lane**
1847 **becomes a general purpose lane.**

1848 Option:

1849 An overhead Preferential Lane Ends (R3-15b or R3-15e) sign may be installed instead of or
1850 in addition to a post-mounted R3-12a or R3-12g sign at the point where a preferential lane and
1851 restriction ends and traffic must merge into the general purpose lanes.

1852 An overhead Preferential Lane Ends (R3-15c) sign may be installed instead of or in addition
1853 to a post-mounted R3-12c sign at the point where the preferential lane restriction ends and the
1854 lane becomes a general purpose lane.

1855 Section 2B.31 Regulatory Signs for Toll Plazas

1856 **Revisions shown in yellow from G/MI Technical committee. Approved by Council**
1857 **June 21, 2008**

1858 Support:

1859 Toll plaza operations often include lane-specific restrictions on vehicle type, forms of
1860 payment accepted, and speed limits or required stops. Vehicles are typically required to come to
1861 a stop to pay the toll in the cash payment and exact change lanes. Electronic toll collection (ETC)
1862 lanes with favorable geometrics typically allow vehicles to move through the toll plaza without
1863 stopping, but usually within a set regulatory speed limit or advisory speed. In some ETC lanes,
1864 vehicles might be required to stop while their ETC payment is processed due to geometric or
1865 other conditions.

1866 Guidance:

1867 Regulatory signs applicable only to a particular lane or lanes should be located in a position
1868 that makes their applicability clear to road users approaching the toll plaza.

1869 Regulatory signs, or regulatory panels within guide signs, indicating any restrictions on
1870 vehicle type and forms of toll payment accepted at a specific toll plaza lane should be installed
1871 over the applicable lane either on the toll plaza canopy or on a separate structure immediately in
1872 advance of the canopy.

Commented [b2]: The Toll and Managed Lane Task Force agrees that it should be a standard that drivers are told the lane is ending. However, we feel that this standard either needs to be moved to 2E or at least cross referenced with the applicable guide sign section for preferential and managed lanes (2E.51).

If there's a section here in 2B about LANE ENDS, why isn't there a corollary section on LANE BEGINS?

We also think the classification between HOV ENDS and BEGINS signs is contradictory. See Figure 2E. 38 which shows HOV BEGINS sign with green background and HOV ENDS sign as white. While 2E.39 shows HOV BEGINS as white only due to the distinction between contiguous lane and barrier/buffer separated. We feel this distinction is lost on most drivers.

With all of the Exceptions, this entire section is hard to follow as to whether signs should be overhead or post-mounted.

Commented [KF3]: Recommend delete excess verbiage. Intent of sentence is conveyed in next sentence.

1873 Support:

1874 Section 2E.55 contains information regarding the incorporation of regulatory messages into
1875 guide signs for toll plazas. Section 2E.55 also contains information regarding incorporation of
1876 ETC pictograph(s) into regulatory signs for toll plazas.

1877 Guidance: Guide and regulatory signs for ORT lanes through a split toll plaza and for dedicated
1878 ETC lanes at a toll plaza should incorporate the ONLY (R3-16) panel under or adjacent to the
1879 ETC pictograph (See Figure 2B-9 and Figure 2E-50 through 2E-53).

1880 Option:

1881 **REMOVE “NO CASH” from Figures, specifically 2B-52.**

1882 Standard:

1883 ~~For lanes approaching, within, or adjacent to a toll plaza that are reserved exclusively~~
1884 ~~for vehicles equipped with electronic toll collection (ETC) transponders, the ETC~~
1885 ~~(pictograph) ONLY—NO CASH (R3-16) regulatory lane-use sign (see Figure 2B-9) should~~
1886 ~~shall be installed over the approach lane(s) with a down arrow located directly over the~~
1887 ~~approximate center of each such lane. This sign shall also be installed over the Open Road~~
1888 ~~ETC Only lanes on an approach to a divergence for a separate alignment on which a toll~~
1889 ~~plaza for cash toll payments is located (see Section 2E.57 and Figure 2E-52).~~

1890 ~~The ETC (pictograph) ONLY—NO CASH (R3-16) sign shall incorporate a top header~~
1891 ~~panel with a purple background and white border. Within the header panel, the pictograph~~
1892 ~~adopted by the toll facility’s ETC payment system (such as E-ZPass® or SunPass) shall be~~
1893 ~~on a white rectangular or square underlay panel and the black legend ONLY shall be on a~~
1894 ~~separate rectangular white panel. The bottom portion of the sign shall have a white~~
1895 ~~background and black border with the black legend NO CASH and one black down arrow~~
1896 ~~for each applicable lane.~~

1897 ~~The ETC (pictograph) ONLY—NO CASH (R3-16) sign for an ETC only facility that~~
1898 ~~accepts a nationally interoperable transponders ETC system shall also incorporate the~~
1899 ~~nationally interoperable ETC symbol (M8-3) shown in Figure 2E-50. The M8-3 symbol~~
1900 ~~shall only be used on signs for ETC facilities that accept electronic payment from any toll~~
1901 ~~operator’s ETC transponder.~~

1902 Guidance:

1903 One or more Speed Limit (R2-1) signs (see Section 2B.13) should be installed in appropriate
1904 locations described in the Option statement following this Guidance statement for an dedicated
1905 ETC Only lane(s) at a toll plaza in which an enforceable regulatory speed limit is established for
1906 a lane in which it is intended that vehicles move through the toll plaza without stopping while toll
1907 fee payment processing with stops occurs in other lanes at the toll plaza. The speed limit
1908 displayed on the signs should be based on an engineering study taking into account the geometry
1909 of the plaza and the lanes and other appropriate safety and operational factors.

1910 A Speed Limit (R2-1) sign should not be installed for a toll plaza lane for which a STOP (R1-
1911 1) sign is used or for which a stop is required.

1912 Option:

1913 Speed limit signs may be installed over the applicable lane on the toll plaza canopy, on the
1914 approach end of the toll booth island, on the toll booth itself, or on a vertical element of the
1915 canopy structure. Downward or diagonally downward pointing arrows may be used to
1916 supplement the speed limit signs if an engineering study or engineering judgment indicates that
1917 the arrow is needed to clarify the applicability of the signs or to improve compliance.

1918 Standard:

Commented [kf4]: The advance signs and canopy mounted signs may be guide or regulatory, depending on how they are used. The dominant legend on the sign will dictate the sign type. The “Dominant” message is determined by engineering judgment. The ONLY panel should be used only if it is applicable.

Commented [kf5]: “Should” (Guidance) instead of “shall” (Standard) allows for such things as pay-by-mail and other yet to be determined toll collection methods.

Commented [kf6]: Recommend striking the entire Standard. The material is or will be addressed in the above Support, Guidance, and Option statements or in 2E.55. It is premature to address interoperability, especially with an untested symbol.

1919 A STOP (R1-1) sign shall not be installed for a toll plaza lane that is operated as an
1920 dedicated ETC Only lane and that is designed for tolls to be collected while vehicles
1921 continue moving.

1922 Option:

1923 A STOP (R1-1) sign may be installed to require vehicles to come to a complete stop to pay a
1924 toll in an attended or exact change lane, even if that lane is also available for optional use by
1925 vehicles with an ETC transponder. A PAY TOLL (R3-29P) or TAKE TICKET (R3-30P) plaque
1926 (see Figure 2B-9), as appropriate to the operation, may be installed directly under the STOP (R1-
1927 1) sign for a toll plaza cash lane, if needed.

1928 The mounting height of the STOP sign and any supplemental plaque may be less than the
1929 normal mounting height requirements if constrained by the physical features of the toll island or
1930 toll plaza.

1931 The lateral offset of a STOP or other regulatory sign located within a toll plaza island may be
1932 reduced to a minimum of 0.3 m (1 ft) from the face of the toll island or raised barrier to the
1933 nearest edge of the sign.

1934 Guidance:

1935 If used, a STOP (R1-1) sign for a toll plaza cash payment lane should be located in a
1936 longitudinal position as near as practical to the point where a vehicle is expected to stop to pay
1937 the toll or take a ticket.

1938 Option:

1939 A Toll Rate Schedule (R3-28) sign (see Figure 2B-9) may be installed a short distance in
1940 advance of the toll plaza to indicate the toll fees applicable to the various vehicle types.

1941 Guidance:

1942 If used, the Toll Rate Schedule (R3-28) sign should be located approximately 30 to 60 m (100
1943 to 200 ft) in advance of the toll plaza.

1944 The R3-28 sign should not contain more than three lines of text.

1945 =Section 2B.32 Regulatory Signs for Managed Lanes and High-Occupancy Toll
1946 (HOT) ETC Only Lanes.

1947 Revisions shown in yellow highlight from G/MI committee. Approved by Council
1948 June 21, 2008

1949 Support:

1950 A managed lane is a highway lane (or set of lanes) or a highway facility for which one or
1951 more variable operational strategies, such as tolling, pricing, vehicle type and/or occupancy
1952 requirements, and direction of travel, are implemented and managed in real time in response to
1953 changing conditions.

1954 A managed lane might be on a separate alignment, might be barrier-separated or buffer-
1955 separated from the general purpose lanes, or might be contiguous with the general purpose lanes.

1956 Under certain operational strategies, a managed lane is a special type of Preferential lane (see
1957 Sections 2B.26 through 2B.30).

1958 Standard:

1959 The provisions of Sections 2B.26 through 2B.30 regarding regulatory signs for
1960 Preferential lanes shall apply to managed lanes operated at all times or at certain times with
1961 fixed or variable vehicle occupancy requirements (HOV), vehicle type restrictions, and/or a
1962 toll fee payment requirement (HOT) to use the lane(s). Such managed lanes shall use

Commented [b7]: Managed lane and Preferential lanes are defined in Part 1.

1963 changeable message signs or changeable message elements within static signs to display the
1964 appropriate regulatory sign messages only when they are in effect.

1965 When a single-occupant vehicle equipped with an ETC transponder is allowed to use an
1966 HOV lane by paying a toll fee, the Vehicle Occupancy Definition (R3-13 or R3-13a) signs
1967 (see Section 2B.27) shall be modified for HOT lanes to include the pictograph adopted by
1968 the facility's ETC payment system (such as E-Z Pass or SunPass) to indicate the allowable
1969 use (see Figure 2B-10). Also in this case, regulatory signs shall be used to indicate the toll
1970 fee charged for such vehicles. If the toll fee varies, regulatory signs that include changeable
1971 message elements, such as the R3-31 and R3-32 signs that are illustrated in Figure 2B-10,
1972 shall be used to display the actual toll amount or rate in effect at any given time.

1973 When vehicles are charged a toll only vehicles equipped with an ETC transponder are
1974 allowed to use a managed lane or any tolled facility, regulatory signs to indicate such a
1975 restriction shall be provided and shall incorporate the pictograph adopted for by the toll
1976 facility's ETC payment system and the word ONLY. If incorporated within the white
1977 background of a regulatory sign or within the green background of a guide sign, the ETC
1978 pictograph shall be on a white rectangular or square panel set on a purple backplate with a
1979 white border as shown in Figures 2B-10 and 2E-54. If used on a header panel within a
1980 regulatory or guide sign, the ETC pictograph shall have a white border and the header
1981 panel shall have a purple background with a white border as shown on the R3-16 signs in
1982 Figure 2B-9.

1983 When certain types of vehicles (such as trucks or motorcycles) are prohibited from
1984 using a managed lane or when a managed lane is restricted to use by only certain types of
1985 vehicles during certain operational strategies, regulatory signs or regulatory panels within
1986 the appropriate guide signs that might include changeable message elements shall be used to
1987 display the open/closed status of the managed lane for such vehicle types shall be used.

1988 When the vehicle occupancy required for use of an HOV lane is varied as a part of a
1989 managed lane operational strategy, regulatory signs that include changeable message
1990 elements shall be used to display the required vehicle occupancy in effect.

1991

1992 **ADD TWO NEW SECTIONS AS FOLLOWS as recommended by G/MI technical**
1993 **committee: Approved by Council June 21, 008**

1994

1995 Section 2B XX Pay Toll Sign (Rx-x)

1996 Standard:

1997 The Pay Toll Ahead (Rx-x) sign shall be a horizontal rectangle with a black legend and
1998 border on a white background.

1999 Guidance:

2000 The legend should include the distance to the toll plaza and, except for toll-ticket facilities,
2001 the toll fee for passenger or 2-axle vehicles (see Figure 2B-x). Where the toll fee for passenger or
2002 2-axle vehicles is variable by time of day, a changeable message element should be incorporated
2003 into the sign to display the toll fee in effect.

2004 Option:

2005 The Pay Toll sign may be installed overhead at approximately 1.6 km (1 mi) and 800 m (0.5
2006 mi) in advance of mainline toll plazas.

2007 An additional sign may be installed approximately 3.2 km (2 mi) in advance of a mainline toll
2008 plaza. This sign may be either overhead or post-mounted.

2009 The sign may be installed in advance of a ramp toll plaza.

Commented [STC8]: Suggest changing title of Figure 2B-10 to "Examples of special managed lanes" to provide room for future operational strategies.

Commented [b9]: Signs shown on Figure 2B-10 should be researched. There is some confusion on the driver comprehension of the per mile charge. Recommend that the use of the R3-32 sign be defined to establish that the changeable message part of the sign provide the rate or travel time from the point where the sign is located to the destination shown. Some HOT lane systems require that HOV motorists have a transponder. The R3-32 sign series doesn't allow for specification of transponder use. Recommend modifying the regulatory message to allow for "required" ETC system participation such as replacing "Rate" with "REQUIRED" or "HOV 2+ NO TOLL" replaced by "HOV 2+ ETC Pictograph Required" Current sign layout is not in compliance with requirement that HOV text be on the right of the symbol as specified in Section 2B.25, Page 644, Lines 8-17. All relevant toll rate fees may not fit on a sign, it is likely that only the highest use fee can be posted. Fees may be based on number of axles, by vehicle class, by vehicle weight, etc.

Commented [STC10]: R3-31 price per mile sign shown in Figure 2B-10 should be deleted.

Commented [STC11]: This entire third paragraph needs to be in a separate section that applies to all ORT ETC only facilities, not just managed lanes / HOT lanes (Created 2B.72)

Commented [STC12]: Delete reference to guide sign here and then delete last "with a white border" because that only applies with a guide sign. Seems like they meant to cross-reference 2E.53 in this paragraph, not 2E.54

Commented [STC13]: Added "might" here to avoid the implication that regulatory panels MUST include CMS element. Could have a regulatory sign panel that is static or CMS OR a regulatory panel that's part of a guide sign that's static or CMS OR and you could have full matrix CMS that gives regulatory info.

Commented [b14]: Recommend that a figure be provided to demonstrate the intent of the text.

2010

2011 **Section 2B.XY ETC Pictograph Applications Relative to Background Colors**

2012

2013 **Standard:**

2014 When only vehicles equipped with an ETC transponder are allowed to use a managed
2015 lane or any tolled facility, regulatory signs to indicate such a restriction shall be provided
2016 and shall incorporate the pictograph adopted by the toll facility's ETC payment system and
2017 the word ONLY. If incorporated within the white background of a regulatory sign or
2018 within the green background of a guide sign, the ETC pictograph shall be on a white
2019 rectangular or square panel set on a purple backplate with a white border as shown in
2020 Figures 2B-10 and 2E-54. If used on a header panel within a regulatory or guide sign, the
2021 ETC pictograph shall have a white border and the header panel shall have a purple
2022 background with a white border as shown on the R3-16 signs in Figure 2B-9.

2023

2024 The ETC (pictograph) ONLY--NO CASH (R3-16) sign shall incorporate a top
2025 header panel with a purple background and white border. Within the header panel, the
2026 pictograph adopted by the toll facility's ETC payment system (such as E-Z Pass or
2027 SunPass) shall be on a white rectangular or square underlay panel and the black legend
2028 ONLY shall be on a separate rectangular white panel. The bottom portion of the sign shall
2029 have a white background and black border with the black legend NO CASH and with one
2030 black down arrow for each applicable lane.

2031

2032 **Section 2B.33 Jughandle Signs (R3-23, R3-24, R3-25, and R3-26 Series)**

2033 **Revisions shown in yellow highlight. Approved by Council June 21, 008**

2034 **Support:**

2035 A jughandle turn is a left-turn or U-turn that because of special geometry is made by initially
2036 making a right turn. This type of turn can increase the operational efficiency of a roadway by
2037 eliminating the need for exclusive left-turn lanes and can increase the operational efficiency of a
2038 traffic control signal by eliminating the need for protected left-turn phases. A jughandle turn can
2039 also provide an opportunity for trucks and commercial vehicles to make a U-turn where the
2040 median and roadway are not of sufficient width to accommodate a traditional U-turn by these
2041 vehicles.

2042 Figure 2B-12 shows examples of regulatory and destination guide signing for various types of
2043 jughandle turns.

2044 **Standard:**

2045 On multi-lane roadways, since road users generally anticipate that they need to be in
2046 the left-hand lane when approaching a location where they desire to turn left or make a U-
2047 turn, an ALL TURNS FROM RIGHT LANE (R3-23) or a U TURN FROM RIGHT LANE
2048 (R3-23a) sign (see Figure 2B-11) shall be installed in advance of the location to inform
2049 drivers that left turns and/or U-turns will be made from the right-hand lane.

2050

2051 **Option:**

2052 Where a median of sufficient width is available, supplemental regulatory or guide signs may
2053 also be placed on the left-hand side of the roadway.

2054 **Standard:**

2055 An R3-24 series sign (see Figure 2B-11) with an upward diagonal arrow pointing to the
2056 right if the jughandle entrance is designed as an exit ramp or an R3-24 or R3-25 series sign
2057 (see Figure 2B-11) with a horizontal arrow pointing to the right if the jughandle entrance is
2058 designed as an intersection shall be installed on the right-hand side of the roadway at the
2059 entrance to the jughandle. The legend on the sign shall be ALL TURNS, U TURN, or U
2060 AND LEFT TURNS, as appropriate.

2061 If the jughandle is designed such that the jughandle entrance is downstream of the
2062 location where the turn would normally have been made (see Drawing C of Figure 2B-11
2063 +12), an R3-26 series sign (see Figure 2B-11) with an arrow pointing straight upward shall
2064 be installed on the right-hand side of the roadway at the intersection to inform road users
2065 that they need to proceed straight through the intersection in order to make a left turn or
2066 U-turn. The legend on the sign shall be U TURN or U AND LEFT TURNS, as appropriate.

2067 Support:

2068 The R3-24, R3-25, and R3-26 series of signs are designed to be mounted below conventional
2069 guide signs.

2070 Section 2C.14 contains information regarding the use of advisory exit and ramp speed signs
2071 for exit ramps.

2072 **Reason for revisions: To match the text.**

2073 **Add note to Figure 2B-11 regarding arrows matching those shown in Figure 2D-2**
2074 **for design.**

2075 **Change Figure 2B-12 (sheet 3 of 3) to depict the R3-26 sign rather than the R3-24a**
2076 **sign.**

2077 **Section ~~2B.29~~ 2B.34 Do Not Pass Sign (R4-1) Approved by Council 1-12-08.**

2078 **Additional revisions shown in yellow highlight, approved by Council June 21,**
2079 **2008.**

2080 Option:

2081 The **DO NOT PASS** (R4-1) sign (see Figure 2B-13) may be used in addition to pavement
2082 markings (see Section 3B.02) to emphasize the restriction on passing. The **DO NOT PASS** sign
2083 may be used at the beginning of, and at intervals within, a zone through which sight distance is
2084 restricted or where other conditions make overtaking and passing inappropriate.

2085 A **DO NOT PASS (R4-1P)** educational plaque (see Figure 2B-13) may be mounted below the
2086 R4-1 symbol sign.

2087 A **DO NOT PASS (R4-1a)** word message sign (see Figure 2B-13) may be used instead of the
2088 symbol sign.

2089 If signing is needed on the left-hand **added for increased clarity** side of the roadway for
2090 additional emphasis, NO PASSING ZONE (W14-3) signs may be used (see Section 2C.47).

2091 Support:

2092 Standards for determining the location and extent of no-passing zone pavement markings are
2093 set forth in Section 3B.02.

2094 Reason: Human Factors testing has not been done by FHWA for this symbol, although a similar
2095 sign is used in Canada and the symbol throughout Europe.

2096 **FIGURE 2B-13: Delete the R4-1 symbol sign for no passing, until Human Factors**
2097 **evaluation is completed**

2098 **Section 2B.35 DO NOT PASS WHEN SOLID LINE IS ON YOUR SIDE Sign (R4-**
2099 **15)**

2100 **Approved by Council 1-12-08 to delete Section 2B.35 in its entirety as shown in**
2101 **yellow. Reason for deleting Section 2B.35 – The No Passing Pennant W14-3**
2102 **warning sign may be installed for this situation to warn drivers when they**
2103 **should not pass. State Statutes typically indicate that solid yellow line on their**
2104 **side means DO NOT PASS. Part 3 of MUTCD also indicates this already.**

2105 **Option:**

2106 **The DO NOT PASS WHEN SOLID LINE IS ON YOUR SIDE (R4-15) sign (see Figure 2B-**
2107 **13) may be installed to remind road users of the meaning of the solid yellow center line for no-**
2108 **passing zones.**

2109 **Section 2B.36 DO NOT DRIVE ON SHOULDER Sign (R4-17) and DO NOT PASS**
2110 **ON SHOULDER Sign (R4-18)**

2111 **Approved by Council 1-12-08**

2112 **Option:**

2113 **The DO NOT DRIVE ON SHOULDER (R4-17) sign (see Figure 2B-13) may be installed to**
2114 **inform road users that using the shoulder of a roadway as a travel lane is prohibited.**

2115 **The DO NOT PASS ON SHOULDER (R4-18) sign (see Figure 2B-13) may be installed to**
2116 **inform road users that using the shoulder of a roadway to pass other vehicles is prohibited.**

2117 **Section ~~2B.30~~ 2B.37 PASS WITH CARE Sign (R4-2)**

2118 **Approved by Council 1-12-08**

2119 **Guidance:**

2120 **The PASS WITH CARE (R4-2) sign (see Figure 2B-13) should be installed at the**
2121 **downstream end of a no-passing zone if a Do Not Pass sign has been installed at the beginning**
2122 **upstream end of the zone.**

2123 **Section ~~2B.31~~ 2B.38 KEEP RIGHT EXCEPT TO PASS Sign (R4-16) and**
2124 **SLOWER TRAFFIC KEEP RIGHT Sign (R4-3)**

2125 **Revisions shown in yellow, approved by Council June 21, 008.**

2126 **Option:**

2127 **The KEEP RIGHT EXCEPT TO PASS (R4-16) (See Figure 2B-13) sign may be used on**
2128 **multi-lane roadways to direct vehicles to stay in the right lane except to pass.**

2129 **Guidance:**

2130 **When used, the KEEP RIGHT EXCEPT TO PASS sign should be installed beyond the**
2131 **beginning of a multi-lane roadway, and at selected locations along multi-lane roadways for**
2132 **additional emphasis.**

2133 **Option:**

2134 **The SLOWER TRAFFIC KEEP RIGHT (R4-3) sign (see Figure 2B-13) ~~or the KEEP RIGHT~~**
2135 **EXCEPT TO PASS (R4-16) sign (see Figure 2B-13) may be used on multi-lane roadways to**
2136 **reduce unnecessary lane changing.**

2137 Guidance:
2138 **When** used, the SLOWER TRAFFIC KEEP RIGHT ~~or the KEEP RIGHT EXCEPT TO~~
2139 **PASS** sign should be installed just beyond the beginning of a multi-lane pavement, and at
2140 selected locations where there is a tendency on the part of some road users to drive in the left-
2141 **hand** lane (or lanes) below the normal speed of traffic. This sign should not be used on the
2142 approach to an interchange or through an interchange area.

2143 Reason for revision: The KEEP RIGHT EXCEPT TO PASS sign is used differently than the
2144 SLOWER TRAFFIC KEEP RIGHT sign. RWSTC approved the revised language above on June
2145 20, 2007.

2146 **Section ~~2B.32~~ 2B.39 ~~Slow Moving Traffic~~ TRUCKS USE RIGHT LANE Signs (R4-**
2147 **~~5, R4-6)~~**

2148 **Approved by Council 1-12-08**

2149 **Support:**

2150 ~~The Slow Moving Traffic Lane signs (see Figure 2B-8) are used to direct vehicles into an~~
2151 ~~extra lane that has been provided for slow-moving vehicles.~~

2152 **Guidance:**

2153 If an extra lane has been provided for **trucks and other** slow-moving traffic, a SLOWER
2154 TRAFFIC KEEP RIGHT (R4-3) sign (see Figure 2B-13), TRUCKS USE RIGHT LANE (R4-5)
2155 sign (see Figure 2B-13), or other appropriate sign should be installed at the beginning of the lane.
2156 ~~A TRUCK LANE (R4-6) sign, with the appropriate distance shown should be installed in~~
2157 ~~advance of the lane.~~

2158 **Option:**

2159 The SLOWER TRAFFIC KEEP RIGHT sign may be used as a supplement or as an
2160 alternative to the TRUCKS USE RIGHT LANE sign. Both signs may be used on multi-lane
2161 roadways to improve capacity and reduce lane changing.

2162 The TRUCKS USE RIGHT LANE (R4-5) sign may be used on multi-lane roadways to
2163 reduce unnecessary lane changing.

2164 **Guidance:**

2165 If an extra lane has been provided for **trucks and other** slow-moving traffic, a Lane Ends sign
2166 (see Section 2C.41) should be installed in advance of the point where the extra lane ends.
2167 Appropriate pavement markings should be installed at both the **beginning upstream** and ~~the~~
2168 **downstream** ends of the extra lane (see Section 3B.09 and Figure 3B-13).

2169 **Support:**

2170 Section 2D.53 contains information regarding advance information signs for extra lanes that
2171 have been provided for trucks and other slow-moving traffic.

2172

2173 **Section ~~2B.33~~ 2B.40 **Keep Right and Keep Left Signs (R4-7, R4-8)****

2174 **Approved by Council 1-12-08**

2175 **Option:**

2176 The Keep Right (R4-7) sign (see Figure 2B-13) may be used at locations where it is
2177 necessary for traffic to pass only to the right-**hand side** ~~edited to increase clarity~~ of a roadway

2178 feature or obstruction. The Keep Left (R4-8) sign (see Figure 2B-13) may be used at locations
2179 where it is necessary for traffic to pass only to the left-hand side edited to increase clarity of a
2180 roadway feature or obstruction.

2181 Guidance:

2182 At locations where it is not readily apparent that traffic is required to keep to the right, a Keep
2183 Right sign should be used.

2184 If used, the Keep Right sign should be installed as close as practical to approach ends of
2185 raised medians, parkways, islands, and underpass piers, ~~and at other locations where it is not~~
2186 ~~readily apparent that traffic is required to keep to the right.~~ The sign should be mounted on the
2187 face of or just in front of a pier or other obstruction separating opposite directions of traffic in the
2188 center of the highway such that traffic will have to pass to the right-hand side edited to increase
2189 clarity of the sign.

2190 **Standard:**

2191 **The Keep Right sign shall not be installed on the right-hand edited to increase clarity**
2192 **side of the roadway in a position where traffic must pass to the left-hand side edited to**
2193 **increase clarity of the sign.**

2194 Option:

2195 The Keep Right sign may be omitted at intermediate ends of divisional islands and medians.

2196 Word message KEEP RIGHT (LEFT) with an arrow (R4-7a or R4-7b) signs (see Figure 2B-
2197 13) may be used instead of the R4-7 or R4-8 symbol signs.

2198 Where the obstruction obscures the Keep Right sign, the minimum placement height may be
2199 increased for better sign visibility.

2200 A narrow Keep Right (R4-7c) sign (see Figure 2B-13) may be installed on the nose of a
2201 median island where the median width is too narrow to accommodate an R4-7 sign that is 600
2202 mm (24 in) wide.

2203 **Standard:**

2204 A narrow Keep Right (R4-7c) sign shall not be installed on a median island that has a
2205 width of 1.8 m (6 ft) or more at the point where the sign is to be located.

2206

2207 Section 2B.41 STAY IN LANE Sign (R4-9)

2208 Approved by Council 1-12-08 with modifications shown in blue highlight

2209 Option:

2210 A STAY IN LANE (R4-9) sign (see Figure 2B-13) may be used on multi-lane highways to
2211 direct road users to stay in their lane until conditions permit shifting to another lane.

2212 Guidance:

2213 If a STAY IN LANE sign is used, it should be accompanied by a double solid white lane
2214 line(s) to prohibit lane changing, or a single solid white lane line(s) to discourage lane changing
2215 in that section of roadway.

2216 Reason for change to Section 2B.41 – The STAY IN LANE sign is regulatory (mandatory);
2217 therefore a single solid white line would not be appropriate since it only discourages lane
2218 changing rather than prohibiting lane changing.

2219

2220 Section 2B.42 RUNAWAY VEHICLES ONLY Sign (R4-10)

2221 Approved by Council June 21, 2008

2222 Guidance:
2223 A RUNAWAY VEHICLES ONLY (R4-10) sign (see Figure 2B-13) should be installed near
2224 a truck escape (or runaway truck) ramp entrance to discourage other road users from entering the
2225 ramp.

2226 **Section 2B.43 Slow Vehicle Turn-Out Signs (R4-12, R4-13, and R4-14)**

2227 Approved by Council June 21, 2008

2228 Support:
2229 On two-lane highways in areas where traffic volumes and/or vertical or horizontal curvature
2230 make passing difficult, turn-out areas are sometimes provided for the purpose of giving a group of
2231 faster vehicles an opportunity to pass a slow-moving vehicle.

2232 Option:
2233 A SLOW VEHICLES WITH XX OR MORE FOLLOWING VEHICLES MUST USE
2234 TURN-OUT (R4-12) sign (see Figure 2B-13) may be installed in advance of a turn-out area to
2235 inform drivers who are driving so slow that they have accumulated a specific number of vehicles
2236 behind them that they are required to use the turn-out to allow the vehicles following them to
2237 pass.

2238 Support:
2239 The specific number of vehicles displayed on the R4-12 sign provides law enforcement
2240 personnel with the information they need to enforce this regulation.

2241 Option:
2242 If an R4-12 sign has been installed in advance of a turn-out area, a SLOW VEHICLES
2243 MUST USE TURN-OUT AHEAD (R4-13) sign (see Figure 2B-13) may also be installed
2244 downstream from the R4-12 sign, but upstream from the turn-out area, to remind slow drivers that
2245 they are required to use a turn-out that is a short distance ahead.

2246 Standard:
2247 If an R4-12 sign has been installed in advance of a turn-out area, a SLOW VEHICLES
2248 MUST TURN OUT (with arrow) (R4-14) sign (see Figure 2B-13) shall be installed at the
2249 entry point of the turn-out area.

2250 Support:
2251 Section 2D.54 contains information regarding advance information signs for slow vehicle
2252 turn-out areas.

2253
2254

2255 **Section ~~2B.34~~ 2B.44 DO NOT ENTER Sign (R5-1) Approved by Council 1-12-08**

2256 **Standard:**
2257 **The DO NOT ENTER (R5-1) sign (see Figure 2B-14) shall be used where traffic is**
2258 **prohibited from entering a restricted roadway.**

2259 Guidance:
2260 The DO NOT ENTER sign, if used, should be placed directly in view of a road user at the
2261 point where a road user could wrongly enter a divided highway, one-way roadway, or ramp (see
2262 Figure 2B-15). The sign should be mounted on the right-hand edited to increase clarity side of
2263 the roadway, facing traffic that might enter the roadway or ramp in the wrong direction.

2264 If the DO NOT ENTER sign would be visible to traffic to which it does not apply, the sign
2265 should be turned away from, or shielded from, the view of that traffic.

2266 Option:

2267 The DO NOT ENTER sign may be installed where it is necessary to emphasize the one-way

2268 traffic movement on a ramp or turning lane.

2269 A second DO NOT ENTER sign on the left side of the roadway may be used, particularly

2270 where traffic approaches from an intersecting roadway (see Figure 2B-15).

2271 Support:

2272 [Section 2B.48 contains information regarding an optional lower mounting height for DO](#)

2273 [NOT ENTER signs that are located along the exit ramp facing a road user who is traveling in the](#)

2274 [wrong direction.](#)

2275 **Section ~~2B.35~~ 2B.45 WRONG WAY Sign (R5-1a) Approved by Council 1-12-08**

2276 Option:

2277 The WRONG WAY (R5-1a) sign (see Figure 2B-14) may be used as a supplement to the DO

2278 NOT ENTER sign where an exit ramp intersects a crossroad or a crossroad intersects a one-way

2279 roadway in a manner that does not physically discourage or prevent wrong-way entry (see Figure

2280 2B-15).

2281 Guidance:

2282 If used, the WRONG WAY sign should be placed at a location along the exit ramp or the

2283 one-way roadway farther from the crossroad than the DO NOT ENTER sign (see Section 2E.49).

2284 Support:

2285 [Section 2B.48 contains information regarding an optional lower mounting height for](#)

2286 [WRONG WAY signs that are located along the exit ramp facing a road user who is traveling in](#)

2287 [the wrong direction.](#)

2288 **Section ~~2B.36~~ 2B.46 Selective Exclusion Signs**

2289 **Approved by Council 1-12-08 with modification shown in blue highlight.**

2290 Support:

2291 Selective Exclusion signs (see Figure 2B-14) give notice to road users that State or local

2292 statutes or ordinances exclude designated types of traffic from using particular roadways or

2293 facilities.

2294 **Standard:**

2295 **If used, Selective Exclusion signs shall clearly indicate the type of traffic that is**

2296 **excluded.**

2297 Support:

2298 Typical exclusion messages include:

2299 A. No Trucks (R5-2),

2300 B. NO MOTOR VEHICLES (R5-3),

2301 C. NO COMMERCIAL VEHICLES ~~EXCLUDED~~ (R5-4),

2302 D. NO TRUCKS (VEHICLES) WITH LUGS ~~PROHIBITED~~ (R5-5),

2303 E. No Bicycles (R5-6),

2304 F. NO NON-MOTORIZED TRAFFIC ~~PROHIBITED~~ (R5-7),

2305 G. NO MOTOR-DRIVEN CYCLES ~~PROHIBITED~~ (R5-8), and

2306 H. No Hazardous Material ~~Prohibited~~ (R14-3) (see Section 2B.67).

2307 Option:

2308 Appropriate combinations or groupings of these legends into a single sign, such as NO

2309 PEDESTRIANS BICYCLES MOTOR-DRIVEN CYCLES ~~PROHIBITED~~ (R5-10a), or NO

2310 PEDESTRIANS ~~AND OR~~ BICYCLES ~~PROHIBITED~~ (R5-10b) may be used.

2311 Guidance:

2312 If an exclusion is governed by vehicle weight, a Weight Limit sign (see Section 2B.64)

2313 should be used instead of a Selective Exclusion sign.

2314 The Selective Exclusion sign should be placed on the right-hand ~~side~~ **edited to increase clarity**

2315 side of the roadway at an appropriate distance from the intersection so as to be clearly visible to

2316 all road users turning into the roadway that has the exclusion. The **NO PEDESTRIANS**

2317 **PROHIBITED** (R5-10c) or No Pedestrian Crossing (R9-3a) sign **(see Section 2B.58) added to**

2318 **assist the reader** should be installed so as to be clearly visible to pedestrians at a location where an

2319 alternative route is available.

2320 Option:

2321 The NO TRUCKS (R5-2a) sign may be used as an alternate to the No Trucks (R5-2) symbol

2322 sign.

2323 The **NO PEDESTRIANS PROHIBITED** (R5-10c) or No Pedestrian Crossing (R9-3a) sign

2324 may also be used at underpasses or elsewhere where pedestrian facilities are not provided.

2325 The **AUTHORIZED VEHICLES ONLY (R5-13) or the FOR OFFICIAL USE ONLY (R5-**

2326 **14) sign may be used at median openings and other locations to prohibit vehicles from using the**

2327 **median opening or facility unless they have special permission (such as law enforcement vehicles**

2328 **or emergency vehicles) or are performing official business (such as highway agency maintenance**

2329 **vehicles).**

2330 **Reason for change to 2B.46 – other highway agency vehicles other than maintenance could be**

2331 **authorized.**

2332 **Section ~~2B.37~~ 2B.47 ONE WAY Signs (R6-1, R6-2)**

2333 **Approved by Council 1-12-08 with modifications shown in blue highlight.**

2334 **Additional changes shown in yellow, approved by Council June 2008.**

2335 **Standard:**

2336 **Except as noted in the Option, the ONE WAY (R6-1 or R6-2) sign (see Figure 2B-16)**

2337 **shall be used to indicate streets or roadways upon which vehicular traffic is allowed to**

2338 **travel in one direction only.**

2339 **ONE WAY signs shall be placed parallel to the one-way street at all alleys and**

2340 **roadways that intersect one-way roadways as shown in Figures 2B-17 through 2B-20.**

2341 **Guidance:**

2342 **Where ~~At an intersection with a~~ divided highway ~~are separated by median widths at~~**

2343 **~~the intersection itself of 9 m (30 ft) or more~~ having a median width of 9 m (30 ft) or more,**

2344 **ONE WAY signs ~~should~~ shall be placed, visible to each crossroad approach, on the near**

2345 **right, ~~and~~ and far left, ~~and far right~~ corners of each intersection with the directional**

2346 **roadways as shown in Figures ~~2B-12 and~~ 2B-18 through 2B-20.**

2347 **Guidance:**

2348 **At an intersection with a divided highway having a median width of 9 m (30 ft) or more, a**

2349 **ONE WAY sign should be placed, visible to each crossroad approach, on the far right corner of**

2350 **each intersection with the directional roadways as shown in Figures 2B-18 through 2B-20.**

2351 **REASON:** To require the one way signs for median widths of greater than 30' only, which

2352 essentially retains the 2003 MUTCD language. To require the near right and far

2353 left one way signs, but not the far right.

2354 Option:

2355 ONE WAY signs may be omitted on the one-way roadways of divided highways, where the
2356 design of interchanges indicates the direction of traffic on the separate roadways.

2357 ONE WAY signs may be omitted [on the medians](#) (see Figures [2B-19](#) and [2B-20](#)) at
2358 intersections with divided highways that have median widths at the intersection itself of less than
2359 9 m (30 ft).

2360 [A BEGIN ONE WAY \(R6-XX\) sign may be used to denote the start point of one-way](#)
2361 [traffic regulations along a street or roadway. An END ONE WAY \(R6-XY\) sign may be](#)
2362 [used to denote the end point of one-way traffic regulations along a street or roadway.](#)
2363 [The R6-XY END ONE WAY sign may be used in addition to the W6-3 Two-Way](#)
2364 [Traffic sign \(Section 2C.34\).](#)

2365

2366 **Support:**

2367 [Typically, the END ONE WAY \(R6-XY\) sign is placed on the near side of the](#)
2368 [intersection or location where the one way street ends.](#)

2369

2370 Add BEGIN ONE WAY and END ONE WAY signs to Figure 2B-16.

2371 **Add signs to table 2B-1.**

2372

2373 Reason for change to Figure 2B-16 – To provide a sign detail to correspond with Section
2374 2B.47. Reason for added text: To provide for regulatory sign for end and begin points of
2375 one way streets.

2376

2377 **Standard:**

2378 At unsignalized intersections, ONE WAY signs shall be placed on the near right and the
2379 far left corners of the intersection facing traffic entering or crossing the one-way street ([see](#)
2380 [Figure 2B-17, Sheet 1 of 2](#)).

2381 At signalized intersections, ONE WAY signs shall be placed ~~either~~ **grammar – more**
2382 **than two choices** near the appropriate signal faces, on the poles holding the traffic signals,
2383 on the mast arm or span wire holding the signals, or at the locations specified for
2384 unsignalized intersections.

2385 [At unsignalized T-intersections where the roadway at the top of the T-intersection is a](#)
2386 [one-way roadway, ONE WAY signs shall be placed on the near right and the far side of the](#)
2387 [intersection facing traffic on the stem approach \(see Figure 2B-17, Sheet 2 of 2\).](#)

2388 [At signalized T-intersections where the roadway at the top of the T-intersection is a one-](#)
2389 [way roadway, ONE WAY signs shall be placed near the appropriate signal faces, on the](#)
2390 [poles holding the traffic signals **or** on the mast arm or span wire holding the signals, or at](#)
2391 [the locations specified for unsignalized intersections.](#)

2392 **Option:**

2393 Where the central island of a roundabout allows for the installation of signs, ONE WAY
2394 signs may be used instead of or in addition to Roundabout Directional Arrow (R6-4 series) signs
2395 (see Section 2B.50) to direct traffic counter-clockwise around the central island.

2396 **Guidance:**

2397 Where used on the central island of a roundabout, the mounting height of a ONE WAY sign
2398 should be at least 1.2 m (4 ft), measured vertically from the bottom of the sign to the elevation of
2399 the near edge of the traveled way.

2400 Support:

2401 Using ONE WAY signs on the central island of a roundabout might result in some drivers

2402 incorrectly concluding that the cross street is a one-way street. Using Roundabout Directional

2403 Arrow signs might reduce this confusion. However, using ONE WAY signs might be necessary

2404 in States that have defined a roundabout as a series of T-intersections.

2405 **Reason for change to 2B.47 – Editorial**

2406 Reason for changes –To reduce the number of one way signs required and applicable to

2407 30’ greater than 30’ widths.

2408

2409 Figure 2B-17 – sheet 2 of 2 – details are independent of one another and should depict

2410 that.

2411 Figure 2B-18 – Far right one way sign – change to guidance by eliminating *

2412 Figure 2B-19 – Far right one way sign – change to guidance by eliminating *

2413 Figure 2B-20 – Far right one way sign – change to guidance by eliminating *

2414

2415 Reason for change: reduce the number of one way signs required from 3 to 2.

2416

2417 **Section 2B.48 Wrong-Way Traffic Control at Interchange Ramps** text was

2418 **relocated from Section 2E.50 because it relates more to regulatory signs rather**

2419 **than guide signs**

2420 **Approved by Council 1-12-08**

2421 **Standard:**

2422 **At interchange exit ramp terminals where the ramp intersects a crossroad in such a**

2423 **manner that wrong-way entry could inadvertently be made, the following signs shall be**

2424 **used (see Figure 2B-21):**

2425 **A. At least one ONE WAY sign for each direction of travel on the crossroad shall be**

2426 **placed where the exit ramp intersects the crossroad.**

2427 **B. At least one DO NOT ENTER sign shall be conspicuously placed near the**

2428 **downstream end of the exit ramp in positions appropriate for full view of a road**

2429 **user starting to enter wrongly from the crossroad.**

2430 **C. At least one WRONG WAY sign shall be placed on the exit ramp facing a road user**

2431 **traveling in the wrong direction.**

2432 **Guidance:**

2433 In addition, the following pavement markings should be used (see Figure 2B-21):

2434 A. On two-lane paved crossroads at interchanges, double solid yellow lines should be used

2435 as a ~~centerline~~ center line for an adequate distance on both sides approaching the ramp

2436 intersections.

2437 B. Where crossroad channelization or ramp geometrics do not make wrong-way movements

2438 difficult, a lane-use arrow should be placed in each lane of an exit ramp near the

2439 crossroad terminal where it will be clearly visible to a potential wrong-way road user.

2440 **Option:**

2441 The following traffic control devices may be used to supplement the above signs and

2442 pavement markings:

- 2443 A. Additional ONE WAY signs may be placed, especially on two-lane rural crossroads,
 2444 appropriately in advance of the ramp intersection to supplement the required ONE WAY
 2445 sign(s).
 2446 B. Additional WRONG WAY signs may be used.
 2447 C. Slender, elongated wrong-way arrow pavement markings (see Figure 3B-24) intended
 2448 primarily to warn wrong-way road users that they are traveling in the wrong direction
 2449 may be placed upstream from the ramp terminus (see Figure 2B-21) to indicate the
 2450 correct direction of traffic flow. Wrong-way arrow pavement markings may also be
 2451 placed on the exit ramp at appropriate locations near the crossroad junction to indicate
 2452 wrong-way movement. The wrong-way arrow markings may consist of pavement
 2453 markings or bidirectional red-and-white raised pavement markers or other units that show
 2454 red to wrong-way road users and white to other road users (see Figure 3B-24).
 2455 D. Lane-use arrow pavement markings may be placed on the exit ramp and crossroad near
 2456 their intersection to indicate the permissive direction of flow.
 2457 ~~E. Guide signs or may be used on entrance ramps near the crossroad to inform road users of~~
 2458 ~~the freeway or expressway entrance, as appropriate (see Figure 2E-37). relocated to~~
 2459 ~~Section 2D.48~~
 2460 E. Freeway entrance signs (see Section 2D.48) may be used.

2461 Guidance:

2462 On interchange entrance ramps where the ramp merges with the through roadway and the
 2463 design of the interchange does not clearly make evident the direction of traffic on the separate
 2464 roadways or ramps, a ONE WAY sign visible to traffic on the entrance ramp and through
 2465 roadway should be placed on each side of the through roadway near the entrance ramp merging
 2466 point as illustrated in Figure 2B-22.

2467 Option:

2468 At locations where engineering judgment determines that a special need exists, other standard
 2469 warning or prohibitive methods and devices may be used as a deterrent to the wrong-way
 2470 movement.

2471 Where there are no parked cars, pedestrian activity or other obstructions such as snow or
 2472 vegetation, and if an engineering study indicates that a lower mounting height would address
 2473 wrong-way movements on freeway or expressway exit ramps, a DO NOT ENTER sign(s) and/or
 2474 a WRONG WAY sign(s) that is located along the exit ramp facing a road user who is (are)
 2475 traveling in the wrong direction may be installed at a minimum mounting height of 0.9 m (3 ft),
 2476 measured vertically from the bottom of the sign to the elevation of the near edge of the pavement.

2477 Support:

2478 Section 2B.49 contains further information on signing to avoid wrong-way movements at at-
 2479 grade intersections on expressways.

2480 Note: RWSTC reviewed the language in the option statement pertaining to mounting
 2481 height of DO NOT ENTER and WRONG WAY signing. Language similar to as shown
 2482 was approved by council January 2007. Placed in 2B.48 instead of 2A.18 which is
 2483 acceptable.

2484

2485 Section ~~2B.38~~ 2B.49 **Divided Highway Crossing Signs (R6-3, R6-3a)**

2486 Revisions shown in yellow highlight, approved by Council June 21, 2008

2487 ~~Option~~ **Standard:**

2488 On unsignalized minor-street approaches from which both left turns and right turns are
2489 permitted onto a divided highway, except as noted in the Option below, a ~~The~~ Divided
2490 Highway Crossing (R6-3 or R6-3a) sign (see Figure 2B-16) ~~may~~ shall be used to advise road
2491 users that they are approaching an intersection with a divided highway (see Figures 2B-18,
2492 19, and 20).

2493 Option:

2494 If the divided highway has a traffic volume of less than 400 AADT and a speed limit of 40
2495 km/h (25 mph) or less, the Divided Highway Crossing signs facing the minor-street approaches
2496 may be omitted.

2497 A Divided Highway Crossing sign may be used on signalized minor-street approaches from
2498 which both left turns and right turns are permitted onto a divided highway to advise road users
2499 that they are approaching an intersection with a divided highway.

2500
2501 **Standard:**

2502 ~~When the~~ If a ~~edited to increase accuracy~~ Divided Highway Crossing sign is used at a
2503 four-legged intersection, the R6-3 sign shall be used. ~~When If~~ edited to increase accuracy
2504 used at a T-intersection, the R6-3a sign shall be used.

2505 ~~Option:~~

2506 The Divided Highway Crossing sign ~~may~~ shall be located on the near right corner of the
2507 intersection, ~~and may be~~ mounted beneath a STOP or YIELD sign or on a separate support.

2508 Option:

2509 An additional Divided Highway Crossing sign may be installed on the left-hand side of the
2510 approach to supplement the Divided Highway Crossing sign on the near right corner of the
2511 intersection.

2512
2513
2514

2515 Section 2B.50 Roundabout Directional Arrow Signs (R6-4, R6-4a, and R6-4b)

2516 Approved by Council 1-12-08 with modifications shown in blue highlight.

2517 Guidance:

2518 Where the central island of a roundabout allows for the installation of signs, Roundabout
2519 Directional Arrow (R6-4 series) signs should be used in the central island to direct traffic counter-
2520 clockwise around the central island, except as noted in the Option in Section 2B.47 and as noted
2521 in the Option below.

2522 Standard:

2523 The R6-4 sign (see Figure 2B-23) shall be a horizontal rectangle with two black
2524 chevrons pointing to the right on a white background. The R6-4a sign (see Figure 2B-23)
2525 shall be a horizontal rectangle with three black chevrons pointing to the right on a white
2526 background. The R6-4b sign (see Figure 2B-23) shall be a horizontal rectangle with four
2527 black chevrons pointing to the right on a white background. No border shall be used on the
2528 Roundabout Directional Arrow signs.

2529 Roundabout Directional Arrow signs shall be used only at roundabouts and other
2530 circular intersections.

2531 Guidance:

2532 When used on the central island of a roundabout, the mounting height of a Roundabout
2533 Directional Arrow sign should be at least 1.2 m (4 ft), measured vertically from the bottom of the
2534 sign to the elevation of the near edge of the traveled way.
2535 Option:
2536 Wider chevrons within the Roundabout Directional Arrow sign. More than one Roundabout
2537 Directional Arrow sign and/or R6-4a or R6-4b signs may be used facing high-speed approaches,
2538 facing approaches with limited visibility, or in other circumstances as determined by engineering
2539 judgment where increased sign visibility would be appropriate.
2540 Reason for change to 2B.50 – Not clear what Wider chevrons means. Is it wider sign or
2541 wider black portion of sign? Rather, change to “more” so it is clear what it means.
2542 **Section 2B.51 Roundabout Circulation Plaque (R6-5P)**
2543 **Approved by Council 1-12-08**
2544 Guidance:
2545 Where the central island of a roundabout does not provide a reasonable place to install a sign,
2546 Roundabout Circulation (R6-5P) plaques (see Figure 2B-23) should be placed below the YIELD
2547 signs on each approach.
2548 Option:
2549 At roundabouts where Roundabout Directional Arrow signs and/or ONE WAY signs have
2550 been installed in the central island, Roundabout Circulation plaques may be placed below the
2551 YIELD signs on approaches to roundabouts to supplement the central island signs.
2552 The Roundabout Circulation plaque may be used at any type of circular intersection.
2553 **Section 2B.52 Examples of Roundabout Signing**
2554 **Approved by Council 1-12-08 with modifications shown in blue highlight. Additional**
2555 **revisions in yellow highlight, approved by Council June 21, 2008.**
2556 Support:
2557 Figures 2B-24 through 2B-26 illustrate examples of regulatory and warning signing for
2558 roundabouts of various configurations.
2559 Chapter 2D contains information regarding guide signing at roundabouts and Chapter 3C
2560 contains information regarding pavement markings at roundabouts.
2561
2562 Roundabout task force 1-9-08 recommended that Figure 2B-24 increase the size of the plaque
2563 that says 7th ave. It is hard to read this.. Change figure 2B-23 and 2B-25 also.
2564 The figures 2B-25 and 26 dropped the use of the KEEP RIGHT sign as optional - under the
2565 left side YIELD sign. Roundabout task force recommended that this be added back in to what
2566 was approved by Council in January 2007.
2567 Figure 2B-25 show the chevron bank in line with approach traffic.
2568 Figure 2B-26 shown chevron bank in line with approach traffic.
2569 Figure 2B-26 label the roundabout warning sign as optional to be consistent with figure2B-25.
2570 along with the plaque under it.
2571 Figure 2C-10 label as optional W16-12P and W16-17P so consistent with other plaques like
2572 the one in figure 7B-1 and others.
2573 Reasons for change to figures are noted above.
2574 **Section ~~2B.39~~ 2B.53 Parking, Standing, and Stopping Signs (R7 and R8 Series)**

2575 **Approved by Council 1-12-08.**

2576 Support:

2577 Signs governing the parking, stopping, and standing of vehicles cover a wide variety of
2578 regulations, and only general guidance can be provided here. The word “standing” when used on
2579 the R7 and R8 series of signs refers to the practice of a driver keeping the vehicle in a stationary
2580 position while continuing to occupy the vehicle. Typical examples of parking, stopping, and
2581 standing signs **and plaques** added to increase accuracy (see Figures 2B-27 and 2B-28) are as
2582 follows: signs and plaques added to list in order to provide a complete list of the signs and
2583 **plaques shown in previous Figures 2B-16 and 2B-17**

- 2584 1. NO PARKING ANY TIME (R7-1);
- 2585 2. NO PARKING ~~8:30~~ X:XX AM TO ~~5:30~~ X:XX PM (R7-2, [R7-2a](#));
- 2586 3. NO PARKING EXCEPT SUNDAYS AND HOLIDAYS (R7-3);
- 2587 4. NO STANDING ANY TIME (R7-4);
- 2588 5. ~~ONE~~ XX HOUR PARKING ~~9~~ X:XX AM-~~7~~ X:XX PM (R7-5);
- 2589 6. NO PARKING LOADING ZONE (R7-6);
- 2590 7. NO PARKING BUS STOP (R7-7, R7-107, R7-107a);
- 2591 8. RESERVED PARKING for persons with disabilities (R7-8);
- 2592 [9. VAN ACCESSIBLE \(R7-8aP, R7-8bP\);](#)
- 2593 [10. Pay Station \(R7-20\);](#)
- 2594 [11. Pay Parking or Pay to Park \(R7-21, R7-21a, R7-22, R7-22a\);](#)
- 2595 [12. Parking Permitted X:XX AM TO X:XX PM \(R7-23\);](#)
- 2596 [13. Parking Permitted XX HOUR\(S\) XX AM – XX PM \(R7-23a\);](#)
- 2597 [14. XX HR PARKING X:XX AM TO X:XX PM \(R7-108\);](#)
- 2598 [15. NO PARKING ANYTIME /XX HOUR PARKING X:XX AM – X:XX PM \(R7-200,](#)
- 2599 [R7-200a\);](#)
- 2600 [16. TOW-AWAY ZONE \(R7-201P, R7-201aP\);](#)
- 2601 [17. THIS SIDE OF SIGN \(R7-202P\);](#)
- 2602 [18. EMERGENCY SNOW ROUTE NO PARKING IF OVER XX mm \(INCHES\) \(R7-203\);](#)
- 2603 19. NO PARKING ON PAVEMENT (R8-1);
- 2604 20. NO PARKING EXCEPT ON SHOULDER (R8-2);
- 2605 21. NO PARKING (R8-3, [R8-3a](#));
- 2606 ~~1. No Parking (R8-3a), and~~
- 2607 [22. EXCEPT SUNDAYS & HOLIDAYS \(R8-3bP\);](#)
- 2608 [23. ON PAVEMENT \(R8-3cP\);](#)
- 2609 [24. ON BRIDGE \(R8-3dP\);](#)
- 2610 [25. ON TRACKS \(R8-3eP\);](#)
- 2611 [26. EXCEPT ON SHOULDER \(R8-3fP\);](#)
- 2612 [27. LOADING ZONE \(R8-3gP\);](#)
- 2613 [28. X:XX AM TO X:XX PM \(R8-3hP\);](#)
- 2614 [29. EMERGENCY PARKING ONLY \(R8-4\);](#)
- 2615 30. NO STOPPING ON PAVEMENT (R8-5);
- 2616 [31. NO STOPPING EXCEPT ON SHOULDER \(R8-6\); and](#)
- 2617 [32. EMERGENCY STOPPING ONLY \(R8-7\).](#)

2618 **Section ~~2B.40~~ [2B.54](#) Design of Parking, Standing, and Stopping Signs**

2619 **Approved by Council 1-12-08 with modifications shown in [blue highlight](#). Additional**
2620 **revisions in [yellow highlight](#), approved by Council June 21, 2008.**

2621

2622 Support:

2623 Discussions of parking signs and parking regulations in this Section apply not only to
2624 parking, but also to standing and stopping.

2625 **Standard:**

2626 The legend on parking signs shall state applicable regulations. Parking signs (see
2627 [Figures 2B-27 and 2B-28](#)) shall ~~conform to~~ [comply with](#) the standards of shape, color, and
2628 location.

2629 Where parking is prohibited at all times or at specific times, the basic design for
2630 parking signs shall have a red legend and border on a white background (Parking
2631 Prohibition signs), [except that the R8-4 and R8-7 signs and the alternate design for the R7-
2632 201aP plaque shall have a black legend and border on a white background, and the R8-3a
2633 sign shall have a black legend and border and a red circle and slash on a white background.](#)

2634 Where only limited-time parking or parking in a particular manner are permitted, the
2635 signs shall have a green legend and border on a white background (Permissive Parking
2636 signs).

2637 **Guidance:**

2638 Parking signs should display the following information from top to bottom of the sign, in the
2639 order listed:

- 2640 A. The restriction or prohibition;
- 2641 B. The times of the day that it is applicable, if not at all hours; and
- 2642 C. The days of the week that it is applicable, if not every day.

2643 If the parking restriction applies to a limited area or zone, the limits of the restriction should
2644 be shown by arrows or supplemental plaques. If arrows are used and if the sign is at the end of a
2645 parking zone, there should be a single-headed arrow pointing in the direction that the regulation is
2646 in effect. If the sign is at an intermediate point in a zone, there should be a double-headed arrow
2647 pointing both ways. When a single sign is used at the transition point between two parking zones,
2648 it should display a right and left arrow pointing in the direction that the respective restrictions
2649 apply.

2650 Where special parking restrictions are imposed during heavy snowfall, ~~Snow~~ Emergency
2651 [Snow Route \(R7-203\)](#) signs (see [Figure 2B-27](#)) should be installed. The legend will vary
2652 according to the regulations, but the signs should be vertical rectangles, having a white
2653 background with the upper part of the plate a red background.

2654 **Standard:**

2655 Where parking spaces that are reserved for persons with disabilities are designated to
2656 accommodate wheelchair vans, a VAN ACCESSIBLE (~~R7-8b~~ [R7-8aP](#)) ~~from errata list for~~
2657 [2003 MUTCD](#) plaque (see [Figure 2B-27](#)) ~~should~~ [shall](#) be mounted below the R7-8 sign.
2658 ~~relocated and changed to Standard~~

2659 **Guidance:**

2660 When used to direct drivers to van-accessible parking facilities, a VAN ACCESSIBLE (~~R7-
2661 8a~~ [R7-8bP](#)) plaque (see [Figure 2B-27](#)) should be mounted below the ~~D4-1~~ [D9-6](#) sign. ~~from errata~~
2662 [list for 2003 MUTCD](#)

2663 **Standard:**

2664 The R7-8 sign (see [Figure 2B-27](#)) shall have a green legend and border and a white
2665 wheelchair symbol on a square blue panel, all on a white background. The R7-8aP plaque
2666 shall have a green legend and border on a white background. The R7-8bP plaque shall
2667 have a white legend and border on a blue background.

2668 **Option:**

2669 To minimize the number of parking signs, blanket regulations that apply to a given district
2670 may, if legal, be posted at district boundary lines.

2671 As an alternate to the use of arrows to show designated restriction zones, word messages such
2672 as BEGIN, END, HERE TO CORNER, HERE TO ALLEY, THIS SIDE OF SIGN, or
2673 BETWEEN SIGNS may be used.

2674 Where parking is prohibited during certain hours and time-limited parking or parking in a
2675 particular manner is permitted during certain other time periods, the red Parking Prohibition and
2676 green Permissive Parking signs may be designed as follows:

2677 A. Two 300 x 450 mm (12 x 18 in) parking signs may be used with the red Parking
2678 Prohibition sign installed above or to the left of the green Permissive Parking sign; or
2679 B. The red Parking Prohibition sign and the green Permissive Parking sign may be
2680 combined to form an R7-200 sign on a single 600 x 450 mm (24 x 18 in) sign, or [an R7-
2681 200a sign](#) on a single 300 x 750 mm (12 x 30 in) sign.

2682 At the transition point between two parking zones, a single sign or two signs mounted side by
2683 side may be used.

2684 The words NO PARKING may be used as an alternative to the No Parking symbol. The
2685 supplemental educational plaque, NO PARKING, with a red legend and border on a white
2686 background, may be used above signs incorporating the No Parking symbol.

2687 Alternate designs for the R7-107 sign may be developed such as the R7-107a sign (see Figure
2688 2B-27). Alternate designs may include, on a single [panel sign](#), [edited to increase accuracy](#) a
2689 transit logo, an approved bus symbol, a parking prohibition, the words BUS STOP, and an arrow.
2690 The preferred bus symbol color is black, but other dark colors may be used. Additionally, the
2691 transit logo may be [shown displayed](#) [edited to increase consistency](#) on the bus face in the
2692 appropriate colors instead of placing the logo separately. The reverse side of the sign may
2693 contain bus routing information.

2694 To make the parking regulations more effective and to improve public relations by giving a
2695 definite warning, a [TOW-AWAY ZONE \(R7-201P\) sign plaque](#) (see Figure 2B-27) [reading](#)
2696 [TOW-AWAY ZONE \(R7-201\)](#) may be appended to, or incorporated in, any parking prohibition
2697 sign. The Tow-Away Zone (R7-201aP) symbol [sign plaque](#) may be used instead of the R7-201P
2698 word message [sign plaque](#). The R7-201aP [sign plaque](#) may have either a black or red legend and
2699 border on a white background.

2700 [Guidance:](#)

2701 [If a fee is charged for parking and a midblock pay station is used instead of individual](#)
2702 [parking meters for each parking space, pay parking signs should be used. Pay Parking \(R7-21,](#)
2703 [R7-21a, R7-22, or R7-22a signs \(see Figure 2B-27\) should be used to define the area where the](#)
2704 [pay station parking applies. Pay Station \(R7-20\) signs \(see Figure 2B-27\) should be used at the](#)
2705 [pay station or to direct road users to the pay station.](#)

2706 [Option:](#)

2707 [Color-coding of time limits may be used if the colors are in conformance with Section 2A.10.](#)

2708 [Standard:](#)

2709 [If the pay parking is subject to a maximum time limit, the appropriate time limit](#)
2710 [\(number of hours or minutes\) shall be displayed on the Pay Parking \(R7-21 or R7-21a\) and](#)
2711 [Pay Station \(R7-20\) signs.](#)

2712 [Option:](#)

2713 In rural areas, the legends NO PARKING ON PAVEMENT (R8-1) or NO STOPPING ON
2714 PAVEMENT (R8-5) [is](#) are generally suitable and may be used. If a roadway has paved
2715 shoulders, the NO PARKING EXCEPT ON SHOULDER sign (R8-2) or the NO STOPPING

2716 EXCEPT ON SHOULDER sign (R8-6) may be used as ~~it is~~ these signs would be less likely to
2717 cause confusion. The R8-3a symbol sign or the word message NO PARKING (R8-3) sign may
2718 be used to prohibit any parking along a given highway. Word message supplemental plaques (see
2719 Figure 2B-28), ~~such as ON PAVEMENT (R8-3e) or ON BRIDGE (R8-3d)~~, may be mounted
2720 below the R8-3 or R8-3a sign. These word message supplemental plaques may include legends
2721 such as EXCEPT SUNDAYS & HOLIDAYS (R8-3bP), ON PAVEMENT (R8-3cP), ON
2722 BRIDGE (R8-3dP), ON TRACKS (R8-3eP), EXCEPT ON SHOULDERS (R8-3fP), LOADING
2723 ZONE (with arrow) (R8-3gP), and X:XX AM TO X:XX PM (with arrow) (R8-3hP).

2724 Reasons for change to 2B.54 – Council approved color coding language in 2007. It provides for
2725 clearer and quicker recognition by the driver for different hours.

2726 Reasons for change – to include the R7-21 and R7-21a signs into text to be consistent with
2727 figures.

2728 **Section ~~2B.41~~ 2B.55 Placement of Parking, Stopping, and Standing Signs**

2729 Approved by Council 1-12-08 with modifications shown in blue highlight

2730 Guidance:

2731 When signs with arrows are used to indicate the extent of the restricted zones, the signs
2732 should be set at an angle of not less than 30 degrees or more than 45 degrees with the line of
2733 traffic flow in order to be visible to approaching traffic.

2734 Spacing of signs should be based on legibility and sign orientation.

2735 If the zone is unusually long, signs showing a double arrow should be used at intermediate
2736 points within the zone.

2737 **Standard:**

2738 **If the signs are mounted at an angle of 90 degrees to the curb line, two signs shall be**
2739 **mounted back to back at the transition point between two parking zones, each with ~~the~~ an**
2740 **appended ~~message~~ THIS SIDE OF SIGN (R7-202P) supplemental plaque.**

2741 Guidance:

2742 If the signs are mounted at an angle of 90 degrees to the curb line, ~~At intermediate points~~
2743 within a zone, ~~a single signs~~ without any arrows or appended plaques should be used at
2744 intermediate points within a zone, facing in the direction of approaching traffic. Otherwise the
2745 standards of placement should be the same as for signs using directional arrows.

2746 Reason for change to 2B.55 – Consistent with approved language by Council in January 2007.
2747 Allows for installing more than one sign at intermediate points for longer blocks.

2748 **Section ~~2B.42~~ 2B.56 Emergency Restriction Signs (R8-4, R8-7, R8-8)**

2749 Approved by Council 1-12-08

2750 Option:

2751 The EMERGENCY PARKING ONLY (R8-4) sign (see Figure 2B-28) or the EMERGENCY
2752 STOPPING ONLY (R8-7) sign (see Figure 2B-28) may be used to discourage or prohibit
2753 shoulder parking, particularly where scenic or other attractions create a tendency for road users to
2754 stop temporarily, ~~even though on the shoulder because~~ a turnout or rest areas ~~have~~ has not been
2755 provided.

2756 The DO NOT STOP ON TRACKS (R8-8) sign (see Figure 8B-4) may be used to discourage
2757 or prohibit parking or stopping on railroad tracks (see Section 8B.09).

2758 **Standard:**

2759 **Emergency Restriction signs shall be rectangular and shall have a red or black legend**
2760 **and border on a white background.**

2761 **Section ~~2B.43~~ 2B.57 WALK ON LEFT FACING TRAFFIC and No Hitchhiking**
2762 **Signs (R9-1, R9-4, R9-4a)**

2763 **Approved by Council 1-12-08**

2764 **Option:**

2765 The WALK ON LEFT FACING TRAFFIC (R9-1) sign (see Figure 2B-29) may be used on
2766 highways where no sidewalks are provided.

2767 **Standard:**

2768 **If used, the WALK ON LEFT FACING TRAFFIC sign shall be installed on the right-**
2769 **hand ~~edited to increase clarity~~ side of the road where pedestrians walk on the pavement or**
2770 **shoulder in the absence of pedestrian pathways or sidewalks.**

2771 **Option:**

2772 The No Hitchhiking (R9-4a) sign (see Figure 2B-29) may be used to prohibit standing in or
2773 adjacent to the roadway for the purpose of soliciting a ride. The R9-4a word message sign (see
2774 Figure 2B-29) may be used as an alternate to the R9-4a symbol sign.

2775 **Section ~~2B.44~~ 2B.58 Pedestrian Crossing Signs (R9-2, R9-3)**

2776 **Approved by Council 1-12-08**

2777 **Option:**

2778 Pedestrian Crossing signs (see Figure 2B-29) may be used to limit pedestrian crossing to
2779 specific locations.

2780 **Standard:**

2781 **If used, Pedestrian Crossing signs shall be installed to face pedestrian approaches.**

2782 **Option:**

2783 Where crosswalks are clearly defined, the CROSS ONLY AT CROSSWALKS (R9-2) sign
2784 may be used to discourage jaywalking or unauthorized crossing.

2785 The No Pedestrian Crossing (R9-3a) sign may be used to prohibit pedestrians from crossing a
2786 roadway at an undesirable location or in front of a school or other public building where a
2787 crossing is not designated.

2788 The NO PEDESTRIAN CROSSING (R9-3a) word message sign may be used as an alternate
2789 to the R9-3a symbol sign. The USE CROSSWALK (R9-3bP) supplemental plaque, along with
2790 an arrow, may be installed below either sign to designate the direction of the crossing.

2791 **Support:**

2792 One of the most frequent uses of the Pedestrian Crossing signs is at signalized intersections
2793 that have three crossings that can be used and one leg that cannot be crossed.

2794 **Guidance:**

2795 The R9-3bP ~~sign~~ plaque should not be installed in combination with educational plaques.

2796 [Because pedestrians who have visual disabilities typically need additional guidance as to](#)
2797 [where not to cross, No Pedestrian Crossing \(R9-3 and R9-3a\) signs should be supplemented with](#)
2798 [detectable guidance, such as grass strips, landscaping, planters, fencing, rails, or barriers.](#)

2799 **Section ~~2B.45~~ 2B.59 Traffic Signal Signs (R10-1 through ~~R10-21~~ R10-32P)**

2800

2801 **Revisions shown in yellow from Bicycle Committee, approved by Council June 21,**
2802 **2008**

2803 Option:

2804 To supplement traffic signal control, Traffic Signal signs R10-1 through ~~R10-21~~ R10-32P
2805 may be used to regulate road users.

2806 **Guidance:**

2807 ~~When used, Traffic Signal signs should be located adjacent to the signal face to which they~~
2808 ~~apply.~~ **deleted as locations near signal faces are now specifically specified where appropriate**

2809 **Standard:**

2810 **Traffic Signal signs applicable to pedestrian actuation (see Figure 2B-29) or bicyclist**
2811 **actuation (see Figure 9B-2) shall be mounted immediately above or incorporated into the**
2812 **pedestrian pushbutton detector units (see Section 4E.08).**

2813 Support:

2814 Traffic Signal signs applicable to pedestrians include:

- 2815 A. CROSS ONLY ON GREEN ~~LIGHT ONLY~~ (symbolic circular green) (R10-1);
- 2816 B. CROSS ONLY ON WALK (symbolic walk indication) SIGNAL ~~ONLY~~ (R10-2);
- 2817 C. Push Button for GREEN LIGHT Walk Signal (R10-3); and
- 2818 D. Push Button for ~~WALK SIGNAL~~ Green Signal (R10-4).

2819 Option:

2820 The following signs may be used as an alternate for the R10-3 and R10-4 signs:

- 2821 A. Push Button to Cross Street (~~arrow~~), ~~PUSH BUTTON~~ Wait for GREEN LIGHT Walk
2822 Signal (R10-3a); or
- 2823 B. Push Button to Cross Street (~~arrow~~), ~~PUSH BUTTON WALK SIGNAL~~ Wait for Green
2824 Signal (R10-4a).

2825 The name of the street to be crossed may be substituted for the word STREET in the legends
2826 on the R10-3a and R10-4a signs.

2827 ~~The symbol sign R10-2a may be used as an alternate to sign R10-2.~~ Where symbol-type
2828 pedestrian signal indications are used, an educational sign (R10-3b) may be used instead of the
2829 R10-3 sign to improve pedestrian understanding of pedestrian indications at signalized
2830 intersections. Where word-type pedestrian signal indications are being retained for the remainder
2831 of their useful service life, the legends WALK/DONT WALK may be substituted for the symbols
2832 on the educational sign R10-3b, thus creating educational sign R10-3c. The R10-3d educational
2833 sign may be used ~~if~~ to inform pedestrians that the pedestrian clearance time is sufficient only for
2834 the pedestrian to cross to the median at locations where pedestrians cross in two stages using a
2835 median refuge island. ~~The diagrammatic sign R10-4b may also be used as an alternate to sign~~
2836 ~~R10-4. At intersections where pedestrians cross in two stages using a median refuge island, the~~
2837 ~~word message "CROSS TO MEDIAN" may be placed on the near corner of the refuge island~~
2838 ~~along with the educational plaque.~~ The R10-3e educational sign may be used where countdown
2839 pedestrian signals have been provided. In order to assist the pedestrian in understanding which
2840 pushbutton to push, the R10-3f to R10-3i educational signs that provide the name of the street to
2841 be crossed may be used instead of the R10-b to R10-3e educational signs.

2842 The R10-24 or R10-26 sign (see Section 9B.11) may be used where a pushbutton detector has
2843 been installed exclusively for bicyclists to actuate a green phase for bicyclists. a special bicycle
2844 phase or a concurrent vehicular green phase.

2845 [The R10-25 sign \(see Figure 2B-29\) may be used where a pushbutton detector has been](#)
2846 [installed for pedestrians to activate In-Roadway Warning Lights \(see Chapter 4N\) or flashing](#)
2847 [beacons that have been added to the pedestrian warning signs.](#)

2848 Traffic Signal signs (see Figure 2B-30) may be installed at certain locations to clarify signal
2849 control. Among the legends [that may be used](#) for this purpose are LEFT ON GREEN ARROW
2850 ONLY (R10-5) [\(see Section 4D.19\)](#), STOP HERE ON RED (R10-6 or R10-6a) for observance of
2851 stop lines, DO NOT BLOCK INTERSECTION (R10-7) for avoidance of traffic obstructions,
2852 USE LANE(S) WITH GREEN ARROW (R10-8) for obedience to ~~Lane Control~~ [lane-use control](#)
2853 [edited for consistency](#) signals [\(see Chapter 4M\)](#), [added to assist reader](#) LEFT TURN YIELD ON
2854 GREEN (symbolic [circular green ball](#)) (R10-12), ~~and~~ LEFT TURN SIGNAL YIELD ON
2855 GREEN (symbolic [circular green ball](#)) (R10-21) [\(see Sections 4D.18 and 4D.20\)](#), and LEFT
2856 TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27).

2857 [Guidance:](#)

2858 [If used, the LEFT ON GREEN ARROW ONLY \(R10-5\) sign, the LEFT TURN YIELD ON](#)
2859 [GREEN \(symbolic circular green\) \(R10-12\) sign, the LEFT TURN SIGNAL YIELD ON](#)
2860 [GREEN \(symbolic circular green\) \(R10-21\) sign, or the LEFT TURN YIELD ON FLASHING](#)
2861 [RED ARROW AFTER STOP \(R10-27\) sign should be located adjacent to the left-turn signal](#)
2862 [face.](#)

2863 [Option:](#)

2864 [If needed for additional emphasis, an additional LEFT TURN YIELD ON GREEN \(symbolic](#)
2865 [circular green\) \(R10-12\) sign with an AT SIGNAL \(R10-31P\) supplemental plaque \(see Figure](#)
2866 [2B-30\) may be installed in advance of the intersection.](#)

2867 In situations where traffic control signals are coordinated for progressive timing, the Traffic
2868 Signal Speed (I1-1) sign may be used (see Section 21.04).

2869 **Standard:**

2870 ~~The NO TURN ON RED (R10-11a, R10-11b) sign (see Figure 2B-19) shall be used to~~
2871 ~~prohibit~~ [Where a right turn on red \(or a left turn on red from a one-way street to a one-way](#)
2872 [street\) is to be prohibited, a symbolic NO TURN ON RED \(symbolic circular red\) \(R10-11\)](#)
2873 [sign \(see Figure 2B-30\) or a NO TURN ON RED \(R10-11a, R10-11b\) word message sign](#)
2874 [\(see Figure 2B-30\) shall be used.](#)

2875 ~~Option:~~

2876 ~~A symbolic NO TURN ON RED (R10-11) sign (see Figure 2B-19) may be used as an~~
2877 ~~alternate to the R10-11a and R10-11b signs.~~ [incorporated into previous paragraph](#)

2878 [Guidance:](#)

2879 If used, the No Turn on Red sign should be installed near the appropriate signal head.

2880 A No Turn on Red sign should be considered when an engineering study finds that one or
2881 more of the following conditions exists:

- 2882 A. Inadequate sight distance to vehicles approaching from the left (or right, if applicable);
2883 B. Geometrics or operational characteristics of the intersection that might result in
2884 unexpected conflicts;
2885 C. An exclusive pedestrian phase;
2886 D. An unacceptable number of pedestrian conflicts with right-turn-on-red maneuvers,
2887 especially involving children, older pedestrians, or persons with disabilities;
2888 E. More than three right-turn-on-red accidents reported in a 12-month period for the
2889 particular approach; or
2890 [F. The skew angle of the intersecting roadways creates difficulty for older drivers to see](#)
2891 [traffic approaching from their left.](#)

2892 Where turns on red are permitted and the signal indication is a steady **added to increase**
2893 **accuracy** RED ARROW, the RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign
2894 (see Figure 2B-30) should be installed adjacent to the RED ARROW signal indication.

2895 Option:

2896 A supplemental R10-20a plaque (see Figure 2B-30) showing times of day (similar to the S4-
2897 1P plaque shown in Figure 7B-1) with a black legend and border on a white background may be
2898 mounted below a No Turn on Red sign to indicate that the restriction is in place only during
2899 certain times.

2900 Alternatively, a blank-out sign may be used instead of a static NO TURN ON RED sign, to
2901 display either the NO TURN ON RED legend or the No Right Turn symbol or word message, as
2902 appropriate, only at certain times during the day or during one or more portion(s) of a particular
2903 cycle of the traffic signal.

2904 On signalized approaches with more than one right-turn lane, a NO TURN ON RED
2905 EXCEPT FROM RIGHT LANE (R10-11c) sign (see Figure 2B-30) may be post-mounted at the
2906 intersection or a NO TURN ON RED FROM THIS LANE (with down arrow) (R10-11d) sign
2907 may be mounted directly over the center of the lane from which turns on red are prohibited.

2908 **Standard:**

2909 The CROSSWALK STOP ON RED (symbolic circular red) (R10-23) sign (see Figure
2910 2B-30) shall be used in conjunction with pedestrian hybrid signals (see Section 4F.02).

2911 The EMERGENCY SIGNAL (R10-13) sign (see Figure 2B-30) shall be used in
2912 conjunction with emergency-vehicle traffic control signals (see Section 4G.02).

2913 The EMERGENCY SIGNAL—STOP WHEN FLASHING RED (R10-14 or R10-14a)
2914 sign (see Figure 2B-30) shall be used in conjunction with emergency-vehicle hybrid signals
2915 (see Section 4G.04).

2916 Option:

2917 In order to remind drivers who are making turns to yield to pedestrians, especially at
2918 intersections where right turn on red is permitted and pedestrian crosswalks are marked, a
2919 ~~TURNING TRAFFIC MUST YIELD TO PEDESTRIANS~~ Turning Vehicles Yield to Pedestrians
2920 (R10-15) sign (see Figure 2B-30) may be used. **this paragraph was relocated within this section to**
2921 **improve continuity**

2922 A U-TURN YIELD TO RIGHT TURN (R10-16) sign (see Figure 2B-30) may be installed
2923 near the left-turn signal face if U-turns are allowed on a protected left-turn movement on an
2924 approach from which ~~drivers making a right turn from the conflicting approach to their left are a~~
2925 ~~right-turn GREEN ARROW signal indication is~~ simultaneously being ~~shown displayed a right-~~
2926 ~~turn GREEN ARROW signal indication~~ to drivers making a right turn from the conflicting
2927 approach to their left.

2928 A RIGHT TURN ON RED MUST YIELD TO U-TURN (R10-30) sign (see Figure 2B-30)
2929 may be installed to remind road users that they must yield to conflicting U-turn traffic on the
2930 street or highway onto which they are turning right on a red signal after stopping.

2931 **Figure 2B-29 –Human Factors testing** been done on Signs R10-3, R10-3a, R10-4, R10-4a
2932 and R10-25 in Canada per FHWA . Shown in NPA preamble. RWSTC recommends
2933 approval of Figure 2B-29

2934 **Section ~~2B.46~~ 2B.60 Photo Enforced Signs and Plaques (R10-18, R10-19P, R10-**
2935 **19aP)**

2936 **Approved by Council 1-12-08**

2937 Option:

2938 A TRAFFIC LAWS PHOTO ENFORCED (R10-18) sign (see Figure 2B-1) may be installed
2939 at a jurisdictional boundary to advise road users that some of the traffic regulations within that
2940 jurisdiction are being enforced by photographic equipment.

2941 A [Photo Enforced \(R10-19P\) plaque](#) or a PHOTO ENFORCED (R10-19aP) [word message](#)
2942 ~~sign~~ [plaque](#) (see Figure 2B-1) may be mounted below a regulatory sign to advise road users that
2943 the regulation is being enforced by photographic equipment.

2944 **Standard:**

2945 **If used below a regulatory sign, the Photo Enforced (R10-19P or R10-19aP) [sign plaque](#)**
2946 **shall be a rectangle with a black legend and border on a white background.**

2947 **[Section 2B.61 Ramp Metering Signs \(R10-28 and R10-29\)](#)**

2948 **Approved by Council 1-12-08 with modifications shown in [blue highlight](#):**

2949

2950 **[Option Guidance:](#)**

2951 [When ramp control signals \(see Chapter 4I\) are used to meter traffic on a freeway or](#)
2952 [expressway entrance ramp, regulatory signs with legends appropriate to the control \[should may\]\(#\)](#)
2953 [be installed adjacent to the ramp control signal faces.](#)

2954 [For entrance ramps with only one controlled lane, an XX VEHICLE\(S\) PER GREEN \(R10-](#)
2955 [28\) sign \(see Figure 2B-31\) \[should may\]\(#\) be used to inform road users of the number of vehicles](#)
2956 [that are permitted to proceed during each short display of the green signal indication. For](#)
2957 [entrance ramps with more than one controlled lane, an XX VEHICLE\(S\) PER GREEN EACH](#)
2958 [LANE \(R10-29\) \(see Figure 2B-31\) sign \[should may\]\(#\) be used to inform road users of the number](#)
2959 [of vehicles that are permitted to proceed from each lane during each short display of the green](#)
2960 [signal indication.](#)

2961 **[Reason for changes to 2B.61 – As approved by RWSTC. Ramp Metering signs should not be](#)**
2962 **[a guidance but rather optional for use depending on enforcement experiences in various](#)**
2963 **[states. Regulatory signs of this nature may not be needed to enforce ramp metering](#)**
2964 **[signals. It is a violation to proceed on a red indication. It is not mandatory to sign for this](#)**
2965 **[regulation.](#)**

2966 **[Section ~~2B.47~~ 2B.62 KEEP OFF MEDIAN Sign \(R11-1\)](#)**

2967 **NPA had no changes to this text.**

2968 Option:

2969 The KEEP OFF MEDIAN (R11-1) sign (see Figure 2B-32) may be used to prohibit driving
2970 into or parking on the median.

2971 Guidance:

2972 The KEEP OFF MEDIAN sign should be installed on the left of the roadway within the
2973 median at random intervals as needed wherever there is a tendency for encroachment.

2974 **[Section ~~2B.48~~ 2B.63 ROAD CLOSED Sign \(R11-2\) and LOCAL TRAFFIC ONLY](#)**
2975 **[Signs \(R11-3 Series, R11-4\)](#)**

2976 **NPA had no changes to this text.**

2977 Guidance:

2978 The ROAD CLOSED (R11-2) sign should be installed where roads have been closed to all
2979 traffic (except authorized vehicles).

2980 ROAD CLOSED—LOCAL TRAFFIC ONLY (R11-3) or ROAD CLOSED TO THRU
2981 TRAFFIC (R11-4) signs should be used where through traffic is not permitted, or for a closure
2982 some distance beyond the sign, but where the highway is open for local traffic up to the point of
2983 closure.

2984 **Standard:**

2985 **The Road Closed (R11-2, R11-3 series, and R11-4) signs (see Figure 2B-32) shall be**
2986 **designed as horizontal rectangles. These signs shall be preceded by the applicable Advance**
2987 **Road Closed warning sign with the secondary legend AHEAD and, if applicable, an**
2988 **Advance Detour warning sign (see Section 6F.19).**

2989 **Option:**

2990 The word message BRIDGE OUT may be substituted for the ROAD CLOSED message
2991 where applicable.

2992 **Section ~~2B.49~~ 2B.64 Weight Limit Signs (R12-1 through R12-5)**

2993 **Approved by Council 1-12-08**

2994 **Option:**

2995 The Weight Limit (R12-1) sign carrying the legend WEIGHT LIMIT XX t (~~XX~~ TONS) may
2996 be used to indicate vehicle weight restrictions including load.

2997 Where the restriction applies to axle weight rather than gross load, the legend may be AXLE
2998 WEIGHT LIMIT XX t (~~XX~~ TONS) or AXLE WEIGHT LIMIT ~~XX~~XX kg (~~XXXX~~ LBS) (R12-
2999 2).

3000 To restrict trucks of certain sizes by reference to empty weight in residential ~~districts~~ areas,
3001 edited to increase consistency the legend may be NO TRUCKS OVER XX t (~~XX~~ TONS)
3002 EMPTY WT or NO TRUCKS OVER ~~XX~~XX kg (~~XXXX~~ LBS) EMPTY WT (R12-3).

3003 In areas where multiple regulations of the type described above are applicable, a sign
3004 combining the necessary messages on a single panel sign edited to increase accuracy may be
3005 used, such as WEIGHT LIMIT XX t (~~XX~~ TONS) PER AXLE, XX t (~~XX~~ TONS) GROSS (R12-
3006 4).

3007 Posting of specific load limits may be accomplished by use of the Weight Limit symbol sign
3008 (R12-5). A sign containing the legend WEIGHT LIMIT on the top two lines, and showing three
3009 different truck symbols and their respective weight limits for which restrictions apply may be
3010 used, with the weight limits ~~shown displayed~~ edited to increase consistency to the right of each
3011 symbol as XX t (~~XX~~ T). A bottom line of legend stating GROSS WT may be included if needed
3012 for enforcement purposes.

3013 **Standard:**

3014 **If used, the Weight Limit sign (see Figure 2B-32) shall be located in advance of the**
3015 **applicable section of highway or structure.**

3016 **Guidance:**

3017 If used, the Weight Limit sign with an advisory distance ahead legend should be placed at
3018 approach road intersections or other points where prohibited vehicles can detour or turn around.

3019 A METRIC (W14-16P) plaque should be mounted above a Weight Limit sign that shows the
3020 load limits in metric units.

3021 **Section ~~2B.50~~ 2B.65 Weigh Station Signs (R13 Series)**

3022 **Approved by Council 1-12-08. Additional revision shown in yellow highlight,**
3023 **approved by Council June 21, 2008.**

3024 **Guidance:**

3025 ~~An ALL TRUCKS/COMMERCIAL VEHICLES NEXT RIGHT~~ **A** TRUCKS OVER XX
3026 TONS MUST ENTER WEIGH STATION NEXT RIGHT (R13-1) sign (see Figure 2B-33)
3027 should be used to direct appropriate traffic into a weigh station.

3028 **Reason: Editorial.**

3029 The R13-1 sign should be supplemented by the D8 series of guide signs (see Section 2D.51).

3030 Option:

3031 The reverse color combination, a white legend and border on a black background, may be
3032 used for the
3033 R13-1 sign.

3034

3035 **Section ~~2B.54~~ 2B.66 TRUCK ROUTE Sign (R14-1)**

3036 **Approved by Council 1-12-08**

3037 Guidance:

3038 The TRUCK ROUTE (R14-1) sign (see Figure 2B-33) should be used to mark a route that
3039 has been designated to allow truck traffic.

3040 Option:

3041 On a numbered highway, the TRUCK (M4-4) auxiliary sign may be used (see Section
3042 2D.20).

3043 **Section ~~2B.52~~ 2B.67 Hazardous Material Signs (R14-2, R14-3)**

3044 **NPA had no changes to this section.**

3045 Option:

3046 The Hazardous Material Route (R14-2) sign (see Figure 2B-33) may be used to identify
3047 routes that have been designated by proper authority for vehicles transporting hazardous material.

3048 On routes where the transporting of hazardous material is prohibited, the Hazardous Material
3049 Prohibition (R14-3) sign (see Figure 2B-33) may be used.

3050 Guidance:

3051 If used, the Hazardous Material Prohibition sign should be installed on a street or roadway at
3052 a point where vehicles transporting hazardous material have the opportunity to take an alternate
3053 route.

3054 **Section ~~2B.53~~ 2B.68 National Network Signs (R14-4, R14-5)**

3055 **NPA had no changes to this section.**

3056 Support:

3057 The signing of the National Network routes for trucking is optional.

3058 **Standard:**

3059 **When a National Network route is signed, the National Network (R14-4) sign (see**
3060 **Figure 2B-33) shall be used.**

3061 Option:

3062 The National Network Prohibition (R14-5) sign (see Figure 2B-33) may be used to identify
3063 routes, portions of routes, and ramps where trucks are prohibited. The R14-5 sign may also be
3064 used to mark the ends of designated routes.

3065 Section 2B.69 Headlight Use Signs (R16-5 through R16-12)
3066 Revision shown in yellow highlight, approved by Council June 21, 2008
3067 Support:
3068 Some States require road users to turn on their vehicle headlights under certain weather
3069 conditions, as a safety improvement measure on roadways experiencing high crash rates, or in
3070 special situations such as when driving through a tunnel.
3071 Option:
3072 A LIGHTS ON WHEN USING WIPERS (R16-5) sign (see Figure 2B-34) or a LIGHTS ON
3073 WHEN RAINING (R16-6) sign (see Figure 2B-34) may be installed to inform road users of State
3074 laws regarding headlight use. Although these signs are typically installed facing traffic entering
3075 the State just inside the State border, they also may be installed at other locations within the State.
3076 Guidance:
3077 If a particular section of roadway has been designated as a safety improvement zone within
3078 which headlight use is required, a TURN ON HEADLIGHTS NEXT XX km (MILES) (R16-7)
3079 sign (see Figure 2B-34) or a BEGIN DAYTIME HEADLIGHT SECTION (R16-11) sign (see
3080 Figure 2B-34) should be installed at the upstream end of the section, and a END DAYTIME
3081 HEADLIGHT SECTION (R16-12) sign (see Figure 2B-34) should be installed at the downstream
3082 end of the section.
3083 Option:
3084 A TURN ON HEADLIGHTS (R16-8) sign (see Figure 2B-34) may be installed to require
3085 road users to turn on their headlights in special situations such as when driving through a tunnel.
3086 A TURN OFF HEADLIGHTS (R16-9) sign (see Figure 2B-34) or a CHECK HEADLIGHTS
3087 (R16-10) sign (see Figure 2B-34) may be installed downstream from the special situation to
3088 inform drivers that the using their headlights is no longer required.

3089 RWSTC recommends that TTC add statement in Part 6 referring back to Section 2B.69 to
3090 use headlights in construction zones.

3091 **Section ~~2B.54~~ 2B.70 ~~Other~~ Miscellaneous Regulatory Signs**
3092 Approved by Council 1-12-08 with modifications shown in blue highlight
3093
3094 Option: these two paragraphs were relocated to Section 2B.02
3095 Regulatory word message signs other than those classified and specified in this Manual and
3096 the “Standard Highways Sign” book (see Section 1A.11) may be developed to aid the
3097 enforcement of other laws or regulations.
3098 Except for symbols on regulatory signs, minor modifications in the design may be permitted
3099 provided that the essential appearance characteristics are met.
3100 Option:
3101 A FENDER BENDER MOVE VEHICLES FROM TRAVEL LANES (R16-4) sign (see
3102 Figure 2B-35) may be installed to inform road users of State laws that require them to move their
3103 vehicles to the shoulder of the roadway to minimize the resulting effect on roadway congestion if
3104 they have been involved in a minor non-injury crash.

3105 A FENDER BENDER, MOVE VEHICLES FROM TRAVEL LANES (R16-4) sign
3106 (See Figure 2B-35) may be used to require motorists to move accident vehicles from the
3107 travel lane.

3108 MODIFY FIGURE 2B-35 (sign R16-4) TO SHOW RWSTC SELECTED SIGN
3109 DESIGN (all black-on-white).

3110 Reasons for change to Section 2B.70 – Consistent with RWSTC approved language
3111 through the task force for RWSTC proposal SSR # 42 (Dec 07). Approved by RWSTC
3112 on Jan 9, 2008. Sign to read FENDER BENDER, MOVE VEHICLES FROM
3113 TRAVEL LANES. Often there is no shoulder and therefore it is more appropriate to
3114 state to move from travel lane rather to move to the shoulder. Also, the sign message
3115 without the symbol is used by more states than the sign with the symbol.

3116

3117 **Standard:**

3118 **When a seat belt symbol is used, the symbol shown in Figure 2B-35 shall be used.**

3119 **Guidance:**

3120 The seat belt symbol should not be used alone ~~but in connection with mandatory seat belt~~
3121 ~~regulatory messages.~~ If used, the seat belt symbol should be incorporated into regulatory sign
3122 messages for mandatory seat belt use.

3123 COMMENTS AND REVIEW OF TABLES (see actual changes on tables and figures in
3124 separate attachment)

3125 Table 2B-1 –

- 3126 • Combine Table 2B-1 and 2B-2 by adding a column in Table 2B-1 for Minimum sizes for
3127 signs facing multi-lane conventional roads. Label the heading as “Multi-lane
3128 conventional roads” .
3129 • Show the metric and English dimensions in the same box identical to Table 2B-1.
3130 • Place the columns as they appear in order of increasing size or roadway classification.
3131 • Place the metric in paranthesis and the English as the prominent dimensioning since
3132 English is used in the majority of states.

3133 Reason: Easier to read if all sign sizes are on one page.

3134 Table 2B-2 . Combine this table with Table 2B-1. Change the YIELD sign size from 48 x 48 x
3135 48 to 36 x 36 x 36.

3136 Reason: 48 x 48 x 48 is an expressway sign size. Table 2B-2 are minimum multi-lane sign
3137 sizes, which would allow for the 48 x 48 x 48 option as needed.

3138 Table 2B-3 – recommend approval.

3139

3140 Table 7B-1 . Add note 3 – Minimum sign sizes for multi-lane conventional roads shall be as
3141 shown in the conventional road size column.

3142 Table 8B-1 Add ** Minimum sign sizes for multi-lane conventional roads to be per conventional
3143 road size column.

3144 Reason: Table 2B-2 only covers regulatory signs for multi-lane conventional roads, but no
3145 mention of school or railroad sign sizes. Therefore, add note to Tables 7B-1 and 8B-1.

3146 Figures: See Figure comments referenced under each section they pertain to. If not noted within
3147 sections, then we recommend approval of Figure as is.

3148 Figure 2B-2 – see comments on figure

3149 Figure 2B-4 – see comments on figure

3150 Figure 2B-5 – see comments on figure

3151 Figure 2B-6 – see comments on figure

3152 Figure 2B-8 – provide separate plaques for ½ mile and time indications rather than part of sign

3153 Figure 2B-11 – see comments on figure

3154 Figure 2B-12 – see comments on figure

3155 Figure 2B-13 – see comments on figure

3156 Figure 2B-16 – see comments on figure

3157 Figure 2B-17 sheet 2 of 2 – see comments on figure

3158 Figures 2B-18,, 2B-19 and 2B-20 – see comments on figures

3159 Figures 2B-24 , 2B-25 and 2B-26 – see comments on figures

3160 Figure 2B-35 – see comments on figure

3161

3162
3163 VOTE: Changes noted in all sections of Section 2B approved by RWSTC 6-19-08
3164
3165
3166 c: NCUTCD/June 2008: NPA 2009 - RWSTC REVISIONS – Part 2B text 7-2-08
3167