

ATTACHMENT NO. 2**RW # 3**

National Committee on Uniform Traffic Control Devices

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4		
5	TECHNICAL COMMITTEE:	Regulatory & Warning Signs Recommendation
6		
7	TOPIC:	Integrate Low Volume Rural Roads into rest of
8		MUTCD
9	Task Force Members:	Pline, Ranck, Carlson, Heydel
10	STATUS/DATE OF ACTION:	
11	RWSTC Drafts:	07/04/12, 08/24/12, 10/29/12, 02/24/13, updated 8-24-13 with size chart, 12/20/13, revised 1-9-14
12		
13		
14	RWSTC Approval:	06/26/13
15	Transmitted to Sponsors:	November 2013
16	RWSTC Approval:	1-9-14
17	Council Approval:	1-10-14
18		
19	ORIGIN OF REQUEST:	Jim Pline, Fred Ranck
20		
21	AFFECTED SECTIONS OF MUTCD:	Parts 1, 2, 3, 5, 6, 7 and 8.
22		
23	SUMMARY:	
24		This proposed change will incorporate the Low Volume Road provisions of the MUTCD,
25		ie. Part 5, into the appropriate other parts of the MUTCD. Part 5, Low Volume Roads as
26		it presently exists will be deleted or used for another subject.
27		
28	RESEARCH:	None applicable
29		
30		
31	DISCUSSION	
32		MUTCD Part 5, Traffic Control Devices for Low Volume Roads, was approved and
33		included as a separate Chapter in the 2000 MUTCD and has been retained as a
34		separate Part in the 2003 and 2009 Editions. Initially, this was approved as a separate
35		portion of the MUTCD because there were questions on the requirements that would be
36		applicable to rural low volume roads. There was also concern that local jurisdictions
37		may have some difficulty in determining from the 816 pages of the MUTCD those
38		provisions that were applicable on their low volume roads. It was also expected that the
39		separate part would encourage local jurisdictions to apply traffic control devices on their

40 road systems improving the national goal towards uniformity. The ten years of separate
 41 publication and emphasis of traffic control for rural low volume roads has not resulted in
 42 any significant concerns or major modifications to the original provisions. Recognizing
 43 these minimal requirements and the desire to reduce the size of the MUTCD, it is time
 44 to incorporate Part 5 into the other appropriate Parts of the Manual deleting Part 5.

45
 46
 47

48 **RECOMMENDED MUTCD PROVISIONS/ REVISIONS**

49 Note: Proposed changes to the MUTCD are shown in Underlined Red and removed text is
 50 shown as ~~strike-through-red~~.

51

52 **Add to Definition: “Low Volume Rural Road” to Section 1A.13 Definition of Headings,**
 53 **Words and Phrases in this Manual.**

54

55 Low Volume Rural Road – A category of paved or unpaved conventional or special purpose
 56 roadways lying outside of built-up areas of cities, towns and communities with a traffic volume less
 57 than 400 vehicles AADT.

58

59 **Revise the Definition for “Conventional Road”**

60

61 **41. Conventional Road – a street or highway other than a an low-volume road (as defined in Section**
 62 **5A.01), expressway, or freeway.**

63

64 **Section 2A.01 Function and Purpose of Signs**

65 03 **Because the requirements and standards for signs depend on the particular type of highway**
 66 **upon which they are to be used, the definitions for freeway, expressway, conventional road, low**
 67 **volume rural road and special purpose road given in Section 1A.13 shall apply in Part 2.**

68

69 **Section 2A.03 Standardization of Application**

70 Support:

71 01 It is recognized that urban traffic conditions differ from those in rural environments, and in
 72 many instances signs are applied and located differently. Where pertinent and practical, this
 73 Manual sets forth separate recommendations for urban and rural conditions.

74 Low volume rural roads typically include access to rural residences, agricultural, recreational,
 75 resource management and development such as mining, logging and grazing and local roads in
 76 rural areas. On low-volume rural roads, the use of traffic control devices is limited to essential
 77 information regarding regulation, guidance and warning. On low-volume rural roads, it is
 78 important to consider the needs of unfamiliar road users for occasional, recreational, and
 79 commercial transportation purposes.

80 *Guidance:*

81 02 *Signs should be used only where justified by engineering judgment or studies, as provided in*
 82 *Section 1A.09.*

83 03 *Results from traffic engineering studies of physical and traffic factors should indicate the*
 84 *locations where signs are deemed necessary or desirable.*

85 04 Roadway geometric design and sign application should be coordinated so that signing can be
 86 effectively placed to give the road user any necessary regulatory, warning, guidance, and other
 87 information.

88 ~~05 On low-volume roads, the needs of unfamiliar road users for occasional, recreational, and~~
 89 ~~commercial transportation purposes should be considered.~~ Relocated to Support, Line 73 above.

90 **Standard:**

91 05 Each standard sign shall be displayed only for the specific purpose as prescribed in
 92 this Manual. Determination of the particular signs to be applied to a specific condition
 93 shall be made in accordance with the provisions set forth in Part 2. Before any new
 94 highway, private road open to public travel (see definition in Section 1A.13), detour, or
 95 temporary route is opened to public travel, all necessary signs shall be in place. Signs
 96 required by road conditions or restrictions shall be removed when those conditions
 97 cease to exist or the restrictions are withdrawn.

98 **Section 2A.11 Dimensions**

99 Support:

100 01 The "Standard Highway Signs and Markings" book (see Section 1A.11) prescribes design
 101 details for up to five different sizes depending on the type of traffic facility, including bikeways.
 102 Smaller sizes are designed to be used on bikeways and some other off-road applications. Larger
 103 sizes are designed for use on freeways and expressways, and can also be used to enhance road
 104 user safety and convenience on other facilities, especially on multi-lane divided highways and on
 105 undivided highways having five or more lanes of traffic and/or high speeds. The intermediate
 106 sizes are designed to be used on other highway types.

107 **Standard:**

108 02 The sign dimensions prescribed in the sign size tables in the various Parts and
 109 Chapters in this Manual and in the "Standard Highway Signs and Markings" book (see
 110 Section 1A.11) shall be used unless engineering judgment determines that other sizes
 111 are appropriate. Except as provided in Paragraph 3, where engineering judgment
 112 determines that sizes smaller than the prescribed dimensions are appropriate for use,
 113 the sign dimensions shall not be less than the minimum dimensions specified in this
 114 Manual.

115 The sizes shown in the Minimum columns that are smaller than the sizes shown in the
 116 Conventional Road columns in the various sign size tables in this Manual shall only be used
 117 on low-speed roadways, alleys, private roads open to public travel, and on low-volume rural
 118 roads with operating speeds of 30 mph or less and where the reduced legend size would be
 119 adequate for the regulation or warning or where physical conditions preclude the use of
 120 larger sizes.

121 Option:

122 03 For alleys with restrictive physical conditions and vehicle usage that limits installation of the
 123 Minimum size sign (or the Conventional Road size sign if no Minimum size is shown), both the sign
 124 height and the sign width may be decreased by up to 6 inches.

125 **Section 2A.19 Lateral Offset**

126 10 On conventional, low-volume rural and special purpose roads in areas where it is impractical
 127 to locate a sign with the lateral offset prescribed by this Section because of roadside features
 128 such as terrain, shrubbery and/or trees, a lateral offset of at least 2 feet may be used.

129 **Section 2B.01 Application of Regulatory Signs**

130 **Standard:**

131 01 **Regulatory signs shall be used to inform road users of selected traffic laws or**
132 **regulations and indicate the applicability of the legal requirements.**

133 02 **Regulatory signs shall be installed at or near where the regulations apply. The signs**
134 **shall clearly indicate the requirements imposed by the regulations and shall be**
135 **designed and installed to provide adequate visibility and legibility in order to obtain**
136 **compliance.**

137 03 **Regulatory signs shall be retroreflective or illuminated (see Section 2A.07) to show**
138 **the same shape and similar color by both day and night, unless specifically stated**
139 **otherwise in the text discussion in this Manual for a particular sign or group of signs.**

140 04 **The requirements for sign illumination shall not be considered to be satisfied by**
141 **street or highway lighting.**

142 **Support:**

143 05 Section 1A.09 contains information regarding the assistance that is available to jurisdictions
144 that do not have engineers on their staffs who are trained and/or experienced in traffic control
145 devices.

146 06 On low-volume rural roads, the need for regulatory signs is limited. Enforcement is a
147 consideration.

148 **Section 2B.03 Size of Regulatory Signs**

149 **Standard:**

150 03 **Except as provided in Paragraphs 4 and 5, the minimum sizes for regulatory signs**
151 **facing traffic on multi-lane conventional roads shall be as shown in the Multi-lane**
152 **column of Table 2B-1.**

153 **The typical size of regulatory signs applied on low-volume rural roads with**
154 **operating speeds of 30 mph or less shall be in accordance with the minimum column of**
155 **Table 2B-1.**

156 **Section 2B.06 STOP Sign Applications**

157 **Guidance:**

158 01 STOP signs should be used if engineering judgment indicates that one or more of the
159 following conditions exist:

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

167 02 On low-volume rural roads, a STOP sign should be considered at an intersection where
 168 engineering judgment indicates that Item A above is applicable or where the intersection has -
 169 inadequate sight distance for the operating vehicle speeds.

170 Section 2B.09 YIELD Sign Application

171 Option:

172 01 YIELD signs may be used instead of STOP signs if engineering judgment indicates that one or
 173 more of the following conditions exist:

- 174 A. When the ability to see all potentially conflicting traffic is sufficient to allow a road user
 175 travelling at the posted speed, the 85th-percentile speed, or the statutory speed to pass
 176 through the intersection or to stop in a reasonably safe manner.
 177 B. If controlling a merge-type movement on the entering roadway where acceleration
 178 geometry and/or sight distance is not adequate for merging traffic operation.
 179 C. The second crossroad of a divided highway, where the median width at the intersection is
 180 9 m (30 ft) or greater. In this case, a STOP sign may be installed at the entrance to the
 181 first roadway of a divided highway, and a YIELD sign may be installed at the entrance to
 182 the second roadway.
 183 D. An intersection where a special problem exists and where engineering judgment indicates
 184 the problem to be susceptible to correction by the use of the YIELD sign.

185 02 On low-volume rural roads, a YIELD sign may be used at an intersection instead of a STOP
 186 sign if engineering judgment indicates that the YIELD would provide adequate control.

187 Section 2C.02 Application of Warning Signs

188 06 Warning signs provided in this Manual cover most of the conditions that are likely to be
 189 encountered. Additional warning signs for ~~low volume roads (as defined in Section 5A.01)~~,
 190 temporary traffic control zones, school areas, grade crossings, and bicycle facilities are discussed
 191 in Parts ~~5~~ 6 through ~~10~~ 9, respectively.

192 Section 2C.04 Size of Warning Signs

193 **Standard:**

194 01 **Except as provided in Section 2A.11, the sizes for warning signs shall be as shown in**
 195 **Table 2C-2.**

196 Guidance:

197 The typical size of warning signs used on low-volume rural roads with operating speeds of
 198 30 mph or less should be in accordance with the minimum column of Table 2C-2.

199 Support:

200 02 Section 2A.11 contains information regarding the applicability of the various columns in Table
 201 2C-2.

202 Section 2C.16 Hill Signs (W7-1, W7-1a)

203 Guidance:

204 01 The Hill (W7-1) sign (see Figure 2C-4) should be used in advance of a downgrade **on a**
 205 **freeway, expressway or a conventional road** where the length, percent of grade, horizontal
 206 curvature, and/or other physical features require special precautions on the part of road users.

207

208 **Section 2C.20 NARROW BRIDGE Sign (W5-2)**209 *Guidance:*

210 01 A *NARROW BRIDGE (W5-2)* sign (see Figure 2C-5) should be used in advance of any bridge or
 211 culvert having a two-way roadway clearance width of 16 to 18 feet, or any bridge or culvert
 212 having a roadway clearance less than the width of the approach travel lanes.

213 02 Additional emphasis should be provided by the use of object markers, delineators, and/or
 214 pavement markings.

215 *Option:*

216 03 A *NARROW BRIDGE* sign may be used in advance of a bridge or culvert on which the approach
 217 shoulders are narrowed or eliminated.

218 04 The *NARROW BRIDGE* sign may be omitted on low-volume rural roads.

219 **Section 2C.21 ONE LANE BRIDGE Sign (W5-3)**220 *Guidance:*

221 01 A *ONE LANE BRIDGE (W5-3)* sign (see Figure 2C-5) should be used on two-way roadways in
 222 advance of any bridge or culvert:

- 223 A. Having a clear roadway width of less than 16 feet, or
 224 B. Having a clear roadway width of less than 18 feet when commercial vehicles constitute a
 225 high proportion of the traffic, or
 226 C. Having a clear roadway width of 18 feet or less where the sight distance is limited on the
 227 approach to the structure.

228 02 Additional emphasis should be provided by the use of object markers, delineators, and/or
 229 pavement markings.

230 *Option:*

231 01 The *ONE LANE BRIDGE* sign may be omitted on low volume rural roads where there is
 232 adequate sight distance to the bridge from either approach.

233 **Section 2C.XX NO TRAFFIC SIGNS sign (W18-1)**234 *Option*

235 01 A W18-1 warning sign with the legend *NO TRAFFIC SIGNS* may be used only on low-
 236 volume rural roads to advise road users that no signs are installed along the distance of the
 237 road. The sign may be installed at the point where road users would enter the low volume
 238 road or where, based on engineering judgment, the road user might need this information.

239 02 A W7-3aP, W16-2P, or W16-9P supplemental plaque (see Figure 5C-2) with the legend
 240 *NEXT XX MILES, XX FEET, or AHEAD* may be installed below the W18-1 sign when
 241 appropriate.

242

243 **Section 2D.01 Scope of Conventional Road Guide Sign Standards**244 **Standard:**

245 01 The provisions of this Chapter shall apply to any road or street other than ~~low-~~
 246 ~~volume roads (as defined in Section 5A.01)~~, expressways, and freeways.

247 **Section 2D.02 Application**

248 Support:

249 01 Guide signs are essential to direct road users along streets and highways, to inform them of
 250 intersecting routes, to direct them to cities, towns, villages, or other important destinations, to
 251 identify nearby rivers and streams, parks, forests, and historical sites, and generally to give such
 252 information as will help them along their way in the most simple, direct manner possible.

253 02 Chapter 2A addresses placement, location, and other general criteria for signs.

254 03 Guide signs generally are not used on low-volume rural roads except to guide road users
 255 back to the major roadways.

256 **Section 2D.36 Destination and Distance Signs**

257 Support:

258 01 In addition to guidance by route numbers, it is desirable to supply the road user information
 259 concerning the destinations that can be reached by way of numbered or unnumbered routes.
 260 This is done by means of Destination signs and Distance signs..

261 Option:

262 02 Route shields and cardinal directions may be included on the Destination sign with the
 263 destinations and arrows.

264 *Guidance:*

265 03 *If Route shields and cardinal directions are included on a Destination sign, the height of the*
 266 *route shields should be at least two times the height of the upper-case letters of the principal*
 267 *legend and not less than 18 inches, and the cardinal directions should be in all upper-case letters*
 268 *that are at least the minimum height specified for these signs.*

269 04 *If used, destination names on low-volume rural roads should be as specific and descriptive as*
 270 *possible. Destinations such as campgrounds, ranger stations, and recreational areas should be*
 271 *clearly indicated so that they are not interpreted to be communities or locations with road user*
 272 *services*

273 **Section 3A.02 Standardization of Application**274 **Standard:**

275 01 **Each standard marking shall be used only to convey the meaning prescribed for that**
 276 **marking in this Manual. When used for applications not described in this Manual,**
 277 **markings shall conform in all respects to the principles and standards set forth in this**
 278 **Manual.**

279 Support:

280 02 Typically, pavement markings are not used on low-volume rural roads and special purpose
 281 roads. Any markings used, however, should comply with the provisions of this Part.

282 *Guidance:*
 283 02 Before any new highway, private road open to public travel (see definition in Section 1A.13),
 284 paved detour, or temporary route is opened to public travel, all necessary markings should be in
 285 place.

286 **Standard:**
 287 03 **Markings that must be visible at night shall be retroreflective unless ambient**
 288 **illumination assures that the markings are adequately visible. All markings on**
 289 **Interstate highways shall be retroreflective.**

290 04 **Markings that are no longer applicable for roadway conditions or restrictions and**
 291 **that might cause confusion for the road user shall be removed or obliterated to be**
 292 **unidentifiable as a marking as soon as practical.**

293 *Option:*
 294 05 Until they can be removed or obliterated, markings may be temporarily masked with tape that
 295 is approximately the same color as the pavement.

296 **Section 6A.01 General**

297 *Support:*
 298 01 Whenever the acronym "TTC" is used in Part 6, it refers to "temporary traffic control."

299 **Standard:**
 300 02 **The needs and control of all road users (motorists, bicyclists, and pedestrians within**
 301 **the highway, or on private roads open to public travel (see definition in Section 1A.13),**
 302 **including persons with disabilities in accordance with the Americans with Disabilities**
 303 **Act of 1990 (ADA), Title II, Paragraph 35.130) through a TTC zone shall be an**
 304 **essential part of highway construction, utility work, maintenance operations, and the**
 305 **management of traffic incidents.**

306 *Support:*
 307 03 When the normal function of the roadway, or a private road open to public travel, is
 308 suspended, TTC planning provides for continuity of the movement of motor vehicle, bicycle, and
 309 pedestrian traffic (including accessible passage); transit operations; and access (and
 310 accessibility) to property and utilities.

311 04 The primary function of TTC is to provide for the reasonably safe and effective movement of
 312 road users through or around TTC zones while reasonably protecting road users, workers,
 313 responders to traffic incidents, and equipment.

314 05 Of equal importance to the public traveling through the TTC zone is the safety of workers
 315 performing the many varied tasks within the work space . TTC zones present constantly changing
 316 conditions that are unexpected by the road user. This creates an even higher degree of
 317 vulnerability for the workers and incident management responders on or near the roadway (see
 318 Section 6D.03). At the same time, the TTC zone provides for the efficient completion of whatever
 319 activity interrupted the normal use of the roadway.

320 06 Consideration for road user safety, worker and responder safety, and the efficiency of road
 321 user flow is an integral element of every TTC zone, from planning through completion. A

322 concurrent objective of the TTC is the efficient construction and maintenance of the highway and
 323 the efficient resolution of traffic incidents.

324 07 No one set of TTC devices can satisfy all conditions for a given project or incident. At the same
 325 time, defining details that would be adequate to cover all applications is not practical. Instead,
 326 Part 6 displays typical applications that depict common applications of TTC devices. The TTC
 327 selected for each situation depends on type of highway, road user conditions, duration of
 328 operation, physical constraints, and the nearness of the work space or incident management
 329 activity to road users.

330 08 The temporary traffic control for low-volume rural and special purpose roads will
 331 generally be minimal, recognizing the lower speeds and traffic volumes. A limited number of
 332 signs, maintenance vehicle warning flashers or a single flagger could be adequate for most
 333 situations.

334 Section 6F.02. General Characteristics of Signs

335 Standard:

336 09 **Except as provided in Section 2A.11, the sizes for TTC signs and plaques shall**
 337 **be as shown in Table 6F-1. The sizes in the minimum column shall only be used on**
 338 **low volume rural roads, and local streets or roadways where the ~~85th percentile~~**
 339 **operating speed or posted speed limit is 30 mph or less than 35 mph.**

340 Section 7B.01 Size of School Signs

341 Standard:

342 01 **Except as provided in Section 2A.11, the sizes of signs and plaques to be used on**
 343 **conventional roadways in school areas shall be as shown in Table 7B-1.**

344 02 **The sizes in the Conventional Road column shall be used unless engineering**
 345 **judgment determines that a minimum or oversized sign size would be more**
 346 **appropriate.**

347 03 **The sizes in the Minimum column shall be used only on low-volume rural roads,**
 348 **special purpose roads and or where traffic volumes are low and operating speeds are**
 349 **30 mph or less. mph or lower, as determined by engineering judgment.**

350 04 **The sizes in the Oversized column shall be used on expressways.**

351 *Guidance:*

352 05 *The sizes in the Oversized column should be used on roadways that have four or more lanes*
 353 *with posted speed limits of 40 mph or higher.*

354 Option:

355 06 The sizes in the Oversized column may also be used at other locations that require increased
 356 emphasis, improved recognition, or increased legibility.

357 07 Signs and plaques larger than those shown in Table 7B-1 may be used (see Section 2A.11).

358 Section 8B.02 Sizes of Grade Crossing Signs

359 **Standard:**
 360 01 The sizes of grade crossing signs shall be as shown in Table 8B-1.

361 **Guidance:**

362 **The sign sizes in the minimum column should be used on low-volume rural roads**
 363 **where the operating speed is 30 mph or less and special purpose roads.**

364 Revise the following Sign Size Tables as noted in **RED** below.

Table 2B-1 Regulatory Sign and Plaque Sizes

Sign	Code	Conv. Rd	Minimum	
			Existing	Proposed
Stop	R1-1	30x30	30x30	30x30
Yield	R1-2	36x36x36	30x30x30	30x30x30
Speed Limit	R2-1	24x30	18x24	18x24
Do Not Pass	R4-1	24x30	18x24	18x24
Pass With Care	R4-2	24x30	18x24	18x24
Keep Right	R4-7	24x30	18x24	18x24
Do Not Enter	R5-1	30x30	-	30x30
No Trucks	R5-2	24x24	-	24x24
One Way	R6-2	24x30	18x24	18x24
No Parking (symbol)	R8-3	24x24	12x12	18x18
No Parking	R8-3a	24x30	18x24	18x24
No Parking (Plaque)	R8-3c,3d	24x18	12x9	18x12
Road Closed	d R11-2	48x30	-	48x30
Rd Closed Local Traffic	R11-3a	60x30	-	60x30
Bridge Out, Local Tr	R11-3b	60x30	-	60x30
Rd Closed to Thru	R11-4	60x30	-	60x30
Weight Limit	R12-1	24x30	-	24x30
Railroad Crossbuck	R15-1	48x9	-	48x9
Number of Tracks	R15-2	27x18	-	27x18

Table 2C-2 Warning Sign and Plaque Sizes

Sign	Code	Conv. Rd	Minimum	
			Existing	Proposed
	W1-			
Horizontal Align.	1,2,3,4,5	30x30	-	24x24
One Dir Arrow	W1-6	48x24	-	36x18
Two Dir Arrow	W1-7	48x24	-	36x18
Chevron Align	W1-8	18x24	-	12x18
Intersection Warn	W2-1,4,5	30x30	24x24	24x24
Stop Ahead	W3-1	30x30	30x30	24x24
Yield Ahead	W3-2	30x30	30x30	24x24
Be Prepared to Stop	W3-4	36x36	30x30	30x30
Road Narrows	W5-1	36x36	30x30	30x30

Narrow Bridge	W5-2	36x36	30x30	30x30
One Lane Bridge	W5-3	36x36	30x30	30x30
Hill	W7-1,1a	30x30	24x24	24x24
XX % Grade	W7-3	24x18	-	24x18
Next XX Miles	W7-3a	24x18	-	24x18
Pavement Ends	W8-3	36x36	30x30	30x30
Truck Crossing	W8-6	36x36	24x24	30x30
Loose Gravel	W8-7	36x36	24x24	30x30
Rough Road	W8-8	36x36	24x24	30x30
Road May Flood	W8-18	36x36	24x24	30x30
Flood Gauge	W8-19	12x72	-	12x72
RR Advance Warning	W10-1	24 Dia	18 Dia	24 Dia
Crossing Warning	W10-2,3,4	30x30	24x24	30x30
Entering/Crossing	W 11 Series	30x30	24x24	24x24
Advisory Speed Pl	W13-1	18x18	-	18x18
Dead End/No Outlet	W14-1,2	30x30	24x24	24x24
Dead End/No Outlet	W14-1a,2a	36x8	-	24x6
Supp. Distance Pl	W16-2	24x18	-	18x12
Diagonal Arrow Pl	W16-7p	24x12	-	24x12
Ahead Plaque	W16-9p	24x12	-	24x12
No Traffic Signs	W18-1	-	30x30	30x30

Table 6F-1. Temporary Traffic Control Zone Sign & Plaque Size

Sign	Code	Conv. Rd.	Minimum	
			Existing	Proposed
Stop	R1-1	30 X 30	-	30x30
Stop (On Paddle	R1-1	18 x18	-	18 x 18
Road Work XX Ft	W20-1	36x36	30x30	30x30
Rd Closed				
w/distance	W20-3	36x36	30x30	30 x30
OneLane RD w/Dist.	W20-4	36x36	30x30	30 x30
Flagger	W20-7a	36x36	30x30	30 x30
Workers	W21-1a	36x36	30x30	30x30
Fresh Oil	W21-2	36x36	30x30	24x24
Road Machinery Ahd	W21-3	36x36	30x30	30x30
Shoulder Work	W21-5	36x36	30x30	30x30
Survey Crew	W21-6	36x36	30x30	30x30
Utility Work Ahead	W21-7	36x36	30x30	30x30

Table 7B-1 School Area Sign and Plaque Sizes

Sign	Code	Conv. Rd.	Minimum	
			Existing	Proposed
School	S1-1	36x36	30x30	30x30
School Stop Ahd	S3-1	36x36	30x30	30x30
Sch Bus Turn Ahd	S3-2	36 x36	30 x30	30 x30

Reduced School
Speed Limit Ahd S4-5,5a 36x36 30x30 30x30

Table 8B-1. Grade Crossing Sign and Plaque Minimum Sizes

Sign	Code	Conv. Rd.	Minimum	
			Existing	Proposed
Stop	R1-1	30 x30	-	30x30
Yield	R1-2	36X36X36	30X30X30	30X30X30
Tracks out of Servic	R8-9	24 X24	--	24 X 24
Crossbuck	R15-1	48 X 9	---	48 X 9
No. of Tracks	R15-2P	27 X 18	--	27 X 18
Exempt	R15-3P	24 X 12	--	24 X12
Gr Xing Adv Warn Xing & Inter Adv	W10-1	36 Dia	--	24 Dia
Warn	W10-2,3,4	36 X36	--	30 x 30
Low Ground Clear	W10-5	36 x 36	--	30 x 30

365 **RWSTC VOTE 6-26-13: For: Unanimous**

366 **RWSTC VOTE: 1-9-14 For: Unanimous**

367 **Council Vote: 1-10-14 For: Unanimous**

368 **Against:**

369 **Abstentions:**

370 C: NCUTCD/June 2013/Pline/Integrate Low Volume Roads 6-26-13 READY FOR SPONSORS,
371 updated 8-24-13 with size chart, revised following sponsor comments 1-9-14, approved by
372 COUNCIL 1-10-14