

signs from the SHS that are referenced in the MUTCD, as discussed above, the FHWA retains the symbol for the seat belt symbol, and places it in a new Figure 2B–22.

55. In Section 2C.02 Application of Warning Signs, the FHWA modifies the SUPPORT statement to reflect that “categories” not “applications” of warning signs are shown in Table 2C–1. This change makes the text and Table 2C–1 consistent.

Additionally, the FHWA changes the title of Table 2C–1 from “Application of Warning Signs” to “Categories of Warning Signs” and adds new roadway related and traffic related signs and supplemental plaques to the table based on changes in other sections of Chapter 2C. The change in the title of the table better reflects the actual content of the table. There was one comment from the City of Tucson, Arizona, in agreement with the overall changes in this section. One traffic engineering consultant questioned why the Railroad Advance Warning sign is not listed in the table. This table only includes those signs that are found in Chapter 2C, not those found in other parts such as Part 8. The MUTCD has separate sign tables in other Parts as appropriate. Another traffic engineering consultant questioned why W16–8, W14–1p, and W14–2p are identified as plaques. The W16–8 plaque must be used in combination with a W2 or W3 sign according to Section 2C.49 Advance Street Name Plaque (W16–8, W16–8a), and thus is correctly referred to as a plaque. Because the W14–1P and W14–2P plaques can be used alone according to Section 2C.21 DEAD END/NO OUTLET Signs (14–1, W14–1a, W14–2, W14–2a), the FHWA revises the table to remove the “P” designation from these two signs, and the rectangular forms of these signs are designated the W14–1a and W14–2a signs.

56. In Section 2C.03 Design of Warning Signs, based on an editorial comment from a traffic engineering consultant, the FHWA adds playgrounds to the listing of signs in the OPTION statement that may have a black legend and border on a yellow background or a black legend and border on a fluorescent yellow-green background.

57. In Section 2C.04 Size of Warning Signs, the FHWA removes the SUPPORT statement referencing the “Standard Highway Signs” book because this statement is general and applies to regulatory, warning, and guide signs. A similar statement is included in Section 2A.12 Dimensions. The removal of this SUPPORT statement

responds to two comments from the NCUTCD and the Illinois DOT.

The FHWA changes Table 2C–2 to add sizes for the Expressways W1 Series Arrows signs, the Expressways and Freeways W7 Series Truck Runaway signs, the Expressways and Freeways W12–2P Low Clearance signs, and to increase the sizes for all roadways except Freeways for the W10–1 Advance Grade Crossing sign, to enhance visibility of this sign for all road users, including older drivers. The FHWA received one comment from the NCUTCD in overall agreement with the changes to the table. The Oregon DOT suggested that the size for the W1 series signs be 900 x 900 mm (36” x 36”) for conventional roads because these curvature signs are very important. The FHWA agrees that these signs are important, but these signs are in the 750 x 750 mm (30” x 30”) category because they are symbol signs that can be recognized from a greater distance than words can be read.

The FHWA adopts the changes to Table 2C–2 as proposed in the NPA and adds the W1 Combination series signs to the Diamond shaped category in this final rule. The FHWA establishes a phase-in target compliance date of 10 years from the effective date of this final rule for existing signs in good condition to minimize any impact on State or local governments.

58. In Section 2C.05 Placement of Warning Signs, the FHWA changes the STANDARD statement to a SUPPORT statement, to respond to a comment from the City of Tucson, Arizona, suggesting that using the phrase “general requirements” in a STANDARD statement was not clear. The FHWA agrees and revises the wording to reference Sections 2A.16 to 2A.21 for information on placement of warning signs.

The FHWA changes Table 2C–4 so that the distances for the placement of advance warning signs correspond to the values in the 2001 AASHTO “A Policy on Geometric Design of Highway and Streets”¹⁴ book and to make the table easier to use. The FHWA combines the “Condition B” and “Condition C”

columns (as shown in the 2000 MUTCD) and labels them “Condition B”. The FHWA also adds columns for 90, 100, and 110 km/h and 60 and 70 mph for the deceleration to the listed advisory speed and rows for 70 and 75 mph for the Posted or 85th Percentile Speed. Finally, the FHWA revises the Notes to reflect the other changes taking place throughout the MUTCD. These changes to Table 2C–4 reflect the needs of older road users and improve the clarity of the Notes. The FHWA received two comments from the NCUTCD and ATSSA in support of the changes. There were three comments from the Nevada, Wisconsin, and Oregon DOTs opposed to these changes, suggesting that the sign placement distances were either too long, or too short. Advanced placement distances have significantly decreased based on the 2001 AASHTO Policy, and the MUTCD reflects these changes. To address comments about this table the FHWA removes the word “minimum” from footnote 5 in both sheets of the table, and removes the metric units from the notes on the English units table, and vice versa.

59. In Section 2C.06, Horizontal Alignment Signs (W1–1 through W1–5, W1–11, W1–15) (titled “Horizontal Alignment Signs (W1–1 through W1–5)” in the 2000 MUTCD), the FHWA revises the section title to reflect the new Hairpin Curve (W1–11) sign and the 270 Degree Loop (W1–15) sign.

In the first OPTION statement, the FHWA adds the use of the Hairpin Curve sign and the 270 Degree Loop sign based on the change in horizontal alignment. These new signs better portray the severe curvature for these types of alignment changes. The FHWA received three comments from the NCUTCD, ATSSA, and the City of Tucson, Arizona, supporting the addition of these new signs, and adopts the OPTION statement regarding these signs.

The FHWA also adds to the GUIDANCE statement a recommendation to install a One-Direction Large Arrow (W1–6) sign or Chevron Alignment (W1–8) sign on the outside of a turn or curve when the Hairpin Curve sign or 270-Degree Loop sign is installed. This provides for enhanced warning to road users of the severe alignment change and may help reduce run-off-the-road crashes.

In the NPA, the FHWA proposed to add a second GUIDANCE statement following the STANDARD statement. This proposed GUIDANCE recommended that the need for additional curve warning signs or advisory speed reduction warning plaques be based on an engineering

¹⁴ “A Policy on Geometric Design of Highways and Streets,” 4th Edition, 2001, in both hardcopy and CD-ROM, is available from the American Association of State Highway and Transportation Officials (AASHTO) by telephone (800) 231-3475, facsimile (800) 525-5562, mail AASHTO, P.O. Box 96716, Washington, DC 20090-6716, or at its Web site <http://www.transportation.org> and click on Bookstore. This document is a guide, based on established practices and supplemented by research, to provide guidance to the highway designer to provide for the needs of highway users while maintaining the integrity of the environment. It is incorporated by reference into the CFR at 23 CFR 625.4.