

developing a public relations plan for a temporary traffic control zone. The FHWA received two comments from the National Institute for Occupational Safety and Health (NIOSH) and a private citizen supporting this change, and the FHWA adopts this change.

220. In Section 6C.01 Temporary Traffic Control Plans, the FHWA adds to the first GUIDANCE statement that planning for all road users should be part of the planning and design of the temporary traffic control plan. The FHWA also adds a fourth paragraph to the first GUIDANCE statement that provisions for effective continuity of accessible circulation paths for pedestrians should be incorporated into the temporary traffic control process. Several commenters suggested editorial revisions for clarity, which the FHWA agrees with and adopts in this final rule.

221. In Section 6C.02 Temporary Traffic Control Zones, the FHWA proposed to add a sentence at the end of the SUPPORT statement that the incident area begins at the first warning sign or vehicle with a rotating/strobe light and extends to the last temporary traffic control device or to a point where road users are allowed to return to the original lane alignment. The FHWA received two comments from ATSSA and the City of Tucson, Arizona, in support of this change, and one comment from the National Institute for Occupational Safety & Health (NIOSH) suggesting that "warning sign or rotating strobe/lights" may be too specific because flares, cones, or other devices might also be used to warn of an incident ahead. The FHWA agrees that the first responder to an incident might appropriately use other devices, and revises the text in this final rule to indicate that the incident management area begins at the first warning device (such as a sign, light, or cone).

222. In Section 6C.03 Components of Temporary Traffic Control Zones, the FHWA received several comments from the NCUTCD, the City of Charlotte, North Carolina, the Illinois DOT, and a private citizen regarding proposed changes to Figure 6C-1 Component Parts of a Temporary Traffic Control Zone. The FHWA modifies the drawing to show a shoulder taper as one of the potential components of a temporary traffic control zone. The NCUTCD suggested that the shoulder taper should be removed because no other tapers are shown and a shoulder taper is not required in the situation pictured. The City of Charlotte, North Carolina, and a private citizen indicated that the advance warning area was referenced incorrectly to the beginning of the shoulder taper, rather than the

beginning of the merge taper. The FHWA believes that the intent of the figure is to show all of the potential components of a temporary traffic control zone, rather than a specific example, and the shoulder taper should be included in the figure. However, the FHWA revises the figure to more accurately show the shoulder taper in advance of the merge taper, and dimensions the Advance Warning Area to the start of the merge taper, as suggested by the two commenters. The FHWA also includes advance warning signs on both sides of the one-way roadway as suggested by the City of Charlotte, North Carolina, and a private citizen. The FHWA labels the area above the Work Space as a Buffer Space (longitudinal). The City of Charlotte, North Carolina, and a private citizen stated that this area is not considered a buffer space because it is downstream of the Work Space. The FHWA disagrees with the commenters because the OPTION statement in Section 6C.06 Activity Area indicates that buffer spaces may be positioned either longitudinally or laterally with respect to the direction of road user flow, and that the activity area may contain one or more lateral or longitudinal buffer spaces.

223. In Section 6C.04 Advance Warning Area, the FHWA received several comments from the City of Charlotte, North Carolina, and private citizens about the sign spacings shown in Table 6C-1 Suggested Advance Warning Sign Spacing. There were no changes proposed to this table in the NPA, therefore the comments regarding the distances shown in this table are outside the scope of this rulemaking and such changes would need to be addressed in a future rulemaking. The FHWA notes that these are suggested sign spacings and actual placement may be adjusted in order to improve sign visibility due to roadway geometry, intersections or driveways, or other factors, based on engineering judgment.

224. In Section 6C.06 Activity Area, the FHWA adds a new table numbered and titled "Table 6C-2 Stopping Sight Distance as a Function of Speed." This table is identical to Table 6E-1. The current Table 6C-2 is renumbered as Table 6C-3, Taper Length Criteria for Temporary Traffic Control Zones. The FHWA received two comments from the Wisconsin DOT and the City of Tucson, Arizona, in support of this new table, two comments from the City of Charlotte, North Carolina, and a private citizen suggesting that this table be titled "Guidelines for Longitudinal Buffer Lengths," and three comments from the City of Charlotte, North

Carolina, and private citizens opposed to the values in the new table. The commenters who opposed the values in the table suggested that the values from Table 6E-1 of the 2000 MUTCD should be used because they represent a buffer length based upon the braking distance that would provide adequate opportunity to stop before entering a workspace. These commenters also suggested that the proposed longer lengths would result in inordinately and unnecessarily long buffers, which will encourage misuse and potentially lack of use, particularly in urban areas. The FHWA disagrees because this table is referenced in an OPTION statement, and practitioners may use discretion in determining the lengths of longitudinal buffer spaces. The FHWA adopts the table, as proposed in the NPA.

The FHWA adds a reference to new Table 6C-2 to the second OPTION statement, as these distances may be used to determine the length of the longitudinal buffer space. The FHWA received two comments from the Illinois DOT and a private citizen suggesting this change, and the FHWA revises the statement slightly in this final rule to add clarity.

In the third SUPPORT statement, the FHWA proposed to remove the phrase "formidable device" as well as the reference to arrow panels as they relate to determining buffer spaces. The FHWA received one comment from a private citizen in support of this change, and three comments from the NCUTCD, the City of Charlotte, North Carolina, and a private citizen opposed it. Those commenters who opposed the change suggested restoring the 2000 MUTCD wording, or offered alternate wording. They also suggested that this SUPPORT statement be combined with the second SUPPORT statement. The FHWA agrees to reword the sentence in the SUPPORT statement to state, "When a shadow vehicle, arrow panel, or changeable message sign is placed in a closed lane in advance of a work space, only the area upstream of the vehicle, arrow panel or changeable message sign constitutes the buffer space." The FHWA does not combine the second and third SUPPORT statements in this final rule.

In the last GUIDANCE statement, the FHWA adds that incident response storage areas should not extend into any portion of the buffer space. The FHWA received two comments from the City of Charlotte, North Carolina, and a private citizen suggesting that this GUIDANCE should be a STANDARD. The FHWA disagrees because of the flexibility that is needed to respond to unplanned