

phrase would cause legal issues within their respective States. The FHWA adopts the changes as specified in the NPA, because the intent of this change is to enhance traffic safety by encouraging national uniformity between States in the meaning of traffic signal indications.

The FHWA received several comments from Caltrans, the Minnesota DOT, the U.S. Access Board and the Association of Pedestrian and Bicycle Professionals regarding the addition to item A.3 that the pedestrian does not automatically have the right of way when starting to cross at the time that a green signal is first shown. The commenters generally opposed this addition, thinking that it was actually in conflict with State laws that require vehicles to yield to pedestrians. Some slower drivers who enter the intersection during the last moments of the yellow change interval or red clearance interval may not clear the intersection before the start of the next movement's green interval. Pedestrians should have a legal requirement to let this traffic exit the intersection before stepping into the path of an oncoming vehicle. The FHWA adopts the text as proposed in the NPA, which corresponds to recent changes in the Uniform Vehicle Code.<sup>36</sup>

The FHWA received one comment from the North Carolina DOT opposing the addition to item C.2 that a turn on a RED ARROW signal indication after stopping is allowed only when a sign is in place permitting the turn on red arrow (to conform to the Uniform Vehicle Code) and the corresponding removal of the existing OPTION statement at the end of the section dealing with right-turn on a red arrow. The commenter felt that the meaning and application of red signal indications should be the same for red balls and arrows. FHWA disagrees because it believes that national uniformity and traffic safety will be best served by the text as proposed in the NPA. The FHWA adopts the proposed text.

181. In Section 4D.05 Application of Steady Signal Indications, the FHWA received several comments from the NCUTCD, State and local DOTs, regarding additions and revisions to item B.4 of the STANDARD statement. This item lists conditions under which

a steady circular yellow signal indication may be displayed to an approach from which drivers are turning left. The commenters were particularly concerned with signal displays that result in what is referred to as the "yellow trap." A "yellow trap" occurs when drivers in the opposing direction are not simultaneously being shown a circular yellow indication. This can lead to drivers who are attempting to make a permissive left turn falsely thinking that the opposing traffic is coming to a stop. The Minnesota and Oregon DOTs are opposed to allowing any situations in which the "yellow trap" can occur. The FHWA recognizes that there are some locations where no other signal sequence other than one that includes a yellow trap is reasonably feasible due to unique combinations of intersection geometrics and traffic volumes. Accordingly, the FHWA revises item B.4(c) to account for such conditions. Additionally, based on changes in Section 2C.39 Traffic Signal Signs, the FHWA revises the legend of the W25-1 and W25-2 signs item B.4(c) and (d) to clarify their message, and to be consistent with Section 2C.39.

The FHWA received comments from the NCUTCD, Caltrans, the North Carolina DOT, and the City of Kennewick, Washington, opposed to adding to item F.2 of the STANDARD statement that would require the use of a "U Turn Yield to Right Turn" sign when U-turns on a green arrow signal conflict with right turns on a green arrow signal. While the North Carolina DOT agreed with the proposed change to advise U-turn motorists to yield, the remaining commenters felt that drivers would not understand the proposed wording on the sign and that additional research is necessary. The FHWA concurs and, because there is no data to support or refute those concerns, the FHWA changes this to an OPTION statement, allowing the use of the sign but not requiring it. This OPTION statement is located at the end of the section. The FHWA also modifies Section 2B.45 Traffic Signal Signs accordingly.

182. In Section 4D.06 Application of Steady Signal Indications for Left Turns, the FHWA received several comments from the NCUTCD, Caltrans, and the Oregon and Minnesota DOTs suggesting clarifying language to item A in the STANDARD statement that provides for the use of separate or shared left turn signal faces and separate signal face sequences for "permissive only" mode of operation. The FHWA agrees and includes additional clarifying language in this final rule.

183. In Section 4D.09 Unexpected Conflicts During Green or Yellow Intervals, the FHWA received comments from the NCUTCD and the City of Tucson, Arizona, regarding the revision to item A of the STANDARD statement. These commenters were concerned about the proposal to add an exception for the situation regarding U-turns as described in item F.2 of Section 4D.05 Application of Steady Signal Indications to the prohibition of displaying a steady GREEN ARROW or YELLOW ARROW signal indication to vehicular movements that conflict with other vehicles moving on a green or yellow signal indication. (See the discussion regarding Section 4D.05) Accordingly, the FHWA revises item A to be consistent with the changes in Section 4D.05 that change the text to an OPTION.

184. In Section 4D.10 Yellow Change and Red Clearance Intervals, the FHWA received several comments from Caltrans, AAA, and a private citizen proposing changes to how the yellow change interval and the red clearance interval are calculated. These comments go beyond the scope of this rulemaking, and would need to be addressed in a future rulemaking.

185. In Section 4D.12 Flashing Operation of Traffic Control Signals, the FHWA received two comments from the cities of Tucson, Arizona, and Kennewick, Washington, in agreement and two comments from Caltrans and the Wisconsin DOT opposed to revising the GUIDANCE statement to eliminate the word "maximum" in describing the duration of six seconds for a steady red clearance interval in the change from red-red flashing mode to steady (stop and go) mode. Caltrans felt that the time duration should not be fixed at a specific number of seconds because of difficulties in timing the interval exactly. The FHWA disagrees with the opposing comments because less than six seconds is not enough time to recognize that the signal has stopped flashing, and more than six seconds is too long, creating unnecessary congestion at the intersection. Also, modern traffic signal control equipment provides accurate digital timing of an interval such as this. The FHWA adopts the language as proposed in the NPA.

186. In Section 4D.15 Size, Number, and Location of Signal Faces by Approach, the FHWA received two comments from AAA and Caltrans suggesting stronger language to require the use of 300 mm (12 inch) signal heads, rather than 200 mm (8 inch) signal heads in order to improve visibility and safety. Because there were no changes to this wording proposed in

<sup>36</sup> The "Uniform Vehicle Code and Model Traffic Ordinance," 2000 edition, is published by the National Committee on Uniform Traffic Laws and Ordinances (NCUTLO), 107 S. West Street, #110, Alexandria, Virginia 22314. It is available for inspection at the FHWA Office of Transportation Operations, 400 7th Street, SW., Room 3408, Washington, DC 20590, as prescribed at 49 CFR part 7. Purchase information is available on the Web site for NCUTLO at <http://www.ncutlo.org>.