

signals are not common or typical at this point in time. The FHWA agrees with these comments and withdraws this proposal. Because the figure illustrates how to apply the GUIDANCE, the title of "Recommended \* \* \*" is more accurate than "Typical \* \* \*". Three commenters from associations representing the blind community commented that the FHWA's arrows symbolizing push buttons in Figure 4E-2 were incorrectly revised in the NPA. The pushbuttons and arrows are shown correctly on this figure in the NPA. They were shown incorrectly in the 2000 MUTCD. The FHWA adopts this change as shown in the NPA.

195. In Section 4E.10 Pedestrian Intervals and Signal Phases, (numbered as Section 4E.09 in the 2000 MUTCD), the FHWA removes from the first OPTION statement the desire to favor the length of an opposing signal phase as a condition for using walk intervals as short as 4 seconds. Three commenters representing associations for the blind community agreed, and the FHWA adopts this revision.

The FHWA received over 15 comments from State and local DOTs, the U.S. Access Board, and private citizens regarding the proposal to increase the pedestrian clearance time so that it is sufficient to allow the pedestrian to clear the full width of the traveled portion of the roadway in the second GUIDANCE statement. Six commenters, representing the U.S. Access Board and associations for pedestrians, bicyclists, and the blind, were in agreement with the change.

Eight commenters, representing Caltrans, the North Carolina, Oregon, and Missouri DOTs, the Cities of Campbell, California, and Dallas, Texas, and a traffic engineering consultant opposed the change, stating cost of retiming, lack of need, increased cycle lengths, and difficulty with signal progression as the basis for their opposition. While the FHWA realizes that this is an issue for which there is significant interest and diverging opinions, the FHWA adopts the language as proposed in the NPA. Despite some potential impacts on agencies, the FHWA believes that it is appropriate to better address pedestrian timing needs and requiring calculation to the far side of the traveled portion of the roadway is now appropriate for adequate pedestrian safety. With the increases in the number of coordinated signal systems, with platoons of vehicles potentially arriving at the intersection at the start of the green indication, and with more prevalent aggressive driving behavior, it is a significant safety concern for

pedestrians to be given only enough clearance time that they are in the middle of a travel lane when the platoon arrives at the start of green. This change will result in only a very small increase in the pedestrian clearance time but will significantly enhance pedestrian safety. The FHWA establishes a phase-in target compliance date of five years for this GUIDANCE, for existing traffic control signals in good condition to minimize any impact on State or local governments.

Additionally, the FHWA adds to the first paragraph of the last OPTION statement the option of containing the pedestrian clearance time within the vehicular green and yellow change intervals. The North Carolina DOT agreed with this change. The FHWA adopts this change as proposed in the NPA. However in a directly related issue, the NCUTCD commented that, in the second paragraph of the STANDARD statement, revisions should be made to prohibit the flashing of the UPRAISED HAND (symbolizing DON'T WALK) indication during the yellow change or red clearance intervals of the concurrent vehicular phase. The NCUTCD stated that this would give pedestrians approximately 4 to 5 seconds of extra time to get to the curb or edge of traveled way prior to the release of opposing traffic, similar to the red clearance interval to which drivers have become accustomed. The FHWA disagrees with this comment because to make the prohibition of flashing UPRAISED HAND extending into the yellow interval apply to all locations without the countdowns would require the opportunity for additional public notice and comment in a future rulemaking action due to the potentially large cost impacts to some jurisdictions that currently have all their controllers set up to display flashing UPRAISED HAND through the yellow interval. However, because of the need for consistency, safety, and uniformity of operation of all countdown pedestrian signal displays, the FHWA adds a new STANDARD statement in this section stating: "If countdown pedestrian signals are used, a steady UPRAISED HAND (symbolizing DON'T WALK) signal indication shall be displayed during the yellow change interval and any red clearance interval (prior to a conflicting green being displayed.) (See Section 4E.07)." This is for consistency with requirements for countdown pedestrian signal displays adopted in Section 4E.07.

196. In Section 4F.01 Applications of Emergency-Vehicle Traffic Control Signals, the FHWA proposed adding to the OPTION statement the choice of

installing an Emergency Beacon instead of an emergency vehicle traffic control signal. This corresponded to the proposed new Section 4F.04 in the NPA that proposed adding Emergency Beacons as an alternative to Emergency Vehicle Traffic Control Signals. Based on comments on Section 4F.04, the FHWA is not adopting that section. (See also the discussion of Section 4F.04). Therefore, the FHWA withdraws the proposed addition to the OPTION statement in Section 4F.01.

Additionally, the FHWA revises the GUIDANCE statement to recommend following the provisions of Chapter 4D Traffic Control Signal Features not only if a numerical signal warrant is met, but also if a decision is made to install a signal after an engineering study, for consistency with Chapter 4C Traffic Control Signal Needs Study. There was one comment from the City of Tucson, Arizona, in support of this change, and the FHWA adopts this change.

197. In Section 4F.02 Design of Emergency-Vehicle Traffic Control Signals, the FHWA revises the GUIDANCE statement to indicate that two signal faces are required for each major street approach, and that at least one of those two signal faces should be located over the roadway. This change is for consistency with Chapter 4D Traffic Control Signal Features. There was one comment from the City of Tucson, Arizona, in support of this change. The FHWA adopts this change.

198. The NPA included a proposal by the FHWA to add a new section following Section 4F.03 Operation of Emergency-Vehicle Traffic Control Signals. This proposed new section was numbered and titled "Section 4F.04 Emergency Beacon" and contained STANDARDS, SUPPORT, GUIDANCE, and OPTIONS concerning the design, use, and application of Emergency Beacons. Five public agencies, the Caltrans and the Minnesota, North Carolina, Oregon, and Wisconsin DOTs, commented in opposition to the addition of this section, citing many concerns with the Emergency Beacon. Most commenters stated that the proposed new section included non-standard operations and signal displays that are in conflict with driver expectation. Concerns expressed included:

(1) The proposed arrangement of colors of indications within the signal face for an Emergency Beacon is different from all other signal faces. People with red/green color blindness may perceive it to be flashing red and green alternately based on indication location within the signal face;