



U.S. Department
of Transportation
**Federal Highway
Administration**

1200 New Jersey Ave., SE
Washington, D.C. 20590

JUN 18 2014

In Reply Refer To:
HOTO-1

Dr. Chris M. Law
738 15th Street South, #B
Arlington, Virginia 22202

Dear Dr. Law:

Thank you for your letter of June 13 requesting an official interpretation regarding whether audible countdown pedestrian signals are compliant with the Manual on Uniform Traffic Control Devices (MUTCD).

Paragraph 25 in Section 4E.11 requires accessible pedestrian signals to revert to the pushbutton locator tone during the pedestrian change interval. There are no provisions in the MUTCD that permit an audible countdown during the pedestrian change interval. Paragraph 22 in Section 4E.11 says that speech walk messages are not required when the walk interval is not timing, but if a speech message is provided when the walk interval is not timing, it shall begin with the term "wait". An audible countdown of the number of seconds left in the pedestrian change interval does not begin with the term "wait".

The prohibition of an audible countdown during the pedestrian change interval is intentional. Both the Federal Highway Administration and mobility experts who specialize on accessibility issues for persons with visual disabilities believe that there are serious safety concerns associated with an audible countdown. Among the concerns expressed to us by mobility specialists are the following:

1. The most important sounds that pedestrians who have visual disabilities need to hear as they cross the roadway are the sounds that come from vehicles using the intersection. Decisions about whether to proceed, wait, or try to speed up need to be based on what is happening at the intersection on a moment-by-moment basis, not on a pedestrian signal indication. An audible countdown might interfere with the ability of pedestrians who have visual disabilities to hear the sounds of vehicles that might be crossing their path. An audible countdown is heard for a much larger proportion of the time than is occupied by the very short sound bursts of the locator tone, and thus might make it more difficult to hear vehicular sounds.
2. The sharp onset of each locator tone aids in localizing the source of the tone. While speech messages have been found to be somewhat localizable, in the wider field of sound localization research, sharp onsets of tones have been shown to facilitate localization. Maintaining a straight line of travel across the street is a critical aspect of wayfinding for

pedestrians who have visual disabilities. Thus, being able to hear and localize the accessible pedestrian signal locator tone on the far end of a crosswalk reduces the probability that pedestrians who have visual disabilities will veer into moving vehicular traffic.

3. Pedestrians who have visual disabilities who are unfamiliar with a particular crossing have limited information upon which to judge the width of that crossing, and therefore have limited ability to know whether they will be able to make a crossing in the time remaining. Using only percussive tones without an audible countdown during the pedestrian change interval encourages pedestrians who have visual disabilities to wait until the next walk interval to begin their crossing.
4. When pedestrians who have visual disabilities hear that the countdown has reached zero and they are still crossing, they might not have access to visual information (such as viewing that a red signal indication is still being shown to conflicting traffic) that could reassure them that they still have a short time before the conflicting traffic is released. This can result in very high anxiety. In most cases, pedestrians who have visual disabilities will already be crossing at their maximum velocity.

It is therefore the FHWA's official interpretation that providing an audible countdown during the pedestrian change interval at an accessible pedestrian signal does not comply with the MUTCD.

For recordkeeping purposes, we have assigned the following official ruling number and title: "4(09)-40 (I) – Audible Countdown Pedestrian Signals." Please refer to this number and title in any future correspondence regarding this topic.

Thank you for your interest in improving the clarity of the provisions contained in the MUTCD.

Sincerely yours,



for Mark R. Kehrl
Director, Office of Transportation
Operations