

U.S. Department of Transportation
Federal Highway Administration
400 Seventh St., S.W.
Washington, D.C. 20590

Refer to: HOTO-1

December 16, 1999

Mr. Kenneth M. Magnus
City Surveyor and Engineer
The City of Lake Forest
110 East Laurel
Lake Forest, IL 60045

Dear Mr. Magnus:

We have reviewed your November 10 letter regarding your request to experiment with pedestrian countdown signals and offer the following comments. As stated in Section 1A-6 of the Manual on Uniform Traffic Control devices (MUTCD), please provide the following in your experimentation request and evaluation plan:

- A statement indicating the nature of the problem you hope to mitigate by experimentation with countdown signals.
- A picture of the countdown signal you are intending to use.
- A description of how the use of countdown signals is expected to be an improvement over existing standards (Is your goal a reduction in crashes and/or a reduction in violation of pedestrian signals? This will identify the focus of your evaluation plan).
- A detailed evaluation plan. We are enclosing sample forms to use for data collection. Below we list some guidelines for what we expect in your evaluation plan:
 - Data should be collected before and after installation of the countdown signal.
 - A large number of pedestrian observations should be made (100+).
 - Data should be collected during the same time period and on the same day of the week.
 - Observations of pedestrian and driver behavior should be collected along with the survey data.
 - Pedestrian data that should be collected as a minimum:
 1. Compliance with the pedestrian signal. When pedestrians arrive at the corner, do they cross with the WALK, the flashing DONT WALK, or the solid DONT WALK?
 2. When pedestrians finish crossing, is it during the WALK, the

- flashing DONT WALK, or the solid DONT WALK?
 - 3. Is the pedestrian male or female?
 - 4. What is the pedestrian's age group? (0-17, 18-64, or 65+)
 - 5. How was the crossing accomplished? (For Example: ran across, walked across, aborted the crossing, there was a conflict with a vehicle, or combinations of the above)
 - 6. Note whether the observance was of a pedestrian walking alone or in a group.
- Driver data (parallel to the pedestrian crossing) that should be collected as a minimum:
 - 2. What was the signal display during arrival at the intersection (GREEN ARROW, CIRCULAR GREEN, YELLOW, YELLOW ARROW, RED, RED ARROW)?
 - 3. What was the vehicle's maneuver (straight through, right turn, left turn)?
 - 4. What was the signal display as the vehicle proceeds through the intersection (GREEN ARROW, CIRCULAR GREEN, YELLOW, YELLOW ARROW, RED, RED ARROW)?
 - 5. Was there a conflict with a pedestrian?
- The Pedestrian Survey needs to be revised as follows:
 - 1. The age categories in the pedestrian survey should be revised to: 0-17, 18-64, or 65+.
 - 2. Question 3 as written does not really indicate whether the pedestrian understands what the signal indications mean. We suggest you rephrase this question to get the pedestrian to explain or select the meaning of the indications (multiple choice answers). For example: What does the WALK indication mean? What does the flashing DON'T WALK mean? What does the solid DON'T WALK mean?
 - 3. Question 4 as written also does not indicate whether the pedestrian really understands what the countdown signal means. We suggest you add an extra question: What do the numbers indicate to you?
 - 4. We suggest you add an additional question to inquire whether the pedestrian crosses any differently with the countdown signal than with traditional pedestrian signals.

In addition to the requirements found in Section 1A.6 of the MUTCD, we offer the following comments:

- Will the countdown device reflect the total amount of time (WALK + DON'T WALK), or will separate times for the WALK and DON'T WALK be displayed?

- You propose to locate the Advisory Sign below the pedestrian countdown signal heads. With the proposed dimension of this sign being 6" x 9.5", it is unlikely this will be legible from the far side of the crosswalk. Please consider alternate placement of the sign, perhaps near push buttons or signal poles facing pedestrians about to cross.
- Since your survey questions refer to both traditional pedestrian signals with the "WALK," flashing "DON'T WALK," and steady "DON'T WALK," please address whether one or two crosswalks at the intersection should display these traditional pedestrian signals for comparison purposes.

Your request to experiment with the pedestrian countdown signals will be approved, contingent on receipt and review of a more detailed request and experimentation plan including the items requested above.

For future reference purposes, we have assigned the following official experimentation number and title to your request: IV-168(Ex) - "Pedestrian Countdown Signals." Please refer to this number in future correspondence.

If we can be of further assistance, please contact Ms. Louisa M. Ward on 202-366-4372.

Sincerely yours,

Donald P. Steinke
Director, Office of Transportation
Operations