



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

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400 Seventh St., S.W.  
Washington, D.C. 20590

December 5, 2002

Refer to: HOTO-1

Mr. Tim Gates  
Assistant Transportation Researcher  
Transportation Operations Group  
Texas Transportation Institute  
3135 TAMU  
College Station, TX 77843-3135

Dear Mr. Gates:

Thank you for your November 4 letter requesting permission to experiment with flashing Light Emitting Diodes (LED's) placed within the border, at the corners of a STOP sign. The locations proposed for this experimentation are on Texas Department of Transportation (DOT) highways in the Waco and Bryan districts and in the city of College Station, Texas. The Federal Highway Administration (FHWA) is interested in the possible safety improvement offered by this new approach, which incorporates red LED's in the face of a STOP sign. In May of 2001, we approved the request from the city of Salinas, California, to carry out an experimentation with this new device under an official ruling request number 2-480(EX) and titled, "STOP Sign with 8 Flashing LED's Within Sign's Border." The results of this experimentation have been forwarded to the FHWA's Turner Fairbanks Highway Research Laboratory for their review and comments. We have also forwarded the results of this experimentation to the National Committee on Uniform Traffic Control Devices.

As you may be aware, the FHWA has published in the Federal Register a Notice of Proposed Amendment (NPA) for Revision No. 2 of the Manual on Uniform Traffic Control Devices (MUTCD). This NPA includes LED's as a means of illumination that highlight the sign shape, color, or message in Table 2A-1. The docket for comments on this NPA closed on August 19 and a final rule for Revision No. 2 is anticipated in mid-2003. Until such time as a final rule is issued, the use of LED's within the corners of a Stop sign are still considered experimental.

The FHWA approves your request to experiment with flashing LED's within the corners of STOP signs located on Texas DOT highways in both rural and suburban settings within Waco and Bryan districts and in the city of College Station, Texas, with the following conditions:

1. The placement of the flashing LED's in the corners of a STOP sign face should correspond to the requirements of Table 2A-1 of the proposed MUTCD Revision No. 2.
2. The flash rates should conform to the requirements for flashing beacons as detailed in MUTCD Part 4, Traffic Signals.



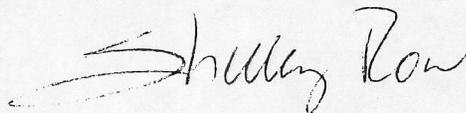
3. Your evaluation should include a measurement of the intensity of the LED's. It should also measure the retroreflective properties of the red and white colors on the STOP sign face.
4. Per Section 1A.10 of the MUTCD the experimentation must be terminated at any time that you determine that significant safety concerns are directly or indirectly attributable to the experimentation. Also, please note that the FHWA's Office of Transportation Operations retains the right to terminate approval of the experimentation at any time if there is an indication of safety concerns.
5. An agreement to provide semiannual progress reports for the duration of the experimentation, and an agreement to provide a copy of the final results of the experimentation to the FHWA's Office of Transportation Operations within 3 months following completion of the experimentation. The FHWA's Office of Transportation Operations has the right to terminate approval of the experimentation if reports are not provided in accordance with this schedule.

For reference purposes, FHWA has assigned your request the following official ruling number and title: "2-508(E)--Flashing Light Emitting Diodes (LED's) Placed Within the Border at the Corners of a Stop Sign." Please refer to this number in future correspondence.

Your request to experiment is approved for a period of 1 year or until such time as a final ruling on Revision No.2 of the MUTCD is made, whichever occurs first. Upon issuance of a final ruling on Revision No. 2, Texas DOT may be required to modify or to remove the flashing LED's in the corners of the Stop signs depending on the details of the final rule. Additionally, it is important to note that patented, registered, or copyrighted devices are not included in the MUTCD. The devices and concepts discussed in the MUTCD are considered part of the public domain and must be available for design and use by anyone responsible for selecting and installing traffic control devices.

If you have questions or wish additional information, please feel free to call Mr. Fred Ranck, Safety Engineer, at 708-283-3545 at FHWA's Midwestern Resource Center.

Sincerely yours,



Shelley J. Row, P.E.  
Director, Office of Transportation  
Operations