



# Texas Department of Transportation

DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

May 19, 2011

Mr. Hari Kalla  
MUTCD Team Leader, Office of Operations (HOTO-1)  
Federal Highway Administration  
1200 New Jersey Avenue SE, E84-316  
Washington, DC 20590

RE: Request to Experiment Addendum – New Sign to be used with STOP/SLOW AFADs

Dear Mr. Kalla:

After discussions with Ken Wood of FHWA, the Texas Department of Transportation (TxDOT) is submitting an addendum to the request to experiment that was submitted on May 9, 2011. The request to experiment is for a new sign to be used with STOP/SLOW automated flagger assistance devices (AFADs) in an attempt to increase safety at lane closures on two-lane, two-way roadways. All test locations will be located on the highway system under the jurisdiction of TxDOT. Through the attached request, we are seeking permission to experiment with this new sign.

If you have any questions, please contact Michael Chacon at (512) 416-3120.

Sincerely,

Carol T. Rawson, P.E., Director  
Traffic Operations Division

Attachment

cc: Melisa Finley, Texas Transportation Institute  
Ken Wood, FHWA

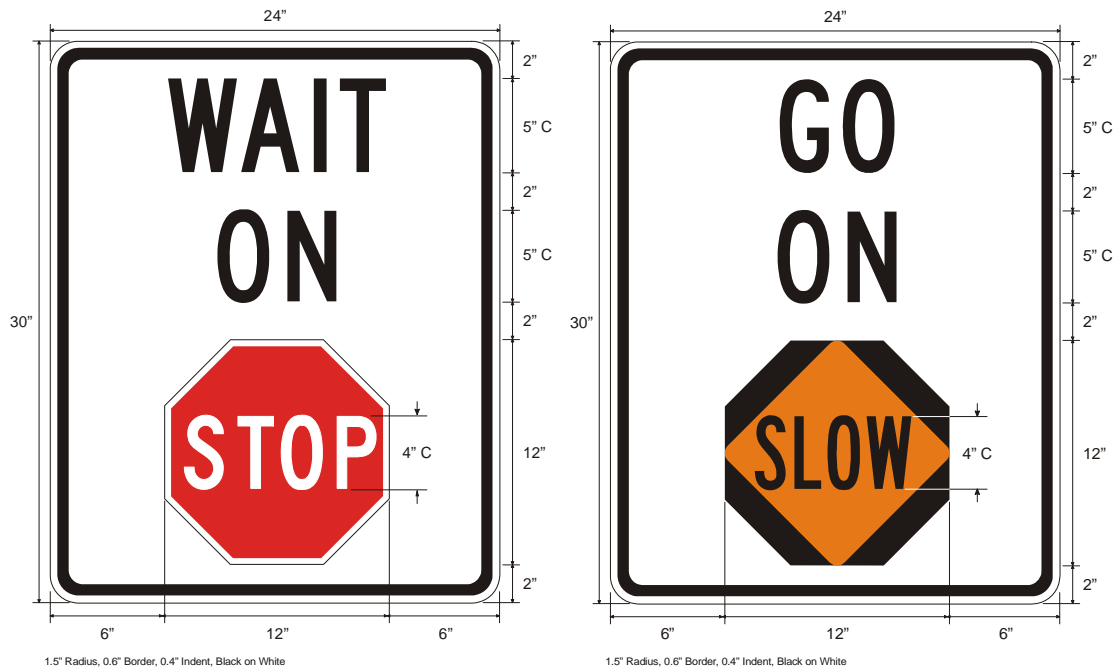
THE TEXAS PLAN

REDUCE CONGESTION • ENHANCE SAFETY • EXPAND ECONOMIC OPPORTUNITY • IMPROVE AIR QUALITY  
PRESERVE THE VALUE OF TRANSPORTATION ASSETS

## Addendum to May 9, 2011 Request to Experiment

### New Signs

Per discussions with FHWA personnel, TxDOT revised the symbol sign designs as shown in Figure 1. The height of the WAIT ON and GO ON text has been reduced to 5 inches in order to increase the size of the symbols. This is one inch less than the height recommended in the MUTCD (Part 6 Section 6E.05 Paragraph 14). The symbols are now 12 inches high with 4 inch letters. The overall sign dimensions remain the same (i.e., 24 inches by 30 inches).






**Figure 1. New Signs to be used with STOP/SLOW AFADs.**

### Field Study Experimental Plan

The field study treatments are shown in Table 1. In 2010, TTI researchers conducted field studies at 6 sites in Texas to evaluate the STOP/SLOW AFAD with the standard WAIT ON STOP sign (R1-7). TTI researchers collected over 20 hours of observational data, which included 362 stop periods. TTI researchers also conducted surveys of drivers stopped at the AFAD on days when no observational data were being collected.

**Table 1. STOP/SLOW AFAD Field Study Treatments.**

<b>Signs</b>	<b>Data Collection Schedule</b>	<b>Objective</b>
 R1-7	Summer 2010	Determine the impact of the current standard
 R1-7 R1-8	Summer 2011	Determine the impact of adding the GO ON SLOW sign
	Summer 2011	Determine the impact of using the new signs

In June-July 2011, TTI researchers plan to conduct additional field studies to evaluate:

- The use of the WAIT ON STOP sign (R1-7) with the GO ON SLOW sign (R1-8) and
- The use of both new signs shown in Figure 1.

TTI researchers are not going to evaluate the use of the new WAIT ON STOP symbol sign by itself since Phase 1 motorist comprehension data suggested that both a “wait” message and a “go” message were needed to improve comprehension of the correct driving action. Based on these data, TTI researchers did not evaluate the new WAIT ON STOP symbol sign without the GO ON SLOW symbol sign in Phase 2 of the motorist surveys. Since researchers do not have motorist comprehension data to support the use of the WAIT ON STOP symbol sign by itself, they do not feel that it is appropriate to test the new WAIT ON STOP symbol sign by itself in the field.