

## Evaluation of Low-Cost Safety Improvements Pooled Fund Study

### *Progress Report as of January 01/02/08*

The goal of this research is to develop reliable estimates of the safety effectiveness of safety improvements identified as strategies in the National Cooperative Highway Research Program (NCHRP) Report 500 Guidebooks through scientifically rigorous before-after evaluations of sites within the U.S. where these strategies are being implemented. A target of 20 strategies totaling \$4.38 million over 3 to 5 years is planned for ELCSI-PFS studies in four phases. The progress for each phase is stated below.

#### **Phase I - Retrospective Evaluation**

Evaluations include following strategies:

1. STOP Signs with Increased Retroreflectivity,
2. Flashing Beacons,
3. STOP AHEAD Pavement Markings, and
4. Two-Way Left-Turn Lanes.

**Status: The Phase I evaluations are completed and its final reports and technical briefs have been reviewed by the TAC members for approval. The publication process for the phase I final reports and technical briefs have been initiated.**

#### **Phase II - Retrospective Evaluation**

Evaluations include following strategies:

1. Offset Left-Turn Lanes,
2. Advance Street Name Signing,
3. Combinations of Shoulder and Centerline Rumble Strips/Stripes, and
4. Lane Width/Shoulder Width Combinations.

**Status: The first draft report for the "Lane Width/Shoulder Width Combinations" will be submitted for internal review in the next few weeks.**

**Due to need for reliable and sufficient data, the "Advance Street Name Signing", and the "Combinations of Shoulder and Centerline Rumble Strips/Stripes" strategies are ongoing and data are being compiled for these strategies. Compiled data for these two strategies are expected to be analyzed in 2009.**

**The first draft report for the "Offset Left-Turn Lanes" is due in spring of 2008.**

#### **Phase III - Prospective Evaluations**

In the annual TAC Meeting, 2007, a set of strategies were selected by the TAC members. These sets of strategies were studied for feasibility and following strategies were selected from the above set and have been submitted to TAC member for review (12/18/07.)

1. Run-Off-Road (ROR) Countermeasures (two-lane rural)
2. Alternative Passing Lanes or Four-Lane Sections
3. Install Interactive Truck Rollover Signs
4. Advanced Warning Flashers (signalized intersections)

**Status: At present these strategies are in the process of review by the TAC members to be built and evaluated upon approval.**

#### **Phase IV - Simulation**

The simulation phase has two parts as described below.

**Part1- The low cost safety improvements for curves will include;**

- Edge lines,

- Chevrons, and
- Post-mounted delineators.

These safety countermeasures are all designed to enhance the visibility of curves at night.

***Part 2- The low cost safety improvements for small towns will include;***

- Bulb-outs,
- Chicanes, and
- Medians.

These safety countermeasures are all designed to slow traffic down while driving through small towns.

**Status: Work plans are in the process for final approval for evaluations by the FHWA's Driving Simulation Lab for the above strategies . The simulations are expected to be completed by the June of 2009.**