

# **Alabama Safety Edge Open House Demonstration and Final Report**



**Submitted by:**

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**Alabama Local Technical Assistance**

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## Background

Nationally, 56 percent of fatal crashes involve roadway departures. Maintaining safe pavement edges is critical to providing an opportunity for drivers to recover safely from a roadway departure, the number two goal in the Federal Highway Administration's (FHWA's) Roadway Departure Strategic Plan.

Research has shown that crashes involving pavement edge drop-offs are sometimes up to 4 times as likely to be fatal as other crashes. Other research shows that installation of a 30-degree wedge during the paving operation can reduce to almost zero the likelihood of a fatal crash related to the edge.

Now, as one of FHWA's Proven Safety Countermeasures, the goal is for local agencies to make it part of their normal paving processes. The Alabama Technology Transfer Center (T<sup>2</sup>), Alabama's Local Technical Assistance Program (LTAP) center, accepted an invitation from the FHWA Safety Edge Team to provide technical assistance in showcasing the safety and pavement benefits of the Safety Edge in Alabama. Alabama Technology Transfer Center (T<sup>2</sup>) partnered with the Safety Edge Team, the FHWA Alabama Division, Alabama Department of Transportation (ALDOT), The National Center for Asphalt Testing (NCAT) and LEE COUNTY to develop a demonstration event that would showcase the simplicity and benefits of this paving technique to a wide audience of local agencies and roadway safety stakeholders.

## The Safety Edge Demonstration Event

Alabama Technology Transfer Center (T<sup>2</sup>) Technical Assistance Coordinator Garry Havron worked with FHWA Alabama Division Safety Engineer Linda Guin to identify a suitable location for the open house and demonstration event. After several unsuccessful attempts to locate a suitable site and several emails back and forth. A site was selected in LEE COUNTY Alabama. The road was called Pierce Chapel Road, and it was to be the first Safety edge put down in LEE COUNTY.

The Alabama Technology Transfer Center sent an email announcement and invitation to participate in the Safety Edge demonstration event to hundreds of in-state contacts in mid May. Online registration quickly climbed to more than 40 participants, equaling the capacity of the meeting room at the Hampton Inn Suites in Opelika, AL. On the date of the event, 47 individuals were on-hand to participate in the event. This total included 13 local agency representatives, 21 state agency representatives, 10 private sector representatives, 1 federal agency representatives, and 2 (T<sup>2</sup>) representatives. This diverse group includes not only the local

agency officials who comprise the primary target audience for the event, but also a mix of engineering consultants, contractors, state transportation officials, and FHWA staff members whose work will be vital to increasing the overall use, availability, and acceptance of the Safety Edge in Alabama. A complete listing of Safety Edge Demonstration participants, and Flyer for advertisement is included in Appendix A.

Participants were welcomed at the beginning of the open house portion of the event by Alabama (T2) Administrator Garry Havron. The first presentation was made by FHWA Alabama Division Safety Engineer Linda Guin. Mrs. Guin's presentation addressed the need for the Safety Edge and addressed several technical issues which are keys to successful implementation. A second presentation was made by Dr. Buzz Powell, The National Center for Asphalt Technology at Auburn University. Dr. Powell emphasized the research that has been done and its effects on the test track at The National Center for Asphalt Technology at Auburn University. Key messages from both presentations included:

- Roadway departure crashes are a significant problem on our nation's roadways. These crashes result in an average of one fatality every 29 minutes, or 50 per day.
- The Safety Edge creates a 30-degree pavement edge profile that can be safely traversed by a wide variety of vehicles even with relatively high drop-offs.
- Several vendors offer commercial Safety Edge devices that can be added to existing paving equipment. Other agencies, including the North Carolina DOT, have developed in-house solutions that can be duplicated by other organizations. Commercial Safety Edge shoes range in cost from \$700 to \$3,000.
- When using the Safety Edge, shoulder clipping should be performed prior to paving to achieve optimal results.
- Use of the Safety Edge results in minimal project cost increases. The National Center for Asphalt Technology at Auburn University estimates that the Safety Edge requires only 0.1 percent more pavement material than conventional paving processes.
- The Safety Edge is not suitable for some pavements and roadways. Examples of unsuitable project characteristics include open-graded surface mixes, "mill and fill" operations where the shoulder is not repaved, roadways with curb and gutter, and locations where the shoulder drops off at an angle greater than 30 degrees.
- The Safety Edge can be utilized on thin overlays. Lift thickness does not correlate with edge depth.
- The Safety Edge results in a more durable pavement edge because the shoe increases density by up to 2%.
- More than 40 states routinely evaluate the Safety Edge for use on paving projects.

**APPENDIX A**

**FLYER**



*FHWA, ALDOT, NCAT, Alabama LTAP, and East Alabama Paving, will host an Open House to showcase the Safety Edge for managing pavement edge drop-offs.*

- **Project Description**
- **Safety Edge Overview**
- **Site Visit**
- **Paving Demonstration\***

\* weather permitting

**What:**

**Road Safety Edge Open House  
Pierce Chapel Road**

**Where:**

**Hampton Inn Suites  
3000 Capps Way  
Opelika, AL, 36804, US  
Phone Number: (334) 745-4311**

**WHO SHOULD ATTEND:**

**The Safety Edge Open House and Demonstration is open to staff and administrators from county highway departments, municipal public works, street, or engineering departments, and other agencies that may benefit from use of the Safety Edge.**

**When:**

**Wednesday, May 27, 2015  
Time 9:00AM**

**Register online at:**

<https://register.uce.auburn.edu/CourseStatus.awp?&course=C150527se>

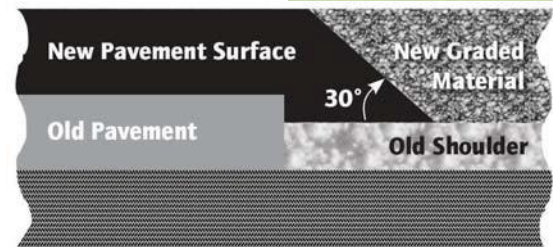
**This is a Free Demo with Lunch Included**

**For More Information please contact:**

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The Safety Edge is created by a shoe installed on the paver to create a 30-degree consolidated wedge.



At minimal additional cost, the Safety Edge provides a roadway edge that allows errant vehicles to return to the roadway safely. A stronger transition with the graded material can also reduce the level of maintenance required.