



## WHAT IS THE COUNTERMEASURE?

The Safety Edge<sub>SM</sub> is a proven technology that shapes the edge of a paved roadway at approximately 30 degrees from the pavement cross slope during the paving process. The Safety Edge<sub>SM</sub> eliminates tire scrubbing, a phenomenon that contributes to losing control of a vehicle when trying to reenter onto the travel way. It has been successfully constructed on both asphalt and concrete pavements. The Safety Edge<sub>SM</sub> has minimal impact on project cost combined with the potential to improve pavement life.

Vertical pavement edges are a recognized detriment to safety, contributing to severe crashes that frequently involve rollovers or head-on collisions. Studies in some states find that crashes involving edge drop-offs are two to four times more likely to include a fatality than other crashes on similar roads. Providing a flush, unpaved

surface adjacent to the pavement resolves the issue temporarily, but the material is often displaced or settles over time, recreating the dangerous drop-offs either continuously or intermittently along the pavement edge.

An empirical Bayes evaluation published in the Safety Evaluation of the Safety Edge Treatment (FHWA-HRT-11-024) indicates that the application of Safety Edge<sub>SM</sub> led to an estimated reduction of 6 percent in total crashes on two-lane highways. Because of the low cost of the Safety Edge<sub>SM</sub>, the benefit-cost ratio on two-lane roads ranges from 4 to 63.

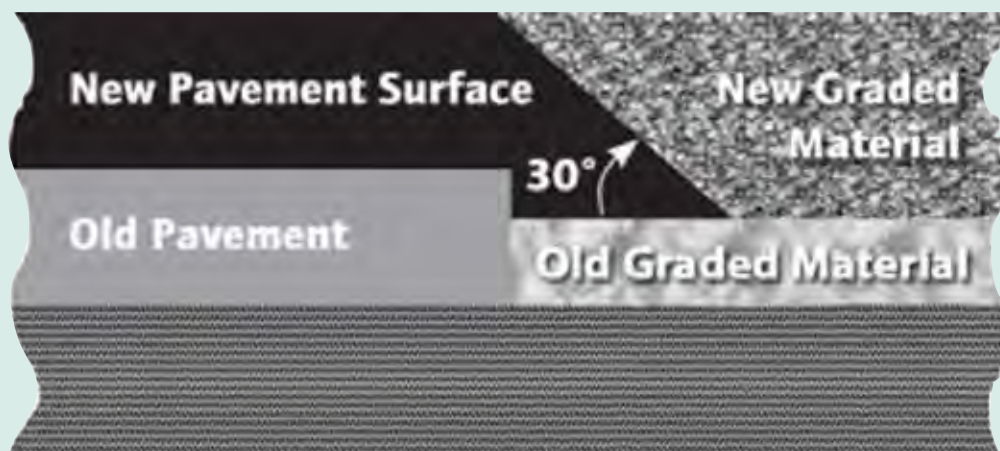
## WHAT HAVE WE DONE SO FAR?

The FHWA California Division, in conjunction with Headquarters, the Resource Center and Caltrans Headquarters, has provided presentations and technical assistance to over 700 State and local stakeholders to date. This includes three open house/demos; one each with Plumas, Calaveras and Tuolumne counties.

Grizzly Road, Plumas County (September 2010)



Cross section of Safety Edge<sub>SM</sub>



## WHERE DO WE WANT TO GO? – SUCCESSFUL PRACTICES, LESSONS LEARNED, POINTERS FOR IMPLEMENTATION

FHWA continues to work primarily with locals to encourage the use of the Safety Edge<sub>SM</sub> through presentations and technical assistance when requested, and by hosting one additional open house/demo with Kings County in the fall of 2015 in conjunction with the LTAP Center.

Caltrans has produced plans and specs for both asphalt and concrete and can be found at:

- [http://www.dot.ca.gov/hq/esc/oe/project\\_plans/highway\\_plans/stdplans\\_US-customary-units\\_10/viewable\\_pdf/rspp74.pdf](http://www.dot.ca.gov/hq/esc/oe/project_plans/highway_plans/stdplans_US-customary-units_10/viewable_pdf/rspp74.pdf)
- [http://www.dot.ca.gov/hq/esc/oe/project\\_plans/highway\\_plans/stdplans\\_US-customary-units\\_10/viewable\\_pdf/rspp75.pdf](http://www.dot.ca.gov/hq/esc/oe/project_plans/highway_plans/stdplans_US-customary-units_10/viewable_pdf/rspp75.pdf)
- [http://www.dot.ca.gov/hq/esc/oe/project\\_plans/highway\\_plans/stdplans\\_US-customary-units\\_10/viewable\\_pdf/rspp76.pdf](http://www.dot.ca.gov/hq/esc/oe/project_plans/highway_plans/stdplans_US-customary-units_10/viewable_pdf/rspp76.pdf)
- [http://www.dot.ca.gov/hq/esc/oe/construction\\_contract\\_standards/SSPs/2010-SSPs/ rss/RSS\\_A07-18-14.docx](http://www.dot.ca.gov/hq/esc/oe/construction_contract_standards/SSPs/2010-SSPs/ rss/RSS_A07-18-14.docx)

Caltrans incorporates the Safety Edge<sub>SM</sub> on all paving projects where the lift is .15' or greater.

The Safety Edge<sub>SM</sub> is manufactured by four different companies. The instructions for installing and use of each are fairly straight forward. Preparation of the shoulder and engagement of the Safety Edge<sub>SM</sub> are most critical to a successful end product.

**Mountain Ranch Road, Calaveras County (August 2012)**



**Woodham Carne Road, Tuolumne County (August 2014)**

