




## 2 FOR THE ROAD A DOUBLE SAFETY SOLUTION

 The 2000 Fatal Analysis Reporting System (FARS) reported that 52 percent of the fatal crashes in Mississippi were single vehicle "Run-Off-Road" (ROR) crashes. The National Transportation Safety Board has found that fatigue or drowsiness is a significant factor in ROR crashes. Other factors contributing to ROR crashes include driver inattention, wet pavement, and poor visibility. Therefore, the need for the highway community is clear; focus efforts on developing countermeasures that will provide the driver with positive guidance and an



effective warning of a departure from the roadway.

The Mississippi Department of Transportation (MDOT) is making a great effort to reduce the crashes and fatalities in their state. "Safety is always on the forefront in everything we do" said MDOT's James Kopf, Deputy Executive Director/Chief Engineer. MDOT's assertive efforts to test different rumble strip designs in combination with striping, places them on the cutting edge in developing countermeasures to ROR crashes.

The initial reviews at night during the heavy rains of southern Mississippi

have indicated an enhanced performance for the striping when applied on the rumble strips. The vertical face of the rumble strips provides a raised texture that enhances the retroreflective performance of the striping material. Following a complete evaluation of this countermeasure, MDOT will determine the extent and the best approach of deployment. If fully implemented, this countermeasure could have significant safety results in Mississippi since it addresses the needs of both attentive drivers with positive guidance and alerts the inattentive drivers with vibration and noise.

Over the course of several months, MDOT's District 6 in Hattiesburg led by Richard Lee, District Engineer, placed several different rumble strip test markers that will help them deter-

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mine the best rumble strip application. Test sections of rumble strips were placed on I-59, south of Hattiesburg, ranging from 6" to 16". Some sections utilize paint striping on the milled rumble strips and others apply thermoplastic on the milled rumble strips.

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*We encourage you to send in any information that you feel is important enough to be shared. We want to know about it.*

**Editor**  
**Timothy Barkley**  
Marketing Technology Specialist  
404.562.3732  
timothy.barkley@fhwa.dot.gov

The Southern Resource Center provides technical services to transportation partners and customers throughout the Nation.

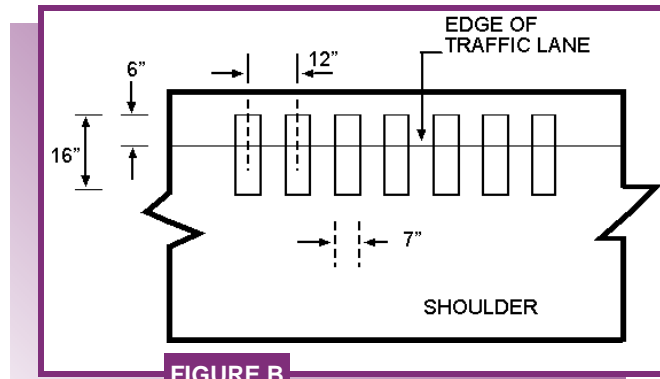
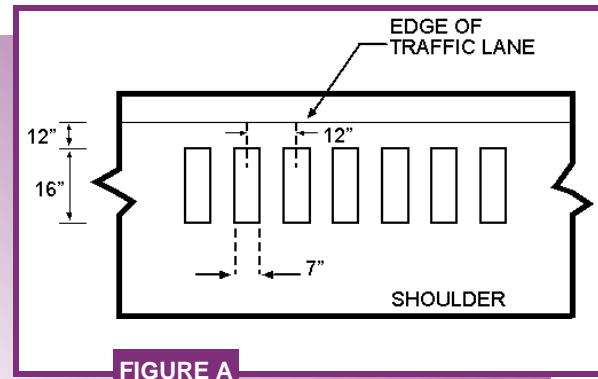
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#### SOUTHERN RESOURCE CENTER

Suite 17T26  
61 Forsyth Street, SW  
Atlanta, Georgia 30303-3104

Hours of Duty: 7:30-4:00 EST  
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For example: *Figure A* shows the 16" rumble strip offset 12" from the edge of pavement. *Figure B* also shows 16" rumble strip, but with 6" of this rumble strip placed on the edge of pavement, while the remaining 10" will be cut into the shoulder. The 6" thermoplastic strip was placed on the inside 6" of the rumble strip. MDOT had experimented with one of the proprietary textured striping products and found that the combination rumble strips/striping treatment could be installed for approximately 36% of the cost, plus this treatment provided the extra benefits of the rumble strips.

MDOT is testing *Figure B* on an upcoming two lane highway project to monitor results. The typical section is twelve foot lanes with two foot paved shoulders. After the treatment has been evaluated, MDOT will consider whether to use it as the standard application for two lane roads.

The test sections were reviewed by



*The reviewing team that participated in MDOT's rumble test areas. Left to right: Hari Kalla, Rudy Umbs, Frank Julian, Teresa Pace, Jim Willis, James Kopf, Steve McMahan, Richard Lee, Andy Hughes, Todd Jordan*

MDOT's James Kopf, Deputy Executive Director/Chief Engineer, Federal Highway Administration. (FHWA) Mississippi Division's Andrew Hughes, Division Administrator, and Safety CBU's Rudy Umbs and Southern Resource Center's (SRC) Safety Team Leader, Frank Julian along with other participants this past January. They were all equally pleased with the quality. MDOT is planning to closely monitor the effects of this treatment on I-59 and will release a detailed evaluation later this year.

The FHWA has developed a Rumble Strip Website/CD-ROM designed to put technical information on rumble strips at the user's fingertips. The website address is:

<http://safety.fhwa.dot.gov/programs/rumble.htm>

*For more information, please contact:*  
 Richard Lee, MDOT, District Engineer (601) 544-6511  
 Teresa Pace, FHWA-Safety Engineer (601) 965-4217 or  
 Frank Julian, FHWA-SRC, Safety Engineer Team Leader (404) 562-3689