



CMF / CRF Details

CMF ID: 3407

Install edgeline rumble strips on roadways with a shoulder width of 5 feet or greater

Description:

Prior Condition: Roadway with no rumble strips and a shoulder width less than 5 feet

Category: Roadway

Study: [NCHRP Report 641: Guidance for the Design and Application of Shoulder and Centerline Rumble Strips, Torbic et al., 2009](#)

Star Quality Rating:



[\[View score details\]](#)

Crash Modification Factor (CMF)

Value: 0.52

Adjusted Standard Error:

Unadjusted Standard Error: 0.1161

Crash Reduction Factor (CRF)

Value: 48 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:	
Unadjusted Standard Error:	11.61

Applicability

Crash Type:	Run off road
Crash Severity:	K (fatal),A (serious injury),B (minor injury),C (possible injury)
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	Divided by Median
Speed Limit:	
Area Type:	Rural
Traffic Volume:	8267 to 18753 <i>Average Daily Traffic (ADT)</i>
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Development Details

Date Range of Data Used:	1997 to 2006
Municipality:	

State:	PA
Country:	U.S.A.
Type of Methodology Used:	7
Sample Size Used:	Crashes

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Mar-21-2011
Comments:	The authors collected data on thru lanes and speed limits but did not provide those data in the report (see p. 50).

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