



CMF / CRF Details

CMF ID: 8995

Install centerline and shoulder rumble strips

Description: Milled or rolled rumble strips.

Prior Condition: *No Prior Condition(s)*

Category: Roadway

Study: [Estimating Crash Modification Factors Using Cross-Sectional and Case-Control Methods for Rumble Strips and Paved Shoulders, Galgamuwa and Dissanayake, 2017](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.87

Adjusted Standard Error:

Unadjusted Standard Error: 0.059

Crash Reduction Factor (CRF)

Value: 13 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:

5.9

Applicability

Crash Type:

Head on,Run off road,Sideswipe

Crash Severity:

K (fatal),A (serious injury),B (minor injury),C (possible injury)

Roadway Types:

Not specified

Number of Lanes:

2

Road Division Type:

Undivided

Speed Limit:

Area Type:

Rural

Traffic Volume:

30 to 15900 *Annual Average Daily Traffic (AADT)*

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:

2009 to 2014

Municipality:

State:

KS

Country:	USA
Type of Methodology Used:	7
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov-17-2017
Comments:	Horizontal curve segments. Lane departure crashes

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