



CMF / CRF Details

CMF ID: 6853

Install centerline and shoulder rumble strips

Description: Milled or rolled rumble strips.

Prior Condition: No rumble strips in PA and MO. Existing shoulder rumble strips in KY (CL rumble strips as retrofits)

Category: Roadway

Study: [Safety Evaluation of Centerline Plus Shoulder Rumble Strips, Persaud et al., 2015](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.632

Adjusted Standard Error:

Unadjusted Standard Error: 0.085

Crash Reduction Factor (CRF)

Value: 36.8 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:

8.5

Applicability

Crash Type:

Head on

Crash Severity:

All

Roadway Types:

Not specified

Number of Lanes:

2

Road Division Type:

Undivided

Speed Limit:

Area Type:

Rural

Traffic Volume:

154 to 25796 *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:

Municipality:

State:

KY, MO, PA

Country:	USA
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov-01-2015
Comments:	CMF for head-on crashes (all severity levels) for 2-lane rural roads excludes intersection-related and animal crashes.

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