



CMF / CRF Details

CMF ID: 2420

Install centerline and shoulder rumble strips

Description: Milled or rolled rumble strips.

Prior Condition: *No Prior Condition(s)*

Category: Roadway

Study: [*Impact of Rumble Strips on Collision Reduction on BC Highways: A Comprehensive Before and After Safety Study, Sayed et al., 2010*](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.82

Adjusted Standard Error:

Unadjusted Standard Error:

Crash Reduction Factor (CRF)

Value: 18 (*This value indicates a **decrease** in crashes*)

Adjusted Standard Error:

Unadjusted Standard Error:

Applicability

Crash Type:

All

Crash Severity:

K (fatal),A (serious injury)

Roadway Types:

Principal Arterial Other

Number of Lanes:

2 to 4

Road Division Type:

All

Speed Limit:

Area Type:

Rural

Traffic Volume:

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:

2000 to 2006

Municipality:

British Columbia

State:

Country:	
Type of Methodology Used:	2
Sample Size Used:	
Before Sample Size Used:	141
After Sample Size Used:	94

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	
Comments:	The number of crashes in the after period were not reported in this study, however, they have been recorded as 300 to give 10 points as a benefit of doubt for one or more of the following: (1) number of miles/sites in the reference/treatment group, (2) number of crashes in the references/treatment group, (3) reporting AADTs for the aggregate dataset but not for the disaggregate dataset used for CMF development.

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