



# CMF / CRF Details

CMF ID: 10388

Install centerline rumble strips

Description:

Prior Condition: *No Prior Condition(s)*

Category: Roadway

Study: [Evaluation of the safety effectiveness of lane departure countermeasures on two-lane undivided roadways using crash modification factors, Dissanayake and Galgamuwa, 2019](#)

Star Quality Rating:

8 Stars

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

## Crash Modification Factor (CMF)

Value: 0.96

Adjusted Standard Error:

Unadjusted Standard Error: 0.013

## Crash Reduction Factor (CRF)

Value: 4 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error: 1.3

**Applicability**

|                            |   |
|----------------------------|---|
| <b>Crash Type:</b>         | Run off road  |
| <b>Crash Severity:</b>     | K (fatal),A (serious injury),B (minor injury),C (possible injury) |
| <b>Roadway Types:</b>      | Not specified   |
| <b>Number of Lanes:</b>    | 2   |
| <b>Road Division Type:</b> | Undivided   |
| <b>Speed Limit:</b>        |   |
| <b>Area Type:</b>          | Rural   |
| <b>Traffic Volume:</b>     | 30 to 15900 <i>Annual Average Daily Traffic (AADT)</i>            |
| <b>Time of Day:</b>        | Not specified   |

***If countermeasure is intersection-based***

|                                   |  |
|-----------------------------------|--|
| <b>Intersection Type:</b>         |  |
| <b>Intersection Geometry:</b>     |  |
| <b>Traffic Control:</b>           |  |
| <b>Major Road Traffic Volume:</b> |  |
| <b>Minor Road Traffic Volume:</b> |  |

**Development Details**

|                                 |              |
|---------------------------------|--------------|
| <b>Date Range of Data Used:</b> | 2009 to 2014 |
| <b>Municipality:</b>            |              |
| <b>State:</b>                   | KS           |
| <b>Country:</b>                 | USA          |

|                                  |   |
|----------------------------------|---|
| <b>Type of Methodology Used:</b> | 7 |
| <b>Sample Size Used:</b>         |   |

| <b>Other Details</b>                      |   |
|---|---|
| <b>Included in Highway Safety Manual?</b> | No  |
| <b>Date Added to Clearinghouse:</b>       | Jun-01-2020   |
| <b>Comments:</b>                          | CMF for lane departure crashes on tangent road segments |

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This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

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