



## CMF / CRF Details

**CMF ID: 6972**

**Install centerline and shoulder rumble strips**

**Description:** Milled or rolled rumble strips.

**Prior Condition:** There are no existing rumble strips

**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:** 0.907

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 0.246

### Crash Reduction Factor (CRF)

**Value:** 9.3 (This value indicates a **decrease** in crashes)

**Adjusted Standard Error:**

|                                   |      |
|-----------------------------------|------|
| <b>Unadjusted Standard Error:</b> | 24.6 |
|-----------------------------------|------|

### Applicability

|                            |   |
|----------------------------|---|
| <b>Crash Type:</b>         | Sideswipe   |
| <b>Crash Severity:</b>     | All   |
| <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>     | 782 to 25796 <i>Annual Average Daily Traffic (AADT)</i> |
| <b>Time of Day:</b>        | All   |

### *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> |    |
| <b>Municipality:</b>            |    |
| <b>State:</b>                   | PA |

|                                  |     |
|----------------------------------|-----|
| <b>Country:</b>                  | USA |
| <b>Type of Methodology Used:</b> | 2   |
| <b>Sample Size Used:</b>         |     |

| <b>Other Details</b>                      |   |
|---|---|
| <b>Included in Highway Safety Manual?</b> | No  |
| <b>Date Added to Clearinghouse:</b>       | Nov-01-2015   |
| <b>Comments:</b>                          | CMF for sideswipe, opposite direction crashes excludes intersection-related and animal crashes. |

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