



CMF / CRF Details

CMF ID: 4598

Convert paved shoulder to composite shoulder (maintain 4 ft width)

Description: Convert paved shoulder to composite shoulder (maintain 4 ft width)

Prior Condition: Paved shoulder (HSM notes that to determine the CMF for changing the shoulder type, divide the "new" condition CMF by the "existing" condition CMF.

Category: Shoulder treatments

Study: [Highway Safety Manual, 1st Edition, Various, 2010](#)

| Star Quality Rating | |
|----------------------|--|
| Star Quality Rating: | |

| Crash Modification Factor (CMF) | |
|---------------------------------|------|
| Value: | 1.03 |
| Adjusted Standard Error: | |
| Unadjusted Standard Error: | |

| Crash Reduction Factor (CRF) | |
|------------------------------|---|
| Value: | -3 (This value indicates an increase in crashes) |
| Adjusted Standard Error: | |
| Unadjusted Standard Error: | |

Applicability

Crash Type:

Head on,Run off road,Sideswipe,Single vehicle

Crash Severity:

Not specified

Roadway Types:

Minor Arterial

Number of Lanes:

2

Road Division Type:

Speed Limit:

Area Type:

Rural

Traffic Volume:

Time of Day:

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:

No state(s) chosen.

Country:

Type of Methodology Used:

| | |
|---|------------------------|
| Sample Size Used: | |
| Other Details | |
| Included in Highway Safety Manual? | |
| Date Added to Clearinghouse: | |
| Comments: | HSM 1st Ed, Table 13-9 |

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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