



# CMF / CRF Details

CMF ID: 5191

## Change intersection skew angle

**Description:** Skew angle is defined as the absolute value of the difference between 90 degrees and the actual intersection angle (see illustration).

**Prior Condition:** *No Prior Condition(s)*

**Category:** Intersection geometry

**Study:** [Prediction of the Expected Safety Performance of Rural Two-Lane Highways, Harwood et al., 2000](#)

Star Quality Rating:	

Crash Modification Factor (CMF)	
Value:	$CMF = \frac{0.053 \times skew}{(1.43 + 0.053 \times skew)} + 1.0$
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)	
Value:	(This value indicates an <b>increase</b> in crashes)
Adjusted Standard Error:	

**Unadjusted Standard Error:**

### Applicability

**Crash Type:**

All

**Crash Severity:**

All

**Roadway Types:**

Minor Arterial

**Number of Lanes:**

Multilane

**Road Division Type:**

**Speed Limit:**

**Area Type:**

Rural

**Traffic Volume:**

**Time of Day:**

### *If countermeasure is intersection-based*

**Intersection Type:**

Roadway/roadway (not interchange related)

**Intersection Geometry:**

4-leg

**Traffic Control:**

Stop-controlled

**Major Road Traffic Volume:**

**Minor Road Traffic Volume:**

### Development Details

**Date Range of Data Used:**

**Municipality:**

**State:**

No state(s) chosen.

<b>Country:</b>	
<b>Type of Methodology Used:</b>	
<b>Sample Size Used:</b>	

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	
<b>Date Added to Clearinghouse:</b>	Dec-01-2009
<b>Comments:</b>	HSM 1st Ed, page 14-19

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