



# CMF / CRF Details

CMF ID: 87

Place centerline markings

Description:

Prior Condition: *No Prior Condition(s)*

Category: Delineation

Study: [Handbook of Road Safety Measures, Elvik, R. and Vaa, T., 2004](#)

Star Quality Rating:	
8 Stars	

Crash Modification Factor (CMF)	
Value:	0.99
Adjusted Standard Error:	0.06
Unadjusted Standard Error:	0.04

Crash Reduction Factor (CRF)	
Value:	1 (This value indicates a <b>decrease</b> in crashes)
Adjusted Standard Error:	6
Unadjusted Standard Error:	4

Applicability

<b>Crash Type:</b>	All
<b>Crash Severity:</b>	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>	
<b>Speed Limit:</b>	
<b>Area Type:</b>	Rural
<b>Traffic Volume:</b>	
<b>Time of Day:</b>	

*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>	
<b>Country:</b>	
<b>Type of Methodology Used:</b>	9
<b>Sample Size Used:</b>	

## Other Details

**Included in Highway Safety Manual?**

Yes. HSM lists this CMF in bold font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less. However, it also includes an asterisk (\*) to indicate that the CMF value itself is within the range 0.90 to 1.10, but that the confidence interval defined by the  $CMF \pm$  two times the standard error may contain the value 1.0. This is important to note since a treatment with such an CMF could potentially result in (a) a reduction in crashes (safety benefit), (b) no change, or (c) an increase in crashes (safety disbenefit). HSM recommends that this CMF should be used with caution.

**Date Added to Clearinghouse:**

Dec-01-2009

**Comments:**

Countermeasure name changed to match HSM

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