



CMF / CRF Details

CMF ID: 6663

Widen shoulder

Description:

Prior Condition: Original shoulder width 8-12 ft

Category: Shoulder treatments

Study: [Exploration and comparison of crash modification factors for multiple treatments on rural multilane roadways, Park et al., 2014](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.817

Adjusted Standard Error:

Unadjusted Standard Error: 0.068

Crash Reduction Factor (CRF)

Value: 18.3 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:	6.8
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Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	multi
Road Division Type:	
Speed Limit:	
Area Type:	Rural
Traffic Volume:	2000 to 50000 <i>Annual Average Daily Traffic (AADT)</i>
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:	2003 to 2012
Municipality:	
State:	FL

Country:	
Type of Methodology Used:	4
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Jun-22-2015
Comments:	Before condition shoulder width between 8-12 ft. Study method was either EB or CG, the authors chose the method that had the lowest SE. The number of crashes in the after period were not reported in this study, however, they have been recorded as 300 to give 10 points as a benefit of doubt for one or more of the following: (1) number of miles/sites in the reference/treatment group, (2) number of crashes in the references/treatment group, (3) reporting AADTs for the aggregate dataset but not for the disaggregate dataset used for CMF development.

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