



CMF / CRF Details

CMF ID: 10416

Provide 2-ft paved shoulders (both sides)

Description: Provide 2-ft paved shoulders on both sides of 2-lane rural roads

Prior Condition: *No Prior Condition(s)*

Category: Shoulder treatments

Study: [Evaluation of the safety effectiveness of lane departure countermeasures on two-lane undivided roadways using crash modification factors, Dissanayake and Galgamuwa, 2019](#)

Star Quality Rating: <input type="text" value="4 Stars"/> [View score details]	
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Crash Modification Factor (CMF)	
Value:	0.84
Adjusted Standard Error:	
Unadjusted Standard Error:	0.033

Crash Reduction Factor (CRF)	
Value:	16 (This value indicates a decrease in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	3.3

Applicability

Crash Type:	Run off road
Crash Severity:	K (fatal),A (serious injury),B (minor injury),C (possible injury)
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	Undivided
Speed Limit:	
Area Type:	Rural
Traffic Volume:	30 to 15900 <i>Annual Average Daily Traffic (AADT)</i>
Time of Day:	Not specified

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:	2009 to 2014
Municipality:	
State:	KS
Country:	USA

Type of Methodology Used:	7
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Jun-01-2020
Comments:	CMF for lane departure crashes on tangent road segments

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