



CMF / CRF Details

CMF ID: 8369

Install w-beam guardrail and concrete barrier

Description: Install w-beam guardrail and concrete barrier

Prior Condition: No roadside barrier

Category: Roadside

Study: [*Evaluation of the Safety Effectiveness of Installing Roadside Barriers with Different Driver, Vehicle, Weather, and Time of Day Conditions*, Park et. al., 2016](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.9

Adjusted Standard Error:

Unadjusted Standard Error: 0.1

Crash Reduction Factor (CRF)

Value: 10 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:

10

Applicability

Crash Type:

Run off road,Wet road

Crash Severity:

K (fatal),A (serious injury),B (minor injury),C (possible injury)

Roadway Types:

Principal Arterial Other Freeways and Expressways

Number of Lanes:

2 to 5

Road Division Type:

Speed Limit:

50-70 mph

Area Type:

Not specified

Traffic Volume:

35000 to 104600 *Annual Average Daily Traffic (AADT)*

Time of Day:

All

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 2011

Municipality:

State:

FL

Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Jan-17-2017
Comments:	

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

The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.