



CMF / CRF Details

CMF ID: 4707

Convert high-speed rural intersection to roundabout

Description: Convert high-speed rural intersection to roundabout

Prior Condition: Stop controlled intersection (3 or 4 leg)

Category: Intersection geometry

Study: [A Statistical Analysis and Development of a Crash Prediction Model for Roundabouts on High-Speed Rural Roadways, Isebrands, 2012](#)

Star Quality Rating:	
<input type="text" value="2 Stars"/>	[View score details]

Crash Modification Factor (CMF)	
Value:	0.09
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)	
Value:	91 (This value indicates a decrease in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability

Crash Type: Angle

Crash Severity: A (serious injury),B (minor injury),C (possible injury)

Roadway Types: Not specified

Number of Lanes: 1 to 2

Road Division Type:

Speed Limit: 40-65 mph

Area Type: Rural

Traffic Volume:

Time of Day:

If countermeasure is intersection-based

Intersection Type: Roadway/roadway (not interchange related)

Intersection Geometry: 3-leg,4-leg

Traffic Control: Roundabout

Major Road Traffic Volume:

Minor Road Traffic Volume:

Development Details

Date Range of Data Used:

Municipality:

State: KS, MD, MN, OR, WA, WI

Country:

Type of Methodology Used: 3

Sample Size Used:	Site-years
Before Sample Size Used:	73 Site-years
After Sample Size Used:	73 Site-years

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	May-01-2013
Comments:	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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