



CMF / CRF Details

CMF ID: 10437

Conversion of intersection into high-speed roundabout

Description: Conversion of intersection into high-speed roundabout

Prior Condition: Minor Road Stop-Controlled Intersections

Category: Intersection geometry

Study: [Evaluation of Roundabouts on High-Speed Roadways, Bagley, D.L., 2020](#)

Star Quality Rating:

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

Crash Modification Factor (CMF)

Value: 0.04

Adjusted Standard Error:

Unadjusted Standard Error: 0.04

Crash Reduction Factor (CRF)

Value: 96 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error: 4

Applicability

Crash Type:	Other
Crash Severity:	K (fatal),A (serious injury),B (minor injury),C (possible injury)
Roadway Types:	All
Number of Lanes:	
Road Division Type:	
Speed Limit:	35-55 MPH
Area Type:	All
Traffic Volume:	
Time of Day:	All

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:	2000 to 12500 Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	400 to 11000 Annual Average Daily Traffic (AADT)

Development Details

Date Range of Data Used:	1999 to 2019
Municipality:	
State:	NC
Country:	
Type of Methodology Used:	2
Sample Size Used:	

Other Details

Included in Highway Safety Manual?

No

Date Added to Clearinghouse:

Jun-01-2020

Comments:

This CMF is for Frontal Impact Crashes. 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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