



CMF / CRF Details

CMF ID: 2942

Replacement of traditional intersection with roundabout with separated cycle path

Description: Installation of a roundabout with a separated cycle path in place of a traditional (signalized or unsignalized) intersection. Study roundabouts were split between priority to bicyclists and no priority to bicyclists in the cycle lanes.

Prior Condition: Traditional signalized or unsignalized intersection

Category: Bicyclists

Study: [Injury crashes with bicyclists at roundabouts: influence of some location characteristics and the design of cycle facilities, Daniels et al., 2009](#)

Star Quality Rating:



Crash Modification Factor (CMF)

Value: 0.83

Adjusted Standard Error:

Unadjusted Standard Error: 0.171

Crash Reduction Factor (CRF)

Value: 17 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:	
Unadjusted Standard Error:	17.1

Applicability

Crash Type:	Vehicle/bicycle
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	All
Speed Limit:	
Area Type:	Urban
Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	Not specified
Traffic Control:	Roundabout
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Development Details

Date Range of Data Used:	1991 to 2001
Municipality:	

State:	
Country:	Belgium
Type of Methodology Used:	2
Sample Size Used:	
Before Sample Size Used:	38
After Sample Size Used:	38

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Mar-21-2011
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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