



# CMF / CRF Details

**CMF ID: 9788**

**Conversion of intersection into multi-lane roundabout**

**Description: Conversion of intersection into multi-lane roundabout.**

**Prior Condition: All way stop**

**Category: Intersection geometry**

**Study: [Crash Modification Factors Based on Crash Histories of 148 Modern Roundabouts in Five States, Zhang and Wang, 2017](#)**

<b>Star Quality Rating:</b>	
<input type="text" value="✘ Star"/>	<a href="#">[View score details]</a>

<b>Crash Modification Factor (CMF)</b>	
<b>Value:</b>	2.29
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	1.38

<b>Crash Reduction Factor (CRF)</b>	
<b>Value:</b>	-129 (This value indicates an <b>increase</b> in crashes)
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	138

## Applicability

**Crash Type:**

All

**Crash Severity:**

All

**Roadway Types:**

Not specified

**Number of Lanes:**

**Road Division Type:**

**Speed Limit:**

**Area Type:**

Not specified

**Traffic Volume:**

**Time of Day:**

Not specified

### *If countermeasure is intersection-based*

**Intersection Type:**

Roadway/roadway (not interchange related)

**Intersection Geometry:**

Not specified

**Traffic Control:**

Stop-controlled

**Major Road Traffic Volume:**

**Minor Road Traffic Volume:**

## Development Details

**Date Range of Data Used:**

2005 to 2013

**Municipality:**

**State:**

FL, IN, NY, PA, WA

**Country:**

USA

**Type of Methodology Used:**

3

**Sample Size Used:**

**Other Details**

**Included in Highway Safety Manual?**

No

**Date Added to Clearinghouse:**

Oct-27-2018

**Comments:**

All-way stop to multi-lane roundabout 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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