



# CMF / CRF Details

CMF ID: 229

Convert intersection with minor-road stop control to modern roundabout

**Description:**

**Prior Condition:** *No Prior Condition(s)*

**Category:** Intersection geometry

**Study:** [NCHRP Report 572: Applying Roundabouts in the United States, Rodegerdts et al., 2007](#)

Star Quality Rating:

8 Stars

## Crash Modification Factor (CMF)

**Value:** 0.29

**Adjusted Standard Error:** 0.05

**Unadjusted Standard Error:** 0.04

## Crash Reduction Factor (CRF)

**Value:** 71 (This value indicates a **decrease** in crashes)

**Adjusted Standard Error:** 5

**Unadjusted Standard Error:** 4

## Applicability

**Crash Type:**

All

**Crash Severity:**

All

**Roadway Types:**

Not Specified

**Number of Lanes:**

1

**Road Division Type:**

**Speed Limit:**

**Area Type:**

Rural

**Traffic Volume:**

**Time of Day:**

*If countermeasure is intersection-based*

**Intersection Type:**

Roadway/roadway (not interchange related)

**Intersection Geometry:**

4-leg

**Traffic Control:**

Stop-controlled

**Major Road Traffic Volume:**

**Minor Road Traffic Volume:**

## Development Details

**Date Range of Data Used:**

**Municipality:**

**State:**

**Country:**

**Type of Methodology Used:**

2

**Sample Size Used:**

**Other Details**

**Included in Highway Safety Manual?**

Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.

**Date Added to Clearinghouse:**

Dec-01-2009

**Comments:**

Countermeasure name changed from "convert two-way stop-controlled intersection to roundabout" to match HSM

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