



# CMF / CRF Details

CMF ID: 4200

## Install dynamic signal warning flashers

**Description:** Dynamic signal warning flashers (DSWF) provide drivers with advance notice of the phase change. Specifically, the DSWF is linked to the signal and flashers are actuated when the signal is about to change from green to yellow.

**Prior Condition:** Signalized intersection without advance warning flashers.

**Category:** Intersection traffic control

**Study:** [Evaluation of Safety Strategies at Signalized Intersections, Srinivasan, et al., 2011](#)

Star Quality Rating:

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

### Crash Modification Factor (CMF)

**Value:** 0.745

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 0.086

### Crash Reduction Factor (CRF)

**Value:** 25.5 (This value indicates a **decrease** in crashes)

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 8.6

## Applicability

**Crash Type:** Angle

**Crash Severity:** All

**Roadway Types:** Not Specified

**Number of Lanes:**

**Road Division Type:**

**Speed Limit:**

**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:** Signalized

**Major Road Traffic Volume:** 7500 to 99000 Annual Average Daily Traffic (AADT)

**Minor Road Traffic Volume:** 40 to 20100 Annual Average Daily Traffic (AADT)

## Development Details

**Date Range of Data Used:** 1994 to 2008

**Municipality:**

**State:** NV, VA

**Country:** USA

<b>Type of Methodology Used:</b>	7
<b>Sample Size Used:</b>	961

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Dec-06-2012
<b>Comments:</b>	Average major and minor road volumes are computed based on weighted average in NV and VA. AADT applies to all sites.

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