



# CMF / CRF Details

CMF ID: 6860

## Install adaptive traffic signal control

**Description:** ATSC is a traffic management strategy in which traffic signal timings change, or adapt, based on observed traffic demand. These systems utilize increased detection to continually collect data on observed demand, and signal timings are then re-optimized based on current data.

**Prior Condition:** Intersections with regular traffic signals

**Category:** Intersection traffic control

**Study:** [Estimation of the Safety Effects of an Adaptive Traffic Signal Control System, Ma et al., 2015](#)

|                      |                                      |
|----------------------|--------------------------------------|
| Star Quality Rating: |                                      |
| 8 Stars              | <a href="#">[View score details]</a> |

| Crash Modification Factor (CMF) |       |
|---------------------------------|-------|
| Value:                          | 0.996 |
| Adjusted Standard Error:        |       |
| Unadjusted Standard Error:      | 0.13  |

| Crash Reduction Factor (CRF) |   |
|------------------------------|---|
| Value:                       | 0.4 (This value indicates a <b>decrease</b> in crashes) |
| Adjusted Standard Error:     |   |

**Unadjusted Standard Error:**

13

### Applicability

**Crash Type:**

All

**Crash Severity:**

All

**Roadway Types:**

All

**Number of Lanes:**

**Road Division Type:**

**Speed Limit:**

**Area Type:**

Urban and suburban

**Traffic Volume:**

**Time of Day:**

All

### *If countermeasure is intersection-based*

**Intersection Type:**

Not specified

**Intersection Geometry:**

3-leg

**Traffic Control:**

Signalized

**Major Road Traffic Volume:**

**Minor Road Traffic Volume:**

### Development Details

**Date Range of Data Used:**

2006 to 2013

**Municipality:**

**State:**

VA

|                                  |   |
|----------------------------------|---|
| <b>Country:</b>                  |   |
| <b>Type of Methodology Used:</b> | 2 |
| <b>Sample Size Used:</b>         |   |

| <b>Other Details</b>                      |  |
|---|--|
| <b>Included in Highway Safety Manual?</b> | No   |
| <b>Date Added to Clearinghouse:</b>       | Nov-01-2015  |
| <b>Comments:</b>                          | 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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