



CMF / CRF Details

CMF ID: 10806

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: Signalized Intersection

Category: Intersection traffic control

Study: [*Developing Crash Modification Factors for Adaptive Signal Control Technologies, Avelar et al., 2021*](#)

Star Quality Rating:



Crash Modification Factor (CMF)

Value: 1.045

Adjusted Standard Error:

Unadjusted Standard Error: 0.038

Crash Reduction Factor (CRF)

Value: -4.5 (This value indicates an **increase** in crashes)

Adjusted Standard Error:	
Unadjusted Standard Error:	3.8

Applicability	
Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	2-9
Road Division Type:	
Speed Limit:	
Area Type:	Urban
Traffic Volume:	
Time of Day:	All

<i>If countermeasure is intersection-based</i>	
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	14223 to 207000 Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	1669 to 64500 Annual Average Daily Traffic (AADT)

Development Details	
Date Range of Data Used:	2010 to 2016
Municipality:	

State:	FL
Country:	
Type of Methodology Used:	2
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Aug-11-2021
Comments:	Estimated using traditional EB before/after methodology. Accounts for intersection crashes within 250 feet of an intersection.

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