CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 8910

Implement systemic signing and marking improvements at stop-controlled intersections

Description: Doubleup (i.e., both right and left side) 36 in. x 36 in. intersection warning signs (W2- 22 series in the MUTCD (4)) on fluorescent yellow sheeting. Add advance street name plaque (W168 in the MUTCD(4)) on fluorescent yellow 24 sheeting accompanying each rightside intersection warning sign. Double-up (i.e., both right and left side) 48 in. x 48 in. STOP or YIELD signs (R11 and 26 R12 in the MUTCD(4)). Install retroreflective strips on sign posts for the above signs. Place minor road stop bars within 4 to 10 ft of the edge of the nearest through lane along the major road. Install yield bars at all lanes having yield conditions. Add dashed white edge-lines along the major road through the intersection. Remark all existing stop bars, crosswalks, arrows and word messages unless: o The roadway has been resurfaced within one calendar year and new thermoplastic markings have been applied. o Existing markings are uniformly reflective and above ground thickness is 90 mils or greater. o Otherwise directed by a district representative. Mark all turn lanes to include the pattern of lane arrows and text marking "ONLY" based on the turn lane length.

Prior Condition: Stop-controlled intersections without systemic signing and marking improvements

Category: Intersection traffic control

Study: *Safety Effects of Low-Cost Systemic Safety Improvements at Signalized and Stop-Controlled Intersections*, Le et al., 2017

Star Quality Rating:	★★★☆☆ [View score details]

Crash Modification Factor (CMF)

Value:	0.97
Adjusted Standard Error:	
Unadjusted Standard Error:	0.045

Crash Reduction Factor (CRF)

Value:	3 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	4.5

Applicability

Crash Type:	Angle
Crash Severity:	All
Roadway Types:	All
Number of Lanes:	2
Road Division Type:	
Speed Limit:	
Area Type:	All
Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	3-leg

Traffic Control:	Stop-controlled
Major Road Traffic Volume:	641 to 41731 Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	102 to 8436 Annual Average Daily Traffic (AADT)

Development Details

Date Range of Data Used:	2005 to 2014
Municipality:	
State:	SC
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov-17-2017
Comments:	CMF for right-angle crashes at 4 mainline lanes and 2 cross street lanes stop-controlled 3-legged intersections.

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center