



# CRASH MODIFICATION FACTORS CLEARINGHOUSE

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## CMF Comparison

Below you will find comparisons for the CMFs you chose.  
Please note that the rows highlighted in **light blue** and bold/italic contain the differences in the selected CMFs.

Countermeasure Name	Convert diamond interchange to Diverging Diamond Interchange (DDI) or Double Crossover Diamond (DCD)	Convert diamond interchange to Diverging Diamond Interchange (DDI) or Double Crossover Diamond (DCD)	Convert diamond interchange to Diverging Diamond or Double Crossover Diamond (DCD)	Convert at-grade intersections to Diverging Diamond Interchanges	Convert diamond interchange to Diverging Diamond Interchange (DDI) or Double Crossover Diamond (DCD)	Convert at-grade intersections to Diverging Diamond Interchanges
CMF ID	<b>8258</b>	<b>9104</b>	<b>9107</b>	<b>9658</b>	<b>10135</b>	<b>10300</b>
CMF	<b>0.67</b>	<b>0.592</b>	<b>0.625</b>	<b>0.42</b>	<b>0.633</b>	<b>0.755</b>
Study Reference	<b><i>Hummer et al., 2016</i></b>	<b><i>Claros et al., 2013</i></b>	<b><i>Claros et al., 2017</i></b>	<b><i>Walls et al., 2018</i></b>	<b><i>Nye et al., 2019</i></b>	<b><i>Zlatkovic, M., 2015</i></b>
Unadjusted Standard Error CMF	0.04	0.029	0.037		0.008	0.106
CMFunction						
Star Rating						
Crash Type	All	All	All	All	All	All
Crash Severity	All	All	All			
Crash Time of Day	All	Not specified	Not specified	All	Not specified	All
Area Type	Suburban	Urban	Urban		Not specified	
Road Division Type	Divided by Median			Divided by Median		
Road Type	Principal Arterial Other Freeways and Expressways	All	All	All	Not specified	Not specified
Number of	3-6	multilane	multilane			


Lanes					
Intersection Type		Other	Roadway/roadway (interchange ramp terminal)	Not specified	Roadway/roadway (interchange ramp terminal)
Intersection Geometry		Not specified	4-leg	4-leg	
Traffic Control		Not specified		Signalized	Signalized
Speed Limit	40-45	c	Crossroad: 35-45 mph		
Study Type	Before/after using comparison group	Before/after using empirical Bayes or full Bayes	Before/after using empirical Bayes or full Bayes	Before/after using empirical Bayes or full Bayes	Before/after using comparison group
Years From				2006	2006
Years To				2015	2017
Traffic Volume Unit	Annual Average Daily Traffic (AADT)	Annual Average Daily Traffic (AADT)	Annual Average Daily Traffic (AADT)	Annual Average Daily Traffic (AADT)	Annual Average Daily Traffic (AADT)
Min Traffic Volume					
Max Traffic Volume					
Min Major Rd Volume		33000		28000	
Max Major Rd Volume		152000		40000	
Min Minor Rd Volume		16000	17000	3000	
Max Minor Rd Volume		29000	38000	18000	
Avg Traffic Volume	28168				
Avg Major Rd Volume				33638	
Avg Minor Rd Volume				11088	
State of Origin	KY,MO,NY,TN	MO	MO	MN	GA,ID,KS,KY,MN,MO,NY,NC,UT,VA,WY UT
Municipality					
Country	USA			USA	

Comments

The volume here is the crossover volume. CMFs of six interchanges in MO, KY, NY, and TN.

This CMF applies to the entire interchange footprint (i.e., ramp terminals, ramp segments, speed-change lanes, crossroad, and freeway segment).

This CMF applies to the ramp terminals.

 US Department of Transportation Federal Highway Administration

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