



# CMF / CRF Details

**CMF ID: 5186**

**Install TWLTL (two-way left turn lane) on two lane road**

**Description:**

**Prior Condition: Absence of TWLTL; driveway density greater than or equal to five driveways per mile.**

**Category: Roadway**

**Study: [Highway Safety Manual, 1st Edition, Various, 2010](#)**

**Star Quality Rating:**

## Crash Modification Factor (CMF)

**Value:**

$$CMF = 1.0 - (0.7 \times p_{dwy} \times p_{LT/D})$$

Where:

$p_{dwy}$  = driveway-related crashes as a proportion of total crashes;  
and

$p_{LT/D}$  = left-turn crashes susceptible to correction by TWLTL as a proportion of driveway-related crashes.

**Adjusted Standard Error:**

**Unadjusted Standard Error:**

## Crash Reduction Factor (CRF)

<b>Value:</b>	(This value indicates an <b>increase</b> in crashes)
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	

<b>Applicability</b>	
<b>Crash Type:</b>	All
<b>Crash Severity:</b>	All
<b>Roadway Types:</b>	Minor Arterial
<b>Number of Lanes:</b>	2
<b>Road Division Type:</b>	
<b>Speed Limit:</b>	
<b>Area Type:</b>	Rural
<b>Traffic Volume:</b>	
<b>Time of Day:</b>	

<b><i>If countermeasure is intersection-based</i></b>	
<b>Intersection Type:</b>	
<b>Intersection Geometry:</b>	
<b>Traffic Control:</b>	
<b>Major Road Traffic Volume:</b>	
<b>Minor Road Traffic Volume:</b>	

<b>Development Details</b>	
<b>Date Range of Data Used:</b>	

<b>Municipality:</b>	
<b>State:</b>	
<b>Country:</b>	
<b>Type of Methodology Used:</b>	
<b>Sample Size Used:</b>	

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	
<b>Date Added to Clearinghouse:</b>	
<b>Comments:</b>	To determine the CMF for changing the condition, divide the "new" condition CMF by the "existing" condition CMF.

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