



## CMF / CRF Details

**CMF ID: 7213**

**Increase median shoulder width**

**Description: Increase median shoulder width**

**Prior Condition: Median shoulder with unspecified width**

**Category: Shoulder treatments**

**Study: [NCHRP Report 794: Median Cross-Section Design for Rural Divided Highways, Graham et al., 2014](#)**

**Star Quality Rating:**



[\[View score details\]](#)

### Crash Modification Factor (CMF)

**Value:** 0.69

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 0.123

### Crash Reduction Factor (CRF)

**Value:** 31.03 (*This value indicates a **decrease** in crashes*)

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 12.3

### Applicability

**Crash Type:** Other

**Crash Severity:** All

**Roadway Types:** Principal Arterial Other Freeways and Expressways

**Number of Lanes:** 4

**Road Division Type:** Divided by Median

**Speed Limit:**

**Area Type:** Rural

**Traffic Volume:**

**Time of Day:** All

### *If countermeasure is intersection-based*

**Intersection Type:**

**Intersection Geometry:**

**Traffic Control:**

**Major Road Traffic Volume:**

**Minor Road Traffic Volume:**

### Development Details

**Date Range of Data Used:** 2000 to 2007

**Municipality:**

**State:** CA, MO, NC, OH, PA, WA

<b>Country:</b>	USA
<b>Type of Methodology Used:</b>	7
<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>	This CMF applies to a one foot increase in median shoulder width for rollover crashes on four-lane freeways with a rigid barrier.

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