



## CMF / CRF Details

**CMF ID: 7203**

**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:** 1.035

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 0.012

### Crash Reduction Factor (CRF)

**Value:** -3.47 (This value indicates an **increase** in crashes)

**Adjusted Standard Error:**

<b>Unadjusted Standard Error:</b>	1.17
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### Applicability

<b>Crash Type:</b>	Cross median,Fixed object,Run off road,Other
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<b>Crash Severity:</b>	All
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<b>Roadway Types:</b>	Principal Arterial Other Freeways and Expressways
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<b>Number of Lanes:</b>	4
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<b>Road Division Type:</b>	Divided by Median
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<b>Speed Limit:</b>	
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<b>Area Type:</b>	Rural
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<b>Traffic Volume:</b>	
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<b>Time of Day:</b>	All
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### *If countermeasure is intersection-based*

<b>Intersection Type:</b>	
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<b>Intersection Geometry:</b>	
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<b>Traffic Control:</b>	
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<b>Major Road Traffic Volume:</b>	
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<b>Minor Road Traffic Volume:</b>	
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### Development Details

<b>Date Range of Data Used:</b>	2000 to 2007
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<b>Municipality:</b>	
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<b>State:</b>	CA, MO, NC, OH, PA, WA
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<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 all median-related crashes on four-lane freeways with a flexible barrier. Median-related crashes include hit barrier, cross-median crashes, non-collision cross-median crashes, rollover, fixed-object or other median-related crashes.

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