



zero deaths | zero serious injuries  
on Montana roadways

Montana Department of Transportation

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Michael T. Tooley, Director

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AUG 12 2016  
FHWA  
MONTANA DIVISION

August 12, 2016

Kevin McLaury  
Montana Division Administrator  
Federal Highway Administration  
585 Sheperd Way  
Helena, MT 59601

Subject: Finding of Public Interest  
Roadside Safety Hardware

Pursuant to 23 CFR 635.411, we are requesting your Finding of Public Interest for MDT's use of Road Systems, Inc. MASH Sequentially Kinking Terminal (MSKT) as an optional terminal section for statewide installation.

**Background and Benefits**

- Testing criteria for highway roadside hardware have been in place since 1962. NCHRP Report 350, Recommended Procedures for the Safety Performance Evaluation of Highway Features, had been the accepted method for safety hardware device testing and eligibility since 1993.
- The AASHTO Manual for Assessing Safety Hardware (MASH) testing standards were published in 2009. As of January 1, 2011, all new roadside hardware products were required to be tested using MASH crash test criteria for use on the National Highway System (NHS).
- The January 7, 2016 memo from FHWA specifies that, for contracts on the NHS with letting dates after the dates below, only safety hardware evaluated using MASH criteria (2016 edition) will be allowed for new permanent installations and full replacements:
  - December 31, 2017: w-beam barriers and cast-in-place concrete barriers
  - June 30, 2018: w-beam terminals
  - December 31, 2018: cable barriers, cable barrier terminals, and crash cushions
  - December 31, 2019: bridge rails, transitions, all other longitudinal barriers (including portable barriers installed permanently), all other terminals, sign supports and other breakaway hardware
- Having new guardrail installations be MASH-compliant will improve the overall safety of the transportation system, as well as reducing future replacement obligations. Therefore, new w-beam guardrail will be installed at the 31" height shown in the Midwest Guardrail Systems detail.
- There are two optional terminal section products that have been certified by FHWA as meeting MASH standards, the Trinity Soft-Stop and the MSKT. These are the terminal

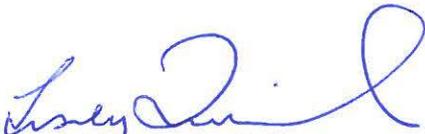
sections that will be used with the 31" tall guardrail to make a fully-MASH-compliant system.

- Current efforts at MDT to develop standard detail drawings and guidelines for MASH-compliant hardware indicate that the MSKT will be among the optional terminal sections selected for system synchronization in the future, when more MASH-compliant terminal section options are available.

### Conclusion

We believe the use of the MASH-compliant MSKT terminal section described above should be conferred proprietary item status due safety benefits and lack of availability of other MASH-compliant options. Consequently, we believe that an approval of this finding of public interest is justified for this product.

MDT will continue to evaluate new MASH-compliant terminal sections for 31" w-beam guardrail for use on Montana highways over the next several years. If approved, MDT will reevaluate the renewal pursuant to 23 CFR 635.411(a)(2) as soon as there are three viable options available.



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FHWA Concurrence  Date 08/25/16

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