

ATTACHMENT
December 15, 2015

DIRECTION

VDOT ACTION STEPS:

- VDOT support AASHTO adaptation of the Manual for Assessing Safety Hardware (MASH) 2015 edition criteria and will move to implement quickly in Virginia.
- Move to a provisional (or temporary) acceptance of MASH tested products until sufficient field/in service information is available for VDOT to determine that field performance is successful.
 - This will require strong communication between VDOT, AASHTO and the industry in regards to actual field data/results.
- VDOT Traffic Engineering will analyze and recommend a long term risk based replacement schedule for the Trinity modified ET-Plus, Breakaway Cable Terminal (BCT) or other functionally obsolete terminals such as turndowns with MASH approved terminals. Schedule will include schedule for complete transition to MASH. Target date for schedule is April 1, 2016.
 - Priority will be based upon speed (high speed functional classification to low speed functional classification), volume (highest to lowest) and proximity to travel way.
 - Additionally, refine field information required and develop initial criteria for determining potential field performance concerns.
- VDOT Construction Division schedules tests in coordination with manufacturer's for VDOT approved NCHRP 350 terminals to determine whether there is a need and priority for replacement with MASH approved (provisional Virginia approved). Target date for test completion is March 1, 2016.
- Upon development of the provisionally approved MASH product list and critical locations of existing terminals the following steps will be taken:
 - Central Office (C.O.) Traffic Engineering to provide recommendations for terminal replacement strategy including inventory and tracking.
 - C.O. Traffic Engineering to provide recommendations for terminal inventory survey elements (data and attributes).
 - Construction Division to ready contracts for terminal upgrades.
 - Begin replacement of terminals in identified critical locations along the interstate system (nine concurrent contracts).
- Location and Design (L&D) Division has the lead for developing standard details regarding these action steps with Traffic Engineering, Construction, Maintenance, Communications and Structure and Bridge (S&B) Division support.
 - New standards must be developed to meet the criteria of MASH 2015. The current w-beam strong post guardrail will be superseded by the Midwest

Guardrail System (MGS). The MGS is a 31” non-proprietary system that uses most of the standard components of our current design. The following steps will be required:

- Join pooled fund at Midwest Roadside Safety Facility (MwRSF) which developed the MGS.
- Research Council to conduct thorough review of the MGS. Will require interaction with MwRSF and state DOT(s) that have already adopted the system. Develop lessons learned and assist L&D with development of standards.
- Standards for Bridge Rail/Terminal Wall to Guardrail to be completed. (May require the development of new Terminal Wall designs by C.O. S&B).
- Standards for MGS to be completed and added to VDOT publications.
- All VDOT memoranda to be updated (affected list to be developed).
- Communications campaign to notify internal staff, Virginia Division of Federal Highway Administration (FHWA), consultants, manufacturers and Virginia Transportation and Construction Alliance (VTCA) about the changes to our standards.
- All barrier designs will continue to use the maximum available space between the traveled way and the barrier where barrier can still be effective.

IMPLEMENTATION:

Target date for publishing MASH approved Virginia guard rail standards and beginning transition to field MASH approved terminals is September 1, 2016. Target completion of all MASH approved Virginia standards is March 1, 2017.