



This memo supersedes original document of 4/28/17

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

DATE: May 26, 2017

MEMORANDUM TO: Division Engineers

FROM: Michael L. Holder, PE  
Chief Engineer

SUBJECT: MASH Guardrail Units (GREU)

Reference is made to Glenn Mumford's April 28, 2017 memorandum on the subject Guardrail End Units – AASHTO MASH Compliance. The Department will accelerate the previously planned September 19, 2017 implementation. All contracts advertised on or after July 1, 2017 shall include the project special provisions requiring the MASH compliant guardrail end units.

MASH Complaint GREU shall also be installed on all active contracts, including guardrail maintenance or repair contracts, to the extent feasible. Contract administrators shall request a proposal from the prime contractor on active construction projects which would detail the cost associated with changing to the MASH compliant guardrail end units and any associated schedule impacts to the project. Contract administrators should contact their Area Construction Engineer to assist with review of contractor proposals and supplemental agreement development.

Questions concerning the new guardrail end units should be directed to Joel S. Howerton, PE, at (919) 707-6950 or [jhowerton@ncdot.gov](mailto:jhowerton@ncdot.gov).

MLH/mls  
Attachment

cc: Glenn Mumford, PE  
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Dennis Jernigan, PE




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FROM: Glenn W. Mumford, PE,  
State Roadway Design Engineer

DocuSigned by:  
  
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DATE: April 28, 2017

SUBJECT: Guardrail End Units – AASHTO MASH Compliance

The purpose of this memo is to discuss guardrail end units. The criteria used to evaluate guardrail end units is changing from NCHRP 350 to AASHTO MASH. FHWA will require all states to use guardrail end units that comply with MASH requirements no later than June 30, 2018. As there are at least 3 different MASH compliant guardrail end units available to install at this time, it would be prudent to proceed with specifying MASH compliant guardrail end units for all projects. The current labels on plans for guardrail end units are GRAU-350, TL-3 or GRAU-350, TL-2. The new labels will GREU, TL-3 or GREU, TL-2. The label for median guardrail end units is M-350. The new label will be GREU, Median.

Beginning with the September 19, 2017 letting, insert the updated Special Provisions in the contract for all projects that require guardrail end units. MASH compliant guardrail end units may be installed on any NCDOT roadway from this date forward. To get a copy of the new Special Provisions, contact Terry Canales, PE at 919-707-6916 or at [tcanales@ncdot.gov](mailto:tcanales@ncdot.gov).

For questions about the new guardrail end units, please contact Joel S. Howerton, PE, at 919-707-6950 or [jhowerton@ncdot.gov](mailto:jhowerton@ncdot.gov).

GWM/jh