

**STATE OF NEW HAMPSHIRE**  
**INTRA-DEPARTMENT COMMUNICATION**

**FROM:** Kirk Mudgett, P.E.  
Specialty Section Chief

**DATE:** 1/29/2019  
**AT (OFFICE):** Highway Design  
Guardrail Group

**SUBJECT: Revisions to Standard EAGRT Platform Details**

**TO:** Designers of Guardrail at:  
Bureau of Highway Design, Bureau of Bridge Design, Bureau of Highway Maintenance, Bureau of Construction, Bureau of Bridge Maintenance, Bureau of Turnpikes, Bureau of Planning & Community Assistance, TSMO

**MEMORANDUM**

**Any project with EAGRT units or EAGRT platforms advertising after March 1, 2019 shall use the new item numbers/descriptions shown in the following updated details:**

- TL 2 – 25' EAGRT PLATFORM DETAILS
- TL 2 TAPERED EAGRT PLATFORM DETAILS FOR GUARDRAIL < 2.50' FROM EP
- TL 3 TAPERED EAGRT PLATFORM DETAILS FOR GUARDRAIL < 2.50' FROM EP
- TL 2 PARALLEL EAGRT PLATFORM DETAILS FOR GUARDRAIL ≥ 2.50' FROM EP
- TL 3 PARALLEL EAGRT PLATFORM DETAILS FOR GUARDRAIL ≥ 2.50' FROM EP

Any project advertising before March 1<sup>st</sup> shall use the current offset EAGRT items and detail(s). If there is a special case where this is not possible, please contact Specifications Section and let them know.

Rationale:

There has been debate between the Department and Contractors regarding terminal lengths, pay lengths, and subsidiary lengths.

We also wanted to revise the current short, quick taper (“wiggle”) intended to achieve the head offset. It has been noted that plows seemed to be impacting the taper point, which is problematic to install and replace due to the need to field bend that piece of rail. As a result, guardrail has not consistently been constructed per detail as of late.

List of Changes:

- New item numbers/descriptions
  - Item numbers are now found on the details.
  - Reduction of number of platform items from six to four.
    - Two for TL 2 – 25' (preferred and alternate)
    - One for TL 2 & TL 3 preferred
    - One for TL 2 and TL 3 alternate

- New EAGRT layout
  - Constant 25:1 taper rate to achieve 2.5' head offset from EP
  - Payment Unit Length and layout are the same for TL 2 and TL 3 installations.
    - This length has changed from the old details.
- Explicitly differentiating between the 'Terminal System Length' and the 'Payment Unit Length'.
  - 'The Terminal System Length' applies to the length of the terminal as defined by the manufacturer.
  - 'The Payment Unit Length' is the 'Terminal System Length' plus the appropriate amount of BGR to achieve the intended offset of the terminal head from the edge of pavement.
  - It is acknowledged that the actual length may vary slightly depending on the terminal unit chosen, but the payment length will remain per the detail.
- Clearly defined 'Standard Beam Guardrail' to include proprietary systems such as Nu-Guard.
- Separate EAGRT layout details based on longitudinal distance from EP
  - One set where tapering is necessary to meet the 2.5' head offset.
  - One set where no taper is necessary to meet the 2.5' head offset.

This will mean a change to current designs and guardrail summaries. Longitudinal guardrail lengths will become shorter as a result of a longer EAGRT pay length. In turn, there will likely be a cost increase associated with the EAGRT item.

Projects creating a 3D model may also see the need to update their designs. We are working toward having the spreadsheet development of parametric constraints updated to this effect.

Specifications have been updated, as well as the creation of the new items in IPD.

Please find details at the following location:

<https://www.nh.gov/dot/org/projectdevelopment/highwaydesign/detailsheets/index.htm>

If you have questions, please do not hesitate to contact Corey Spetelunas or myself.