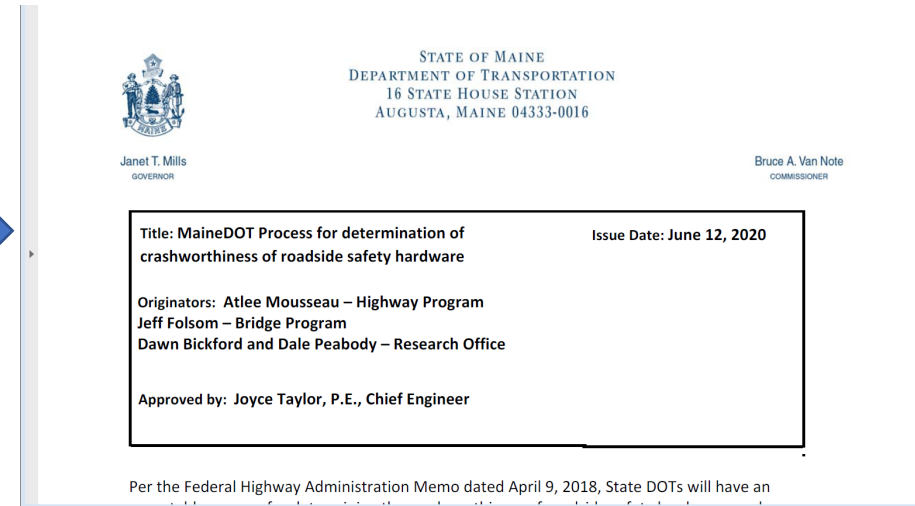


# Maine DOT – Next Steps & Implementation

- NETC 18-1 Simulation results
  - 2Bar and 3Bar **meet** MASH TL2 & TL3
  - 4Bar **meets** TL4, but with considerable damage to rail system
  - Suggests conducting ISPE
- **Maine DOT Engineering Council adopts “Crashworthiness” policy**
  - See policy details next slide
- NETC ISPE Results
  - Systems have demonstrated similar or better field performance than other similar systems across all three performance outcomes.
  - This exemplary field performance demonstrates the crashworthiness of the studied systems and supports the continued use.





- **For Existing Bridge Rail Systems without full scale MASH crash testing results, the following section applies:**

In the absence of the full suite of MASH crash tests an existing system may be considered crashworthy with the following approach:

- The bridge rail system must have been crash tested under the requirements of NCHRP 350.
  - For the purposes of this requirement, minor modifications to a NCHRP 350 crash tested rail previously accepted as crashworthy by this agency or FHWA will be considered as satisfying this requirement.
- non-linear finite element analysis, such as LS-DYNA, must be done by a qualified engineer demonstrating acceptable performance under MASH standards. Available data from prior crash testing should be used to validate the FEA model.
- Demonstration that the system has a history of acceptable in-service performance

# Maine DOT – Next Steps

- Completion of NETC ISPE study
- Prepare “crashworthiness” documentation for Engineering Council for MASH approval
- Make minor changes to bridge rail details, per 18-1 study
- No future plans for full scale crash testing