

Location:
Kancamagus Conf Rm (25-30)/Virtual

Time:
10:00 AM to 11:30 AM

Purpose of Meeting: First Quarter Meeting 2023

Invitees:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Loretta Girard Doughty, NHDOT | <input checked="" type="checkbox"/> Levi Byers, NHDOT |
| <input checked="" type="checkbox"/> Angela Hubbard, NHDOT (Co-Chair) | <input checked="" type="checkbox"/> Chris Cucco, AECOM |
| <input type="checkbox"/> David Scott, NHDOT | <input checked="" type="checkbox"/> Daniel Taylor, Stantec |
| <input type="checkbox"/> Jennifer Reczek, NHDOT | <input checked="" type="checkbox"/> Jaime French, F&O |
| <input type="checkbox"/> Paul Lovely, NHDOT | <input checked="" type="checkbox"/> John Byatt, BETA (Co-Chair) |
| <input checked="" type="checkbox"/> Jason Tremblay, NHDOT | <input checked="" type="checkbox"/> Chris Fournier, HEB |
| <input type="checkbox"/> Tim Boodey, NHDOT | <input type="checkbox"/> Steve Langevin, GPI |

1. Department staff changes (promotions, new-hires, retirements, etc.)

- a. ACEC members
 - Need a new DOT member to replace Bob Juliano
- b. NHDOT Staffing discussion
 - Hannah Gibson has left Bridge Design.
 - Still have CE IV's, V's positions open.
 - Pete Stamnas will be retiring end of March.
 - Dave Rodrigue has been confirmed as Assistant Commissioner.
 - Mike Servetas has been confirmed as Director of Operations.
 - Nicki Hunter is the new Administrator for Bureau of Construction.
 - Maggie Baldwin is the new Administrator for Rail and Transit.
 - Susan Klasen is the new Assistant Director of Operations
 - Nancy Spalding is the new District Engineer for District III

2. Summary of In-House Design Section staff meetings

- No applicable information.

3. NHDOT Information for Consultants

- The Department has developed the sign footing macro for MicroStation Connect. It was agreed that this would be good to release to consultants if they would like to use it. The macro is draws all the details and calculates quantities. Minor editing is required to modify to the project. The macro is still being revised for Connect but should be available soon.

- Inform colleagues of online information for drawing details: [Details](#), [Bridge Detail Sheets](#), [Sample Plans](#). The Department has been seeing submittals recently that do not follow NHDOT details.
- Inspection Reports can now be viewed on [Google Earth Bridge Maps](#) and [NHDOT Bridge Plans and Reports](#). Additional information may be available on the [NHDOT Plan and Proposal Inventory](#) webpage. Most of the same information can also be located through [NH DOT Roads and Projects Viewer \(unh.edu\)](#)
- The Department is working on updating it's website.

3. Technical Topics

- a. Bridge Manual and drawings
 - Angela is currently working on revisions/updates to the Bridge Details and Bridge Detail Sheets. The Details and Detail sheets will only have Connect MicroStation drawings posted. If there are projects still in V8i, NHDOT can provide a marked up .pdf showing the changes the Consultant should make for the contract plans.
- b. Steel Reinforcing Bar Properties
 - In 2019, ASTM changed the tensile strength property of steel reinforcing bars (AASHTO M31/ ASTM A615). For Grade 60, the tensile strength has been *reduced* from 90,000 psi to 80,000 psi.
 - The current *2020 AASHTO LRFD Bridge Design Specification, 9th ed with 2021 errata*, still notes the tensile strength as 90 ksi for Grade 60. This is only noted in Section 5.10.8.4.2a.
 - The current *2022 AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing* notes the reduced tensile strength of 80 ksi.
 - ACI 318-19 incorporated the changes and Concrete Reinforcing Steel Institute (CRSI) and reinforcing bar fabricators have adopted the lower tensile property for the industry. Hence, this has changed some rebar mechanical couplers to be compliant as a Type 2.
 - Designers shall use the lower tensile strength of **80 ksi** for design of Grade 60 reinforcing bars. Hopefully, the next revision of AASHTO LRFD Bridge Design Specification will note the tensile strength change.
 - This was discovered during construction of a drilled shaft foundation which allowed the use of an alternative coupler splice in the vertical reinforcement.
- c. Extra Reinforcement in Curb Hoop Bar
 - An additional reinforcing bar shall be added inside the curb hoop bar inside the bridge rail anchor template. This change is from recommendations of the MASH crash simulation to help with damage to the curb when the railing is impacted by a vehicle. (see enclosed detail) This applies to T2, T3, and T4 steel rail types.

- This information is in the conclusions and recommendations section of the NETC 18-1 final report. [18-1 Development of MASH Computer Simulated Steel Bridge Rail and Transition Details](#) (newenglandtransportationconsortium.org)

17.1.1.3 Curb/Deck Reinforcement

These conclusions relate to the 3-bar and 4-bar designs. When embedment depth and concrete strength cannot be increased, another option may be to increase the steel reinforcement by adding additional longitudinal steel nearer to (but above) the anchor plates. For example, Figure 512 shows a comparison of the curb reinforcing in the current NETC designs to that of the MassDOT S3-TL4 design, which includes the second row of longitudinal steel.

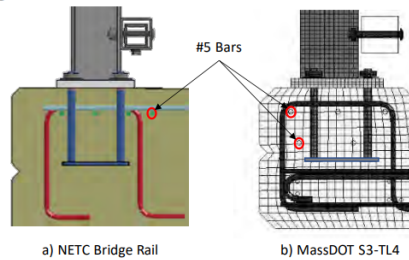


Figure 512. Comparison of longitudinal steel for a) the NETC and b) MassDOT's S3-TL4 bridge rail designs.

- Dan will check with MaineDOT to see what, if any, recommendations they plan to adopt.
 - It was noted that T2 bar rail use may be limited moving forward. It was simulated only for TL-3 and it can't be used as a protection for construction or Bridge Maintenance workers as T2 height doesn't meet OSHA requirements.
- d. Armored Expansion Joints
- The plan view detail needs to be drawn to scale detailing the following:
 - Outline of the girders
 - Layout of anchors on approach slab/stub wall side and deck side. The anchor on the deck side is attached to the girders and the anchor on the approach slab side should be across from the girder anchor.
 - Phase joint locations for phasing. The phase joint needs to be placed so the girder and approach slab anchor is within the phase to support the expansion joint.
 - Bridge railing anchors and anchor plates in the curb.
 - Details drawn to the skew.
 - For large skews, limit the 1" plates in shoulders because long lengths of the welded plates will warp.
 - Include an elevation view of expansion joint along end of approach slab and face of pilaster showing slope changes and offset distances and curb angles. This raised some questions: If designers are already providing elevations, is this necessary? Will this solve the problems in fabrication/construction? The

Fabricator uses offsets when building and the slopes and offsets will help check that the joint is in the right placement in construction.

- Show upper and lower assembly for sidewalk plates for finger joints.
 - Consultants should anticipate up to 4 sheets per joint dependent on complexity.
- e. Estimates
- Allowance items should have the quantity listed as the dollar amount and the Unit Price as \$1. Projects with multiple bridges should have the dollar amount summing to the Total Quantity listed for each bridge, not the percentage.
 - A steel adjustment allowance will be introduced.

4. Business Topics

- a. Develop a list of meetings/PM duties Consultants will be taking on for some projects. Possible guidance with ACEC CQI Committee. Loretta will follow up to see if a list has already been created.
- b. A new standardized scope and fee template is in the works.

5. Potential NHDOT and Consultant bridge training opportunities

- a. PCI Workshop this Spring. The workshop will present the documents completed during Covid:
 - Guidelines for Precast Substructures used in ABC 1st Edition 2022 Issue Date: 05/13/2022
 - Full Depth Deck Panel Guidelines Third Edition 2020 Issue Date: 5/16/20
 - Northeast Extreme Tee (NEXT) Beam Guide Details Second Edition 2021, which was issued 1/22/2021
- b. MicroStation Connect and Open Roads Training
 - NHDOT has not provided any Connect training, only training videos.
 - Consultants can access the videos if they have worked on NHDOT projects. If don't have a NHDOT project but would like to access the videos, let Bill Caswell of the CADD section know and he can add the company to the list.
 - See enclosed document for links to the video training.

6. Bridge Bureau workload and anticipated consultant support needs

- a. Possible Action Projects
 - Danbury should be out for Letters of Interest soon.
- b. The Bridge Division has 40% staff depletion making it difficult to administer contracts.

7. Subcommittee membership rotation / new members

Chris Cucco, Jaime French	Sept. 2020 to Sept. 2023
John Byatt, Daniel Taylor, Jason Tremblay, Paul Lovely	Sept. 2021 to Sept. 2024
Chris Fournier, Stephen Langevin	Sept. 2022 to Sept. 2025

8. Upcoming meetings - scheduled Fridays from 10:00 to 11:30 AM

- a. 2023 meeting dates (calendar invites will be sent out):

March 10, 2023

June 9, 2023

September 8, 2023

December 8, 2023