

Location:
NHDOT- Large Highway Design Conference Room

Time:
10:00 AM to 11:30 AM

Purpose of Meeting: Fourth Quarter Meeting 2019

Invitees:

- | | |
|--|--------------------------------------|
| <input type="checkbox"/> Bob Landry, NHDOT | ✓ Dan O'Connor, Collins (Note taker) |
| ✓ Angela Hubbard, NHDOT (Co-Chair) | ✓ Kim Smith, H&H |
| ✓ Joe Adams, NHDOT | ✓ Steve Hodgdon, HTA (Co-Chair) |
| ✓ John Poisson, NHDOT | ✓ John Watters, GPI |
| ✓ David Scott, NHDOT | ✓ Adam Stockin, WSP |
| ✓ Tony Weatherbee, NHDOT | ✓ Tom Levins, GM2 |

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

- Matt Lampron is the new Project Manager in Highway Design. Matt's background is 20+ yrs in construction

2. Summary of In-House Design Section staff meetings

- September Meeting:
 - Sarah Long Bridge won an award from ASBI
 - Ossipee bridge slide went well from a technical point of view, a time lapse video will be made available on DOT website, (need to review traffic closure signs from a more global overview)
- October Meeting:
 - New Stream Crossing rules may require larger spans depending on the stream classification, multipliers may be greater than 1.2.
 - New rules effective as of 12/15/19. Potential to be up to 2.2 times bankfull width to determine compliant span length.
DOT has developed a list of exceptions and will address impacts to ongoing projects on an individual basis
 - Requesting an alternate design may be an option
 - DOT looking to develop Alternative design procedures with DES
 - Discussing options with Bureau of Environment
- November Meeting:
 - Contractors would like to pay for concrete bridge repair differently. They would like to pay for the expansion joint concrete work as a final pay item since the dimensions are shown on the plans.
 - It was approved to put the expansion joint deck blockout concrete and backwall concrete under Item 520.02 Concrete Class AA, Above Footings (F).
 - The Contractors also requested the abutment/wall repair concrete be the same mix as the deck and backwall since the quantity is small. They also requested a new item since it is difficult to form the abut/walls and the cost is higher.

- The Specifications Concrete Subcommittee will be discussing the abut/wall repair concrete item at their next meeting.
- The Bridge Manual will be updated after what is decided in the meeting.
- The Contractors would like clarification on how many hoop bars are to be placed centered around the bridge railing post. Depending on the spacing of the posts, the additional bars aren't always centered at the post.
- After review, it was decided to change the deck reinforcing sheet to show additional **4** hoop bars at each post instead of 3. This will always provide hoop bars centered around the post since the bridge railing was crash tested this way and the MASH simulation has the hoop bars centered over a 3-ft. area.
 - Bars to be centered over the post, depending on how they land. DOT will update standard detail for clarity.
- NHDOT may revise the bridge rail reinforcing details on the standard bridge rail sheets so that it is more accurate.
- There may be changes to the slope intercept costing method section in the Bridge Design Manual.

3. NHDOT Information for Consultants

- NHDOT Bridge Design Manual Update
 - Working on rehabilitation section of Chapter 7
 - Making revisions for Chapter 6
 - Notice will be sent out regarding concrete repair item changes and bridge railing hoop bar changes
 - Working on structural steel coating (metalizing all new steel that requires a coating) memorandum
 - Changes to the deck overhang detail may be coming due to bridge in Nashua (Exit 5) had some concrete spall off.
 - A notice will be sent out regarding use of anodes on rehabilitation projects. Anodes have no affect to epoxy coated reinforcing due to the coating so they should only be used with black bars. Also, the specification has been revised to include wording to pay the Contractor for any new condition remaining quantity of anodes not used and shall be become the property of the Department.
- NHDOT Bridge and Approach railing has passed MASH finite element simulation crash testing. The approach rail with 5.5-ft. spacing to first post has also passed the simulation. The next step is funding a crash test or self-certifying (MaineDOT heading in this direction).
- Highway Design has chosen a MASH crash tested pcb - Roadside Safety Pooled Fund Non-proprietary F-Shape barrier
 - The barrier is bigger than existing pcb. It's 12.5-ft. long, 3-pin F-shape, 9.6" top and 24" bottom.
 - It's the same shape as MA pcb and Texas X-bolt barrier used on bridge decks.

- The bridge Braced Barrier is a jersey shape and a transition piece will need to be made to connect the barriers.
- A standard needs to be made and approved by Federal Highway.
- A supplemental specification for synthetic fiber was approved
 - It states to use 5 lbs/cy for approach slabs and 3 lbs/cy for other items if noted on plans.
 - NHDOT is still testing the use of synthetic fiber in concrete curbs and expansion joint blockouts.
- The Bridge Mounted Sign Supports Detail Sheet has been revised and in process of being checked. A notice will be sent out when it is published on the website.
- A new NCHRP report for MASH crash tested railing on a moment slab over a MSE wall has been completed and is under review. Look for the final report which has an example for a moment slab design with MASH loading.
- There was discussion regarding beam guard rail placed in front of a MSE wall and if there was crash test/research performed that would show the deflection of the guardrail and provide offset distance to the face of the MSE wall.
 - Angela noted that the bridge manual shows a minimum of 6-ft. behind the beam guard rail to the face of the MSE wall. The offset can be shortened if a lower deflection barrier is used such as thrie beam or concrete barrier.
 - Angela said she will look to see if she had found any research.
 - There was no further comment if there was any research available.

4. Technical Topics

- Waterproofing Membranes
 - Current standard goes back to the 90's
 - Would be useful to collect performance results for incorporation into bridge management program
 - MA doing a test with moisture sensors under membranes and will monitor over time (MA uses spray applied membrane typically)
 - Remove from future agenda until relevant data is available
- Summary of Polyester Polymer Concrete used on projects
 - Tabled for discussion until next quarterly meeting
 - Data will be collected on where used, performance, and if have used it on a bare deck after the diamond grinding or grooving has been worn down from traffic.
- Constructability Reviews
 - Level of effort during different phases of project development
 - DOT uses district construction engineers to perform constructability review and is open to performing constructability reviews during early phases of a project. Useful for smaller firms with no in-house construction staff.
- Cost Estimating

- Mark Richardson working on documentation, due out 2020. Goal to improve initial cost estimates.
- Level of effort during different phases of project development
 - Tabled for discussion until next quarterly meeting
- Sharing from other DOT's:
 - Other states have used a cold planning machine to mill bare decks instead of diamond grinding due to the cost of the specialty machine.

5. ACEC-ME / MaineDOT meeting notes from Adam Stockin

- MaineDOT looking for guidance on diamond grinding of bare concrete decks. NHDOT currently re-writing spec to follow CalTrans procedures – deck must be ground smooth before diamond grinding can be effective. NH has used diamond grinding on approximately 10 bridges.
- At recent SENH meeting, Bob Landry mentioned NH is going all metalized coating for new beams for all overpass structures over Tier 1 and 2 roadways. Maine has already instituted this practice. Maine interested in metal thickness for coatings – MA has spec for metalized coating for different corrosion zones. 5-7, 8-12 mil thicknesses depending on zone.
 - Angela to send her research on metalized coatings to Adam for forwarding to MaineDOT.
 - Consultant to discuss with PM for direction until official policy is in place
 - NH typically uses 10 mil thick (within +/- 2 mils) with a clear sealer coat on girders.

6. Business Topics

- Brainstorming session on comparing project performance, schedule, efficiency, value
 - Committee members to collect info as outlined in handout from Steve. Goal is to lay groundwork for improving efficiency in project delivery.
- New consultant co-chair – John Watters confirmation
 - Approved

7. Potential NHDOT and Consultant bridge training opportunities

- The NHI Rehabilitation class won't be offered until next year.

8. Bridge Bureau workload and anticipated consultant support needs

- Soliciting for statewide bridge design contracts soon
- Northbound Steven's Pond bridges coming out soon (Manchester – Hooksett)

9. Subcommittee membership rotation / new members

Steve Hodgdon, John Watters, Joe Adams, John Poisson	Sept. 2017 to Sept. 2020
Adam Stockin, Tom Levins, David Scott, Tony Weatherbee	Sept. 2017 to Sept. 2021
Kim Smith, Dan O'Connor	Sept. 2019 to Sept 2022

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

- The following dates: March 13, 2020, June 12, 2020, September 11, 2020, December 11, 2020.
- A new NHDOT member should come to the next upcoming March meeting to transition in starting the September 2020.
- Mike Mozer and Bob Juliano are nominated as the next two NHDOT members.