

NHDOT / ACEC-NH Bridge Subcommittee MEETING NOTES June 10. 2022



Location:

NHDOT Room 114 10:00 AM to 11:30 AM

Purpose of Meeting: Second Quarter Meeting 2022

Invitees:

☑ Loretta Girard Doughty, NHDOT

☑ Angela Hubbard, NHDOT (Co-Chair)

☑ David Scott, NHDOT

☑ Jennifer Reczek, NHDOT

☐ Robert Juliano, NHDOT

☑ Paul Lovely, NHDOT

☑ Jason Tremblay, NHDOT

☐ Steve Johnson, NHDOT

☑ Dan O'Connor, Collins

Time:

☑ Kim Smith, H&H (Co-Chair)

☑ Chris Cucco, AECOM

☑ Daniel Taylor. Stantec

☑ Jaime French, F&O

☑ John Byatt, BETA

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

- a. ACEC members
 - i. Kim will be rotating off the committee in September and it was agreed to have John Byatt as the new co-chair.
 - ii. Chris Fournier & Stephen Langevin proposed new members. The new members were accepted.
- b. NHDOT Staffing discussion
 - Jason Tremblay has been promoted to the new CE-VI, Project Manager Position, within the Bureau of Bridge Design
 - Jerry Zoller is retiring at the end of this month (47 years with Bridge Design).
 There will be a reception for him on June 24th at 2:00 pm in Room 114.
 Anyone can come and wish him well on his retirement.
 - Ron Kleiner will be returning to Bridge Design as a CE V.
 - Renee Santos is Bridge Design's new Administrator Secretary
 - Kendra Anthony from Internal Audit will be taking over the open position that puts together Consultant Contracts
 - Highway Design's Administrator Secretary position is vacant
 - Still have CE IV position open

2. Summary of In-House Design Section staff meetings

- a. March 2022
 - There is a new Historical Bridge Inventory Interactive Map which allows you
 to select any bridge and view attributes including it's historic eligibility: https://nh.maps.arcgis.com/apps/webappviewer/index.html?id=ebf189a3e448

 42d5a0b7669344adf925 The map will be updated every 5 years.
 - 283 vacancies in DOT
- b. April 2022
 - There are new changes to the National Bridge Inspection Standards (NBIS) and to the Coding Guide. Slide show summarizing the 2022 changes is located here: https://www.fhwa.dot.gov/bridge/pubs/P1-NBIS-SNBI-Final-Rule-Overview_toHPA_V2_508v2.pdf. The memo can be found here:



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https://www.fhwa.dot.gov/bridge/pubs/MEMO-NBIS-Final-Rule-FINAL_508.pdf

3. NHDOT Information for Consultants

- Section 105 is being revised and new NHDOT stamps have been approved by the Specifications Committee to provide consistency throughout NHDOT on how/what stamps are being used. In the past there have been concerns with using an "approved" stamp for instances such as when a fabricator designs the component; there will be a new stamp for "acceptance" in addition to "approval" & "documentation." A memo will be sent out to all the Bureaus and the Supplemental Specification will be put in contracts.
- New Section 529 Precast Concrete Components was approved by the Specifications Committee. Sections 520 and 528 have previously been used to cover this type of work, however, there have been issues with components constructed under Section 520 not meeting the shipping needs. This new section will cover non-prestressed concrete. Angela will be sending out a memo to all Bureaus and Consultants regarding the new spec and implementation.
- If you are trying to get the inspection report from the bridge map on the
 internet site, it only works with Internet Explorer. We are currently working
 towards a fix with the other browsers. The map has been changed to revise
 weekly but we are still trying to figure out how to get the inspection reports to
 be viewed.

4. Technical Topics

- a. Rebar Types
 - Stainless (solid or clad) the cost for stainless rebar is increasing and it is getting difficult to obtain. Are there other options? Maine and Vermont have halted the use of stainless steel rebar. The Department is using stainless steel rebar on the Hinsdale bridge.
 - 1. Galvanized
 - 2. ChromX being used by MaineDOT in lieu of stainless bars
 - 3. GFRP May be feasible but can require a thicker deck to use
 - 4. Epoxy
- b. Cost Estimating Guideline Price increases are being seen for many items, notably deck concrete and steel/aluminum. Recent bids should be reviewed when developing cost estimates. The policy and manual is in the process of being approved and will be posted soon.

c. Modular Joints

Subcommittee members will look for information from other NE States regarding the service life of single support box modular joints; if they are using them and how they are performing. Watson Bowman and TechStar (a break-a-way company of DS Brown) are requesting to use single support joints. NHDOT currently does not allow single support box joint due to the potential the single support joints have a shorter service life than the multiple support boxes. NHDOT needs to determine what types of joints will be allowed and where they will be used. NHDOT is looking for some research that confirms an adequate



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service life of the single support box joints. See enclosed pictures of the different modular types.

d. Synthetic Fibers

- Have been trying macro fibers in bridge curbs and sidewalks to see if they will help with the thermal cracking that occurs every 2-3 ft.
- Some of the bridges have shown spalling of the concrete where fibers have clustered together.
- Fibers will still be put in the curbs on a trial basis only.
- The micro fibers in the sidewalks on soil have performed well and reduced cracks.
- A new Special Provision is going in contracts noting the rate of fiber (see enclosed). Please use these rates when calculating the quantity of the item and not the 7 lbs/cy as in the Spec Book.

e. Cost Escalation

Contractors have noted escalation in costs for steel and aluminum. Future
projects may include an escalation clause for steel; discussions are ongoing
as to what items can be included in this clause. Price adjustments would be
provided every month based on ENR data, similar to the fuel adjustment.
Should be developed by September.

f. Concrete Soundwalls

 Angela will be sending out a memo regarding the implementation of the new concrete soundwall and special provision; timber walls will no longer be used. The new concrete soundwall will not be a standard but rather bridge detail sheets. There will also be a detail for concrete panels used to repair existing soundwalls.

g. Connect

 dgn's for all the Bridge Detail Sheets and Bridge Details will be posted in the next couple months. These will be sent out to the subcommittee for review before they are posted.

h. Manual and drawings review

 Angela will set up review Bluebeam sessions once she gets back to the Bridge Manual and drawings.

5. Business Topics

- a. Update for online shared reviews
 - i. Mainly use Bluebeam in-house for construction submittals.
 - ii. It might be helpful to have the Bridge Bureau host a Bluebeam session for consultants to collaborate on standard details, particularly for expansion joints, and potentially draft design manual sections until they can get updated on the website.
 - i. Jim Downs will train Bureau of Bridge Design in Bluebeam. Consultants are willing to help as well, if needed, as many are doing their own internal



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training. There is a NH Bluebeam users' group that may be helpful: <u>New Hampshire Bluebeam User Group | Bluebeam, Inc.</u>

- b. NHDOT evaluating SharePoint implementation in the future. Internal only. It's going to be a while before it's going to be used externally, if ever. Security issues.
- c. NHDOT information session on expansion joints for all consultants? Lessons learned Bridge Design needs internal meetings on what type and when to use different expansion joints. Once the guidance has been made, the information will be given to consultants. Details will also be drawn up then put on Bluebeam for the subcommittee's review before posting.

6. Potential NHDOT and Consultant bridge training opportunities

- a. Bentley OpenRoads Training?
 - i. Not aware of anything coming up.
- b. Other conferences
 - NHI Strut & Tie: June 16-17th in Concord. Loretta will check on the availability of this training and send a note to Alex if there are any openings.
 - ii. NBIS Refresher Course SENH arranging. NHDOT has no need for this training.
 - iii. US Coast Guard Permitting Training: 8/16-8/17. Jennifer will look at separate consultant training for this.

7. Bridge Bureau workload and anticipated consultant support needs

- a. Possible Action Projects Bridge Group is currently planning out projects. There are 6 projects expected to go out for solicitation. Also working on obligating funds under the current on-call contracts so that new contracts can be put in place.
- b. Discussions are ongoing with the CQI committee as to how consultant can provide additional help to NHDOT staff and potential for streamlining the design process. This includes potentially having consultants fill the PM role.

8. Subcommittee membership rotation / new members

Kim Smith, Dan O'Connor, Bob Juliano	Sept. 2019 to Sept. 2022
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

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

- a. 2022 meeting dates (calendar invites will be sent out); meeting will now be hybrid at NHDOT Room 114 and Teams;
 - i. September 9, 2022
 - ii. December 9, 2022



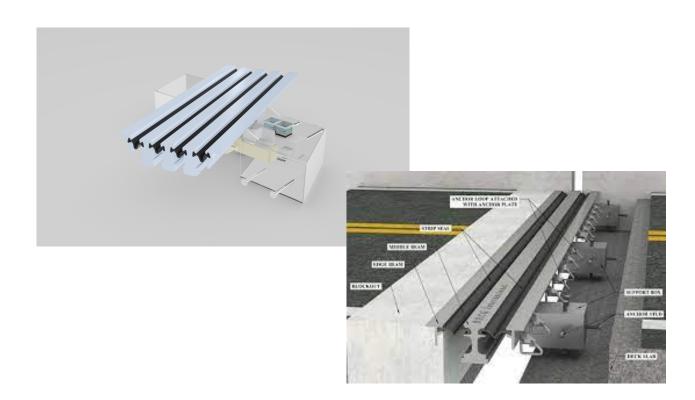
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Multi-support Modular Joint:



Single-support Modular Joint:



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MERRIMACK 43759

May 23, 2022

SPECIAL PROVISION

AMENDMENT TO SECTION 544- REINFORCEMENT FOR CONCRETE

The purpose of this special provision is to revise the dosage rate of the synthetic fiber

Amend 2.5 to read:

2.5 Synthetic Fiber Reinforcement. Synthetic fiber reinforcement shall be a macro (structural) synthetic fiber (1.5 inches long, minimum) or a micro (non-strucutral) synthetic fiber as listed on the OPL.

Amend 3.8 to read:

- **3.8** Synthetic fiber dosage rate and type. Synthetic fiber dosage rate and type shall be as follows:
 - 1) Approach slabs and modular expansion joint blockouts: 5 lb/cy, macro (Dosage rate shall not be field modified as fiber replaces top mat of reinforcing.)
 - 2) Pedestrian sidewalks on soil: 1.5 lb/cy, micro