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| **Location** | | **Time**  1:00 PM to 3:00 PM | |
| Virtual | |
| **Purpose of Meeting** | | |  | | |  | | |
| 2nd Quarter Meeting - 2021 | | | | | |
| **Invitees** |  | | | |  | |
| 🗹 Jeff Folsom, MaineDOT  🗹 Garrett Gustafson, MaineDOT  🗹 Laura Krusinski, MaineDOT  🞎 Kathy Parlin, MaineDOT  🞎 Ben Foster, MaineDOT  🞎 Richard Myers  🗹 Devan Eaton | 🞎 Bob Blunt, VHB  🗹 Thomas French, HDR  🗹 Owen Krauss, HTA  🗹 Daniel Taylor, Stantec (Note taker)  🗹 Chris Taylor, T.Y. Lin | | | |
| **MEETING ITEMS** | | | | | | | |

1. Introductions

Daniel Taylor joined the committee this month. He’ll also be on NH’s bridge subcommittee beginning in September, so if there are any cross-state subjects that we can discuss he can try to coordinate them with NH.

1. Meeting Minutes Submission

Previous meeting notes were submitted yesterday, 6/21, so there hasn’t been much review time. Jeff provided some name spelling corrections, but overall looked okay at first glance.

1. Information Dissemination by MaineDOT
   1. Contracting/workload
      * 2021 work plan update

At the time of the last meeting the Statewide Transportation Improvement Plan (STIP) was unapproved. Has since been approved in early May. Most new projects have been activated. Teams are looking to pair up projects between in-house and consultant staff currently.

The last work plan was an increase from previous. Not sure of funding allocation currently, but MaineDOT is assuming it’ll remain similar to past 3-4 work plans. Early June there were 3-4 meetings to discuss. Every year MaineDOT begins with PE-only projects and review to see how far they’ve progressed to provide construction funding. PE-only projects generally don’t progress very quickly. Not many were moved ahead and funded for construction. Hopefully these PE-only projects will look better next year.

MaineDOT is looking at their list of bridges in poor condition, similar to NHDOT’s Redlist, and trying to decide on priority and funding. MaineDOT is getting more comfortable with structures in poor condition and are load posting to prolong service life or closing them if necessary. The list will take MaineDOT until late summer. Next MaineDOT looks at supplemental needs for current projects where construction prices have increased. Late fall is timeframe expected to have a good picture of next work plan.

* 1. Federal Grants & Federal Funding Updates

INFRA grant for 15 bridge replacements ($80 mil), waiting to hear back. Applying for RAISE/BUILD/TIGER grant – Hogan Road/I-95 diamond interchange one new bridge ($20 mil) one rehab. Applying for highway job in Frenchville.

* 1. MaineDOT Staffing Update:

Not too active. Office Clerk 4 Deb Stanhope is retiring, shorthanded on administration staff until backfilled.

Leanne Timberlake recently retired; Julie Brask starts 6/28 fill her position. She’ll be working with Andy Lathe on the Design-Build team.

New Assistant Transportation Engineer Liam Casey – will work with Rich Myers on Team North.

Mackenzie Kersbergen back from leave and will be picking up projects again.

MaineDOT has been able to retain most staff through COVID, but it seems that VT and NH have lost few key people due to retirement.

Notably in VT – Wayne Simmons (Retired, as far as Tom knows)

Notable in NH – Keith Cota (HDR), Bob Landry (VHB), Joe Adams (Retired)

* 1. Return to work plan/COVID Info/PIMA process

Telework – affirmed through July 4th, still working on long-term plan. Anticipated to be a gradual change over the next few months. Mask mandate may be lifted early July.

* 1. Construction Cost Estimating

Tricky lately – using steel escalator to determine rail and structural steel prices. Heard material prices may be coming back down soon. Escalator is not applied to rebar. MaineDOT saw big jump in rolled tube cost and plate steel, so that’s what initiated the adjustment.

New estimating program – AASHTOware estimation module. Wasn’t very user friendly, so it needs some modification – maybe using again mid-July. May need formal training or have developer help with setup.

We don’t believe VT or NH are doing anything special for price adjustments, assuming that the current price volatility is temporary.

* 1. Standards Update (BDG, PDR/PIC, CADD, Notes) –

Bridge Design Guide (BDG): MaineDOT will issue a Request for Proposal (RFP) to provide assistance with writing and compiling the manual. Tough to get momentum on it in-house with constantly changing workload. 1.5 year estimated completion once it gets going.

Standard notes won’t be rolled into the RFP for the BDG. There are two dozen or so outstanding questions that remain. Geotechnical notes are mostly finalized. Superstructure, general notes, etc. still working on. Rich and Garrett will continue working on these and assign to others as needed.

1. Summary of Designer Meetings (Rich & Garrett)

Last meeting covered through March 10. There have been 4 meetings since: 4/7 Redi-rock presentation, 4/21 Vector presentations, 5/5 staged construction and curved girder design, 5/19 presentation from Atlas on pipe piles.

1. Geotechnical (Laura K.)

Aaron Gallant at UMaine will soon complete a report on integral abutments with micropiles. Asked to put “pencils down” on threaded joints/structural work on micropiles. Aaron and Bill Davids put together a research proposal for TIDC for micropile threaded couplings structural capacity.

Brewer-Eddington first lightweight fill using foamed glass aggregate. Teaming up with research division to track use of that project. Good dataset of clay properties, Cone Penetration Testing (CPT) testing and lab strength/compressibility data. Will process and develop site specific correlations.

Dan to dig up design-build project in Durham if presentation is still available from ACEC-NH conference. A follow-up email was sent – It’s the Durham 16236 project, designed by WSP, built by SPS New England.

1. Discussion Topics
   1. Continual Communication in a Remote Environment

Brief update last month. Some cost savings for most organizations and public participation.

There are some concerns for situations such as conference calls and large meetings when you have some people working remotely and some working in the office.

* 1. Bare Concrete Decks
     + Deck reinforcing selection (stainless vs. GFRP, HCP, new superstructure vs. deck reconstruction)

Reinforcing selection, has there been any changes there?

Jeff is an advocate for bare decks. However, MaineDOT is seeing a lot of deck cracking now. On a couple newer ~200’ span bridges you can see transverse cracks at midspan, which is unexpected. Shrinkage? Thinking about getting UMaine to study and try to determine the cause to prevent the cracking moving forward. Concerned about not getting 100-year service life out of them. New bridges only a few years old, such as the Ohio Street in Bangor has all sorts of cracks. MaineDOT will work on the cracking solution before continuing to use bare decks much. Polyester polymer concrete wearing surface Washington Ave in Portland might be an option for the future.

ACEC committee – collect data in other states to see what’s been done and provide performance history. Welcomed by MaineDOT.

Corridor Priority 3, 4, 6 bridges may consider GFRP, but stainless is more consistent in price than GFRP. GFRP has a LF measurement so it’s a little different from what we’re used to. You get more bank for the buck with stainless.

Has MaineDOT has problems with the lead time on stainless rebar? Heard contractors complain about it.

Garrett heard if contractors mess up a couple bars you can’t just go out and buy it, so it’s a little bit of a delay, but hasn’t caused too many problems.

Tom had an issue with large ~#10 stainless bars on a project where it looks like there are a bunch of cracks in the bar, but it’s just part of a manufacturing process. He will try to dig up photos.

MaineDOT is working on some projects with stainless prestressing strand. It’s tougher to get the same elongation as typical strand.

* 1. Integral abutments
     + Circular piles, skewed bridges

Consideration of circular piles on steeply skewed bridge? Not just micropiles, but other circular piles as well. Laura is not aware of anything special. Atlas gave a presentation recently.

Rich Myers may want to try a stainless steel pipe pile.

Long skewed integral bridge in Milo – geoinclusions were included to reduce pressure, but monitoring program did not happen. Aaron Gallant at UMaine to develop proposal for TIDC. Will meet with HNTB to see why they asked to reduce lateral earth pressures on abutments for Milo. Proposal will include the reasons why they would want to reduce pressure and the implications on the model.

* 1. APJ’s

Where to use these with integral abutments or slab-over or semi-integral backwalls. MaineDOT may have been over-specifying recently, so they’re looking to limit their use where they are not necessarily needed. Reserve for higher corridor priority and higher traffic volumes.

The wider they are, the easier they are to blow out. Issues seen on I-295.

Check with Rich/Garrett on project specific basis if you’re unsure.

* 1. Bluebeam Update –

All staff at MaineDOT have it. Still getting used to using it. Going to have some training to get people up to speed with staff.

Tom’s group is using it for most things. Some issues with compatibility with other Adobe-based programs.

Use of Adobe with a tablet? Bluebeam does it well. No one seems to have experience with this.

Bluebeam has a lot more shortcuts than Adobe and is thought to be more efficient for reviews/mark-ups once you get used to it.

* 1. Maintenance Construction Issues
     + APJs – covered above.
     + Masonry plates

MaineDOT prefers masonry plates on bearings.

* + - Secondary measures for joint failures/Innovative alternative details

MaineDOT prefers no joints where possible. Integral, semi-integral, slab-over-backwall would be first choices. Would prefer to push limits on those a little bit if need be. Presented Jonesport from Bob’s Beals-Jonesport bridge. Thought it was a project specific detail and not to be used for typical bridge moving forward. If there are questions about what detail to use, discuss with Rich/Garrett on a project specific basis.

* 1. Detail-Build projects

Recent detail-build projects: Buried structure in York, detail-build superstructure on Gardiner. Berwick was detail-build superstructure only. Litchfield buried structure. Rogue Bluffs, Stockton Springs, Pittsfield.

AIT CT girder – composite girders. 50-100’ span range thinking about allowing detail-build on it.

Detail-build: Need to think about record plans for detail-build and Value Engineering (VE) proposals. Devan had an issue on a VE Litchfield project in that the plans didn’t match the structure built. If all alternatives are not shown in the contract plan set than there’s a chance for the plans to get missed or not follow the correct process. Might be best to detail and include all options in the contract plans or get MaineDOT reviewers involved in the review of Contractor submittals – for more significant components like superstructure alternatives.

Buried structures are easier projects to do detail-build. Gets complicated if it’s in a gray area where the buried structures get larger, could be a span, or have difficult geotechnical conditions.

NEXT beam vs. steel beam may be the extent MaineDOT will consider in the future for superstructure detail-build projects.

* 1. Other –
     + Steel approach rail crash tests

Roadsafe simulated crash tests showed sidewalk-mounted concrete transition barriers did not meet TL-3 or TL-4. MaineDOT is likely going to adopt the NH-style approach rail transitions on some projects in the future.

Preformed Expansion Joint Filler (PEJF) concrete joints – Ideally make sure they’re explicitly called out in plans or any other concrete joints that need to be filled and do not rely on standard details.

1. Future Discussion Topics
   1. Potential future discussion topics
      * Complex project discussion
      * Where can the Consultants best help discussions
      * FGA behind an integral abutment. How to develop earth pressure coefficient? Pertinent to Brewer-Eddington.
   2. Training Areas
      * Bridge Inspector Refresher Training – To be discussed in designer meetings. It was noted that it’s about half the price virtually than in-person training.
      * Structural Stability
      * Web-based Training
2. Subcommittee Rotation for Consultants
   1. Active:
      * Thomas French, HDR Q1 2020 thru Q4 2021
      * Owen Krauss, HTA Q3 2020 thru Q2 2022
      * Chris Taylor, TYLin Q3 2020 thru Q2 2022
      * Bob Blunt, VHB Q4 2020 thru Q3 2022
      * Dan Taylor, Stantec Q2 2021 thru Q1 2023

* 1. Future:
     + Keith Wood, Kleinfelder Q1 2022 thru Q4 2023
     + Ashley Stephens, HNTB Q3 2022 thru Q2 2024
     + Andrew Blaisdell, GZA Q3 2022 thru Q2 2024

1. The Next Meeting is set for September 21, 2021.