

ACEC/MaineDOT Bridge Design Subcommittee

MEETING MINUTES

March 4, 2024

Location

Hybrid: Virtual/DOTConfRM 317

Time

1:00 PM to 3:00 PM

Purpose of Meeting

1st Quarter 2025 Meeting

Invitees

- | | |
|-------------------------------|------------------------------------|
| ■ Garrett Gustafson, MaineDOT | ■ Wayne Frankhauser, MaineDOT |
| ■ Laura Krusinski, MaineDOT | □ Cindy Stafford, MaineDOT |
| □ Ron Taylor, MaineDOT | ■ John Byatt, BETA |
| ■ Richard Myers, MaineDOT | ■ Shannon Beaumont, Fuss & O'Neill |
| ■ Joshua Hasbrouck, MaineDOT | ■ Bryson Welch, Thornton Tomasetti |
| □ Tim Aguilar MaineDOT | ■ Bryan Steinert, Haley & Aldrich |
| ■ Erin Bingham, MaineDOT | ■ Carl Ayers, VHB |
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AGENDA ITEMS

- Members
 - Bryson Welch, Chair
 - Shannon Beaumont, last meeting Q1, 2025
 - Adam Stockin, WSP will rotate in Q2, 2025
 - Carl Ayers is attending for Bob Blunt, VHB
- Meeting Minutes Submission
 - Meeting minutes for Q4 were reviewed and have been forwarded to be posted to the ACEC website
 - Review/Questions/Follow up on Q3 meeting discussion
- Information Dissemination by MaineDOT
 - Contracting/workload:
 - New large culvert team – part of the Regional Program. Atlee Mousseau Senior PM to lead the new large culvert team. (formerly senior engineer in highway program). Team took over 8 projects. Not sure how the regional program will be funded.
 - Bridge Team
 - 2025, 61 projects, 39 replacements, 346.3M (including engineering and ROW)
 - Large Projects:
 - Sidney-Waterville DB Bundle – Schedule online but grant funded. Uncertainty due to current conditions.

- Cumberland-Tuttle
 - Yarmouth-Exit 15
 - Dover-Foxcroft-Dover
 - Hogan Road
- 2026, 77 projects, 50 replacements, 316.2M (including engineering and ROW)
 - Doesn't include Bangor-Brewer I-395 (6 bridges), including a rehabilitation of the Veterans Remembrance Bridge.
- 2027, 58 new projects assigned. 17 paints, 20 PE only. Will not all stay within 2027.
 - Early budget issues- 33 made PE only, 11 new ones.
 - Forecasting over 100 projects to be advertised (some will slide).
- More PE Projects likely moving forward. Trying to stay on top of the schedule to get PDR only in first year -work on funding later.
- General Consulting Agreement (GCA) Schedule
 - Interviews this month.
 - Interviews for first time consultants.
 - PMs can ask for it.
 - Not worked for a service in past 3 years.
 - Starting next week and extending into first week of April.
 - Questions will be sent ahead of time. Send the answers back before interview.
 - Formal letters sent out after interviews.
 - All done by June 30, Active July 1 for 5 years.
 - Open prequals slightly behind schedule – will let us know when its posted. Available Friday or early next week. Live until end of July.
 - Environmental, Research and Innovation and Planning GCAs starting in August.
 - Same terms and conditions as previous GCAs.
- Federal Grants & Federal Funding Updates
 - Currently nothing has changed, so staying the course.
- MaineDOT Staffing Update
 - Jerry Dostie promoted to senior PM for the DB team (from PM1 Team North)
 - Still down one PM1 on Team North

- Standards Update (BDG, PDR/PIC, CADD, Notes)
 - BDG update
 - Chapters 1 – 3 – Mostly completed, just addressing comments.
 - Chapter 2 – Project Development
 - Chapter 3 Preliminary Design (hydraulics stripped out into its own chapter)
 - Senior Engineers working on Chapter 4.
 - Engineering council and FHWA needs to bless it before making it a live document for everyone to review. Will make updates as needed.
 - Beginning to update Chapters 5-7 (Loads, Steel, Concrete)
 - AASHTO issued the new 10th Edition LRFD Bridge Design Specifications on December 20, 2024.
 - Don't convert to new AASHTO if design has already been completed or at least partially completed and additional work is required to convert (unless it's a multi-year design project).
 - Coordinate with PM regarding code updates for projects.
 - RPV Loading for Rehabilitation Projects
 - Depending on project early load ratings may be required, even at PDRs, to ensure it meets requirements.
 - New continuous spans need to be checked for RPVs. HL93 (Mod) does not guarantee the bridge will meet RPV loading.
 - OpenRoads Feedback
 - Lessons learned
 - Mimic MaineDOT folder structure
 - If the folder structures are different between users, the files will not reference in correctly.
- Summary of Designer Meetings (Not received from MaineDOT, will include next quarter)
 - Meeting 1: Design process discussion for younger engineers.
 - Discussed a Bridge in Prospect – Temporary Detour layout. Site conditions and how to layout temp detour
 - First pass to meet standards, then investigate design exceptions for certain situations.
 - Guardrail detail over shallow buried structures. The concrete “blob” detail over buried structure is not crash tested. Do not use without approval from PM. Only used for low volume/priority roads on a case-by-case

basis; no exception required for Priority 5. Developing standard for culvert mounted guardrail but Bridge Maintenance doesn't like it due to repair challenges.

- Provide details for rail support slabs over box culverts.
- Meeting #2: Hydraulic Analysis – Hec-Ras – Bridge in Strong on Sandy River. Multiple structure types. Complicated project. How to do analysis and qualitative analysis. Utilize LIDAR and Ras Mapper. Bridge at confluence with two streams with the bridge on smaller stream use VTrans Joint probability analysis.
- Geotechnical Update (Laura K.)
 - Design Team North – investigating using steel pipe piles to support integral abutments. MaineDOT open to idea but looking into existing design and detailing guidance from other DOTs, and related cost savings. Iowa, Illinois, PA, and Delaware have some design policies.
- Discussion Topics
 - Cost Estimating – Potential interest in VTrans iPD. – No update, See summary for 2024 Q4 meeting.
 - PDR/PS&E Guidance, Expectations and Reminders Memo 4/6/2018, has been a useful document when working on MaineDOT projects, see attached. The following items are intended to expand the memo.
 - **Only discuss elements in the PDR that are critical to the design.**
 - **Do not repeat information in the PDR.**
 - Possibly not including the location map.
 - For smaller PDRs don't need to discuss multiple structure type if there's a preferred structure. Just state this is the preferred structure type.
 - Only include 1st page of traffic report if no crashes: no CRF
 - May only need to create estimate for preferred TCP. Confirm with PM.
 - 15% catch all in PDR estimate – Don't need to estimate loam and striping, for example. Also, don't change percentages for contingencies and mobilization. **Goal to get to 80% of total cost in the estimate.**
 - Calculate cost for every item in the PDR estimate using quantities with unit costs, even for LS items. The Department wants to see quantities and unit costs.
 - Cofferdams – Contractors unbalance their bids under this item, so bid data isn't great. If depth of water is more than twice the depth of

overburden, it will be more expensive. (more than 1/3 the height of the cofferdam, increase price). Existing bridge removal is similar. Staging and work platforms also another pot. If a pay item has a unit of LS, still include the reference quantity in the PDR estimate. This helps review and will carry forward through the phases of the project.

- Other Line in Estimate – Delete that (leave empty) if you have nothing under this item.
- Additional Topics Raised in Meeting
 - N/A
- Suggestions for Future Discussion Topics
 - Reuse existing abutments and scour protection (geotechnical portion)
 - Knowledge transfer on new products/materials
 - Construction and maintenance lessons learned
 - Collaborative review processes
 - File Sharing Improvements
 - Recommended Training
- Training:
 - Hydraulic Training – Didn't go out to consultants due to limited seats.
 - NHI – Executive order not to use credit cards. No future travel. Will limit future travel. In person trainings have stopped.
- Subcommittee Rotation for Consultants:
 - Active:

• Shannon Beaumont, Fuss & O'Neill	Q2 2023 thru Q1 2025
• Bryson Welch, Thornton Tomasetti	Q1 2024 thru Q4 2025
• Robert Blunt, VHB	Q2 2024 thru Q1 2026
• Bryan Steinert, H&A	Q2 2024 thru Q1 2026
• John Byatt, BETA Group	Q4 2024 thru Q3 2026
 - Future:

• Adam Stockin, WSP	Q2 2025 thru Q1 2027
• Sarah Williams, Stantec	Q1 2026 thru Q4 2027
- The Next Meeting is set for:
 - May 27th