



TECHNICAL ADVISORY COMMITTEE Memorandum of Meeting

11:00 A.M. Tuesday November 24th, 2020 – WEBEX

Committee Members Attending:

Terry Dunn (Chair)	Atlantic	Byron Nelson	Leland
Kevin Williams	Atlantic	Dave Watson	Leland
Nick Spence	Atlantic	Jim Evans	AK Steel
Jason Sherwood	Atlantic	Ian Berry	Warner
Randy McDonald	Atlantic	Mike Mounts	Valfilm
Phil Carroll	Atlantic	Todd Gray	ACI
Scott MacRae	Armtec	Derek Niezen	Ironside
Heba Ahmed	Armtec	Mike Hook	MarMac
Bruce Matheson	Frontier	Mike McGough	NCSPA
Kamran Derayeh	AMD	Ray Wilcock	CSPI

Committee Members Absent:

Cort Calk	MarMac	Mike Williamson	Hubb-Cap
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Members Attending:

Chris Flickinger	Frontier
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1. Welcome and Opening Remarks

Nick opened the meeting at 10:00 a.m. and welcomed everyone. Attendance was taken and is recorded above.

2. Chair succession, nomination and vote – Nick

Nick announced that he was stepping down as chair and put forth Terry Dunn, Atlantic Industries as the new chair effective with this meeting. Nick called for discussion and subsequent vote. There was no discussion and Nick asked for a motion. Motion was made to approve Terry's appointment as chair by **Jason Sherwood**, second by **Kamran Derayeh** and all voted positive. Motion passed.

Nick was verbally thanked for his leadership. The committee will formally thank Nick for his dedication and service, the next time we meet in person.

3. Review Minutes from June 17th, 2020 and Approve

Minutes were reviewed and a motion for approval was made by **Jason Sherwood**, second by **Kamran Derayeh**.

4. Outstanding Items to Complete

a) Bolt & Nut 3rd round of testing final update from MTQ (Ray)

- MTQ reported by email that results were similar to previous tests
- Excellent results for corrosion, similar results for abrasion
- Refused to issue report, indicating email will suffice
- Discussed results with Byron, decision to proceed and use results from Pete Ault's report
- Atotech's report was posted on the member's website
- Included in ASTM A1113, section 8.3 published March 2020
- Continue to pursue approval with MTQ for open bottom structures
- Project completed, continue with CSA G401 inclusion

b) Rehabilitation White Paper update (Kevin)

- Post the journal to the website with a link to the white paper
- <https://cdnsiencepub.com/doi/10.1139/cjce-2019-0580>
- Technical Bulletin? To be discussed at a future meeting.

c) MTO – Structural Plate Standards Advancement – prioritize (Ray)

Issues to prioritize:

1. Structural planning guidelines – 2 years to update
2. Financial analysis of products – rehab / repair / maintenance of SP is unknown by MTO
3. Design build tenders – key is to shorten the amount of SP options
4. Design guideline – CSPI can take the lead on developing
5. Rehabilitation white paper – very interested in the Queen's report & presentation
6. Kris Mermigas will be a key contact going forward – educate on materials / service life
7. EPD on SP – very interested on cradle to grave
8. NZF3000 bolts to be submitted once CSA G401 is approved and published
9. Address with Walter Kennedy (Tony's replacement) QVE responsibility similar to OGPDG
10. Changing the name from Buried Culverts to Structures – need proper definition

Discussion:

- Suggestion was made to put a sub-committee to review and prioritize (Dennis Park, Scott MacRae & Ray)
- All agreed

d) Galvalume – update to TB #1 (Kamran / Ray)

- From last meeting - Resistivity strips have been found and will be ordered for future water testing. Nick commented on writing a spec for water testing. A possible ASTM spec.
- Technical Bulletin updated – sent to all members for review
- **Action: Publish and send to committee for final review before posting to the website.**

e) Bay of Fundy & Cabot Trail polymer coated sites – on hold (Ray)

No update. Leave previous comments for future meetings.

Dates to be determined once travel restrictions ease.

Site visit to cover:

- Abrasion in tidal waters, ice conditions?
- Water velocity, chemistries, grade of pipe, fish passage design?
- Inlet control to protect sediment from entering pipe. Characterize the upstream water feeding the pipe, sediment load.
- Send pictures to Ian.
- Find out more information and root causes of the abrasion. Work with Roger Leger.
- Bay of Fundy (AIL), Cabot Trail (Armtec)
- Nick to share any information he has on the Bay of Fundy site

Discussion:

- Ian: Access roads not available at this time, thus visit will depend upon the future pandemic release. Nick stated that if able, Julien Cassie Sales Rep (AIL) will visit the Bay of Fundy site.
- Phil: Pictures are important to determine bedload / velocity
- Ray will contact Roger Leger with regards to the Cabot Trail site

From last meeting:

- Phil: Port Hardy (Armtec structure) site to visit – similar abrasion issues. Future visit for site inspection next time in B.C.

f) AT – Bridge inspection guidelines sub-committee (Ray)

Members

Bruce Matheson	Frontier	Phil Carroll	Atlantic
Ron Prychitko	Armtec	Richard Fleming	Atlantic
Jesse Harrow	Armtec	Ray Wilcock	CSPI

MPA Consultants

Eric Carcoux	Russell Vanderschaaf
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- Recommendations submitted to AT in October

- For the most part, they accepted 75% of the Guidelines and 100% of the template
- Manufacturers will keep a list of anything that does arise and we can discuss sometime next year
- Do we want to put together a T.B. for all provinces?

Action: Put a T.B. together for our site and members only.

From last meeting:

- Communicate to AT a letter of concern on the difference between storing (concave down) and shipping of plates (concave up) for safety reasons. Armtec & AIL to participate. Send letter to Dave Besuyen and cc Des Williamson & John Alexander.

4. Long Term Items

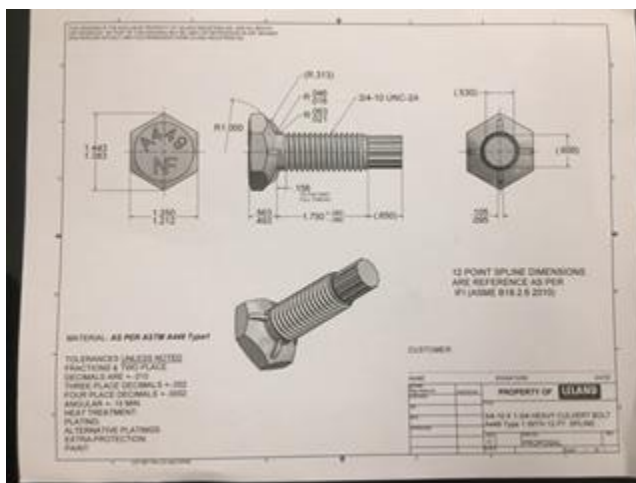
a) ASTM A742 update (Mike Mounts)

- Lighter polymer laminate update – project to look at a lighter film and lighter zinc coating.
- Trials being conducted at manufacturers and then lab work to determine service life.
- Todd - coils in house and will be running next week.
- Timing – end of year. 1st part of 2021 for lab testing and end of year for publication.

b) Thermopolymer plate in brackish/salt water in three sites – (Ray)

There are three sites requiring a review (1 in BC, QC & NS) in 2021. Site visits to be determined in the future.

c) Bolt & Nut Research update (Byron)



Discussion:

- Byron – coatings complete.
- Tools will be available later this month.
- One person will be able to perform the task.
- Special attachment that contains the socket for an impact gun.
- Conference call to come once Leland is ready.

d) Green Handbook update (Scott to discuss next steps - RFQ / 3rd party)

1) Adding climate change section

Update:

- Scott sent an email to Steve MacKinnon and Dave Penny to gauge interest in participating.
- Dave Penny is interested in chairing this project. Fee of \$2,000 per month (2 days per week) plus associated expenses. Scott to reach out to Stephen to gauge interest. Update at next meeting.
- Comments were expressed that at 2 days per month, it would take too long. We need a definition of what we need to do. Get CSA G401 completed and then take a look at the Handbook.

e) Priority Projects as voted by the board

1) EPD comparison to concrete with AGÉCO (Ray / Stan)

Members

Stan Lipkowski AMD Ray Wilcock CSPI

- Final report received in October
- Completed 5-page summary report
- Next Steps

Discussion:

Kamran – could this be included in manufacturers' sales promotions, etc.

Terry – pass this on to PPC for promotion next steps

Jason – prepare a spreadsheet that would help sales people to compare steel versus concrete

Heba – include in the calculator what is relatable to contracts in the municipalities

Action: PPC agenda item for Nov 25th meeting

Action: Ray to reach out to the city of Calgary as to what they are going to put in their contracts. Ray to program a calculator in Excel.

Action: Ray to include a package of slides of the PPC committee to review for sales presentations.

Action: Manufacturers to send Ray any contracts that have a carbon footprint involved.

2) Tracking of EPD inputs / outputs for 2022 (Manufacturers)

- Include polymer laminators and coaters
- Structural plate manufacturers encourage to start tracking inputs and outputs for future EPD project
- Average of plants across the country

Action: Ray to send tracking spreadsheets to all for next EPD projects.

3) CSA quote update (Ray)

- Funding of \$50,000 available.
- Contacted CSA to make changes to committee and firm up quote.

f) Municipal Strategy – storm sewer issues to address

- Covered in the Strategic Planning meeting
- A sub-committee will address next steps going forward
- Will be ongoing agenda item for PPC, with any technical issues referred to TAC

5. Ongoing Items

a) ASTM – specification for water testing (Kevin / Mike / Ray)

- Fall meetings were conducted using WEBEX on Nov 16th & 17th.
- Wild fires and impact on pipe products were discussed. Due to the short duration (2 mins at high temperatures) it was believed that impact on steel & concrete is minimal. Nevertheless, will keep an eye on this at future committee meetings.

b) NCSPA update (Mike)

- Certification of plants by state #1 issue at this time
- Strategic Planning meeting was held on November 17th. Theme: Growth, Education & Financial Viability
- Issues discussed included durability, joining systems, cost of project & quality
- The storm sewer market was discussed & gaps were identified as bell & gasket joints, sizing and perception of durability
- Easements around housing, perception that larger trenches are required for steel versus concrete due to service life
- Large diameter versus concrete was discussed with issues of joining systems & eliminating rerolled ends
- Couplers – what about a different material?

c) TAC update / Fall meetings (Ray)

- Attended the en^v and standing structures committee meetings in October via WEBEX
- Presented an update to en^v committees on our EPD and to standing structures CSA G401
- Presented CSPI's paper "*Climate Change - Everyone's Business - Impact of Construction Products*" at the TAC virtual online conference in September (48 delegated attended).
- Phil – challenging comments from concrete and HDPE attendees, answered in kind

d) TRB update (Kevin)

Randy – January conference will be virtual. Two papers have been submitted by Kevin and Lars Peterson (Sweden) on soil steel structures.

e) CSA G401 update (Randy)

- Met on Nov 12th. Next meeting on December 3rd. Expect to be completed by year end.
- Over 100 revisions / edits.

f) AREMA (Mike)

- Meets twice a year
- Presently updating the hydraulics section
- Guide is to align with AASHTO & ASTM

g) AISI News (all)

Nothing to report.

6. Discussion / New Business

- a) TB on fish baffles/ types / etc.
- Types vary across the country
 - Prepare a document that contains the variables one has to look at
 - Owner has to hire the consultant
 - Include a few examples, one from BC, Ontario and East that one could use
 - Steel's variability that can accommodate the varied expectations
 - Demand fluctuates from open bottom to closed depending on the province / location
 - Phil suggested diagrams / photos of:
 - CSP steel baffles that are welded into the invert
 - SPCSP steel baffles that are bolted into the invert

- Bed load retainers for CSP's in either steel or cip concrete – these are normally pretty tall – like 2 or 3 feet tall.
- FAQ's - How to place stone in the invert? – this is a common question. Another fun question is – can we make the pipe invert / baffle joint watertight?
- Some reference guidelines on where they're used – DFO, FP Innovations etc.

Action: One or two pagers led by Ray, reaching out to members for specifics (Phil, Scott & Terry)

b) Installing a geomembrane over structures / pipes

- NCSPA has agreed to work with us on this.
- NCSPA Tech Note 210 attached to minutes
- To be discussed at next meeting.

c) TB on product inspections at the plant and in the field

- Covered in AT inspection guidelines item.

7. Adjourn & Next Meeting at the call of the chair

The meeting was adjourned at **12:35pm** motioned by **Byron Nelson** and second by **Kamran Deraveh**. Next meeting at the call of the chair.

Terry Dunn
Chair

Ray Wilcock
Executive Director