



**ANNUAL MEETING
TECHNICAL ADVISORY COMMITTEE
Memorandum of Meeting**

*1:00 P.M. to 3:00 P.M., Tuesday, November 15th, 2022
Homewood Suites by Hilton, Cambridge ON*

Committee Attendance:

Paul Proctor (Chair)	Atlantic	Dave Watson	Leland
Terry Dunn	Atlantic	Jim Evans (abs)	Cleveland Cliffs
Jason Sherwood	Atlantic	Ian Berry	Warner
Phil Carroll (abs)	Atlantic	Mike Mounts	Valgroup
Pat Mayne	Atlantic	Todd Gray	ACI
Scott MacRae	Armtec	Derek Niezen (abs)	Ironside
Bruce Matheson	Frontier	Mike Hook (abs)	MarMac
Jaclyn Pittman (abs)	Hubb-Cap	Mike McGough (abs)	NCSPA
Kamran Derayeh	AMD	Ray Wilcock	CSPI
Byron Nelson (abs)	Leland		

Member Attendance:

Liz Bouchard	Armtec	David Newbigging	AMD
Sam Mitra	Armtec	Marcia Stinson	AMD
Ian Kalverda	Hubb-Cap	Lucas Cooper	AMD
Mike Williamson	Hubb-Cap	Greg Wilkinson	Atlantic

1. Welcome and Opening Remarks

Paul opened the meeting at 1:08 p.m. and welcomed everyone. Attendance was taken and is recorded above.

2. Review Minutes from June 20th, 2022, and Approve

Minutes were reviewed and a motion for approval was made by **Kamran Derayeh**, second by **Mike Williamson** and was carried unanimously.

3. Project List Update

1) CSA G401 Update

CSA G401 committee now complete with Andre Granville from NL DOT joining. 23 members

DOT's	8
City	1
Consultants	3
Steel Companies	2
Manufacturers	6
Academic	1
CSPI	1
CSA	1

- All changes have been uploaded to CSA website.
- Ken Phu, CSA rep is preparing roster updates on website and will be in touch to decide on kick off meeting date.
- Cost \$48,000 versus accrual of \$60,000

2) Environmental Product Declaration

EPD discussion held with AMD (Stan & Kamran) to address new EPD in 2023.

Key points:

1. Using Canadian 3rd party will cut costs in half.
2. Using World Steel Production average will produce same result
3. Using AMD's Green Energy Production will produce carbon at ½ world average, however

Discussion required with manufacturers & AMD outside this meeting

- Kamran presented AMD's plan to reduce carbon emissions via Green Energy
- Recycled and using the process of EFA for steel production
- Plan is to reduce CO2 by 60% over the next 7 years
- Would make for a great marketing plan in the future as carbon footprint would be 50% lower
- Marcie to spearhead talks with manufacturers about green steel
- EPD expires on June 3rd, 2023

3) MTO CSP & Structural Plate Standards Advancement

- Started review of Culvert & Structural Plate Planning guidelines – will review with committee in 2023
- Educate MTO on coatings, carbon footprint & rehabilitation in 2023
- [Set up small committee to look at documents](#)
- [Send out documents to all committee members for review](#)

4) Bay of Fundy & Cabot Trail Polymer Sites

On hold - will look at in the spring of 2023.

Site visit to cover:

- Abrasion 4 or 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.
- Find out more information and root causes of the abrasion.
- Bay of Fundy (AIL), Cabot Trail (Armtec)
- Pictures are important to determine bedload / velocity
- Port Hardy site to visit – similar abrasion issues. Future visit for site inspection next time in B.C.
- [Paul gave an overview of the situation at both locations](#)
- [Level 4 abrasion on both sites](#)
- [Members to address with owners based upon recent site visits](#)
- [Atlantic and Armtec to address their structures with owners.](#)
- [Remove from list for next meeting.](#)

5) Technical Bulletins

Technical Bulletins published in 2022:

TB 29	CSP Inspection Guidelines <i>Directives en matière d'inspection des tuyaux de tôle ondulée (TTO)</i>
TB 30	Field Maintenance Guideline on HDG Bolts <i>Guide d'entretien sur le terrain des boulons galvanisés à chaud (HDG)</i>
TB 31	Geomembranes over Buried Bridges & Culverts <i>Géomembranes sur les ponts enterrés à structure de métal et ponceaux enfouis</i>
TB 23	Enhanced Corrosion Protection of Structural Plate Fasteners <i>Amélioration de la protection contre la corrosion des fixations de plaque structurelle</i>

TB 17 Released in French
Polymer Laminated CSP Guidelines
Directives pour les tuyaux de tôle ondulée (TTO) recouverts de polymère

a) Joining Systems – discussion

- Send to all committee members for review
- Keep first two pages, more discussion on next three pages

b) Rehabilitation – discussion

- TRB – guidance on rehabilitation – follow TRB for future guidelines
- Guidelines - focus on what types of issues are candidates for rehabilitation
- Potential checklist of common problems and rehab techniques – send out to committee for review when ready
- Send out 10-page paper to committee

6) Green Handbook Update

Commence after CSA G401 is complete.

- a) 2 Year Project
- b) Member participation
- c) Chapter by chapter

Table 2.16 – addressed the weights of plates with 1220 mm lengths. Presently, the table shows 1067 mm length, which are not presently in use.

4. Member / Ongoing Items update

a) AMD – (Kamran)

No update.

b) Valgroup – Lighter polymer laminate (Mike)

- Developing lighter weight film, lighter steel, lighter galvanized coating aimed at the storm sewer market. Testing of abrasion came out the same as thicker materials.
- Looking at how to get into ASTM A742.
- There are a few manufacturers excited about this, while others are disinterested.
- Will be looking at how to market.
- Also, there is a thicker material that Worthington is looking at for larger diameter pipes. We may end up with 3 distinct types of polymer laminate in ASTM.
- Plan is to roll into ASTM in April 2023.

c) Leland - Bolt & Nut Research update (Byron / Dave)

- Process continues to be refined for NZF3000. Dave asked the group about any demand for black colour. Manufacturers to decide.
- No update on the tension control bolt.
- Create a matrix for each province listing standard acceptance.

d) Warner – alternative polymer coating update (Ian)

- Nothing performed over the last year.
- Need direction from manufacturers with regards to corrosion, abrasion, etc. what is required.
- Warner looking at alternative polymer suppliers versus what is being used given the increases in cost. Bring it up next June.
- Is Black here to stay or? All agreed to stay with black.

e) Ironside – machinery update (Derek)

No report.

f) ACI update (Todd)

- Covered with thinner and thicker films above.
- Has one customer who uses the thinner material for non-DOT projects.

g) MarMac Joint Testing (10.8 psi) of non-rerolled ends (Mike)

- Testing continues at the University of Oregon. Going well. Testing with non rerolled ends.

5. Other Associations - Updates

a) NCSPA update (Jason)

- Working on projects standard design for headwalls, slip line design, large diameter caisson installations best practices, determining heights of cover for track width purposes.
- AASHTO – new plate standard being worked on.

b) ASTM update (Jason)

- A964 being put forward to sub committee and ballot
- A761 being brought out for review

c) TAC update / Fall Conference & Meetings (all)

- Very well attended.
- Next year – Ottawa

d) TRB update (Mike)

No report.

e) AREMA (Mike)

- Conference coming up in Denver.

f) AISI News (all)

No report

6. Discussion / Old / New Business

- a) Evaluating damaged CSP, NCSPA document, discussion
 - b) Ties into rehabilitation discussion.
 - c) <https://www.conteches.com/pipe-article/article/193/how-do-you-evaluate-damaged-areas-within-corrugated-metal-pipes>
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- b) Floodnet 2
 - Continue with Floodnet contribute \$1,000 annually – sustainability issue
 - c) Edmonton – EPCOR Drainage controls the type of materials that are used
 - Research further
 - https://www.edmonton.ca/city_government/urban_planning_and_design/city-design-construction-standards

- d) Environmental impact of Aluminized Type II, Polymer laminated
- [Defer to future](#)
- e) Gorilla water tape or Flex Seal tape versus Denso Tape – Mike
- [More research or discussion.](#)
 - [Change TB and G401 if necessary to a generic name.](#)
- f) Bolt issue identified in Newfoundland and Labrador with salt seepage. This will be addressed in 2023.
- [Defer to future](#)
- g) TB 28 Storage Guidelines review
- [Terry – Transport companies refusing to haul plates with spacers.](#)
 - [Change TB 28 to have spacers installed at time of unloading on site for storage.](#)

7. Adjourn & next meeting at the call of the Chair

The meeting was adjourned at **3:17pm** motioned by **Kamran Derayeh** and second by **Scott MacRae** and was carried unanimously. Next meeting will be at the call of the Chair.



Paul Proctor
Chair



Ray Wilcock
Executive Director