

*1:00 P.M. to 2:30 P.M. PST, Monday, June 20<sup>th</sup>, 2022  
Fairmont Empress Hotel, Victoria BC*

**Committee Attendance:**

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

**Member Attendance:**

Liz Bouchard	Armtec	David Newbigging	AMD
Sam Mitra	Armtec	Greg Wilkinson	Atlantic
Roger Leger	Armtec	Stuart Murphy	Atlantic
Mike Williamson	Hubb-Cap		

**1. Welcome and Opening Remarks**

Terry opened the meeting at 1:00 p.m. and welcomed everyone. Attendance was taken and is recorded above.

**a) Chair succession, nomination, and vote**

Terry announced that he was stepping down as chair and put forth Paul Proctor, Atlantic Industries as the new chair effective with this meeting. Terry called for discussion and subsequent vote. There was no discussion and Terry asked for a motion. Motion was made to approve Paul’s appointment to chair by **Terry Dunn**, second by **Dave Watson** and was carried unanimously. Motion passed.

**2. Review Minutes from November 18<sup>th</sup>, 2021, and Approve**

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

### **3. Project List Update**

#### **1) MTO – CSP & Structural Plate Standards Advancement**

- Started review of Culvert & Structural Plate Planning guidelines – will review with committee next meeting
- Educate MTO on coatings, carbon footprint & rehabilitation later in 2022

#### **2) Bay of Fundy & Cabot Trail Polymer Coated Sites**

On hold - will look at in the fall of 2022 or early spring 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.
  
- [Atlantic has been to both sites and documented these visits. Will review and place under CSPI.](#)

#### **3) Technical Bulletins**

Technical Bulletins published in 2022:

- TB 29 CSP Inspection Guidelines  
Directives en matière d'inspection des tuyaux de tôle ondulée (TTO)
  
- TB 30 Field Maintenance Guideline on HDG Bolts  
Guide d'entretien sur le terrain des boulons galvanisés à chaud (HDG)
  
- TB 31 Geomembranes over Buried Bridges & Culverts  
Géomembranes sur les ponts enterrés à structure de métal et ponceaux enfouis

Updates:

- TB 17 Polymer Laminated CSP Guidelines – translated to French  
Directives pour les tuyaux de tôle ondulée (TTO) recouverts de polymère.
  - [Review tapes Gorilla / Flexseal – do a study at a site this fall or early spring 2023.](#)

Tech Bulletin on NZF3000 – changes made to include both coatings (zinc & polymer).

- Leland OK with releasing this bulletin to the public website. Reach out to Al Palmer to update section 6, K factors. In section 4, reword to Silver NZF3000 fasteners.

New T.B.'s to be drafted this summer for committee review:

- Joining Systems
- Abrasion
- Baffle Accessories (Guidelines)

#### **4) CSA G401**

- Last meeting held on December 3<sup>rd</sup>
- 102 updates including additions, deletions, changes & references
- CSA has contacted all past members. Next step is to fill vacancies with help from CSPI caused from retirements, position changes, etc. Expect meetings to start in 3<sup>rd</sup> Q.

#### **5) CSP Rehabilitation Guideline**

Draft paper ready based upon work from the MITACS project. Send to committee for review for next meeting.

Link from AASHTO for inspecting drainage pipes for review.

<https://www.google.com/amp/s/aashtojournal.org/2020/08/14/aashto-releases-culvert-storm-drain-inspection-guide/amp/>

#### **6) Stormwater Joint Performance**

- National
- Non Recorrugated Ends
- MarMac Coupling system
- Improve Joint performance – Test current joints!
- Fittings – Develop Standard Fittings to connect to other pipe materials and own. Standardize and potentially evaluate fittings.

Latest update from MarMac testing:

- Videos (YouTube) released for all members to view
- Coupling tests continue joining two non-rerolled pipes, achieving a 10.8 psi. This is required for the storm sewer market in most cities.
- Oregon state – ongoing testing now.

#### **7) Carbon Neutral**

- AMD's quest for going green with the elimination of BOF steel making. This will have a future positive impact on CSP's carbon footprint.
- AMD has effectively tested the use of green hydrogen in the production of direct reduced iron at its steel plant in Contrecoeur, Quebec.

Discussion:

- Take Stan's direction on release of information.

Members:

- Electric forklifts

### **8) 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.

### **9) Mitacs Opportunity – Municipal Storm Sewer Standards**

- University of Toronto identified a person who may be a candidate. Will follow up in the fall.
- Still waiting on McGill & Memorial who showed interest.
- Will try a new angle - more technical towards identifying requirements of this market across the country

## **4. Member / Ongoing Items update**

### **a) AMD – (Kamran)**

No update.

### **b) Valgroup – Lighter polymer laminate (Mike Mounts)**

- Testing on lighter zinc (1.6mm to 1.3mm) and lighter polymer coating (from 10mil to 5 mil) to compete with HDPE is progressing well. This will benefit manufacturing members in the storm sewer market. Ballot at the end of the year in ASTM.
- Abrasion levels need to be discussed for which level it will be categorized. Diameters will most likely be up to 900mm. Carbon footprint unknown currently.

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

- Status quo currently with research – making progress in many markets with the NZF3000. Performance has been favourable with polymer coated structures.

### **d) Warner – alternative polymer coating update (Ian)**

No report.

### **e) Ironside – machinery update (Derek)**

All good.

**f) ACI update (Todd)**

No report.

**g) MarMac Joint Testing of non-rerolled ends (Mike H)**

Covered above

**5. Other Associations - Updates**

**a) NCSPA update (Mike)**

1. Polymer coating and bolt testing reports completed and will be posted to the website next month and then rolled out to readers. Potential ballot changes to ASTM.
2. Aluminized Type II sites in the west being collected for review of coatings.
3. Joining systems – potential changes to ASTM based upon MarMac coupling results. Next up tests on spiral rib pipe.
4. Seismic – report received from Jesse Beaver of SGH Consultants. Needs to be reviewed and added to Sustainability section of the website.
5. AASHTO meetings coming up:
  - a. Bridge June 21<sup>st</sup>
  - b. NTPEP (certification) June 29<sup>th</sup>
  - c. Materials July 31<sup>st</sup>

**b) ASTM update (Mike / Ray / Jason)**

From Mike:

1. Attendance was low
2. Fall meeting in New Orleans – NCSPA meetings will follow in the same hotel
3. Reapprovals are required manhole assemblies, lap assemblies and box culverts (964)

From Ray:

1. Attended ASTM meetings remotely May 16th -17th

Jason attended in person

**c) TAC update / Fall Conference & Meetings (Ray)**

April 2022 - attended TAC Structures & Environmental Committee meetings (7 in total). Submitted 3 abstracts that were accepted.

**d) TRB update (Mike)**

No report.



**e) AREMA (Mike)**

- Presently working on hydraulics
- Also working on CSP guidelines
- Next meeting is in August in Seattle
- No other updates

**f) AISI News (all)**

- Attended AISI Construction Sustainability Council meeting on April 7<sup>th</sup>. Discussion on member response to California “Buy Clean Act”. Many are not prepared for what is coming down the road.
- Attended AGA “Zinc runoff meeting” on the April 12<sup>th</sup>. Discussion was in response to public perception to zinc runoff in water ways and where to find documents to counteract any negative publications or claims.
- [Send to members for review before postings](#)

**6. Discussion / Old / New Business**

**a) CO2 calculator in French**

- Fall project.

**b) Training course on water testing – sponsored by CSPI**


- [Start with members next winter via webinar and then move to provinces.](#)
- [Terry – NL would be a great place to start as they have adopted both TB 1 & 13.](#)

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

The meeting was adjourned at **2:20 pm** motioned by **Scott MacRae** and second by **Jason Sherwood** and was carried unanimously. Next meeting will be at fall meeting in November in Kitchener.



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Paul Proctor  
Chair



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Ray Wilcock  
Executive Director