



**TECHNICAL ADVISORY COMMITTEE
Memorandum of Meeting**

10:00 A.M. to Noon EST, Wednesday, September 11th, 2024
WEBEX

Committee Attendance:

Paul Proctor (Chair) (abs)	Atlantic	Mitchell Swisher (abs)	Cleveland Cliffs
Terry Dunn (Acting Chair)	Atlantic	Colin Rojahn (abs)	Cleveland Cliffs
Pat Mayne	Atlantic	Jonathon Paton	Warner
Scott MacRae	Armtec	Mike Mounts (abs)	Valgroup
Darren Bauman	Armtec	Todd Gray (abs)	ACI
Bruce Matheson	Frontier	Derek Niezen (abs)	Ironside
Jaclyn Pittman	Hubb-Cap	Chuck Skeen	MarMac
Kamran Derayah	AMD	Richard Northcutt	MarMac
Byron Nelson	Leland	Mike McGough (abs)	NCSPA
Dave Watson	Leland	Ray Wilcock	CSPI

Members in Attendance

Ian Kalverda	Hubb-Cap	Mike Williamson	Hubb-Cap
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1. Welcome and Opening Remarks

Terry in Paul's absence opened the meeting and welcomed everyone. Attendance was taken and is recorded above.

2. Review Minutes from June 17th, 2024, and Approve

Minutes were reviewed and a motion for approval was made by **Scott MacRae**, second by **Kamran Derayah** and was carried unanimously.

3. Project List Update

1) CSA G401-24 update



CSA G401:24
National Standard of Canada



Corrugated steel pipe and buried structures

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ÉBAUCHE : TOUTE DISTRIBUTION INTERDITE



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- Final review (errata) resulted in 138 revisions
- 125 were accepted as reference updates
- 13 are new updates that must be reviewed by the committee – to be called back in September / October
- Table 2 Mechanical Properties for CSP created issues with Alberta Transportation (Manufacturers & AMD have discussed ways forward – ongoing)
Discussion / Issues:

Action:

- [Fill in Table 2 Mechanical requirements for CSP post galvanizing and aluminizing. Send to CSA committee members for vetting.](#)

2) EPD's update

Action Items

- Post both EPD's to CSPI website once CSA has published North American
 - AMD's XCarb shows a 45% reduction in carbon footprint
 - NA average productions show similar results as 2018
- Start promoting both
- Updating carbon calculator to show industry average, XCarb & RCP

Discussion / Issues:
None

3) MTO – OPSS for Structural Plate Package

Sent MTO an outline for discussion. MTO responses in red as follows:

1. Guidelines for the design of SPCS
2. Product details & fabrication (profiles, open / closed bottom) (It will be good if you can provide some input and send us some typical details, we can review, fabrication will be covered in the OPSSs)
3. Structural design (foundations, footings)
4. Standard drawings (please see No. 2)
5. Material selection (will be in OPSS covering the material requirements)
6. Durability – water & soil chemistries (will be in both Material and Construction OPSSs)
7. Installation & construction (Will be in OPSS of the Construction requirements)
8. Sustainability (We may need to address this in Specifications and design)
9. Inspection, maintenance & rehabilitation (I imagine this could be addressed after standards are developed for the new construction)

MTO expects to have a draft by year end.

Action:

1. Set up a meeting with Scott, Darren, Pat & Paul to go over what standard drawings / information we can provide. This will be closer to October month end.

4) Green Handbook

Next meeting is scheduled for October 31st.

5) SWM Committee discussion / execution – following TAC meeting

Following the TAC meeting, we discussed the strategic item of tackling the SWM market.

- Discussion involved doing case studies on past installations, training for sales reps on pre and post development, webinars for consultants, converting the CD to a program that can be posted to our website, and dealing with the misconceptions of using steel in SWM.

Action:

1. Hold two webinars in the Jan – Mar time frame. Internal for members (sales training) and external for consultants and others in the CSPI database. Deal with all misconceptions.
2. Convert the CD to an online calculator. Cost to be explored.
3. Redo old case studies and two new ones for a project Darren identified (3600mm Aluminized) and one in Montreal (3000mm polymer laminated).

4. Member / Ongoing Items update

a) AMD

No update.

b) Cleveland Cliffs

No update.

c) Valgroup – Lighter polymer laminate & galvanize

Passed on some photos to Mike containing PL spiral rib pipe. The brochure will be reviewed when available.

d) Leland

No update.

e) Warner

No Update.

f) Ironside – machinery update

No update.

g) ACI update

No update.

h) MarMac

Thanked manufacturers for the business obtained in Canada thus far and for CSPI's efforts in promoting across the country.

5. Other Associations - Updates

a) NCSPA update

- CSPI will be attending their November meeting.
- Opportunity for sharing in handbook update that both associations are embarking on particularly in hydrology and hydraulics chapters.

b) ASTM update

- CSPI to attend next meeting in November.

c) 2024 TAC Spring Meetings & September Conference

- CSPI will not be attending TAC this year due to budget and no abstracts accepted.

d) TRB / AREMA / AISI

TRB	No update
AREMA	No update
AISI	No update

6. Discussion / Old / New Business

a) Gorilla water tape or Flex Seal tape versus Denso Tape – update polymer repair TB

Discussion:

- Include Ranvar along with tape for external repairs
- Look at “Flex Seal Spray” – Mike Mounts to comment

b) Bolt issue identified in Newfoundland and Labrador in Caplin Cove with salt seepage. Future visit with Dave.

- Visit in June after the annual meeting.

c) Alberta Transportation - Open Bottom Structures. Cookie cutter design, headwalls, cross sectional drawings, standard drawings, this number of boxes, arches, etc. Mimic concrete. ISG Engineering coordinating.

- No update currently.

- d) **From SWAT Team – produce a Life Cycle Environmental Analysis (Darren to address).**
- EPD for structural plate.
 - Estimate in the 40,000 to 50,000 range.
 - Future project down the road.
- e) **Has any jurisdiction published deformation limits constituting potential failure for rehabilitation? (Asked by Sask DOT). – Reviewed AT bulletin and respond.**
- Information sent to Saskatchewan Highways, table 13.3, Page 325 of the AT Bridge Inspection Manual Version 4.0 2020. Complete.
- f) **Technical Bulletin #13, Performance Guideline for Buried Steel Structures – reference to AASHTO electrochemical tests to previous version. Update in progress with Scott.**
- Will be ready for sign off at November's meeting.
- g) **Ian Moore from Queen's University – asked if CSPI would participate in a stormwater detention system project. Reached out to Ian – feedback.**
- Indicated to Ian that CSPI is interested to learn more, and he responded that once the project is approved, he will call.
- h) **Canadian Water Resources Association – reached out to see if CSPI would be interested in running a one-day workshop on culvert design. Update.**

CSPI suggested the following format:

- Product Details & Fabrication
- Hydraulics & Hydrology
- Culvert Location
- Structural Design
- Installation & Construction Procedures
- Durability & Sustainability
- Inspection, Maintenance & Rehabilitation

Response:

- Q1 2025
- Topics agreed
- Board meeting on Sept 19th and will respond with details

Discussion:

- Once we know more, we can discuss schedule, details and who is able to lecture.

- i) **Minimum Thickness for 1220 galvanize coating needs to be 5.0mm as 4.0mm is too thin to pick up 1220 galvanize coating thickness. This would be an industry issue not just specific to one manufacturer or supplier. (Paul)**

- Scott to look at and address at next meeting.

New Business

- j) **Consultant - older structural plate CSP's that have cracks along the bolt line in isolated areas. Standard" CSPI repair detail using rebar – any new developments in this area?**

- CSPI supplied the consultant with the section in the Handbook dealing with cracks along the bolt line. No new developments. Complete.

- k) **Fold and form and CIPP liners used for rehabilitation. How to sell against these systems. Anyone has experience in this area? (Ian Kalverda)**

- No experience from the group. CSPI will reach out to MTO and NCSPA to determine what criteria is used to determine when this method is used particularly when structural integrity is involved.

- l) **G401 Bolts and nuts for CSP Couplers – ASTM F568M (bolts), ASTM A563M (nuts) – suppliers meeting compliance. (Mike Williamson)**

- It was agreed that section 4.5.2 Bolts and nuts for CSP couplers, needs to be reviewed considering imperial versus metric and references to ASTM. CSPI will reach out to Al Palmer of Leland for review & advice.

7. Adjourn & Next Meeting – November 6th, 2024, in Waterloo ON

The meeting was adjourned at **11:15 am** motioned by **Kamran Derayeh** and second by **Bruce Matheson** and was carried unanimously. Next meeting November 6th in person in Waterloo ON.



Terry Dunn for
Paul Proctor
Chair



Ray Wilcock
Executive Director