

10:00 A.M. Thursday April 6th, 2017 – Cambridge, Ontario

Present:

Janine Yetke (Chair)	Armtec	Heba Ahmed	Armtec
Bruce Matheson	Frontier	Lynn Riley	Tee Group
Kamran Derayeh	AMD	Dave Penny	CSPI
Jason Sherwood	Atlantic	Ray Wilcock	CSPI
Ian Berry	Warner		

Absent:

Shane Setter	Ironside	Mike Mounts	Valfilm
Robert Rohr	ACI	Byron Nelson	Leland
Chris Groot	ES Hubbell	John Tran	AMD
David Watson	Leland		

1. Welcome & Opening Remarks

Janine opened the meeting and welcomed all members. Go-To-Meeting was used. Attendance was taken and is recorded above.

2. Review Minutes of December 8th, 2016 Meeting

Minutes were reviewed and accepted. A motion for approval was made by **Bruce Matheson**, second by **Kamran Derayeh**.

3. Presentation Tee Group – Lynn (20 mins)

Lynn gave a presentation on Tee Group (our newest member). Key points and issues covered were as follows (full presentation in PDF available if required):

- ASTM approval in 2013
- ASSHTO approval in 2015
- Manufacture from 8 mils to 18 mils thickness
- Salt spray test should be conducted – an important test requirement in Canada
- Lockseam tests should be run if not available
- Delamination at the exposed ends – any test data available?

4. Presentation – Dave Penny (15 mins) Fish Culverts

Dave gave a presentation on the Fish Baffle system as designed by Ken Hannaford / Jason Duguay and Dave. First installation was in late 2015 with MTO. Dave would like to promote, market and sell this product in Canada with our members benefitting from the manufacturing of his orders. He would become the product champion. Discussion ensued as follows:

- Lynn asked if material would include polymer laminated – Polymer coated only
- Kamran asked about the size of the market. Dave referred to TRB (Washington State – 100 plus opportunities) and that it would be a niche market that needs focus
- Janine asked about manufacturing. Dave stated that he would sell the complete package and would sub work to members (plate, coating and bolts)
- Jason asked if this involved new or reline applications. Dave said both and mentioned perched culverts and numerous rehabilitation opportunities.
- Jason asked about who would provide service in the field, members or Dave. Dave stated that it would depend upon the site and requirements.
- Janine asked about price sensitivity and what price the market will bear. Dave stated that he has not performed an across the board study, however on the projects he has been involved with, there is room (value added) for obtaining specifications.

After Dave left the room, discussion involved the complexity of the invoicing back and forth and that the right approach for Dave may be as follows:

- Limit to obtaining specifications
- Focus on consultants – design, promotion & market
- 3rd Party to the current process of (Consultant – Owner Tender – Contractor – Suppliers)
- Look at a fee % of sale per project

Action: Committee to review proposal and come back with a decision in 2 weeks – April 20th.

Action: Ray to send presentation to manufacturing members.

5. Strategy – PPC Action Items

a) CSP Tonnage 2016 Results

CSP Steel Shipments	2016	2015
Galvanized	27,011	26,895
Aluminized	5,380	3,663
Polymer Laminated	942	672
Total	33,333	31,230

Increase of 6.7% over 2015

1st Quarter 2017 results not ready at time of meeting.

b) DOT / Municipality Buried Bridge / SWM Promotional / Educational Presentations

Ray provided an update on the 21 presentations / meetings completed thus far:

<u>2016</u>	<u>DOT / Municipality</u>	<u>Engineering Staff Attending</u>
Sept 15 th	MTO Head Office - St. Catharines	8
Oct 11 th	City of Calgary	6
Oct 20 th	NS DOT	8
Oct 21 st	NB DOT	5

2017

Feb 2 nd	MTO – Thunder Bay Region	10
Feb 2 nd	City of Thunder Bay	6
Feb 6 th	City of Fredericton	1 (Chief Engineer)
Feb 6 th	CFB Galetown	1 (Chief Engineer)
Feb 8 th	MTQ – Quebec City	5
Feb 15 th	MTO – St. Catharines	8 Regional Bridge Heads
Mar 9 th	City of London	10
Mar 14 th	Sask DOT	5
Mar 21 st	City of Edmonton	6
Mar 21 st	Alberta DOT	2 (Certification, Polymer)
Mar 22 nd	BCMOT	6
Mar 23 rd	City of Langley	1 (Chief Engineer)
Mar 24 th	City of Vancouver	2 (Chief Engineer + Assoc.)
Mar 28 th	PEI DOT	2 + 4 Consultants
Mar 29 th	City of St. John's NFLD	8
Mar 30 th	NFLD DOT	5
Apr 5 th	MAN DOT	9
Apr - Jun	MTO Regions	Pending
	Region of Waterloo	Pending
	Kitchener	Pending
	Waterloo	Pending
	Windsor	Pending
	Hamilton	Pending
	Ottawa	Pending

28 Major Canadian Municipalities (Visited thus far):

- | | | |
|--------------------------------|------------------------|------------------------|
| 1. Vancouver, BC | 10. Hamilton, ON | 20. Trois-Rivières, PQ |
| 2. Halifax, NS | 11. London, ON | 21. Saguenay, PQ |
| 3. Toronto, ON | 12. Sherbrooke, PQ | 22. Regina, SK |
| 4. Langley, BC | 13. Windsor, ON | 23. Thunder Bay, ON |
| 5. Kitchener /
Waterloo, ON | 14. Quebec City, PQ | 24. Saskatoon, SK |
| 6. Winnipeg, MB | 15. Fredericton, NB | 25. Sudbury, ON |
| 7. Victoria, BC | 16. Oshawa, ON | 26. St. John's, NF |
| 8. Montreal, PQ | 17. Kingston, ON | 27. Calgary, AB |
| 9. Moncton, NB | 18. Ottawa, ON | 28. Edmonton, AB |
| | 19. St. Catharines, ON | |

c) Presentations – Feedback / FocusFeedback from DOTS and Municipalities:

- 1) Municipalities do not allow steel in Storm Sewers / SWM within the city
- 2) Municipalities allow steel in culverts and bridges (Provincial Specs / CHBDC)
- 3) Obtained city specifications – review this summer and update Product acceptance list
- 4) Municipalities knew very little of coatings for durability

- 5) Many municipalities are open to new technology and have asked CSPI back to present
- 6) PEI – backfill has to be brought in from NB, thus a bias to concrete structures (analysis required)
- 7) Many referred to past experiences of CSP rusting at the inverts and having short life
- 8) Many concerned with proper installation and manufacturing issues (polymer)
- 9) LEEDS / Environmental Product Declaration not on the radar (Vancouver thinking of it)
- 10) Polymer Plate – hole in the valley being damaged by torquing of bolts
- 11) Alberta Trans – drafted specification change for plant certification and manufacturing outside of Canada clause
- 12) Alberta asked CSPI to post certified Provinces on our website
- 13) Alberta will look at request to move Polymer Laminated to approved material list – Kleskun Hills report (follow up with Joe Filice)
- 14) Edmonton concerned with the ultimate responsibility (Engineer / Designer of record) as nobody wants to take responsibility
- 15) Sask DOT would like a CSPI guideline on optimal equipment (size of compactors) as job sites as per span / size of project
- 16) Sask DOT – what material can they use in environments with resistivity < 200 ohm cm
- 17) Sask DOT – clarification of CSA G401 on # of bolts per coupler size (300mm / 600mm) and who makes semi corrugated couplers (in CSA G401)
- 18) MTO – would like copy of MTQ bolt research report
- 19) MTO – would like a bulletin on pipe rehabilitation covering each issue raised (in ideas for research paper section)
- 20) MTO – would like CSPI to visit to discuss SP Design Manual
- 21) MTQ – testing of Polymer Coated plate in tidal / brackish waters (send Gerard the west and east coast sites)
- 22) MTQ – what type of membrane to be used for bridge water tightness
- 23) Galvalume test site opportunities discussed in NB or NF
- 24) MTO Thunder Bay – would like CSPI to visit this summer to visit polymer / aluminized test site with staff and perform water testing / training
- 25) DOT's are very interested in relining inverts only using polymer coated pipe / plate (Technical Bulletin needed) – Dave suggested including fish baffles
- 26) Minimum diameter of spiral rib pipe is 450mm – median drains are 300mm
- 27) Education is the key / Lobbying politicians when regions are biased
- 28) Full review of the Supplemental Specifications for Municipal Services (DGSSMS) is required
- 29) Many DOT's looking at updating standards (2018 – 2019)
- 30) MAN DOT – moving to certification in 2017 / 2018
- 31) MAN DOT issue – require piles due to soft soil which could compromise cost savings

d) Scholarship award discussion – papers submitted to Committee

Call for papers have been announced at the guest lectures, however a more formal announcement is required. Ideas submitted are as follows:

- 1) Sustainable and Resilient Corrugated Steel Solutions
- 2) Alternative Corrugated Steel Pipe Culvert Joints
- 3) Rehabilitation Guidelines
 - a. Flattening of the crown
 - b. Seam openings - pull apart

- c. Haunches buckling - invert rising (repair of the inverts)
- d. Crimping of the conduit walls (along the wall haunches)
- e. Bolt hole tears
- f. Excessive deformation of the conduit especially along the crown and shoulders
- g. Water leakage along plate seams and through bolt holes
- h. Corrosion and cross section losses (difficult to quantify and repair)

There were no other ideas submitted. Jason would like CSPI to focus on the invert rehabilitation (sell more product). He stated that in BC the issue is that majority of culverts are hydraulically undersized. The committee felt that rehabilitation would be better handled by CSPI and the experience of its members. The issues that MTO put forth are at times site specific, past issues, and many are caused by poor installation. It was agreed that a technical bulletin should be put together addressing the reasons for each issue and recommended solutions. In some cases, a complete new installation may be the way to go. Whatever is decided, the committee agreed that CSPI needs to control the process closely to ensure a positive outcome from any work that is undertaken by a university graduate.

6. Website Update

- E Blast ready to go in April
- Members Map – still waiting on members to send in information
- Calculators – Manning's N (flow) ready to go
- Handbook – full E Reader download will be available
- Meeting in April to finalize
- French Translation required for some bulletins (cost estimate required)
- Members section redesigned to facilitate finding minutes, etc.
- Passwords need to be updated
- Google analytics will be posted in member's section and updated every 6 months (Janine asked Ray to present this at the annual meeting in June)

7. Projects for PPC

a) Tri Party Conference in Alberta (exhibitor / advertiser)

The tradeshow was full from day one as there is a waiting list. CSPI did not attend due to minimal benefit as a delegate. Members attend and have a large presence.

b) 2017 TAC Conference in NFLD – exhibitor

Booth has been booked along with a premier sponsorship at a cost of \$2,875. One banner needs to be updated for a cost of around \$300. Following is a picture from the Toronto 2016 conference.



c) Other Trade Shows

CSPI attended the February Ontario Good Roads Conference for a day as a delegate. Exhibitor costs are extremely expensive and there is a waiting list. Very little benefit for CSPI to attend. Recommend to not attend in 2018 as visits to MTO and cities have a bigger bang for the buck. Only reason would be to attend would be for lobbying politicians if the board would like CSPI to pursue.

Discussion: AORS was suggested.

d) Education Outreach Update

To date 18 Guest Lectures and 980 Handbooks have been given to graduating classes as follows:

<u>Date</u>	<u>University / College</u>	<u># of Students</u>
Jan 16 th	University of Guelph	250
Jan 24 th	University of Western	30
Jan 26 th	St. Clair College, Windsor	35
Feb 1 st	Lakehead University, Thunder Bay	25
Feb 6 th	University of New Brunswick	20
Feb 7 th	Universite de Moncton	30
Feb 13 th	McMaster University, Hamilton	50
Mar 3 rd	University of Windsor	45
Mar 6 th	University of Saskatchewan	109
Mar 7 th	University of Regina	10
Mar 8 th	OGRA Storm Sewer Course	45 (Heba Ahmed spoke)
Mar 17 th	Seneca College, Toronto	45
Mar 22 nd	Okanagan College, BC	35
Mar 23 rd	University of BC	30
Mar 27 th	St. Lawrence College, Kingston	36
Mar 29 th	Memorial University, NF	30
Mar 30 th	North Atlantic College NF	30
Apr 4 th	University of Toronto	125

e) Photo / Project Contest - 2017

E blast to all in data base (members and external – 11th category) to be released by the end of April.

f) Find a Members Map

ALL, Frontier and Hubbell have supplied information for populating. All Canadian members are asked to send in information by mid-April.

g) Product Comparison Sheets Conversion Timing

Planned for April / May once promotional, travel period is completed.

h) Update of certification protocols (date & revision)

Planned for April / May once promotional, travel period is completed.

i) Non-Member Activities

- 1) Canada Culvert – no contact. CC was taken by surprise with BC's specification changes calling for Plant Certification as of January 1st, 2017. This was subsequently pushed back to August 1st as they apparently sent a letter to the Minister. CC asked via CWB if they could use our CSPI Plant Certification Protocol. I responded with an empathic no.
- 2) Prairie Steel – no contact.

8. Discussion & New Business

- a) Dave suggested preparing an abstract and speaking in Thunder Bay at the Water Conference later this year. Janine asked for a cost proposal from Dave.
- b) Jason would like to see CSPI produce a bulletin on Plate installation manual. This will be brought up at the TAC meeting on April 7th.
- c) Ray asked for approval of purchasing a new microphone for Go-To-Meeting. Unanimously approved.
- d) Committee to address Dave's proposal for Thunder Bay and fish baffles in 2 weeks.

9. Adjournment & Next Meeting

The meeting was adjourned at 12:22pm. Next meeting will be at the annual meeting on June 5th in Vancouver at the Westin Bayshore Inn.

Ray Wilcock
Secretary