

Minutes

PTI TAB Technical Advisory Board

Thursday, September 27, 2018, 8:00 AM – 12:00 PM

The Antlers Wyndham Hotel, Colorado Springs, CO – Room Heritage Ballroom A

Voting Members Present (6 of 12)

<u>Don Kline</u> , Chair	Kline Engineering & Consulting
<u>James Cagley</u> , Vice Chair	Cagley & Associates
<u>Miroslav Vejvoda</u> , Secretary	PTI Staff, NV
Rashid Ahmed	Walker Parking Consultants
<u>Asit Baxi</u>	Baxi Engineering, Inc.
John Crigler	VSL
<u>Carol Hayek</u>	CCL USA
Don Illingworth	Don Illingworth & Assoc., Inc.
Bill Klorman	Klorman Construction
Cary Kopczynski	Cary Kopczynski & Co.
<u>Doug Schlegel</u>	Consultant
Andrea Schokker	University of Minnesota Duluth
<u>Edgar Zuniga</u>	Dywidag Systems International USA

Visitors

SUMMARY OF ACTION ITEMS FROM LAST / THIS MEETING

Item #	Subject	Action	Responsible	Deadline / Completed
1.1	DC-20 BIM Subcommittee	Contact Frank Malits for interest in chairing	Staff	Done
1.3.1	DC-20 BIM Subcommittee	Prepare a PP presentation on BIM	Bill Klorman	September 15, 2018
3.1.2	Splitting of ACI 318-G	Compile list of reasons for splitting 318-G to be sent to Jack Moehle before 318 meeting in Las Vegas; members to send suggestions to Bill	Bill Klorman; All	September 30, 2018
4.1	TCM Updates	Review draft changes; propose additional changes	All	September 15, 2018
5.3	TAB Contacts	Contact your committee Chair for discussion of committee activities	TAB Contact Members	Ongoing
6.2.1	PT Manual	Ballot chapters; start with 2 chapters	Staff	July 27, 2018
8.4	New PTI Website	Prepare presentation to introduce the website features with focus on the committee user	Staff	Before PTI Committee Days
9.1	Educational Items	Review and prepare for a discussion on this topic from the Strategic Plan	All	Before PTI Committee

				Days
D.1	PTI Position on Important Subjects	Review and prepare for a discussion on this topic	All	Before PTI Committee Days
D.2	Accelerated Construction	Review and prepare for a discussion on this topic	All	Before PTI Committee Days

Item #	Expected Outcome / Actions Taken
<p>A – General</p> <p>A.1 Call to order</p> <p>A.2 Introduction / Announcements</p> <p>A.3 TAB Roster / Membership Rotation</p> <p>Membership Rotation:</p> <ul style="list-style-type: none"> • 2018: Rotate 2 members: Crigler, Cagley (2003, 2003) • 2019: Baxi, Kopczynski (2003, 2003) • 2020: Ahmed, Schlegel (2003, 2008) • 2021: Kline, Zuniga (2008, 2012) • 2022: Hayek (2012) • 2023: Klorman, Illingworth (2014, 2015) <p>The list of potential TAB candidates (no particular order):</p> <ul style="list-style-type: none"> • Martin Cuadra - Joining • Mike Schwager - Joining • Hamid Ahmady • Bob Sward (Chair M-50) • Jack Graves (Officer) • Drew Micklus • Frank Malits • Jonathan Hirsch • Greg Hunsicker • Martin Maingot • Jim Donnelly <p>Newly appointed TAB members should attend the fall meeting as observers; outgoing TAB members should rotate off TAB after the fall meeting.</p> <p>A.4 PTI Antitrust Policy</p>	<p>A.1 The meeting was called to order at 8:30 am.</p> <p>A.2</p> <p>A.3 The official TAB roster is on the PTI website.</p> <p>TAB Member rotation: After the 2018 fall meeting, Jim Cagley and John Crigler will end their term on TAB. TAB recognizes their long-term contributions to the committee.</p> <p>New TAB Members:</p> <ul style="list-style-type: none"> • Martin Cuadra and Mike Schwager have accepted invitation to join TAB after the 2018 fall meeting. • TAB will be notified when EC confirms the appointments. <p>Other potential candidates: Additional potential candidates added to the list: Greg Hunsicker, Martin Maingot, Jim Donnelly.</p> <p>Martin Cuadra and Mike Schwager have been invited to join TAB at the Colorado Springs meeting this fall. Mike is unable to make it due to a 70th birthday celebration of his father and PTI Legend Guido Schwager.</p>

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<p>(Exhibit A.4)</p> <p>A.5 Committee Annual Reports</p>	<p>A.4 All present are reminded of the PTI Antitrust Policy.</p> <p>A.5 The Annual Reports will be attached to the fall committee meeting agenda of all committees and sent to TAB by the end of October.</p>
<p>B. Agenda & Minutes (Closed Meeting)</p> <p>B.1 <u>Approval of Agenda</u></p> <p>B.2 <u>Approval of Meeting Minutes</u> (Meeting ballot required)</p> <p>B.2.1 Approval of Summer Web Meeting Minutes from 7-26-18, distributed on 7-27-18.</p>	<p>B.1 Changes to the agenda: none</p> <p>B.2.1 Motion / Second to approve Meeting Minutes from 7-27-18: Schlegel / Ahmad, 6-0-1 (Y-N-A)</p>
<p>C. Actions Taken Between Meetings (Closed Meeting)</p> <p>C.1 <u>Letter Ballots</u></p> <p>C.1.1 Ballot-TAB-1802: PT Manual Chapters 5&9, Ballot End 8-27-18</p> <p>C.1.2 Ballot-TAB-1803: M55.1 Grouting Spec, Ballot End 9-20-18</p> <p>C.1.3 Ballot-TAB-1804: M50.3 Multistrand PT Spec, End 9-20-18</p> <p>C.1.4 Ballot-TAB-1805: PT Manual Chapters 14&15, Ballot End 9-30-18</p> <p>C.1.5 Ballot-TAB-1806: DC10.5 Standard, Ballot End 10-15-18</p> <p>C.2 <u>Web Meetings</u></p> <p>C.2.1 Summer WM on 7-26-18</p>	<p>C.1.2 Ballot will be extended.</p> <p>C.1.3 Ballot will be extended.</p> <p>C.1.4 The PT Manual reviews should continue as agreed:</p> <ul style="list-style-type: none"> • 2 TAB primary reviewers • Outside reviewers as needed • Subject committee representatives as outside reviewers as needed • Tab WM (all) review results of ballots; the chapter author(s) to be invited to this web meeting <p>C.1.5 Industrial floors: TAB TG: Asit, Carol, MV, Don, someone from DC-10 (Jack), possibly Ken Bondy to review existing old document and make recommendations for items to address Sports courts: Jack Graves will propose how this document will be updated</p>

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<p>1. Technical Committee Personnel (Closed Meeting)</p> <p>1.1 <u>Technical Committee Chairs</u></p> <p>1.2 <u>Technical Committee Members</u></p> <p>1.3 <u>Technical Committee Missions</u></p> <p>1.3.1 DC-20A BIM Subcommittee</p>	<p>1.1 Current Chairs (Exhibit 5.1 - Attached to the meeting minutes from Minneapolis) BIM Subcommittee of DC-20: Frank Malits appointed</p> <p>1.2</p> <p>1.3 Current technical committees' missions (Exhibit 1.3 - Attached to the meeting minutes from Minneapolis)</p> <p>1.3.1 The efforts of DC-20A with the new Chair focus on two items:</p> <ul style="list-style-type: none"> • Finalize the new BIM chapter of the PT Manual • Create the PT related Industry Foundation Classes (IFC) and work with ACI 131 (BIM of Concrete Structures) to incorporate it in that document. PTI EC endorsement of this approach will be requested. • General • Annual report and review of membership
<p>2. New TAB Initiatives (Closed Meeting)</p> <p>2.1 Tendons banded in both directions</p> <p>2.2 Other Initiatives?</p>	<p>2.1 Status report – Tim Christle Agreement Bekaert-PTI – Sub-license agreement was drafted by Bekaert. It was reviewed, and proposed changes sent to Bekaert. Their response was just received. The EC including the legal counsel will review the contract before PTI is authorized to sign it.</p> <p>2.4</p>
<p>3. Relations with other Organizations (Closed Meeting)</p> <p>3.1 <u>ACI</u></p> <p>3.1.1 ACI 301, Specification for Structural Concrete</p> <p>3.1.2 ACI 318, Structural Concrete Building Code</p> <p>3.1.3 ACI 350, Environ. Eng. Conc. Structures</p>	<p>3.1 Ted Neff is a 301 PT subcommittee Chair and a 423 TG lead on performance-based specification. PTI will notify the main committee Chairs that Ted no longer represents PTI; but he can continue his roles, of course, if he so desires.</p> <p>3.1.2 Splitting of 318-G? What action is necessary? Bill to draft list of reasons and send it to ACI 318 Chair, Jack Moehle, a few days before the convention. All to contribute by sending possible reasons to Bill by the end of September.</p> <p>3.1.3 TAB members reported that unbonded tendons are used for repair of wire wrapped tanks. This should be documented in</p>

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<p>3.1.4 ACI 362, Parking Structures</p> <p>3.1.5 ACI 423, Prestressed Concrete</p>	<p>Job Reports to be able to show existing deficiencies of wire wrapped tanks and the suitability of unbonded tendons as circumferential PT.</p> <p>Another suggestion was to try to split the 350-E Precast-Prestress subcommittee.</p> <p>3.1.4</p> <p>3.1.5 Strand relaxation testing is required to be performed or observed and certified by an independent testing agency, per ACI 423.7-14 and PTI M10.2-17. Questions were raised about this requirement as most strand suppliers are currently doing it in house, without independent observation by others. This puts the PT suppliers potentially at risk.</p> <p>This came up as a negative vote on the Plant Certification Manual updates. M-10 has started a TG to investigate how this requirement got into the specs (it was not in the previous versions of the ACI and PTI specifications).</p> <p>The TG proposed removing the independent observation and confirmation of the strand relaxation testing from M10.2. This was balloted by M-10 and the ballot passed, with comments resolved at this M-10 meeting. The PTI legal counsel was present and pointed out that since the current specification requires the independent lab to be accredited by ASTM C1077, which no is not applicable, the requirement is unenforceable. This makes it less critical for now.</p> <p>The TG discussed the best approach in getting new PTI M10.2 modified requirement to ACI 423.7. It was decided to bring it in only after the PTI spec is published (after TAB and public review) and when there is a chance for it to be accepted at 423 (currently the new edition is likely closed for new business).</p>
<p>3.2 <u>ICRI</u></p>	
<p>3.3 <u>IBC</u></p>	<p>3.3 Barrier Cable</p>
<p>3.4 <u>AISC</u></p>	
<p>3.5 <u>ASCE</u></p>	
<p>3.6 <u>ASBI</u></p>	<p>3.6 Randy Cox will retire and Gregg A. Freeby from TXDOT will replace him. This should not affect the PTI-ASBI relationship or the course of ASBI. The EC debated the M-50 joint TG without an MOU with ASBI. Since all the document sales are on the PTI side, without any participation payment to ASBI, it may be better to keep the setup as is. This may have to be reconsidered if the</p>

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<p>3.7 <u>TRB</u></p> <p>3.8 <u>FIB</u></p> <p>3.9 <u>CSA</u></p> <p>3.10 <u>ACCS</u></p> <p>3.11 <u>Contacts to Spec Writing Agencies</u></p>	<p>new ASBI Manager takes a different approach.</p> <p>3.8 Ted Neff is the Commission 5 – Reinforcement Chair. The next meeting takes place in Australia in the beginning of October. PTI notified <i>fib</i> that Ted no longer represents PTI; but he can continue his roles, of course, if he so desires. The EC wants PTI's <i>fib</i> participation, ACI, PCI, etc. participation be removed from the future Executive Director's tasks.</p> <p>3.10 Framework, the first wood high-rise building in the US (Portland, OR) has been placed on hold for the foreseeable future. The stated reasons were: Changing market conditions over the past two years including inflation, escalating construction costs, and fluctuations in the tax credit market, all affecting the project's bottom line.</p> <p>Another article showed some technical issues, ENR Northwest, September 5, 2018: 'Regluing' Oregon State's Showcase for Mass Timber.</p>
<p>4. Technical Committee Procedures (Closed Meeting)</p> <p>4.1 Technical Committee Manual</p> <p>4.2 Post-Tensioning Terminology (PTT)</p>	<p>4.1 A draft with changes reflecting the new committee and TG arrangement was prepared by staff. (Exhibit 4.1)</p> <p>Amy Dowel presented the main proposed changes:</p> <ul style="list-style-type: none"> • Committee organization with new focus on TGs • Committee membership <ul style="list-style-type: none"> ○ possibly limiting number of committees ○ restricted committee membership for selected committees ○ committee membership participation and terminations ○ committee roster credit in documents • Committee meetings including requests necessary from TGs and subcommittees <p>TAB members are asked to review the draft changes and make overall suggestions regarding:</p> <ul style="list-style-type: none"> • The proposed changes • Any other possible changes <p>Any suggestions obtained will be discussed at the Colorado Springs meeting and the TCM will be balloted after the meeting.</p>

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4.3 Membership Appointment Procedures	
<p>5. Technical Committee Affairs (Open Meeting)</p> <p>5.1 Changes to Committees</p> <p>5.2 Committees' Annual Reports</p> <p>5.3 TAB Contact Assignments M-10: Rashid Ahmed M-50 Edgar Zuniga M-55: Andrea Schokker DC-10: Don Illingworth DC-20: Hayek DC-35: Asit Baxi DC-40: Mike Schwager DC-45: Mike Schwager DC-80: Don Kline</p>	<p>5.1 Current committees are in (Exhibit 5.1 - Attached to the meeting minutes from Minneapolis)</p> <p>5.2 Committee are asked to submit the Annual Reports by the end of October.</p> <p>5.3 Updated TAB Contact Members are reflected on the left. There is no need for TAB contact for TGs. When TAB members retire, and new ones join, the TAB contact assignments will be reviewed and revised accordingly.</p>
<p>6. Technical Committee Documents (Open Meeting)</p> <p>6.1 <u>Existing PTI Technical Documents</u></p> <p>6.2 <u>New / Proposed PTI Technical Documents</u></p> <p>6.2.1 TAB.1 PT Manual</p> <ul style="list-style-type: none"> • Review progress • Make/confirm assignments with deadlines • Balloting plan with dates • Chapter Primary Reviewers <p>It is becoming critical to publish the 7th edition of the PT Manual in the near future. A plan to publication should be prepared, possibly considering omitting some of the (new) chapters. Continuing the balloting plan, the new target for completion is summer 2020.</p> <p>6.3 TAB Document Review</p>	<p>6.1 Existing documents list is in (Exhibit 6.1 - Attached to the meeting minutes from Minneapolis)</p> <p>6.2 Proposed documents list is in (Exhibit 6.2 - Attached to the meeting minutes from Minneapolis)</p> <p>6.2.1 PT Manual</p> <p>The process for TAB review of chapters:</p> <ul style="list-style-type: none"> • Ballots 30 days; two chapters at a time • Schedule regular web meetings • Ballot reminders; 2W, 1W, 3D • For each chapter, there are 2 TAB Primary Reviewers • Outside reviewers can be added if needed. Some committees such as DC-20 and DC-80 may have volunteers to review respective chapters. <p>Balloted chapters:</p> <ul style="list-style-type: none"> • 5 (Analysis and Design) & 9 (Floor Framing Systems) • 14 (Storage Structures) & 15 (Rock and Soil Anchors) <p>Next chapters:</p> <ul style="list-style-type: none"> • <p>6.3 Some other documents are coming to TAB for review:</p>

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	<ul style="list-style-type: none"> • Technical Note: Dual Banded PT Tendon Layout; DC-20 ballot ended 9-26-18; next step is TAB review. • Technical content of webinars (DC-20, EDU-130, DC-80)
<p>7. Other Publications (Open Meeting)</p> <p>7.1 New PTI Technical Notes?</p> <p>7.2 New PTI FAQs?</p> <p>7.3 Sustainability</p>	<p>7.1 Technical Notes nearing completion:</p> <ul style="list-style-type: none"> • Temperature Tendons: Completed; will go to DC-20 ballot first (2 reviews – committee and TAB) • Restraint to Shortening: Christle: After the Colorado meeting, a final draft will be assembled and issued for ballot to DC-20. The overall goal is to publish the full, updated DC20.2-19 in the 1st quarter of 2019. <p>7.3 Carol Hayek: A draft document for ACI 423 was for precast and PT; later separated PT from precast, as the precast side withdrew. There are the same issues as on 318-G, with competing industries blocking progress. Examples were taken out, benefits of systems, ETDs, etc. The strand data is still missing. This will be a ACI 423 document. On the PTI side, only the new Sustainability Chapter is being drafted for the PT Manual.</p>
<p>8. Conventions and Other Meetings (Open Meeting)</p> <p>8.1 2018 Technical Sessions More requests were obtained than available time slots; however, too many relatively late, preventing a selection process to select the best.</p> <p>8.2 2019 Committee Chair Luncheon</p> <p>8.3 PTI & TAB Awards</p> <p>8.4. New PTI Website</p>	<p>8.4 A presentation will be organized at the 2018 PTI Committee Days in Colorado Springs to introduce the website and the committee features from the users' perspective.</p>
<p>9. Educational Items</p> <p>9.1 Excerpt from the Strategic Plan:</p> <ul style="list-style-type: none"> • Revise and update documents older than 6 years • Revise and update FAQs and TNs older than 4 years • Develop library of selected FAQs with focus on PTI position on all PT applications 	<p>9.1 Coordination with the Education Committee; Professor's Seminar – TAB recommendations:</p> <p>This item will be discussed in detail during the TAB meeting in Colorado Springs. Members are asked to review this topic and be prepared for a discussion. In general, TAB supports PTI participation in the Professor's Seminar.</p>

Item #	Expected Outcome / Actions Taken
<ul style="list-style-type: none"> • Identify research needs for PT • Solicit support from stakeholders for financing, per project • Develop a course for PTI Building Design and compile required webinar modules and course materials • Develop a course for PT SOG Design and compile required webinar modules and course materials 	
<p>D. New Business (Open Meeting)</p> <p>D.1 PTI Positions on important subjects</p> <ul style="list-style-type: none"> • ACI 318: Unified PTI position on 318-G and 318 ballots • Restrained vs. unrestrained conditions in 2-way slabs • Other important items? <p>D.2 Accelerated Construction</p> <ul style="list-style-type: none"> • Bridges: ABC • Buildings: Peikko <p>D.3 Barrier Cable</p> <p>D.4 New PTI Website</p>	<p>D.1 This item will be discussed in detail during the TAB meeting in Colorado Springs. Members are asked to review this topic and be prepared for a discussion. There was no time to discuss this item.</p> <p>D.2 A short discussion evolved in Minneapolis with some members considering it important and others not very important. This item will be discussed in detail during the TAB meeting in Colorado Springs. Members are asked to review this topic and be prepared for a discussion. There was no time to further discuss this item.</p> <p>D.3 Barrier Cable: Survey of professional members and others ended with weak return. The results are nonconclusive regarding which method people use and with minimum lengths people use. Only 57 of 351 people returned responses. Will be on the TAB agenda for Colorado Springs. Tim Christle: The TGs are continuing work on the barrier cable documents, although it is moving slowly.</p> <p>D.4 The new website has been launched.</p>
<p>E. Next Meeting</p> <p>E.1 TAB Winter WM?</p> <p>E.2 PTI Convention in Seattle, May 5-8, 2019</p> <p>E.3 Web Meetings</p>	<p>E.2 The exact day and time will be announced when available.</p> <p>E.3 Web Meetings will be scheduled as needed.</p>

Item #	Expected Outcome / Actions Taken
F. Adjourn	F. The meeting was adjourned at 12:00 pm.

AGENDA / MINUTES EXHIBITS

Exhibit #	Subject
A.4	PTI Antitrust Policy / Sign-in Sheet