

**ASCE – INDOT  
STRUCTURAL COMMITTEE  
MEETING NO. 86 MINUTES**

**December 19th, 2019  
9:00 am, INDOT Room N925**

Meeting called to order at 9:00 am by Mike McCool. Those in attendance were

Mahmoud Hailat	INDOT
Jennifer Hart	INDOT
Jeremy Hunter	INDOT
Mark Swiderski	INDOT
Stephanie Wagner	INDOT
Pete White	INDOT
Jose Ortiz	FHWA
Mike McCool	Beam Longest & Neff, LLC
Sean Porter	Parsons Corporation
Seth Schickel	HNTB Corporation
Michael Wenning	GAI Consultants, Inc.

In addition to the attendees, these minutes will be sent to the following members:

Elizabeth Phillips	INDOT
Anne Rearick	INDOT
Ed Spahr	INDOT
Brandon Arnold	USI Consultants, Inc.
Mike Eichenauer	Butler, Fairman and Seufert, Inc.
Ben Borcharding	American Structurepoint, Inc.

- 1. Review and approve Meeting 85 minutes.**
  - a. Minutes approved with one minor edit, no comments.
- 2. Bridge Design Conference Update and Date January 21, 2020 (McCool)**
  - a. Conference announcement and agenda posted online, registration is live.
  - b. McCool will gather expectations for work zone safety presentation and coordinate with John McGregor. Phil Kuntz is available as a resource.
  - c. ABC presentation by Schickel. Gather info from BLN, USI, HNTB projects.
- 3. Research Needs and Innovative Ideas (Rearick)**
  - a. No update.
  - b. 2020 meeting is in January. Wanger will solicit ideas via email.
- 4. Pile Design for 3-sided structures (White, Schickel, Borcharding, Hunter) - No update**

**5. Semi-integral bent details (Wagner, McCool, White, Schickel, Borcharding)**

- a. Wagner presented at CEPDS in November.
- b. Contractors have expressed interest in working with committee members on concepts.  
Wagner will follow up on interest.

**6. Thin Deck vs. Joint Replacement (White, Yeager, Rearick, Wagner)**

- a. White developed and distributed a draft bridge design aid for polymeric overlays and a draft construction duration estimate tool. Comments via email to White.
- b. Wagner suggested and will provide sample plans.

**7. LRFD vs LFD on Rehabilitation Projects (Hunter, McCool, Eichenauer, Wenning, Arnold)**

- a. Regular subcommittee meetings set for 2020. Will update committee.

**8. Sand Bag Cofferdams (Hunter, Phillips)**

- a. Hunter is coordinating this effort with INDOT Hydraulics and Road Design groups.
- b. White discussed treatment of water *inside* cofferdams (when pouring concrete).  
Consider contractor payment and consider developing a USP. This is a potential environmental concern.
- c. The group consensus is INDOT Permit staff are recently requiring more details for permit approvals, including some items close to the means/methods threshold.  
Wagner will take the lead on developing a possible new item – Bridge Permits.

**9. Elastomeric Bearing Pads (Wenning, White, Porter)**

- a. White provided draft markups to IDM Chapter 409 to require elastomeric bearings for vulcanized to load plates, plus suggestion on how to use tapered shims when required by design.
- b. Consider box beam discussion in IDM. Typically not load plated, unless heavy skew.
- c. Discussed 2012 FHWA guidance to use vulcanization for connections.
- d. Discussion about side spacing/clearance. Resolution was to revise figures and standard drawings to show “0.25 inch minimum, by design”.
- e. The group reviewed and offered suggestions, which White will incorporate.

#### **10. MSE Wall Shop Drawing Revision Checklist**

- a. ACEC solicited comments on checklist/process, so coordinate with those changes.
- b. Group agreed generally, the industry needs procedural information about how to implement this process. When are checks performed, by whom, who requests review?

#### **11. WWF in prestressed beams (Hailat, McCool, White)**

- a. Hailat will incorporate welded wire reinforcing into a future project, design in 2020.
- b. Discussion about considering shear requirements at deck.

#### **12. TS-1 Railing (White, Arnold)**

- a. INDOT does not promote this type of open railing, but recognizes this is being used by local agencies for local and LPA projects.
- b. Group suggests revisiting the Recurring Plan Detail based on recent testing research by White/Smutzer showing current detail may not be adequate. McCool will share his updated detail which may be adequate
- c. Added Arnold.

#### **13. Expansion Joint Material (White, McCool, Porter, Schickel)**

- a. Ongoing, added two members.

#### **14. Self-Consolidating Concrete**

- a. This research is responding to questions about why INDOT is not currently using SCC.
- b. There are specific benefits for the construction procedure of precast box beams.
- c. Hunter will coordinate with Mike Nelson (INDOT Materials) so research. Then this group can weigh in on uses and requirements.

#### **15. New Business**

- a. Concrete Types – suggestion to create new subcommittee, invite Mike Nelson.
- b. McCool will email team to make cuts to the “parking lot” list so we can refocus our efforts in 2020.

**NEXT MEETING: FEB 13 / 9:00 AM / INDOT**

### Recurring Business

Bridge Design Aids Updates (Hunter, Wagner)  
Standards Committee Updates (Phillips)  
Bridge Design Conference (McCool)  
Overlay Types (Hunter, White)

### Research Projects

Link Slab Design and Details (Spahr, McCool, Wenning, Schickel)  
Fire Damage on Concrete Bridges  
Seismic Assessment Design and Retrofit  
ABC Guide  
Strut-and-Tie Modeling

### Parking Lot

Concrete mix designs  
Long term deflections in prestressed beams  
Special provision for high strength concrete  
Mild reinforcement in prestressed beams (particularly 401 bars)  
Post Tensioning Specs  
Terminal Joint Details  
Alternate Structure Types  
Continuity of Prestress Concrete Beams (Heidenreich)(**TRB Research**)  
NEXT Beams (McCool)(**still looking for applications**)  
Hydro-demolition (Wagner)  
Fiber Wrap (Jessop)  
High Early Strength Concrete (Nelson)  
Expansion Joints Options (Wagner, White, Eichenauer) (**PP**)  
Bridge Design Conference (McCool)  
Load Rating Policy and Procedures (Hunter)  
Approach Slabs (Hailat)  
Bridge Deck Overhang Design (Wagner, McCool, Hunter, Eichenauer)  
Pile Driving Recommendations  
SIP Forms (Hunter)  
Girder Stability (McCool, Arnold, Porter, Eichenauer, White)