NCDOT – PCI Joint Technical Committee Meeting

NCDOT, SMU – Large Conference Room
Thursday, July 11, 2019 (10:00 AM)

MINUTES

Attendees:

Trey Carroll	NCDOT – SMU	thcarroll1@ncdot.gov
James Bolden, Jr.	NCDOT – SMU	jlbolden@ncdot.gov
Cabell Garbee	NCDOT – M&T	cgarbee@ncdot.gov
Jason Poppe	NCDOT – M&T	jepoppe@ncdot.gov
Jason Civils	NCDOT – M&T	jcivils@ncdot.gov
Timothy Brandenburg	NCDOT – M&T	trbrandenburg@ncdot.gov
Todd Whittington	NCDOT – M&T	twhittington@ncdot.gov
Brian Hunter	NCDOT – M&T	bhunter@ncdot.gov
J. R. Parimuha	Florence Concrete Products	jrparimuha@yahoo.com
Jeff White	Prestress of the Carolinas	jeff.white@prestressotc.com
Richard Potts	Standard Concrete Products	RichardPotts@standardconcrete.org
Jesus Marin	Standard Concrete Products	jesusmarin@standardconcrete.org
Paul Orgochock	Coastal Precast Systems	pogorchock@cpsprecast.com
Dave Neal	Coastal Precast Systems	dave@cpsprecast.com
Joe Rose	Coastal Precast Systems	joe@cpsprecast.com
Chris Arca	Coastal Precast Systems	carca@cpsprecast.com
Reid Castrodale	Castrodale Engrg / G/C PCI	reid.castrodale@castrodaleengineering.com

Reid Castrodale began the meeting at about 10:00 am. Self-introductions were made by attendees.

1. Review Agenda

   No revisions were made to the agenda distributed prior to the meeting.

2. Minutes of July 12, 2018 Meeting

   Minutes of the previous meeting were approved as distributed.

Assigned Tasks from the March 27, 2019 Meeting

3. Details for transverse ties in cored slabs or box beams with crowned supports

   NCDOT is not placing units on a crown unless the structure is very wide which occurs infrequently, so this is not a significant issue. The Structure Design Manual has guidance.

   Remove from future agendas.

4. Full-length debonding of strands (general notes for girders)

   It was agreed that full length strands be left in place with ends sealed.

   NCDOT also mentioned that they are reluctant to require the center two strands in the top flange on drawings. A note could be shown allowing the strands to be added.

   ACTION ITEM: NCDOT to work on a special provision, which they will send to G/C PCI for comment.

   ACTION ITEM: Reid Castrodale to send Trey Carroll the analysis of section property changes with full length debonding that was presented at the PS Design Seminar in Nov. 2018.

Assigned Tasks from the March 27, 2019 Meeting

5. Vertical cracking inspection and marking

   The four producers present have submitted NCRs to NCDOT. The older the project, the better for the review. It was also noted that NCRs are no longer being written for web splitting cracks. The question was raised of whether sealer could be applied for cracking instead of wet cure.

6. Evaluation of aesthetic quality of finish – *consider at 20 ft as for architectural concrete*

   This item is related to item 15. Remove from future agendas.

7. Standard repair procedures

   It was reported that the Department is still working on a few more items for the Standard Repair Procedures. Repairs will be included in the new SOP. NCRs will still be required to document a repair, but SMU will not have to be involved for standard repairs.

8. Standard operating procedures

   Cabell Garbee reported that the Standard Operating Procedure is nearly complete. He mentioned that he would send it when completed for distribution with the minutes.

   ACTION ITEM: Cabell Garbee to send G/C PCI the Standard Operating Procedure when completed, so it could be attached to the minutes.

9. Standard welded wire reinforcement option for girders

   NCDOT is interested in looking at welded wire reinforcement for girders. SMU has some concerns while M&T is okay with the concept. Ross Prestress used it for a single project which was successful. Trey Carroll asked G/C PCI to send standard details for wire reinforcement such as for FIB girders. G/C PCI recommended that allowing producers the option of using either welded wire or rebar is preferred. Standardized patterns are very helpful for the plants.

   ACTION ITEM: Reid Castrodale to send Trey Carroll end zone reinforcement standards for FIB girders.

10. Use of strands for continuity connection detail

    NCDOT will review the concept. Trey Carroll asked Reid Castrodale to send him sample calculations for bent strands for the continuity connection. Richard Potts indicated that TennDOT has been using this type of detail for many years. Questions were also asked regarding whether a limit would be placed on strand stress and whether debonded strands could be used for the bent up strands.

    ACTION ITEM: Reid Castrodale to send Trey Carroll calculations for bent up strands.

Ongoing Tasks for the Technical Committee

11. Temporary (Debonded) Top Strands

    NCDOT would like to implement debonded top strands. The concept still needs additional definition. Cabell Garbee thought that the G/C PCI suggestion of making a video to show contractors how to detension temporary top strands was a very good idea.

    ACTION ITEM: G/C PCI to pursue production of a video for detensioning of temporary top strands.

12. Lateral Stability

    It was suggested that PCI National provide guidance on this issue. GDOT's approach of providing span limits beyond which lateral stability had to be considered was of interest to the Department.

    ACTION ITEM: Reid Castrodale to send Trey Carroll GDOT requirements for lateral stability.

13. Stressing Strands in Draped Position

    NCDOT was concerned about getting the proper stress in stands when stressing in the draped position. The procedures given in the PCI quality manual was described where elongation is measured at the far end of the

bed as an indication of stress in the strand. Richard Potts indicated that a longer distance for measuring elongation, such as 30 ft, gives more reliable results.

The Department may consider allowing stressing strands in the draped position for an upcoming project. It was requested that producers let the Department know if there is such an opportunity where checking strand stress would be done at the dead end. A video would also be helpful.

ACTION ITEM: G/C PCI members to inform NCDOT when there is a project where strands could be stressed in the draped position, or consider making a video to share with the Department.

14. Florida I-Beams (FIBs)

    Trey Carroll reported that the Department was still working on standards for Florida I-Beams (FIBs).

15. Rubbing Girders

    Jason Poppe gave a brief presentation with a video on the process for rubbing girders. They are pleased with the results and plan to include the procedure in the Standard Operating Procedure.

    This item is completed. Remove from future agendas.

16. Bearing Details for Skewed Cored Slabs and Box Beams

    It was reported that 30 degree skews are not unusual. JR Parimuha reported that they have recently seen two projects with 45 degree skews. However, skewed ends to not seem to be a serious concern with the AGC. Contractors are dealing with the issue in various ways.

    Remove from future agendas.

Other Items

17. Future Prestressed Concrete Bridge Design Seminar

    No discussion of Prestressed Concrete Bridge Design Seminar topics was recorded.

Informational Items

18. Update on Status of Bridge Program

    Trey Carroll reported that the Harkers Island project was expected to appear in the February 2020 letting. They should complete the plans soon, then would begin work on standards for FIB girders. It was mentioned that confinement bars are not being provided for the full length of the girder, which conforms to NCDOT practice rather than FDOT standards for FIB girders.

    The Department expects no change in the level of funding for bridge projects next year, so about $300M is expected. The letting list is on the NCDOT website. There are 77 BUILD Grant projects, so we may see those coming out from now until September 2020.

19. PCEF Meeting – August 15, 2019 – SCDOT

    The next NCDOT / PCI Joint Meeting will be held on Nov. 16, 2017 at the MTU.

New Items

20. High Slump/Flow Mixtures

    There was a discussion on high slump concrete mixes to follow up on the Mix Design Seminar held the previous day. Cabell Garbee indicated that they would work on revising the specifications for self-consolidating concrete (SCC) and for high-slump mixtures, which are between conventional concrete mixtures and SCC. Brian Hunter indicated that they are seeing more special requests for high slump mixtures. They are considering expanding the section in the specification, or possibly considering a new section for the more flowable mixtures. Issues such as the number of layers used during placement of the concrete will be considered.

The meeting was adjourned around 12:30 pm.