# NCDOT – PCI Joint Technical Committee Meeting

NCDOT, SMU

Thursday, July 14, 2016 (1:30 PM)

## MINUTES

Attendees:

| | | |
|---|---|---|
| Brian Hanks | NCDOT – SMU | bhanks@ncdot.gov |
| Trey Carroll | NCDOT – SMU | Thcarroll1@ncdot.gov |
| Brian Hunter | NCDOT – MTU | bhunter@ncdot.gov |
| Peter Finsen | G/C PCI | peter.finsen@gcpci.org |
| Jeff White | Prestress of the Carolinas | jeff.white@prestressotc.com |
| J. R. Parimuha | Florence Concrete Products | jrparimuha@yahoo.com |
| Richard Potts | Standard Concrete Products | RichardPotts@standardconcrete.org |
| Reid Castrodale | Castrodale Engrg / G/C PCI | reid.castrodale@castrodaleengineering.com |

Chairman Reid Castrodale welcomed all to the meeting.

There was some initial discussion in the upcoming reductions in staff at NCDOT. Practical design guidance will be needed as consultants will be more involved, especially in reviewing Division projects.

1. Review Agenda

   No discussion.

2. Minutes of July 16, 2015 Meeting

   Minutes were approved.

**Assigned Tasks**

Discussion of the following items was combined:

3. Debonded Top Strands
4. Lateral Stability

   The following items related to debonding top strands were distributed and discussed:
   - Proposed SDM text
   - Proposed plan notes
   - WSDOT Girder Sheet

   The following item related to lateral stability was distributed and discussed:
   - WSDOT Fabrication and Handling for PS Girders
   - Dutch Safety Board Report & Video - https://youtu.be/LJevke4_i5Y

   The two topics were discussed together. The Dutch report was not included in the discussion, but just as an informational item.

Guidance is required for when top strand debonding should be considered by designers. Conditions when lifting should be evaluated, with guidance about lifting loop locations which should consider both evaluation of stresses and lateral stability.

Richard Potts indicated that GDOT is using lifting loops at 1.5 girder depth (9 ft for 72 in. beams), and stresses are checked at that location. He also suggested that debonding does need to extend beyond the lifting loop location.

Jeff White said that they use 2 lifting loops at each end when the girder is > 100 ft long. His engineer does the analysis.

It was suggested that for each section, a girder length would be established beyond which analysis at lifting would be required and a method would be given. For shorter girders, no analysis would be required. Analysis for hauling would not be considered in design.

The following action items were identified:

- Develop an analysis method for evaluating stresses and lateral stability. Trey would handle this.
- Identify the lengths for each girder beyond which evaluation of stresses at lifting and lateral stability would be required. Figure 11-3 was mentioned.

Brian Hanks summarized by stating that they see potential benefit in using debonded top strands, but that they want to have procedures defined so designers will be using the same details and procedures.

5. Stressing Strands in Draped Position

   The following items related to the topic were distributed and discussed:

   - VDOT R&B Specs 405.05
   - PCI MNL-116 Harped Strands

   It was noted that the procedures in these documents that are used to verify the force in strands have been shown to be adequate.

6. Bridge Design Seminar

   The following items related to the seminar were distributed and discussed:

   - Preliminary Topics for 2016 PS Seminar
   - 2014 Panel Discussion Outline

   The seminar is scheduled for Tuesday, December 6, 2016 at the McKimmon Center in Raleigh. Twenty-five to thirty attendees are expected from SMU and some from MTU.

   Focus on this seminar would be more on fabrication. Topics discussed included perspectives from the fabricators, standardized piling, and ABC details.

   Brian Hunter will talk to inspectors to see if they have any items that could be discussed. It was also pointed out that they should be invited to attend the seminar.

Peter Finsen and Reid Castrodale will prepare a draft agenda for review by NCDOT.

**Other Items**

7. NCDOT Website

   Reid Castrodale mentioned that he had noticed a prestressed girder repair procedure on the NCDOT website and that it looked like a good procedure from G/C PCI's perspective. Brian Hanks indicated that FHWA had been encouraging NCDOT to have a standard repair procedure for prestressed concrete members that need repair in the field. So the procedure was intended for use in maintenance rather than in a precast plant.

   Reid Castrodale mentioned that he had noticed a listing of Structure Training Seminars & Papers that had not been updated since 2011. Brian Hanks suggested that a link could be added to the list to connect to the G/C PCI website for resources. Peter Finsen will email Brian Hanks a link to the G/C PCI website.

8. PCEF Meeting – August 18, 2016 – GDOT

   The action item list from the August 2016 G/C PCEF meeting was distributed. It was noted that Darren Scott appeared on the list and should be replaced by Brian Hunter. NCDOT did not have any topics to be added to the agenda of future G/C PCEF meetings.

**Informational Items**

MTU has sent out a letter indicating that the target date for implementation of RFID/Barcode tagging of prestressed concrete products is January 1, 2017.

Brian Hanks discussed a list that Trudy had developed from discussions with prestressers. As a result, they plan to change rounding of design concrete compressive strengths at transfer to increments of 100 psi and to allow detailing of an optional draped strand pattern if $f'_{ci} > 7$ ksi. The suggestion is still under consideration of allowing vertical #6 bars bundled at 4" rather than single #6 bars at 2" at the ends of girders. Producers suggested that bundling the bars would allow more space for the concrete to flow and be properly consolidated in the congested end region of the girder.

The meeting was adjourned at 3:45.