

## MINUTES

### SCDOT – PCI Joint Committee Meeting

SCDOT Office of Materials and Research

November 22, 2016 – 1:30 PM

Bener Amado welcomed attendees and called the meeting to order at 1:30 PM. A sign-in sheet was circulated. Then, Bener announced that he would like to step down as a Co-Chairman. Terry Koon was appointed as the new Co-Chairman.

The following members (or representatives) were present:

#### SCDOT

Bener Amado	Program Manager RPG 2, Co-Chair
Steve Nanny	Structural Engineer RPG 3
John Caver	Structural Engineer RPG 4
Hongfen Li	Preconstruction Support, Policy
Julie Yin	Preconstruction Support, Policy
Terry Koon	Structural Design Support, New Co-Chair
Chad Hawkins	Office of Materials and Research
Jim McCabe	Office of Materials and Research
Aly Hussein	Office of Materials and Research

#### PCI

Reid Castrodale	Castrodale Engineering Consultants, Co-Chair
Peter Finsen	Executive Director, GA/CAROLINAS PCI
Jeff White	Prestress of the Carolinas
Richard Potts	Standard Concrete Products
J. R. Parimuha	Florence Concrete Products

#### Academia

#### FHWA

### Minutes of Last Meeting

The minutes of the May 5, 2016 meeting were approved as submitted.

### Old Business

#### **01-6 *SCDOT Bridge Design Manual***

Terry Koon stated that the focus is more on seismic specification, besides doing some other stuff. No progress at this time.

As for the Clemson University training, classes were held in October of this year. The training went very well and Lucero Mesa is still collecting feedback. The training was offered only for SCDOT and 25 people attended, mainly from bridge design. The training was just a pilot course with 4 different subjects and 4 full days. Aly requested a copy of the CD training for the lab. Terry Koon sent a CD to Peter. to try to avoid too much overlap between the course and any prestressed concrete design seminar. The Department is continuing to develop a seismic course for next year. The prestressed design course may be offered next year and may include folks from consultant firms, but not many from bridge design at SCDOT.

#### **09-1 *Accelerated Bridge Construction (ABC) Project – A Precast Alternate for Flat Slab Spans***

Terry Koon stated that Tekna is the fabricator of the Modified NEXT D Beams. Tekna received approval to make minor modifications to the beam sections for easier fabrication. Ken Wilson is the RCE for the project. For the UHPC joints, the contractor decided to use the Ductal product rather than a non-proprietary mix. There was discussion that if Ductal could supply the required test results, they could be used rather than additional prequalification tests, which could take up to 4 months. The bridge construction was supposed to start in September 2016, but there was some delay on clearing. Shop plans have not been submitted yet. The bridge consists of one end span with the Modified Next D Beams, one end span with solid slab units and modified shear keys, and two interior spans with standard cored slab units. UHPC will be used in the closure pours for the Modified NEXT D Beams and the shear keys for the cored slab and solid slab spans. Tekna will be doing all PC. There is no accelerated construction time limit and no push for ABC. Hopefully, this will help in using PS slabs on higher volume roadways in the near future. Terry attended the symposium on UHPC in Iowa.

#### **12-1 *Tentative Letting List***

The Department is looking at the Letting List and seeking to get the information for the fabricators. The information needs to be entered when 80-90% plans are received. Tentative List shows projects for the next 12 months. The structural group will talk to David Rister and possibly a memo from Ladd Gibson will follow. RPGs are not seeing all the consultants' projects. Also need to get information on maintenance projects.

#### **12-2 *Electronic Shop Drawings***

Terry Koon mentioned that Preconstruction Support is working on developing the actual policy for the Electronic Shop Drawings. Also, Terry attended the AGC/SCDOT Bridge Subcommittee's last meeting in Columbia, where the subject came up and there is an interest in having a consistent electronic shop plans process. Support's plan is to handle the distribution and review of the shop plans through ProjectWise. Not everyone has

ProjectWise yet, but files can be accessed through a web access portal. It was suggested to get the contractor on ProjectWise at the preconstruction meeting, since all districts are now using it. Producers typically submit their drawings in PDF format to contractor, with copy to SCDOT. This gives the contractor the opportunity for review before they upload the formal submittal. It was suggested that, if possible, drawings not be scanned, but generated as PDFs to retain resolution. Drawings can now be stamped electronically so they don't have to be scanned. Terry Koon mentioned that AGC is interested in seeing this move forward, but that a standardized process needs to be defined.

Keep this item on the agenda for future update.

## **Informational Items**

### ***Prestressed Concrete Bridge Design Seminar***

Peter talked about the upcoming Bridge Design Seminar for NCDOT on December 6<sup>th</sup> at McKimmon Conference Center (NCSU) in Raleigh, NC. The seminar will cover subjects such as lateral stability, camber, and deflection. Glenn Myers with Atkins, the chair of the subcommittee that developed the lateral stability guide, will be presenting the information on lateral stability. Peter had recently sent a copy of the guide to Terry Koon. There will be a panel discussion on fabrication. Tommy Cousins might be invited to attend.

### ***Bar Codes***

Jeff White suggested using bar code identification on girders. Industry would like to see it used by the plant for SCDOT products, or eventual use by the Department. Chad Hawkins has looked at the process and feels it is going to be very useful. NCDOT is going to use it by January 2017. The beauty here is you enter the information once. Richard Potts and JR Parimuha's plants are also already using it. Producers invited the Department to demonstrate how the process works. It keeps all of the data for the product in one place, which is very convenient for the producers. The suggestion was made to invite Idencia, the RFID/Bar Code supplier to present at our next joint meeting.

### ***PCI Convention***

PCI Convention will be held in Cleveland, OH (February 28 – March 3, 2017). PCI will invite up to 4 people from SCDOT. The trade show is much larger now that it is combined with NPCA. Peter Finsen will send a memo to Terry and Chad. PCI is encouraging all 4 to attend. If not spent, it is going to be more difficult to keep it going on budget for Technical Educational Promotion. Travel is now much easier than it has been in the past.

### ***New Producer***

Jim McCabe reported that SCDOT may be getting a new producer: Eastern Vault in W.V. The producer will only fabricate core slabs and boxes. They have already gotten their aggregate sources on the approved list.

***Issues with using Cement Sources with High Alkali >0.6%***

Chad Hawkins asked about cement supplies. He proposed that SCDOT may consider open up its specification to allow use of higher alkali cement if used with fly ash, as NCDOT does. There is a source in VA with higher alkali. A question has come up from AGC which has reinstated the supplier subcommittee to discuss if there will be enough cement, aggregate, fly ash, etc., to meet the increased demand with more projects coming out. The industry does not yet need this for supply, and is also reluctant to use fly ash because it retards early strength gain. It was agreed to add this item to the agenda for discussion at the next meeting.

***UA Bars in BTs***

Terry Koon reported that his group has looked at the UA bar details. The current detail just barely meets the requirement. The problem comes with straight strand designs where there is a conflict with UA bars and the studs in the sole plate. Jeff White also mentioned that the bars hit when at erection. It is a difficulty in the field. Terry said they have looked at other solutions such as making the sole plate longer and using 2 rows of 3 connectors. They have also considered providing a disclaimer note to call to the designer's attention that they make sure that the detail will work. They may develop a new detail in the future. They do not have a way to determine how many studs are required on the sole plate. Some other possible details were discussed, including negative bars to avoid positive moment bars. The issue of angle change between the spans, and the projection of the bars, should also be noted in any note on the plans. It was suggested that this topic be added to the PCEF meeting.

**Next Meeting**

The next meetings are scheduled for Thursday, May 4 and November 9, 2017, at 1:30 p.m. at the OMR Conference Room. SCDOT will discuss who should be invited to attend these meetings.

The next PCEF Committee Meetings are scheduled for Thursday, February 16, 2017, at NCDOT, Raleigh, N.C., and August 17, 2017, at SCDOT, Columbia, S.C.

The meeting was adjourned at 3:05 P.M.