

## MINUTES

### SCDOT – PCI Joint Committee Meeting

SCDOT Office of Materials and Research, Columbia SC

May 3, 2012 -1:30 PM

Dr. Castrodale welcomed attendees and called the meeting to order at 1:40 PM. A sign-in sheet was circulated. All attendees introduced themselves.

The following members (or representatives) were present:

#### SCDOT

Doug McClure	Bridge Construction
Billy Chao	Bridge Maintenance
Barry Bowers	Pre-Construction Support
Toya Scipio	Office of Materials and Research
Jim McCabe	Office of Materials and Research
Aly Hussein	Office of Materials and Research

#### PCI

Peter Finsen	Executive Director, Georgia/Carolinas PCI
Reid Castrodale	Carolina Stalite Company, Co-Chair
Jeff White	Prestress of the Carolinas
Wayne McGowan	Gulf Coast Prestress, Inc.
J.R. Parimuha	Florence Concrete Products, Inc.
Richard Potts	Standard Concrete Products (SCP)

#### USC

Paul Ziehl	Associate Professor
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#### FHWA

#### Minutes of Last Meeting

The minutes of the November 3, 2011 meeting were reviewed. They were approved as distributed.

## **Old Business**

### *92-13 Strand Slippage in Prestressed Piles*

There was some discussion about starting “Strand Slippage in Prestress Piles” – Strand slip was found on octagonal piles at Socastee, SC in 1992. The research was done on square piles at USC. Strands used to be released from top to bottom. The research recommended releasing the strands diagonally to reduce the slip, which now appears on the SCDOT standard pile drawings.

Florence Concrete Products (FCP) and Standard Concrete Products (SCP) have taken some slip measurements. FCP reported slips of  $\frac{1}{4}$  to  $\frac{3}{8}$ ”, which are good. SCP reported more slip on the live end than dead end. Producers were asked to email the measurements to Aly, including the following:

- Measurements before and after releasing the strands at both ends of the bed.
- The slip (before – after).
- Length of the bed.
- Size of the piles.
- Length of the piles.
- A sketch showing the pattern of releasing strands.

*Note: Strands should be released at the same pattern and time at both ends of the bed.*

### *00-1 PCI Bridge Design Manual*

Barry Bowers reported that he has received 2 hard copies and 7 electronic copies and has distributed them to SCDOT individuals. However, they were not able to access the electronic copies online. It was recommended that they call William Nickas directly at 312-583-6776 for assistance.

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

Steel diaphragms memorandum has been sent out in December 2011 and is available online at the present time. The Designer has to fit them in his project. SCDOT has received submittals on design/build projects where the steel diaphragm details were proposed.

There were no other issues.

02-2 *Prefabrication of Bridge Elements for Rapid Construction*

Last meeting, Bener Amado reported on a project with 2 - 30 ft spans and 2 - 40 ft spans. He said he would distribute the plans for industry comment. A question was raised about whether the post-tensioning was adequate.

Mike Means sent some comments to Bener and copied Reid and Peter about the SCDOT plans. Reid will call Bener to follow up on Mike Means' comments. Barry thinks that details mimic earlier projects. Projects were supposed to have been let by now, but were delayed.

There was some discussion about the Florida International University ABC webinar series and the FHWA PBES Peer to Peer Workshops.

SCDOT has a project in Union County, which will use precast approach slabs. The project has IBRD funding and Dr. Ziehl will monitor the installation. The goal is to use precast approach slabs at high ADT locations in the future to accelerate construction. The details do not have a sleeper at the end of the slab.

It was mentioned that GDOT is planning a pilot project which will use precast pavement slabs for about 1 mile through downtown Winder, GA, in the near future.

02-3 *Self-Compacting Concrete (SCC)*

SCDOT special provision for SCC is in line with GDOT and NCDOT. The only difference is the creep, which is an issue and concern in SCDOT research. From the research study, the normalized creep shall be less than 0.52 @ 300 days. The higher fines in SCC mixes will result in more creep. There is a need for a study to demonstrate this issue.

If a producer wants to use SCC, he will have to redesign the mix and would have to look at the effect of creep and submit the results to SCDOT. However, producers do not currently have much interest in true SCC mixes since they can achieve improved workability with increased slump mixes.

06-1 *Reinforcement Details for Continuous for Live Load Designs*

Remove this item.

06-2 *Regional Standardization - PCEF*

Jim McCabe had one comment regarding the modification of a 24 in. pile bed for making 2-12 in. piles at Parker Marine in Charleston. The center plate was not straight and shop drawings did not match the bed since there was no draft on the center plate. It was noted that PCI performs dimensional checks on products, but not on forms.

PCI certification accommodates owner's requirements if different or more stringent from PCI requirements. Thus our discussion of State-specific or Regional-specific PCI Certification. Peter stated that Parker Marine has resigned from PCI (and Georgia/Carolinas PCI). Peter also noted that SCDOT should contact Dean Frank, PCI Director of Quality Programs with issues of this sort.

Richard Potts mentioned that curved precast prestressed concrete tub girders have been standardized by a group led by William Nickas (and are presented in Appendix C of the 3<sup>rd</sup> edition PCI Bridge Design Manual and are now on the [www.gcpci.org](http://www.gcpci.org) website, as well. These are available for use.

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

Peter Finsen shared pictures of preparation of test specimens taken while he was attending a meeting at Clemson University. Pictures included some preparation for testing for joints between slabs with U-bar reinforcement for part of the SCDOT research project and using Ultra High Performance Concrete (UHPC). Peter Seibert from Lafarge was there for a demonstration of Ductal and assistance during the testing. Peter asked if SCDOT is interested in more discussion about the subject research! Industry shows interest in pursuing the subject research.

**New Business**

New business from last meeting (below) is now moot!

*“Eric Deierlein reported that a piling producer in Charleston is now making piles for SCDOT. He expressed concern that SCDOT has hired a new consultant to inspect the second plant, while the inspector for his plant is not busy and could have easily covered the inspection at the new plant. Bener Amado said that he would bring it up at an upcoming meeting.”*

### **Informational Items**

The 2012 PCI Convention and National Concrete Bridge Conference will be held September 29 through October 3, 2012 in Nashville, Tennessee. G/C PCI offered to continue to support 4 attendees from SCDOT. Peter will send a formal invitation with details soon.

### **Next Meeting**

The next meeting was scheduled for Thursday, November 1, 2012 at 1:30 PM.

It was noted that the next G/C PCEF Meeting was scheduled for August 16, 2012, in Raleigh, NC (revised date: August 29, 2012).

The meeting was adjourned at about 3:55 PM.