MINUTES OF AGC-DOT JOINT BRIDGE SUBCOMMITTEE MEETING
(Approved: 10/8/14)

The AGC-DOT Joint Bridge Subcommittee met on August 20th, 2014. Those in attendance were:

Greg Perfetti	State Structures Management Engineer (Co-Chairman)
Berry Jenkins	Carolinas AGC - Highway Division Director (Co-Chairman)
Kevin Bowen	State Bridge Construction Engineer
Brian Hanks	Assistant State Structures Management Engineer
Lee Bradley	Blythe Construction, Inc.
Dan Nickel	Carolina Bridge Company
Adam Holcomb	Dane Construction, Inc.
Don Tutterow	The Hurley Group
Chris Powers	Lee Construction Co. of the Carolina, Inc.
Randall Gattis	Sanford Contractors, Inc.
Erick Frazier	S. T. Wooten Corporation
Larry Cagle	Thompson-Arthur Div., APAC-Atlantic, Inc.
Damien Hollifield	Young and McQueen Grading Company
Scott Hidden	Geotechnical – Support Services Supervisor
Chris Kreider	Geotechnical – Eastern Regional Operations Engineer
Darren Scott	Materials and Tests – Structural Members Engineer
Paul Garrett	Structures Management Project Engineer
Paul Lambert	Structures Management Project Engineer
Dan Muller	Structures Management Project Engineer
Todd Garrison	Structures Management Engineer (Subcommittee Secretary)

1. *Approval of Minutes*
   The minutes of the June 11, 2014 meeting were approved.

2. *Skewed Approach Slab Concrete Quantity (continuation from October 2013 meeting)*
   Mr. Tutterow stated that the approach slab concrete quantities shown on the cored slab and box beam standard design plans for skewed conditions are less than the values estimated. He provided a specific example in which the estimate significantly exceeded the value listed on the plans.

   In addition, the committee briefly discussed other approach slab details and agreed that the current details are adequate.

   Structures Management has reviewed the example estimation, determined the cause of the discrepancy, and responded to Mr. Tutterow.

3. *Payment of Walls and SRW Policy Changes (continuation from June 2014 meeting)*
   Mr. Bowen updated the committee on upcoming changes related to wall payment, which the committee had agreed in the past to be based on the entire quantity of constructed wall area. He stated that the Geotechnical Engineering Unit will now include the minimum embedment depth of the wall in the estimated quantity. The pay limits prior to this change were from top of wall to natural ground.

   Mr. Bowen also discussed the future use of Segmental Retaining Walls (SRW's). He mentioned possible criteria such as the allowance of these wall types on Sub-Regional and Regional tiers and the exclusion of them on the Statewide tier or in scour-prevalent regions.

Mr. Hidden mentioned a detail revision that would require a minimum distance of 3 feet measured between the front face of the end bent cap and the front face of the wall. This detail would make the wall location independent of the wall thickness.

4. *Uplift of Exterior Cored Slabs/Box Beams (continuation from June 2014 meeting)*
Mr. Bowen updated the committee on current field-monitoring procedures for cored slab and box beam bridges during both construction of the substructure and post-tensioning of the slab units. The Construction Unit and the Contractors have been checking for levelness of caps and proper location of anchor dowels.

   Mr. Bowen offered possible solutions to prevent the uplift problem. If uplift is noticed in the exterior beams as the span is tensioned, the strand should be released so the beams return to full contact with the bearing pads on the cap. The shear keys in the exterior beams should then be grouted to prevent rotation and lift before the post-tensioning is completed. Another possibility is to raise or lower the location of the post-tensioning strands with respect to the neutral axis of the beams.

   Structures Management and Construction will investigate these possibilities. Also, a requirement will be included in the Project Special Provisions to disallow cutting of the post-tensioning strands until the beams are in full contact with the cap and the strands are properly tensioned.

5. *Post-Tensioning Jack Calibration (continuation from June 2014 meeting)*
Mr. Bowen provided the committee with further clarification on the calibration of post-tensioning jacks. The jack gauges are required to be recalibrated annually and certification should be included with each post-tensioning jack. Also, a chart that reports the required pressure reading per tension force should be included. He stated that if a chart is provided with the calibration, it should be utilized.

6. *Proposal to Change Horizontal Measurements on Plans*
Mr. Tutterow proposed that horizontal dimensions on plans be shown in decimal format instead of in the current foot/inch format. However, the committee agreed to not change the current format; elevations are shown in decimal format for surveying, dimensions are shown in foot/inch format for tape-measuring.

7. *Permitted Threaded Inserts in Cored Slabs/Box Beams*
Mr. Hanks informed the committee of the upcoming option for threaded inserts in exterior cored slab and box beam units. These inserts can be used for falsework connection which will allow access for forming rails/sidewalks and applying form liners to exterior rail or beam faces. The committee agreed that the insert spacing could be standardized at 4 feet centers, the insert size should be selected by the Contractor per application, and stainless steel inserts should be allowed as an option versus galvanized steel. Mr. Gattis asked if the size and type of insert would need to be submitted to Structures Management for approval; Mr. Lambert confirmed.

   Structures Management will finalize the specifics of the policy.

8. *Epoxy Overlay Project Special Provision*
Mr. Muller discussed the proposed revision of the epoxy overlay Project Special Provision. The current provision implies that all components under repair or rehabilitation in the contract plans have a one year warranty period. The proposed provision specifies that the

epoxy overlay will have a three year warranty period. Mr. Jenkins stated that overlay suppliers and surety companies need to be involved in the discussion, especially since an extended warranty period is proposed.

The committee will continue to discuss general and specific warranty issues internally.

9. *Requirement for Two Work Bridges During a Deck Pour*

Mr. Nickel suggested to the committee that the standard specification pertaining to a required second work bridge be revised. He stated that occasionally the second work bridge is delivered to the bridge construction site but not used. Mr. Bowen indicated that the specification will not likely change, but that concessions may be made by Bridge Construction Engineer to relax the requirement when the Contractor can demonstrate that proper finishing, testing, fogging and curing may be achieved without the second work bridge.

The Construction Unit will discuss further and investigate possible scenarios in which one work bridge is sufficient.

10. *Northern Long-Eared Bat: Impacts on Construction*

Mr. Bowen informed the committee of recent U.S. Fish and Wildlife requirements related to Northern Long-Eared Bats. On April 2, 2015, this type of bat will be listed as an endangered species.

In Divisions 1 through 8, it is anticipated there would be a programmatic agreement, where we estimate an amount of impact up front (inflated), acres of trees, etc. and as projects are completed, we deduct the actual impact from that estimated, up front amount. Money is paid for further research of these bats. Construction would likely be business as usual.

In Divisions 9 through 14 however, consultants will be required to assess bridge construction sites for habitats of this bat type during a narrow evaluation period each year. If habitats are identified, a moratorium between April 15 and October 15 will be enforced in which clearing of trees and demolition of existing structures will be prohibited.

Mr. Bowen cautioned the Contractors that the federal restrictions could incur project delays and additional cost.

11. *Next Meeting*

The next meeting is scheduled for October 8, 2014 in the Structures Management Conference Room C.