

## MINUTES OF AGC-DOT JOINT BRIDGE SUBCOMMITTEE MEETING

(Approved: October 11, 2017)

The AGC-DOT Joint Bridge Subcommittee met on June 21<sup>st</sup>, 2017. Those in attendance were:

Brian Hanks	State Structures Engineer (Co-Chairman)
Berry Jenkins	Carolinas AGC – Highway Division Director (Co-Chairman)
John Pilipchuk	State Geotechnical Engineer
Gichuru Muchane	Assistant State Structures Engineer
Chris Kreider	Assistant State Geotechnical Engineer
Jay Boyd	Balfour Beatty Infrastructure, Inc.
Lee Bradley	Blythe Construction, Inc.
Chris Britton	Buckeye Bridge, LLC
Adam Holcomb	Dane Construction, Inc.
Aaron Bogner	Dragados USA
David Yates	Fred Smith Company
Jordan Doolittle	Lane Construction, Corp.
Chris Powers	Lee Construction Co.
Randall Gattis	Sanford Contractors, Inc.
Mark Perkins	T. A. Loving Construction Company
Don Tutterow	Thalle Construction Company
Larry Cagle	Thompson-Arthur Div., APAC-Atlantic, Inc.
Erick Frazier	S. T. Wooten Corporation
Victor Barbour	Vaughn & Melton Consulting Engineers
Damien Hollifield	Young & McQueen Grading Company
Aaron Earwood	Construction Unit – Regional Bridge Construction Engineer
Cameron Cochran	Construction Unit – Regional Bridge Construction Engineer
Scott Hidden	Geotechnical Unit – Support Services Supervisor
Dan Muller	Structures Management Unit – Project Engineer
David Snoke	Structures Management Unit – Team Leader
Trey Carroll	Structures Management Unit – Team Leader

1. Approval of Minutes

The minutes of the February 8<sup>th</sup>, 2017 meeting were reviewed and approved.

2. NCDOT Personnel Work Chart

Mr. Hanks shared an overview of the current NCDOT organizational work chart. Mr. Hanks further discussed Structures Management’s organizational work chart and informed the subcommittee that Mr. Gichuru Muchane has taken the position of Assistant State Structures Engineer responsible for Program and Policy and Mr. Kevin Fischer has taken the position of Assistant State Structures Engineer responsible for Field Operations. Mr. Hanks stated the points of contact for working drawing submittals will continue to be Mr. James Bolden, Ms. Madonna Rorie, and Mr. Emmanuel Omile.

Mr. Earwood discussed the Area Construction Engineers organizational work chart. Mr. Earwood informed the group that he and Mr. Cochran have taken the positions of Eastern Regional Bridge Construction Engineer and Western Regional Bridge Construction Engineer,

respectively. Mr. Earwood shared that Mr. Mark Freeman and Mr. Cadmus Capehart are the Eastern Regional Assistant State Construction Engineer and Western Regional Assistant State Construction Engineer, respectively.

In order to know which Area Construction Engineer to contact, Contractors requested a map designating the Division and the corresponding Area Construction Engineer. Due to current vacancies the decision was made to wait until those positions are filled before the Construction Unit provides a map to AGC.

**Action Item:**

**Construction Unit will provide a map to AGC designating the Division and the corresponding Area Construction Engineer once vacancies have been filled.**

3. *Pile Capacities and PDA Assessments*

Mr. Gattis inquired about the procedure the Geotechnical Unit uses to determine pile capacities and PDA assessments. Mr. Gattis expressed concern that projects are requiring contractors to use larger hammers to drive piles sometimes resulting in the need to have a larger crane to operate the hammer. Larger cranes and hammers, particularly for smaller projects is a concern.

Mr. Kreider discussed the load factors that are applied to the loads provided by Structures Management Unit and explained the process used to determine the required pile capacities that are reported in the plans. Mr. Hidden continued discussion and stated the importance of having an experienced PDA operator.

**Action Item:**

**None**

4. *Compensation for Increased Bridge Widths*

Mr. Perkins spoke to the subcommittee about provisions in Express Design Build contracts allowing a contractor to be compensated for additional bridge work should the width of a bridge increase due to hydraulic requirements. Mr. Perkins discussed that compensation for additional roadway work associated with the increase in bridge width is not included in the contract and the additional cost is absorbed by the contractor. Mr. Perkins raised the question to the subcommittee as to why the Department would not also compensate the contractor for the additional roadway work. It was noted that the increased roadway width may require the contractor to obtain additional permits. Contractors stated that bridge widths are routinely increased when the Express Design Build project delivery method is utilized.

The discussion continued with contractors expressing concerns with additional Express Design Build contract language stating vertical curves should not be included on bridges unless the contractor can demonstrate that by not having the vertical curve on the bridge, “extra work” would occur. Contractors, also questioned who makes the determination of “extra work”.

**Action Item:**

**Structures Management Unit and Construction Unit will discuss Express Design Build contract language with Design Build Unit and Priority Projects Unit.**

5. CEI Relationships on NCDOT Projects

Mr. Jenkins spoke to the subcommittee about a recent meeting held by a task force established by NCDOT, which included representatives from NCDOT, AGC, and CEI firms, to address concerns related to CEI inspectors on NCDOT projects. Mr. Jenkins shared that the task force noted the need for better communication and increased training for all parties involved.

Mr. Earwood discussed the Departments increase use of CEI inspectors on projects. Mr. Earwood also discussed the importance of including CEI inspectors in safety meetings, promoting training, and recommended discussing escalation plans at preconstruction meetings. Mr. Cochran discussed training opportunities that are available.

**Action Item:**

**None**

6. Bridge Approach Fills

Mr. Hidden shared and discussed the details for new Standard Drawings for bridge approach fills. Type I Standard Approach Fill will replace the current Reinforced Approach Fill detail and Type II Modified Approach Fill will replace the current Sub-Regional Approach Fill detail. Type III Reinforced Approach Fill for bridges detailed with MSE walls in front of end bents is similar to the current detail with the exception that the payment for the approach fill will be separated from the payment for the MSE wall. Mr. Hidden stated that for bridges with integral end bents contactors will have the option to construct Type A Alternate Approach Fill consisting of a temporary geotextile wall. Mr. Hidden requested feedback from the subcommittee.

Contractors questioned notes on the Type A detail concerning crane location and loading in relation to the geotextile wall. Mr. Hidden stated the geotextile wall is designed for a maximum traffic surcharge load of 250 psf and any additional load applied to the wall would be the contractor's responsibility.

**Action Item:**

**Geotechnical Unit and Construction Unit will discuss modifying Type A Alternate Approach Fill Standard Drawing notes and share revised notes with the subcommittee.**

7. Integral End Bents Pushing Approach Slabs

Mr. Earwood discussed concerns with the performance of the transition from roadway to bridge approach slab for bridges with integral end bents. Mr. Earwood explained how some bridges with integral end bents are experiencing larger longitudinal movements than anticipated. The increased movement results in the approach slab pushing the roadway when the bridge expands resulting in a gap between the roadway and approach slab when the bridge contracts. Mr. Earwood asked the subcommittee for ideas to address the issue.

**Action Item:**

**Structures Management Unit will investigate other state's roadway to approach slab transition details for bridges with integral end bents and present ideas for improving NCDOT's current details at the next subcommittee meeting.**

8. Phased Construction with Wire Fabric Walls

Mr. Earwood discussed phased construction projects in which sheet piling is used for shoring between phases. Contractors typically construct wire fabric walls next to the sheet piling followed by the approach slabs. When the sheet piling is removed there are instances where the aggregate within the wire fabric wall settles resulting in voids under the approach slabs. Mr. Kreider explained the difficulty of getting sufficient compaction in the areas next to the sheet piling. Mr. Earwood stated some projects requires the contractor to leave the sheet piling in place and asked for feedback from the subcommittee. The subcommittee discussed the implications of requiring sheet piling to remain in place.

**Action Item:**

**Construction Unit and Geotechnical Unit will further discuss possible solutions.**

9. Reclamation Plan

Mr. Britton spoke to the subcommittee about having been instructed to have a Reclamation Plan for areas outside of easements and right-of-ways that do not involve disturbing the ground such as areas used for storage and staging. Mr. Cochran stated that Reclamation Plans are only required for areas where the ground will be disturbed.

**Action Item:**

**Construction Unit will confirm the requirements for having a Reclamation Plan.**

10. Stability of Phased Bridges

Mr. Britton discussed a plan note for a phased timber bridge requiring the contractor to be responsible for determining the stability of the bridge in the different stages and to brace the structure as deemed necessary. The concern is the engineer-of-record determines the phased construction sequence, but the burden of ensuring stability of the structure is being placed on the contractor. Mr. Hanks stated the plan note Mr. Britton spoke about is a non-standard note added by the engineer-of-record.

**Action Item:**

**Structures Management Unit will discuss and address the issue with Division Bridge Program Managers.**

Next Meeting

The next meeting is scheduled for August 9<sup>th</sup>, 2017 in the Structures Management Conference Room C.

Post Meeting Note:

Due to a limited agenda, the August 2017 meeting was canceled. The next meeting is scheduled for Wednesday, October 11, 2017.