MINUTES OF AGC-DOT JOINT BRIDGE SUBCOMMITTEE MEETING
(Approved: June 10, 2020)

The AGC-DOT Joint Bridge Subcommittee met on February 12th, 2020. Those in attendance were:

Brian Hanks	State Structures Engineer (Co-Chairman)
Victor Barbour	Carolinas AGC – Highway Division Director (Co-Chairman)
Todd Whittington	State Materials Engineer
Gichuru Muchane	Assistant State Structures Engineer
Jay Boyd	Balfour Beatty Infrastructure, Inc.
Lee Bradley	Blythe Construction, Inc.
Tim Kincaid	Conti Enterprises, Inc.
Adam Holcomb	Dane Construction, Inc.
Chas Hummel	Flatiron Construction Corporation
Tom Meador	Lane Construction Company
Erick Frazier	S. T. Wooten Corporation
Chris Brown	Sanford Contractors, Inc.
Randall Gattis	Sanford Contractors, Inc.
Larry Cagle	Thompson-Arthur Div., APAC-Atlantic, Inc.
Damien Hollifield	Young & McQueen Grading Company
Jeff White	Prestress of the Carolinas
Cameron Cochran*****	Construction Unit – Regional Bridge Construction Engineer
Aaron Earwood	Construction Unit – Regional Bridge Construction Engineer
Scott Hidden	Geotechnical Unit – Support Services Supervisor
Tom Santee	Geotechnical Unit – Eastern Regional Operations Engineer
Cabell Garbee	Materials & Tests Unit – Manufactured Products Engineer
Randy Porter	Materials & Tests Unit – Metals Products Engineer
James Bolden	Structures Management Unit – Project Engineer
Trey Carroll	Structures Management Unit – Project Engineer
Nicholas Pierce	Structures Management Unit – Team Leader

*****Joined Via Phone

During the review of the October 9th, 2019 meeting minutes, the following items were discussed:

1. *SIP Support Angle Dimensions*
   Mr. Hanks continued topic discussion and inquired if certain girder types or spacings are more prone to have issues with suppliers providing adequate SIP support angles. A general discussion concluded that providing the theoretical buildup at midspan, like what is shown at the bearing, would provide Contractors with the information needed to order suitable SIP support angles.

   Action Item:
   Structures Management will provide theoretical buildup at midspan on bridge plans.

2. *Prestressed Girder Release Strength*
   Mr. Hanks noted that designers have been instructed to only specify the minimum release and 28-day strengths required by design.

The minutes of the October 9th, 2019 meeting were approved.

The following items of new business were discussed:

1. *Project Lettings*
   Mr. Barbour thanked the Department for unbundling bridge projects and noted that the Chief Engineer's office is working on the Division Let List. He stated that an additional $100 million of bond money will be made available and a significant portion of those funds will go towards funding bridge projects throughout the State. Mr. Hanks shared the Central Let List with the subcommittee and noted that 56 bridge projects will be let between May and July as part of the BUILD grant program.

   Action Item:
   None

2. *Steel Diaphragms at PCG ends*
   Mr. Bradley stated that some states use steel diaphragms beneath joints in prestressed concrete girders bridges, instead of cast-in-place concrete diaphragms. He described the benefit of time savings as the need to form and strip forms for concrete diaphragms is eliminated. He inquired whether the Structures Management Unit was considering steel diaphragms at the ends of prestressed concrete girders near joints. Mr. Hanks requested Mr. Bradley provide the diaphragm details to Structures Management for evaluation.

   Action Item:
   Mr. Bradley will provide details for steel diaphragms at PCG ends.

3. *PCG Overhang Holes*
   Mr. White discussed a recent submittal for wet core drilling holes in the top flange of prestressed concrete girders for supporting overhang falsework that generated a policy discussion. He shared videos and pictures demonstrating the unique wet core drilling process developed at his plant and the finished product. He noted that his plant had previously been approved to wet core drill holes and requested the Department continue to allow its use, provided Producers can demonstrate they can drill the holes without damaging the prestressed member.

   Action Item:
   Materials and Tests will update their Standard Operating Procedure (SOP) to allow for wet core drilling holes for overhang falsework.

4. *Impervious Dikes for Division Projects*
   Mr. Frazier discussed inconsistencies in payment for impervious dikes among Division bridge projects where the normal water surface elevation is above the bottom of bent caps. He noted some projects provide no information or guidance, while others specify impervious dikes are incidental to an associated pay item, which affects bidding. He noted that in many

of these situations, use of precast elements does not yield any time savings. He added that the need for impervious dikes and/or floating turbidity curtains are often not shown on the plans. He requested more uniformity among the Divisions.

Mr. Earwood noted that the Standard Specifications address impervious dikes to an extent, and he inquired if Contractors would prefer impervious dikes be paid as incidental or as a separate pay item.

A general discussion concluded that impervious dikes should be a separate pay item with a linear foot unit cost. Additionally, Contractors requested that imperious dikes continue to be shown on the erosion control plans and should be included in project permits. Mr. Earwood noted that during PGD review the need for impervious dikes should be discussed between Construction, Division, and Erosion Control staff.

Action Item:
Construction will coordinate a meeting with the Roadside Environmental Unit to discuss payment for impervious dikes.

5. *Structural Steel Suppliers*

Mr. Bradley shared a list of concerns from a steel fabricator regarding NCDOT's fabrication and coating requirements and use of contract inspectors (CEIs). Mr. Garbee and Mr. Porter addressed each concern and discussed the importance of communication. They noted that Materials and Tests is working to update SOPs and encouraged any fabricators to contact them if there is concern with a CEI. Mr. Hanks asked the Contractors if any projects had been delayed due to the noted concerns. Contractors indicated that no projects have been delayed.

Action Item:
None

6. *Project Acceleration*

Mr. Cochran started a general discussion on ways to accelerate project construction when needed. One option discussed involved welding SIP angles and shooting buildups before girders are shipped from the fabrication or production plant. Mr. White noted safety and access concerns due to limited storage at most prestressed plants. Mr. Boyd noted variations in bridge seats and compression of bearing pads make it challenging to accurately shoot buildups before girders are placed. Contractors agreed to consider ways to accelerate projects and provide feedback at a future meeting.

Action Item:
Contractors will provide suggestions to accelerate projects.

7. *Bridge Constructability*

Mr. Earwood stated he is preparing a bridge constructability presentation for designers and requested that Contractors provide constructability topics that could be discussed.

Action Item:
Contractors will provide constructability topics to Mr. Earwood.

8. *CSL Testing*

Mr. Holcomb noted that there is a perceived increase in the frequency of CSL testing. Mr. Hidden and Mr. Santee stated that CSL testing should only be performed when necessary and should be addressed during the predrill meeting.

Action Item:
None

Next Meeting

The next meeting is scheduled for April 8th, 2020 in the Structures Management Conference Room C.

Post Meeting Note

Due to COVID-19 concerns, the April 2020 meeting was cancelled. The next meeting is scheduled for June 10th, 2020 in the Structures Management Conference Room C.