

**MINUTES OF AGC-DOT JOINT BRIDGE SUBCOMMITTEE MEETING**  
(Approved June 12, 2024)

The AGC-DOT Joint Bridge Subcommittee met on April 10, 2024. Those in attendance were:

Brian Hanks	State Structures Engineer (Co-Chairman)
Victor Barbour	Carolinas AGC – Highway Division Director (Co-Chairman)
Matt Alexander	State Geotechnical Engineer
Troy Brooks	State Construction Engineer
Todd Whittington	State Materials Engineer
Gichuru Muchane	Assistant State Structures Engineer
Trey Carroll	Assistant State Structures Engineer
Mark Newman	NHM Constructors, LLC
Jerrad Stewart	Conti Civil
Erick Frazier	S. T. Wooten Corporation
Kyle Wiley	Crowder Construction Company
Chris Britton	Buckeye Bridge, LLC
Justin Carter	Sanford Contractors
Tom Meador	Lane Construction Company
Pete Distefano	Balfour Beatty
Chris Powers	Lee Construction Company of the Carolinas
Michael Zicko	Flatiron Constructors Inc.
Dan Paulsen	Blythe Construction Company
Nathan Thomas	Smith-Rowe
Natalie Bravo	M&T Unit
Cabel Garbee	M&T Unit – Manufactured Products Engineer
Mike Batten	Geotechnical Unit - Eastern Regional Operations Engineer
Thomas Santee	Assistant State Geotechnical Engineer – Eastern Region
Scott Hidden	Geotechnical Unit – Support Services Engineer
Aaron Earwood*	Construction Unit – Regional Bridge Construction Engineer
Aaron Griffith	Construction Unit – Regional Bridge Construction Engineer
James Bolden, Jr.	Structures Management Unit – Project Engineer
Tim Sherrill	Structures Management Unit – Preservation & Repair
Doug Cantrell	Structures Management Unit – PRR Team Leader
Glen Ayes	Structures Management Unit
Asa Godfrey	Structures Management Unit

\* Joined Via Microsoft Teams

Others attended via Microsoft Teams

During the review of the August 9, 2023, meeting minutes, the following items were discussed:

1. Roadway tie-in on Bridge Deck Rehab with Deck Overlays

Mr. Sherrill reiterated that he would continue to work with Project Engineers to add a nominal amount of standard approach roadwork to most projects.

**Action Item:**

**None**

2. NS RR Protective Services PSP

Mr. Brooks stated that updates to the project special provision (PSP) have been finalized. He noted that railroad flagging is required for geotechnical and preservation work. Mr. Brooks provided a list of companies that provide flagging services. He noted that even with these flagging companies, the number of available flaggers remains limited.

**Action Item:**

**None**

3. Asbestos Program Update

Mr. Carroll noted SMU is working on setting up purchase orders (PO's) to handle this.

**Action Item:**

**Mr. Carroll will set up PO's for Asbestos Program.**

4. Projected Bridge Lettings

Mr. Barbour asked a question about replacing the low water bridges in Division 11. Mr. Hanks responded that the Department does not yet have a signed agreement with USDOT. He added that the Department is working ahead on preliminary engineering work, but projects won't be let until the agreement is signed. He also stated that most of those projects will be design-bid-build projects, except there's one project in Caldwell County that has the potential to be design-build.

**Action Item:**

**None**

5. Watertight Integrity Test for Foam Joints

This topic will be discussed at the upcoming 2024 Structures Workshop.

**Action Item:**

**SMU & Construction Unit will discuss revisions to the PSP internally.**

6. Introduction of Admixtures Plant or Job Site

Mr. Garbee reiterated that Contractors should reach out to M&T for guidance and/or approval for admixtures that may need to be added on-site instead of at the plant.

**Action Item:**

**None.**

7. Steel Price Adjustment

Contractors were reminded that if they opt in for the steel price adjustment program, they are required to track and submit the required information. There have been some recent projects that did not have all the required information.

Mr. Earwood stated that if Contractors want to use the steel adjustment program in the future, the Construction Unit is available to help.

**Action Item:**

**Mr. Earwood and Mr. Barbour will discuss at the CAGC/NCDOT Joint Winter Training Conference.**

8. Intermediate Diaphragms on Skews

Mr. Frazier asked about providing more details and dimensions on the plans for intermediate diaphragms on skewed bridges. Calculating the lengths of intermediate diaphragm members can be complex on bridges with skews, especially when there are also vertical offsets due to superelevation that places girders at different elevations. When intermediate diaphragm lengths are not calculated correctly, they can cause misalignment of the diaphragms and their connections, which may require field corrections or new diaphragms to be fabricated. Both can cause delays and additional costs to the project.

Mr. Frazier would like the plans to provide the length of the intermediate diaphragms from end of diaphragm to end of diaphragm. Current plans do not provide diaphragm member lengths as the connection details are typically the responsibility of the girder fabricator.

Fabricators should calculate the actual length of the diaphragm members, but sometimes they are fabricated incorrectly. It was noted that smaller steel fabricators do not have the ability to provide these calculations and dimensions.

**Action Item:**

**SMU will look into intermediate diaphragm length calculations.**

9. Work Zone Safety

Mr. Barbour and other Contractors noted that night work continues to be dangerous due to drivers speeding in work zones.

Mr. Brooks provided information on a pilot trial for night-time use of speed monitors equipped with flashing blue lights for use in work zones where law enforcement may not be available. Contractors were encouraged to coordinate with the Division and Construction Unit if they would like to request the use of these speed monitors.

**Action Item:**

**None.**

The minutes of the August 9, 2023 meeting were approved.

The following items of new business were discussed:

1. Bat Moratoriums

Contractors discussed difficulties in maintaining project schedules because of bat moratoriums. They have proposed proactive measures, such as installing bat exclusion devices in areas where bats may roost, but so far, they have not been allowed to avoid bat moratoriums.

Contractors also noted that there is no additional time added to the contract for bat moratoriums.

**Action Item:**

**Construction Unit will coordinate with Environmental Analysis Unit to identify possible solutions.**

2. Anchor Bolts for Exterior Cored Slabs

Contractors inquired about when and how many hold-down anchor bolts are required on cored slab bridges. Mr. Hanks noted that hold-down anchor bolts are required on cored slab units based on 100-year flood elevations and the potential for water overtopping the bridge.

Contractors noted that they have seen different anchor bolt details for cored slabs. Mr. Carroll noted that the SMU Design Manual provides guidance on when anchor bolts on cored slabs are needed, but SMU does not currently have published standard drawings for the anchor bolts on cored slabs.

Contractors requested that, for consistency, standard anchor bolt sizes and lengths be provided so suppliers can keep the anchor bolts in stock. In addition, they noted that they prefer anchors bolts with swedges in lieu of smooth anchors with an embedded plate in the bent cap.

**Action Item:**

**SMU will investigate anchor bolt on cored slab details.**

3. Preservation Overlays (PC vs. LMC)

Contractors asked if polymer concrete (PC) overlays would continue to be utilized and if they will become the preferred overlay type moving forward. Mr. Sherrill indicated that there are some advantages to PC overlays on decks that are not in Poor condition and don't require extensive patching or have high chloride levels. Mr. Sherrill indicated that PC overlays will continue to be used in the future, but they will not replace LMC overlays. Each overlay type will be utilized when warranted.

**Action Item:**

**None.**

4. Strip Seal Expansion Joint Availability

Contractors stated that the only mill that produced the “P-joint” armor for strip seals has shut down. When this occurred, one joint supplier purchased the existing stock of the joint type, which resulted in a monopoly for the supplier. This has led to a significant increase in the cost of the strip seal components. Mr. Garbee noted that a new mill will most likely come online in the future, but until that happens there may be a limited supply of these strip seal components.

**Action Item:**

**SMU will solicit and review alternative joint types for acceptable equivalents to the strip seal expansion joint.**

5. Construction Elevations

Contractors stated that on some projects construction elevations are not received in a timely manner.

Mr. Earwood indicated that the delay could be due to the construction elevations being available on NCDOT’s Preconstruction SharePoint site, and the Resident Engineer has not transferred them to the NCDOT’s Construction SharePoint site. He noted there are plans to have construction elevations automatically transfer from the Preconstruction to the Construction SharePoint site to streamline availability. Mr. Earwood suggested that this topic can be covered in a future *Structure Bulletin*.

Mr. Griffith recommended that Contractors ask for the construction elevations at the project’s preconstruction meeting.

Mr. Earwood and Contractors suggested the possibility of creating a standard spreadsheet that Contractors could essentially copy and paste into their tool for calculating build-ups. Mr. Carroll noted that construction elevations are sealed by a professional engineer, and therefore need to be provided in a format that cannot be easily modified. Mr. Brooks noted that it is relatively easy to export information from a PDF document to other document formats.

**Action Item:**

**SMU to discuss internally and bring this topic up at the upcoming 2024 Structures Workshop**

6. Timber Bridges

Mr. Hanks made a presentation on an initiative to reduce the percentage of the State’s poor bridges by replacing and rebuilding poor timber bridges on low volume, dead-end roads in Divisions 11, 13 and 14. He noted that the initiative envisioned bundling some timber bridges for contract letting, as well as utilizing Division maintenance forces for in-kind, timber bridge replacements on low volume, dead-end roads.

Contractors noted that many of the bridges targeted by the timber bridge initiative are relatively small and in remote locations and may not be appealing to mobilize heavy construction equipment. Contractors acknowledged that Division utilization would be less than two percent of the Bridge Program, but suggested boundaries or limits to how many bridges may be replaced by Division forces. Mr. Barbour suggested keeping this topic on the agenda for further discussion.

M&T referenced a *Structures Bulletin* that included requirements and specifications for timber material to be used on NCDOT projects that utilize timber components. Timber bridge replacement projects that are advertised or completed with Division forces will need to source timber material that meet the requirements included in the *Structures Bulletin*. Mr. Hanks also gave a brief overview of a future 5-year bridge maintenance plan. The intent is to assist Divisions with maintenance work identified during the biennial inspections and preserve bridges that have been replaced over the last 10 years. Steady funding is needed but not yet identified. The intent is to have repairs or activities bundled together in a contract that will be let to Contractors. Mr. Hanks inquired if Contractors are interested in this type of work. They responded in the affirmative and there was a discussion on possible types of contracts.

**Action Item:**

**M&T to distribute *Structure Bulletin* on timber to meeting participants. Timber bridge will be an included topic in future AGC meetings.**

7. *Pile Driving Operations*

A Contractor shared the outcomes from an OSHA investigation on a pile driving fatality that occurred on a previous project. He stated that OSHA recommended that safety meetings should be held prior to pile driving activities and construction personnel remain at least 15 feet away from the pile driving hammer. He also stated that in the future Contractors may be required to have additional training, education and maintain documentation of their pile driving procedures and equipment inspections to improve safety.

**Action Item:**

**Contractor will share pile driving policy with other Contractors as a reference.**

8. *Proposed Changes to Foundation Table Units*

Mr. Santee inquired whether changing the units of measure in the Foundation Table from tons to kips would affect Contractors. No objections or concerns were noted.

Mr. Santee also inquired if removing CSL tube quantities from the Foundation Table was of concern. No concern was noted.

Mr. Santee noted that the Geotechnical Engineering Unit is considering thermal integrity testing as an alternative to using CSL tubes. No Contractors are currently using thermal integrity testing.

**Action Item:**

**Geotech to update Foundation Table.**

9. Submission of Records for 2024 Federal Aid Projects

Mr. Brooks stated that a certified payroll is typically required for federal aid projects due to the Davis-Bacon Act. He noted that there are a small number of projects that are exempt from this act, which has caused some legal challenges. Mr. Brooks notified the group that starting in July 2024, all federal aid projects will require a certified payroll.

**Action Item:**

None.

**\*\* Upcoming 2024 Meeting Dates:**

June 12th

August 14<sup>th</sup>

October 9<sup>th</sup>

December 11th