

## MINUTES OF DOT-AGC BRIDGE DESIGN SUBCOMMITTEE MEETING

(Approved: December 7, 2011)

The DOT-AGC Joint Bridge Design Subcommittee met on August 10<sup>th</sup>, 2011. Those in attendance were:

Greg Perfetti	State Bridge Design Engineer (Co-Chairman)
Berry Jenkins	Manager of Highway Heavy Division, Carolinas Branch AGC (Co-Chairman)
Mike Robinson	State Bridge Construction Engineer
Chris Peoples	State Materials Engineer
Ron Hancock	State Construction Engineer
Allen Raynor	Assistant State Bridge Design Engineer
Randall Gattis	Sanford Contractors, Inc.
Chris Britton	Taylor & Murphy Construction Co.
John Herrin	Taylor & Murphy Construction Co.
Larry Cagle	Thompson-Arthur Div., APAC-Atlantic, Inc.
Dan Nickel	Carolina Bridge Company
Erick Frazier	S.T. Wooten Corp.
George White	Blythe Construction
Mark Johnnie	Balfour Beatty
Pete Weber	Dane Construction, Inc.
Brian Hanks	Structure Design Project Engineer
Paul Lambert	Structure Design Project Engineer
Scott Hidden	Support Services Supervisor – Geotech. Eng. Unit
Don Idol	Assistant State Bridge Inspection Engineer
Paul Garrett	State Bridge Program Manager
Gichuru Muchane	Structure Design Engineer

The minutes of the June 8, 2010 meeting were reviewed and approved.

The following items of new business were discussed:

*1. Update on the 2011 Legislative Funding for the Bridge Program*

Mr. Garrett briefed the Committee on the Department's plans for letting \$450 million provided in the 2011 State Budget for the bridge program. He noted that approximately \$250 million will be let in 2012, and the remaining funds will be let in 2013.

The Bridge Management and Construction Units are currently developing guidelines for letting the projects. This entails prioritizing bridges requiring repairs, rehabilitation or replacement, devising a plan for distribution across the State, preparing scopes of work, and planning for a streamlined letting. The Department intends to award flexible contracts which will encourage maximum participation from the industry without exceeding the industry's ability to complete the work within the required time frame. As such, the Department will strive to minimize risk for Contractors by providing as much information as possible, and the Department will work with the regulatory agencies to avoid project delays due to permitting. Contractors were also informed that the Department does not have the staff to provide construction engineering inspection (CEI) for all of the projects and therefore some of the contracts will include CEI services.

There was some general discussion on the methods for bidding contracts, which will be let through the Bridge Management Unit, Divisions, and Design-Build. It was noted that for Design-Build projects, the Department is considering grouping several bridges into each contract which will be awarded to the lowest bidder of the short listed teams without requiring a technical presentation.

Contractors suggested spacing the advertisements from 30 to 60 days to eliminate possible over-commitment and expand the number of Contractors who will be bidding during each advertisement. There was consensus that longer advertisement periods would be desirable, however it was noted that the Department hopes to let most of the projects prior to the beginning of the 2012 construction season. As such, the logistical details that need to be worked out between now and the 2012 construction season may not allow longer advertisement periods.

2. *Buy America Application to Micropiles*

Mr. Peoples stated that a recent FHWA inquiry on the Department's compliance with the Buy America provisions for micropile casings prompted an audit of certifications for three projects which utilized micropiles. The audit revealed that the micropile certifications were lacking. Mr. Peoples informed Contractors that any steel permanently incorporated into projects, including micropile casing, regardless of the source, will need to comply with the federal Buy America provisions. He distributed copies of relevant pages from the Standard Specifications, General Statutes and the FHWA guidelines that address Buy America provisions.

There was some general discussion on other products that are subject to the Buy America provisions. Contractors inquired if they could request waivers for special circumstances. Mr. Peoples responded by noting that the documents he distributed address the conditions necessary for requesting waivers. He added that Resident Engineers will be enforcing certification requirements throughout the project construction period. As such, Contractors were encouraged to maintain accurate records of all required certifications.

3. *Division of Water Quality General Permit for Construction Activities*

Mr. Jenkins stated the AGC had collaborated with the Department of Environment and Natural Resources (DENR) during the renewal of the Division of Water Quality General Permit for Construction Activities. Mr. Jenkins provided a brief summary of the Environmental Protection Agency permit requirements and their impact on construction activities. He encouraged Contractors to familiarize themselves with the requirements of the new permit which is effective for the next 5 years beginning August 3, 2011.

4. *Crossing Posted Bridges during Construction of Bridge Replacements*

Mr. Britton stated that prior to mobilizing construction equipment to a project site, Contractors are required to strengthen load posted bridges on roads approaching the site. He noted that the time required to obtain approval for the proposed strengthening measures, acquire permits, perform the work and receive approval is lengthy. He inquired if this process can be streamlined for the upcoming contracts. He suggested the Department develop standard strengthening procedures that can be rapidly employed, expedite permit and inspection reviews, and identify any load posted bridges on project access routes that will require strengthening in the contracts. He also inquired if the load posting accounts for the fact that most of the short span bridges in question are typically loaded by only one axle during a truck crossing.

Mr. Idol responded by stating that bridge load postings account for the force effects of legal truck loads crossing the bridge. He noted that the load rating analysis assesses the number of axles that can simultaneously load the bridge. He added that it is difficult to develop standard strengthening procedures because of the varying bridge types on the State's system and the range in structural condition of the bridges.

5. *Reinforced Bridge Approach Fills*

Mr. Robinson discussed a Contractor's concerns regarding the revised requirements for installing bridge approach fills. The concerns centered around the requirement of an 8-10 ton roller for

compacting the approach fills and the use of Type 5 fabric for the geotextile reinforcement. Mr. Robinson inquired if other Contractors had similar concerns.

Contractors stated that it is difficult to use an 8-10 ton roller in the area excavated for the bridge approach fill due to its size. They suggested allowing use of plate compactors or similar equipment for the approach fill. There was consensus to allow smaller compactors when installing the approach fill.

Mr. Hidden noted that the revisions were made for consistency with the requirements for fills behind retaining walls. He then distributed samples of geotextile fabric that are commonly used on projects. He discussed the desirable properties for the bridge approach fill application, which included high tensile strength, low tensile elongation and moderately high permittivity for drainage. He explained that the Type 5 fabric provided the best balance of desirable properties. In general, Contractors did not have any concerns with the type of fabric required for approach fills.

#### 6. *Coordination of Division Lettings and Utilizing Contract Flex Time*

Mr. Nickel stated that between mid-July and mid-August, the Divisions let projects on 7 different days. He noted that some Divisions required Contractors attend pre-bid meetings while others did not. Given the number of contracts that will be let over the next two years, he thought that it would be beneficial to the Divisions and Contractors if the lettings were consolidated and scheduled on particular weeks and days of the month. In addition, Mr. Nickel suggested the Divisions utilize flexible start dates for the contracts, since it is helpful to Contractors when scheduling work crews.

During a brief discussion some Contractors noted that they prefer in-person delivery of bids which is possible when lettings are scheduled on different dates. Mr. Jenkins noted that members of this Committee do not participate in scheduling Division lettings; therefore he suggested Contractors bring this issue up for discussion at the September meeting of AGC-DOT Joint Cooperative Committee.

#### 7. *Next Meeting*

The next meeting is scheduled for Wednesday, October 12, 2011 in the Structure Design Conference Room.

#### *Post meeting note:*

Due to Contractor schedule conflicts and a limited agenda, the October 12, 2011 meeting was cancelled. The next meeting is scheduled for December 7, 2011.