2013 Structures and Geotechnical Webinar

Mike Robinson
Chris Kreider
Kevin Bowen
Eddie Bunn
Aaron Earwood
Michelle Long
Agenda

- Submittals
- Division Let Projects
- Specification Changes
- Bridge Barrier Rail
- Temporary Bridge Inspection
- Pile Restrikes and Redrives
- Coordination of Utility Relocations and Permits
- 2013 Structure Inspector Training
- Supplemental Agreements
Submittals

- Routing
SUBMITTAL OF WORKING DRAWINGS

1.0 GENERAL

Submit working drawings in accordance with Article 105-2 of the Standard Specifications and this provision. For this provision, “submittals” refers to only those listed in this provision. The list of submittals contained herein does not represent a list of required submittals for the project. Submittals are only necessary for those items as required by the contract. Make submittals that are not specifically noted in this provision directly to the Resident Engineer. Either the Structure Design Unit or the Geotechnical Engineering Unit or both units will jointly review submittals.

If a submittal contains variations from plan details or specifications or significantly affects project cost, field construction or operations, discuss the submittal with and submit all copies to the Resident Engineer. State the reason for the proposed variation in the submittal. To minimize review time, make sure all submittals are complete when initially submitted. Provide a contact name and information with each submittal. Direct any questions regarding submittal requirements to the Resident Engineer, Structure Design Unit contacts or the Geotechnical Engineering Unit contacts noted below.

In order to facilitate in-plant inspection by NCDOT and approval of working drawings, provide the name, address and telephone number of the facility where fabrication will actually be done if different than shown on the title block of the submitted working drawings. This includes, but is not limited to, precast concrete items, prestressed concrete items and fabricated steel or aluminum items.
Submittals

- Routing
- Checking on Review Status
Structures Design & Management

AGC and ACEC Minutes
Committee members and meeting minutes
Read More

Culvert Standards
Global and detailed design standard than in PDF and ONI
Read More

Drawing Submittal Status and Design Notes
Review current status of drawings received and design notes for drawings
Read More

Manuals and Form Letters
Design Manuals, Structure Form Letters
Read More

Project Special Provisions
Read More

Spring Field Review
Bridge photos around the state
Read More

Standard Drawings and Policy Memos
Standard specification drawing files in DGN and PDF formats
Read More

Structure Training Seminars & Papers
Training, seminars, workshops, and presentations
Read More

Structures Manuals
Read More

Structures Resources
Contractor Submittals, Subregional Guidelines, Interagency/Intermodal, TIA Coordination
Read More

Featured Downloads
- Temporary Bridge Inspection Report 2012-09-16 15:25:12
- Design Manual (December 2012) 2013-03-12 14:58:39
- 12 Month Letting 2013-02-11 12:25:16

Standard Design Plans
- Standard Design Plans-Colorado (2013)
- Standard Design Plans-Colorado Box (2013)

Contact Form
For questions, feedback about this area of Connect NCDOT, contact the Structures Management Unit

Employee Directory
Staff contacts for Structures Management Unit
## Drawing Submittal Status and Design Notes

Review current status of drawing requests and design notes for drawings.

### Design Standard Notes

<table>
<thead>
<tr>
<th>Name</th>
<th>Memo Date</th>
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</thead>
<tbody>
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### SMU Working Drawing Submittal Status: 1/6/13 thru 2/25/13

This online version of the submittal listing is updated semi-weekly, on Monday and Thursday mornings, usually by 10 AM.

If your submittal does not appear on this listing, check with the Office. For many construction projects, the contact information is shown in the Structure Section of the Contract, as a Project Special Provision entitled "Submittal of Working Drawings".

Paul D. Lambart, PE  
919-707-6407  
James A. Guthrie, PE  
919-707-6409  
James L. Elder Jr., PE  
919-707-6409

NCDOT Structures Management Unit, Working Drawing Review & Approval Section

### Drawings Submittal Status

<table>
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<tr>
<th>Contact ID</th>
<th>Status</th>
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Note: This is a sample of the submittal listing, which is updated semi-weekly.
Division Projects

- Notification requirements
- Notice of New Structure Forms
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PATRICE L. MCCROY
GOVERNOR

ANTHONY J. TATA
SECRETARY

MEMORANDUM TO: Divisions Engineers
FROM: G. R. Perfetti, P.E.
State Structures Management Engineer
DATE: March 6, 2013
SUBJECT: STRUCTURE INVENTORY OF DIVISION LET, DIVISION CONSTRUCTED AND MUNICIPAL PROJECTS

In an effort to promptly inventory new or replacement structures and have them inspected prior to being put into service, the following procedures are being extended to Division Let projects, Municipal projects and structures constructed by Division forces.

Award of Contract

For Division Let projects, provide a copy of the “Notification of Award” letter to the Structures Management Unit’s (SMU’s) Structure Inventory & Appraisal (S&I&A) Officer, Eddie Smith, and the Working Drawing Review Project Engineer, Paul Lambert. This will serve as a notice to S&I&A that an inventory record will need to be updated and assist the Working Drawing group in handling any upcoming contractor submittals.

Notice for Completion of Structure

When the anticipated date for completion of structure (e.g., bridges, culverts, pipes or sign structures) and opening to traffic is known, the “Notice for Completion of Structure Work” form (see attachment) should be submitted to SMU’s S&I&A Officer, and Bridge Inspection Superintendent, Tim Earp. This assists in allowing inspection crews the opportunity, when applicable, to schedule and perform the initial inspection of the structure before opening to traffic and the inventory recording to be completed.

Transmittal of As-Built Plans at Final Acceptance

When the Division Engineer sends the “Final Acceptance Letter” to the Contractor, provide a copy of the letter and a set of as-built plans to SMU’s S&I&A Officer. This information will be scanned into BridgeDocs for the purpose of maintaining proper documentation of structures currently in service.
Notice for Completion of Structure Work

Instructions:

• For bridges, culverts, pipes or sign structures complete form as soon as an estimated completion date of the structure is known. If the anticipated date of opening to traffic is unknown, leave blank and send a revised form when the date is known.

• Provide as much information as possible to identify the structure location.

• For Preservation, Rehabilitation or Repair work, provide a detailed description.
  (e.g. painted girders, LMC deck, etc.)

Submit to: Structure Inventory and Appraisal Officer / SMU
Bridge Inspection Superintendent / SMU

Copies to: Division Engineer, State Construction Engineer

Reported by: ____________________________ Date: ____________________________

Division: ____________________________ County: ____________________________

Bridge #: ____________________________ TIP Project #: ____________________________
(Culvert # or Pipe #)

Location: Structure on ____________________________ over ____________________________
between ____________________________ and ____________________________

Additional information regarding location: ____________________________

Check below where applicable:

☐ Bridge, Culvert or Pipe (circle one)
☐ Overhead Sign Structure
☐ Cantilever Sign Structure
☐ Other -- Explain (Preservation, Rehabilitation or Repair) ____________________________

Anticipated Date of Structure Completion: ____________________________

Anticipated Date of Opening to Traffic: ____________________________
Specification Changes

- Domestic Steel
- Placing Loads on Bridge Decks
DOMESTIC STEEL:
(4-16-13) 106 SP1 G120

Revise the 2012 Standard Specifications as follows:

Page 1-49, Subarticle 106-1(B) Domestic Steel, lines 2-7, replace the first paragraph with the following:

All steel and iron products that are permanently incorporated into this project shall be produced in the United States except minimal amounts of foreign steel and iron products may be used provided the combined material cost of the items involved does not exceed 0.1% of the total amount bid for the entire project or $2,500, whichever is greater. If invoices showing the cost of the material are not provided, the amount of the bid item involving the foreign material will be used for calculations. This minimal amount of foreign produced steel and iron products permitted for use is not applicable to high strength fasteners. Domestically produced high strength fasteners are required.
PLACING LOAD ON STRUCTURE MEMBERS

(11-27-12)

The 2012 Standard Specifications shall be revised as follows:
In Section 420-20 – Placing Load on Structure Members replace the first sentence of the fifth paragraph with the following:

Do not place vehicles or construction equipment on a bridge deck until the deck concrete develops the minimum specified 28 day compressive strength and attains an age of at least 7 curing days.
Bridge Barrier Rail

- New Types of 42” High Rail
42” F-shape Concrete Barrier Rail

42” Vertical Concrete Barrier Rail
Bridge Barrier Rail

- New Types of 42” High Rail
- Slip-forming Difficulties
Temporary Bridge Inspection

- Material Inspection
- Panel Bridge Inspection Requirements
CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE AT STATION

Construct, maintain and afterwards remove a temporary structure in accordance with the applicable parts of the Standard Specifications and this Special Provision (structure only; the approaches are not a part of this pay item). Provide a temporary structure with a minimum overall length of _____ feet. Center the length of the structure about Station _________ -Detour- with the alignment, grade, and skew as indicated on the Roadway plans. If the skew is not 90°, then lengthening of the structure to accommodate a 90° skew is permitted. Provide a temporary structure with a minimum clear roadway width of _______ feet and an underclearance elevation no less than elevation __________. Temporary structures over railroads shall maintain a minimum horizontal clearance of 25’ from center of track to any temporary bent.
Include material specifications for all new and used materials, including commercial grades and species of timber and lumber, in the detail drawings of the structure. In addition, show the location and a detailed sketch of the used materials indicating condition of the material, the location and geometry of existing but unused holes, attachments left over from previous use and any other irregularities in the material.

New and used material for temporary structures constructed by the Contractor, including systems intended for multiple usages, shall be inspected and approved prior to assembly.
Temporary Bridge Inspection

- Material Inspection
- Panel Bridge Inspection Requirements
Before the temporary structure is loaded, the contractor shall inspect the structure and submit a written statement certifying that the erected structure complies with the approved detailed drawings. Temporary structures utilizing modular panels shall be inspected and certified by a manufacturer’s representative. Any condition that does not comply with the accepted drawings, or any other condition deemed unsatisfactory by the Engineer, is cause for rejection.

Once vehicular traffic is allowed on a structure utilizing modular panels, routine inspection by the manufacturer will be required. The first inspection of the structure will be one month after opening the structure to vehicular traffic. Subsequent inspections shall be performed every six months. However, when ADTT exceeds 2000 inspection of the temporary structure shall occur every three months. An inspection report provided by the Department must be completed by the manufacturer and submitted to the Engineer within 3 days of each inspection. Any items documented in the report indicating safety or stability issues with the structure must be reported immediately. All safety and stability repairs will be performed promptly by the Contractor and approved by the Engineer.
Scanning Supplemental Agreements
Supplemental Agreements

- Scan Fully Executed Supplemental Agreements into SAP, in Addition to Entering the Supplemental Agreement Information into HiCAMS.
Supplemental Agreements

Process to Add a Scanned Document to a Contract in SAP:

- Use **ME23N** to navigate to the Contract to which a document needs to be attached.
- From the Services for Object menu, select Create > Store Business Document.
Supplemental Agreements

- In the Archive from Frontend dialog box, select the type of document to be attached. A Supplemental Agreement will generally be a PDF or Scanned Document.
- Select the file.
Supplemental Agreements

- The empty field will display the name of the location from which the file was selected and the number of files added.
- Click the Continue checkmark to attach the document to the contract.
To confirm that the document has been assigned to the contract, go to the Services for Object menu and choose Attachment List. To view any attachment, double click on the row for the document.
Supplemental Agreements

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