



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

September 11, 2013

**Addendum No. 3**

RE: Contract ID C203198

WBS # 34491.3.GVS4

F. A. # NHS-0017(131)

**Brunswick, New Hanover Counties (R-2633BB)**

US-17 (Wilmington Bypass) From SR-1430 (Cedar Hill Road) To  
West Of US-421 North Of Wilmington

**September 17, 2013 Letting**

To Whom It May Concern:

Reference is made to the proposal form furnished to you on this project.

The following revision has been made to the proposal form:

Page No. R-1 has been revised to indicate that the U. S. Coast Guard permit is final. Please void Page No. R-1 in your proposal and staple the revised Page No. R-1 thereto.

Page Nos. R-67 thru R-70 have been revised to include the approved U. S. Coast Guard permit. Please void Page Nos. R-67 thru R-70 in your proposal and staple the Revised Page Nos. R-67 thru R-70 and New Page Nos. R-71 thru R-80 in your proposal.

The contract will be prepared accordingly.

Sincerely,

A handwritten signature in black ink, appearing to read "R. A. Garris".

R. A. Garris, PE  
Contract Officer

RAG/jag

Attachments

cc: Mr. Ron Hancock, PE  
Ms. Karen Fussell, PE  
Ms. D. M. Barbour, PE  
Mr. J. V. Barbour, PE  
Mr. R.E. Davenport, PE  
Mr. G. R. Perfetti, PE  
Ms. Lori Strickland  
Project File (2)

Mr. Ray Arnold, PE  
Ms. Natalie Roskam, PE  
Ms. Penny Higgins  
Ms. Jaci Kincaid  
Mr. Ronnie Higgins  
Mr. Larry Strickland  
Ms. Marsha Sample

**PROJECT SPECIAL PROVISION**

(10-18-95)

Z-1

**PERMITS**

The Contractor's attention is directed to the following permits, which have been issued to the Department of Transportation by the authority granting the permit.

<b><u>PERMIT</u></b>	<b><u>AUTHORITY GRANTING THE PERMIT</u></b>
Navigation (DRAFT ONLY)	U. S. Coast Guard
Dredge and Fill and/or Work in Navigable Waters (404)	U. S. Army Corps of Engineers
State Dredge and Fill and/or CAMA	Division of Coastal Management, DENR State of North Carolina
Water Quality (401)	Division of Environmental Management, DENR State of North Carolina

The Contractor shall comply with all applicable permit conditions during construction of this project. Those conditions marked by \* are the responsibility of the department and the Contractor has no responsibility in accomplishing those conditions.

Agents of the permitting authority will periodically inspect the project for adherence to the permits.

The Contractor's attention is also directed to Articles 107-10 and 107-13 of the *2012 Standard Specifications* and the following:

Should the Contractor propose to utilize construction methods (such as temporary structures or fill in waters and/or wetlands for haul roads, work platforms, cofferdams, etc.) not specifically identified in the permit (individual, general, or nationwide) authorizing the project it shall be the Contractor's responsibility to coordinate with the Engineer to determine what, if any, additional permit action is required. The Contractor shall also be responsible for initiating the request for the authorization of such construction method by the permitting agency. The request shall be submitted through the Engineer. The Contractor shall not utilize the construction method until it is approved by the permitting agency. The request normally takes approximately 60 days to process; however, no extensions of time or additional compensation will be granted for delays resulting from the Contractor's request for approval of construction methods not specifically identified in the permit.

Where construction moratoriums are contained in a permit condition which restricts the Contractor's activities to certain times of the year, those moratoriums will apply only to the portions of the work taking place in the waters or wetlands provided that activities outside those areas is done in such a manner as to not affect the waters or wetlands.

**PLEASE NOTE - The following sheets, in the approved permit, were not made part of this contract:**

- Sheets 2 through 42 of 73
- Sheets 62 through 67 of 73
- Sheets 2, 3, 4, 9, 10, 12 of 15

**Addendum No. 2****U.S. Department of  
Homeland Security****United States  
Coast Guard**Commander  
United States Coast Guard  
Fifth Coast Guard District431 Crawford Street  
Portsmouth, Va. 23704-5004  
Staff Symbol: (dpb)  
Phone: (757) 398-6587  
Fax: (757) 398-6334  
Email: Terrance.A.Knowles@uscg.mil16591  
10 Sep 2013

Gregory Thorpe, Ph.D., Manager  
Project Development & Environmental Analysis Unit  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, NC 27699-1598

Dear Dr. Thorpe:

Enclosed are the Coast Guard Bridge Permits 6-13-5 and 7-13-5 dated September 5, 2013, approving the proposed construction of bridges across Cape Fear River, at mile 35.5 and Toomers Creek, at mile 1.4, near Wilmington, Brunswick and New Hanover Counties, NC, respectively. The following stipulations shall be adhered to:

a. The Contractor shall submit the plans and schedules of operation for approval at least 45 days prior to commencement of work in the waterways. One copy of such information shall be submitted concurrently to your Resident Engineer, the United States Coast Guard Commander (dpb); Federal Building, 4th Floor, 431 Crawford Street; Portsmouth, VA 23704-5004, and the U. S. Coast Guard Sector North Carolina at 2301 East Fort Macon Road, Atlantic Beach, NC 28512-5633. The information shall include a sketch of the waterways; the bridges; the location of any restrictions that will be placed in the waterways such as barges, anchors, and anchor lines; the location and height above mean high water and detailed description of any scaffolding, or netting; detailed description indicating the placement, type and dimension of any cofferdams if used. The schedules should also include the hours of operation and whether or not the equipment will be removed at night. The contractor shall comply with all provisions of the Navigation Rules International - Inland, available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. The Contractor shall submit to the Resident Engineer a copy of all correspondence between the Coast Guard. No deviation from the approved plans and schedules of operation may be made unless the modification has previously been submitted and approved by the Coast Guard.

b. At no time during the work will the waterways be closed to navigation without prior approval from the Coast Guard. You are required to maintain close and regular contact with Coast Guard Sector North Carolina to keep them informed to activities in waterways at (252) 247-4570.

c. Barges that are used in the waterways during the project must be marked. Enclosure (2) outlines temporary marking and lighting requirements for barges and structures not part of the bridge that will be used during construction. If barge or float anchor lines are used, they must be marked by buoys, which should be lighted. If you should have any questions, regarding lights on the barges or work floats, please contact Mr. John Walters, Chief, Waterways Management Section, at (757) 398-6230. Floating equipment shall have a radiotelephone capable of operation

16591  
10 Sep 2013

from its main control station in accordance with Part 26 of Title 33, Code of Federal Regulations and shall be monitored during all periods the floating equipment is on station.

d. During the progress of work, while the channels are in operation, should any material, machinery or equipment be lost, dumped, thrown overboard, sunk or misplaced which may be dangerous to or obstruct navigation, immediate notice shall be given to the Coast Guard and the object removed with the utmost dispatch. Until removal can be effected, the objects shall be properly marked in order to protect navigation. Notice to the Coast Guard shall give a description and location of any such object and the action taken or being taken to protect navigation.

e. Upon completion of the proposed project, an inspection of the waterways bottom shall be performed to insure that all construction waste materials have been completely removed. Certification will be required in writing by a licensed engineer or licensed surveyor that the waterway has not been impaired and all construction related debris has been cleared from it. The certification shall include the actual method used to conduct the inspection. The Contractor shall remove any bridge related debris, resulting from the current or prior work or occurrences, discovered during this survey.

f. Upon completion of the bridgework, a responsible official of the North Carolina Department of Transportation shall verify as-built clearances and a statement attesting to the correctness of the clearances shall be forwarded to this office for record purpose. In lieu of verification by the above listed official, certification by a licensed surveyor or registered professional engineer registered in the State of North Carolina will be accepted.

g. Except as shown on the plans, no dredging, excavation, filling, rip-rap, or other work affecting the bottom, shall be done in conjunction with this work.

h. If during the periods of construction, permanent lighting cannot be maintained operable, the fenders of each pier shall be marked with a battery or power operated white light of not less than 60 flashes per minute and visible for a range of 2,000 yards on 90% of the nights of the year. Generally, a lamp of 20-candle power will meet these requirements. If necessary to obtain coverage required, a light or lights on the upstream and downstream sides shall be installed. The piers shall be so marked until the construction has been completed and permanent navigational lighting has been reinstalled and determined to be operating satisfactorily. Written approval from the Coast Guard of temporary lighting during periods of construction is required. No existing bridge navigation lights shall be impaired or blocked during darkness or periods of reduced visibility.

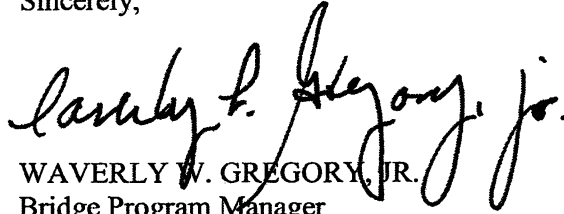
i. Compliance with the requirements stated herein does not relieve the contractor of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of the State of North Carolina, or any other federal, state or local authority having cognizance of any aspect of the location, construction or maintenance of said bridge. It is advised that the Coast Guard can levy monetary civil penalties for violations of bridge regulations and statutes.

16591  
10 Sep 2013

j. In accordance with Title 33 Code of Federal Regulations Part 118.25 – Application procedure, approval of lights and other signals required shall be obtained prior to construction. Application shall be by letter accompanied by duplicate sets of drawings showing (1) the plan and elevation of the structure showing lights and signals proposed, and (2) a small scale vicinity chart showing proposed bridges and all other bridges within 1,000 feet above or below the proposed bridge.

The office of the Bridge Administrator, Fifth Coast Guard District, shall be notified immediately upon completion of the project. If you should have any questions regarding this matter, please contact Mr. Terrance Knowles at the above listed address or telephone number.

Sincerely,



WAVERLY W. GREGORY, JR.  
Bridge Program Manager  
By direction of the Commander  
Fifth Coast Guard District

Encl: (1) Bridge Permits 6-13-5 and 7-13-5 dated September 5, 2013  
(2) USCG Temporary Marking & Lighting

Copy: John Walters, (dpw) w/encl  
USCG Sector North Carolina, Waterways Management w/encl

***LIGHTING REQUIREMENTS FOR BARGES AND STRUCTURES NOT PART OF A  
BRIDGE OR APPROACH STRUCTURE***

***88.13 Lights on barges at bank or dock.***

- (a) The following barges shall display at night and, if practicable, in periods of restricted visibility the lights described in paragraph (b) of this section -
  - (1) Every barge projecting into a buoyed or restricted channel.
  - (2) Every barge so moored that it reduces the available navigable width of any channel to less than 80 meters.
  - (3) Barges moored in groups of more than two barges wide or to a maximum width of over 25 meters.
  - (4) Every barge not moored parallel to the bank or dock.
- (b) Barges described in paragraph (a) shall carry two unobstructed white lights of an intensity to be visible for a least one mile on a clear dark night and arranged as follows:
  - (1) On a single moored barge, lights shall be placed on the two corners farthest from the bank or dock.
  - (2) On barges moored in group formation, a light shall be placed on each of the upstream and downstream ends of the group, on the corners farthest from the bank or dock.
  - (3) Any barge in a group, projecting from the main body of the group toward the channel, shall be lighted as a single barge.
- (c) Barges moored in any slip or slough, which is used primarily for mooring purposes, are exempt from the lighting requirements of this section.

***33 CODE OF FEDERAL REGULATIONS, SECTION 118.95  
LIGHTS ON STRUCTURES NOT PART OF A BRIDGE OR APPROACH STRUCTURE***

Lights on sheer booms, isolated piers, obstructions, and other structures not part of a bridge or approach structure must meet the requirements for aids to navigation in Subpart 66.01 of Part 66 of this chapter.

***33 CODE OF FEDERAL REGULATIONS, SECTION 66.01-10***

- (a) The characteristics of a private aid to navigation shall conform to the United States Aids to Navigation System described in Subpart B of Part 62 of this subchapter, except that only tungsten-incandescent light sources will be approved for electric lights.

Therefore in accordance with 33 CFR 66.01-10(a), the above lights shall be marked with slow flashing yellow lights visible for two miles on a clear dark night. Lights similar to the Tideland ML-120 Barge Light may be used. Only tungsten-incandescent light sources will be approved for electric lights.

U.S. Department of  
Homeland Security  
United States  
Coast Guard



---

## BRIDGE PERMIT

3 SEP 2013

(6-13-5)

---

**WHEREAS** by Title V of an act of Congress approved August 2, 1946, entitled "General Bridge Act of 1946," as amended (33 U.S.C. 525-533), the consent of Congress was granted for the construction, maintenance and operation of bridges and approaches thereto over the navigable waters of the United States;

**AND WHEREAS** the Secretary of Homeland Security has delegated the authority of Section 502(b) of that act to the Commandant, U.S. Coast Guard by Department of Homeland Security Delegation Number: 0170.1;

**AND WHEREAS** before construction is commenced, the Commandant must approve the location and plans of any such bridge and may impose any specific conditions relating to the construction, maintenance and operation of the structure deemed necessary in the interest of public navigation, such conditions to have the force of law;

**AND WHEREAS** the - STATE OF NORTH CAROLINA - has submitted for approval the location and plans of dual bridges to be constructed across the Cape Fear River near Wilmington, North Carolina;

**NOW THEREFORE**, This is to certify that the location and plans dated 28 March 2013 are hereby approved by the Commandant, subject to the following conditions:

1. No deviation from the approved plans may be made either before or after completion of the structures unless the modification of said plans has previously been submitted to and received the approval of the Commandant.
2. The construction of falsework, pilings, cofferdams or other obstructions, if required, shall be in accordance with plans submitted to and approved by the Commander, Fifth Coast Guard District, prior to construction of the bridges. All work shall be so conducted that the free navigation of the waterway is not unreasonably interfered with and the present navigable depths are not impaired. Timely notice of any and all events that may affect navigation shall be given to the District Commander during construction of the bridges. The channel or channels through the structures shall be promptly cleared of all obstructions placed therein or caused by the construction of the bridges to the satisfaction of the District Commander, when in the judgment of the District Commander the construction work has reached a point where such action should be taken, but in no case later than 90 days after the bridges have been opened to traffic.



Continuation Sheet

**Bridges across the Cape Fear River near Wilmington, North  
Carolina**

15 SEP 2013

BRIDGE PERMIT

(6-13-5)

3. Issuance of this permit does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of the U.S. Department of Commerce, National Marine Fisheries Service, or any other federal, state or local authority having cognizance of any aspect of the location, construction or maintenance of said bridges.

4. A bridge fendering system shall be installed and maintained in good condition by and at the expense of the owner of the bridges when so required by the District Commander. Said installation and maintenance shall be for the safety of navigation and be in accordance with plans submitted to and approved by the District Commander prior to its construction.

5. Clearance gauges shall be installed and maintained in a good and legible condition by and at the expense of the owner of the bridges when so required by the District Commander. The type of gauges and the locations in which they are to be installed will be submitted to the District Commander for approval.

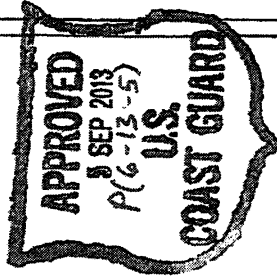
6. When the proposed bridges are no longer used for transportation purposes, they shall be removed in their entirety or to an elevation deemed appropriate by the District Commander and the waterway cleared to the satisfaction of the District Commander. Such removal and clearance shall be completed by and at the expense of the owner of the bridges upon due notice from the District Commander.

7. The approval hereby granted shall cease and be null and void unless construction of the bridges is commenced within three years and completed within five years after the date of this permit.

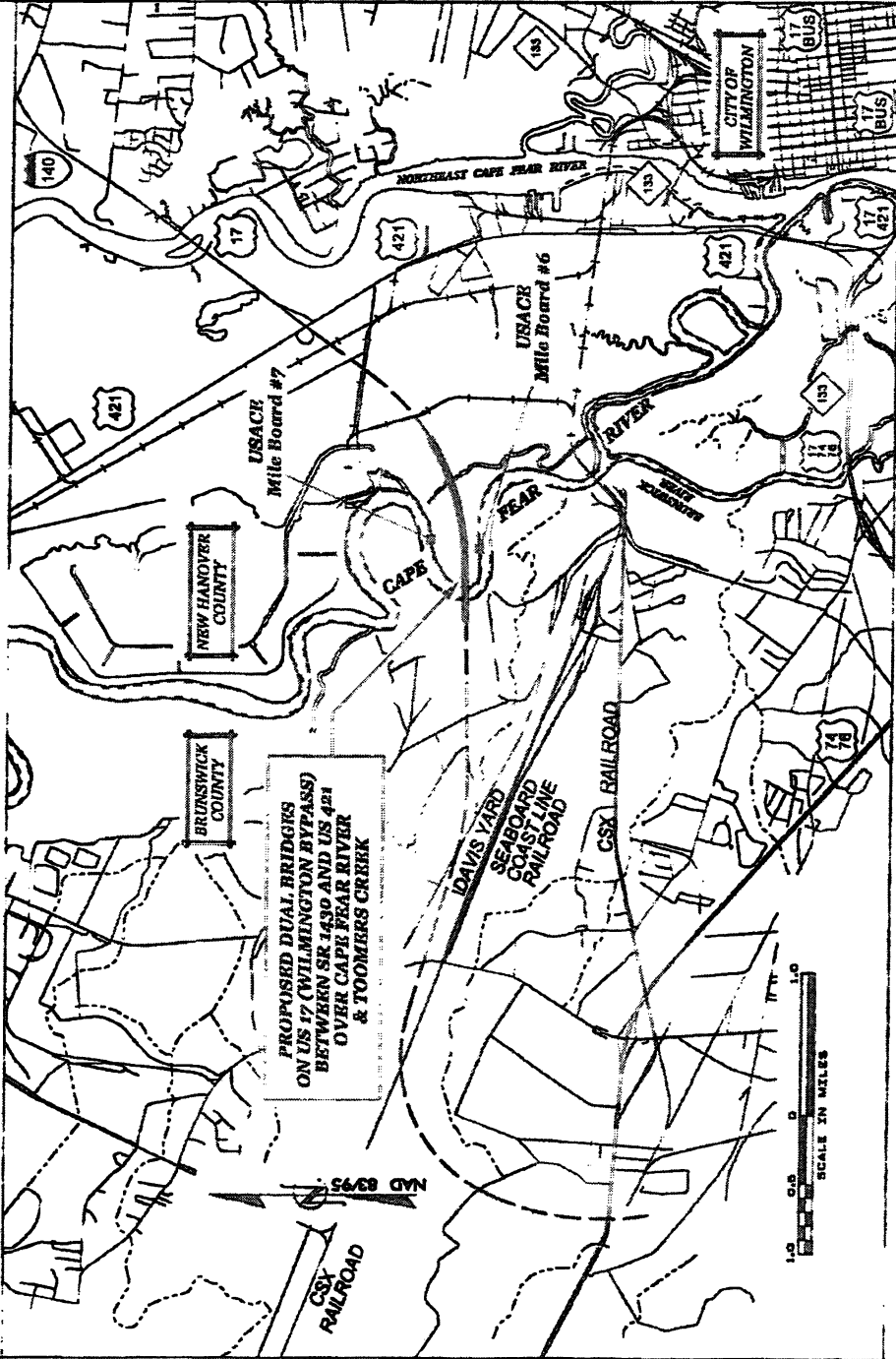


Brian L. Dunn  
Chief, Office of Bridge Programs  
U.S. Coast Guard  
By direction of the Commandant

For portions of these bridges in and adjacent to Cape Fear River, the design vessel is the tugboat, "Gale", with the tank barge, "B2071", in tow.  
Tugboat and tank barge owner: Chatham Towing Company, Inc.  
For all other portions of these bridges, where applicable, the design vessel (per AASHTO Guide Specifications) is the load associated with an empty, empty 186 - foot by 38 - foot hopper barge.

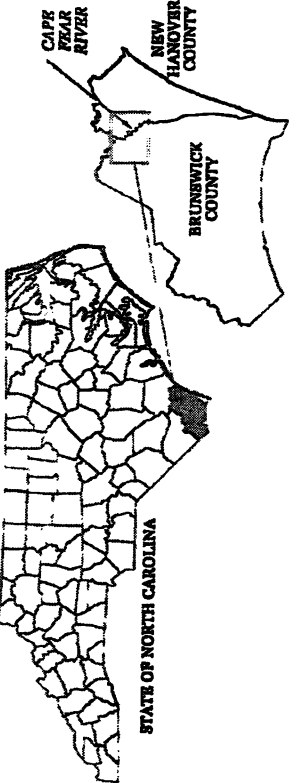
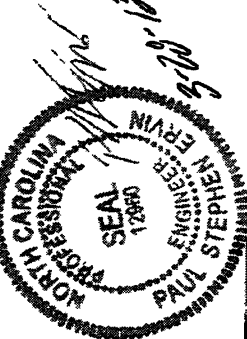


VICINITY MAP

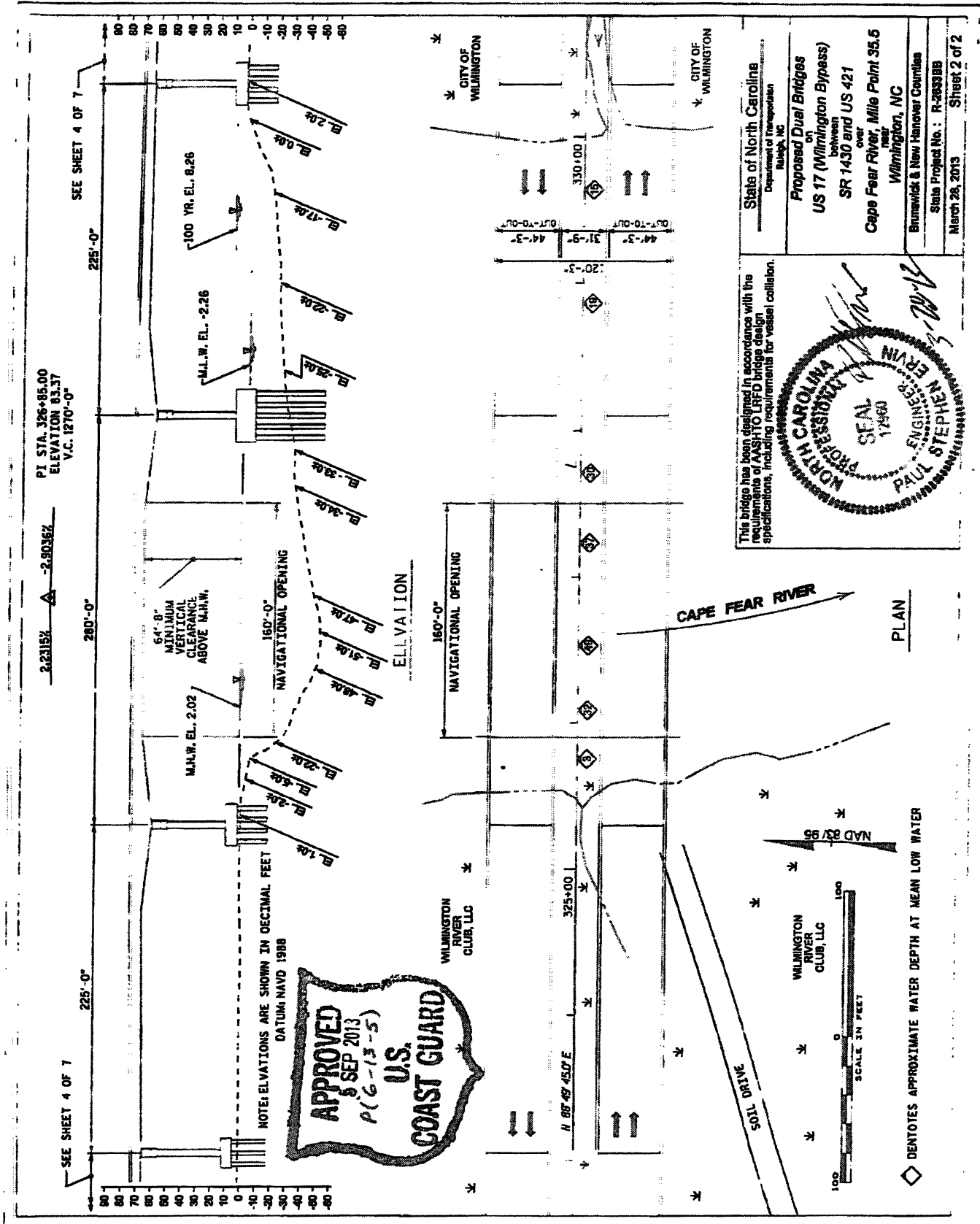


PROPOSED DUAL BRIDGES ON US 17 (WILMINGTON BYPASS) BETWEEN SR 1430 AND US 421 OVER CAPE FEAR RIVER & TOOMERS CREEK

This bridge has been designed in accordance with the requirements of AASHTO LRFD bridge design specifications, including requirements for vessel collision



State of North Carolina  
Department of Transportation  
 Raleigh, NC  
Proposed Dual Bridges on US 17 (Wilmington Bypass) between SR 1430 and US 421 over Cape Fear River, Mile Point 36.6 near Wilmington, NC  
Brunswick & New Hanover Counties  
State Project No.: R-26338B  
March 28, 2013



This bridge has been designed in accordance with the requirements of AASHTO LRFD bridge design specifications, including requirements for vessel collision.

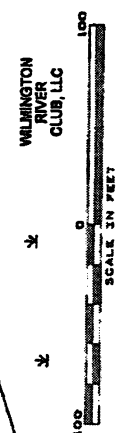
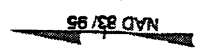
**PROFESSIONAL SEAL**  
 NORTH CAROLINA  
 ENGINEER  
 17960  
 PAUL STEPHEN ERWIN

PAUL STEPHEN ERWIN  
 3/20/13

State of North Carolina Department of Transportation Raleigh, NC
<b>Proposed Dual Bridges</b> US 17 (Wilmington Bypass) between SR 1430 and US 421 over Cape Fear River, Mile Point 35.6 near Wilmington, NC
Brunswick & New Hanover Counties State Project No.: P-203318B March 26, 2013
Sheet 2 of 2

PLAN

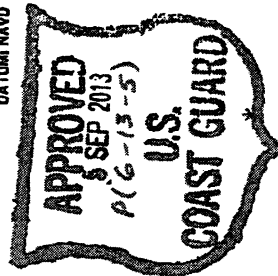
◇ DENTOTES APPROXIMATE WATER DEPTH AT MEAN LOW WATER



WILMINGTON RIVER CLUB, LLC

501L DRIVE

WILMINGTON RIVER CLUB, LLC



NOTE: ELEVATIONS ARE SHOWN IN DECIMAL FEET DATUM: NAVD 1988

PI STA. 326+95.00  
ELEVATION 93.37  
V.C. 1270'-0"

2.2315% Δ -2.9036%

SEE SHEET 4 OF 7

SEE SHEET 4 OF 7

U.S. Department of  
Homeland Security  
United States  
Coast Guard



---

## BRIDGE PERMIT

5 SEP 2013

(7-13-5)

**WHEREAS** by Title V of an act of Congress approved August 2, 1946, entitled "General Bridge Act of 1946," as amended (33 U.S.C. 525-533), the consent of Congress was granted for the construction, maintenance and operation of bridges and approaches thereto over the navigable waters of the United States;

**AND WHEREAS** the Secretary of Homeland Security has delegated the authority of Section 502(b) of that act to the Commandant, U.S. Coast Guard by Department of Homeland Security Delegation Number: 0170.1;

**AND WHEREAS** before construction is commenced, the Commandant must approve the location and plans of any such bridge and may impose any specific conditions relating to the construction, maintenance and operation of the structure deemed necessary in the interest of public navigation, such conditions to have the force of law;

**AND WHEREAS** the - STATE OF NORTH CAROLINA - has submitted for approval the location and plans of dual bridges to be constructed across Toomers Creek near Wilmington, North Carolina;

**NOW THEREFORE**, This is to certify that the location and plans dated 28 March 2013 are hereby approved by the Commandant, subject to the following conditions:

1. No deviation from the approved plans may be made either before or after completion of the structures unless the modification of said plans has previously been submitted to and received the approval of the Commandant.

2. The construction of falsework, pilings, cofferdams or other obstructions, if required, shall be in accordance with plans submitted to and approved by the Commander, Fifth Coast Guard District, prior to construction of the bridges. All work shall be so conducted that the free navigation of the waterway is not unreasonably interfered with and the present navigable depths are not impaired. Timely notice of any and all events that may affect navigation shall be given to the District Commander during construction of the bridges. The channel or channels through the structures shall be promptly cleared of all obstructions placed therein or caused by the construction of the bridges to the satisfaction of the District Commander, when in the judgment of the District Commander the construction work has reached a point where such action should be taken, but in no case later than 90 days after the bridges have been opened to traffic.

**Bridges across Toomers Creek near Wilmington, North Carolina**

5 SEP 2013

BRIDGE PERMIT

(7-13-5)

3. Issuance of this permit does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of the U.S. Department of Commerce, National Marine Fisheries Service, or any other federal, state or local authority having cognizance of any aspect of the location, construction or maintenance of said bridges.

4. A bridge fendering system shall be installed and maintained in good condition by and at the expense of the owner of the bridges when so required by the District Commander. Said installation and maintenance shall be for the safety of navigation and be in accordance with plans submitted to and approved by the District Commander prior to its construction.

5. Clearance gauges shall be installed and maintained in a good and legible condition by and at the expense of the owner of the bridges when so required by the District Commander. The type of gauges and the locations in which they are to be installed will be submitted to the District Commander for approval.

6. When the proposed bridges are no longer used for transportation purposes, they shall be removed in their entirety or to an elevation deemed appropriate by the District Commander and the waterway cleared to the satisfaction of the District Commander. Such removal and clearance shall be completed by and at the expense of the owner of the bridges upon due notice from the District Commander.

7. The approval hereby granted shall cease and be null and void unless construction of the bridges is commenced within three years and completed within five years after the date of this permit.

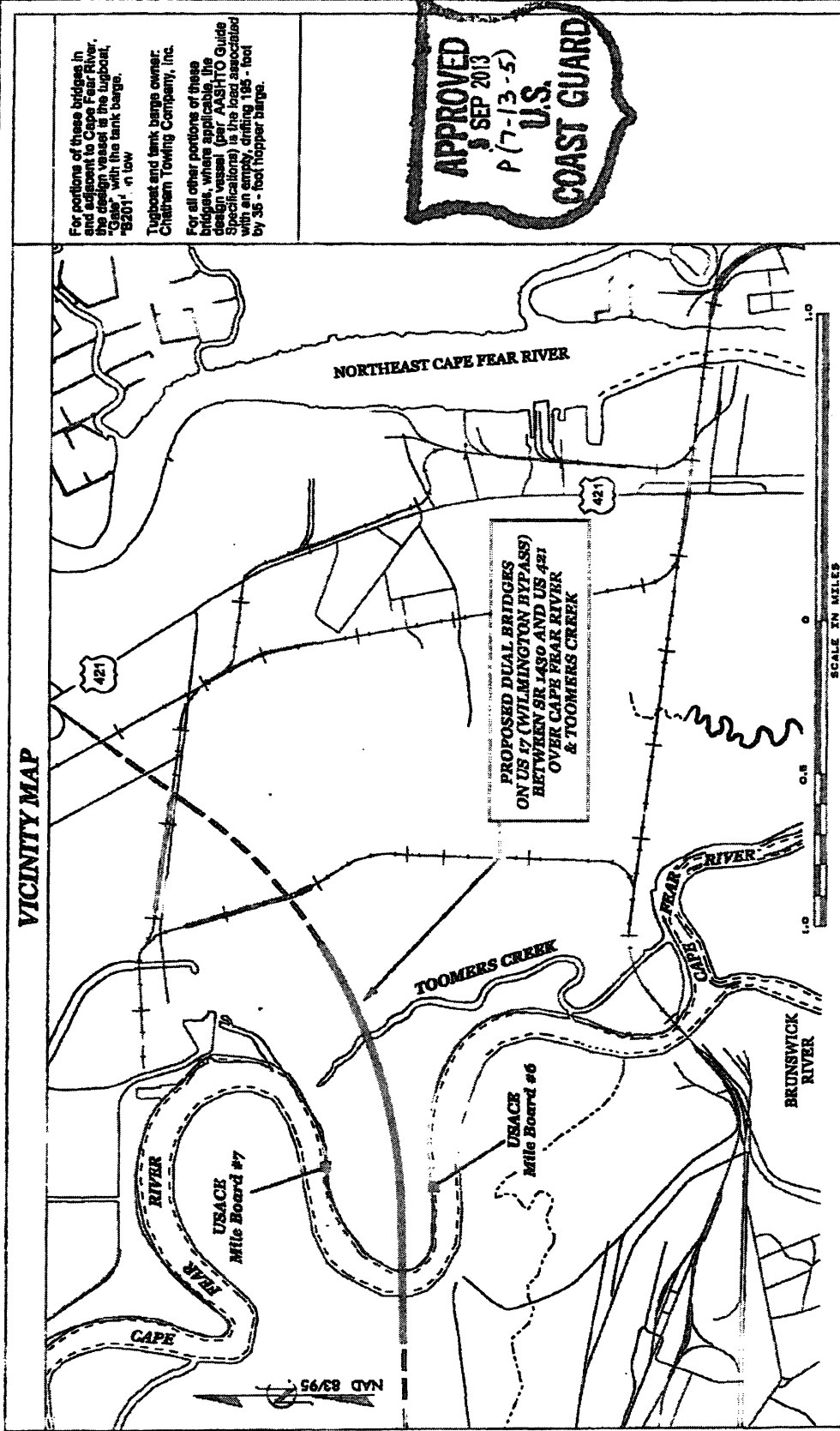


Brian L. Dunn

Chief, Office of Bridge Programs

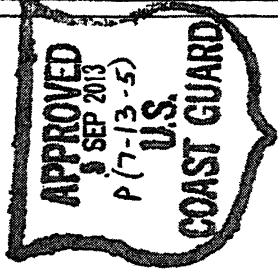
U.S. Coast Guard

By direction of the Commandant



VICINITY MAP

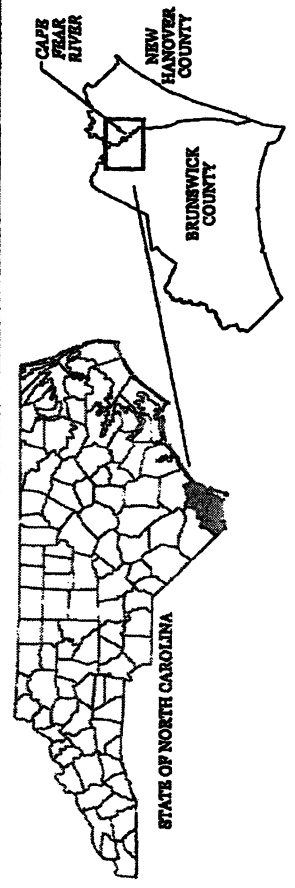
For portions of these bridges in and adjacent to Cape Fear River, the design vessel is the tugboat, "Gale", with the tank barge, "8201", in tow.  
 Tugboat and tank barge owner: Chatham Towing Company, Inc.  
 For all other portions of these bridges, where applicable, the design vessel (per AASHTO Guide Specifications) is the rated associated empty, drawing 185 - foot by 36 - foot flopper barge.

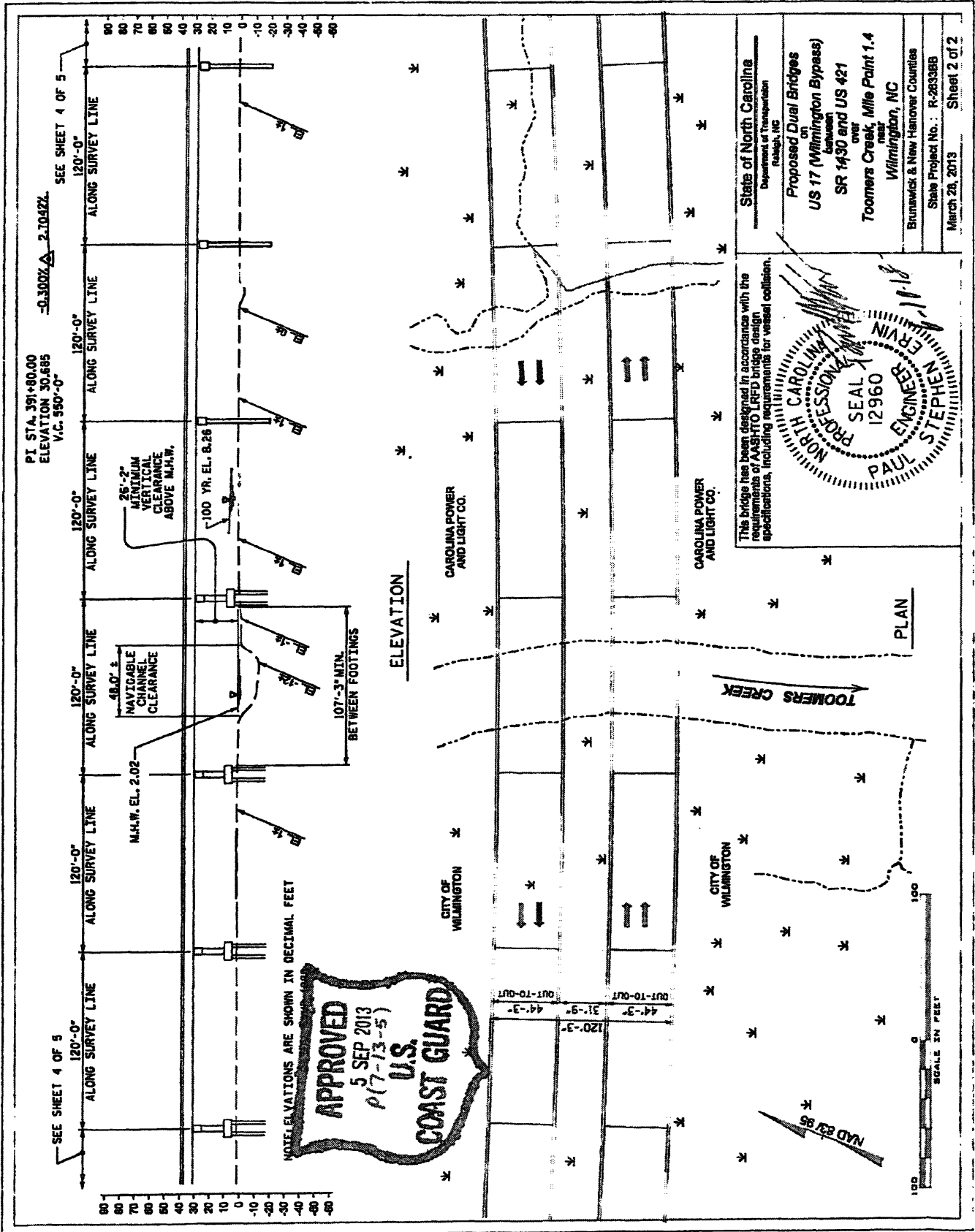


PROPOSED DUAL BRIDGES ON US 17 (WILMINGTON BYPASS) BETWEEN SR 1430 AND US 421 OVER CAPE FEAR RIVER & TOOMERS CREEK

State of North Carolina  
 Department of Transportation  
 Raleigh, NC  
 Proposed Dual Bridges on US 17 (Wilmington Bypass) between SR 1430 and US 421 over Toomers Creek, Mile Point 1.4 near Wilmington, NC  
 Brunswick & New Hanover Counties  
 State Project No.: R-2633BB  
 March 28, 2013 Sheet 1 of 2

This bridge has been designed in accordance with the requirements of AASHTO LRFD bridge design specifications, including requirements for vessel collision.





R-79

Addendum No. 2

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
United States Coast Guard  
Fifth Coast Guard District

New 9-11-13

431 Crawford Street  
Portsmouth, Va. 23704-5004  
Staff Symbol: (dpb)  
Phone: (757) 398-6587  
Fax: (757) 398-6334  
Email: Terrance.A.Knowles@uscg.mil

16591  
10 Sep 2013

Gregory J. Thorpe, Ph.D., Manager  
Project Development and Environment Analysis Unit  
State of North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, NC 27699-1598

Dear Dr. Thorpe:

We reviewed the bridge lighting plans for the proposed dual bridges on US 17 (Wilmington Bypass) between SR 1430 and US 421 over Cape Fear River near Wilmington, NC. The bridge lighting plan is approved and a copy enclosed for your files. No deviation from the approved plan may be made unless the modifications are submitted to and approved by this office.

Please contact Terrance Knowles at the above-listed telephone number, if you should have any questions regarding this matter,.

Sincerely,

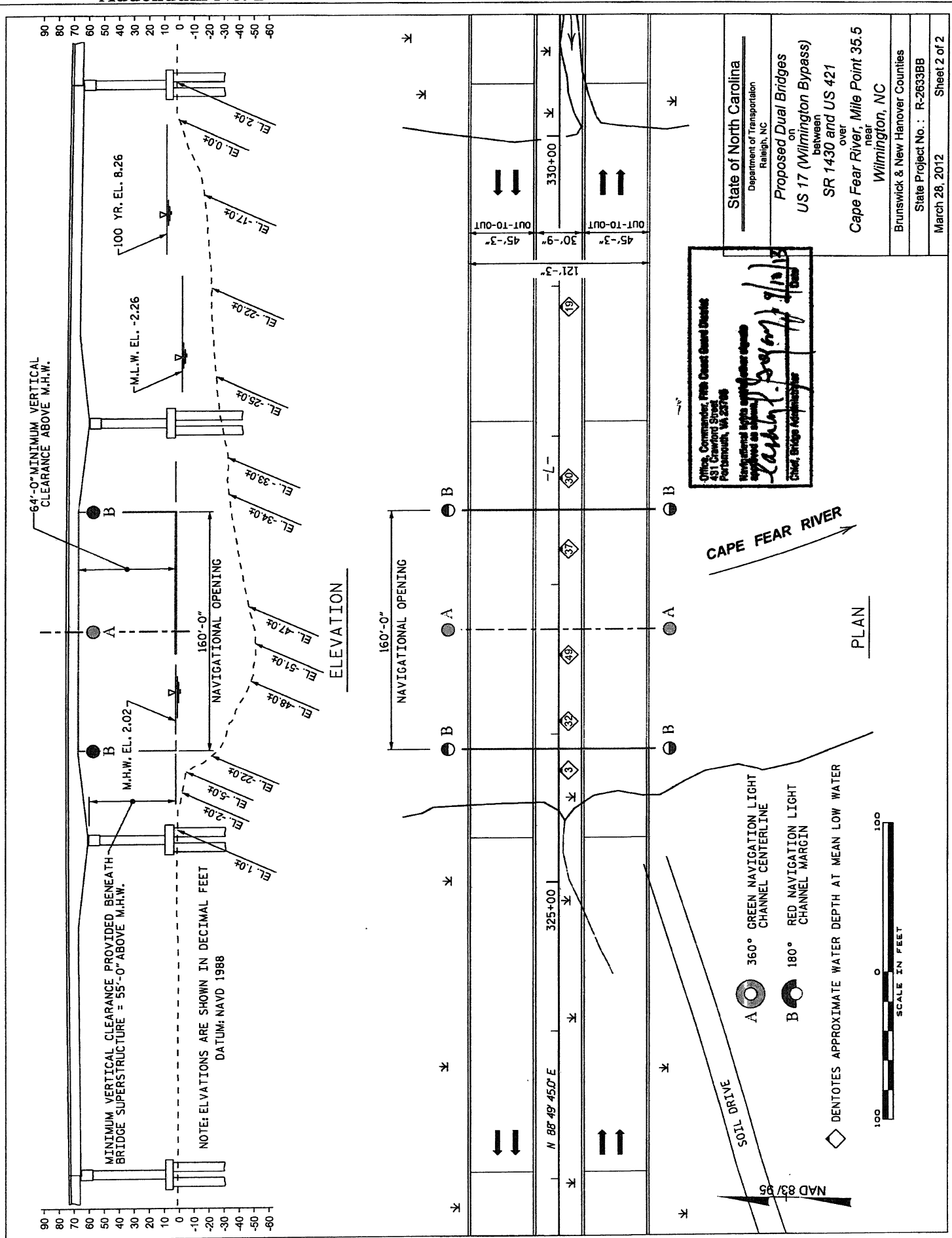
A handwritten signature in black ink that reads "Waverly W. Gregory, Jr." in a cursive style.

WAVERLY W. GREGORY, JR.  
Bridge Program Manager  
By direction of the Commander  
Fifth Coast Guard District

Encl: Copy of approved navigational lighting plan

Copy: CG Sector North Carolina, Waterways Management w/encl





State of North Carolina  
 Department of Transportation  
 Raleigh, NC

Proposed Dual Bridges  
 on  
 US 17 (Wilmington Bypass)  
 between  
 SR 1430 and US 421  
 over  
 Cape Fear River, Mile Point 35.5  
 near  
 Wilmington, NC

Brunswick & New Hanover Counties  
 State Project No.: R-2633BB  
 March 28, 2012

Sheet 2 of 2

Office, Commander, First Coast Guard District  
 451 Central Street  
 Portsmouth, VA 23704  
 Navigational lights and channel margins  
 approved as shown  
 Lashly  
 Chief, Bridge Administration  
 9/10/13

CAPE FEAR RIVER

PLAN

- A 360° GREEN NAVIGATION LIGHT CHANNEL CENTERLINE
- B 180° RED NAVIGATION LIGHT CHANNEL MARGIN
- ◇ DENTOTES APPROXIMATE WATER DEPTH AT MEAN LOW WATER



SOIL DRIVE

NAD 83/95