



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

August 15, 2023

MEMORANDUM TO: Division Environmental and Construction Units

FROM: Gregory W. Price, SPWS  
Division 6 Environmental Program Supervisor

SUBJECT: Environmental Permits for the Replacement of Bridge 15 on  
SR 1532 over Black River, Harnett County, **TIP HS-2006Q**

Please find enclosed the following permit for this project:

Agency	Permit Type	Permit Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Nationwide 3 (non-notifying)	March 14, 2026
NC Division of Water Resources Section 401 Water Quality Certification	GC No. 4239 (non-notifying)	March 14, 2026

Work is authorized by the above referenced permit provided it is accomplished in strict accordance with the permitted plans.

The Division Environmental Office must be consulted if any deviation from the permit(s) is required.

The General Conditions and Certifications for Nationwide and Regional Permits can be referenced at:

<https://www.deq.nc.gov/about/divisions/water-resources/water-quality-permitting/401-buffer-permitting/general-certifications>

*Mailing Address:*  
NC DEPARTMENT OF TRANSPORTATION  
DIVISION 6 ENVIRONMENTAL OFFICE  
558 GILLESPIE STREET  
FAYETTEVILLE, NC 28302

*Telephone:* (910) 364-0683  
*Fax:* (901) 486-1959  
*Customer Service:* 1-877-368-4968

*Website:* [www.ncdot.gov](http://www.ncdot.gov)

*Location:*  
431 TRANSPORTATION DRIVE  
FAYETTEVILLE, NC 28302

# PROJECT COMMITMENTS

**TIP Project No. HS-2006Q**  
Replacement of Bridge No. 15 over Black River  
On SR 1532 (Langdon Road)  
Harnett County  
W.B.S. No. 49312.1.21  
Federal Aid No. 1532(006)

## COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

### NCDOT Hydraulic Design Unit – FEMA Coordination

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program to determine status of the project regarding applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR)

### Division 6 Construction - FEMA

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

### NCDOT Environmental Analysis Unit, Biological Surveys – Species Surveys

Surveys for the tricolored bat and rough-leaved loosestrife will be conducted during the appropriate survey window in 2023. Biological conclusions will be rendered for both species at that time.

*The tricolored bat is still not officially listed and therefore, surveys will not be required. A survey for rough-leaved loosestrife was conducted on June 8, 2023, and no individuals were found. The biological conclusion for rough-leaved loosestrife is No Effect.*

## COMMITMENTS FROM PERMITTING

No special commitments were developed during project permitting.



**North Carolina Department of Transportation**  
**Highway Stormwater Program**  
**STORMWATER MANAGEMENT PLAN**  
 FOR NCDOT PROJECTS



(Version 3.00; Released August 2021)

**WBS Element:** 00579838      **TIP/Proj No:** SF-420015      **County(ies):** Harnett      **Page** 1 **of** 2

**General Project Information**

<b>WBS Element:</b>	00579838	<b>TIP Number:</b>	SF-420015	<b>Project Type:</b>	Bridge Replacement	<b>Date:</b>	2/6/2023
<b>NCDOT Contact:</b>	Adam Britt		<b>Contractor / Designer:</b>		Rusty Lassiter (TGS Engineers)		
<b>Address:</b>	558 Gillespie Street Fayetteville, NC 28301		<b>Address:</b>	706 Hillsborough St. Raleigh, NC 27603			
<b>Phone:</b>	910-364-0603		<b>Phone:</b>	919-773-8887 (Ext-121)			
<b>Email:</b>	<a href="mailto:atbritt@ncdot.gov">atbritt@ncdot.gov</a>		<b>Email:</b>	<a href="mailto:rlassiter@tgsengineers.com">rlassiter@tgsengineers.com</a>			
<b>City/Town:</b>	Angier		<b>County(ies):</b>	Harnett			
<b>River Basin(s):</b>	Cape Fear		<b>CAMA County?</b>	No			
<b>Wetlands within Project Limits?</b>	Yes						

**Project Description**

<b>Project Length (lin. miles or feet):</b>	0.085 miles	<b>Surrounding Land Use:</b>	Rural; Swamp					
	<b>Proposed Project</b>			<b>Existing Site</b>				
<b>Project Built-Upon Area (ac.)</b>	0.3	ac.	0.3	ac.				
<b>Typical Cross Section Description:</b>	Two 11-foot travel lanes with 4-foot paved shoulders (7-feet with guardrail)			Two 10-foot lanes with 4-foot grass shoulders				
<b>Annual Avg Daily Traffic (veh/hr/day):</b>	<b>Design/Future:</b>	910	<b>Year:</b>	2045	<b>Existing:</b>	730	<b>Year:</b>	2022

**General Project Narrative:**  
**(Description of Minimization of Water Quality Impacts)**

The proposed project replaces Bridge No. 15 over Black Swamp on SR 1532 (Langdon Road) in Harnett County. The replacement structure will be a 21-inch cored slab bridge approximately 110-feet long, providing a minimum 30-foot 10 inch clear roadway width. The proposed bridge will be replaced on existing alignment and consist of two 11-foot lanes with 4-foot 5-inch offsets. The approaches will be widened to include two 11-foot travel lanes and 4-foot shoulders (7-feet with guardrail). SR 1532 (Langdon Road) has a Local Rural functional classification and will utilize Sub-Regional Tier Standards with a 60-mile per hour design speed. Traffic will be maintained off-site during construction. Bridge No.15 is within the Cape Fear drainage basin and is not subject to riparian buffers. No deck drains will be required on the proposed bridge. Stormwater runoff from the proposed bridge will flow to grated inlets at the ends of bridge where it will be diffused onto a rip rap pad. All proposed stormwater runoff is discharged as far away from the stream and at the lowest velocities as practicable.



North Carolina Department of Transportation  
 Highway Stormwater Program  
**STORMWATER MANAGEMENT PLAN**  
 FOR NCDOT PROJECTS



(Version 3.00; Released August 2021)

**WBS Element:** 00579838      **TIP/Proj No.:** SF-420015      **County(ies):** Harnett      **Page** 2 **of** 2

**General Project Information**

**Waterbody Information**

<b>Surface Water Body (1):</b>	Black River		<b>NCDWR Stream Index No.:</b>	18-68-12-1	
<b>NCDWR Surface Water Classification for Water Body</b>	<b>Primary Classification:</b>		Class C		
	<b>Supplemental Classification:</b>		Swamp Waters (Sw)		
<b>Other Stream Classification:</b>					
<b>Impairments:</b>	None				
<b>Aquatic T&amp;E Species?</b>		<b>Comments:</b>			
<b>NRTR Stream ID:</b>	Black River		<b>Buffer Rules in Effect:</b>	N/A	
<b>Project Includes Bridge Spanning Water Body?</b>	Yes	<b>Deck Drains Discharge Over Buffer?</b>	N/A	<b>Dissipator Pads Provided in Buffer?</b>	
<b>Deck Drains Discharge Over Water Body?</b>	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					
<b>Surface Water Body (2):</b>			<b>NCDWR Stream Index No.:</b>		
<b>NCDWR Surface Water Classification for Water Body</b>	<b>Primary Classification:</b>				
	<b>Supplemental Classification:</b>				
<b>Other Stream Classification:</b>					
<b>Impairments:</b>					
<b>Aquatic T&amp;E Species?</b>		<b>Comments:</b>			
<b>NRTR Stream ID:</b>			<b>Buffer Rules in Effect:</b>		
<b>Project Includes Bridge Spanning Water Body?</b>		<b>Deck Drains Discharge Over Buffer?</b>		<b>Dissipator Pads Provided in Buffer?</b>	
<b>Deck Drains Discharge Over Water Body?</b>		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					
<b>Surface Water Body (3):</b>			<b>NCDWR Stream Index No.:</b>		
<b>NCDWR Surface Water Classification for Water Body</b>	<b>Primary Classification:</b>				
	<b>Supplemental Classification:</b>				
<b>Other Stream Classification:</b>					
<b>Impairments:</b>					
<b>Aquatic T&amp;E Species?</b>		<b>Comments:</b>			
<b>NRTR Stream ID:</b>			<b>Buffer Rules in Effect:</b>		
<b>Project Includes Bridge Spanning Water Body?</b>		<b>Deck Drains Discharge Over Buffer?</b>		<b>Dissipator Pads Provided in Buffer?</b>	
<b>Deck Drains Discharge Over Water Body?</b>		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

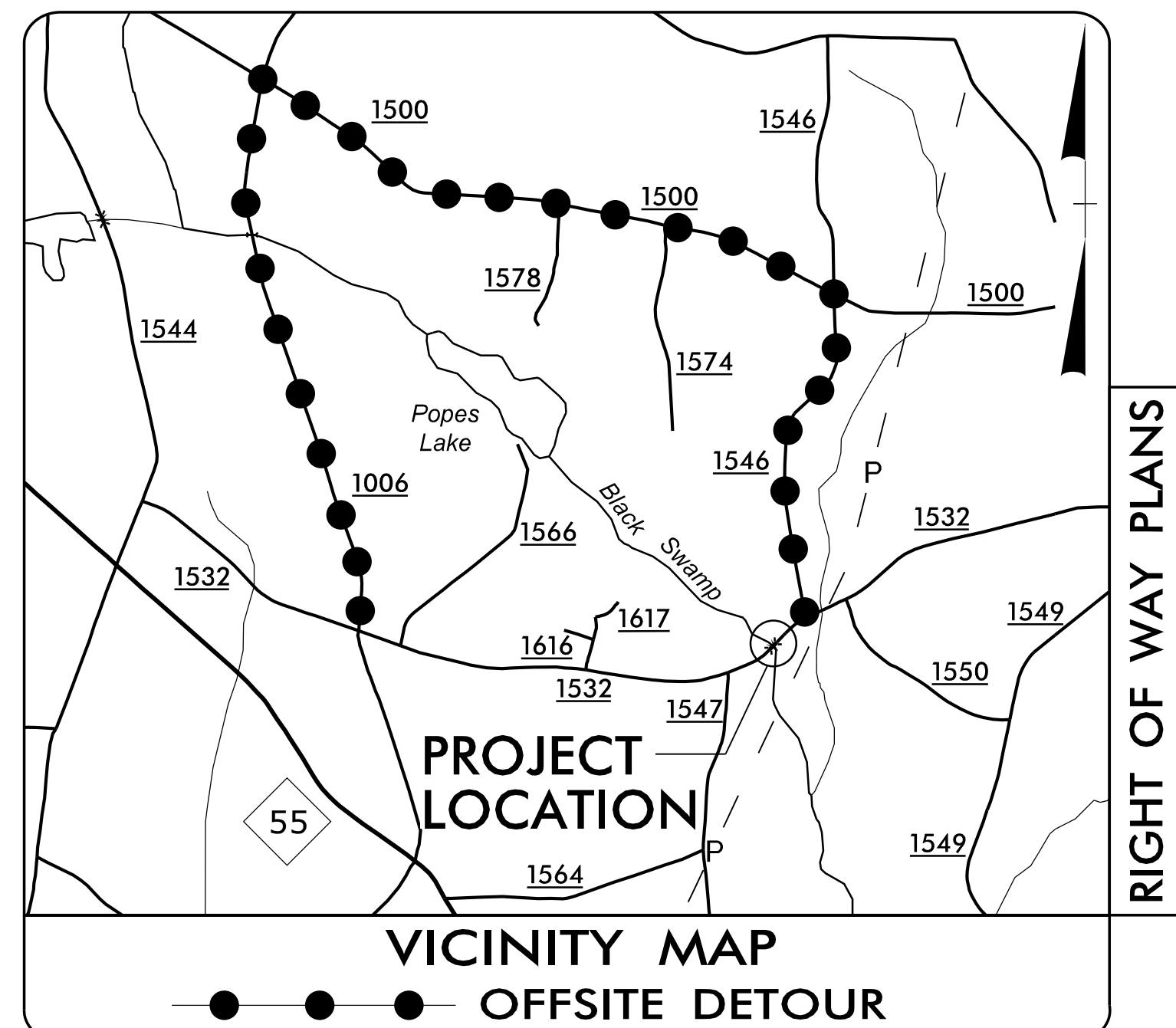
09/08/19

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**PROJECT: HS-2006Q**

**CONTRACT:**

See Sheet 1A For Index of Sheets  
See Sheet 1B For List of Conventional Symbols



**RIGHT OF WAY PLANS**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**HARNETT COUNTY**

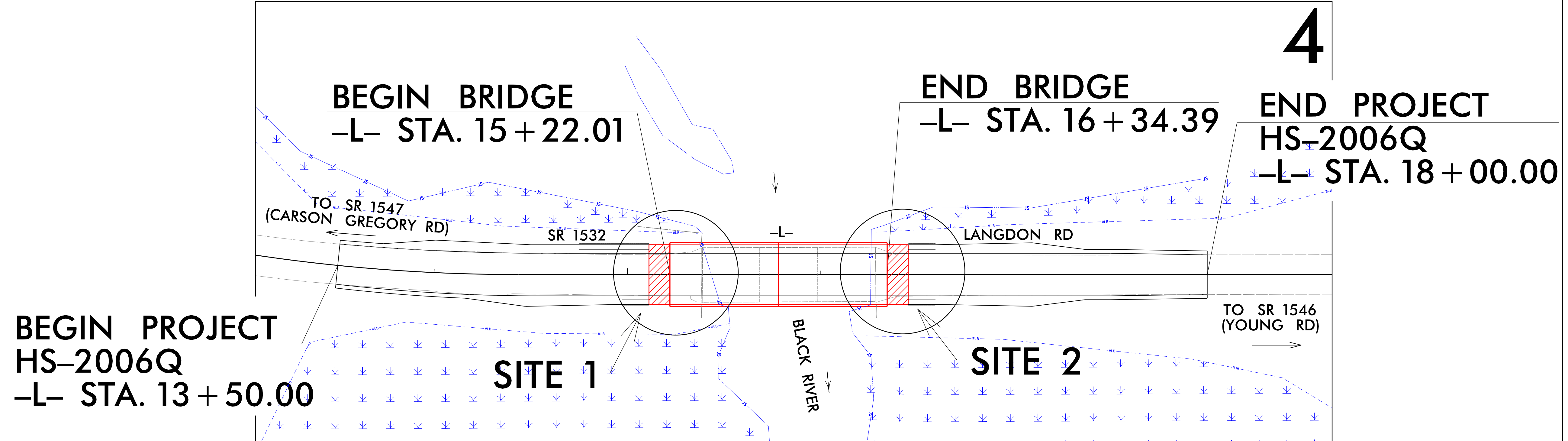
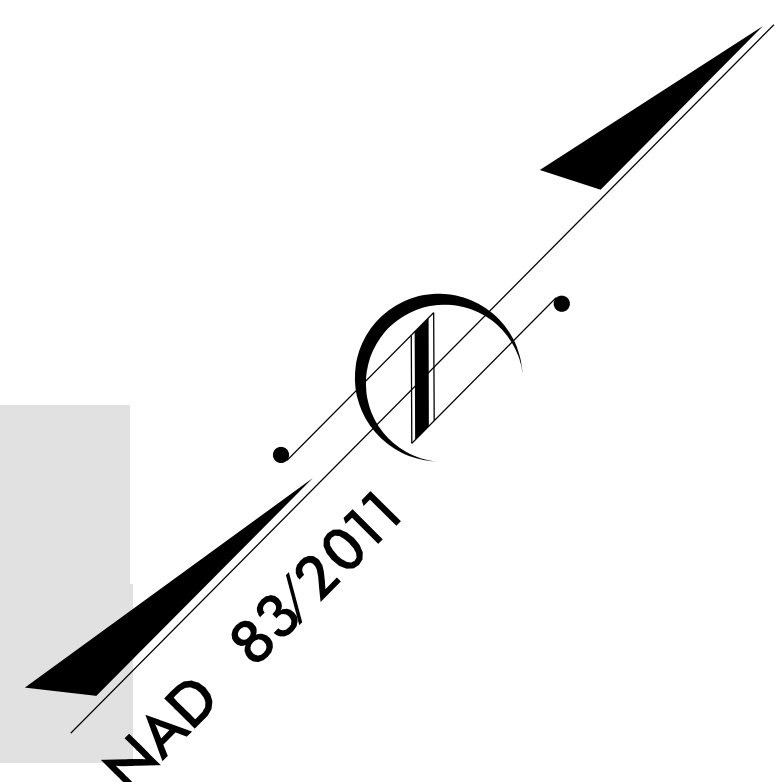
**LOCATION: BRIDGE #420015 OVER BLACK RIVER  
ON SR 1532 (LANGDON RD)**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE**

**PERMIT DRAWING  
SHEET 1 OF 7**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2006Q	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
00579838	1532(006)	PE	
00579852	1532(006)	UTIL & RW	
00579853	1532(006)	CONST.	

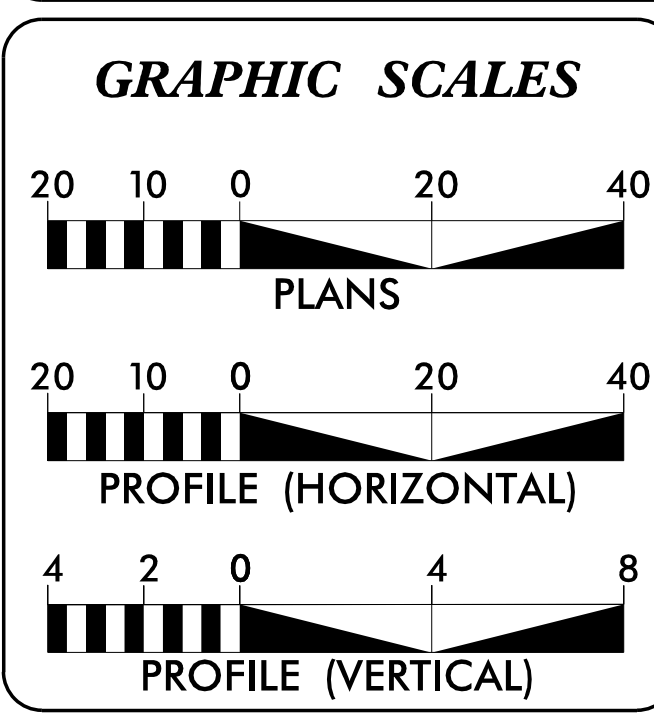
**WETLAND AND SURFACE WATER IMPACTS PERMIT  
2023.02.16**



**4**

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II MODIFIED.

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



**DESIGN DATA**

ADT 2022 =	730
ADT 2045 =	910
T =	6 % *
V =	60 MPH
* TTST =	3% DUAL = 3%
FUNC CLASS =	RURAL - LOCAL
SUB-REGIONAL TIER	

**PROJECT LENGTH**

LENGTH ROADWAY PROJECT HS-2006Q #420015	= 0.064
LENGTH STRUCTURE PROJECT HS-2006Q #420015	= 0.021
TOTAL LENGTH PROJECT HS-2006Q #420015	= 0.085

**NCDOT CONTACT: ADAM BRITT**

<b>PLANS PREPARED BY:</b> TGS ENGINEERS 201 W. MARION ST SUITE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	<b>PLANS PREPARED FOR:</b> NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 6 558 Gillespie St Fayetteville, NC 28301
<b>RIGHT OF WAY DATE:</b> MARCH 1, 2023	<b>JIMMY L. TERRY, PE</b> PROJECT ENGINEER
<b>LETTING DATE:</b> SEPT. 20, 2023	<b>AUSTIN R. TURNER, PE</b> PROJECT DESIGN ENGINEER

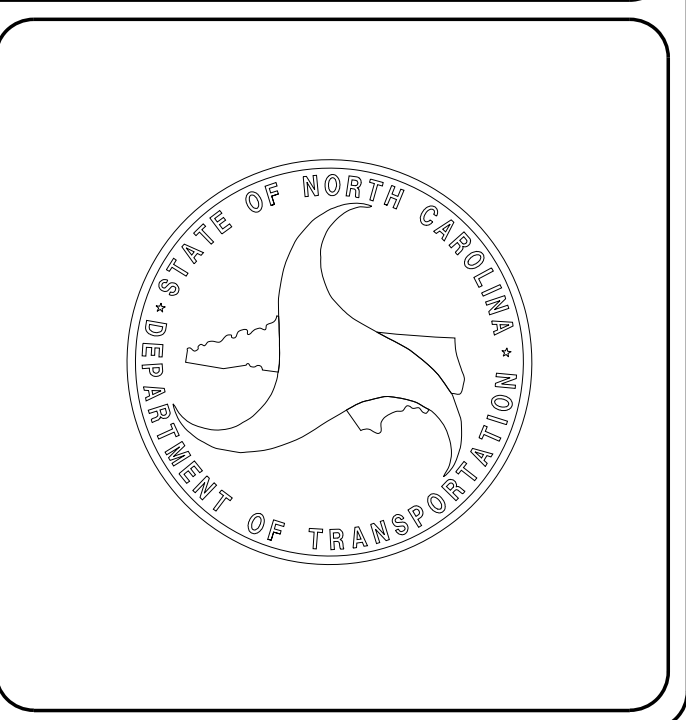
2018 STANDARD SPECIFICATIONS

**HYDRAULICS ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.




8/17/99

-L- CURVE DATA  
 PI Sta 12+65.07  
 $\Delta = 22^\circ 23' 08.3" (LT)$   
 $D = 6' 11" 14.8"$   
 $L = 361.79'$   
 $T = 183.23'$   
 $R = 926.00'$   
 $SE = 0.04$   
 $DS = 50 \text{ MPH}$

PERMIT DRAWING  
 SHEET 2 OF 7

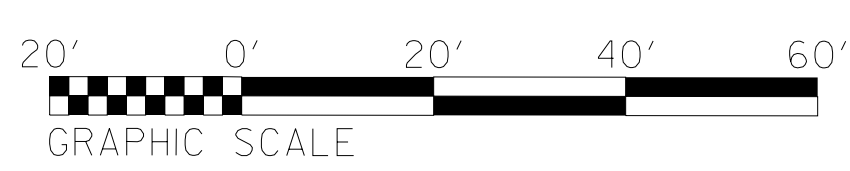
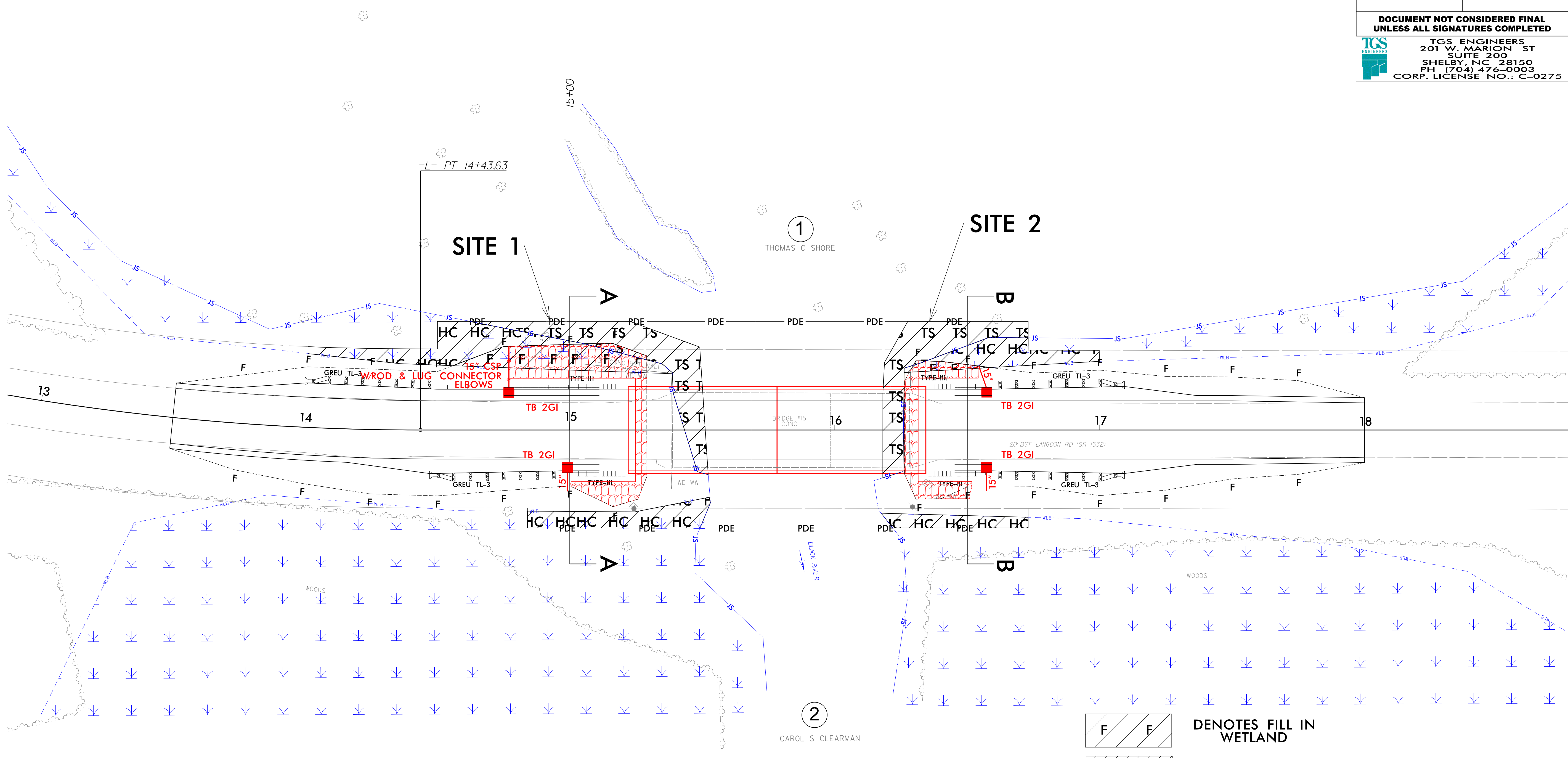
HARNETT COUNTY  
 BRIDGE #420015

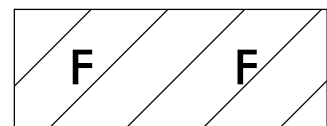

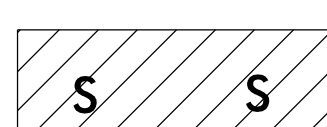

PROJECT REFERENCE NO. HS-20060	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 <b>TGS ENGINEERS</b> 201 W. MARION ST SUITE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



REVISIONS

2/22/2023  
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-  DENOTES FILL IN WETLAND
-  DENOTES HAND CLEARING
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER


FOR -L- PROFILE, SEE SHEET 5

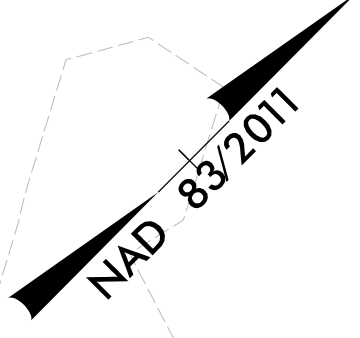
8/17/99

-L- CURVE DATA  
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 $D = 6' 11" 14.8"$   
 $L = 361.79'$   
 $T = 183.23'$   
 $R = 926.00'$   
 $SE = 0.04$   
 $DS = 50 \text{ MPH}$

PERMIT DRAWING  
 SHEET 3 OF 7

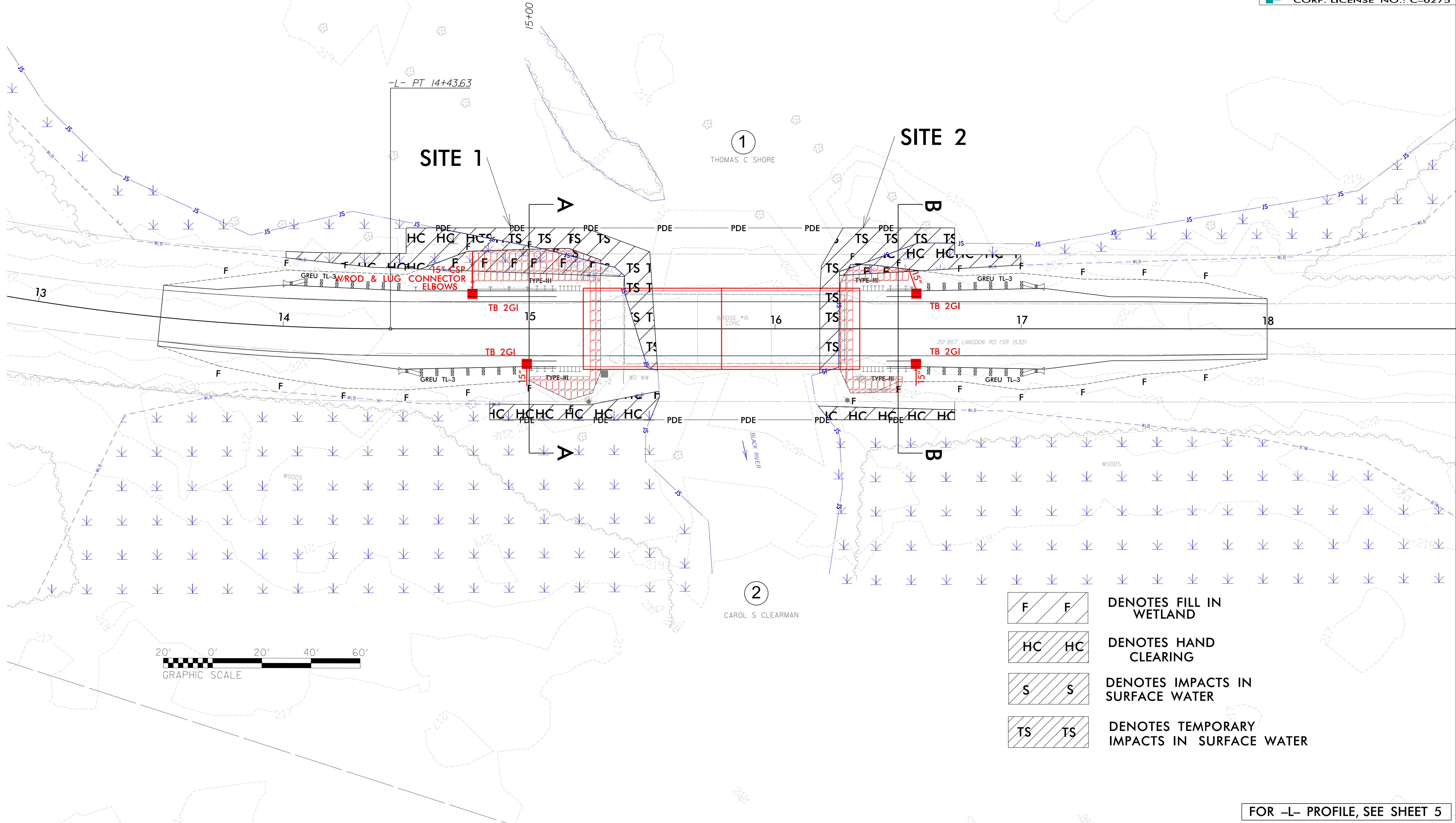
HARNETT COUNTY  
 BRIDGE #420015

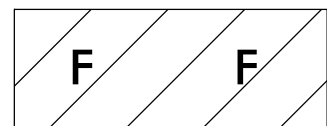

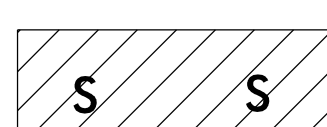

PROJECT REFERENCE NO. HS-20060	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> <b>UNLESS ALL SIGNATURES COMPLETED</b>	
 <b>TGS ENGINEERS</b> 201 W. MARION ST SUITE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



REVISIONS

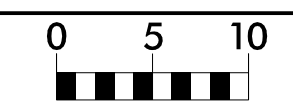
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-  DENOTES FILL IN WETLAND
-  DENOTES HAND CLEARING
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

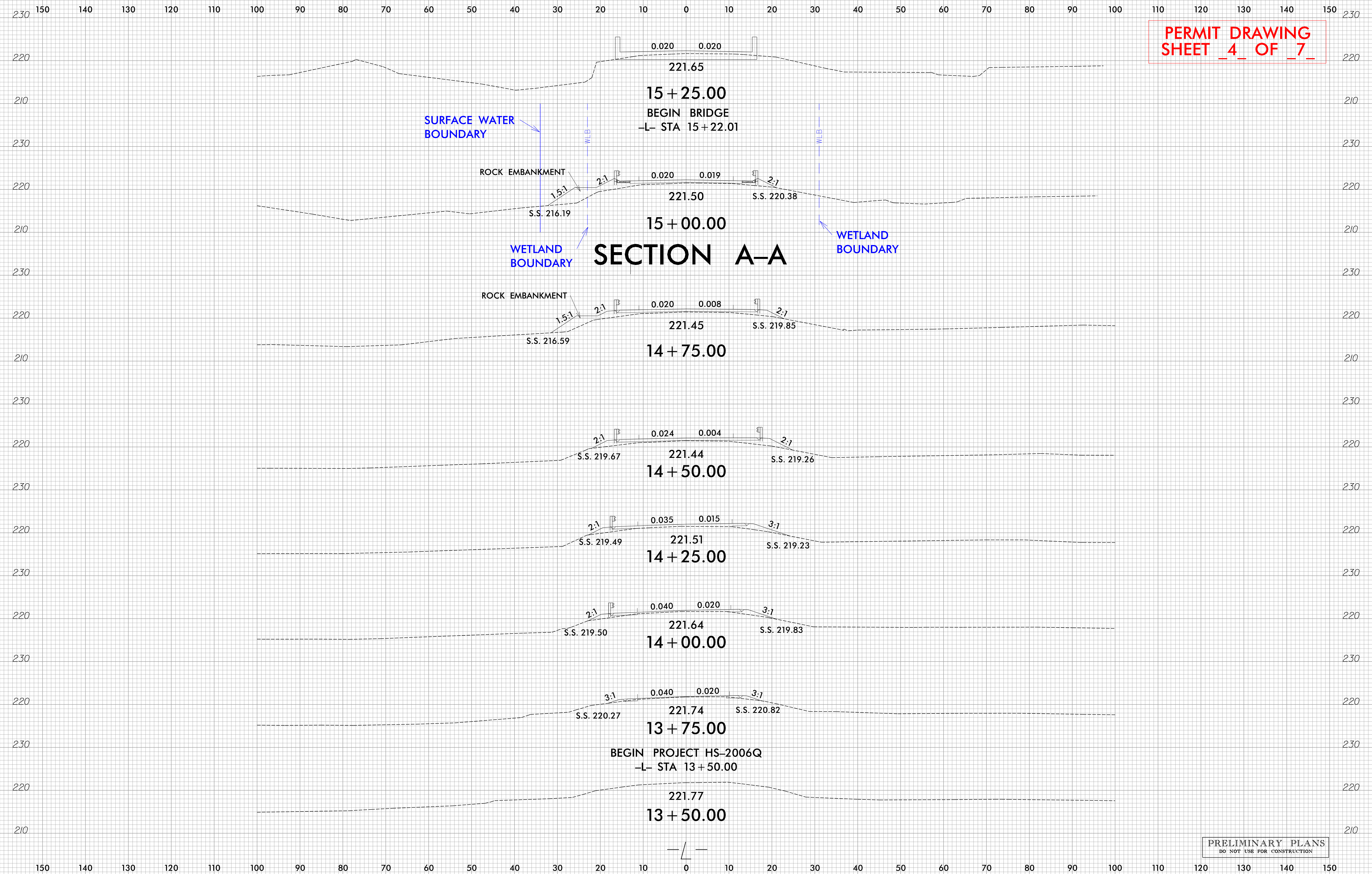
FOR -L- PROFILE, SEE SHEET 5

6/23/16



PROJ. REFERENCE NO.	SHEET NO.
HS-2006Q	X-1

**PERMIT DRAWING  
SHEET 4 OF 7**

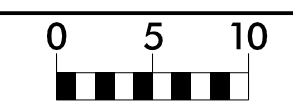


PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

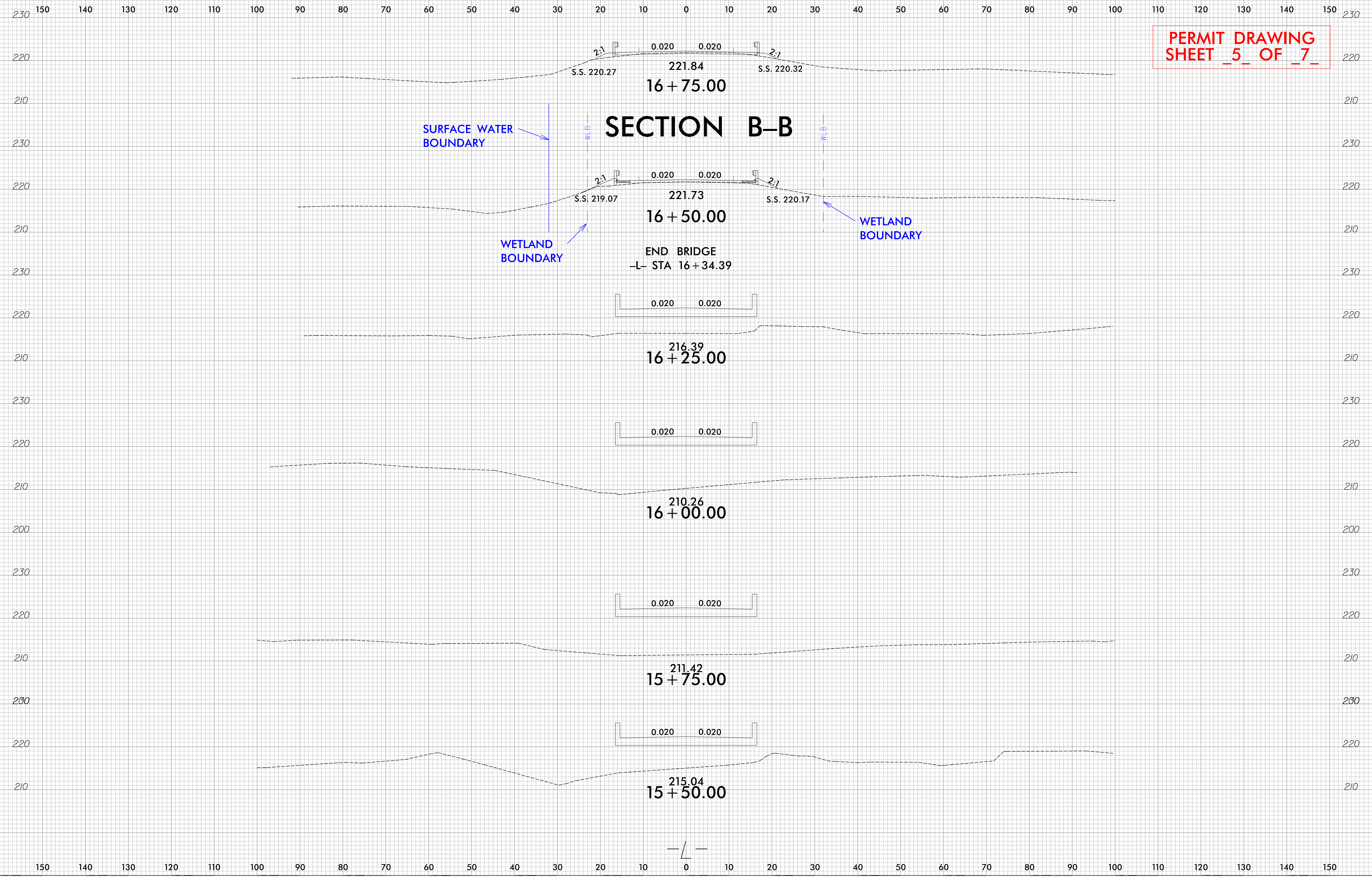
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6/23/16



PROJ. REFERENCE NO.	SHEET NO.
HS-20060	X-2

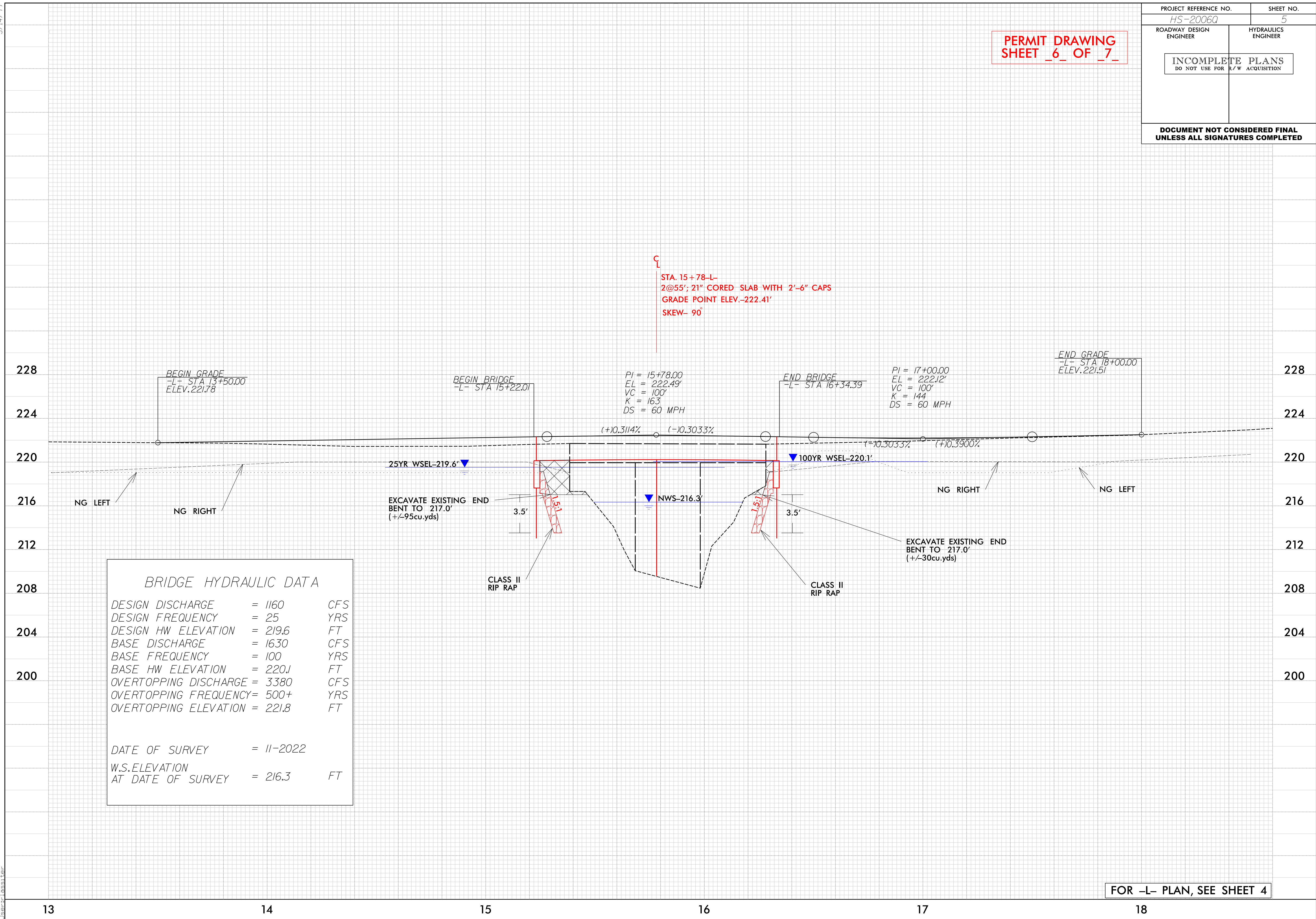


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5/14/99  
 2023/03/07 Division 6 HS-20060 Harnett 15\Hydraulics\PERMITS\Drawings\6\SF-420015\_hyd\_prm.plt.dgn  
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PROJECT REFERENCE NO. <i>HS-2006Q</i>	SHEET NO. <i>5</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL          UNLESS ALL SIGNATURES COMPLETED</b>	

PERMIT DRAWING  
 SHEET 6 OF 7



STA. 15+78-L-  
 2@55'; 21" CORED SLAB WITH 2'-6" CAPS  
 GRADE POINT ELEV. -222.41'  
 SKEW- 90°

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 1160	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 219.6	FT
BASE DISCHARGE	= 1630	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 220.1	FT
OVERTOPPING DISCHARGE	= 3380	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 221.8	FT
DATE OF SURVEY	= 11-2022	
W.S. ELEVATION AT DATE OF SURVEY	= 216.3	FT

FOR -L- PLAN, SEE SHEET 4

## WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	13+50-15+50-L-	2 @ 55';21"Cored Slab	0.01				0.03	< 0.01	0.02		39	
2	16+18-18+00-L-	2 @ 55';21"Cored Slab	< 0.01				0.02		0.02			
<b>TOTALS*:</b>			0.01				0.04	< 0.01	0.04	0	39	0

\*Rounded totals are sum of actual impacts

NOTES:  
 Site 1 Temporary Surface Waters Impacts=957 square feet; Permanent Surface Water Impacts-44 square feet  
 Site 1 Hand Clearing Impacts=1149 square feet; Permanent Fill in wetlands-560 square feet  
 Site 2 Temporary Surface Waters Impacts=848 square feet; Permanent Fill in Wetlands-75 square feet  
 Site 2 Hand Clearing Impacts=679 square feet  
 Pier Impact= 14 square feet  
 Site 1 has less than 40 linear feet of temporary existing channel impacts. (This also includes Site 2)

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 2/6/2023  
 HARNETT COUNTY  
 SF-420015  
 HS-2006Q  
 SHEET 7 OF 7