



PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

December 9, 2015

Mr. Tom Steffens
NCDOT Coordinator
Washington Regulatory Field Office
U. S. Army Corps of Engineers
2407 W 5th Street
Washington, NC 27889-1000

Mr. Stephen Lane
NCDOT Coordinator
N.C. Dept. of Environmental Quality
Division of Coastal Management
400 Commerce Avenue
Morehead City, NC 28557

Dear Sirs:

Subject: Permit modification request for the proposed improvements to US 17 in Onslow, Jones and Craven Counties, TIP No. R-2514B, C & D. Debit \$570 and \$100 from WBS 34442.1.3.

Reference: CWA Section 404 permit Action ID SAW-2008-00528 issued May 22, 2015
401 Water Quality Certification No. 004012 issued March 2, 2015
NCDWR Project No. 20141169v1
N.C. Coastal Area Management Act Permit 43-15 issued March 24, 2015

As you are aware, the North Carolina Department of Transportation (NCDOT) is constructing improvements to US 17 from SR 1330/SR 1439 south of Belgrade to the New Bern Bypass. Permits for this project were issued earlier this year, and the project was let to construction on June 16, 2015. The NCDOT is requesting a permit modification to allow for changes the contractor wants to make in the temporary access at Higgins Branch and the White Oak River (R-2514B, Permit sites 10 and 12 respectively).

Structures 2 and 3 (Site 10)

At Higgins Branch (Site 10), the permit modification will allow for temporary access between structures 2 & 3 at Sta. 147+95+00 -L-, as depicted in the attached plan sheet. At this location a section of the proposed temporary access will be removed and the main bridge will be extending over Higgins Branch. The proposed design removes the fingers at bent 1 of the permanent bridge and extends the trestle over Higgins Branch connecting the two sides. The additional area requested will have a trestle with a maximum width of 30 ft and a minimum height of the same elevation as the permanent bridge. The environmental impacted area for this location will decrease in size.

The impacted area breakdown is as follows using 30 inch diameter steel pile at 35 ft bent spacing.

- Impact disturbed by trestle columns in non-permitted area: 44.18 sqft
- Total area disturbed by trestle columns: 132.5 sqft (27 columns)
- Temporary impacts due to temporary bridge bents in wetlands on Site 10 is <0.01 acre (435.6 sqft)



Structures 4 and 5 (Site 12)

At White Oak River (Site 12), the permit modification will allow for temporary access between structures 4 & 5 at Sta. 173+54.46 -L-, as depicted in the attached plan sheets. At this location a section of the proposed temporary access will be removed and the main bridge will be extending over White Oak River. The modified design will remove part of the fingers at bent 2 of the permanent bridge and extend the trestle over White Oak River connecting the two sides. The additional area requested will have a trestle with a maximum width of 30 ft and a minimum height of the same elevation as the permanent bridge. The environmental impacted area for this location will decrease in size.

The impacted area breakdown is as follows using 30 inch diameter steel pile at 35 ft bent spacing.

- Impact disturbed by trestle columns in non-permitted area: 44.18 sq.ft.
- Total area disturbed by trestle columns: 500.69 sq.ft. (102 columns)
- Temporary impacts due to temporary bridge bents in wetlands on Site 12 is <0.03 acre (1306.8 sq.ft.).

The NCDOT hereby requests approval of these proposals by modifying the project permits as appropriate.

Sincerely,



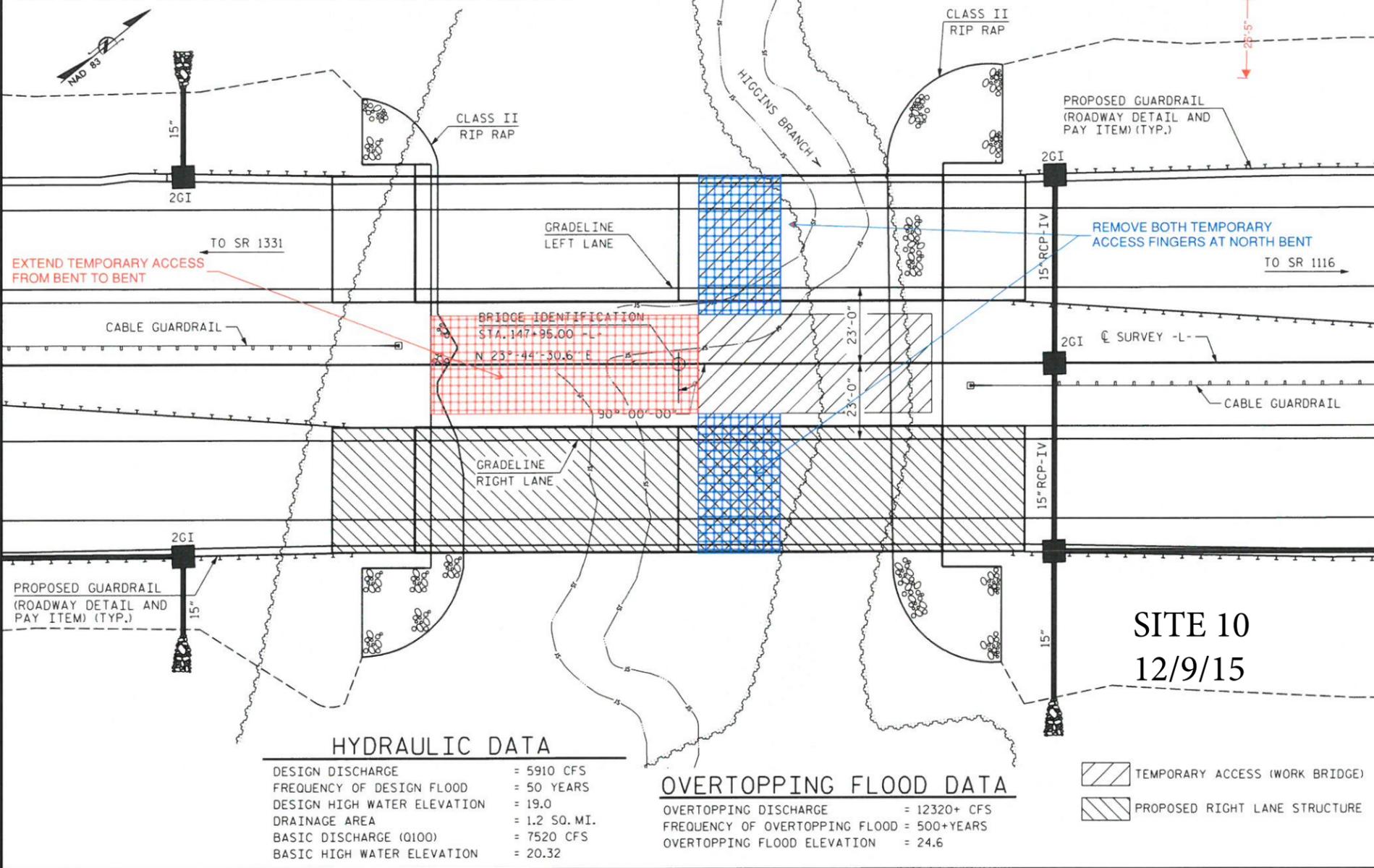
for

Richard W. Hancock, P.E., Manager
Project Development and Environmental Analysis Unit

cc NCDOT Permit Application Standard Distribution List

BM #53 - RR SPIKE IN 18" GUM. 221' RT. OF -L- STA. 145+10.00, ELEV. 20.01

NOTE: FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.



NOTES :

- ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.
- THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.
- FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
- PRESTRESSED CONCRETE DECK PANELS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
- REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
- THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES."
- NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- ALL FALSEWORK AND FORMS FOR THE CAST-IN-PLACE DECK SLAB CONTINUOUS UNIT SHALL REMAIN IN PLACE UNTIL THE ENTIRE UNIT IS CAST AND CURED.
- FOR CONSTRUCTION, MAINTENANCE AND REMOVABLE OF TEMPORARY ACCESS STATION 147+95.00 -L-, SEE PROJECT SPECIAL PROVISIONS.
- FOR PLACING LOAD ON STRUCTURE MEMBERS, SEE PROJECT SPECIAL PROVISIONS.
- FOR STEEL REINFORCED ELASTOMERIC BEARINGS, SEE PROJECT SPECIAL PROVISIONS.

SITE 10
12/9/15

HYDRAULIC DATA

DESIGN DISCHARGE = 5910 CFS
 FREQUENCY OF DESIGN FLOOD = 50 YEARS
 DESIGN HIGH WATER ELEVATION = 19.0
 DRAINAGE AREA = 1.2 SQ. MI.
 BASIC DISCHARGE (Q100) = 7520 CFS
 BASIC HIGH WATER ELEVATION = 20.32

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 12320+ CFS
 FREQUENCY OF OVERTOPPING FLOOD = 500+ YEARS
 OVERTOPPING FLOOD ELEVATION = 24.6

- TEMPORARY ACCESS (WORK BRIDGE)
- PROPOSED RIGHT LANE STRUCTURE

LOCATION SKETCH

TOTAL BILL OF MATERIAL

	PDA TESTING	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	45" PRESTRESSED CONCRETE GIRDERS		PP 14 X 0.50 GALVANIZED STEEL PILES		PP 16 X 0.50 GALVANIZED STEEL PILES		STEEL PILE POINTS	PIPE PILE PLATES	PILE REDRIVES	CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0") THICK	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	
							NO.	LIN. FT.	NO.	LIN. FT.	NO.	LIN. FT.								NO.
SUPERSTRUCTURE	EACH	SO. FT.	SO. FT.	CU. YDS.	LUMP SUM	LBS.	8	629								316.7				LUMP SUM
END BENT 1				31.6		5549			6	120				6	3		73	81		
BENT 1				18.2		4103					5	200	5		3					
END BENT 2				31.6		5549			6	120				6	3		189	210		
TOTAL	2	6531	7245	81.4	LUMP SUM	15201	8	629	12	240	5	200	5	12	9	316.7	262	291		LUMP SUM

PROJECT NO. R-2514B

ONslow COUNTY

STATION: 147+95.00 -L-

SHEET 3 OF 3



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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 BRIDGE OVER HIGGINS BRANCH
 ON PROPOSED US 17 BYPASS
 BETWEEN SR 1331 AND SR 1116
 (LEFT LANE)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-3
1			3			TOTAL SHEETS 34
2			4			

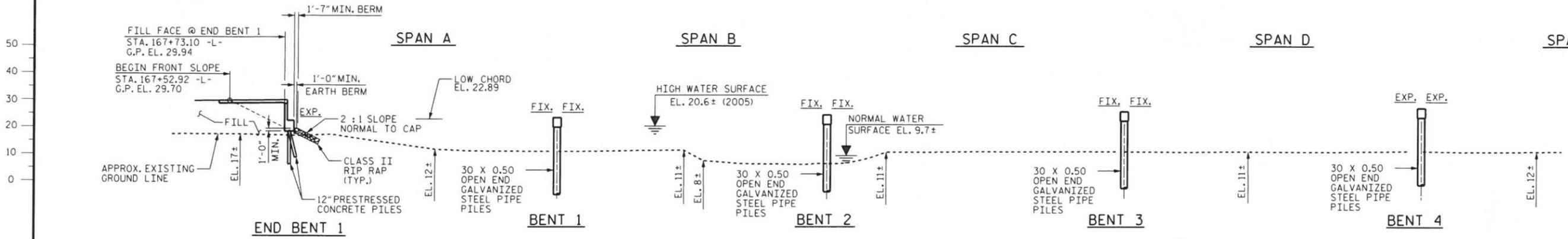
The LOUIS BERGER GROUP, Inc.
 1001 Wade Avenue, Suite 400
 Raleigh, NC 27605-3322
 NC COA No. F-0840

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 168+00 169+00 170+00 171+00 172+00

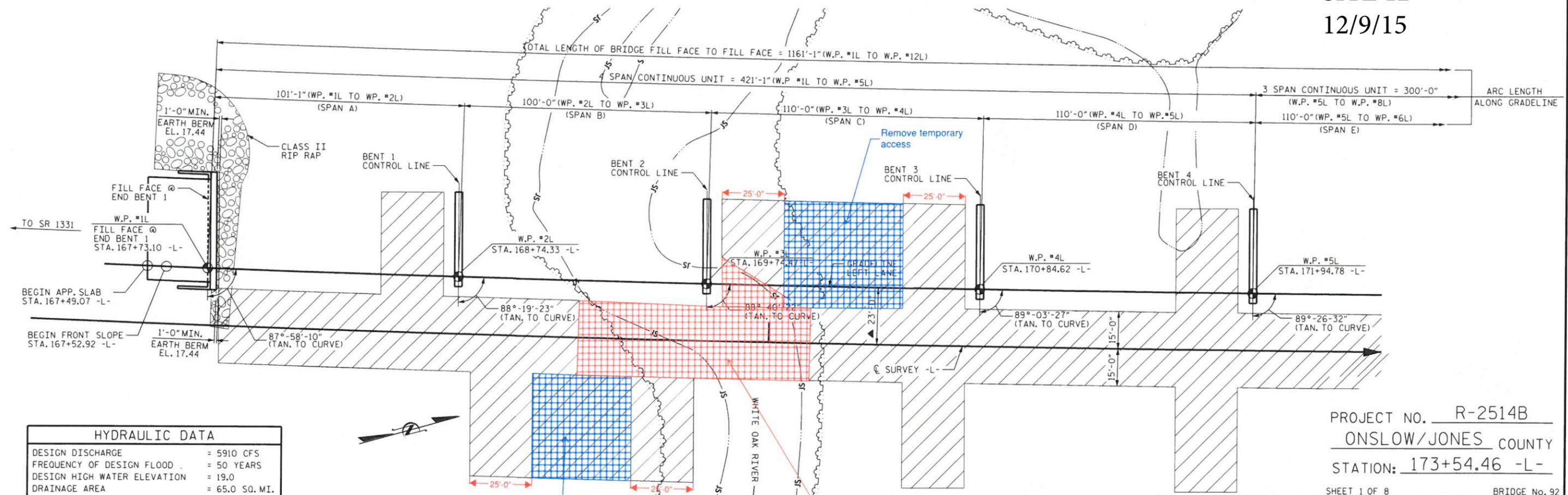
PI = 162+85.00 -L-
 EL = 24.17
 VC = 295'

GRADE DATA



SECTION ALONG LEFT LANE GRADE LINE
 SECTIONS THROUGH BENTS AND END BENTS ARE AT RIGHT ANGLES

SITE 12
12/9/15



HYDRAULIC DATA	
DESIGN DISCHARGE	= 5910 CFS
FREQUENCY OF DESIGN FLOOD	= 50 YEARS
DESIGN HIGH WATER ELEVATION	= 19.0
DRAINAGE AREA	= 65.0 SQ. MI.
BASIC DISCHARGE (Q100)	= 7520 CFS
BASIC HIGH WATER ELEVATION	= 20.32

OVERTOPPING FLOOD DATA	
OVERTOPPING DISCHARGE	= 12320+ CFS
FREQUENCY OF OVERTOPPING FLOOD	= 500+ YEARS
OVERTOPPING FLOOD ELEVATION	= 24.6 *

* OVERTOPPING ELEVATION REPRESENTS GRADE POINT @ STA. 162+15.59 -L-

HORIZONTAL CURVE DATA

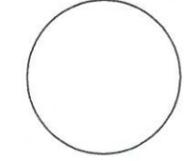
P.I. STA. = 179+99.89
 $\Delta = 21^{\circ}-13'-15.0''$ (I.T.)
 $D = 0^{\circ}-20'-57.3''$
 $L = 6,075.98'$
 $T = 3,073.20'$
 $R = 16,405.00'$

PLAN

FOR CLARITY, PILES ARE NOT SHOWN IN PLAN VIEW
 ▲ RADIAL DIMENSION
 ALL BENTS AND END BENTS ARE PARALLEL.

TEMPORARY ACCESS (WORK BRIDGE)

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE
 ON PROPOSED US 17 BYPASS
 OVER WHITE OAK RIVER
 BETWEEN SR 1331 AND SR 1116
 (LEFT LANE)

PROJECT NO. R-2514B
 ONSLOW/JONES COUNTY
 STATION: 173+54.46 -L-

SHEET 1 OF 8 BRIDGE No. 92

REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	DATE:
1			3	
2			4	

The LOUIS BERGER GROUP, Inc.
 1001 Wade Avenue, Suite 400
 Raleigh, NC 27605-3322
 NC COA No. F-0840

S4-1
 TOTAL SHEETS 75

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