

2/20/2020 2:19:45 PM G:\Projects\2018\Division 3 (SEA)\B-5626 (Onslow 31 NC50 over Sandy Run Swamp)\Structures\Drawings\Final\401\_B5626\_SMJ\_CD\_660031.dgn

**FOUNDATION NOTES:**

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT 1 AND END BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 65 TONS PER PILE AND 71 TONS PER PILE, RESPECTIVELY.

PILES AT BENT 1 AND BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 100 TONS PER PILE.

DRIVE PILES AT END BENT 1 AND END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AND 120 TONS PER PILE, RESPECTIVELY.

DRIVE PILES AT BENT 1 AND BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR SCOUR.

INSTALL PILES AT BENT 1 AND BENT 2 TO A TIP ELEVATION NO HIGHER THAN -10 FT.

STEEL H-PILE POINTS ARE REQUIRED FOR STEEL H-PILES AT END BENT 1, BENT 1, BENT 2 AND END BENT 2. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

THE SCOUR CRITICAL ELEVATION FOR BENT 1 AND BENT 2 IS ELEVATION 12.5 FT. AND 13.5 FT., RESPECTIVELY. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

TESTING PILES WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING MAY BE REQUIRED. THE ENGINEER WILL DETERMINE THE NEED FOR PDA TESTING. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PREDRILLING THROUGH HARD GRAY LIMESTONE FOR PILES IS REQUIRED AT BENT 1 AND BENT 2. PREDRILL PILE LOCATIONS TO AN ELEVATION NO LOWER THAN 6.5 FT. AND 3.5 FT., RESPECTIVELY, WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 20%. FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

FOR INTERIOR BENTS 1 AND 2, ONLY PARTIAL GALVANIZING OF THE PILES IS REQUIRED. SEE INTERIOR BENT SHEETS FOR REQUIRED GALVANIZED LENGTHS. PAYMENT FOR PARTIALLY GALVANIZED PILES WILL BE MADE UNDER THE CONTRACT UNIT PRICE FOR GALVANIZED STEEL PILES.

TOTAL BILL OF MATERIAL									
	REMOVAL OF EXISTING STRUCTURE	ASBESTOS ASSESSMENT	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	PILE DRIVING EQUIP. SETUP FOR HP 12 X 53 STEEL PILES	PILE DRIVING EQUIP. SETUP FOR HP 14 X 89 GALVANIZED STEEL PILES
	LS	LS	EA	LS	CY	LS	LB	EA	EA
SUPERSTRUCTURE						LS			
END BENT 1				LS	24.3		2,937	7	
BENT 1									8
BENT 2									8
END BENT 2				LS	24.3		2,937	7	
TOTAL	LS	LS	1	LS	48.6	LS	5,874	14	16

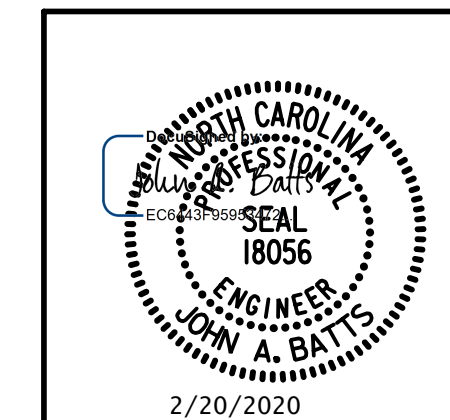
TOTAL BILL OF MATERIAL														
	HP 14 X 89 GALVANIZED STEEL PILES		HP 12 X 53 STEEL PILES		STEEL PILE POINTS	PREDRILLING FOR PILES	PILE REDRIVES	VERTICAL CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 1'-9" PRESTRESSED CONCRETE CORED SLABS		3'-0" X 2'-6" PRESTRESSED CONCRETE BENT CAPS
	NO.	LF	NO.	LF	EA	LF	EA	LF	TON	SY	LS	NO.	LF	LF
SUPERSTRUCTURE								270.75			LS	36	1620.00	
END BENT 1			7	140	7		4		90	100				
BENT 1	8	400			8	168	4							38.33
BENT 2	8	400			8	184	4							38.33
END BENT 2			7	105	7		4		120	135				
TOTAL	16	800	14	245	30	352	16	270.75	210	235	LS	36	1620.00	76.66

PROJECT NO. B-5626  
ONSLow COUNTY  
 STATION: 23+71.50 -L-

SHEET 3 OF 3

PLANS PREPARED BY:

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STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**GENERAL DRAWING**  
 BRIDGE ON NC 50  
 OVER SANDY RUN SWAMP  
 BETWEEN SR 1105 AND SR 1104

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			26

DRAWN BY: <u>S.D. COOPER</u>	DATE: <u>2-20</u>
CHECKED BY: <u>J.A. BATTS</u>	DATE: <u>2-20</u>
DESIGN ENGINEER OF RECORD: <u>J.A. BATTS</u>	DATE: <u>2-20</u>

**DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED**