

FOUNDATION LAYOUT
DIMENSIONS LOCATING PILES ARE SHOWN TO THE CENTERLINE OF PILES

FOUNDATION NOTES:

FOR PILES, SEE GEOTECHNICAL SPECIAL PROVISIONS AND SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT NO. 1 AND END BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 160 TONS PER PILE.

DRIVE PILES AT END BENT NO. 1 AND END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 270 TONS PER PILE.

STEEL H-PILE POINTS ARE REQUIRED FOR STEEL H-PILES AT END BENT NO. 1 AND END BENT NO. 2. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 40,000 FT-LBS TO 55,000 FT-LBS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT END BENT NO. 1 AND END BENT NO. 2. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM PROVIDING DRIVING EQUIPMENT IN ACCORDANCE WITH SUBARTICLE 450-3(D)(2) OF THE STANDARD SPECIFICATIONS.

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.

FOR DRILLED PIERS, SEE GEOTECHNICAL PROVISIONS AND SECTION 411 OF THE STANDARD SPECIFICATIONS.

DRILLED PIERS AT BENT NO. 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 505 TONS FOR PIER NO. 1, 625 TONS FOR PIER NO. 2, AND 480 TONS FOR PIER NO. 3. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 90 TSF FOR PIER NO. 1, 110 TSF FOR PIER NO. 2, AND 85 TSF FOR PIER NO. 3.

DRILLED PIERS AT BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 540 TONS FOR PIER NO. 1, 670 TONS FOR PIER NO. 2, AND 515 TONS FOR PIER NO. 3. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 95 TSF FOR PIER NO. 1, 120 TSF FOR PIER NO. 2, AND 20 TSF FOR PIER NO. 3.

DRILLED PIERS AT BENT NO. 3 ARE DESIGNED FOR A FACTORED RESISTANCE OF 545 TONS FOR PIER NO. 1, 675 TONS FOR PIER NO. 2, AND 515 TONS FOR PIER NO. 3. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 95 TSF FOR PIER NO. 1, 120 TSF FOR PIER NO. 2, AND 10 TSF FOR PIER NO. 3.

DRILLED PIERS AT BENT NO. 4 ARE DESIGNED FOR A FACTORED RESISTANCE OF 510 TONS FOR PIER NO. 1, 630 TONS FOR PIER NO. 2, AND 485 TONS FOR PIER NO. 3. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 90 TSF FOR PIER NO. 1, 110 TSF FOR PIER NO. 2, AND 10 TSF FOR PIER NO. 3.

INSTALL DRILLED PIERS AT BENT NO. 1 TO A TIP ELEVATION NO HIGHER THAN 65 FT. FOR PIER NO. 1, 64 FT. FOR PIER NO. 2, AND 63 FT. FOR PIER NO. 3 WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 7 FT. INTO ROCK AS DEFINED BY ARTICLE 411-1 OF THE STANDARD SPECIFICATIONS.

INSTALL DRILLED PIERS AT BENT NO. 2 TO A TIP ELEVATION NO HIGHER THAN 61 FT. FOR PIER NO. 1, 51 FT. FOR PIER NO. 2, AND 55 FT. FOR PIER NO. 3 WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 7 FT. INTO ROCK FOR PIER NO. 1, AT LEAST 4 FT. INTO ROCK FOR PIER NO. 2 AS DEFINED BY ARTICLE 411-1 OF THE STANDARD SPECIFICATIONS.

INSTALL DRILLED PIERS AT BENT NO. 3 TO A TIP ELEVATION NO HIGHER THAN 52 FT. FOR PIER NO. 1, 42 FT. FOR PIER NO. 2, AND 52 FT. FOR PIER NO. 3 WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 4 FT. INTO ROCK FOR PIER NO. 1 AND AT LEAST 10 FT. INTO ROCK FOR PIER NO. 2 AS DEFINED BY ARTICLE 411-1 OF THE STANDARD SPECIFICATIONS.

INSTALL DRILLED PIERS AT BENT NO. 4 TO A TIP ELEVATION NO HIGHER THAN 55 FT. FOR PIER NO. 1, 47 FT. FOR PIER NO. 2, AND 54 FT. FOR PIER NO. 3 WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 4 FT. INTO ROCK FOR PIER NO. 1, AT LEAST 6 FT. INTO ROCK FOR PIER NO. 2, AS DEFINED BY ARTICLE 411-1 OF THE STANDARD SPECIFICATIONS.

PERMANENT STEEL CASINGS MAY BE REQUIRED FOR DRILLED PIERS AT BENT NO. 1. IF REQUIRED, DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATION 74 FT. WITHOUT PRIOR APPROVAL FROM THE ENGINEER. THE ENGINEER WILL DETERMINE THE NEED FOR PERMANENT CASINGS.

PERMANENT STEEL CASINGS MAY BE REQUIRED FOR DRILLED PIERS AT BENT NO. 2. IF REQUIRED, DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATION 70 FT. WITHOUT PRIOR APPROVAL FROM THE ENGINEER. THE ENGINEER WILL DETERMINE THE NEED FOR PERMANENT CASINGS.

PERMANENT STEEL CASINGS MAY BE REQUIRED FOR DRILLED PIERS AT BENT NO. 3. IF REQUIRED, DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATION 69 FT. WITHOUT PRIOR APPROVAL FROM THE ENGINEER. THE ENGINEER WILL DETERMINE THE NEED FOR PERMANENT CASINGS.

PERMANENT STEEL CASINGS MAY BE REQUIRED FOR DRILLED PIERS AT BENT NO. 4. IF REQUIRED, DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATION 70 FT WITHOUT PRIOR APPROVAL FROM THE ENGINEER. THE ENGINEER WILL DETERMINE THE NEED FOR PERMANENT CASINGS.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1 AND BENT NO. 4 IS ELEVATION 77 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

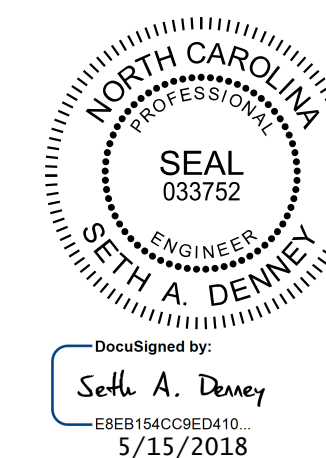
THE SCOUR CRITICAL ELEVATION FOR BENT NO. 2 AND BENT NO. 3 IS ELEVATION 75 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

CSL TUBES ARE REQUIRED AND CSL TESTING MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR CSL TESTING. FOR CSL TESTING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

PIT MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR PIT. FOR PILE INTEGRITY TESTING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

PROJECT NO. R-3822
HALIFAX COUNTY
STATION: 99+17.60 -L1-

SHEET 2 OF 3



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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
GENERAL DRAWING
FOR BRIDGE ON PREMIER BLVD.
EXTENSION OVER CHOCKOYOTTE CREEK
BETWEEN NC HWY 125 AND
4TH AVENUE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			58

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