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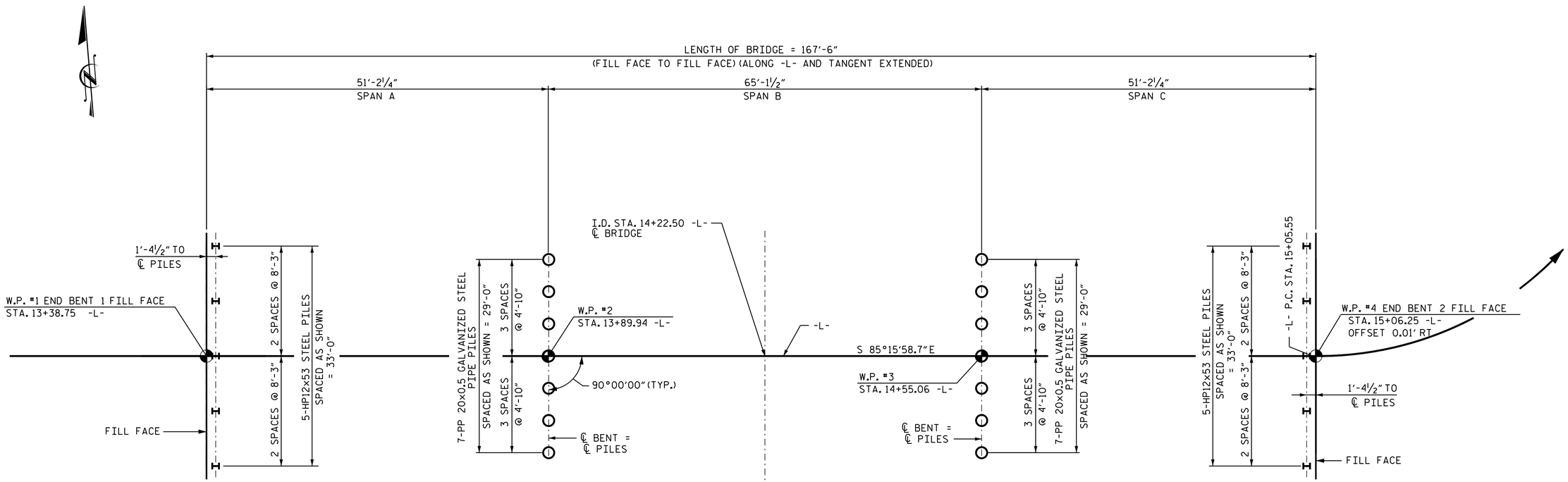

FOUNDATION LAYOUT

FOUNDATION RECOMMENDATION NOTES

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT NO. 1 AND END BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 81 TONS PER PILE.

DRIVE PILES AT END BENT NO. 1 AND END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 135 TONS PER PILE.

PILES AT BENT NO. 1 AND BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 125 TONS PER PILE.

DRIVE PILES AT BENT NO. 1 AND BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAG OR SCOUR.

INSTALL PILES AT BENT NO. 1 AND BENT NO. 2 TO A TIP ELEVATION NO HIGHER THAN -20 FT.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1 AND BENT NO. 2 IS ELEVATION 3 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 57,000 FT-LBS TO 81,500 FT-LBS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT BENT NO. 1 AND 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 AT WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED AT BENT NO. 1 AND BENT NO. 2. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PIPE PILE PLATES ARE REQUIRED FOR THE FIRST PRODUCTION STEEL PIPE PILE TO BE TESTED WITH PDA AT EACH INTERIOR BENT. THE ENGINEER WILL DETERMINE THE NEED FOR PIPE PILE PLATES AFTER DRIVING TEST PILES OR A FEW INITIAL PRODUCTION PILES. FOR STEEL PIPE PILE PLATES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

NO WAITING PERIOD REQUIRED AT END BENTS 1 AND 2

ALL END BENT PILES ARE HP12X53 STEEL PILES. DIMENSIONS LOCATING PILES ARE SHOWN TO THE CENTERLINE OF PILES. ORIENT PILES AS SHOWN. ALL BENT PILES ARE PP20X0.5 GALVANIZED STEEL PIPE PILES. DIMENSIONS LOCATING PIPE PILES ARE SHOWN TO THE CENTERLINE OF THE PIPE PILES.

PROJECT NO. 17BP.1.R.92
NORTHAMPTON COUNTY
STATION: 14+22.50 -L-

SHEET 2 OF 3 BRIDGE NO. 650013

NORTH CAROLINA PROFESSIONAL SEAL 036548 ENGINEER DANIEL R. BURGUNDY
DocuSigned by: Daniel R. Burgundy
4F9B9D43TEEC4B7...
5/4/2021

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE OVER
MEHERRIN RIVER ON
SR 1339 (BRANCHES BRIDGE ROAD)
BETWEEN SR 1333 AND NC 701

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			22

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PREPARED IN THE OFFICE OF:
ATKINS
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

DRAWN BY :	CB	DATE :	4/19
CHECKED BY :	MHR	DATE :	6/19
DESIGN ENGINEER OF RECORD:	DRB	DATE :	6/19