



### FOUNDATION LAYOUT

DIMENSIONS LOCATING PILES AND DRILLED PIERS ARE SHOWN TO THE CENTERLINE OF PILES AND DRILLED PIERS

#### NOTES

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

PILES AT END BENT 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 120 TONS PER PILE.

DRIVE PILES AT END BENT 1 TO A REQUIRED DRIVING RESISTANCE OF 200 TONS PER PILE.

PILES AT END BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 105 TONS PER PILE.

DRIVE PILES AT END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 175 TONS PER PILE.

DO NOT BEGIN WORK AT END BENT 1 AND END BENT 2 UNTIL FILL HAS BEEN PLACED.

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.

SEE ROADWAY PLANS AND SPECIAL PROVISIONS FOR THE SETTLEMENT GAUGES REQUIRED AT END BENT 2.

OBSERVE A 4 MONTH WAITING PERIOD AFTER CONSTRUCTING THE EMBANKMENTS TO WITHIN 2 FT. OF FINISHED GRADE BEFORE BEGINNING END BENT CONSTRUCTION AT END BENT 2. FOR BRIDGE WAITING PERIODS, SEE ROADWAY PLANS AND SPECIAL PROVISIONS.

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

DRILLED PIERS AT BENT 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 610 TONS PER PIER.

PERMANENT STEEL CASINGS MAY BE REQUIRED FOR DRILLED PIERS AT BENT 1 AND BENT 2. IF REQUIRED, DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATION 850.00 WITHOUT PRIOR APPROVAL FROM THE ENGINEER. THE ENGINEER WILL DETERMINE THE NEED FOR PERMANENT CASINGS.

INSTALL DRILLED PIERS AT BENT 1 TO A TIP ELEVATION NO HIGHER THAN 798.00 AND WITH A PENETRATION OF AT LEAST 17.5 FT. INTO WEATHERED ROCK/CRYSTALLINE ROCK.

DRILLED PIERS AT BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 700 TONS PER PIER.

INSTALL DRILLED PIERS AT BENT 2 TO A TIP ELEVATION NO HIGHER THAN 812.00 (LT) AND 809.00 (RT) AND WITH A PENETRATION OF AT LEAST 22.5 FT. INTO WEATHERED ROCK/CRYSTALLINE ROCK.

SLURRY CONSTRUCTION IS REQUIRED FOR DRILLED PIERS AT BENT 1 AND BENT 2.

SPT IS REQUIRED FOR DRILLED PIERS AT BENT 1 AND BENT 2. THE REQUIRED N60 SPT VALUE IS 100 BLOWS IN THE FIRST FOOT OF THE DRIVE. FOR SPT TESTING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

SID INSPECTIONS MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR SID INSPECTIONS. FOR SID INSPECTIONS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

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.

THE SCOUR CRITICAL ELEVATION FOR BENT 1 AND BENT 2 IS ELEVATION 845.00. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PROJECT NO. U-2579C  
FORSYTH COUNTY  
 STATION: 473+70.00 -L-

SHEET 2 OF 3



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**GENERAL DRAWING**  
 FOR BRIDGE OVER  
 LOWERY MILL CREEK  
 ON WINSTON-SALEM BELTWAY  
 BETWEEN SR 2381 AND US 158  
 (RIGHT LANE)

DRAWN BY : M.K. BEARD DATE : 9/26/16  
 CHECKED BY : H.T. BARBOUR DATE : 3/23/17  
 DESIGN ENGINEER OF RECORD: H.A. LOCKLEAR DATE : 6/2017

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-2
1			3			TOTAL SHEETS
2			4			33