



FOUNDATION LAYOUT

ALL END BENT PILES ARE HP 12 X 53. DIMENSIONS LOCATING PILES ARE SHOWN TO THE PILE CENTERLINE AT THE BOTTOM OF THE CAP. END BENT BRACE PILES ARE BATTERED 3:12.

NOTES

DRILLED PIERS AT BENT NO. 5 ARE DESIGNED FOR A FACTORED RESISTANCE OF 776.0 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 95.0 TSF.

INSTALL DRILLED PIERS AT BENT NO. 5 TO A TIP ELEVATION NO HIGHER THAN 712.0 FEET WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 12 FEET OF ROCK AS DEFINED BY ARTICLE 411 OF THE STANDARD SPECIFICATIONS.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 5 IS ELEVATION 722.0 FEET. THE SCOUR CRITICAL ELEVATION ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PERMANENT STEEL CASINGS ARE REQUIRED FOR DRILLED PIERS AT BENT NO. 5. DO NOT EXTEND PERMANENT CASING BELOW ELEVATION 725.0 FEET WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

DRILLED PIERS AT BENT NO. 6 ARE DESIGNED FOR A FACTORED RESISTANCE OF 776.0 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 95.0 TSF.

INSTALL DRILLED PIERS AT BENT NO. 6 TO A TIP ELEVATION NO HIGHER THAN 712.0 FEET WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 12 FEET OF ROCK AS DEFINED BY ARTICLE 411 OF THE STANDARD SPECIFICATIONS.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 6 IS ELEVATION 724.0 FEET. SCOUR CRITICAL ELEVATION ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PERMANENT STEEL CASING IS REQUIRED FOR DRILLED PIERS AT BENT NO. 6. DO NOT EXTEND CASING BELOW ELEVATION 726.0 FEET WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

DRILLED PIERS AT BENT NO. 7 ARE DESIGNED FOR A FACTORED RESISTANCE OF 784.0 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 95.0 TSF.

INSTALL DRILLED PIERS AT BENT NO. 7 TO A TIP ELEVATION NO HIGHER THAN 712.5 FEET WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 12 FEET OF ROCK AS DEFINED BY ARTICLE 411 OF THE STANDARD SPECIFICATIONS.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 7 IS ELEVATION 724.0 FEET. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PERMANENT STEEL CASING IS REQUIRED FOR DRILLED PIERS AT BENT NO. 7. DO NOT EXTEND CASING BELOW ELEVATION 725.0 FEET WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

DRILLED PIERS AT BENT NO. 8 ARE DESIGNED FOR A FACTORED RESISTANCE OF 670.0 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 95.0 TSF.

INSTALL DRILLED PIERS AT BENT NO. 8 TO A TIP ELEVATION NO HIGHER THAN 715.4 FEET WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 12 FEET OF ROCK AS DEFINED BY ARTICLE 411 OF THE STANDARD SPECIFICATIONS.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 8 IS ELEVATION 726.0 FEET. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

SID INSPECTIONS MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR SID INSPECTION. 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.

OBSERVE A THREE MONTH WAITING PERIOD AFTER CONSTRUCTING THE EMBANKMENT TO WITHIN TWO FEET OF FINISHED GRADE BEFORE BEGINNING END BENT CONSTRUCTION AT END BENT NO. 2. FOR BRIDGE WAITING PERIODS, SEE ROADWAY PLANS AND SECTION 235 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 90 TONS PER PILE.

DRIVE PILES AT END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

PROJECT NO. B-5825
YADKIN/FORSYTH COUNTY
 STATION: 34+65.50 -L-

SHEET 5 OF 7

4/14/2020

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE OVER
 YADKIN RIVER ON
 NC 67
 BETWEEN SR 1607 AND SR 1600

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

TGS ENGINEERS
 706 HILLSBOROUGH STREET
 SUITE 200
 RALEIGH, NC 27603
 PH (919) 773-8887
 CORP. LICENSE NO.: C-0275

DRAWN BY : <u>ZCS</u> DATE : <u>12/19</u>	SHEET NO. <u>S-5</u>
CHECKED BY : <u>MGC</u> DATE : <u>1/20</u>	TOTAL SHEETS <u>60</u>
DESIGN ENGINEER OF RECORD: <u>TBE</u> DATE : <u>2/20</u>	