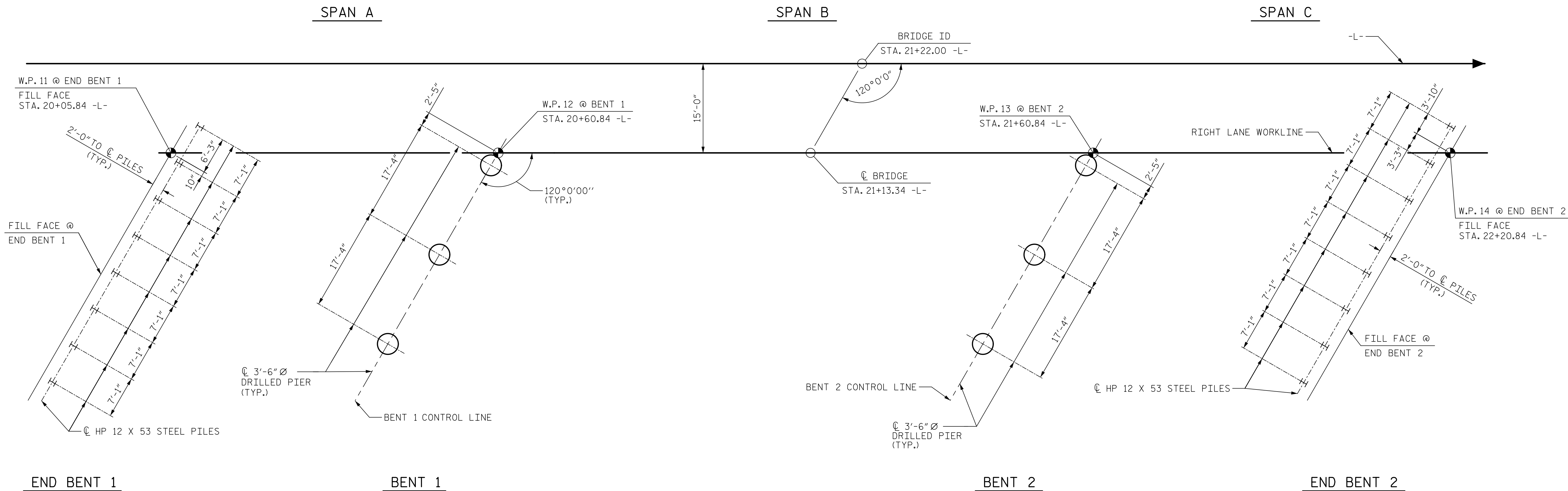


DATE: 6/9/2022
TIME: 12:46:39 PM

USER: gregory.cole
DN: cn=Gregory Cole, ou=Engineering, o=AECOM, c=US
DRAWING NO: B-5717-S1-02
PROJECT NO: B-5717
SHEET NO: S1-02



FOUNDATION LAYOUT

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

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 110 TONS PER PILE.
- DRIVE PILES AT END BENT 1 AND END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 185 TONS PER PILE.
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- STEEL H-PILES 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.
- FOR DRILLED PIERS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.
- PERMANENT STEEL CASINGS MAY BE REQUIRED FOR DRILLED PIERS AT BENT 1. DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATION 690.1 FT (LT) AND 690.7 FT (RT) WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- DRILLED PIERS AT BENT 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 540 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 5 TSF.
- INSTALL DRILLED PIERS AT BENT 1 TO A TIP ELEVATION NO HIGHER THAN 680.0 FT (LT), 676.0 FT (C), AND 672.0 FT (RT) WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 5 FT INTO ROCK AS DEFINED BY ARTICLE 411-1 OF THE STANDARD SPECIFICATIONS.

- THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1 IS ELEVATION 690 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.
- PERMANENT STEEL CASINGS MAY BE REQUIRED FOR DRILLED PIERS AT BENT 2. DO NOT EXTEND PERMANENT CASINGS BELOW ELEVATION 688.3 FT (LT) AND 688.1 FT (RT) WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- DRILLED PIERS AT BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 545 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 5 TSF.
- INSTALL DRILLED PIERS AT BENT 2 TO A TIP ELEVATION NO HIGHER THAN 669.0 FT (LT), 668.0 FT (C), AND 668.0 FT (RT) WITH THE REQUIRED TIP RESISTANCE AND A PENETRATION OF AT LEAST 5 FT INTO ROCK AS DEFINED BY ARTICLE 411-1 OF THE STANDARD SPECIFICATIONS.
- THE SCOUR CRITICAL ELEVATION FOR BENT NO. 2 IS ELEVATION 688 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.
- SPT MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR SPT. 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.

SPECIAL FOUNDATION NOTES:

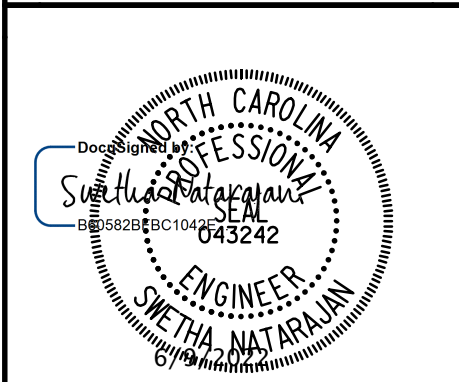
- BOULDERS WERE ENCOUNTERED IN BORINGS EB1-C (6 FEET), EB1-C1 (6.2 FEET), EB1-C2 (10.5 FEET), EB1-C3 (13.2 FEET), AND EB2-C (4.5 FEET).
- IF DURING PILE DRIVING, PILES ENCOUNTER OBSTRUCTIONS SUCH AS BOULDERS, CONCRETE, OR CONSTRUCTION DEBRIS AND CANNOT BE DRIVEN TO AN ELEVATION AT LEAST 15 FT. BELOW THE BOTTOM OF CAP, THEN PILE DRIVING SHALL STOP. THE CONTRACTOR SHALL OVER-EXCAVATE TO REMOVE ANY DEBRIS OR HARD OBJECTS AND THEN PROCEED WITH PILE DRIVING. THE EXCAVATED AREA SHALL BE FILLED WITH #57 STONE. THIS WORK OF EXCAVATION AND MATERIAL BACKFILLING WILL BE CONSIDERED INCIDENTAL TO PILE DRIVING EQUIPMENT SETUP FOR HP 12X53 PILES.

REVISION #1:
REMOVED PREDRILLING FOR PILES
PAY ITEM.



PROJECT NO. B-5717
GUILFORD COUNTY
 STATION: 21+22.00 -L-

SHEET 2 OF 3



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING

FOR BRIDGE ON SR 4240 OVER
 S. BUFFALO CREEK BETWEEN
 E. FLORIDA ST. AND SR 3140
 (RIGHT LANE)

DRAWN BY : M.L. CATER	DATE : 09/2021
CHECKED BY : G.R. COLS	DATE : 08/2021
DESIGNED BY : S. NATARAJAN	DATE : 03/2021
DESIGN CHECKED BY : G.R. COLS	DATE : 03/2021

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-02
1	SN	6-9-22	3			TOTAL SHEETS
2			4			38