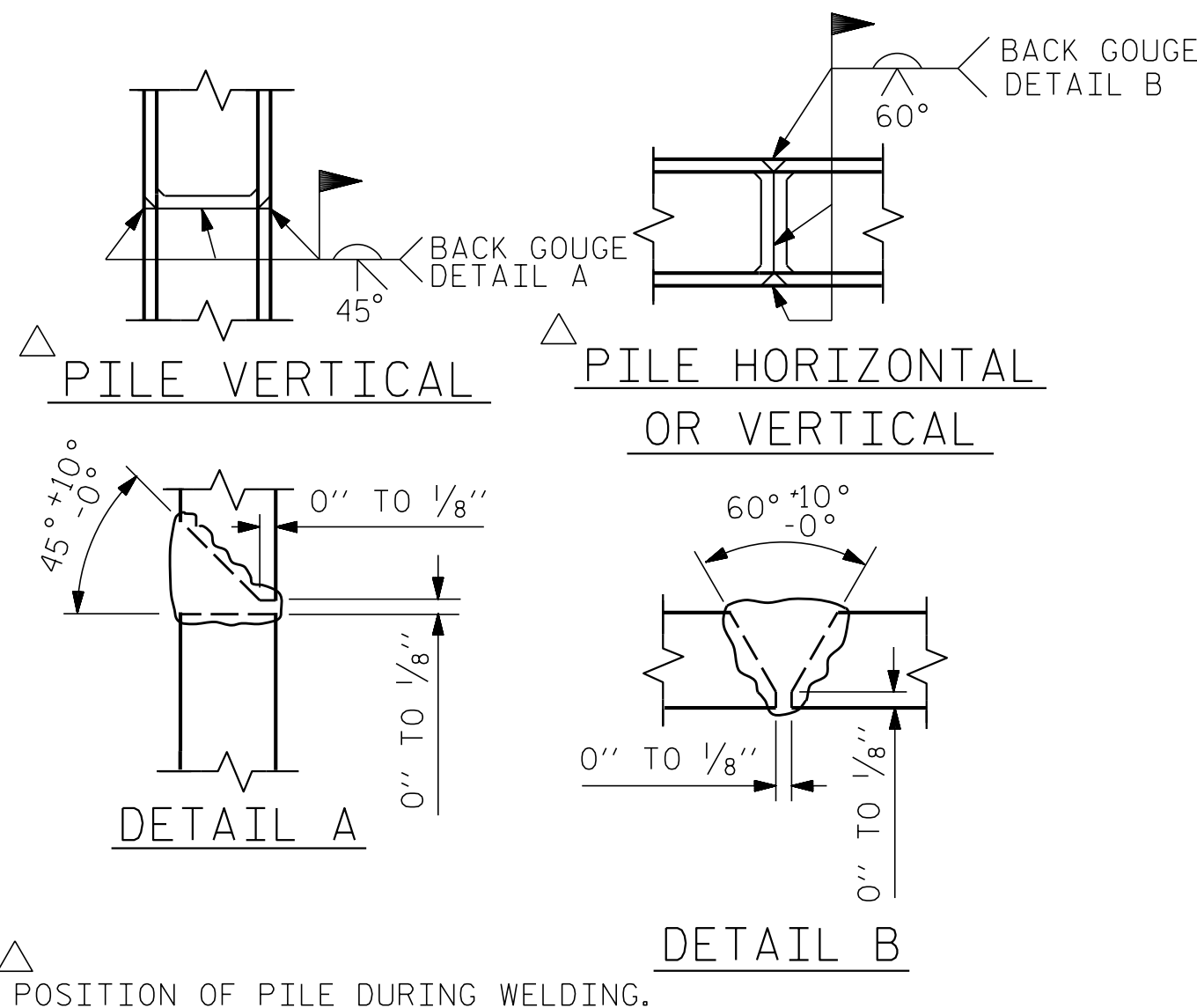


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR EFFECTIVENESS.

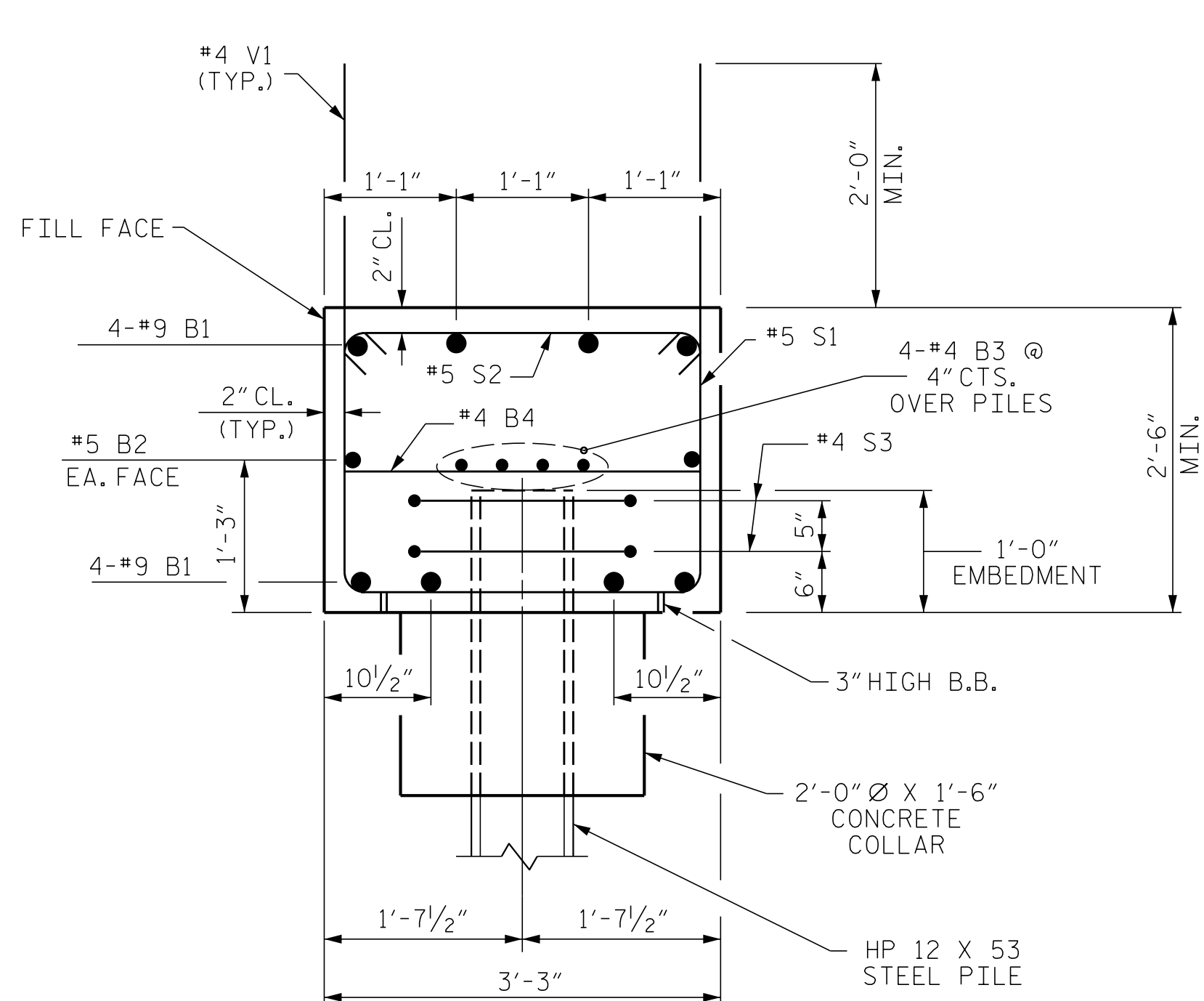
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

### TEMPORARY DRAINAGE AT END BENT

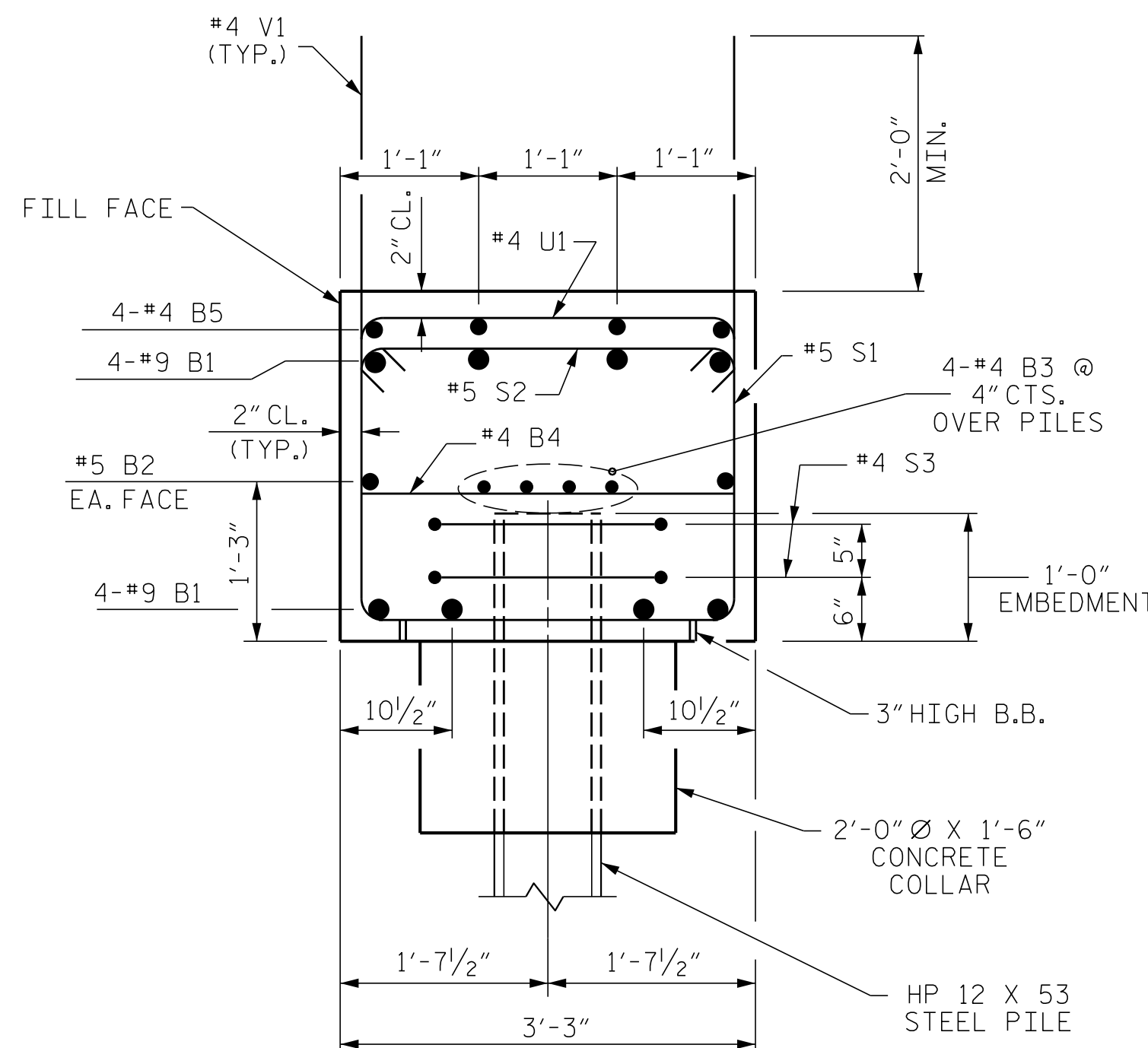


### PILE SPLICE DETAILS

BAR TYPES					BILL OF MATERIAL				
					END BENT No. 2				
BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT				
B1	8	#9		44'-3"	1,204				
B2	2	#5	STR	41'-11"	87				
B3	8	#4	STR	22'-2"	118				
B4	11	#4	STR	2'-11"	21				
B5	4	#4	STR	12'-8"	34				
H1	32	#4		8'-2"	175				
H2	20	#4	STR	3'-7"	48				
S1	36	#5		8'-1"	304				
S2	36	#5		3'-10"	144				
S3	10	#4		6'-6"	43				
U1	9	#4		5'-11"	36				
V1	64	#4	STR	4'-3"	182				
V2	48	#4	STR	6'-5"	206				
REINFORCING STEEL					2,602 LBS.				
CLASS A CONCRETE BREAKDOWN									
POUR #1	CAP, CONC, COLLARS & LOWER PART OF WINGS				15.2 C.Y.				
POUR #2	UPPER PART OF WINGS				3.5 C.Y.				
TOTAL CLASS A CONCRETE					18.7 C.Y.				
HP 12 X 53 STEEL PILES									
NO: 5					LIN. FT. = 355				
PILE REDRIVES					3 EA.				
PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES					5 EA.				



SECTION A-A



SECTION B-B

PROJECT NO. BR-0014  
 CUMBERLAND COUNTY  
 STATION: 21+37.00 -LREV-

SHEET 3 OF 3

ENGINEER OF RECORD  
 6/6/2019

NORTH CAROLINA PROFESSIONAL SEAL  
 37400

ENGINEER  
 GREGORY M. GILLAND

Gregory M. Gilland  
 REGISTERED PROFESSIONAL ENGINEER

ETHERILL ENGINEERING

1223 Jones Franklin Rd.  
 Raleigh, N.C. 27606  
 Bus: 919 851 8077  
 Fax: 919 851 8107  
 LICENSE NO. F-0377

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

### SUBSTRUCTURE END BENT No. 2

REVISIONS

NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO.	
S-25	TOTAL SHEETS 28

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

DRAWN BY: D. HODGE DATE: 3/19  
 CHECKED BY: G.M. GILLAND DATE: 4/19