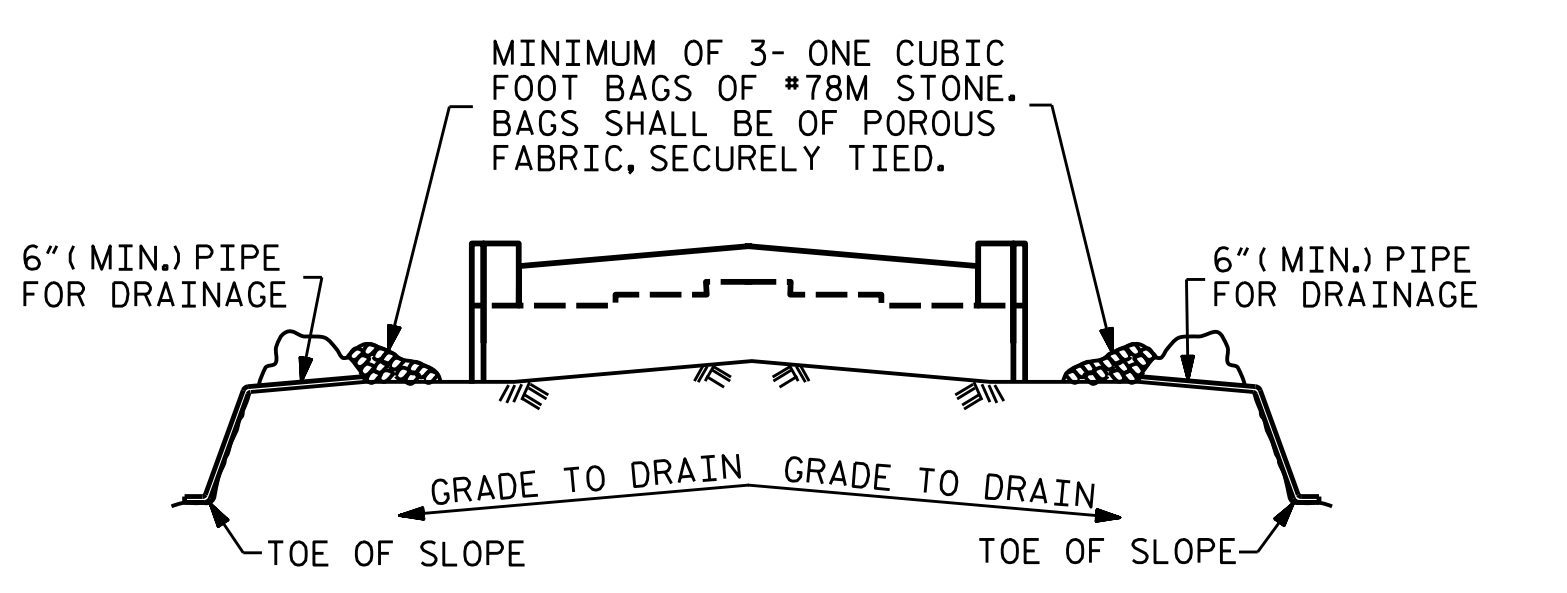
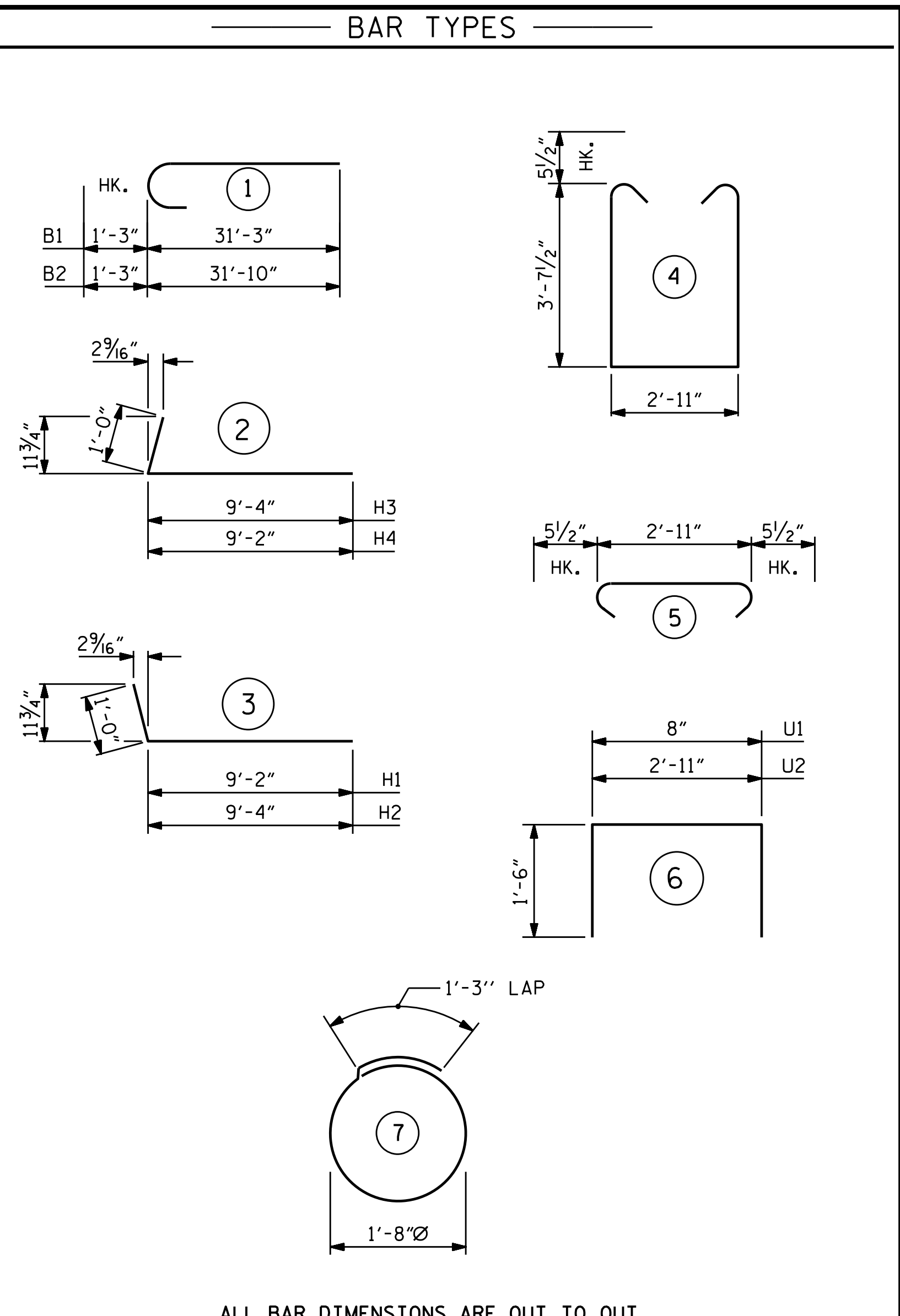


SECTION A-A

**BILL OF MATERIAL**

**END BENT #2**

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	10	#9	1	32'-6"	1105
B2	10	#9	1	33'-1"	1125
B3	6	#5	STR.	58'-4"	365
B4	5	#4	STR.	25'-2"	84
B5	5	#4	STR.	2'-6"	8
B6	8	#4	STR.	30'-5"	163
B7	14	#4	STR.	2'-11"	27
H1	19	#5	3	10'-2"	201
H2	19	#5	3	10'-4"	205
H3	19	#5	2	10'-4"	205
H4	19	#5	2	10'-2"	201
K1	20	#4	STR.	30'-5"	406
K2	8	#4	STR.	3'-7"	19
S1	98	#5	4	11'-1"	1133
S2	98	#5	5	3'-10"	392
S3	36	#4	7	6'-6"	156
U1	51	#4	6	3'-8"	125
U2	19	#4	6	5'-11"	75
V1	102	#5	STR.	7'-3"	771
V2	28	#5	STR.	8'-11"	260
V3	28	#5	STR.	9'-1"	265
REINFORCING STEEL				7,291 LBS.	
CLASS "A" CONCRETE					
POUR #1 (CAP, LOWER PART OF WINGS & COLLARS) 34.1 C.Y.					
POUR #2 (BACKWALL & UPPER PART OF WINGS) 11.9 C.Y.					
TOTAL CLASS "A" CONCRETE 46.0 C.Y.					
PILE DRIVING EQUIPMENT SETUP FOR 12X53 STEEL PILES EA. 9					
HP12X53 STEEL PILES					
NO. 9					
LIN. FT. 248					

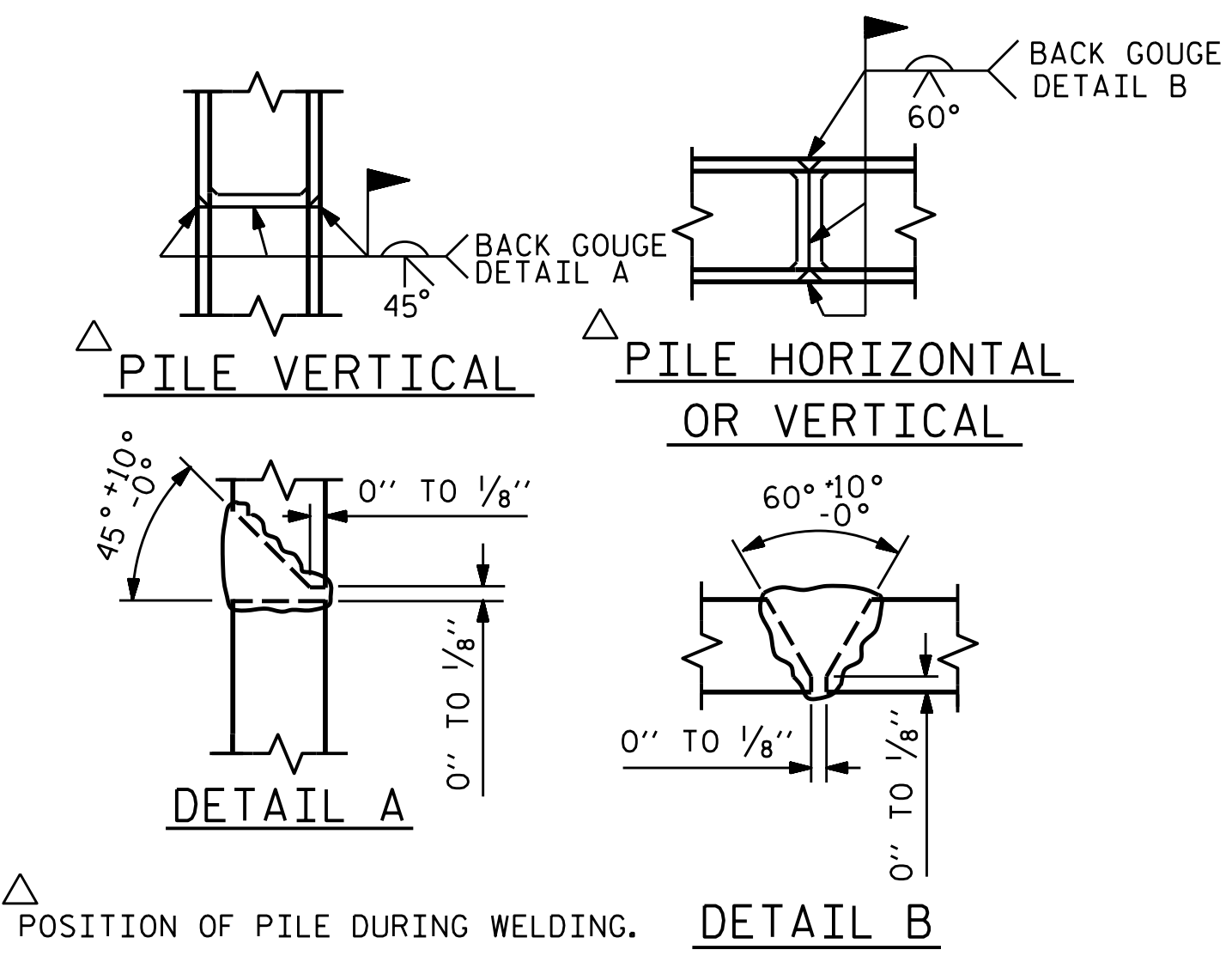


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

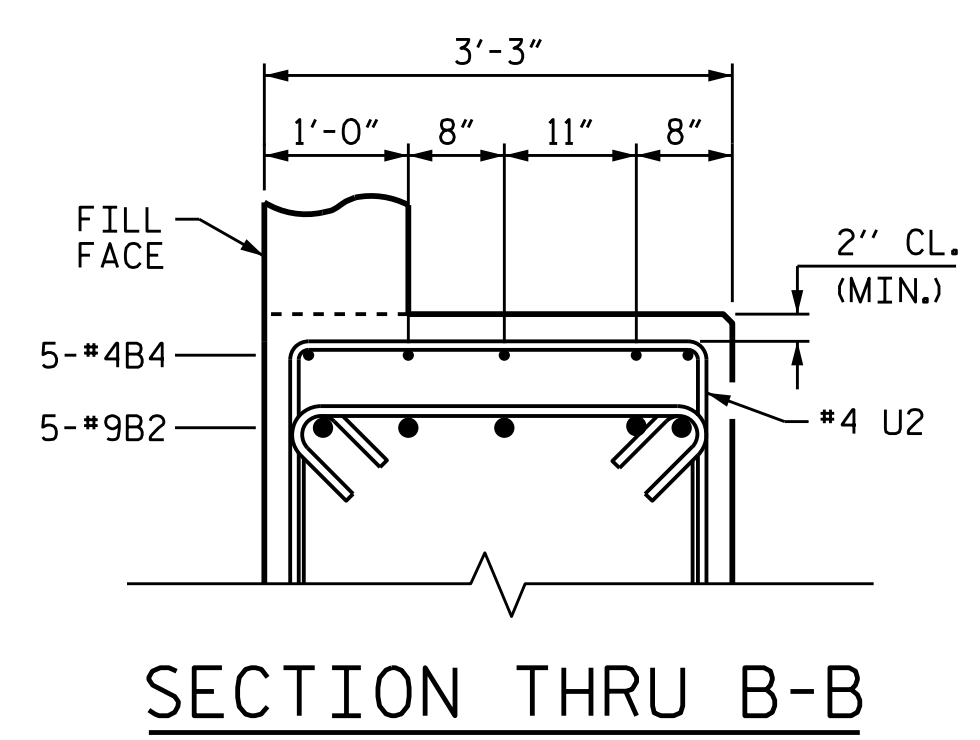
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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



SECTION THRU B-B

PROJECT NO. BR-0033  
McDOWELL COUNTY  
 STATION: 16+11.51 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

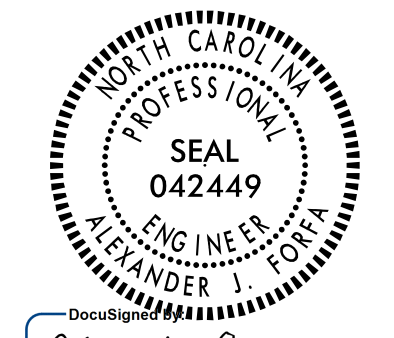
**SUBSTRUCTURE  
 END BENT 2**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-28
1			3			TOTAL SHEETS
2			4			32

DRAWN BY : N. ROHRBAUGH DATE : 06/2021  
 CHECKED BY : A. FORFA DATE : 06/2021  
 DESIGN ENGINEER OF RECORD : A. FORFA DATE : 09/2021



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11/23/2021