

MINIMUM OF 3- ONE CUBIC FOOT BAGS OF #78M STONE. BAGS SHALL BE OF POROUS FABRIC, SECURELY TIED.

6" (MIN.) PIPE FOR DRAINAGE

GRADE TO DRAIN

TOE OF SLOPE

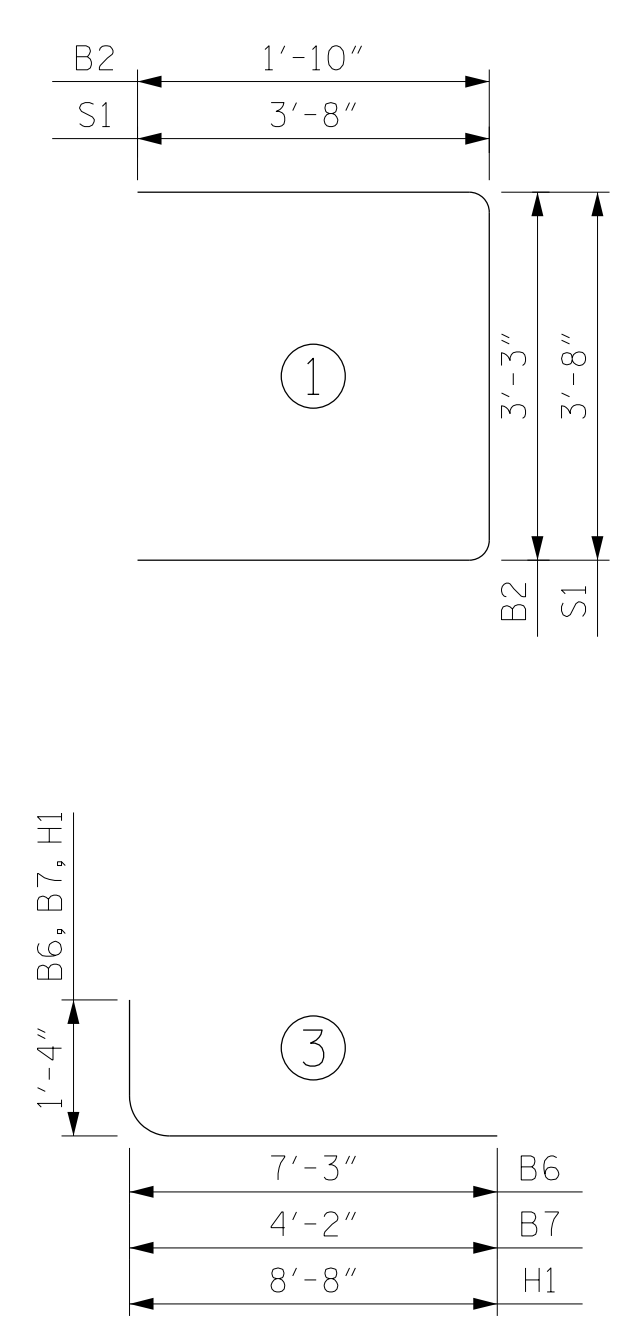
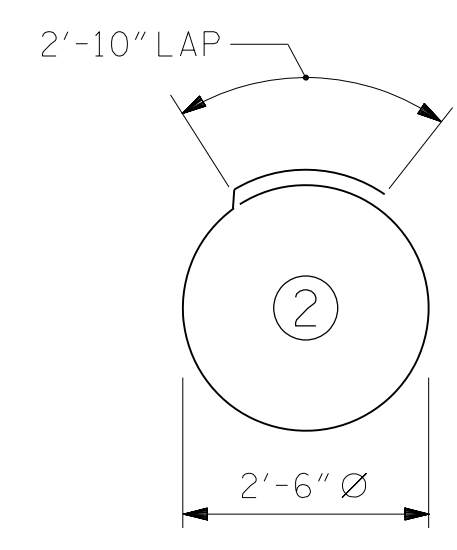
BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

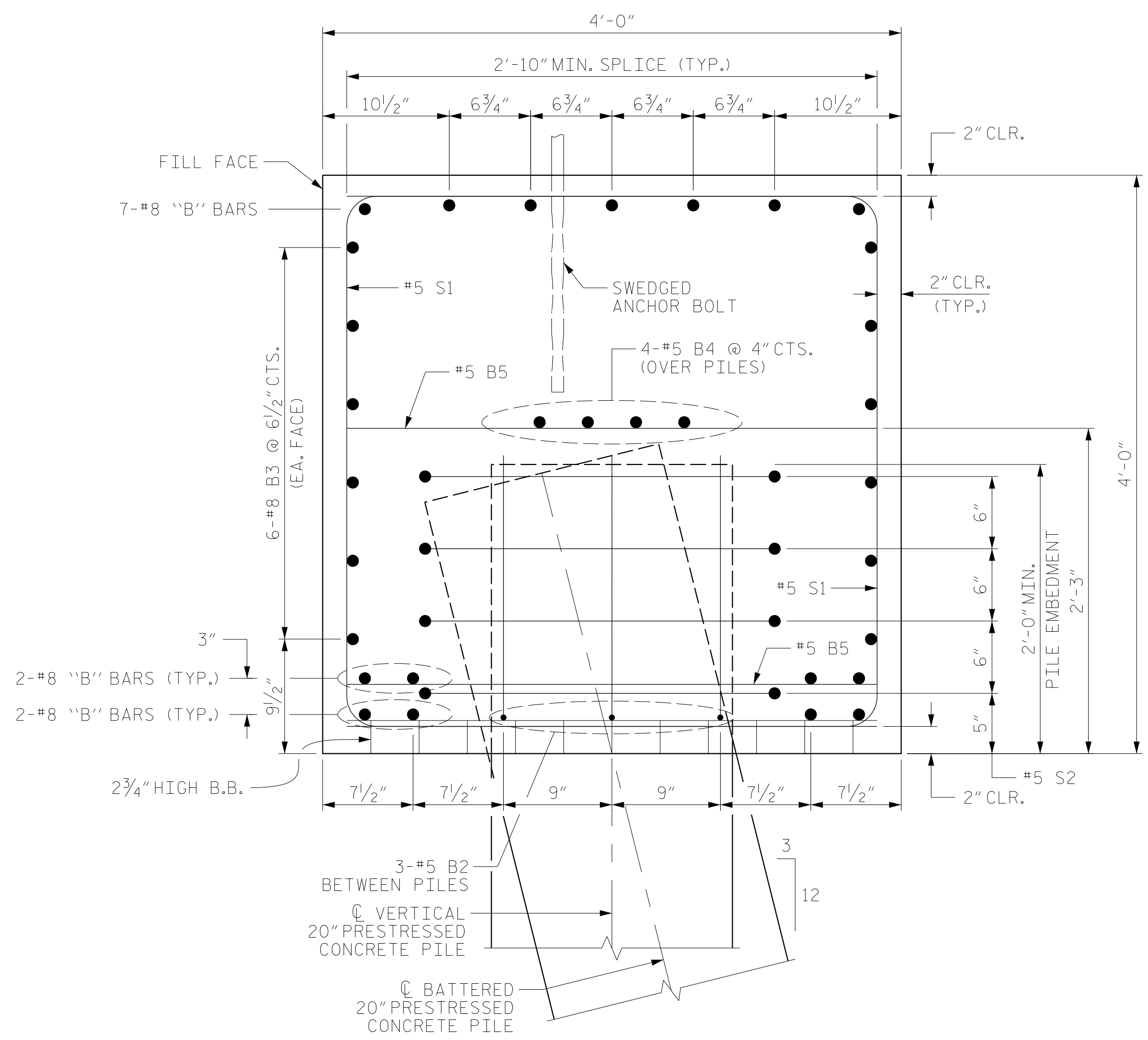
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

### TEMPORARY DRAINAGE AT END BENT

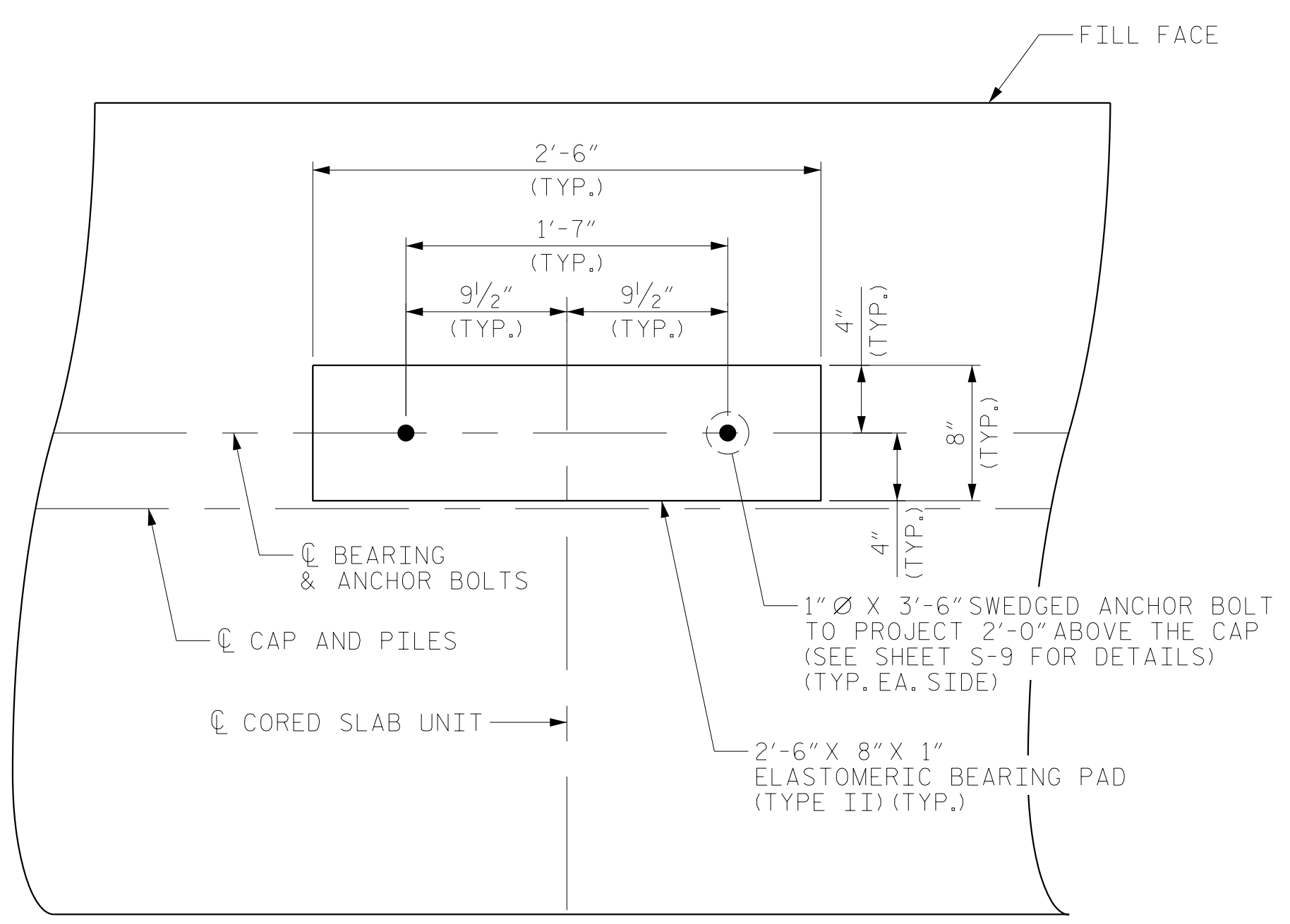
BAR TYPES		BILL OF MATERIAL FOR ONE END BENT				
BAR	NO.	SIZE	TYPE	LENGTH	TOTAL LENGTH	
B1	15	#8	STR	50'-6"	757'-6"	
B2	30	#5	1	6'-11"	207'-6"	
B3	12	#8	STR	50'-6"	606'-0"	
B4	4	#5	STR	50'-6"	202'-0"	
B5	23	#5	STR	3'-8"	84'-4"	
B6	14	#8	3	8'-7"	120'-2"	
B7	16	#8	3	5'-6"	88'-0"	
H1	56	#8	3	10'-0"	560'-0"	
K1	24	#6	STR	3'-8"	88'-0"	
S1	120	#5	1	11'-0"	1320'-0"	
S2	36	#5	2	10'-9"	387'-0"	
V1	48	#5	STR	6'-5"	308'-0"	
V2	48	#5	STR	6'-7"	316'-0"	
TOTAL LIN. FT. #5 BARS				2824.8 LIN. FT.		
TOTAL LIN. FT. #6 BARS				88.0 LIN. FT.		
TOTAL LIN. FT. #8 BARS				2131.7 LIN. FT.		
GLASS FIBER REINFORCED POLYMER BARS				5044.5 LIN. FT.		
CLASS AA CONCRETE BREAKDOWN						
POUR #1 (CAP AND LOWER PART OF WINGS)				31.0 C.Y.		
POUR #2 (UPPER PART OF WINGS)				2.7 C.Y.		
TOTAL CLASS AA CONCRETE				33.7 C.Y.		



ALL BAR DIMENSIONS ARE OUT TO OUT



### SECTION A-A



### DETAIL "A"

END BENT NO. 2, SHOWN, END BENT NO. 1 SIMILAR BUT OPPOSITE HAND. DIMENSIONS ARE TYPICAL FOR EACH GIRDER. PILES NOT SHOWN FOR CLARITY.

PROJECT NO. BR-0160  
 BRUNSWICK COUNTY  
 STATION: 21+77.50 -L-

SHEET 4 OF 4



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STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 SUBSTRUCTURE  
 END BENT NO. 1 & 2

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-32
1			3			TOTAL SHEETS
2			4			42

DRAWN BY : MRA DATE : 01/2023  
 CHECKED BY : MKO DATE : 01/2023  
 DESIGN ENGINEER OF RECORD: RLB DATE : 03/2023

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED