

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

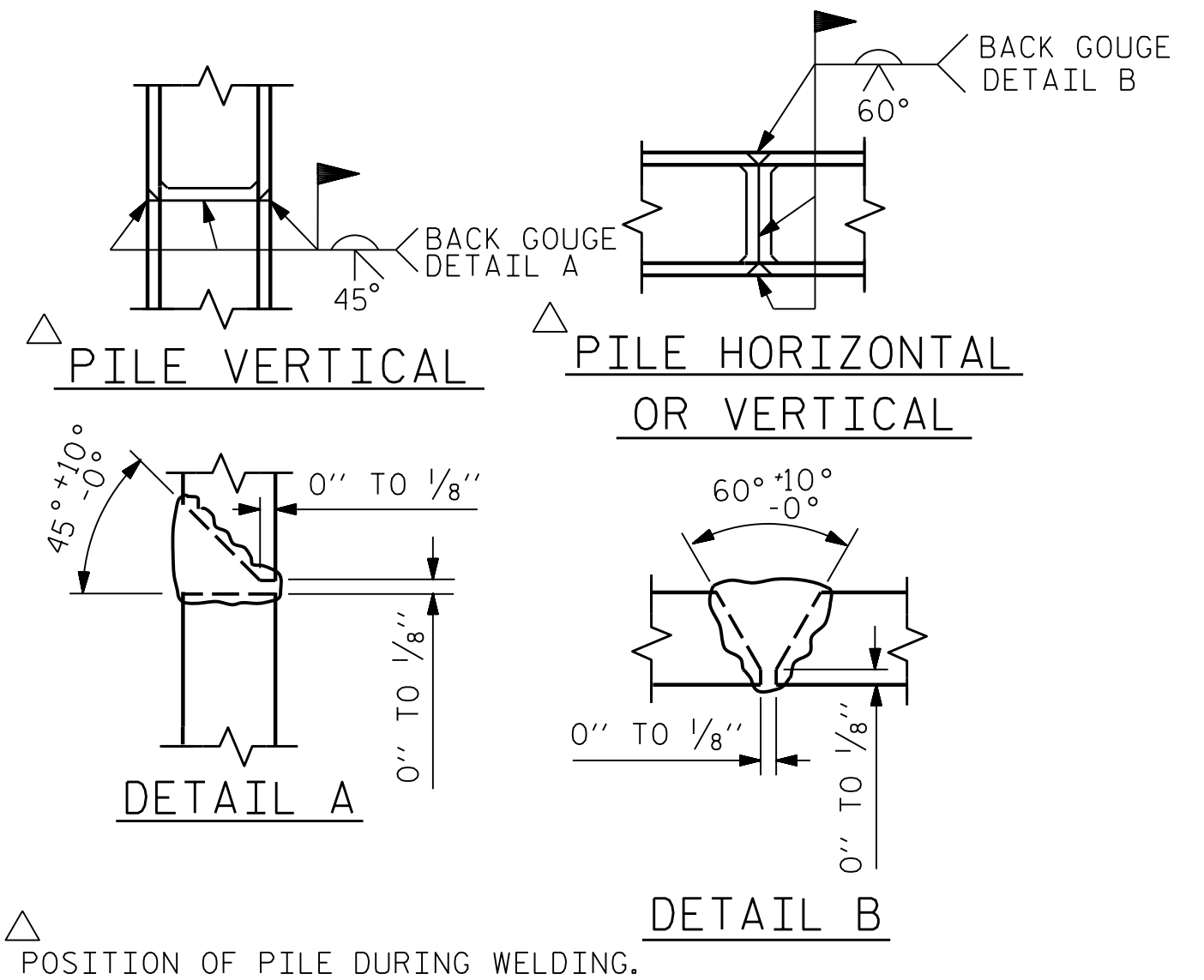
TOE OF SLOPE

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.

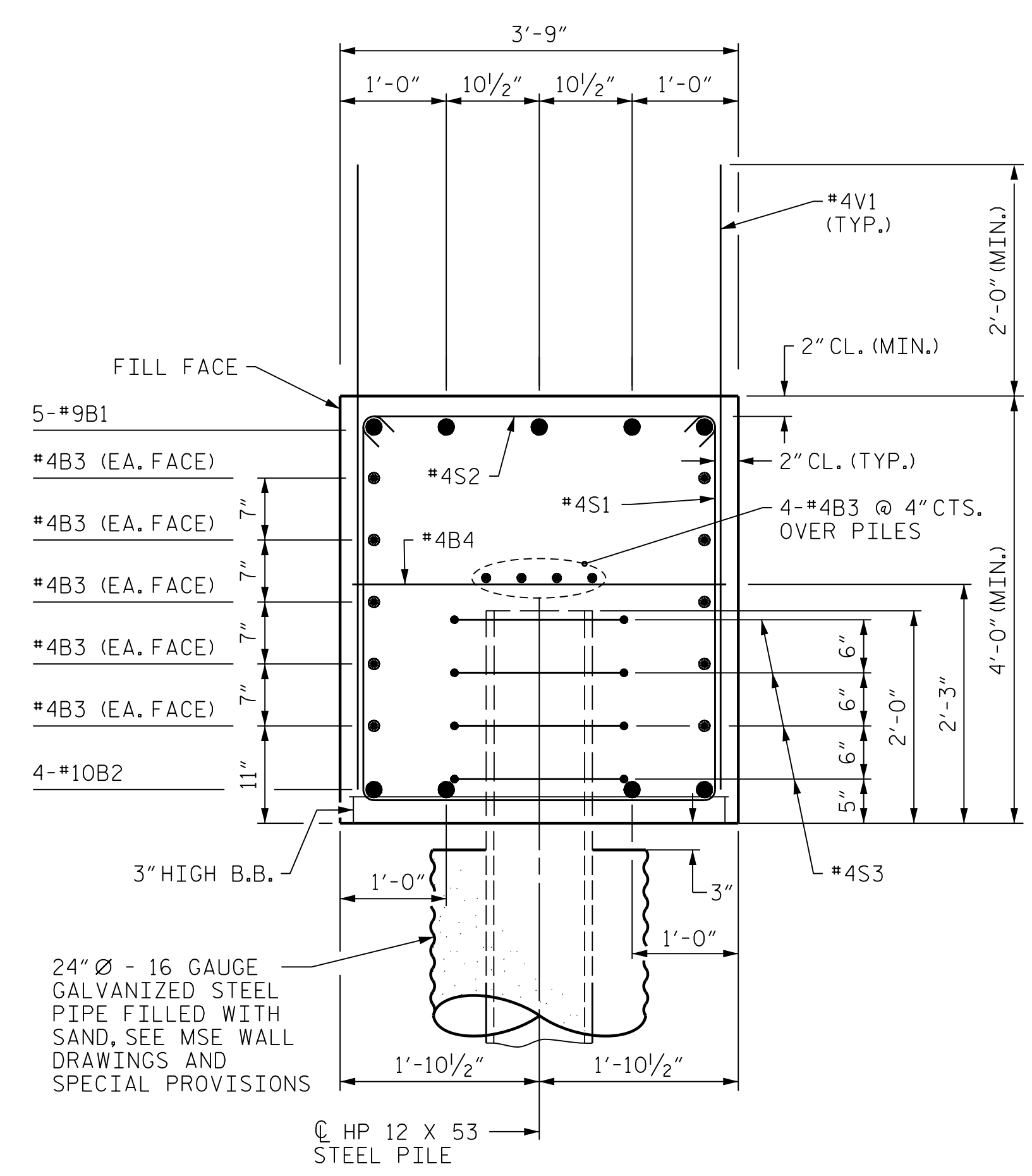
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

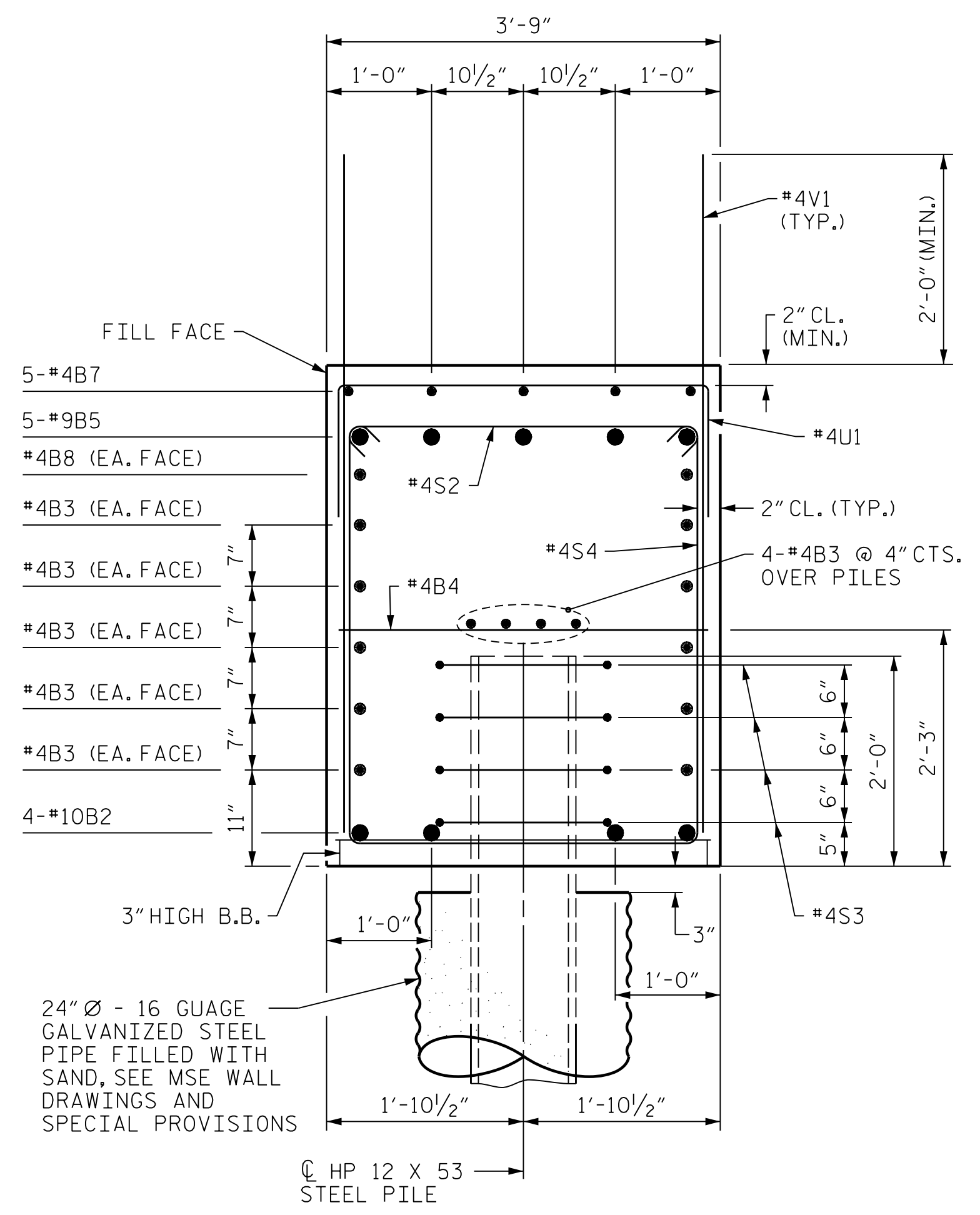
### TEMPORARY DRAINAGE AT END BENT



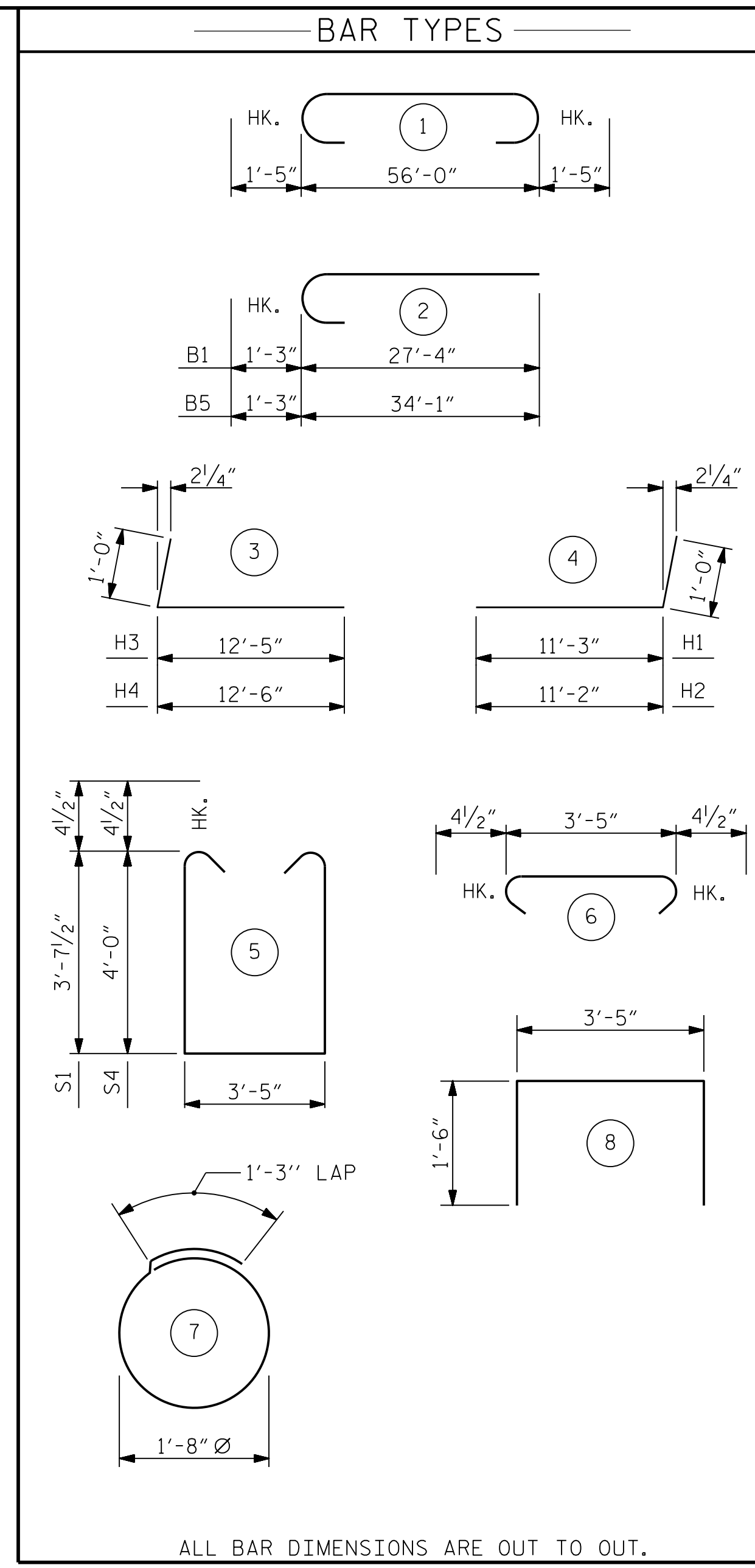
### PILE SPLICE DETAILS



SECTION A-A



SECTION B-B



BILL OF MATERIAL					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	5	#9	2	28'-7"	486
B2	4	#10	1	58'-10"	1013
B3	28	#4	STR	29'-3"	547
B4	14	#4	STR	3'-5"	32
B5	5	#9	2	35'-4"	601
B6	5	#4	STR	8'-0"	27
B7	5	#4	STR	8'-4"	28
B8	2	#4	STR	31'-2"	42
H1	20	#5	4	12'-3"	256
H2	20	#5	4	12'-2"	254
H3	22	#6	3	13'-5"	435
H4	22	#6	3	13'-6"	438
K1	12	#4	STR	2'-8"	21
K2	12	#4	STR	2'-8"	21
S1	21	#4	5	11'-5"	160
S2	56	#4	6	4'-2"	156
S3	36	#4	7	6'-6"	156
S4	35	#4	5	12'-2"	284
U1	12	#4	8	6'-5"	51
V1	82	#4	STR	6'-10"	374
V2	32	#4	STR	9'-6"	203
V3	34	#5	STR	10'-7"	375
REINFORCING STEEL					LBS. 5976
CLASS A CONCRETE					
POUR #1 CAP, LOWER WINGS & CONC. COLLARS					C.Y. 38.7
POUR #2 UPPER PART OF WINGS					C.Y. 6.4
TOTAL CLASS A CONCRETE					C.Y. 45.1
HP 12x53 STEEL PILES					
NO. 9					LIN. FT. 405
STEEL PILE POINTS					EACH 9
PREDRILLING FOR PILES					LIN. FT. 82
PILE DRIVING EQUIPMENT SETUP FOR HP 12x53 STEEL PILES					NO. 9

PROJECT NO. R-2233BB  
RUTHERFORD COUNTY  
 STATION: 774+41.49 -L3-  
 SHEET 3 OF 3

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 SUBSTRUCTURE  
 END BENT 2

**MODJESKI and MASTERS**  
 Experience great bridges.  
 333 FAYETTEVILLE STREET, SUITE 500  
 RALEIGH, NC 27601  
 NC LICENSE NO. C-2979

PROFESSIONAL SEAL  
 032967  
 ENGINEER  
 JASON R. DOUGHTY  
 4/22/2020

DocuSigned by:  
 Jason R. Doughty  
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REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S1-25  
 TOTAL SHEETS 28

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

DESIGNED BY: C. CORMAN DATE: JULY 2019  
 DRAWN BY: K. WHITE DATE: JULY 2019  
 CHECKED BY: B. LOFLIN DATE: AUG 2019  
 DESIGN ENGINEER OF RECORD: J. DOUGHTY DATE: NOV 2019