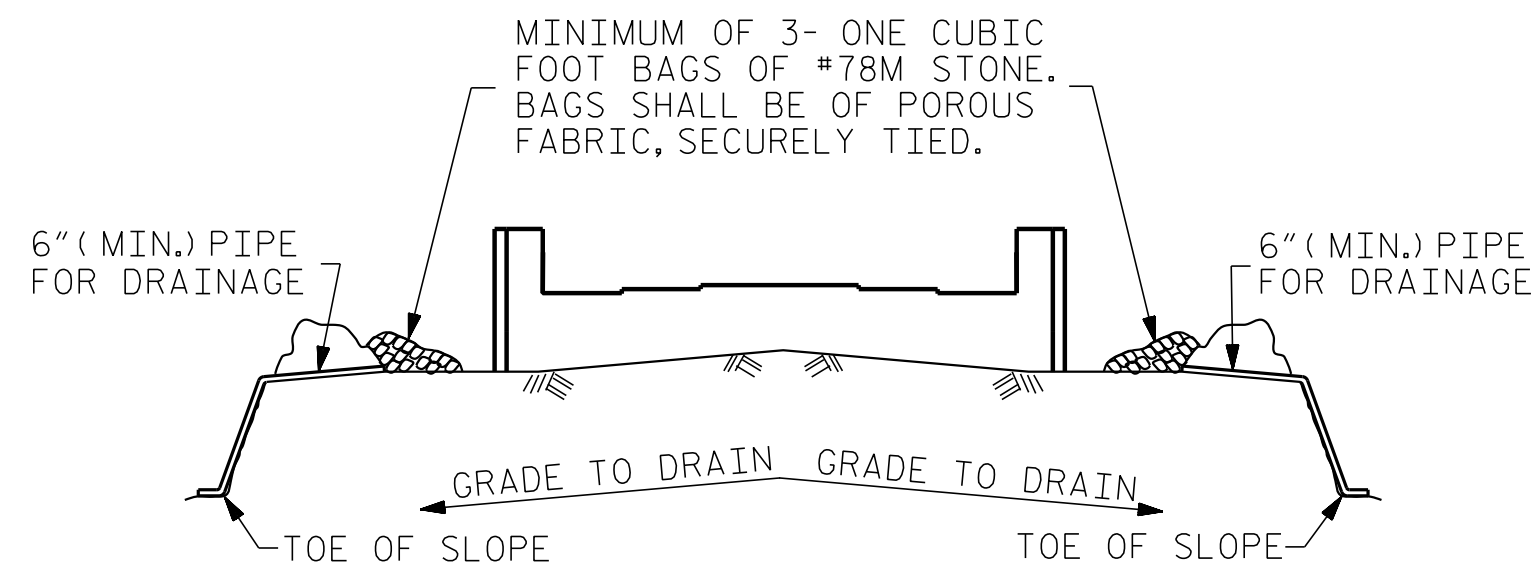


**NOTES**

THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE BARRIER RAILS ARE CAST IF SLIP FORMING IS USED.

INSTALL THE 4" DIA. DRAIN PIPE THROUGH THE WING WALL AS REQUIRED FOR REINFORCED BRIDGE APPROACH FILLS, SEE THE ROADWAY PLANS. REINFORCING STEEL IN THE WING WALL MAY BE SHIFTED AS NECESSARY TO CLEAR THE DRAIN PIPE.

THE TOP SURFACE OF THE END BENT CAP, EXCEPT THE BEARING AREA AND THE AREA OUTSIDE THE EDGE OF SUPERSTRUCTURE, SHALL BE RAKED TO A DEPTH OF 1/4".



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.

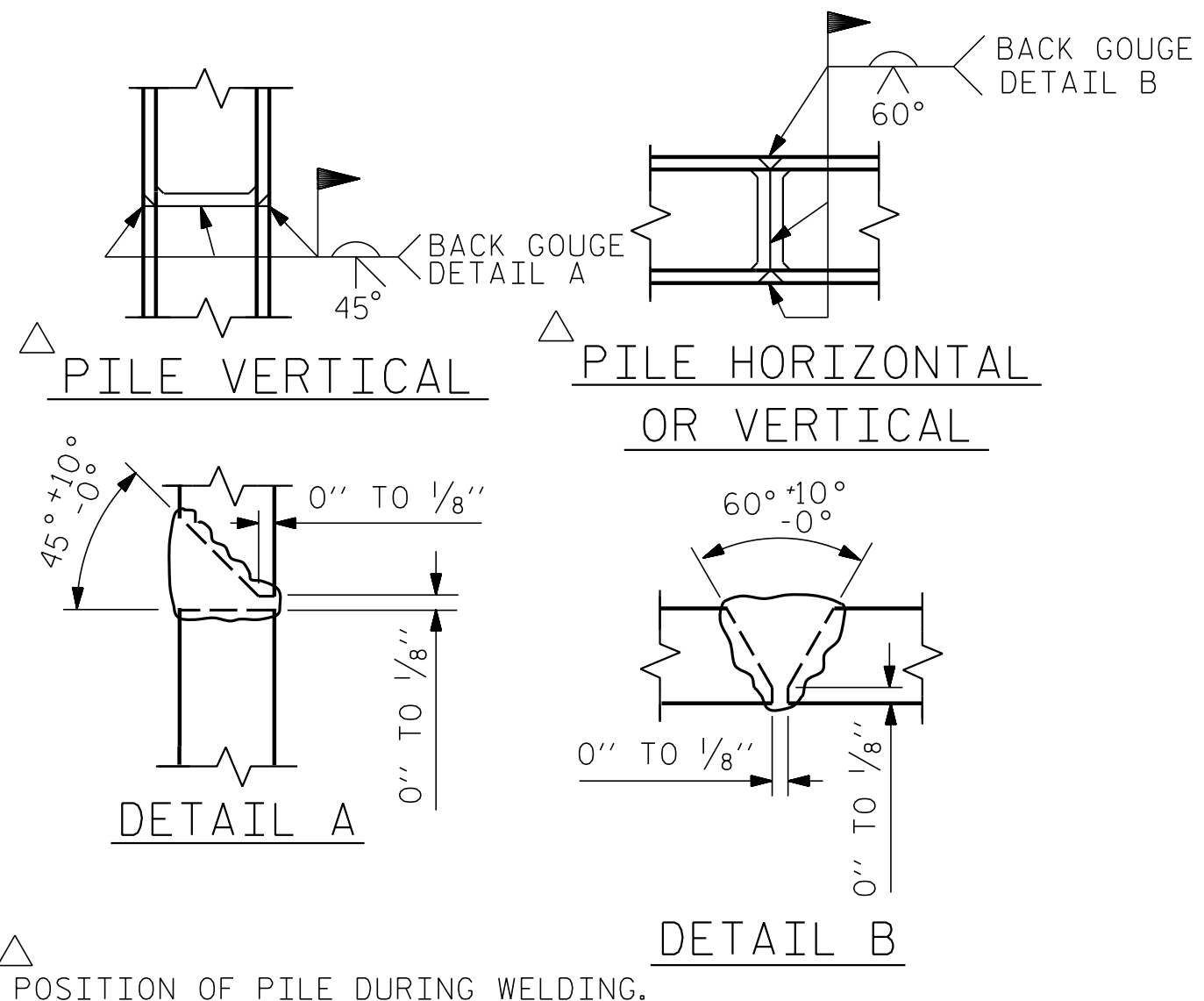
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

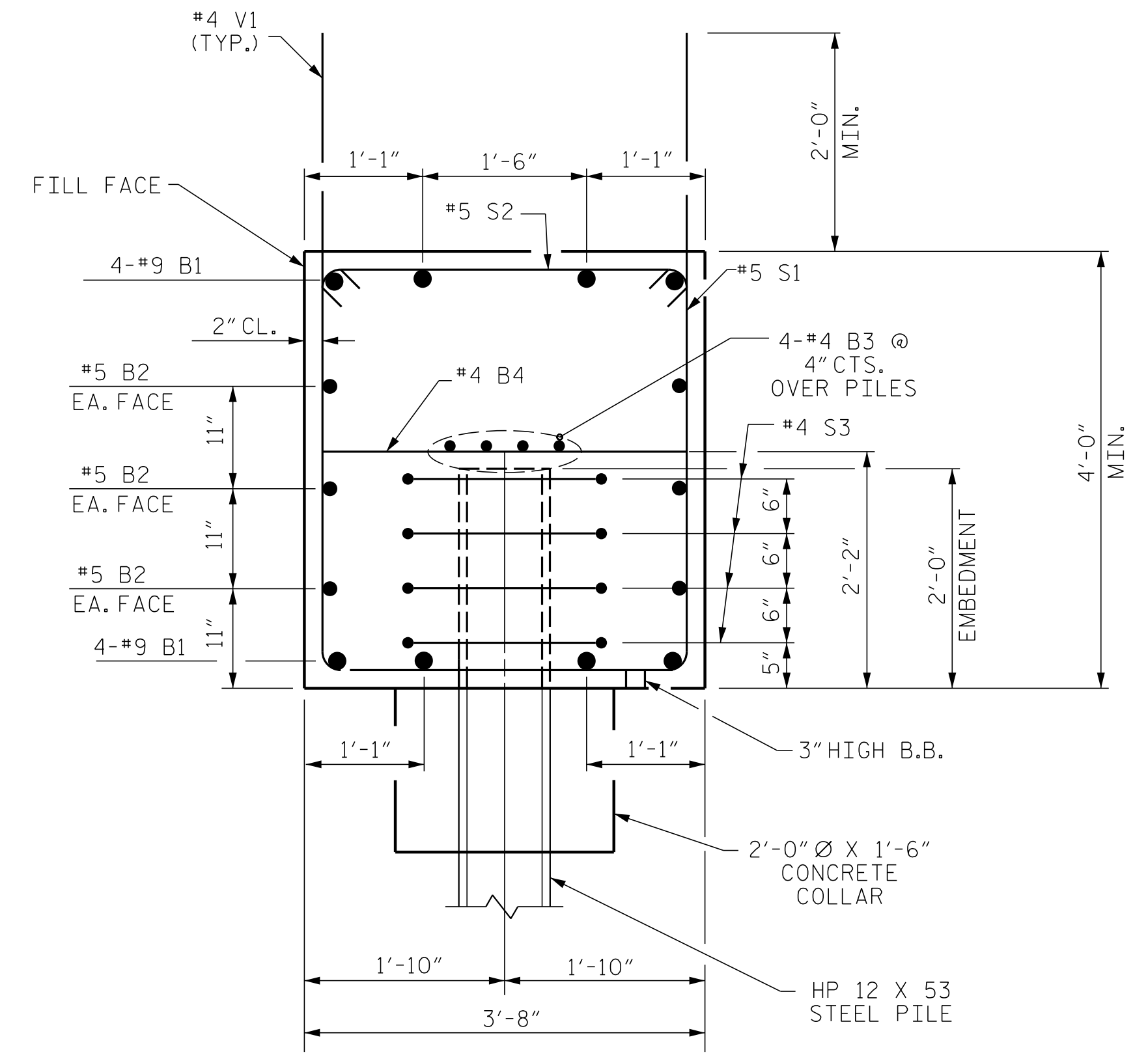
**TEMPORARY DRAINAGE AT END BENT**

BAR TYPES						BILL OF MATERIAL					
END BENT No. 2											
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT						
B1	16	#9		35'-8"	1940						
B2	12	#5	STR	31'-6"	394						
B3	12	#4	STR	21'-8"	174						
B4	15	#4	STR	3'-4"	33						
H1	14	#5		10'-3"	150						
H2	14	#5		10'-1"	147						
H3	14	#5		9'-7"	140						
H4	14	#5		9'-9"	142						
H5	32	#4	STR	3'-8"	78						
S1	72	#5		11'-6"	864						
S2	72	#5		4'-3"	319						
S3	40	#4		6'-6"	174						
V1	80	#4	STR	5'-9"	307						
V2	56	#4	STR	9'-5"	352						
REINFORCING STEEL					5,214 LBS.						
CLASS A CONCRETE BREAKDOWN											
POUR #1 CAP, CONC, COLLARS & LOWER PART OF WINGS					38.5 C.Y.						
POUR #2 UPPER PART OF WINGS					5.3 C.Y.						
TOTAL CLASS A CONCRETE					43.8 C.Y.						
HP 12 X 53 STEEL PILES											
NO: 10					LIN. FT. = 870						
PILE REDRIVES					5 EA.						
PILE DRIVING EQUIPMENT SET UP FOR HP 12 X 53 STEEL PILES					10 EA.						

ALL BAR DIMENSIONS ARE OUT TO OUT.



**PILE SPLICE DETAILS**



**SECTION A-A**

PROJECT NO. R-5311A  
HERTFORD COUNTY  
 STATION: 50+99.00 -Y2-  
 SHEET 3 OF 3

ENGINEER OF RECORD  
 Designed by:  
  
 BUCK CHARLES HUNK  
 4/5/2017  
  
 WETHERILL 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						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			61
2			4			

DRAWN BY : J. PENDERGRAFT DATE : 3-16  
 CHECKED BY : J. DILWORTH DATE : 3-16

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

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