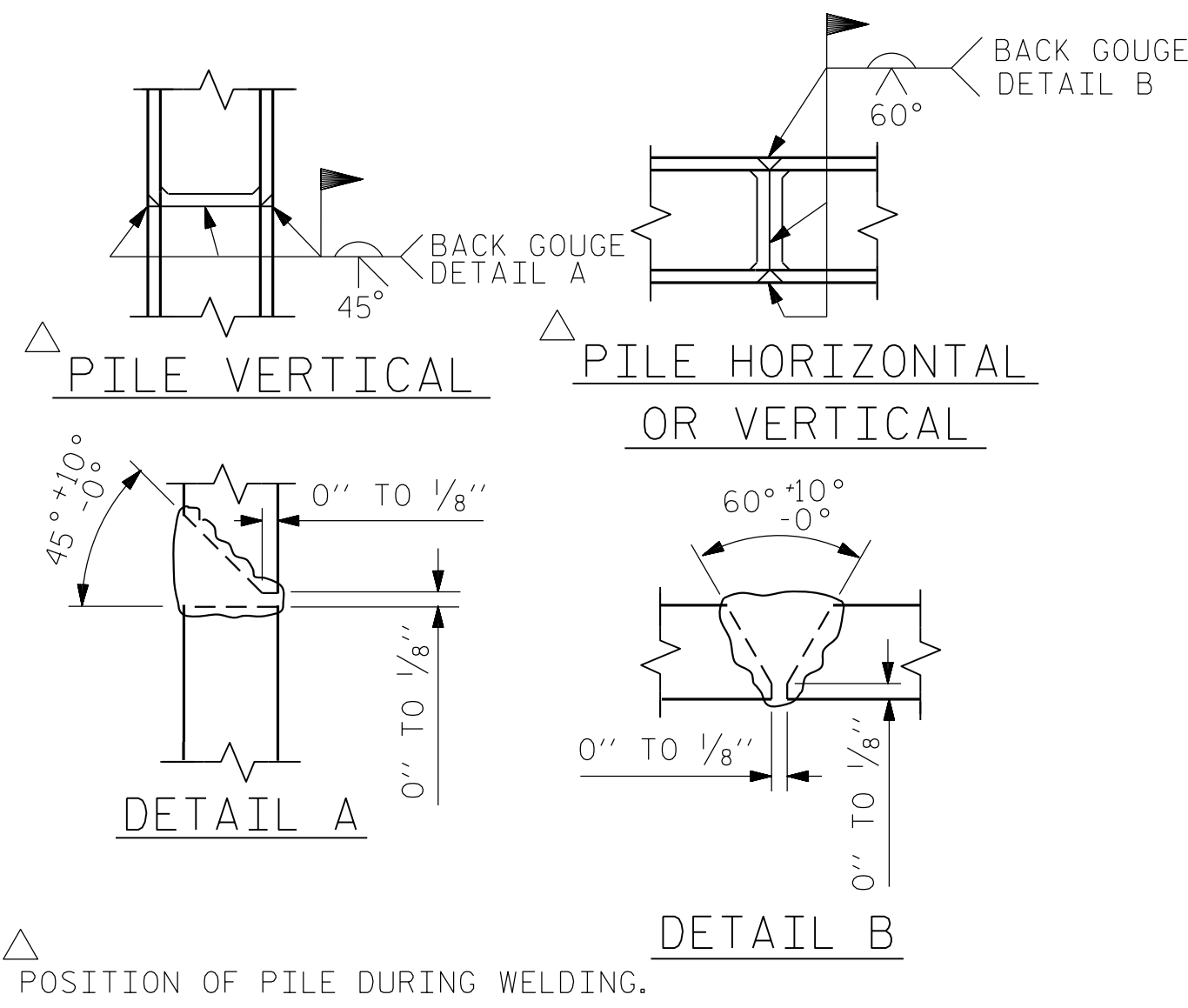


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

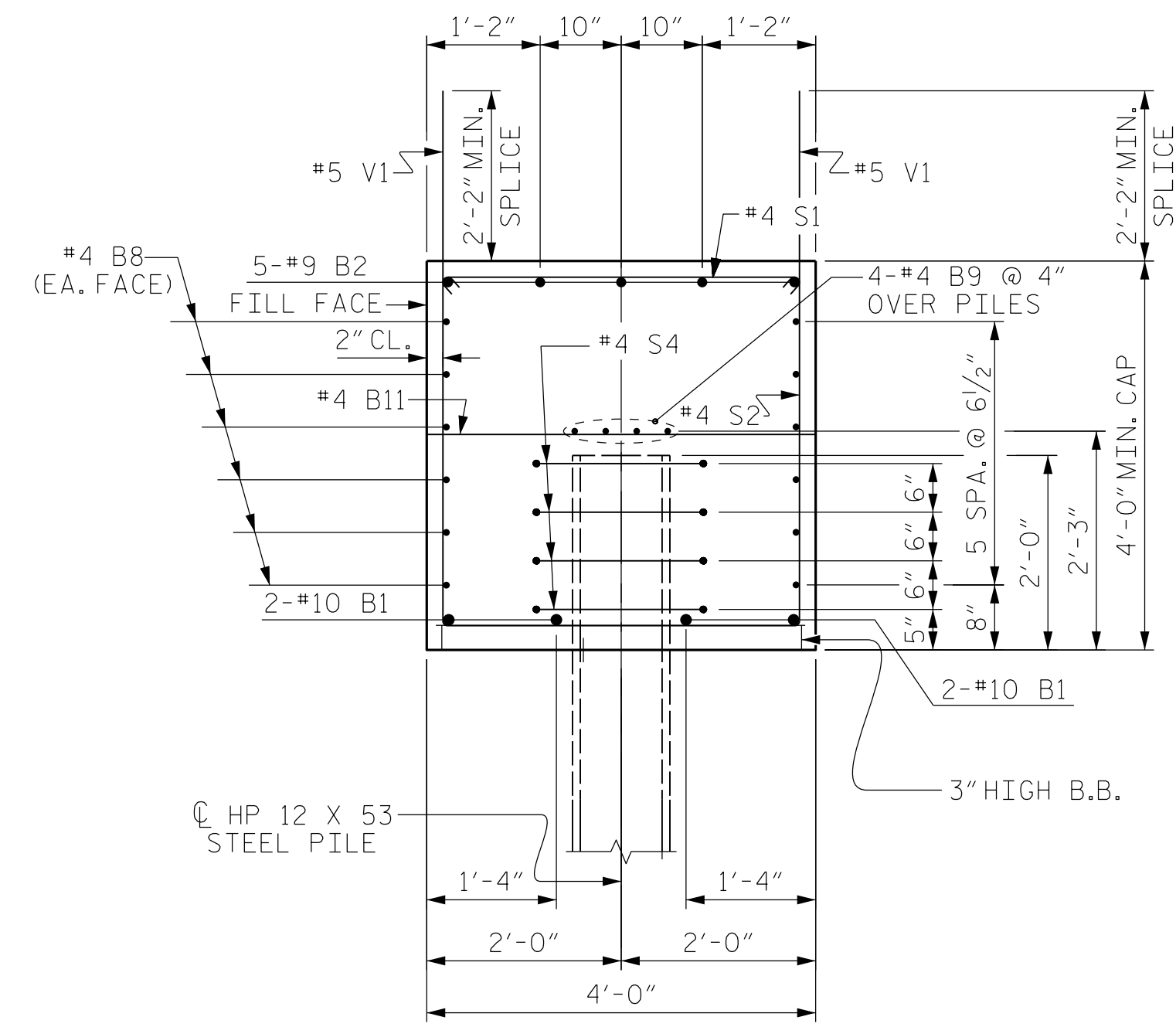
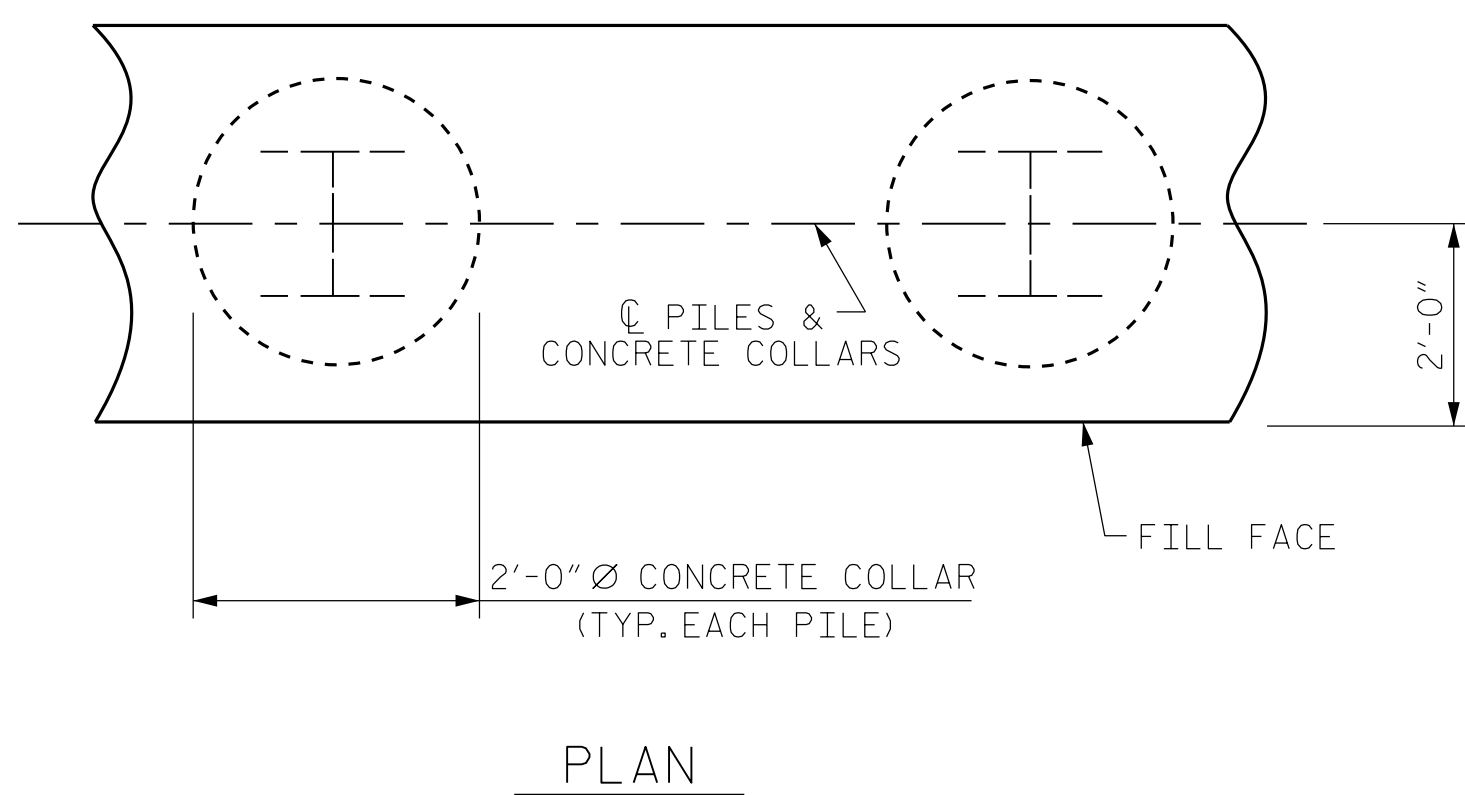
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

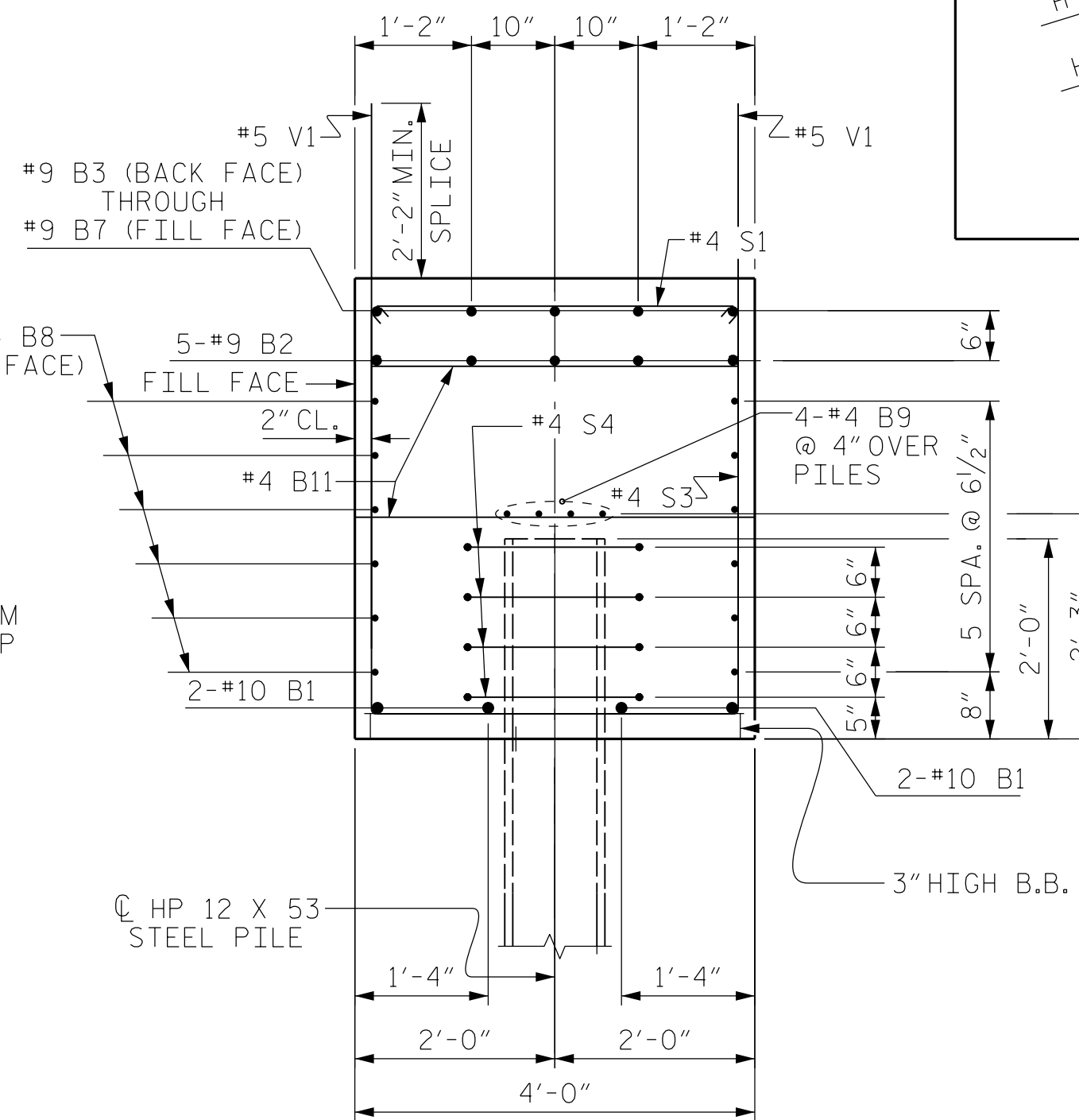


PILE SPLICE DETAILS



SECTION A-A

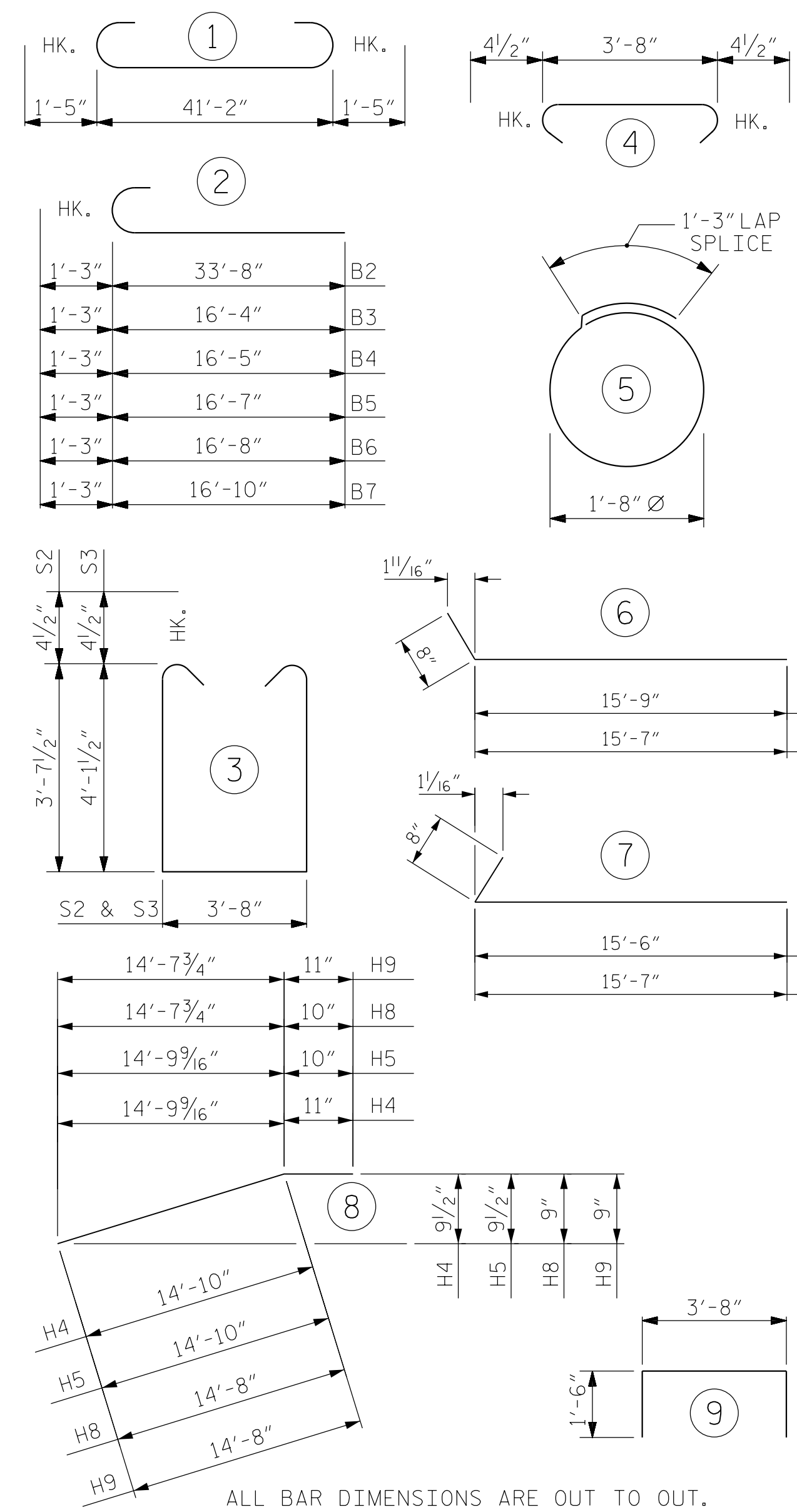
(CONCRETE COLLAR NOT SHOWN FOR CLARITY. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL.")



SECTION B-B

(CONCRETE COLLAR NOT SHOWN FOR CLARITY. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL.")

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

HP 12 X 53 STEEL PILES
NO: 9
LIN. FT. = 230

BILL OF MATERIAL

END BENT #2

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	4	#10	1	44'-0"	757
B2	5	#9	2	34'-11"	594
B3	1	#9	2	17'-7"	60
B4	1	#9	2	17'-8"	60
B5	1	#9	2	17'-10"	61
B6	1	#9	2	17'-11"	61
B7	1	#9	2	18'-1"	61
B8	24	#4	STR	21'-11"	351
B9	8	#4	STR	21'-11"	117
B10	5	#4	STR	9'-3"	31
B11	14	#4	STR	3'-8"	34
B12	1	#4	STR	6'-10"	5
B13	1	#4	STR	6'-11"	5
B14	1	#4	STR	7'-1"	5
B15	1	#4	STR	7'-2"	5
B16	1	#4	STR	7'-4"	5
H1	22	#6	6	16'-5"	542
H2	22	#6	6	16'-3"	537
H3	2	#6	STR	6'-5"	19
H4	1	#6	8	15'-9"	24
H5	1	#6	8	15'-8"	24
H6	20	#6	7	16'-2"	486
H7	20	#6	7	16'-3"	488
H8	1	#6	8	15'-6"	23
H9	1	#6	8	15'-7"	23
H10	2	#6	STR	5'-3"	16
K2	18	#4	STR	2'-9"	33
K3	18	#4	STR	2'-7"	31
S1	60	#4	4	4'-5"	177
S2	34	#4	3	11'-8"	265
S3	26	#4	3	12'-8"	220
S4	36	#4	5	6'-6"	156
U1	12	#4	9	6'-8"	53
V1	144	#5	STR	7'-2"	1076
V9	10	#5	STR	5'-11"	62
V10	10	#5	STR	6'-2"	64
V11	10	#5	STR	6'-5"	67
V12	10	#5	STR	6'-8"	70
V13	8	#5	STR	6'-10"	57
V14	8	#5	STR	6'-8"	56
V15	8	#5	STR	6'-5"	54
V16	8	#5	STR	6'-3"	52
V17	10	#5	STR	6'-0"	63

REINFORCING STEEL (FOR ONE END BENT) 6950 LBS.

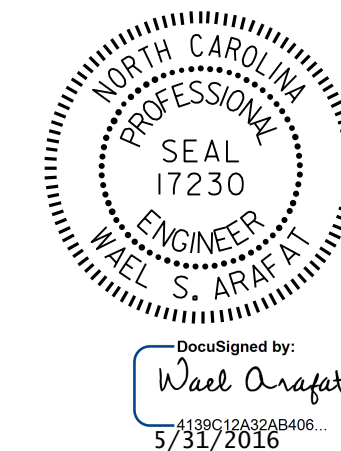
CLASS A CONCRETE BREAKDOWN (FOR ONE END BENT)
POUR #1 CAP, LOWER PART OF WINGS & COLLARS 33.6 C.Y.
POUR #2 UPPER PART OF WINGS 8.9 C.Y.
TOTAL CLASS A CONCRETE 42.5 C.Y.

PROJECT NO. R-4060
ALLEGHANY COUNTY
STATION: 36+45.00 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
INTEGRAL
END BENT #2



REVISIONS

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

SHEET NO.

S-23
TOTAL SHEETS 26

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY: H. T. BARBOUR DATE: 3-3-15
CHECKED BY: V. X. NGUYEN DATE: 11-15
DESIGN ENGINEER OF RECORD: S. I. CHAMPION DATE: 12-15