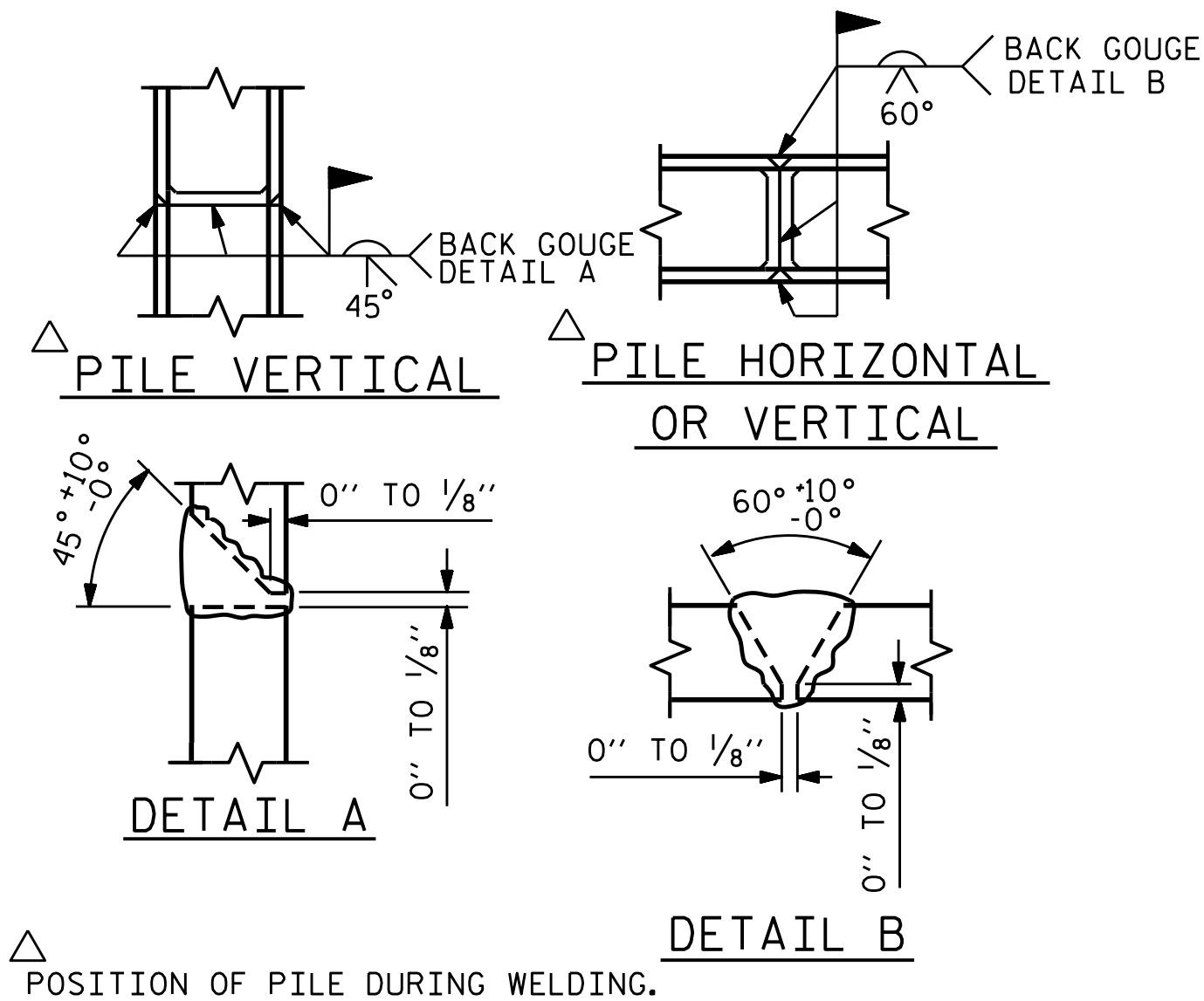


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

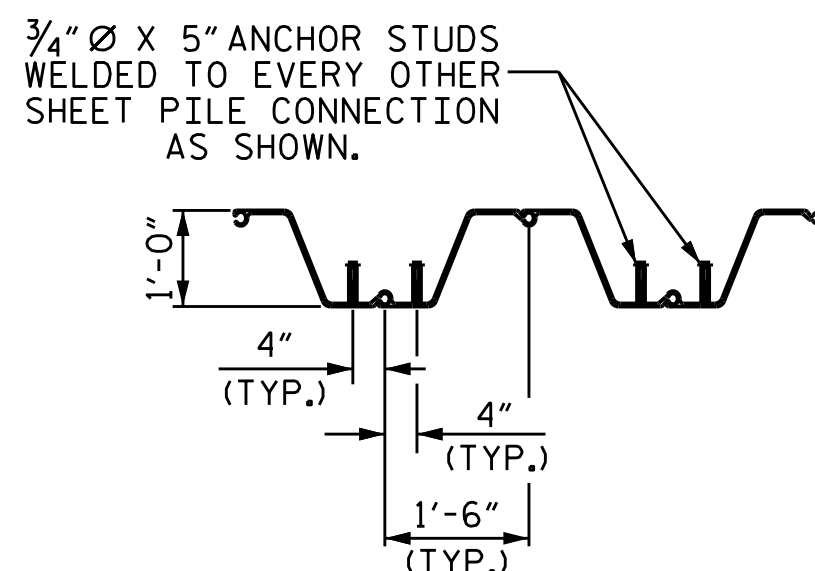
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

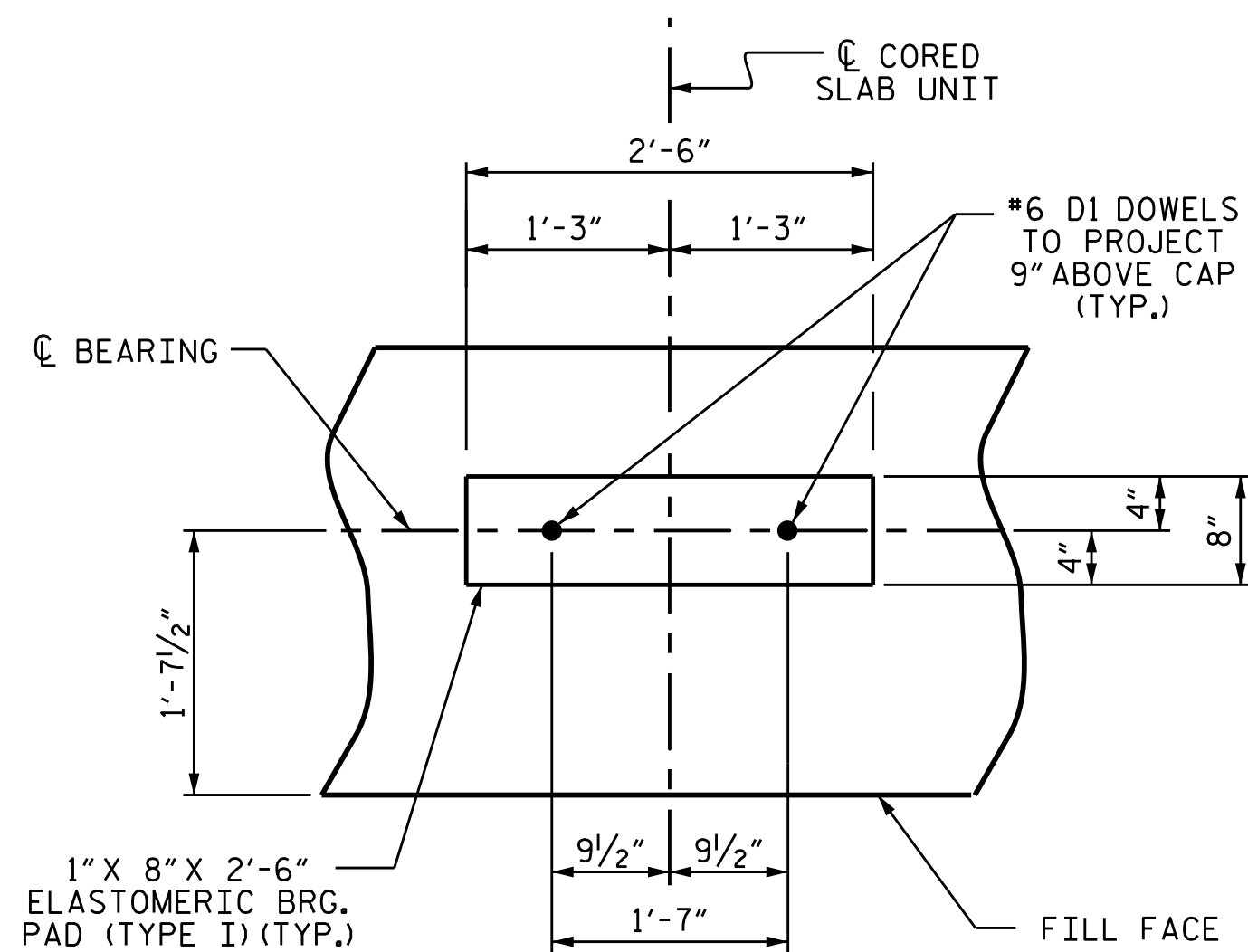
TEMPORARY DRAINAGE AT END BENT



PILE SPLICE DETAILS

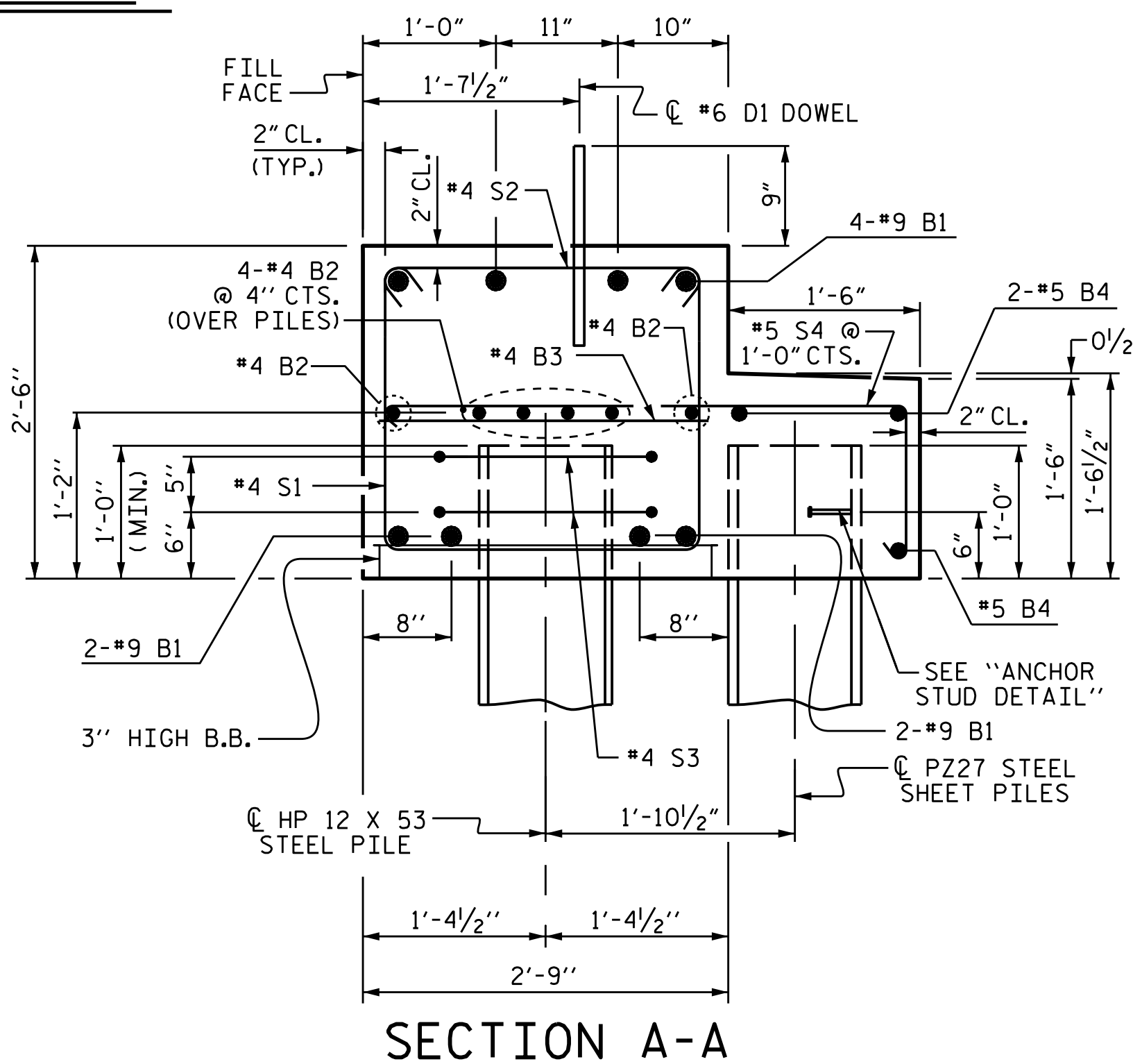


ANCHOR STUD DETAIL



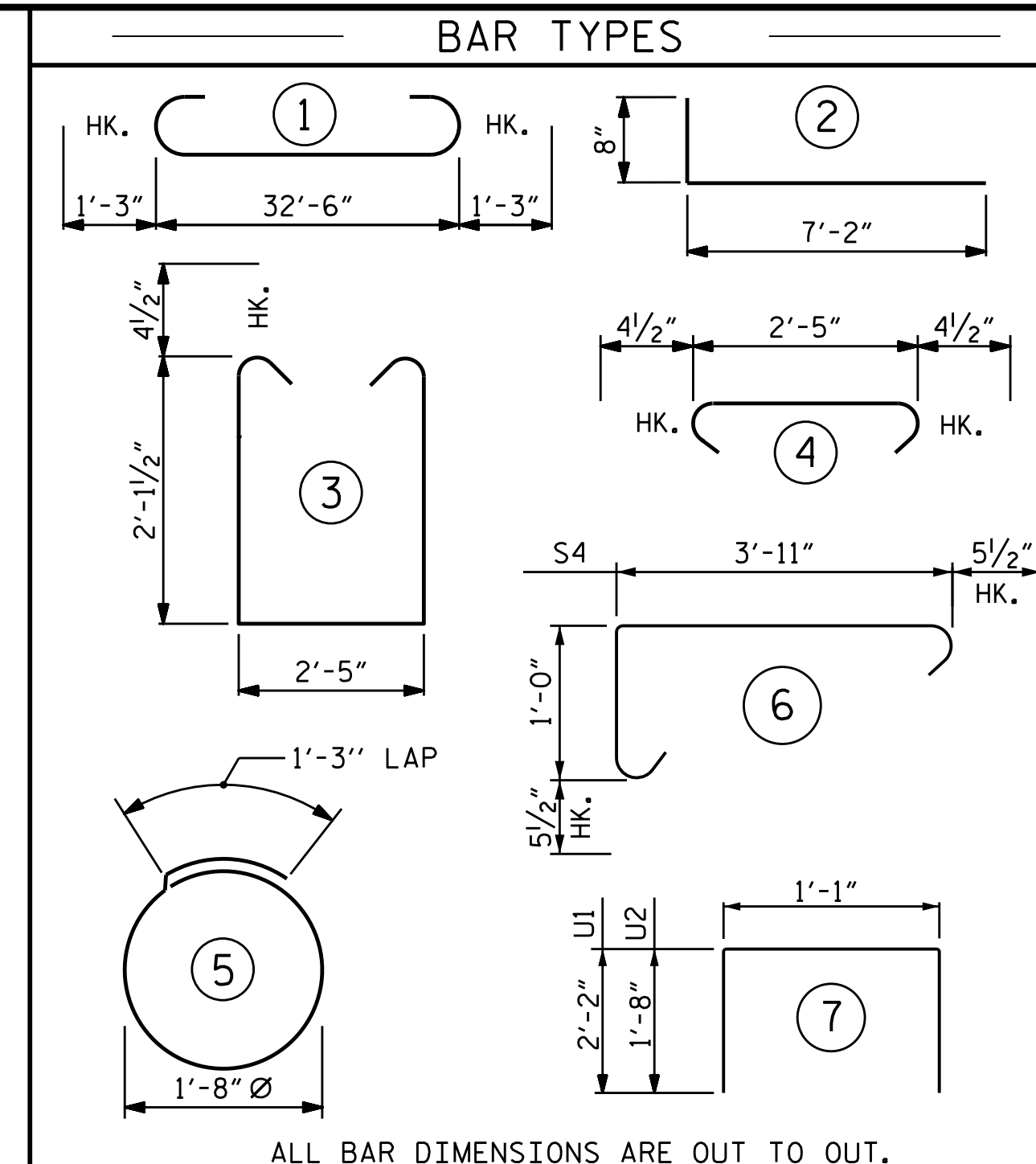
DETAIL "A"

(END BENT No. 1 SHOWN, END BENT No. 2 SIMILAR BY ROTATION)



SECTION A-A

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



END BENT No. 1	END BENT No. 2
HP 12 X 53 STEEL PILES NO: 5 LIN. FT. = 75	HP 12 X 53 STEEL PILES NO: 5 LIN. FT. = 75
PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES NO: 5 EACH	PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES NO: 5 EACH
PILE EXCAVATION IN SOIL 33.00 LIN. FT.	PILE EXCAVATION IN SOIL 27.00 LIN. FT.
PILE EXCAVATION NOT IN SOIL 30.00 LIN. FT.	PILE EXCAVATION NOT IN SOIL 30.00 LIN. FT.
STEEL SHEET PILES 775 SQ. FT.	STEEL SHEET PILES 935 SQ. FT.

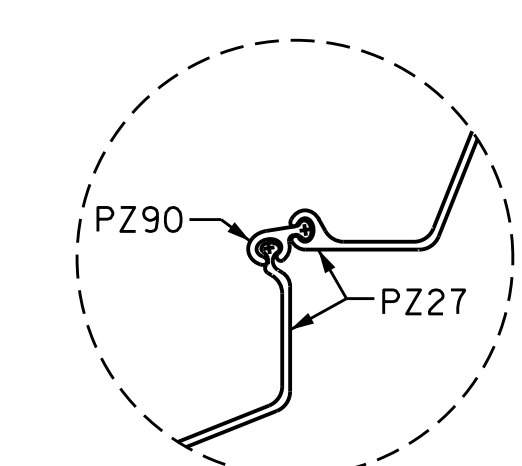
BILL OF MATERIAL FOR ONE END BENT					
BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#9		35'-0"	952
B2	12	#4	STR	17'-7"	141
B3	9	#4	STR	2'-5"	15
B4	3	#5	STR	35'-8"	112
B5	6	#5	STR	17'-11"	112
B6	4	#5	STR	7'-2"	30
D1	18	#6	STR	1'-6"	41
H1	24	#4		7'-10"	126
K1	12	#4	STR	2'-11"	23
S1	42	#4		7'-5"	208
S2	42	#4		3'-2"	89
S3	10	#4		6'-6"	43
S4	33	#5		5'-10"	201
U1	22	#5		5'-5"	124
U2	16	#5		4'-5"	74
V1	48	#4	STR	4'-8"	150

REINFORCING STEEL (FOR ONE END BENT) 2441 LBS.

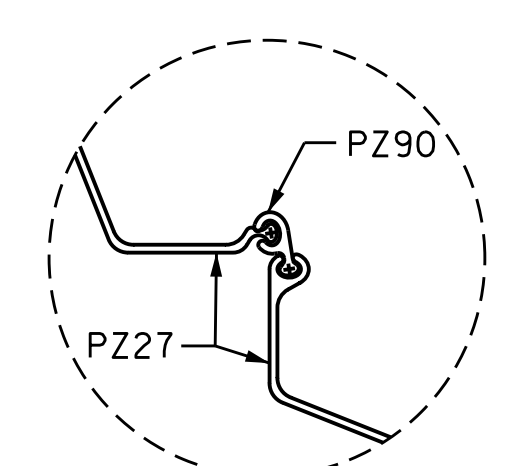
CLASS A CONCRETE BREAKDOWN (FOR ONE END BENT)
POUR #1 CAP, LOWER PART OF WINGS & COPING 14.9 C.Y.

POUR #2 UPPER PART OF WINGS 1.8 C.Y.

TOTAL CLASS A CONCRETE 16.7 C.Y.



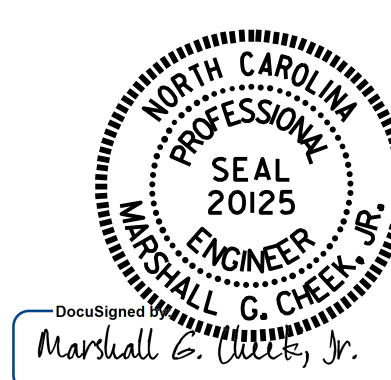
DETAIL "B"



DETAIL "C"

PROJECT NO. B-5391
ALEXANDER COUNTY
STATION: 14+56.30 -L-

SHEET 4 OF 4



10/2/2017

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

DRAWN BY :	H. T. BARBOUR	DATE :	5-19-17
CHECKED BY :	M. G. CHEEK	DATE :	8-17
DESIGN ENGINEER OF RECORD:	H. A. LOCKLEAR	DATE :	10-17

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-11
1			3			TOTAL SHEETS
2			4			12