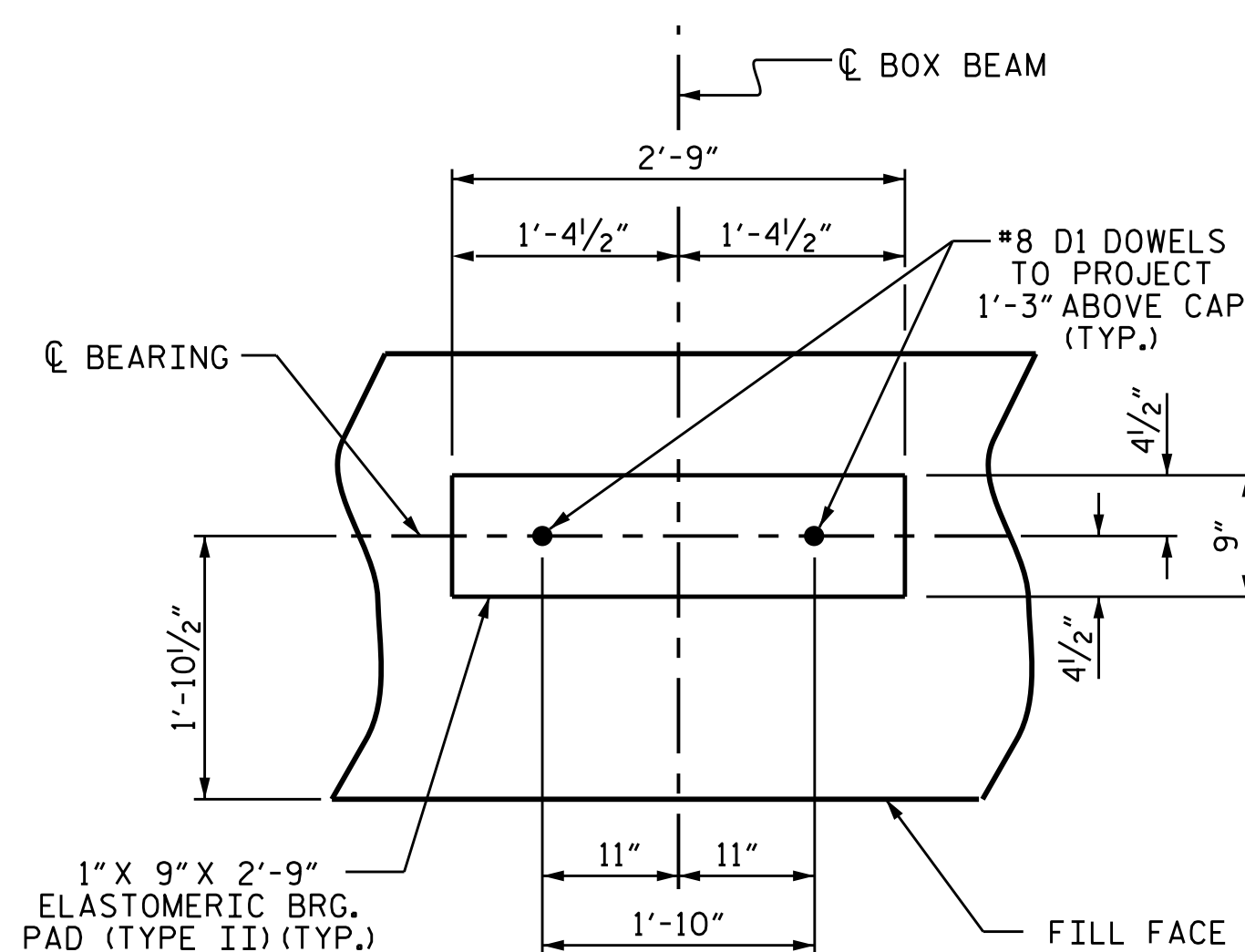


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

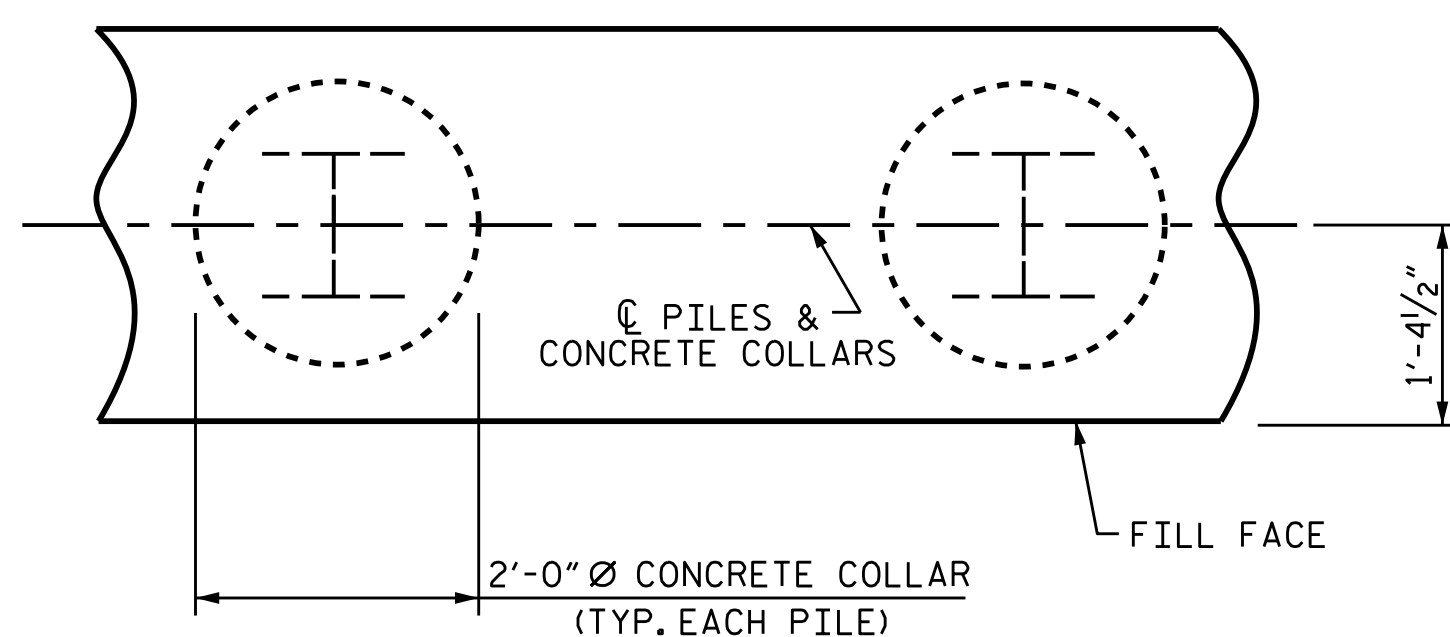
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



DETAIL "A"

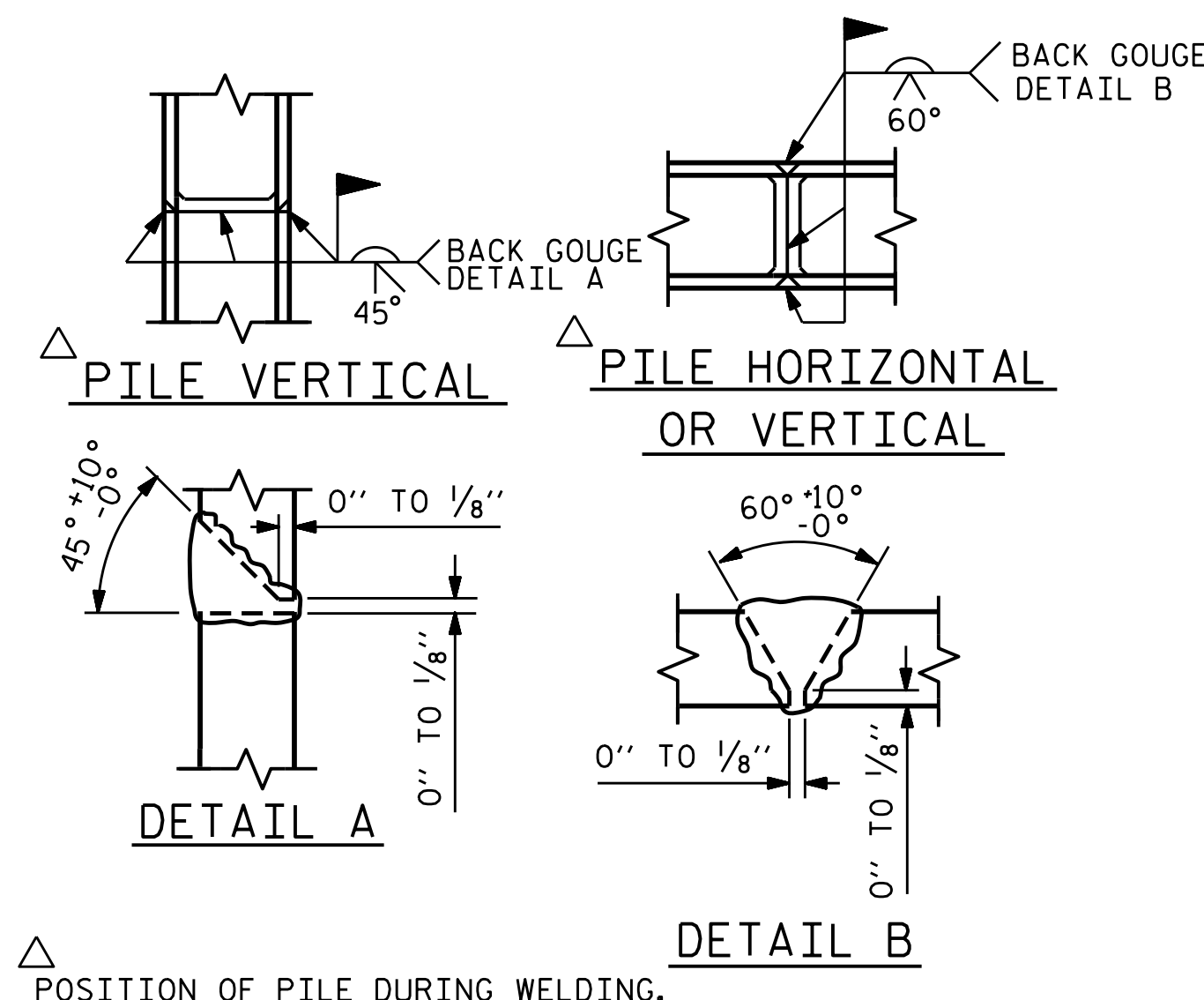
(END BENT 1 SHOWN, END BENT 2 SIMILAR BY ROTATION)



PLAN

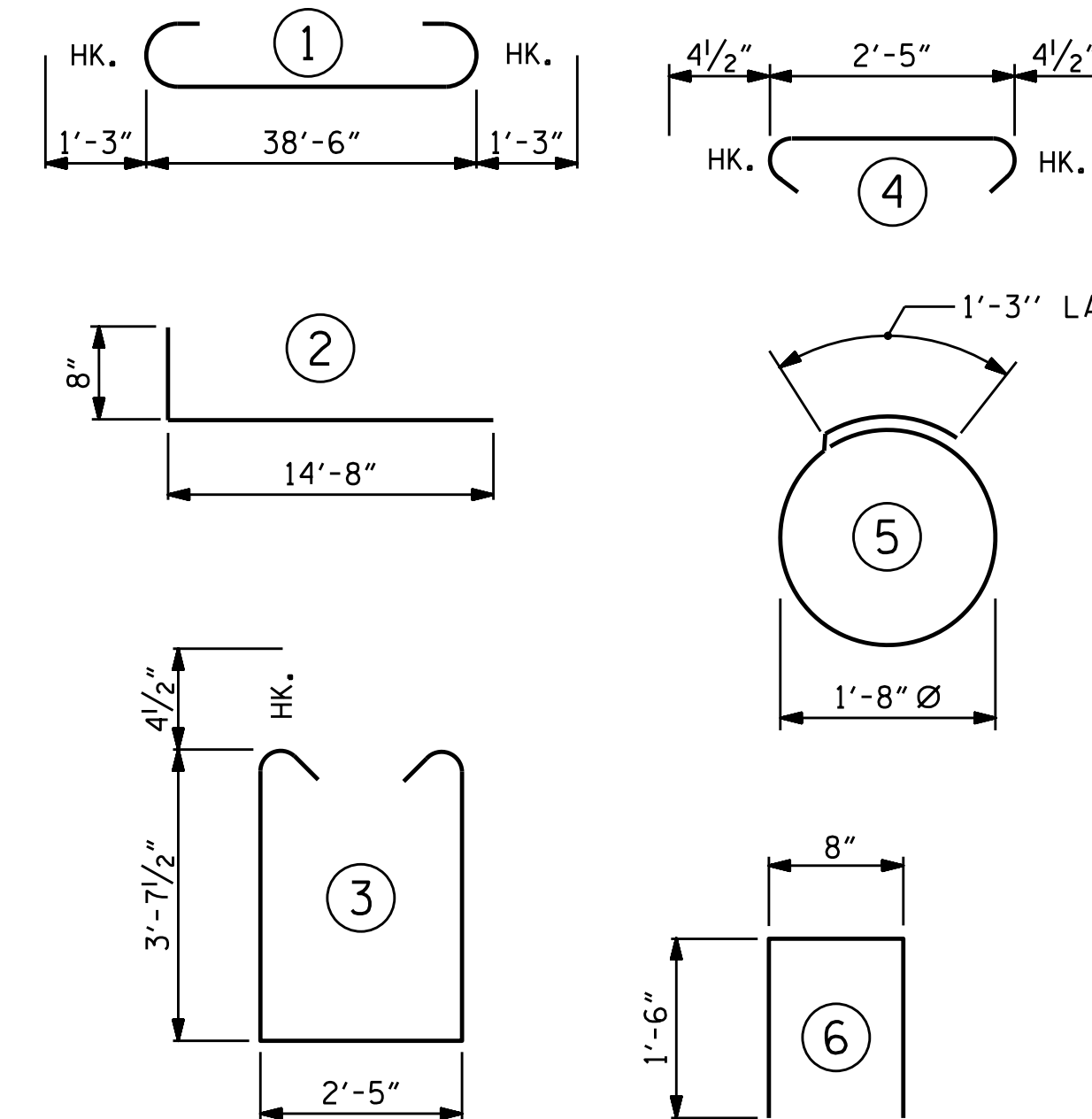
CORROSION PROTECTION FOR STEEL PILES DETAIL

(END BENT 1 SHOWN, END BENT 2 SIMILAR BY ROTATION)



PILE SPLICE DETAILS

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

END BENT No. 1		END BENT No. 2	
HP 12 X 53 STEEL PILES	NO: 7	HP 12 X 53 STEEL PILES	NO: 7
STEEL PILE POINTS	4 EA.	STEEL PILE POINTS	4 EA.
PILE EXCAVATION IN SOIL	LIN. FT.= 32	PILE EXCAVATION IN SOIL	LIN. FT.= 24
PILE EXCAVATION NOT IN SOIL	LIN. FT.= 7	PILE EXCAVATION NOT IN SOIL	LIN. FT.= 9

BILL OF MATERIAL FOR ONE END BENT

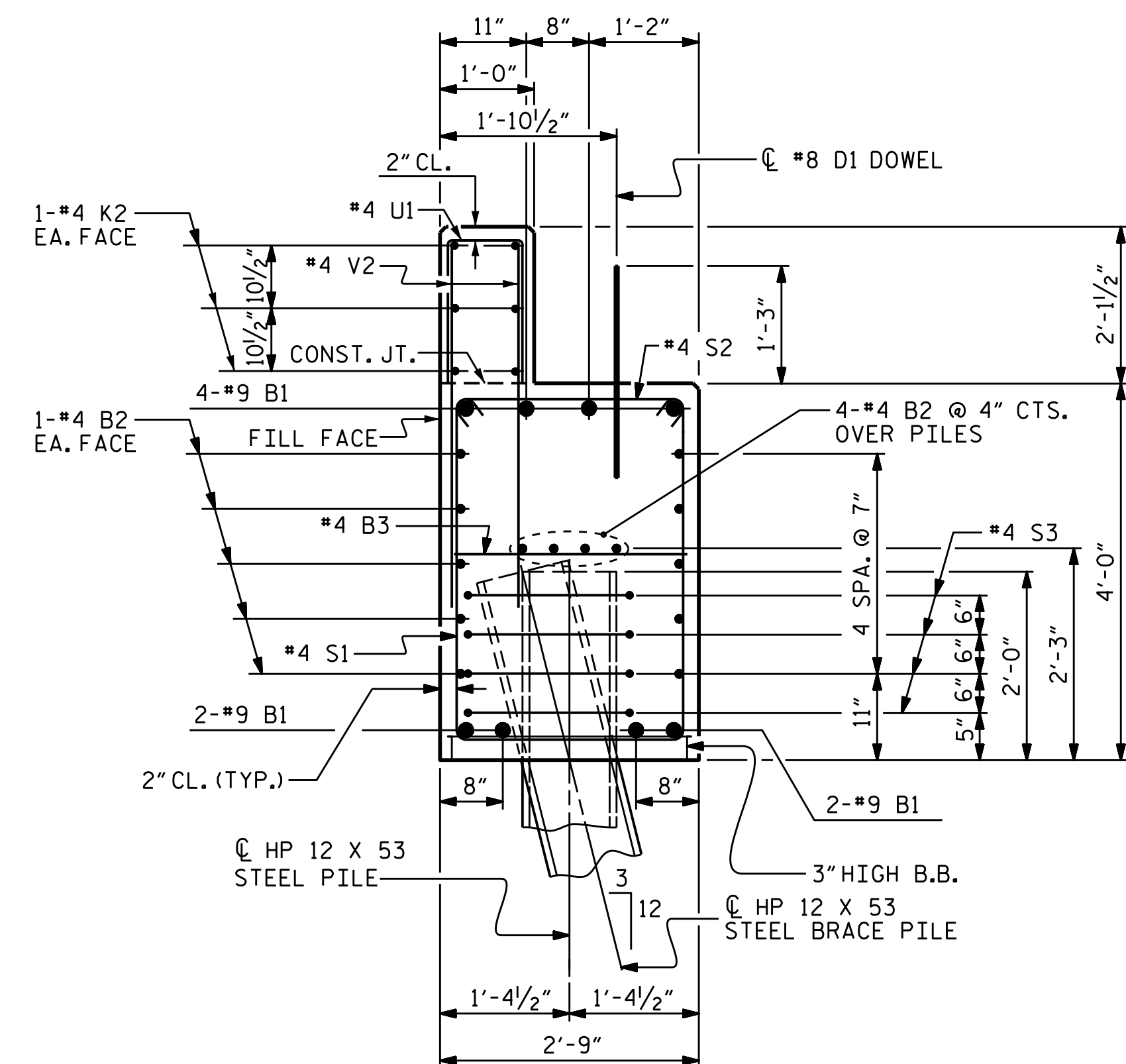
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#9		41'-0"	1115
B2	28	#4	STR	20'-7"	385
B3	10	#4	STR	2'-5"	16
D1	22	#8	STR	2'-3"	132
H1	64	#6		15'-4"	1474
K1	12	#4	STR	2'-11"	23
K2	12	#4	STR	20'-7"	165
S1	50	#4		10'-5"	348
S2	50	#4		3'-2"	106
S3	28	#4		6'-6"	122
U1	33	#4		3'-8"	81
V1	76	#4	STR	7'-8"	389
V2	66	#4	STR	5'-9"	254

REINFORCING STEEL (FOR ONE END BENT) 4610 LBS.

CLASS A CONCRETE BREAKDOWN (FOR ONE END BENT)

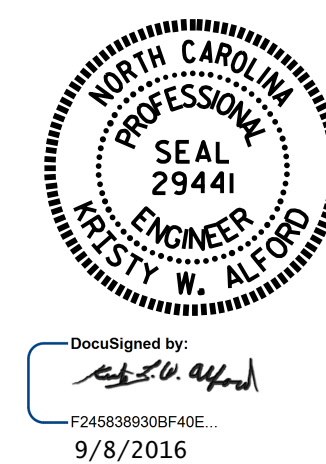
POUR #1	CAP, LOWER PART OF WINGS & COLLARS	21.3 C.Y.
POUR #2	BACKWALL & UPPER PART OF WINGS	7.7 C.Y.

TOTAL CLASS A CONCRETE 29.0 C.Y.



SECTION A-A

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



PROJECT NO. B-4945

VANCE COUNTY

STATION: 16+89.00 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

SUBSTRUCTURE

END BENT 1 & 2

DETAILS

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-13	
1			3			TOTAL SHEETS 15	
2			4				

ASSEMBLED BY :	M.M. AHMED	DATE :	3-23-16
CHECKED BY :	J.P. ADAMS	DATE :	8/2016
DRAWN BY :	WJH 12/11	REV.	8/14
CHECKED BY :	AAC 12/11	MAA/TMG	