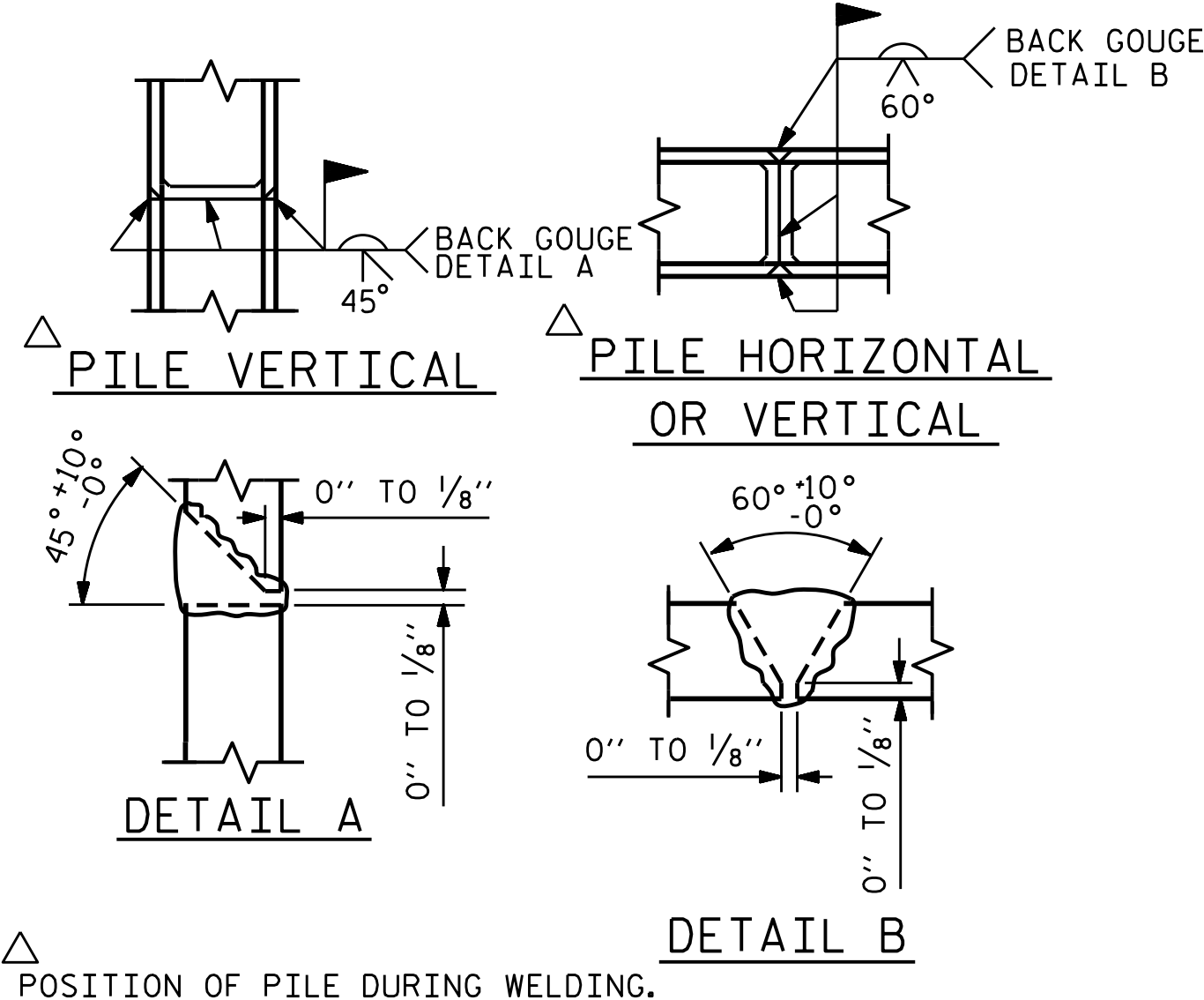


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

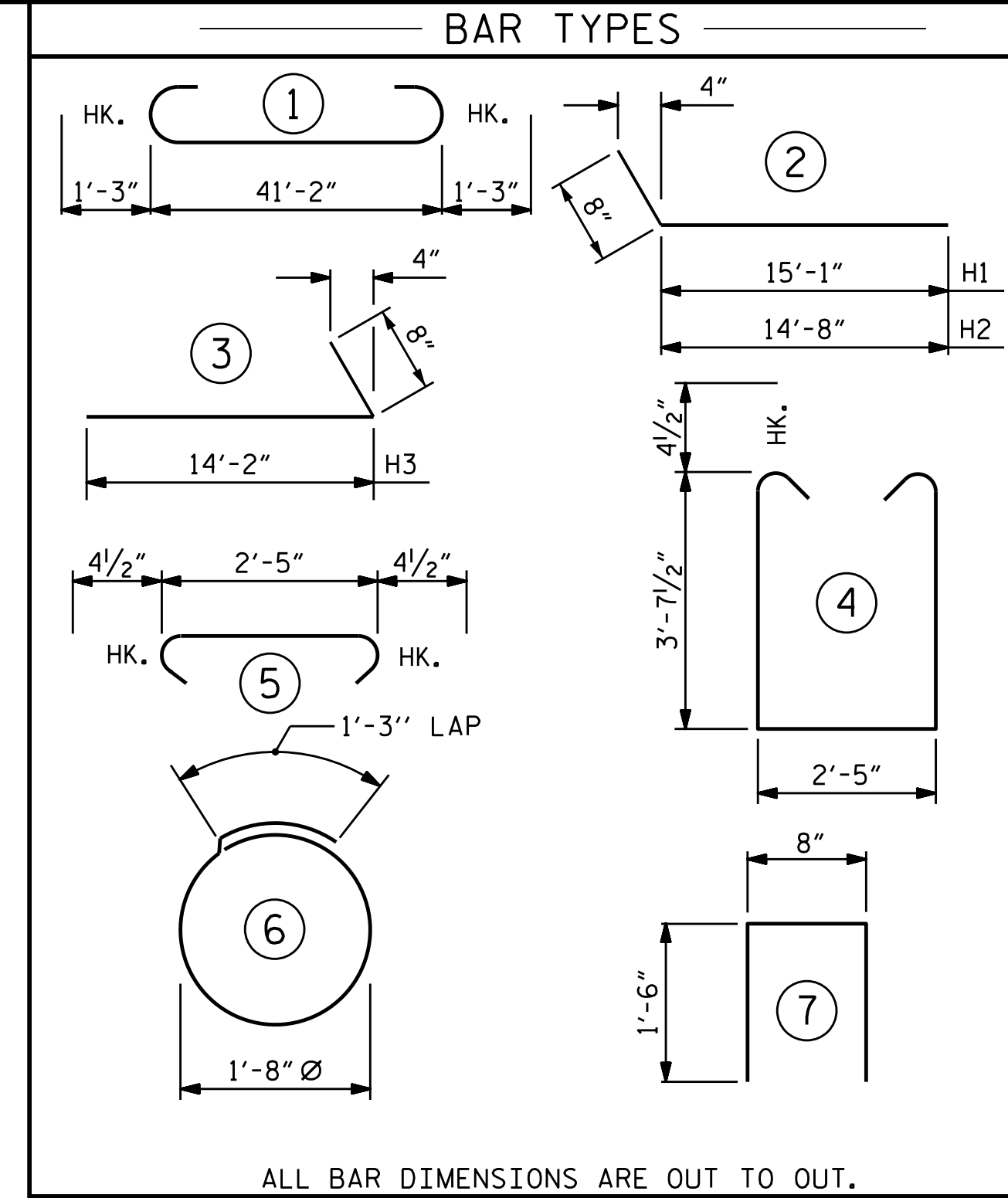
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

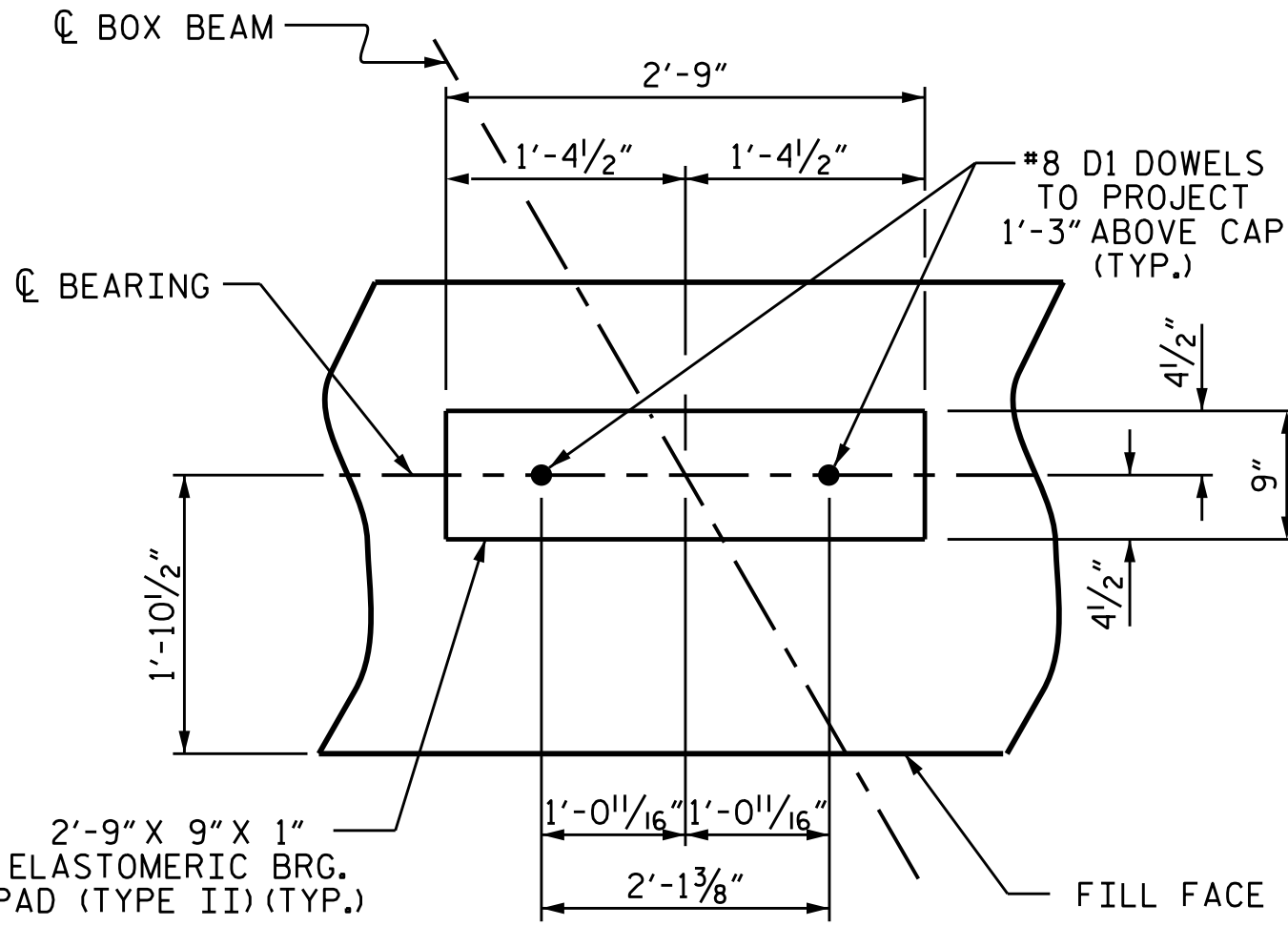


### PILE SPLICE DETAILS



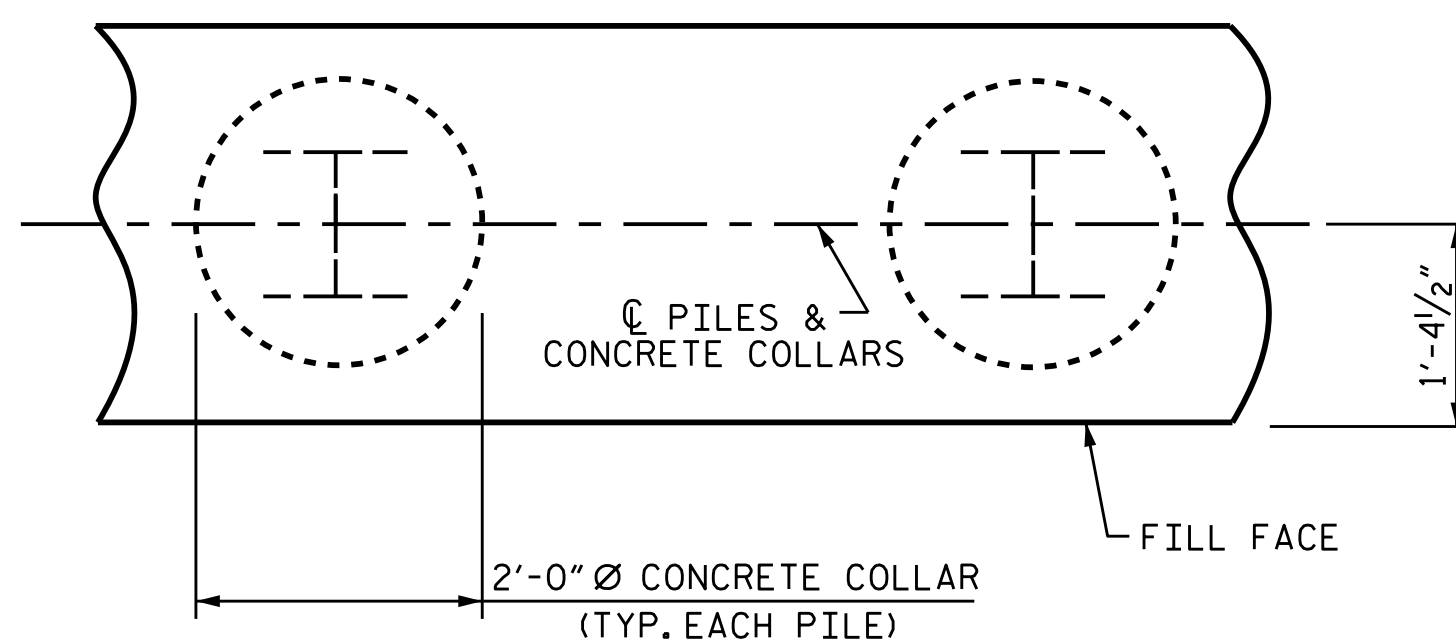
END BENT No. 1		END BENT No. 2	
HP 12 X 53 STEEL PILES	NO: 5	HP 12 X 53 STEEL PILES	NO: 5
STEEL PILE POINTS	5 EA.	STEEL PILE POINTS	5 EA.
	LIN. FT. = 175		LIN. FT. = 125

BILL OF MATERIAL FOR ONE END BENT					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#9		43'-8"	1188
B2	28	#4	STR	21'-11"	410
B3	11	#4	STR	2'-5"	18
D1	20	#8	STR	2'-3"	120
H1	16	#6		15'-9"	379
H2	16	#6		15'-4"	368
H3	32	#6		14'-10"	713
K1	12	#4	STR	3'-3"	26
K2	12	#4	STR	21'-11"	176
S1	54	#4		10'-5"	376
S2	54	#4		3'-2"	114
S3	20	#4		6'-6"	87
U1	34	#4		3'-8"	83
V1	77	#4	STR	7'-8"	394
V2	68	#4	STR	5'-8"	257
REINFORCING STEEL (FOR ONE END BENT)					4709 LBS.
CLASS A CONCRETE BREAKDOWN (FOR ONE END BENT)					
POUR #1 CAP, LOWER PART OF WINGS & COLLARS					22.0 C.Y.
POUR #2 BACKWALL & UPPER PART OF WINGS					8.0 C.Y.
TOTAL CLASS A CONCRETE					30.0 C.Y.



### DETAIL "A"

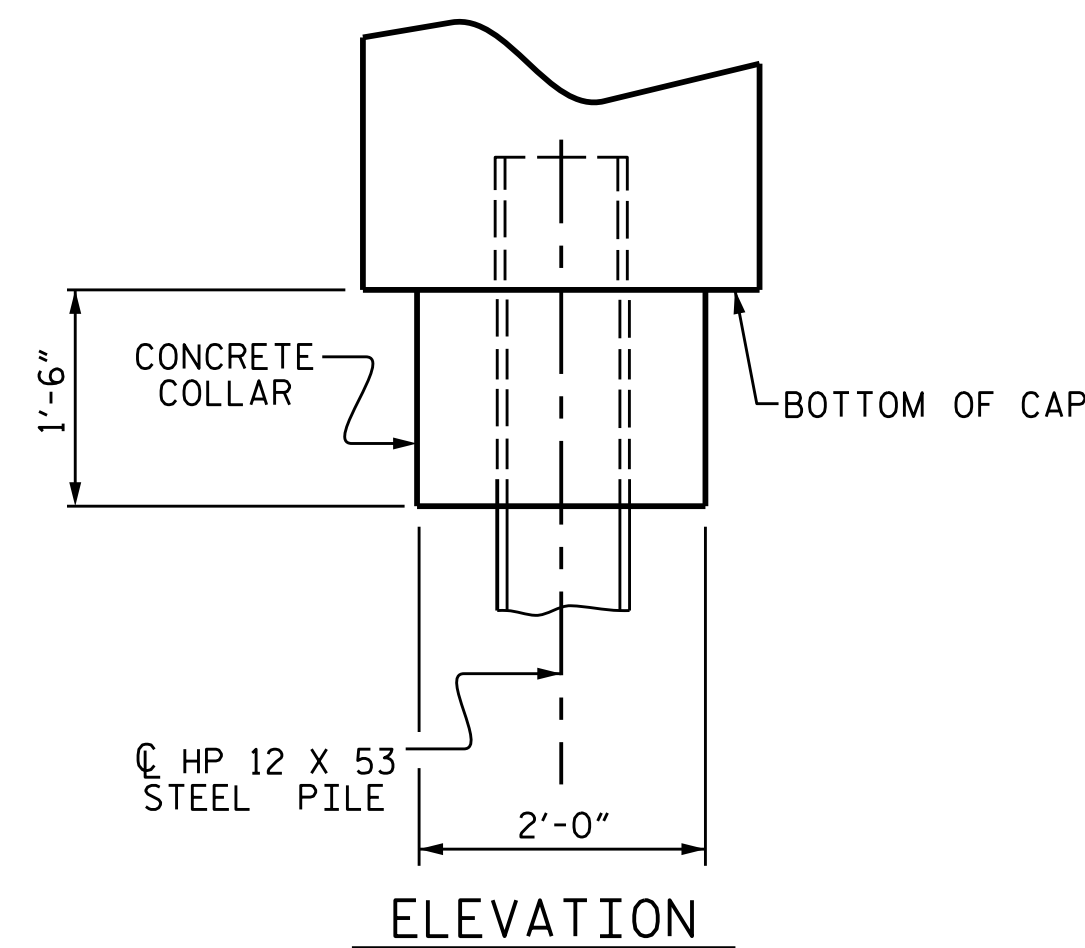
(END BENT No. 1 SHOWN, END BENT No. 2 SIMILAR BY ROTATION)



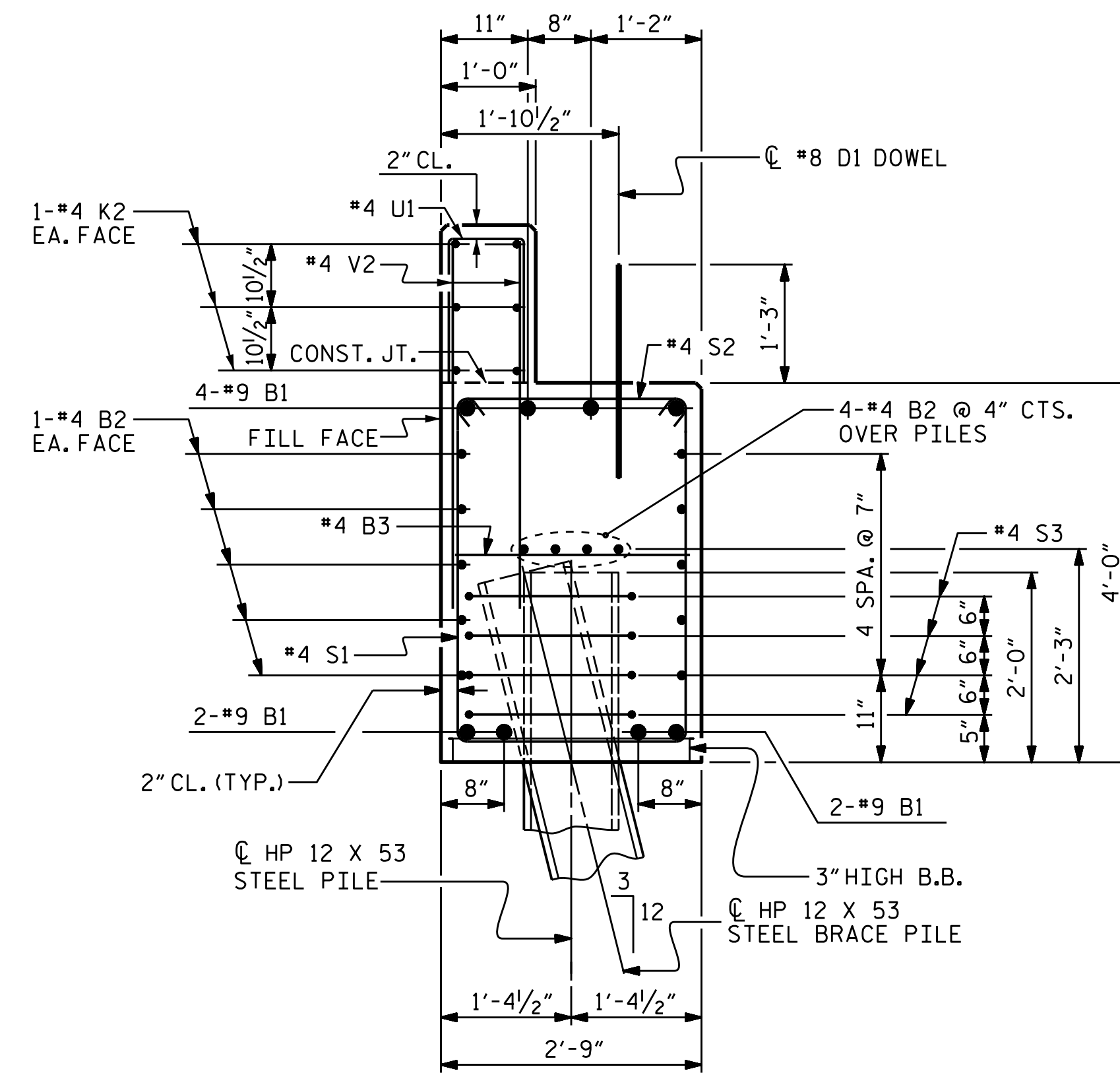
### PLAN

### CORROSION PROTECTION FOR STEEL PILES DETAIL

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

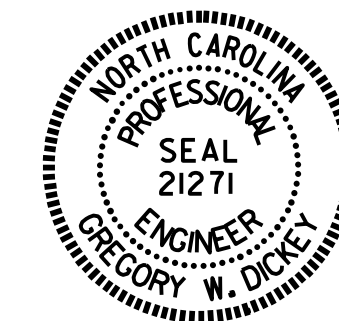


### ELEVATION



### SECTION A-A

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



DocuSigned by:  
Gregory W. Dickey  
8/22/2016

PROJECT NO. B-5360  
RANDOLPH COUNTY  
STATION: 23+68.00 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

SUBSTRUCTURE

END BENT No. 1 & 2  
DETAILS

ASSEMBLED BY : A. K. PATEL	DATE : 11/24/15
CHECKED BY : W. F. PARKER	DATE : 3/16
DRAWN BY : WJH 12/11	REV. 8/14
CHECKED BY : AAC 12/11	MAA/TMG

REVISIONS		
NO.	BY:	DATE:
1		
2		
3		
4		

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SHEET NO. S-16	
TOTAL SHEETS 38	