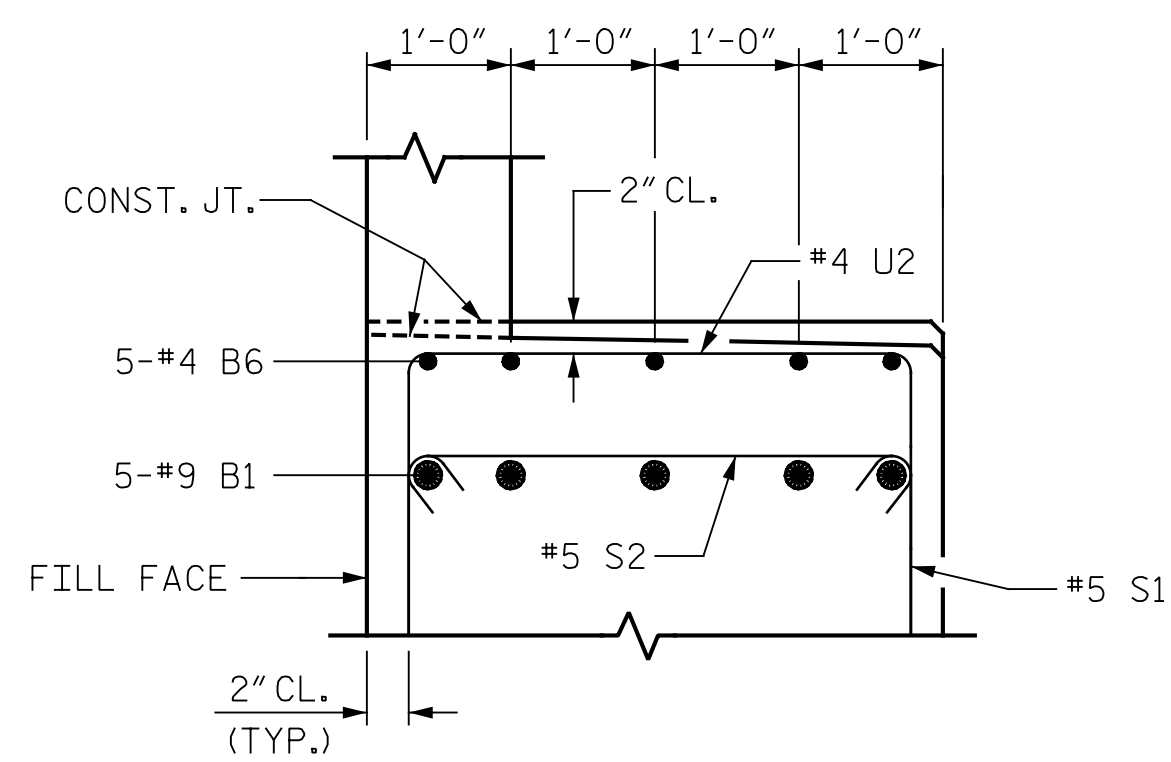


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

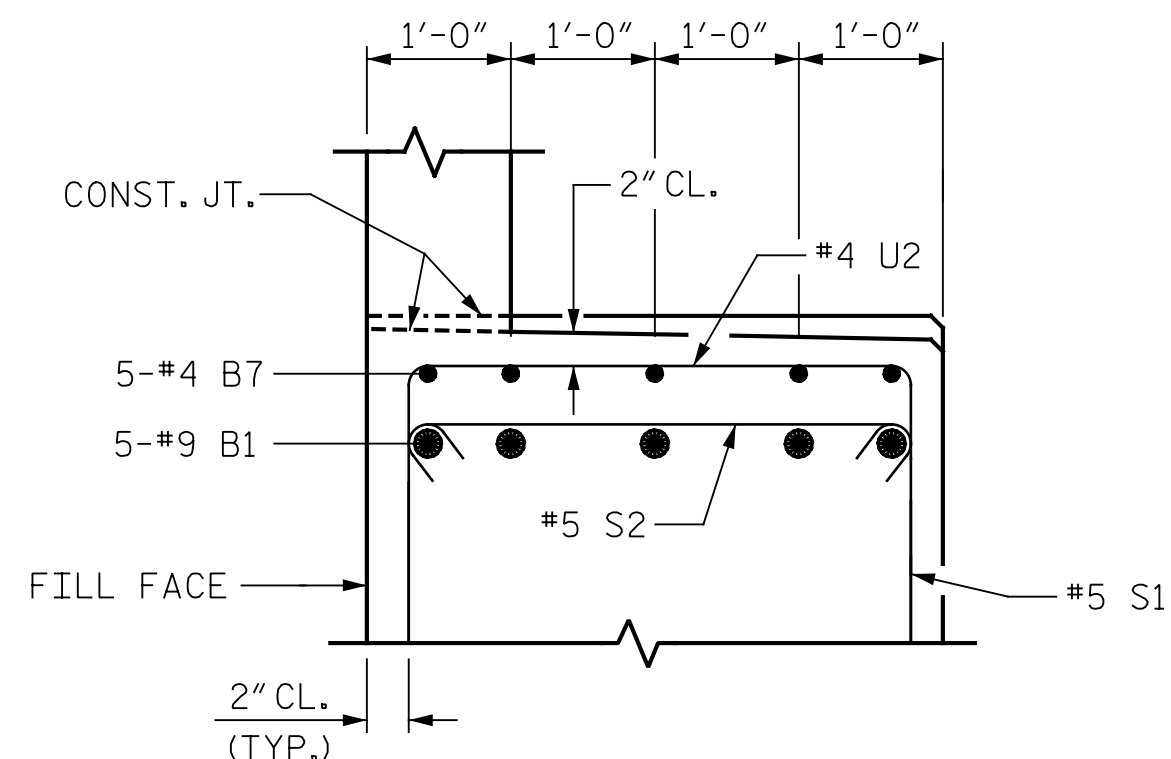
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT

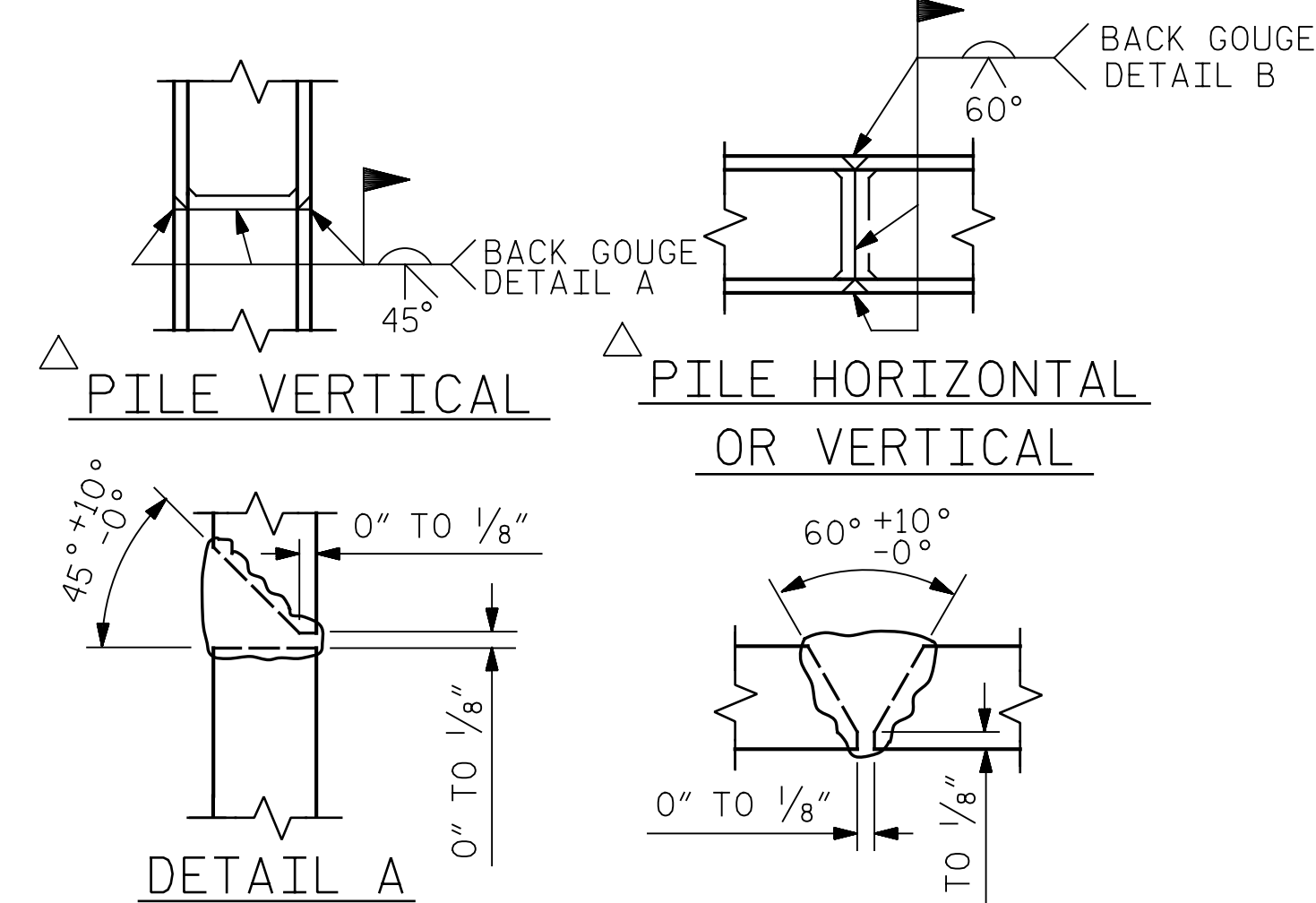


PARTIAL SECTION B-B

(TYP. @ BRG. 2, 3, 4, & 5)

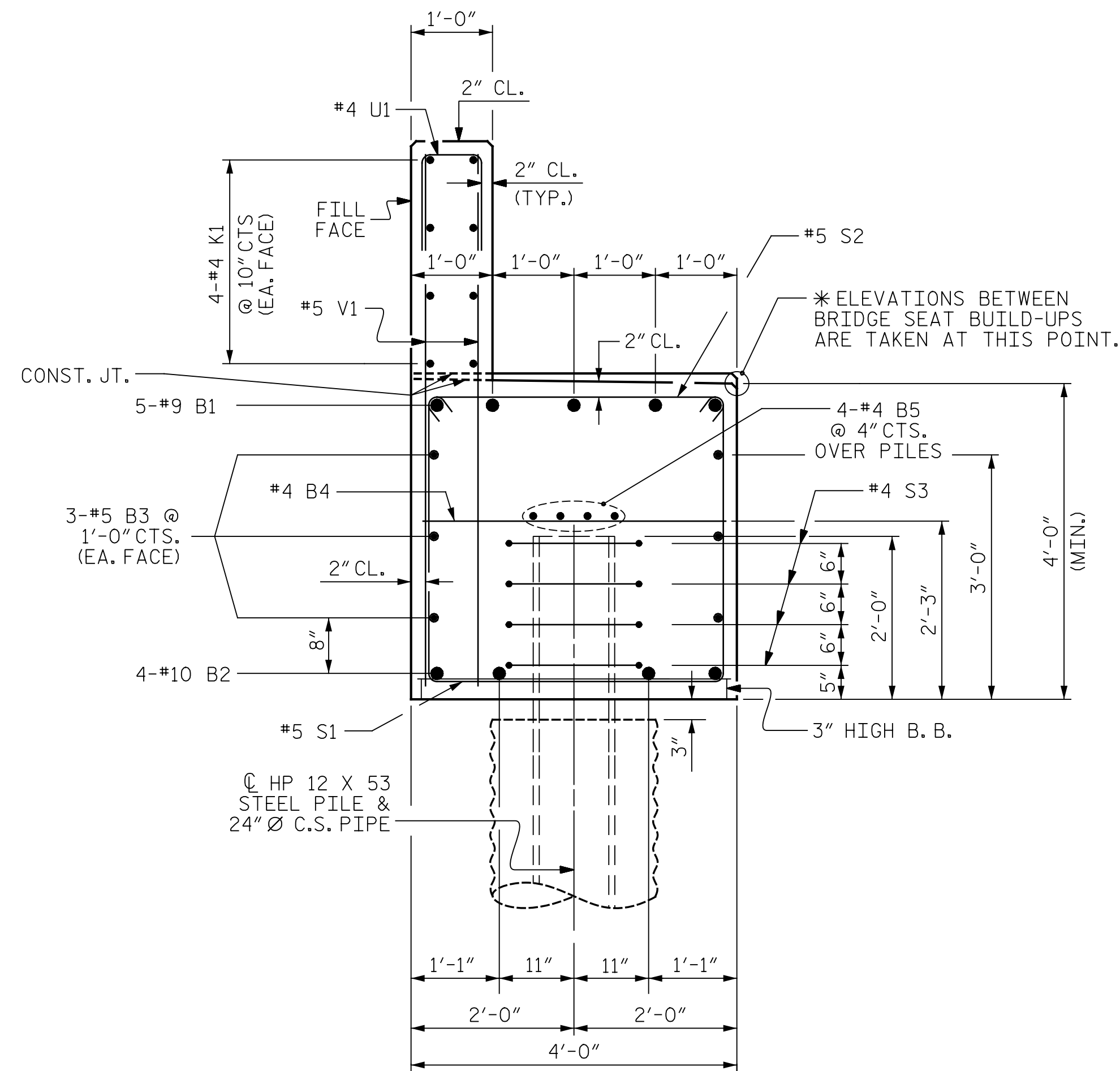


PARTIAL SECTION C-C

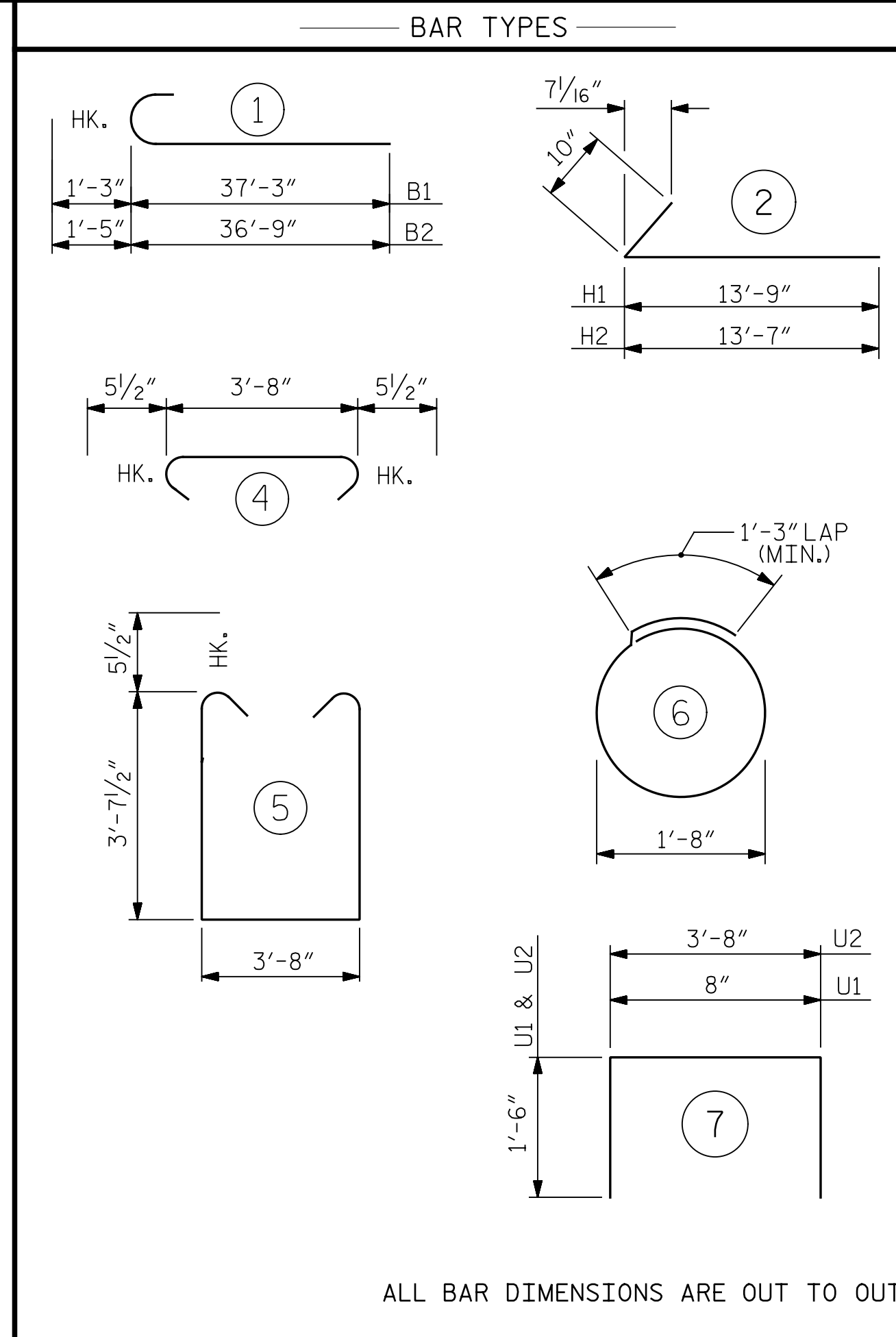


POSITION OF PILE DURING WELDING.

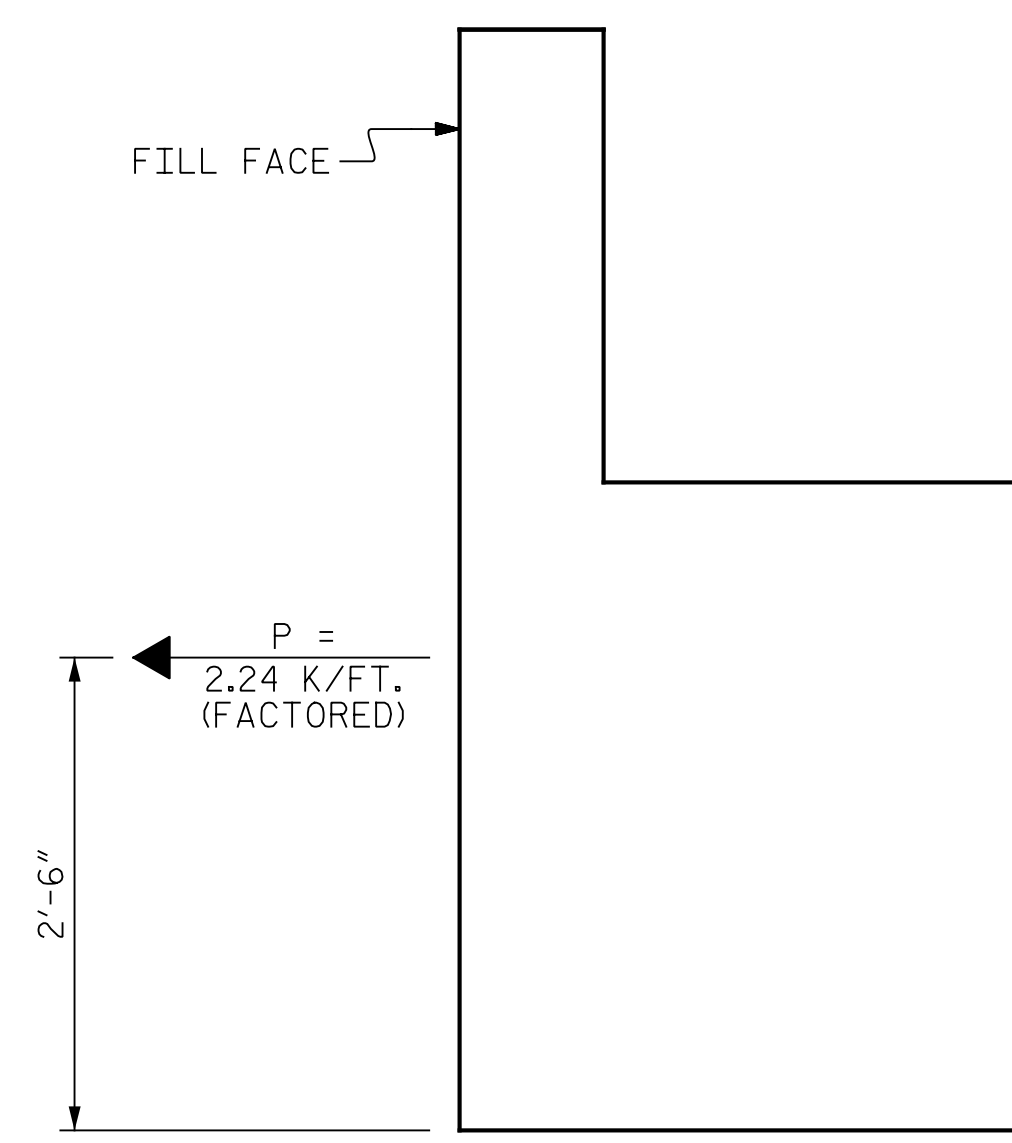
PILE SPLICE DETAILS



SECTION A-A



ALL BAR DIMENSIONS ARE OUT TO OUT.



TIE BACK DETAILS

(DETAIL SHOWING TIE BACK RESTRAINT FOR END BENT)

BILL OF MATERIAL

END BENT #2

BAR	No.	SIZE	TYPE	LENGTH	WEIGHT
B1	10	#9	1	38'-6"	1309
B2	8	#10	1	38'-2"	1314
B3	12	#5	STR	34'-4"	430
B4	16	#4	STR	3'-8"	40
B5	12	#4	STR	23'-7"	189
B6	20	#4	STR	2'-2"	29
B7	10	#4	STR	7'-6"	51
H1	17	#5	2	14'-7"	259
H2	17	#5	2	14'-5"	256
K1	24	#4	STR	23'-7"	378
K2	6	#4	STR	5'-0"	20
K3	6	#4	STR	4'-0"	16
S1	78	#5	5	11'-10"	963
S2	78	#5	4	4'-7"	373
S3	32	#4	6	6'-6"	139
U1	56	#4	7	3'-8"	138
U2	17	#4	7	6'-8"	76
V1	112	#5	STR	6'-7"	769
V2	12	#5	STR	8'-2"	103
V3	36	#5	STR	8'-3"	310

REINFORCING STEEL 7162 LBS.

CLASS A CONCRETE

POUR #1 (CAP & LOWER WINGS)	41.9 C.Y.
POUR #2 (UPPER WINGS & BACKWALL)	10.0 C.Y.
TOTAL	51.9 C.Y.

HP 12 X 53 STEEL PILES

No. = 8 576 LIN. FT.

PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES 8 EACH

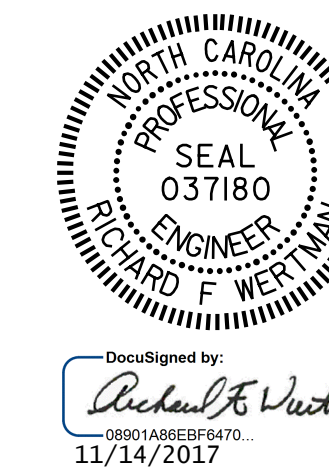
PILE REDRIVES 8 EACH

PROJECT NO. 41665.7A
 CUMBERLAND COUNTY
 STATION: 106+59.74 -L1-
 14+51.19 -Y-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 END BENT #2



DocuSigned by:
 Richard F. Wertman
 09301A8EEF9470
 11/14/2017

REVISIONS

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

SHEET NO.
 S02-21
 TOTAL SHEETS
 24

DRAWN BY : J.A. BOYER DATE : 09/26/17
 CHECKED BY : R.F. WERTMAN DATE : 10/18/17
 DESIGN ENGINEER OF RECORD : R.F. WERTMAN DATE : 11/06/17

PLANS PREPARED BY:
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 (919) 420-7660
 NC Lic. No. F-0270

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