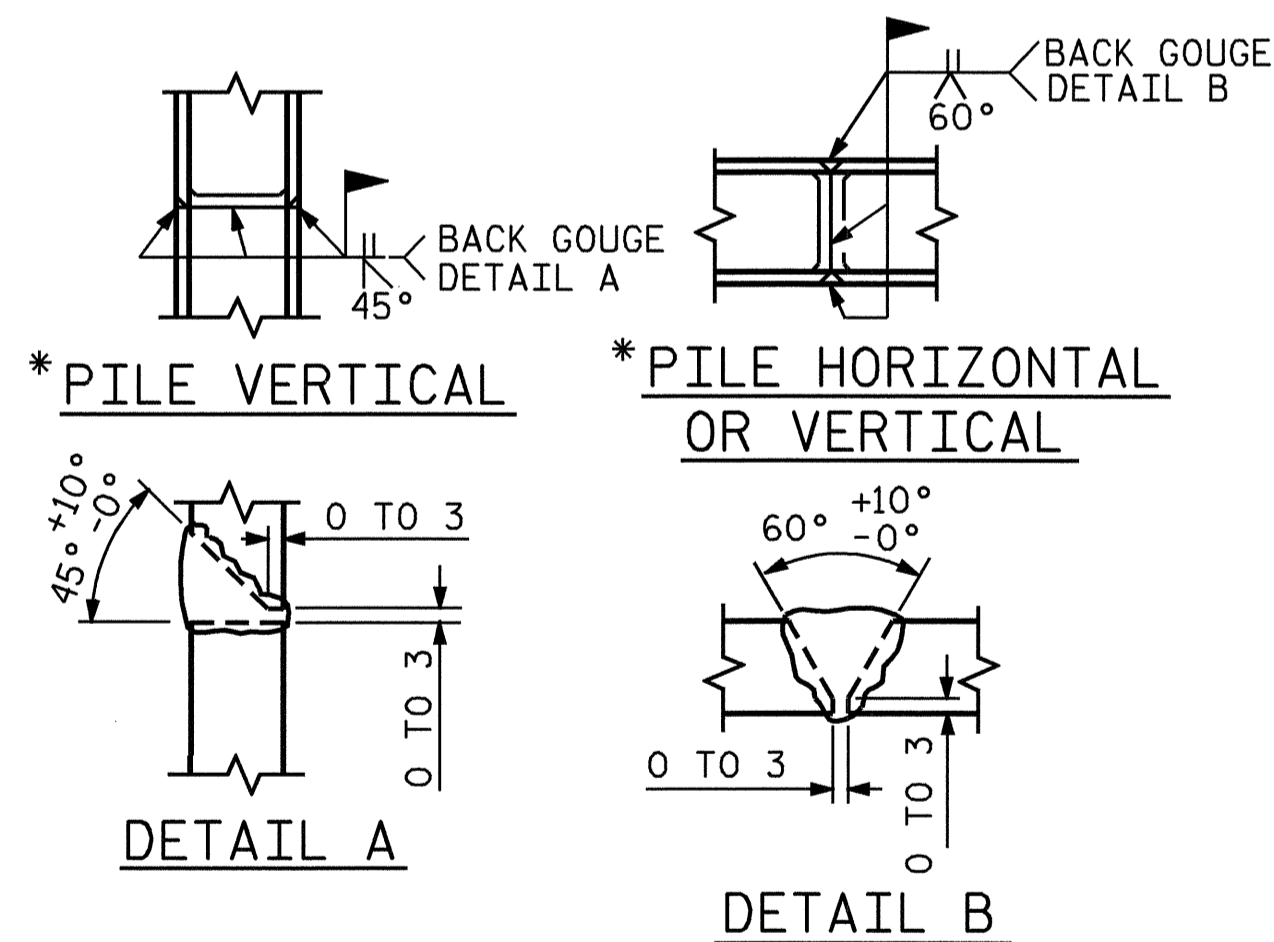


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

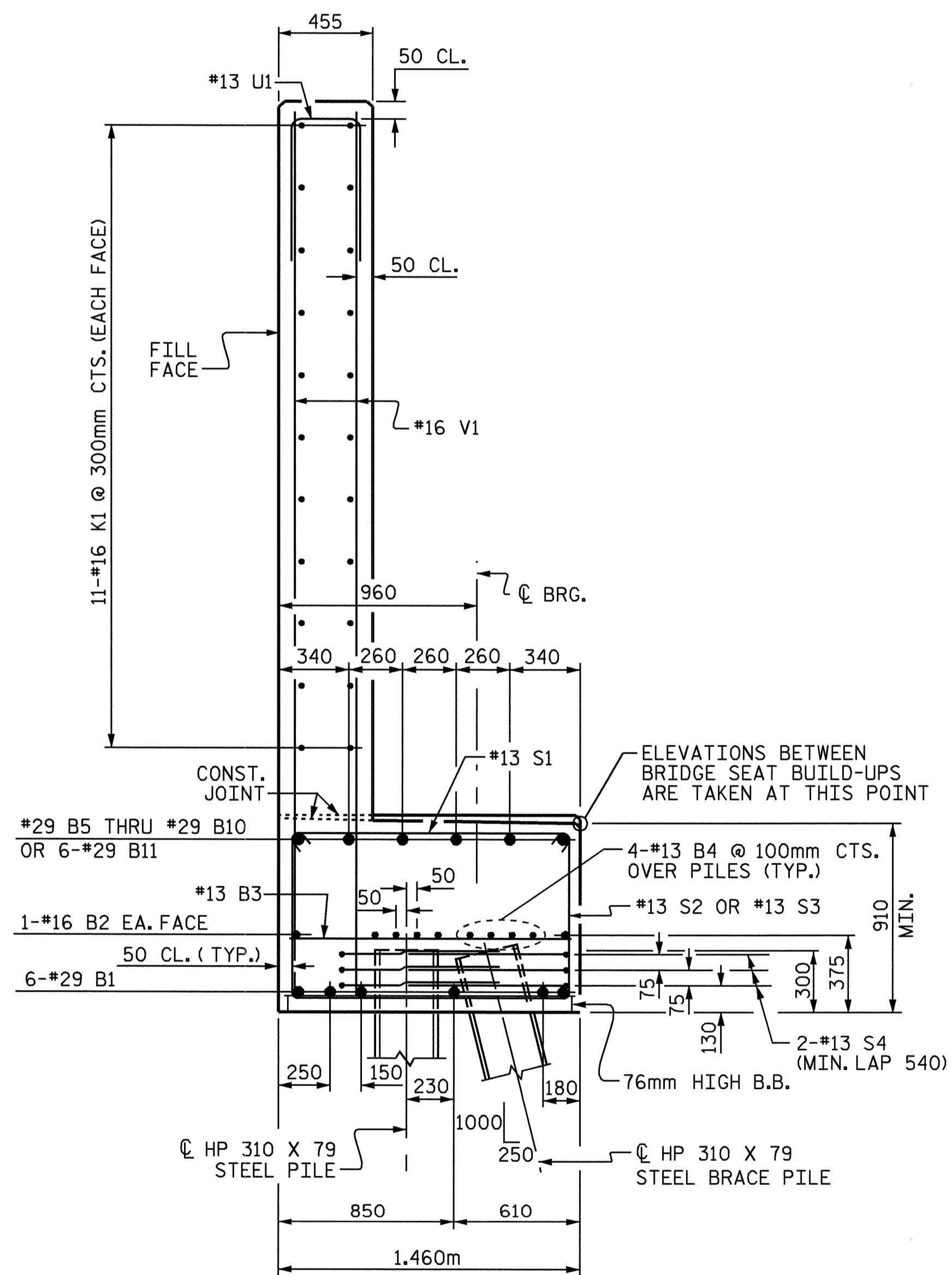
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



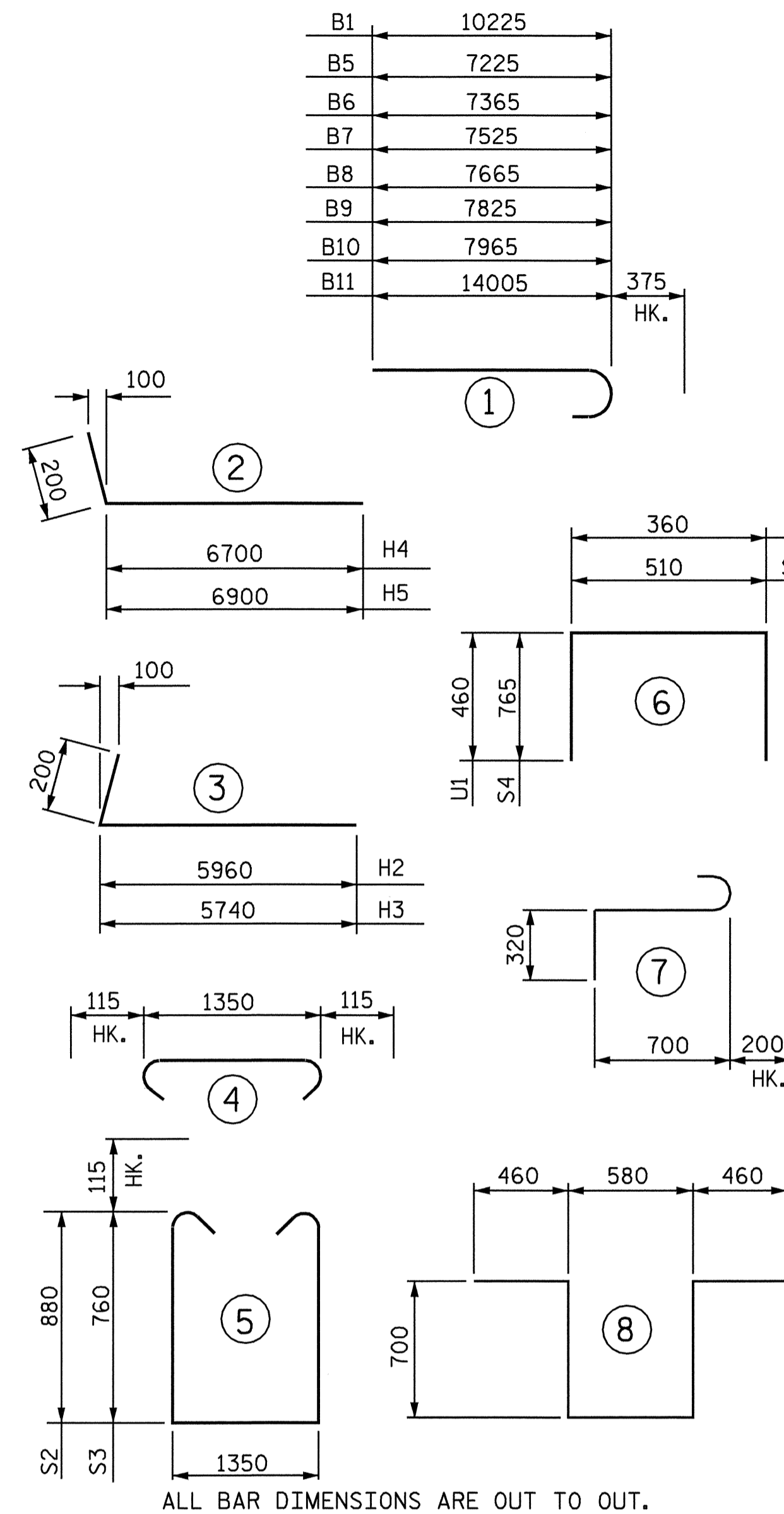
PILE SPLICE DETAILS

* POSITION OF PILE DURING WELDING.



SECTION A-A

BAR TYPES



BILL OF MATERIAL

END BENT 1

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	12	#29	1	10600	644
B2	4	#16	STR	9760	61
B3	15	#13	STR	1360	20
B4	24	#13	STR	6700	160
B5	1	#29	1	7600	38
B6	1	#29	1	7740	39
B7	1	#29	1	7900	40
B8	1	#29	1	8040	41
B9	1	#29	1	8200	41
B10	1	#29	1	8340	42
B11	6	#29	1	14380	437

H1	4	#16	STR	1000	6
H2	16	#16	3	6160	153
H3	16	#16	3	5940	148
H4	16	#16	2	6900	171
H5	16	#16	2	7100	176
K1	44	#16	STR	9760	666
S1	74	#13	4	1580	116
S2	27	#13	5	3340	90
S3	47	#13	5	3100	145
S4	60	#13	6	2040	122
S5	6	#19	7	1220	16
S6	2	#19	8	2900	13

U1	54	#13	6	1280	69
V1	108	#16	STR	4100	687
V2	44	#16	STR	4680	320
V3	50	#16	STR	4540	351

REINFORCING STEEL 4812 kg

CLASS A CONCRETE BREAKDOWN
 POUR #1 (CAP & WINGS) 32.9 C.M.
 POUR #2 (BACKWALL & WINGS) 48.4 C.M.
 TOTAL 81.3 C.M.

HP 310 x 79 STEEL PILES NO. 22 308 METERS

PROJECT NO. R-0977A
 CHEROKEE COUNTY
 STATION: 16+02.300-LC1B-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 END BENT 1



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-34
1			3			TOTAL SHEETS 230
2			4			

DRAWN BY : A.S. CALLAWAY DATE : 8/17/04
 CHECKED BY : A.K. PATEL DATE : 9/22/04

21-DEC-2004 07:04
 W:\Squadr\0977a\str\scallaway\R0977A_sd_EL01.dgn
 lsutton

STR. #1