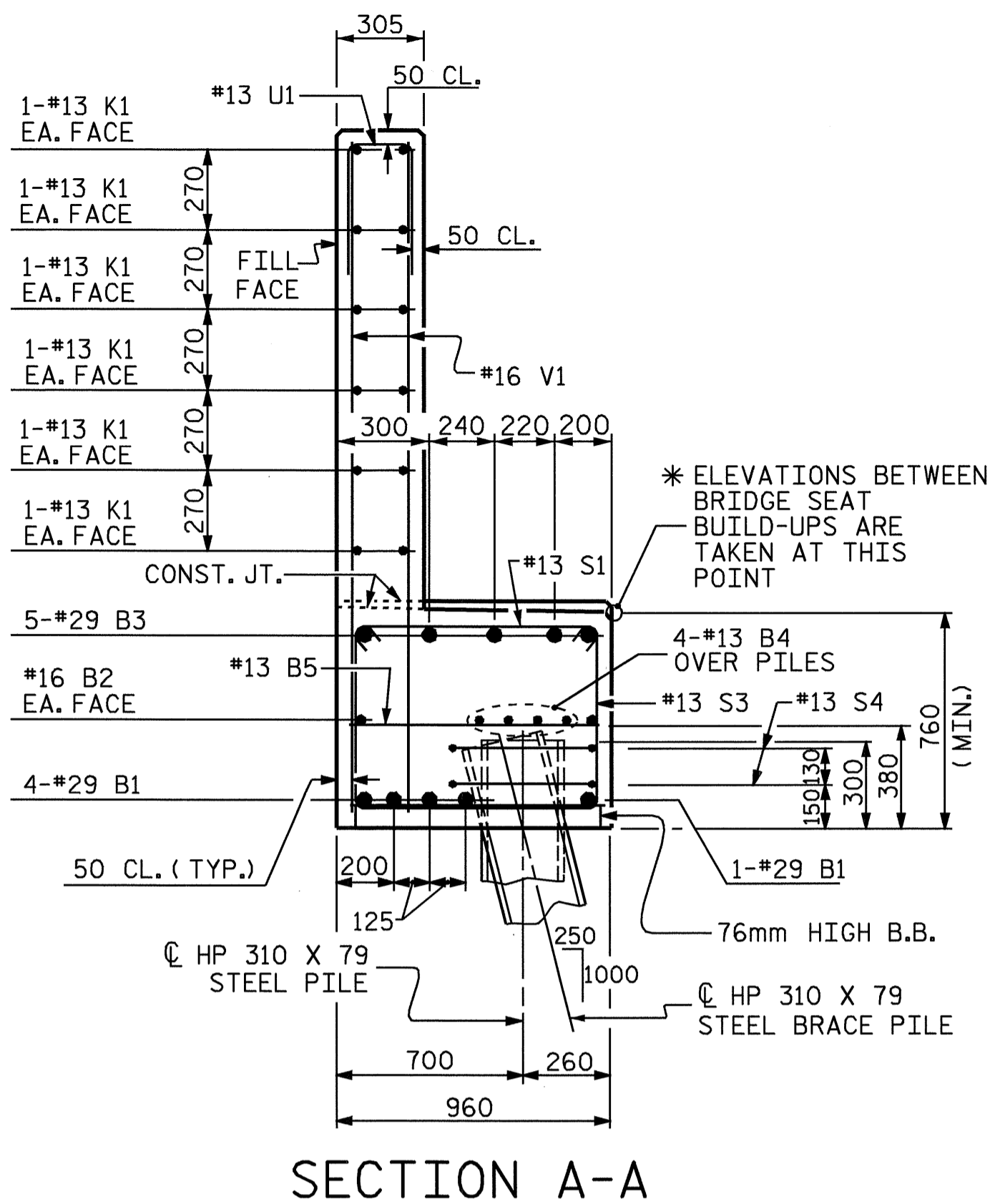


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

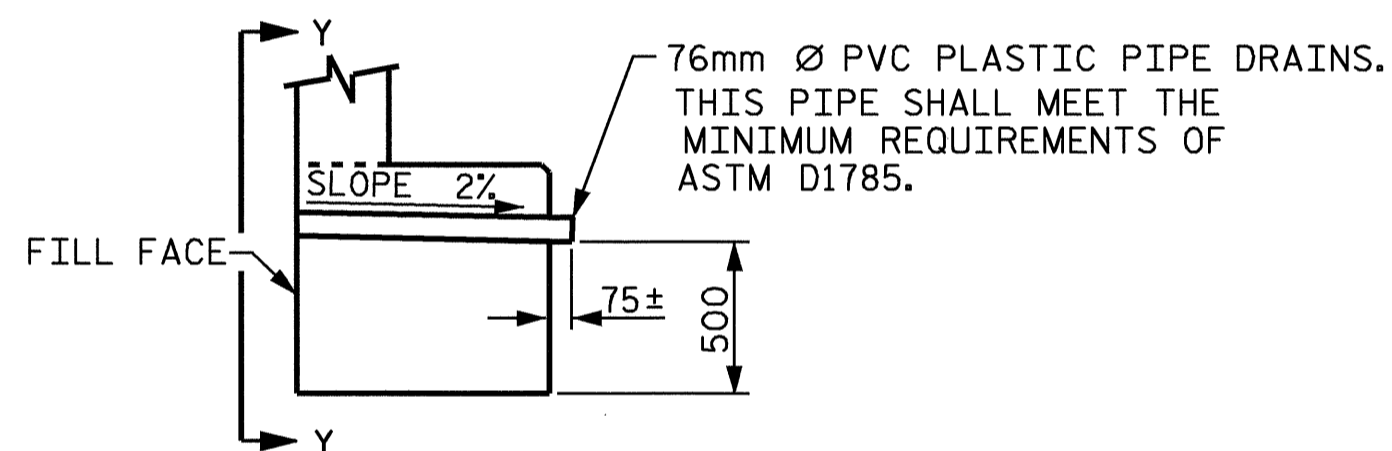
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

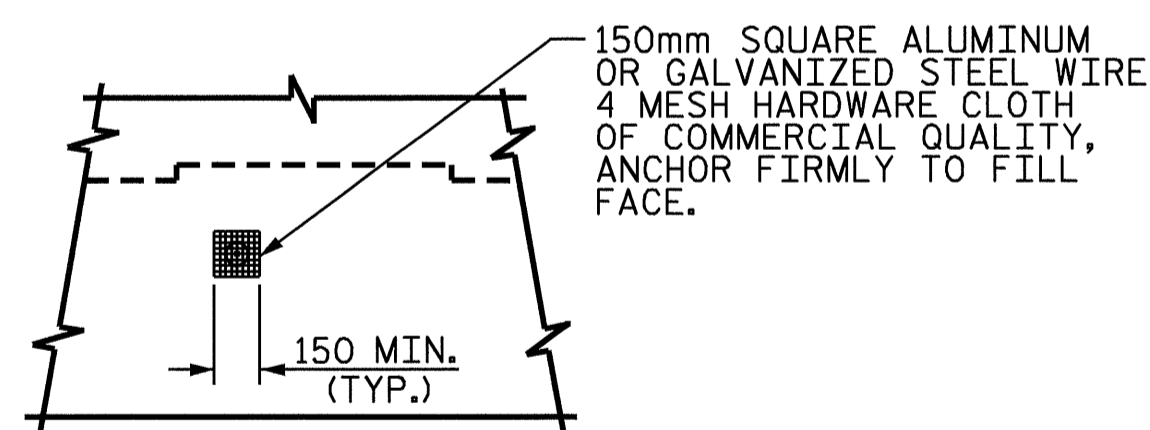
TEMPORARY DRAINAGE AT END BENT



SECTION A-A



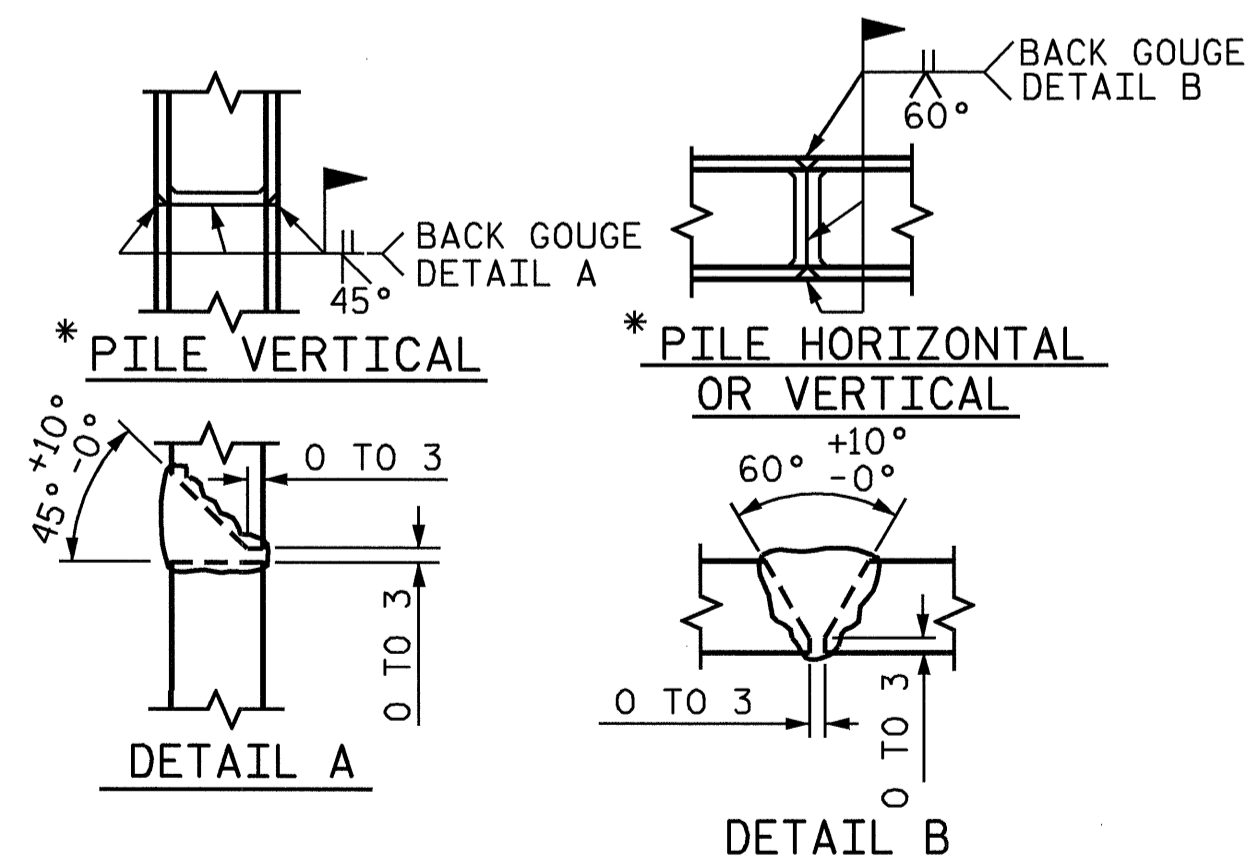
SECTION THRU CAP



VIEW Y-Y

NOTE: NO SEPARATE PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING THE PVC PLASTIC PIPE DRAINS, HARDWARE CLOTH AND FASTENERS. THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

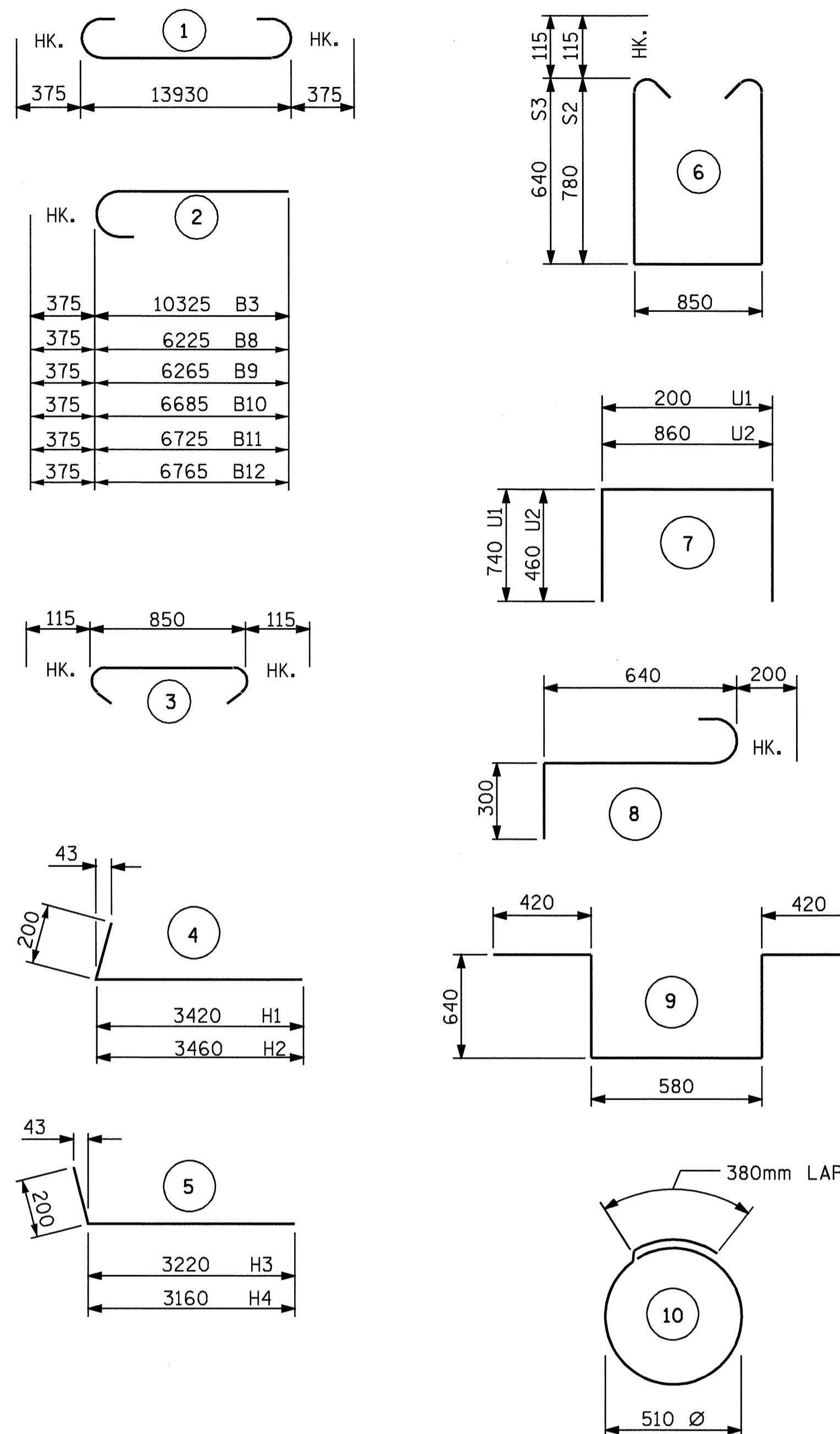
PIPE DRAIN DETAILS



* POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

END BENT #2					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	5	#29	1	14680	371
B2	2	#16	STR	13920	43
B3	5	#29	2	10700	271
B4	8	#13	STR	7360	59
B5	10	#13	STR	860	9
B6	2	#16	STR	4560	14
B7	10	#13	STR	740	7
B8	1	#29	2	6600	33
B9	1	#29	2	6640	34
B10	1	#29	2	7060	36
B11	1	#29	2	7100	36
B12	1	#29	2	7140	36
H1	12	#16	4	3620	67
H2	12	#16	4	3660	68
H3	11	#16	5	3420	58
H4	11	#16	5	3360	57
K1	24	#13	STR	7360	176
K2	8	#13	STR	860	7
S1	50	#13	3	1080	54
S2	23	#13	6	2640	60
S3	27	#13	6	2360	63
S4	18	#13	10	1980	35
S5	3	#19	8	1140	8
S6	1	#19	9	2700	6
U1	40	#13	7	1680	67
U2	8	#13	7	1780	14
V1	80	#13	STR	2160	268
V2	32	#16	STR	2780	138
V3	30	#16	STR	2520	117

REINFORCING STEEL = 2212 kg

CLASS A CONCRETE BREAKDOWN

POUR #1: CAP & LOWER WINGS & BRACE PILE BLOCKS 13.8 CU. METERS

POUR #2: BACKWALL & UPPER WINGS 10.4 CU. METERS

TOTAL CLASS A CONCRETE 24.2 CU. METERS

HP 310 X 79 STEEL PILES NO. 10 260.0 METERS

PROJECT NO. R-2911A
IREDELL COUNTY
 STATION: 39+62.402 -L-

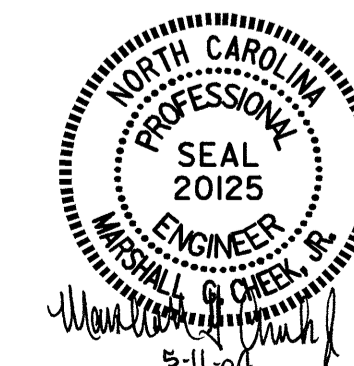
SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 END BENT #2
 RIGHT LANE

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

TOTAL SHEETS 106



DRAWN BY : QT NGUYEN DATE : 3-04
 CHECKED BY : L.L. MURPHY DATE : 3-04