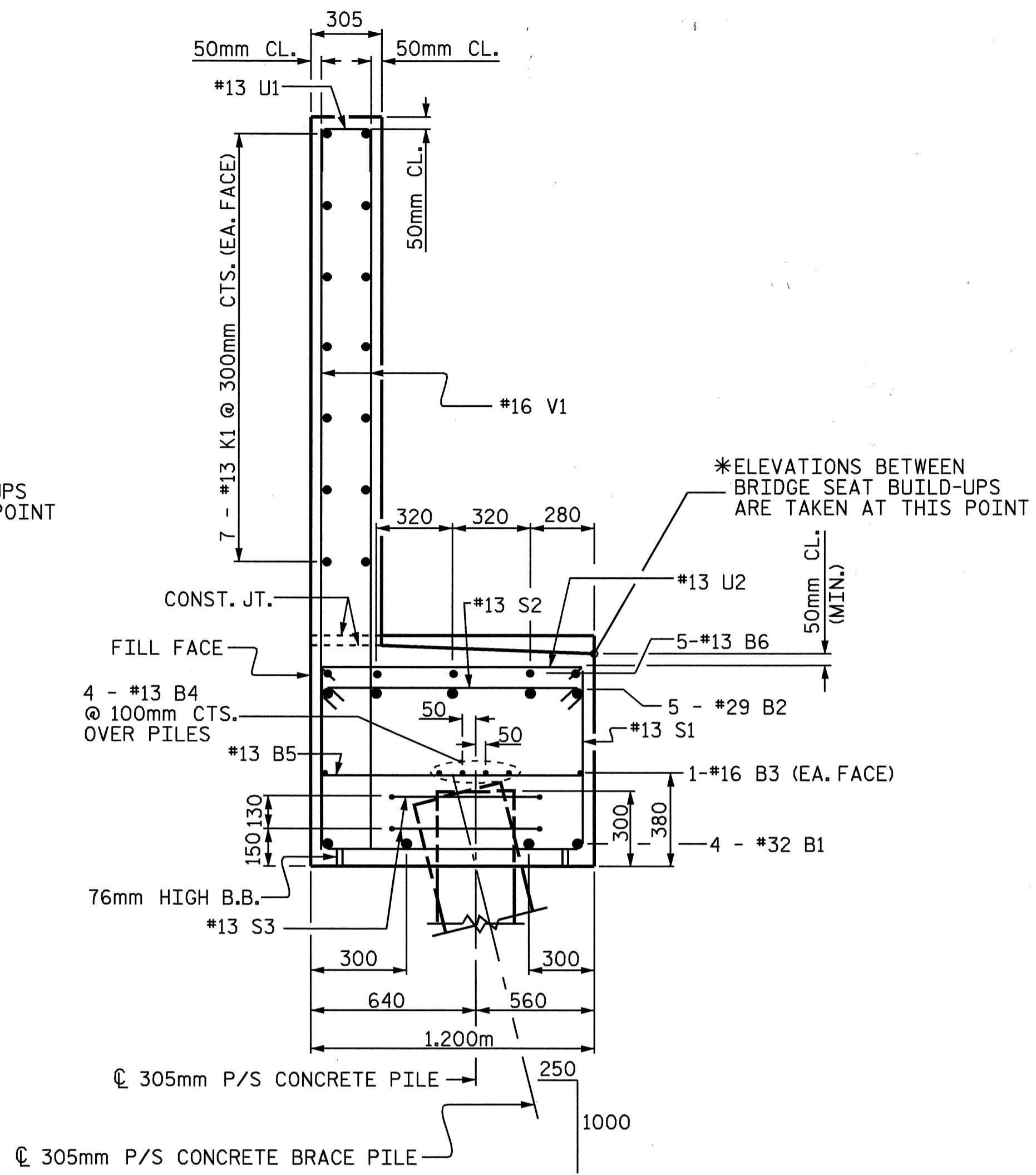
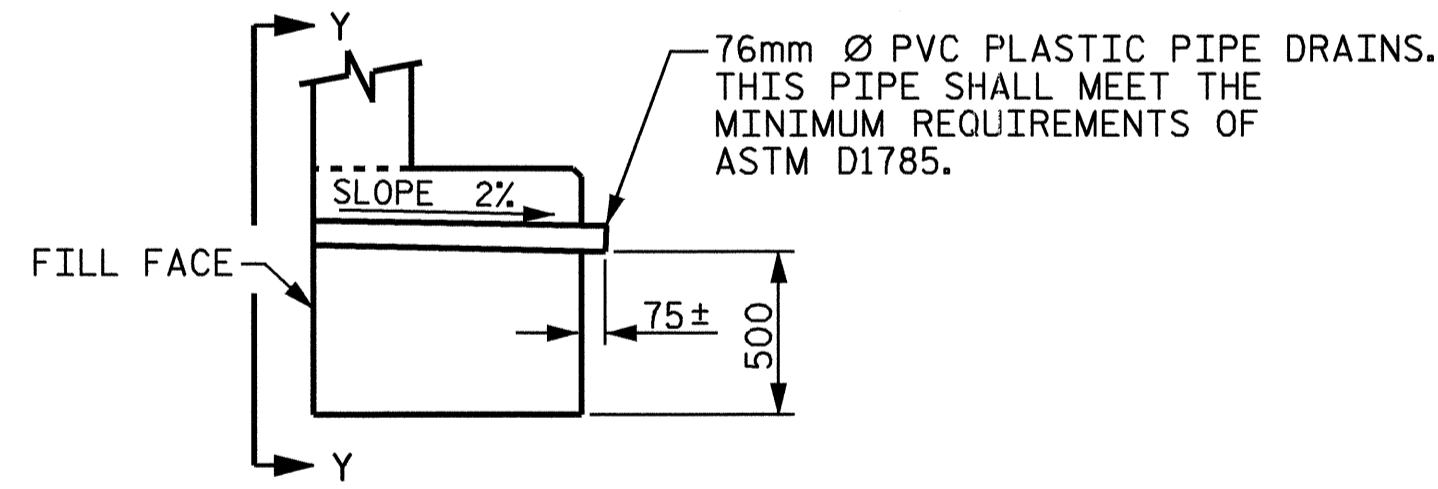


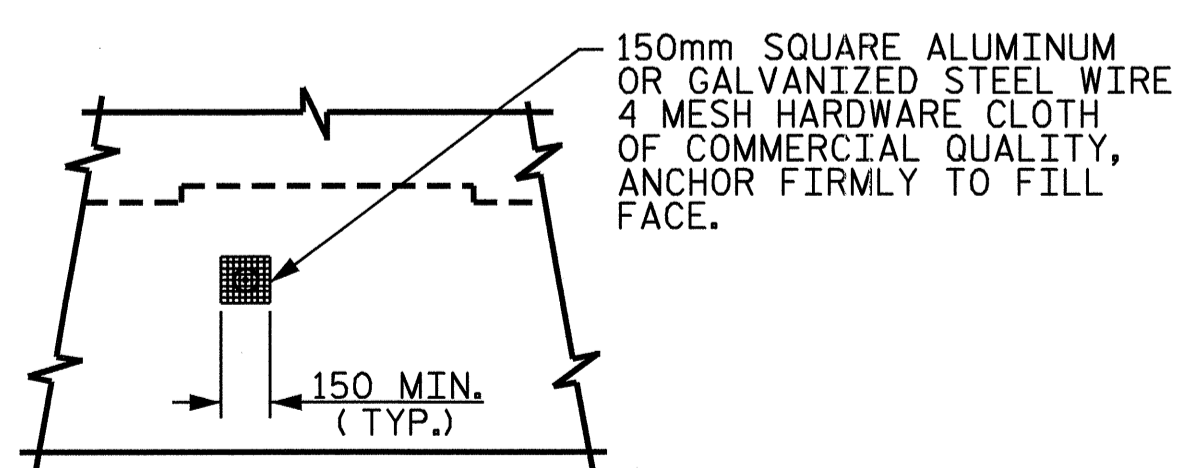
SECTION A-A



SECTION B-B



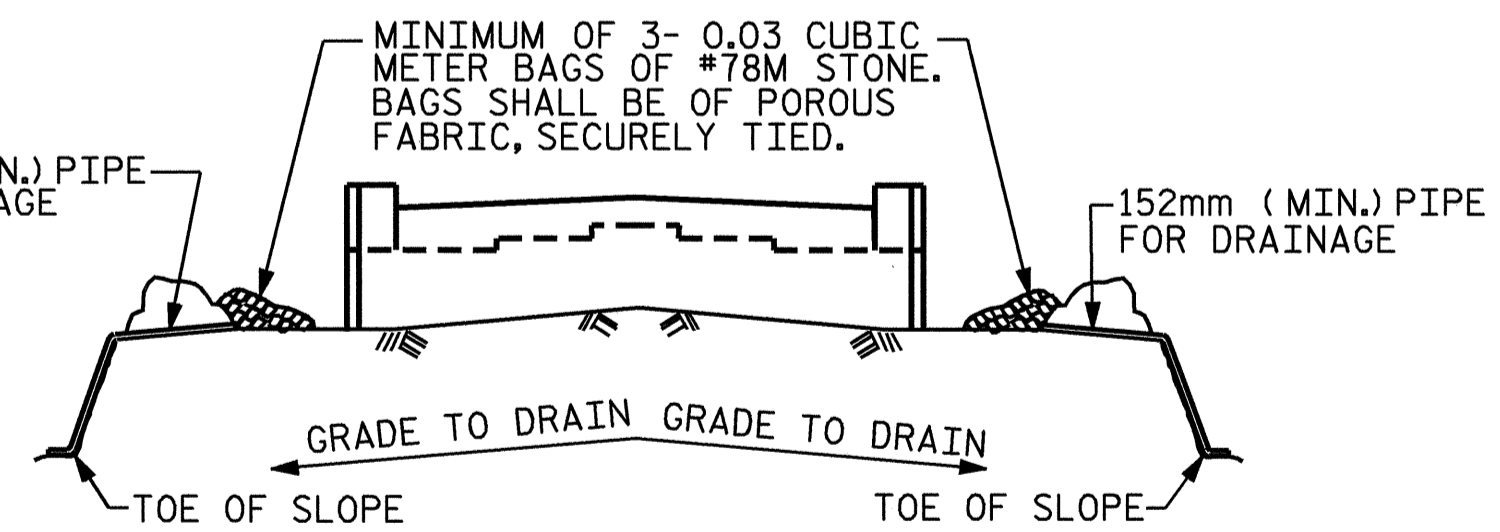
SECTION THRU CAP



VIEW Y-Y

NOTE: NO SEPARATE PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING THE PVC 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

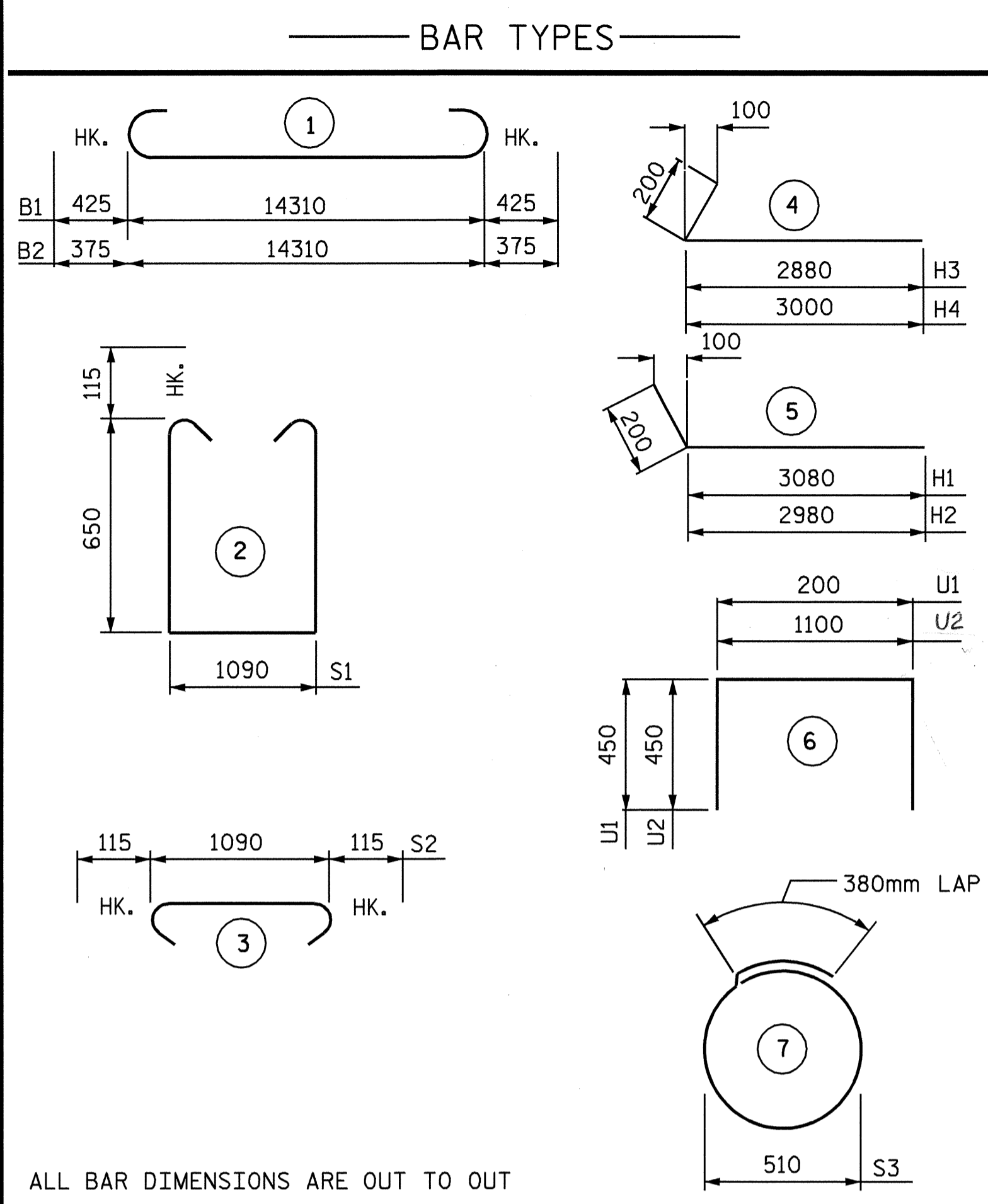


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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



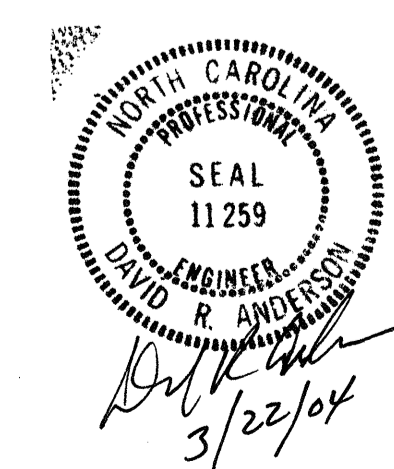
BILL OF MATERIAL					
END BENT 1					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	4	32	1	15160	388
B2	5	29	1	15060	381
B3	2	16	STR	14380	45
B4	8	13	STR	7580	60
B5	13	13	STR	1100	14
B6	10	13	STR	840	8
H1	11	16	5	3280	56
H2	11	16	5	3180	54
H3	11	16	4	3080	53
H4	11	16	4	3200	55
K1	28	13	STR	7580	211
K2	4	13	STR	1020	4
S1	50	13	2	2620	130
S2	50	13	3	1320	66
S3	18	13	7	2000	36
U1	40	13	6	1100	44
U2	6	13	6	2000	12
V1	80	16	STR	2540	315
V2	28	16	STR	2880	125
V3	28	16	STR	2920	127
REINFORCING STEEL				kg	2184
CLASS A CONCRETE BREAKDOWN					
POUR 1 (CAP AND LOWER PORTION OF WINGS)				3 m	15.0
POUR 2 (BACKWALL AND UPPER PORTION OF WINGS)				3 m	12.5
CLASS A CONCRETE TOTAL				m ³	27.5
305mm SQUARE P/S PILES					
NO. 9	METERS				117.0

PROJECT NO. R-513C
ROBESON COUNTY
STATION: 271+08.001-L-

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:
1			3		
2			4		

TOTAL SHEETS: 312

DRAWN BY: S.M. RASHIDI DATE: 5/14/02
CHECKED BY: K.P. SEDAI DATE: 8/27/02