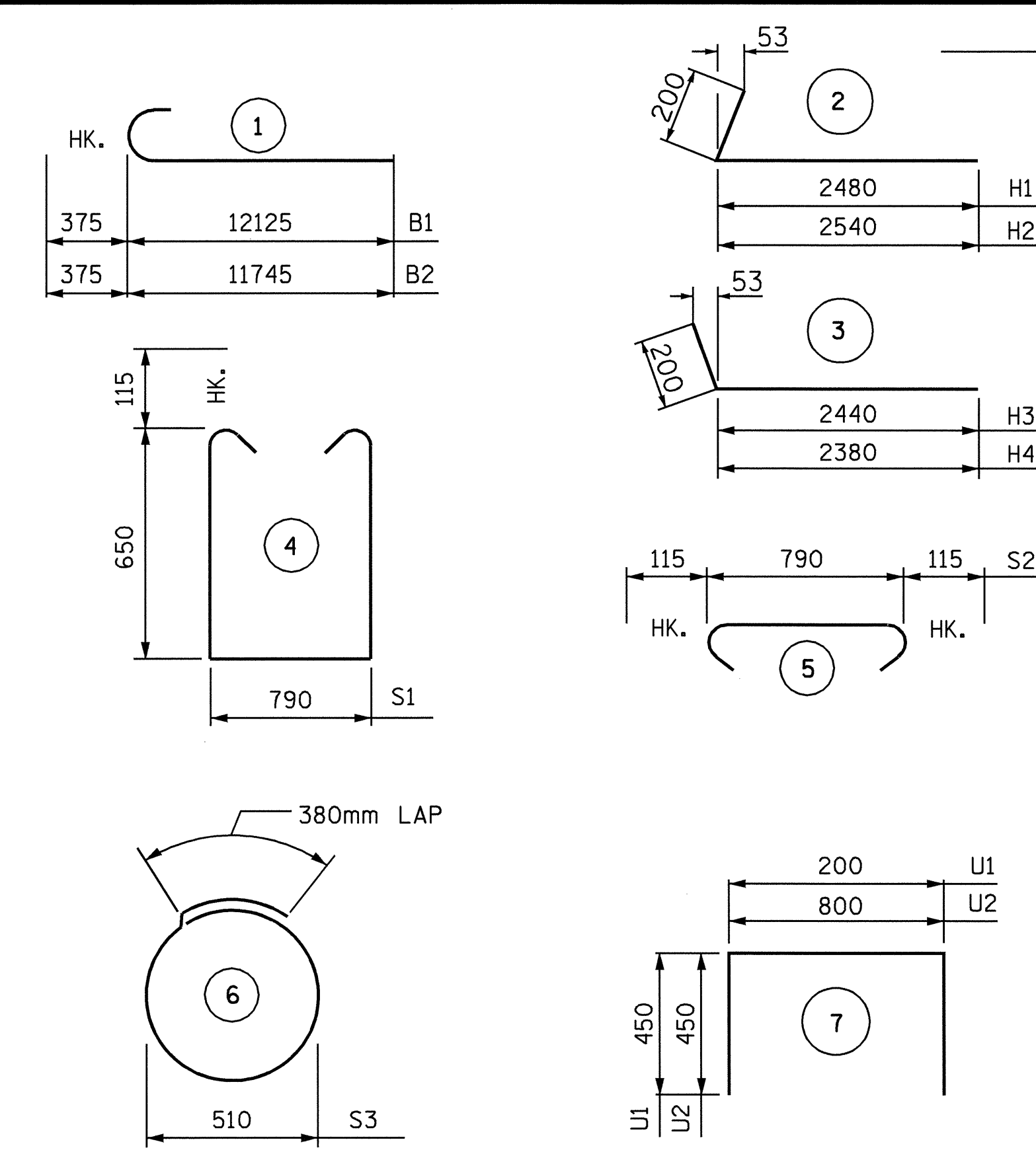


BAR TYPES

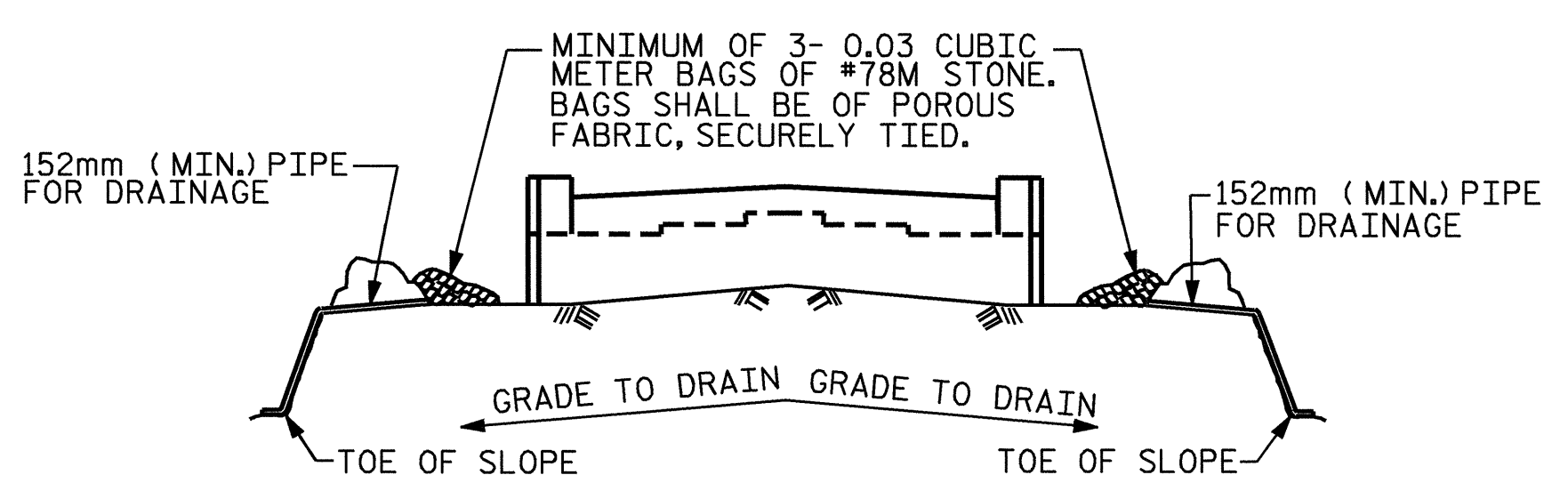
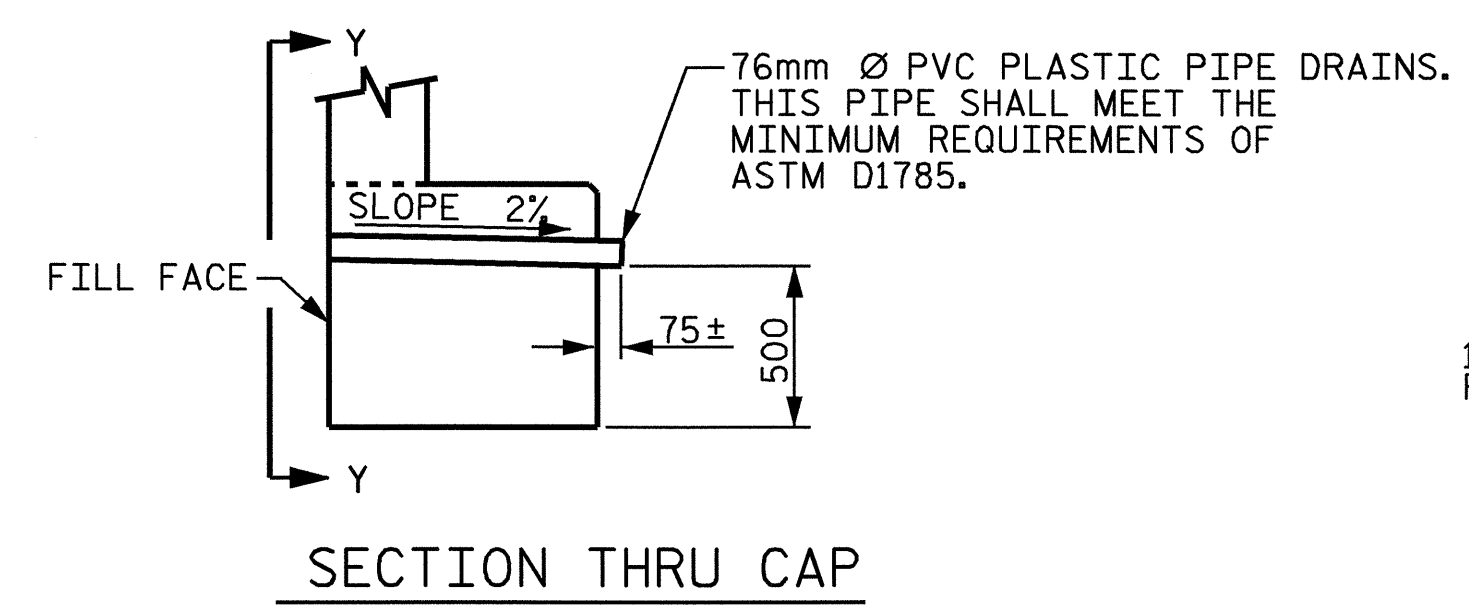
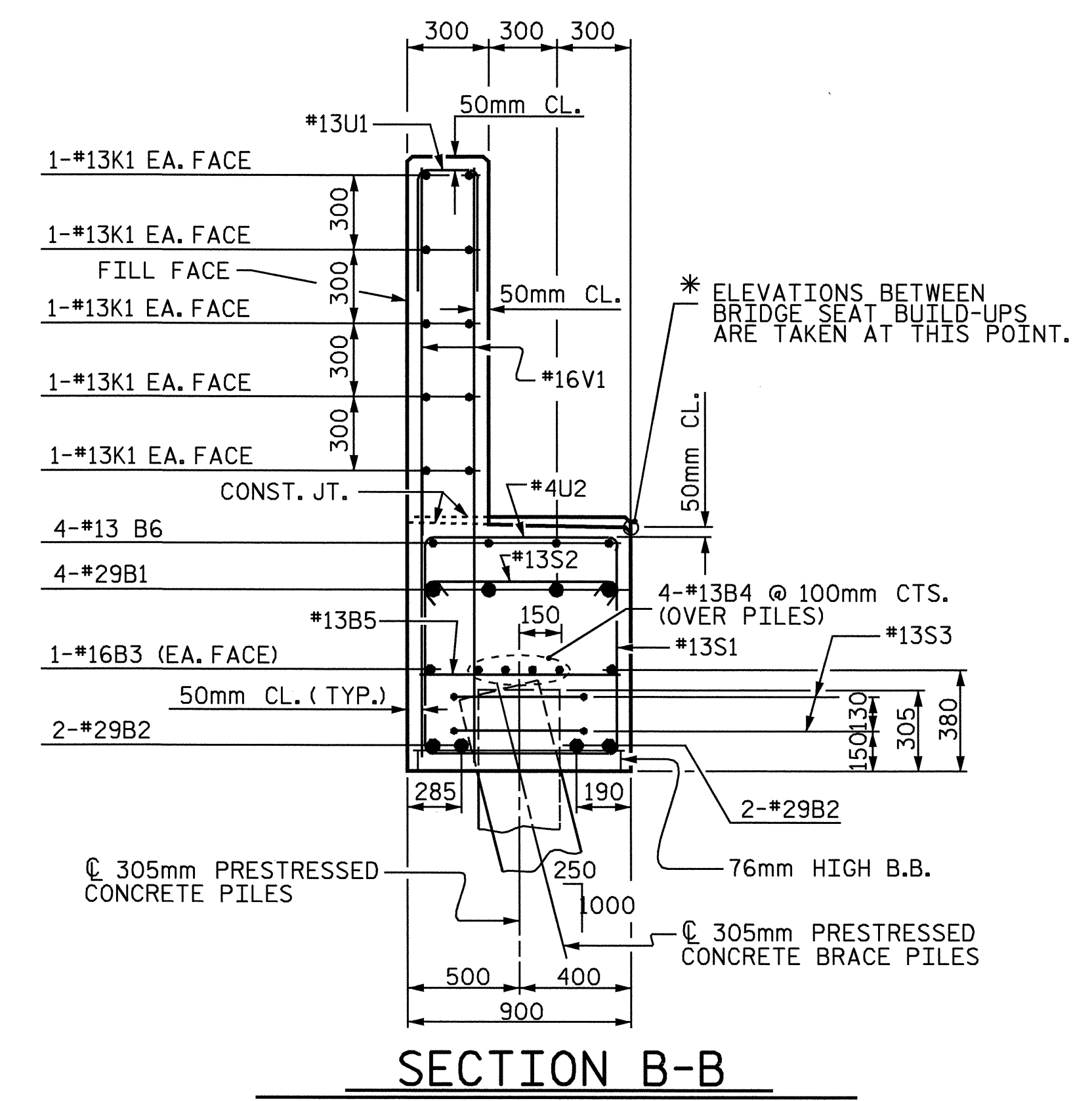
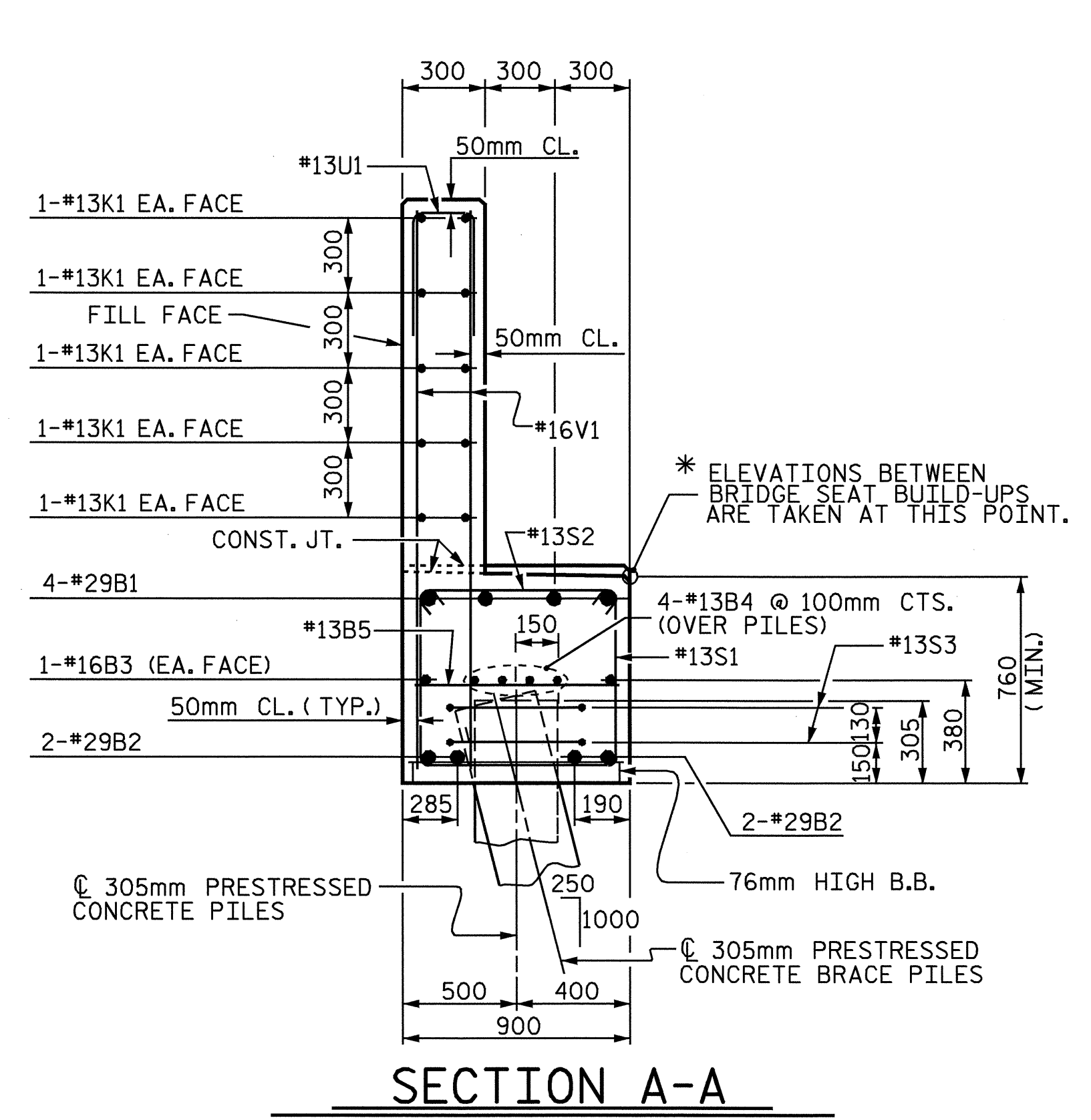


ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL
END BENT 1

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	29	1	12500	506
B2	8	29	1	12120	491
B3	4	16	STR	11280	70
B4	12	13	STR	7700	92
B5	18	13	STR	800	14
B6	8	13	STR	800	6
B7	4	13	STR	4280	17
H1	10	16	2	2680	42
H2	10	16	2	2740	43
H3	10	16	3	2640	41
H4	10	16	3	2580	40
K1	30	13	STR	7700	230
K2	8	13	STR	900	7
S1	62	13	4	2320	143
S2	62	13	5	1020	63
S3	26	13	6	2000	52
U1	66	13	7	1100	72
U2	16	13	7	1700	27
V1	132	16	STR	2120	434
V2	26	16	STR	2520	102
V3	24	16	STR	2480	92

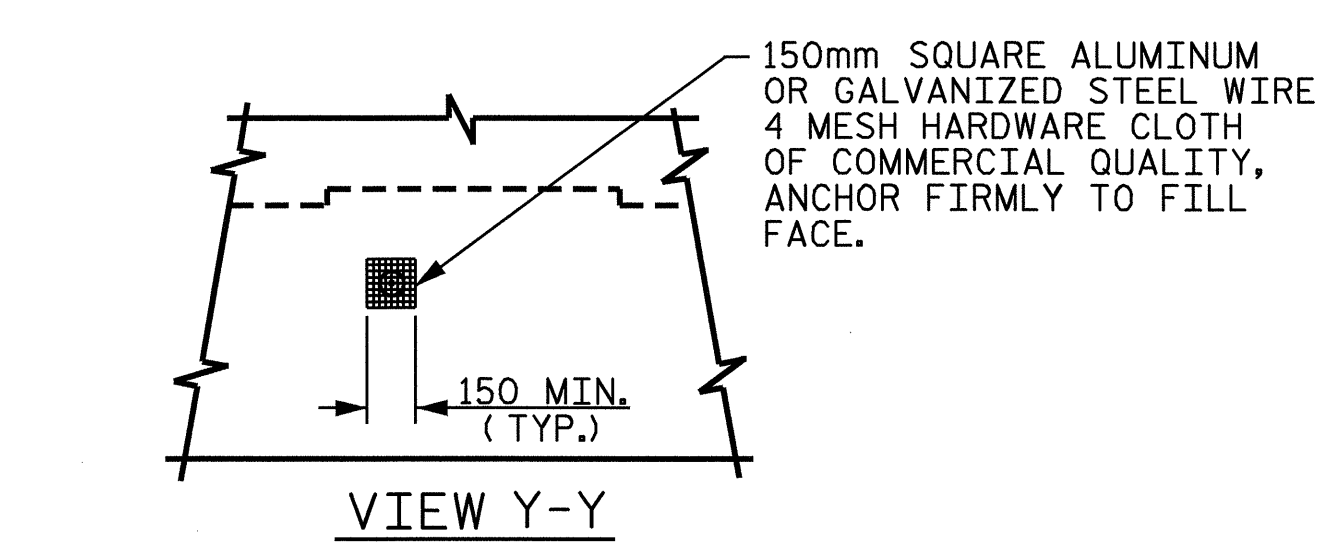
REINFORCING STEEL	kg.	2584
CLASS A CONCRETE BREAKDOWN		
POUR 1 (CAP AND LOWER PORTION OF WINGS)	m ³	17.9
POUR 2 (BACKWALL AND UPPER PORTION OF WINGS)	m ³	14.5
TOTAL	m ³	32.4
305mm PRESTRESSED CONCRETE PILES		
NO. 13	METERS	182.0



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.



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

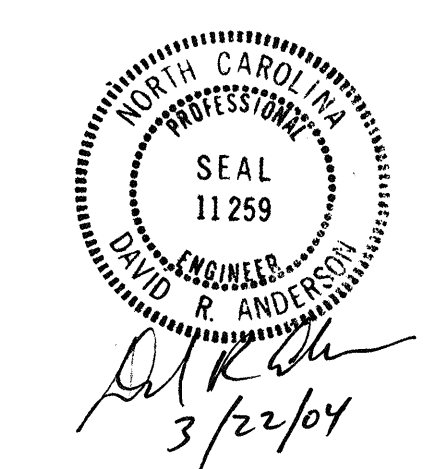
TEMPORARY DRAINAGE AT END BENT

PROJECT NO. R-513C
ROBESON COUNTY
STATION: 318+10.648 -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:	TOTAL SHEETS
1			3			312
2			4			312

DRAWN BY: S. M. RASHIDI DATE: 07/11/02
CHECKED BY: K. P. SEDA DATE: 8/16/02