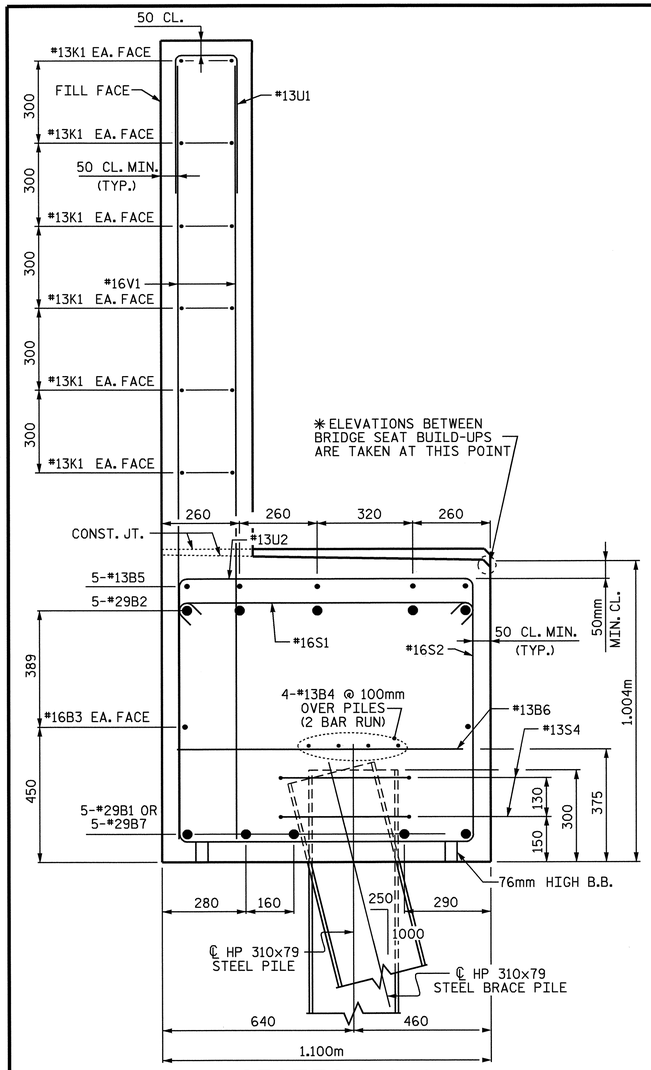
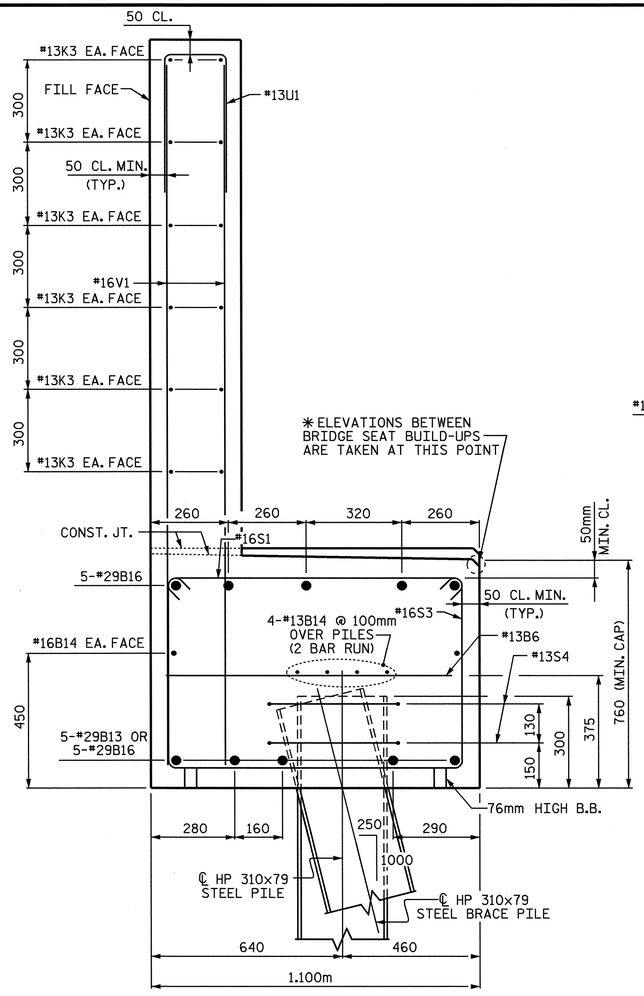
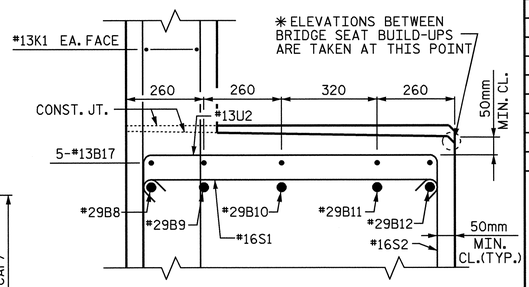


SECTION A-A



SECTION B-B



SECTION C-C

BILL OF MATERIAL — END BENT NO. 2 (STAGE I)

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	5	29	1	9000	228
B2	5	29	1	17560	444
B3	2	16	STR	17200	53
B4	8	13	STR	8800	70
B5	5	13	STR	8380	42
B6	13	13	STR	1000	13
B7	5	29	STR	11440	289
H1	12	16	3	5300	99
H2	12	16	3	5200	97
K1	24	13	STR	8900	212
K2	6	13	STR	1400	8
S1	64	16	5	1280	127
S2	64	16	6	2780	276
S4	20	13	7	1980	39
U1	49	13	2	1100	54
U2	17	13	2	1900	32
V1	98	16	STR	2620	398
V3	44	16	STR	3200	219

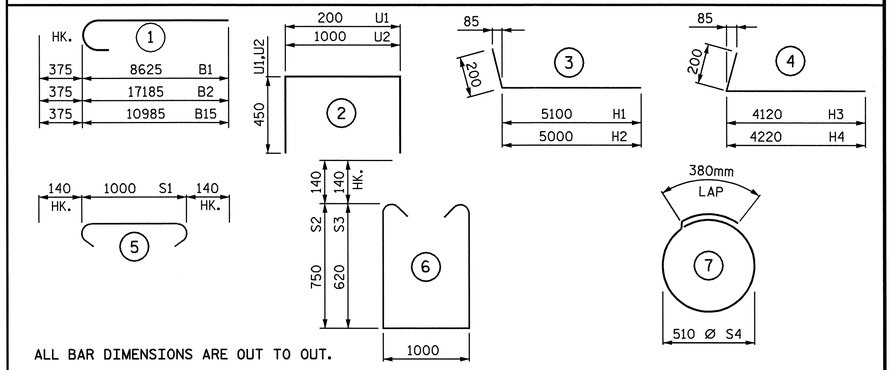
REINFORCING STEEL Kg 2700
CLASS A CONCRETE
POUR #1 19.1 m³
POUR #2 12.9 m³
TOTAL 32.0 m³
HP 310x79 STEEL PILES
No. 11 176.0 m

BILL OF MATERIAL — END BENT NO. 2 (STAGE II)

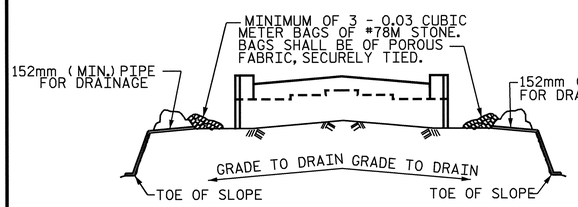
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B6	16	13	STR	1000	16
B8	1	29	STR	9760	49
B9	1	29	STR	9680	49
B10	1	29	STR	9560	48
B11	1	29	STR	9420	48
B12	1	29	STR	9340	47
B13	5	29	STR	9980	252
B14	4	16	STR	9960	62
B15	12	13	STR	6820	81
B16	10	29	1	11320	573
B17	5	13	STR	4420	22
H3	12	16	4	4320	80
H4	12	16	4	4420	82
K3	18	13	STR	6700	120
K4	6	13	STR	1400	8
S1	88	16	5	1280	175
S2	54	16	6	2780	233
S3	34	16	6	2520	133
S4	24	13	7	1980	47
U1	57	13	2	1100	62
U2	10	13	2	1900	19
V1	114	16	STR	2460	435
V3	40	16	STR	3060	180

REINFORCING STEEL Kg 2821
CLASS A CONCRETE
POUR #1 19.9 m³
POUR #2 13.6 m³
TOTAL 33.5 m³
HP 310x79 STEEL PILES
No. 13 208.0 m

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

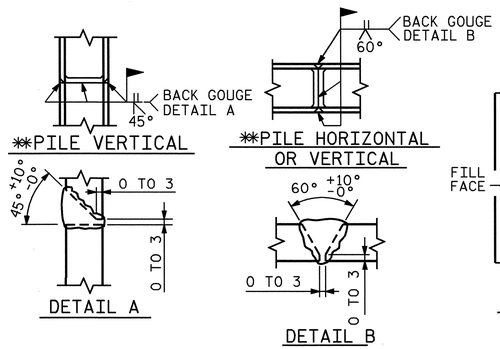


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

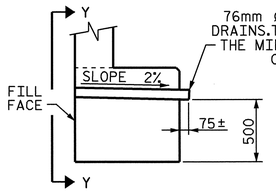
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



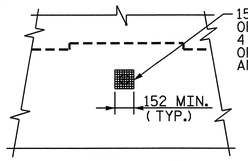
**POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS



76mm Ø PVC PLASTIC PIPE DRAINS. THIS PIPE SHALL MEET THE MINIMUM REQUIREMENTS OF ASTM D1785.

SECTION THRU CAP



152mm SQUARE ALUMINUM OR GALVANIZED STEEL WIRE 4 MESH HARDWARE CLOTH OF COMMERCIAL QUALITY, ANCHOR FIRMLY TO FILL FACE.

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

DRAWN BY: H.T. BARBOUR	DATE: 8-17-04
CHECKED BY:	DATE:

PROJECT NO. U-2717
GUILFORD COUNTY
STATION 40+56.584-L-
SHEET 4 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE END BENT #2 DETAILS (STAGES I & II)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-47
1			3			TOTAL SHEETS 47
2			4			

STR. #1

NORTH CAROLINA PROFESSIONAL SEAL 15925 ENGINEER BRUCE D. KLAPPENBACH 9-3-04

03-SEP-2004 08:58
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tbarbour