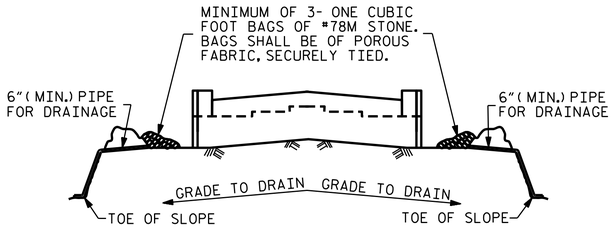
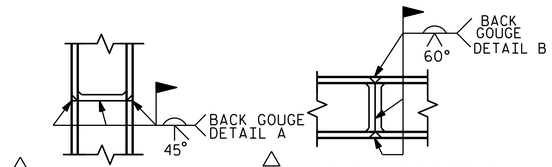


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

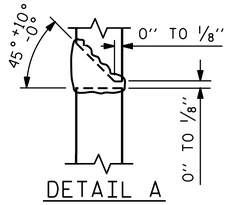
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT

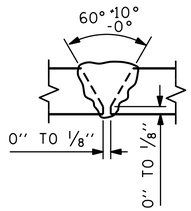


△ PILE VERTICAL

△ PILE HORIZONTAL OR VERTICAL



DETAIL A

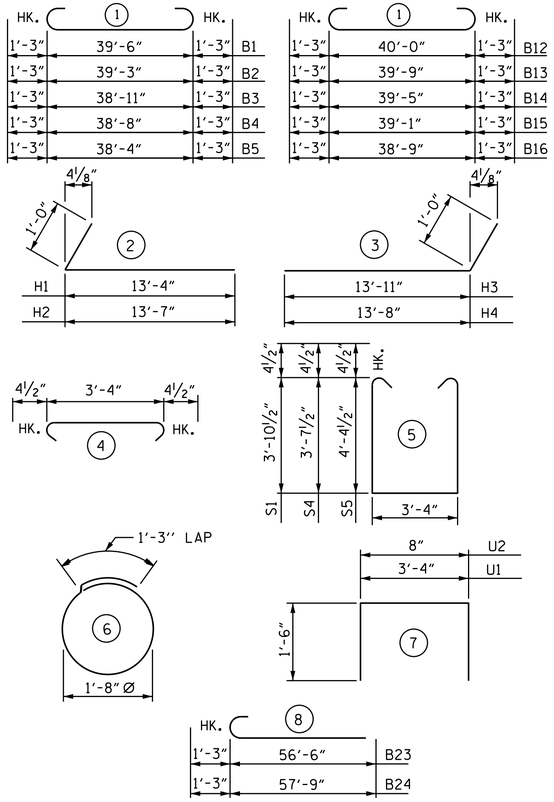


DETAIL B

△ POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

TOTAL BILL OF MATERIAL

	REINFORCING STEEL	CLASS 'A' CONCRETE	HP 12 x 53 STEEL PILES	
	LBS.	CU. YDS.	NO.	LIN. FT.
STAGE I (LEFT)	4905	36.0	6	120
STAGE I (RIGHT)	5025	35.1	6	120
STAGE II	11007	96.0	16	370
TOTAL	20937	167.1	28	610

BILL OF MATERIAL

END BENT #1

STAGE I (LEFT SIDE)

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	2	#9	1	42'-0"	286
B2	2	#9	1	41'-9"	284
B3	2	#9	1	41'-5"	282
B4	2	#9	1	41'-2"	280
B5	2	#9	1	40'-10"	278
B6	4	#5	STR	38'-5"	160
B7	4	#5	STR	39'-7"	165
B8	11	#4	STR	3'-4"	24
B9	8	#4	STR	20'-11"	112
B10	15	#4	STR	3'-2"	32
B11	5	#4	STR	10'-2"	34
D1	6	#6	STR	3'-0"	27
D2	5	#4	STR	3'-0"	10
H1	20	#6	2	14'-4"	431
H2	20	#6	2	14'-7"	438
K1	20	#4	STR	20'-7"	275
K2	4	#4	STR	2'-9"	7
S1	51	#4	5	11'-10"	403
S2	51	#4	4	4'-1"	139
S3	24	#4	6	6'-6"	104
U1	16	#4	7	6'-4"	68
U2	36	#4	7	3'-8"	88
V1	72	#5	STR	8'-5"	632
V2	34	#5	STR	9'-9"	346

REINFORCING STEEL LBS. 4905

CLASS 'A' CONCRETE

POUR #1 CAP, COLLAR & LOWER WINGS _____ CU. YDS. 26.5

POUR #2 BACKWALL & UPPER WINGS _____ CU. YDS. 9.5

TOTAL CU. YDS. 36.0

HP 12 x 53 STEEL PILES NO. 6 120 LIN. FT.

(STAGE I (RIGHT SIDE)

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B12	2	#9	1	42'-6"	289
B13	2	#9	1	42'-3"	287
B14	2	#9	1	41'-11"	285
B15	2	#9	1	41'-7"	283
B16	2	#9	1	41'-3"	281
B17	4	#5	STR	40'-1"	167
B18	4	#5	STR	38'-10"	162
B19	11	#4	STR	3'-4"	24
B20	8	#4	STR	21'-1"	113
B21	15	#4	STR	3'-2"	32
B22	5	#4	STR	10'-2"	34
D1	6	#6	STR	3'-0"	27
D2	5	#4	STR	3'-0"	10
H3	20	#6	3	14'-11"	448
H4	20	#6	3	14'-8"	441
K2	4	#4	STR	2'-9"	7
K3	20	#4	STR	21'-3"	284
S2	57	#4	4	4'-1"	155
S3	24	#4	6	6'-6"	104
S4	57	#4	5	11'-4"	432
U1	16	#4	7	6'-4"	68
U2	37	#4	7	3'-8"	91
V3	74	#5	STR	8'-1"	624
V4	38	#5	STR	9'-6"	377

REINFORCING STEEL LBS. 5025

CLASS 'A' CONCRETE

POUR #1 CAP, COLLAR & LOWER WINGS _____ CU. YDS. 25.3

POUR #2 BACKWALL & UPPER WINGS _____ CU. YDS. 9.8

TOTAL CU. YDS. 35.1

HP 12 x 53 STEEL PILES NO. 6 120 LIN. FT.

STAGE II

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B23	10	#9	8	57'-9"	1964
B24	10	#9	8	59'-0"	2006
B25	8	#5	STR	54'-6"	455
B26	12	#5	STR	54'-11"	687
B27	27	#4	STR	3'-4"	60
B28	16	#4	STR	28'-5"	304
B29	10	#4	STR	11'-2"	75
B30	5	#4	STR	14'-5"	48
B31	15	#4	STR	9'-8"	97
B32	25	#4	STR	3'-2"	53
K4	40	#4	STR	28'-7"	764
S2	144	#4	4	4'-1"	393
S3	64	#4	6	6'-6"	278
S5	144	#4	5	12'-10"	1234
U1	71	#4	7	6'-4"	300
U2	107	#4	7	3'-8"	262
V5	214	#5	STR	9'-1"	2027

REINFORCING STEEL LBS. 11007

CLASS 'A' CONCRETE

POUR #1 CAP & COLLAR _____ CU. YDS. 77.8

POUR #2 BACKWALL _____ CU. YDS. 18.2

TOTAL CU. YDS. 96.0

HP 12 x 53 STEEL PILES NO. 16 370 LIN. FT.

DocuSigned by: Greg Dickey

10/14/2015

PROJECT NO. I-3318BB

JOHNSTON COUNTY

STATION: 24+68.00 -L-

SHEET 6 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

END BENT #1
STAGE I & II

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-50
1			3			TOTAL SHEETS
2			4			78

DRAWN BY : B.N.BARODAWALA DATE : 4-6-15
CHECKED BY : DAVID GLADDEN DATE : 4-6-15
DESIGN ENGINEER OF RECORD: ASHVIN PATEL DATE : 8-6-15

14-OCT-2015 11:49
R:\Structures\Plans\FINAL PLANS\I-3318BB_SMU_EB1.dgn
kpaschal