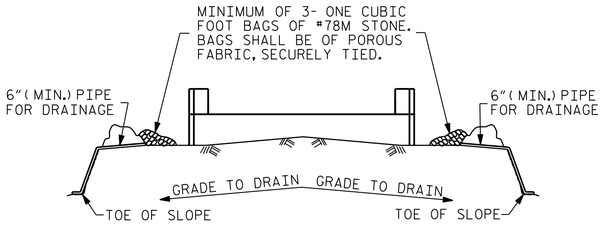
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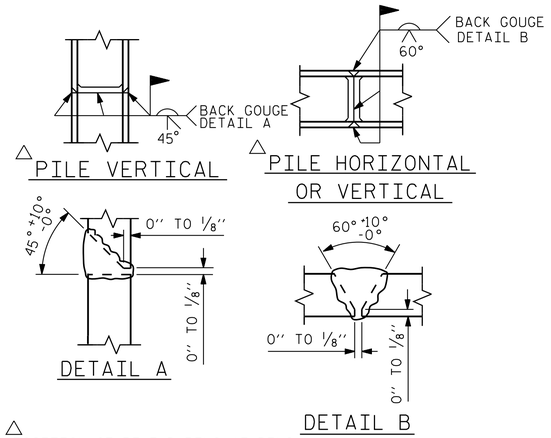


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

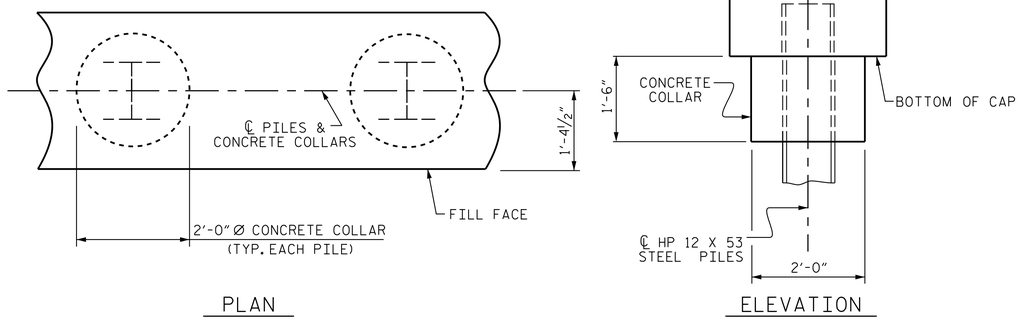
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



△ POSITION OF PILE DURING WELDING.

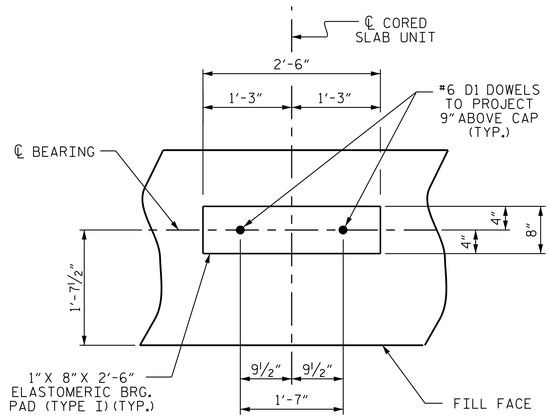
PILE SPLICE DETAILS



PLAN ELEVATION

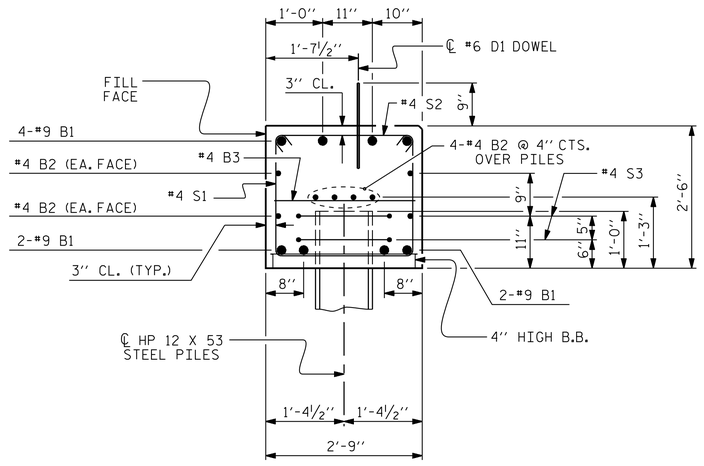
CORROSION PROTECTION FOR STEEL PILES DETAIL

(END BENT No. 1 SHOWN, END BENT No. 2 SIMILAR BY ROTATION)



DETAIL "A"

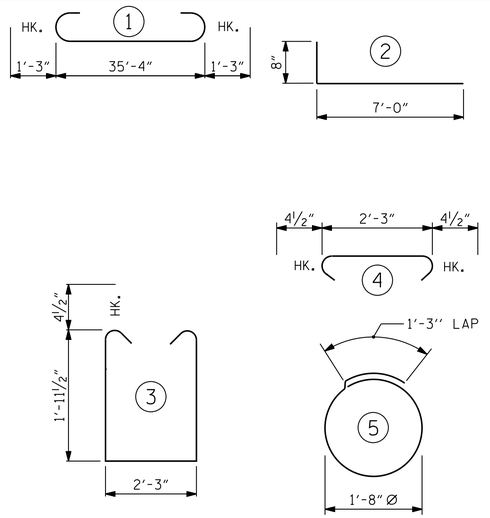
(END BENT No. 1 SHOWN, END BENT No. 2 SIMILAR BY ROTATION)



SECTION A-A

(CONCRETE COLLAR NOT SHOWN FOR CLARITY. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL.")

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

FOR ONE END BENT

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#9	1	37'-10"	1029
B2	16	#4	STR	19'-0"	203
B3	9	#4	STR	2'-3"	14
D1	20	#6	STR	1'-6"	45
H1	24	#4	2	7'-8"	123
K1	12	#4	STR	2'-10"	23
S1	46	#4	3	6'-11"	213
S2	46	#4	4	3'-0"	92
S3	10	#4	5	6'-6"	43
V1	48	#4	STR	4'-8"	150

EPOXY COATED REINFORCING STEEL (FOR ONE END BENT) 1935 LBS.

CLASS AA CONCRETE BREAKDOWN (FOR ONE END BENT)

POUR #1 CAP, LOWER PART OF WINGS & COLLARS 11.2 C.Y.

POUR #2 UPPER PART OF WINGS 2.0 C.Y.

TOTAL CLASS AA CONCRETE 13.2 C.Y.

ALL REINFORCING STEEL SHALL BE EPOXY COATED.

NOTES:

THE CONCRETE IN THE END BENT CAPS AND WING WALLS OF END BENTS 1 & 2 SHALL CONTAIN SILICA FUME. SILICA FUME SHALL BE SUBSTITUTED FOR 5% OF THE PORTLAND CEMENT BY WEIGHT. IF THE OPTION OF ARTICLE 1024-1 OF THE STANDARD SPECIFICATIONS TO PARTIALLY SUBSTITUTE CLASS F FLY ASH FOR PORTLAND CEMENT IS EXERCISED, THEN THE RATE OF FLY ASH SUBSTITUTION SHALL BE REDUCED TO 1.0 LB (1.0 KG) OF FLY ASH PER 1.0 LB (1.0 KG). NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS.

PROJECT NO. BP1.R014.1

TYRRELL COUNTY

STATION: 14+33.00 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

END BENT No. 1 & 2 DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-13
1			3			TOTAL SHEETS
2			4			16

DESIGN ENGINEER OF RECORD: J.T. KELVINGTON DATE: 03/26/26

NORTH CAROLINA PROFESSIONAL SEAL 13406 ENGINEER JOSEPH T. KELVINGTON 4/29/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

ASSEMBLED BY J.E.HAGENBUSH DATE: 06/30/23
CHECKED BY : A.L. BOYKIN JR. DATE: 08/28/23

DRAWN BY : DGE 12/09
CHECKED BY : MKT 01/10

REV. 4/17 MAA/THC

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STD. NO. EB_30_90S