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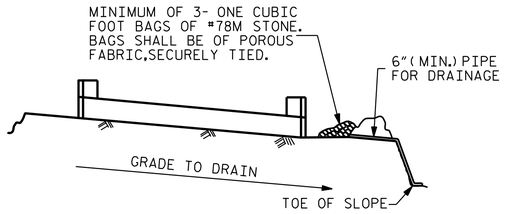
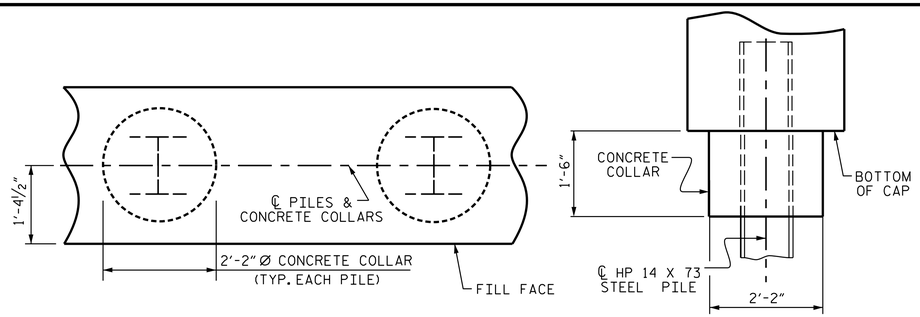


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

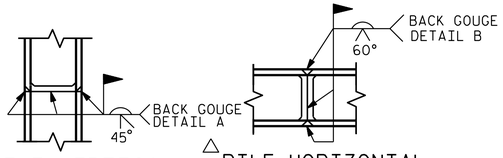
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT

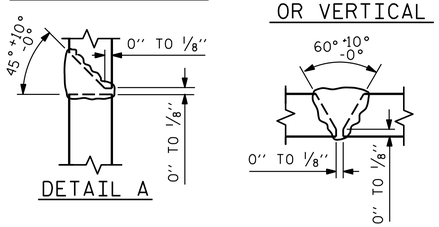


PLAN ELEVATION

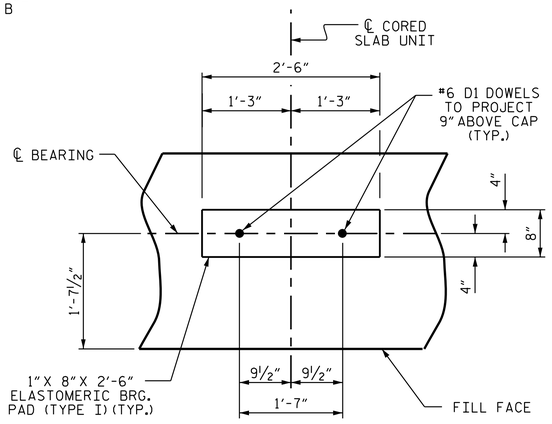
CORROSION PROTECTION FOR STEEL PILES DETAIL



△ PILE VERTICAL △ PILE HORIZONTAL OR VERTICAL



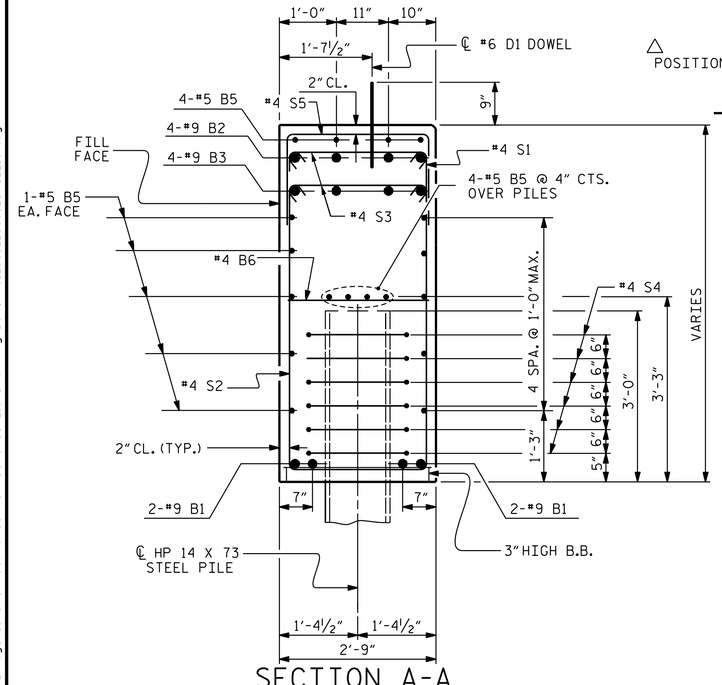
△ POSITION OF PILE DURING WELDING.



DETAIL "A"

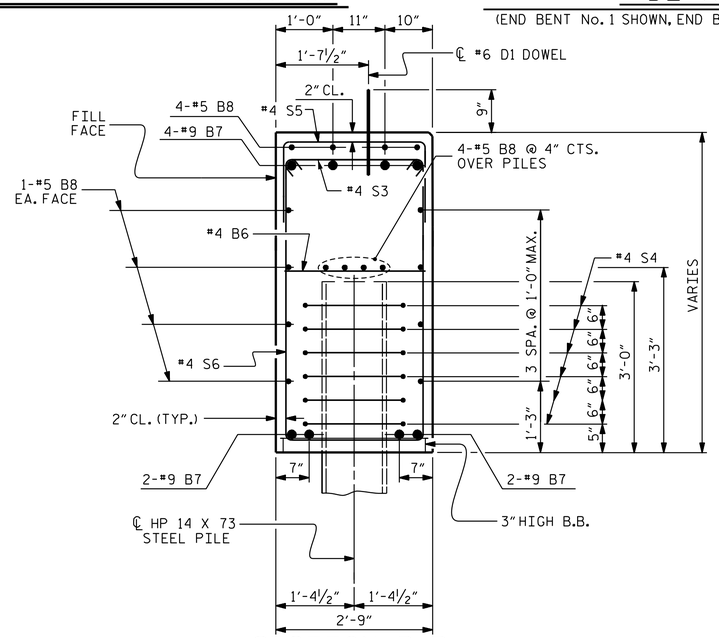
(END BENT No. 1 SHOWN, END BENT No. 2 SIMILAR BY ROTATION)

PILE SPLICE DETAILS



SECTION A-A

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



SECTION B-B

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

BILL OF MATERIAL — END BENT 1 - STAGE I

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	4	#9	1	29'-7"	402
B2	4	#9	1	13'-5"	182
B3	4	#9	STR	19'-10"	270
B4	4	#9	STR	7'-0"	95
B5	18	#5	STR	30'-0"	563
B6	8	#4	STR	2'-5"	13
D1	16	#6	STR	1'-6"	36
H1	40	#6	2	13'-7"	816
K1	10	#4	STR	2'-11"	19
S1	15	#4	3	15'-5"	154
S2	19	#4	3	14'-5"	183
S3	34	#4	4	3'-2"	72
S4	24	#4	5	7'-1"	114
S5	17	#4	6	6'-11"	79
V1	34	#5	STR	9'-3"	328

REINFORCING STEEL (STAGE I) 3,326 LBS.

CLASS A CONCRETE BREAKDOWN (STAGE I)

POUR #1	CAP, LOWER PART OF WINGS & COLLARS	22.4
POUR #2	UPPER PART OF WINGS	1.4 C.Y.
TOTAL CLASS A CONCRETE		23.8 C.Y.

END BENT 1 - STAGE I

HP 14 X 73 STEEL PILES
NO: 4 LIN. FT.= 80

PILE DRIVING EQUIPMENT SETUP FOR HP 14 X 73 STEEL PILES NO: 4

STEEL PILE POINTS NO: 4

BILL OF MATERIAL — END BENT 1 - STAGE II

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B6	4	#4	STR	2'-5"	6
B7	8	#9	1	14'-5"	392
B8	16	#5	STR	14'-8"	245
D1	8	#6	STR	1'-6"	18
H2	34	#6	2	11'-0"	562
K1	10	#4	STR	2'-11"	19
S3	19	#4	4	3'-2"	40
S4	12	#4	5	7'-1"	57
S5	8	#4	6	6'-11"	37
S6	19	#4	3	13'-5"	170
V2	30	#5	STR	7'-7"	237

REINFORCING STEEL (STAGE II) 1,783 LBS.

CLASS A CONCRETE BREAKDOWN (STAGE II)

POUR #3	CAP, LOWER PART OF WINGS & COLLARS	11.5 C.Y.
POUR #4	UPPER PART OF WINGS	1.2 C.Y.
TOTAL CLASS A CONCRETE		12.7 C.Y.

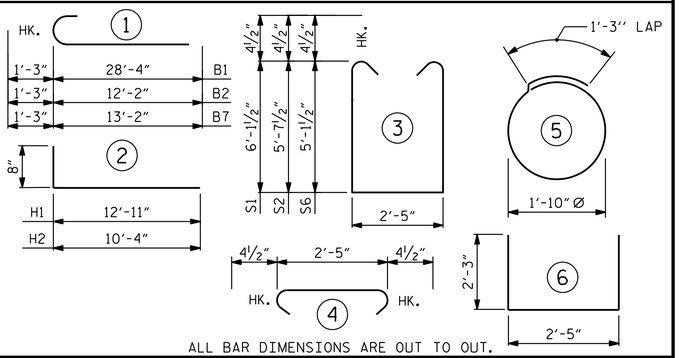
END BENT 1 - STAGE II

HP 14 X 73 STEEL PILES
NO: 2 LIN. FT.= 40

PILE DRIVING EQUIPMENT SETUP FOR HP 14 X 73 STEEL PILES NO: 2

STEEL PILE POINTS NO: 2

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

PROJECT NO. B-5893

MITCHELL COUNTY

STATION: 12+89.50 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

END BENT No. 1 DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-17
1			3			TOTAL SHEETS
2			4			24

DESIGNED BY: J. WHEATLEY DATE: MAR 2023
DRAWN BY: J. WHEATLEY DATE: MAR 2023
CHECKED BY: T. KIRSCHBAUM DATE: MAR 2023
DESIGN ENGINEER OF RECORD: J. WHEATLEY DATE: MAR 2023

WSP USA Inc.
434 FAYETTEVILLE STREET
SUITE 1500
RALEIGH, NC 27601
TEL: 1.919.836.4040
LICENSE NO. F-0165

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 036787 ENGINEER TIMOTHY E. WHEATLEY 3/24/2023

DocuSigned by: Jaime Wheatley 2EF70B6BE1D764B7

3/24/2023
J:\B6906R-14 B-5893 Bridge 19 over Cub Creek\Structures\2.0 Drafting\DGNs\401.035_B5893.SMU_EI04.dgn