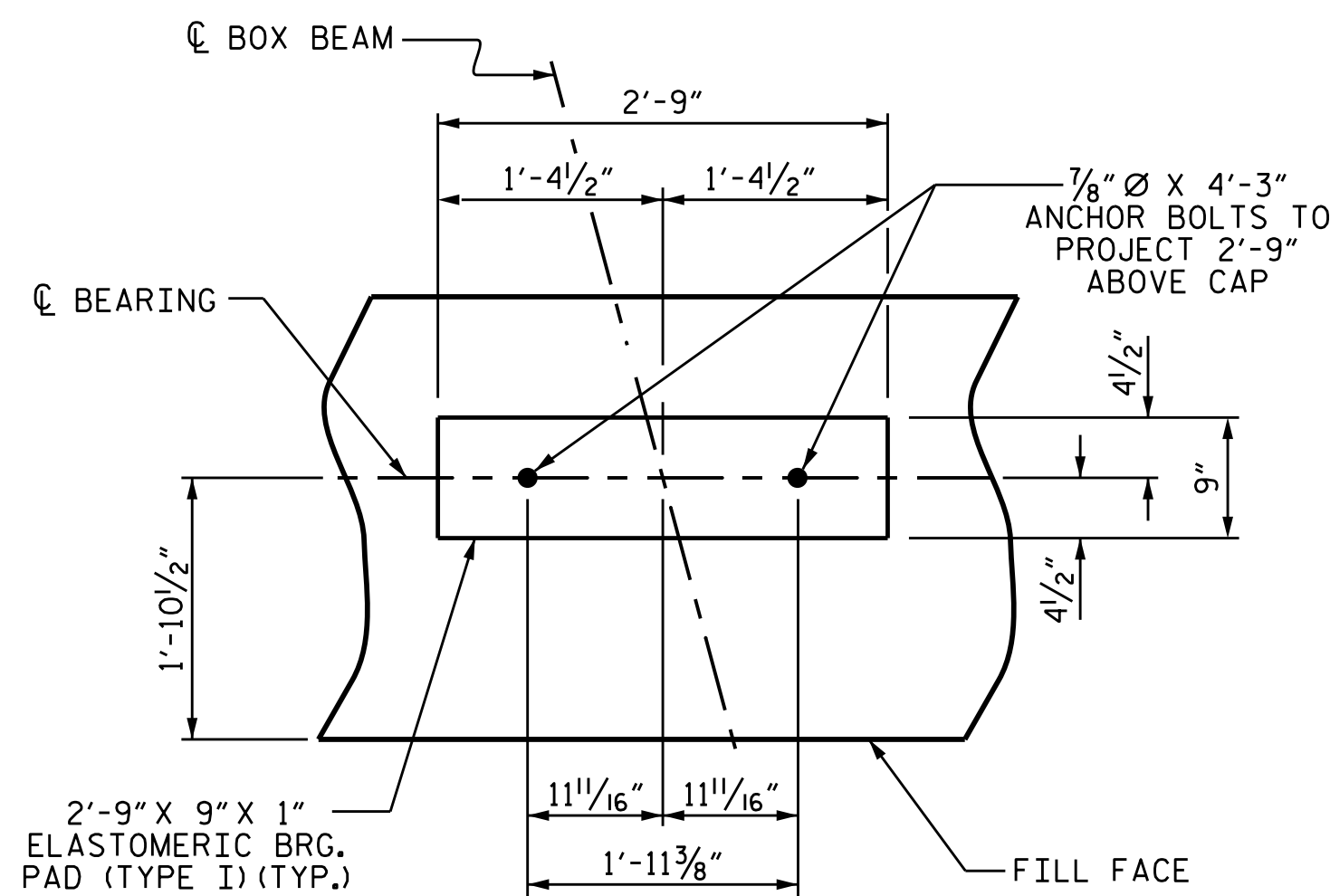


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

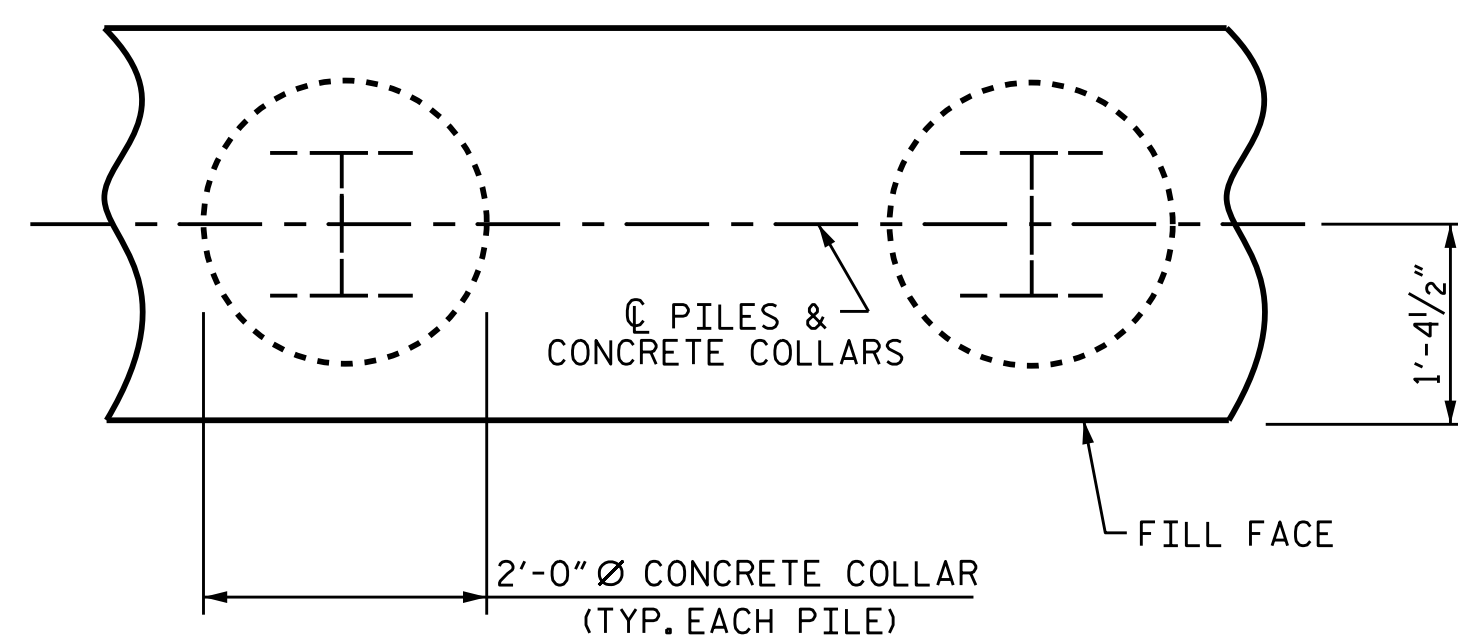
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



DETAIL "A"

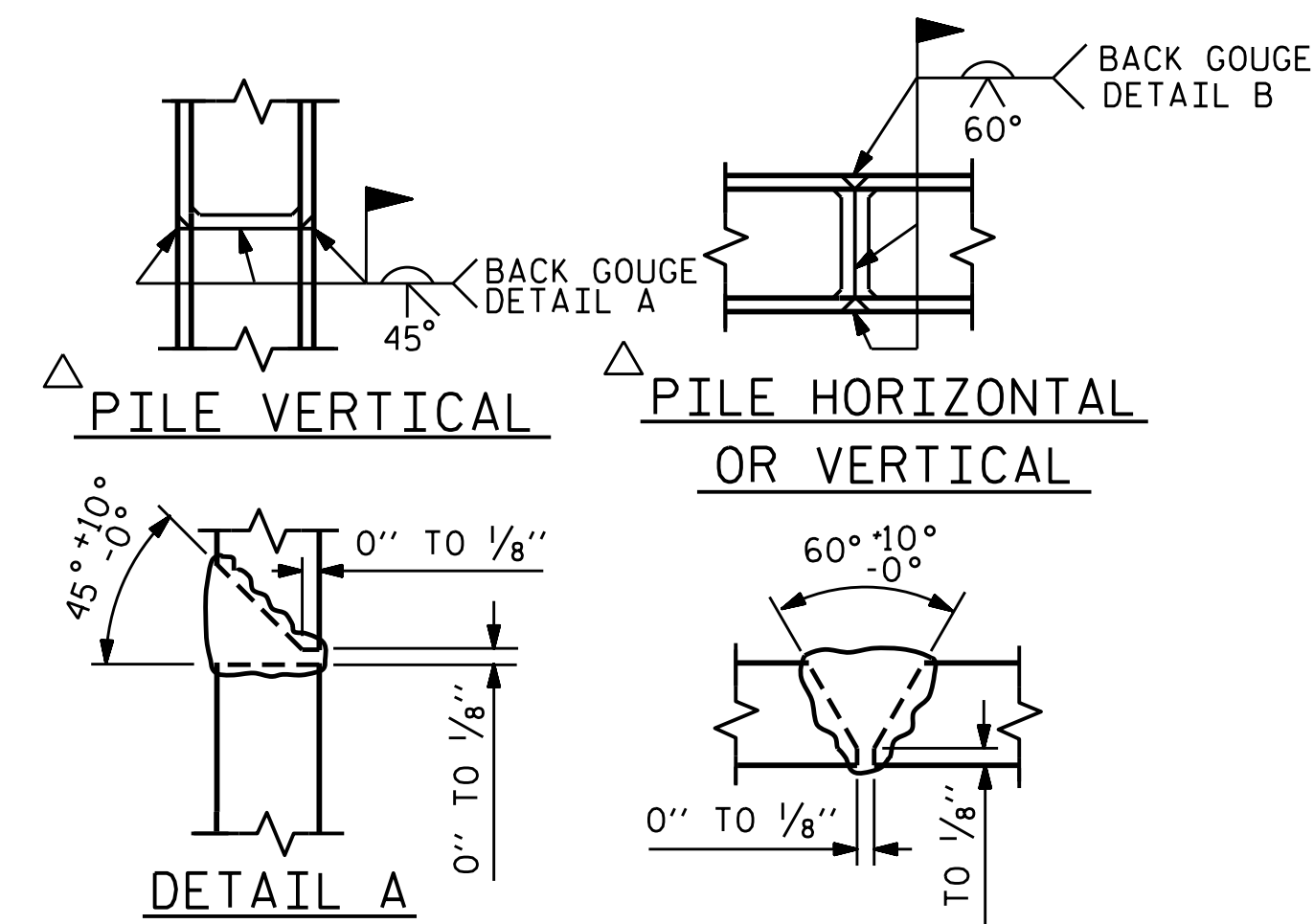
(END BENT 1 SHOWN, END BENT 2 SIMILAR BY ROTATION)



PLAN

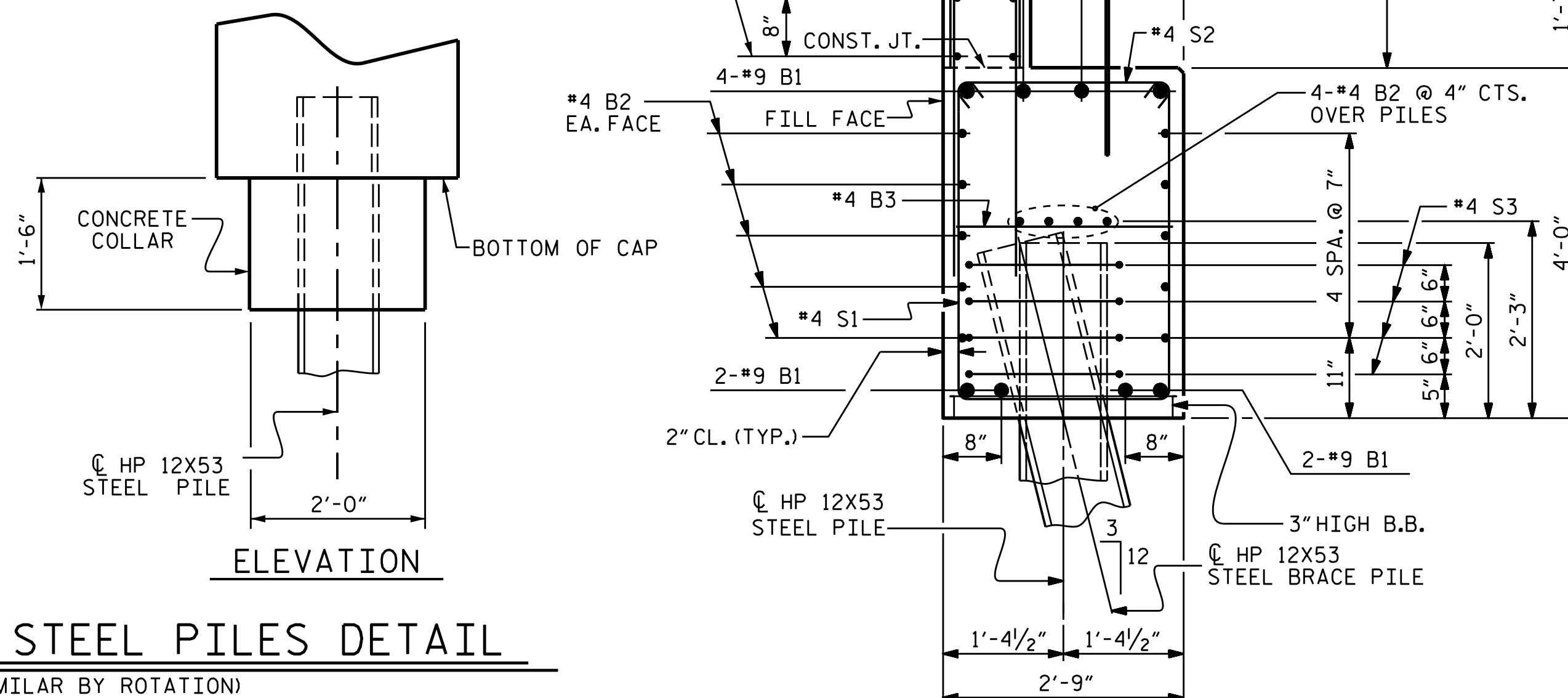
CORROSION PROTECTION FOR STEEL PILES DETAIL

(END BENT 1 SHOWN, END BENT 2 SIMILAR BY ROTATION)



POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS



SECTION A-A

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

BAR TYPES	

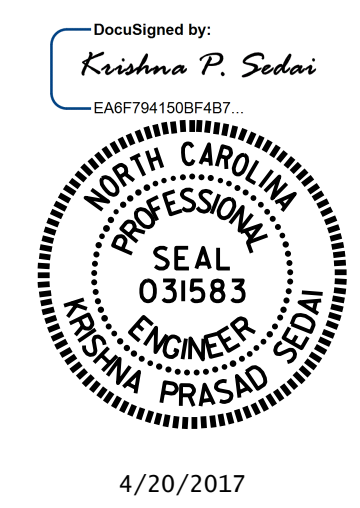
ALL BAR DIMENSIONS ARE OUT TO OUT.

END BENT 1	END BENT 2
HP 12X53 STEEL PILES NO: 7 LIN. FT.= 105	HP 12X53 STEEL PILES NO: 7 LIN. FT.= 175
PILE DRIVING EQUIPMENT SETUP FOR HP 12X53 STEEL PILES 7 EA.	PILE DRIVING EQUIPMENT SETUP FOR HP 12X53 STEEL PILES 7 EA.

BILL OF MATERIAL FOR ONE END BENT					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	8	#9	1	50'-0"	1360
B2	28	#4	STR	25'-1"	469
B3	12	#4	STR	2'-5"	19
H1	12	#5	2	11'-0"	138
H2	12	#5	2	11'-3"	141
H3	12	#5	3	11'-7"	145
H4	12	#5	3	11'-4"	142
K1	12	#4	STR	3'-4"	27
K2	12	#4	STR	25'-1"	201
S1	50	#4	4	10'-5"	348
S2	50	#4	5	3'-2"	106
S3	28	#4	6	6'-6"	122
U1	41	#4	7	3'-7"	98
V1	61	#4	STR	7'-2"	292
V2	80	#4	STR	5'-5"	289

REINFORCING STEEL (FOR ONE END BENT)	3897 LBS.
CLASS A CONCRETE BREAKDOWN (FOR ONE END BENT)	
POUR #1 CAP, LOWER PART OF WINGS & COLLARS	23.7 C.Y.
POUR #2 BACKWALL & UPPER PART OF WINGS	6.5 C.Y.
TOTAL CLASS A CONCRETE	30.2 C.Y.

PROJECT NO. B-5165
DAVIDSON COUNTY
 STATION: 22+12.00 -L-
 SHEET 4 OF 4



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT 1 & 2
 DETAILS

DRAWN BY :	H. B. DESAI	DATE :	10/11/16
CHECKED BY :	T. L. AVERETTE	DATE :	2/20/17
DESIGN ENGINEER OF RECORD :	K. P. SEDA	DATE :	2/22/17

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S-20
2			4			24