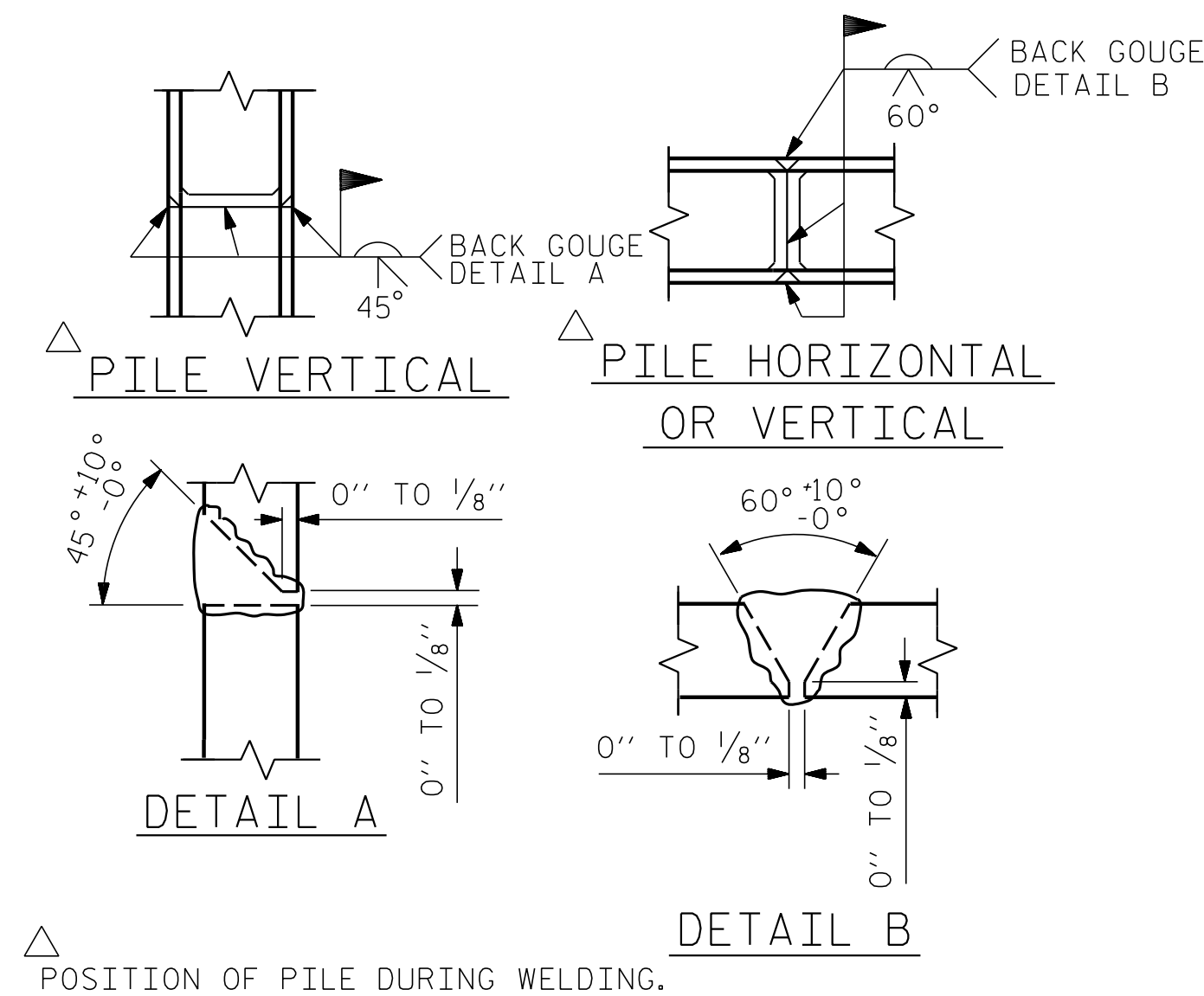


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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



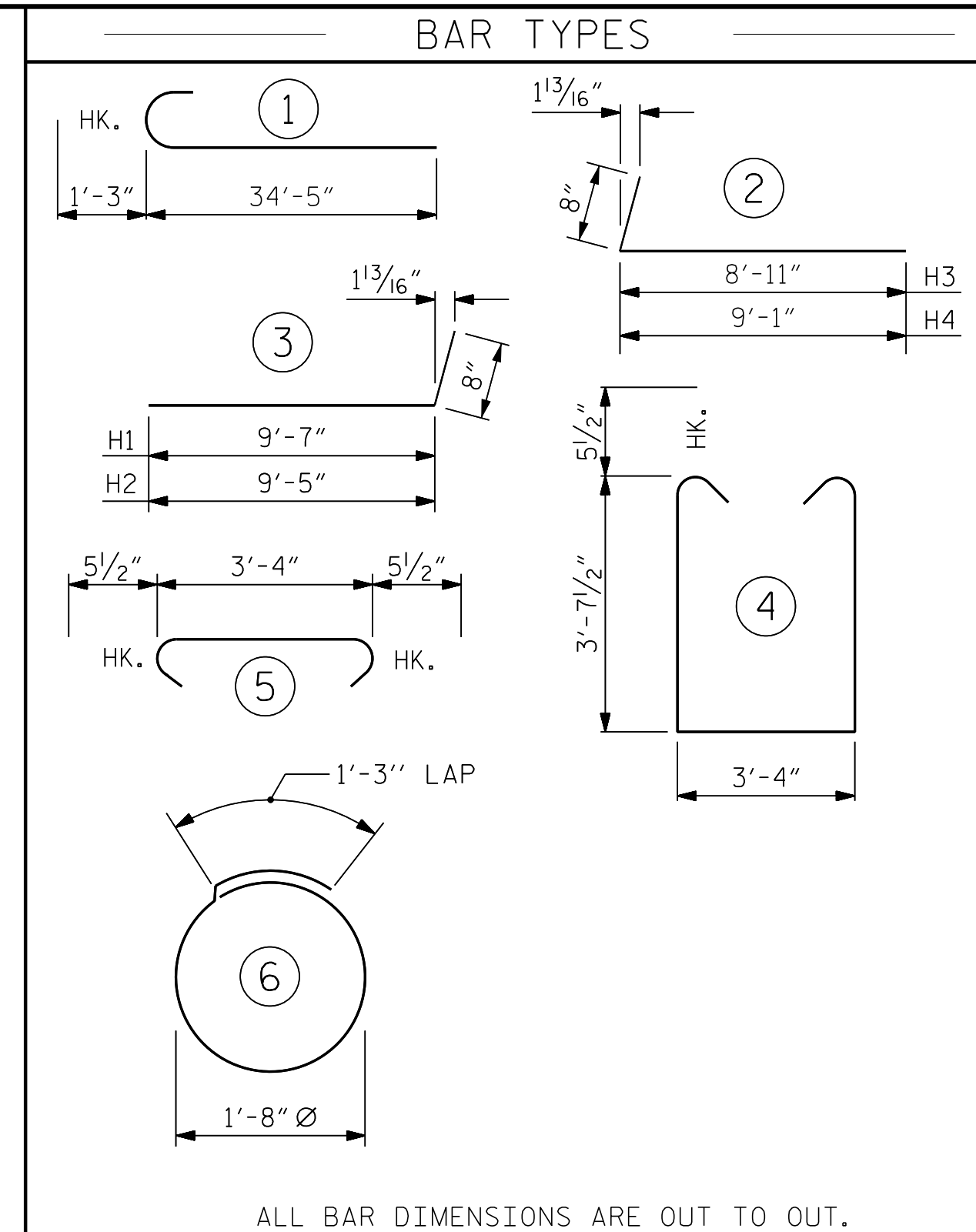
PILE SPLICE DETAILS

NOTES

THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE BARRIER RAILS ARE CAST IF SLIP FORMING IS USED.

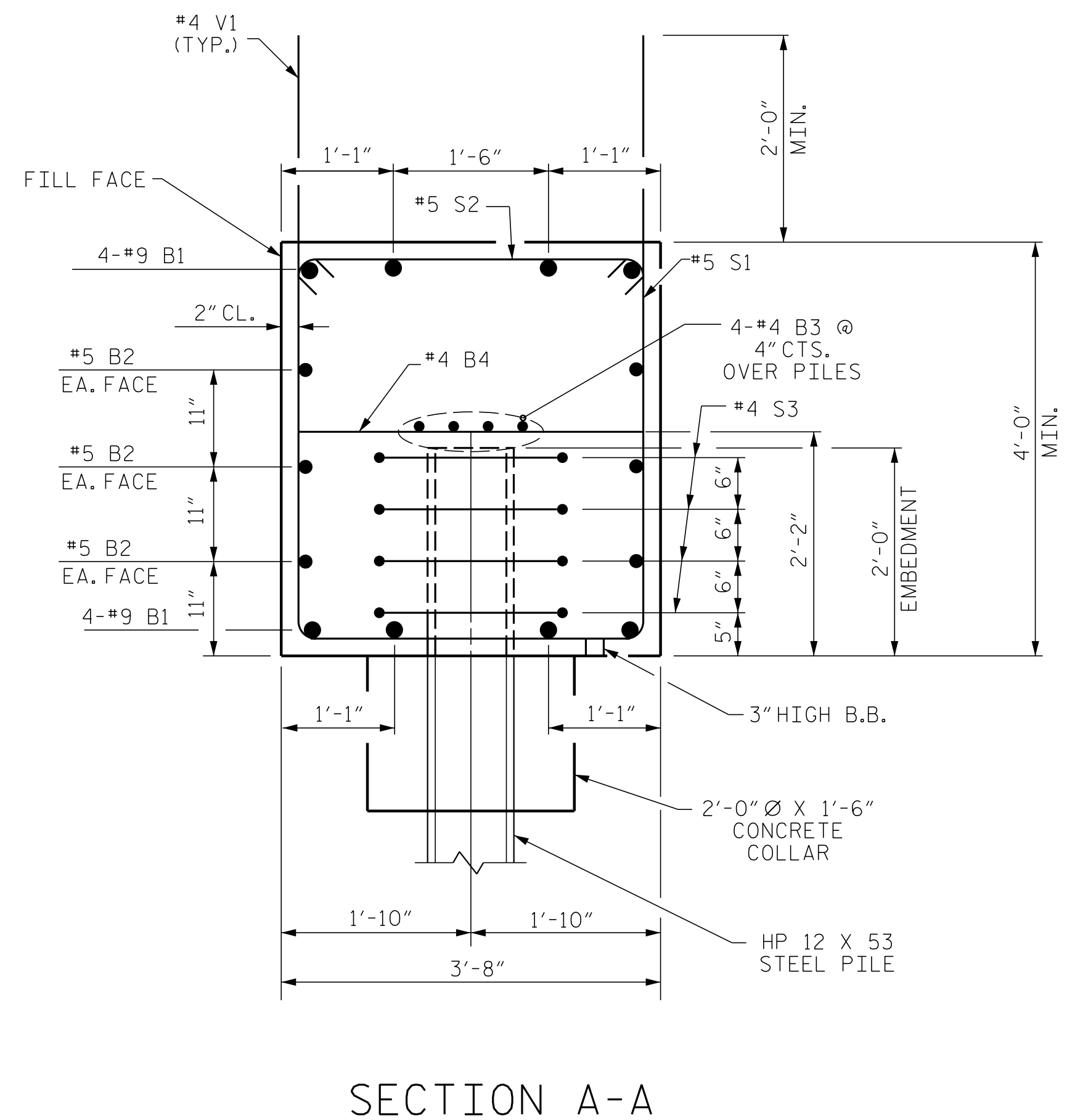
INSTALL THE 4" DIA. DRAIN PIPE THROUGH THE WING WALL AS REQUIRED FOR REINFORCED BRIDGE APPROACH FILLS, SEE THE ROADWAY PLANS. REINFORCING STEEL IN THE WING WALL MAY BE SHIFTED AS NECESSARY TO CLEAR THE DRAIN PIPE.

THE TOP SURFACE OF THE END BENT CAP, EXCEPT THE BEARING AREA AND THE AREA OUTSIDE THE EDGE OF SUPERSTRUCTURE, SHALL BE RAKED TO A DEPTH OF 1/4".



BILL OF MATERIAL

END BENT No. 1					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	16	#9		35'-8"	1940
B2	12	#5	STR	31'-6"	394
B3	12	#4	STR	21'-8"	174
B4	15	#4	STR	3'-4"	33
H1	14	#5		10'-3"	150
H2	14	#5		10'-1"	147
H3	14	#5		9'-7"	140
H4	14	#5		9'-9"	142
H5	32	#4	STR	3'-8"	78
S1	72	#5		11'-6"	864
S2	72	#5		4'-3"	319
S3	40	#4		6'-6"	174
V1	80	#4	STR	5'-9"	307
V2	56	#4	STR	9'-5"	352
REINFORCING STEEL					5,214 LBS.
CLASS A CONCRETE BREAKDOWN					
POUR #1	CAP, CONC, COLLARS & LOWER PART OF WINGS				38.4 C.Y.
POUR #2	UPPER PART OF WINGS				5.3 C.Y.
TOTAL CLASS A CONCRETE					43.7 C.Y.
HP 12 X 53 STEEL PILES					
NO: 10					LIN. FT. = 870
PILE REDRIVES					5 EA.
PILE DRIVING EQUIPMENT SET UP FOR HP 12 X 53 STEEL PILES					10 EA.



SECTION A-A

PROJECT NO. R-5311A
 HERTFORD COUNTY
 STATION: 50+99.00 -Y2-
 SHEET 3 OF 3

ENGINEER OF RECORD

DocuSigned by:
 Buck Charles Hunt
 20150309

SEAL 14091

4/5/2017

ETHERILL ENGINEERING

1223 Jones Franklin Rd.
 Raleigh, N.C. 27606
 Bus: 919 851 8077
 Fax: 919 851 8107
 LICENSE NO. F-0377

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 END BENT No. 1

REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S02-22

TOTAL SHEETS 61

DRAWN BY : J. PENDERGRAFT DATE : 3-16
 CHECKED BY : J. DILWORTH DATE : 3-16

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

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