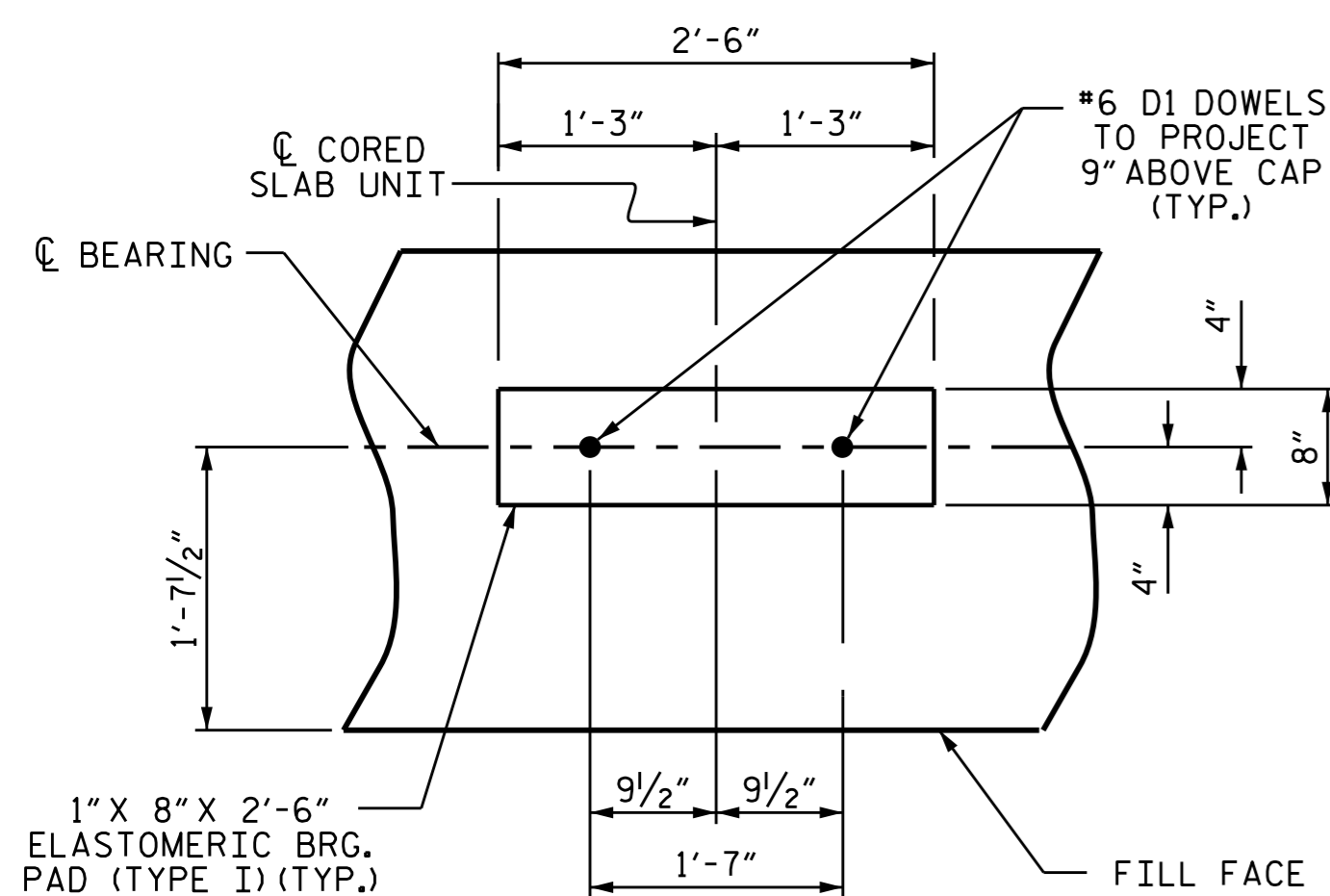


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

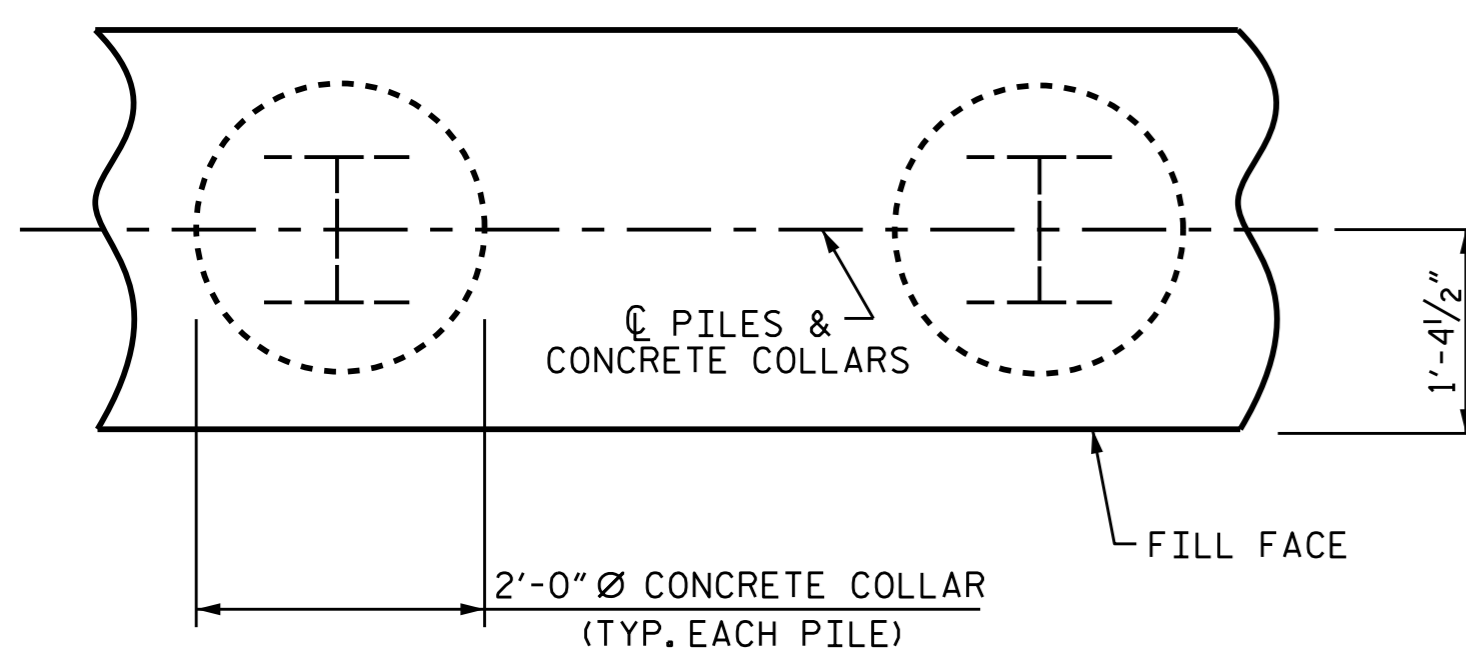
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

### TEMPORARY DRAINAGE AT END BENT



### DETAIL "A"

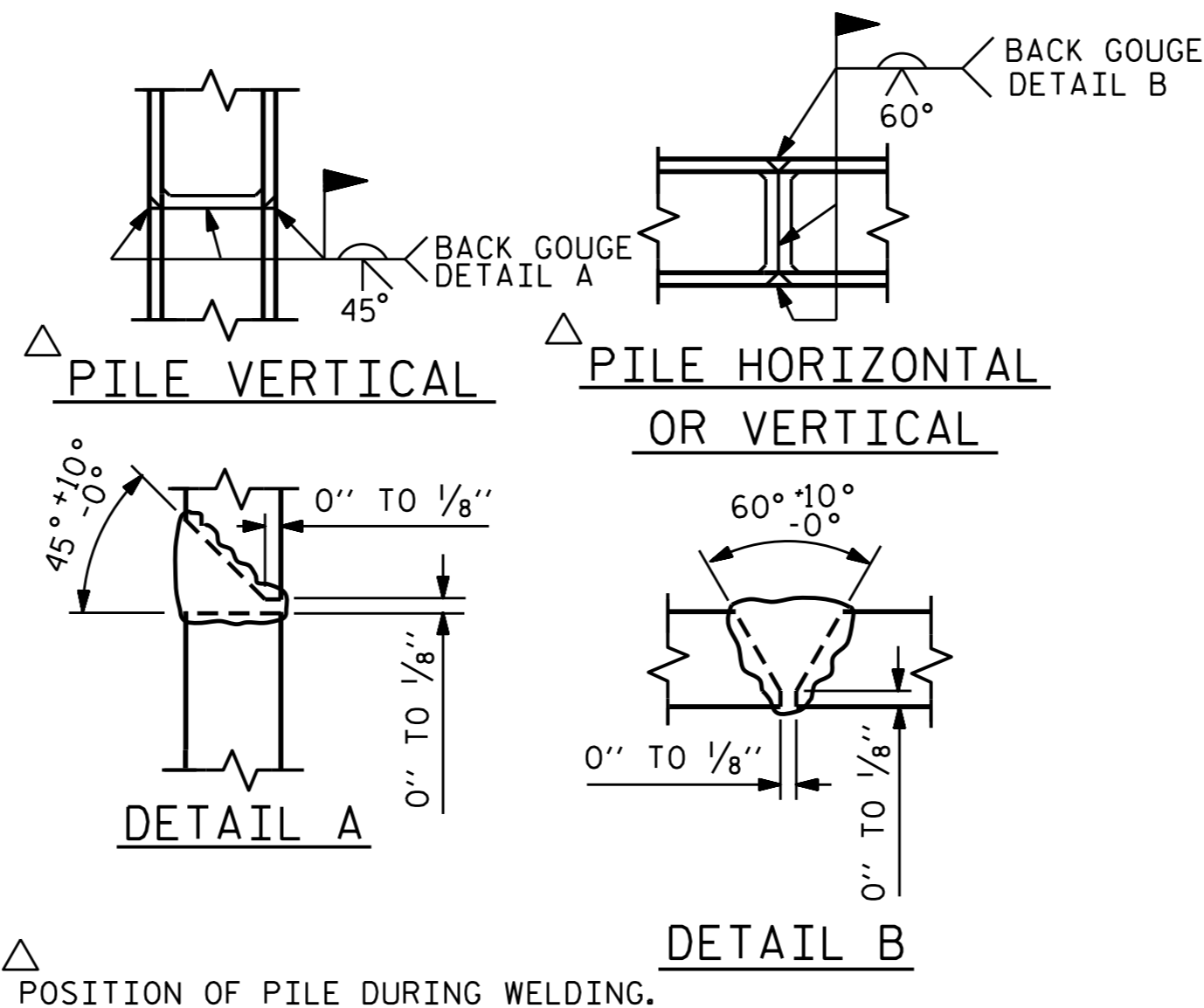
(END BENT No. 1 SHOWN, END BENT No. 2 SIMILAR BY ROTATION)



### PLAN

### CORROSION PROTECTION FOR STEEL PILES DETAIL

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



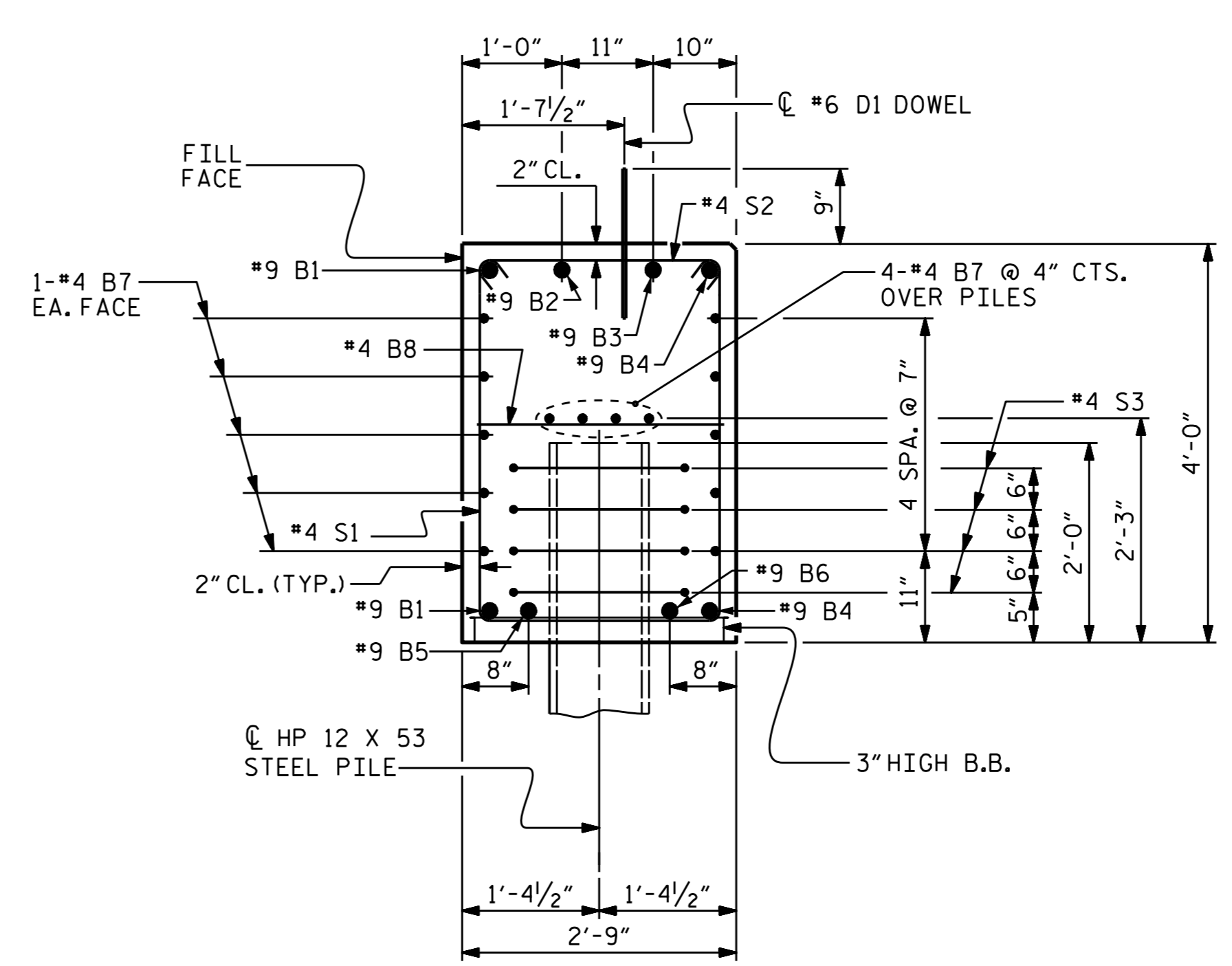
### PILE SPLICE DETAILS

BAR TYPES			
HK.	①	HK.	
1'-3"	36'-2"	1'-3"	B1
1'-3"	36'-0"	1'-3"	B2
1'-3"	35'-9"	1'-3"	B3
1'-3"	35'-6"	1'-3"	B4
1'-3"	36'-1"	1'-3"	B5
1'-3"	35'-8"	1'-3"	B6
			④
			⑤
			⑥
			③
			②

ALL BAR DIMENSIONS ARE OUT TO OUT.

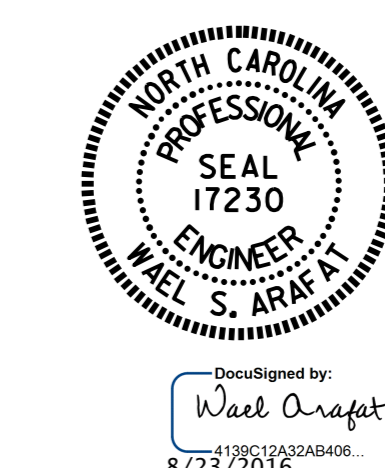
END BENT No. 1		END BENT No. 2	
HP 12 X 53 STEEL PILES	HP 12 X 53 STEEL PILES		
NO: 5	NO: 5		
LIN. FT. = 60.0	LIN. FT. = 80.0		

BILL OF MATERIAL FOR ONE END BENT					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	2	#9	1	38'-8"	263
B2	1	#9	1	38'-6"	131
B3	1	#9	1	38'-3"	130
B4	2	#9	1	38'-0"	258
B5	1	#9	1	38'-7"	131
B6	1	#9	1	38'-2"	130
B7	28	#4	STR	19'-5"	363
B8	9	#4	STR	2'-5"	15
D1	20	#6	STR	1'-6"	45
H1	10	#4	2	9'-1"	61
H2	10	#4	2	9'-3"	62
H3	10	#4	3	9'-9"	65
H4	10	#4	3	9'-4"	62
K1	8	#4	STR	2'-1"	11
K2	8	#4	STR	3'-5"	18
S1	46	#4	4	10'-5"	320
S2	46	#4	5	3'-2"	97
S3	20	#4	6	6'-6"	87
V1	51	#4	STR	6'-2"	210
REINFORCING STEEL (FOR ONE END BENT)					2459 LBS.
CLASS A CONCRETE BREAKDOWN (FOR ONE END BENT)					
POUR #1 CAP, LOWER PART OF WINGS & COLLARS					18.1 C.Y.
POUR #2 UPPER PART OF WINGS					2.1 C.Y.
TOTAL CLASS A CONCRETE					20.2 C.Y.



### SECTION A-A

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



PROJECT NO. B-5380

AVERY COUNTY

STATION: 12+31.30 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

SUBSTRUCTURE

END BENT No. 1 & 2  
DETAILS

DRAWN BY :	H. T. BARBOUR	DATE :	5-5-16
CHECKED BY :	V. X. NGUYEN	DATE :	5-16
DESIGN ENGINEER OF RECORD:	A. M. LEE	DATE :	7-16

REVISIONS						SHEET NO. S-12
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 16
2			4			

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED