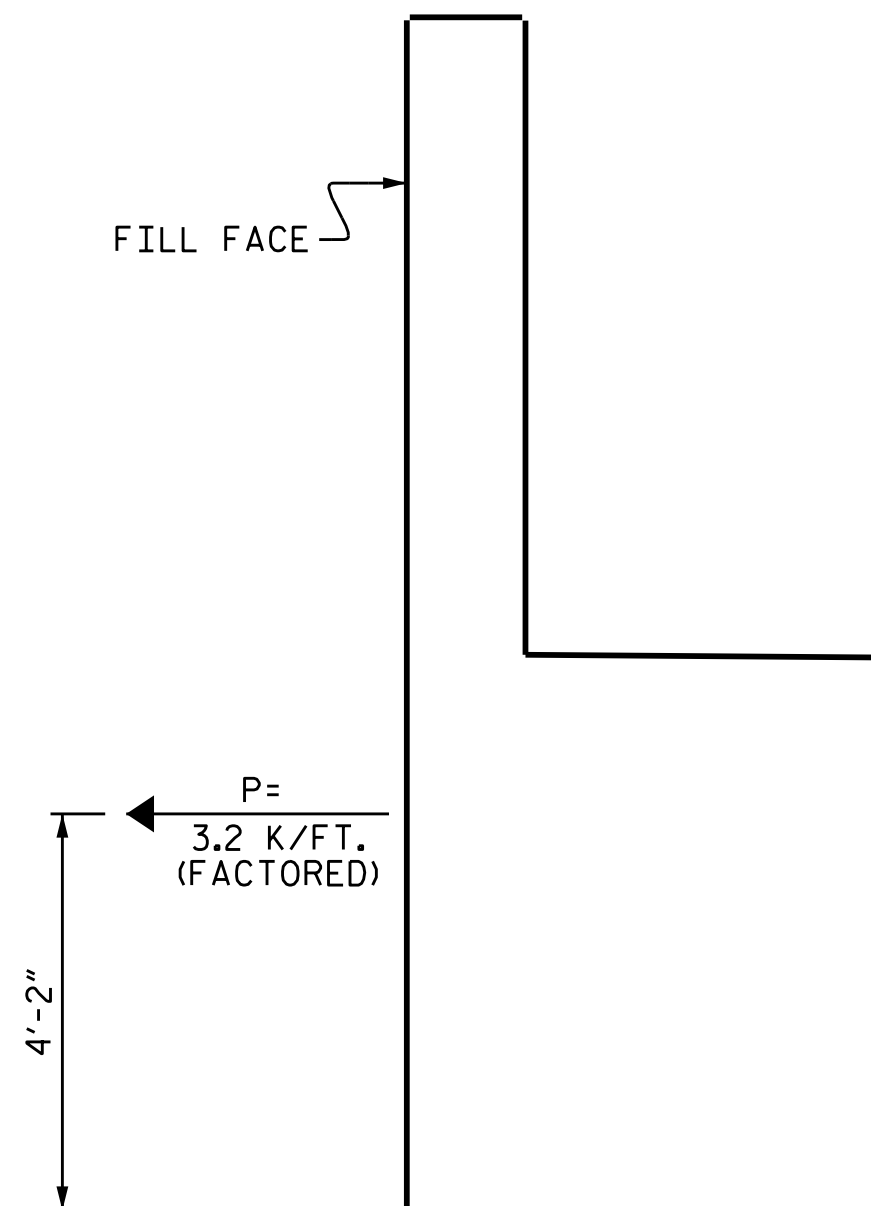


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

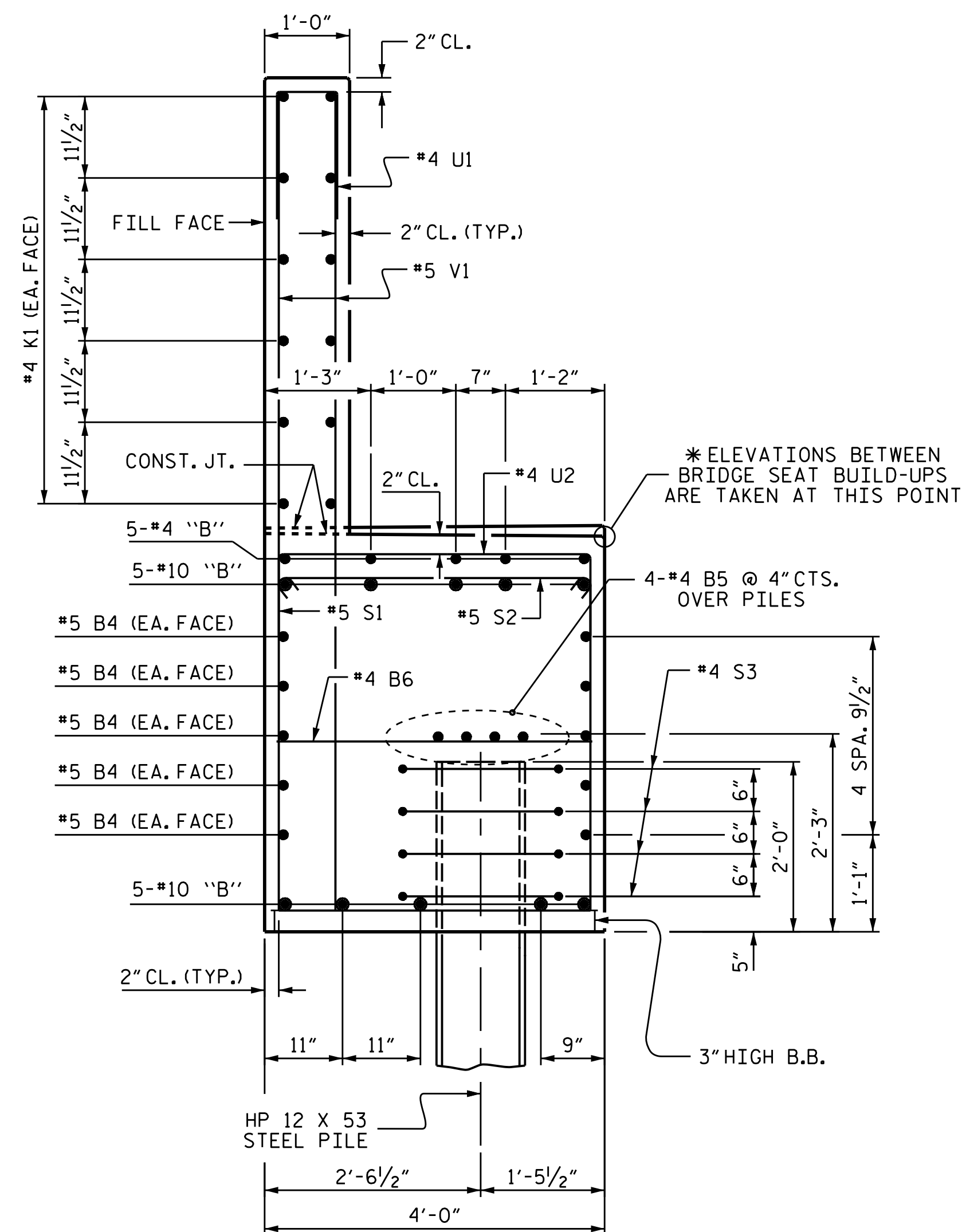
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

### TEMPORARY DRAINAGE AT END BENT

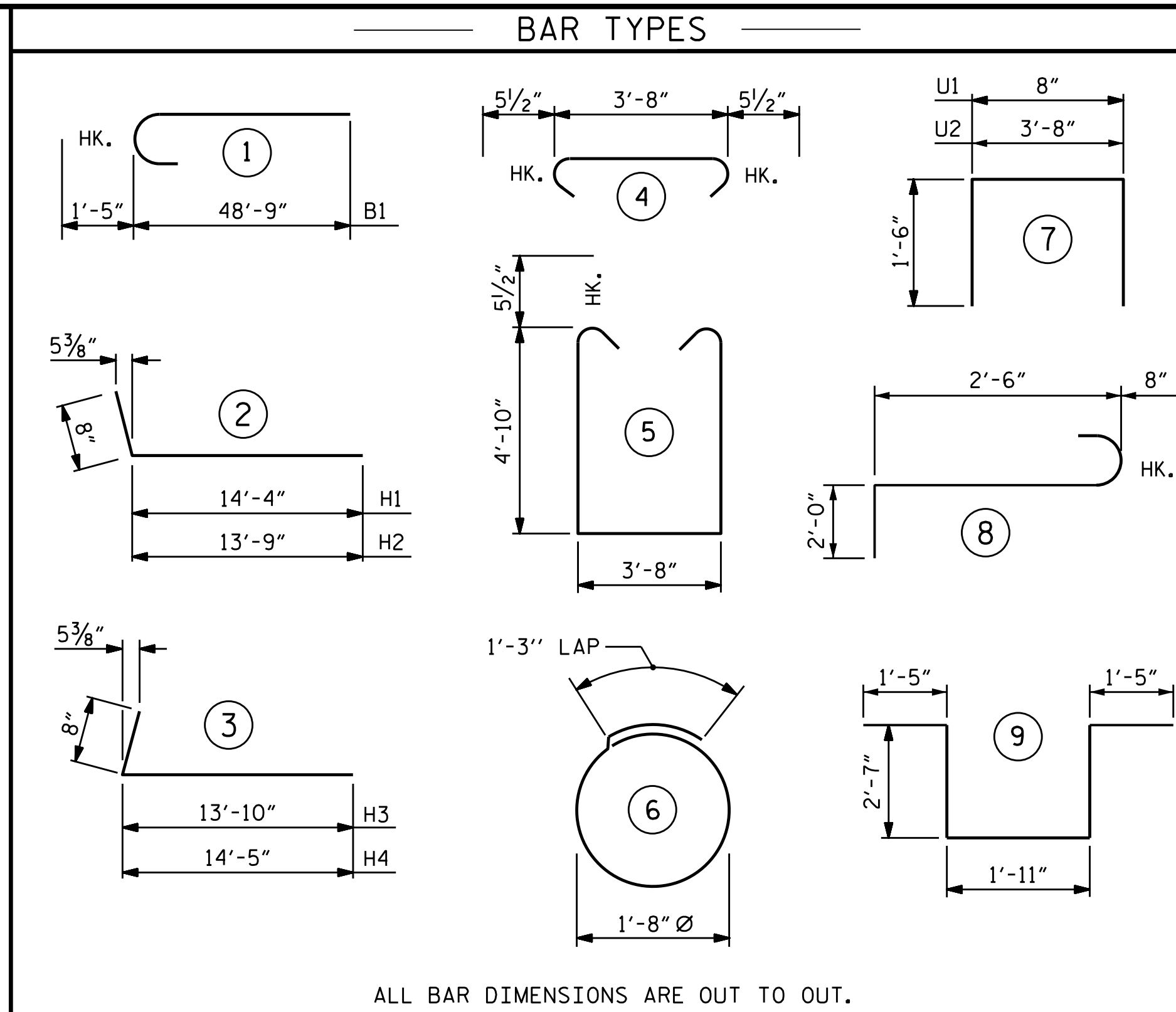


### TIE BACK DETAILS

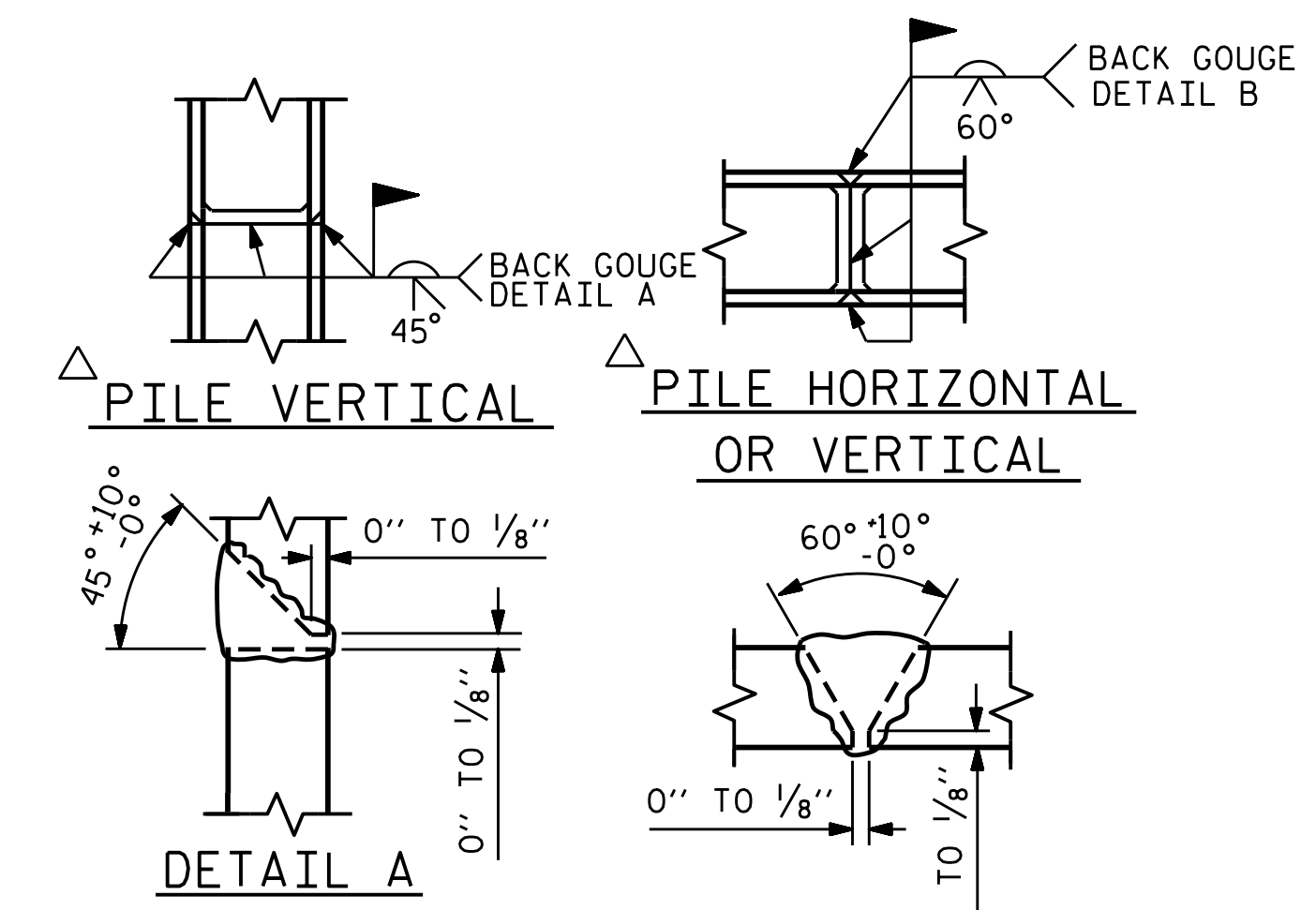
(DETAIL SHOWING TIE BACK RESTRAINT FOR END BENT)



### SECTION A-A



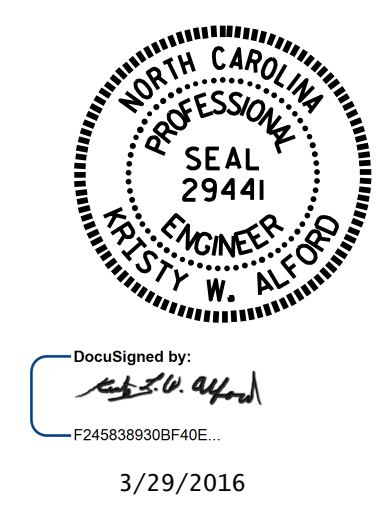
BILL OF MATERIAL					
END BENT 1					
BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	20	#10	1	50'-2"	4317
B2	10	#10	STR	48'-9"	2098
B3	10	#10	STR	43'-0"	1850
B4	30	#5	STR	55'-10"	1747
B5	24	#4	STR	29'-0"	465
B6	40	#4	STR	3'-8"	98
B7	5	#4	STR	21'-3"	71
B8	40	#4	STR	14'-1"	376
B9	10	#4	STR	7'-7"	51
H1	15	#5	2	15'-0"	235
H2	15	#5	2	14'-5"	226
H3	14	#5	3	14'-6"	212
H4	14	#5	3	15'-1"	220
K1	72	#4	STR	29'-0"	1395
K2	10	#4	STR	5'-5"	36
S1	151	#5	5	14'-3"	2244
S2	151	#5	4	4'-7"	722
S3	88	#4	6	6'-6"	382
S4	6	#6	8	5'-2"	47
S5	6	#6	9	9'-11"	89
U1	149	#4	7	3'-8"	365
U2	104	#4	7	6'-8"	463
V1	298	#5	STR	10'-6"	3264
V2	15	#5	STR	12'-8"	198
V3	16	#5	STR	12'-4"	206
V4	18	#5	STR	11'-9"	141
V5	8	#5	STR	11'-4"	95
V6	15	#5	STR	12'-6"	196
V7	10	#5	STR	12'-0"	125
TOTAL REINFORCING STEEL					LBS. 21,934



### PILE SPLICE DETAILS

CLASS A CONCRETE BREAKDOWN			
LEFT SIDE			
POUR #1 (CAP & LOWER PART OF WING)	C.Y.	70.7	
POUR #2 (BACKWALL & UPPER PART OF WING)	C.Y.	20.0	
RIGHT SIDE			
POUR #1 (CAP & LOWER PART OF WING)	C.Y.	71.0	
POUR #2 (BACKWALL & UPPER PART OF WING)	C.Y.	20.1	
CLASS A CONCRETE TOTAL	C.Y.	181.8	
HP 12 X 53 STEEL PILES NO. 24	LIN. FT.	1320	
PILE REDRIVES	EA.	11	

PROJECT NO. B-4490  
CUMBERLAND COUNTY  
 STATION: 29+57.01 -L-  
 SHEET 4 OF 4



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 SUBSTRUCTURE  
 END BENT 1

DRAWN BY: A. SORSENGINH DATE: 3/2015  
 CHECKED BY: J.P. ADAMS DATE: 8/2015  
 DESIGN ENGINEER OF RECORD: A. SORSENGINH DATE: 9/2015

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-35	
1			3			TOTAL SHEETS 84	
2			4				

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED