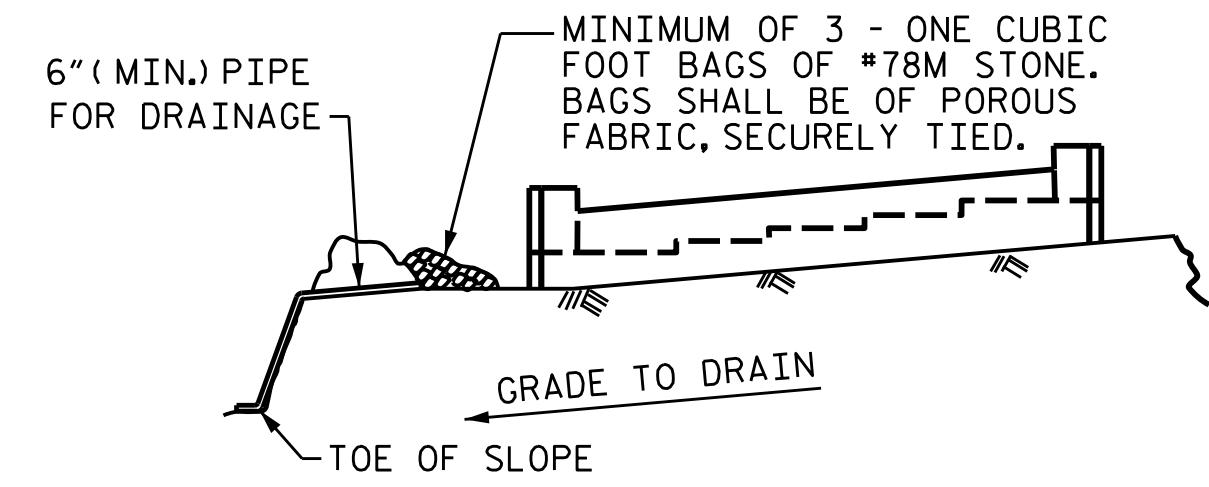


**SECTION A-A**

REINFORCING STEEL & DETAILS ARE TYPICAL FOR EACH DRILLED PIER

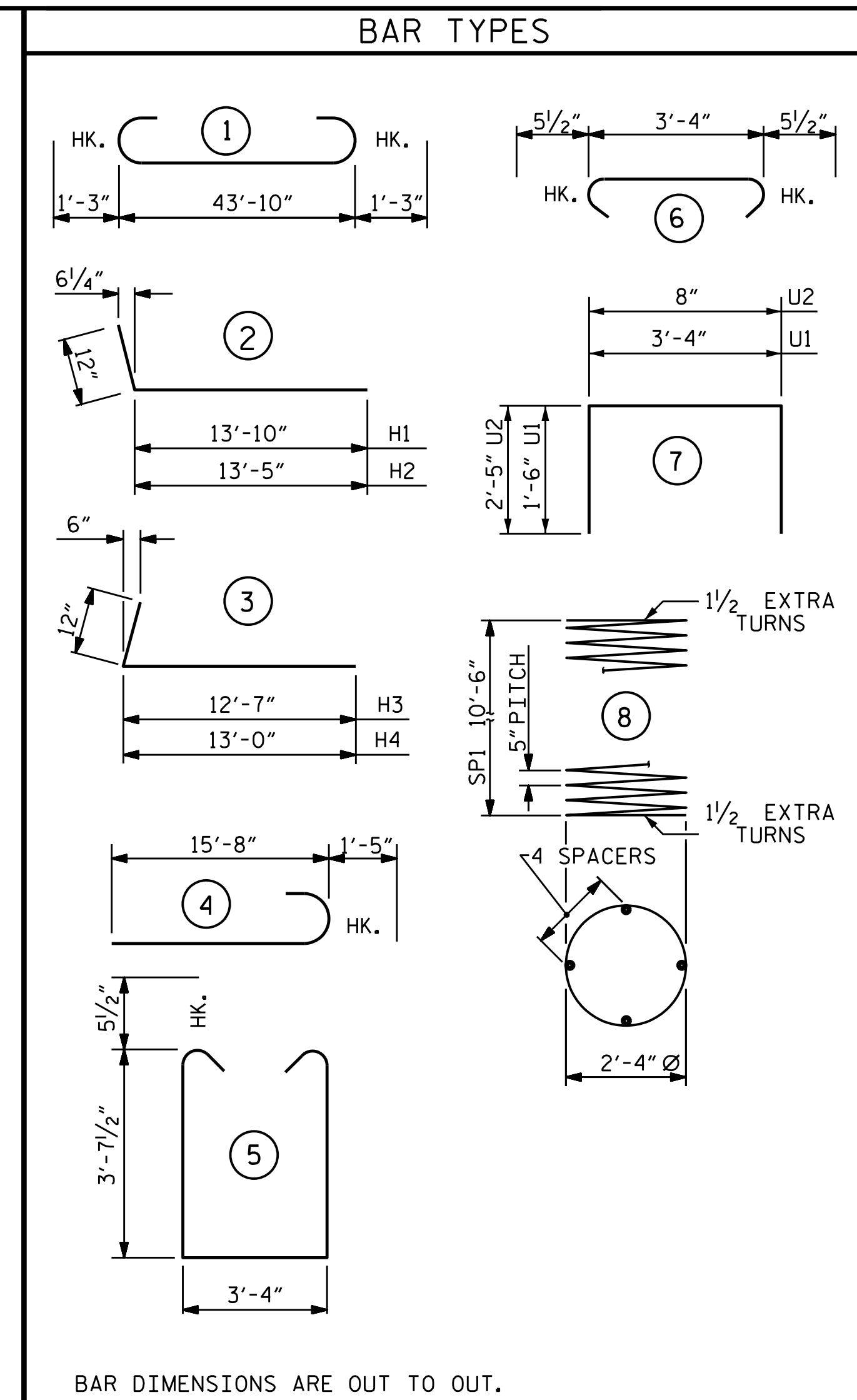


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

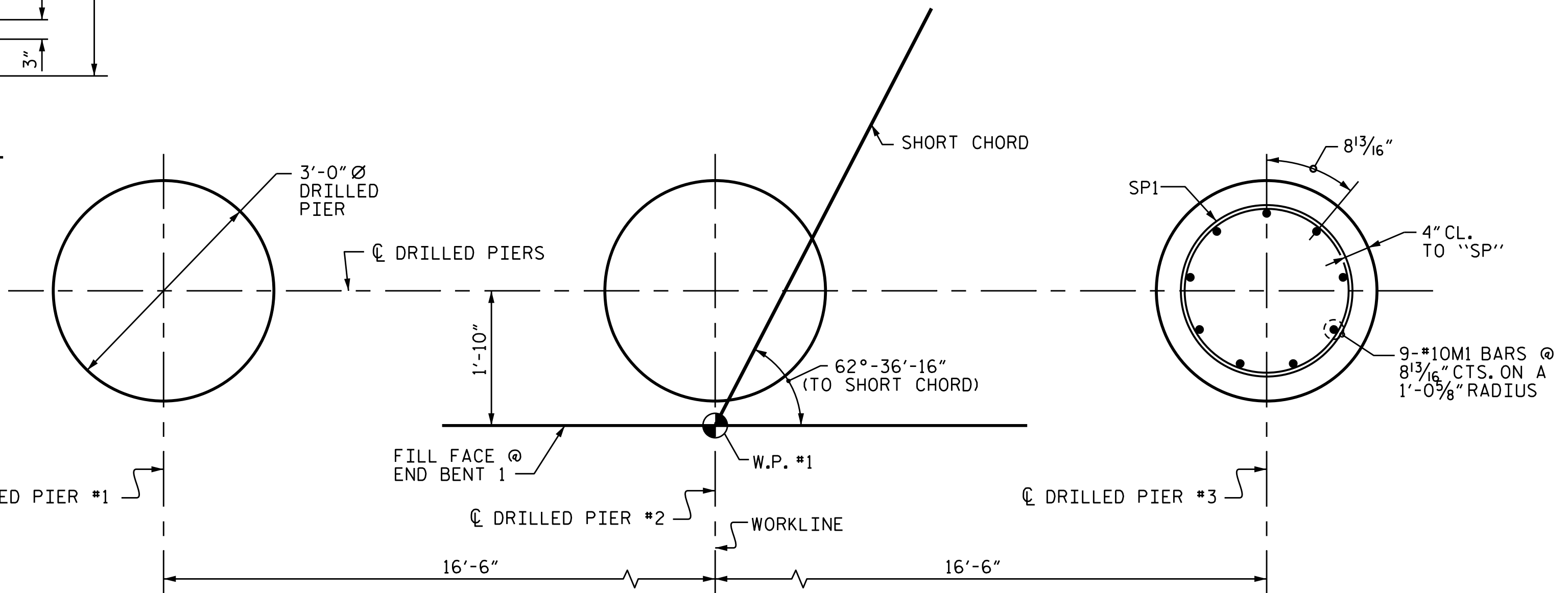
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

**TEMPORARY DRAINAGE AT END BENT**



BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL					
END BENT 1					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	10	#9	1	46'-4"	1575
B2	10	#5	STR	43'-10"	457
B3	10	#4	STR	10'-2"	68
B4	5	#4	STR	5'-11"	20
H1	10	#6	2	14'-10"	223
H2	10	#6	2	14'-5"	217
H3	11	#6	3	13'-7"	224
H4	11	#6	3	14'-0"	231
K1	16	#4	STR	23'-2"	248
K2	4	#4	STR	3'-6"	9
K3	4	#4	STR	3'-7"	10
M1	27	#10	4	17'-1"	1985
S1	50	#5	5	11'-6"	600
S2	50	#5	6	4'-3"	222
U1	19	#4	7	6'-4"	80
U2	36	#4	7	5'-6"	132
V1	72	#5	STR	7'-3"	544
V2	36	#5	STR	9'-1"	341
V3	34	#5	STR	9'-11"	352
REINFORCING STEEL				=	7538 LBS
SP1	3	**	8	202'-10"	635
SPIRAL REINFORCING STEEL				=	635 LBS
* THE SP1 SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR.					
CLASS A CONCRETE BREAKDOWN :					
POUR 2 (CAP & LOWER WINGS)----- 30.2 C.Y.					
POUR 3 (BACKWALL & UPPER WINGS)---- 11.8 C.Y.					
TOTAL ----- 42.0 C.Y.					
3'-0" Ø DRILLED PIERS					
DRILLED PIER CONCRETE :					
POUR 1 ----- 8.6 C.Y.					



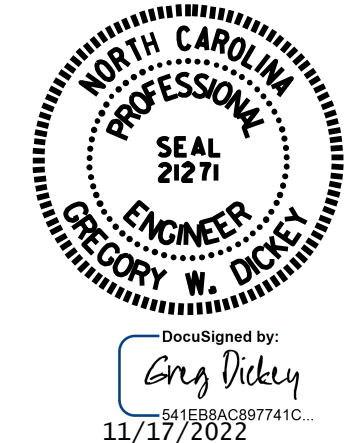
**PLAN OF DRILLED PIERS**

REINFORCING STEEL AND DIMENSIONS ARE TYPICAL FOR EACH DRILLED PIER.

ORIENT #10M1 BARS AS SHOWN TO PROVIDE CLEARANCE OF #9B1 BARS IN BOTTOM OF END BENT CAP

Prepared in the Office of:  
**SUMMIT**  
 DESIGN AND ENGINEERING SERVICES  
 NC FIRM LICENSE No: P-0339  
 1110 Navaho Drive, Suite 600  
 Raleigh, NC 27609  
 Ph: 919-322-0115 Fax: 919-322-0116  
 www.summitde.com

PROJECT NO. B-5989  
MADISON COUNTY  
 STATION: 16+18.00 -L-  
 SHEET 3 OF 3



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

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

\$LASTSAVEDDATE TIME\$ FILE\$

DRAWN BY : KEITH D LAYNE DATE : 03/21  
 CHECKED BY : G. DICKEY DATE : 6/22  
 DESIGN ENGINEER OF RECORD: G. DICKEY DATE : 6/22