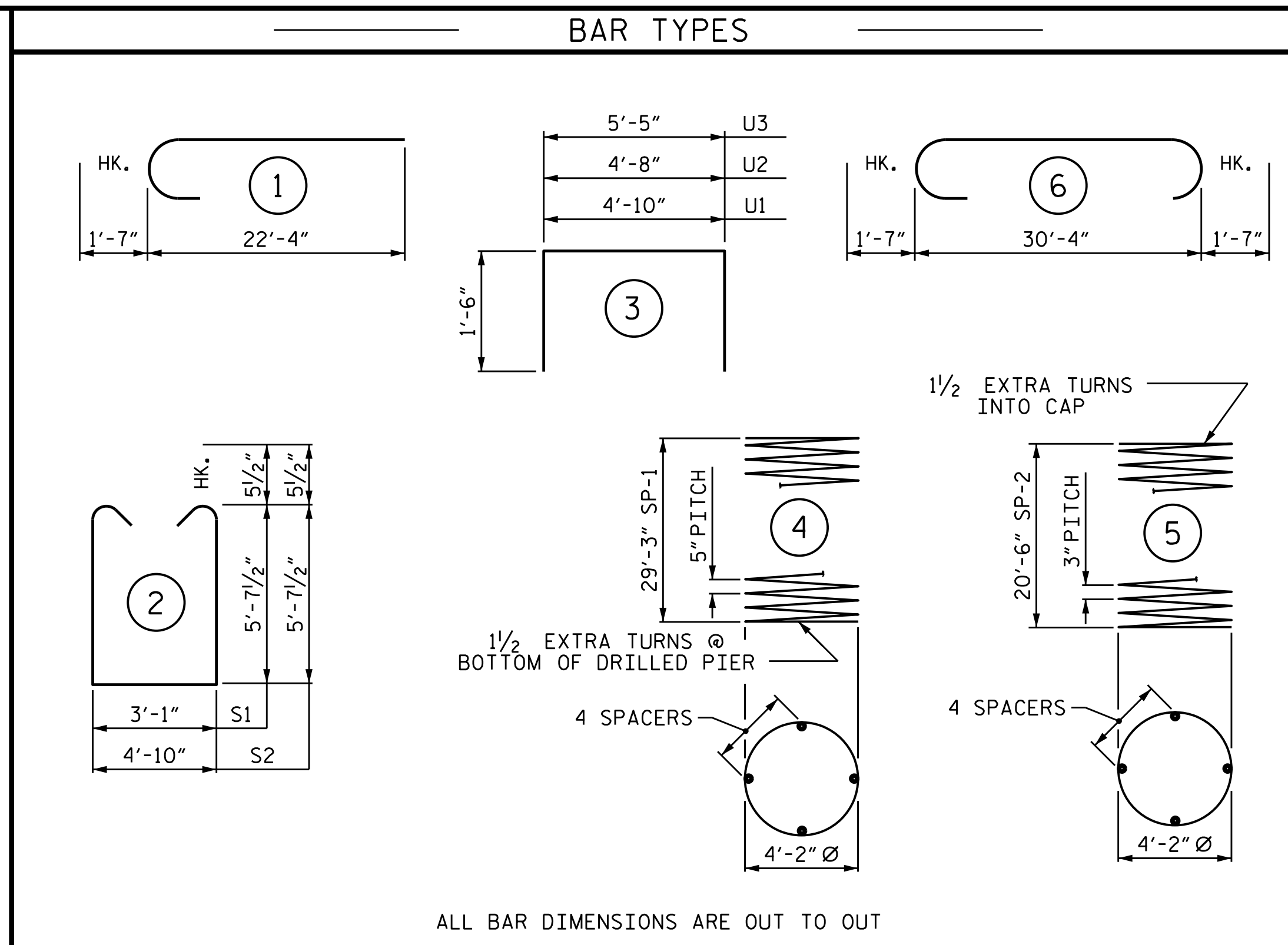


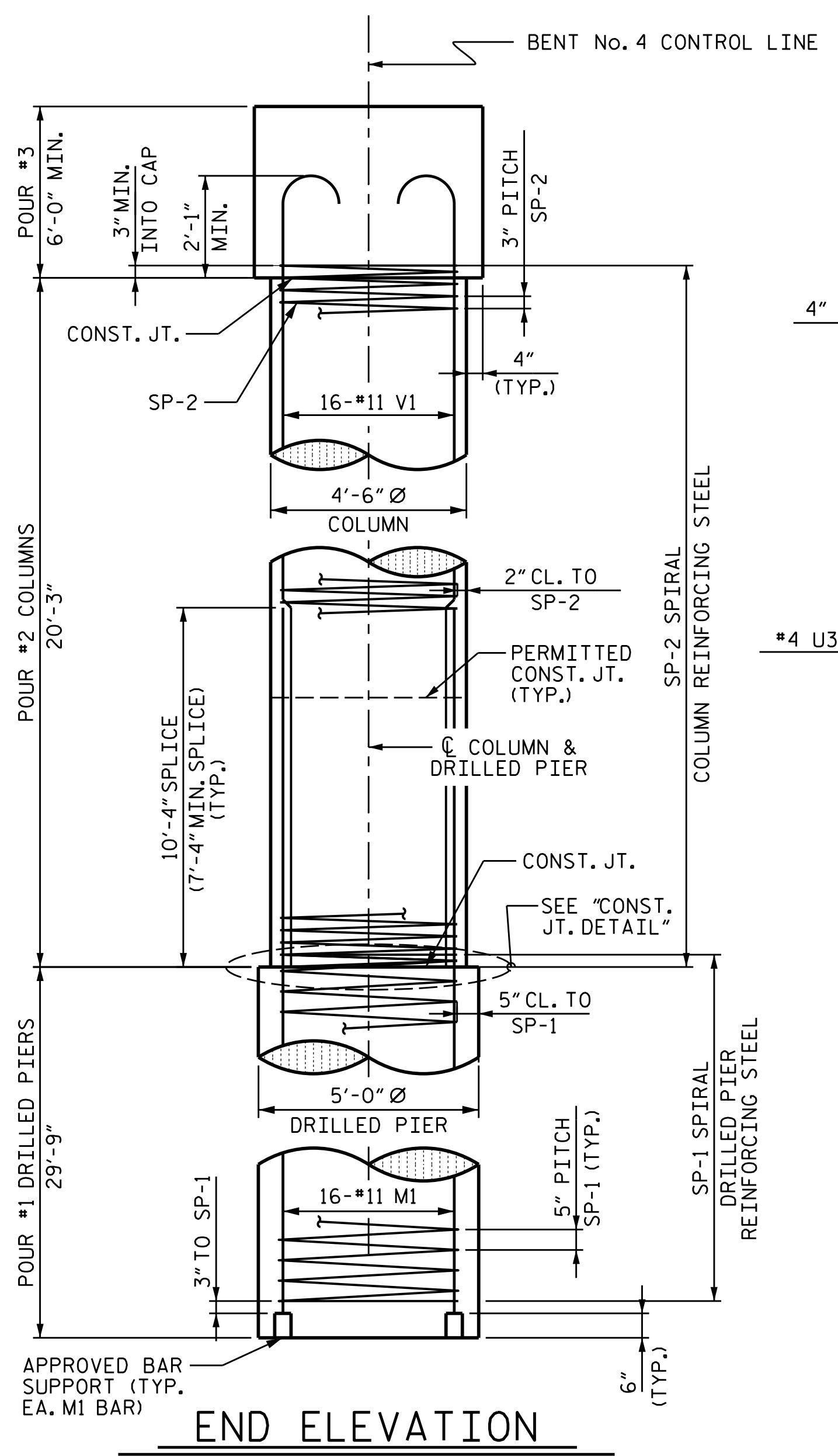
**PLAN OF DRILLED PIERS & COLUMNS**

DIMENSIONS AND REINFORCING STEEL ARE TYPICAL FOR EACH COLUMN & DRILLED PIER.

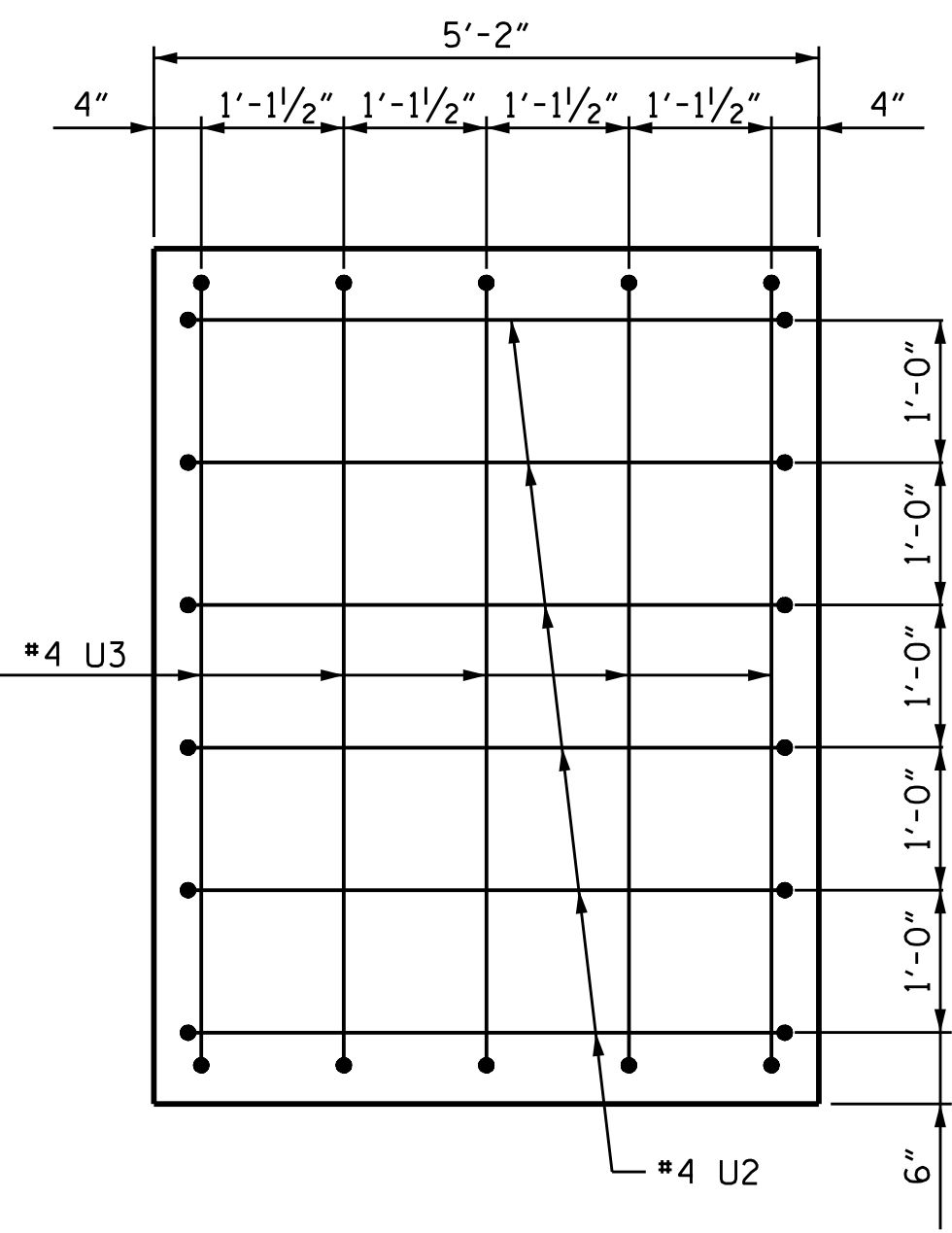


ALL BAR DIMENSIONS ARE OUT TO OUT

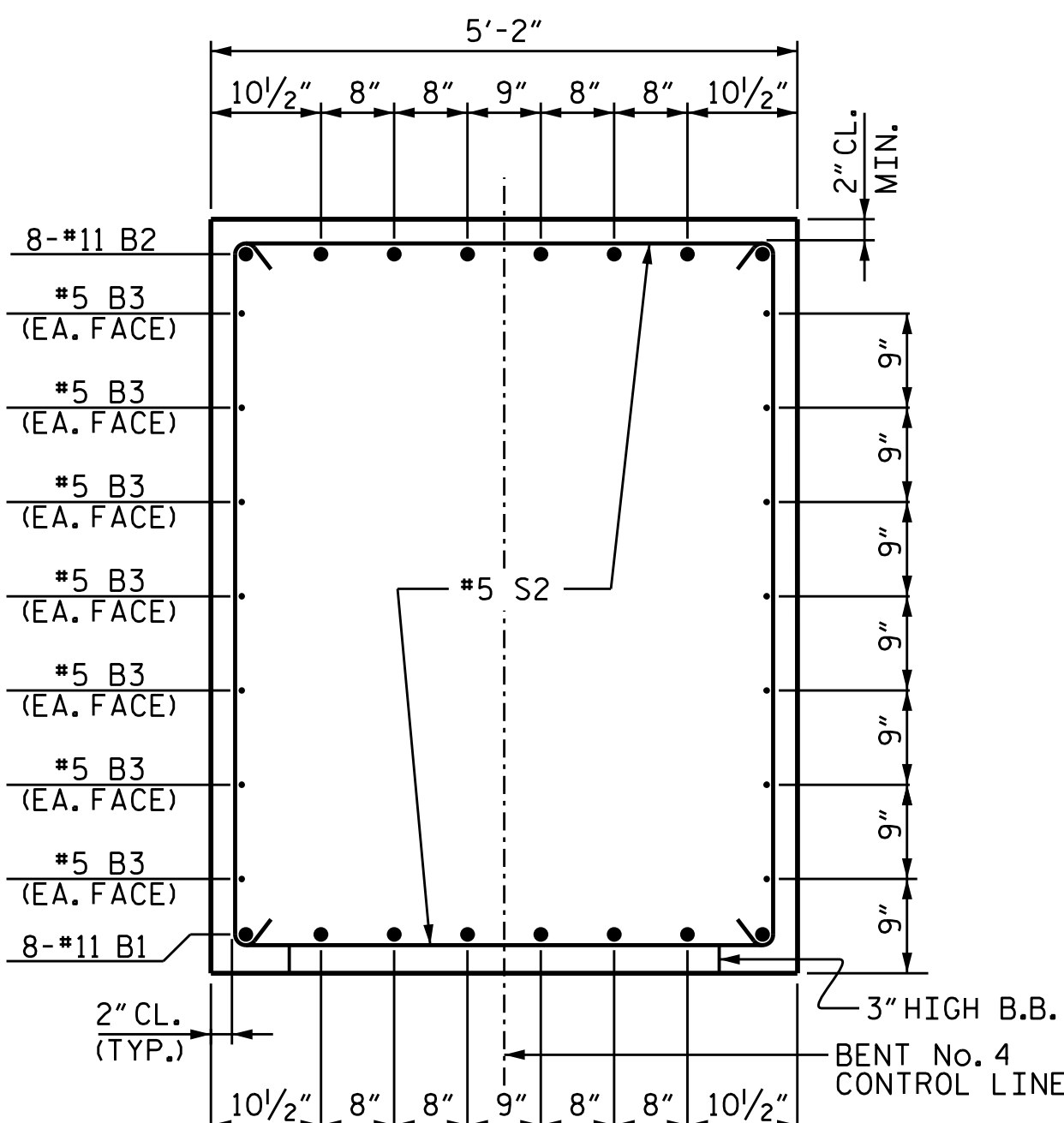
BILL OF MATERIAL FOR BENT No. 4					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#11	STR	30'-6"	1,296
B2	8	#11	6	33'-6"	1,424
B3	14	#5	STR	30'-6"	445
M1	32	#11	STR	39'-7"	6,730
S1	52	#5	2	15'-3"	827
S2	11	#5	2	17'-0"	195
U1	28	#4	3	7'-10"	147
U2	12	#4	3	7'-8"	61
U3	10	#4	3	8'-5"	56
V1	32	#11	1	23'-11"	4,066
REINFORCING STEEL					15,247 LBS.
SP-1	2	*	4	931'-3"	1,943
SP-2	2	**	5	1,088'-10"	1,455
SPIRAL COLUMN REINFORCING STEEL					3,398 LBS.
* THE SP-1 SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR					
** THE SP-2 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR					



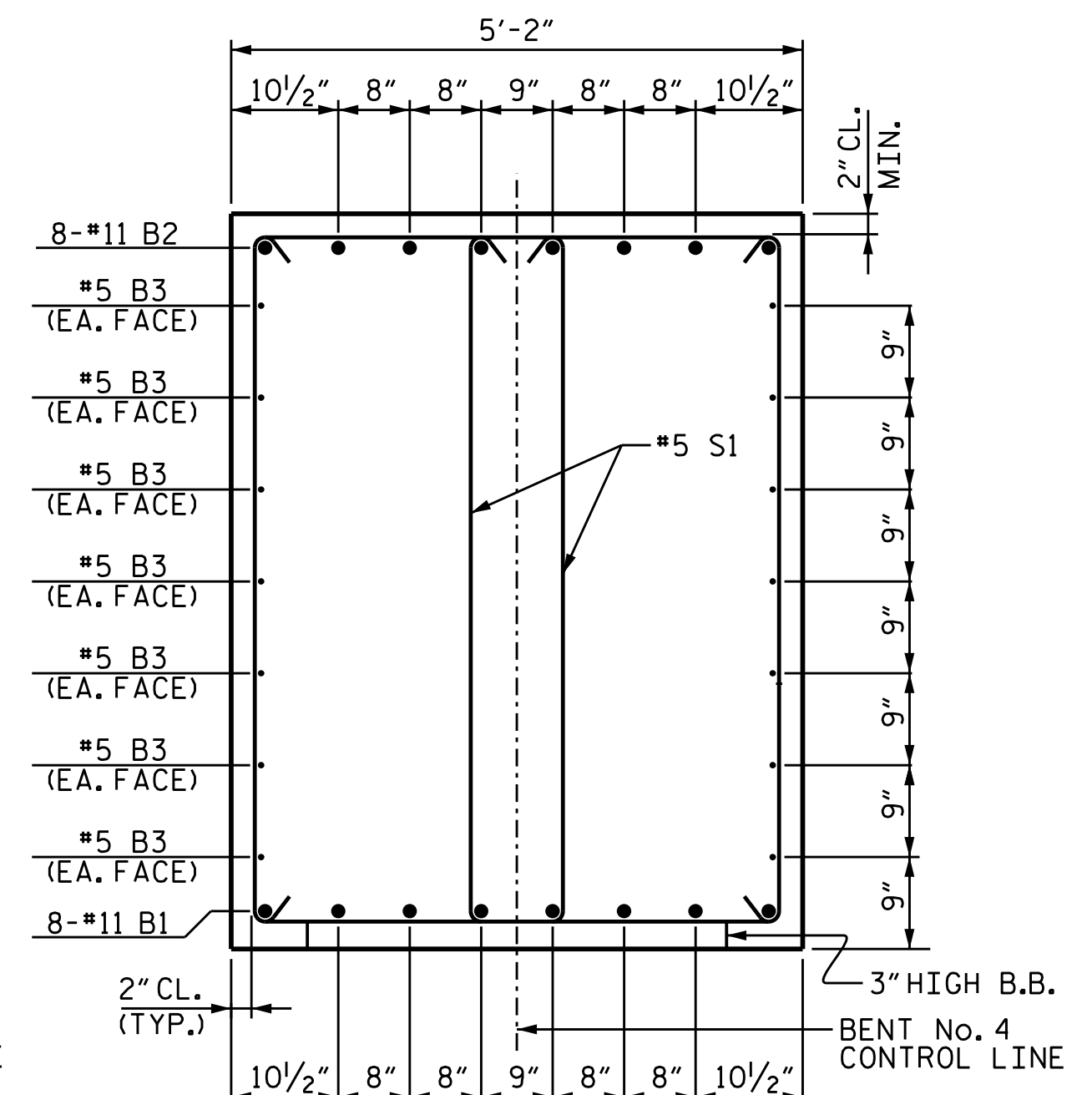
**END ELEVATION**



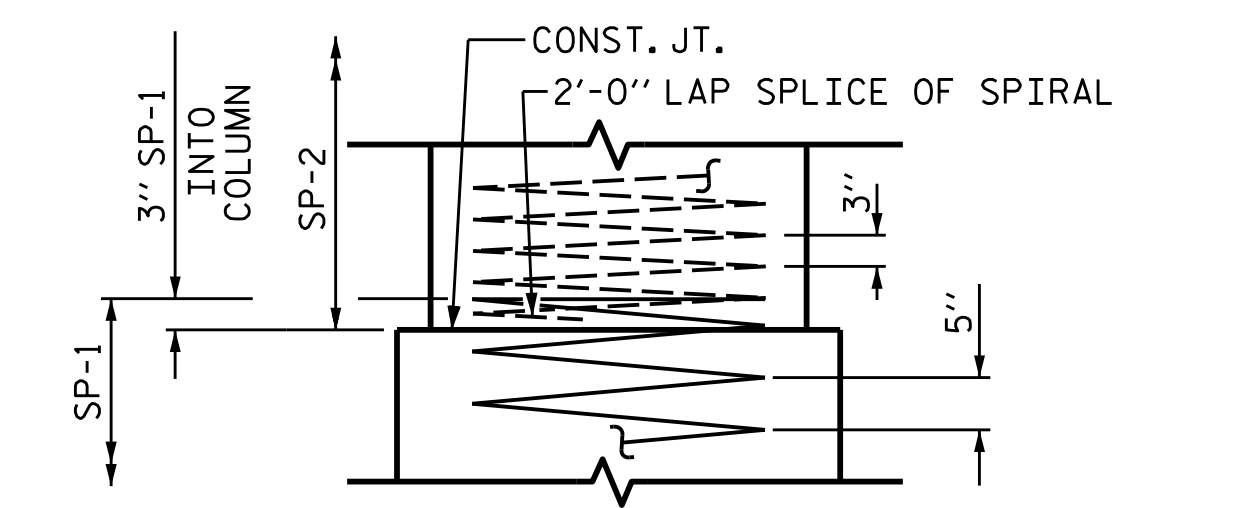
**END VIEW**



**SECTION A-A**



**SECTION B-B**



**CONSTRUCTION JOINT DETAIL**

CLASS A CONCRETE BREAKDOWN	
POUR #2 (COLUMNS)	23.9 C.Y.
POUR #3 (CAP)	35.9 C.Y.
<b>TOTAL CLASS A CONCRETE</b>	<b>59.8 C.Y.</b>

DRILLED PIERS:	
DRILLED PIER CONCRETE POUR #1	43.3 C.Y.
5'-0" Ø DRILLED PIERS IN SOIL	31.50 LIN. FT.
5'-0" Ø DRILLED PIERS NOT IN SOIL	28.00 LIN. FT.
PERMANENT STEEL CASING FOR 5'-0" Ø DRILLED PIERS	31.40 LIN. FT.
CSL TUBES	312.50 LIN. FT.

PROJECT NO. B-5825  
 YADKIN/FORSYTH COUNTY  
 STATION: 34+65.50-L-  
 SHEET 2 OF 2

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**SUBSTRUCTURE**  
**BENT No. 4**

2/19/2020  
 X:\NCDOT\B-5825\Structures\Str. #1 - 34+65.50 -L-\FinalPlans\06N\401.095\_B-5825.SMU. B402.980035.dgn  
 User:ZSmith

4/14/2020

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS  
 706 HILLSBOROUGH STREET  
 SUITE 200  
 RALEIGH, NC 27603  
 PH (919) 773-8887  
 CORP. LICENSE NO.: C-0275

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-46
1			3			TOTAL SHEETS
2			4			60

DRAWN BY :	TBE	DATE :	10/19
CHECKED BY :	MGC	DATE :	1/20
DESIGN ENGINEER OF RECORD:	TBE	DATE :	2/20