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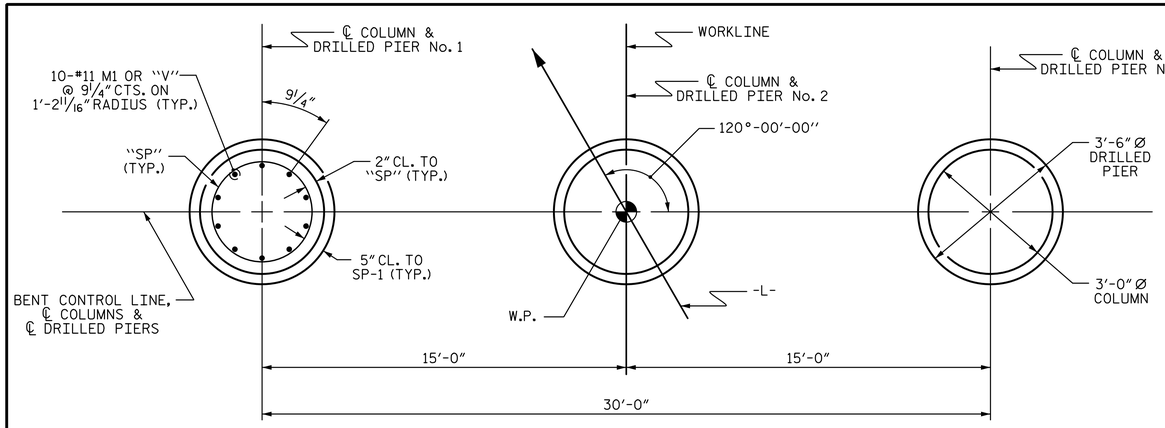
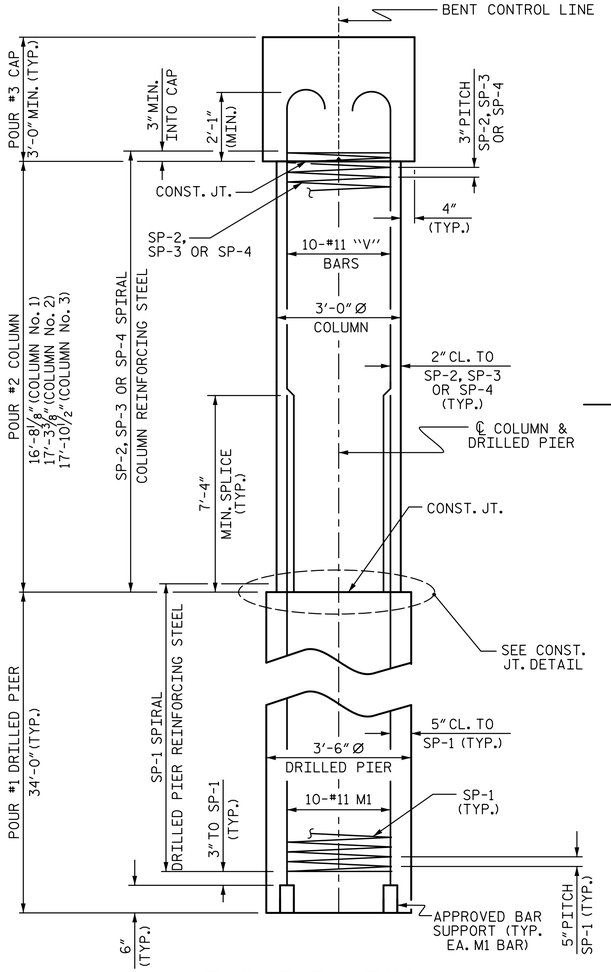
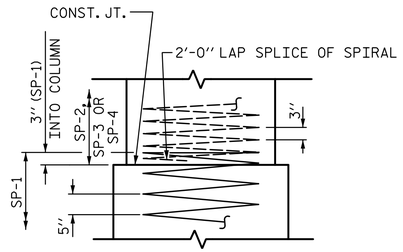


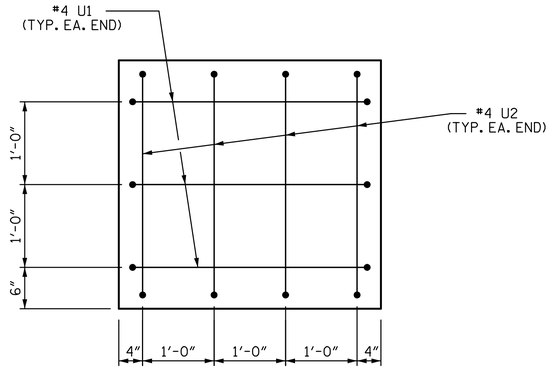
PLAN OF DRILLED PIERS & COLUMNS



END ELEVATION



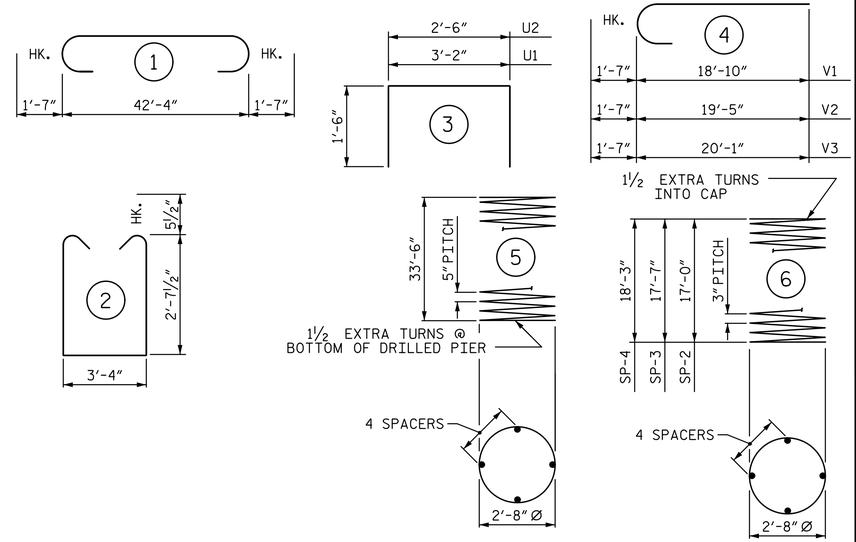
CONSTRUCTION JOINT DETAIL



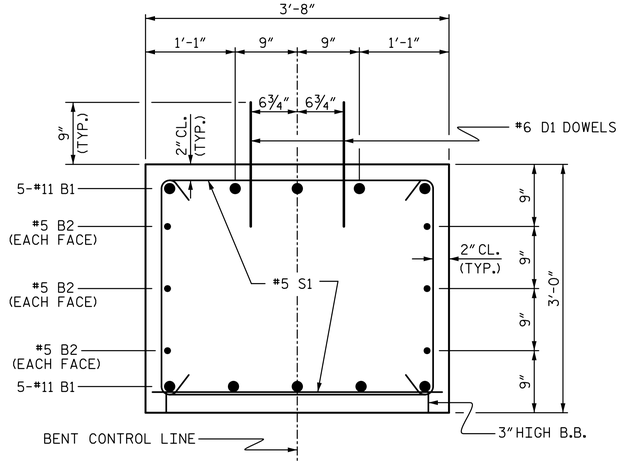
END OF CAP VIEW

(TYPICAL BOTH ENDS)

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.



SECTION THRU CAP

BILL OF MATERIAL

FOR ONE BENT

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	10	#11	1	45'-6"	2417
B2	6	#5	STR	42'-6"	266
D1	44	#6	STR	1'-6"	99
M1	30	#11	STR	43'-10"	6,987
S1	74	#5	2	9'-6"	733
U1	6	#4	3	6'-2"	25
U2	8	#4	3	5'-6"	29
V1	10	#11	4	20'-5"	1,085
V2	10	#11	4	21'-0"	1,116
V3	10	#11	4	21'-8"	1,151

REINFORCING STEEL (FOR ONE BENT) 13,908 LBS.

SP-1	3	*	5	673'-8"	2,108
SP-2	1	**	6	573'-5"	383
SP-3	1	**	6	592'-8"	396
SP-4	1	**	6	614'-8"	411

SPIRAL COLUMN REINFORCING STEEL (FOR ONE BENT) 3,298 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, SP-3 & SP-4 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR

CLASS A CONCRETE BREAKDOWN (FOR ONE BENT)

POUR #2 (COLUMNS)	13.6 C.Y.
POUR #3 (CAP)	17.5 C.Y.
TOTAL CLASS A CONCRETE	31.1 C.Y.

DRILLED PIERS: (FOR ONE BENT)

DRILLED PIER CONCRETE POUR #1 (DRILLED PIERS)	36.3 C.Y.
3'-6" Ø DRILLED PIER NOT IN SOIL	33.0 LIN. FT.
3'-6" Ø DRILLED PIER IN SOIL	69.0 LIN. FT.
PERMANENT STEEL CASING FOR 3'-6" Ø DRILLED PIER	27.0 LIN. FT.
CSL TUBES	426.0 LIN. FT.

PROJECT NO. BR-0125

WILKES COUNTY

STATION: 15+36.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT No. 2

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038640 J. WESLEY JONES
11/15/2020

STV 100 Years
STV ENGINEERS, INC.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRAWN BY :	WAW	DATE :	10-19
CHECKED BY :	JWJ	DATE :	02-20
DESIGN ENGINEER OF RECORD :	JWJ	DATE :	04-20

DRAWN BY : DGE 3/10	REV. 11/14	MAA/TMG
CHECKED BY : MKT 3/10		

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-21
1			3			TOTAL SHEETS
2			4			23

STD. NO. DP_BT_33_120S_>50'

JJones 5/4/2020 3:02:29 PM R:\Structures\ustation\Finals\40L_04L_BR-0125_SMU_B4_02L_960663.dgn