NOTES:

MECHANICAL COUPLERS SHALL BE USED TO JOIN THE #10 "B" OR #11 "B" BARS IN STAGE I WITH THE #10 "B" OR #11 "B" BARS, RESPECTIVELY, IN STAGE II. REINFORCING DIMENSIONS ARE PROVIDED ASSUMING A 1FT EXTENSION BEYOND THE CONSTRUCTION JOINT. THE CONTRACTOR SHALL ADJUST FABRICATED DIMENSIONS AS NECESSARY TO ACCOMMODATE THE COUPLER USED. SEE MECHANICAL BUTT SPLICES FOR REINFORCING STEEL IN STANDARD SPECIFICATIONS.

STIRRUPS AND "U" BARS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHORS.

ALL STEEL IN THE DRILLED PIERS IS INCLUDED IN THE PAY ITEMS FOR "REINFORCING STEEL" AND "SPIRAL COLUMN REINFORCING STEEL".

FOR DRILLED PIERS AND PERMANENT STEEL CASING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

SEE PILE AND DRILLED PIER FOUNDATION TABLES FOR DRILLED PIER FOUNDATION DATA. THE LOCATION OF THE CONSTRUCTION JOINT IN THE DRILLED PIERS ARE BASED ON AN APPROXIMATE GROUND LINE ELEVATION. IF THE CONSTRUCTION JOINT IS ABOVE THE ACTUAL GROUND ELEVATION, THE CONTRACTOR SHALL PLACE THE CONSTRUCTION JOINT AT A MINIMUM OF ONE FOOT BELOW THE GROUND LINE.

THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THE LONGITUDINAL REINFORCEMENT FOR THE DRILLED PIERS IS DETAILED WITH 3 FEET OF EXTRA LENGTH.

TEMPORARY OVERBUILD NOTES:

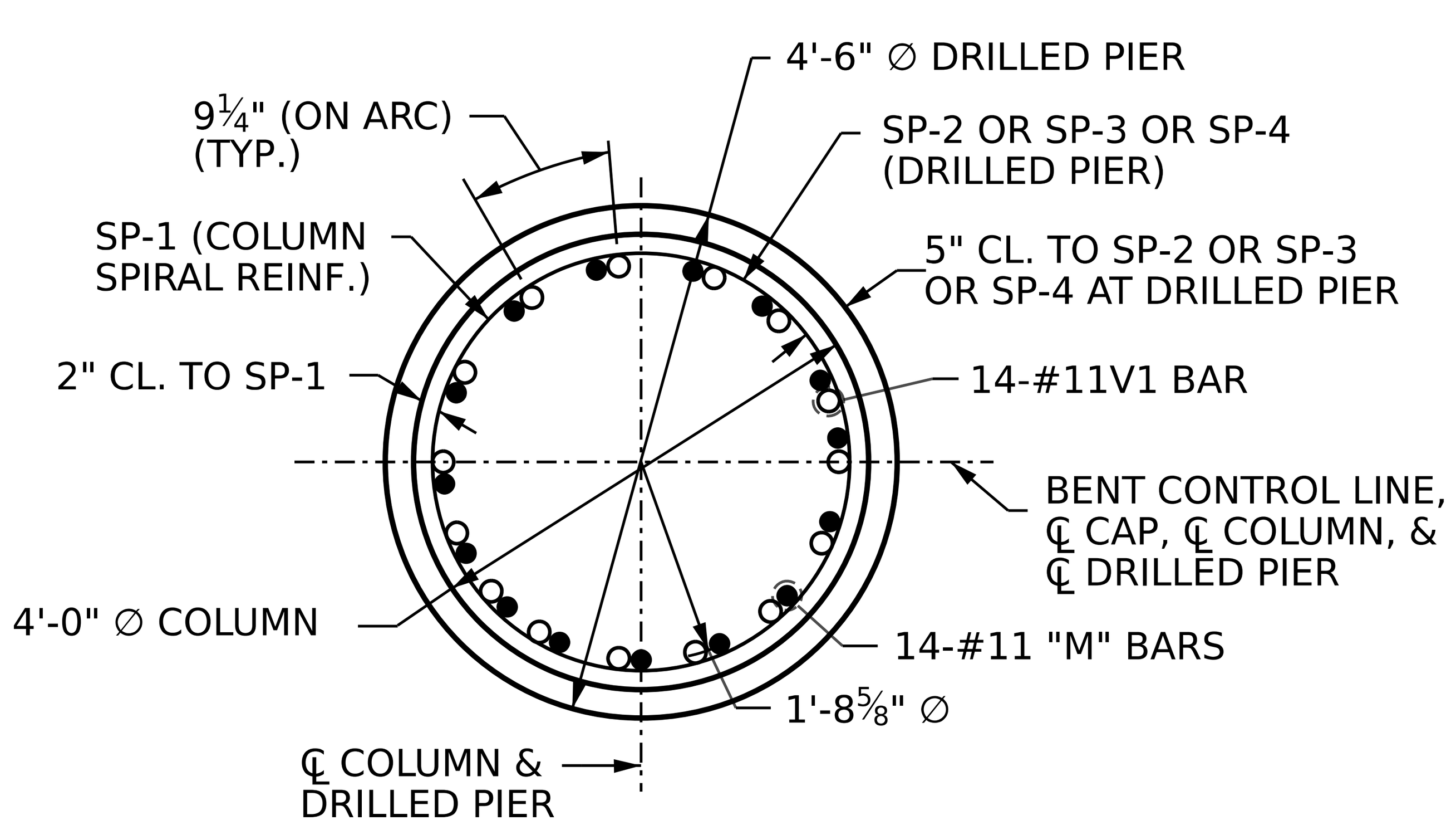
SEE BRIDGE 155 PLANS FOR COORDINATION. DURING THE CONSTRUCTION AND DEMOLITION OF BRIDGE 158 OVERBUILT PORTION OF BENT 1 OVER PROPOSED BRIDGE 155, THE CONTRACTOR SHALL ENSURE THAT NO DAMAGE SHALL OCCUR TO THE PROPOSED BENT 1 OF BRIDGE 155. THE TEMPORARY SUPPORT SHALL BE REMOVED PRIOR TO THE ERECTION OF GIRDERS. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISION "TEMPORARY OVERBUILD AND REMOVAL".

THE TEMPORARY SUPPORT SHALL BE CAPABLE OF TRANSFERRING A VERTICAL LOAD OF (509 KIPS STRENGTH) TO THE B155 SUBSTRUCTURE. TRANSFER OF MOMENT IS NOT REQUIRED. POSITIVE RESTRAINT SHALL BE PROVIDED. SEE "TEMPORARY OVERBUILD AND REMOVAL" SPECIAL PROVISION.

DURING STAGE I CONSTRUCTION, A 3/4" TRIANGULAR BLOCKOUT (SEE DETAIL "B" ON SHEET 1 OF 3) WILL BE PLACED IN THE SIDE AND BOTTOM FACES OF THE CAP AT THE SAW CUT LOCATION TO FACILITATE SAW-CUT AND SUCH THAT FINAL BENT FACES MAY BE CHAMFERED ACCORDING TO THE STANDARD NOTES.

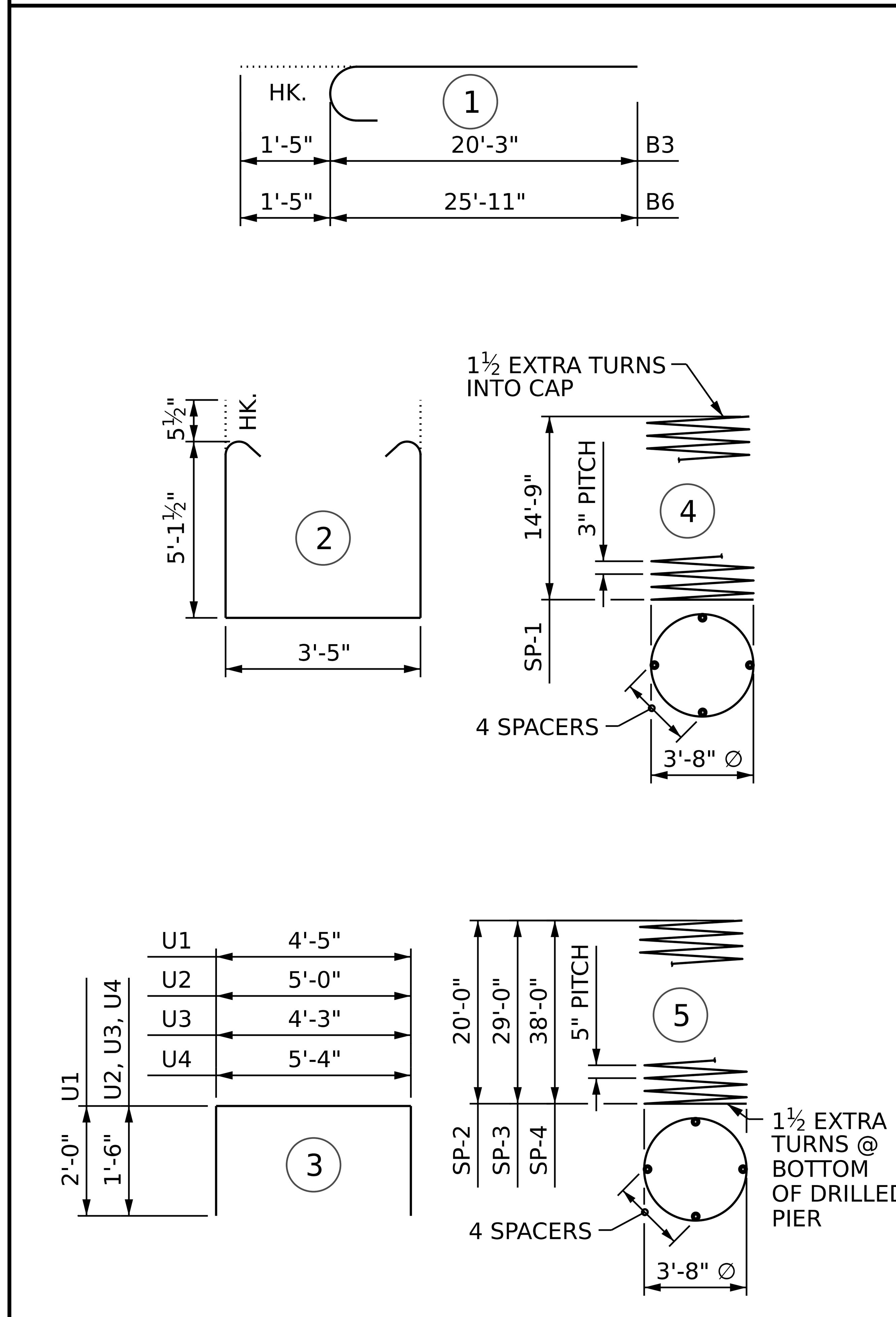
THREADED MECHANICAL COUPLERS SHALL BE USED TO JOIN THE #10 "B" OR #11 "B" BARS ON EITHER SIDE OF THE SAW-CUT LINE BETWEEN THE PERMANENT AND OVERBUILT PORTIONS OF STAGE 1. REINFORCING DIMENSIONS ARE PROVIDED ASSUMING A 1'-3" EXTENSION BEYOND THE SAW-CUT LINE. THE CONTRACTOR SHALL ADJUST THE FABRICATED DIMENSIONS OF THE REINFORCING SUCH THAT THE COUPLER PROVIDES AT LEAST 3" CLEAR TO THE SAW-CUT LINE. DEBOND THE BAR BETWEEN THE COUPLER AND THE SAW-CUT LINE. #5 "B" BARS SHALL EXTEND THROUGH THE SAW-CUT LINE WITHOUT DEBONDING AND SHALL BE DRILLED OUT TO A DEPTH OF 2" DURING OVERBUILD REMOVAL. SEE "TEMPORARY OVERBUILD AND REMOVAL" SPECIAL PROVISION.

QTY. "TEMPORARY OVERBUILD AND REMOVAL" = 1 L.S.



SECTION THRU COLUMN & DRILLED PIER

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

BENT 1

STAGE I AND OVERBUILD

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B4	8	11	STR	25'-10"	1098
B5	10	5	STR	42'-8"	445
B6	6	10	1	27'-4"	706
B7	6	4	STR	17'-0"	68
B8	8	11	STR	15'-8"	666
B9	6	10	STR	15'-8"	404
B10	6	4	STR	14'-3"	57
B11	6	10	STR	6'-0"	155
M2	14	11	STR	37'-1"	2758
M3	14	11	STR	46'-1"	3428
V1	28	11	STR	18'-5"	2740
S1	136	5	2	14'-7"	2069
U1	61	4	3	8'-5"	343
U3	16	4	3	7'-3"	77
U4	16	4	3	8'-4"	89
REINFORCING STEEL					15,103 LBS.
SP-1	2	*	4	688'-2"	919
SP-3	1	**	5	806'-9"	841
SP-4	1	**	5	1051'-10"	1097
SPIRAL COLUMN REINFORCING STEEL					2,857 LBS.

* THE SP-1 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR

** THE SP-2,SP-3 & SP-4 SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR

CLASS A CONCRETE BREAKDOWN	
POUR #2 (COLUMNS)	13.5 C.Y.
POUR #3 (CAP)	41.1 C.Y.
TOTAL CLASS A CONCRETE	54.6 C.Y.
DRILLED PIERS:	
DRILLED PIER CONCRETE POUR #1 (DRILLED PIERS)	40.1 C.Y.

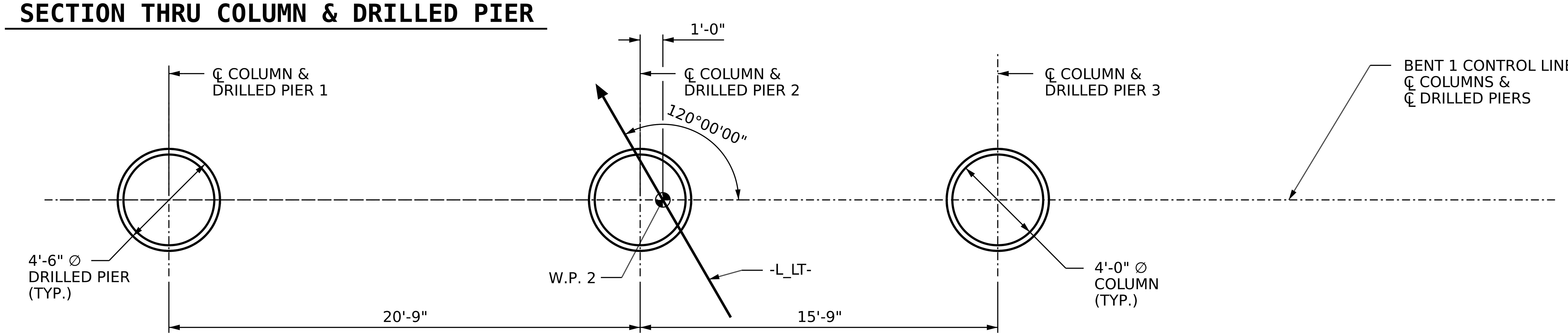
STAGE II

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	11	STR	20'-3"	861
B2	10	5	STR	21'-1"	220
B3	6	10	1	21'-8"	559
M1	14	11	STR	28'-1"	2089
V1	14	11	STR	18'-5"	1370
S1	96	5	2	14'-7"	1460
U1	33	4	3	8'-5"	186
U2	8	4	3	8'-0"	43
U3	8	4	3	7'-3"	39
REINFORCING STEEL					6,827 LBS.
SP-1	1	*	4	688'-2"	460
SP-2	1	**	5	561'-8"	586
SPIRAL COLUMN REINFORCING STEEL					1,046 LBS.

* THE SP-1 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR

** THE SP-2,SP-3 & SP-4 SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR

CLASS A CONCRETE BREAKDOWN	
POUR #2 (COLUMNS)	6.7 C.Y.
POUR #3 (CAP)	21.2 C.Y.
TOTAL CLASS A CONCRETE	27.9 C.Y.
DRILLED PIERS:	
DRILLED PIER CONCRETE POUR #1 (DRILLED PIERS)	12.1 C.Y.



PLAN OF DRILLED PIERS AND COLUMNS

PROJECT NO. B-3186 / B-5898
HAYWOOD COUNTY
STATION: 24+70.00 -L_LT-
SHEET 3 OF 3

AECOM
AECOM TECHNICAL SERVICES OF NC, INC.
5438 WADE PARK BOULEVARD, SUITE 200
RALEIGH, NC 27607
(919) 854-6200 www.aecom.com
AECOM License No. F-0342

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 1

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 049[illegible] DUSTIN SHANE TUTTLE
DocuSigned by:
10/13/2023

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-39
1			3			TOTAL SHEETS
2			4			50

DRAWN BY : L. LEE DATE : 06/2023
CHECKED BY : G. COLS DATE : 06/2023
DESIGN ENGINEER OF RECORD: D. TUTTLE DATE : 06/2023

8/31/2023
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