

STR.	QTY.	"A"	"C"	"D"	"S"	"V" VERT. BARS	"T" TIE'S	CU. YDS. OF CONCRETE/PIER
P1	6	13'-3"	12'-10 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(16) #4 TIES	2.41
P2	3	11'-9"	11'-4 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(14) #4 TIES	2.14
P3	19	10'-3"	9'-10 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(13) #4 TIES	1.86
P4	4	13'-6"	13'-1 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(16) #4 TIES	2.45
P5	24	17'-9"	17'-4 1/2"	2'-6"	11 3/8"	(6) #8 BARS	(20) #4 TIES	3.23
P6	6	14'-9"	14'-4 1/2"	2'-0"	11 3/8"	(6) #6 BARS	(17) #4 TIES	1.72
P7	21	12'-9"	12'-4 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(15) #4 TIES	2.32
P8	4	29'-9"	29'-4 1/2"	5'-0"	11 3/8"	(16) #9 BARS	(32) #4 TIES	21.63
P9	4	14'-6"	14'-1 1/2"	3'-6"	11 3/8"	(8) #9 BARS	(17) #4 TIES	5.17

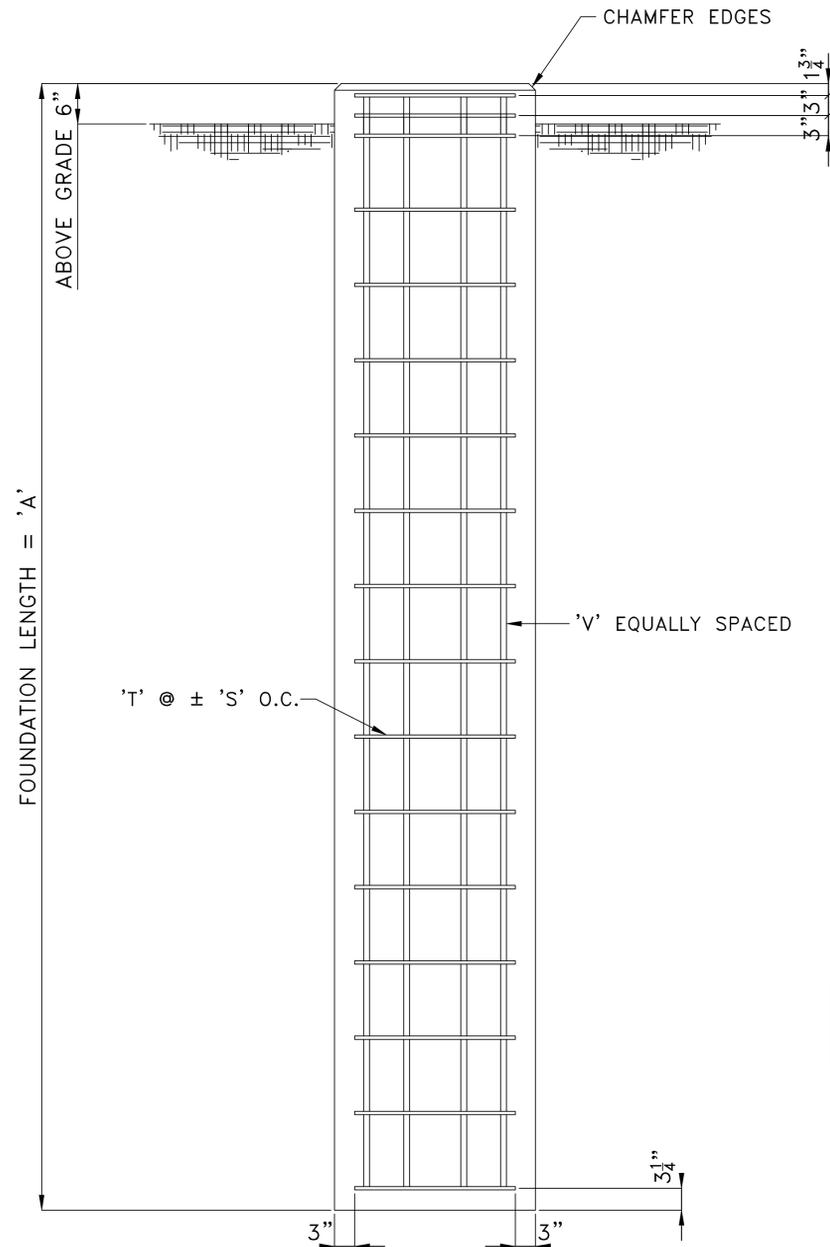
SEE PROPOSAL FORM FOR ADDERS AND DEDUCTS.

TOTAL REBAR REQUIREMENTS

STR.	"C"	"V" TOTAL VERT. BARS	TIE LENGTH	"T" TOTAL TIE'S
P1	12'-10 1/2"	(36) #7 BARS	7'-3 3/8"	(96) #4 TIES
P2	11'-4 1/2"	(18) #7 BARS	7'-3 3/8"	(42) #4 TIES
P3	9'-10 1/2"	(114) #7 BARS	7'-3 3/8"	(247) #4 TIES
P4	13'-1 1/2"	(24) #7 BARS	7'-3 3/8"	(64) #4 TIES
P5	17'-4 1/2"	(144) #8 BARS	7'-3 3/8"	(480) #4 TIES
P6	14'-4 1/2"	(36) #6 BARS	5'-8 9/16"	(102) #4 TIES
P7	12'-4 1/2"	(126) #7 BARS	7'-3 3/8"	(315) #4 TIES
P8	29'-4 1/2"	(64) #9 BARS	15'-1 5/8"	(128) #4 TIES
P9	14'-1 1/2"	(32) #9 BARS	10'-5 1/8"	(68) #4 TIES

NOTES:

- PIER DESIGN BASED ON BORING LOGS FROM TERRACON PROJECT NO. 72235120 DATED DECEMBER 22, 2023. NEGLECT TOP THREE FEET OF SOIL. ALLOWABLE LATERAL BEARING PRESSURE OF 200 PSF/FT, SKIN FRICTION OF 46-273 PSF, AND ALLOWABLE END BEARING PRESSURE OF 3,000-3,333 PSF BASED ON SOIL REPORT.
- CONCRETE TO DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS FROM INITIAL PLACEMENT.
- CONCRETE TO BE PLACED PER ACI 318-14.
- ALL REBAR TO BE 60 KSI.
- DO NOT TACK WELD STEEL REINFORCEMENT.
- MINIMUM OF 3" OF CONCRETE COVER OVER STEEL REINFORCEMENT UNLESS NOTED OTHERWISE.
- STEEL REINFORCEMENT TO BE PLACED PER ACI-318-14.
- FORMWORK TO BE CONSTRUCTED PER ACI 318-14.
- TOP EDGES OF EXPOSED CONCRETE SHOULD BE CHAMFERED.
- HOOP DIAMETER IS 6" LESS THAN PIER SIZE 'D'.
- DEPENDING ON SITE CONDITIONS, CASING OF THE DRILLED PIERS MAY BE REQUIRED.
- WHEN INSTALLING THE FOUNDATIONS, FOLLOW THE RECOMENDATIONS IN TERRACON PROJECT NO. 72235120.



HOOP DIAMETER

1'-0" OVERLAP

REBAR MK 'T'

'C' = LENGTH

REBAR MK 'V'

FOUNDATION DETAIL

SEE TABLE FOR DIMENSIONS AND BAR QUANTITIES

Substation Enterprises, Inc.

145 Commercial Court, P.O. Box 2010
Alabaster, AL 35007
Phone: (205)685-2755, Fax: (205)685-2753

GREENVILLE UTILITIES COMMISSION

HUDSON'S CROSSROADS (115/15kV) SUBSTATION

FOUNDATION DETAILS

DATE: 03-05-25 DRAWN BY: ACE CHECKED BY: ACE DRAWING NUMBER:
SCALE: NONE APPROVED BY: FK-6853-FD1

REV	DATE	DESCRIPTION
1	03/13/25	RECEIVED EQUIPMENT PATTERNS

NO.	REVISIONS
1A	BOVIET SUBSTATION PRELIMINARY DESIGN RMC 3/23/2026

PRELIMINARY

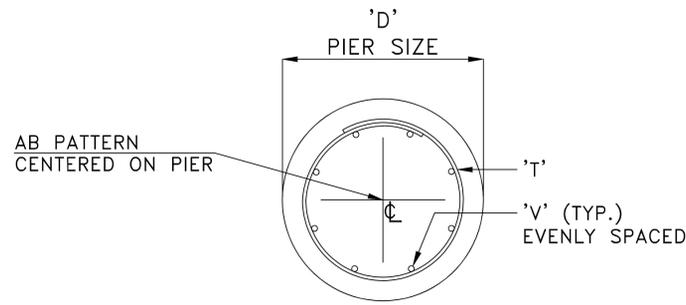
GREENVILLE UTILITIES
Greenville, North Carolina

BOVIET SUBSTATION
115 TO 15 kV
FOUNDATION DETAILS

DWG. NO. SUBSTATION ENTERPRISES
FK-6853-FD1

DWN. DATE
CKD. APPD.
SCALE: NTS

BOVT_xx_SITE_FD2_R1



STR.	QTY.	"A"	"C"	"D"	"S"	"V" VERT. BARS	"T" TIE'S	CU. YDS. OF CONCRETE/PIER
P1	4	13'-3"	12'-10 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(16) #4 TIES	2.41
P2	2	11'-9"	11'-4 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(14) #4 TIES	2.14
P3	14	10'-3"	9'-10 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(13) #4 TIES	1.86
P4	2	13'-6"	13'-1 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(16) #4 TIES	2.45
P5	12	17'-9"	17'-4 1/2"	2'-6"	11 3/8"	(6) #8 BARS	(20) #4 TIES	3.23
P6	4	14'-9"	14'-4 1/2"	2'-0"	11 3/8"	(6) #6 BARS	(17) #4 TIES	1.72
P7	6	12'-9"	12'-4 1/2"	2'-6"	11 3/8"	(6) #7 BARS	(15) #4 TIES	2.32
P8	4	29'-9"	29'-4 1/2"	5'-0"	11 3/8"	(16) #9 BARS	(32) #4 TIES	21.63
P9	2	14'-6"	14'-1 1/2"	3'-6"	11 3/8"	(8) #9 BARS	(17) #4 TIES	5.17

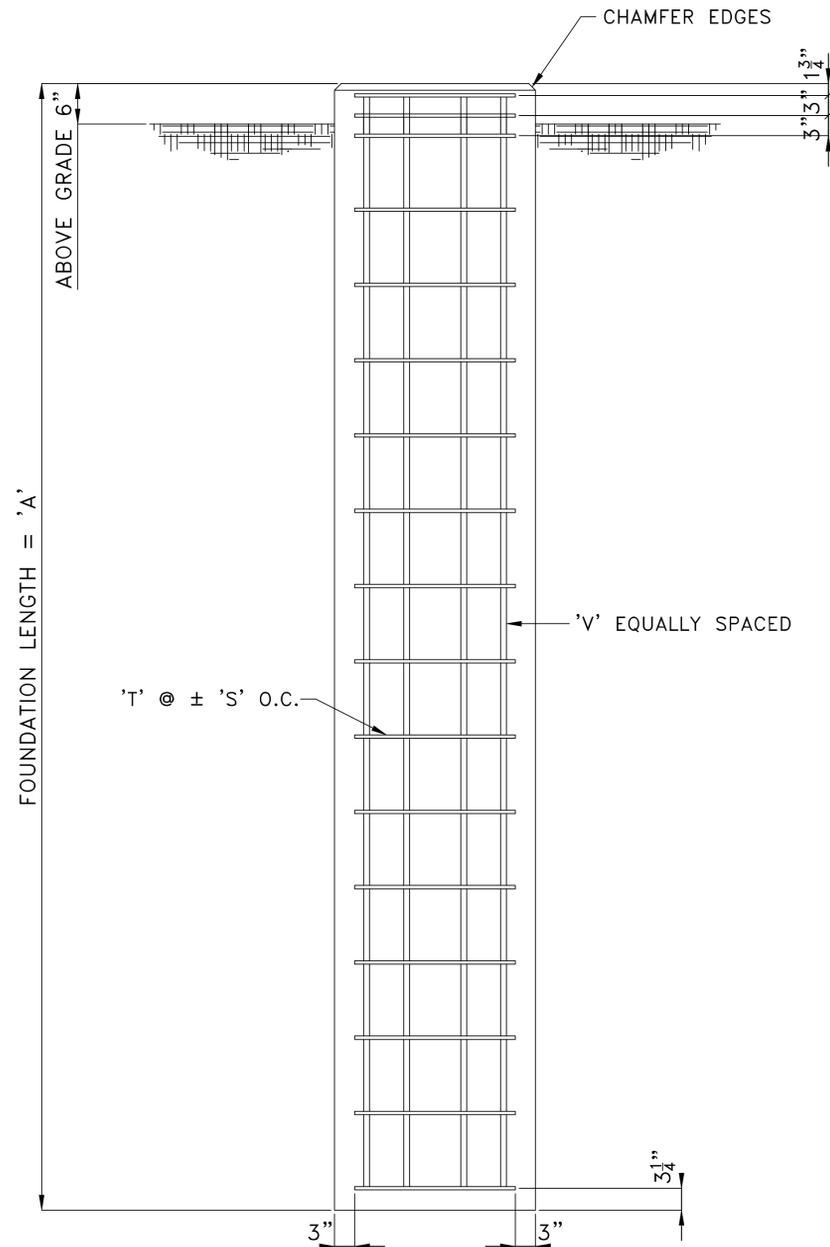
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TOTAL REBAR REQUIREMENTS

STR.	"C"	"V" TOTAL VERT. BARS	TIE LENGTH	"T" TOTAL TIE'S
P1	12'-10 1/2"	(24) #7 BARS	7'-3 3/8"	(64) #4 TIES
P2	11'-4 1/2"	(12) #7 BARS	7'-3 3/8"	(28) #4 TIES
P3	9'-10 1/2"	(84) #7 BARS	7'-3 3/8"	(182) #4 TIES
P4	13'-1 1/2"	(12) #7 BARS	7'-3 3/8"	(32) #4 TIES
P5	17'-4 1/2"	(72) #8 BARS	7'-3 3/8"	(240) #4 TIES
P6	14'-4 1/2"	(24) #6 BARS	5'-8 9/16"	(68) #4 TIES
P7	12'-4 1/2"	(36) #7 BARS	7'-3 3/8"	(90) #4 TIES
P8	29'-4 1/2"	(64) #9 BARS	15'-1 5/8"	(128) #4 TIES
P9	14'-1 1/2"	(16) #9 BARS	10'-5 1/8"	(34) #4 TIES

NOTES:

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PRELIMINARY

GREENVILLE UTILITIES
Greenville, North Carolina

BOVIET SUBSTATION
115 TO 15 kV
FOUNDATION DETAILS

DWG. NO. SUBSTATION ENTERPRISES
FK-6853-FD1

DWN. DATE DWG. NO.
CKD. APPD. SUBSTATION ENTERPRISES
SCALE: NTS FK-6853-FD1