



161 INVERNESS DR W, 2ND FLOOR
ENGLEWOOD, CO 80112

AT&T SITE NAME: WIDFIELD HIGH SCHOOL CO
AT&T SITE ID: COL02205
AT&T PACE NUMBER: MRUTH042458
AT&T FA CODE: 15312479
USID: 295097
NSB - MONOPOLE
LTE 1C/2C/3C/4C/5G NR 1SR



AMERICAN TOWER®

ATC SITE NAME: WIDFIELD HIGH SCHOOL II
ATC SITE NUMBER: 370609
SITE ADDRESS: 527 WIDFIELD DRIVE
COLORADO SPRINGS, CO 80911
(EL PASO COUNTY)



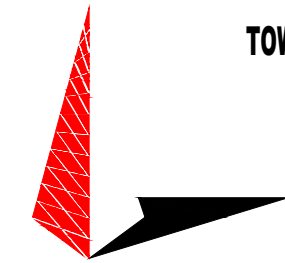
LOCATION MAP



161 INVERNESS DR W, 2ND FLOOR
ENGLEWOOD, CO 80112



AMERICAN TOWER®
19100 VON KARMAN AVE
SUITE 200
IRVINE, CA 92612



TOWER ENGINEERING PROFESSIONALS
4710 E ELWOOD ST, STE 9
PHOENIX, AZ 85040
OFFICE: (480) 285-0036
www.tepgroup.net

*LATITUDE N 38° 45' 17.39" (38.75483°)
*LONGITUDE W 104° 43' 50.02" (-104.73056°)
*GROUND ELEV. (AMSL) = 5,795'±
*INFORMATION PROVIDED BY ATC

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

1. INTERNATIONAL BUILDING CODE (2018 EDITION)	4. NATIONAL ELECTRIC CODE (2020 EDITION)
2. INTERNATIONAL CODE COUNCIL	5. LOCAL BUILDING CODE
3. ANSII/TIA/EIA-222-H	6. CITY/COUNTY ORDINANCES

POWER COMPANY: COLORADO SPRINGS UTILITIES
CONTACT: CUSTOMER SERVICE
PHONE: (719) 448-4800
METER # NEAR SITE: UNKNOWN
TELEPHONE COMPANY: LEC UNASSIGNED
CONTACT: UNKNOWN
PHONE: UNKNOWN
PHONE # NEAR SITE: UNKNOWN
PEDESTAL # NEAR SITE: UNKNOWN

FROM COLORADO SPRINGS DOWNTOWN HEAD SOUTH ON I-25, TAKE EXIT 135 AND TURN LEFT ONTO S ACADEMY BLVD FOR .8 MILES, TAKE US 85 RAMP TO FOUNTAIN AND TAKE US 85 SOUTH FOR 1.4 MILES, TURN LEFT ONTO MAIN ST FOR .4 MILES, TURN RIGHT ONTO NORMAN DR. FOR .1 MILES, CONTINUE ONTO WIDFIELD DR. FOR .3 MILES, TURN LEFT ONTO HACKBERRY DR. FOLLOW THE ROAD TOWARDS THE BACK ENTRANCE OF THE FOOTFIELD FIELD SITE WILL BE ON THE RIGHT.

TOWER COORDINATES

CODE COMPLIANCE

AT&T SITE NAME:	WIDFIELD HIGH SCHOOL CO	PROJECT DESCRIPTION:	COLLOCATION
AT&T SITE ID:	COL02205	TOWER TYPE:	119' MONOPOLE
FA:	15312479	JURISDICTION:	EL PASO COUNTY
PACE NUMBER:	MRUTH042458	LEASE AREA:	300 SQ FT
ATC SITE NAME:	WIDFIELD HIGH SCHOOL II	CURRENT ZONING:	A-5
ATC SITE NUMBER:	370609	PROPERTY TAX SCHEDULE NUMBER:	6512300001

UTILITY INFORMATION

DESIGN PACKAGE BASED ON RF DATA SHEET
RFDS NAME: COL02205
REVISION: 1.00
ISSUED: 09/21/2020 5:43:37 P.M.
DATE UPDATED: 10/14/2020 11:33:08 A.M.

DRIVING DIRECTIONS

PREVIOUS REDLINES

please add the following to the site plan:
Owner email for responsible party
Applicant email for responsible party
Existing/proposed land use
The footprint of all existing and proposed buildings and the setback distances from each existing and proposed structure to the property lines

PROJECT INFORMATION

SITE CONSTRUCTION MANAGER:

NAME: AT&T
ADDRESS: 161 INVERNESS DR W, 2ND FLOOR
CITY, STATE, ZIP: ENGLEWOOD, CO 80112
CONTACT: REID POST
PHONE: (720) 838-4228

SITE APPLICANT:

NAME: AT&T
ADDRESS: 4393 S RIVERBOAT RD, 4TH FLOOR
CITY, STATE, ZIP: SALT LAKE CITY, UT 84123
CONTACT: JAN ROBINETTE
PHONE: (801) 201-4173

CIVIL ENGINEER:

NAME: TOWER ENGINEERING PROFESSIONALS
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603
CONTACT: GRAHAM M. ANDRES, P.E.
PHONE: (919) 661-6351

ELECTRICAL ENGINEER:

NAME: TOWER ENGINEERING PROFESSIONALS
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603
CONTACT: GRAHAM M. ANDRES, P.E.
PHONE: (919) 661-6351

PROPERTY OWNER:

NAME: WIDFIELD SCHOOL DISTRICT NO 3
ADDRESS: 1820 MAIN ST
CITY, STATE, ZIP: COLORADO SPRINGS, CO 80911

SHEET:	DESCRIPTION:	REV
T-1	TITLE SHEET	1
T-2	GENERAL NOTES	0
C-1.1	SITE PLAN	1
C-1.2	COMPOUND DETAIL	0
C-2	EQUIPMENT & ANTENNA LAYOUTS	0
C-3	EXISTING AND FINAL ELEVATIONS	0
C-4	EQUIPMENT DETAILS	0
C-5	EQUIPMENT DETAILS	0
C-6	W/C SHELTER DETAILS	0
C-7	GENERATOR DETAILS	0
C-8	FOUNDATION DETAILS	0
E-1	ELECTRICAL PANEL & GROUNDING PLANS	0
E-2	ONE-LINE DIAGRAM	0
E-3	DC SYSTEM DETAILS	0
G-1	GROUNDING DETAILS	0
G-2	GROUNDING DETAILS	0

NUMBER OF SECTORS: 3
NUMBER OF ANTENNAS: 6
NUMBER OF TMAS: 0
NUMBER OF RRHS: 9
NUMBER OF FIBER/DC SQUIDS: 0
NUMBER OF DC SQUIDS: 3
NUMBER OF FIBER TRUNK CABLES: 3
NUMBER OF DC TRUNK CABLES: 6
NUMBER OF RF CABLES: 0

RFDS DATA

THE PURPOSE OF THIS PROJECT IS AS FOLLOWS:

TOWER SCOPE OF WORK:

- INSTALL (3) SECTOR FRAMES
- INSTALL (6) ANTENNAS
- INSTALL (9) RRHS
- INSTALL (3) SQUIDS
- INSTALL (3) FIBER TRUNKS
- INSTALL (6) DC TRUNKS

GROUND SCOPE OF WORK:

- INSTALL (1) W.I.C. SHELTER PAD
- INSTALL (1) GENERATOR PAD
- INSTALL (1) W.I.C. SHELTER
- INSTALL (1) GENERATOR
- INSTALL (1) H-FRAME
- INSTALL METER AND DISCONNECT
- INSTALL FIBER BOX

NSB - MONOPOLE
LTE - 1C/2C/3C/4C/5G NR 1SR

SCOPE OF WORK

JURISDICTIONAL APPROVAL

DO NOT SCALE DRAWINGS.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG
I	12-13-21	SRZ	100% CONSTRUCTION	EGG

SEAL:



December 13, 2021

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SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

REVISION:

1

PCD FILE NO. PPR-21-034

TEP #:

177861.243634

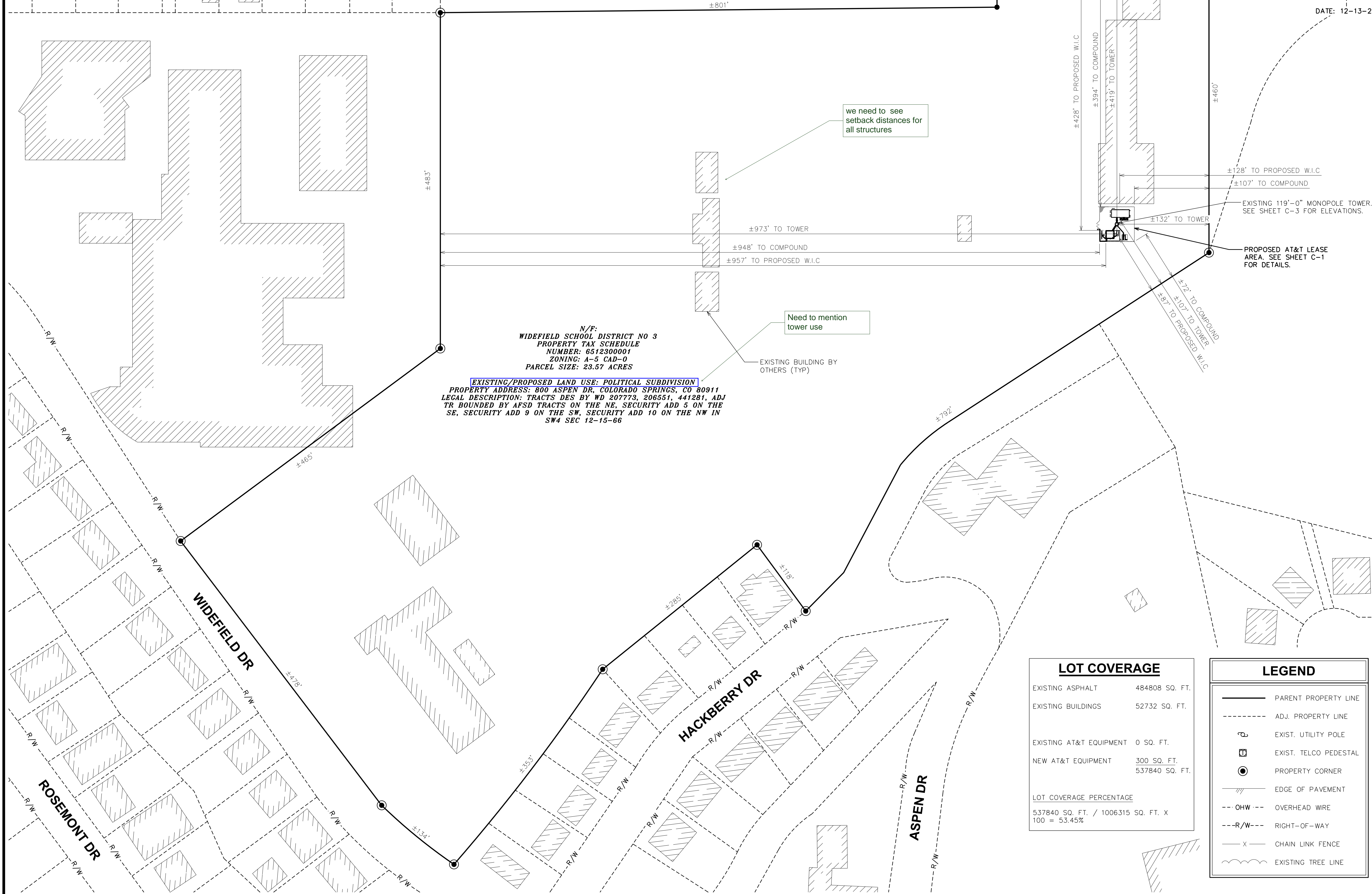
PROJECT TEAM

SHEET INDEX

GENERAL NOTES

NOTES:

1. SITE PLAN SHOWN BELOW PROVIDED BY LOCAL GIS AND ATC RECORDS.
2. ALL GROUNDWORK TO BE PERFORMED WITHIN EXISTING VERIZON LEASE AREA. NO PROPOSED ADDITIONS TO EXISTING SITE FOOTPRINT.
3. THE TOWER IS LOCATED IN ZONE "X," AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #08041C0763G, DATED DECEMBER 7, 2018.



N/F:
WIDEFIELD SCHOOL DISTRICT NO 3
 PROPERTY TAX SCHEDULE
 NUMBER: 6512300001
 ZONING: A-5 CAD-0
 PARCEL SIZE: 23.57 ACRES

EXISTING/PROPOSED LAND USE: POLITICAL SUBDIVISION
 PROPERTY ADDRESS: 800 ASPEN DR, COLORADO SPRINGS, CO 80911
 LEGAL DESCRIPTION: TRACTS DES BY WD 207773, 206551, 441281, ADJ TR BOUNDED BY AFSD TRACTS ON THE NE, SECURITY ADD 5 ON THE SE, SECURITY ADD 9 ON THE SW, SECURITY ADD 10 ON THE NW IN SW4 SEC 12-15-66

DATE: 12-13-21

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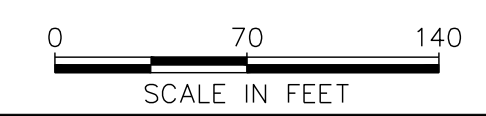
LOT COVERAGE

EXISTING ASPHALT	484808 SQ. FT.
EXISTING BUILDINGS	52732 SQ. FT.
EXISTING AT&T EQUIPMENT	0 SQ. FT.
NEW AT&T EQUIPMENT	300 SQ. FT. 537840 SQ. FT.
LOT COVERAGE PERCENTAGE	
537840 SQ. FT. / 1006315 SQ. FT. X 100 = 53.45%	

LEGEND

	PARENT PROPERTY LINE
	ADJ. PROPERTY LINE
	EXIST. UTILITY POLE
	EXIST. TELCO PEDESTAL
	PROPERTY CORNER
	EDGE OF PAVEMENT
	OHW --- OVERHEAD WIRE
	---R/W--- RIGHT-OF-WAY
	---X--- CHAIN LINK FENCE
	EXISTING TREE LINE

SITE PLAN
 SCALE: 1" = 70'



SHEET TITLE:
SITE PLAN

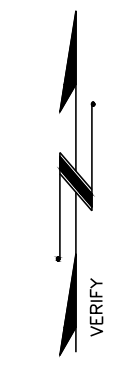
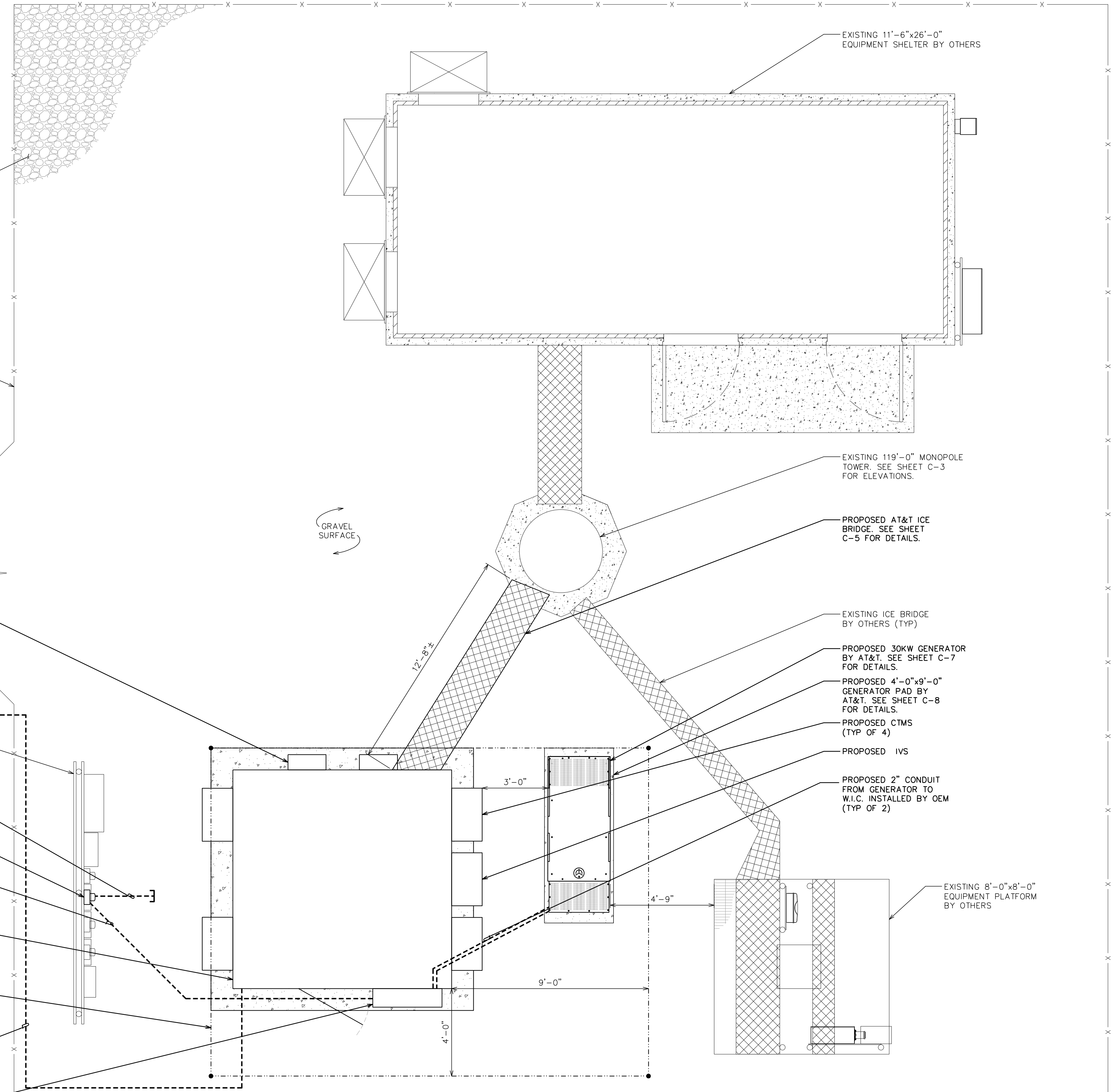
SHEET NUMBER: **C-1.1** **REVISION:** **1**

TEP #: 177861.243634

NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE AT&T REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
4. UTILITY COORDINATION PENDING.

- EXISTING GRAVEL WITHIN COMPOUND
- EXISTING CHAIN-LINK FENCED COMPOUND
- EXISTING 12'-0" WIDE ACCESS GATE
- PROPOSED DC-12 (TYP OF 2)
- PROPOSED HANDHOLE BY AT&T
- PROPOSED FIBER ROUTE BY AT&T TO EXISTING TELCO SERVICE. SEE SHEET E-4 FOR DETAILS.
- EXISTING UTILITY RACK
- PROPOSED UNDERGROUND ROUTING TO EXISTING TRANSFORMER. SEE NOTES, THIS SHEET.
- PROPOSED METER TO BE INSTALLED IN EMPTY SOCKET ON EXISTING METER BANK
- PROPOSED 2 1/2" CONDUIT WITH (3) 3/0 AND (1) #6 GND FROM METER TO W.I.C.
- PROPOSED 10'-0"x10'-0" W.I.C. ON A PROPOSED 12'-0"x12'-0" EQUIPMENT PAD BY AT&T. SEE SHEETS C-6 & C-9 FOR DETAILS.
- PROPOSED 15'-0"x20'-0" LEASE AREA BY AT&T
- PROPOSED (1) 4" TELCO CONDUIT W/ (3) 1-1/4" FLEX INNERDUCT & PULL STRING FOR FIBER STUBBED UP IN FIBER HANDHOLE. CONTRACTOR TO COORDINATE SERVICE WITH LOCAL TELEPHONE COMPANY
- PROPOSED AC POWER PANEL BY AT&T



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527 WIDFIELD DRIVE
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CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

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SEAL:

April 23, 2021

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SHEET TITLE:
COMPOUND DETAIL

SHEET NUMBER:
C-1.2

REVISION:
0

TEP #: 177861.243634

COMPOUND DETAIL

SCALE: 3/16" = 1'-0" (24x36)
 SCALE: 3/32" = 1'-0" (11x17)

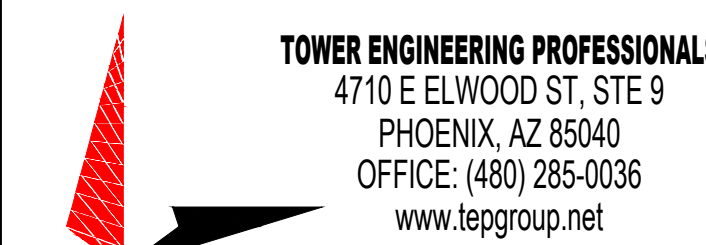
0 4 8
 SCALE IN FEET



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April 23, 2021

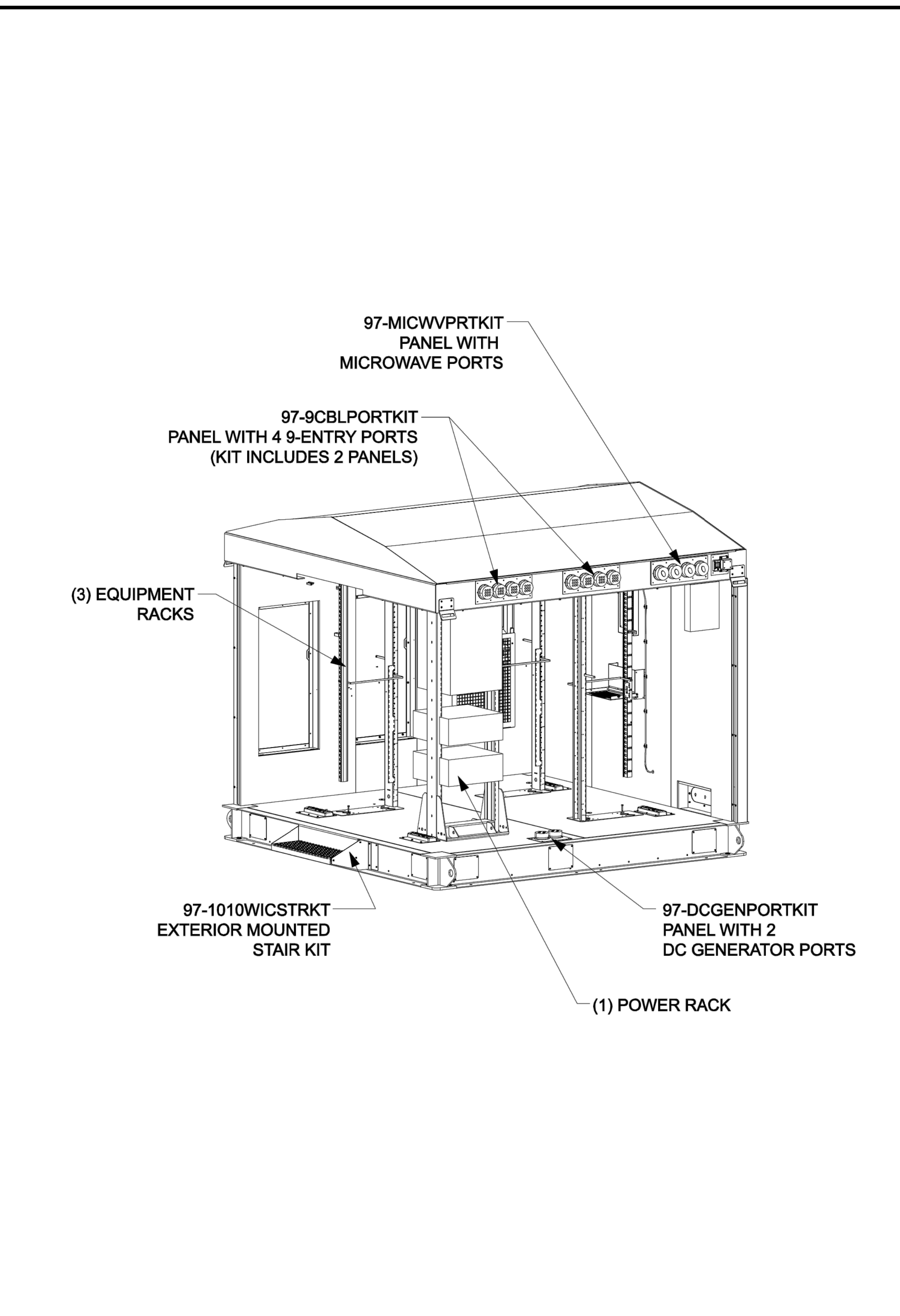
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SHEET TITLE:
FINAL EQUIPMENT & ANTENNA LAYOUTS

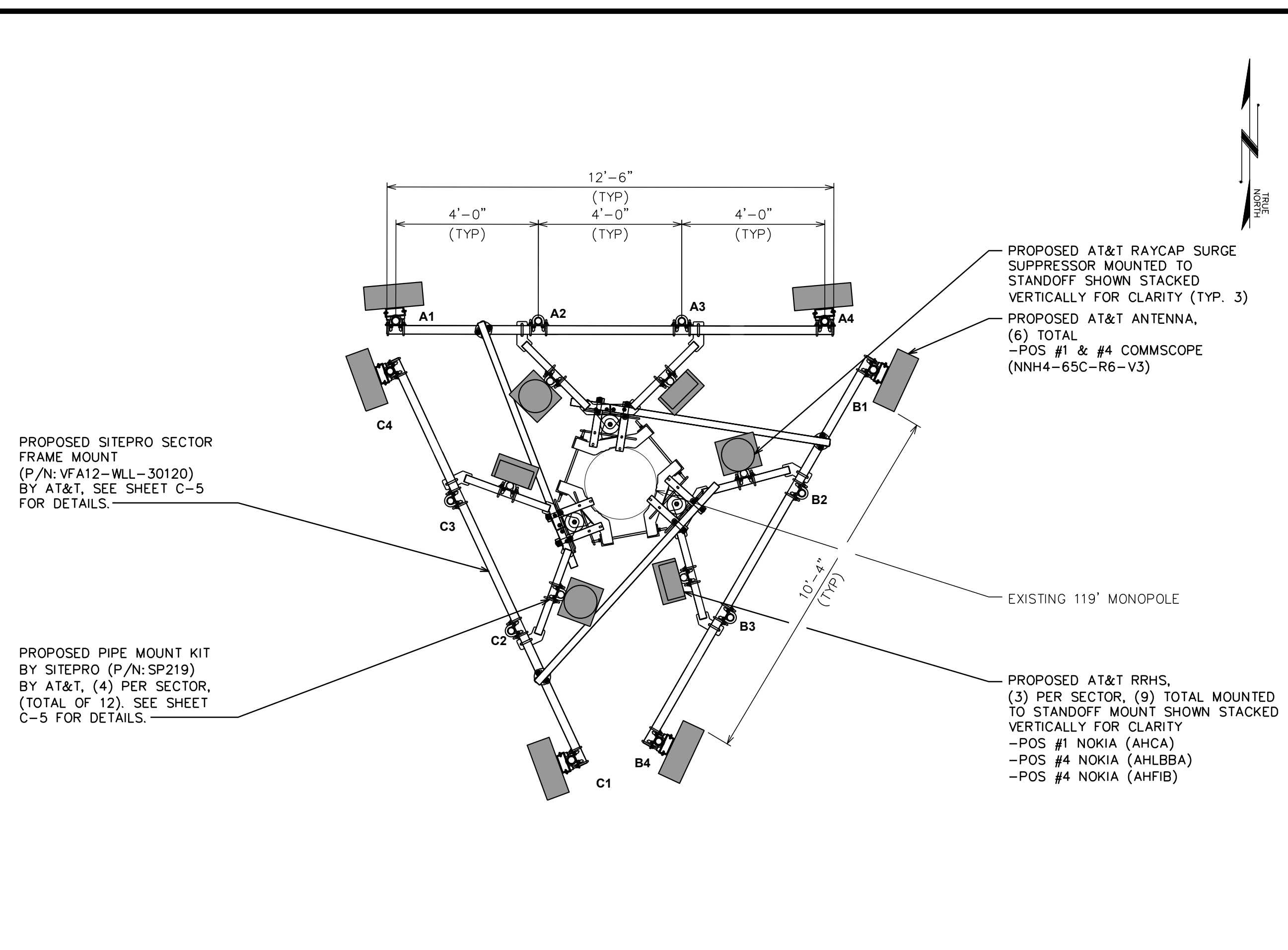
SHEET NUMBER:
C-2

REVISION:
0

TEP #: 177861.243634



FINAL EQUIPMENT LAYOUT
SCALE: N.T.S.



FINAL ANTENNA LAYOUT

SCALE: 3/8" = 1'-0" (24x36)
SCALE: 3/16" = 1'-0" (11x17)
SCALE IN FEET

NOTE:
SCHEDULE EQUIPMENT SHOULD BE REFERENCED OFF RFDS LISTED ON SHEET T-1.

PROPOSED EQUIPMENT IN BOLD

FINAL ANTENNA/FEEDLINE SCHEDULE							
SECTOR	POS.	MANUFACTURER (MODEL #)	ANTENNA TIP HEIGHT	ANTENNA POSITION SEPARATION	CABLE SIZE	CABLE LENGTH	SQUID/RRH/TMA/DIPLEXER [MODEL #]
ALPHA	1	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±	4'-0"	(6) 0.92" DC TRUNKS 6 AWG 6 (3) 0.39" FIBER TRUNKS (6) 2" CONDUITS	150'±	*(1) RAYCAP SQUID [DC9-48-60-24-BC-EV] *(1) NOKIA RRH [AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA] *(1) NOKIA RRH [AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB] *(1) NOKIA RRH [AIRSCALE RRH 4T4R B5 160W AHCA]
ALPHA	2	-	-				
ALPHA	3	-	-				
ALPHA	4	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				
BETA	1	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				
BETA	2	-	-				
BETA	3	-	-				
BETA	4	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				
GAMMA	1	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				
GAMMA	2	-	-				
GAMMA	3	-	-				
GAMMA	4	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				*(1) RAYCAP SQUID [DC9-48-60-24-BC-EV] *(1) NOKIA RRH [AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA] *(1) NOKIA RRH [AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB] *(1) NOKIA RRH [AIRSCALE RRH 4T4R B5 160W AHCA]

*OR SIMILAR
**CONTRACTOR TO REFER TO THE LATEST RFDS FOR FINAL CONFIGURATION

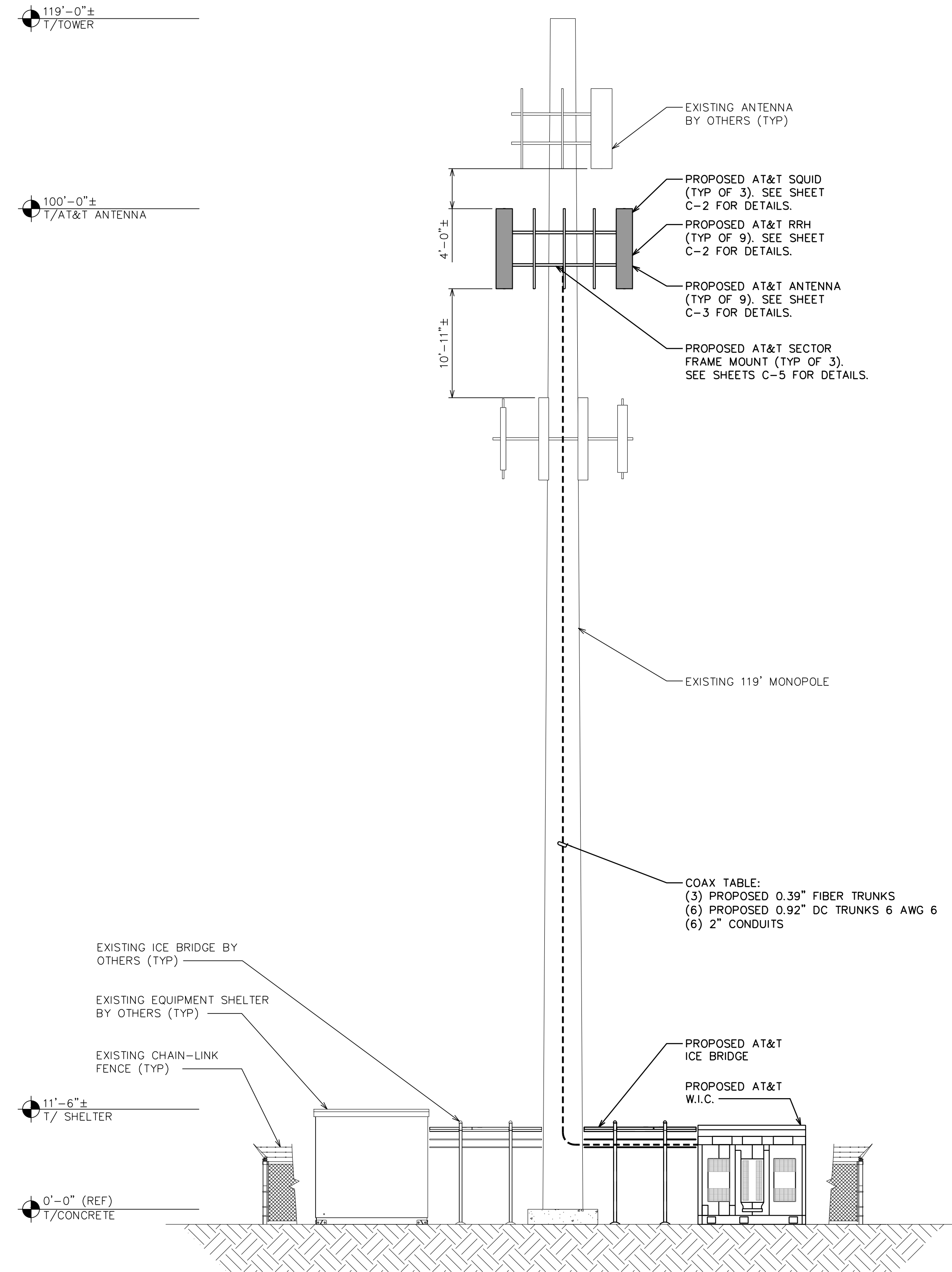
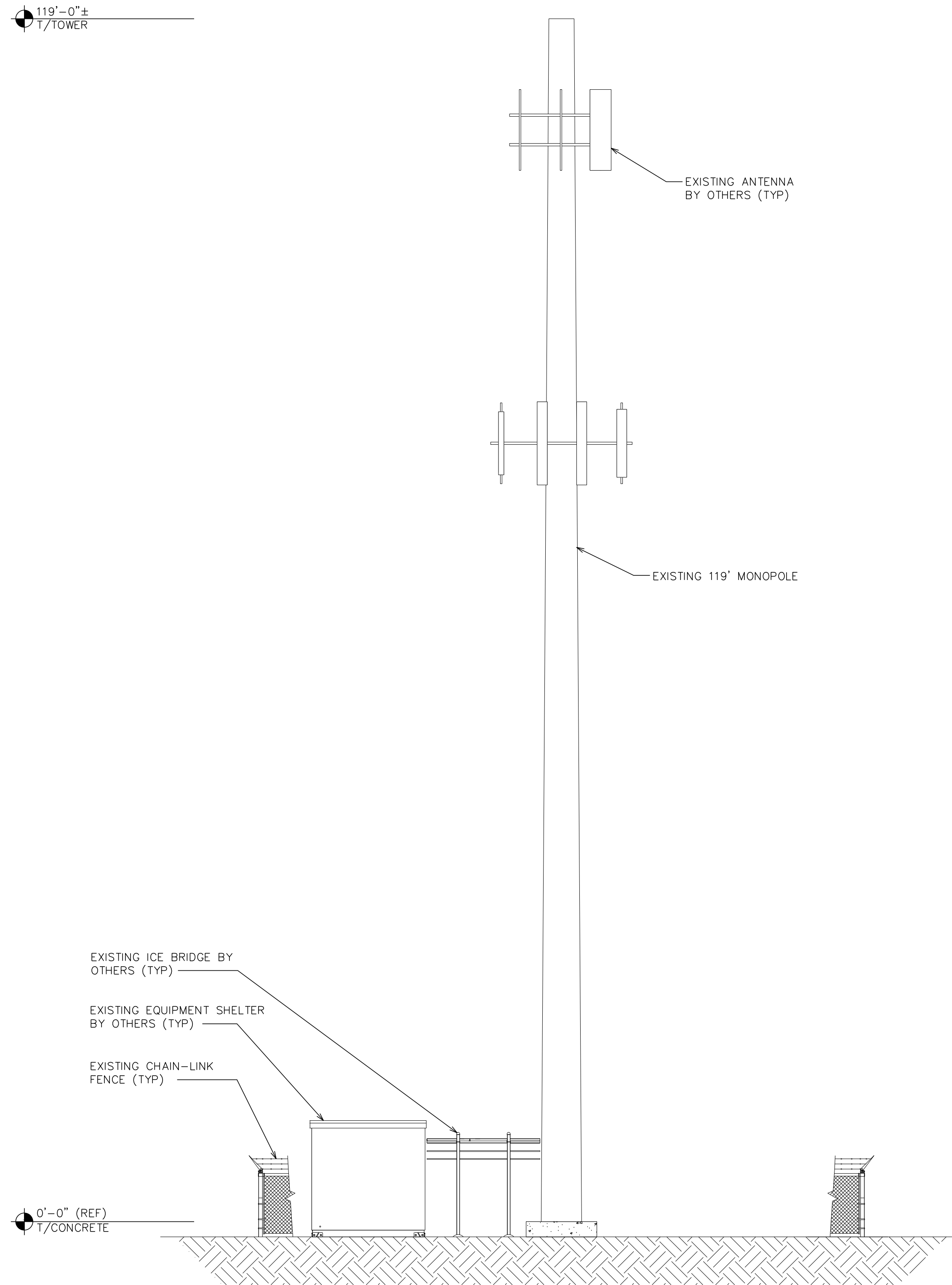
FINAL ANTENNA SCHEDULE
SCALE: N.T.S.

NOTE:

TOWER ELEVATION IS FOR SCHEMATIC PURPOSES ONLY. TEP DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO ANTENNA HEIGHTS, ANTENNA AZIMUTHS, AND MOUNT CONFIGURATIONS.

NOTES:

1. PROPOSED CABLES TO BE ROUTED PER SPECIFICATIONS OF PASSING STRUCTURAL ANALYSIS.
2. TOWER ELEVATION IS FOR SCHEMATIC PURPOSES ONLY. TEP DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO ANTENNA HEIGHTS, ANTENNA AZIMUTHS, AND MOUNT CONFIGURATIONS.
3. CONTRACTOR TO VERIFY PROPOSED LOADING WITH PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONTACT AT&T OR AMERICAN TOWER CORPORATION IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES.



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SHEET TITLE:
EXISTING AND FINAL ELEVATIONS

SHEET NUMBER:
C-3

REVISION:
0

TEP #: 177861.243634

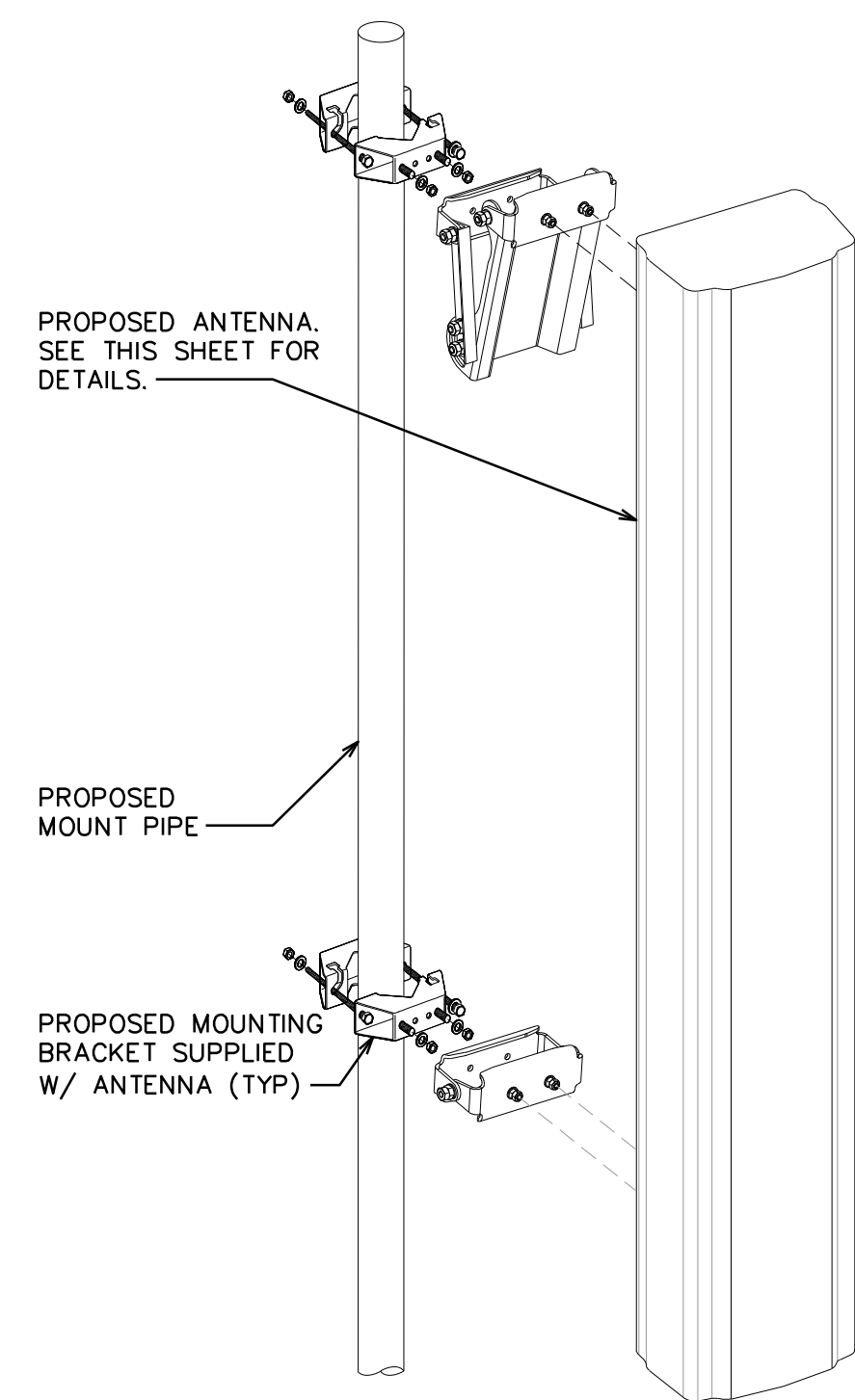
EXISTING TOWER ELEVATION

SCALE: 1/8" = 1'-0" (24x36)
 SCALE: 1/6" = 1'-0" (11x17)

FINAL TOWER ELEVATION

SCALE: 1/8" = 1'-0" (24x36)
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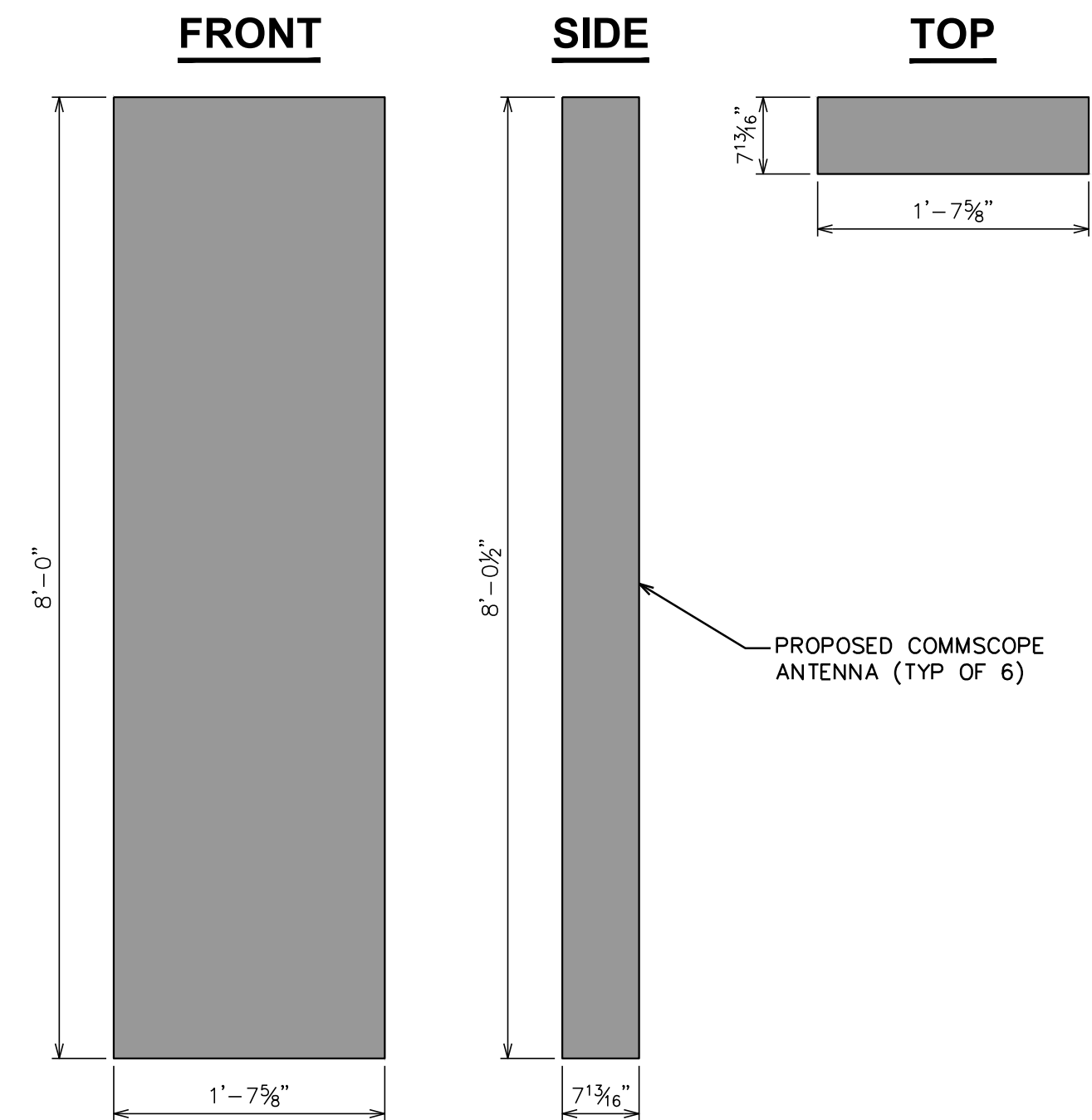
ANTENNA



**CELLMAX
CMA-UBTULBULBHH/6517/17/21/21**

DIMENSIONS, HxWxD: 96" x 19.6" x 7.8"

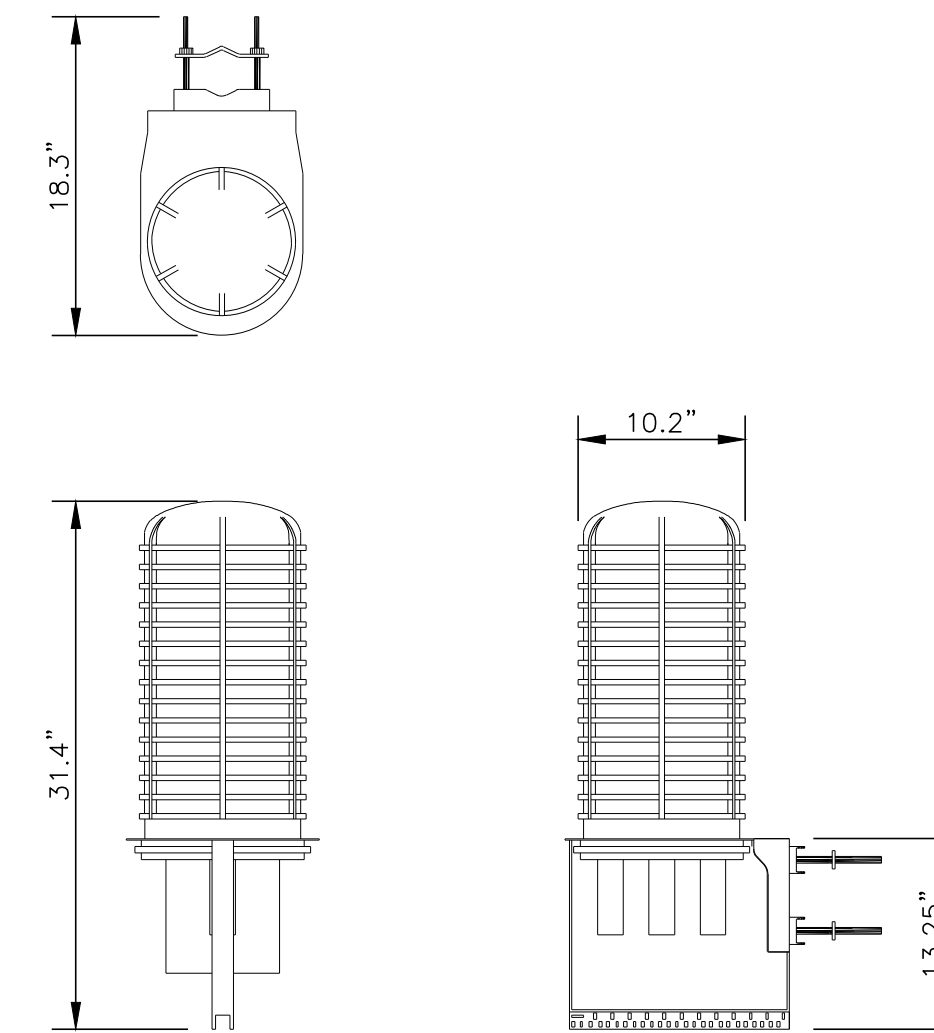
WEIGHT, W/O PRE-MOUNTED BRACKETS: 102.5 lbs



**RAYCAP
DC9-48-60-24-8C-EV**

RAYCAP - DC9-48-60-24-8C-EV
SIZE: 31.4x18.3x10.2 IN.
WEIGHT: 16.0 LBS
NOMINAL OPERATING VOLTAGE: 48 VDC
VOLTAGE PROTECTION RATING: 400 V
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)
WIND LOADING: 195 MPH GUST (213.6 LBS)

CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION



EQUIPMENT MOUNTING DETAIL

SCALE: N.T.S.

PROPOSED COMMSCOPE ANTENNA DETAIL

SCALE: N.T.S.

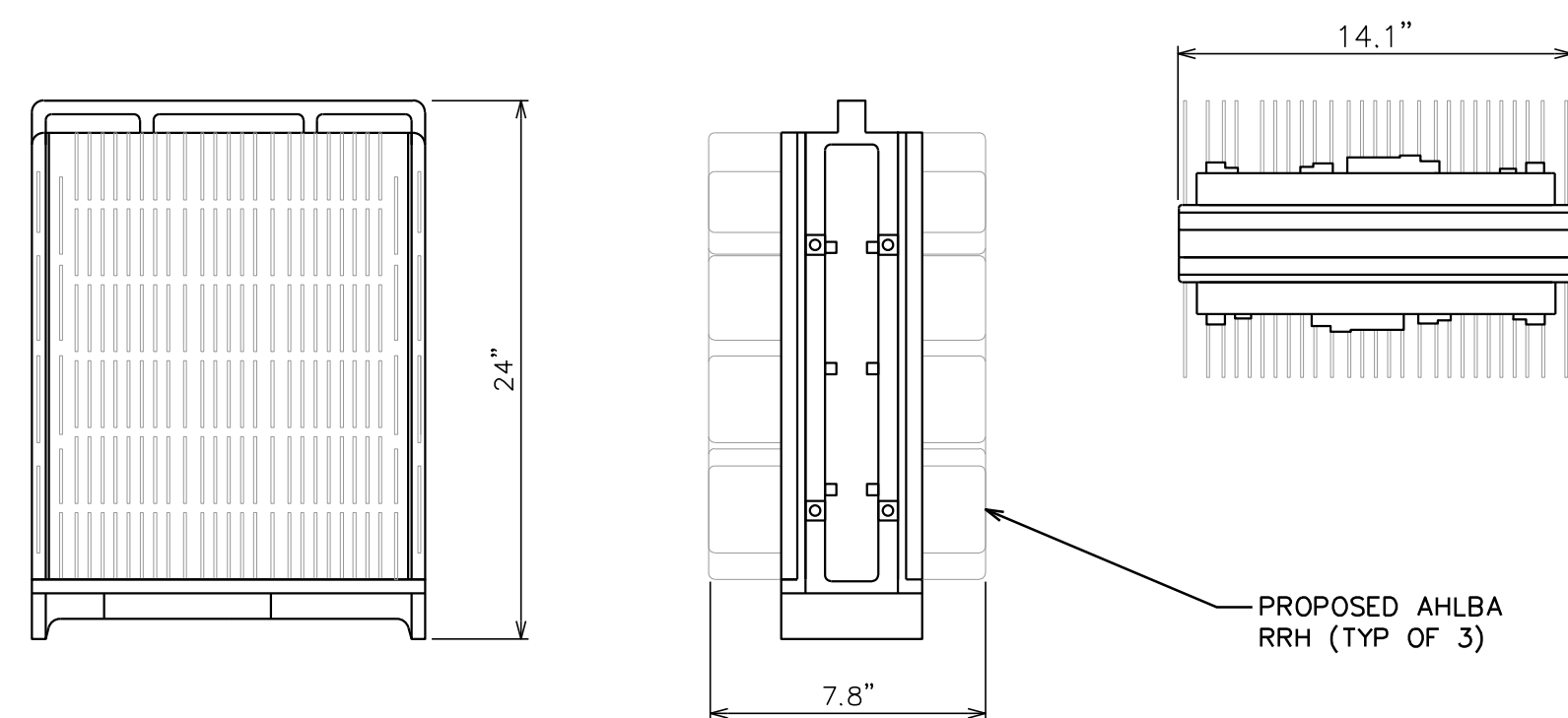
PROPOSED RAYCAP OVP DETAIL

SCALE: N.T.S.

FRONT

SIDE

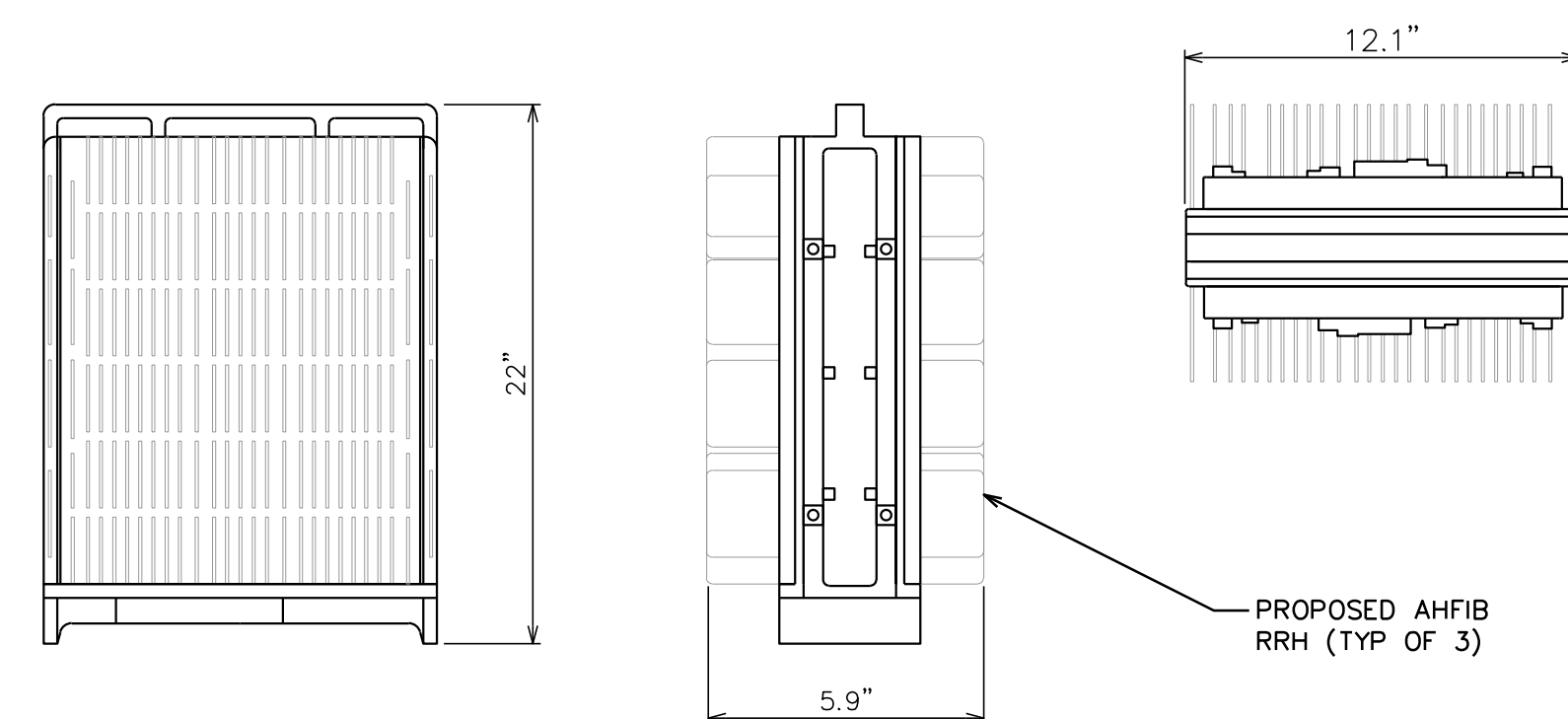
TOP



FRONT

SIDE

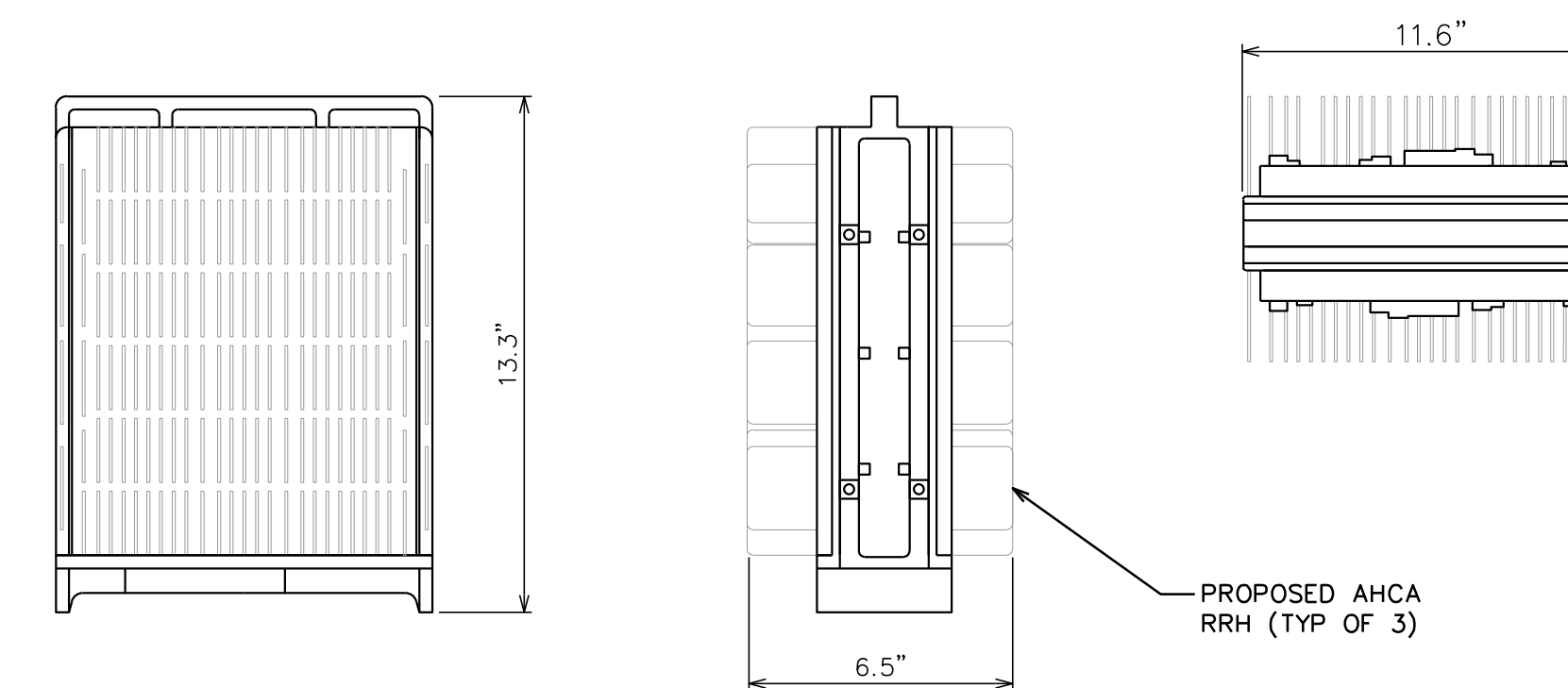
TOP



FRONT

SIDE

TOP



PROPOSED AHLBA RRH DETAIL

SCALE: N.T.S.

PROPOSED AHFIB RRH DETAIL

SCALE: N.T.S.

PROPOSED AHCA RRH DETAIL

SCALE: N.T.S.



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AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042458
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

527 WIDEFIELD DRIVE
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

SEAL:



April 23, 2021

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SHEET TITLE:
EQUIPMENT DETAILS

SHEET NUMBER:
C-4

REVISION:
0

TEP #: 177861.243634

NOTE:
SECTOR FRAME TO ONLY
HAVE 4 PIPES EACH.

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41	142.81
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.89	33.89
3	1	X-HDCAMTBW	MULTI-HOLE TAPER PLATE WELDMENT		38.24	38.24
4	1	X-HDCAMBS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.39	16.39
5	2	X-VFAPIA.4	VFA-HD PIVOT PLATE	12 in	15.88	31.77
6	2	X-HDCBP4	BENT BACKING PLATE	33 in	19.90	39.81
7	4	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	23.48
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
9	4	X-TBCA	TIE BACK CLIP ANGLE		2.91	9.92
10	10	SCXZ	CROSSOVER PLATE	7 in	4.80	47.96
11	4	MCP	CLAMP HALF 1/2" THICK, 11.56" LONG	12 1/16 in	3.59	14.37
12	8	DCP	1/2" THICK, 5-3/4" CENTER TO CENTER CLAMP HALF	8 1/8 in	2.36	18.90
13	2	P212E	2-3/8" X 120" (2" BCR, 40) GALVANIZED PIPE	128 in	40.75	81.50
14	2	P3015G	2-7/8" X 150" (2-1/2" BCR, 40) GALVANIZED PIPE	150 in	75.94	151.87
15	4	A34212	3/4" X 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	1.92
16	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
17	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
18	4	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	0.85
19	8	G58R-18	5/8" X 18" THREADED ROD (HDG.)		1.57	12.54
20	4	G58R-12	5/8" X 12" THREADED ROD (HDG.)		1.05	4.18
21	4	G58R-8	5/8" X 8" THREADED ROD (HDG.)		0.70	2.79
22	4	X-UBS390	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	8	X-UBS258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
24	2	G5807	5/8" X 7" HDG HEX BOLT GRS FULL THREAD	7 in	0.79	1.41
25	1	G5806	5/8" X 6" HDG HEX BOLT GRS FULL THREAD	6 in	0.62	0.62
26	8	G5804	5/8" X 4" HDG HEX BOLT GRS		0.44	3.55
27	4	G5802	5/8" X 2" HDG HEX BOLT GRS		0.27	1.08
28	8	A58214	5/8" X 3-1/4" HDG HEX BOLT	2 1/4 in	0.31	2.50
29	25	G58FW	5/8" HDG USS FLATWASHER	1 1/8 in	0.07	1.76
30	86	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
31	21	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	2.72
32	48	X-UB1350	1/2" X 3" X 3" X 2" GALV U-BOLT		0.74	35.45
33	20	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" GALV U-BOLT		0.66	13.13
34	80	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	2.73
35	80	G12LW	1/2" HDG LOCKWASHER	1 1/8 in	0.01	1.11
36	80	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	5.73
37	5	P3015E	2-7/8" X 150" (2-1/2" BCR, 40) GALVANIZED PIPE	120 in	59.07	295.33
					TOTAL WT. #	1055.41

PROPOSED SITEPRO SECTOR FRAME MOUNT (P/N: VFA12-WLL-30120) BY AT&T

TOLERANCE NOTES
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
DIMENSIONS: ±0.005"
DRILLED AND GAS CUT HOLES: ±0.007"
LASER CUT EDGES AND HOLES: ±0.010"
ALL OTHER MACHINING: ±0.007"
ALL OTHER ASSEMBLY: ±0.007"

DESCRIPTION 1/2" HEAVY DUTY V-FRAME ASSEMBLY W/ 2 STIFF ARMS & MOUNT PIPES

DATE 5/3/2018 **BY** BMC

PART NO. VFA12-WLL-30120

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	X-SP210	SMALL SUPPORT CROSS PLATE	8 1/4 in	8.61	8.61
2	2	X-UB1358	1/2" X 3-5/8" X 4" X 2" U-BOLT (HDG.)		0.83	1.66
3	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	1.25
4	8	G12FW	1/2" HDG USS FLATWASHER		0.03	0.27
5	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
6	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
					TOTAL WT. #	12.47

TOLERANCE NOTES
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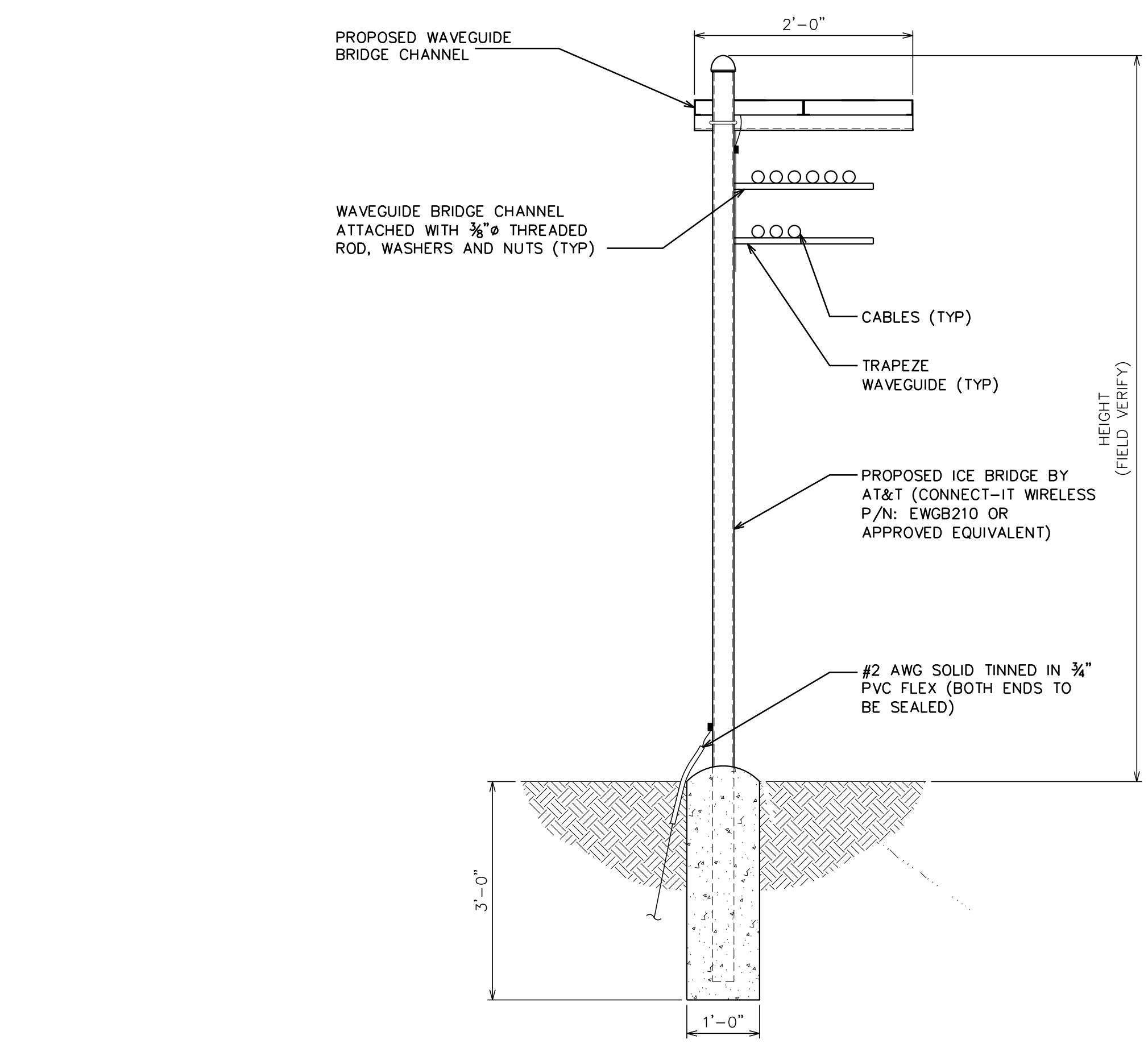
DESCRIPTION PIPE MOUNT KIT

DATE 6/26/2012 **BY** KCB

PART NO. SP219

PROPOSED V-FRAME MOUNT DETAIL

SCALE: N.T.S.

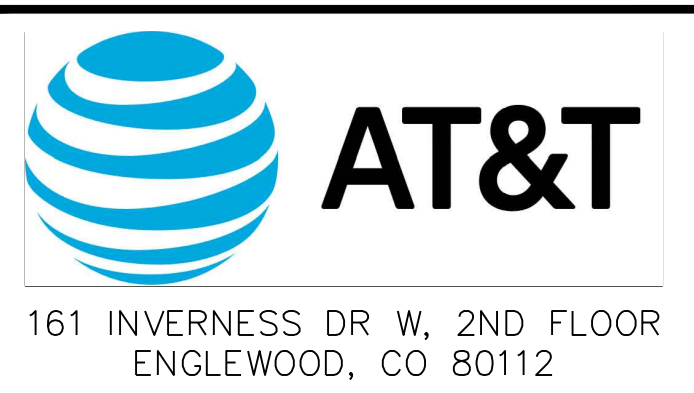
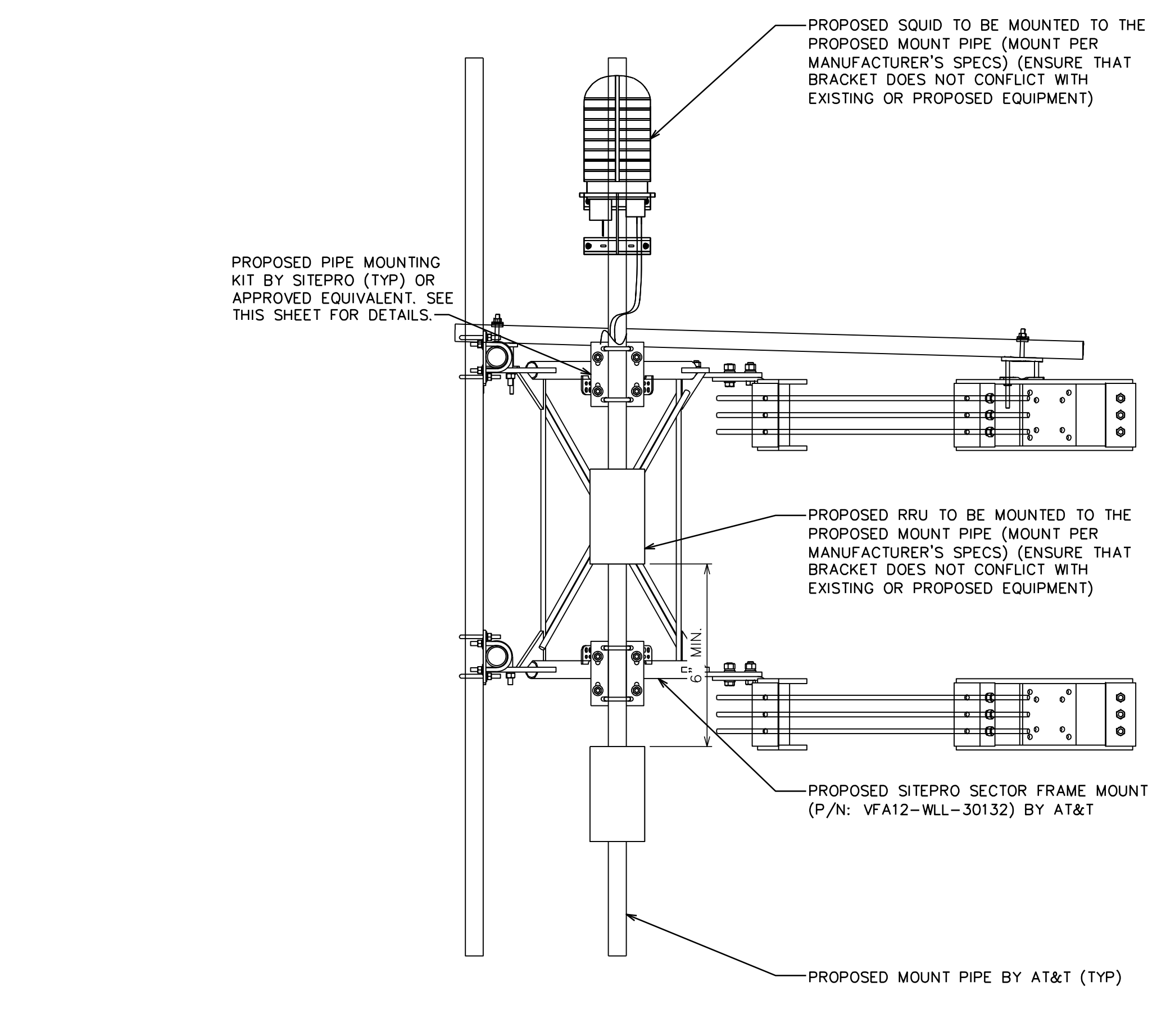


PROPOSED ICE BRIDGE DETAIL

SCALE: N.T.S.

PROPOSED H-FRAME DETAIL

SCALE: N.T.S.



AT&T SITE ID: COL02205
AT&T FA CODE: 15312479
AT&T PACE #: MRUTH042458
ATC #: 370609
WIDEFIELD HIGH SCHOOL II

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(EL PASO COUNTY)
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SEAL:

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SHEET TITLE:
EQUIPMENT DETAILS

SHEET NUMBER: C-5
REVISION: 0

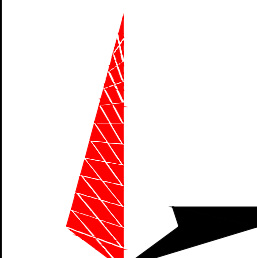
TEP #: 177861.243634



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ISSUED FOR:

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SEAL:



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SHEET TITLE:

WIC SHELTER DETAILS

SHEET NUMBER:

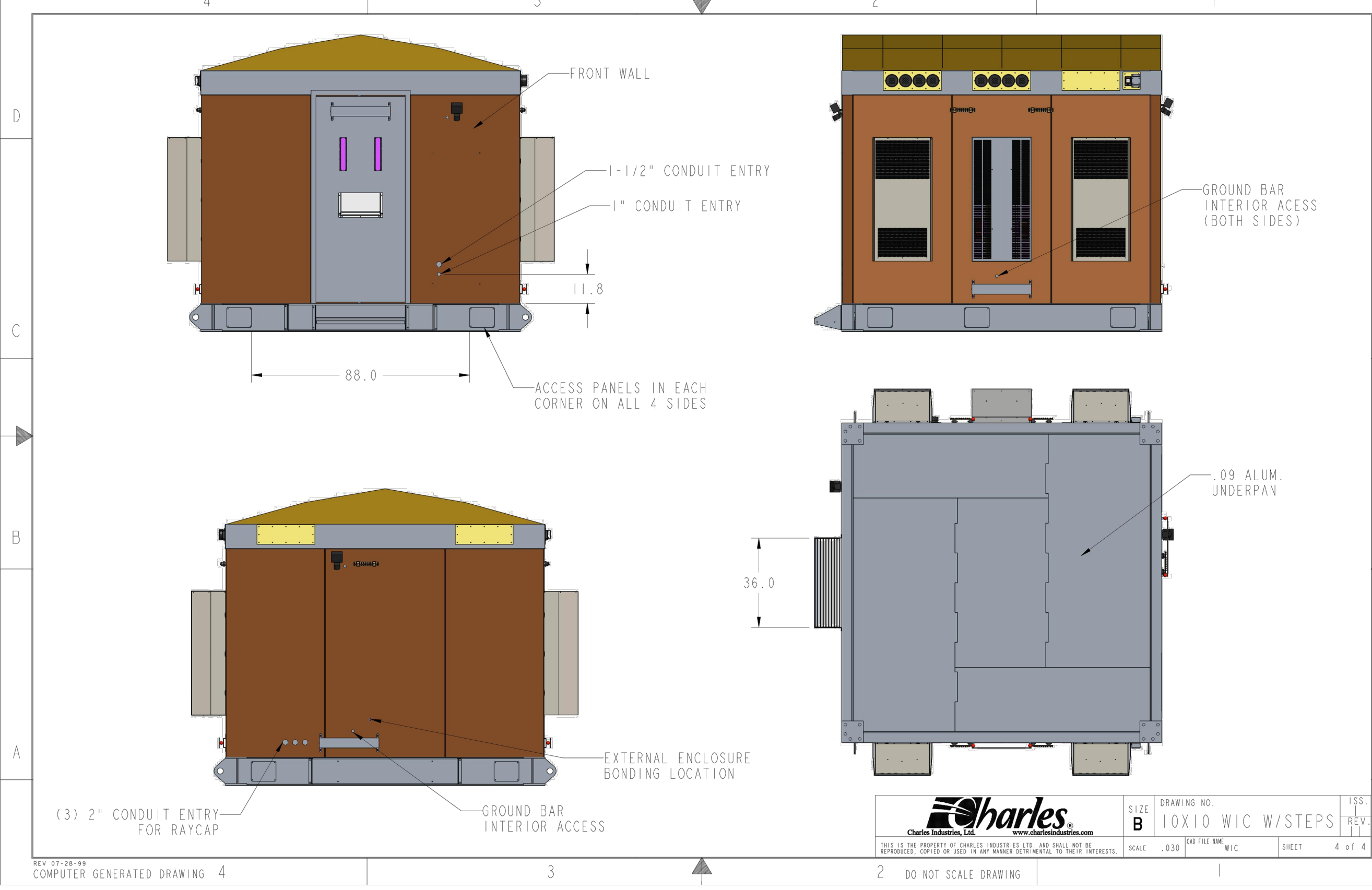
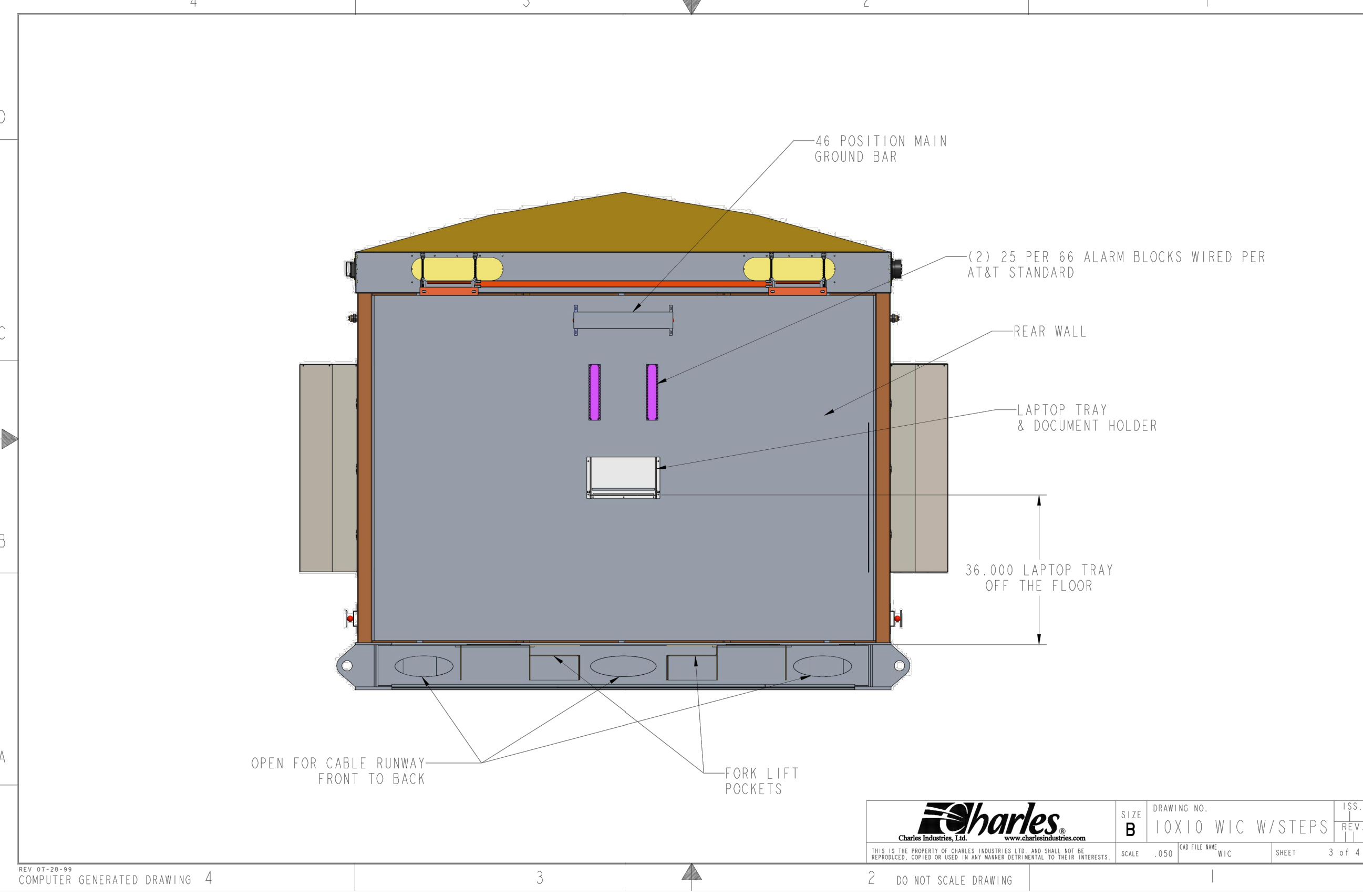
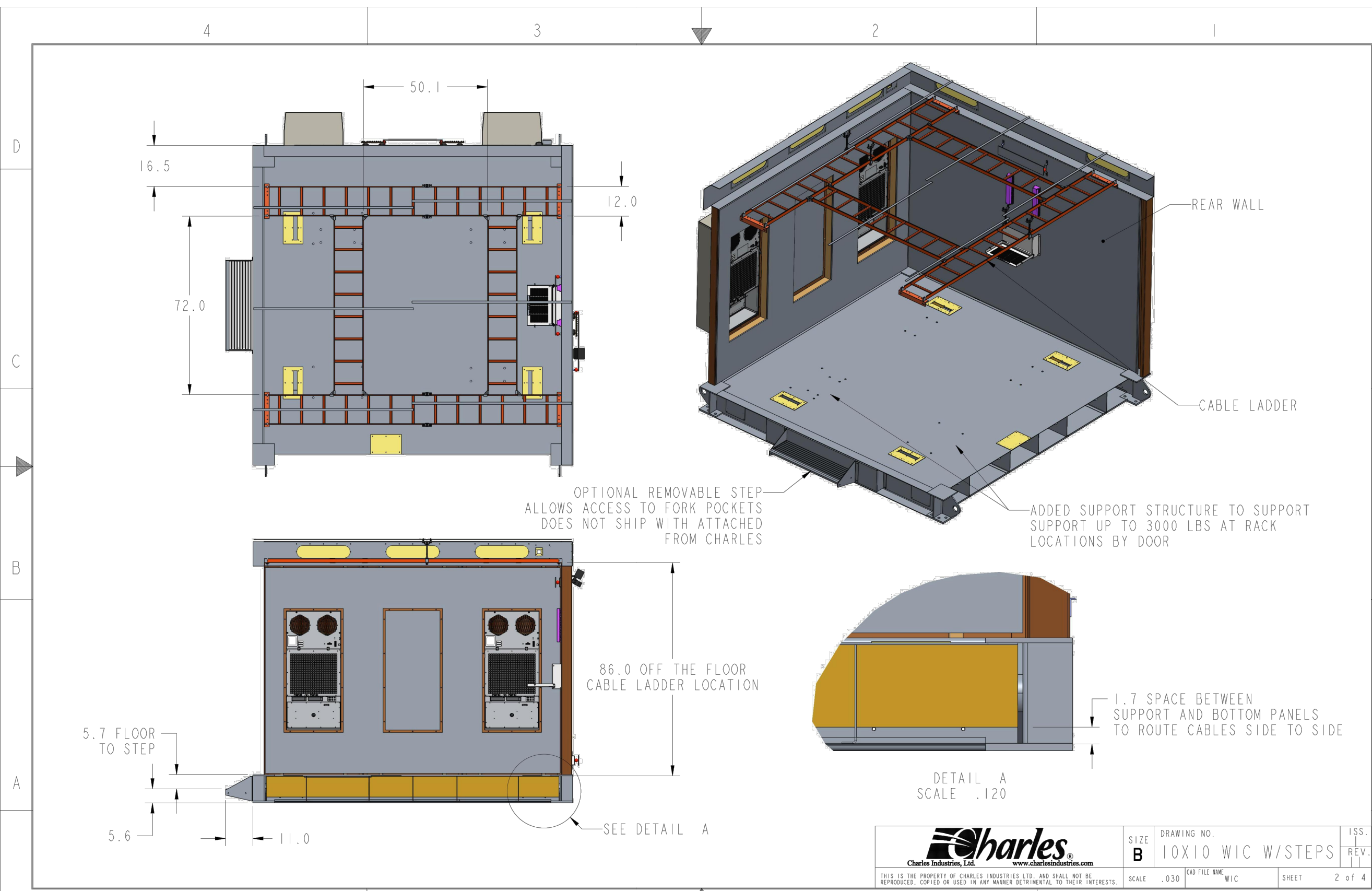
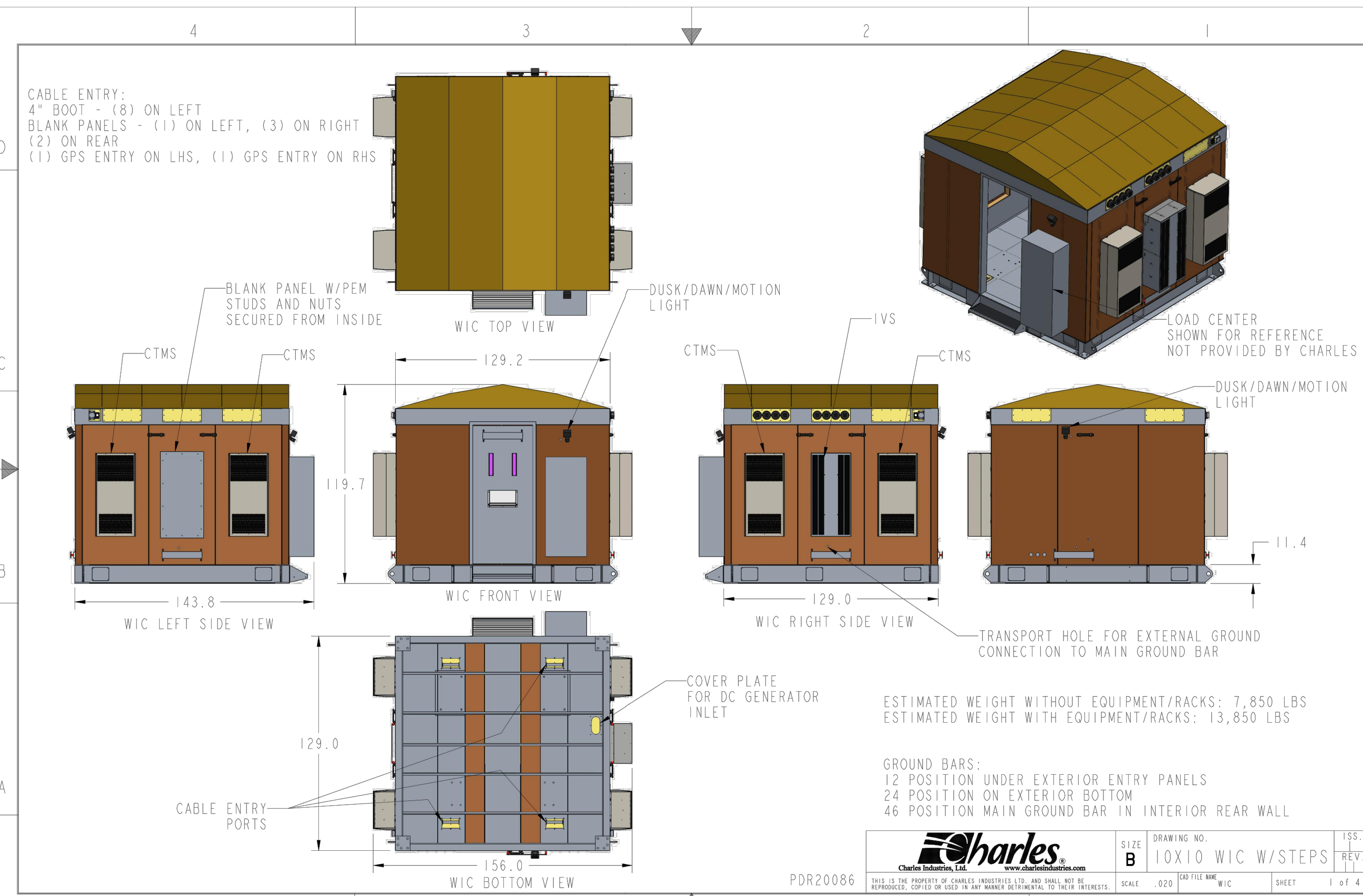
C-6

REVISION:

0

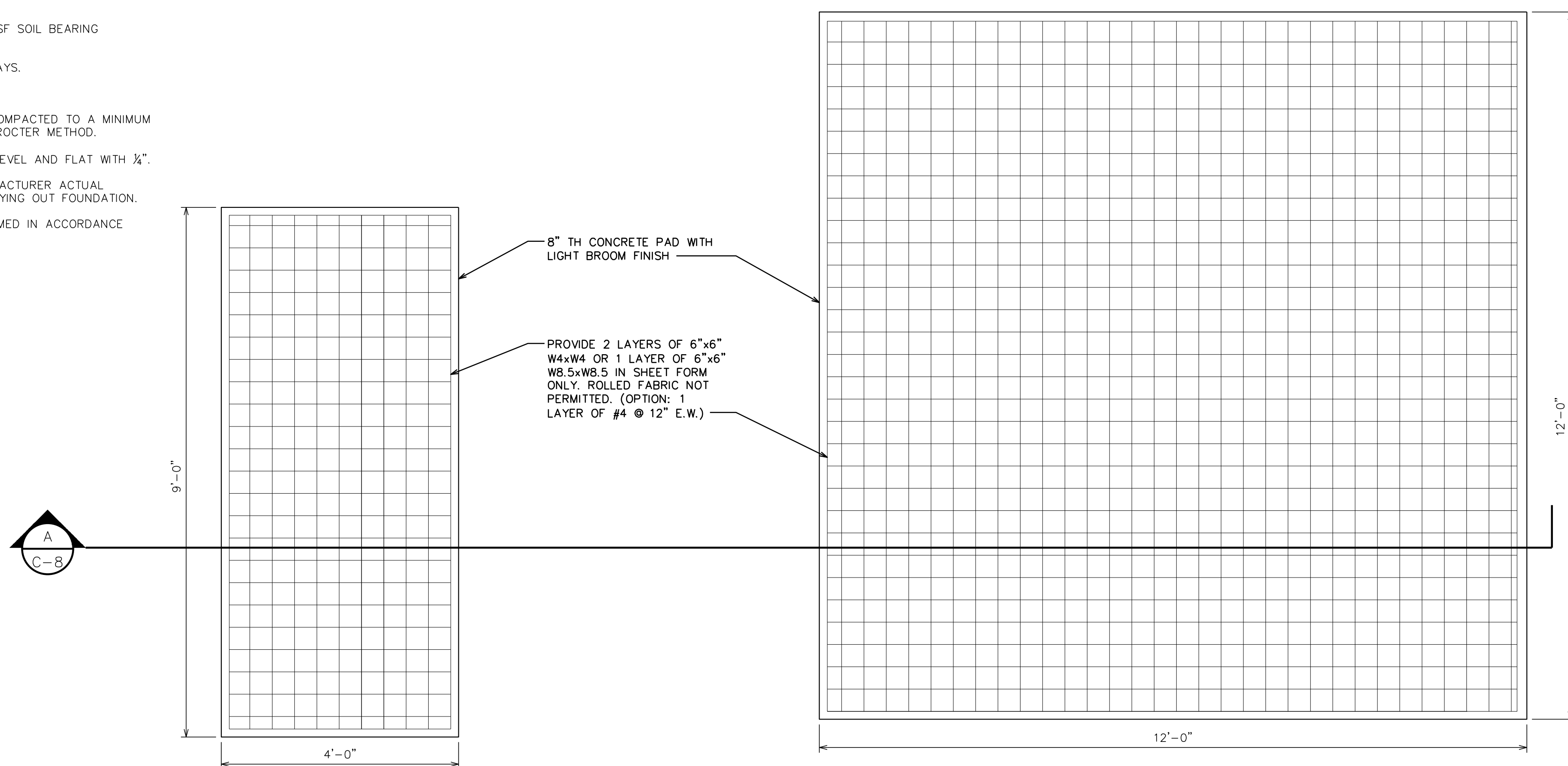
TEP #:

177861.243634



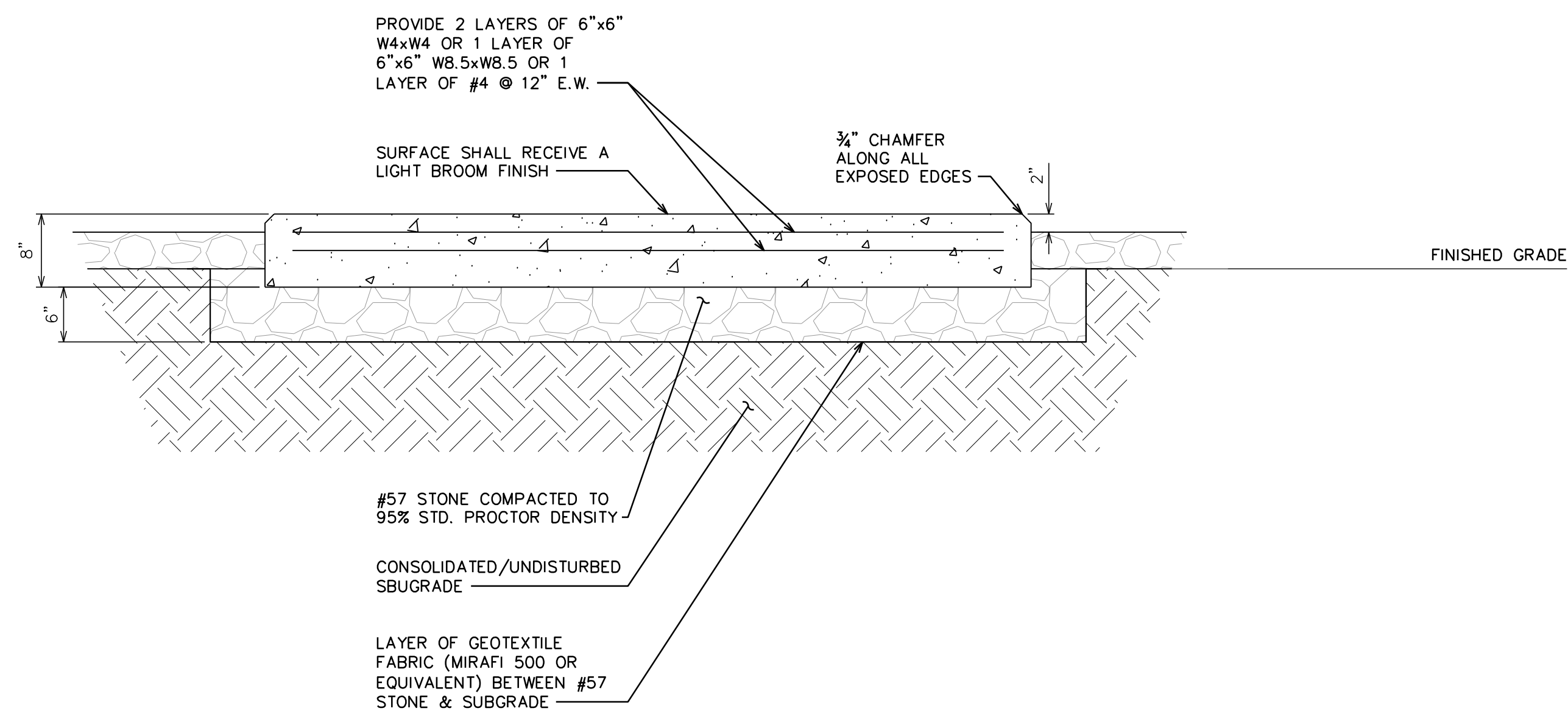
FOUNDATION NOTES:

1. FOUNDATION DESIGN BASED ON 2,000 PSF SOIL BEARING CAPACITY.
2. CONCRETE SHALL BE 4,000 PSI @ 28 DAYS.
3. REINFORCING STEEL Fy = 60,000 PSI.
4. ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTER METHOD.
5. SURFACE OF FINISHED SLAB SHALL BE LEVEL AND FLAT WITH 1/4".
6. CONTRACTOR SHALL VERIFY WITH MANUFACTURER ACTUAL DIMENSIONS OF EQUIPMENT PRIOR TO LAYING OUT FOUNDATION.
7. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318-11.



WIC & GENERATOR FOUNDATION PLAN

SCALE: N.T.S



PAD SECTION

SCALE: N.T.S



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SHEET TITLE:
FOUNDATION DETAILS

SHEET NUMBER:
C-8

REVISION:
0

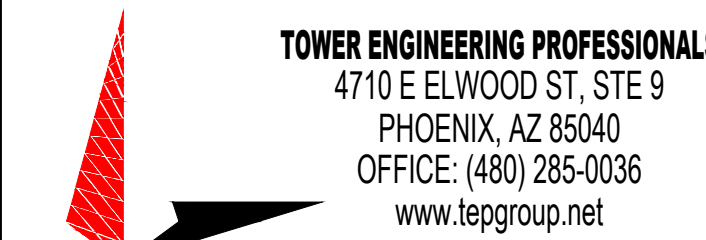
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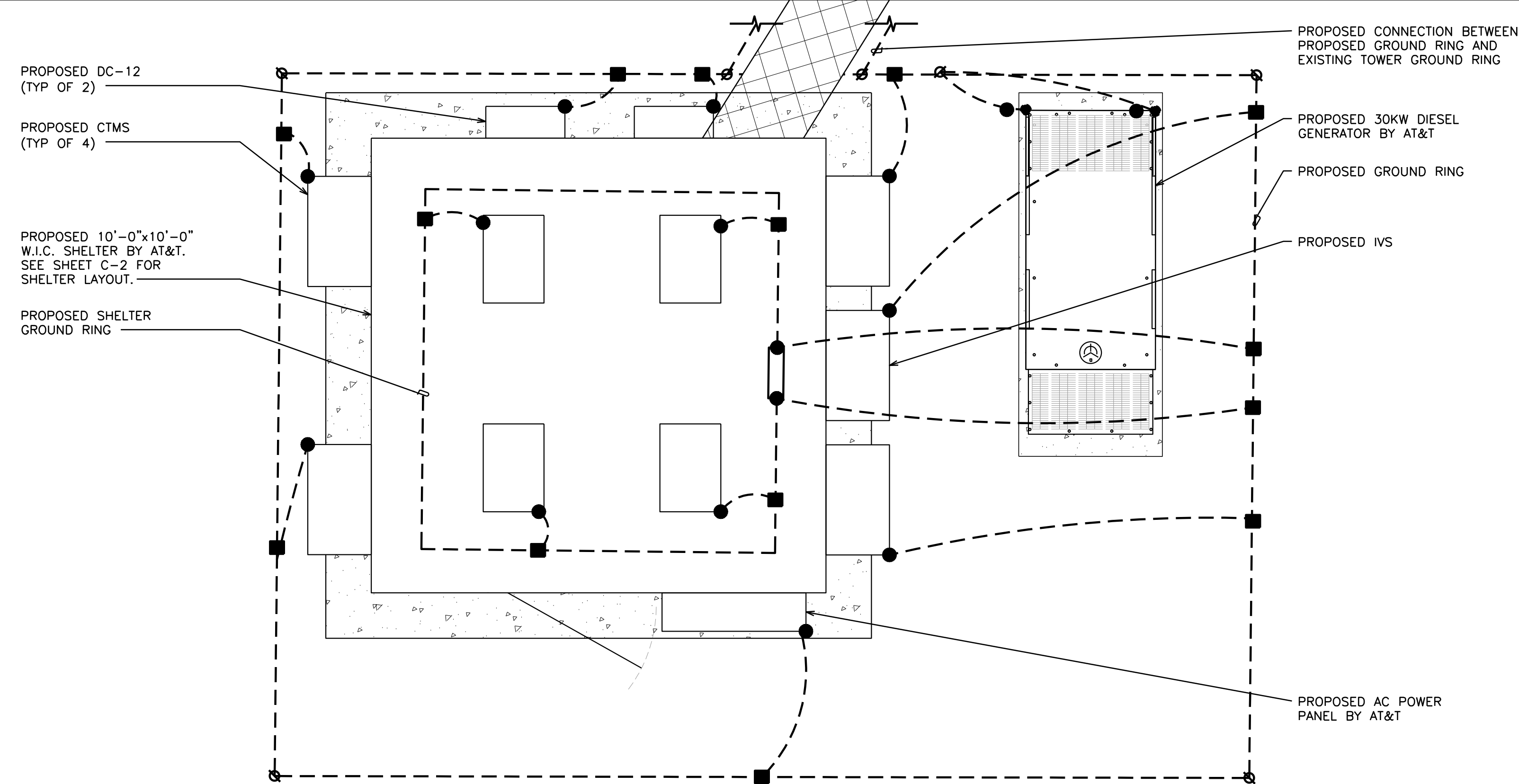
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SHEET TITLE:
**ELECTRICAL PANEL &
GROUNDING PLANS**

SHEET NUMBER: **E-1** REVISION: **0**

TEP #: 177861.243634



LEGEND

■	EXOTHERMIC CONNECTION
●	MECHANICAL CONNECTION
▭	ANTENNA GROUND BAR
▭	MASTER GROUND BAR

EQUIPMENT GROUNDING PLAN

SCALE: 1/2" = 1'-0" (24x36)
SCALE: 3/4" = 1'-0" (11x17)
SCALE IN FEET

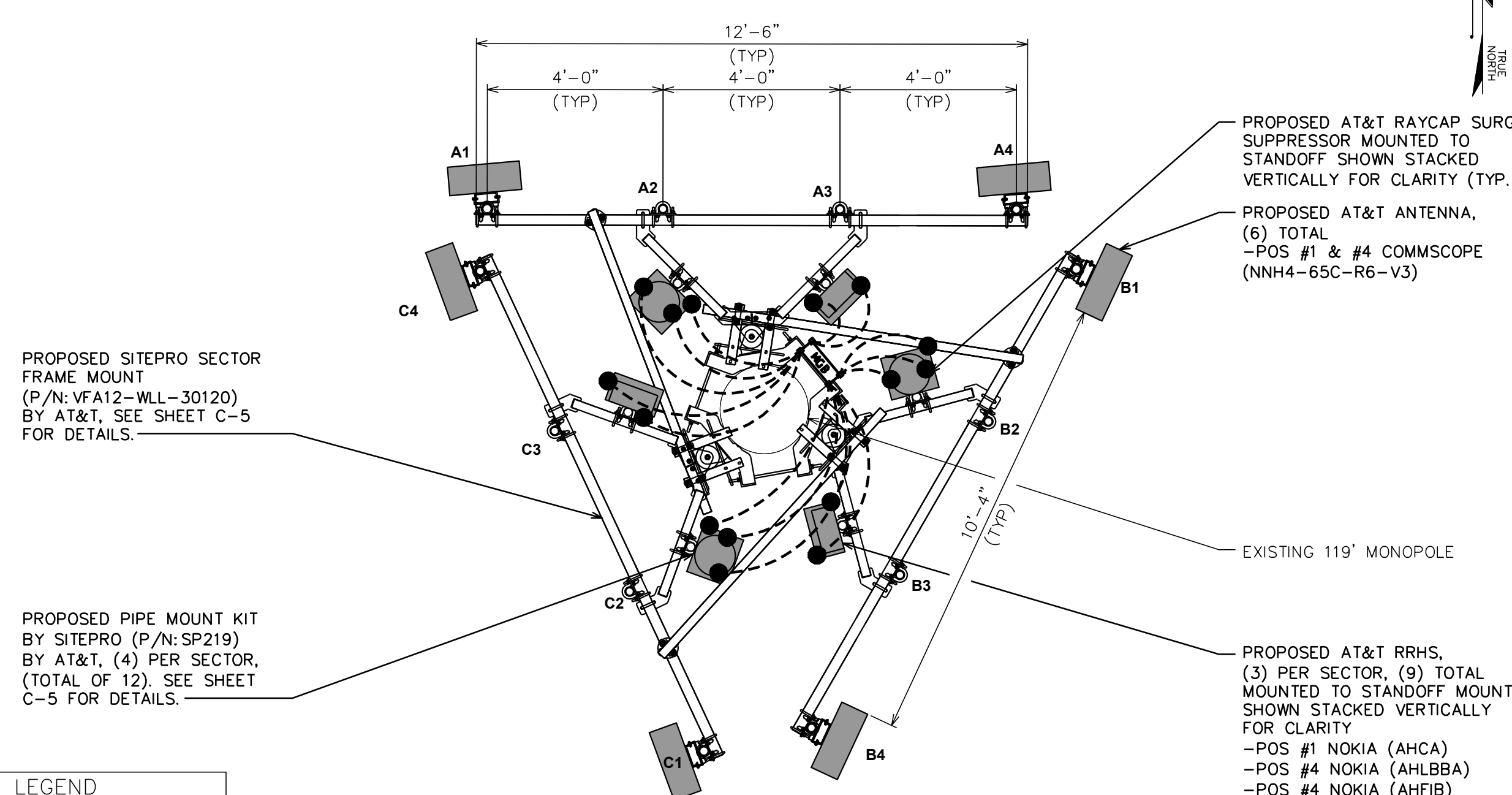
NOTE:

PROPOSED PANEL SCHEDULE VALUES
WERE CALCULATED BASED ON MAXIMUM
PULL FROM EACH CONNECTED
BREAKER. ACTUAL VALUES WILL VARY
BASED ON SITE CONDITIONS.

PROPOSED PANEL SCHEDULE											
120/240 VOLTS 1 PHASE				3 WIRE SURFACE MOUNTED				225A, 2 POLE MAIN BREAKER			
NO.	LOAD SERVED	ØA VA	ØB VA	AMP/ POLE	L1	L2	AMP/ POLE	ØA VA	ØB VA	LOAD SERVED	NO.
1	RECTIFIERS #1 & #2	2880	-	30/2	5760	-	30/2	2880	-	RECTIFIERS #3 & 4	2
3		-	2880	-	-	5760	-	-	2880		4
5	RECTIFIERS #5 & 6	2880	-	30/2	2880	-	30/2	0	-	SPARE/OFF	6
7		-	2880	-	-	2880	-	-	0		8
9	SPARE/OFF	0	-	30/2	0	-	30/2	0	-	SPARE/OFF	10
11		-	0	-	-	0	-	-	0		12
13	SPARE/OFF	0	-	30/2	0	-	30/2	0	-	SPARE/OFF	14
15		-	0	-	-	0	-	-	0		16
17	SPARE/OFF	0	-	30/2	0	-	30/2	0	-	SPARE/OFF	18
19		-	0	-	-	0	-	-	0		20
21	SPARE/OFF	0	-	30/2	0	-	30/2	0	-	SPARE/OFF	22
23		-	0	-	-	0	-	-	0		24
25	AC UNIT #1	1920	-	20/1	2570	-	20/1	650	-	GEN BATT CHARGER	26
27	BLANK	-	-	-	-	1000	20/1	-	1000	GEN BLOCK HEATER	28
29	BLANK	-	-	-	0	-	-	-	-	BLANK	30
31	BLANK	-	-	-	0	-	-	-	-	BLANK	32
33	BLANK	-	-	-	0	-	-	-	-	BLANK	34
35	BLANK	-	-	-	0	-	-	-	-	BLANK	36
37	BLANK	-	-	-	0	-	-	-	-	BLANK	38
39	BLANK	-	-	-	0	-	-	-	-	BLANK	40
PHASE TOTALS (VA)					11210	9640					
CURRENT PER PHASE (A)					94	81					
PEAK TOTAL (VA)					11210	94	PEAK TOTAL (A)				
125% DEMAND (VA)					14013	117.5	125% DEMAND (A)				

PROPOSED A/C PANEL

SCALE: N.T.S.



LEGEND

■	EXOTHERMIC CONNECTION
●	MECHANICAL CONNECTION
▭	ANTENNA GROUND BAR
▭	MASTER GROUND BAR

ANTENNA GROUNDING PLAN

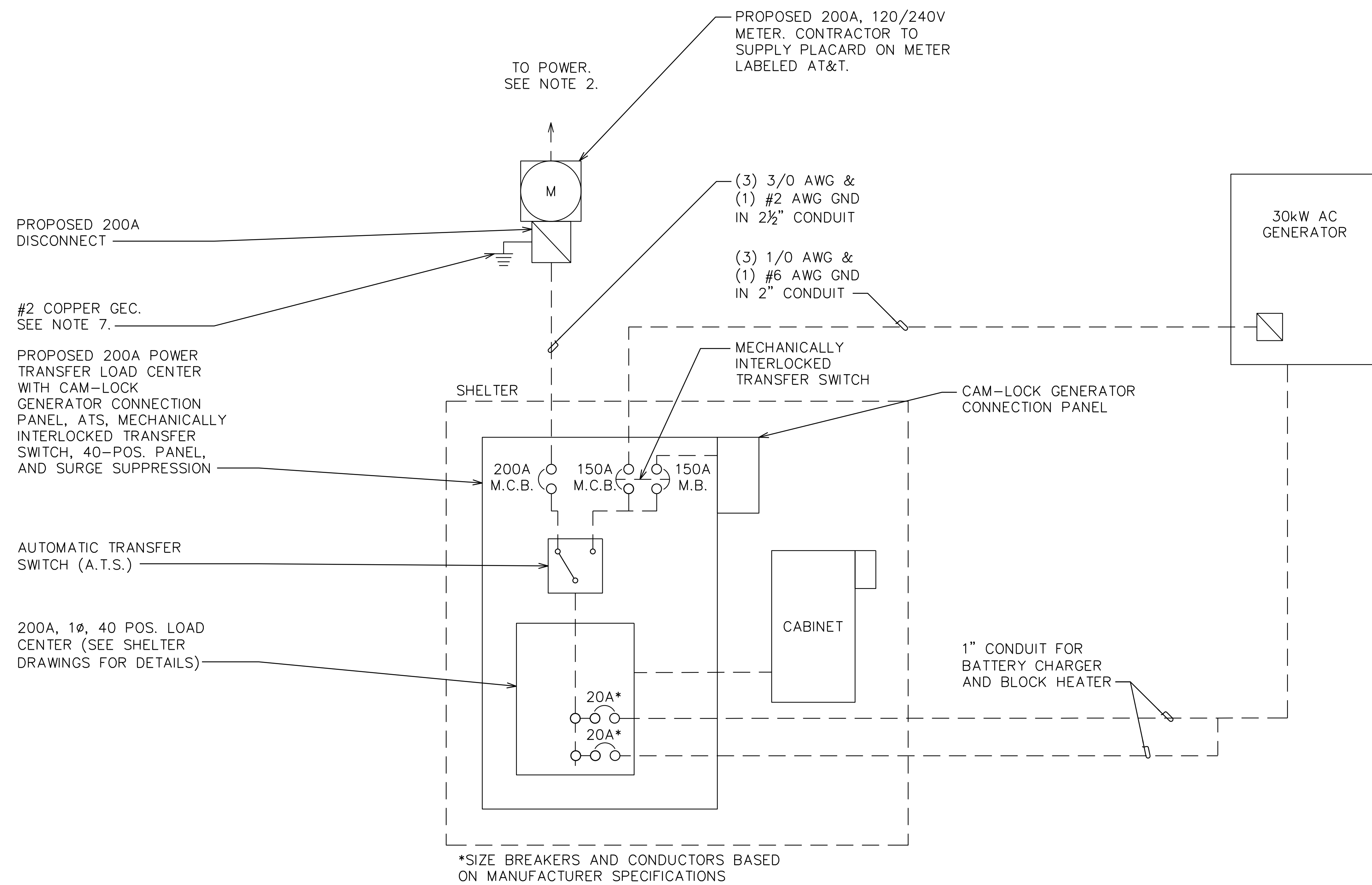
SCALE: 3/8" = 1'-0" (24x36)
SCALE: 1/2" = 1'-0" (11x17)
SCALE IN FEET

GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH POWER COMPANY AND ENSURE ALL ELECTRICAL EQUIPMENT IS SUITABLE FOR AVAILABLE FAULT CURRENT.
2. CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH LOCAL UTILITY COMPANIES. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY STANDARDS.
3. ONE-LINE DIAGRAM IS FOR SCHEMATIC PURPOSES ONLY AND IS NOT INDICATIVE OF THE ACTUAL EQUIPMENT LAYOUT.
4. CONTRACTOR SHALL LABEL METER SOCKET WITH SERVICE OWNER NAMEPLATE WITH 1/2" HEIGHT MINIMUM LETTERS.
5. ALL EQUIPMENT WILL HAVE A MINIMUM AIC OF 10 KA. CONTRACTOR TO DETERMINE AVAILABLE FAULT CURRENT BEFORE ENERGIZING EQUIPMENT. THE AMOUNT OF AVAILABLE FAULT CURRENT SHALL BE MARKED ON THE SERVICE EQUIPMENT PER NEC 110.24.
6. CONTRACTOR WILL NOTIFY UTILITY COMPANY OF CHANGES IN ELECTRICAL LOAD.

ONE-LINE DIAGRAM NOTES:

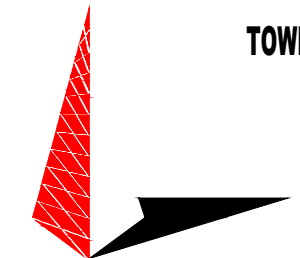
1. ELECTRICAL SERVICE SHALL BE 200A, 120/240V, 1Ø, 3W.
2. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.



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SHEET TITLE:

ONE-LINE DIAGRAM

SHEET NUMBER:

E-2

REVISION:

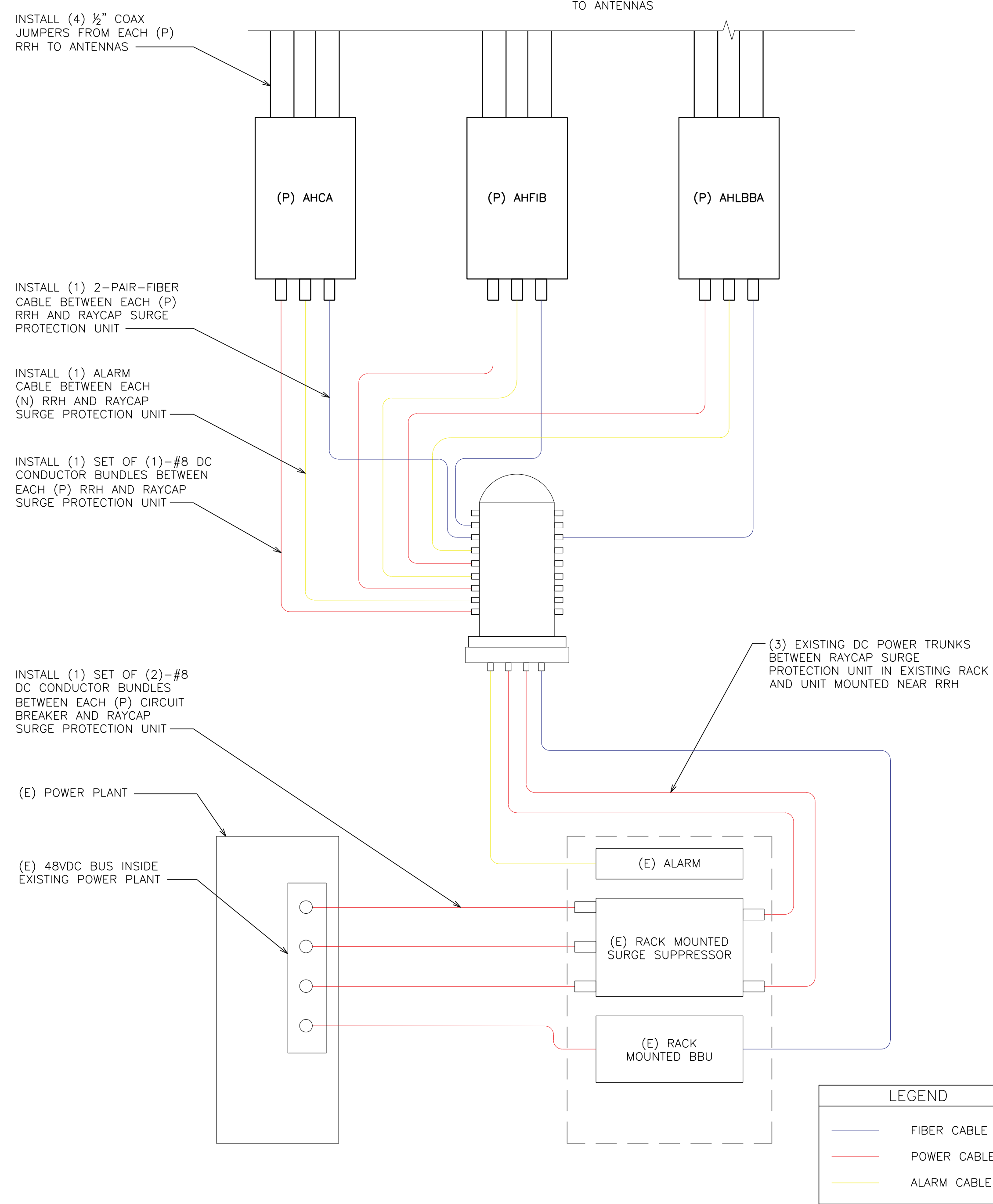
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TEP #:

177861.243634

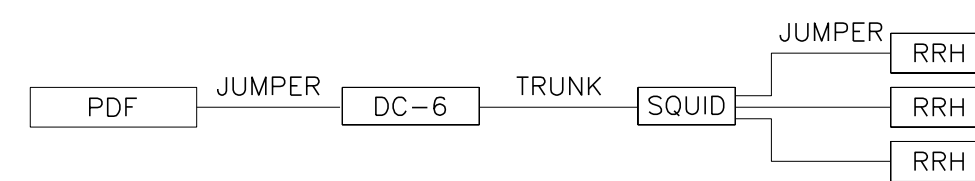
ELECTRICAL AC/DC SINGLE LINE DIAGRAM

SCALE: N.T.S.



DC AND FIBER SYSTEM SCHEMATIC

SCALE: N.T.S.

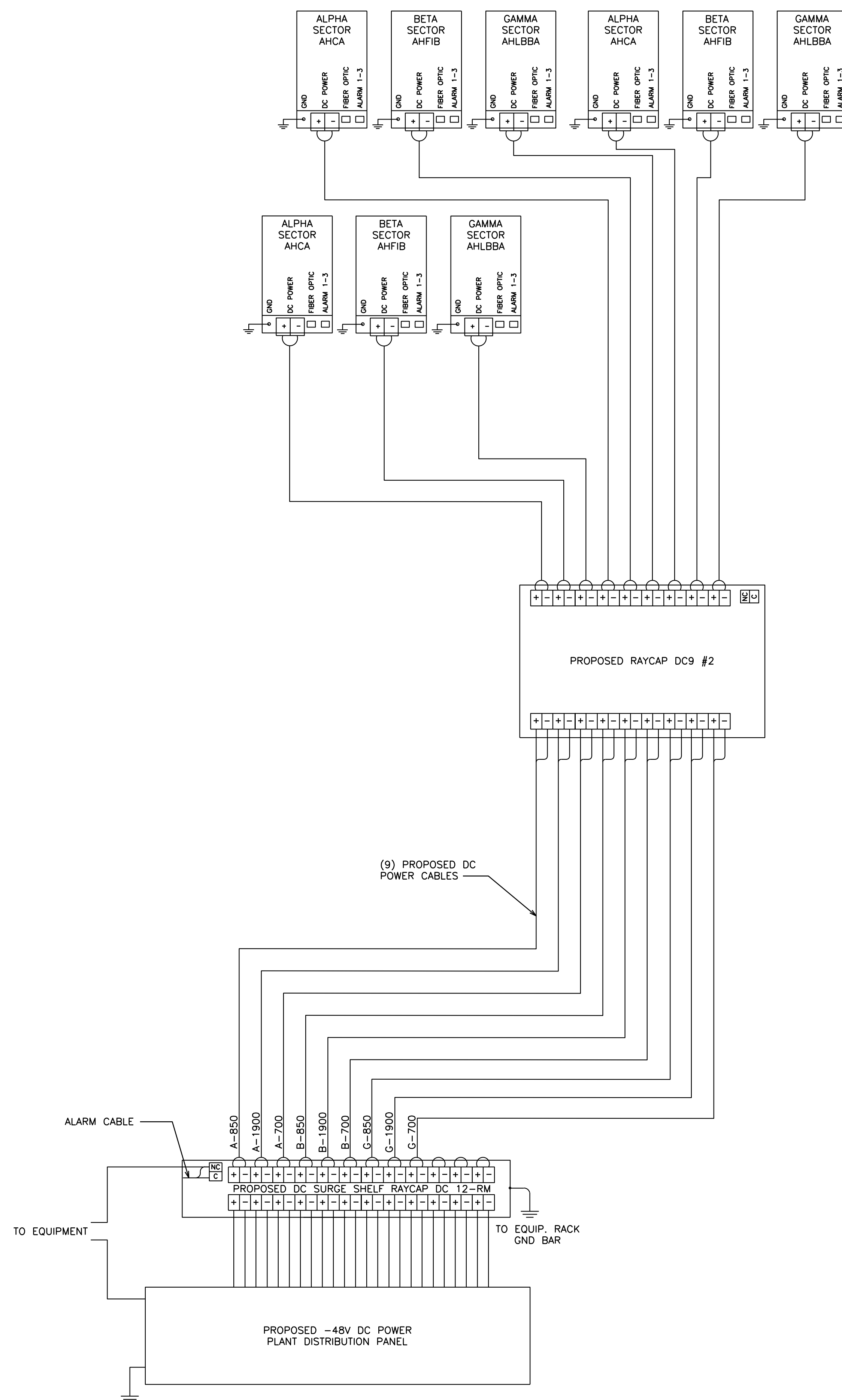


CABLE LENGTH TABLE						
SECTOR	PDF	DISTANCE & CABLE TYPE		DISTANCE & CABLE TYPE		TOTAL CABLE LENGTH
ALPHA	PDF	20'	#8 AWG	DC-6	145' (2) #8 AWG	180'
BETA		20'	#8 AWG	SQUID	15' #8 AWG	
GAMMA		20'	#8 AWG	RRH	15' #8 AWG	
						40.6

CABLE COUNT	
QTY	CABLE TYPE
1	FIBER TRUNKS
3	DC TRUNKS

LTE CONDUCTOR SIZES

SCALE: N.T.S.



DC WIRING DIAGRAM

SCALE: N.T.S.

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AT&T SITE ID: COL02205
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ATC #: 370609
WIDEFIELD HIGH SCHOOL II

527 WIDEFIELD DRIVE
COLORADO SPRINGS,
CO 80911
(EL PASO COUNTY)
EXISTING 119'-0"
MONOPOLE TOWER
NSB - LTE - 1C/2C/3C/4C/
5G NR 1SR

ISSUED FOR:

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SEAL:

APR 23, 2021

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SHEET TITLE:
DC SYSTEM DETAILS

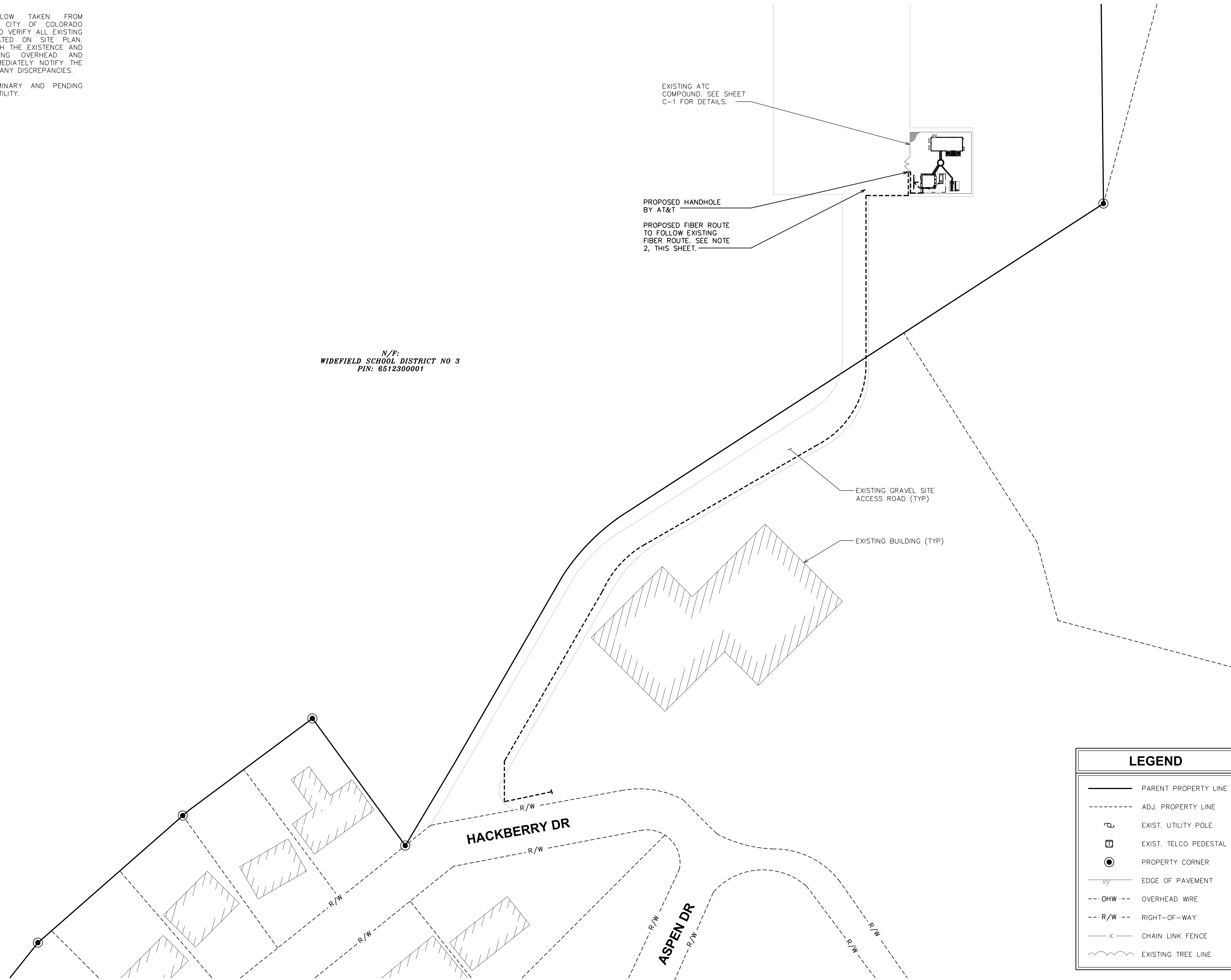
SHEET NUMBER:
E-3

REVISION:
0

TEP #: 177861.243634

NOTES:

1. SITE PLAN SHOWN BELOW TAKEN FROM INFORMATION PROVIDED BY CITY OF COLORADO SPRINGS GIS. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
2. UTILITY ROUTING IS PRELIMINARY AND PENDING COORDINATION WITH LOCAL UTILITY.



N/F:
WIDEFIELD SCHOOL DISTRICT NO 3
PIN: 6512300001

EXISTING ATC
COMPOUND. SEE SHEET
C-1 FOR DETAILS.

PROPOSED HANDHOLE
BY AT&T

PROPOSED FIBER ROUTE
TO FOLLOW EXISTING
FIBER ROUTE. SEE NOTE
2, THIS SHEET.

EXISTING GRAVEL SITE
ACCESS ROAD (TYP)

EXISTING BUILDING (TYP)

LEGEND

- PARENT PROPERTY LINE
- - - - - ADJ. PROPERTY LINE
- ⊙ EXIST. UTILITY POLE
- ⊞ EXIST. TELCO PEDESTAL
- PROPERTY CORNER
- /// EDGE OF PAVEMENT
- - - OHW - - - OVERHEAD WIRE
- - - R/W - - - RIGHT-OF-WAY
- x - CHAIN LINK FENCE
- ~ ~ ~ EXISTING TREE LINE

FIBER ROUTING PLAN
SCALE: 1" = 40'

SCALE: 1" = 40' (24x36)
SCALE: 1" = 80' (11x17)



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FIBER ROUTING PLAN

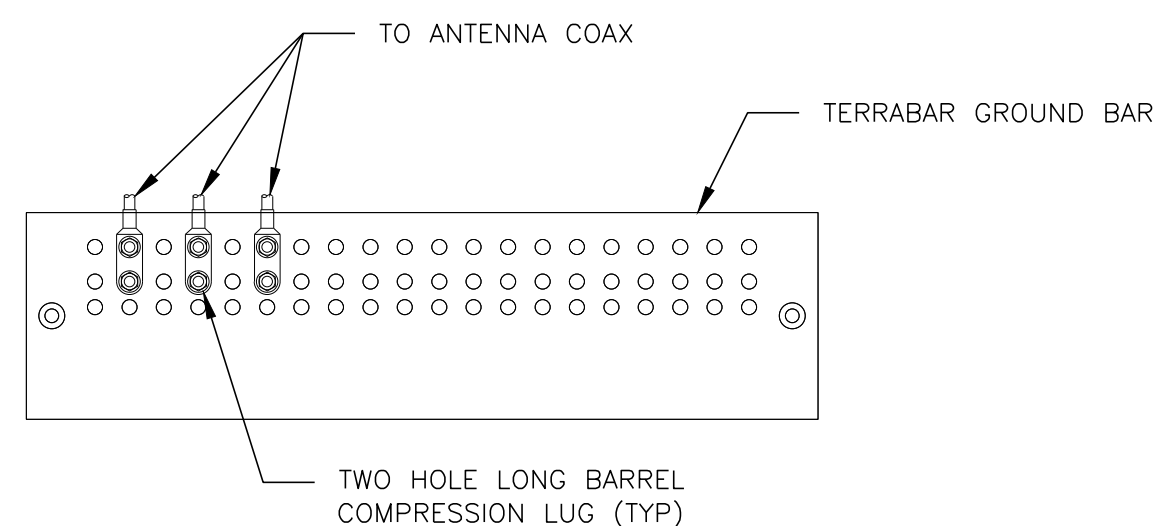
SHEET NUMBER:
E-4

REVISION:
0

TEP #: 177861.243634

NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL.

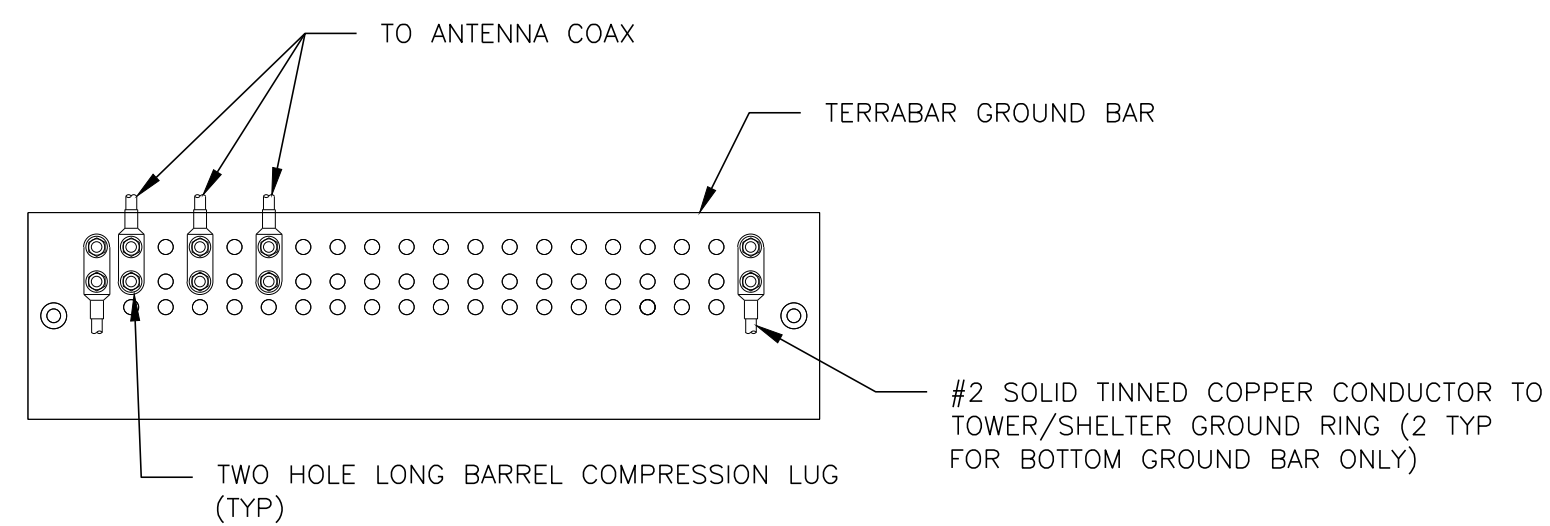


ANTENNA GROUND BAR DETAIL

SCALE: N.T.S.

NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. INSTALL GROUND BARS AT 75 FT. INTERVAL MAXIMUM.
4. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

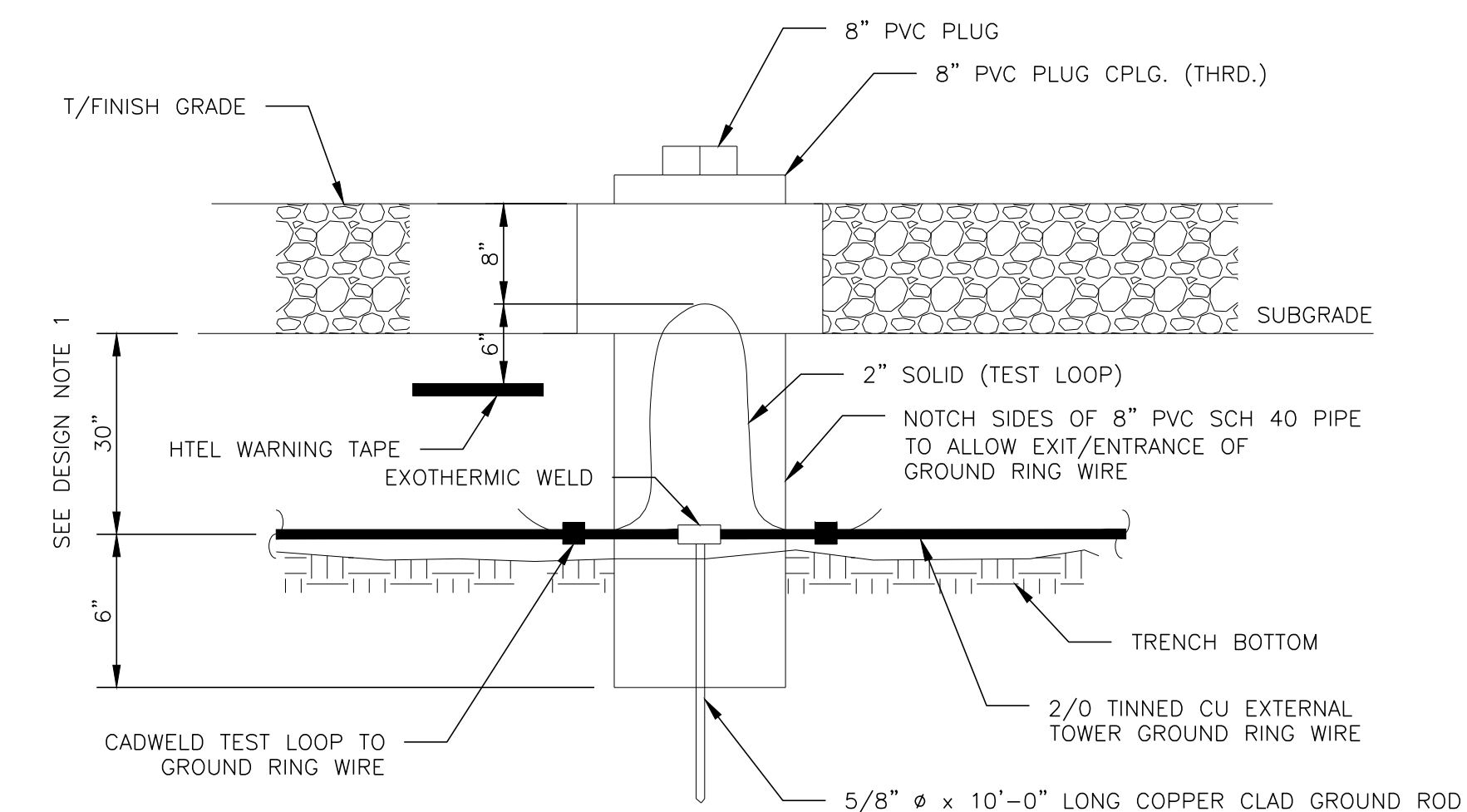


TOWER/SHELTER GROUND BAR DETAIL

SCALE: N.T.S.

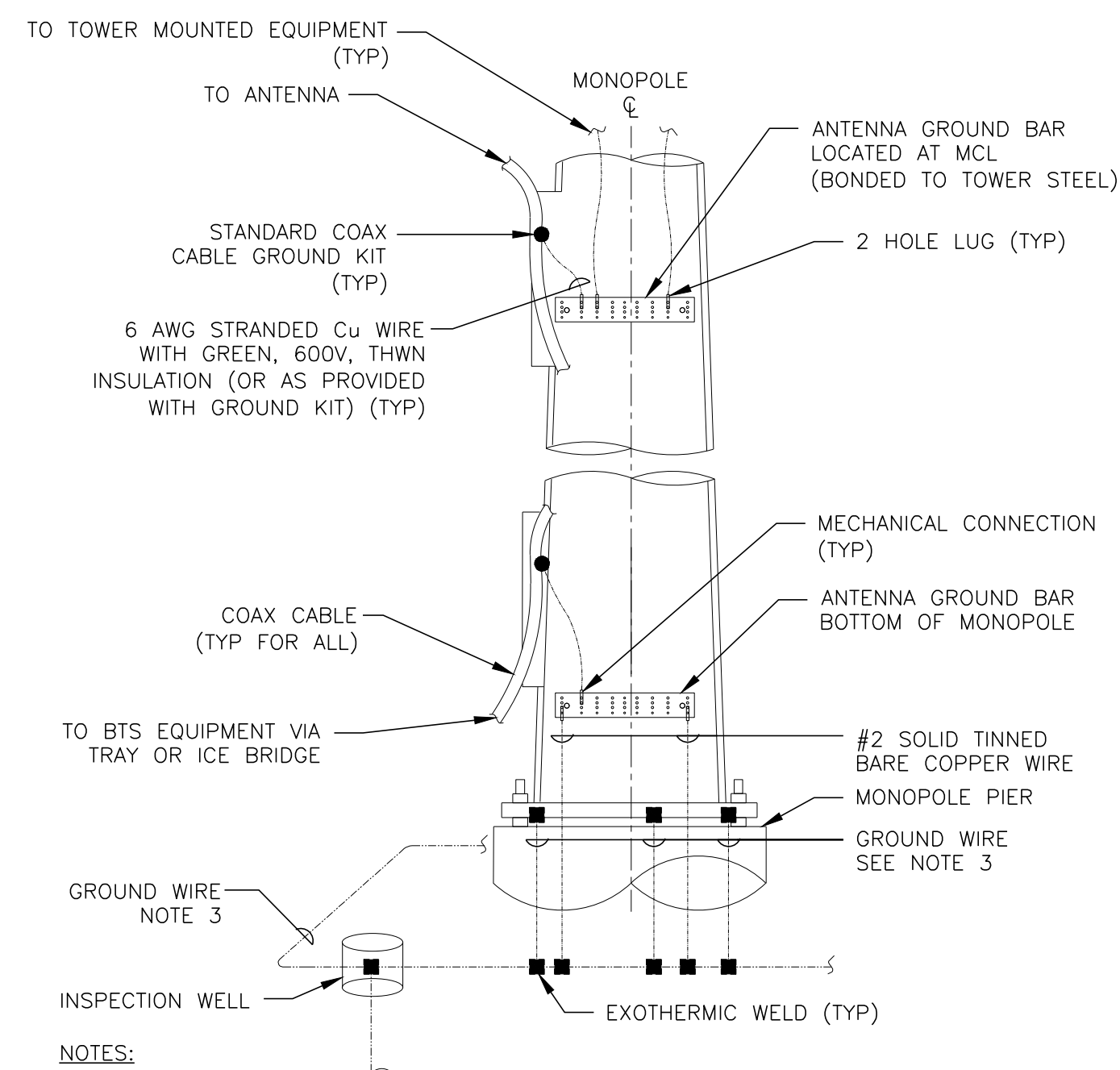
NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)



TEST WELL DETAIL

SCALE: N.T.S.

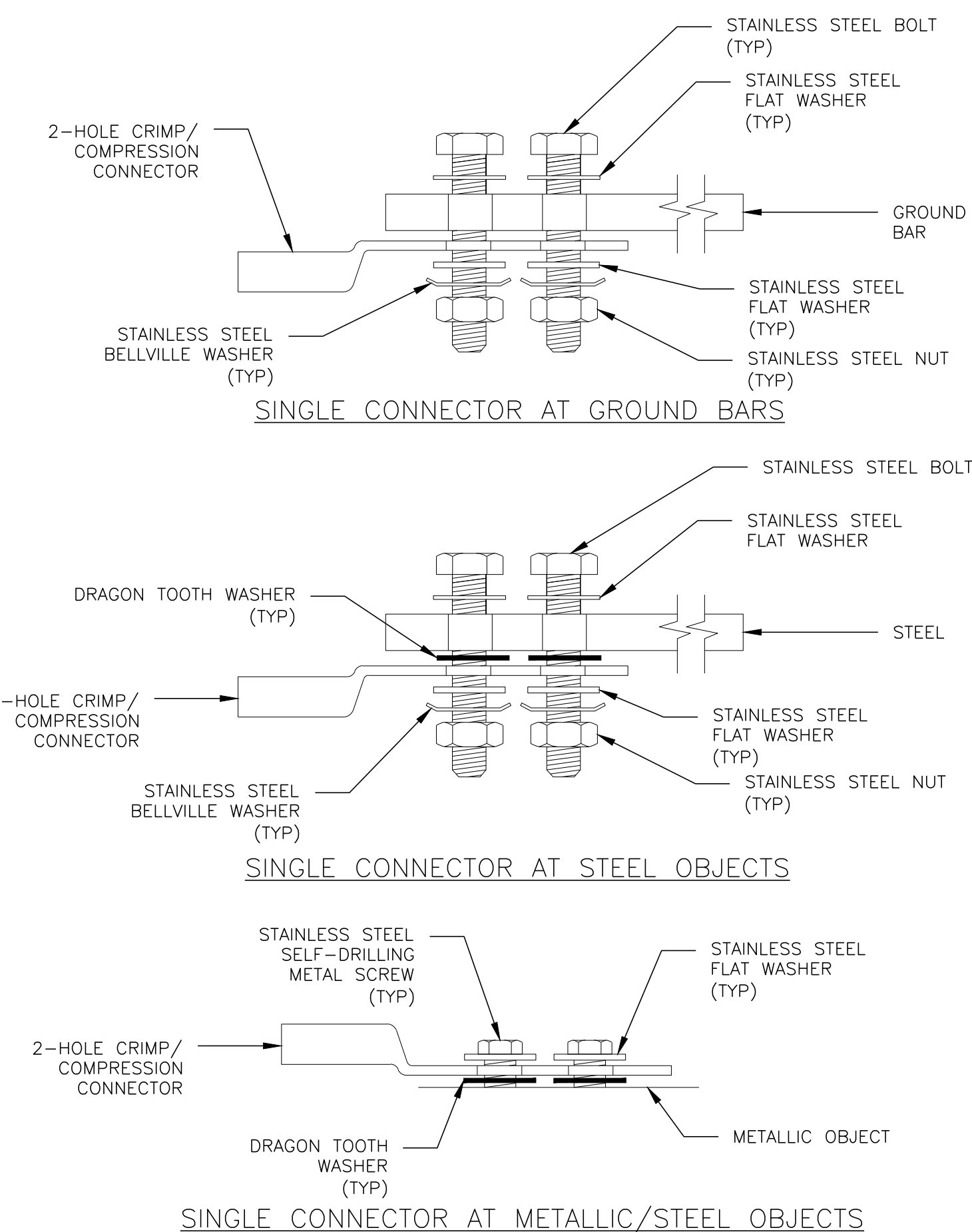


NOTES:

1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF MONOPOLE, ANTENNA LOCATION AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET IN/ON THE POLE SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ANS/TIA 222 AND NFPA 780. FOR TOWERS BEING BUILT TO REV G OF THE STANDARD, THE WIRE SIZE OF THE BURIED GROUND RING AND CONNECTIONS BETWEEN THE TOWER AND THE BURIED GROUND RING SHALL BE 2/0 AWG. STRANDED IN ADDITION, THE MINIMUM LENGTH OF THE GROUND RODS SHALL BE INCREASED FROM 8 FEET TO 10 FEET.

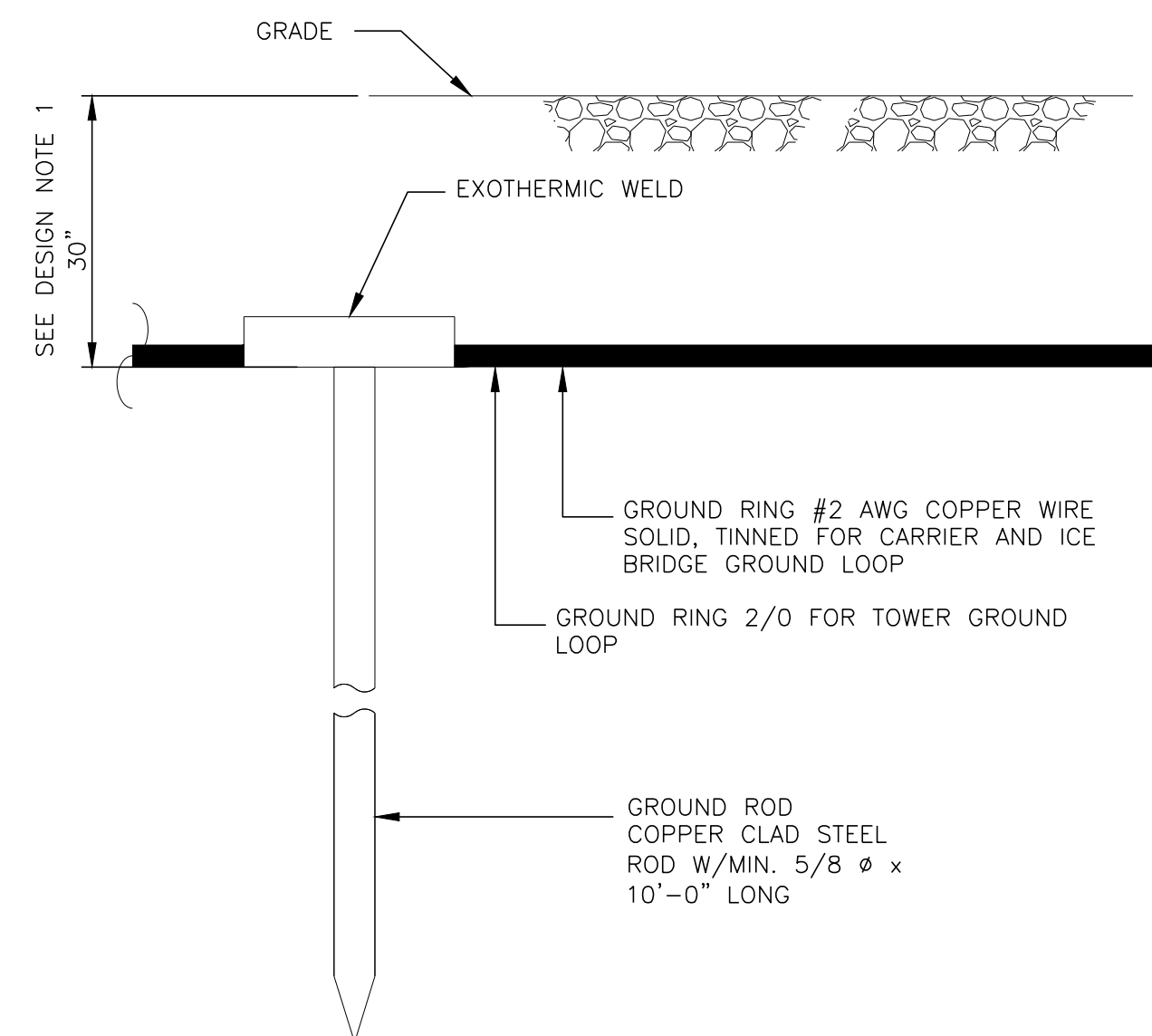
TYPICAL ANTENNA CABLE GROUNDING

SCALE: N.T.S.



HARDWARE DETAIL FOR EXTERIOR CONNECTIONS

SCALE: N.T.S.



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

GROUND ROD

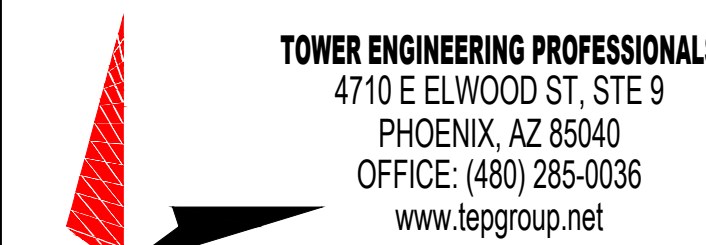
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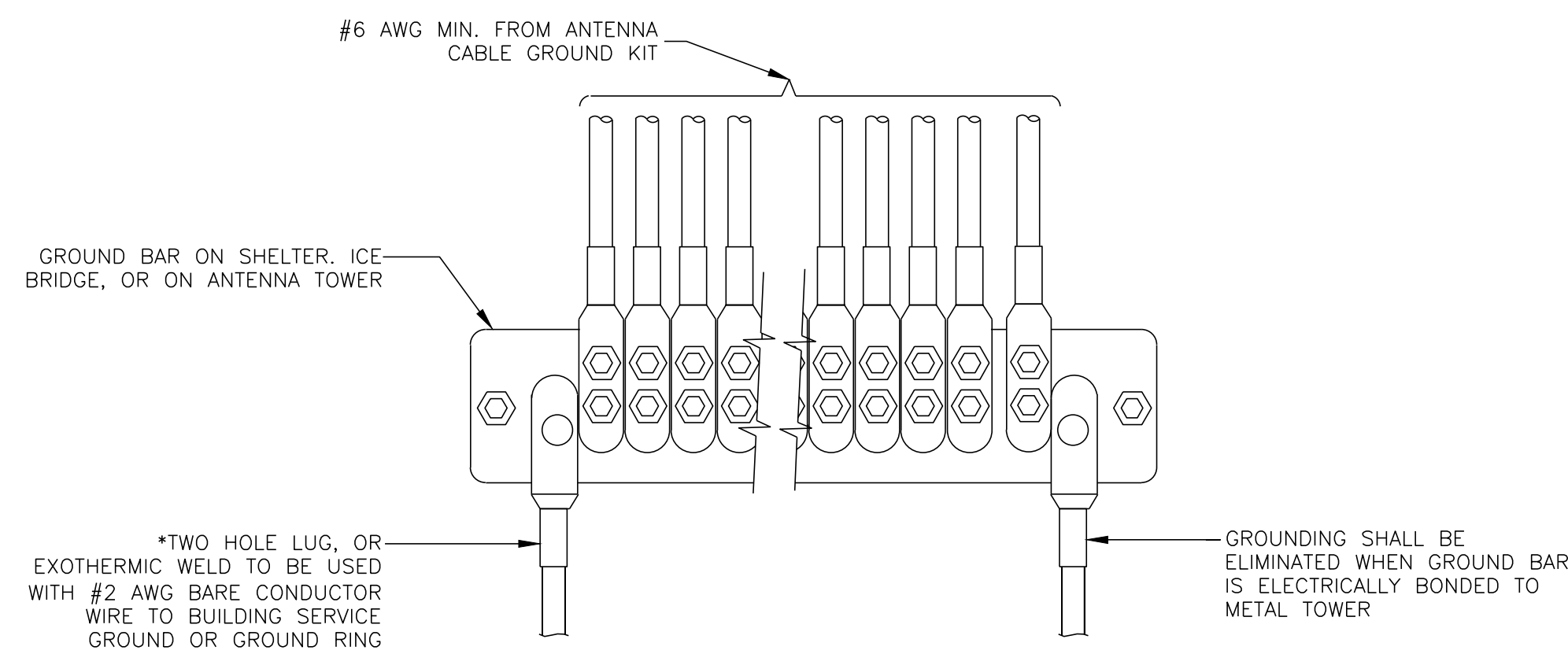
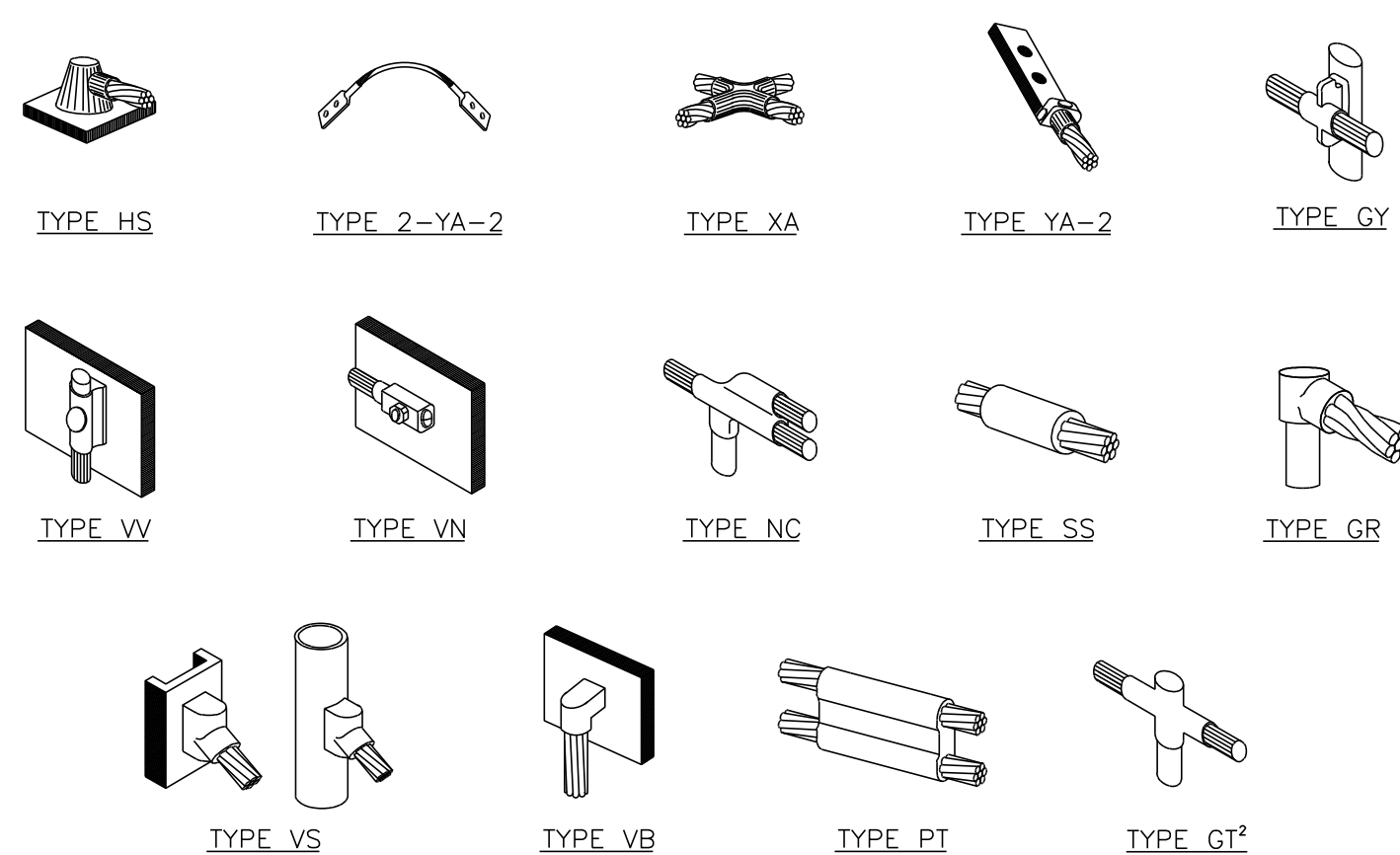
SHEET NUMBER:
G-1

REVISION:
0

TEP #: 177861.243634

NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

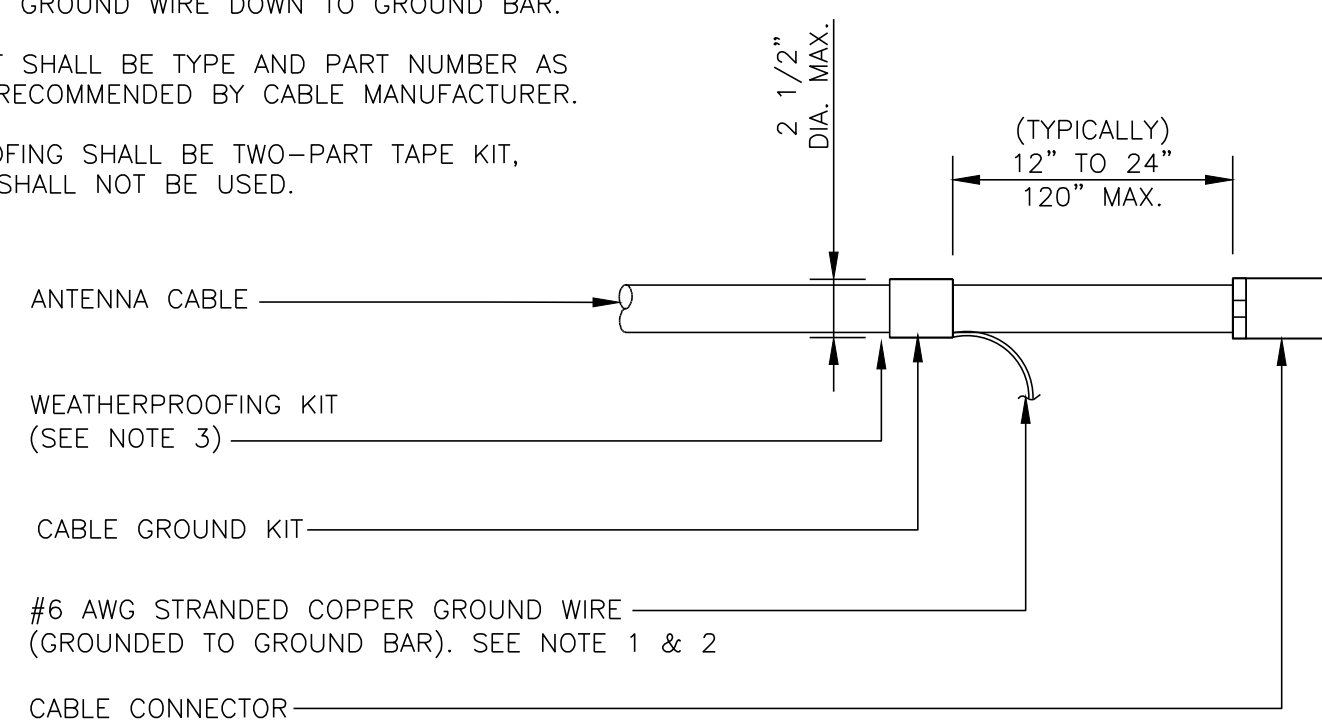


GROUNDWIRE INSTALLATION

SCALE: N.T.S.

NOTES:

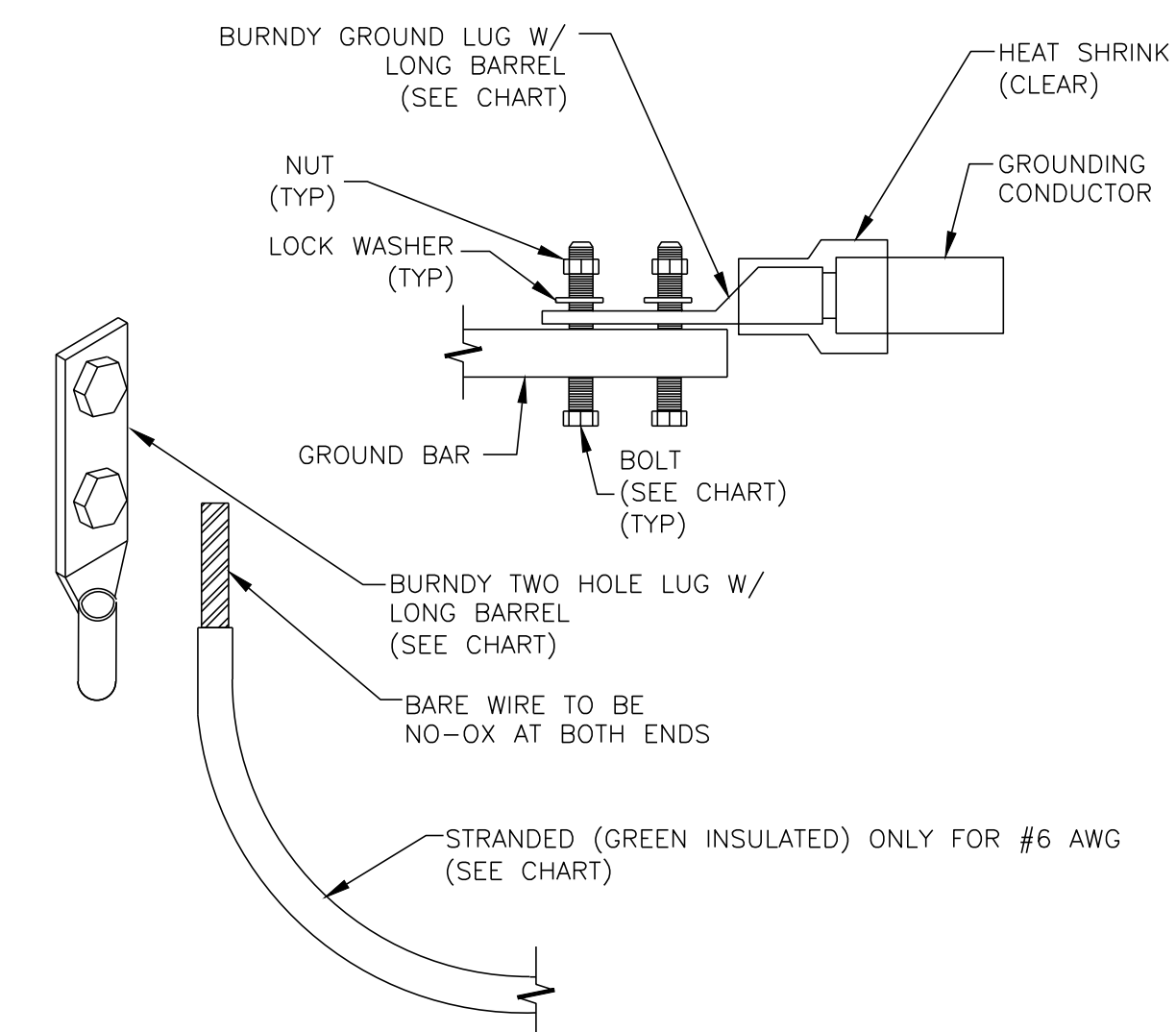
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.



NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT

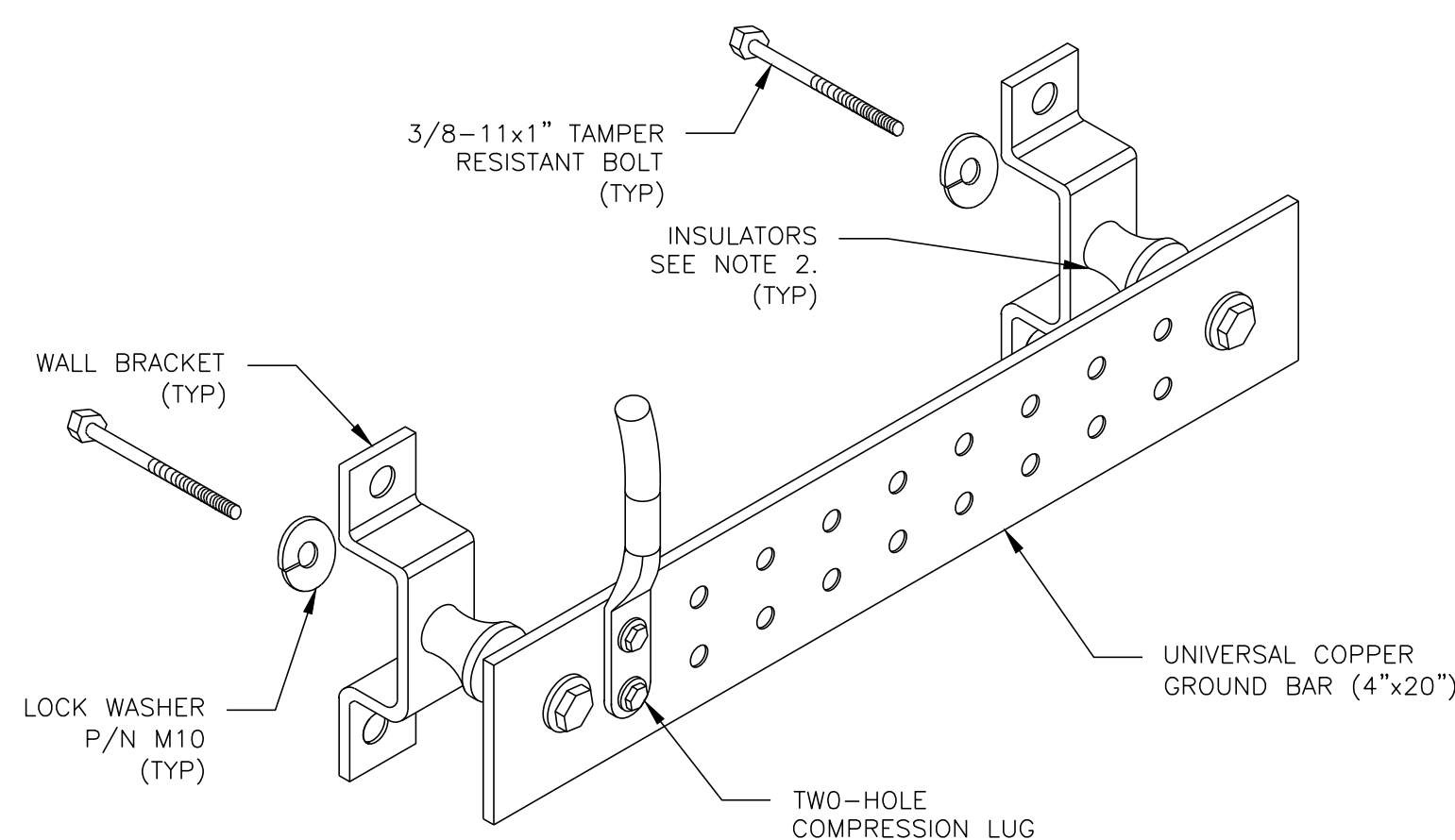


CADWELD GROUNDING CONNECTIONS

SCALE: N.T.S.

NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STO-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.



GROUND BAR DETAIL

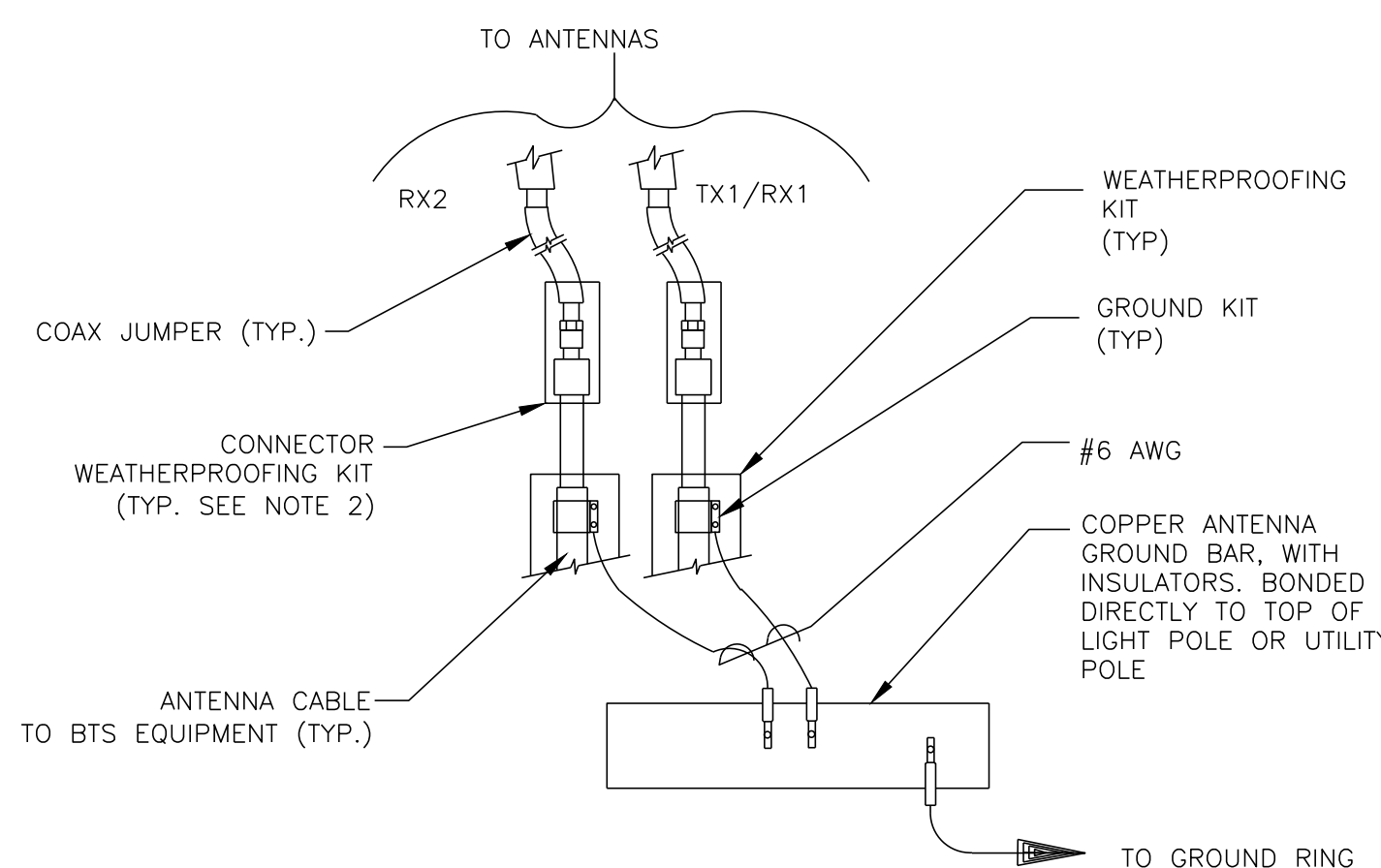
SCALE: N.T.S.

CABLE GROUND KIT CONNECTION

SCALE: N.T.S.

NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

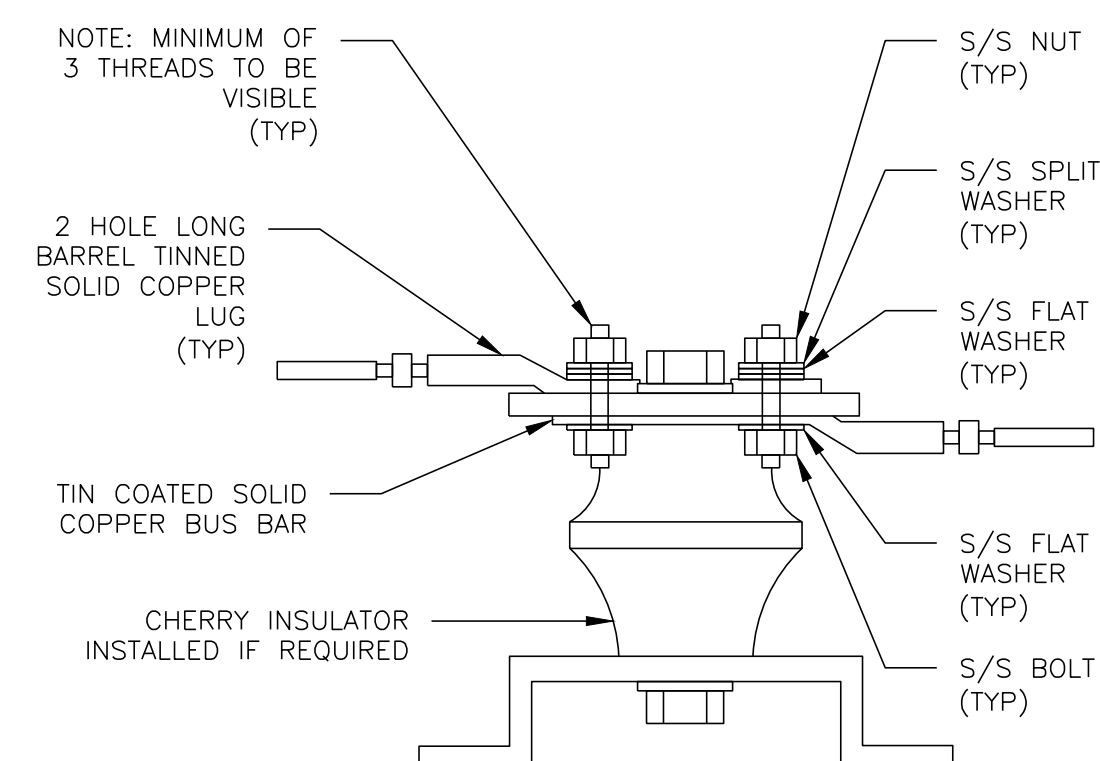


GROUND CABLE CONNECTION

SCALE: N.T.S.

MECHANICAL LUG CONNECTION

SCALE: N.T.S.



LUG DETAIL

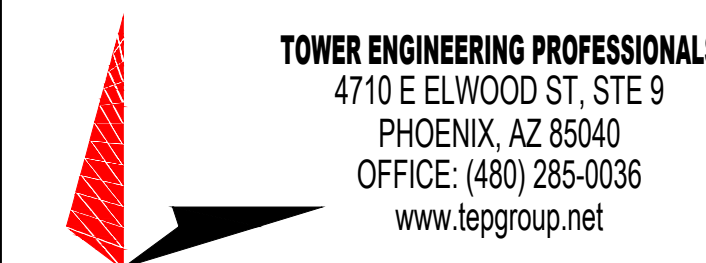
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G-2

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