

## AT&T MOBILITY ANTENNA AMENDMENT PLAN



**AMERICAN TOWER®** 

ATC SITE NAME: ELSMERE CO 1 ATC SITE NUMBER: 302459 AT&T MOBILITY SITE ID: SICO004762 AT&T MOBILITY FA CODE: 10102196 AT&T MOBILITY SITE NAME: CONSTITUTION & HWY 24 USID: 49059 SITE ADDRESS: 2865 AKERS DR

COLORADO SPRINGS, CO 80922-1520

AT&T MOBILITY PACE NUMBER: WSUTH0051541, WSUTH0051717, WSUTH0052177, WSUTH0051698, WSUTH0052119, WSUTH0051669, WSUTH0052049, WSUTH0051541, WSUTH0051683, WSUTH0051719



BIRD WATCH SITE: PLEASE CONTACT BIRD.WATCH@AMERICANTOWER.COM OR AMERICAN TOWER NOC AT 877-518-6937 FOR ASSISTANCE

COMPLIANCE CODE	PROJECT	SUMMARY	PROJECT DESCRIPTION		SHEET INDEX			
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE		DDRESS:	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS		KERS DR	TOWER WORK:	G-001	TITLE SHEET	0	01/31/25	ASB
TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO		NGS, CO 80922-1520	REMOVE (6) ANTENNA(S), (15) RRH(s), (6) DIPLEXER(S), AND (3) TMA(s).	G-002	GENERAL NOTES	0	01/31/25	ASB
THESE CODES. 1. 2021 INTERNATIONAL BUILDING CODE (IBC)			INSTALL (3) ANTENNA(S), (9) RRU(s) AND MOUNT MODIFICATION(S).	C-001	OVERALL SITE PLAN	0	01/31/25	ASB
2. 2020 NATIONAL ELECTRIC CODE (NEC)		<u>COORDINATES:</u> E: 38.87489	EXISTING (6) ANTENNA(S), (3) SQUID(S), (6) 7/8" COAX CABLE(S),	C-101	DETAILED SITE PLAN	0	01/31/25	ASB
3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES		E: -104.68621	(3) 0.39" (10 MM) FIBER TRUNK(S), (1) 3/8" (0.38" - 9.5 MM) RET CONTROL CABLE(S), AND (6) 0.78" (19.7 MM) 8 AWG 6 DC POWER	C-102		0	01/31/25	ASB
4. CHT/COUNTFORDINANCES	GROUND ELEVA	ATION: 6,542' AMSL	TRUNK(S) TO REMAIN.	C-201	TOWER ELEVATION	0	01/31/25	ASB
	ZONING IN	FORMATION:	GROUND WORK: REMOVE (2) NOKIA FSM4 BBU(s).			0		ASB
	JURISDICTION:	EL PASO COUNTY	INSTALL (1) PURCELL FLX42 CABINET(S), (1) VERTIV CONVERTER	C-401		-	01/31/25	
	PARCEL IE	0: 5332001014	SHEL(VES), (9) -48VDC-58VDC CONVERTER(S), (3) 50A AIR6472 B77D	C-402	ANTENNA SCHEDULE	0	01/31/25	ASB
-			B77M DC BREAKER(S), (3) 50A 4490 B5/B12A DC BREAKER(S), (3) 50A 4890 B25/B66 DC BREAKER(S), (3) 50A 4494 B14/B29 DC BREAKER(S),	C-501	CONSTRUCTION DETAILS	0	01/31/25	ASB
	PROJE	CT TEAM	(2) 15A 6651 BBU DC BREAKER(S), (1) 25A 6601 DC BREAKER(S),	E-101	ELECTRICAL PANELS	0	01/31/25	ASB
	TOWER OWNER:	APPLICANT:	(2) 6651 BBU(s), (1) 6601 SITE CONTROLLER(S), (1) 100A FLX FEED(S), AND (2) 300A -58 CONV FEED(S).	E-102	ELECTRICAL PANELS	0	01/31/25	ASB
	AMERICAN TOWER 10 PRESIDENTIAL WAY	AT&T MOBILITY		E-103	GROUNDING PLAN	0	01/31/25	ASB
	WOBURN, MA 01801			E-501	GROUNDING DETAILS	0	01/31/25	ASB
UTILITY COMPANIES	ENGINEER:	PROPERTY OWNER:		R-601 - R-607	SUPPLEMENTAL			
POWER COMPANY: MOUNTAIN VIEW ELECTRIC ASSOCIATION	TEP	PEAKS PIKE HOLDINGS LLC	PROJECT NOTES					
PHONE: (888) 890-5554 TELEPHONE COMPANY: CENTURYLINK	326 TRYON RD RALEIGH, NC 27603	3995 KAKATOSI LN COLORADO SPRINGS,	THE FACILITY IS UNMANNED.     A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A					
PHONE: (800) 388-9881		CO 80908-3239	MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND					
000	PROJECT LOCA	TION DIRECTIONS	J. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.     NO SANITARY SEWER. POTABLE WATER OR TRASH DISPOSAL					
Know what's below. Call before you dig.	RD., THEN SOUTH ON MA	ISTIN BLUFFS PKWY TO BARNES RKSHEFFEL RD., WEST ON NORTH TO 2865 AKERS DR.	<ul> <li>IS REQUIRED.</li> <li>HANDICAP ACCESS IS NOT REQUIRED.</li> <li>THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).</li> </ul>					





#### GENERAL CONSTRUCTION NOTES:

- OWNER FURNISHED MATERIALS, AT&T MOBILITY "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
  - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
  - AC/TELCO INTERFACE BOX (PPC)
  - ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
  - D. TOWERS, MONOPOLES
  - TOWER LIGHTING
  - GENERATORS & LIQUID PROPANE TANK
  - ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING ANTENNAS (INSTALLED BY OTHERS)
  - TRANSMISSION LINE
  - TRANSMISSION LINE JUMPERS
  - TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
  - TRANSMISSION LINE GROUND KITS
  - HANGERS
  - HOISTING GRIPS
- O. BTS EQUIPMENT
- 2 THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T MOBILITY TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS
- ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS
- CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
- ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
- DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS 7
- 8 DETAILS SHOWN ARE TYPICAL: SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION 9. SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR
- CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED 10. FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
- CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES. GROUNDS 11. DRAINS, DRAIN PIPES, VENTS, ETC, BEFORE COMMENCING WORK
- INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T 12. MOBILITY REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION, ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T MOBILITY REP PRIOR TO PROCEEDING
- EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T MOBILITY REP, AND 13. COORDINATE HIS WORK WITH THE WORK OF OTHERS
- 14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS ROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T MOBILITY CONSTRUCTION MANAGER.
- 15 ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT
- WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, 16. CONTRACTOR SHALL NOTIFY THE AT&T MOBILITY REP AND ENGINEER OF RECORD ΙΜΜΕΡΙΔΤΕΙ Υ
- CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT. 17.
- CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE. 18. FACH DAY
- 19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
- CONTRACTOR SHALL FURNISH AT&T MOBILITY AND AMERICAN TOWER CORPORATION 20. (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK

PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY 21. REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL

#### ITEMS PROVIDED.

PRIOR TO SUBMISSION OF BID. CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY 22 REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MOBILITY MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTO

23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T MOBILITY SPECIFICATIONS AND REQUIREMENTS

CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T MOBILITY FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

25 ALL FOUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T MOBILITY SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.

26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT

27 CONTRACTOR SHALL NOTICY AT&T MOBILITY, REP & MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCEPTE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND 

28. WHEN THE PROJECT SCOPE REQUIRES THE USE OF THE SAFETY CLIMB, THE GENERAL CONTRACTOR SHALL ENSURE THE SAFETY CLIMB IS FREE OF OBSTRUCTIONS, NOT RUBBING ON OR TRAPPED BY ANY INSTALLED CUSTOMER EQUIPMENT. IS VISUALLY TAUT. MEETS MANUFACTURER INSTALLATION SPECIFICATIONS, AND IS FIRMLY SECURED AT ALL CABLE GUIDE LOCATIONS UPON PROJECT COMPLETION.

29. COMPLETION OF PROJECT SHALL NOT OBSTRUCT, TRAP, LOOSEN, OR OTHERWISE CAUSE FAILURE TO MEET MANUFACTURER INSTALLATION REQUIREMENTS FOR THE SAFETY CLIMB.

CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC

31. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION

ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T MOBILITY REP. ANY WORK FOUND BY THE AT&T MOBILITY REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED

IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

AT&T MOBILITY FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T MOBILITY WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.

35. AT&T MOBILITY OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T MOBILITY OR THEIR ARCHITECT/ENGINEER

#### SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1 WORK INCLUDED:

A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T MOBILITY UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNE

- INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND AT&T MOBILITY SPECIFICATIONS.
- INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.

CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RE SCALAR NETWORK ANALYZER, SUBMIT EREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.

INSTALL COAXIAL CABLES AND TERMINATING RETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.

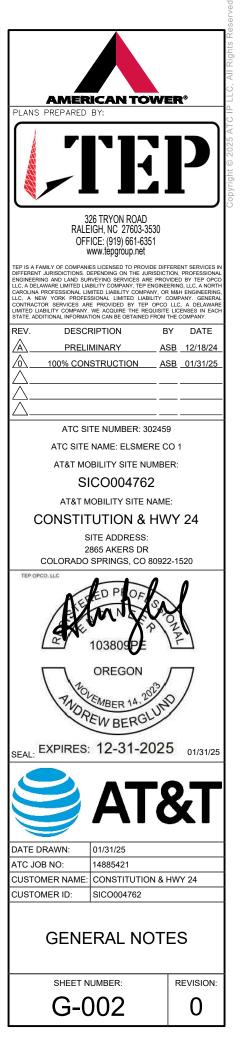
#### ANTENNA AND COAXIAL CABLE GROUNDING

2.

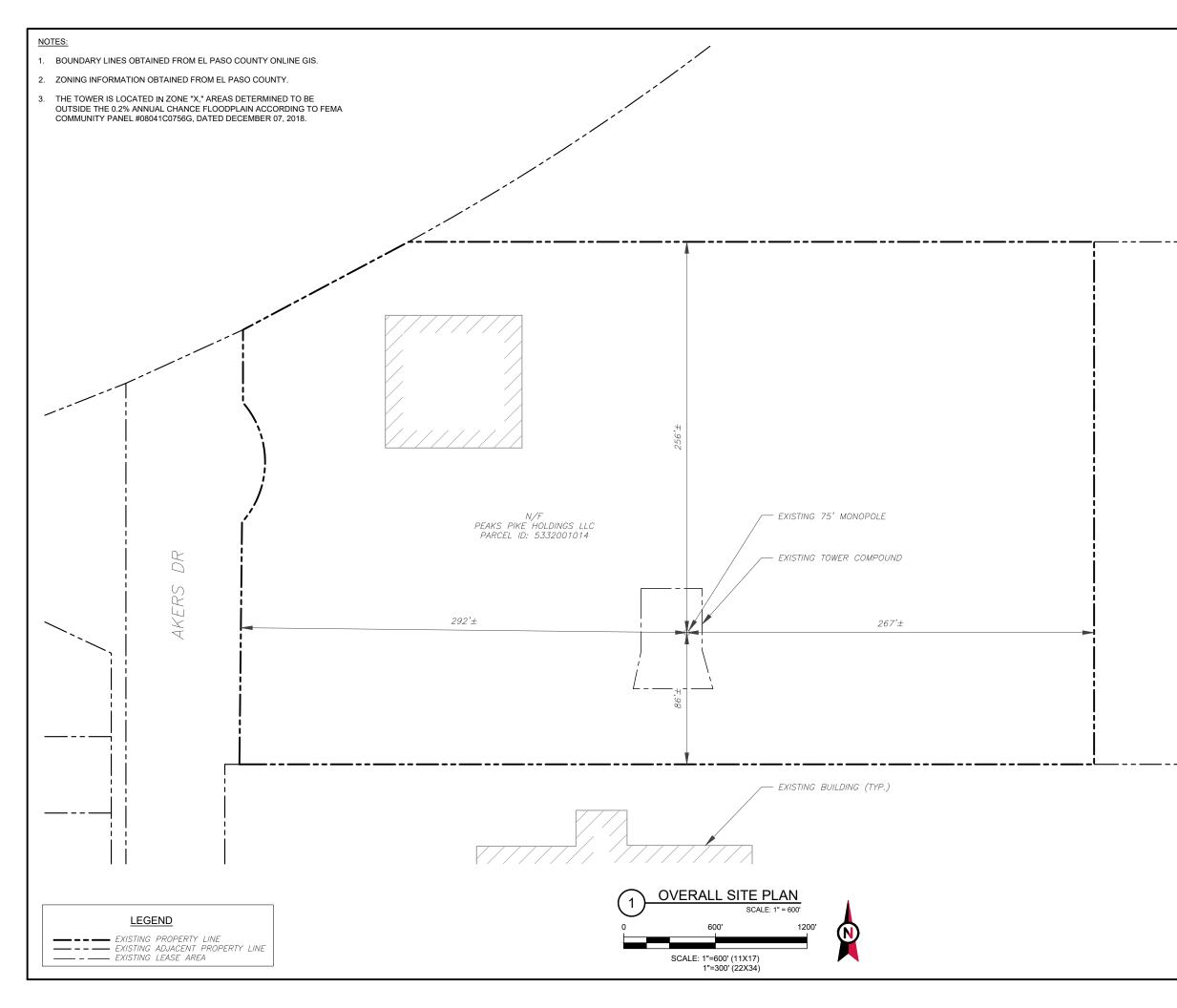
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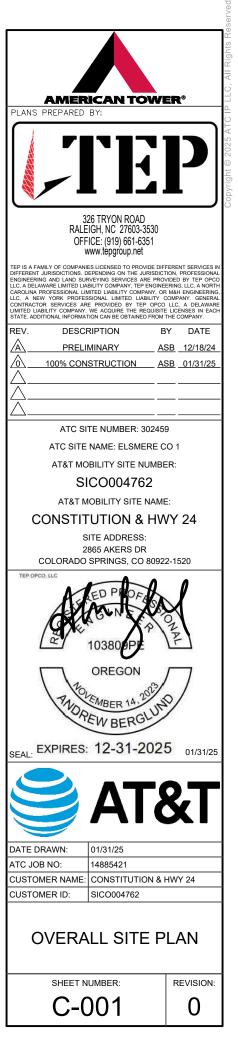
ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR FOLIAL

ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS



ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE **RESPONSIBILITY OF THE GENERAL CONTRACTOR.** 

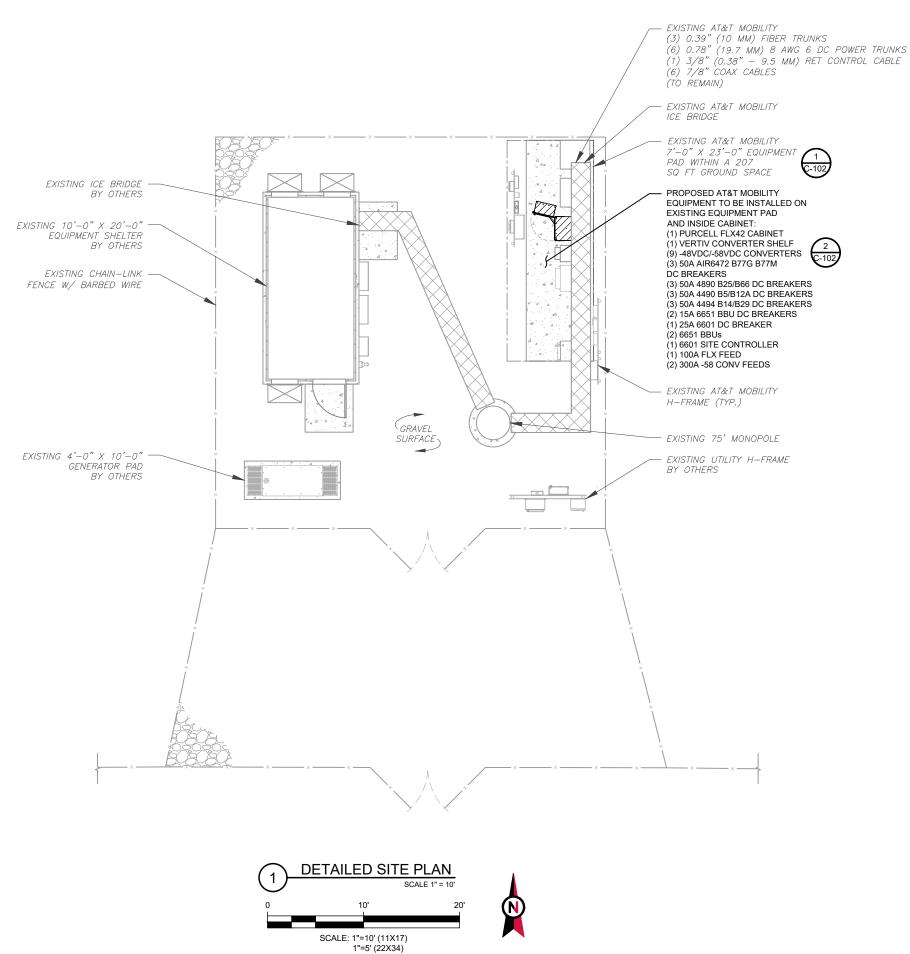


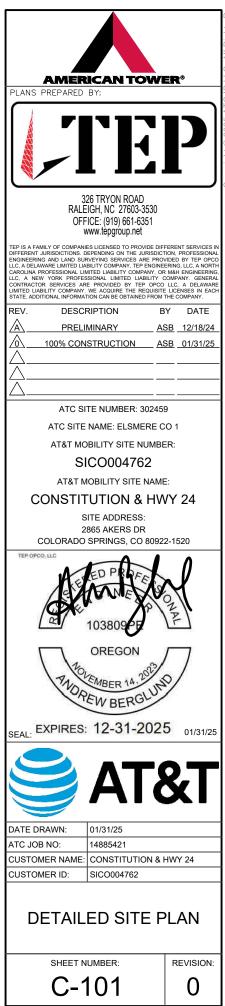


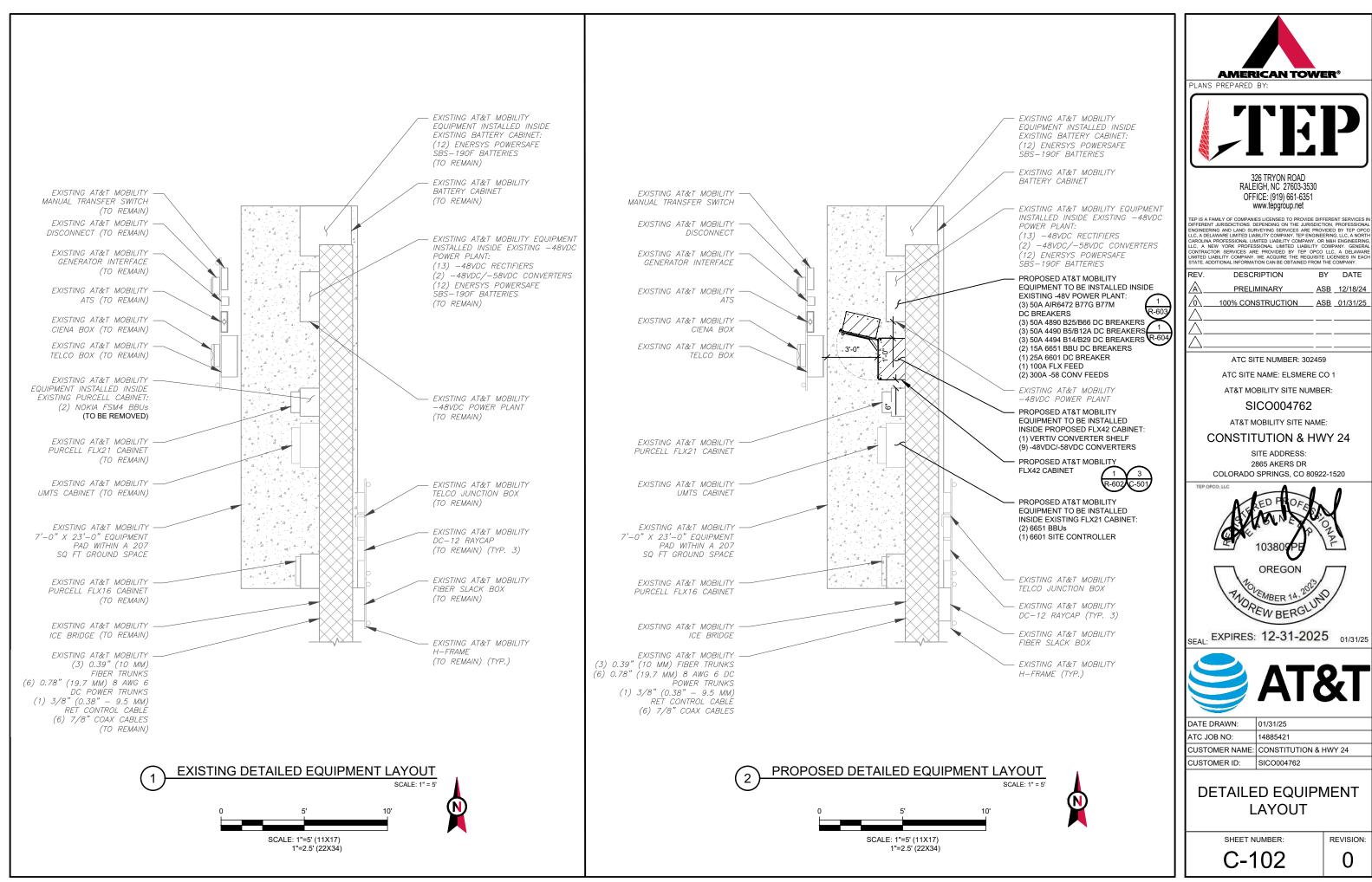
#### SITE PLAN NOTES:

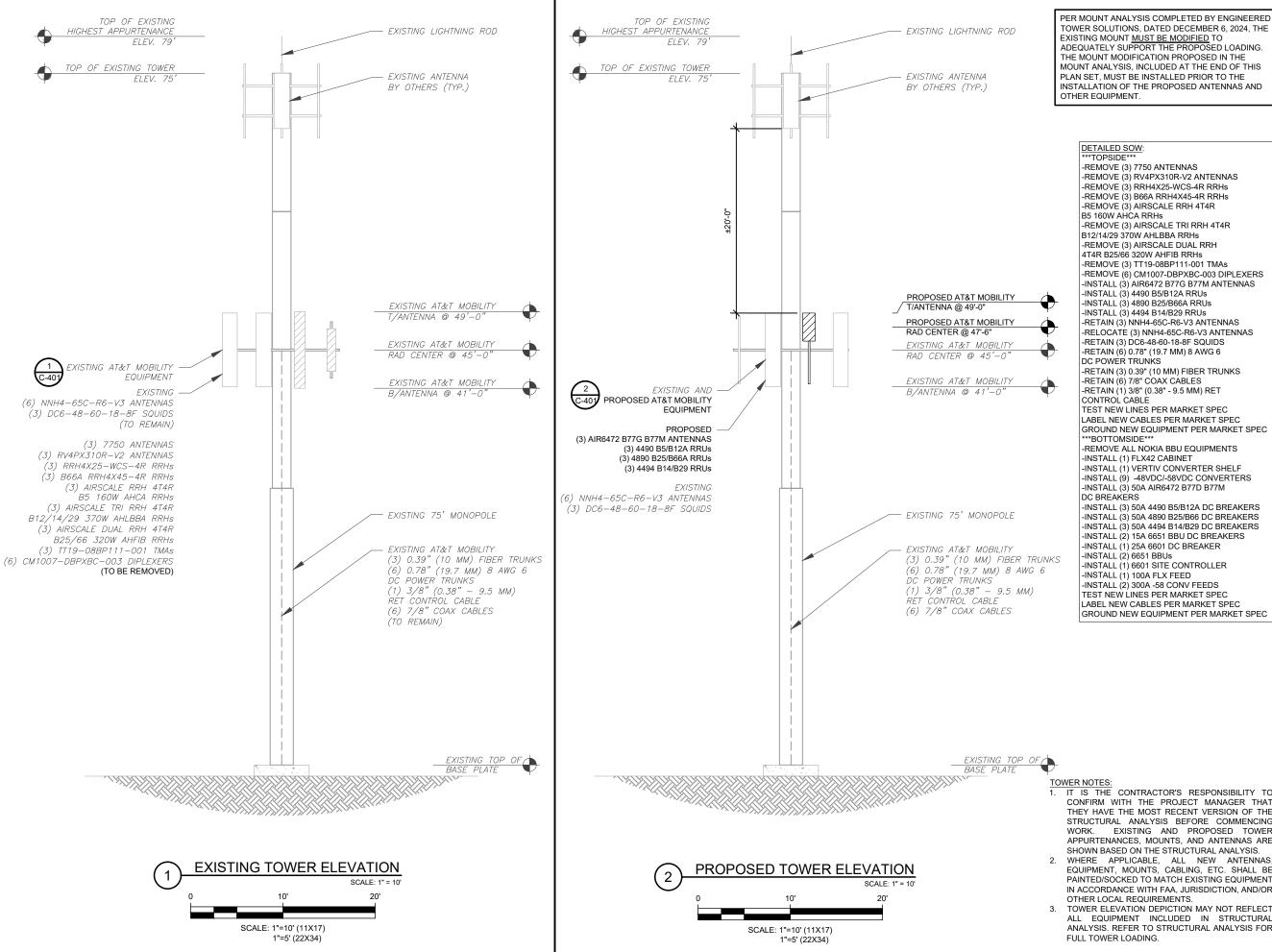
- THIS SITE PLAN REPRESENTS THE BEST PRESENT 1 KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
- 2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX 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. THIS CONSTRUCTION DRAWING SET IS NOT INTENDED TO REPRESENT ANY ELECTRICAL DESIGN OTHER THAN THE GROUNDING SHOWN, OR TO BE USED TO OBTAIN AN ELECTRICAL PERMIT. AN ELECTRICAL PERMIT IS REQUIRED TO WIRE UP THE PROPOSED CABINETS. ANY ELECTRICAL UPGRADES WILL BE ENGINEERED AND PERMITTED IN A SEPARATE CONSTRUCTION DRAWING SET.

	LEGEND
<b>⊗</b> ATS	GROUNDING TEST WELL
В	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACLE
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
К	KENTROX BOX
LC	LIGHTING CONTROL
М	METER
PB	PULL BOX
PP	POWER POLE
Т	TELCO
TRN	TRANSFORMER
×	CHAINLINK FENCE









PER MOUNT ANALYSIS COMPLETED BY ENGINEERED TOWER SOLUTIONS, DATED DECEMBER 6, 2024, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND

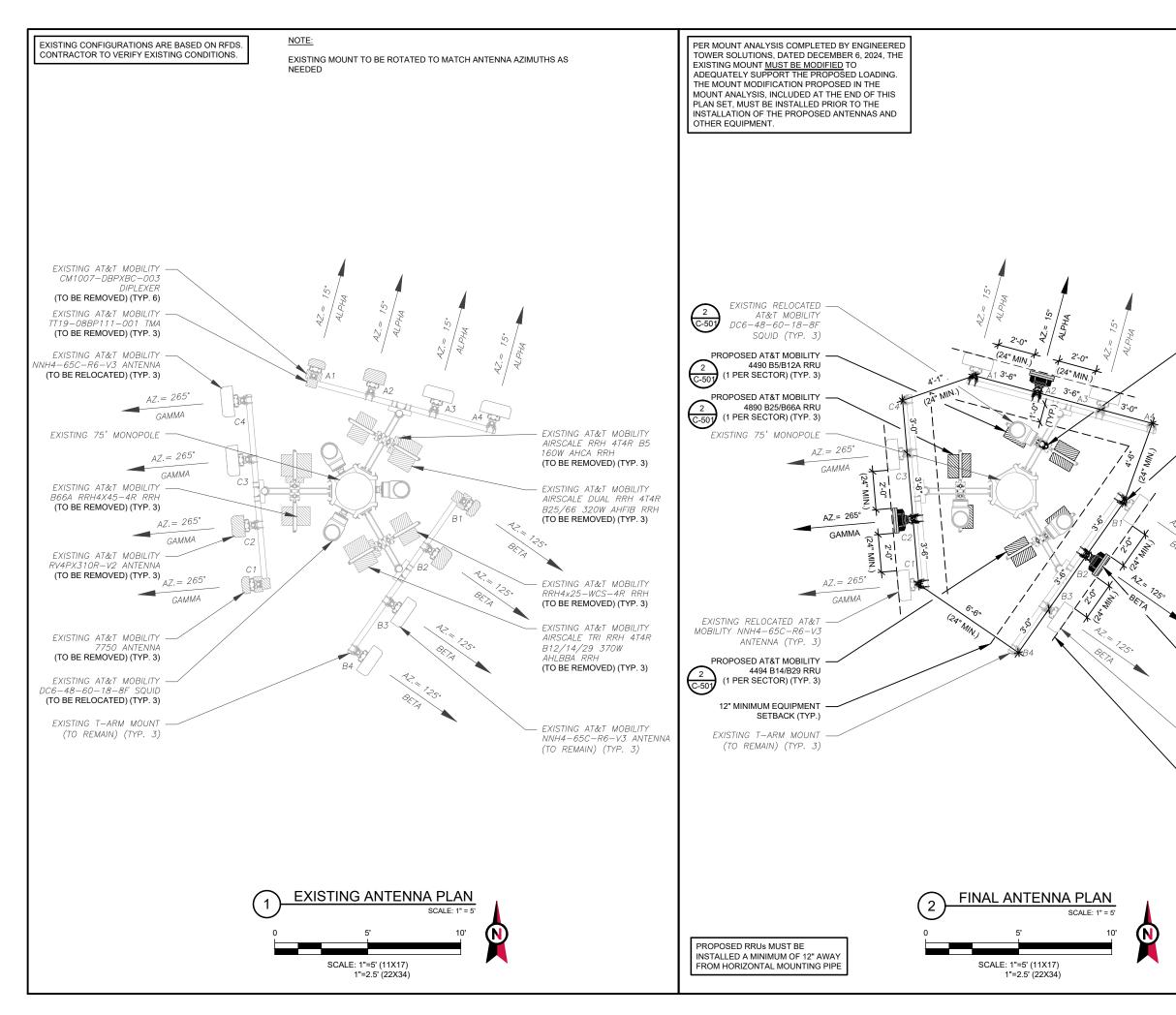
-REMOVE (3) 7750 ANTENNAS -REMOVE (3) RV4PX310R-V2 ANTENNAS -REMOVE (3) RRH4X25-WCS-4R RRHs -REMOVE (3) B66A RRH4X45-4R RRHs -REMOVE (3) AIRSCALE RRH 4T4R -REMOVE (3) AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA RRHs -REMOVE (3) AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB RRHs -REMOVE (3) TT19-08BP111-001 TMAs -REMOVE (6) CM1007-DBPXBC-003 DIPLEXERS -INSTALL (3) AIR6472 B77G B77M ANTENNAS -INSTALL (3) 4490 B5/B12A RRUs -INSTALL (3) 4890 B25/B66A RRUs -INSTALL (3) 4494 B14/B29 RRUs -RETAIN (3) NNH4-65C-R6-V3 ANTENNAS -RELOCATE (3) NNH4-65C-R6-V3 ANTENNAS -RETAIN (3) DC6-48-60-18-8F SQUIDS -RETAIN (6) 0.78" (19.7 MM) 8 AWG 6 -RETAIN (3) 0.39" (10 MM) FIBER TRUNKS -RETAIN (6) 7/8" COAX CABLES -RETAIN (1) 3/8" (0.38" - 9.5 MM) RET TEST NEW LINES PER MARKET SPEC LABEL NEW CABLES PER MARKET SPEC GROUND NEW EQUIPMENT PER MARKET SPEC -REMOVE ALL NOKIA BBU EQUIPMENTS -INSTALL (1) FLX42 CABINET -INSTALL (1) VERTIV CONVERTER SHELF -INSTALL (9) -48VDC/-58VDC CONVERTERS -INSTALL (3) 50A AIR6472 B77D B77M -INSTALL (3) 50A 4490 B5/B12A DC BREAKERS -INSTALL (3) 50A 4890 B25/B66 DC BREAKERS -INSTALL (3) 50A 4494 B14/B29 DC BREAKERS -INSTALL (2) 15A 6651 BBU DC BREAKERS -INSTALL (1) 25A 6601 DC BREAKER -INSTALL (2) 6651 BBUs -INSTALL (1) 6601 SITE CONTROLLER -INSTALL (1) 100A FLX FEED -INSTALL (2) 300A -58 CONV FEEDS TEST NEW LINES PER MARKET SPEC LABEL NEW CABLES PER MARKET SPEC

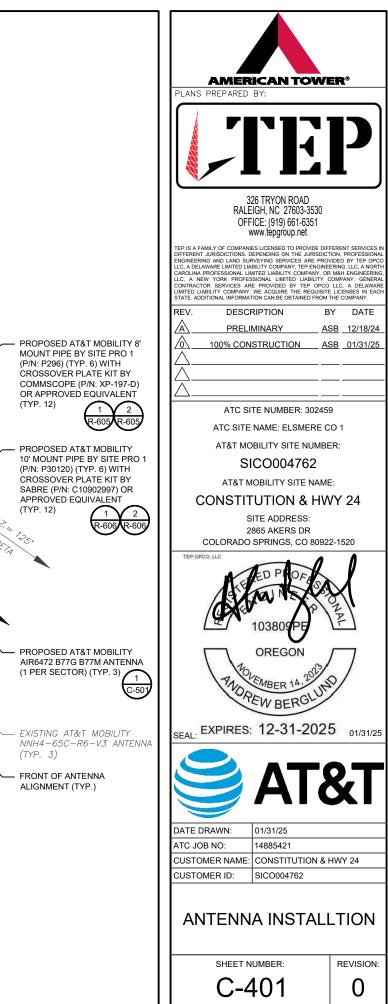
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.

WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.

TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR







				EXIS	TING ANTENNA SCHEDUL	E			NOTES					FI	NAL ANTENNA SCHEDULE				
LO	CATION			ANTEN	NA SUMMARY		NON ANTENNA SUMMA	RY	1. GC TO VERIFY THE FINAL RFDS	LOC	CATION			ANTE	ENNA SUMMARY			NON ANTENNA SUM	MARY
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS	MATCHES THE FINAL CONSTRUCTION DRAWINGS. GC TO NOTIFY ATC PM OF ANY	CTOR	RAD	AZ	POS	ANTENNA	BAND	MECH D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
			A 1	7750	UMTS 850/UMTS 1900	RMV	(1) TT19-08BP111-001 (2) CM1007-DBPXBC-003	RMV RMV	DISCREPANCY PRIOR TO INSTALLING THE EQUIPMENT. 2. GC TO CAP ALL UNUSED PORTS.		45'-0"		A1	NNH4-65C-R6-V3	LTE 700/LTE 1900/ LTE 2100	0°	RMN	(1) 4490 B5/B12A	ADD
			A2	RV4PX310R-V2	LTE WCS/LTE AWS	RMV	(1) B66A RRH4X45-4R (1) RRH4X25-WCS-4R	RMV RMV	3. CONFIRM SPACING OF PROPOSED	_рна	47'-6"	15°	A2	AIR6472 B77G B77M	5G CBAND/5G DOD	0°	ADD	-	-
ALPHA	45'	15°	A3	NNH4-65C-R6-V3	LTE 850/5G 850	RMN	(1) AIRSCALE RRH 4T4R B5	RMV	EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.		45'-0"		A3	NNH4-65C-R6-V3	LTE 850/5G 850	0°	RMN	(1) 4890 B25/B66A (1) 4494 B14/B29	ADD ADD
					,		160W AHCA (1) AIRSCALE TRI RRH 4T4R	RIVIV	4. THE ANTENNA ORIENTATION PLAN				A4	-	-	-	-	-	-
			A4	NNH4-65C-R6-V3	LTE 700/LTE 1900/ LTE 2100	REL	(1) AIRSCALE TRI RRH 414R B12/14/29 320W AHLBBA (1) AIRSCALE DUAL RRH 4T4R	RMV RMV	IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE		45'-0"		B1	NNH4-65C-R6-V3	LTE 700/LTE 1900/ LTE 2100	0°	RMN	(1) 4490 B5/B12A	ADD
					LTL 2100		B25/66 320W AHFIB		CONDITIONS INCLUDING, BUT NOT		47'-6"		B2	AIR6472 B77G B77M	5G CBAND/5G DOD	0°	ADD	-	-
			B1	7750	UMTS 850/UMTS 1900	RMV	(1) TT19-08BP111-001 (2) CM1007-DBPXBC-003	RMV RMV	MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES	ETA -	45'-0"	125°	B3	NNH4-65C-R6-V3	LTE 850/5G 850	0°	RMN	(1) 4890 B25/B66A (1) 4494 B14/B29	ADD ADD
			B2	RV4PX310R-V2	LTE WCS/LTE AWS	RMV	(1) B66A RRH4X45-4R (1) RRH4X25-WCS-4R	RMV	SHOWN ARE FOR REFERENCE				B4	-	-	-	-	-	-
BETA	45'	125°	B3	NNH4-65C-R6-V3	LTE 850/5G 850	RMN	(1) AIRSCALE RRH 4T4R B5	RMV RMV	ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL		45'-0"		C1	NNH4-65C-R6-V3	LTE 700/LTE 1900/ LTE 2100	0°	RMN	(1) 4490 B5/B12A	ADD
				111117 000 110 10	LIL 000/00 000	1 (10/11)	160W AHCA	RMV	EXISTING CONDITIONS PRIOR TO		47'-6"		C2	AIR6472 B77G B77M	5G CBAND/5G DOD	0°	ADD	-	-
			B4	NNH4-65C-R6-V3	LTE 700/LTE 1900/ LTE 2100	REL	(1) AIRSCALE TRI RRH 4T4R B12/14/29 320W AHLBBA (1) AIRSCALE DUAL RRH 4T4R	RMV RMV	INSTALLATION AND NOTIFY ATC GAN OF ANY DISCREPANCIES. 5. CONTRACTOR TO ENSURE		45'-0"	265°	C3	NNH4-65C-R6-V3	LTE 850/5G 850	0°	RMN	(1) 4890 B25/B66A (1) 4494 B14/B29	ADD ADD
					2122100		B25/66 320W AHFIB		PROPER SEPARATION IN				C4	-	-	-	-	-	-
			C1	7750	UMTS 850/UMTS 1900	RMV	(1) TT19-08BP111-001 (2) CM1007-DBPXBC-003	RMV RMV	ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS.										
			C2	RV4PX310R-V2	LTE WCS/LTE AWS	RMV	(1) B66A RRH4X45-4R (1) RRH4X25-WCS-4R	RMV RMV	STATUS ABBREVIATIONS										
GAMMA	45'	265°	С3	NNH4-65C-R6-V3	LTE 850/5G 850	RMN	(1) AIRSCALE RRH 4T4R B5 160W AHCA	RMV RMV	RMV: TO BE REMOVED										
			C4	NNH4-65C-R6-V3	LTE 700/LTE 1900/ LTE 2100	REL	(1) AIRSCALE TRI RRH 4T4R B12/14/29 320W AHLBBA (1) AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB	RMV RMV	REL: TO BE RELOCATED ADD: TO BE ADDED										

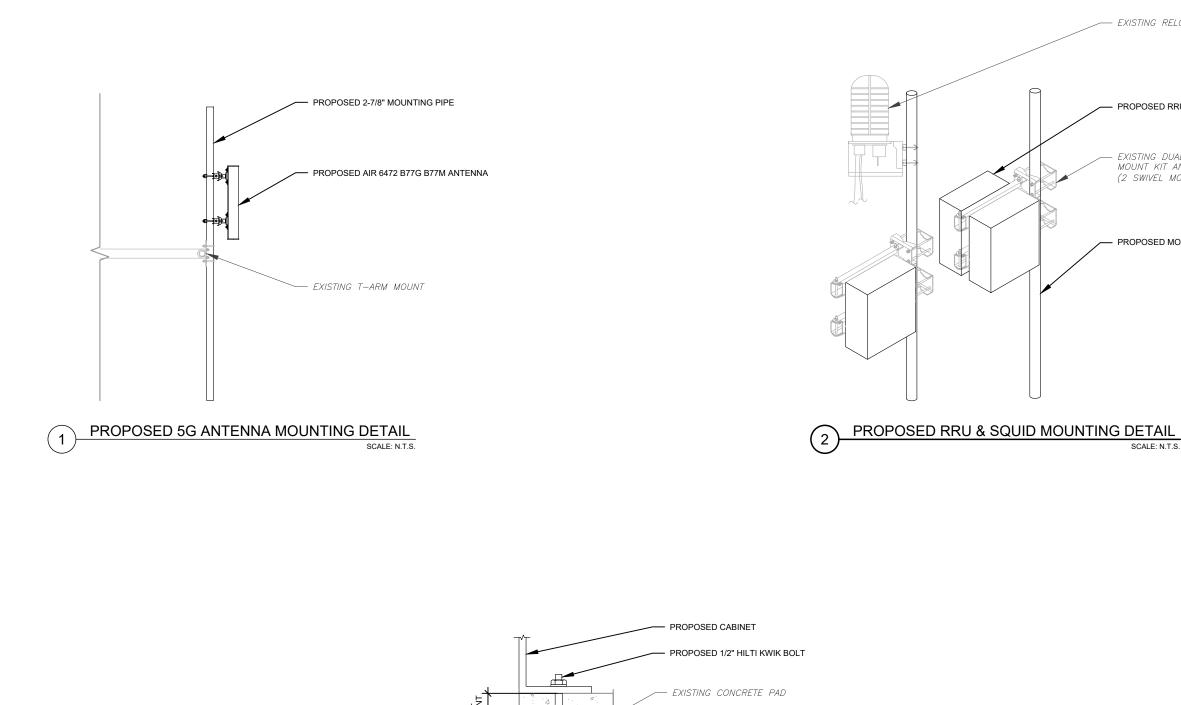
CABLE LENGTHS FOR JUMPERS JUNCTION BOX TO RRU: 15' RRU TO ANTENNA: 10'

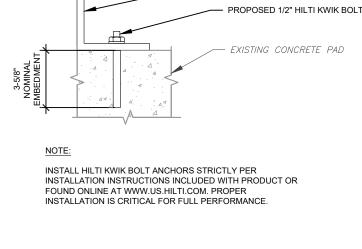
EXISTING FIBER DISTRIBUTI	ON/SQUID	E	EXISTING CABLING SUMMARY									
MODEL NUMBER	STATUS	COAX	DC/RET	FIBER	STATUS							
(3) DC6-48-60-18-8F	REL	(6) 7/8"	(6) 0.78" (19.7MM) 8 AWG 6	(3) 0.39" (10MM) TRUNK	RMN							
_	_	-	(1) 3/8" (0.38" – 9.5 MM) RFT	_	RMN							

FINAL FIBER DISTRIBUTION	N/SQUID		FINAL CABLING SU	MMARY	
MODEL NUMBER	STATUS	COAX	DC/RET	FIBER	STATUS
(3) DC6-48-60-18-8F	RMN	(6) 7/8"	(6) 0.78" (19.7MM) 8 AWG 6	(3) 0.39" (10MM) TRUNK	RMN
-	-	-	(1) 3/8" (0.38" – 9.5 MM) RET	-	RMN

1) EQUIPMENT SCHEDULES

AMERICAN TOWN	ER®
	P
326 TRYON ROAD RALEIGH, NC 27603-3530 OFFICE: (919) 661-6351 www.tepgroup.net	
TEP IS A FAMILY OF COMPANIES LICENSED TO PROVIDE DIF DIFFERENT JURISDICTIONS. DEPENDING ON THE JURISDICT ENGINEERING AND LAND SURVEYING SERVICES ARE PRO- LLC. A DELWARENSITTED LABILITY COMPANY, TEP ENVICE LLC. A NEW YORK PROFESSIONAL LIMITED LABILITY CONTRACTOR SERVICES ARE PROVIDED BY TEP OPCO LIMITED LIABILITY COMPANY, WE ACQUIRE THE REQUIST STATE. ADDITIONAL INFORMATION CAN BE OBTAINED FROM	IDED BY TEP OPCO
REV.     DESCRIPTION     B       A     PRELIMINARY     AS       A     100% CONSTRUCTION     AS	<u>SB 12/18/24</u>
ATC SITE NUMBER: 302453 ATC SITE NAME: ELSMERE C AT&T MOBILITY SITE NUMBE	O 1
SICO004762 AT&T MOBILITY SITE NAME CONSTITUTION & HW	
SITE ADDRESS: 2865 AKERS DR COLORADO SPRINGS, CO 8092	
TEP OPECILLE TEP O	MAL
OREGON	7
SEAL: EXPIRES: 12-31-202	5 01/31/25
STA 🥘	ЪТ
DATE DRAWN:         01/31/25           ATC JOB NO:         14885421           CUSTOMER NAME:         CONSTITUTION & F           CUSTOMER ID:         SICO004762	
ANTENNA SCHED	OULE
SHEET NUMBER: C-402	





PROPOSED CABINET ATTACHMENT DETAIL SCALE: N.T.S.

3

EXISTING RELOCATED SQUID

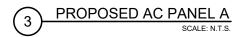
#### PROPOSED RRU (TYP.)

EXISTING DUAL SWIVEL MOUNT KIT AND HARDWARE (2 SWIVEL MOUNTS PER KIT)

PROPOSED MOUNTING PIPE (TYP.)







			A	AC POWE	R MAIN PA	NEL A (PI	ROPOSE	<b>D)</b>			
			1	20/240 VC	DLTS, 1-PH	ASE, 3-W	VIRE, 200	A			
	MAIN	BREA	KER RA	TING (A) :	20	00	SYS	TEM VOI	TAGE	E (V) :	240
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
RECTIFIER 1	1220	С	30/2	1	1400		2	20/1	nc	180	GFI
RECIFICK	1220	С	30/2	3		1520	4	20/1	nc	300	LIGHTS
RECTIFIER 2	1220	С	30/2	5	1940		6	20/1	nc	720	TELCO OUTLET
RECTIFIER 2	1220	С	30/2	7		2220	8	20/1	nc	1000	POWER PLANT HEATE
	0	С	60/2	9	1220	9	10	30/2	С	1220	
SURGE PROTECTOR	0	С	00/2	11		1220	12	30/2	С	1220	RECTIFIER 3
	0	nc	100/2	13	180		14	100/2	С	180	
UMTS / OFF	0	nc	100/2	15		1920	16	100/2	С	1920	SUB PAN
SIENNA	1920	с	20/1	17	3140		18	20/2	С	1220	DEATIFIED (
POWER PLANT GFI	180	nc	20/1	19		1400	20	30/2	С	1220	RECTIFIER 4
		PHAS	E TOTAL	LS (VA):	7880	8280	)	2	3		
		PHA	SE TOTA	ALS (A):	66	69					
CURRENT PER PHAS	E W/ 125%	Conti	nuous Lo	bads (A):	80	83	Amperes	/phase ca	annot	exceed m	nain breaker rating
		PAN	NEL TOT	AL (VA):	161	60		Leger	id: c =	continuo	us, nc = non-continuous
PANEL TOTAL	W/ 125% (	Continu	uous Loa	ds (VA):	196	605					

					ER PANE						
			1	20/240 VO	LTS, 1-PH	ASE, 3-W	/IRE, 200	A			2
	MAIN	BREA	KER RA	TING (A) :	20	00	SYS	TEM VOL	TAGE	(V):	240
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
	1220	С	30/2	1	1220		2	30/2	nc	0	
RECTIFIER 5	1220	С	30/2	3		1220	4	30/2	nc	0	UNLABELED / OFF
DEOTICIER	1220	с	30/2	5	1220		6	30/2	nc	0	
RECTIFIER 6	1220	С	30/2	7		1220	8	30/2	nc	0	UNLABELED / OFF
	590	с	30/2	9	1590		10	20/1	nc	1000	BATTERY CAB HEATER 1
RECTIFIER 7	590	С	30/2	11		1590	12	20/1	nc	1000	BATTERY CAB HEATER 2
BATTERY CAB GFI	180	nc	20/1	13	180		14				BLANK
BLANK				15		0	16				BLANK
BLANK				17	0		18				BLANK
BLANK				19		0	20				BLANK
	*	PHAS	E TOTAL	LS (VA):	4210	4030			<i>n</i> . Ai		
		PHA	SE TOTA	ALS (A):	35	34					
CURRENT PER PHAS	SE W/ 125%	Conti	nuous Lo	ads (A):	41	40	Amperes/	phase ca	annot e	exceed m	ain breaker rating
		PAN	NEL TOT	AL (VA):	82-	40		Legen	id: c =	continuo	us, nc = non-continuous
PANEL TOTAL	_ W/ 125% (	Continu	ious Loa	ds (VA):	97	55					

EXISTING AC PANEL A (1)SCALE: N.T.S.

EXISTING AC PANEL B SCALE: N.T.S. (2)

				AC POWE	ER MAIN PA	ANEL A (E	EXISTING)									AC PO	WER PANEL	B (EXI	STING)				<u></u>
			1	20/240 VC	DLTS, 1-PH	ASE, 3-W	VIRE, 200	Ą							1	20/240 VC	LTS, 1-PHA	SE, 3-W	/IRE, 200	A			
	MAIN	BREA	KER RAT	ΓING (A) :	20	00	SYST	EM VOL	TAGE	(V):	240		MAIN	BREA	KER RA	TING (A) :	200	i.	SYS	TEM VO	LTAGE	(V):	240
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION	DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
RECTIFIER 1	700	С	30/2	1	880		2	20/1	nc	180	GFI		700	C	20/2	1	700		2	20/2	nc	0	
RECIFIER	700	С	30/2	3		1000	4	20/1	nc	300	LIGHTS	RECTIFIER 5	700	С	30/2	3		700	4	30/2	nc	0	UNLABELED / OFF
RECTIFIER 2	700	С	30/2	5	1420		6	20/1	nc	720	TELCO OUTLET	DEOTIFIED 6	700	С	30/2	5	700		6	30/2	nc	0	
	700	С	50/2	7		1700	8	20/1	nc	1000	POWER PLANT HEATER	RECTIFIER 6	700	С	30/2	7		700	8	30/2	nc	0	UNLABELED / OFF
SURGE PROTECTOR	0	C	60/2	9	700		10	30/2	C	700	RECTIFIER 3	RECTIFIER 7	350	C	30/2	9	1350		10	20/1	nc	1000	BATTERY CAB HEATE
	0	С	00/2	11		700	12	00/2	С	700	KEOTI IEK S	RECTIFIER 7	350	С	50/2	11		1350	12	20/1	nc	1000	BATTERY CAB HEATE
UMTS / OFF	0	nc	100/2	13	180		14	100/2	С	180	SUB PAN	BATTERY CAB GFI	180	nc	20/1	13	180		14				BLANK
	0	nc	inter a constant and	15		1920	16	100/2	C	1920	COBTAN	BLANK				15		0	16				BLANK
SIENNA	1920	С	20/1	17	2620		18	30/2	С	700	RECTIFIER 4	BLANK			-	17	0		18				BLANK
POWER PLANT GFI	180	nc	20/1	19		880	20	00/2	C	700		BLANK			_	19		0	20				BLANK
			E TOTAL		5800	6200								PHAS	E TOTA	LS (VA):	2930	2750					
			SE TOTA		48	52	1									ALS (A):	24	23					
CURRENT PER PHAS	E W/ 125%	Conti	nuous Lo	ads (A):	59	-27	Amperes/	phase ca	annot e	xceed ma	in breaker rating	CURRENT PER PHA	SE W/ 125%	o Conti	nuous Lo	bads (A):	28	27	Amperes.	/phase c	annote	exceed ma	ain breaker rating
			NEL TOT		120			Legen	d: c =	continuou	s, nc = non-continuous					AL (VA):	5680			Lege	nd:c=	continuou	is, nc = non-continuous
PANEL TOTAL	W/ 125% (	Continu	uous Loa	ds (VA):	144	05						PANEL TOTA	L W/ 125%	Contin	uous Loa	ads (VA):	6555	5					

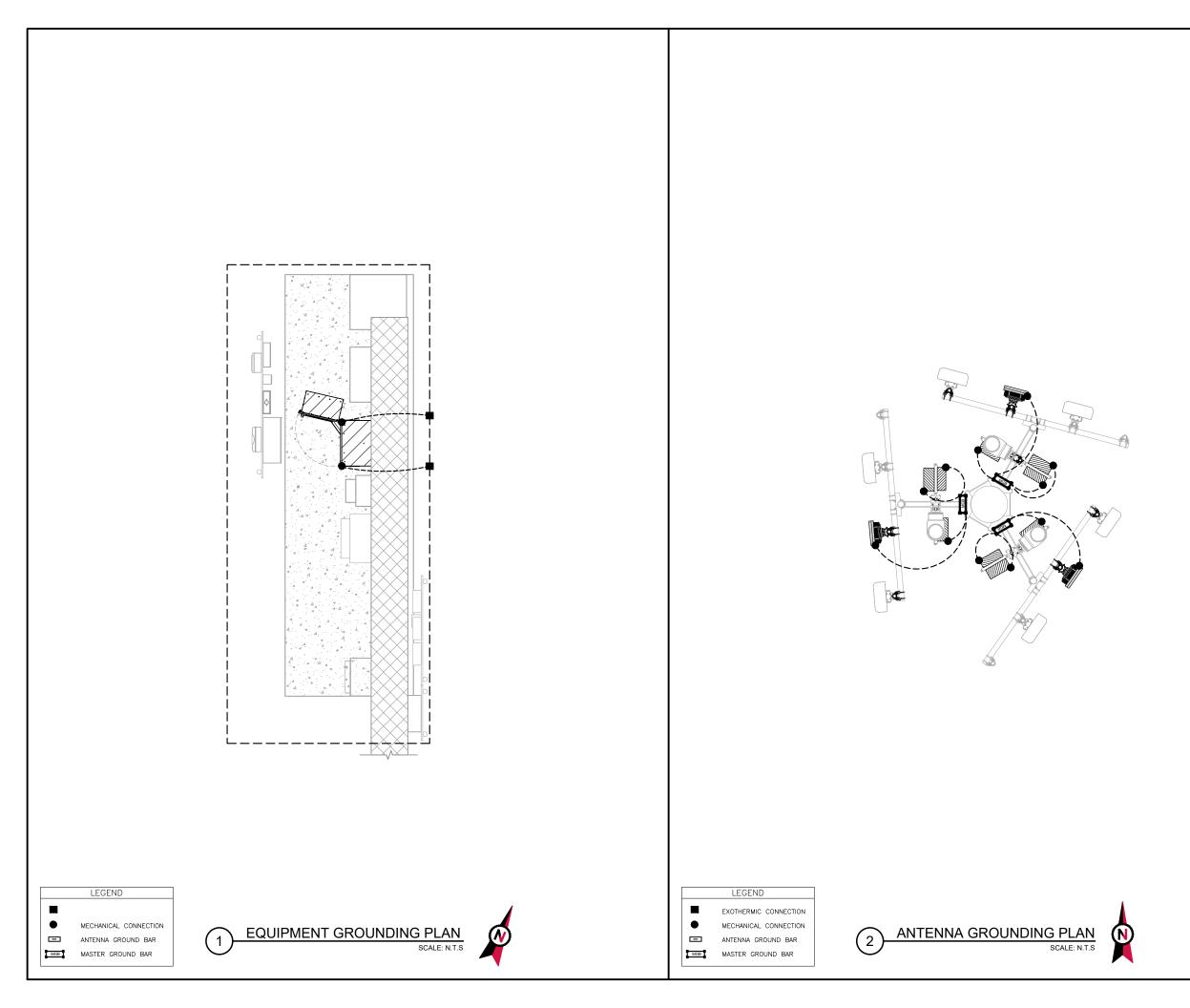
AMERICAN TOWN	ER®
	P
326 TRYON ROAD RALEIGH, NC 27603-3530 OFFICE: (919) 661-6351 www.tepgroup.net	
TEP IS A FAMILY OF COMPANIES LICENSED TO PROVIDE DIF DIFFERENT JURISDICTIONS. DEPENDING ON THE JURISDICT ENGINEETING AND LAND SURVEYING SERVICES ARE PROVI LIC, A DELAVARE LIMITED LUBILITY COMPANY, TEP ENGINE OCC. THE PRESE CALL DELAVARE LIMITED LUBILITY COMPANY, TEP ENGINE CONTRACTOR SERVICES ARE PROVIDED BY TEP OPCO LIMITED LUBILITY COMPANY WE ACQUIRE THE REQUISTI STATE. ADDITIONAL INFORMATION CAN BE OBTAINED FROM	ION, PROFESSIONAL
	Y DATE <u>SB 12/18/24</u> <u>SB 01/31/25</u>
ATC SITE NUMBER: 302459 ATC SITE NAME: ELSMERE C AT&T MOBILITY SITE NUMBE	01
SICO004762 AT&T MOBILITY SITE NAME	
CONSTITUTION & HW SITE ADDRESS: 2865 AKERS DR COLORADO SPRINGS, CO 8022	7Y 24
Softwart Eco 94439PE	0711
OREGON	J š
	01/31/25
DATE DRAWN: 01/31/25 ATC JOB NO: 14885421 CUSTOMER NAME: CONSTITUTION & I CUSTOMER ID: SICO004762	HWY 24
ELECTRICAL PAN	IELS
	REVISION:

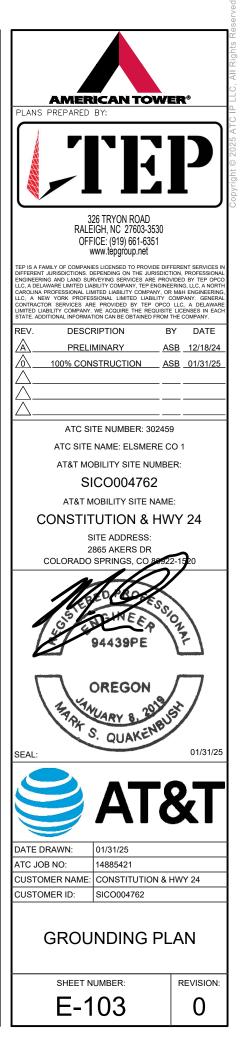
			ŀ	AC POWER	SUB-PAN	IEL (EXIS	TING)				
			120	/240 VOLT	S, 1-PHAS	E, 3-WIR	E, 100A				
	MAIN	BREA	KER RA	TING (A) :	10	0	SYS	TEM VO	LTAGE	(V):	240
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTIO
TOWER LIGHTS CONTROLLER / OFF	0	nc	20/1	1	180		2	20/1	nc	180	GFI OUTLET
BLANK				3		1920	4	20/1	С	1920	OPTO 22
BLANK				5	0		6				BLANK
BLANK				7		0	8				BLANK
BLANK				9	0		10				BLANK
BLANK				11		0	12				BLANK
		PHAS	E TOTA	LS (VA):	180	1920			- 14 14-		
		PHA	SE TOT	ALS (A):	2	16					
CURRENT PER PHASE	N/ 125%	Conti	nuous Lo	oads (A):	2	20	Amperes	/phase c	annot e	exceed n	nain <mark>b</mark> reaker rating
		PAN	NEL TOT	AL (VA):	210	00		Leger	nd:c=	continuo	ous, nc = non-continuous
PANEL TOTAL W	// 125%	Continu	Jous Loa	ads (VA):	258	30					

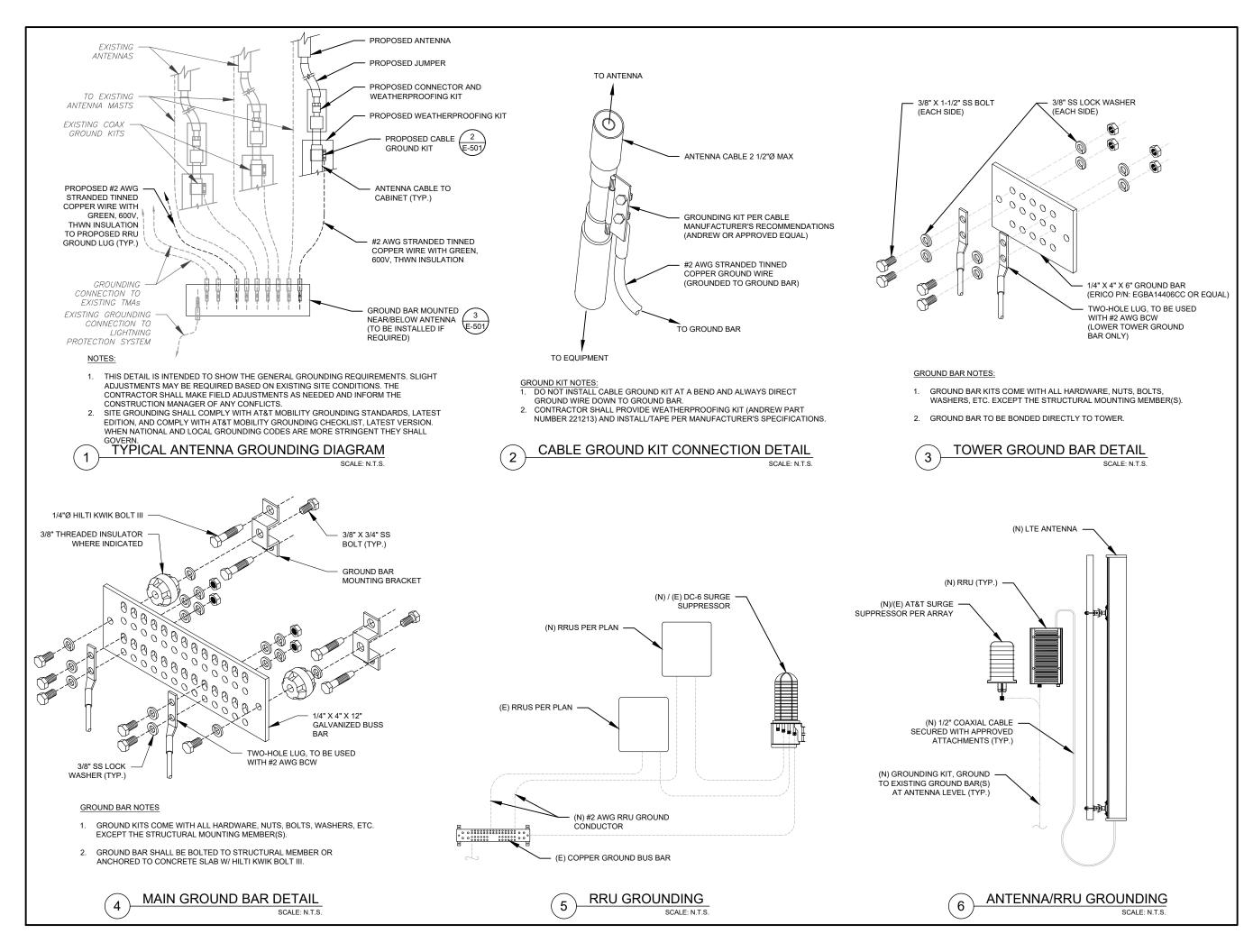
EXISTING SUB-AC PANEL SCALE: N.T.S.  $\begin{pmatrix} 1 \end{pmatrix}$ 

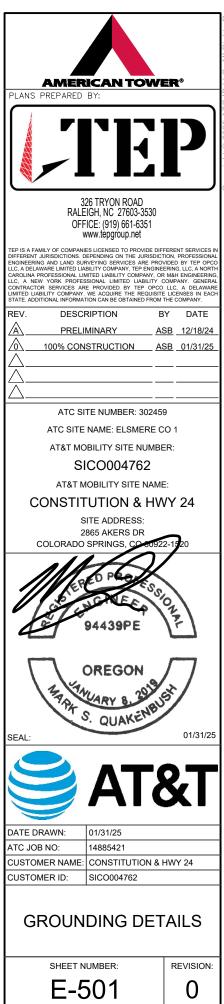
			2		R SUB-PA	The second second second second second					
	MAIN	BREA		20/240 VC TING (A) :	LTS, 1-PH 20		Contract of the street	TEM VO	LTAGE	E (V) :	240
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTIO
TOWER LIGHTS CONTROLLER / OFF	0	nc	20/1	1	180		2	20/1	nc	180	GFI OUTLET
BLANK				3		1920	4	20/1	С	1920	OPTO 22
BLANK				5	0		6				BLANK
BLANK				7		0	8				BLANK
BLANK				9	0		10				BLANK
BLANK				11		0	12				BLANK
BLANK				47		0	48				BLANK
		PHAS	E TOTA	LS (VA):	180	1920		,			121
		PHA	SE TOT	ALS (A):	2	16					
CURRENT PER PHASE V	N/ 125%	6 Conti	nuous Lo	bads (A):	2	20	Amperes	/phase c	annot	exceed m	nain breaker rating
		PAN	NEL TOT	AL (VA):	210	00		Leger	nd: c =	continuo	us, nc = non-continuous
PANEL TOTAL W	/ 125%	Continu	lous Loa	ads (VA):	258	30					

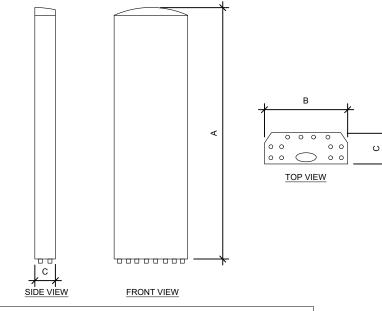
		MERICAN TOW	ER®
	PLANS PR	REPARED BY:	
CRIPTION			[כו
OUTLET			■ j
PTO 22		326 TRYON ROAD	
BLANK		RALEIGH, NC 27603-3530 OFFICE: (919) 661-6351	
BLANK		www.tepgroup.net	
BLANK	ENGINEERING A	Y OF COMPANIES LICENSED TO PROVIDE DI ISDICTIONS. DEPENDING ON THE JURISDIC IND LAND SURVEYING SERVICES ARE PRO E LIMITED LIABILITY COMPANY, TEP ENGINE	VIDED BY TEP OPCO
BLANK	CAROLINA PROI LLC, A NEW Y CONTRACTOR	FESSIONAL LIMITED LIABILITY COMPANY, O YORK PROFESSIONAL LIMITED LIABILITY SERVICES ARE PROVIDED BY TEP OPCC TY COMPANY. WE ACQUIRE THE REQUISIT NAL INFORMATION CAN BE OBTAINED FROM	R M&H ENGINEERING, COMPANY. GENERAL ) LLC, A DELAWARE E LICENSES IN EACH
	REV.	DESCRIPTION	BY DATE
			<u>SB 12/18/24</u>
ng	<u>/0\1</u>	00% CONSTRUCTION A	<u>SB_01/31/25_</u>
ntinuous	$\overline{\bigtriangleup}$		
nunuous	$\bigtriangleup$		
		ATC SITE NUMBER: 30245 ATC SITE NAME: ELSMERE (	
		AT&T MOBILITY SITE NUMB	
		SICO004762	
		AT&T MOBILITY SITE NAM	E:
	СО	NSTITUTION & HV	VY 24
		SITE ADDRESS: 2865 AKERS DR	_
	со	LORADO SPRINGS, CO 8092	2-1520
		Mes PR -	~
CRIPTION		CIST ENGLINEEP,	ONAL
SRIPTION	8	94439PE	171
OUTLET			
PTO 22	$  \rangle$		x
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site - state stratiges (			
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	DATE DRA ATC JOB N		
2		R NAME: CONSTITUTION &	HWY 24
	CUSTOME	R ID: SICO004762	
Ig			
ntinuous	EL	ECTRICAL PAN	NELS
		SHEET NUMBER:	REVISION:
		E-102	0
			_





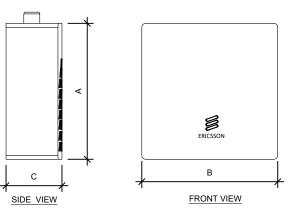






ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	В	С	WEIGHT (LBS)
AIR6472 B77G B77M	36.4"	16.1"	7.5"	92.6

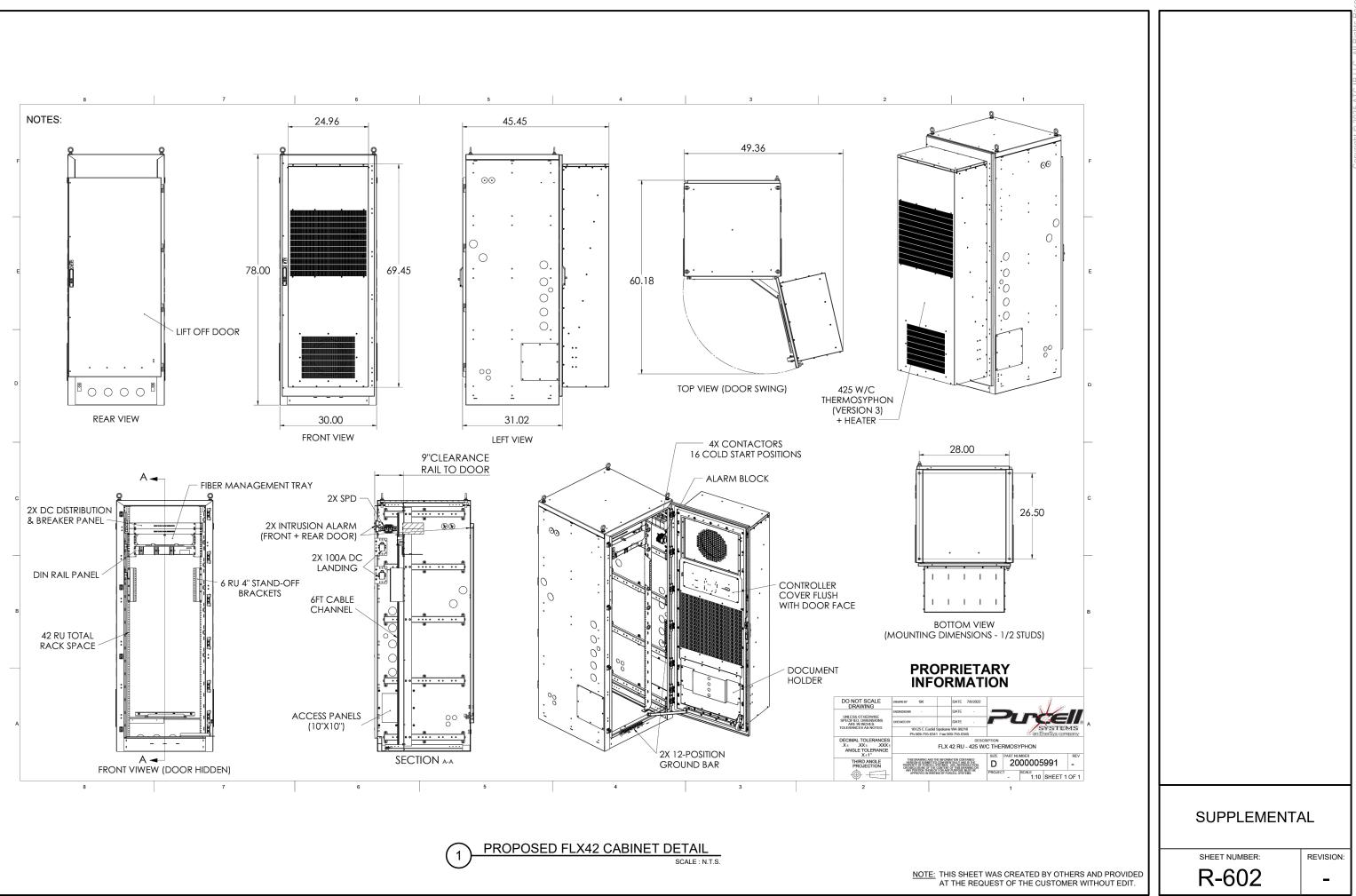
TOP VIEW



RRU SPECIFICATIONS				
RRU MODEL	A	В	С	WEIGHT (LBS)
4490 B5/B12A	17.5"	15.1"	6.8"	68.3
4890 B25/B66A	17.5"	15.1"	6.9"	69.5
4494 B14/B29	17.5"	15.1"	5.6"	57.3



# SUPPLEMENTAL SHEET NUMBER: REVISION: R-601 -



## Vertiv<sup>™</sup> eSure<sup>™</sup> Converter C48/58 -2000P3



#### **Key Benefits**

#### Converter, 48 to 58 VDC, 2000 W Peak / 1600 W Average

- Reduce power consumption and lower operating costs with 95% peak efficiency.
- Easily add capacity with hot pluggable interchangeable components.
- Ensure high availability with wide input voltage range from 41 VDC to 58 VDC.
- Power your 5G sites in the harsh environments with operation from -40°C to +65°C.
- Enjoy peace of mind with high quality UL recognized design.

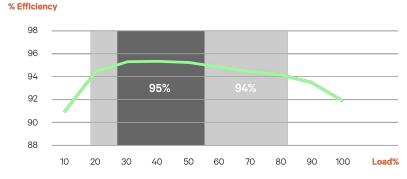
*Easily support higher power 5G remote radios on cell towers* with modular 2000 watt eSure<sup>™</sup> power extend converters.

#### Description

The Vertiv™ eSure™ C48/58-2000P3 high-efficiency converter is designed to operate from a nominal -48 VDC source to provide nominal -58 VDC load power, which is adjustable to application needs up to 2000 watts peak, 1600 watts average. This constant power converter designed with the latest patented switchmode technology, uses digital signal processing (DSP) for efficient operation.

The eSure C48/58-2000P3 DC to DC converter is ideal for feeding high power remote radio heads (RRHs). 58 VDC is regulated over a wide input range to minimize voltage drop in the cable feeding the RRH and sustain operation to end of battery discharge. When redundancy is critical or loads are high, multiple eSure C48/58-2000P3 converters can be connected in parallel to support a variety of telecom applications. Unified remote management and control of the power system is enabled when combined with a Vertiv™ NetSure<sup>™</sup> controller.





C48/58-2000P3 Efficiency Curve at 53.5 VDC Nominal Input

### Vertiv<sup>™</sup> eSure<sup>™</sup> Converter

#### **Technical Specifications**

DC Input

Maximum Current

DC Output

Maximum Power

Maximum Current

Peak Efficiency

Control and Monitoring

Alarms and Signaling

Noise

Voltage

Voltage

Fig	ure	es	
VDC			
60	-		F
50			-
40			-
30			_
20			L
10			L

-	
35.7 A at 2000 W peak (see <i>figure 1</i> ), 28.6 A at 1600 W average, 22.9 A at 1280 W average, all at 56 VDC	Figure 1: Output Voltage vs. Output Current at Maximum peak Power 2000 W
>95%	
< 250mV pk-pk; < 20mV rms; <38 dBrnC	% Watts 55 75 65 80
	120
	100
Alarm and status reported via CAN bus to system controller	80
	60
Green LED: Normal Operation Yellow LED: Alarm Red LED: Failure Flashing Red LED: Fan Failure	40
	-40 -20 0 20 40 60 80 100 10

Visual Indications	Yellow LED: Alarm Red LED: Failure Flashing Red LED: Fan Failure
Environmental	
Operating Temperature	-40°C to +80°C / -40°F to +176°F (see figure 2)
Storage Temperature	-40°C to +85°C / -40°F to +185°F
Relative Humidity	0 to 90%
Altitude	2000 m / 6560 ft at full power
Standards Compliance	
Safety	UL62368-1, EN62368-1, IEC62368-1
EMC	FCC CFR 47 Part 15 Class A conducted and Class B radiated
EMC Environment	
	Class A conducted and Class B radiated
Environment	Class A conducted and Class B radiated

C48/58-2000P3

56 VDC to 58 VDC

2000 W peak, 1600 W average

at 40°C, 1280 W average at 65°C

53 A

41 VDC to 58.5 VDC, 48 VDC (nominal)

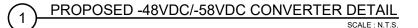
#### **Ordering Information**

Part Number	Description	
1C48582000P3	eSure™ converter, -48 to -58 VDC, 2000 W peak / 1600 W average	

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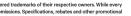
C48/58-2000P3 (02/2024)



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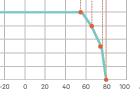
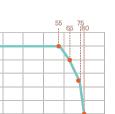
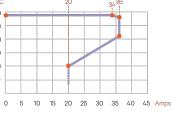
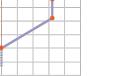


Figure 2: Output Power vs. Temperature at -41VDC≥Vin ≥ -58VDC









## PS-CONV-48-24



PowerShift Power Supply, 48/24V DC 20A Converter panel, 19/23 in, 1 RU high, with four 24V DC GMT fuse outputs

- Power Input/Output Connect Plug and Play
- 1U form factor saves rack space and power in wiring closets
- Universal shelf mounting brackets for 19 inch, 23 inch or ETSI frame mounting
- 48 VDC to +24 VDC power converter
- 19 & 23 inch rack mountable
- Compact 1RU height
- (1) -48 VDC Input and (4) +24VDC GMT Fuse Outputs
- NO/NC dry contact alarming
- LED status lights: Green Power On / Red Alarm indicator

#### Product Classification

Portfolio	CommScope®	
Product Type	DC/DC Converter	
Product Brand	PowerShift®	Environn
General Specifications		Operating Ter
Color	Light Gray (RAL 7035)	Storage Tem
Rack Type	EIA 19 in	Relative Hum
Rack Units	1	Packagin
Dimensions		Weight, net
Height	44.45 mm   1.75 in	Regulato
Width	438.15 mm   17.25 in	Agency
Depth	177.8 mm   7 in	CHINA-ROHS

#### **Electrical Specifications**

Input Current, nominal	12.5 A
Input Voltage Range	-40 to -58 Vdc
Input Voltage, nominal	-48 Vdc
Output Current Range	0-20 A
Output Current, nominal, dc	5 A
Output Power Connections, quantity	4

# PS-CONV-48-24

Output Voltage, nominal	24 Vdc
Power Efficiency	90 %

#### Representative Image



#### Environmental Specifications

Operating Temperature
Storage Temperature
Relative Humidity

-40 °C to +65 °C (-40 °F to +149 °F) -40 °C to +85 °C (-40 °F to +185 °F) 0%–95%, non-condensing

Packaging and Weights

2.903 kg | 6.4 lb

Regulatory Compliance/Certifications

Agency
CHINA-ROHS
ISO 9001:2015
ROHS
UK-ROHS

Classification Above maximum concentration value Designed, manufactured and/or distributed under this quality management system Compliant/Exempted Compliant/Exempted



Compliant/ Exem

Page 1 of 2

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## Pxxx: Bulk Pipe

SITE PRO a valmont 🌾 company

Part # Length OD x Length (in) Schedule 40 P260 5'-0" 2-3/8" x 60" P263 5'-3" 2-3/8" x 63" P272 6'-0" 2-3/8" x 72" P284 7'-0" 2-3/8" x 84" P296 8'-0" 2-3/8" x 96" P2108 9'-0" 2-3/8" x 108" 10'-0" P2120 2-3/8" x 120" P2126 10'-6" 2-3/8" x 126" 12'-6" P2150 2-3/8" x 150" P2174 14'-6" 2-3/8" x 174" 21'-0" P2252 2-3/8" x 252" P3072 6'-0" 2-7/8" x 72" P3084 7'-0" 2-7/8" x 84" 8'-0" P3096 2-7/8" x 96" 9'-0" 2-7/8" x 108" P30108 P30120 10'-0" 2-7/8" x 120" 10'-6" 2-7/8" x 126" P30126 P30150 12'-6" 2-7/8" x 150" P30174 14'-6" 2-7/8" x 174" P30252 21'-0" 2-7/8" x 252" P360 5'-0" 3-1/2" x 60" P372 6'-0" 3-1/2" x 72" 7'-0" P384 3-1/2" x 84" P396 8'-0" 3-1/2" x 96" P3150 12'-6" 3-1/2" x 150" P3160 13'-4" 3-1/2" x 160" 14'-6" P3174 3-1/2" x 174" P3216 18'-0" 3-1/2" x 216" 21'-0" P3252 3-1/2" x 252" P472 6'-0" 4-1/2" x 72" P4126 10'-6" 4-1/2" x 126" P4252 21'-0" 4-1/2" x 252"



#### Features:

• Factory cut end, hot-dip galvanized pipe

#### Construction:

• ASTM A53 Grade B • Schedule 40 or Schedule 80

#### **Design Criteria:**

• ASTM A53 Grade B (Yield Fy = 35 ksi [240 MPa]/ Tensile Fu = 60 ksi [415 MPa])

• Hot dip galvanized in accordance with ASTM A123 requirements

Part #	Length	OD x Length (in)
	Schedule 8	0
P2252-80	21'	2-1/2" x 252"
P30126-80	10'-6"	2-7/8" x 126"
P30252-80	21'	2-7/8" x 252"
P3252-80	21'	3-1/2" x 252"

888-438-7761

#### SitePro1.com



## XP-197-D



Double Crossover Plate kit for MT-197 Stand-off : Mounts to Pipes to 4-1/2" Round or 4" Square Members

#### Product Classification

Pipe mount kit

#### General Specifications

Mounting	Stand-off arm
Pipe, quantity	0

#### Dimensions

Product Type

Height	254 mm   10 in
Width	254 mm   10 in
Length	254 mm   10 in
Mounting Diameter, maximum	114.3 mm   4.5 in
Pipe Outer Diameter	60.96 mm   2.4 in

#### Material Specifications

#### Material Type

Hot dip galvanized steel

#### Packaging and Weights

Included	Crossover bracket   Hardware
Packaging quantity	1
Weight, net	9.1 kg   20.062 lb
	/ <b>C</b> = -+: <b>f</b> : +:

#### Regulatory Compliance/Certifications Classificatio Ag

Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance

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# Pxxx: Bulk Pipe

SITE PRO	1
∧ valmont ₹	

Part #	Length	OD x Length (in)		
Schedule 40				
P260	5'-0"	2-3/8" x 60"		
P263	5'-3"	2-3/8" x 63"		
P272	6'-0"	2-3/8" x 72"		
P284	7'-0"	2-3/8" x 84"		
P296	8'-0"	2-3/8" x 96"		
P2108	9'-0"	2-3/8" x 108"		
P2120	10'-0"	2-3/8" x 120"		
P2126	10'-6"	2-3/8" x 126"		
P2150	12'-6"	2-3/8" x 150"		
P2174	14'-6"	2-3/8" x 174"		
P2252	21'-0"	2-3/8" x 252"		
P3072	6'-0"	2-7/8" x 72"		
P3084	7'-0"	2-7/8" x 84"		
P3096	8'-0"	2-7/8" x 96"		
P30108	9'-0"	2-7/8" x 108"		
P30120	1 0'-0"	2-7/8" x 120"		
P30126	10'-6"	2-7/8" x 126"		
P30150	12'-6"	2-7/8" x 150"		
P30174	14'-6"	2-7/8" x 174"		
P30252	21'-0"	2-7/8" x 252"		
P360	5'-0"	3-1/2" x 60"		
P372	6'-0"	3-1/2" x 72"		
P384	7'-0"	3-1/2" x 84"		
P396	8'-0"	3-1/2" x 96"		
P3150	12'-6"	3-1/2" x 150"		
P3160	13'-4"	3-1/2" x 160"		
P3174	14'-6"	3-1/2" x 174"		
P3216	18'-0"	3-1/2" x 216"		
P3252	21'-0"	3-1/2" x 252"		
P472	6'-0"	4-1/2" x 72"		
P4126	10'-6"	4-1/2" x 126"		
P4252	21'-0"	4-1/2" x 252"		



#### Features:

• Factory cut end, hot-dip galvanized pipe

#### **Construction:**

• ASTM A53 Grade B

• Schedule 40 or Schedule 80

#### Design Criteria:

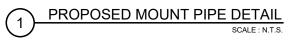
• ASTM A53 Grade B (Yield Fy = 35 ksi [240 MPa]/ Tensile Fu = 60 ksi [415 MPa])

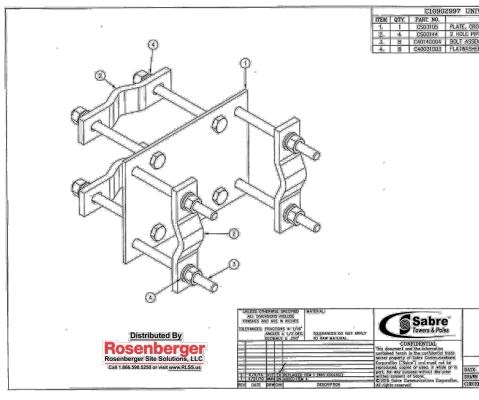
• Hot dip galvanized in accordance with ASTM A123 requirements

Part #	Length	OD x Length (in)
	Schedule 8	0
P2252-80	21'	2-1/2" x 252"
P30126-80	10'-6"	2-7/8" x 126"
P30252-80	21'	2-7/8" x 252"
P3252-80	21'	3-1/2" x 252"

888-438-7761

#### SitePro1.com

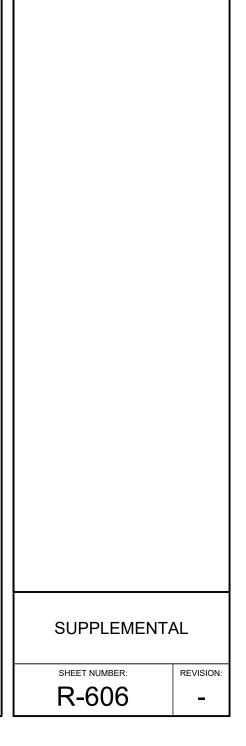




#### PROPOSED CROSSOVER PLATE KIT DETAIL 2

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ZERSAL CROSSOVER PLATE DESCRIPTION WEIGHT SSOVER 3/8 x 8 5/8 x 11'-0 1/8 12 E ADAPTER CLAMP 1 1/2' TO 5' 0.0. 10 GELY, 5/8 # X 8 A307 FULL THREAD 7 8, 5/8 # HARDINED ASTM FAGE TOTAL WEIGHT 30
•
UNIVERSAL CROSSOVER PLATE (1 1/2"-5"0D & 1 1/2"-5"0D)
SIZE DRAWING NO. REY 3/11/05 B C10902997 2 87 JV D EF WAN SCALE PAGE None 1 OF 1
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#### **Antenna Mount Analysis Report**

Mount Type	:	12.5 ft T-Arm
ATC Asset Name	:	Elsmere CO 1
ATC Asset Number	:	302459
Engineering Number	:	14885421_C8_01
ETS, PLLC Job Number	:	24130868.STR.4518
Mount Elevation	:	45.0 ft
Carrier	:	AT&T Mobility
Carrier Site Name	:	CONSTITUTION & HWY 24
Carrier Site Number	:	WSUTH0051541
Site Location	:	2865 Akers Drive
		Colorado Springs, CO 80922
		38.874895, -104.68621414
County	:	
Date	:	December 6, 2024
Max Usage	:	62%
-	-	( 49219 )
Result	:	Contingent Pass
Duran and Dura		U Martha
Prepared By:		Reviewed By:
Bach Tran, El		J. Scott Hilgoe, PE Structural Engineering Manager
Structural Engineer		/2/06/2024

Engineered Tower Solutions, PLLC - 3227 Wellington Ct, Raleigh, NC 27615 - 919.782.2710 Office - www.engineeredtowersolutions.com



#### Eng. Numbe

#### Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 45.0 ft.

#### Supporting Documents

Mount Analys	is	ATC Tower Services Proj. # 13248041_C8_05, dated July 1, 2020
Scoping Form		FA# 10102196, dated October 17, 2024
Photos		Site photos from 2022

#### <u>Analysis</u>

This antenna mount was analyzed using RISA-3D v22 analysis software.

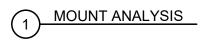
Basic Wind Speed:	130 mph (3-Second Gust, Vult)			
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 0.25" radial ice concurrent			
Codes:	ANSI/TIA-222-H / 2021 IBC / Pikes Peak Regional Building Code, 2023 Edition			
Structure Class:	I			
Exposure Category:	C			
<b>Topographic Procedure:</b>	Method 2			
Topographic Feature:	Flat			
Crest Height:	0 ft			
Crest Length:	0 ft			
Spectral Response:	Ss = 0.185, S <sub>1</sub> = 0.059			
Site Class:	D – Default			
Live Loads:	Lm = 250 lbs, Lv = 250 lbs			
*Live load(s) have been reduced on the existing structure per ANSI/TIA-222-H Section 16.9				

#### **Conclusion**

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Replace existing side arm mount pipes with (6) Site Pro 1 #P296, 2.0 SCH 40 x 8'-0", A53 Gr.B (ANT.55983, or approved equivalent) (2 per sector, 6 total) mount pipe to be located 12" +/- 3" from connection to tower. Connect with Commscope XP-197-D (ANT.57730, or approved equivalent) crossover kits.
- Rotate mount to match antenna azimuths.
- Replace short mount pipe on position 1 with Site Pro 1 #P30120, 2.5 SCH 40 x 10'-0", A53 Gr.B (ANT.16008, or approved equivalent) mount pipe on all sectors to be located 51 inches from left end of mount face looking out from tower. Connect with Sabre C10902997 (CEQ.18321 or approved equivalent) universal crossover plate kit.
- Relocate remaining mount pipes to match antenna spacing requirements per 2024 AT&T Macro • Build Standards.

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Page 3

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