

4741 SOUTHWEST BIRLEY AVENUE
LAKE CITY, FL 32024

TOWER UPGRADE - 5G NR 1DR-1/5G NR 1DR-2/5G NR
IWM#: WSTFL0057826/WSTFL0057997/WSTFL0057803/WSTFL0057951
/WSTFL0057849/WSTFL0057745



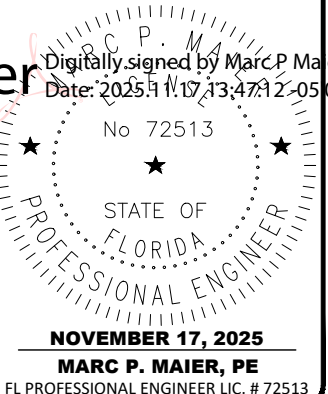
12150 RESEARCH PARKWAY
ORLANDO, FL 32826

MasTec
Network Solutions
800 S. DOUGLAS ROAD
10TH FLOOR
CORAL GABLES, FL 33134

GEN
ENGINEERING

27139 SEA BREEZE WAY
ESLEY CHAPEL, FLORIDA 33544
(813)917-2671
COA # 35409

Marc P Maier Digitally signed by Marc P Maier
Date: 2025.11.17 13:47:12 -0500



SW LAKE CITY
FA #10152022
4741 SW BIRLEY AVENUE
LAKE CITY, FL 32024

TITLE SHEET

T-1

INDEX OF DRAWINGS



PROPERTY OWNER	DATE
RF ENGINEER	DATE
CONSTRUCTION	DATE
SITE ACQUISITION	DATE
ZONING	DATE
NETWORK	DATE
OPERATIONS	DATE
CONTRACTOR	DATE

- FLORIDA BUILDING CODE (8TH EDITION) 2023
ANSI/EIA/TIA-222-H (ALLOWED PER EXEMPTION #5 OF 1609.1.1)
ASCE 7-22
VULT = 119 MPH (ULTIMATE 3 SECOND GUST)
VASD = 92 MPH (NOMINAL 3 SECOND GUST)
RISK CATEGORY = II
EXPOSURE = C
IMPORTANCE FACTOR= 1.0
- NATIONAL ELECTRICAL CODE, 2020 EDITION (NFPA 70 2020)
- FLORIDA FIRE PREVENTION CODE (8TH EDITION) 2023
- CONTRACTOR TO CONFIRM THAT THE SITE IS COMPLIANT WITH
RF WARNING SIGNAGE & EMERGENCY SIGNAGE AS REQUIRED BY
THE FEDERAL GUIDELINES CONTAINED WITH OET 65 BULLETIN &
AS PER AT&T GUIDELINES

CONSTRUCTION NOTES

1. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
2. CONTRACTOR SHALL NOTIFY OWNER FOR ACCESS TO SITE.
3. THIS PROJECT CONSISTS OF THE INSTALLATION OF:

TOWER WORK

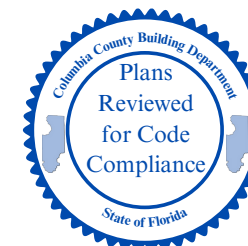
- (3) NEW ERICSSON AIR6472 B77G B77M ANTENNAS
 -(6) NEW COMMSCOPE NNH4-85B-R6 ANTENNAS
 -(1) NEW 4494 B14/B29
 -(3) NEW 4490 B5/B12A
 -(3) NEW 4890 B25/B66
GROUND WORK
 -(3) NEW 50A DC BREAKERS FOR THE NEW AIR6472
 B77G B77M ANTENNAS
 -(1) NEW 35A DC BREAKERS FOR THE NEW 4494 RRU
 -(3) NEW 50A DC BREAKERS FOR THE NEW 4490 RRUs
 -(3) NEW 50A DC BREAKERS FOR THE NEW 4890 RRUs
 AND ALL ASSOCIATED WORK.

CONTACTS

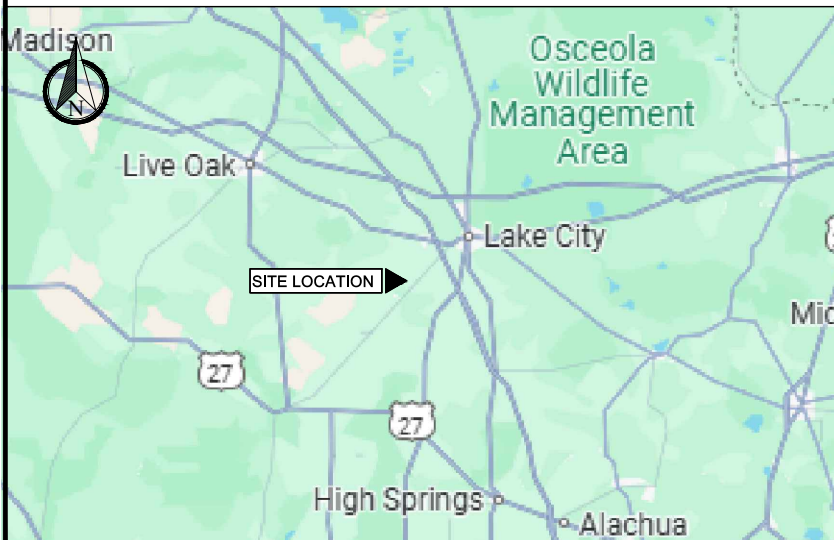
APPLICANT:
AT&T MOBILITY
12150 RESEARCH PKWY
ORLANDO, FL 32826

ENGINEER:
GEN3 ENGINEERING, INC.
27139 SEA BREEZE WAY
WESLEY CHAPEL, FL 33544
CONTACT: MARC P. MAIER, P.E.
(352) 634-1643

TOWER OWNER:
SBA COMMUNICATIONS
CORPORATION
5900 BROKEN SOUND
PARKWAY NW
BOCA RATON,
FL 33487-2797



VICINITY MAP



PROJECT SUMMARY

SITE NAME:	SW LAKE CITY
FA SITE NUMBER:	10152022
PARCEL:	20-4S-16-03077-008
COUNTY:	COLUMBIA
JURISDICTION:	CITY OF LAKE CITY
SITE COORDINATES:	30° 07' 33.9" N (30.1260860°) 82° 43' 58.8" W (-82.7329940°)
PROJECT INITIATIVE:	5G NR 1DR-1/5G NR 1DR-2/5G NR
STRUCTURE TYPE:	SELF SUPPORT TOWER
TOWER HEIGHT:	250'-0" AGL
ANTENNA C.L. HEIGHT:	227'-0" AGL

DRIVING DIRECTIONS

FROM AT&T OFFICES IN ORLANDO:

1. TAKE TECHNOLOGY PKWY, SCIENCE DR, INGENUITY DR AND CHALLENGER PKWY TO FL-408 W 1.9 MI, HEAD SOUTHWEST TOWARD TECHNOLOGY PKWY 98 FT, TURN LEFT ONTO ANNURST DR 384 FT, TURN RIGHT ONTO TECHNOLOGY PKWY 0.4 MI.
2. TURN LEFT ONTO SCIENCE DR 0.4 MI, TURN RIGHT ONTO INGENUITY DR 0.3 MI, USE THE LEFT 2 LANES TO TURN LEFT ONTO CHALLENGER PKWY 0.8 MI.
3. TAKE FLORIDA'S TPKE AND I-75 N TO FL-47 S IN COLUMBIA COUNTY. TAKE EXIT 423 FROM I-75 N 160 MI, CONTINUE ONTO FL-408 W 8.8 MI, KEEP LEFT TO STAY ON FL-408 W 12.9 MI.
4. USE THE RIGHT 2 LANES TO TAKE THE FLORIDA'S TURNPIKE EXIT TOWARD OCALA 0.6 MI, MERGE WITH FLORIDA'S TPKE 42.6 MI, MERGE WITH I-75 N 95.4 MI, TAKE EXIT 423 FOR FL-47 N TOWARD FT WHITE 0.2 MI.
5. TAKE COUNTY RD 242A TO SW BIRLEY AVE 5.6 MI, TURN LEFT ONTO FL-47 S 0.4 MI. ARRIVE 4741 SOUTHWEST BIRLEY AVENUE LAKE CITY, FL 32024

PROJECT REFERENCES

1. THESE PLANS WERE COMPLETED PER 5G NR 1DR-1/5G NR 1DR-2/5G NR RFDS ID#:RFDS-35959, DATED, 02/19/25. CONTRACTOR SHALL REQUEST CURRENT RFDS & WORKBOOK FROM CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
2. THESE PLANS WERE COMPLETED PER GEN3 ENGINEERING'S MOUNT ANALYSIS DATED, 03/03/25.

PROJECT INFORMATION

1. THIS IS AN UNMANNED FACILITY AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
2. AT&T CERTIFIES THAT THIS EQUIPMENT FACILITY WILL BE SERVICED ONLY BY AT&T EMPLOYEES AND SUBCONTRACTORS AND THE WORK ASSOCIATED WITH ANY EQUIPMENT CANNOT BE PERFORMED BY HANDICAPPED PERSONS. THIS FACILITY WILL BE FREQUENTED ONLY BY SERVICE PERSONNEL FOR REPAIR PURPOSES ONLY.
3. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
4. NO WASTEWATER WILL BE GENERATED AT THIS LOCATION.
5. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.

GENERAL NOTES:

1. ALL REFERENCES TO THE OWNER HEREIN SHALL BE CONSTRUED TO MEAN **AT&T** OR ITS DESIGNATED REPRESENTATIVE.
 2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE AND/OR COUNTY IN WHICH IT IS TO BE PERFORMED.
 3. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
 4. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
 5. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND THE TESTING AGENCY PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES.
 6. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
 8. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST EDITION OF THE LOCAL BUILDING CODE.
 9. ALL PROPOSED CELLULAR EQUIPMENT AND FIXTURES SHALL BE FURNISHED BY OWNER FOR INSTALLATION BY THE CONTRACTOR, UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN.
 10. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
 4. ALL COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE AS SPECIFIED BY THE OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL FURNISH ALL CONNECTION HARDWARE REQUIRED TO SECURE THE CABLES. CONNECTION HARDWARE SHALL BE GRADE 304 STAINLESS STEEL.
 5. ALL REINFORCING STEEL SHALL CONFORM TO ASTM 615 GRADE 60, DEFORMED BILLET STEEL BARS. WELDED WIRE FABRIC REINFORCING SHALL CONFORM TO ASTM A185.
 6. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE LATEST A.I.S.C. SPECIFICATIONS.
 7. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.
 8. HOT-DIP GALVANIZE ITEMS SPECIFIED TO BE ZINC-COATED, AFTER FABRICATION WHERE PRACTICAL. GALVANIZING: ASTM A 123, ASTM, A 153/A 153M OR ASTM A 653/A 653M, G90, AS APPLICABLE.
 9. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A 780 OR BY APPLICATION OF STICK OR THICK PASTE MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED, AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS. IN STICK OR PASTE, SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL.
 10. CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S INSTRUCTIONS/SPECIFICATIONS IF NO INFORMATION IS CONTAINED IN THESE PLANS OR IF THE MANUFACTURER'S SPECIFICATIONS ARE STRICTER.
- PERMITS:**
1. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES.
 2. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
 3. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND THE ACI 318-14, "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
 4. THE CONTRACTOR SHALL NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
 5. ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
- MISCELLANEOUS:**
1. ALL THREADED STRUCTURAL FASTENERS FOR ANTENNA SUPPORT ASSEMBLES SHALL CONFORM TO ASTM A307 OR ASTM 36. ALL STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. FASTENERS SHALL

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE A.I.S.C. SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS- ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN INCLUDING THE COMMENTARY AND THE A.I.S.C. CODE OF STANDARD PRACTICE.
2. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A26. ALL STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B. ALL STRUCTURAL STEEL COMPONENTS AND FABRICATED ASSEMBLIES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
3. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) D.1.1/D1.1M:2010. STRUCTURAL WELDING CODE-STEEL WELD ELECTRODES SHALL BE E70XX.
4. THE CONTRACTOR SHALL FURNISH ALL CONNECTION HARDWARE REQUIRED TO SECURE THE CABLES. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.
5. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY NORTH AND NOTIFY CONSULTANT OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.
6. PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE GRADE 304 STAINLESS STEEL HARDWARE THROUGHOUT.
7. THOROUGHLY REMOVE ALL PAINT AND CLEAN ALL DIRT FROM SURFACES REQUIRING GROUND CONNECTIONS.

3. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS TO BE A MIN. OF 8" RADIUS.
7. FOR GROUNDING TO BUILDING FRAME AND HATCH PLATE GROUND BARS, USE A TWO-BOLT HOLE NEPA DRILLED CONNECTOR SUCH AS T&B 32007 OR APPROVED EQUAL.
8. FOR ALL EXTERNAL GROUND CONNECTIONS, CLAMPS AND CADWELDS, APPLY A LIBERAL PROTECTIVE COATING OR AN ANTI-OXIDE COMPOUND SUCH AS 'NO-OXIDE A' BY DEARBORN CHEMICAL COMPANY.
9. REPAIR ALL METAL SURFACES THAT HAVE BEEN CUT OR DAMAGED BY REMOVING ANY EXISTING RUST AND APPLYING COLD GALVANIZATION.
10. ANTENNA CABLE LENGTHS HAVE BEEN DETERMINED BASED ON THESE PLANS. CABLE LENGTHS LISTED ARE APPROXIMATED AND ARE NOT INTENDED TO BE USED FOR FABRICATION. DUE TO FIELD CONDITIONS, ACTUAL CABLE LENGTHS VARY. CONTRACTOR MUST FIELD VERIFY ANTENNA CABLE LENGTHS PRIOR TO ORDER.

REV	DATE	DESCRIPTION
A	03/07/25	PRELIMINARY CDs REV "A"
0	11/17/25	FINAL CDs ISSUED
1		
2		
DRAWN BY:		CHECKED BY:
ME		MM



PREPARED BY:



THIS ITEM HAS BEEN DIGITALLY
SIGNED & SEALED BY MARC P.
MAIER, P.E. ON THE DATE
ADJACENT TO THE SEAL.
SIGNATURE MUST BE VERIFIED ON
ANY ELECTRONIC COPIES.



SW LAKE CITY FA #10152022 4741 SW BIRLEY AVENUE LAKE CITY, FL 32024
SHEET DESCRIPTION GENERAL NOTES, ABBREVIATIONS
SHEET NUMBER GN-1

1. CONTRACTOR TO FILL ANY EXISTING GRAVEL AREAS THAT ARE DISTURBED DURING THE COURSE OF CONSTRUCTION, GRAVEL TO MATCH EXISTING.
2. THE CONTRACTOR TO ENSURE THAT NO DAMAGE OR DEBRIS OCCURS ON THE ADJACENT PROPERTIES.
3. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITH LOW MAINTENANCE NATIVE GRASS AND COVER WITH APPROVED STRAW.
4. CONTRACTOR SHALL PROVIDE ALL REQUIRED EROSION CONTROL TECHNIQUES AND BEST MANAGEMENT PRACTICES PER LOCAL AND AND STATE REQUIREMENTS AS APPLICABLE.
5. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY NORTH AND INFORM ARCHITECT/ENGINEER OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.

THE CONTRACTOR MUST FIELD VERIFY
ALL MEASUREMENTS AND FIELD
CONDITIONS PRIOR TO THE
COMMENCEMENT OF CONSTRUCTION.



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TRUE NORTH

1. A STRUCTURAL ANALYSIS SHALL BE PERFORMED BY THE OWNER'S AGENT TO CERTIFY THAT THE EXISTING/PROPOSED COMMUNICATION STRUCTURE AND COMPONENTS ARE STRUCTURALLY ADEQUATE TO SUPPORT ALL EXISTING AND PROPOSED ANTENNAS, COAXIAL CABLES AND OTHER APPURTENANCES. THE OWNER'S AGENT SHALL FURNISH A CERTIFICATION LETTER SEALED BY A REGISTERED PROFESSIONAL ENGINEER STATING THAT THIS STRUCTURAL ANALYSIS WAS PREPARED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.

3. INSTALLATION SHALL BE CONDUCTED BY FIELD CREWS EXPERIENCED IN THE ASSEMBLY AND ERECTION OF RADIO ANTENNAS, TRANSMISSION LINES, AND SUPPORT STRUCTURES. ANTENNA WORK TO BE INSTALLED PER THE REQUIREMENTS OF THE TOWER MANUFACTURER'S SPECIFICATION.

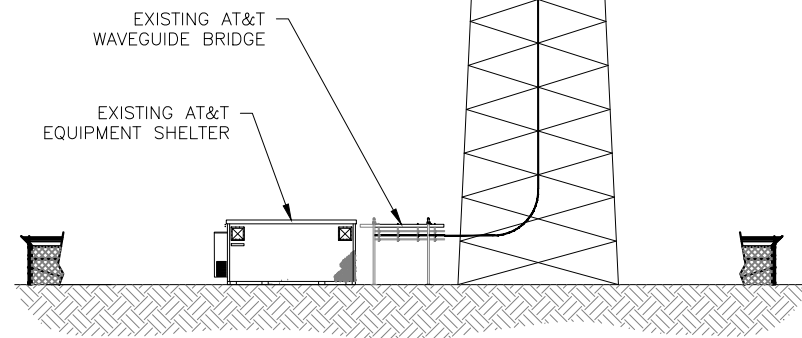
5. CONTRACTOR TO PROVIDE THE PROPER COAX JUMPER SUPPORT ATTACHMENTS TO THE TOWER AND ANTENNA MOUNT.

THE CONTRACTOR MUST FIELD VERIFY ALL MEASUREMENTS AND FIELD CONDITIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

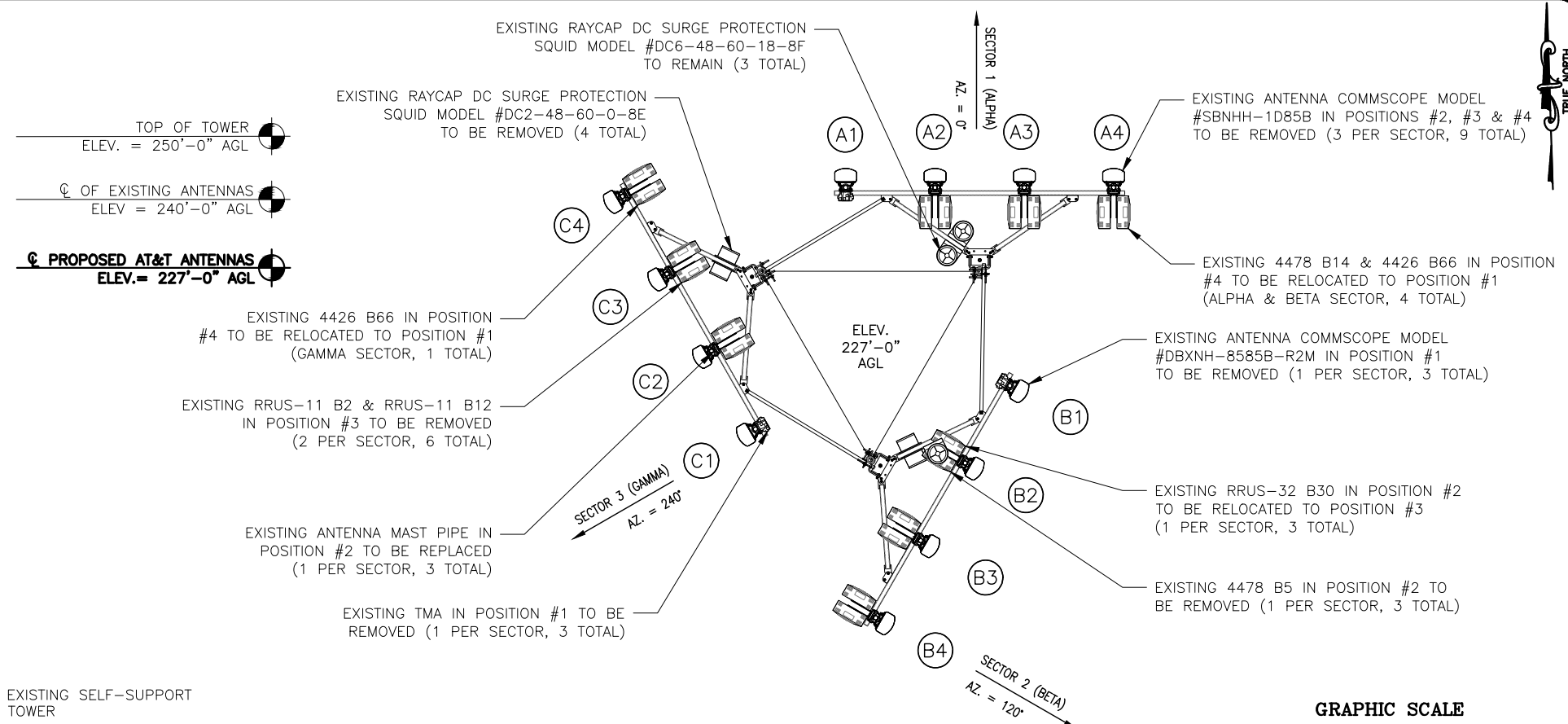
1. REFER TO CURRENT RFDS FOR ADDITIONAL INFO.

3. UNLESS NOTED OTHERWISE THE CONTRACTOR MUST PROVIDE ALL MATERIAL NECESSARY.

4. CONTRACTOR TO RETURN ALL EXISTING ANTENNA BEING REMOVED TO AT&T.



TOWER ELEVATION

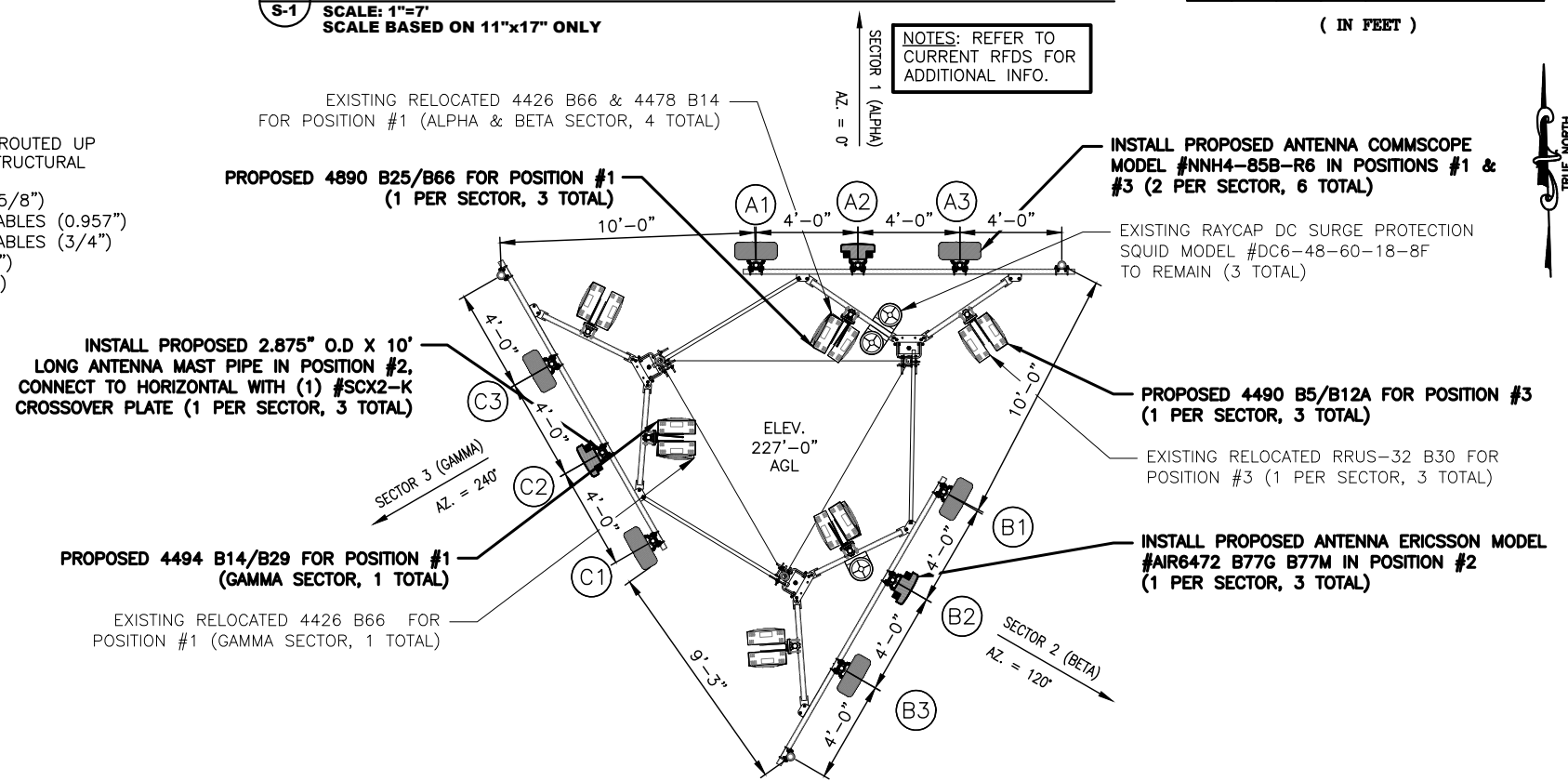


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S-1

EXISTING ANTENNA CONFIGURATION DETAIL

SCALE: 1"=7'
SCALE BASED ON 11"x17" ONLY

10'  **NOTE: REFER TO**



3 **S-1** **PROPOSED ANTENNA CONFIGURATION DETAIL**

[illegible]

12150 RESEARCH PARKWAY
ORLANDO, FL 32826

MasTec
Network Solutions
800 S. DOUGLAS ROAD
10TH FLOOR
CORAL GABLES, FL 33134

PREPARED BY:

GEN
ENGINEERING

27139 SEA BREEZE WAY
WESLEY CHAPEL, FLORIDA 33544
(813)917-2671
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THIS ITEM HAS BEEN DIGITALLY
SIGNED & SEALED BY MARC P.
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NOVEMBER 17, 2025

MARC P. MAIER, PE
FL PROFESSIONAL ENGINEER LIC. # 72513

SW LAKE CITY
FA #10152022
4741 SW BIRLEY AVENUE
LAKE CITY, FL 32024

SHEET DESCRIPTION

**TOWER ELEVATION
AND ANTENNA
ORIENTATION**

SHEET NUMBER

S-1

GEN3 Engineering - C:\Users\mpm17\Desktop\GEN3_Eng\000 Docs\Mastec MCA\SW LAKE CITY\10152022_SW LAKE CITY_5G NR RADIO_CD.dwg November 17, 2025 1:46:48 PM mpm17

DC / FIBER DEMARCATION BOX							
RAYCAP DC FIBER DEMARCATION BOX			CABLES				NOTES
MOUNTING HEIGHT	MODEL	QTY	MODEL	SIZE	QTY	LENGTH PER LINE	
227'-0"	DC6-48-60-18-8F	3	ROSENBERGER (18) PAIR FIBER TRUNK	3/8"	3	280'-0"	
			(6) - #8 AWG TINNED COPPER CONDUCTORS	3/4"	3	280'-0"	
			(6) - #6 AWG TINNED COPPER CONDUCTORS	0.957"	3	280'-0"	

ANTENNA AND COAX SCHEDULE																										
SECTOR	AZ	ANTENNAS								CABLES					RRU			DIPLEXER/DIPLEXER/FILTER			TMA					
		RAD CENTER	ANTENNA		(QTY)	APPROXIMATE ANTENNA SPECS	DOWN TILT		MODEL	SIZE	(QTY)	LENGTH/ LINE	COLOR CODE	MODEL	TOP (QTY)	GRND (QTY)	MODEL	TWR (QTY)	GRND (QTY)	MODEL	(QTY)					
			MAKE	MODEL			ELEC	MECH																		
ALPHA (A1)	0°	227'-0"	COMMSCOPE	NNH4-85B-R6	1	H=71.9" x W=19.6" x D=7.7"	-	-	-	ROSENBERGER FIBER JUMPER (DC6 TO RRU)	3/8"	6	15'-0"	1 RED	4426 B66	1	-	-	-	-	-					
									ROSENBERGER SINGLE PAIR DC CABLE (DC6 TO RRU)	7/16"	3	15'-0"	1 RED	4478 B14	1	-	-	-	-	-	-					
									1/2" COAX JUMPER (RRU TO ANTENNA)	1/2"	12	10'-0"	1 RED	4890 B25/B66	1	-	-	-	-	-	-					
ALPHA (A2)	0°	227'-0"	ERICSSON	AIR6472 B77G B77M	1	H=36.3" x W=15.8" x D=7.4"	-	-	-	ROSENBERGER FIBER JUMPER (DC6)	3/8"	2	15'-0"	2 RED	-	-	-	-	-	-	-					
									ROSENBERGER SINGLE PAIR DC CABLE (DC6)	7/16"	1	15'-0"	2 RED	-	-	-	-	-	-	-	-					
ALPHA (A3)	0°	227'-0"	COMMSCOPE	NNH4-85B-R6	1	H=71.9" x W=19.6" x D=7.7"	-	-	-	ROSENBERGER FIBER JUMPER (DC6 TO RRU)	3/8"	4	15'-0"	3 RED	RRUS-32 B30	1	-	-	-	-	-					
									ROSENBERGER SINGLE PAIR DC CABLE (DC6 TO RRU)	7/16"	2	15'-0"	3 RED	4490 B5/B12A	1	-	-	-	-	-	-					
									1/2" COAX JUMPER (RRU TO ANTENNA)	1/2"	8	10'-0"	3 RED	-	-	-	-	-	-	-	-					
ALPHA (A4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
BETA (B1)	120°	227'-0"	COMMSCOPE	NNH4-85B-R6	1	H=71.9" x W=19.6" x D=7.7"	-	-	-	ROSENBERGER FIBER JUMPER (DC6 TO RRU)	3/8"	6	15'-0"	1 BLUE	4426 B66	1	-	-	-	-	-					
									ROSENBERGER SINGLE PAIR DC CABLE (DC6 TO RRU)	7/16"	3	15'-0"	1 BLUE	4478 B14	1	-	-	-	-	-	-					
									1/2" COAX JUMPER (RRU TO ANTENNA)	1/2"	12	10'-0"	1 BLUE	4890 B25/B66	1	-	-	-	-	-	-					
BETA (B2)	120°	227'-0"	ERICSSON	AIR6472 B77G B77M	1	H=36.3" x W=15.8" x D=7.4"	-	-	-	ROSENBERGER FIBER JUMPER (DC6)	3/8"	2	15'-0"	2 BLUE	-	-	-	-	-	-	-					
									ROSENBERGER SINGLE PAIR DC CABLE (DC6)	7/16"	1	15'-0"	2 BLUE	-	-	-	-	-	-	-	-					
BETA (B3)	120°	227'-0"	COMMSCOPE	NNH4-85B-R6	1	H=71.9" x W=19.6" x D=7.7"	-	-	-	ROSENBERGER FIBER JUMPER (DC6 TO RRU)	3/8"	4	15'-0"	3 BLUE	RRUS-32 B30	1	-	-	-	-	-					
									ROSENBERGER SINGLE PAIR DC CABLE (DC6 TO RRU)	7/16"	2	15'-0"	3 BLUE	4490 B5/B12A	1	-	-	-	-	-	-					
									1/2" COAX JUMPER (RRU TO ANTENNA)	1/2"	8	10'-0"	3 BLUE	-	-	-	-	-	-	-	-					
BETA (B4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
GAMMA (G1)	240°	227'-0"	COMMSCOPE	NNH4-85B-R6	1	H=71.9" x W=19.6" x D=7.7"	-	-	-	ROSENBERGER FIBER JUMPER (DC6 TO RRU)	3/8"	6	15'-0"	1 GREEN	4426 B66	1	-	-	-	-	-					
									ROSENBERGER SINGLE PAIR DC CABLE (DC6 TO RRU)	7/16"	3	15'-0"	1 GREEN	4494 B14/B29	1	-	-	-	-	-	-					
									1/2" COAX JUMPER (RRU TO ANTENNA)	1/2"	12	10'-0"	1 GREEN	4890 B25/B66	1	-	-	-	-	-	-					
GAMMA (G2)	240°	227'-0"	ERICSSON	AIR6472 B77G B77M	1	H=36.3" x W=15.8" x D=7.4"	-	-	-	ROSENBERGER FIBER JUMPER (DC6)	3/8"	2	15'-0"	2 GREEN	-	-	-	-	-	-	-					
									ROSENBERGER SINGLE PAIR DC CABLE (DC6)	7/16"	1	15'-0"	2 GREEN	-	-	-	-	-	-	-	-					
GAMMA (G3)	240°	227'-0"	COMMSCOPE	NNH4-85B-R6	1	H=71.9" x W=19.6" x D=7.7"	-	-	-	ROSENBERGER FIBER JUMPER (DC6 TO RRU)	3/8"	4	15'-0"	3 GREEN	RRUS-32 B30	1	-	-	-	-	-					
									ROSENBERGER SINGLE PAIR DC CABLE (DC6 TO RRU)	7/16"	2	15'-0"	3 GREEN	4490 B5/B12A	1	-	-	-	-	-	-					
									1/2" COAX JUMPER (RRU TO ANTENNA)	1/2"	8	10'-0"	3 GREEN	-	-	-	-	-	-	-	-					
GAMMA (G4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
TOTAL				9					TOTAL 1-5/8" COAX CABLES (INACTIVE)				12	3360'-0"		TOTAL		15	0	TOTAL		0	0	TOTAL		0

- * ANTENNA AND COAX INFORMATION PROVIDED FROM THE 5G NR 1DR-1/5G NR 1DR-2/5G NR RFDS ID #RFDS-35959, DATED 02/19/25
- * CONTRACTOR TO VERIFY RF INFO WITH CLIENT PRIOR TO CONSTRUCTION.
- * COAX LENGTHS ARE APPROXIMATE AND MUST BE VERIFIED PRIOR TO CONSTRUCTION.
- * ALL COAX SHALL BE COLOR CODED AT TOP AN BOTTOM JUMPER AND AT TOP OF TOWER BOTTOM OF TOWER, AND INSIDE SHELTER ON MAIN COAX.
- * EACH MAIN COAX SHALL HAVE CORROSION PROOF "ID TAGS" INSTALLED INSIDE THE SHELTER AT THE PORT AND AT THE ANTENNA.
- * ALL QUANTITIES GIVEN ARE TOTAL EXISTING AND PROPOSED

1
AN-1

ANTENNA & COAX SCHEDULE

SCALE: N.T.S.

REV	DATE	DESCRIPTION
A	03/07/25	PRELIMINARY CDs REV "A"
0	11/17/25	FINAL CDs ISSUED
1		
2		
DRAWN BY:		CHECKED BY:
ME		MM



AT&T

12150 RESEARCH PARKWAY
ORLANDO, FL 32826



MasTec

Network Solutions

800 S. DOUGLAS ROAD
10TH FLOOR
CORAL GABLES, FL 33134

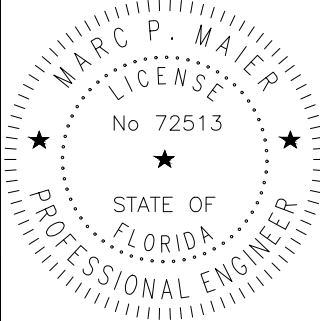
PREPARED BY:



GEN
ENGINEERING

27139 SEA BREEZE WAY
WESLEY CHAPEL, FLORIDA 33544
(813)917-2671
COA # 35409

THIS ITEM HAS BEEN DIGITALLY
SIGNED & SEALED BY MARC P.
MAIER, P.E. ON THE DATE
ADJACENT TO THE SEAL.
SIGNATURE MUST BE VERIFIED ON
ANY ELECTRONIC COPIES.



MARC P. MAIER
LICENSE
No 72513
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
NOVEMBER 17, 2025
MARC P. MAIER, PE
FL PROFESSIONAL ENGINEER LIC. # 72513

SW LAKE CITY

FA #10152022

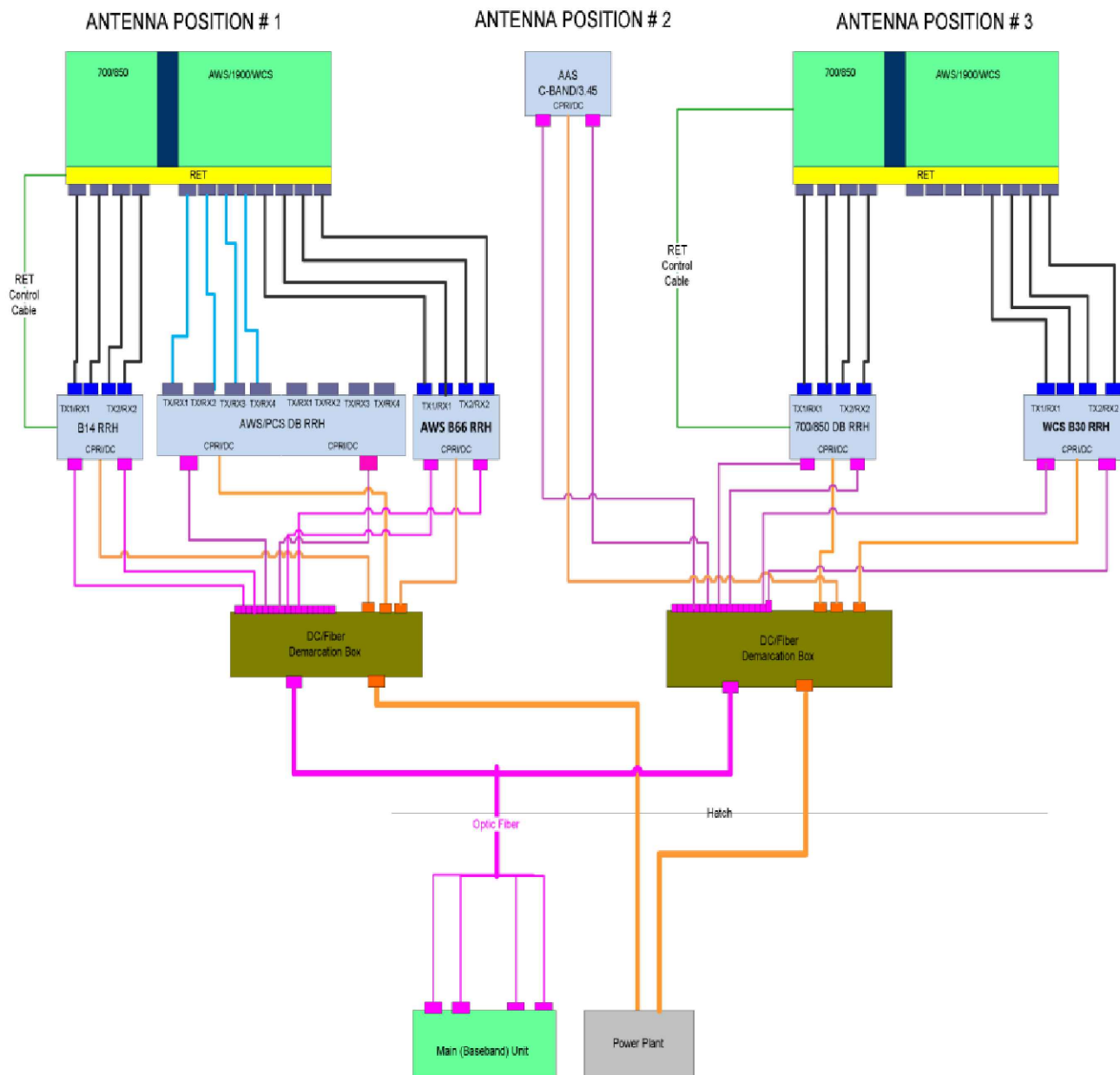
4741 SW BIRLEY AVENUE
LAKE CITY, FL 32024

SHEET DESCRIPTION

ANTENNA SCHEDULE

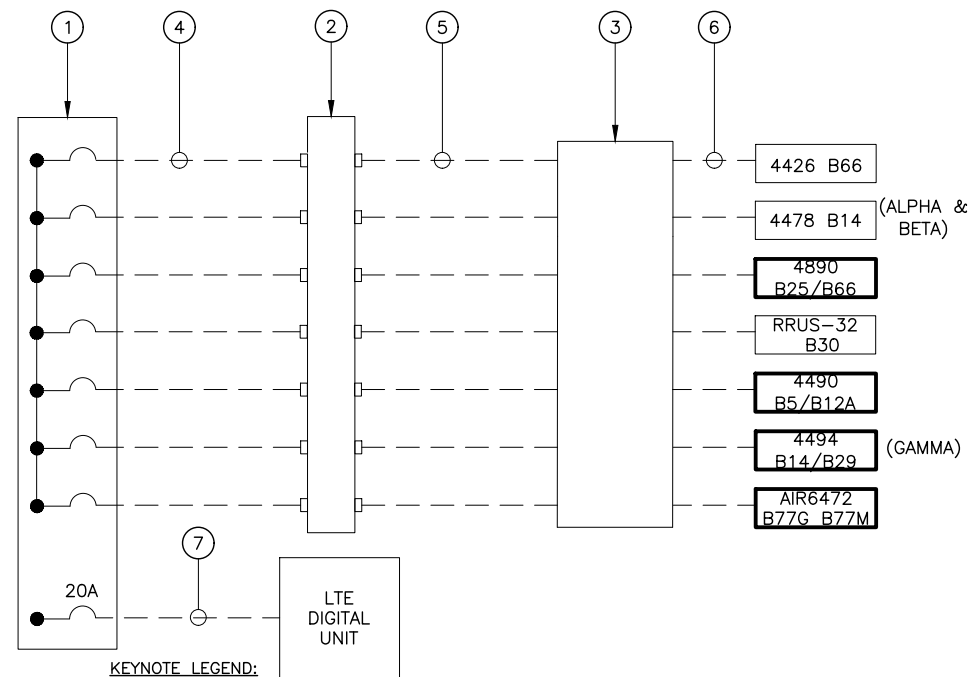
SHEET NUMBER

AN-1



ONE-LINE DIAGRAMS

ERICSSON RRU BREAKER REQUIREMENTS		
ERICSSON RADIO	SIZE BREAKER	TECHNOLOGY
RRUS 32 B66	30 AMP	AWS (2100)
RRUS 32 B30	20 AMP	WCS (2300)
RRUS 32 B2	30 AMP	PCS (1900)
RRUS 11	25 AMP	VARIOUS BANDS (700 [B12] , 850 [B5], 1900 [B2], 2100 [B4])
RRUS12 + A2	25 AMP	VARIOUS BANDS (850 [B5], 1900 [B2], 2100 [B4])
RRUS 4402 B66/B25	10 AMP	PCS (1900), AWS (2100)
RRU 4415 B25	25 AMP	1900
RRU 4415 B30	25 AMP	2300
RRU 4426 B66	30 AMP	2100
RRU 4455	15A AC	1900/2100
RRU 4478 B12	25 AMP	700
RRU 4478 B14	25 AMP	700
RRU 4478 B5	25 AMP	850
RRUS E2 B29	25 AMP	700 (B29 Tx ONLY)
RRUS 4449 B5/B12	2x25 AMP	700/850
RRUS 8843 B2/B66	2x30 AMP	1900/2100
RRUS 4460 B2/B66	2x40 AMP	1900/2100
AIR6488 B48	35 AMP	CBRS 3.55–3.7 GHz
AIR6449 B77	50 AMP	C BAND 3.3–4.2 GHz
AIR6419 B77	50 AMP	B77G DOD SUB BAND 3.4–3.6 GHz
RRU8863 B77	50 AMP	C BAND 3.8–4.2 GHz
DUAL AIR6464	2x50 AMP	C BAND 3.4 GHz
RADIO 4467	45 AMP	N77 DUAL C–BAND 3.45 GHz
RADIO 4490	50 AMP	B5/B12 DUAL BAND
RADIO 4408	10A AC 15A DC	3.45 GHz PICO RADIO
RADIO 4890	50 AMP	B2–B5/B66
6472 B77G/B77M	50 AMP	B77G/B77M



KEYNOTE LEGEND:

1. -48V DC POWER PLANT. CONTRACTOR TO VERIFY CORRECT BREAKER SIZE IS INSTALLED FOR EACH RRU PER CHART.
2. (1) RACK MOUNTED RAYCAP DC SURGE PROTECTOR.
3. RAYCAP FIBER AND DC DISTRIBUTION UNIT TOWER MOUNTED.
4. #8 AWG SHIELDED CONDUCTORS.
5. PROVIDE (2) 6-CONDUCTOR #6 AWG BUNDLES FOR DC POWER FROM RACK MOUNTED RAYCAP SURGE PROTECTION UNIT TO THE RAYCAP FIBER AND DISTRIBUTION UNIT ON TOWER.
6. DC CABLE ROUTED TO RRH UNITS.
7. #12 AWG SHIELDED CONDUCTORS (WR-VG122ST-BRDA).

2 **TYPICAL DC RISER DIAGRAM**
E-1 **SCALE: N.T.S.**

REV	DATE	DESCRIPTION
A	03/07/25	PRELIMINARY CDs REV "A"
0	11/17/25	FINAL CDs ISSUED
1		
2		
DRAWN BY:		CHECKED BY:
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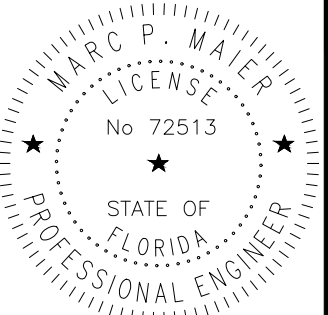
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PREPARED BY:



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NOVEMBER 17, 2025

MARC P. MAIER, PE

FL PROFESSIONAL ENGINEER LIC. # 72513

SW LAKE CITY
FA #10152022

4741 SW BIRLEY AVENUE
LAKE CITY, FL 32024

SHEET DESCRIPTION

ANTENNA ONE—LINE DIAGRAM

SHEET NUMBER

E-1