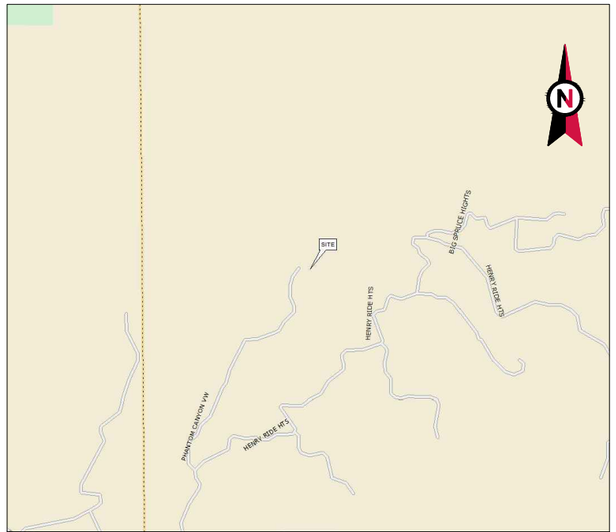

VICINITY MAP

Approved
By:Ashlyn Mathy
Date:09/06/2022
El Paso County Planning & Community Development

AMERICAN TOWER®

ATC SITE NAME: MORLEY 1
ATC SITE NUMBER: 383495
AT&T PACE NUMBERS: MRUTH051679 (LTE 3C), MRUTH051687 (5G NR 1SR), MRUTH051705 (LTE 5C), MRUTH051691 (LTE 4C), MRUTH051695 (4TX4RX SOFTWARE RETROFIT)
AT&T SITE ID: COU6029
AT&T FA CODE: 10093580
AT&T SITE NAME: MOUNT PITTSBURG
SITE ADDRESS: 15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

LOCATION MAP

AT&T MOBILITY
ANTENNA AMEMDMENT PLAN

COMPLIANCE CODE

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

1. 2018 INTERNATIONAL BUILDING CODE (IBC)
2. 2017 NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: BLACK HILLSCORPORATION
PHONE: (888) 890-5554

TELEPHONE COMPANY: CENTURYLINK
PHONE: (806) 616-3301

811
Know what's below.
Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

15743 PHANTOM CANYON VIEW

COLORADO SPRINGS, CO 80903

COUNTY: EL PASO

GEOGRAPHIC COORDINATES:

LATITUDE: 38.6126

LONGITUDE: -104.9348

GROUND ELEVATION: 7924' AMSL

ZONING INFORMATION:

JURISDICTION: EL PASO COUNTY

PROPERTY TAX SCHEDULE NUMBER: 7600000276

PROJECT TEAM

TOWER OWNER:
AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:
AT&T MOBILITY
7670 S CHESTER ST
CENTENNIAL, CO 80112

ENGINEER:
TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530

PROPERTY OWNER:
Z INVESTMENTS LLC
PO BOX 50005
COLORADO SPRINGS CO, 80949-0005

PROJECT LOCATION DIRECTIONS

OBEY ALL SPEED LIMITS AT ALL TIMES AS THERE ARE HIDDEN DRIVEWAYS AND BLIND CURVES ALONG THE ROAD
TURN RIGHT ONTO TURKEY CANON RANCH ROAD FROM HWY 115
1.3 MILES TURN LEFT ONTO HENRY RIDE HTS
1.3 MILES YOU WILL COME TO GATE, PUNCH IN COMBO PROVIDED BY ATC 1.9 MILES TURN RIGHT ONTO PHANTOM CANYON VW
.5 MILES TO TOWERS AT THE TOP.

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

TOWER WORK:

REMOVE (2) ANTENNA(S) AND (2) RRH(s).

INSTALL (6) CROSSOVER PLATE KIT(S), (6) MOUNT PIPE(S), (4) ANTENNA(S), (6) RRH(s), (1) SQUID(S), (1) 0.39" FIBER TRUNK(S), AND (2) 0.96" 6 AWG 6 DC TRUNK(S).

EXISTING (2) ANTENNA(S), (2) RRH(s), (2) TMA(s), (1) SQUID(S), (8) 7/8" COAX CABLE(S), (2) 0.78" 8 AWG 6 DC TRUNK(S), AND (1) 0.39" FIBER TRUNK(S) TO REMAIN

GROUND WORK:

REMOVE (1) POWER PLANT(S) AND (20) GNB MARATHON M12V155FT BATTERIES.

INSTALL (1) VERTIV NETSURE 512 -48VDC POWER PLANT(S), (7) EA. HE 2KW -48VDC RECTIFIER(S), (12) ENERSYS POWERSAFE SBS-190F BATTERIES, (2) 20A B25 RRH4X30-4R BREAKER(S), (2) 25A AHCA BREAKER(S), (2) 50A AHFIB BREAKER(S), AND (2) 50A AHLBBA BREAKER(S).

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. 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).

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	1	08/30/22	SSP
G-002	GENERAL NOTES	0	08/10/22	SSP
C-001	OVERALL SITE PLAN	1	08/30/22	SSP
C-101	DETAILED SITE PLAN	1	08/30/22	SSP
C-102	DETAILED EQUIPMENT LAYOUT	0	08/10/22	SSP
C-201	TOWER ELEVATION	0	08/10/22	SSP
C-401	ANTENNA INSTALLATION	0	08/10/22	SSP
C-402	ANTENNA SCHEDULE	0	08/10/22	SSP
C-501	CONSTRUCTION DETAILS	0	08/10/22	SSP
E-101	ELECTRICAL DETAILS	0	08/10/22	SSP
E-102	ELECTRICAL DETAILS	0	08/10/22	SSP
E-103	ELECTRICAL DETAILS	0	08/10/22	SSP
E-501	GROUNDING DETAILS	0	08/10/22	SSP
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			
R-605	SUPPLEMENTAL			
R-606	SUPPLEMENTAL			
R-607	SUPPLEMENTAL			
R-608	SUPPLEMENTAL			

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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	SVJ	05/27/22
0	100% CONSTRUCTION	SSP	08/10/22
1	100% CONSTRUCTION	SSP	08/30/22

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:
COU6029

AT&T MOBILITY SITE NAME:
MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:

COLORADO LICENSED
ANDREW RAGNAR BERGLUND
58272
PROFESSIONAL ENGINEER

08/30/22

AT&T

DATE DRAWN:	08/30/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	1

GENERAL CONSTRUCTION NOTES:

1. 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)
   B. AC/TELCO INTERFACE BOX (PPC)
   C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   D. TOWERS, MONOPOLES
   E. TOWER LIGHTING
   F. GENERATORS & LIQUID PROPANE TANK
   G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   H. ANTENNAS (INSTALLED BY OTHERS)
   I. TRANSMISSION LINE
   J. TRANSMISSION LINE JUMPERS
   K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   L. TRANSMISSION LINE GROUND KITS
   M. HANGERS
   N. 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.

3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.

4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.

6. 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.

7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.

8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.

9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.

11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.

12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T 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.

13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T MOBILITY REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.

14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT 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.

16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T MOBILITY REP AND ENGINEER OF RECORD IMMEDIATELY.

17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH 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.

20. CONTRACTOR SHALL FURNISH AT&T MOBILITY AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.

21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY 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.

22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY 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 CONTRACTOR.

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

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

25. ALL EQUIPMENT 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 NOTIFY AT&T MOBILITY REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.

28. 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.

29. 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.

30. 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.

31. 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.

32. 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.

33. 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 PERSONNEL.

B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND AT&T MOBILITY SPECIFICATIONS.

C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.

D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.

E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY 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.

F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN 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.

G. ANTENNA AND COAXIAL CABLE GROUNDING:

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

3. 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.

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RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	SVJ	05/27/22
0	100% CONSTRUCTION	SSP	08/10/22

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:
COU6029

AT&T MOBILITY SITE NAME:
MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:

08/10/22

AT&T

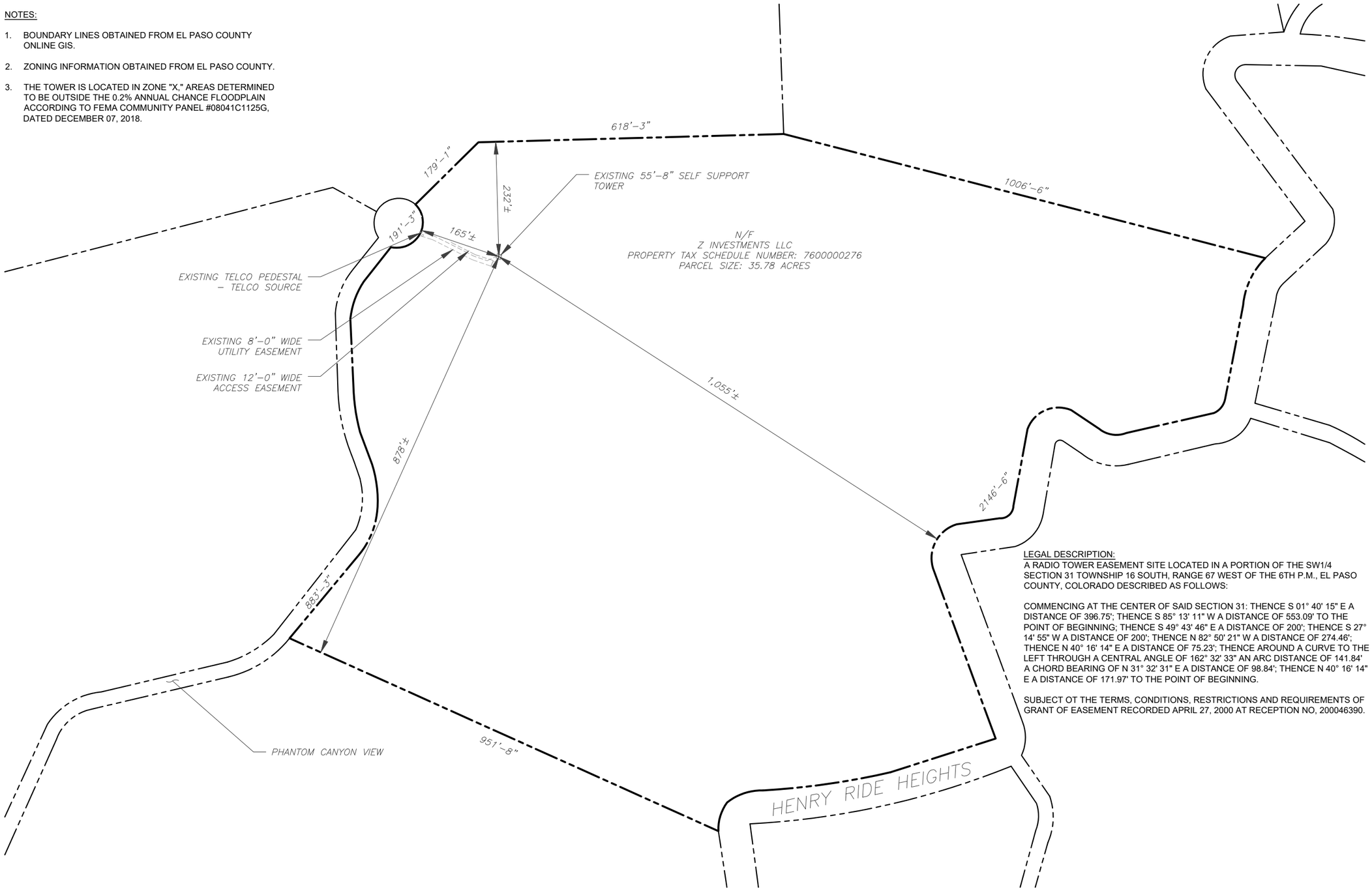
DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

NOTES:

1. BOUNDARY LINES OBTAINED FROM EL PASO COUNTY ONLINE GIS.
2. ZONING INFORMATION OBTAINED FROM EL PASO COUNTY.
3. THE TOWER IS LOCATED IN ZONE "X," AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #08041C1125G, DATED DECEMBER 07, 2018.



LEGAL DESCRIPTION:
A RADIO TOWER EASEMENT SITE LOCATED IN A PORTION OF THE SW1/4 SECTION 31 TOWNSHIP 16 SOUTH, RANGE 67 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO DESCRIBED AS FOLLOWS:

COMMENCING AT THE CENTER OF SAID SECTION 31: THENCE S 01° 40' 15" E A DISTANCE OF 396.75'; THENCE S 85° 13' 11" W A DISTANCE OF 553.09' TO THE POINT OF BEGINNING; THENCE S 49° 43' 46" E A DISTANCE OF 200'; THENCE S 27° 14' 55" W A DISTANCE OF 200'; THENCE N 82° 50' 21" W A DISTANCE OF 274.46'; THENCE N 40° 16' 14" E A DISTANCE OF 75.23'; THENCE AROUND A CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 162° 32' 33" AN ARC DISTANCE OF 141.84' A CHORD BEARING OF N 31° 32' 31" E A DISTANCE OF 98.84'; THENCE N 40° 16' 14" E A DISTANCE OF 171.97' TO THE POINT OF BEGINNING.

SUBJECT OT THE TERMS, CONDITIONS, RESTRICTIONS AND REQUIREMENTS OF GRANT OF EASEMENT RECORDED APRIL 27, 2000 AT RECEPTION NO, 200046390.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING LEASE AREA

1 OVERALL SITE PLAN
SCALE: 1" = 200'

0 200' 400'

SCALE: 1"=200' (11X17)
1"=100' (22X34)

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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	SVJ	05/27/22
0	100% CONSTRUCTION	SSP	08/10/22
1	100% CONSTRUCTION	SSP	08/30/22

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:
COU6029

AT&T MOBILITY SITE NAME:
MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:

COLORADO REGISTERED ANDREW RAGNAR GRUNDLUND 58272 PROFESSIONAL ENGINEER

08/30/22

AT&T

DATE DRAWN:	08/30/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

OVERALL SITE PLAN

SHEET NUMBER:	REVISION:
C-001	1

SITE PLAN NOTES:

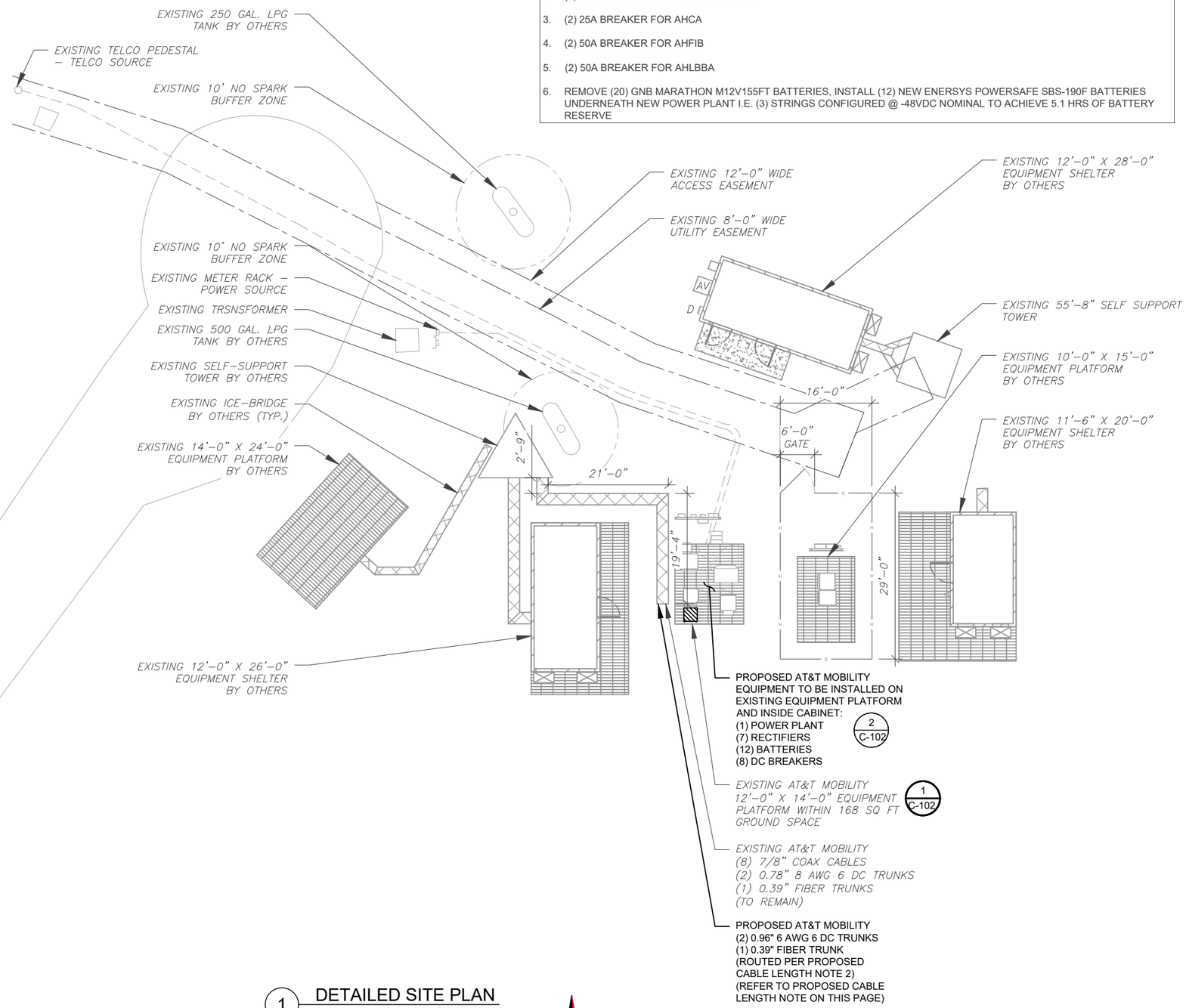
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

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 MOBILITY 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.

NOTES:

1. REPLACE EXISTING OUTDOOR POWER PLANT WITH NEW VERTIV NETSURE -48VDC POWER SYSTEM; INSTALL (1) NEW VERTIV NETSURE 512 -48VDC POWER PLANT OUTFITTED WITH (7) EA. HE 2KW -48 VDC RECTIFIERS.
2. (2) 20A BREAKER FOR B25 RRH4X30-4R
3. (2) 25A BREAKER FOR AHCA
4. (2) 50A BREAKER FOR AHFIB
5. (2) 50A BREAKER FOR AHLBBA
6. REMOVE (20) GNB MARATHON M12V155FT BATTERIES, INSTALL (12) NEW ENERSYS POWERSAFE SBS-190F BATTERIES UNDERNEATH NEW POWER PLANT I.E. (3) STRINGS CONFIGURED @ -48VDC NOMINAL TO ACHIEVE 5.1 HRS OF BATTERY RESERVE



1 DETAILED SITE PLAN

SCALE : 1" = 20'

0 20' 40'

SCALE: 1"=20' (11X17)
1"=10' (22X34)

N

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
—x—	CHAINLINK FENCE

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **140'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).

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TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	SVJ	05/27/22
0	100% CONSTRUCTION	SSP	08/10/22
1	100% CONSTRUCTION	SSP	08/30/22

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:
COU6029

AT&T MOBILITY SITE NAME:
MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:

COLORADO LICENSED ANDREW RAGNAR SVEDLUND 58272 PROFESSIONAL ENGINEER

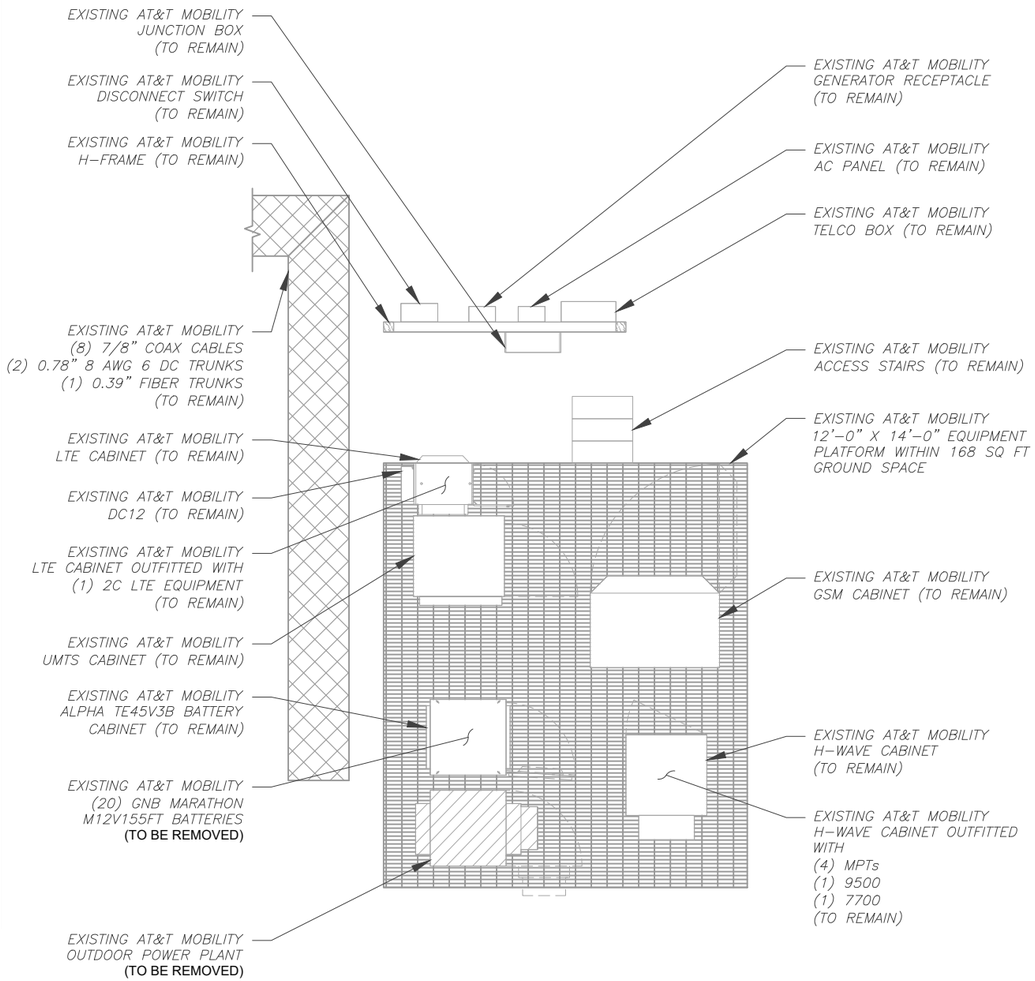
08/30/22

AT&T

DATE DRAWN:	08/30/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	1

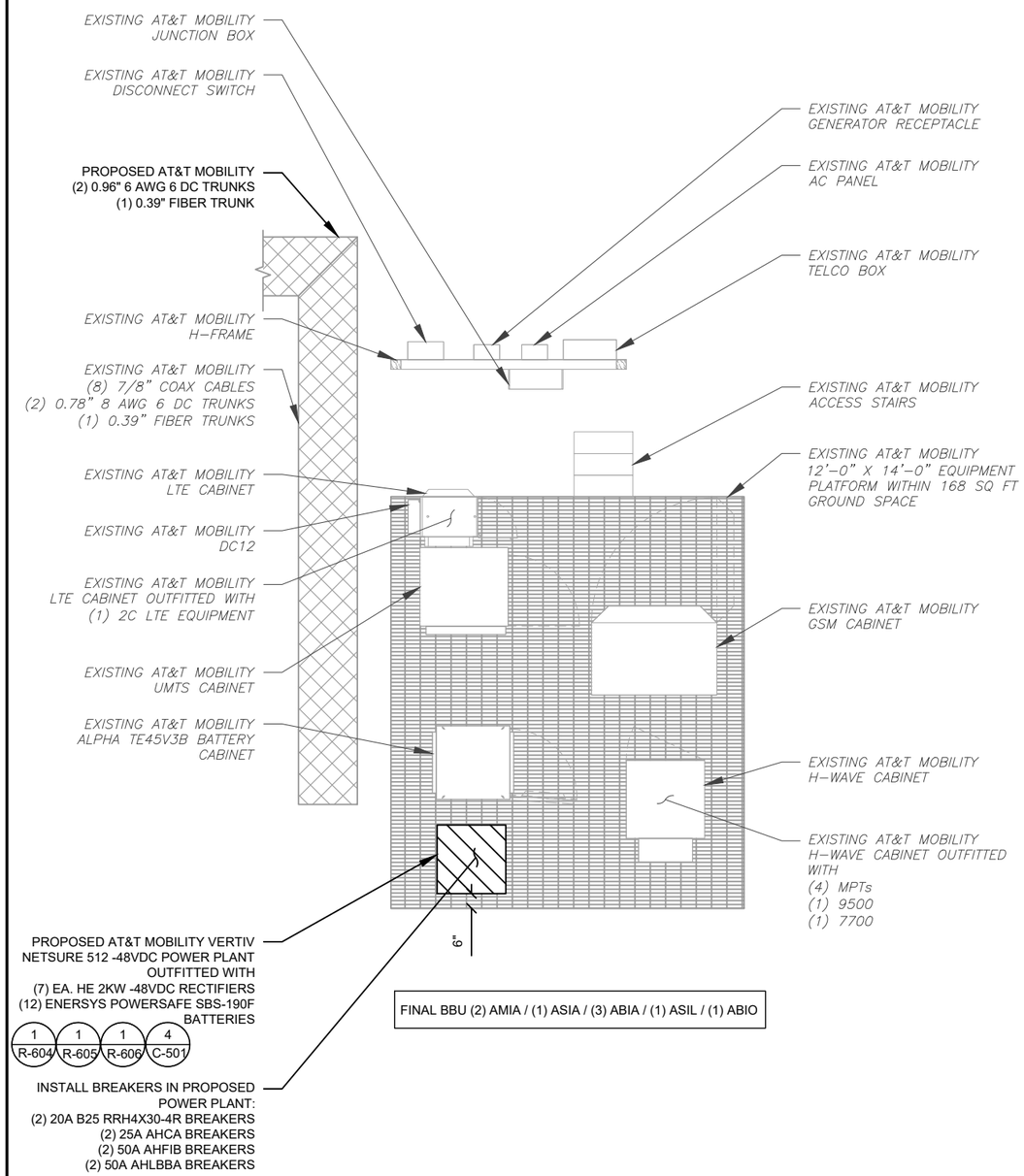


1 EXISTING GROUND EQUIPMENT LAYOUT

SCALE : 1"=5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)



2 PROPOSED GROUND EQUIPMENT LAYOUT

SCALE : 1"=5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

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0	100% CONSTRUCTION	SSP	08/10/22

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ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:

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AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:

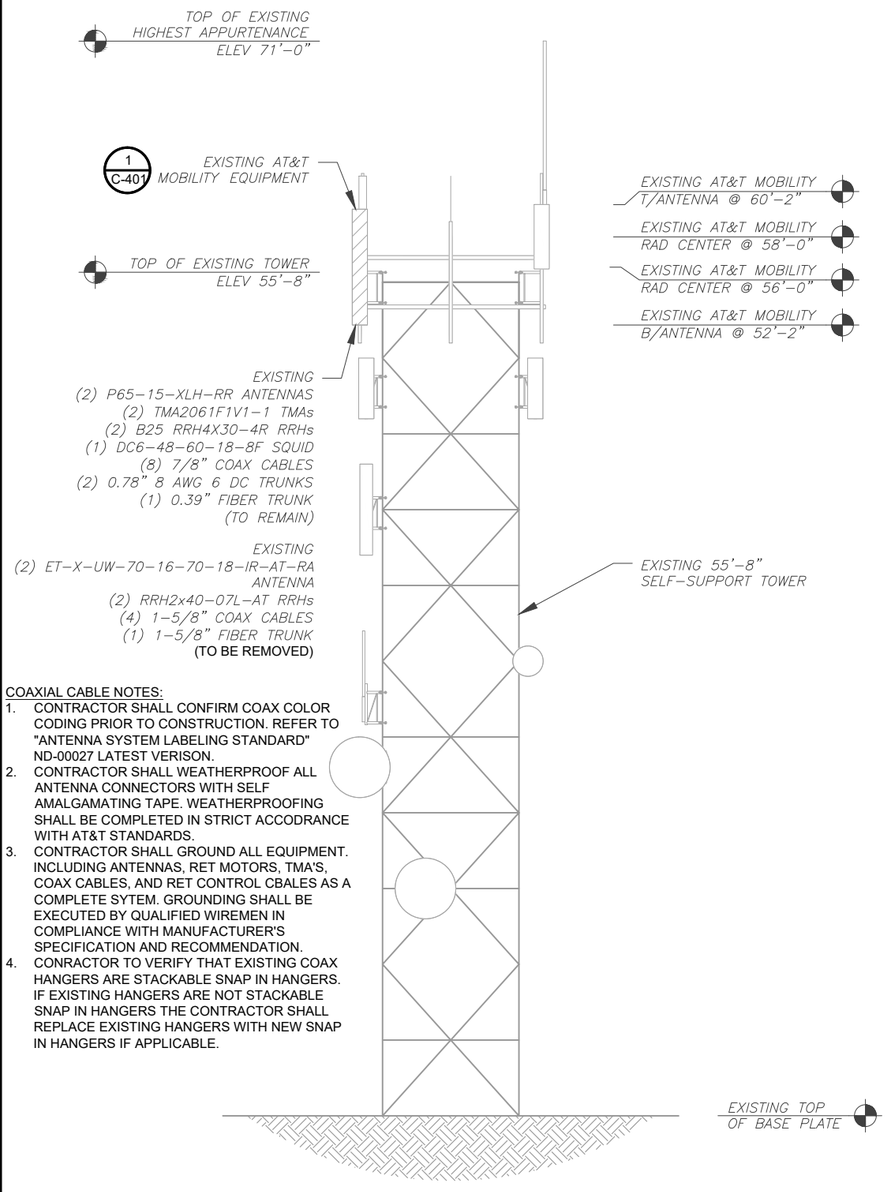
08/10/22

AT&T

DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

DETAILED EQUIPMENT LAYOUT

SHEET NUMBER:	REVISION:
C-102	0



COAXIAL CABLE NOTES:

1. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION. REFER TO "ANTENNA SYSTEM LABELING STANDARD" ND-00027 LATEST VERISON.
2. CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE. WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCODRANCE WITH AT&T STANDARDS.
3. CONTRACTOR SHALL GROUND ALL EQUIPMENT. INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CBALES AS A COMPLETE SYTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
4. CONRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.

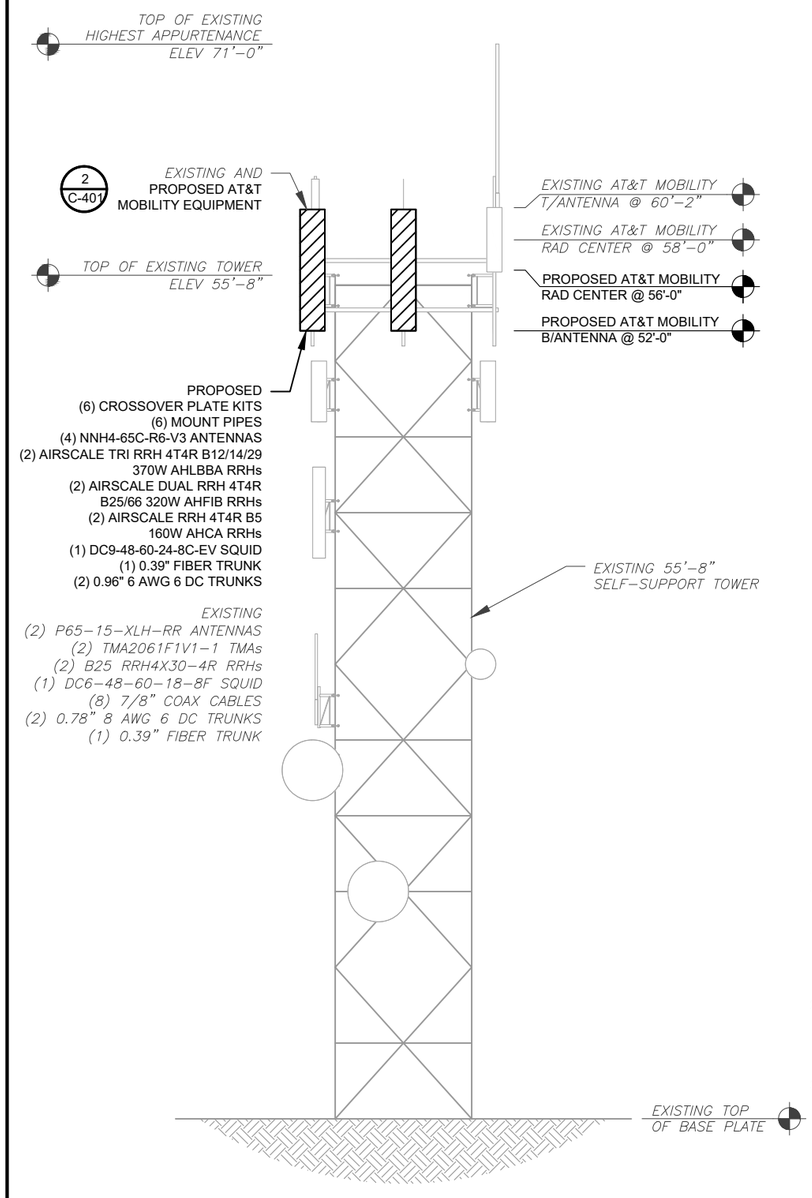
1 EXISTING TOWER ELEVATION

SCALE: 1"=10'

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)

PER MOUNT ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION, DATED MAY 24, 2022 , THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



2 PROPOSED TOWER ELEVATION

SCALE: 1"=10'

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)

DETAILED SOW:
TOPSIDE
REMOVE (2) ET-X-UW-70-16-70-18-IR-AT-RA ANTENNA
REMOVE (2) RRH2x40-07L-AT RRHs
REMOVE (4) 1-5/8" COAX CABLES
REMOVE (1) 1-5/8" FIBER TRUNK
INSTALL (6) CROSSOVER PLATE KITS
INSTALL (6) MOUNT PIPES
INSTALL (4) NNH4-65C-R6-V3 ANTENNAS
INSTALL (2) AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA RRHs
INSTALL (2) AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB RRHs
INSTALL (2) AIRSCALE RRH 4T4R B5 160W AHCA RRHs
INSTALL (1) DC9-48-60-24-8C-EV SQUID
INSTALL (1) 0.39" FIBER TRUNK
INSTALL (2) 0.96" 6 AWG 6 DC TRUNKS
RETAIN (2) P65-15-XLH-RR ANTENNAS
RETAIN (2) TMA2061F1V1-1 TMAs
RETAIN (2) B25 RRH4X30-4R RRHs
RETAIN (1) DC6-48-60-18-8F SQUID
RETAIN (8) 7/8" COAX CABLES
RETAIN (2) 0.78" 8 AWG 6 DC TRUNKS
RETAIN (1) 0.39" FIBER TRUNK

TEST NEW LINES PER MARKET SPEC
LABEL NEW CABLES PER MARKET SPEC
GROUND NEW EQUIPMENT PER MARKET SPEC
BOTTOMSIDE
-REMOVE (1) POWER PLANT
-REMOVE (20) GNB MARATHON M12V155FT BATTERIES
-INSTALL (1) VERTIV NETSURE 512 -48VDC POWER PLANT
-INSTALL (7) EA. HE 2KW -48VDC RECTIFIERS
-INSTALL (12) ENERSYS POWERSAFE SBS-190F BATTERIES
-INSTALL (2) 20A B25 RRH4X30-4R BREAKERS
-INSTALL (2) 25A AHCA BREAKERS
-INSTALL (2) 50A AHFIB BREAKERS
-INSTALL (2) 50A AHLBBA BREAKERS
TEST NEW LINES PER MARKET SPEC
LABEL NEW CABLES PER MARKET SPEC
GROUND NEW EQUIPMENT PER MARKET SPEC

TOWER NOTE:

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.
2. 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.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
5. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	SVJ	05/27/22
0	100% CONSTRUCTION	SSP	08/10/22

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:
COU6029

AT&T MOBILITY SITE NAME:
MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:

COLORADO ANDREW R. MCFELLUND 58272 PROFESSIONAL ENGINEER

08/10/22

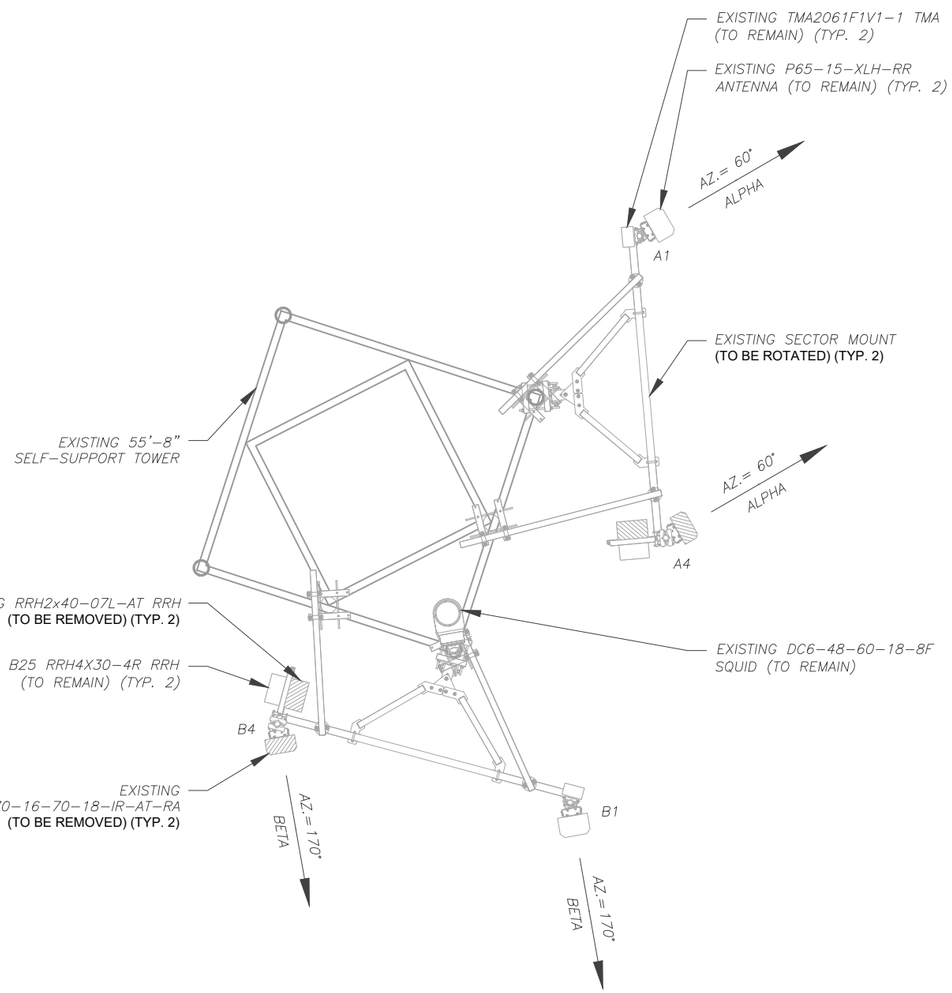
AT&T

DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

EXISTING CONFIGURATIONS ARE BASED ON RFDS.
CONTRACTOR TO VERIFY EXISTING CONDITIONS.

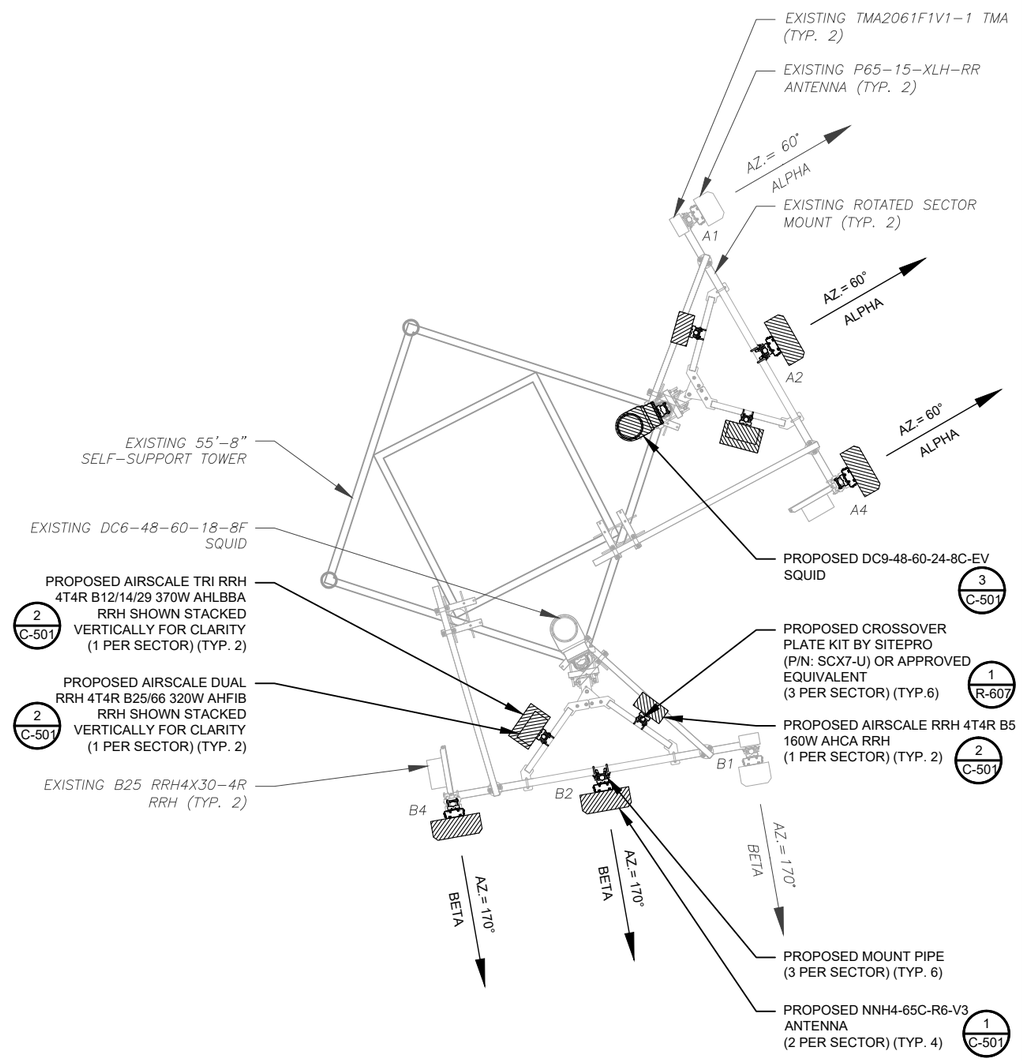


1 EXISTING ANTENNA PLAN
SCALE: 1"=5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

PER MOUNT ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION, DATED MAY 24, 2022 , THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



PROPOSED RRUs MUST BE INSTALLED A MINIMUM OF 12" AWAY FROM ALL ANTENNAS

2 FINAL ANTENNA PLAN
SCALE: 1"=5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

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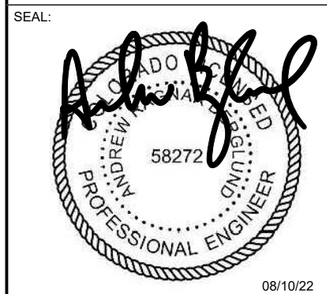
COLORADO SPRINGS, CO 80903

SEAL:



08/10/22

AT&T

DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

ANTENNA INSTALLATION

SHEET NUMBER:	REVISION:
C-401	0

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	58'	60°	A1	P65-15-XLH-RR	UMTS 1900	RMN	(1) TMA206 1F1V1-1	RMN
	56'		A4	ET-X-UW-70-16-70-18-IR-AT-RA	LTE 700/LTE 1900	RMV	(1) RRH2X40-07L-AT (1) B25 RRH4X30-4R	RMV RMN
BETA	58'	170°	B1	P65-15-XLH-RR	UMTS 1900	RMN	(1) TMA206 1F1V1-1	RMN
	56'		B4	ET-X-UW-70-16-70-18-IR-AT-RA	LTE 700/LTE 1900	RMV	(1) RRH2X40-07L-AT (1) B25 RRH4X30-4R	RMV RMN

NOTES

1. CONFIRM WITH AT&T MOBILITY REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
3. THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES.
4. CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS (SEE SHEET R-607)

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	58'	60°	A1	P65-15-XLH-RR	UMTS 1900	RMN	(1) TMA206 1F1V1-1	RMN
	56'		A2	NNH4-65C-R6-V3	5G 850	ADD	(1) AIRSCALE RRH 4T4R B5 160W AHCA	ADD
			A4	NNH4-65C-R6-V3	LTE 700/LTE 1900/LTE AWS	ADD	(1) AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA (1) AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB (1) B25 RRH4X30-4R	ADD ADD RMN
BETA	58'	170°	B1	P65-15-XLH-RR	UMTS 1900	RMN	(1) TMA206 1F1V1-1	RMN
	56'		B2	NNH4-65C-R6-V3	5G 850	ADD	(1) AIRSCALE RRH 4T4R B5 160W AHCA	ADD
			B4	NNH4-65C-R6-V3	LTE 700/LTE 1900/LTE AWS	ADD	(1) AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA (1) AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB (1) B25 RRH4X30-4R	ADD ADD RMN

EXISTING FIBER DISTRIBUTION/SQUID		EXISTING CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
(1) DC6-48-60-18-8F	RMN	–	(2) 0.78" 8 AWG 6	(1) 0.39"	RMN
–	–	(8) 7/8"	–	–	–
–	–	(4) 1-5/8"	–	(1) 1-5/8"	RMV

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

1 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION/SQUID		FINAL CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
(1) DC6-48-60-18-8F	RMN	–	(2) 0.78" 8 AWG 6	(1) 0.39"	RMN
–	–	(8) 7/8"	–	–	–
(1) DC9-48-60-24-8C-EV	ADD	-	(2) 0.96" 6 AWG 6	(1) 0.39"	ADD

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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	SVJ	05/27/22
0	100% CONSTRUCTION	SSP	08/10/22

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:
COU6029

AT&T MOBILITY SITE NAME:
MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:

COLORADO LICENSED ANDREW KARL BERGLUND 58272 PROFESSIONAL ENGINEER

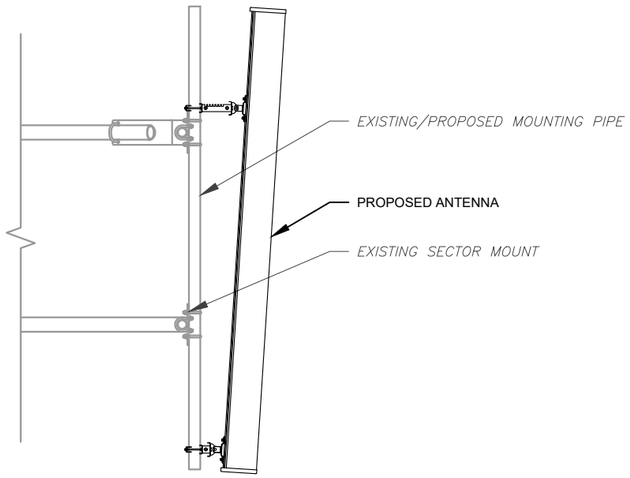
08/10/22

AT&T

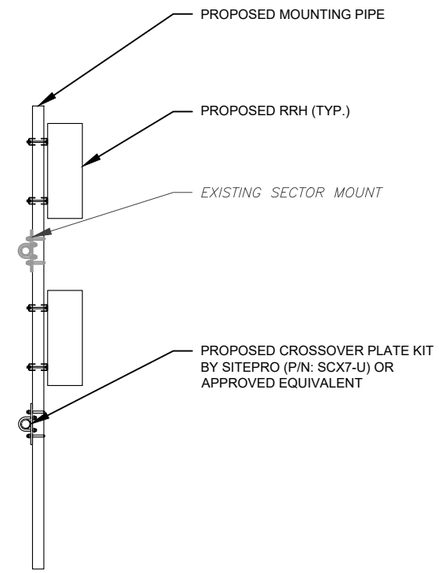
DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

RF SCHEDULE

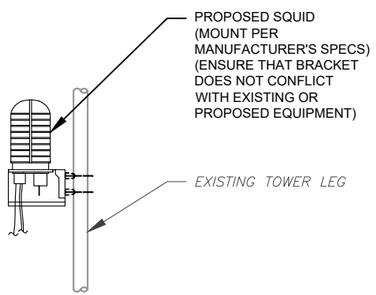
SHEET NUMBER:	REVISION:
C-402	0



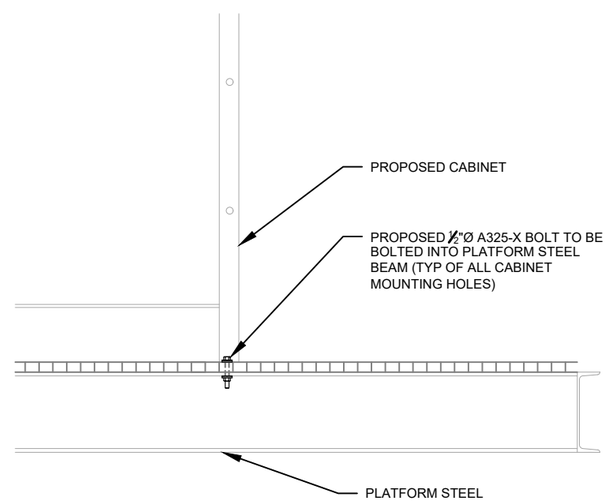
1 PROPOSED ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



2 PROPOSED RRU MOUNTING DETAIL
SCALE: N.T.S.



3 PROPOSED SQUID MOUNTING DETAIL
SCALE: N.T.S.



4 CABINET ATTACHMENT DETAIL
SCALE: NOT TO SCALE

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AT&T MOBILITY SITE NAME:
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SITE ADDRESS:
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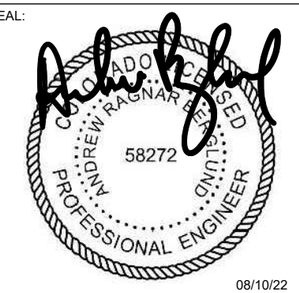
COLORADO SPRINGS, CO 80903

SEAL:



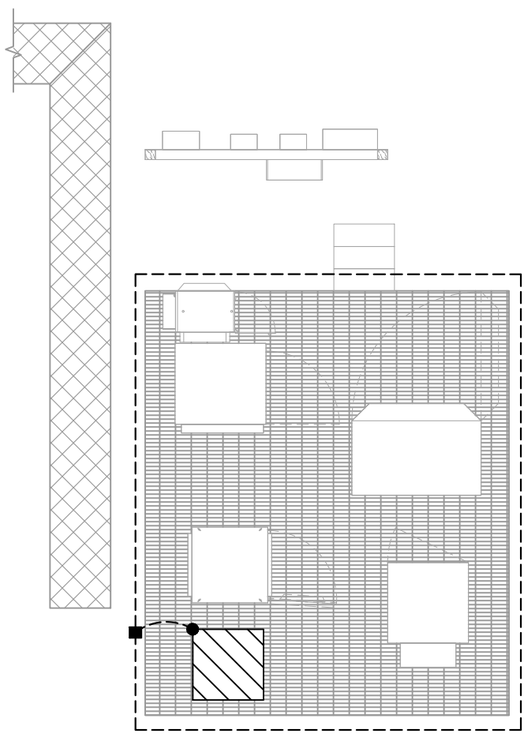
08/10/22

AT&T

DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

CONSTRUCTION DETAILS

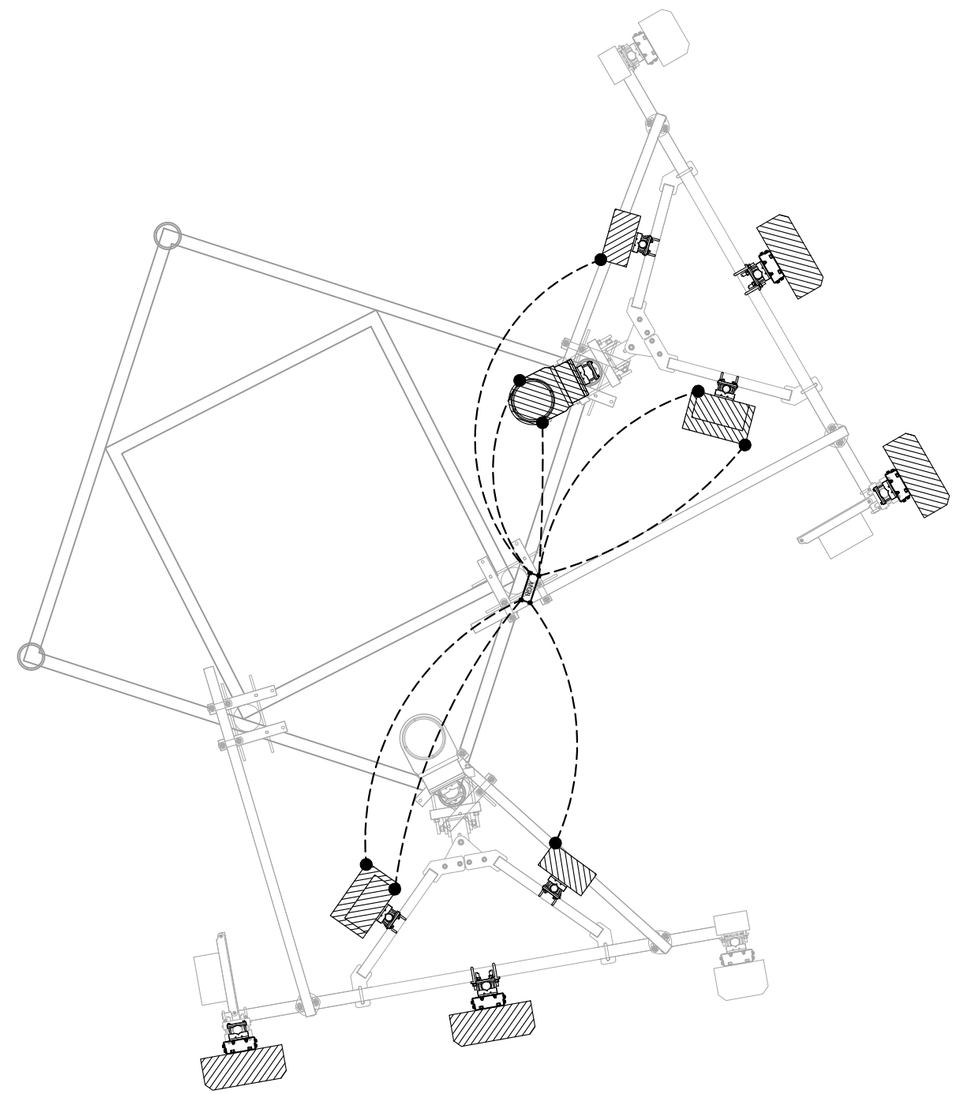
SHEET NUMBER:	REVISION:
C-501	0



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

1 EQUIPMENT GROUNDING PLAN

1" = 5'



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

2 ANTENNA GROUNDING PLAN

1" = 5'

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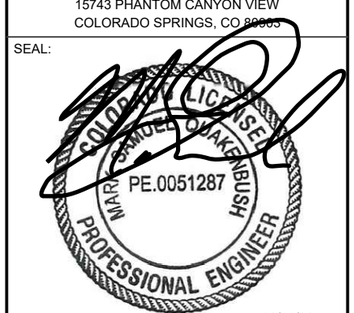


08/10/22

AT&T

DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

ELECTRICAL DETAILS

SHEET NUMBER:	REVISION:
E-101	0

EXISTING 200A M.C.B, 240/120 VAC, 1ø, 3W PANEL SCHEDULE

LOAD SERVED	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	LOAD SERVED
EMERSSON CAB / OFF	0		50/2	1	A	2	60/2	0		TVSS
		0		3	B	4			0	
850 GSM / OFF	0		50/2	5	A	6	20/1	180		GFI REC
		0		7	B	8	20/1		1920	LTS
TECLO REG	1920		20/1	9	A	10	20/1	0		E-911 / OFF
UNKNOWN		1920	20/1	11	B	12	20/1		0	E-911 / OFF
UMTS GFCI & HEATER		1180	20/1							
ALPHA PDF RECT 1	600		20/2	13	A	14	20/1	180		ALPHA GFCI
	600						30/2	600		ALPHA PDF RECT 2
UNKNOWN		1920	20/1	15	B	16			600	
SAID M/W CAB HVAC		1600	20/2				30/2		600	ALPHA PDF RECT 3
	1600			17	A	18		600		
ALPHA PDF RECT 4	600		20/2				30/1	600		ALPHA PDF RECT 5
		600		19	B	20	20/1		600	
BLANK		–	–				–		–	BLANK
VOLT AMPS	5320	7220						2160	3720	VOLT AMPS

L1 VOLT AMPERES	7480	10940	L2 VOLT AMPERES
	10940		MAX VOLT AMPERES
	91.2		MAX AMPS
	114		MAX AMPS x 125%

1 EXISTING AC PANEL

***NOTE:**
(7) PROPOSED RECTIFIER(S) TO BE CONNECTED TO EXISTING RECTIFIER BREAKERS FOR A TOTAL OF (7) RECTIFIER FEEDS. CONTRACTOR TO VERIFY EXISTING RECTIFIER BREAKER CONFIGURATION ALLOWS FOR MULTIPLE RECTIFIER CONNECTIONS AND TO NOTIFY TEP FOR CORRECTIVE ACTION IF THERE ARE ANY DISCREPANCIES.

PROPOSED 200A M.C.B, 240/120 VAC, 1ø, 3W PANEL SCHEDULE

LOAD SERVED	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	LOAD SERVED
EMERSSON CAB / OFF	0		50/2	1	A	2	60/2	0		TVSS
		0		3	B	4			0	
850 GSM / OFF	0		50/2	5	A	6	20/1	180		GFI REC
		0		7	B	8	20/1		1920	LTS
TECLO REG	1920		20/1	9	A	10	20/1	0		E-911 / OFF
UNKNOWN		1920	20/1	11	B	12	20/1		0	E-911 / OFF
UMTS GFCI & HEATER		1180	20/1							
RECTIFIER 1 & 2	1200		**30/2**	13	A	14	20/1	180		ALPHA GFCI
	1200						30/2	1200		**RECTIFIER 3 & 4**
UNKNOWN		1920	20/1	15	B	16			1200	
SAID M/W CAB HVAC		1600	20/2				30/2		1200	**RECTIFIER 5 & 6**
	1600			17	A	18		1200		
SPARE / OFF	0		20/1				**30/2**	600		**RECTIFIER 7 & 8**
SPARE / OFF		0	20/1	19	B	20			600	
BLANK		–	–				–		–	BLANK
VOLT AMPS	5920	6620						3360	4920	VOLT AMPS

L1 VOLT AMPERES	9280	11540	L2 VOLT AMPERES
	11540		MAX VOLT AMPERES
	96.2		MAX AMPS
	120.3		MAX AMPS x 125%

2 PROPOSED AC PANEL

AMERICAN TOWER®

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	SVJ	05/27/22
0	100% CONSTRUCTION	SSP	08/10/22

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:
COU6029

AT&T MOBILITY SITE NAME:
MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:

STATE OF COLORADO LICENSED MARK SAMUEL QUINLIVEN PE.0051287 PROFESSIONAL ENGINEER

08/10/22

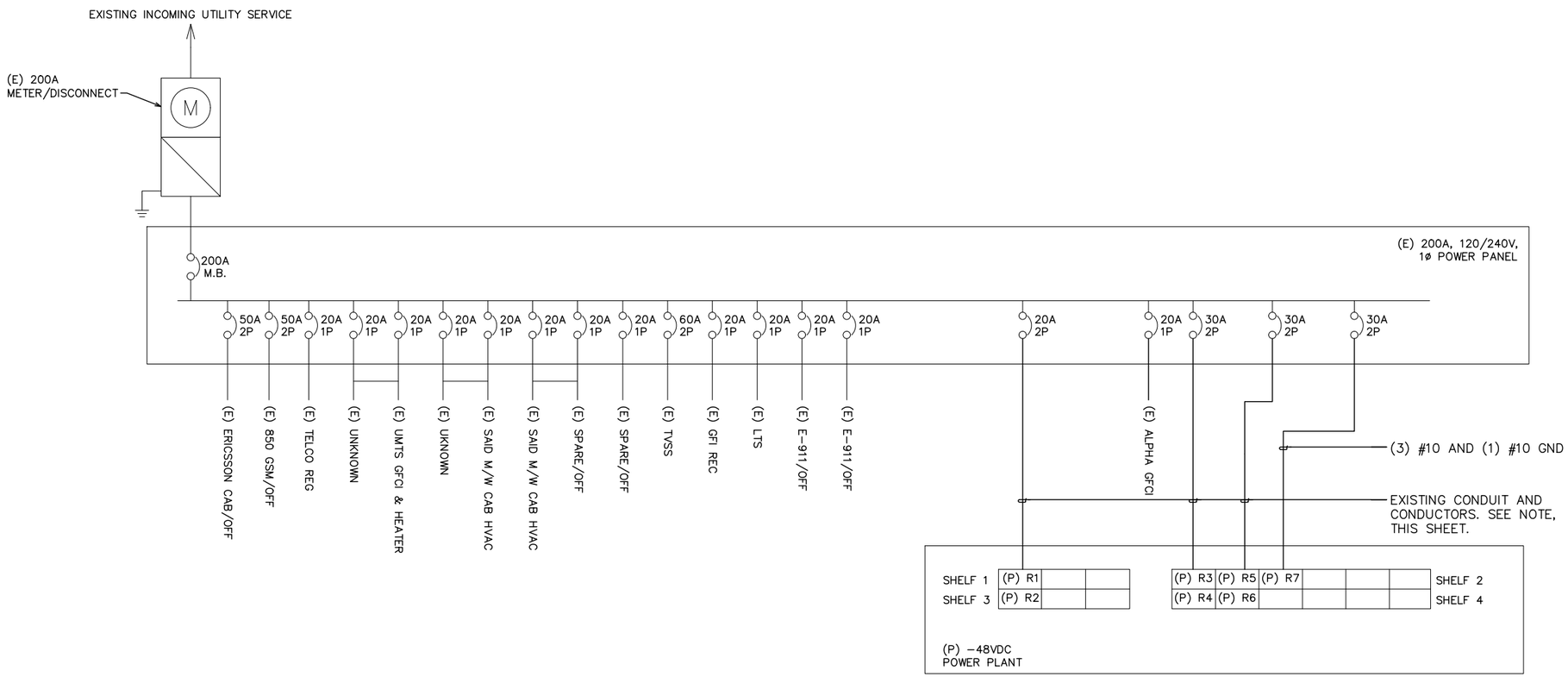
AT&T

DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

ELECTRICAL DETAILS

SHEET NUMBER:	REVISION:
E-102	0

***NOTE:**
(7) PROPOSED RECTIFIER(S) TO BE CONNECTED TO EXISTING RECTIFIER BREAKERS FOR A TOTAL OF (7) RECTIFIER FEEDS. CONTRACTOR TO VERIFY EXISTING RECTIFIER BREAKER CONFIGURATION ALLOWS FOR MULTIPLE RECTIFIER CONNECTIONS AND TO NOTIFY TEP FOR CORRECTIVE ACTION IF THERE ARE ANY DISCREPANCIES.



LEGEND:
(E) – EXISTING
(N) – NEW

1 ONE-LINE DIAGRAM
SCALE: N.T.S.

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RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	SVJ	05/27/22
0	100% CONSTRUCTION	SSP	08/10/22

ATC SITE NUMBER: 383495

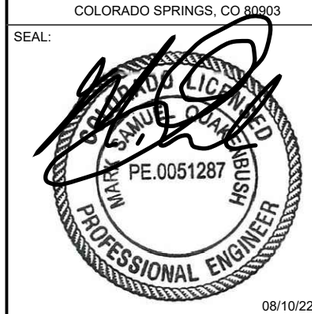
ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:
COU6029

AT&T MOBILITY SITE NAME:
MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:



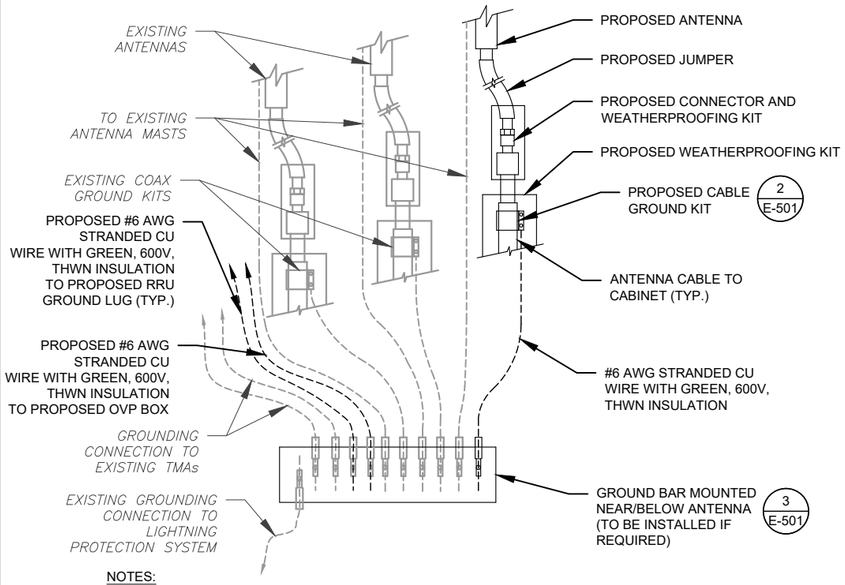
08/10/22

AT&T

DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

ELECTRICAL DETAILS

SHEET NUMBER:	REVISION:
E-103	0

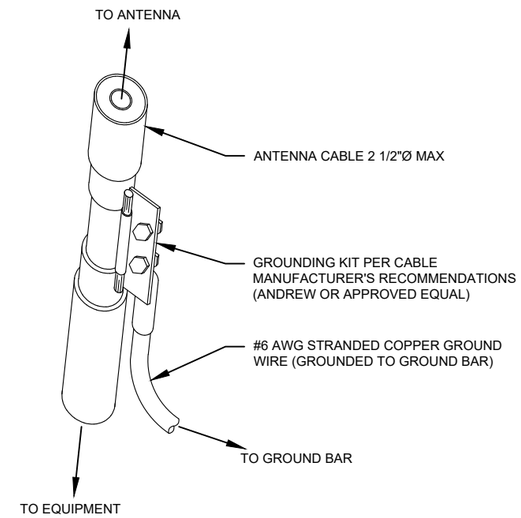


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH AT&T MOBILITY GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T MOBILITY GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

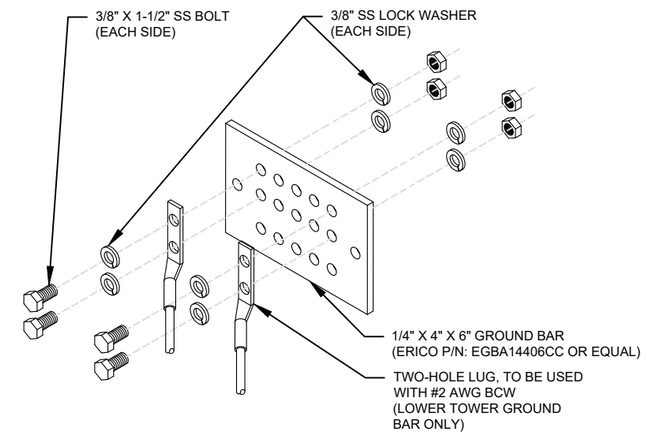


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.

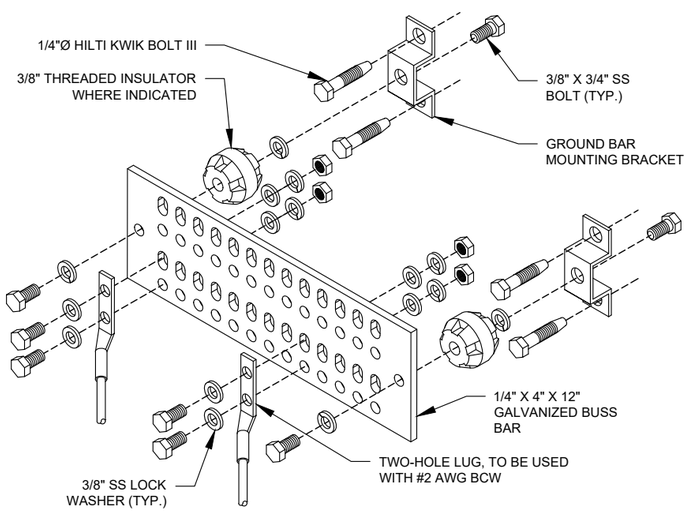


GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

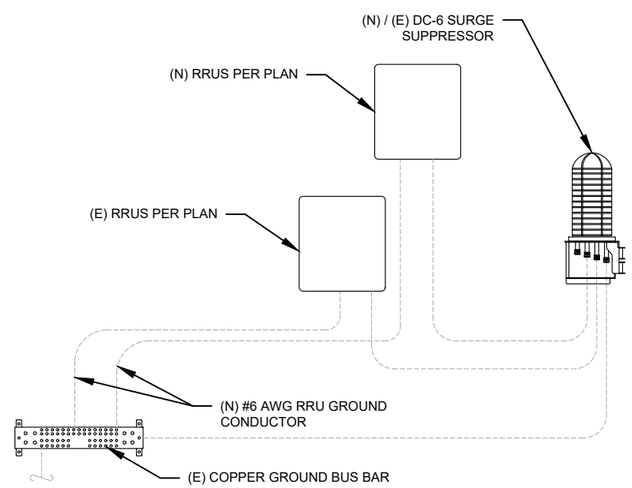


GROUND BAR NOTES

1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

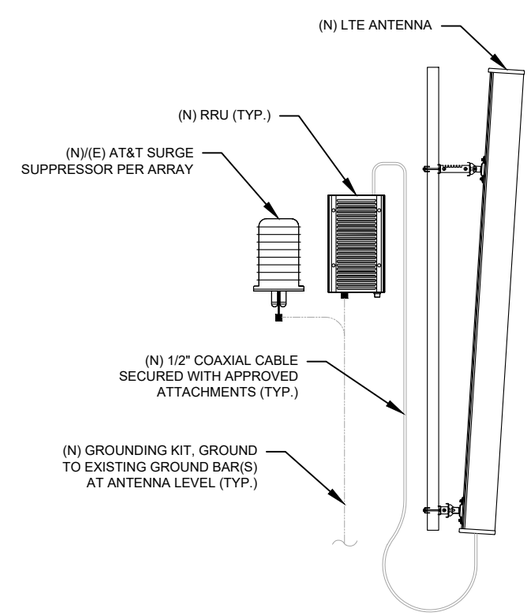
4 MAIN GROUND BAR DETAIL

SCALE: N.T.S.



5 RRU GROUNDING

SCALE: N.T.S.



6 ANTENNA/RRU GROUNDING

SCALE: N.T.S.

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OFFICE: (919) 661-6351
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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	SVJ	05/27/22
0	100% CONSTRUCTION	SSP	08/10/22

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:

COU6029

AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80903

SEAL:

COLORADO LICENSED PROFESSIONAL ENGINEER MARK SAMUEL DUANE BUSH PE.0051287

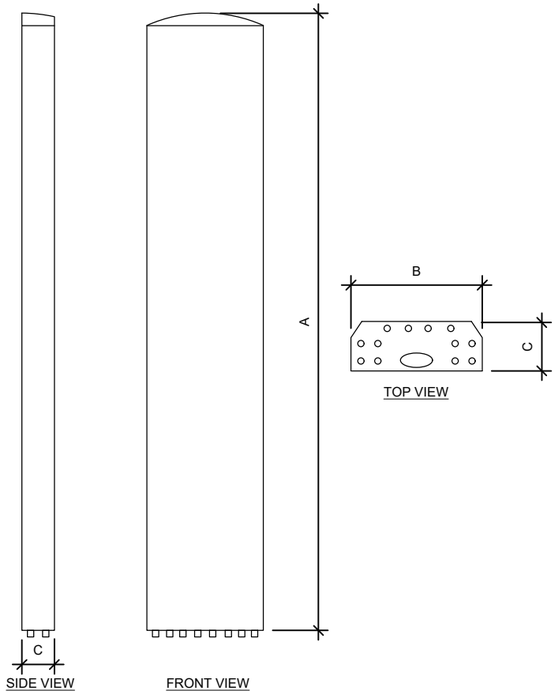
08/10/22

AT&T

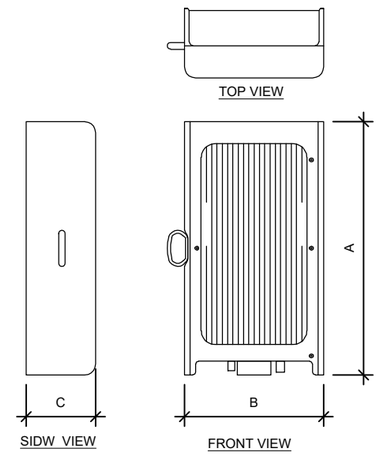
DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

GROUNDING DETAILS

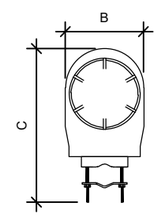
SHEET NUMBER:	REVISION:
E-501	0

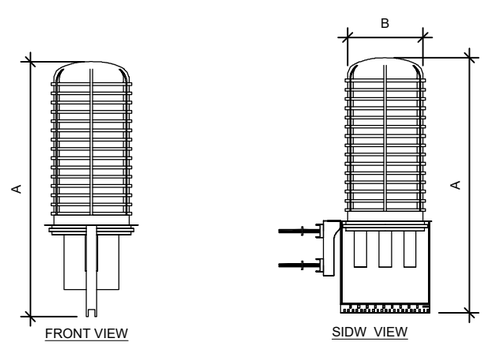


ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
NHH4-65C-R6-V3	96.0"	19.6"	7.8"	102.5



RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
AIRSCALE RRH 4T4R B5 160W AHCA	13.3"	11.6"	6.5"	35.3
AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA	24"	14.1"	7.8"	94.8
AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB	28.7"	15.4"	9.4"	88.2





RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC9-48-60-24-8C-EV	31.4"	18.3"	10.2"	16.0

- EQUIPMENT SPECIFICATIONS

SCALE: N.T.S.

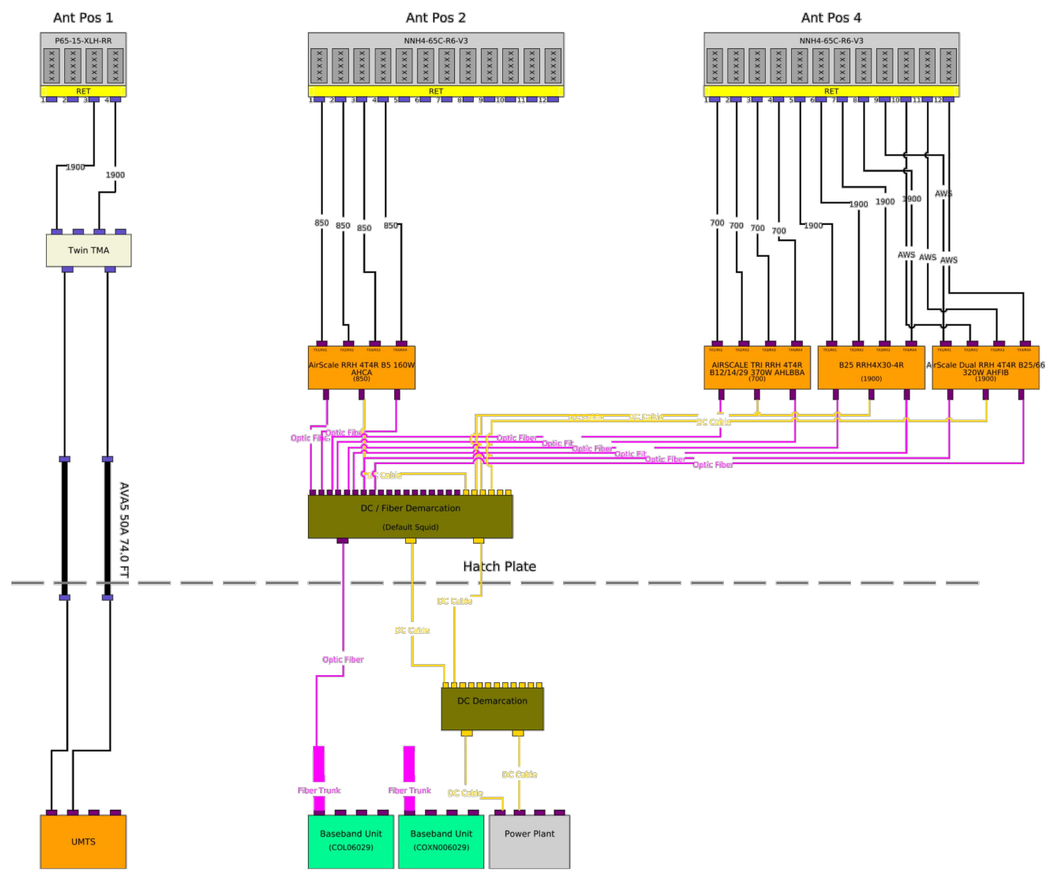
SUPPLEMENTAL

SHEET NUMBER: R-601

REVISION: -

Diagram - Sector	A	Diagram File Name - WAT5002120_SectorA.png					
Atoll Site Name -	Mount_Pittsburg	Location Name -	MOUNT PITTSBURG	Market -	COLORADO	Market Cluster -	CO/UT/WY/MT/SO. ID
Comments:							

Sector A



NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. GENERAL CONTRACTOR IS TO CHECK WITH THE AT&T MOBILITY CM TO ENSURE THIS IS THE MOST RECENT VERSION OF THE RFDS.

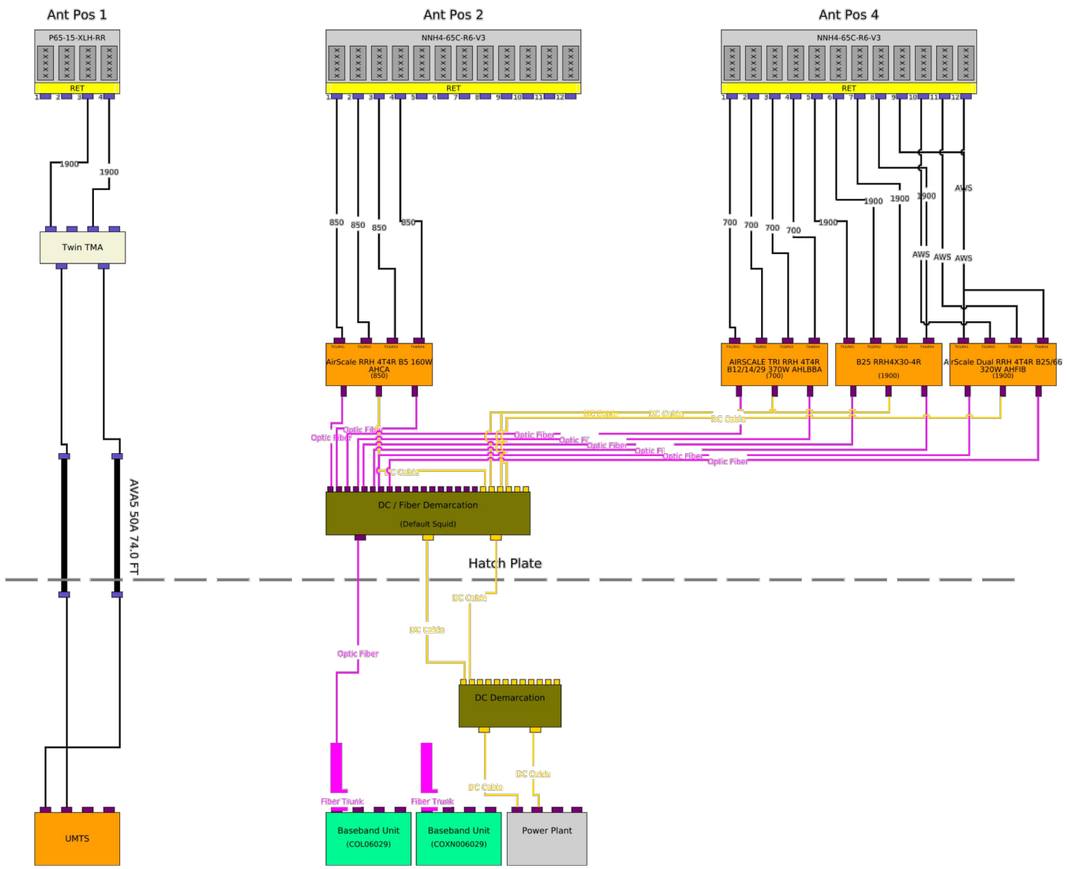
- RFDS PLUMBING DIAGRAM

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	-

Diagram - Sector	B	Diagram File Name - WAT5002120_SectorB.png					
Atoll Site Name -	Mount_Pittsburg	Location Name -	MOUNT PITTSBURG	Market -	COLORADO	Market Cluster -	CO/UT/WY/MT/SO. ID
Comments:							

Sector B



NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. GENERAL CONTRACTOR IS TO CHECK WITH THE AT&T MOBILITY CM TO ENSURE THIS IS THE MOST RECENT VERSION OF THE RFDS.

- RFDS PLUMBING DIAGRAM

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	-

VERTIV™

VERTIV™ XTE 601P ENCLOSURE, NETSURE 512 POWER SYSTEM

Description

This outdoor power solution includes a NetSure™ 512 DC Power System and an environmentally controlled Vertiv XTE 601P enclosure that offers separate individually-cooled chambers for power equipment and batteries. Temperature is monitored with an Environmental Control Unit (ECU) that adjusts thermal settings to maintain ideal conditions within each chamber, while simultaneously decreasing system power consumption and noise. All DC power-feed cables to customer equipment are surge protected at the distribution bus. The battery chamber houses 3 shelves of front-post VRLA batteries and SAFT batteries up to 180 Ah in size.

NetSure 512 DC Power System

- eSure™ rectifiers provide high energy efficiency
- Great output power at high temperatures
- Advanced remote monitoring with NCU controller

Vertiv™ XTE Enclosure

- Separate temperature-controlled zones for power and batteries
- Door-mounted cooling system & rear cable-entry compartment

Technical Specifications

DC POWER SYSTEM FEATURES	
Nominal System Voltage	-48 VDC or +24 VDC
Control	NCU controller
RATED OUTPUT CAPACITY – MAXIMUM CONFIGURATION	
System	525 amps at -48 VDC plus redundancy 400 amps at +24 VDC plus redundancy
Distribution Panel	Top: Wired for (16) +24 V and (13) -48 V bullet positions Bottom: (30) -48 V bullet positions
ENVIRONMENTAL	
Operating Temperature	-40 °F to 115 °F (-40 °C to 46 °C) continuous operation
Humidity	0 to 95%, non-condensing
THERMAL SOLUTIONS	
Power Chamber	2500 watt door-mounted heat exchanger, 2 RU available space for surge protection
Battery Chamber	Fan cooled, fresh air ventilation; holds up to (3) battery strings
EQUIPMENT	
Ground Bar	10 positions
Terminal Block	12-position Phoenix alarm block, 32-position Phoenix alarm bunching block
SAFETY	
DC Power System	UL 1801 Listed (US & Canada), NEBS Level 3
Enclosure	GR-487, UL 60950, and Seismic Zone 4 compliant

Ordering Process

Follow the steps below for each DC power system required.

1. Order -48VDC 2000 watt rectifiers, quantity as required, NEQ.15930 (1R482000E3).
2. Order -48VDC to +24VDC 1500 watt converters, quantity as required, NEQ.15929 (1C48241500).
3. Order load circuit breakers and GMT fuse module NEQ.15981 (549017) as required per Bullet Nose Type Circuit Breakers on **page 17** and GMT Fuse Modules on **page 18**.

If required, for each single pole load circuit breaker ordered, order single pole 90 degree lug adapter kit NEQ.15152 (545405).

If required, for each two-pole load circuit breaker ordered, order two-pole 90 degree lug adapter kit NEQ.15982 (545404).

If required, for each three-pole load circuit breaker ordered, order three-pole 90 degree lug adapter kit NEQ.15983 (545571).

4. Order additional temperature probes as desired. The base power plant includes (4) temperature probes.

   If more than (4) temperature probes are desired, order NEQ.15984 (547490) SMTEMP Module. Each module can accommodate (8) temperature probes. A maximum of (8) SMTEMP modules can be accommodated per system.

   Order temperature probes, quantity as required.

   Choose:
   NEQ.15985 (552992), 10.3 meter length
   NEQ.15986 (556155), 3.3 meter length

   Example: If (20) total temperature probes are desired, order (2) SMTEMP modules and (16) temperature probes.

   Order temperature probe extensions if initial length is not adequate, 10 meter length. Quantity as required, NEQ.15987 (04119122).

5. If DC generator disconnect breaker is required, order DC generator input connection kit, NEQ.20070 (564898) and 400 A bullet breaker NEQ.20063 (150860).

Vertiv™ XTE 601P Ordering Information

AT&T NUMBER	VERTIV™ NUMBER	DESCRIPTION
Outdoor DC Power System		
NEQ.19918*	**F2016064**	**Vertiv XTE 601P, 512, 752 lbs.**
Equipped with:	F1011032	Enclosure (72"H x 32"W x 39"D)
	582137000ZZ007	NetSure 512, -48 VDC/+24 VDC, (43) -48 V load breaker positions, (16) +24 V load breaker positions, LVBD capability
	58213700027	*(1) Two row distribution cabinet*
	58213700030	*(4) Rectifier shelves 3 right positions can be used for -48V to +24V converters*
	582137000AC	*(1) (30) position -48 VDC distribution panel*
	582137000DJ	*(1) (13) -48 V & (16) +24 V position dist. panel*
	1M830DNA559478	*(1) NCU controller*
	552992	*(2) Temperature probes*
	556155	*(2) Temperature probes*
	541308	*(2) Alarm cables*
	58213700070	*(1) Extended interface board*
	549017	(1) GMT fuse option board 2500 watt door-mounted heat exchanger 12-pair Phoenix alarm block 32-pair Phoenix alarm bunching block Strikesorb DC surge protection (3) 100 amp DC battery disconnects Battery heater pads included Duplex AC convenience outlet 10-position ground bar

AT&T NUMBER	VERTIV NUMBER	DESCRIPTION
Accessories		
NEQ.15998	F1010598	4" mounting plinth
NEQ.15930	**1R482000E3**	**Rectifier, NetSure 512, -48 VDC, 40 A/2000 W**
NEQ.15929	1C48241500	(1) Converter, high efficiency, -48 VDC to +24 VDC, 62.5 A/1500 W, 4.4 lbs.*
NEQ.15984	**547490**	**SM-TEMP, 8-input temperature module**
NEQ.15985	552992	Temperature probe, 10.3 meters
NEQ.15986	**556155**	**Temperature probe, 3.3 meters**
NEQ.15987	04119122	Temp probe extension, 10 meters
NEQ.15988	**552822**	**Temp probe sensor, 0.3 meter**
NEQ.19291	1M830DNA560273	NCU controller field retrofit
NEQ.15992	**MA4C5U31**	**IB2, Customer Interface Board**
NEQ.15993	548120	EIB, Extended Interface Board
NEQ.20070	**564898**	**DC generator disconnect breaker kit** **NOTE:** 400 A bullet breaker is sold separately.
NEQ.20063	150860	400 A bullet breaker, 4-pole
NEQ.TBD	**564354**	**Distribution position conversion kit for top row. All -48VDC positions.**
NEQ.TBD	564997	DC generator wrap around Kit
		Bullet nose type circuit breakers - page 17
Batteries		
NEQ.12090	N/A	155 Ah GNB battery (not supplied by Vertiv; sourced through EPL)
NEQ.14983	**N/A**	**48 V SAFT battery string, 80-94743-01, 38 X TelX 180 NiCd (not supplied by Vertiv; sourced through EPL)**

* 1200 watts at 65°C

1 PROPOSED POWER PLANT DETAIL
SCALE : N.T.S.

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-604	-

eSure™ Rectifier

R48-2000e3

VERTIV.

Benefits

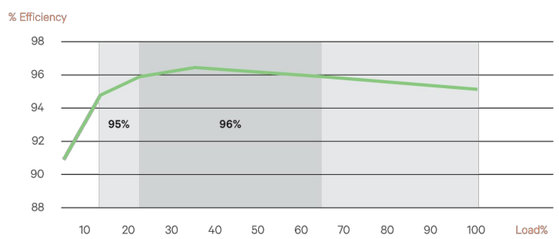
- Optimize the amount of energy delivered and reduce power consumption with over 96% efficiency.
- Increase space for revenue generating equipment with modules that pack more power in a small space with high power density.
- Facilitate easy maintenance, expansion and system changes with hot swappable capabilities.
- Enjoy increased reliability and active load sharing with Digital Signal Processing (DSP) which translates into fewer components and optimized operation.
- Appreciate the flexibility to utilize in a variety of applications with a wide input voltage range of 85 VAC to 300 VAC and full power output at temperatures from -40˚C to +65˚C.

In addition to reducing power consumption and lowering operating cost, eSure™ high-efficiency rectifiers offer superior performance and uncompromised reliability.

Description

The 2000 watt high-efficiency eSure rectifier (model R48-2000e3) converts standard AC supply voltages into stable nominal -48 VDC voltage that is adjustable to application needs. This constant power rectifier designed with the latest patented switch-mode technology, uses DSP (Digital Signal Processing) for efficient operation.

The R48-2000e3 can be connected in parallel with other rectifiers and converters to support a variety of telecom applications. Unified remote management and control of the power system is enabled when combined with a Vertiv™ controller.



R48-2000e3 Efficiency Curve at 250 VAC Nominal

eSure™ Rectifier

VERTIV.

Technical Specifications

AC Input	R48-2000E3
Voltage	85 VAC to 300 VAC (see figure 1), 187 VAC to 264 VAC (nominal)
Frequency	45 Hz to 65 Hz
Maximum Current	12 A
Power Factor	>0.99 from 50 to 100% load
Protection	High and low voltage protection, surge and lightning protection Adapts to poor quality grid (voltage dip, weak mains) Disconnection at 415 VAC Mains fuses in both lines
DC Output	
Voltage	-42 VDC to -58 VDC
Maximum Power	2000 W
Maximum Current	42 A @ -48 VDC, limit set point 0 to 42 A (see figure 2)
Peak Efficiency	96.2%
Protection	Fuse for reverse connection and back feeding protection High voltage shutdown High temperature protection
Control and Monitoring	
Converter Alarm and Signaling	Alarm and status reported via CAN bus to system controller
Visual Indications	Green LED: Normal Operation Yellow LED: Alarm Red LED: Failure
Environmental	
Operating	-40°C to 80°C / -40°F to +176°F (see figure 3 for derating)
Temperature Derating	Full output power up to +65°C at input voltage range 200 to 250 VAC (see figure 3)
Storage	-40°C to +70°C / -40°F to +158°F
Relative Humidity	0 to 95%
Altitude	Full output power up to +65°C at input voltage range @200~ 250 VAC
Standards Compliance	
Safety	60950-1 (EN, IEC and UL)
EMC	EN55022, CISPR22, ETSI EN300 286: 2005, FCC CFR 47 Part 15, Telcordia GR-1089-CORE issue 6 (Class B conducted and radiated)
Environment	REACH, RoHS, WEEE
Mechanics	
Dimensions (H x W x D)	41 x 84.5 x 252.5 (mm) / 1.61 x 3.33 x 9.94 (inches)
Weight	1.13 kg / 2.49 lbs

Ordering Information

Model Number	Description
1R482000E3	eSure™ rectifier, -48 VDC, 2000 W

Figures

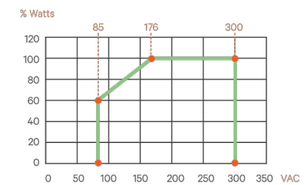


Figure 1: Output Power vs. Input Voltage and Vo > 48 V at Tamb <55°C

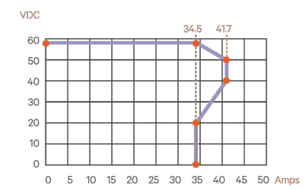


Figure 2: Output Voltage vs. Output Current at Maximum Output Power 2000 W

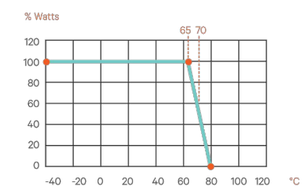


Figure 3: Output Power vs. Temperature at Uin > 200VAC

Vertiv.com | **Vertiv Headquarters,** 1050 Dearborn Drive, Columbus, OH, 43085, USA

R48-2000E3 (R06/20)

1 PROPOSED RECTIFIER DETAIL

SCALE : N.T.S.

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SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-605	-

connect@alpinepowersystems.com
877-993-8855

ALPINE POWER SYSTEMS

Click to view product web page

PowerSafe® SBS Front Terminal

Telecommunications *NEBS™ Certified*

Battery Range Summary

The PowerSafe® SBS® Front Terminal battery further extends the technical leadership of PowerSafe SBS battery product line: not only do PowerSafe SBS Front Terminal monoblocs retain the benefits typically associated with Thin Plate Pure Lead (TPPL) Technology such as long life, high energy density, superior shelf life, etc., they also deliver exceptional cyclic performance in both float and fast charge applications, even in the hottest and harshest operating environments.

Where conventional Valve Regulated Lead Acid (VRLA)/Absorbed Glass Mat (AGM) batteries struggle to cope with harsh conditions and frequent power outages, cutting edge (TPPL) technology makes PowerSafe 12V batteries the perfect solution for the challenging operating conditions of today's telecommunication networks.

PowerSafe SBS batteries are designed to high quality standards and a unique manufacturing methods means superior energy and power, high performance and proven reliability, there is no substitute to PowerSafe SBS Front Terminal batteries.

Features and Benefits

- Capacity range 31-190Ah
- 12V monobloc configurations
- Multiple string configurations available
- Two year shelf life
- SR4228 compliant
- Proven long service life
- High energy density and cycling capability

EnerSys® Power/Full Solutions | RESERVE POWER

Publication No: US-SBSF-RS-004 - January 2014

Construction

- Robust positive plates are designed to prolong service life and enhance corrosion resistance
- Separators are low resistance microporous (AGM). The electrolyte is absorbed within the AGM, preventing acid spills in case of accidental damage
- Container and cover in flame retardant UL94-V0 material, highly resistant to shock and vibration
- Terminals are stainless steel front access with top access copper alloy insert. Top and front access terminations provide maximum conductivity
- Self-regulating one way pressure relief valves prevents ingress of atmospheric oxygen

Installation and Operation

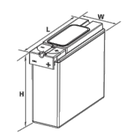
- Space efficient footprint
- VRLA design, reduces maintenance requirements
- Lifting handles for easy handling
- Greater than 10 year life expectancy in float service at 77°F (25°C)
- Increased active material surface area yields great cycling capability
- Operating temperature: -40°F (-40°C) to 122°F (50°C) Recommended temperature: 68°F (20°C) to 86°F (30°C)

Standards

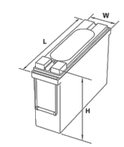
- Meets criteria for "non-spillable" batteries
- Complies with Telcordia® SR-4228, Network Equipment Building System (NEBS™) Criteria Levels
- The management systems governing the manufacture of this product are ISO 9001:2008 and ISO 14001:2004 certified

General Specifications

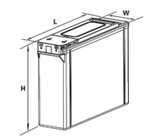
Cell Type	Nominal Capacity (Ah)		Nominal Dimensions						Weight - Volumes	
	10 hr rate to 1.80Vpc @20°C	8 hr rate to 1.75Vpc @77°F	Length		Width		Height		Unpacked	
			in	mm	in	mm	in	mm	lbs	kg
SBS B8F	31	31	11.9	303	3.8	97	6.3	159	22.7	10.3
SBS B10F	38	38	11.9	303	3.8	97	7.2	184	28.2	12.8
SBS B14F	62	62	11.9	303	3.8	97	10.4	264	42.0	19.1
SBS C11F	92	91	16.4	417	4.1	105	10.1	256	61.6	28.0
SBS 100F	100	100	15.6	395	4.3	108	11.3	287	71.9	32.6
SBS 112F	112	112	22.1	561	4.9	125	9.0	228	90.4	41.1
SBS 145F	145	145	17.9	455	6.8	173	9.4	238	105.0	47.7
SBS 165F	165	165	17.9	455	6.8	173	10.8	273	117.4	53.3
SBS 170F	170	170	22.1	561	4.9	125	11.1	283	115.7	52.5
SBS 190F	190	190	22.1	561	4.9	125	12.4	316	132.3	60.0



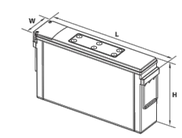
SBS B8F-B14F



SBS C11F



SBS 100F-112F



SBS 145F - 190F

1 PROPOSED BATTERY DETAIL
SCALE : N.T.S.

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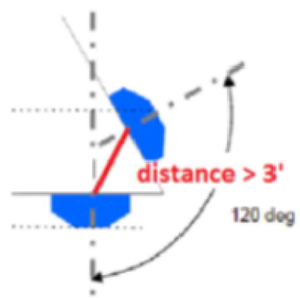
SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-606	-

RF REQUIREMENTS FOR 700 B14 FIRSTNET, 700 B12, 700D B29 ANTENNA SEPARATION

- Horizontal separation (side to side of antenna): >= 3’
- Vertical separation (between the tips of the antennas): > 3’
- Inter-sector separation: > 3’ between the center of the antenna backplanes.



- Please note additional horizontal separation may be required if B14 antennas azimuth are different from others or antennas are severely angled with respect to the mount.
- Typical 3' horizontal separation can tolerate skew angle up to 6°.

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SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-607	-

AMERICAN TOWER®
CORPORATION

Mount Analysis Report

ATC Site Name	:	**Morley 1, CO**
ATC Site Number	:	**383495**
Engineering Number	:	**14093825_C8_02**
Mount Elevation	:	**55 ft**
Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**MOUNT PITTSBURG**
Carrier Site Number	:	**COU6029**
Site Location	:	**15743 Phantom Canyon View Colorado Springs, CO 80903 38.61255556 , -104.9348333**
County	:	**El Paso**
Date	:	**May 24, 2022**
Max Usage	:	**81%**
Result	:	**Contingent Pass**

Prepared By:
Molly Li
Structural Engineer

Reviewed By:

COLORADO LICENSED
MICHAEL EVAN DEESS
PE.0051453
PROFESSIONAL ENGINEER

Authorized by "EOR"
24 May 2022 03:53:35 cosign

Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 55 ft.

Supporting Documents

Specifications Sheet	Site Pro 1 VFA10-HD, dated June 29, 2018
Previous Analysis	Infinigy Project #510-000 for Site #COL06029, dated March 9, 2017
Radio Frequency Data Sheet	RFDS ID #10093580, dated April 26, 2022
Reference Photos	Site photos from 2019

Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	130 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 0.25'' radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.185, S1 = 0.059
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

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:

- Install P2 (2.375" x 126") antenna mounting pipe (Mount Pipe B) at the center of the mount face with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.
- Install (2) P2 (2.375" x 60") antenna mounting pipes (Mount Pipe D, E) on the mount support arms with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

ATC Tower Services, LLC - 3500 Regency Parkway, Suite 100 - Cary, NC 27518 - 919.468.0112 Office - 919.466.5414 Fax - www.americantower.com

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-608	-

- MOUNT ANALYSIS

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