



AMERICAN TOWER®

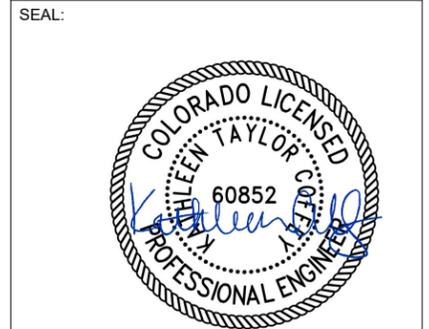
ATC SITE NAME: MORLEY 2
 ATC SITE NUMBER: 383496
 T-MOBILE SITE NAME: DN04253A
 T-MOBILE SITE NUMBER: DN04253A
 SITE ADDRESS: 15743 PHANTOM CANYON VIEW
 COLORADO SPRINGS, CO 80926
 SITE CLASS: SELF SUPPORT



1100 E. WOODFIELD ROAD, SUITE 500
 SCHAUMBURG, ILLINOIS 60173
 TEL: 847-908-8400
 www.fullerton-us.com

| REV. | DESCRIPTION | BY | DATE |
|------|-------------|----|----------|
| A | PRELIM | AB | 03/11/24 |
| B | FINAL | RV | 03/25/24 |
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ATC PROJ. #: 14761323_G0
 CUST. ID: DN04253A
 CUST. #: DN04253A

TITLE SHEET

SHEET NUMBER:
G-001
 REVISION:
0

T-MOBILE MICROWAVE PLAN

| COMPLIANCE CODE | PROJECT SUMMARY | PROJECT DESCRIPTION | SHEET INDEX | | | | |
|--|---|---|----------------|--------------------------------|------|----------|-----|
| <p>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.</p> <ol style="list-style-type: none"> 2018 INTERNATIONAL BUILDING CODE (IBC) 2020 NATIONAL ELECTRICAL CODE (NEC) LOCAL BUILDING CODE CITY/COUNTY ORDINANCES | <p><u>SITE ADDRESS:</u> 15743 PHANTOM CANYON VIEW COLORADO SPRINGS, CO 80926 COUNTY: EL PASO</p> <p><u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 38.61252 LONGITUDE: -104.935115 GROUND ELEVATION: 7924' AMSL</p> | <p>THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: <u>TOWER WORK:</u> INSTALL (1) VHLP2-11WA MW DISH, (1) IP20D-HP ODU, (1) 5/8" POWER CABLE AND (1) 3/8" FIBER CABLE</p> <p>EXISTING (2) 1.55" HYBRID CABLES TO REMAIN</p> <p><u>GROUND WORK:</u> EXISTING T-MOBILE GROUND EQUIPMENT TO REMAIN</p> | SHEET NO: | DESCRIPTION: | REV: | DATE: | BY: |
| | <p><u>PROJECT TEAM</u></p> <p><u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801</p> <p><u>ENGINEER:</u> FULLERTON ENGINEERING CONSULTANTS, LLC 1100 E. WOODFIELD ROAD, SUITE 500 SCHAUMBURG, IL 60173</p> <p><u>PROPERTY OWNER:</u> PN LL NO VENDOR 15743 PHANTOM CANYON VIEW COLORADO SPRINGS, CO 80926</p> | <p><u>PROJECT NOTES</u></p> <ol style="list-style-type: none"> THE FACILITY IS UNMANNED. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. HANDICAP ACCESS IS NOT REQUIRED. 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). | G-001 | TITLE SHEET | 0 | 03/25/24 | RV |
| <p><u>UTILITY COMPANIES</u></p> <p>POWER COMPANY: TBD PHONE: TBD</p> <p>TELEPHONE COMPANY: TBD PHONE: TBD</p> | <p><u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801</p> <p><u>APPLICANT:</u> T-MOBILE</p> | <p><u>PROJECT LOCATION DIRECTIONS</u></p> <p>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</p> <p>1.9 MILES TURN RIGHT ONTO PHANTOM CANYON VW .5 MILES TO TOWERS AT THE TOP. OBEY ALL SPEED LIMITS AT ALL TIMES AS THERE ARE HIDDEN DRIVEWAYS AND BLIND CURVES ALONG THE ROAD</p> | G-002 | GENERAL NOTES | 0 | 03/25/24 | RV |
| | | | C-101 | DETAILED SITE PLAN | 0 | 03/25/24 | RV |
| | | | C-201 | TOWER ELEVATION | 0 | 03/25/24 | RV |
| | | | C-401 | ANTENNA INFORMATION & SCHEDULE | 0 | 03/25/24 | RV |
| | | | C-501 | CONSTRUCTION DETAILS | 0 | 03/25/24 | RV |
| | | | R-601 TO R-602 | SUPPLEMENTAL | | | |
| | | | R-603 | MOUNT ANALYSIS - SUPPLEMENTAL | | | |

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, T-MOBILE "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 T-MOBILE 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 ANSIEIA/NTIA-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 T-MOBILE REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE 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 T-MOBILE 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 T-MOBILE 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 T-MOBILE 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 T-MOBILE 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 T-MOBILE REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE 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 T-MOBILE 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. 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.
30. 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 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.
32. 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 T-MOBILE REP. ANY WORK FOUND BY THE T-MOBILE REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
33. 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.
34. T-MOBILE FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE T-MOBILE 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. T-MOBILE 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 T-MOBILE OR THEIR ARCHITECT/ENGINEER.

- B. ALL COAXIAL/HYBRID CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL/HYBRID CABLE (NOT WITHIN BENDS)

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
 - A. ANTENNA AND COAXIAL/HYBRID CABLES ARE FURNISHED BY T-MOBILE 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 T-MOBILE SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
 - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
 - E. INSTALL COAXIAL/HYBRID 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/HYBRID CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
2. ANTENNA AND COAXIAL/HYBRID CABLE GROUNDING:
 - A. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.

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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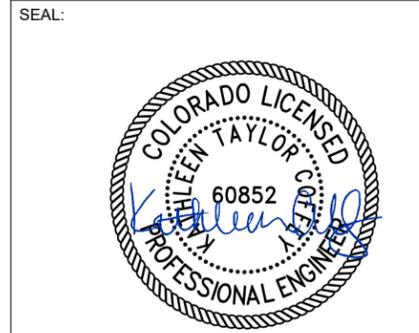
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GENERAL NOTES

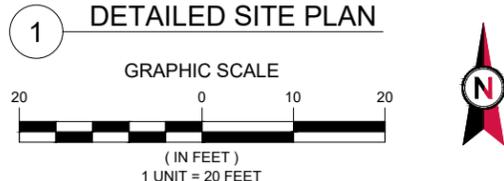
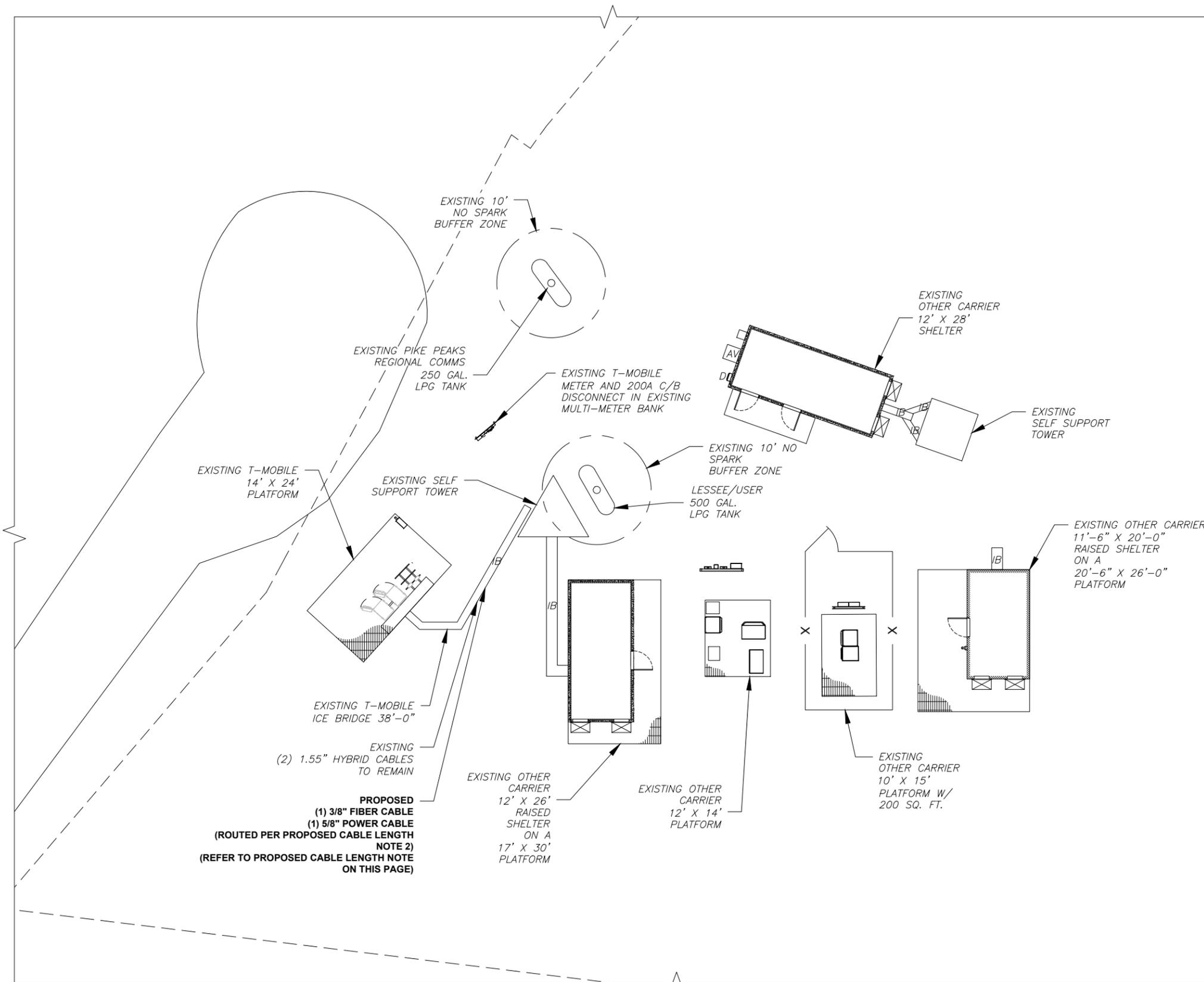
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| SHEET NUMBER: G-002 | REVISION: 0 |
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SITE PLAN NOTES:

- 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.
- 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.
- NO ELECTRICAL SCOPE IS INCLUDED IN THIS PROJECT.

LEGEND

| | |
|-------|---------------------------|
| ⊗ | GROUNDING TEST WELL |
| ATS | AUTOMATIC TRANSFER SWITCH |
| B | BOLLARD |
| CSC | CELL SITE CABINET |
| D | DISCONNECT |
| E | ELECTRICAL |
| F | FIBER |
| GEN | GENERATOR |
| G | GENERATOR RECEPTACLE |
| 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 |
| --- | CHAINLINK FENCE |



PROPOSED CABLE NOTES:

- ESTIMATED LENGTH OF PROPOSED CABLE IS 170'. 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.
- 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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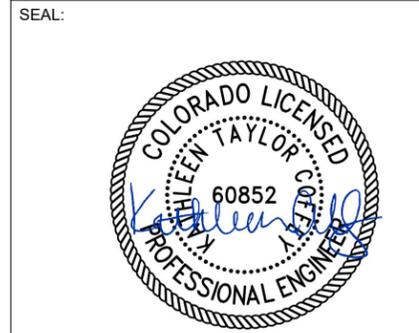
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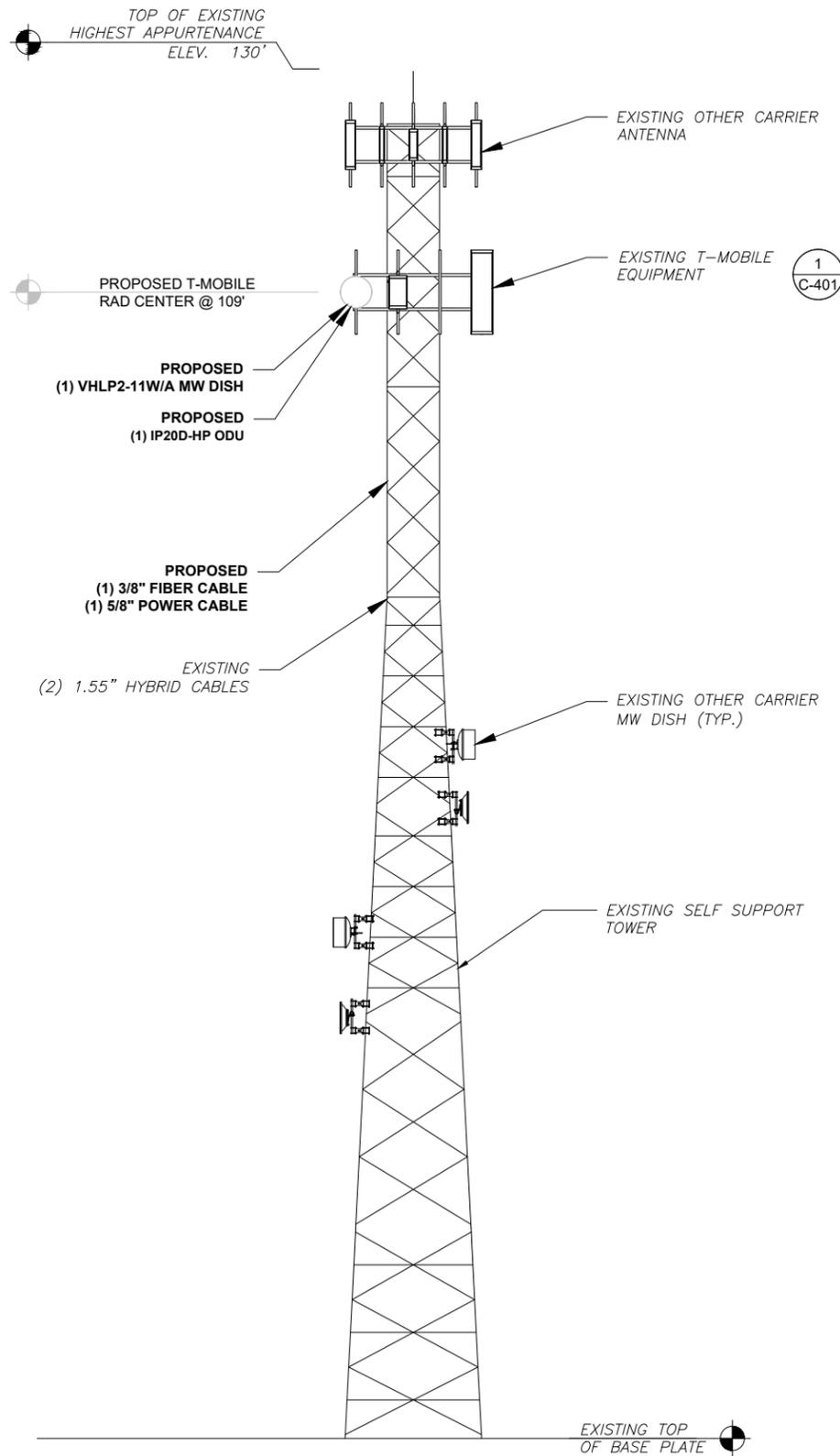
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| DETAILED SITE PLAN | |
| SHEET NUMBER: | REVISION: |
| C-101 | 0 |

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1 PROPOSED TOWER ELEVATION
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 03/04/24, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.

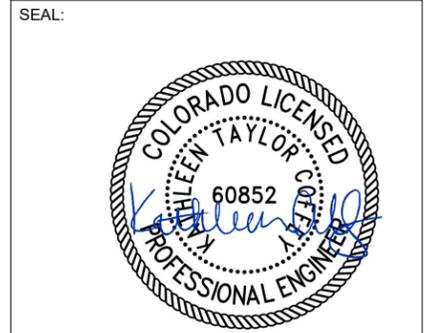
PER STRUCTURAL ANALYSIS COMPLETED BY ATC, DATED 03/08/2024, THE EXISTING TOWER CAN ADEQUATELY SUPPORT THE PROPOSED LOADING



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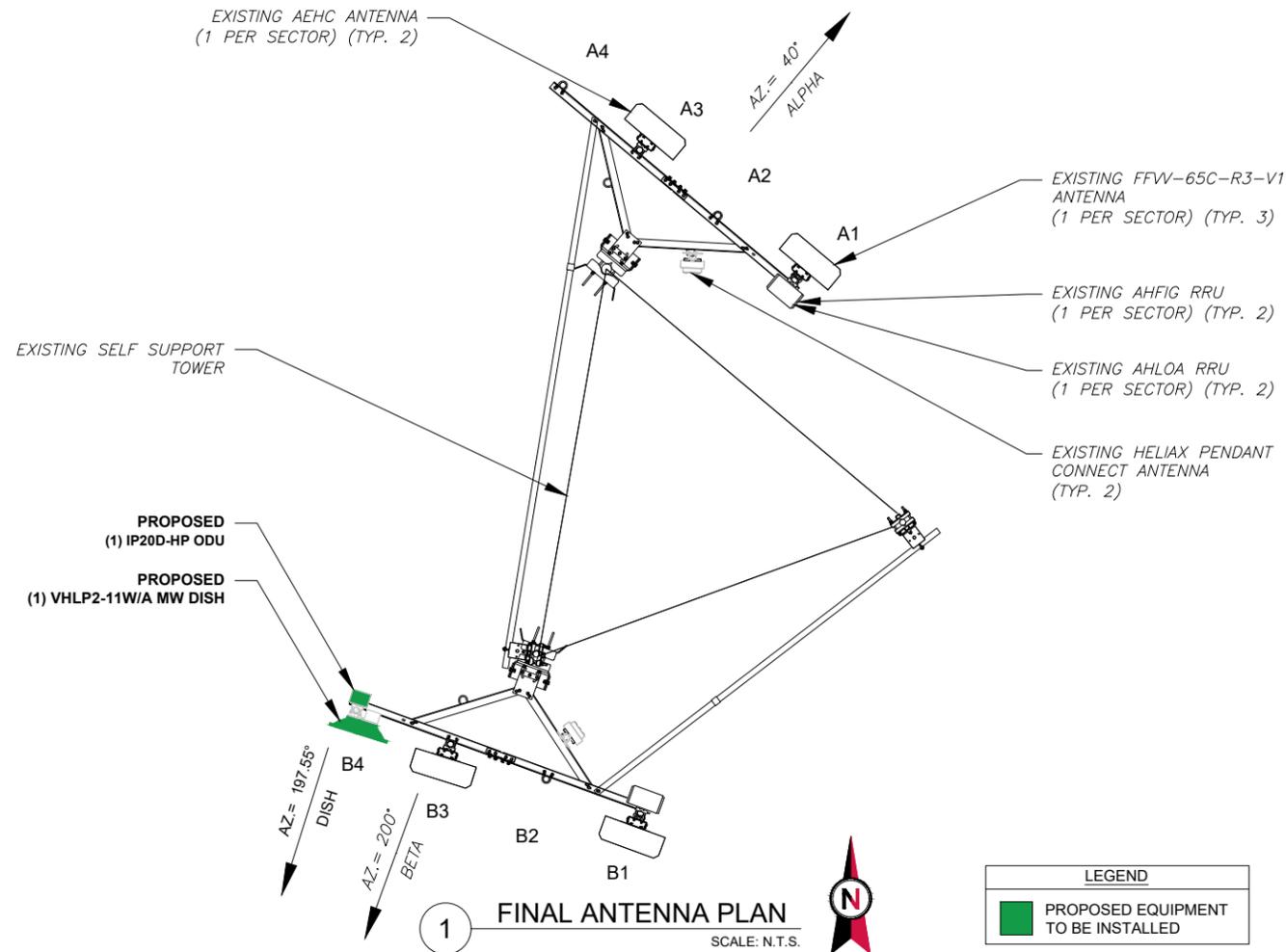
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ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER: **C-201** REVISION: **0**

TOWER NOTE:

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



PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 03/04/24, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.

PER STRUCTURAL ANALYSIS COMPLETED BY ATC, DATED 03/08/2024, THE EXISTING TOWER CAN ADEQUATELY SUPPORT THE PROPOSED LOADING



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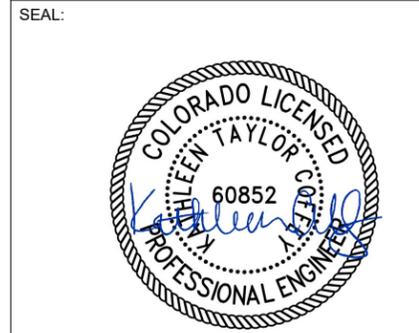
| REV. | DESCRIPTION | BY | DATE |
|------|-------------|----|----------|
| A | PRELIM | AB | 03/11/24 |
| 0 | FINAL | RV | 03/25/24 |
| | | | |
| | | | |
| | | | |

ATC SITE NUMBER:
383496

ATC SITE NAME:
MORLEY 2

T-MOBILE SITE NAME:
DN04253A

SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80926



| EXISTING ANTENNA SCHEDULE | | | | | | | | | |
|---------------------------|------|---------|-----------------|---------------------|---|------------------|--------|------------------------------------|------------|
| LOCATION | | | ANTENNA SUMMARY | | | | | NON ANTENNA SUMMARY | |
| SECTOR | RAD | AZ | POS | ANTENNA | BAND | MECH/ELEC D-TILT | STATUS | ADDITIONAL TOWER MOUNTED EQUIPMENT | STATUS |
| ALPHA | 109' | 40° | A1 | FFV-65C-R3-V1 | L700/600/2100/1900/N600/1900/2100/G1900 | 0/9-9-6-6 | RMN | AHFIG AHLOA | RMN RMN |
| | | | A2 | - | - | - | - | - | - |
| | | | A3 | AEHC | L2500/N2500 | 0/6 | RMN | - | - |
| | | | A4 | | | | | | |
| BETA | 109' | 200° | B1 | FFV-65C-R3-V1 | L700/600/2100/1900/N600/1900/2100/G1900 | 0/9-9-6-6 | RMN | AHFIG AHLOA | RMN RMN |
| | | | B2 | - | - | - | - | - | - |
| | | | B3 | AEHC | L2500/N2500 | 0/6 | RMN | - | - |
| | 109' | 197.55° | B4 | VHLP2-11W/A MW DISH | - | - | ADD | (1) IP-20D-HP | ADD |

2 EQUIPMENT SCHEDULES

| FINAL FIBER DISTRIBUTION/OVP BOX | | | FINAL CABLING SUMMARY | | |
|----------------------------------|--------|-----------|-----------------------|----------|--------|
| MODEL NUMBER | STATUS | HYBRID | POWER | FIBER | STATUS |
| - | - | (2) 1.55" | - | - | RMN |
| - | - | - | (1) 5/8" | (1) 3/8" | ADD |

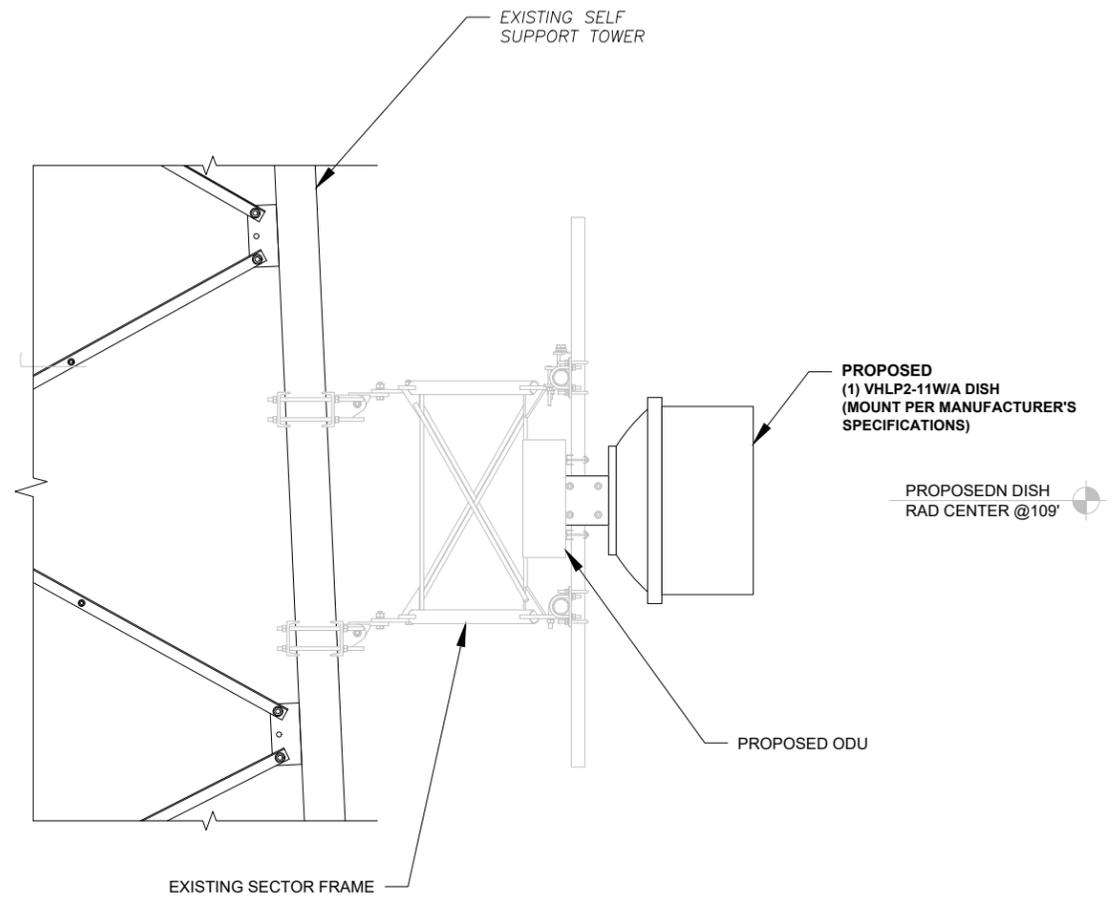


ATC PROJ. #: 14761323_G0
CUST. ID: DN04253A
CUST. #: DN04253A

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:
C-401

REVISION:
0



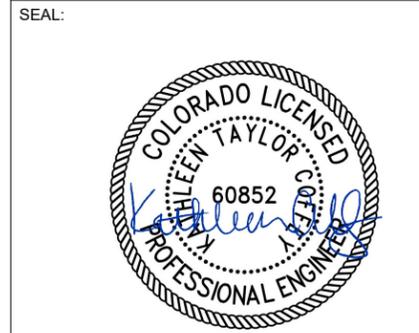
1 PROPOSED DISH & ODU MOUNTING DETAIL
SCALE: N.T.S.



1100 E. WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
www.fullerton-us.com

| REV. | DESCRIPTION | BY | DATE |
|------|-------------|----|----------|
| A | PRELIM | AB | 03/11/24 |
| 0 | FINAL | RV | 03/25/24 |
| | | | |
| | | | |
| | | | |

ATC SITE NUMBER:
383496
ATC SITE NAME:
MORLEY 2
T-MOBILE SITE NAME:
DN04253A
SITE ADDRESS:
15743 PHANTOM CANYON VIEW
COLORADO SPRINGS, CO 80926



ATC PROJ. #: 14761323_G0
CUST. ID: DN04253A
CUST. #: DN04253A

CONSTRUCTION
DETAILS

SHEET NUMBER: **C-501** REVISION: **0**

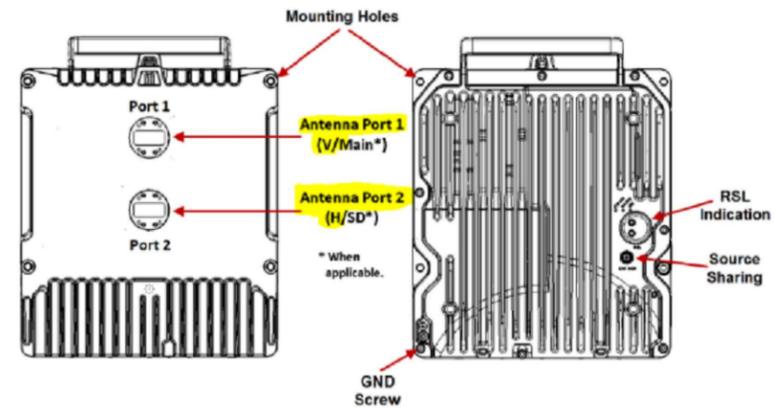
RFU-D HP Overview and Wiring Diagram

Refer to the RFU-D Installation Guide for instructions on proper grounding of the RFU-D, Lightning Protector and Ethernet cabling. Information can also be found in the Installation Guide on proper cable installation.

Follow the below guidelines for maximum cable lengths.

| Interface | Cable Type | Maximum Length |
|------------|-----------------|----------------|
| Optical | Fiber | 300m |
| Electrical | CAT-5e (24 AWG) | 150m |
| | CAT-6a (22 AWG) | 150m |
| DC Power | DC (14 AWG) | 100m |
| | DC (12 AWG) | 180m |
| | DC (10 AWG) | 101m-300m |

RFU-D HP Interfaces



- PWR: DC power interface (-48VDC)
- P1: RFU Interface (RJ-45)
- P2: RFU Interface (SFP)
- P3: Data Sharing
- P4: Reserved for future use.

Note: Note that in RFU-D-HP, Port 1 is the upper port, located closest to the handle, and Port 2 is the lower port, located closest to the Ethernet ports.

Table 178: RFU-D Mechanical Specifications (including diplexer unit)

| | |
|------------------|---------------------|
| RFU-D Dimensions | Height: 9.05 inches |
| | Width: 9.17 inches |
| | Depth: 3.85 inches |
| | Weight: 14.33 lbs. |

Table 179: RFU-D-HP Mechanical Specifications (including diplexer or OCU unit)

| | |
|---------------------|----------------------|
| RFU-D-HP Dimensions | Height: 12.56 inches |
| | Width: 11.26 inches |
| | Depth: 4.21 inches |
| | Weight: 26.5 lbs. |

VHLP2-11W/A



0.6 m | 2 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 10.000–11.700 GHz

Product Classification

| | |
|----------------------|-------------------|
| Product Type | Microwave antenna |
| Product Brand | ValuLine® |

General Specifications

| | |
|------------------------------|---|
| Antenna Type | VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized |
| Polarization | Single |
| Side Struts, Included | 0 |
| Side Struts, Optional | 0 |

Dimensions

| | |
|--------------------------|--------------|
| Diameter, nominal | 0.6 m 2 ft |
|--------------------------|--------------|

Electrical Specifications

| | |
|---|---------------------|
| Operating Frequency Band | 10.000 – 11.700 GHz |
| Gain, Low Band | 33.7 dBi |
| Gain, Mid Band | 34.5 dBi |
| Gain, Top Band | 35.2 dBi |
| Boresite Cross Polarization Discrimination (XPD) | 30 dB |
| Front-to-Back Ratio | 61 dB |
| Beamwidth, Horizontal | 3.3 ° |
| Beamwidth, Vertical | 3.3 ° |
| Return Loss | 17.7 dB |
| VSWR | 1.3 |
| Radiation Pattern Envelope Reference (RPE) | 7200A 7201A |

Page 1 of 5

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COMMSCOPE®

VHLP2-11W/A

Electrical Compliance

Brazil Anatel Class 2 | ETSI 302 217 Class 3 | US FCC Part 101A @ 10.55–10.7 GHz | US FCC Part 101B @ 10.7–11.7 GHz

Mechanical Specifications

| | |
|--|------------------------------|
| Compatible Mounting Pipe Diameter | 50 mm–120 mm 2.0 in–4.7 in |
| Fine Azimuth Adjustment Range | ±15° |
| Fine Elevation Adjustment Range | ±15° |
| Wind Speed, operational | 180 km/h 111.847 mph |
| Wind Speed, survival | 250 km/h 155.343 mph |

Page 2 of 5

SUPPLEMENTAL

SHEET NUMBER:
R-602

REVISION:
0



Mount Analysis Report

ATC Asset Name : Morley 2
ATC Asset Number : 383496
Engineering Number : 14761323_C8_01
Mount Elevation : 107.5 ft
Proposed Carrier : T-Mobile
Carrier Site Name : DN04253A
Carrier Site Number : DN04253A
Site Location : 15743 Phantom Canyon View
 Colorado Springs, CO 80926
 38.61252, -104.935115
County : El Paso
Date : March 4, 2024
Max Usage : 51%
Analysis Result : Pass

Prepared By:
 Max Carter
 Structural Engineer II

Max Carter



Michael Deese
 Digitally signed by Michael Deese
 Date: 2024.03.04 12:39:18 -05'00'



Eng. Number 14761323_C8_01
 March 4, 2024
 Page 3

Introduction

The purpose of this report is to summarize results of the mount analysis performed for T-Mobile at 107.5 ft.

Supporting Documents

| | |
|------------------------------------|--|
| Specifications Sheet: | Perfect Vision SFR-ENG-19-R0, dated May 31, 2022 |
| Radio Frequency Data Sheet: | RFDS ID #DN04253A, dated May 17, 2023 |
| Reference Photos: | Site photos from 2023 |

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 = 0.219, S1 = 0.062 |
| Site Class: | D - Stiff Soil - Default |
| 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. The mount can support the equipment as described in this report.

If you have any questions or require additional information, please reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact MountAnalysis@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

SUPPLEMENTAL

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

| | |
|-------------------------------|-----------------------|
| SHEET NUMBER: R-603 | REVISION: 0 |
|-------------------------------|-----------------------|