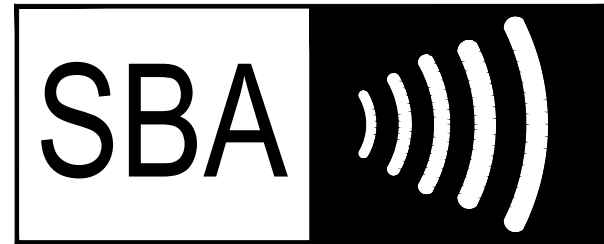
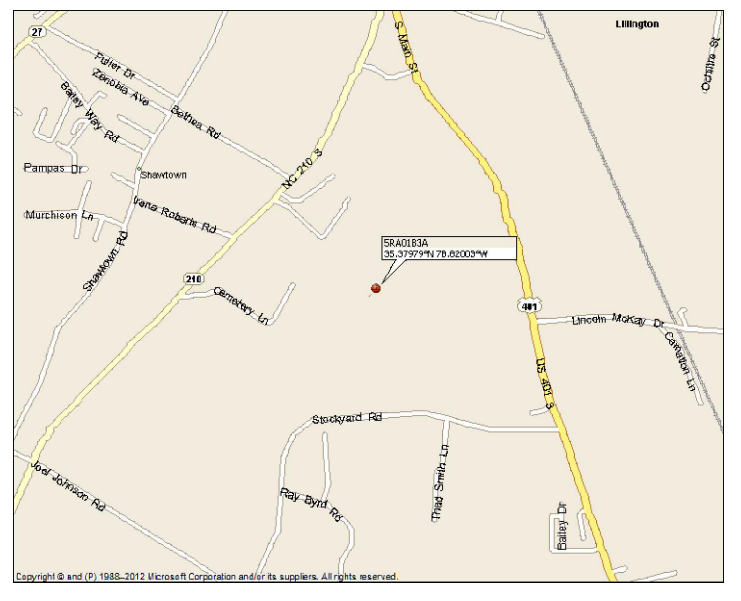


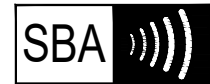
LOCATION MAP



SITE NAME: LILLINGTON
 SITE NUMBER: NC14882-A-01



SITE NAME: SOUTH LILLINGTON
 SITE NUMBER: 5RA0183A
 DESCRIPTION: 67D04G
 L600
 190' RAD CENTER



SBA COMMUNICATIONS CORP.
 5900 BROKEN SOUND PKWY NW
 BOCA RATON, FL 33487



P. MARSHALL & ASSOCIATES

LOCATION:
 162 MATTIE RIDGELL LN
 LILLINGTON, NC 27546

SBA:
 LILLINGTON
 NC14882-A-01

T-MOBILE:
 SOUTH LILLINGTON
 5RA0183A

SITE TYPE:
 190' FLAGPOLE
 T-MOBILE L600

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |

SITE COORDINATES
 LAT: 35.379786
 LONG: -78.820025

DRAWN: INS
 CHECKED: PWM
 JOB#: 20ASBTMMNC-0089

TITLE SHEET & PROJECT INFORMATION

T-1

PROJECT DIRECTORY

APPLICATION/
 PROPERTY OWNER: SBA COMMUNICATIONS CORPORATION
 8051 CONGRESS AVE.
 BOCA RATON, FL 33487-2797
 TONYA SYKES-McCLURE
 Tsykes-McClure@sbasite.com
 704.527.0003

ENGINEERING: P. MARSHALL & ASSOCIATES
 3545 WHITEHALL PARK DRIVE SUITE 450
 CHARLOTTE, NORTH CAROLINA 28273
 TREVOR MCALLISTER
 (E) tmcallister@pmass.com
 (P) 478-542-3291

PROJECT SUMMARY

SCOPE OF WORK

PROPOSED WORK WILL CONSIST OF PREPARATION AND INSTALLATION OF CELLULAR COMMUNICATION CARRIER EQUIPMENT, WHERE ALL WORK SHALL BE CONTAINED WITHIN COMPOUND & SHALL NOT ADVERSELY IMPACT THE SURROUNDING ADJACENT PARCELS. NO GRADING IS REQUIRED. NO NEW BUILDING BEING CONSTRUCTED, AND NO ELECTRICAL SERVICE WORK BEING DONE. ALL PROPOSED CONSTRUCTION WILL BE CONTAINED WITHIN THE LIMITS OF THE EXISTING FENCED TELECOM COMPOUND OR WITHIN PROPOSED UTILITY EASEMENT. WORK WILL INCLUDE, BUT NOT LIMITED TO; ANTENNA SWAP & INSTALL, MOUNT WORK, COAX REMOVAL/ INSTALLATION.

CODES

ALL CONSTRUCTION SPECIFIED ON DOCUMENTS SUBMITTED FOR BUILDING PERMIT SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING & ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES:

- 2018 NORTH CAROLINA BUILDING CODE (2015 IBC)
 - 2018 NORTH CAROLINA FIRE CODE
 - 2018 NORTH CAROLINA PLUMBING CODE
 - 2018 NORTH CAROLINA MECHANICAL CODE
 - 2018 NORTH CAROLINA ENERGY CONSERVATION CODE
 - 2017 NORTH CAROLINA ELECTRICAL CODE - NFPA 70
- ANSI/ TIA
- TIA-222-G, TIA-598-C, TIA-6087-B, TIA-569-B, TIA-568-C
 - TIA-1019-A

SITE DESIGN SUMMARY:

- WIND LOAD DESIGN: 117__mph
- EXPOSURE CATEGORY: C__
- OCCUPANCY: U__
- CONSTRUCTION TYPE: II-A__

- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS IS NOT REQUIRED.
- FACILITY HAS NO SANITARY OR POTABLE WATER
- THERE IS "NO EMERGENCY RESPONSE EQUIPMENT ON THE TOWER AND EXISTING &/OR PROPOSED EQUIPMENT WILL NOT INTERFERE WITH COUNTY EMERGENCY COMMUNICATIONS AND THAT, IF SUCH, INTERFERENCE IS FOUND TO EXIST, THEN APPLICANT WILL TAKE WHATEVER STEPS NECESSARY TO CORRECT INTERFERENCE."

FEMA PANEL:
 THIS SITE IS NOT IN ANY SPECIAL FLOOD HAZARD AREAS OR FUTURE CONDITIONS FLOOD HAZARD AREAS, AS SHOWN PER FIRM PANEL: 3720054800J. DATED: 10/03/2006

SITE SUMMARY

SITE ADDRESS: 162 MATTIE RIDGELL LN
 LILLINGTON, NC 27546

JURISDICTION: HARNETT COUNTY
 PIN #: 0559-33-7908.000
 ZONING: RA-20R

SBA NUMBER: NC14882-A-01
 SBA NAME: LILLINGTON

TOWER: FLAGPOLE
 COMPANY: SBA
 CARRIER: T-MOBILE
 TENANT ID/NAME: 5RA0183A

ACREAGE: 72.60
 (E) IMPERVIOUS: 5,470.19 SQ FT.
 (P) IMPERVIOUS: 0 SQFT.
 COMPOUND SIZE: ± 5,470.19 SQFT.

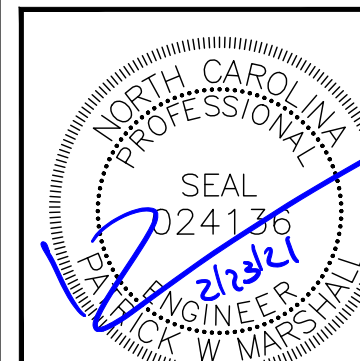
UTILITIES:
 POWER COMPANY: DUKE ENERGY PROGRESS
 TELCO COMPANY: TWC

SITE LATITUDE(NAD83): 35.379786 (35°22'47.2")
 SITE LONGITUDE(NAD83): -78.820025 (-78°49'12.1")

GND ELEVATION (NAVD88): N/A
 TOWER HEIGHT (AGL.): 190'

SHEET INDEX

- T-1 TITLE SHEET
- T-1A APPENDIX B
- T-1B APPENDIX B
- T-1C APPENDIX B
- C-1 SITE PLAN
- C-2 EQUIPMENT PLAN
- C-3 TOWER ELEVATION
- C-4 ANTENNA ORIENTATION & CABLE SCHEDULE
- C-5 CANISTER DETAILS
- C-6 PLUMBING DIAGRAM
- E-1 ELECTRICAL DETAILS
- E-2 PANEL SCHEDULE & ONE-LINE DIAGRAM
- G-1 GROUNDING DETAILS



CALL BEFORE YOU DIG



CALL NORTH CAROLINA
 ONE CALL
 (800) 632-4949
 CALL 3 WORKING DAYS
 BEFORE YOU DIG!



2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
 (Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: SOUTH LILLINGTON - 5RA0183A
 Address: 162 MATTIE RIDGELL LN, LILLINGTON, NC 27546 Zip Code _____
 Owner/Authorized Agent: TONYA SYKES-MCCLURE Phone # (704) 527 - 8988 E-Mail TSykes-McClure@sbasite.com
 Owned By: City/County Private HARNETT State
 Code Enforcement Jurisdiction: City County COUNTY State

CONTACT:

| DESIGNER | FIRM | NAME | LICENSE # | TELEPHONE # | E-MAIL |
|--------------------------|-------------------------------------|--------------------------|---|-------------------------|--------|
| Architectural | | | | () | |
| Civil | <u>P. MARSHALL & ASSOCIATES</u> | <u>PATRICK MARSHALL</u> | <u>024136</u> | <u>(678) 280-2325</u> | |
| Electrical | | | | () | |
| Fire Alarm | | | | () | |
| Plumbing | | | | () | |
| Mechanical | | | | () | |
| Sprinkler-Standpipe | | | | () | |
| Structural | | | | () | |
| Retaining Walls >5' High | | | | () | |
| Other | <u>P. MARSHALL & ASSOCIATES</u> | <u>TREVOR MCALLISTER</u> | <u>PROJECT MANAGER (478) 542-3291</u> | | |

(*Other* should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: New Building Shell/Core 1st Time Interior Completions
 Addition Phased Construction – Shell Core

2018 NC EXISTING BUILDING CODE: Prescriptive Alteration Level I Historic Property
 Repair Alteration Level II Change of Use
 Chapter 14 Alteration Level III

CONSTRUCTED: (date) _____ **CURRENT OCCUPANCY(S)** (Ch. 3): _____
RENOVATED: (date) _____ **PROPOSED OCCUPANCY(S)** (Ch. 3): _____

OCCUPANCY CATEGORY (Table 1604.5): **Current:** UTILITY **Proposed:** UTILITY

BASIC BUILDING DATA

Construction Type: I-A II-A III-A IV V-A
 I-B II-B III-B V-B

Sprinklers: No Partial NFPA 13 NFPA 13R NFPA 13D

Standpipes: No Class I II III Wet Dry

Primary Fire District: No Yes **Flood Hazard Area:** No Yes

Special Inspections Required: No Yes

GROSS BUILDING AREA TABLE

| FLOOR | EXISTING (SQ FT) | NEW (SQ FT) | SUB-TOTAL |
|-----------------------|------------------|-------------|-----------|
| 3 rd Floor | | | |
| 2 nd Floor | | | |
| Mezzanine | | | |
| 1 st Floor | | | |
| Basement | | | |
| TOTAL | | | |

ALLOWABLE AREA

Primary Occupancy Classification(s):

Assembly A-1 A-2 A-3 A-4 A-5
 Business
 Educational
 Factory F-1 Moderate F-2 Low
 Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
 Institutional I-1 I-2 I-3 I-4
 I-1 Condition 1 2
 I-2 Condition 1 2
 I-3 Condition 1 2 3 4 5
 Mercantile
 Residential R-1 R-2 R-3 R-4
 Storage S-1 Moderate S-2 Low High-piled
 Parking Garage Open Enclosed Repair Garage
 Utility and Miscellaneous

Accessory Occupancy Classification(s):

Incidental Uses (Table 509):

This separation is not exempt as a Non-Separate^d (s).

Special Uses (Chapter 4 – List Code Sections):

Special Provisions: (Chapter 5 – List Code Sections)

Mixed Occupancy: Select one Ser _____

Select one

Actual Area of Occupancy A

Area of Occupancy B

≤ 1

N/A NOT A BUILDING

| STORY NO. | DESCRIPTION AND USE | (A) | (B) | (C) | (D) |
|-----------|---------------------|------------------------------|-------------------------------|---|--|
| | | BLDG AREA PER STORY (ACTUAL) | TABLE 506.2 ⁴ AREA | AREA FOR FRONTAGE INCREASE ^{1,5} | ALLOWABLE AREA PER STORY OR UNLIMITED ^{2,3} |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

¹ Frontage area increases from Section 506.2 are computed thus:

- a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
- b. Total Building Perimeter = _____ (P)
- c. Ratio (F/P) = _____ (F/P)
- d. W = Minimum width of public way = _____ (W)

² Unlimited area applicable under conditions of Section 507.

³ Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).

⁴ The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.

⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

T-Mobile



SBA COMMUNICATIONS CORP.
 5900 BROKEN SOUND PKWY NW
 BOCA RATON, FL 33487



P. MARSHALL & ASSOCIATES

LOCATION:

162 MATTIE RIDGELL LN
 LILLINGTON, NC 27546

SBA:

LILLINGTON
 NC14882-A-01

T-MOBILE:

SOUTH LILLINGTON
 5RA0183A

SITE TYPE:

190' FLAGPOLE
 T-MOBILE L600

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

SITE COORDINATES

LAT: 35.379786
 LONG: -78.820025

DRAWN: INS

CHECKED: PWM

JOB#: 20ASBTMMNC-0089

APPENDIX B

T-1A

| ALLOWABLE HEIGHT | | | |
|--|-----------|----------------|----------------|
| | ALLOWABLE | SHOWN ON PLANS | CODE REFERENCE |
| Building Height in Feet (Table 504.3) | | | |
| Building Height in Stories (Table 504.4) | | | |

* Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

| BUILDING ELEMENT | FIRE SEPARATION DISTANCE (FEET) | RATING | | DETAIL # AND SHEET # | DESIGN # FOR RATED ASSEMBLY | SHEET # FOR RATED PENETRATION | SHEET # FOR RATED JOINTS |
|--|---------------------------------|--------|-------------------------|----------------------|-----------------------------|-------------------------------|--------------------------|
| | | REQ'D | PROVIDED (w/ REDUCTION) | | | | |
| Structural Frame, including columns, girders, trusses | | | | | | | |
| Bearing Walls | | | | | | | |
| Exterior | | | | | | | |
| North | | | | | | | |
| East | | | | | | | |
| West | | | | | | | |
| South | | | | | | | |
| Interior | | | | | | | |
| Nonbearing Walls and Partitions | | | | | | | |
| Exterior walls | | | | | | | |
| North | | | | | | | |
| East | | | | | | | |
| West | | | | | | | |
| South | | | | | | | |
| Interior walls and partitions | | | | | | | |
| Floor Construction | | | | | | | |
| Including supporting beams and joists | | | | | | | |
| Floor Ceiling Assembly | | | | | | | |
| Columns Supporting Floors | | | | | | | |
| Roof Construction, including supporting beams and joists | | | | | | | |
| Roof Ceiling Assembly | | | | | | | |
| Columns Supporting Roof | | | | | | | |
| Shaft Enclosures - Exit | | | | | | | |
| Shaft Enclosures - Other | | | | | | | |
| Corridor Separation | | | | | | | |
| Occupancy/Fire Barrier Separation | | | | | | | |
| Party/Fire Wall Separation | | | | | | | |
| Smoke Barrier Separation | | | | | | | |
| Smoke Partition | | | | | | | |
| Tenant/Dwelling Unit/Sleeping Unit Separation | | | | | | | |
| Incidental Use Separation | | | | | | | |

* Indicate section number permitting reduction

N/A NOT A BUILDING

| ACCESSIBLE DWELLING UNITS (SECTION 1107) | | | | | | | |
|--|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------------|
| TOTAL UNITS | ACCESSIBLE UNITS REQUIRED | ACCESSIBLE UNITS PROVIDED | TYPE A UNITS REQUIRED | TYPE A UNITS PROVIDED | TYPE B UNITS REQUIRED | TYPE B UNITS PROVIDED | TOTAL ACCESSIBLE UNITS PROVIDED |
| | | | | | | | |

| ACCESSIBLE PARKING (SECTION 1106) | | | | | |
|-----------------------------------|---------------------------|----------|------------------------|------------|-----------------------------|
| LOT OR PARKING AREA | TOTAL # OF PARKING SPACES | | # OF ACCESSIBLE SPACES | | TOTAL # ACCESSIBLE PROVIDED |
| | REQUIRED | PROVIDED | REGULAR WITH 5' ACCESS | ACCESSIBLE | |
| | | | | | |
| TOTAL | | | | | |

N/A NOT A BUILDING

| SPACE | USE | REQUIREMENTS (SECTION 1102.1) | | | | | |
|-------|---------|-------------------------------|--------|---------|--------------------|------------|--|
| | | LAVATORIES | | SHOWERS | DRINKING FOUNTAINS | | |
| | | MALE | FEMALE | /TUBS | REGULAR | ACCESSIBLE | |
| | EXIST'G | | | | | | |
| | NEW | | | | | | |
| | REQ'D | | | | | | |

SPECIAL APPROVALS
Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

| PERCENTAGE OF WALL OPENING CALCULATIONS | | | |
|---|---|--------------------|---------------------------|
| FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES | DEGREE OF OPENINGS PROTECTION (TABLE 705.8) | ALLOWABLE AREA (%) | ACTUAL SHOWN ON PLANS (%) |
| | | | |
| | | | |

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: Yes No
Exit Signs: Yes No
Fire Alarm: Yes No
Smoke Detection Systems: Yes No
Carbon Monoxide Detection: Yes No

LIFE SAFETY PLAN REQUIREMENTS*

Life Safety Plan Sheet #: _____

Fire and/or smoke rated wall locations (Chapter 7)
 Assumed and real property line locations (if not)
 Exterior wall opening area with respect to
 Occupancy Use for each area as it relates to (1.2)
 Occupant loads for each area
 Exit access travel distance
 Common path of travel
 Dead end lengths (1.2)
 Clear exit widths for
 Maximum calculated occupant load per floor area that can accommodate based on egress width (1005.3)
 Actual occupant load for each floor
 A separate schematic plan is provided for each fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
 Location of doors with panic hardware (1010.1.10)
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
 Location of doors with electromagnetic egress locks (1010.1.9.9)
 Location of doors equipped with hold-open devices
 Location of emergency escape windows (1030)
 The square footage of each fire area (202)
 The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
 Note any code exceptions or table notes that may have been utilized regarding the items above

N/A NOT A BUILDING

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: Select one

Exempt Building: Select one Provide code or statutory reference:

Climate Zone: Select one

Method of Compliance: Select one
(If "Other" specify source here) _____

THERMAL ENVELOPE (Prescriptive method only)

Roof/Ceiling Assembly (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Skylights in each assembly: _____
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Openings (windows, doors, etc.): _____
U-Value of opening: _____

Walls below grade
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____

Floors over unconditioned space (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____

Floors slab on grade
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Horizontal/vertical requirement: _____
slab heated: _____

N/A NOT A BUILDING



SBA COMMUNICATIONS CORP.
5900 BROKEN SOUND PKWY NW
BOCA RATON, FL 33487



P. MARSHALL & ASSOCIATES

LOCATION:
162 MATTIE RIDGELL LN
LILLINGTON, NC 27546

SBA:
LILLINGTON
NC14882-A-01

T-MOBILE:
SOUTH LILLINGTON
5RA0183A

SITE TYPE:
190' FLAGPOLE
T-MOBILE L600

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |

SITE COORDINATES
LAT: 35.379786
LONG: -78.820025

DRAWN: INS
CHECKED: PWM
JOB#: 20ASBTMMNC-0089

APPENDIX B



SBA COMMUNICATIONS CORP.
5900 BROKEN SOUND PKWY NW
BOCA RATON, FL 33487



LOCATION:
162 MATTIE RIDGELL LN
LILLINGTON, NC 27546

SBA:
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T-MOBILE:
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| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |

SITE COORDINATES
LAT: 35.379786
LONG: -78.820025

DRAWN: INS
CHECKED: PWM
JOB#: 20ASBTMMNC-0089

APPENDIX B

T-1C

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN**

(PROVIDE ON SHEET 1 OR 2 OF THE STRUCTURAL SHEETS)

DESIGN LOADS:

Importance Factors: Wind (I_w) _____
Snow (I_s) _____
Seismic (I_E) _____

Live Loads: Roof _____ psf
Mezzanine _____ psf
Floor _____

Ground Snow Load: _____ psf

Wind Load: Basic Wind v _____ (-7)
Exposure _____

SEISMIC DESIGN CATEGORY

Provide the following Seismic Design Category _____

Occupancy Category: I II III IV

Spectral Response Acceleration S_a _____ %g

Site Classification (ASCE 7-10): A B C D E F

Data Source: Field Test Presumptive Historical Data

Basic structural system (check one)

- Bearing Wall Dual w/Special Moment Frame
- Building Frame Dual w/Intermediate R/C or Special Steel
- Moment Frame Inverted Pendulum

Analysis Procedure: Simplified Equivalent Lateral Force Dynamic

Architectural, Mechanical, Components anchored? Yes No

LATERAL DESIGN CONTROL: Earthquake Wind

SOIL BEARING CAPACITIES:

Field Test (provide copy of test report) _____ psf

Presumptive Bearing capacity _____ psf

Pile size, type, and capacity _____

N/A NOT A BUILDING

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN**

(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone

winter dry bulb: _____
summer dry bulb: _____

Interior design conditions

winter dry bulb: _____
summer dry bulb: _____
relative humidity: _____

Building heating load: _____

Building cooling load: _____

Mechanical Spacing Conditions:

Unitary
description of unit: _____
heating efficiency: _____
cooling efficiency: _____
size category of unit: _____

Boiler
Size category. If oversized, state reason: _____

Chiller
Size category. If oversized, state reason: _____

List equipment efficiencies: _____

N/A NOT A BUILDING

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN**

(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Select one _____

Lighting schedule (each fixture type)

lamp type required in fixture _____
number of lamps in fixture _____
ballast type used in the fixture _____
number of ballasts in fixture _____
total wattage per fixture _____
total interior wattage _____ (per building or space by space)
total exterior wattage _____

Additional Prescriptive Compliance:

- 506.2.1 More Efficient Mechanical Equipment
- 506.2.2 Reduced Lighting Power Density
- 506.2.3 Energy Recovery Ventilation Systems
- 506.2.4 Higher Efficiency Service Water Heating
- 506.2.5 On-Site Supply of Renewable Energy
- 506.2.6 Automatic Daylighting Control Systems

N/A NOT A BUILDING



SBA COMMUNICATIONS CORP.
5900 BROKEN SOUND PKWY NW
BOCA RATON, FL 33487



P. MARSHALL & ASSOCIATES

LOCATION:
**162 MATTIE RIDGELL LN
LILLINGTON, NC 27546**

SBA:
**LILLINGTON
NC14882-A-01**

T-MOBILE:
**SOUTH LILLINGTON
5RA0183A**

SITE TYPE:
**190' FLAGPOLE
T-MOBILE L600**

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |
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SITE COORDINATES
LAT: 35.379786
LONG: -78.820025

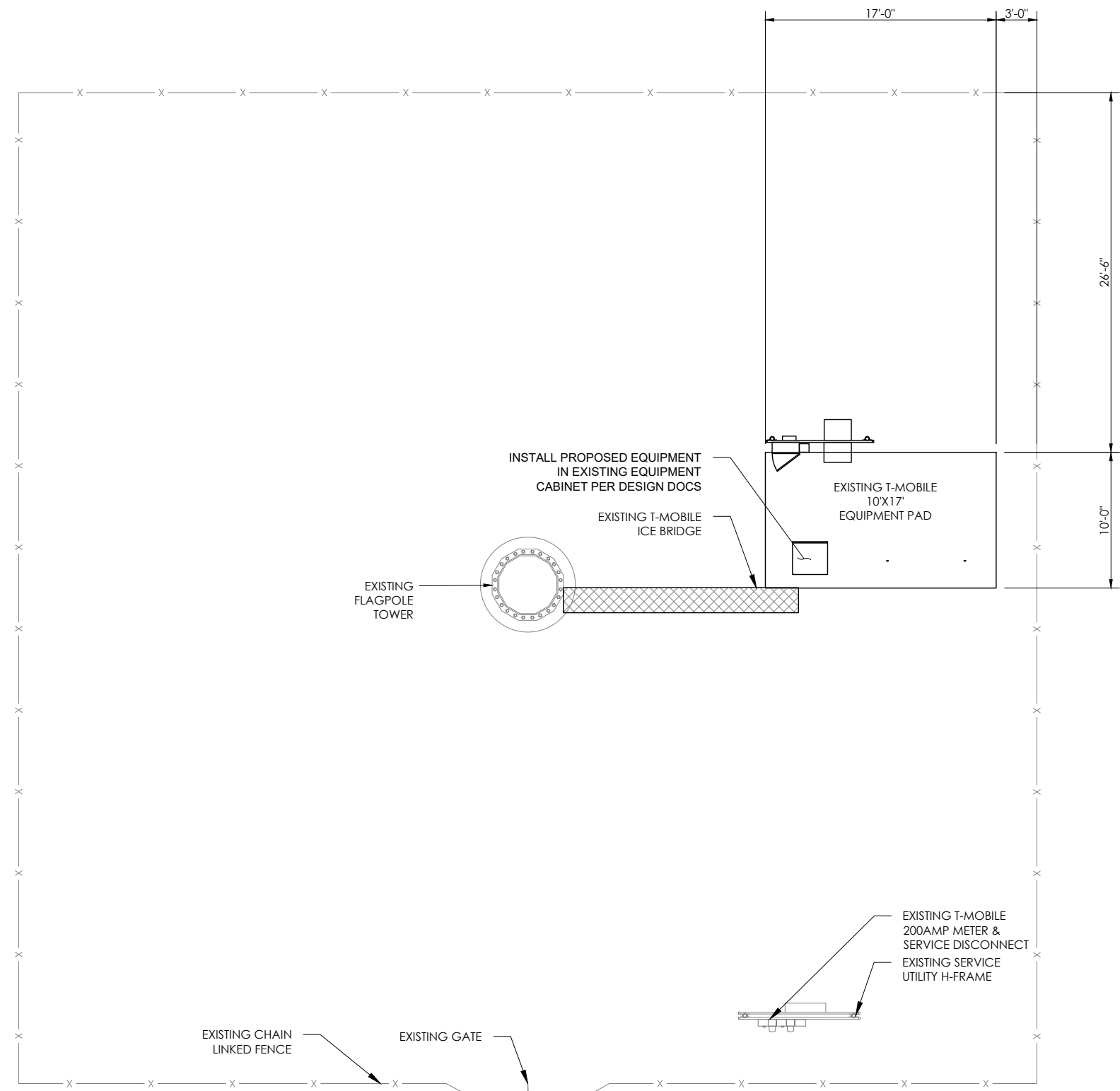
DRAWN: INS
CHECKED: PWM
JOB#: 20ASBTMMNC-0089

SITE PLAN

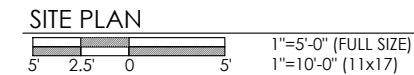
C-1

GENERAL NOTES

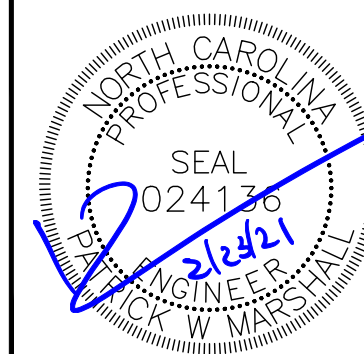
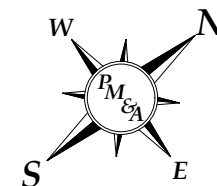
- 1. ALL MATERIAL AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY. FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND OF QUALITY OF MATERIAL AND EQUIPMENT BEING SUBSTITUTED.
- 2. ACCESS TO PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS WITH THE LEASING AGENT FOR APPROVAL.
- 3. CONTRACTOR SHALL HAVE PRESENT ON SITE CURRENT CARRIER SUPPLIED INFORMATION PRIOR TO COMMENCE OF WORK; IE. RFDS, DESIGN DOCUMENTS SPECIFIC TO SITE AND CONFIGURATION. NOTIFY CONSTRUCTION MANAGER OF ANY DISCREPANCY PRIOR TO ARRIVAL AT SITE.
- 4. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTION SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
- 5. ALL DAMAGE TO EXISTING UNDERGROUND, OVERHEAD OBSTACLES AND/OR EXISTING EQUIPMENT, PAD OR SHELTERS SHALL BE REPLACED BACK TO FULL ORIGINAL OR BETTER CONDITION & SHALL MATCH EXISTING CONDITIONS BY REPAIRS AT GENERAL CONTRACTOR EXPENSE.
- 6. THE EXISTING TREES AND VEGETATION ARE SUFFICIENT TO PROVIDE THE REQUIRED SCREENING PER LOCAL ORDINANCE. IF THE VEGETATION IS REMOVED OR DAMAGED, NEW LANDSCAPING/ SCREENING WILL BE INSTALLED TO MEET LOCAL ORDINANCE REQUIREMENTS.



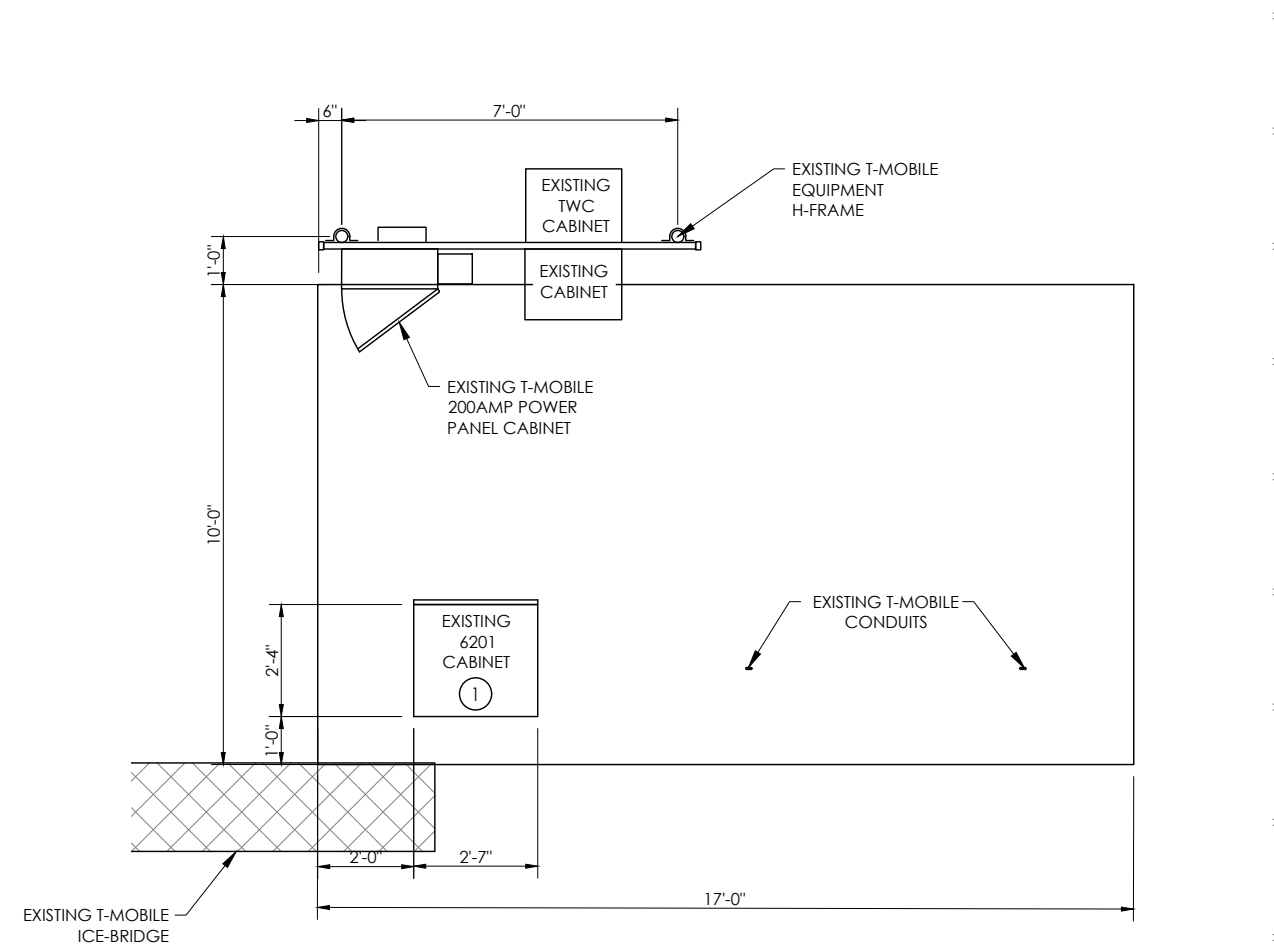
GRAPHIC SCALE



NORTH ARROW



C-1



1 EXISTING EQUIPMENT PLAN
SCALE: SEE GRAPHIC SCALE

GENERAL NOTES

1. INSTALL PROPOSED RAN EQUIPMENT IN EXISTING RBS 6201 CABINET. SEE RFDS AND DESIGN DOCUMENTS FOR CONFIGURATIONS.

EQUIPMENT NOTE

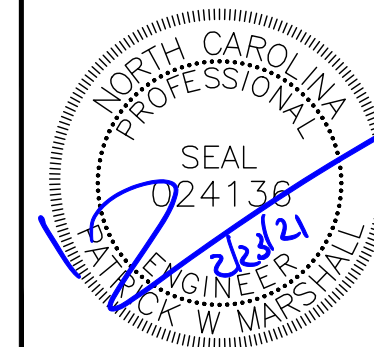
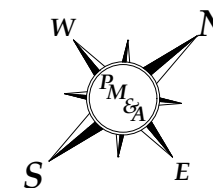
THE CABINETS ARE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS TO MEET THE REQUIREMENTS OF THE CURRENT NFPA 37 EDITION 2018. CABINET CONSTRUCTION THAT PASSED A SIMULATED BRUSH FIRE TEST TO DEMONSTRATE COMPLIANCE TO TELCORDIA GR-487-CORE SECTION 3.39 FIRE RESISTANCE REQUIREMENT R3-265. REFER TO THE NATIONAL TECHNICAL SYSTEMS (NTS) REPORT NO. PR067628-GR487.

GRAPHIC SCALE

SITE PLAN



NORTH ARROW



SBA COMMUNICATIONS CORP.
5900 BROKEN SOUND PKWY NW
BOCA RATON, FL 33487



P. MARSHALL & ASSOCIATES

LOCATION:

162 MATTIE RIDGELL LN
LILLINGTON, NC 27546

SBA:

LILLINGTON
NC14882-A-01

T-MOBILE:

SOUTH LILLINGTON
5RA0183A

SITE TYPE:

190' FLAGPOLE
T-MOBILE L600

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |

SITE COORDINATES

LAT: 35.379786
LONG: -78.820025

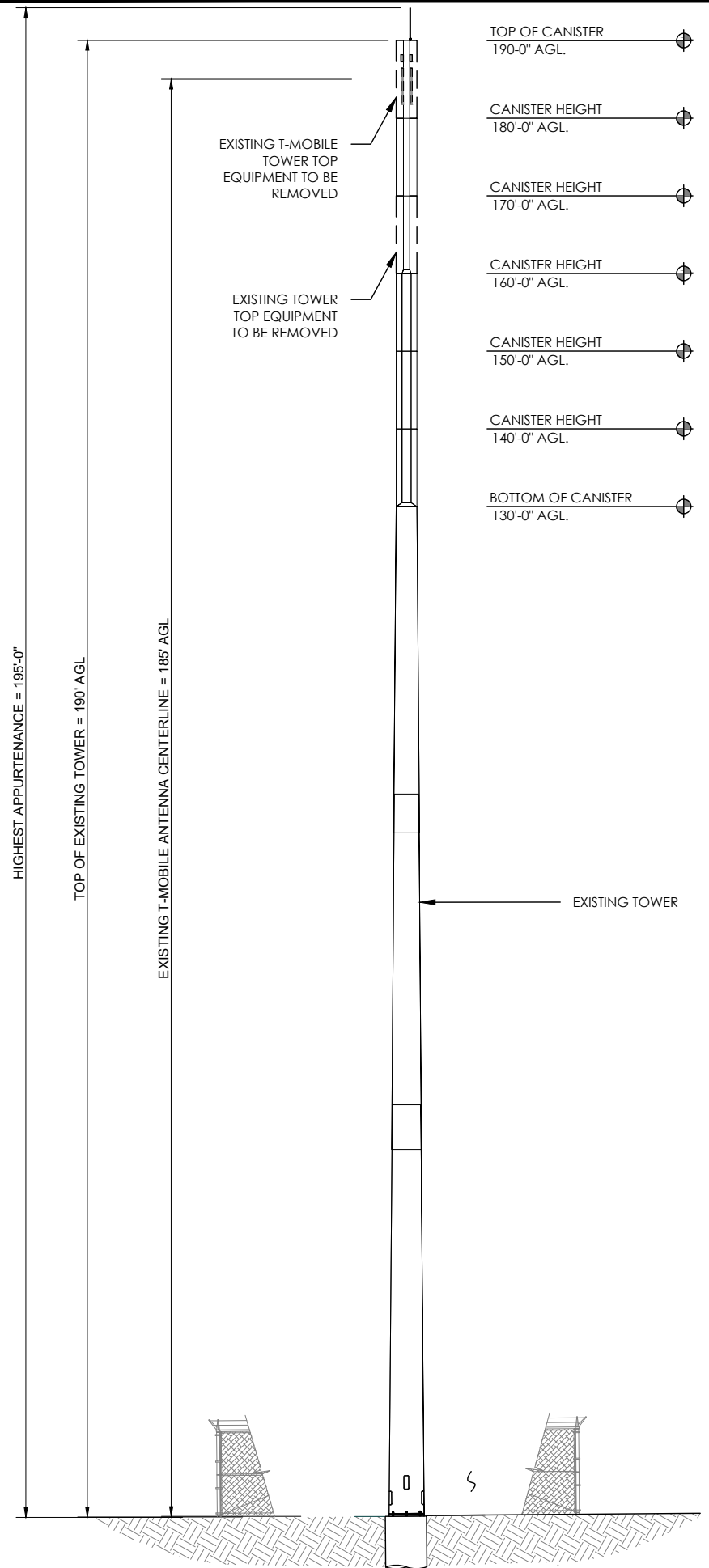
DRAWN: INS

CHECKED: PWM

JOB#: 20ASBTMMNC-0089

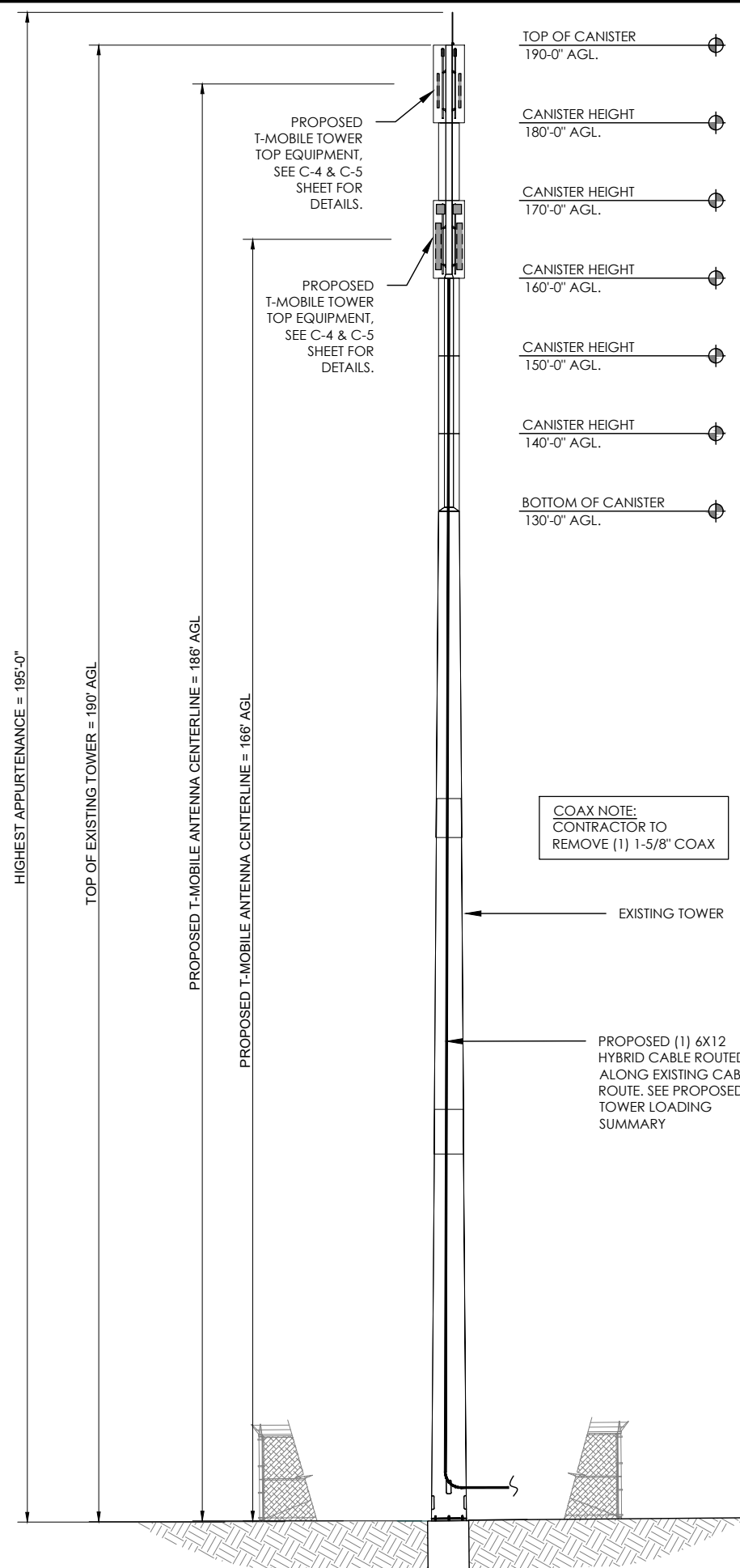
**EXISTING
EQUIPMENT PLAN**

C-2



EXISTING TOWER ELEVATION

NOT TO SCALE



PROPOSED TOWER ELEVATION

NOT TO SCALE

GENERAL NOTES

1. PM&A HAS NOT PERFORMED A TOWER STRUCTURAL ANALYSIS FOR THIS PROJECT. REFER TO TOWER STRUCTURAL ANALYSIS BY OTHERS FOR PROPOSED ANTENNA CABLE LOADING DETAILS
2. TOWER ELEVATION SHOWN IS NOT DRAWN TO SCALE AND IS ONLY INTENDED FOR REFERENCE PURPOSES. REFER TO ORIGINAL TOWER DESIGN FOR ADDITIONAL INFORMATION.
3. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED.
4. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
5. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND OF QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
6. CONTRACTOR TO REFER TO THE MOUNT ANALYSIS FOR THIS PROJECT.

FINISH NOTES:

TOWER- GALVANIZED PAINTED RED & WHITE
 TOWER MOUNTS- GALVANIZED PAINTED WHITE
 ANTENNA- NEUTRAL (MANUFACTURER FINISH)
 FOUNDATIONS- UNPAINTED CONCRETE
 ICE BRIDGE- GALVANIZED
 CABLES- BLACK
 BASE CABINETS/EQUIPMENT- NEUTRAL (MANUFACTURER FINISH)

TOWER LOADING SUMMARY

| EXISTING | REMOVE | EQUIPMENT | ADD | TOTAL |
|----------|--------|-----------|-----|-------|
| 3 | 3 | ANTENNA | 6 | 6 |
| 3 | 3 | TMA | 3 | 3 |
| 0 | 0 | RADIOS | 3 | 3 |
| 6 | 0 | COAX | 0 | 6 |
| 0 | 0 | HYBRIDS | 1 | 1 |



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SBA:
 LILLINGTON
 NC14882-A-01

T-MOBILE:
 SOUTH LILLINGTON
 5RA0183A

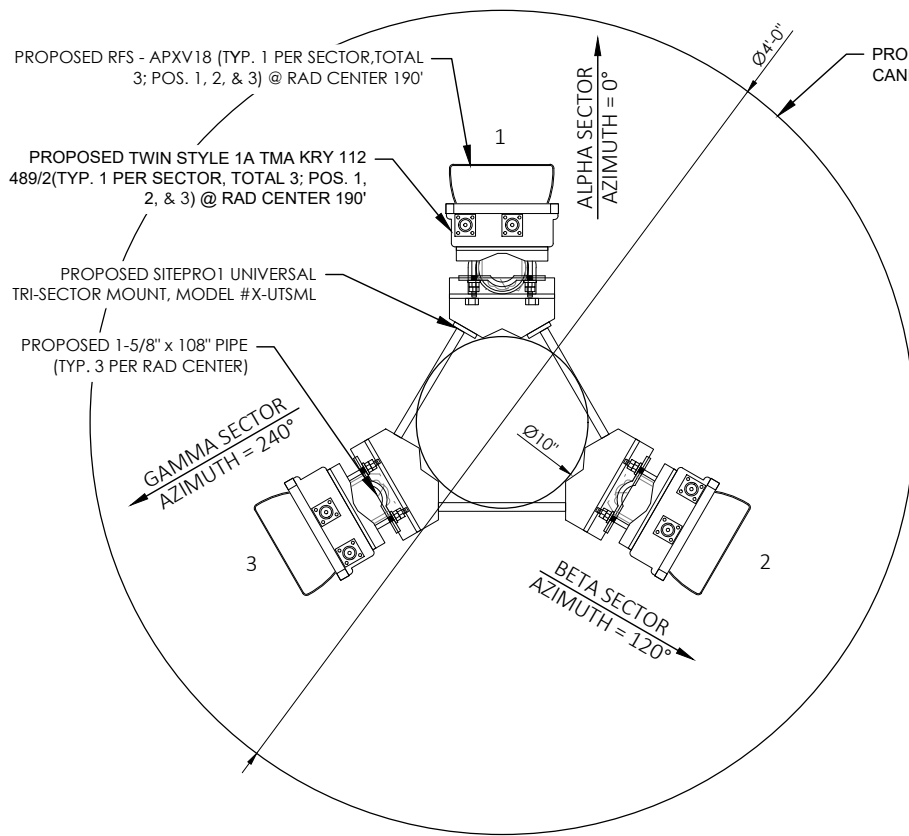
SITE TYPE:
 190' FLAGPOLE
 T-MOBILE L600

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |

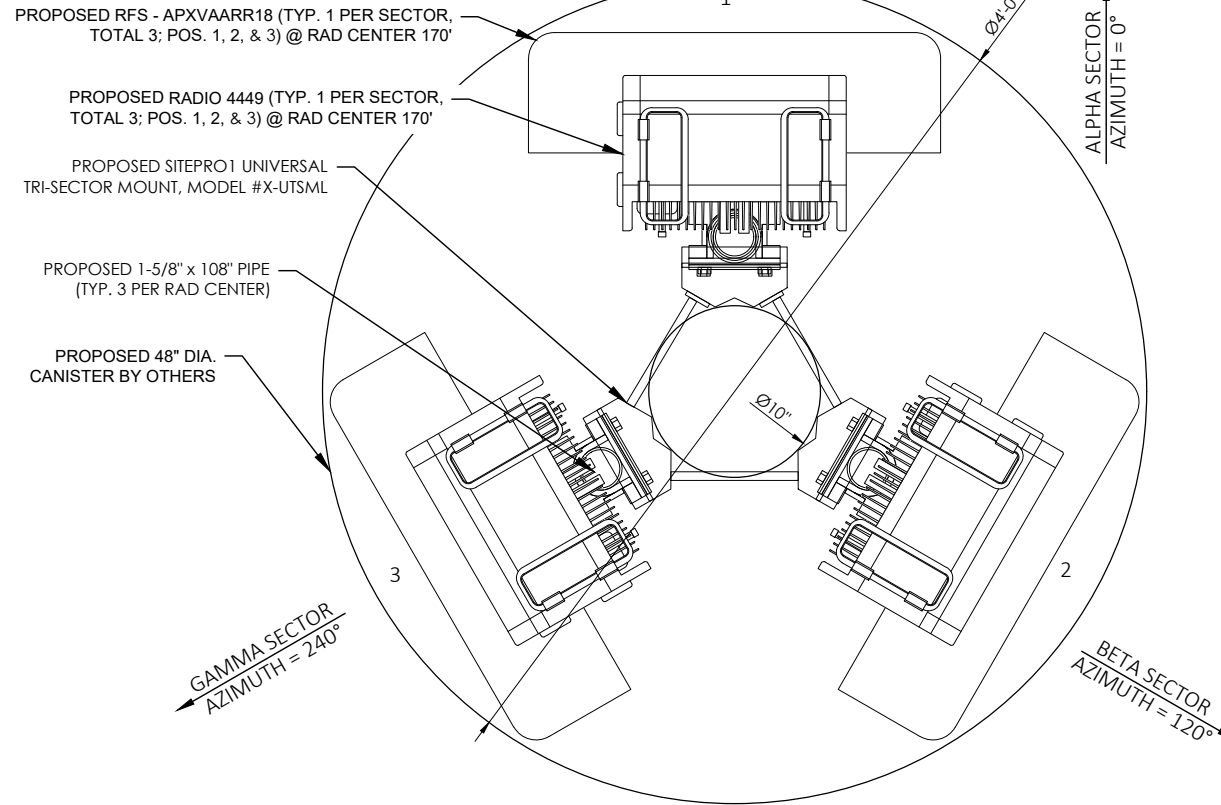
SITE COORDINATES
 LAT: 35.379786
 LONG: -78.820025

DRAWN: INS
 CHECKED: PWM
 JOB#: 20ASBTMMNC-0089

TOWER ELEVATION



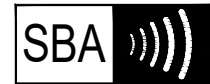
FINAL ANTENNA PLAN @ RAD CENTER 186'
NOT TO SCALE



FINAL ANTENNA PLAN @ RAD CENTER 166'
NOT TO SCALE

EQUIPMENT NOTES

- THE HYBRID CABLE LENGTH SHOWN IS ONLY AN ESTIMATE AND SHOULD NOT BE USED FOR ORDERING MATERIALS. CONFIRM THE REQUIRED HYBRID CABLE LENGTH WITH T-MOBILE PRIOR TO ORDERING OR INSTALLATION.
- THE CONTRACTOR SHALL TEST THE OPTICAL FIBER AFTER INSTALLATION IN ACCORDANCE WITH T-MOBILE STANDARDS AND SUPPLY THE RESULTS TO T-MOBILE.
- THE CONTRACTOR SHALL CONFIRM THE TOWER TOP EQUIPMENT LIST ABOVE WITH THE FINAL T-MOBILE RFDS PRIOR TO INSTALLATION.
- ALL PROPOSED ANTENNA CABLES SHALL BE COLOR CODED PER T-MOBILE MARKET STANDARDS.
- REFER TO ERICSSON EQUIPMENT INSTALLATION STANDARDS FOR ADDITIONAL INFORMATION.
- REFER TO EQUIPMENT MANUFACTURER'S SPECIFICATION SHEETS FOR ADDITIONAL INFORMATION NOT LISTED ABOVE.
- CONTRACTOR TO FIELD COORDINATE EXACT LOCATION OF PROPOSED EQUIPMENT WITH EXISTING CONDITIONS ON SITE.
- PROPOSED EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE FASTENERS SHALL BE HIGH STRENGTH (A325, A36)
- DRILLING OF EXISTING STEEL MEMBERS IS NOT PERMITTED.
- BOND PROPOSED EQUIPMENT TO EXISTING SECTOR GROUND BAR PER MANUFACTURER'S SPECIFICATIONS. PROVIDE ADDITIONAL SECTOR GROUND BARS AS REQUIRED.
- ALL ANTENNAS, CABLES, AND MOUNTS SHALL BE INSTALLED IN ACCORDANCE WITH THE ENGINEER'S RECOMMENDATIONS IN A MANNER CONSISTENT WITH THE STRUCTURAL ANALYSIS REPORT.
- CONTRACTOR TO CONTACT T-MOBILE FOR UP-TO-DATE RF DESIGN DATA. NOTIFY ENGINEER IF CONFLICT EXISTS.



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SBA:

LILLINGTON
NC14882-A-01

T-MOBILE:

SOUTH LILLINGTON
5RA0183A

SITE TYPE:

190' FLAGPOLE
T-MOBILE L600

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |

SITE COORDINATES

LAT: 35.379786
LONG: -78.820025

DRAWN: INS

CHECKED: PWM

JOB#: 20ASBTMMNC-0089

PROPOSED ANTENNA SCHEDULE

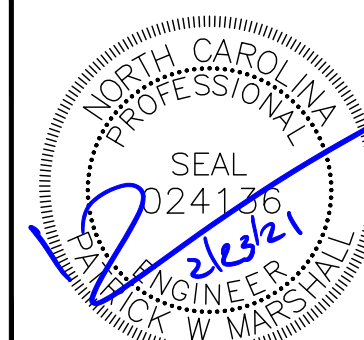
| SECTOR | MARK | AZIMUTH | ANTENNA MODEL | RADIO MODEL | TMA MODEL | CABLE DESCRIPTION |
|--------|------|---------|---------------------------------------|----------------------------|-----------------------------------|---|
| ALPHA | 1 | 0 | RFS - APXV18-206516S-C-A20 (DUAL) (P) | - | TWIN STYLE 1A - KRY 112 489/2 (P) | (2) 1 - 5/8 COAX CABLE (213') (E) |
| ALPHA | 1 | 0 | RFS - APXVAARR18_43-U-NA20 (OCTO) (P) | (1) RADIO 4449 B71+B12 (P) | - | (1) ERICSSON 6x12 HCS 4AWG 70M (230') (P) |
| - | - | - | - | - | - | - |
| BETA | 2 | 120 | RFS - APXV18-206516S-C-A20 (DUAL) (P) | - | TWIN STYLE 1A - KRY 112 489/2 (P) | (2) 1 - 5/8 COAX CABLE (213') (E) |
| BETA | 2 | 120 | RFS - APXVAARR18_43-U-NA20 (OCTO) (P) | (1) RADIO 4449 B71+B12 (P) | - | - |
| - | - | - | - | - | - | - |
| - | - | - | - | - | - | - |
| GAMMA | 3 | 240 | RFS - APXV18-206516S-C-A20 (DUAL) (P) | - | TWIN STYLE 1A - KRY 112 489/2 (P) | (2) 1 - 5/8 COAX CABLE (213') (E) |
| GAMMA | 3 | 240 | RFS - APXVAARR18_43-U-NA20 (OCTO) (P) | (1) RADIO 4449 B71+B12 (P) | - | - |
| - | - | - | - | - | - | - |
| - | - | - | - | - | - | - |

ANTENNA NOTE

CONTRACTOR TO ROTATE THE ANTENNAS AND OR MOUNTS TO OBTAIN NEW AZIMUTHS. REFER TO FINAL RF DOCUMENTS TO CONFIRM NEW AZIMUTHS

(E)- EXISTING
(P) - PROPOSED

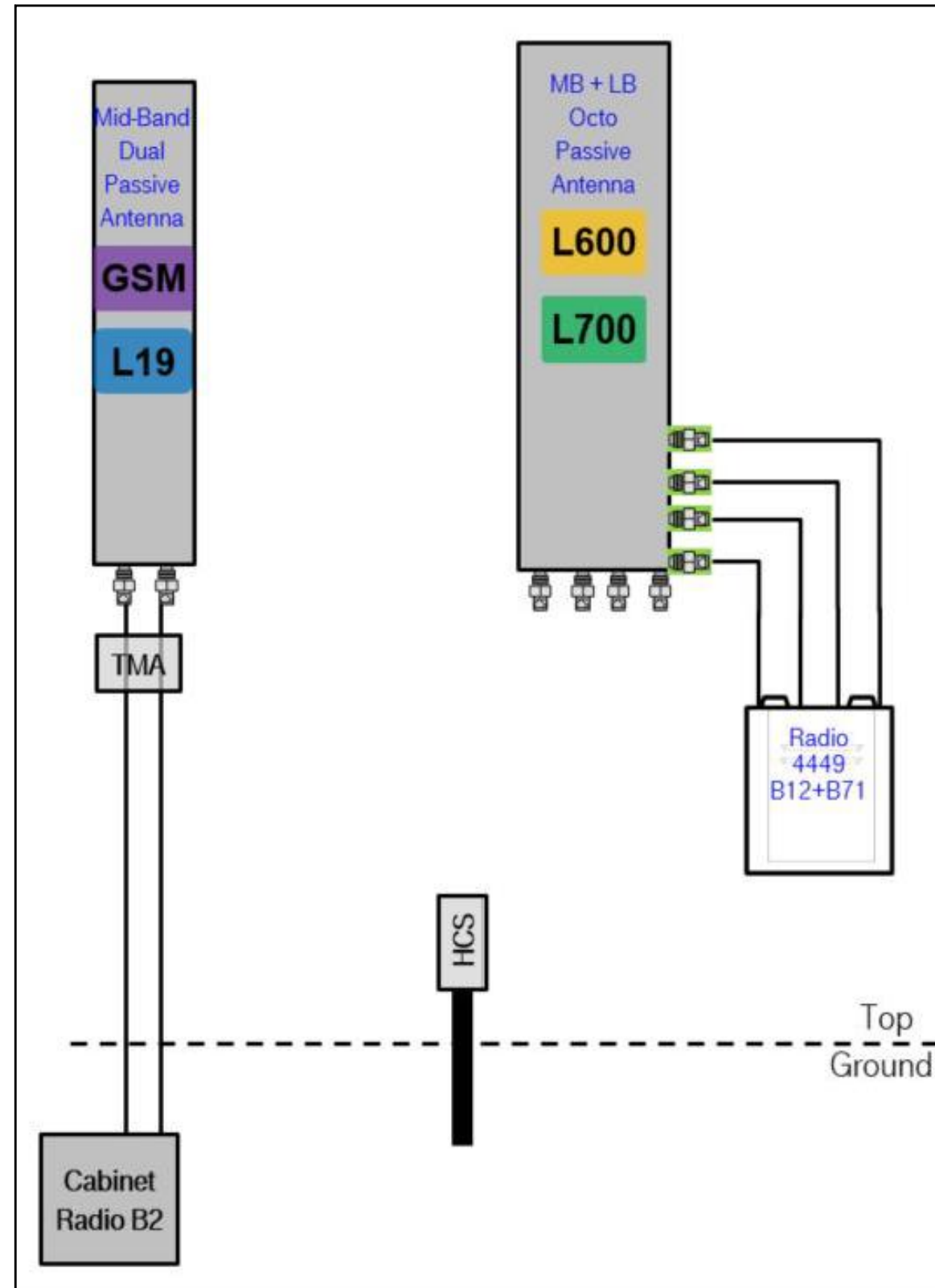
GC TO PROVIDE POST CONSTRUCTION DOCUMENTATION ON ALL ANTENNA AZIMUTHS AND COLOR CODING FOR CABLES.



ANTENNA ORIENTATION & CABLE SCHEDULE

Section 3 - Proposed Template Images

Capture.JPG



Notes:



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LILLINGTON, NC 27546

SBA:
LILLINGTON
NC14882-A-01

T-MOBILE:
SOUTH LILLINGTON
5RA0183A

SITE TYPE:
190' FLAGPOLE
T-MOBILE L600

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |
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SITE COORDINATES
LAT: 35.379786
LONG: -78.820025

DRAWN: INS
CHECKED: PWM
JOB#: 20ASBTMMNC-0089

PLUMBING DIAGRAM

EQUIPMENT NOTES

DEMO NOTES:

1. REWORK ALL TERMINATION, ELECTRICAL CONNECTORS, CONDUCTORS, CONDUITS, ETC. TO FACILITATE NEW WORK.
2. VERIFY LOCATION IN THE FIELD OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATING. COORDINATE WITH PUBLIC UTILITIES AS NECESSARY TO COMPLETE REQUIRED WORK AS INDICATED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR / REPLACEMENT OF ALL DAMAGED UTILITIES AT THE EXPENSE OF THE CONTRACTOR.
3. DEMOLITION IS INCLUDED TO GIVE A COMMON BASIS FOR QUOTATIONS AND MAY NOT SHOW EVERY ITEM TO BE DEMOLISHED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO DETERMINE THE EXACT EXTENT OF WORK, COORDINATION, DEMOLITION, TEMPORARY FACILITIES, UTILITIES, ETC. NECESSARY TO COMPLETE THE PROJECT AS INDICATED ON THE CONTRACT DOCUMENTS.
4. PROTECT NETWORK EQUIPMENT, RECTIFIERS, FIBER CABLE, RACEWAYS, UTILITIES, BUILDING SYSTEMS, ETC. FROM DAMAGE.
5. EQUIPMENT DESIGNATED TO BE RELOCATED SHALL BE CLEANED, STORED AND PROTECTED FROM DAMAGE UNTIL REINSTALLED. REPLACE ALL EQUIPMENT DAMAGED DURING RELOCATING.
6. PROVIDE TEMPORARY POWER TO ALL ESSENTIAL SYSTEMS AS REQUIRED TO FACILITATE DEMOLITION. PROVIDE TEMPORARY COOLING UNITS AS REQUIRED.
7. MAINTAIN CIRCUIT CONTINUITY TO EXISTING CIRCUITS AND EQUIPMENT TO REMAIN OR TO BE RELOCATED.
8. WHERE ALLOWED BY CODE IT IS PERMISSIBLE TO REUSE EXISTING CONDUIT. PROVIDE NEW CONDUIT AND CONDUCTORS FOR NEW CIRCUITS AND THE EXTENSION OF EXISTING CIRCUITS.
9. PROVIDE EQUIPMENT PROTECTION ABOVE ALL NETWORK EQUIPMENT (INCLUDING BUT NOT LIMITED TO CABLING, BUS, CABLE TRAY, EQUIPMENT BAYS, RECTIFIERS, BATTERIES, INVERTERS, DISTRIBUTION PANELS, ETC.) WHEN WORKING ABOVE ALL EQUIPMENT. ALL PROTECTION SHALL BE COORDINATED WITH THE SWITCH MANAGER TO ENSURE THAT THE PROTECTION WILL NOT BLOCK ACCESS TO EQUIPMENT OR CAUSE OVERHEATING. PROVIDE TEMPORARY COOLING AS REQUIRED.
10. PROVIDE APPROPRIATE SEALING AND PATCHING OF ANY BUILDING PENETRATIONS AFTER REMOVAL OF ELECTRICAL DEVICES, EQUIPMENT, ETC. MATCH EXISTING WALLS. SEE ARCHITECTURE.

GENERAL NOTES:

1. IT IS CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE & DETERMINE THE EXACT EXTENT OF WORK, COORDINATION, DEMOLITION, TEMPORARY FACILITIES, UTILITIES, ETC. NECESSARY TO COMPLETE THE PROJECT AS INDICATED ON THE CONTRACT DOCUMENTS.
2. VERIFY LOCATION IN THE FIELD OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATING. COORDINATE WITH PUBLIC UTILITIES AS NECESSARY TO COMPLETE REQUIRED WORK AS INDICATED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT OF ALL DAMAGED UTILITIES AT THE EXPENSE OF THE CONTRACTOR.
3. PROVIDE SEPARATE INSULATED GROUNDING CONDUCTOR IN ALL FEEDER & BC.
4. PROVIDE 2-HOLE LUGS CAPABLE OF ACCEPTING MULTIPLE CRIMPS FOR ALL POWER & GROUNDING CONNECTIONS TO A BUS OR WHERE FEASIBLE. USE MANUFACTURER'S COMPRESSION TOOL WITH PROPER DIE FOR EACH CONNECTOR. MANUFACTURER'S EMBOSSED CODING SYSTEM IS REQUIRED. A UNIVERSAL OR DIE-LESS TYPE CRIMPING TOOL SHALL NOT BE USED. PROVIDE LUGS WITH INSPECTOR HOLE FOR ALL INTERIOR INSTALLATIONS. PROVIDE CLOSED LUGS (NO INSPECTION HOLE) FOR EXTERIOR OR UNDERGROUND CONNECTIONS.
5. FEEDER CIRCUITS, GROUND LEADS, & DEDICATED EQUIPMENT CIRCUITS SHALL NOT BE SPLICED.
6. VERIFY LASHING REQUIREMENTS FOR SERVICE ENTRANCE & MAIN DISTRIBUTION EQUIPMENT WITH MANUFACTURER. INSTALL LASHING PER MANUFACTURER'S REQUIREMENTS.

COMPRESSION LUG NOTES:

REFER TO SPECIFICATION SECTION 260519 & NSTD516 REGARDING REQUIREMENTS FOR A SAMPLE COMPRESSION LUG SUBMITTAL ON ALL PROJECTS. FAILURE TO PROVIDE CORRECT LUGS & SUBMIT A SAMPLE COMPRESSION LUG TO T-MOBILE PRIOR TO INSTALLATION OF ANY LUGS MAY RESULT IN REJECTION OF THE INSTALLATION & REPLACEMENT OF ALL LUGS & ASSOCIATED CABLE, WHERE REQUIRED, AT NO COST TO T-MOBILE.

T-Mobile



SBA COMMUNICATIONS CORP.
5900 BROKEN SOUND PKWY NW
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LOCATION:

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SBA:

LILLINGTON
NC14882-A-01

T-MOBILE:

SOUTH LILLINGTON
5RA0183A

SITE TYPE:

190' FLAGPOLE
T-MOBILE L600

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |
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SITE COORDINATES

LAT: 35.379786
LONG: -78.820025

DRAWN: INS

CHECKED: PWM

JOB#: 20ASBTMMNC-0089



**ELECTRICAL
DETAILS**

E-1

| T-MOBILE SITE # | | LOCATION: | | VOLTAGE: 240/120 1Ø | | MOUNTING / ENCLOSURE: EXISTING / NEMA 3R | | | | | | | |
|----------------------|----------------|-----------|-------------|---------------------|-----|--|-----|-----|------|-------------|------|----------------|-------------|
| SRAD183A (EXISTING) | | H-FRAME | | MAIN C/B: 200 AMP | | AVAIL. FAULT CURRENT: EXISTING | | | | | | | |
| 12/21/2020 | | | | BUS RATING: 200 AMP | | SHORT CIRCUIT RATING: EXISTING | | | | | | | |
| AMPS/ POLES | WIRE & CONDUIT | TYPE | DESCRIPTION | KVA | CKT | A | B | CKT | KVA | DESCRIPTION | TYPE | WIRE & CONDUIT | AMPS/ POLES |
| 60/2 | EXISTING | | UNKNOWN | 0.10 | 1 | 0.60 | | 2 | 0.50 | UNKNOWN | R | EXISTING | 20/1 |
| 60/2 | EXISTING | | RBS 6201 | 1.44 | 5 | 1.44 | | 4 | 0.00 | LIGHT (OFF) | L | EXISTING | 20/1 |
| | | | SPACE | 1.44 | 7 | | | 6 | | SPACE | | | |
| | | | SPACE | | 9 | | | 8 | | SPACE | | | |
| | | | SPACE | | 11 | | | 10 | | SPACE | | | |
| | | | SPACE | | 13 | | | 12 | | SPACE | | | |
| | | | SPACE | | 15 | | | 14 | | SPACE | | | |
| | | | SPACE | | 17 | | | 16 | | SPACE | | | |
| | | | SPACE | | 19 | | | 18 | | SPACE | | | |
| | | | SPACE | | 21 | | | 20 | | SPACE | | | |
| | | | SPACE | | 23 | | | 22 | | SPACE | | | |
| | | | SPACE | | 25 | | | 24 | | SPACE | | | |
| PHASE TOTAL | | | | 2.0 | | | 1.5 | | | | | | |
| TOTAL CONNECTED LOAD | | | | | | | | | 3.6 | KVA | | | 15 A |
| TOTAL DEMAND LOAD | | | | | | | | | 0.5 | KVA | | | 2 A |

| LOAD TYPE | DESCRIPTION | CONN. LOAD KVA | DEMAND FACTOR | DESIGN LOAD KVA | AMPS |
|-----------|-------------|----------------|---------------|-----------------|------|
| L | LIGHTING | 0.0 | 0.0 | 1.25 | 0.0 |
| R | RECEPTACLE | 0.5 | 2.1 | NEC | 0.5 |
| M | MOTOR | 0.0 | 0.0 | NEC | 0.0 |
| H | HEATING | 0.0 | 0.0 | 1.00 | 0.0 |
| AC | HVAC | 0.0 | 0.0 | 1.00 | 0.0 |
| EQ | EQUIPMENT | 0.0 | 0.0 | 1.00 | 0.0 |
| E | EXISTING | 0.0 | 0.0 | 1.25 | 0.0 |

* ALL EQUIPMENT LOADS CONSIDERED CONTINUOUS LOADS

1 EXISTING PANEL SCHEDULE
SCALE: NOT TO SCALE

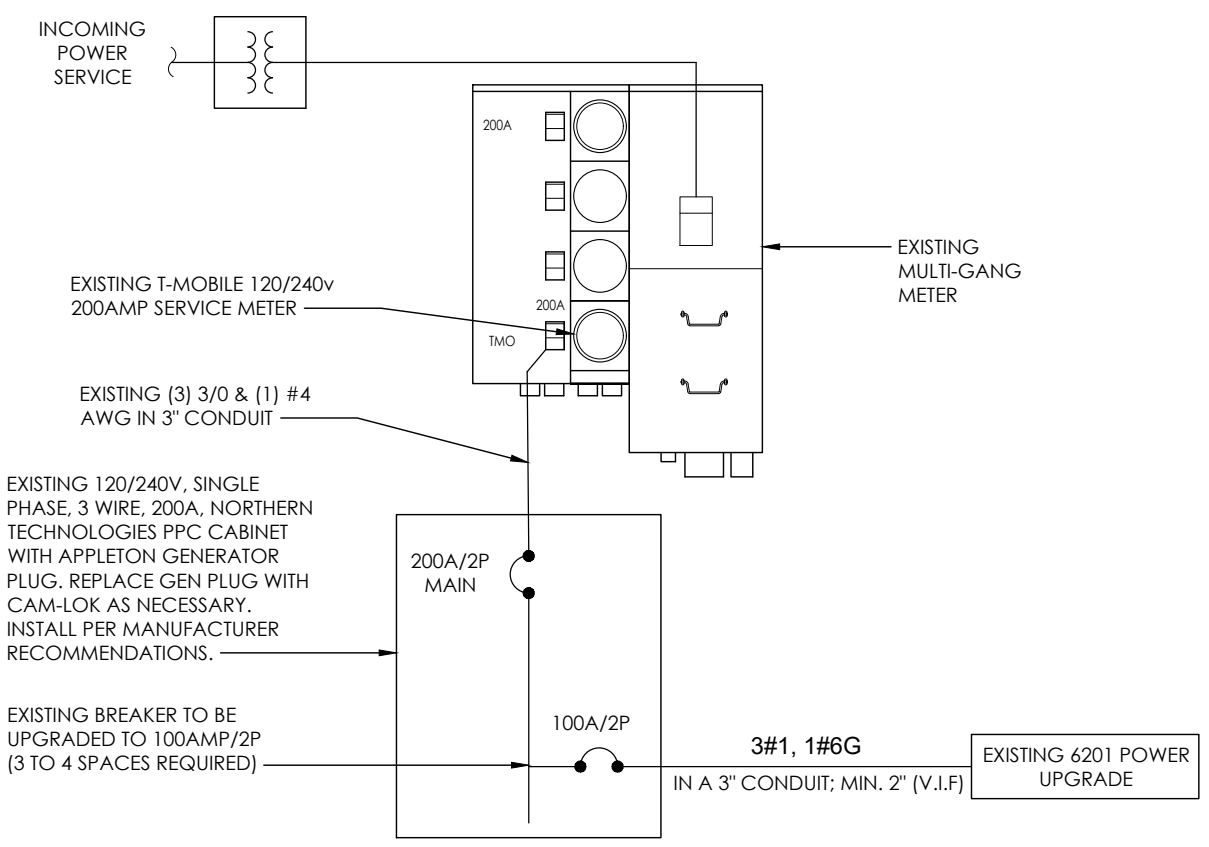
| T-MOBILE SITE # | | LOCATION: | | VOLTAGE: 240/120 1Ø | | MOUNTING / ENCLOSURE: EXISTING / NEMA 3R | | | | | | | |
|----------------------|----------------|-----------|-------------|---------------------|-----|--|-----|-----|------|-------------|------|----------------|-------------|
| SRAD183A (PROPOSED) | | H-FRAME | | MAIN C/B: 200 AMP | | AVAIL. FAULT CURRENT: EXISTING | | | | | | | |
| 12/21/2020 | | | | BUS RATING: 200 AMP | | SHORT CIRCUIT RATING: EXISTING | | | | | | | |
| AMPS/ POLES | WIRE & CONDUIT | TYPE | DESCRIPTION | KVA | CKT | A | B | CKT | KVA | DESCRIPTION | TYPE | WIRE & CONDUIT | AMPS/ POLES |
| 60/2 | EXISTING | | UNKNOWN | 0.10 | 1 | 0.60 | | 2 | 0.50 | UNKNOWN | R | EXISTING | 20/1 |
| 100/2 | 3Ø, 1#6G, 2" C | | RBS 6201 | 3.27 | 5 | 3.27 | | 4 | 0.00 | LIGHT (OFF) | L | EXISTING | 20/1 |
| 60/2 | | | SPACE | | 7 | | | 6 | | SPACE | | | |
| | | | SPACE | | 9 | | | 8 | | SPACE | | | |
| | | | SPACE | | 11 | | | 10 | | SPACE | | | |
| | | | SPACE | | 13 | | | 12 | | SPACE | | | |
| | | | SPACE | | 15 | | | 14 | | SPACE | | | |
| | | | SPACE | | 17 | | | 16 | | SPACE | | | |
| | | | SPACE | | 19 | | | 18 | | SPACE | | | |
| | | | SPACE | | 21 | | | 20 | | SPACE | | | |
| | | | SPACE | | 23 | | | 22 | | SPACE | | | |
| | | | SPACE | | 25 | | | 24 | | SPACE | | | |
| PHASE TOTAL | | | | 3.9 | | | 3.4 | | | | | | |
| TOTAL CONNECTED LOAD | | | | | | | | | 7.2 | KVA | | | 30 A |
| TOTAL DEMAND LOAD | | | | | | | | | 0.5 | KVA | | | 2 A |

| LOAD TYPE | DESCRIPTION | CONN. LOAD KVA | DEMAND FACTOR | DESIGN LOAD KVA | AMPS |
|-----------|-------------|----------------|---------------|-----------------|------|
| L | LIGHTING | 0.0 | 0.0 | 1.25 | 0.0 |
| R | RECEPTACLE | 0.5 | 2.1 | NEC | 0.5 |
| M | MOTOR | 0.0 | 0.0 | NEC | 0.0 |
| H | HEATING | 0.0 | 0.0 | 1.00 | 0.0 |
| AC | HVAC | 0.0 | 0.0 | 1.00 | 0.0 |
| EQ | EQUIPMENT | 0.0 | 0.0 | 1.00 | 0.0 |
| E | EXISTING | 0.0 | 0.0 | 1.25 | 0.0 |

* ALL EQUIPMENT LOADS CONSIDERED CONTINUOUS LOADS

2 PROPOSED PANEL SCHEDULE
SCALE: NOT TO SCALE

3 ONE-LINE DIAGRAM
SCALE: NOT TO SCALE



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SBA:
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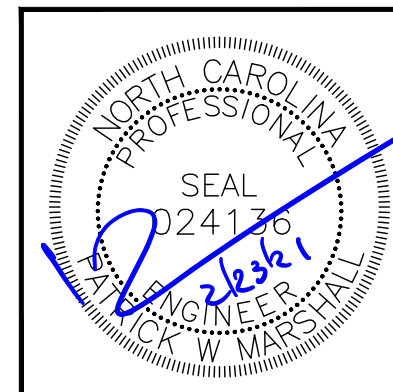
T-MOBILE:
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SITE TYPE:
190' FLAGPOLE
T-MOBILE L600

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| 0 | 2/22/21 | FCD |

SITE COORDINATES
LAT: 35.379786
LONG: -78.820025

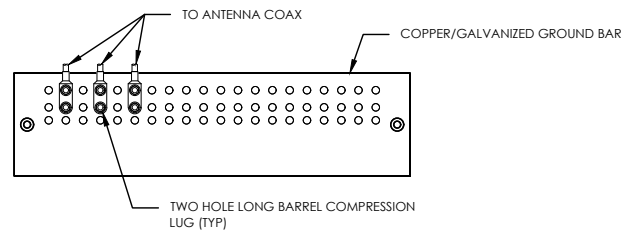
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JOB#: 20ASBTMMNC-0089



PANEL SCHEDULE & ONE-LINE DIAGRAM

GENERAL ELECTRICAL NOTES

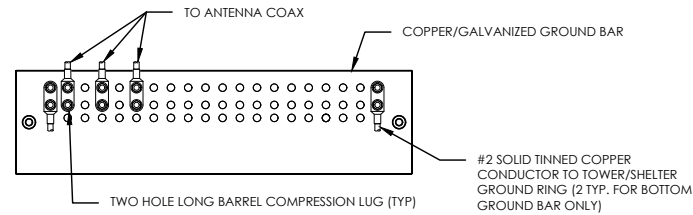
- NO SITE SPECIFIC LOAD STUDY WAS ACQUIRED. DEMAND LOADING KVA SHOWN AS ASSUMPTIONS PER MANUFACTURER SPECIFICATION DOCUMENTS & INDUSTRY STANDARD. WHEN OVERAGES ARE VERIFIED ON SITE, ALL DISCREPANCY SHALL BE BROUGHT TO THE ENGINEER OF RECORD PRIOR TO COMMENCING WORK.
- ELECTRICAL SERVICE SHALL BE 200A, 240/120v, 1 P, 3W
- FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDER PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.
- CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH POWER COMPANY AND ENSURE ALL ELECTRICAL EQUIPMENT IS SUITABLE FOR AVAILABLE FAULT CURRENT. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY AND CALCULATE SHORT CIRCUIT FAULT CURRENT AND ARC FLASH AND PROVIDE LABELS ON ELECTRICAL EQUIPMENT PER THE N.E.C. AND LOCAL JURISDICTION. CONTRACTOR SHALL PROVIDE EQUIPMENT RATED FOR FAULT CURRENT.
- CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH LOCAL UTILITY COMPANIES. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY STANDARDS. THE MAXIMUM 12-MONTH DEMAND LOAD WAS NOT AVAILABLE AT TIME OF PRINTING. CONTRACTOR SHALL COORDINATE WITH POWER CO., OBTAIN MAXIMUM DEMAND LOAD, MULTIPLY VALUE BY 1.25, ADD ALL NEW LOADS & VERIFY NEW MAXIMUM DEMAND LOAD DOES NOT OVERLOAD ANY PORTION OF THE EXISTING ELECTRICAL SYSTEM. CONTACT EOR IF OVERLOAD IS POSSIBLE BEFORE START OF WORK.
- ONE-LINE DIAGRAM IS SCHEMATIC ONLY AND NOT INDICATIVE OF ACTUAL EQUIPMENT LAYOUT. CONTRACTOR IS RESPONSIBLE FOR LOADING ON ALL PANELS AND FEEDERS PER THE N.E.C. CONTRACTOR SHALL ENSURE CONTINUITY OF EXISTING CIRCUITS TO REMAIN. ELECTRICAL CONTRACTOR SHALL VERIFY THAT ALL EXISTING AND PROPOSED LOADS PLACED ON EXISTING PANELS DO NOT EXCEED THE MAXIMUM LOADING REQUIRED PER THE LATEST EDITION OF THE N.E.C. NOTIFY EOR IF OVERLOAD IS POSSIBLE
- 6160 ENCLOSURE STANDARD CONFIGURATION INCLUDES (4) 3500W RECTIFIERS. LOAD PROVIDED IN PANEL SCHEDULE IS BASED ON THIS CONFIGURATION. IF ADDITIONAL RECTIFIERS ARE REQUIRED, ENGINEER OF RECORD SHALL BE CONTACTED TO DETERMINE ADEQUACY OF EXISTING PANEL FOR ADDITIONAL LOAD
- CONTRACTOR SHALL FIELD VERIFY EXISTING AC PANEL MODEL AND ENSURE 125A, 2P, 2-POSITION BREAKER IS COMPATIBLE, CONTACT EOR IF DISCREPANCIES ARE FOUND.
- CONTRACTOR TO FIELD VERIFY ALL EQUIPMENT RATINGS AND WIRE SIZES. IF ANY DISCREPANCIES EXIST, CONTACT ENGINEER PRIOR TO ROUGH IN.



NOTES:

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

1 ANTENNA GROUND BAR DETAIL
SCALE: NOT TO SCALE

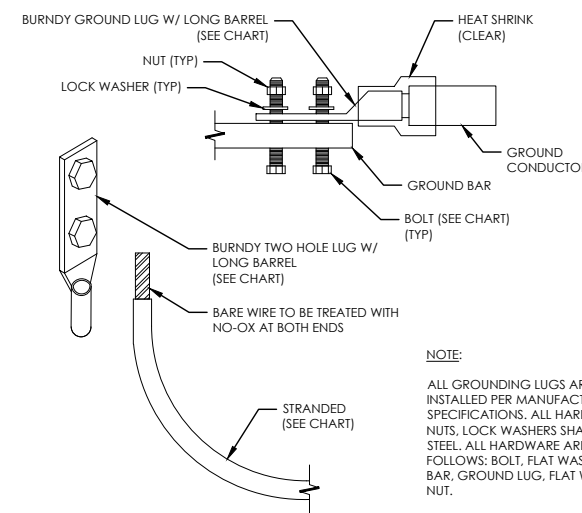


NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE

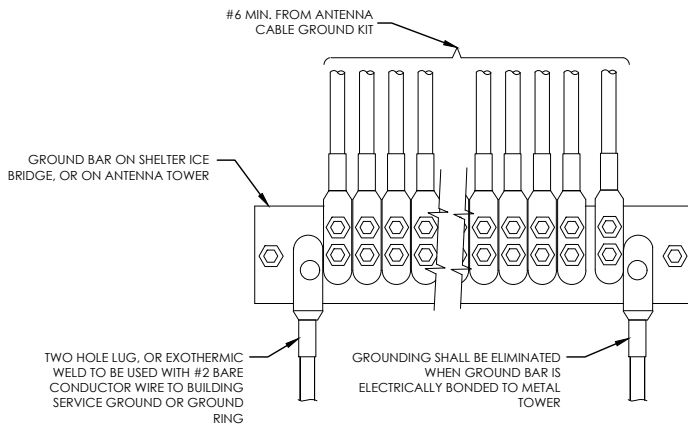
| WIRE SIZE | BURNDY LUG | BOLT SIZE |
|--------------------|------------|------------------------|
| #6 GREEN INSULATED | YA6C-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #2 SOLID TINNED | YA3C-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #2 STRANDED | YA2C-2TC38 | 3/8" - 16 NC SS 2 BOLT |
| #2/0 STRANDED | YA26-2TC38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



NOTE:

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

3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



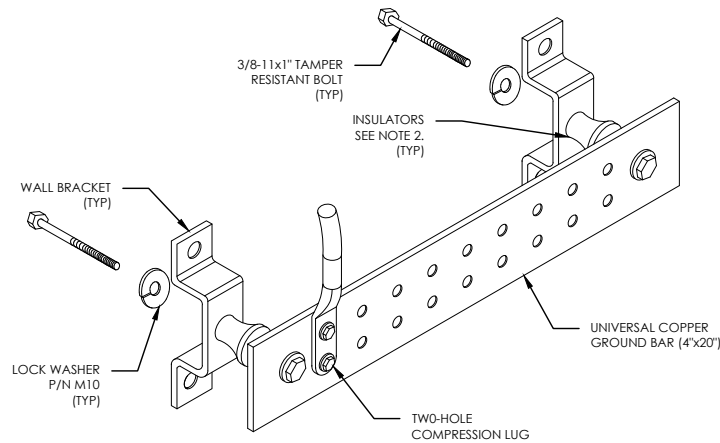
GROUND BAR ON SHELTER ICE BRIDGE, OR ON ANTENNA TOWER

#6 MIN. FROM ANTENNA CABLE GROUND KIT

TWO HOLE LUG, OR EXOTHERMIC WELD TO BE USED WITH #2 BARE CONDUCTOR WIRE TO BUILDING SERVICE GROUND OR GROUND RING

GROUNDING SHALL BE ELIMINATED WHEN GROUND BAR IS ELECTRICALLY BONDED TO METAL TOWER

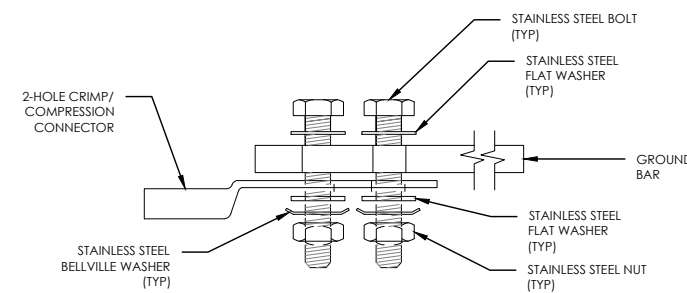
4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



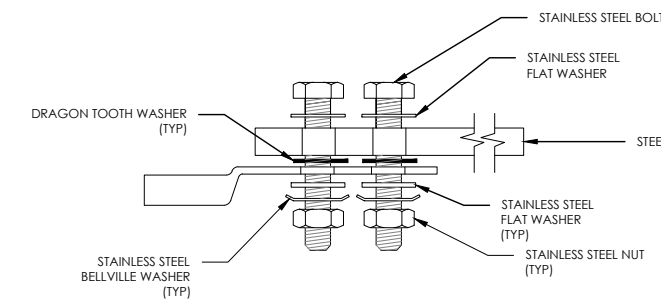
NOTES:

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

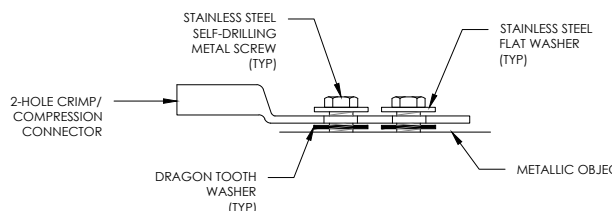
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



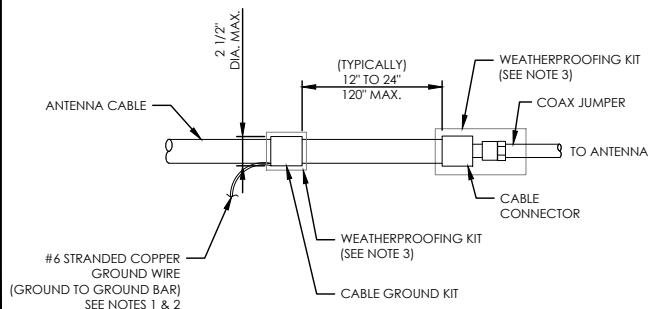
SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



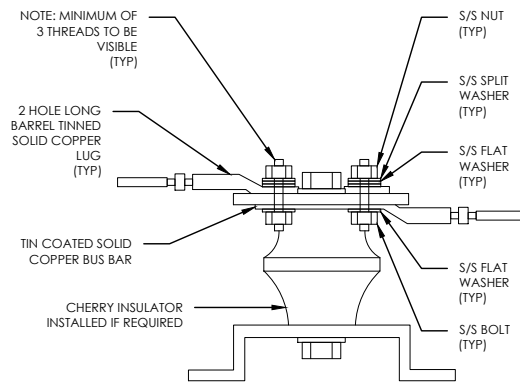
SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS



NOTES:

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

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



NOTE: MINIMUM OF 3 THREADS TO BE VISIBLE (TYP)

2 HOLE LONG BARREL TINNED SOLID COPPER LUG (TYP)

TIN COATED SOLID COPPER BUS BAR

CHERRY INSULATOR INSTALLED IF REQUIRED

S/S NUT (TYP)

S/S SPLIT WASHER (TYP)

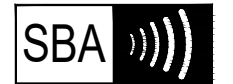
S/S FLAT WASHER (TYP)

S/S FLAT WASHER (TYP)

S/S BOLT (TYP)

7 LUG DETAIL
SCALE: NOT TO SCALE

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



SBA COMMUNICATIONS CORP.
5900 BROKEN SOUND PKWY NW
BOCA RATON, FL 33487



LOCATION:
162 MATTIE RIDGELL LN
LILLINGTON, NC 27546

SBA:
LILLINGTON
NC14882-A-01

T-MOBILE:
SOUTH LILLINGTON
5RA0183A

SITE TYPE:
190' FLAGPOLE
T-MOBILE L600

| REV | DATE | DESCRIPTION |
|-----|---------|-------------|
| 0 | 2/22/21 | FCD |

SITE COORDINATES
LAT: 35.379786
LONG: -78.820025

DRAWN: INS
CHECKED: PWM
JOB#: 20ASBTMMNC-0089



GROUNDING
DETAILS