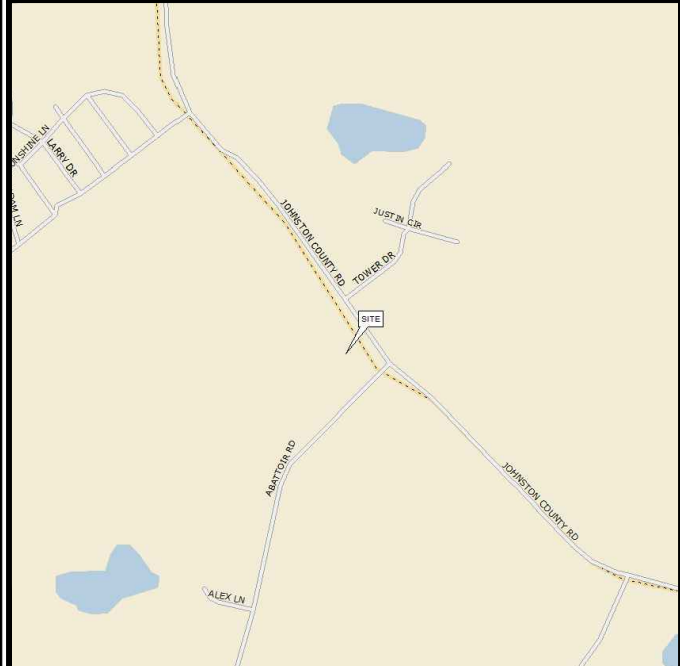


AT&T SITE NAME: 368-754  
 PROJECT DESCRIPTION: CO-LOCATION ON AN EXISTING GUYED TOWER  
 TOWER TYPE: 287' GUYED  
 SITE ADDRESS: 2135 JOHNSTON COUNTY RD ANGIER, NC 27501 (HARNETT COUNTY)  
 JURISDICTION: HARNETT COUNTY  
 AREA OF CONSTRUCTION: 230 ± SQ. FT. (LEASE AREA)  
 PRESENT OCC. TYPE: TELECOMMUNICATIONS FACILITY  
 CURRENT ZONING: UNKNOWN  
 PARCEL #: 1602-55-5858.000

**PROJECT INFORMATION**

LATITUDE: N 35° 27' 58.90" (35.4663)  
 LONGITUDE: W 78° 38' 44.20" (-78.6456)  
 GROUND ELEVATION: ±315' (AMSL)

**TOWER COORDINATES**



**LOCATION MAP**

TAKE 27E FROM BENSON, NC. TURN RIGHT ONTO ABATTIOR RD. AND GO TO THE END. TURN LEFT ONTO JOHNSTON COUNTY RD AND TOWER IS IMMEDIATELY ON LEFT SIDE.

**DRIVING DIRECTIONS**



2002 PISGAH CHURCH RD, STE 300  
 GREENSBORO, NC 27455

AT&T SITE NAME: 368-754  
 AT&T SITE ID: ECL02540  
 AT&T PACE NUMBER: MRCAR033546,  
 MRVWN006339, MRVWN006341, MRVWN006338,  
 MRVWN006342, MRVWN006340  
 AT&T FA CODE: 12682186  
 USID: 145174  
 NSB - GUYED TOWER  
 LTE 1C/2C/3C/4C/5C/5G NR 1DR-2

**TOWER OWNER:**  
 NAME: AMERICAN TOWER CORPORATION  
 ADDRESS: 3500 REGENCY PKWY #100  
 CITY, STATE, ZIP: CARY, NC 27518  
 CONTACT: AARON DIAL  
 PHONE: (919) 466-5383  
 SITE ID: 372926  
 SITE NAME: ANGIER

**APPLICANT/LESSEE:**  
 NAME: AT&T MOBILITY  
 ADDRESS: 2002 PISGAH CHURCH RD, STE 300  
 CITY, STATE, ZIP: GREENSBORO, NC 27455  
 CONTACT: KEN WELKER  
 PHONE: (336) 549-9987  
 NOC #: (800) 638-2822

**SITE CONSTRUCTION MANAGER:**  
 NAME: AT&T  
 ADDRESS: 2002 PISGAH CHURCH RD, STE 300  
 CITY, STATE, ZIP: GREENSBORO, NC 27455  
 CONTACT: UNKNOWN  
 PHONE: UNKNOWN

**CIVIL ENGINEER:**  
 NAME: TOWER ENGINEERING PROFESSIONALS  
 ADDRESS: 326 TRYON ROAD  
 CITY, STATE, ZIP: RALEIGH, NC 27603  
 CONTACT: JOHN H. BEST III, P.E.  
 PHONE: (919) 661-6351

**ELECTRICAL ENGINEER:**  
 NAME: TOWER ENGINEERING PROFESSIONALS  
 ADDRESS: 326 TRYON ROAD  
 CITY, STATE, ZIP: RALEIGH, NC 27603  
 CONTACT: MARK S. QUAKENBUSH, P.E.  
 PHONE: (919) 661-6351

**CONTACT INFORMATION**

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:  
 1. NORTH CAROLINA BUILDING CODE (2018 EDITION)  
 2. NORTH CAROLINA CODE COUNCIL  
 3. ANSITIA-222-H  
 4. 2017 NCEC (2017 NEC & NC ADDENDUM)  
 5. LOCAL BUILDING CODE  
 6. CITY/COUNTY ORDINANCES

**CODE COMPLIANCE**

**UTILITIES:**  
 POWER COMPANY: SOUTH RIVER EMC  
 CONTACT: CUSTOMER SERVICE  
 PHONE: (910) 892-8071  
 METER # NEAR SITE: UNKNOWN

**TELEPHONE COMPANY:** SPRINT SPECTRUM L.P.  
 CONTACT: CUSTOMER SERVICE  
 PHONE: (866) 866-7509  
 PHONE # NEAR SITE: (919) 625-5412  
 PEDESTAL # NEAR SITE: UNKNOWN

**PROPERTY OWNER:**  
 NAME: GTP TOWERS VIII LLC  
 ADDRESS: 2225 JOHNSTON COUNTY RD  
 CITY, STATE, ZIP: ANGIER, NC 27501

**RFDS DATA**

DESIGN PACKAGE BASED ON RF DATA SHEET  
 RFDS NAME: ECL02540  
 REVISION: 1.00  
 ISSUED: 9/11/2020 4:33:37 PM  
 DATE UPDATED: 9/21/2020 5:37:00 PM  
 NUMBER OF SECTORS: 3  
 NUMBER OF ANTENNAS: 6  
 NUMBER OF TMAs: 0  
 NUMBER OF RRHS: 15  
 NUMBER OF FIBER/DC SQUIDS: 2  
 NUMBER OF DC SQUIDS: 0  
 NUMBER OF FIBER TRUNK CABLES: 2  
 NUMBER OF DC TRUNK CABLES: 6  
 NUMBER OF RF CABLES: 0

**SCOPE OF WORK**

THE PURPOSE OF THIS PROJECT IS AS FOLLOWS:  
 TOWER SCOPE OF WORK:  
 • INSTALL (6) ANTENNAS  
 • INSTALL (15) RRHS  
 • INSTALL (2) SQUIDS  
 • INSTALL (2) FIBER TRUNKS  
 • INSTALL (6) DC TRUNKS  
 GROUND SCOPE OF WORK:  
 • INSTALL (1) W.I.C. SHELTER PAD  
 • INSTALL (1) GENERATOR PAD  
 • INSTALL (1) W.I.C. SHELTER  
 • INSTALL (1) GENERATOR  
 • INSTALL (1) H-FRAME  
 • INSTALL METER AND DISCONNECT  
 • INSTALL FIBER BOX  
 NSB - GUYED  
 LTE - LTE 1C/2C/3C/4C/5C/5G NR 1DR-2

AMERICAN TOWER®  
 ATC SITE NAME: ANGIER  
 ATC SITE NUMBER: 372926  
 SITE ADDRESS: 2135 JOHNSTON COUNTY RD ANGIER, NC 27501 (HARNETT COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS  
 326 TRYON ROAD  
 RALEIGH, NC 27603-3530  
 OFFICE: (919) 661-6351  
 www.tepgroup.net  
 N.C. LICENSE # P-1403

REV	DATE	ISSUED FOR:
0	02-16-21	100% CONSTRUCTION
A	12-28-20	PRELIMINARY

DRAWN BY: SRZ CHECKED BY: EGG

SEAL:

February 16, 2021

SEAL:

February 16, 2021

SHEET	DESCRIPTION	REV
T1	TITLE SHEET	0
T2-T6	APPENDIX B	0
N1	GENERAL NOTES	0
SP1	SITE PLAN	0
C1	PROPOSED COMPOUND DETAIL	0
C2	TOWER ELEVATION	0
C3	WIC ELEVATIONS	0
C4A	FOUNDATION DETAILS I	0
C4B	FOUNDATION DETAILS II	0
C5	ICE BRIDGE DETAILS I	0
C6	ICE BRIDGE DETAILS II	0
C7A	GENERATOR SPECIFICATIONS I	0
C7B	GENERATOR SPECIFICATIONS II	0
C7C	GENERATOR SPECIFICATIONS III	0
C8	GENERATOR FOUNDATION & SIGNAGE DETAILS	0
C9	ANTENNA MOUNTING DETAILS	0
C10	SIGNAGE DETAILS	0
E1	ELECTRICAL NOTES	0
E2A	ONE-LINE DIAGRAM	0
E2B	PANEL SCHEDULE	0
E3	SERVICE ROUTING PLAN	0
E4	GROUNDING PLAN	0
E5	GROUNDING DETAILS I	0
E6	GROUNDING DETAILS II	0

**INDEX OF SHEETS**

SHEET NUMBER: **T-1** REVISION: **0**  
 TEP#: 55699.245455

**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: ANGIER  
 Address: 2135 JOHNSTON COUNTY RD, ANGIER, NC Zip Code 27501  
 Owner/Authorized Agent: CHERYL RUSSELL Phone # ( - ) - - - - E-Mail Cheryl.Russell@AmericanTower.com  
 Owned By:  City/County  Private  State  
 Code Enforcement Jurisdiction:  City  County HARNETT  State

**CONTACT:** Tower Engineering Professionals

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural				( )	
Civil	Tower Engineering Professionals	John H. Best III	043120	(919) 661-6351	jbest@tepgroup.net
Electrical	Tower Engineering Professionals	Mark S. Quakenbush	042109	(919) 661-6351	mquakenbush@tepgroup.net
Fire Alarm				( )	
Plumbing				( )	
Mechanical				( )	
Sprinkler-Standpipe				( )	
Structural				( )	
Retaining Walls >5' High				( )	
Other				( )	

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

**2018 NC BUILDING CODE:**  New Building  Addition  Renovation  
 1<sup>st</sup> Time Interior Completion  
 Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements  
 Phased Construction - Shell/Core- Contact the local inspection jurisdiction for possible additional procedures and requirements

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

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

**OCCUPANCY CATEGORY** (Table 1604.5): **Current:**  I  II  III  IV  
**Proposed:**  I  II  III  IV

**BASIC BUILDING DATA**  
**Construction Type:**  I-A  II-A  III-A  IV  V-A  
 (check all that apply)  I-B  II-B  III-B  V-B  
**Sprinklers:**  No  Partial  Yes  NFPA 13  NFPA 13R  NFPA 13D  
**Standpipes:**  No  Yes Class  I  II  III  Wet  Dry  
**Fire District:**  No  Yes **Flood Hazard Area:**  No  Yes  
**Special Inspections Required:**  No  Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table			
FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3 <sup>rd</sup> Floor		N/A	
2 <sup>nd</sup> Floor		N/A	
Mezzanine		N/A	
1 <sup>st</sup> Floor		115 SQ FT CONCRETE PAD	
Basement		N/A	
<b>TOTAL</b>		<b>115 SQ FT CONCRETE PAD</b>	

**ALLOWABLE AREA**

**Primary Occupancy Classification(s):** Select one Select one Select one Select one Select one Select one

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 Condition  1  2  
 I-2 Condition  1  2  
 I-3 Condition  1  2  3  4  5  
 I-4  
 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):** N/A

**Incidental Uses** (Table 509): N/A

**Special Uses** (Chapter 4 – List Code Sections): N/A

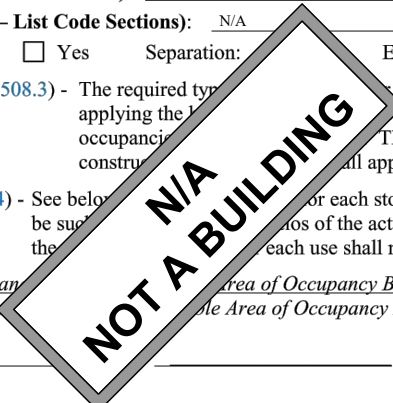
**Special Provisions:** (Chapter 5 – List Code Sections): N/A

**Mixed Occupancy:**  No  Yes Separation: \_\_\_\_\_ Exception: \_\_\_\_\_

Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the requirements for each of the applicable occupancies. The most restrictive type of construction shall apply to the entire building.

Separated Use (508.4) - See below. For each story, the area of the occupancy shall be supported by a separate structural frame. The ratio of the actual floor area of each use divided by the allowable area of occupancy for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$



PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300  
 GREENSBORO, NC 27455

PLANS PREPARED FOR:




3500 REGENCY PKWY #100  
 CARY, NC 27518

PROJECT INFORMATION:


**AT&T SITE NAME: 368-754**  
**AT&T FA CODE: 12682186**  
**AT&T PACE#:**  
**MRCAR033546**  
**ATC #: 372926**  
**ANGIER**  
 2135 JOHNSTON COUNTY RD  
 ANGIER, NC 27501  
 (HARNETT COUNTY)  
 EXISTING 287' GUYED TOWER

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603-3530  
 OFFICE: (919) 661-6351  
 www.tepgroup.net  
 N.C. LICENSE # P-1403

SEAL:



February 16, 2021

0	02-16-21	100% CONSTRUCTION
A	12-28-20	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:

**APPENDIX B**

SHEET NUMBER: **T-2** REVISION: **0**  
 TEP#: 55699.245455

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 <sup>4</sup> AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1,5</sup>	(D) ALLOWABLE AREA PER STORY OR UNLIMITED <sup>2,3</sup>

- <sup>1</sup> Frontage area increases from Section 506.2 are:
- Perimeter which fronts a public way, feet minimum width = \_\_\_\_\_ (F)
  - Total Building Perimeter
  - Ratio (F/P) = \_\_\_\_\_ (F/P)
  - W = Minimum width of public way, feet
  - Percent of frontage increase =  $\frac{F}{P} \times \frac{W}{30} = \text{_____} (\%)$
- <sup>2</sup> Unlimited area applicable under conditions of Section 507.
- <sup>3</sup> Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
- <sup>4</sup> 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 412.2.1.
- <sup>5</sup> Frontage increase is based on the unsprinklered area value in Table 506.2.

**ALLOWABLE HEIGHT**

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

<sup>1</sup> Provide code reference if the "Shown on Plans" quantity is not blank.

**FIRE PROTECTION REQUIREMENTS**

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

PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300  
GREENSBORO, NC 27455

PLANS PREPARED FOR:



AMERICAN TOWER®  
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CARY, NC 27518

PROJECT INFORMATION:

**AT&T SITE NAME: 368-754**  
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DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:

**APPENDIX B**

SHEET NUMBER: <b>T-3</b>	REVISION: <b>0</b> TEP#: 55699.245455
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**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 PLAN REQUIREMENTS**

- Emergency Lighting:  Yes  No
- Exit Signs:  Yes  No
- Fire Alarm:  Yes  No
- Smoke Detection Systems:  Yes  Partial  No
- Panic Hardware:  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 on the site plan)
- Exterior wall opening area with respect to distance to assumed property lines (705.8)
- Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
- Occupant loads for each area
- Exit access travel distances (1017)
- Common path of travel distances (Tables 1006)
- Dead end lengths (1020.4)
- Clear exit widths for each exit door
- Maximum calculated occupant load that can be accommodated based on egress width (1005.3)
- Actual occupant load for each exit
- A separate schematic plan indicating floor/ceiling and/or roof structure is provided for purposes of occupancy separation (1010)
- Location of doors with panic hardware (1010.1.9.7)
- Location of doors with delayed egress 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

**ACCESSIBLE DWELLING UNITS (SECTION 1107)**

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

**ACCESSIBLE PARKING**

LOT OR PARKING AREA	TOTAL # OF PARKING REQUIRED	ACCESSIBLE SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
		132" ACCESS AISLE	8' ACCESS AISLE	
TOTAL				

**PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)**

USE	SPACE	WATERCLOSETS			URINALS	LAVATORIES			SHOWERS /TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEM	UNISEX		REGULAR	ACCESSIBLE
EXIST'G											
NEW											
REQ'D											

**SPECIAL APPROVALS**

Special approval: (Local Jurisdiction, Department of Health, Fire Department, etc., describe below)

\_\_\_\_\_

\_\_\_\_\_

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SHEET TITLE:

**APPENDIX B**

SHEET NUMBER: **T-4** REVISION: **0**

TEP#: 55699.245455

**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:  No  Yes (Provide code of \_\_\_\_\_ remainder of this section is not applicable)

Exempt Building:  No  Yes (Provide code of \_\_\_\_\_)

Climate Zone:  3A  4A  \_\_\_\_\_

Method of Compliance: Energy \_\_\_\_\_  Prescriptive  
 ASHRAE \_\_\_\_\_  Prescriptive  
 (Reference design vs annual energy cost for the proposed design)

**THERMAL ENVELOPE (Prescriptive)**

**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 or doors with glazing)  
 U-Value of assembly: \_\_\_\_\_  
 Solar heat gain coefficient: \_\_\_\_\_  
 projection factor: \_\_\_\_\_  
 Door R-Values: \_\_\_\_\_

**Walls below grade (each assembly)**  
 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: \_\_\_\_\_

**2018 APPENDIX B  
 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
 STRUCTURAL DESIGN  
 (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)**

**DESIGN LOADS:**

**Importance Factors:** Snow (I<sub>s</sub>) \_\_\_\_\_  
 Seismic (I<sub>E</sub>) \_\_\_\_\_

**Live Loads:** Roof \_\_\_\_\_ psf  
 Mezzanine \_\_\_\_\_ psf  
 Floor \_\_\_\_\_ psf

**Ground Snow Load:** \_\_\_\_\_ psf

**Wind Load:** Basic Wind Speed \_\_\_\_\_ (ASCE-7)  
 Exposure Category \_\_\_\_\_

**SEISMIC DESIGN CATEGORY:**

Provide the following Seismic Design Category \_\_\_\_\_

**Risk Category (Table 1601.2.1):**  I  II  III  IV

**Spectral Response Acceleration Coefficient (S<sub>1</sub>):** \_\_\_\_\_ %g

**Site Classification (ASCE 7.9.1):**  B  C  D  E  F

**Data Source:**  Field Test  Presumptive  Historical Data

**Basic structural system:**  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 \_\_\_\_\_

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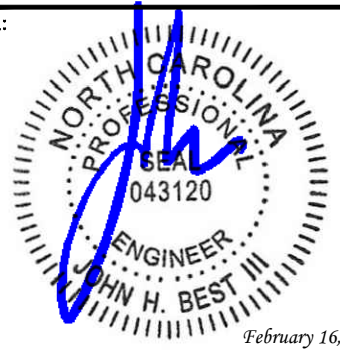
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 RALEIGH, NC 27603-3530  
 OFFICE: (919) 661-6351  
 www.tepgroup.net  
 N.C. LICENSE # P-1403

SEAL:



0	02-16-21	100% CONSTRUCTION
A	12-28-20	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:  
**APPENDIX B**

SHEET NUMBER: **T-5** REVISION: **0**  
 TEP#: 55699.245455

**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 Conditioning System**

**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:** \_\_\_\_\_

**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:** Energy Code  Performance  Prescriptive  
ASHRAE 90.1  Performance  Prescriptive

**Lighting schedule** (each fixture type)

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

**Additional Efficiency Package Options**  
(When using the 2018 NCECC; not required for ASHRAE 90.1)

- C406.2 More Efficient HVAC Equipment Performance
- C406.3 Reduced Lighting Power Density
- C406.4 Enhanced Digital Lighting Controls
- C406.5 On-Site Renewable Energy
- C406.6 Dedicated Outdoor Air System
- C406.7 Reduced Energy Use in Service Water Heating

PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300  
GREENSBORO, NC 27455

PLANS PREPARED FOR:



**AMERICAN TOWER®**  
3500 REGENCY PKWY #100  
CARY, NC 27518

PROJECT INFORMATION:

**AT&T SITE NAME: 368-754**  
**AT&T FA CODE: 12682186**  
**AT&T PACE#:**  
**MRCAR033546**  
**ATC #: 372926**  
**ANGIER**  
2135 JOHNSTON COUNTY RD  
ANGIER, NC 27501  
(HARNETT COUNTY)  
EXISTING 287' GUYED TOWER

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603-3530  
OFFICE: (919) 661-6351  
www.tepgroup.net  
N.C. LICENSE # P-1403

SEAL:



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DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:

**APPENDIX B**

SHEET NUMBER: <b>T-6</b>	REVISION: <b>0</b> TEP#: 55699.245455
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1. ALL REFERENCES MADE TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED AT&T OR IT'S DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF NORTH CAROLINA.
3. THE STRUCTURE SHALL BE DESIGNED IN ACCORDANCE WITH ANSI/TIA-222-H. THIS CONFORMS TO THE REQUIREMENTS OF THE NORTH CAROLINA BUILDING CODE, 2018 EDITION.
4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE, 2018 EDITION.
5. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
6. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
7. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND IT'S COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
8. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
9. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK. RENTAL CHARGES, SAFETY, PROTECTION AND MAINTENANCE OF RENTED EQUIPMENT SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
11. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE AT&T PROJECT MANAGER.
12. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR/OWNER. CONTRACTOR/OWNER SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
13. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
14. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
15. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REWORKED OR REPLACED.
16. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
17. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

18. ANY BUILDINGS ON THIS SITE ARE INTENDED TO SHELTER EQUIPMENT WHICH WILL ONLY BE PERIODICALLY MAINTAINED AND ARE NOT INTENDED FOR HUMAN OCCUPANCY.
19. TEMPORARY FACILITIES FOR PROTECTION OF TOOLS AND EQUIPMENT SHALL CONFORM TO LOCAL REGULATIONS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
20. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL CARRY LIABILITY INSURANCE IN THE AMOUNTS AND FORM IN ACCORDANCE WITH AT&T SPECIFICATIONS. CERTIFICATES DEMONSTRATING PROOF OF COVERAGE SHALL BE PROVIDED TO AT&T PRIOR TO THE START OF THE WORK ON THE PROJECT.
21. THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY SERVICES TO VERIFY LOCATIONS OF EXISTING UTILITIES AND REQUIREMENTS FOR NEW UTILITY CONNECTIONS PRIOR TO EXCAVATING.
22. THE CONTRACTOR SHALL MAINTAIN THE JOB CLEAR OF TRASH AND DEBRIS. ALL WASTE MATERIALS SHALL BE REMOVED FROM THE SITE PRIOR TO SUBSTANTIAL COMPLETION AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL FURNISH ONE 55 GALLON BARREL, AND TRASH BAGS, AND SHALL REMOVE TRASH, DEBRIS, ETC., ON A DAILY BASIS.
23. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS WITH THOSE AT THE SITE. ANY VARIATION WHICH REQUIRES PHYSICAL CHANGE SHALL BE BROUGHT TO THE ATTENTION OF THE AT&T PROJECT ENGINEER FOR FACILITIES/CONSTRUCTION.
24. THE CONTRACTOR SHALL GUARANTEE THE WORK PERFORMED ON THE PROJECT BY THE CONTRACTOR AND ANY OR ALL OF THE SUBCONTRACTORS WHO PERFORMED WORK FOR THE CONTRACTOR ON THIS PROJECT. THE GUARANTEE SHALL BE FOR A FULL YEAR FOLLOWING ISSUANCE OF THE FINAL PAYMENT OF RETAINAGE. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.

**GENERAL NOTES**

PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300  
GREENSBORO, NC 27455

PLANS PREPARED FOR:




3500 REGENCY PKWY #100  
CARY, NC 27518

PROJECT INFORMATION:

**AT&T SITE NAME: 368-754**  
**AT&T FA CODE: 12682186**  
**AT&T PACE#:**  
**MRCAR033546**  
**ATC #: 372926**  
**ANGIER**


2135 JOHNSTON COUNTY RD  
ANGIER, NC 27501  
(HARNETT COUNTY)  
EXISTING 287' GUYED TOWER

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603-3530  
OFFICE: (919) 661-6351  
www.tepgroup.net  
N.C. LICENSE # P-1403

SEAL:



February 16, 2021

0	02-16-21	100% CONSTRUCTION
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REV	DATE	ISSUED FOR:

DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:

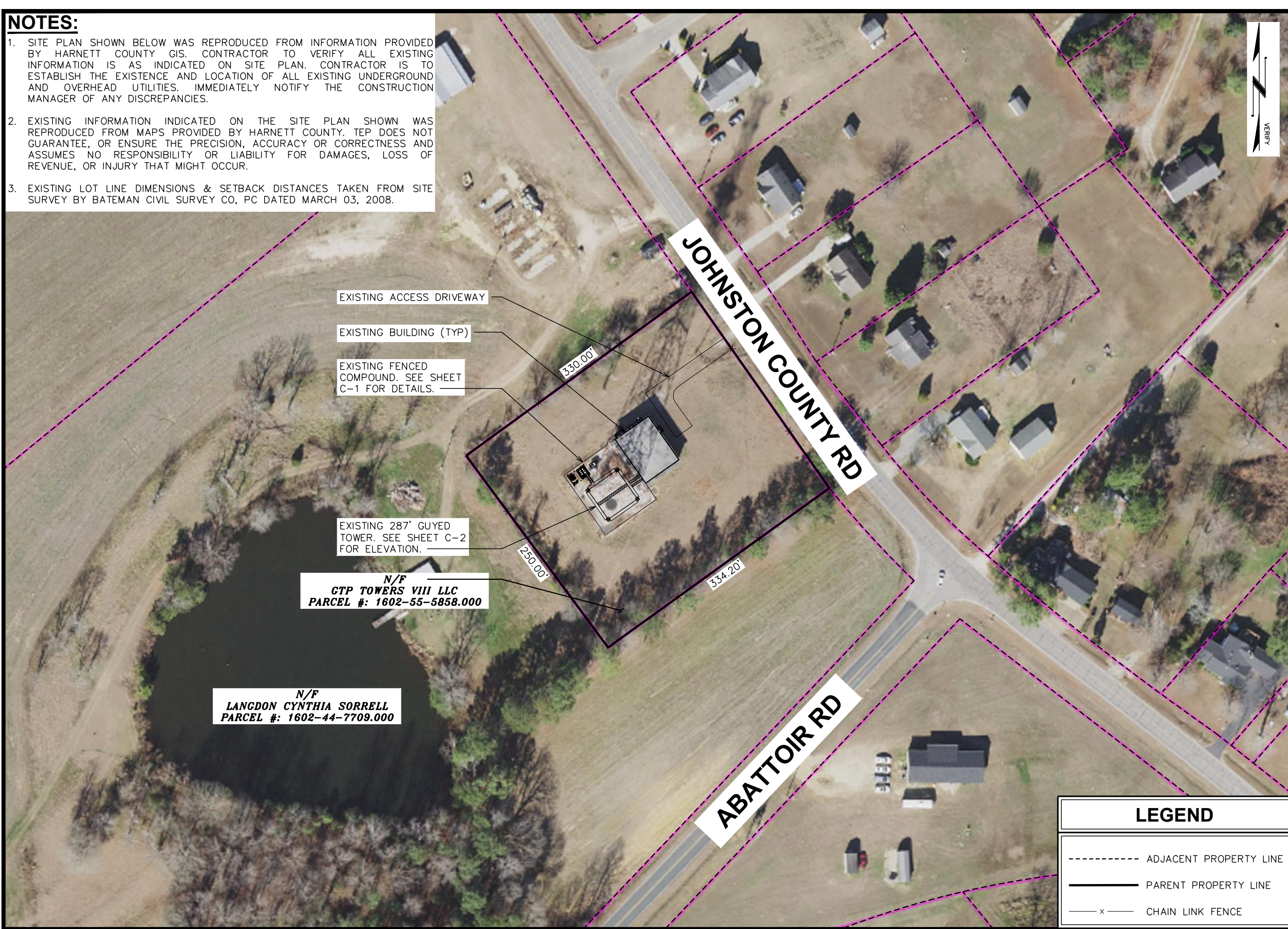
**GENERAL NOTES**

SHEET NUMBER: **N-1** REVISION: **0**

TEP#: 55699.245455

**NOTES:**

1. SITE PLAN SHOWN BELOW WAS REPRODUCED FROM INFORMATION PROVIDED BY HARNETT COUNTY GIS. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
2. EXISTING INFORMATION INDICATED ON THE SITE PLAN SHOWN WAS REPRODUCED FROM MAPS PROVIDED BY HARNETT COUNTY. TEP DOES NOT GUARANTEE, OR ENSURE THE PRECISION, ACCURACY OR CORRECTNESS AND ASSUMES NO RESPONSIBILITY OR LIABILITY FOR DAMAGES, LOSS OF REVENUE, OR INJURY THAT MIGHT OCCUR.
3. EXISTING LOT LINE DIMENSIONS & SETBACK DISTANCES TAKEN FROM SITE SURVEY BY BATEMAN CIVIL SURVEY CO, PC DATED MARCH 03, 2008.



EXISTING ACCESS DRIVEWAY

EXISTING BUILDING (TYP)

EXISTING FENCED COMPOUND. SEE SHEET C-1 FOR DETAILS.

EXISTING 287' GUYED TOWER. SEE SHEET C-2 FOR ELEVATION.

N/F  
GTP TOWERS VIII LLC  
PARCEL #: 1602-55-5858.000

N/F  
LANGDON CYNTHIA SORRELL  
PARCEL #: 1602-44-7709.000

330.00'

250.00'

334.20'

JOHNSTON COUNTY RD

ABATTOIR RD



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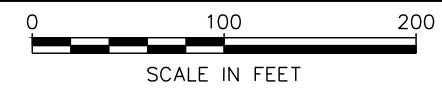
**SITE PLAN**

SHEET NUMBER: **SP-1** REVISION: **0**

TEP#: 55699.245455

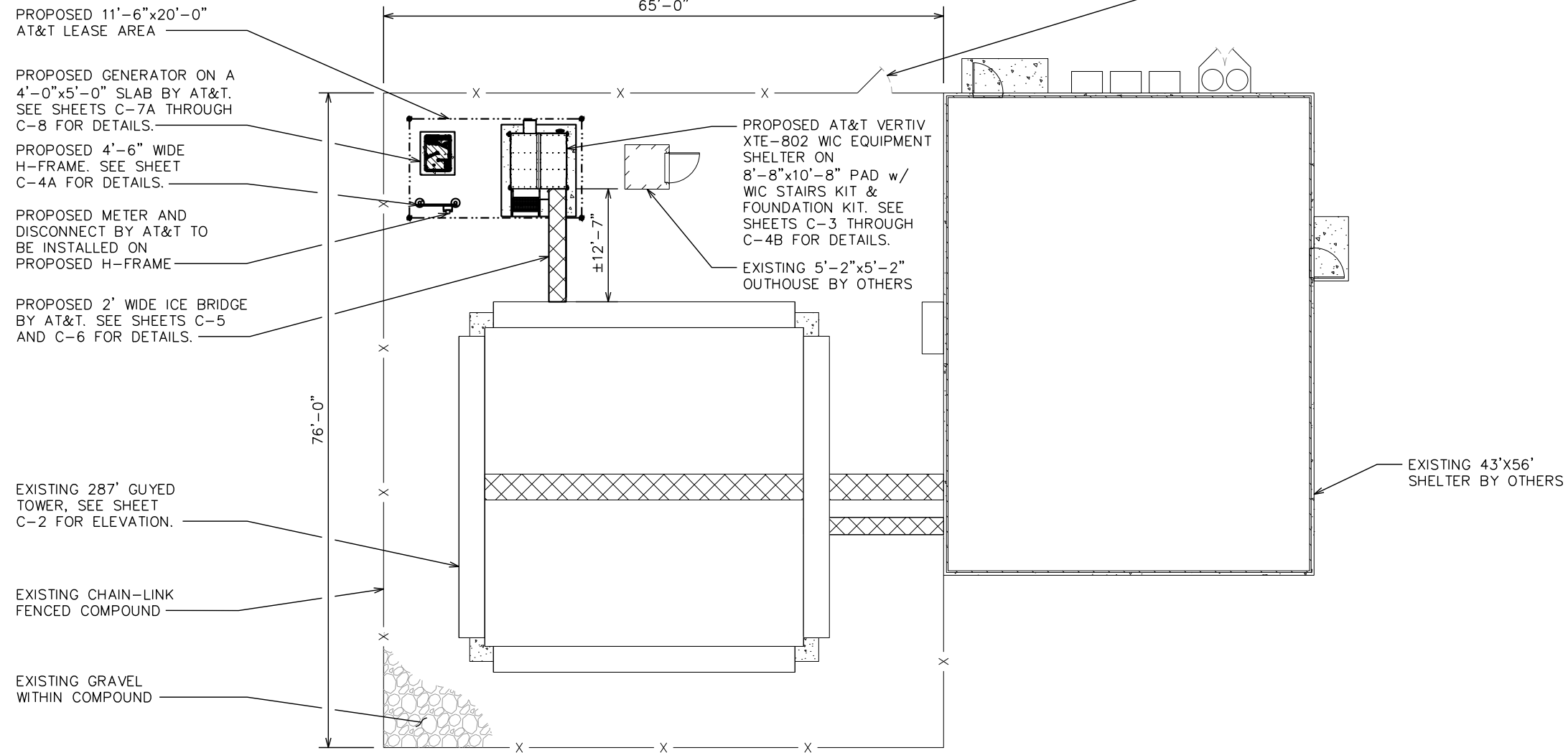
**LEGEND**

----- ADJACENT PROPERTY LINE  
 \_\_\_\_\_ PARENT PROPERTY LINE  
 — x — CHAIN LINK FENCE



**SITE PLAN**  
SCALE: 1" = 100'





PROPOSED 11'-6" x 20'-0"  
AT&T LEASE AREA

PROPOSED GENERATOR ON A  
4'-0" x 5'-0" SLAB BY AT&T.  
SEE SHEETS C-7A THROUGH  
C-8 FOR DETAILS.

PROPOSED 4'-6" WIDE  
H-FRAME. SEE SHEET  
C-4A FOR DETAILS.

PROPOSED METER AND  
DISCONNECT BY AT&T TO  
BE INSTALLED ON  
PROPOSED H-FRAME

PROPOSED 2' WIDE ICE BRIDGE  
BY AT&T. SEE SHEETS C-5  
AND C-6 FOR DETAILS.

EXISTING 287' GUYED  
TOWER, SEE SHEET  
C-2 FOR ELEVATION.

EXISTING CHAIN-LINK  
FENCED COMPOUND

EXISTING GRAVEL  
WITHIN COMPOUND

65'-0"

76'-0"

PROPOSED AT&T VERTIV  
XTE-802 WIC EQUIPMENT  
SHELTER ON  
8'-8" x 10'-8" PAD w/  
WIC STAIRS KIT &  
FOUNDATION KIT. SEE  
SHEETS C-3 THROUGH  
C-4B FOR DETAILS.

EXISTING 5'-2" x 5'-2"  
OUTHOUSE BY OTHERS

EXISTING 4'-0"  
WIDE ACCESS GATE

EXISTING 43' x 56'  
SHELTER BY OTHERS

PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300  
GREENSBORO, NC 27455

PLANS PREPARED FOR:



AMERICAN TOWER®  
3500 REGENCY PKWY #100  
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PROJECT INFORMATION:

**AT&T SITE NAME: 368-754**

**AT&T FA CODE: 12682186**

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SHEET TITLE:

**PROPOSED  
COMPOUND DETAIL**

SHEET NUMBER:

**C-1**

REVISION:

**0**

TEP#: 55699.245455

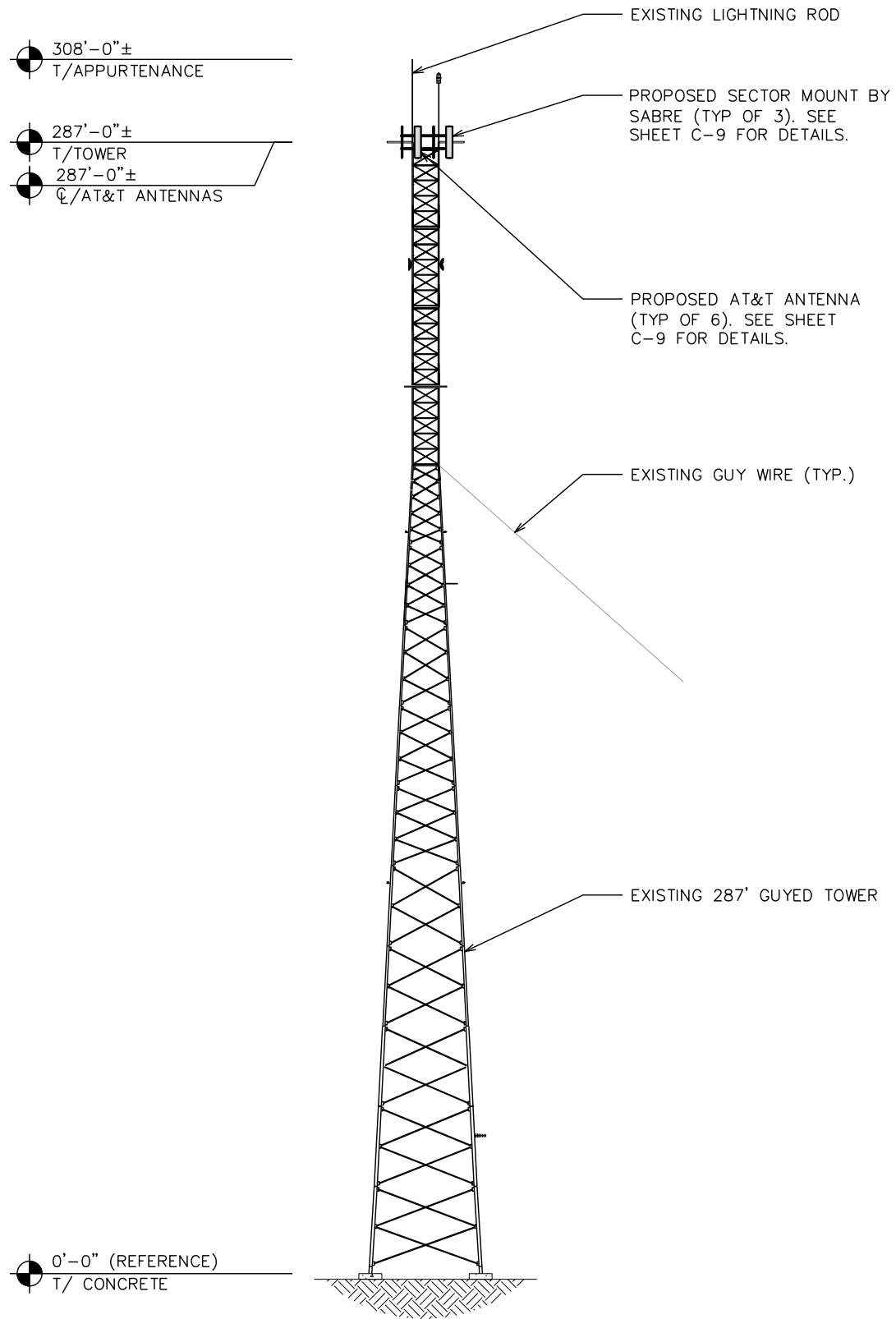
**PROPOSED COMPOUND DETAIL**

SCALE: 1/16" = 1'-0"



**NOTES:**

1. PROPOSED CABLES TO BE ROUTED PER SPECIFICATIONS OF STRUCTURAL ANALYSIS.
2. TOWER DRAWING IS ONLY A GRAPHIC REPRESENTATION OF THE STRUCTURE. THE ACTUAL TANK IN THE FIELD MAY VARY.



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PROJECT INFORMATION:

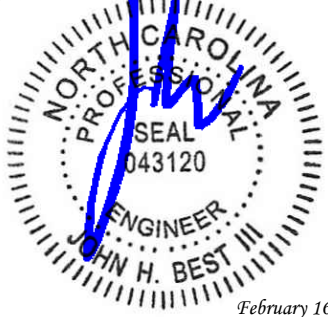
**AT&T SITE NAME: 368-754**  
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SHEET TITLE:

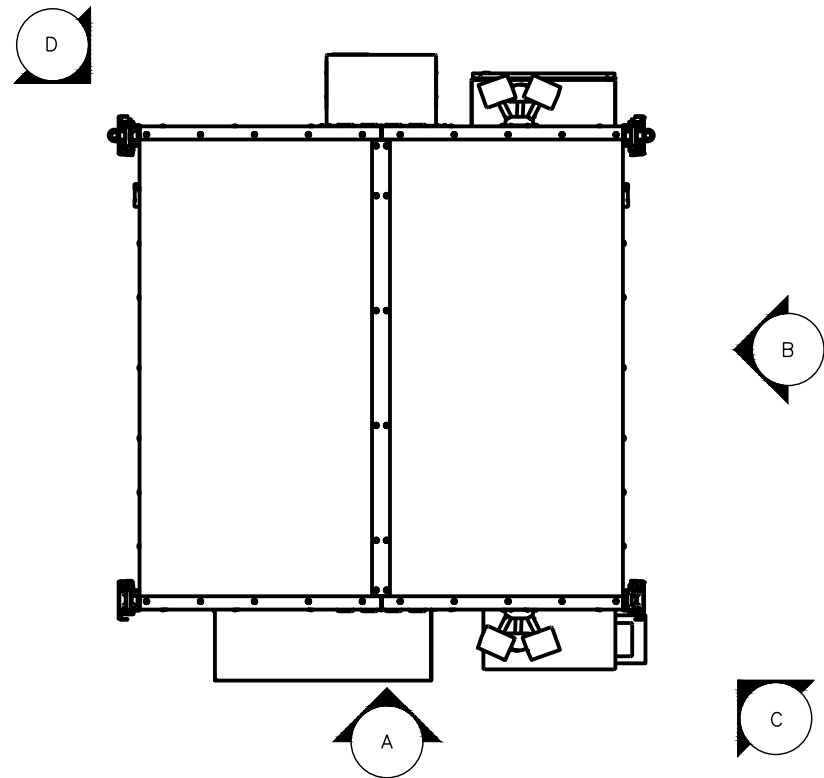
**TOWER ELEVATION**

SHEET NUMBER: **C-2** REVISION: **0**  
TEP#: 55699.245455

**TOWER ELEVATION**

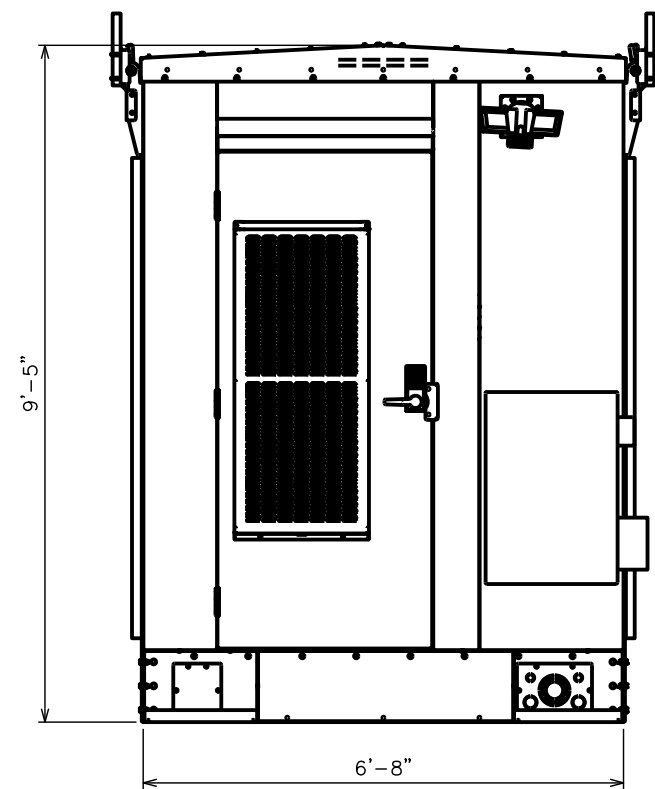
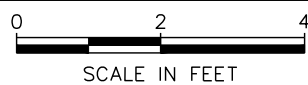
SCALE: 1" = 40'-0"





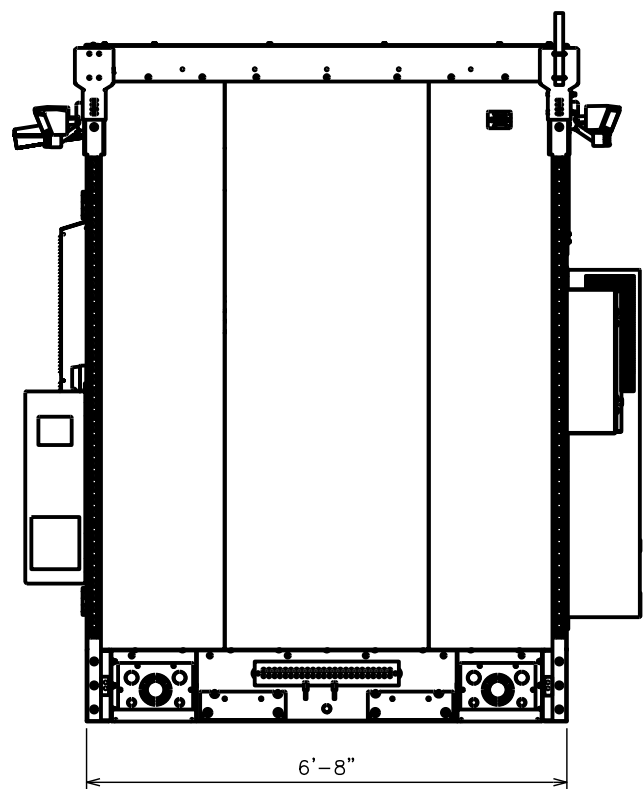
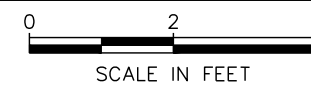
**EQUIPMENT LAYOUT**

SCALE: 3/8" = 1'-0"



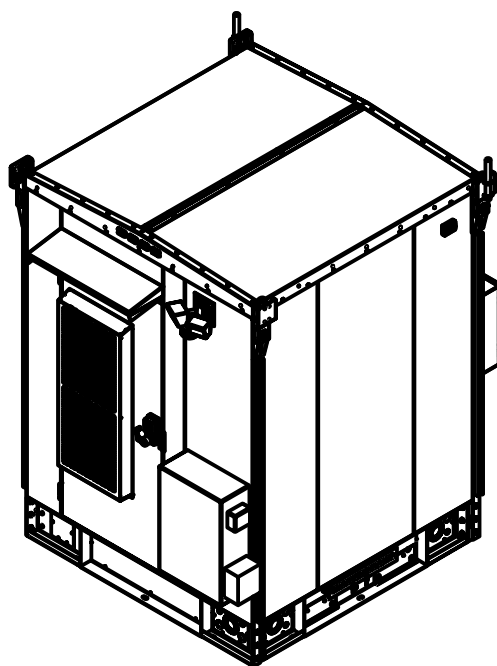
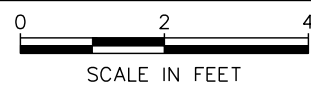
**ELEVATION A**

SCALE: 3/8" = 1'-0"



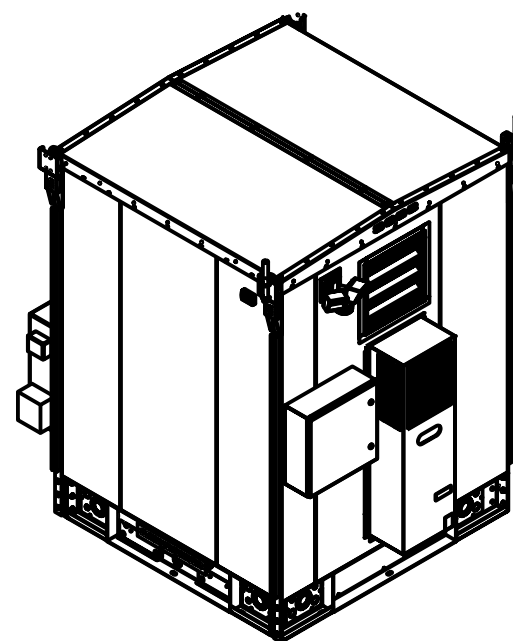
**ELEVATION B**

SCALE: 3/8" = 1'-0"



**ELEVATION C**

SCALE: 1/4" = 1'-0"



**ELEVATION D**

SCALE: 1/4" = 1'-0"



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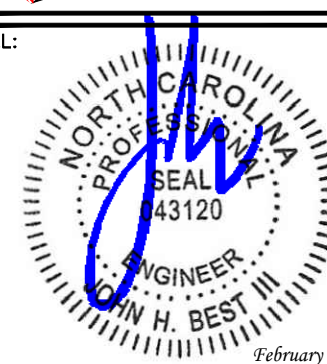
**AT&T SITE NAME: 368-754**  
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DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:

**WIC  
ELEVATIONS**

SHEET NUMBER:

**C-3**

REVISION:

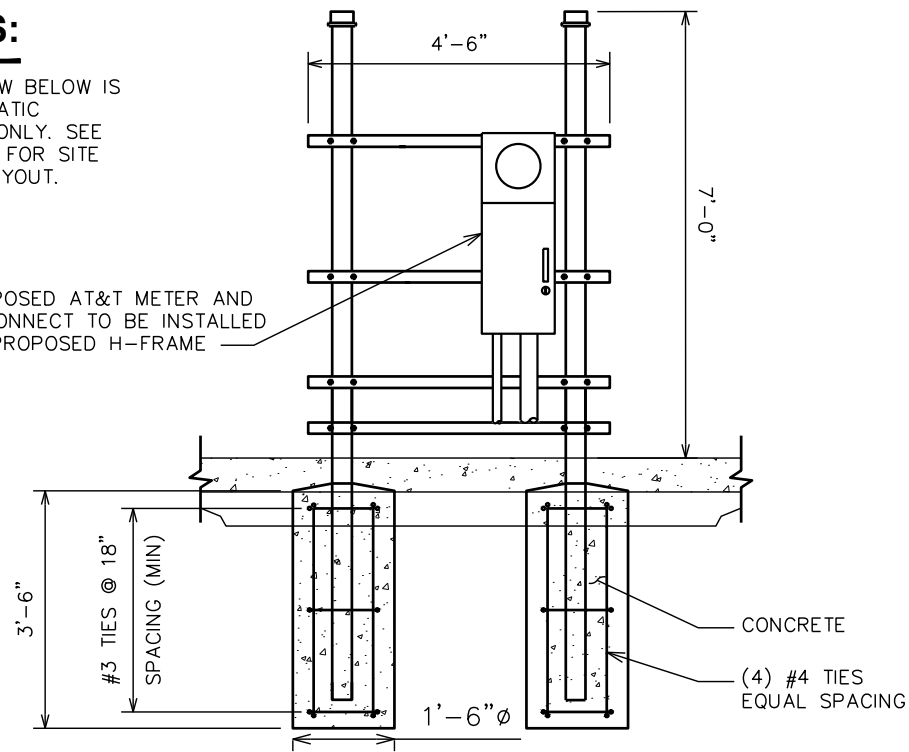
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TEP#: 55699.245455

**NOTES:**

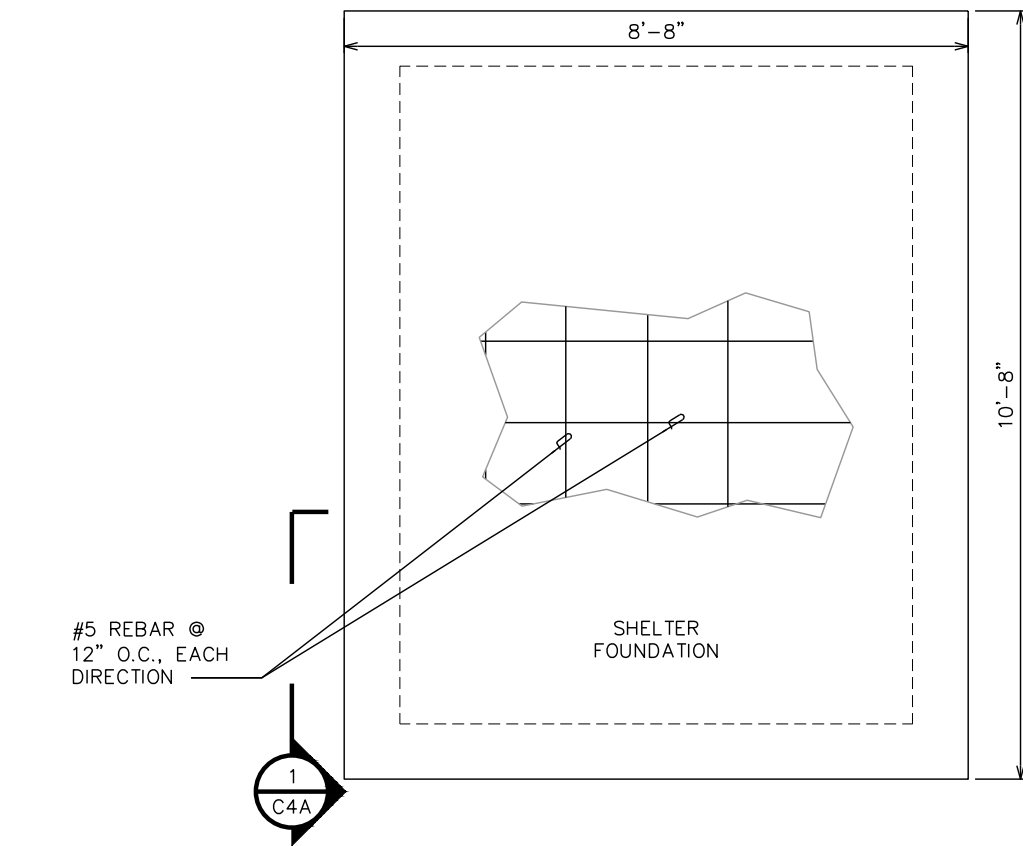
DETAIL SHOW BELOW IS FOR SCHEMATIC PURPOSES ONLY. SEE SHEET C-3 FOR SITE SPECIFIC LAYOUT.

PROPOSED AT&T METER AND DISCONNECT TO BE INSTALLED ON PROPOSED H-FRAME



**H-FRAME DETAIL**

SCALE: N.T.S.



**FOUNDATION PLAN**

SCALE: N.T.S.

**GENERAL STRUCTURAL NOTES:**

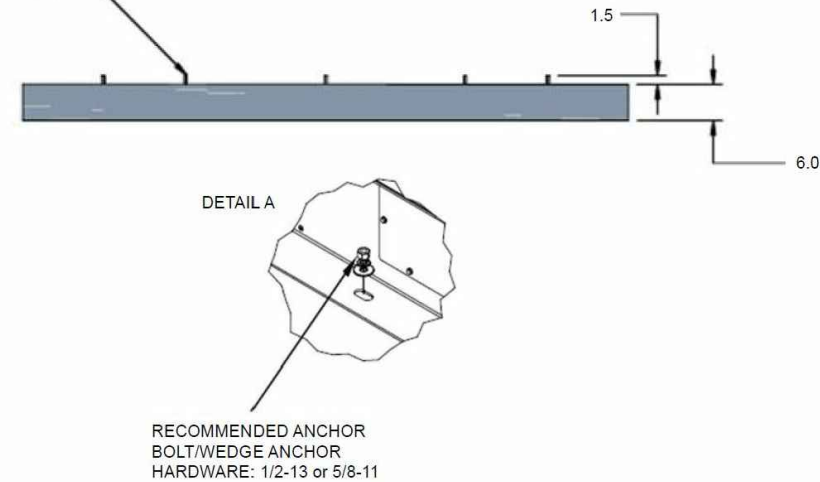
SPECIFICATION/CODES:

1. CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE ACI CODE.
2. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE".
3. DESIGN SHALL BE PER NORTH CAROLINA BUILDING CODE, 2018 EDITION.

**FOUNDATION NOTES:**

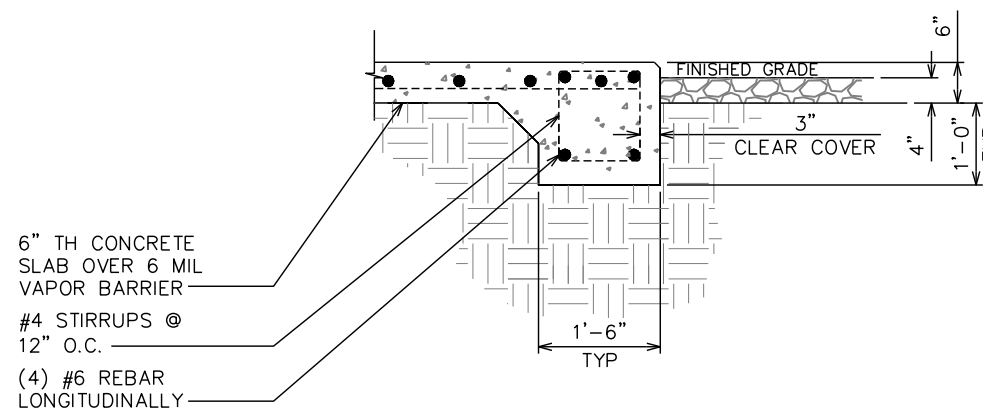
1. FOUNDATION DESIGN BASED ON 2,000 PSF SOIL BEARING CAPACITY.
2. CONCRETE SHALL BE 3,000 PSI @ 28 DAYS.
3. REINFORCING STEEL  $F_y = 60,000$  PSI.
4. ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTOR METHOD.
5. SURFACE OF FINISHED SLAB SHALL BE LEVEL AND FLAT WITHIN  $\frac{1}{4}$ ".
6. CONTRACTOR SHALL VERIFY WITH MANUFACTURER ACTUAL DIMENSIONS OF EQUIPMENT PRIOR TO LAYING OUT FOUNDATION.
7. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318-14.

ANCHOR BOLT SHOWN. WEDGE TYPE ANCHOR IS ALSO ACCEPTABLE.



**CONNECTION DETAIL**

SCALE: N.T.S.



**SHELTER FOUNDATION SECTION CUT DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300  
GREENSBORO, NC 27455

PLANS PREPARED FOR:



3500 REGENCY PKWY #100  
CARY, NC 27518

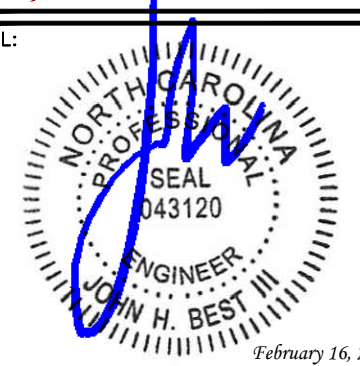
PROJECT INFORMATION:

**AT&T SITE NAME: 368-754**  
**AT&T FA CODE: 12682186**  
**AT&T PACE#:**  
**MRCAR033546**  
**ATC #: 372926**  
**ANGIER**  
2135 JOHNSTON COUNTY RD  
ANGIER, NC 27501  
(HARNETT COUNTY)  
EXISTING 287' GUYED TOWER

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603-3530  
OFFICE: (919) 661-6351  
www.tepgroup.net  
N.C. LICENSE # P-1403

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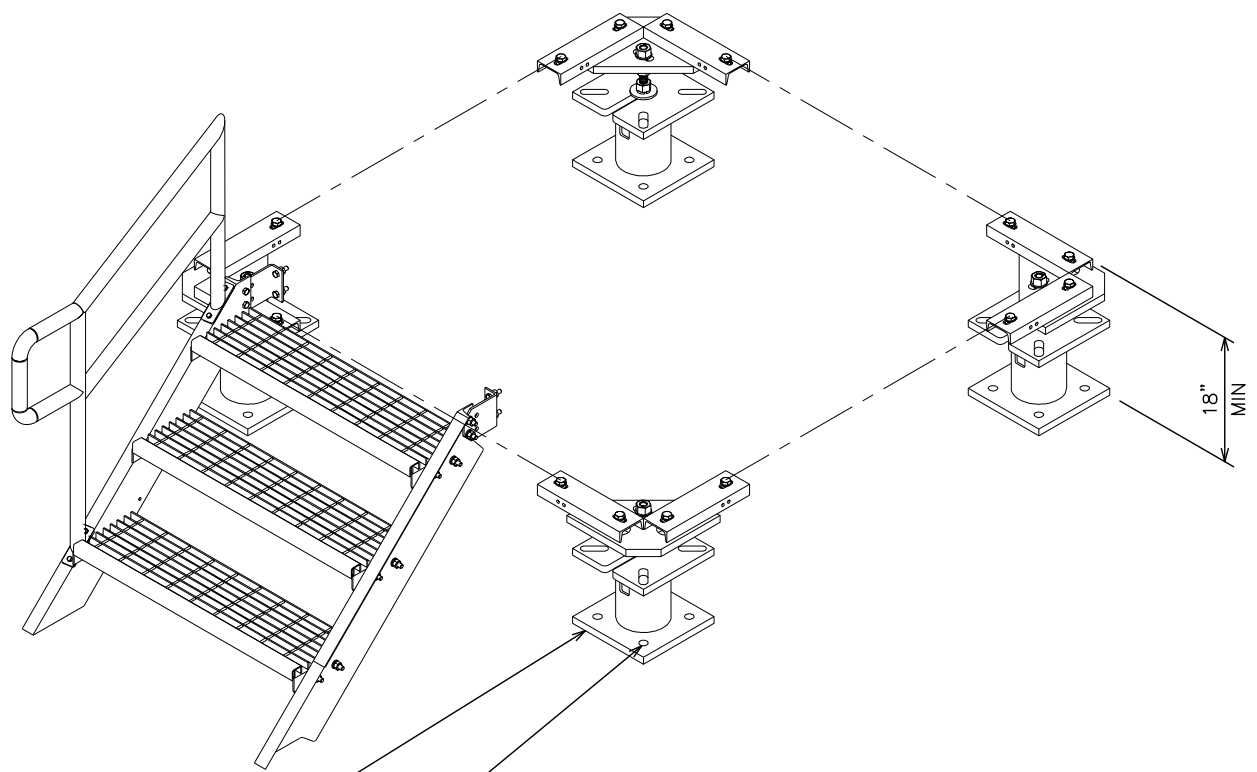
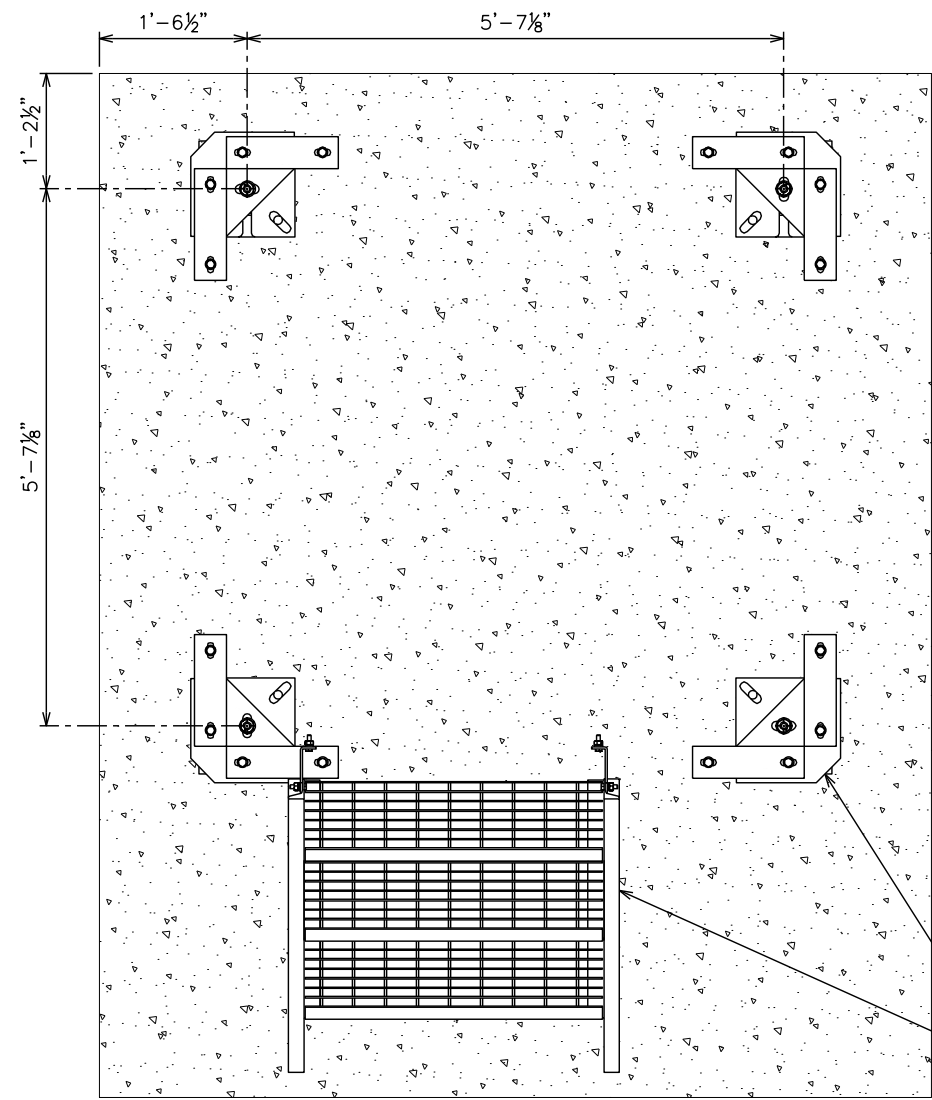


0	02-16-21	100% CONSTRUCTION
A	12-28-20	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:  
**FOUNDATION DETAILS I**

SHEET NUMBER: **C-4A** REVISION: **0**  
TEP#: 55699.245455



SUPPORT LEG (TYP)  
 STAIRS W/ HANDRAIL  
 5/8"Ø HILTI KWIK BOLT  
 TZ-SS304 ANCHOR  
 BOLT W/ 4" EMBEDMENT  
 (TYP OF ALL ANCHORS)

**NOTES:**

1. CONTRACTOR TO REFER TO MANUFACTURER'S SPECIFICATIONS FOR FURTHER DETAILS.
2. INSTALL FOUNDATION KIT PER MANUFACTURER'S SPECIFICATIONS.
3. CONTRACTOR TO ENSURE MINIMUM 18" CLEARANCE FROM TOP OF FOUNDATION TO BASE OF WIC SHELTER.
4. DETAILS SHOWN ON THIS PAGE WERE PROVIDED BY OTHERS AND ARE NOT DESIGNED NOR CARRIED UNDER SIGNATURE AND SEAL OF TOWER ENGINEERING PROFESSIONALS' ENGINEERING SERVICES AND/OR ITS ENGINEERS.


**WIC CONCRETE MOUNT FOUNDATION KIT DETAILS**


SCALE: N.T.S.

PLANS PREPARED FOR:  
  
 2002 PISGAH CHURCH ROAD, SUITE 300  
 GREENSBORO, NC 27455

PLANS PREPARED FOR:  
  
**AMERICAN TOWER**  
 3500 REGENCY PKWY #100  
 CARY, NC 27518

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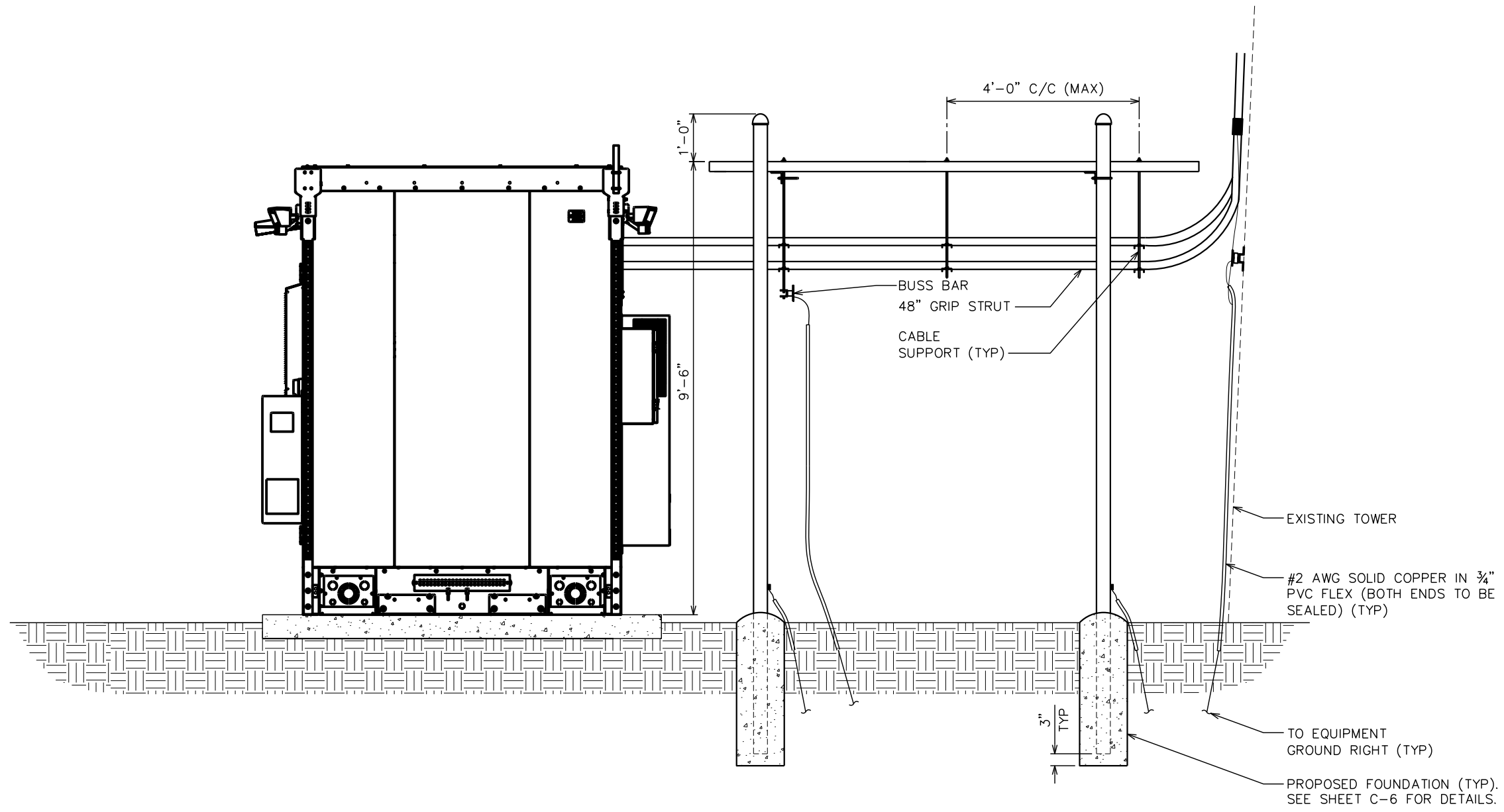
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REV	DATE	ISSUED FOR:

DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:  
**FOUNDATION  
 DETAILS II**


SHEET NUMBER: **C-4B** REVISION: **0**  
 TEP#: 55699.245455




PLANS PREPARED FOR:  
  
 2002 PISGAH CHURCH ROAD, SUITE 300  
 GREENSBORO, NC 27455

PLANS PREPARED FOR:  
  
**AMERICAN TOWER®**  
 3500 REGENCY PKWY #100  
 CARY, NC 27518

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**ATC #: 372926**  
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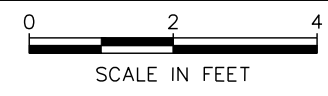
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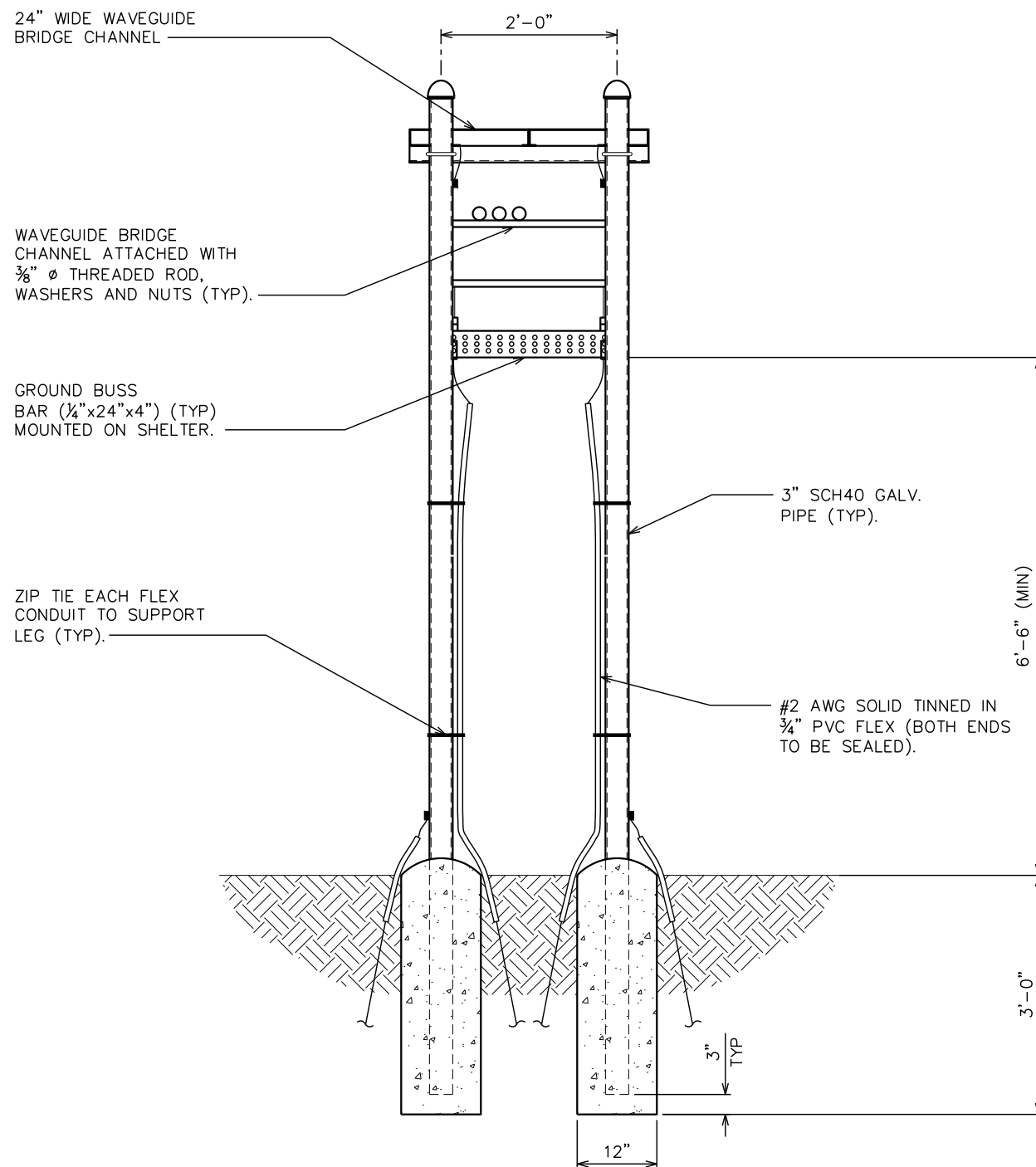
DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:  
**ICE BRIDGE DETAILS I**

SHEET NUMBER: **C-5** REVISION: **0**  
 TEP#: 55699.245455

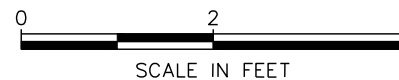
**ICE BRIDGE DETAILS - SIDE VIEW**  
 SCALE: 3/8" = 1'-0"





**ICE BRIDGE DETAILS - FRONT VIEW**

SCALE: 1/2" = 1'-0"



PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300  
GREENSBORO, NC 27455

PLANS PREPARED FOR:



AMERICAN TOWER®  
3500 REGENCY PKWY #100  
CARY, NC 27518

PROJECT INFORMATION:

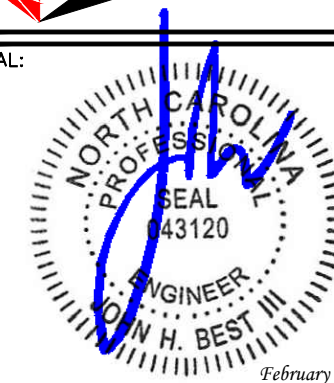
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SHEET TITLE:

**ICE BRIDGE  
DETAILS II**

SHEET NUMBER:

**C-6**

REVISION:

**0**

TEP#: 55699.245455

**SDC20 | 2.5L | 20 kW - AC**  
**INDUSTRIAL DIESEL GENERATOR SET**

EPA Certified Stationary Emergency



Model G007098-0 (Steel)

**Standby Power Rating**  
 20 kW AC, 60 Hz



Image used for illustration purposes only



**Codes and Standards**

Generac products are designed to the following standards:

UL2200, UL508, UL142, UL489

NFPA 37, 70, 99, 110

NEC700, 701, 702, 708

ISO 3046, 7637, 8528, 9001

NEMA ICS10, MG1, 250, ICS6, AB1

ANSI C62.41

**Powering Ahead**

For over 50 years, Generac has provided innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial applications under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

SPEC SHEET  
1 of 5

**SDC20 | 2.5L | 20 kW - AC**

**INDUSTRIAL DIESEL GENERATOR SET**

EPA Certified Stationary Emergency



Model G007098-0 (Steel)

**STANDARD FEATURES**

**ENGINE SYSTEM**

- Oil Drain Extension
- Air Cleaner with Service Indicator
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Exhaust Silencer with Drain
- Factory Filled Oil & Coolant

**Fuel System**

- Primary Fuel Filter

**Cooling System**

- 120V AC Coolant Heater
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- Radiator Drain Extension

**Electrical System**

- Battery Charging Alternator
- AGM Spill Proof Battery
- Battery Cables
- Sealed/Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor
- Output Circuit Breaker

**ALTERNATOR SYSTEM**

- Class H Insulation Material
- Vented Rotor
- 2/3 Pitch
- Skewed Stator
- Amortisseur Winding
- Brushless Excitation
- Sealed Bearings
- Rotor Dynamically Spin Balanced
- Full Load Capacity Alternator
- Protective Thermal Shutdown

**GENERATOR SET**

- Single Side Service
- Internal Genset Vibration Isolators
- Separation of Circuits- High/Low Voltage
- Silencer Heat Shield
- High Heat Wrapped Exhaust Piping
- Silencer Enclosed Within Generator
- 5 Year Extended Warranty
- Extended Factory Testing
- 12 Gallon System Spill Containment
- 2.5 Gallon Fuel Fill Spill Containment

**ENCLOSURE**

- Serviceable Items Accessible Through Lift-Off Door
- High Performance Sound-Absorbing Material
- Gasketed Door
- Stamped Air-Intake Louvers
- Single Door Latch Lockable with Key & Padlock
- Rhino Coat™ - Textured Polyester Powder Coat
- 150 MPH Wind Rating
- 36" Snow Rating

**FUEL TANK**

- UL 142 Compliant
- Double Wall Construction
- Factory Pressure Tested (5 psi)
- Rupture Basin Alarm
- Fuel Level Gauge and Sender
- Check Valve in Supply Line
- Rhino Coat™ - Textured Polyester Powder Coat
- Stainless Steel Hardware
- Integrated Fork Pockets

**CONTROL SYSTEM**

- Digital H Control Panel - Dual 4x20 Display
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232/485 Communications
- All-Phase Sensing Voltage Regulator
- Full System Status
- 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage

- Frequency
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/Sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground Connections
- 15 Channel Data Logging
- 0.2 msec High Speed Data Logging
- Alarm Information Automatically Comes Up On the Display

**Alarms**

**MODEL OPTIONS**

**CONTROL SYSTEM**

- 21 Light Annunciator- Shipped Loose Kit and Field Installed
- External E-Stop-Shipped Loose Kit and Field Installed

**ENCLOSURE**

- Aluminum Enclosure
- Extreme Cold Weather Kit - Shipped Loose Kit and Field Installed

**TANKS**

- External Fuel Vent- Shipped Loose Kit and Field Installed

SPEC SHEET  
2 of 5

PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300  
 GREENSBORO, NC 27455

PLANS PREPARED FOR:



3500 REGENCY PKWY #100  
 CARY, NC 27518

PROJECT INFORMATION:

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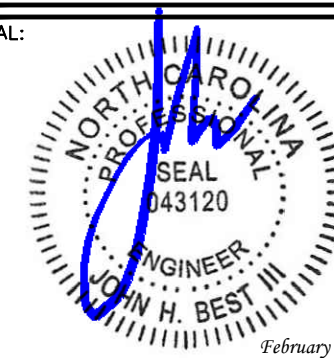
EXISTING 287' GUYED TOWER

PLANS PREPARED BY:

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326 TRYON ROAD  
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SEAL:



0	02-16-21	100% CONSTRUCTION
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DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:  
**GENERATOR SPECIFICATIONS I**

SHEET NUMBER: **C-7A** REVISION: **0**  
 TEP#: 55699.245455

**GENERATOR SPECIFICATIONS**

SCALE: N.T.S.



# SDC20 | 2.5L | 20 kW - AC INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

## APPLICATION AND ENGINEERING DATA

### ENGINE SPECIFICATIONS

General		Cooling System	
Make	Mitsubishi	Cooling System Type	Forced Circulation
EPA Emissions Compliance	Interim Tier 4	Water Pump Type	Centrifugal Pump
Cylinder #	4	Fan Type	Pusher
Type	In-Line	Fan Speed (rpm)	2100
Displacement - L (Cu In)	2.5 (158)	Fan Diameter - mm (in)	431.8 (17)
Bore - mm (in)	88 (3.5)	Coolant Heater Wattage	1000
Stroke - mm (in)	103 (4.1)	Coolant Heater Voltage	120
Compression Ratio	22:1		
Intake Air Method	Naturally Aspirated		
Engine Governing		Fuel System	
Governor	Electronic Isochronous	Fuel Type	Ultra Low Sulfur Diesel #2
Frequency Regulation (Steady State)	± 0.25%	Fuel Specifications	ASTM
		Fuel Filtering (microns)	6
		Fuel Inject Pump Make	Bosch
		Injector Type	Engine Driven Gear
		Engine Type	Diesel
		Fuel Supply Line - mm (in.)	6.6 (0.26)
Lubrication System		Engine Electrical System	
Oil Pump Type	Trochoid Gear Pump	System Voltage	12 VDC
Oil Filter Type	Filtering Paper, Full Flow	Battery Charger Alternator	12V-50A
Crankcase Capacity - L (qts)	6.5 (6.9)	Battery Size	650 CCA
		Battery Group	35
		Battery Voltage	12 VDC
		Ground Polarity	Negative

### ALTERNATOR SPECIFICATIONS

Standard Model	Mecc Alte ECP 28-2L/4	Bearings	Dual Sealed
Poles	4	Coupling	Belt, Pulley
Field Type	Revolving	Load Capacity - Standby	100%
Insulation Class - Rotor	H	Prototype Short Circuit Test	Yes
Insulation Class - Stator	H	Voltage Regulator Type	Digital
Total Harmonic Distortion	<5%	Number of Sensed Phases	All
Telephone Interference Factor (TIF)	<45	Regulation Accuracy (Steady State)	±0.5%
Standard Excitation	Brushless		

### RATING DEFINITIONS

Standby - Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.

**GENERAC** | INDUSTRIAL POWER

Model G007098-0 (Steel)

# SDC20 | 2.5L | 20 kW - AC

## INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

**GENERAC** | INDUSTRIAL POWER

Model G007098-0 (Steel)

### OPERATING DATA

#### POWER RATINGS

Single-Phase 120/240 VAC @1.0pf	20 kW	Amps: 83
Circuit Breaker Size	100A	

#### FUEL CONSUMPTION RATES\*

Percent Load	Diesel - gph (lph)	
	Standby	
25%	0.74 (2.80)	
50%	0.99 (3.75)	
75%	1.41 (5.30)	
100%	1.90 (7.19)	

\* Fuel supply installation must accommodate fuel consumption rates at 100% load.

#### COOLING

		Standby
Coolant Flow per Minute	gpm (lpm)	11.9 (45)
Coolant System Capacity	gal (L)	3.5 (13.2)
Heat Rejection to Coolant	BTU/hr	238,200
Inlet Air	cfm (m³/min)	2365 (67)
Max. Operating Ambient Temperature (Before Derate)	°F (°C)	77° (25°)
Maximum Radiator Backpressure	in H <sub>2</sub> O	0.50

#### COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power cfm (m³/min)	88 (2.49)

#### ENGINE

		Standby
Rated Engine Speed	rpm	1800
Horsepower at Rated kW**	hp	33.5
Piston Speed	ft/min	1220.47
BMEP	psi	96.5

#### EXHAUST

		Standby
Exhaust Flow (Rated Output)	cfm (m³/min)	193 (328)
Max. Backpressure (Post Silencer)	inHg (kPa)	1.38 (4.67)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	928 (497.7)

\*\* Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Deration - Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300  
GREENSBORO, NC 27455

PLANS PREPARED FOR:



3500 REGENCY PKWY #100  
CARY, NC 27518

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DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:

**GENERATOR SPECIFICATIONS II**

SHEET NUMBER: REVISION:

**C-7B**

0

TEP#: 55699.245455

# GENERATOR SPECIFICATIONS

SCALE: N.T.S.

SPEC SHEET

3 of 5

SPEC SHEET

4 of 5

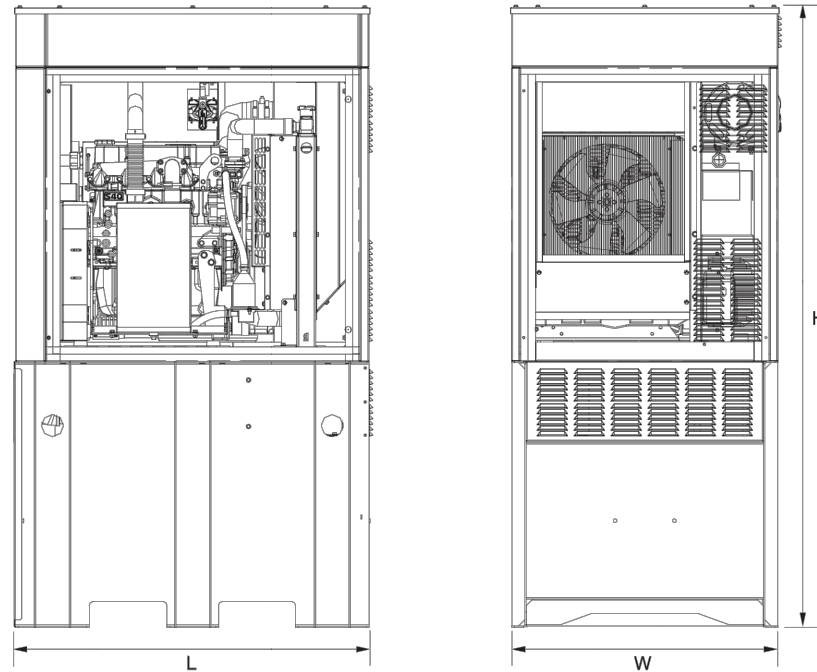
**SDC20 | 2.5L | 20 kW - AC**  
**INDUSTRIAL DIESEL GENERATOR SET**

EPA Certified Stationary Emergency

**DIMENSIONS AND WEIGHTS\***

**GENERAC** | INDUSTRIAL  
**POWER**

Model G007098-0 (Steel)



**Level 2 Sound Attenuation Enclosure**

Run Time Hours	48
Usable Capacity Gal (L)	92 (348.2)
L x W x H in (mm)	48 x 36 x 90 (1219.2 x 914.4 x 2286)
Weight lbs (kg)	2400 (1089)
Sound Level	71 dBA

\* All measurements are approximate and for estimation purposes only.

**YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER**

**SDC20 | 2.5L | 20 kW - AC**  
**INDUSTRIAL DIESEL GENERATOR SET**  
 EPA Certified Stationary Emergency

**GENERAC** | INDUSTRIAL  
**POWER**

Model G007098-0 (Steel)

PLANS PREPARED FOR:



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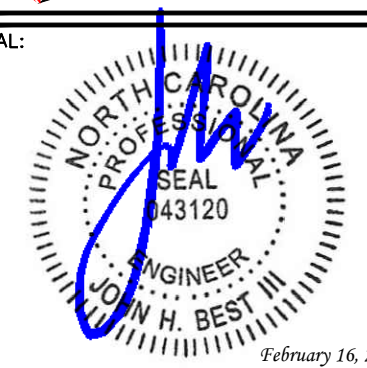
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SHEET TITLE:

**GENERATOR SPECIFICATIONS III**

SHEET NUMBER: **C-7C** | REVISION: **0**  
 TEP#: 55699.245455

SPEC SHEET

5 of 5

SPEC SHEET

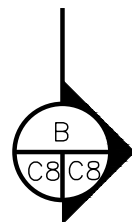
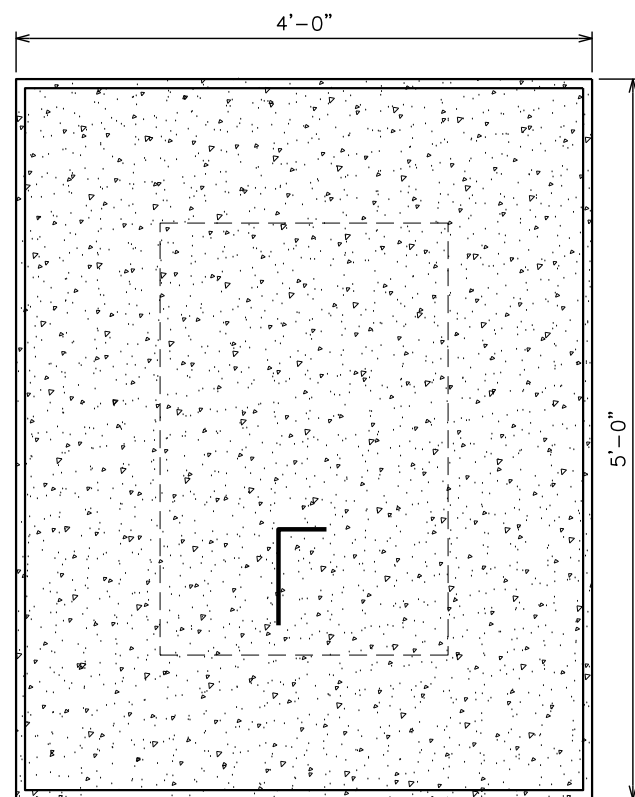
6 of 5

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

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 P: (262) 544-4811 ©2016 Generac Power Systems, Inc. All rights reserved. All specifications are subject to change without notice. | Rev. WIP 11/04/16

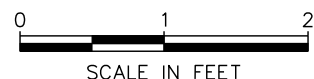
**GENERATOR SPECIFICATIONS**

SCALE: N.T.S.



**GENERATOR FOUNDATION**

SCALE: 3/4" = 1'-0"



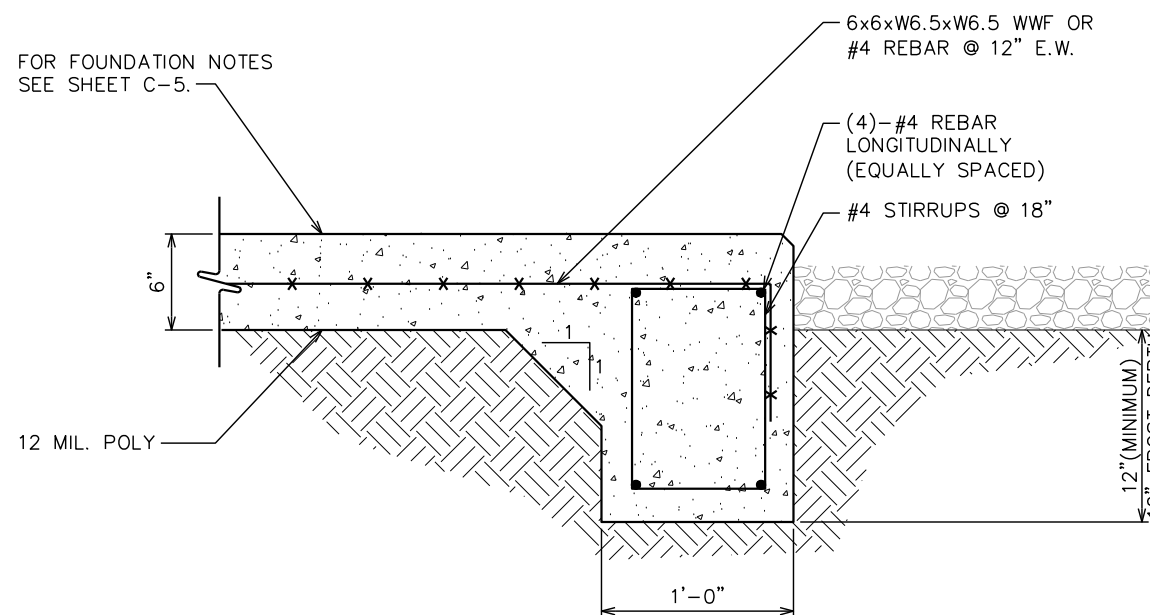
**NOTE:**

THESE PLACARDS ARE REQUIRED TO BE INSTALLED ON PROPOSED GENERATOR FREE OF ANY OBSTRUCTION AS TO BE CLEARLY VISIBLE WITHIN COMPOUND



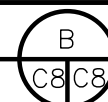
**PROPOSED GENERATOR SIGNAGE**

SCALE: N.T.S.



**SECTION**

SCALE: 1" = 1'-0"



PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300 GREENSBORO, NC 27455

PLANS PREPARED FOR:



AMERICAN TOWER®  
3500 REGENCY PKWY #100 CARY, NC 27518

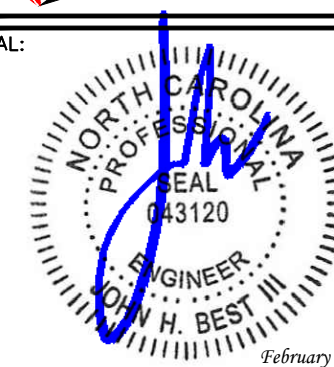
PROJECT INFORMATION:

**AT&T SITE NAME: 368-754**  
**AT&T FA CODE: 12682186**  
**AT&T PACE#:**  
**MRCAR033546**  
**ATC #: 372926**  
**ANGIER**  
2135 JOHNSTON COUNTY RD  
ANGIER, NC 27501  
(HARNETT COUNTY)  
EXISTING 287' GUYED TOWER

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603-3530  
OFFICE: (919) 661-6351  
www.tepgroup.net  
N.C. LICENSE # P-1403

SEAL:



0	02-16-21	100% CONSTRUCTION
A	12-28-20	PRELIMINARY
REV	DATE	ISSUED FOR:

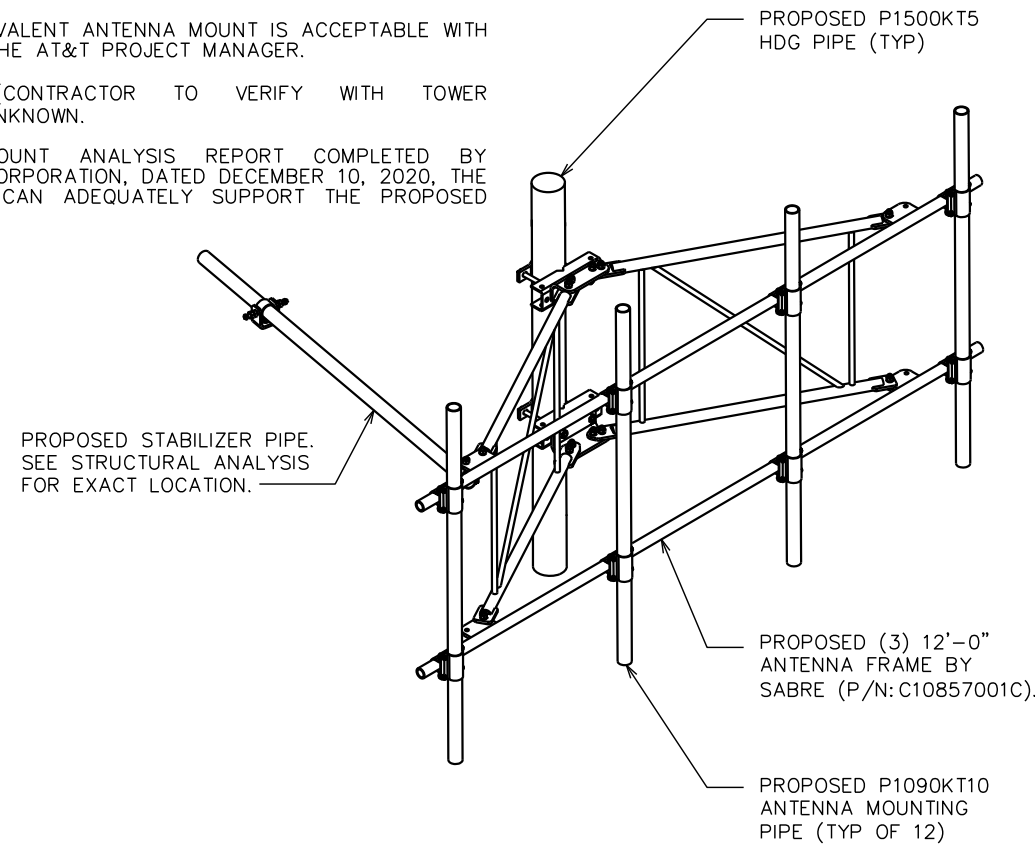
DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:  
**GENERATOR FOUNDATION & SIGNAGE DETAILS**

SHEET NUMBER: **C-8** REVISION: **0**  
TEP#: 55699.245455

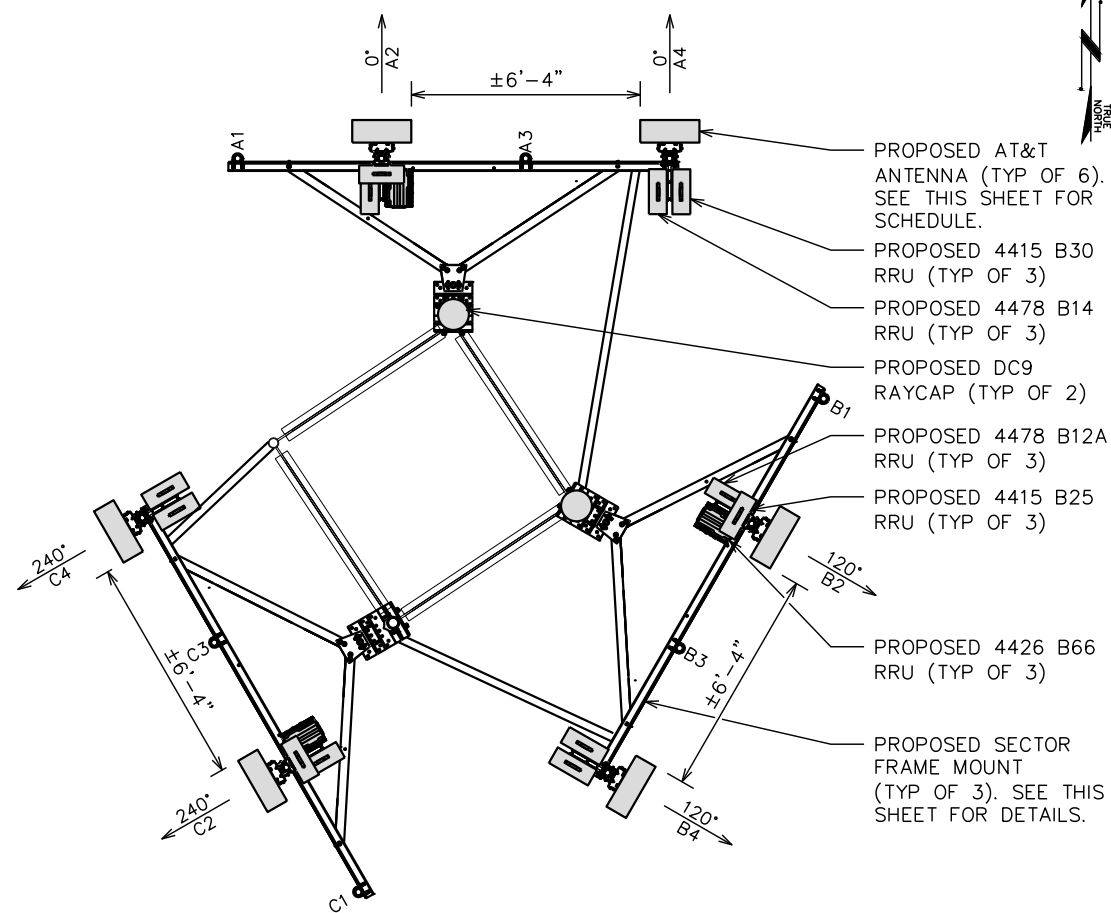
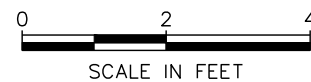
**NOTES:**

1. AN APPROVED EQUIVALENT ANTENNA MOUNT IS ACCEPTABLE WITH APPROVAL FROM THE AT&T PROJECT MANAGER.
2. LEG DIAMETER (CONTRACTOR TO VERIFY WITH TOWER MANUFACTURER): UNKNOWN.
3. PER ANTENNA MOUNT ANALYSIS REPORT COMPLETED BY AMERICAN TOWER CORPORATION, DATED DECEMBER 10, 2020, THE PROPOSED MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



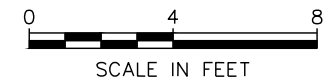
**PROPOSED MOUNT DETAIL**

SCALE: 3/8" = 1'-0"



**PROPOSED ANTENNA ORIENTATION**

SCALE: 3/16" = 1'-0"



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CARY, NC 27518

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**GENERAL NOTES:**

1. THIS ANTENNA ORIENTATION PLAN IS A SCHEMATIC. THE CONTRACTOR SHALL VERIFY TOWER ORIENTATION AND FIELD COORDINATE REQUIRED ADJUSTMENTS TO ACHIEVE THE DESIRED ANTENNA AZIMUTHS.
2. ANTENNA CENTERLINE HEIGHT BASED ON TOP OF FOOTING ELEVATION.
3. ALL ANTENNAS, CABLES AND MOUNTS SHALL BE INSTALLED IN ACCORDANCE WITH THE STRUCTURAL ENGINEER'S RECOMMENDATIONS IN A MANNER CONSISTENT WITH THE STRUCTURAL ANALYSIS REPORT.
4. ALL ANTENNA BRACKETS PER ANTENNA MANUFACTURER, OR EQUAL, CONTRACTOR TO COORDINATE REQUIRED MECHANICAL DOWN TILT WITH AT&T.
5. ALL ANTENNA INFORMATION TO BE CONFIRMED WITH AT&T RF DESIGN PRIOR TO INSTALLATION.
6. TEP DID NOT PERFORM A STRUCTURAL ANALYSIS ON THE MOUNT OR THE TOWER. IT IS THE CARRIER'S RESPONSIBILITY TO ENSURE MOUNT AND TOWER CAN SUPPORT ADDITIONAL LOADS.
7. EXISTING LOADING INFORMATION PROVIDED BY ATC, AT&T RFDS ID: 4153318.
8. CABLE LENGTH TAKEN FROM AT&T RFDS. CONTRACTOR TO VERIFY LENGTH PRIOR TO ORDERING MATERIALS.

**PROPOSED ANTENNA/CABLE SCHEDULE**

ANT. MARK	SECTOR	TECH.	STATUS	MANUFACTURER/ MODEL #	DIMS (HxWxD)	AZIMUTH (TN)	RAD CENTER	ELEC. D-TILT	COAX/ CABLE	CABLE LENGTH	SURGE PROTECTION	RRU MODEL
A2	ALPHA	LTE 700 LTE 1900 LTE AWS 5G AWS	PROPOSED	ACE TECHNOLOGY XXQLH-654L8H8-IVT-V2	H 96.0" W 19.7" D 7.5"	0°	287'	2° 2° 2° 2°	(1) FIBER (3) DC POWER	360'±	(1) DC9-48-60-24-8C-EV	(1) 4478 B12A (1) 4415 B25 (1) 4426 B66
A4	ALPHA	LTE 700 LTE WCS	PROPOSED	ACE TECHNOLOGY XXQLH-654L8H8-IVT-V2	H 96.0" W 19.7" D 7.5"	0°	287'	2° 2°				(1) 4478 B14 (1) 4415 B30
B2	BETA	LTE 700 LTE 1900 LTE AWS 5G AWS	PROPOSED	ACE TECHNOLOGY XXQLH-654L8H8-IVT-V2	H 96.0" W 19.7" D 7.5"	120°	287'	2° 2° 2° 2°	(1) FIBER (3) DC POWER	360'±	(1) DC9-48-60-24-8C-EV	(1) 4478 B12A (1) 4415 B25 (1) 4426 B66
B4	BETA	LTE 700 LTE WCS	PROPOSED	ACE TECHNOLOGY XXQLH-654L8H8-IVT-V2	H 96.0" W 19.7" D 7.5"	120°	287'	2° 2°				(1) 4478 B14 (1) 4415 B30
C2	GAMMA	LTE 700 LTE 1900 LTE AWS 5G AWS	PROPOSED	ACE TECHNOLOGY XXQLH-654L8H8-IVT-V2	H 96.0" W 19.7" D 7.5"	240°	287'	2° 2° 2° 2°				(1) 4478 B12A (1) 4415 B25 (1) 4426 B66
C4	GAMMA	LTE 700 LTE WCS	PROPOSED	ACE TECHNOLOGY XXQLH-654L8H8-IVT-V2	H 96.0" W 19.7" D 7.5"	240°	287'	2° 2°				(1) 4478 B14 (1) 4415 B30

**PROPOSED ANTENNA/CABLE SCHEDULE**

SCALE: N.T.S.

SEAL:

February 16, 2021

0	02-16-21	100% CONSTRUCTION
A	12-28-20	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SRZ CHECKED BY: EGG


SHEET TITLE:

**ANTENNA MOUNTING DETAILS**

SHEET NUMBER: **C-9** REVISION: **0**

TEP#: 55699.245455

property of



**AUTHORIZED PERSONNEL ONLY!**


In case of emergency or prior to performing maintenance on this site, call 1-800-638-2822 and reference cell site number:

- ① WHITE/BLUE BACKGROUND W/ BLACK LETTERING  
QUANTITY: (1)  
SIZE: 9"x12"  
(TO BE MOUNTED ON EQUIPMENT SHELTER DOOR ADJACENT TO COMPOUND ENTRY - SEE NOTE 3)

**DO NOT CLIMB TOWER WITHOUT OWNER'S WRITTEN PERMISSION**

- ③ WHITE BACKGROUND W/ RED LETTERING  
QUANTITY: (1)  
(TO BE MOUNTED AT EYE LEVEL ON TOWER NEAR SAFETY CLIMB)

**NOTICE**



Radio Frequency fields beyond this point may exceed the FCC general public exposure limit.

OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RADIO FREQUENCY ENVIRONMENTS.

In accordance with Federal Communications Commission rules on radio frequency exposure 47 CFR 1.1307(b)

- ② WHITE/BLUE BACKGROUND W/ BLACK LETTERING  
QUANTITY: (1)  
(TO BE MOUNTED AT EYE LEVEL ON TOWER NEAR SAFETY CLIMB)

**000**

- ④ WHITE BACKGROUND W/ BLACK LETTERING  
E911 STREET #  
QUANTITY: (1 TYP)  
LETTERS MUST BE A MINIMUM 6" TALL  
(TO BE MOUNTED ON THE GATE OF COMPOUND)

- ① SITE IDENTIFICATION SIGN
- ② FCC/RF EXPOSURE SIGN
- ③ TOWER CLIMBING SIGN
- ④ STREET ADDRESS SIGN

**NOTES:**

1. SIGNS SHALL MEASURE 8"x12", BE FABRICATED FROM CORROSION RESISTANT PRESSED METAL, AND PAINTED WITH LONG LASTING UV RESISTANT COATINGS.
2. SIGNS (EXCEPT WHERE NOTED OTHERWISE) SHALL BE MOUNTED TO THE TOWER, GATE AND FENCE USING A MINIMUM OF 9 GAUGE ALUMINUM WIRE, HOG RINGS (AS UTILIZED IN FENCE INSTALLATIONS) OR BRACKETS WHERE NECESSARY. BRACKETS SHALL BE OF SIMILAR METAL AS THE STRUCTURE TO AVOID GALVANIC CORROSION.
3. AT&T SITE # AND EMERGENCY CONTACT # SHALL BE MOUNTED ON THE EQUIPMENT SHELTER DOOR ADJACENT TO THE COMPOUND ENTRY WITH PERMANENT SET ADHESIVE. TWO-SIDED TAPE SHALL BE UTILIZED AT EACH CORNER ON THE BACKSIDE TO AID PLACEMENT UNTIL ADHESIVE SETS.
4. ADDITIONAL E911 ADDRESS SIGNS ARE REQUIRED AT EACH ACCESS ROAD GATE LEADING TO THE COMPOUND AS WELL AS ON THE COMPOUND GATE ITSELF. LETTERING ON 911 ADDRESS SIGNS MUST BE A MINIMUM OF 6" TALL.
5. ADDITIONAL FCC REGISTRATION # SIGNS ARE REQUIRED AT EACH ACCESS ROAD GATE LEADING TO THE COMPOUND AS WELL AS ON THE COMPOUND GATE ITSELF.
6. RECOMMENDED SOURCE FOR OBTAINING SIGNAGE:

ST. CLAIR SIGNS  
3184 WADE HAMPTON BLVD.  
TAYLORS, SC 29687  
(864) 244-0040

RF EXPOSURE SIGNS  
RICHARD TELL ASSOCIATES  
3433 RINGSTAR ROAD, SUITE 3  
NORTH LAS VEGAS, NV 89030  
(702) 645-3338

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SEAL:



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REV	DATE	ISSUED FOR:

DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:

**SIGNAGE DETAILS**

SHEET NUMBER:	REVISION:
<b>C-10</b>	<b>0</b>
	TEP#: 55699.245455

**TYPICAL SIGNS AND SPECIFICATIONS**

SCALE: N.T.S.

**SCOPE:**

1. PROVIDE LABOR, MATERIALS, INSPECTION, AND TESTING TO PROVIDE CODE COMPLIANCE FOR ELECTRIC, TELEPHONE, AND GROUNDING/LIGHTNING SYSTEMS.

**CODES:**

1. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LAWS AND CODES. THESE INCLUDE BUT ARE NOT LIMITED TO THE LATEST ADOPTED EDITIONS OF:
  - A. THE NATIONAL ELECTRICAL SAFETY CODE
  - B. THE NATIONAL ELECTRIC CODE – NFPA-70
  - C. REGULATIONS OF THE SERVING UTILITY COMPANY
  - D. LOCAL AND STATE AMENDMENTS
  - E. THE INTERNATIONAL ELECTRIC CODE – IEC (WHERE APPLICABLE)
2. PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR.
3. AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, THE OWNER SHALL BE FURNISHED A CERTIFICATE OF COMPLETION AND APPROVAL.

**TESTING:**

1. UPON COMPLETION OF THE INSTALLATION, OPERATE AND ADJUST THE EQUIPMENT AND SYSTEMS TO MEET SPECIFIED PERFORMANCE REQUIREMENTS. THE TESTING SHALL BE DONE BY QUALIFIED PERSONNEL.

**GUARANTEE:**

1. IN ADDITION TO THE GUARANTEE OF THE EQUIPMENT BY THE MANUFACTURER, EACH PIECE OF EQUIPMENT SPECIFIED HEREIN SHALL ALSO BE GUARANTEED FOR DEFECTS OF MATERIAL OR WORKMANSHIP OCCURRING DURING A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE WORK BY THE OWNER AND WITHOUT EXPENSE TO THE OWNER.
2. THE WARRANTEE CERTIFICATES & GUARANTEES FURNISHED BY THE MANUFACTURERS SHALL BE TURNED OVER TO THE OWNER.

**UTILITY CO-ORDINATION:**

1. CONTRACTOR SHALL COORDINATE WORK WITH THE POWER AND TELEPHONE COMPANIES AND SHALL COMPLY WITH THE SERVICE REQUIREMENTS OF EACH UTILITY COMPANY.

**EXAMINATION OF SITE:**

1. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB AND SHALL FAMILIARIZE HIMSELF WITH THE CONDITIONS AFFECTING THE PROPOSED ELECTRICAL INSTALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO COMPLY WITH THE INTENT OF THIS SECTION WILL IN NO WAY RELIEVE THE CONTRACTOR OF PERFORMING THE WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM OR SYSTEMS.

**CUTTING, PATCHING AND EXCAVATION:**

1. COORDINATION OF SLEEVES, CHASES, ETC., BETWEEN SUBCONTRACTORS WILL BE REQUIRED PRIOR TO THE CONSTRUCTION OF ANY PORTION OF THE WORK. CUTTING AND PATCHING OF WALLS, PARTITIONS, FLOORS, AND CHASES IN CONCRETE, WOOD, STEEL OR MASONRY SHALL BE DONE AS PROVIDED ON THE DRAWINGS.
2. NECESSARY EXCAVATIONS AND BACKFILLING INCIDENTAL TO THE ELECTRICAL WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWING.
3. SEAL PENETRATIONS THROUGH RATED WALLS, FLOORS, ETC., WITH APPROVED METHOD AS LISTED BY UL.

**RACEWAYS / CONDUITS GENERAL:**

1. CONDUCTORS SHALL BE INSTALLED IN LISTED RACEWAYS. CONDUIT SHALL BE RIGID STEEL, EMT, SCH40 PVC, OR SCH80PVC AS INDICATED ON THE DRAWINGS. THE RACEWAY SYSTEM SHALL BE COMPLETE BEFORE INSTALLING CONDUCTORS.
2. EXTERIOR RACEWAYS AND GROUNDING SLEEVES SHALL BE SEALED AT POINTS OF ENTRANCE AND EXIT. THE RACEWAY SYSTEM SHALL BE BONDED PER NEC.

**EXTERIOR CONDUIT:**

1. EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL.
2. THE CONDUIT SHALL BE RIGID STEEL AT GRADE TRANSITIONS OR WHERE EXPOSED TO DAMAGE.
3. UNDERGROUND CONDUITS SHALL BE RIGID STEEL, SCH40 PVC, OR SCH80 PVC AS INDICATED ON THE DRAWINGS.
4. BURIAL DEPTH OF CONDUITS SHALL BE AS REQUIRED BY CODE FOR EACH SPECIFIC CONDUIT TYPE AND APPLICATION, BUT SHALL NOT BE LESS THAN THE FROST DEPTH AT THE SITE.
5. CONDUIT ROUTES ARE SCHEMATIC. CONTRACTOR SHALL FIELD VERIFY ROUTES BEFORE BID. COORDINATE ROUTE WITH WIRELESS CARRIER AND/OR BUILDING OWNER.

**INTERIOR CONDUIT:**

1. CONCEALED CONDUIT IN WALLS OR INTERIOR SPACES ABOVE GRADE MAY BE EMT OR PVC.
2. CONDUIT RUNS SHALL USE APPROVED COUPLINGS AND CONNECTORS. PROVIDE INSULATED BUSHING FOR ALL CONDUIT TERMINATIONS. CONDUIT RUNS IN A WET LOCATION SHALL HAVE WATERPROOF FITTINGS.
3. PROVIDE SUPPORTS FOR CONDUITS IN ACCORDANCE WITH NEC REQUIREMENTS. CONDUITS SHALL BE SIZED AS REQUIRED BY NEC.

**EQUIPMENT:**

1. DISCONNECT SWITCHES SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
2. CONTRACTOR SHALL VERIFY MAXIMUM AVAILABLE FAULT CURRENT AND COORDINATE INSTALLATION WITH THE LOCAL UTILITY BEFORE STARTING WORK. CONTRACTOR WILL VERIFY THAT EXISTING CIRCUIT BREAKERS ARE RATED FOR MORE THAN AVAILABLE FAULT CURRENT AND REPLACE AS NECESSARY.
3. NEW CIRCUIT BREAKERS SHALL BE RATED TO WITHSTAND THE MAXIMUM AVAILABLE FAULT CURRENT AS DETERMINED BY THE LOCAL UTILITY.

**CONDUCTORS:**

1. FURNISH AND INSTALL CONDUCTORS SPECIFIED IN THE DRAWINGS. CONDUCTORS SHALL BE COPPER AND SHALL HAVE TYPE THWN (MIN) (75° C) INSULATION, RATED FOR 600 VOLTS.
2. THE USE OF ALUMINUM CONDUCTORS SHALL BE LIMITED TO THE SERVICE FEEDERS INSTALLED BY THE UTILITY.
3. CONDUCTORS SHALL BE PROVIDED AND INSTALLED AS FOLLOWS:
  - A. MINIMUM WIRE SIZE SHALL BE #12 AWG.
  - B. CONDUCTORS SIZE #8 AND LARGER SHALL BE STRANDED. CONDUCTORS SIZED #10 AND #12 MAY BE SOLID OR STRANDED.
  - C. CONNECTION FOR #10 AWG #12 AWG SHALL BE BY TWISTING TIGHT AND INSTALLING INSULATED PRESSURE OR WIRE NUT CONNECTIONS.
  - D. CONNECTION FOR #8 AWG AND LARGER SHALL BE BY USE OF STEEL CRIMP-ON SLEEVES WITH NYLON INSULATOR.
3. CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH NEC STANDARDS.

**UL COMPLIANCE:**

1. ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES, AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E., LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY.


**GROUNDING:**

1. ELECTRICAL NEUTRALS, RACEWAYS AND NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC ARTICLE 250. THIS SHALL INCLUDE NEUTRAL CONDUCTORS, CONDUITS, SUPPORTS, CABINETS, BOXES, GROUND BUSSES, ETC. THE NEUTRAL CONDUCTOR FOR EACH SYSTEM SHALL BE GROUNDED AT A SINGLE POINT.
2. PROVIDE GROUND CONDUCTOR IN RACEWAYS PER NEC.
3. PROVIDE BONDING AND GROUND TO MEET NFPA 780 – "LIGHTNING PROTECTION" AS A MINIMUM.
4. PROVIDE GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS, AS REQUIRED BY THE NATIONAL ELECTRIC CODE, RADIO EQUIPMENT MANUFACTURERS, AND MOTOROLA R56 (AS APPLICABLE).

**ABBREVIATIONS AND LEGEND**

A	– AMPERE	PNLBD	– PANELBOARD
AFG	– ABOVE FINISHED GRADE	PVC	– RIGID NON-METALLIC CONDUIT
ATS	– AUTOMATIC TRANSFER SWITCH	RGS	– RIGID GALVANIZED STEEL CONDUIT
AWG	– AMERICAN WIRE GAUGE	SW	– SWITCH
BCW	– BARE COPPER WIRE	TGB	– TOWER GROUND BAR
BFG	– BELOW FINISHED GRADE	UL	– UNDERWRITERS LABORATORIES
BKR	– BREAKER	V	– VOLTAGE
C	– CONDUIT	W	– WATTS
CKT	– CIRCUIT	XFMR	– TRANSFORMER
DISC	– DISCONNECT	XMTR	– TRANSMITTER
EGR	– EXTERNAL GROUND RING		
EMT	– ELECTRIC METALLIC TUBING		
FSC	– FLEXIBLE STEEL CONDUIT		
GEN	– GENERATOR		
GPS	– GLOBAL POSITIONING SYSTEM		
GRD	– GROUND		
IGB	– ISOLATED GROUND BAR		
IGR	– INTERIOR GROUND RING (HALO)		
KW	– KILOWATTS		
NEC	– NATIONAL ELECTRIC CODE		
PCS	– PERSONAL COMMUNICATION SYSTEM		
PH	– PHASE		
PNL	– PANEL		

----	<b>E</b> ----	UNDERGROUND ELECTRICAL CONDUIT
----	<b>T</b> ----	UNDERGROUND TELEPHONE CONDUIT
		KILOWATT-HOUR METER
----	----	UNDERGROUND BONDING AND GROUNDING CONDUCTOR.
	∅	GROUND ROD
	●	CADWELD
	⊠	GROUND ROD WITH INSPECTION WELL

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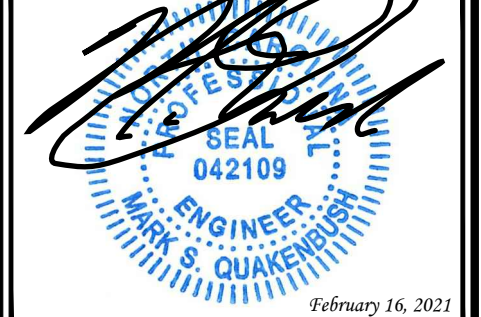
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DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:

**ELECTRICAL NOTES**

SHEET NUMBER:

**E-1**

REVISION:

**0**

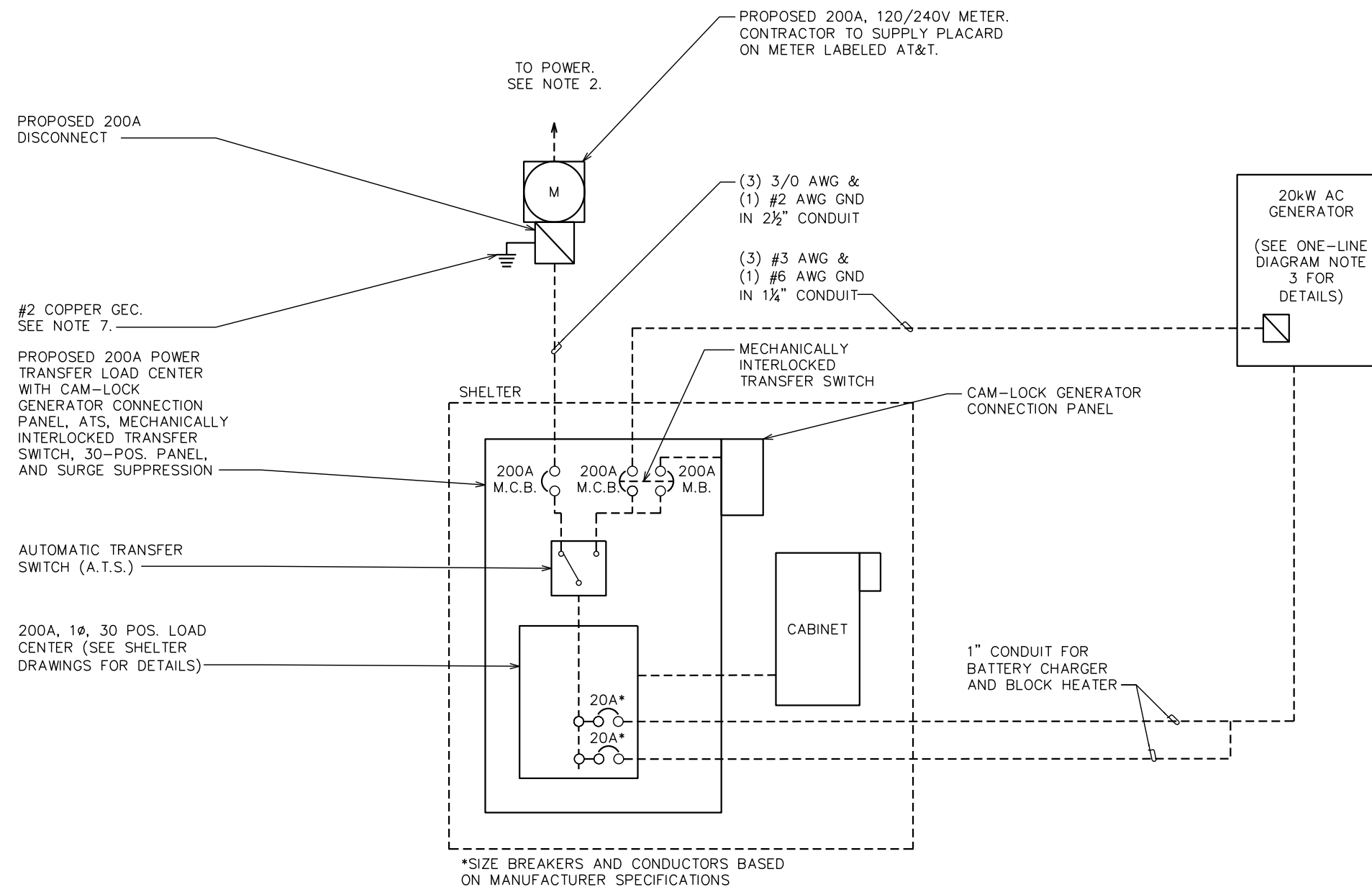
TEP #: 55699.245455

**GENERAL NOTES:**

1. CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH POWER COMPANY AND ENSURE ALL ELECTRICAL EQUIPMENT IS SUITABLE FOR AVAILABLE FAULT CURRENT.
2. CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH LOCAL UTILITY COMPANIES. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY STANDARDS.
3. ONE-LINE DIAGRAM IS FOR SCHEMATIC PURPOSES ONLY AND IS NOT INDICATIVE OF THE ACTUAL EQUIPMENT LAYOUT.
4. CONTRACTOR SHALL LABEL METER SOCKET WITH SERVICE OWNER NAMEPLATE WITH 1/2" HEIGHT MINIMUM LETTERS.
5. ALL EQUIPMENT WILL HAVE A MINIMUM AIC OF 10 KA. CONTRACTOR TO DETERMINE AVAILABLE FAULT CURRENT BEFORE ENERGIZING EQUIPMENT. THE AMOUNT OF AVAILABLE FAULT CURRENT SHALL BE MARKED ON THE SERVICE EQUIPMENT PER NEC 110.24.
6. CONTRACTOR WILL NOTIFY UTILITY COMPANY OF CHANGES IN ELECTRICAL LOAD.

**ONE-LINE DIAGRAM NOTES:**

1. ELECTRICAL SERVICE SHALL BE 200A, 120/240V, 1Ø, 3W.
2. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.
3. ONE-LINE BASED ON MAXIMUM GENERATOR BREAKER SIZE OF 100A.



**ONE-LINE DIAGRAM**

SCALE: N.T.S.

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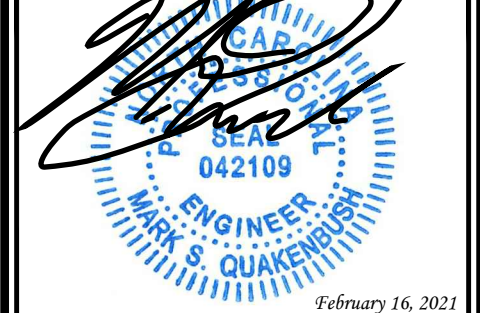
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DRAWN BY: SRZ CHECKED BY: EGG


SHEET TITLE:  
**ONE-LINE DIAGRAM**


SHEET NUMBER: **E-2A** REVISION: **0**  
TEP#: 55699.245455

PLANS PREPARED FOR:  
  
 2002 PISGAH CHURCH ROAD, SUITE 300  
 GREENSBORO, NC 27455

PLANS PREPARED FOR:  
  
**AMERICAN TOWER**  
 3500 REGENCY PKWY #100  
 CARY, NC 27518

PROJECT INFORMATION:  
**AT&T SITE NAME: 368-754**  
**AT&T FA CODE: 12682186**  
**AT&T PACE#:**  
**MRCAR033546**  
**ATC #: 372926**  
**ANGIER**  
 2135 JOHNSTON COUNTY RD  
 ANGIER, NC 27501  
 (HARNETT COUNTY)  
 EXISTING 287' GUYED TOWER

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603-3530  
 OFFICE: (919) 661-6351  
 www.tepgroup.net  
 N.C. LICENSE # P-1403

SEAL:  
  
 February 16, 2021

0	02-16-21	100% CONSTRUCTION
A	12-28-20	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:  
**PANEL SCHEDULE**

SHEET NUMBER: **E-2B** REVISION: **0**  
 TEP#: 55699.245455

LOADING SHOWN TAKEN FROM VERTIV WIC DRAWINGS APPROVED JANUARY 16, 2017

LOAD SERVED	VOLT AMPERES (WATTS)		WIRE	BREAKER		CKT #	PHASE	CKT #	BREAKER		WIRE	VOLT AMPERES (WATTS)		LOAD SERVED
	L1	L2		P	TRIP				TRIP	P		L1	L2	
	RECTIFIER #1	2000			10				2	30		1	A	
		2000				3	B	4					2000	RECTIFIER #3
RECTIFIER #2	2000		10	2	30	5	A	6	30	2	10	2000		
		2000				7	B	8	20	1	12		1200	GEN. BATTERY CHARGER
BLANK	-		-	-	-	9	A	10	20	1	12	1000		GEN. BLOCK HEATER
		-				11	B	12					-	BLANK
BLANK	-		-	-	-	13	A	14					-	BLANK
		-				15	B	16					-	BLANK
BLANK	-		-	-	-	17	A	18					-	BLANK
		-				19	B	20					-	BLANK
BLANK	-		-	-	-	21	A	22					-	BLANK
		-				23	B	24					-	BLANK
HVAC	1920		12	2	20	25	A	26					-	BLANK
		1920				27	B	28	20	1	12		200	FLOOD LIGHTS
APPLIANCE OUTLETS	180		12	2	20	29	A	30	-	-	-			BLANK
VOLT AMPS	6100	5920							3360	3400			VOLT AMPS	
L1 VOLT AMPERES						9460	9320	L2 VOLT AMPERES						
L1 AMPS						78.8	77.7	L2 AMPS						
						78.8		MAX AMPS						
						97.9		*MAX AMPS X 125%						

**NOTE:**  
 CONTRACTOR TO LIMIT TOTAL AC LOAD TO 30,000 WATTS

**PANEL SCHEDULE**  
 SCALE: N.T.S.



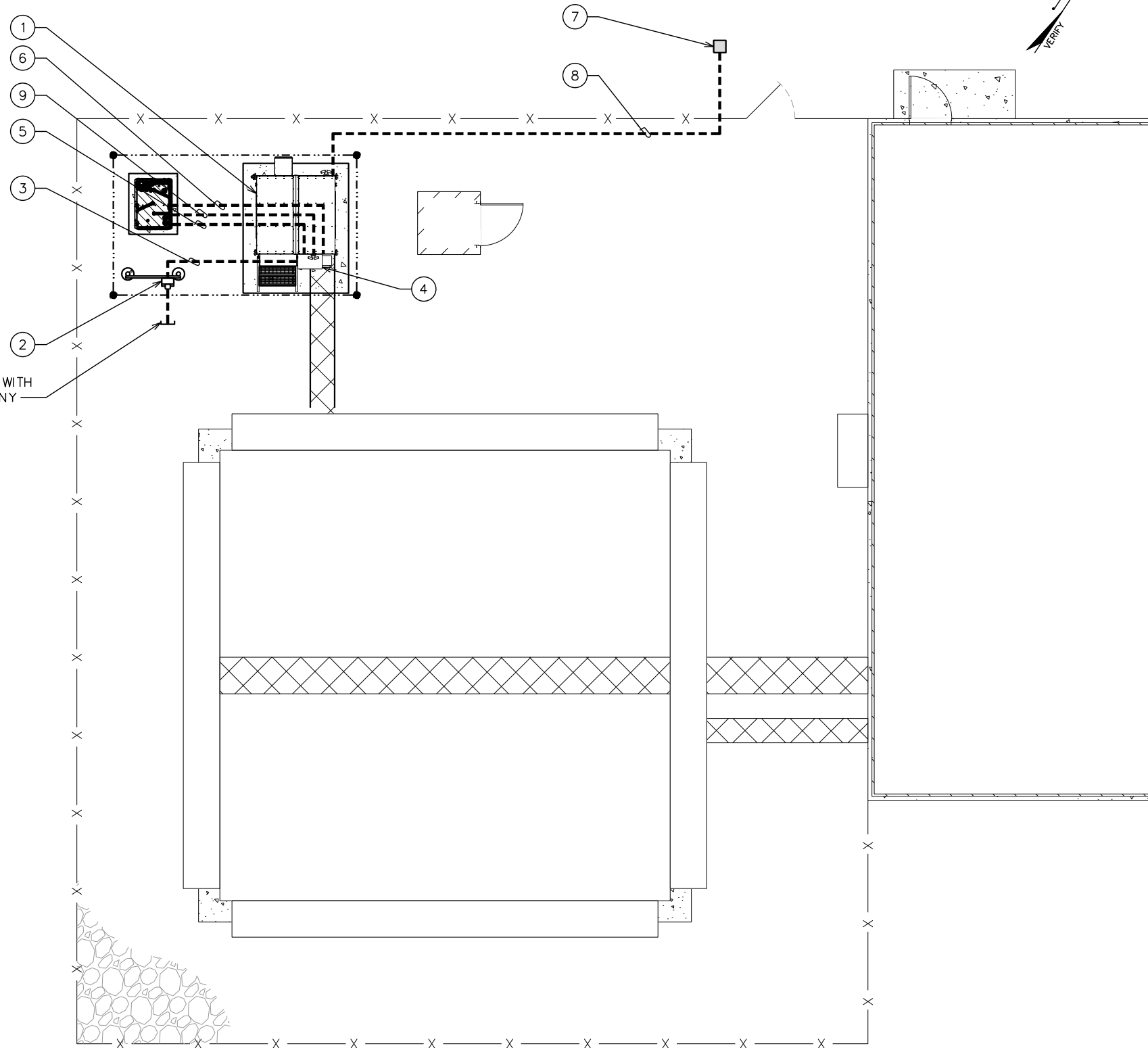
**TRENCHING NOTES:**

1. PRIOR TO ANY DIGGING, THE CONTRACTOR SHALL IDENTIFY ALL EXISTING UTILITIES ON SITE.
2. A MINIMUM SEPARATION OF 12" IS REQUIRED BETWEEN THE POWER AND FIBER CONDUITS

**PLAN NOTES:**

- ① PROPOSED AT&T WIC EQUIPMENT SHELTER
- ② PROPOSED 200A METER & DISCONNECT
- ③ (1) 2½" POWER CONDUIT FROM METER TO 200A LOAD CENTER
- ④ 200A LOAD CENTER
- ⑤ (1) 1¼" POWER CONDUIT FROM ATS INSIDE LOAD CENTER TO PROPOSED 20kW AC GENERATOR
- ⑥ (1) 1" CONDUIT FROM LOAD CENTER TO PROPOSED 20kW AC GENERATOR FOR BATTERY CHARGER AND BLOCK HEATER
- ⑦ PROPOSED FIBER MEET-ME POINT. LOCATION IS TO BE ESTABLISHED WITH THE LEC PRIOR TO INSTALLATION
- ⑧ (1) 4" TELCO CONDUIT W/ (3) 1¼" FLEX INTERDUCT & PULL STRING FOR FIBER POWER LEADS STUBBED UP IN FIBER HANDHOLE. CONTRACTOR TO COORDINATE SERVICE WITH LOCAL TELEPHONE COMPANY.
- ⑨ (1) 1" PVC CONDUIT FOR GENERATOR ALARMS AND CONTROLS. CONTRACTOR TO INSTALL PER MANUFACTURER SPECIFICATIONS.

CONTRACTOR TO COORDINATE FIBER SERVICE WITH LOCAL POWER COMPANY



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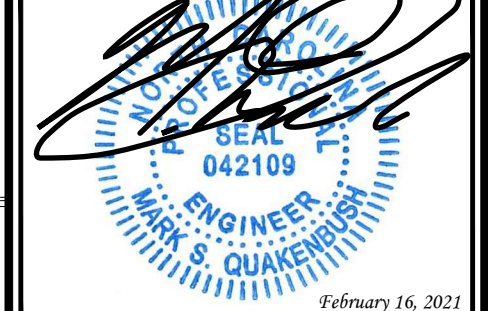
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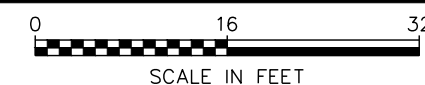
DRAWN BY: SRZ CHECKED BY: EGG

SHEET TITLE:  
**SERVICE ROUTING PLAN**

SHEET NUMBER: <b>E-3</b>	REVISION: <b>0</b>
TEP#: 55699.245455	

**SERVICE ROUTING PLAN**

SCALE: 3/32" = 1'-0"

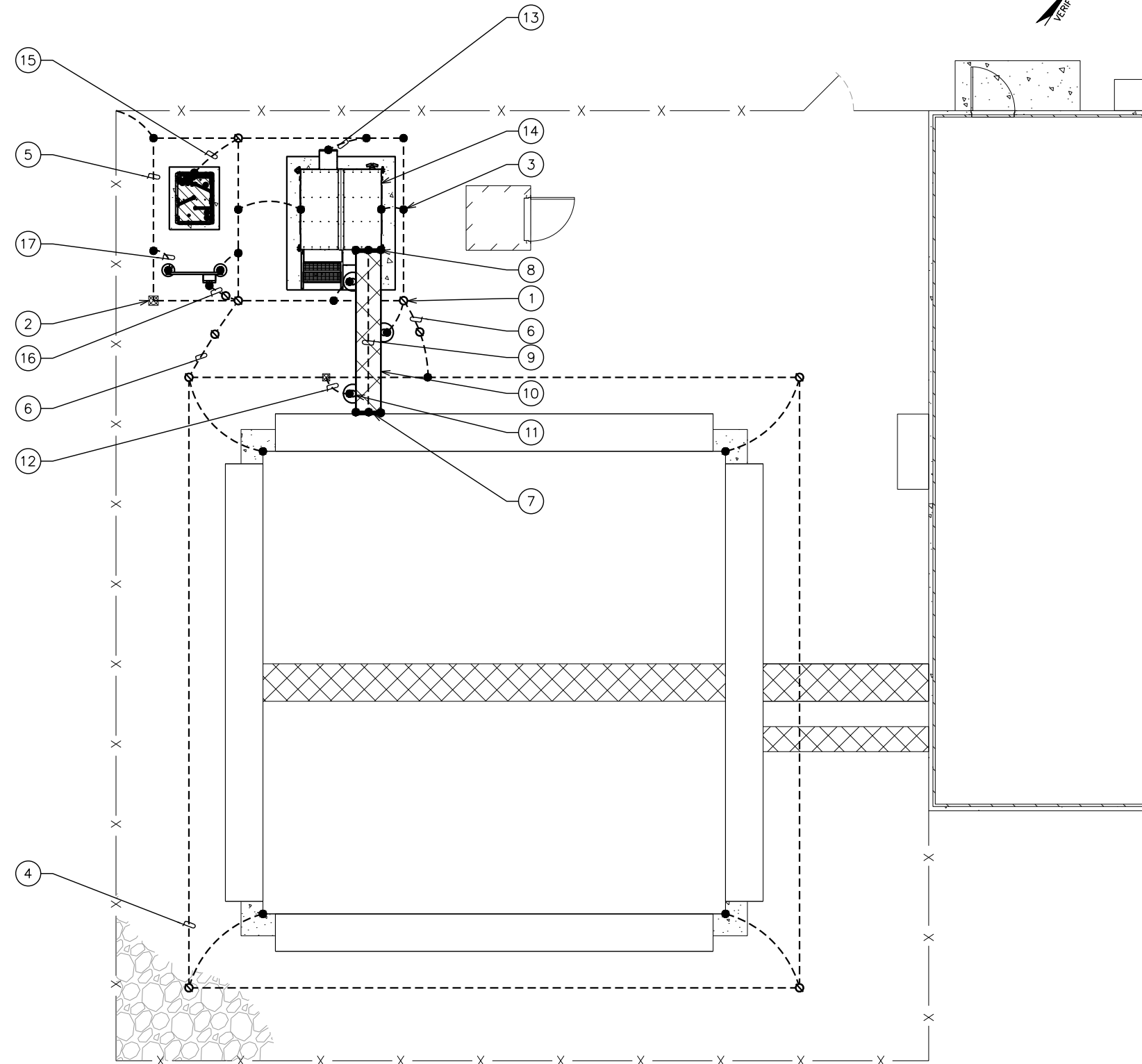


**DRAWING NOTES:**

- ① GROUND ROD 5/8"x10' LONG (TYP)
- ② GROUND ROD WITH INSPECTION WELL (TYP)
- ③ CADWELD (TYP)
- ④ TOWER GROUND RING
- ⑤ #2 AWG BARE SOLID BARE TINNED COPPER WIRE GROUND RING (SHELTER)
- ⑥ #2 AWG BARE SOLID BARE TINNED COPPER BONDS BETWEEN TOWER GROUND RING AND SHELTER GROUND RING
- ⑦ EXISTING TOWER BUS BAR
- ⑧ PROPOSED ICE BRIDGE BUS BAR
- ⑨ #2 AWG BARE SOLID TINNED COPPER WIRE BETWEEN BUS BARS
- ⑩ PROPOSED ICE BRIDGE
- ⑪ PROPOSED ICE BRIDGE POST (TYP)
- ⑫ #2 AWG ICE BRIDGE BOND BURIED 30" BFG (TYP)
- ⑬ HVAC GROUND. MECHANICAL CONNECTIONS AT HVAC UNITS ABOVE GRADE AS ALLOWED BY CODE.
- ⑭ PROPOSED AT&T WIC EQUIPMENT SHELTER
- ⑮ #2 AWG BOND BETWEEN GENERATOR AND GROUND RING
- ⑯ #2 AWG BOND BONDING PROPOSED METER TO PROPOSED GROUND RING
- ⑰ #2 AWG BOND BETWEEN H-FRAME POST TO GROUND (TYP)

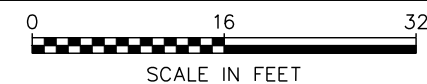
**GROUNDING NOTES**

1. GROUNDING ELECTRODES SHALL BE CONNECTED IN A RING USING #2 AWG BARE TINNED COPPER WIRE. THE TOP OF THE GROUND RODS AND THE RING CONDUCTOR SHALL BE 2 FEET BELOW FINISHED GRADE. GROUNDING ELECTRODES SHALL BE DRIVEN ON 10'-0" CENTERS. (MIN. 15'-0" MAX)
2. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS/ BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250.30.
3. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.



**TOWER GROUNDING PLAN**

SCALE: 3/32" = 1'-0"



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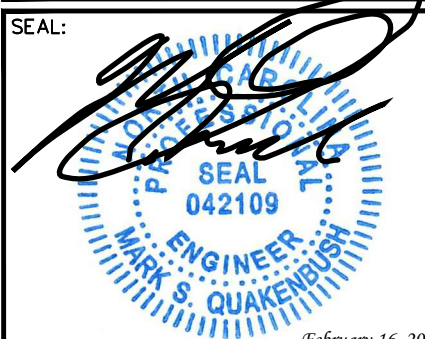
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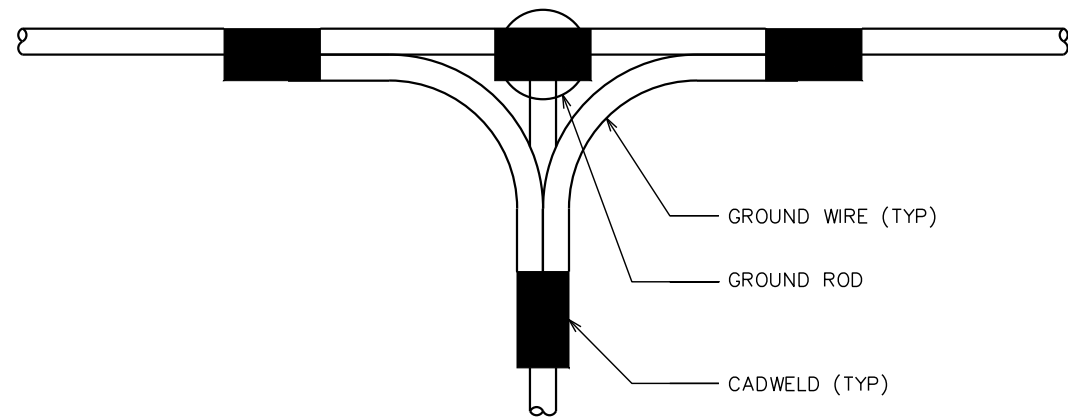
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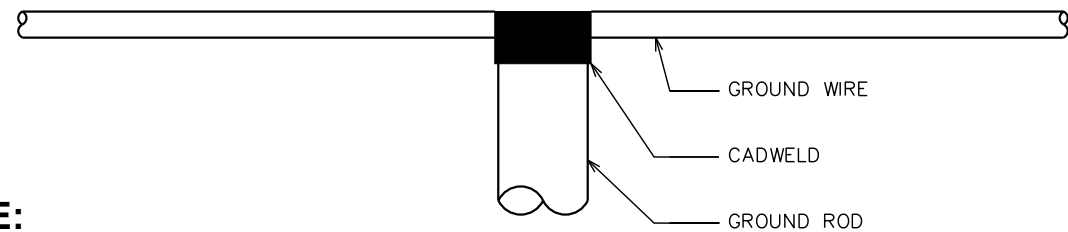
**GROUNDING PLAN**

SHEET NUMBER: **E-4** REVISION: **0**

TEP#: 55699.245455



**TOP VIEW**



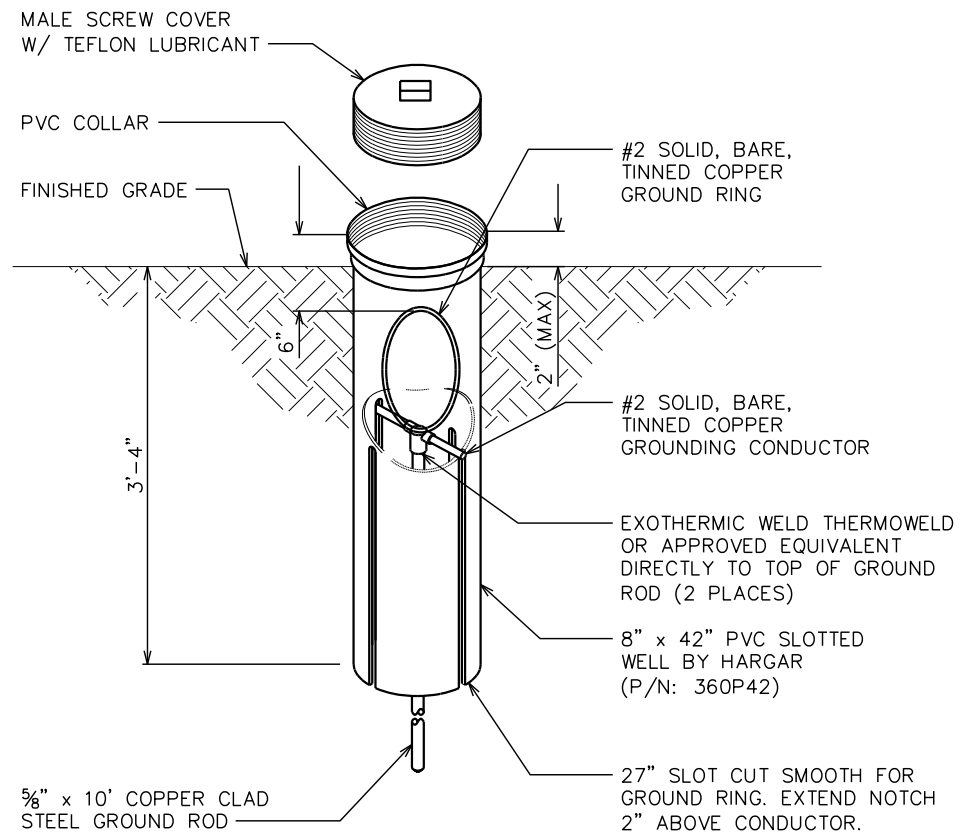
**SIDE VIEW**

**NOTE:**

MINIMUM SPACING OF 12" BETWEEN ALL CADWELDS

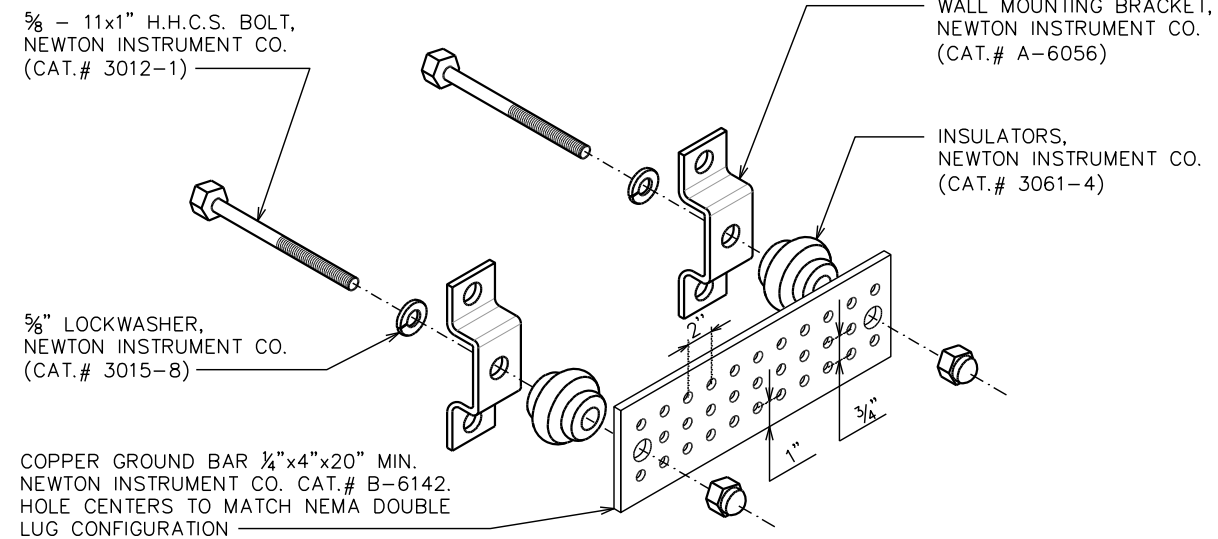
**CADWELD GROUNDING DETAIL**

SCALE: N.T.S.



**GROUND ROD WITH INSPECTION WELL DETAIL**

SCALE: N.T.S.

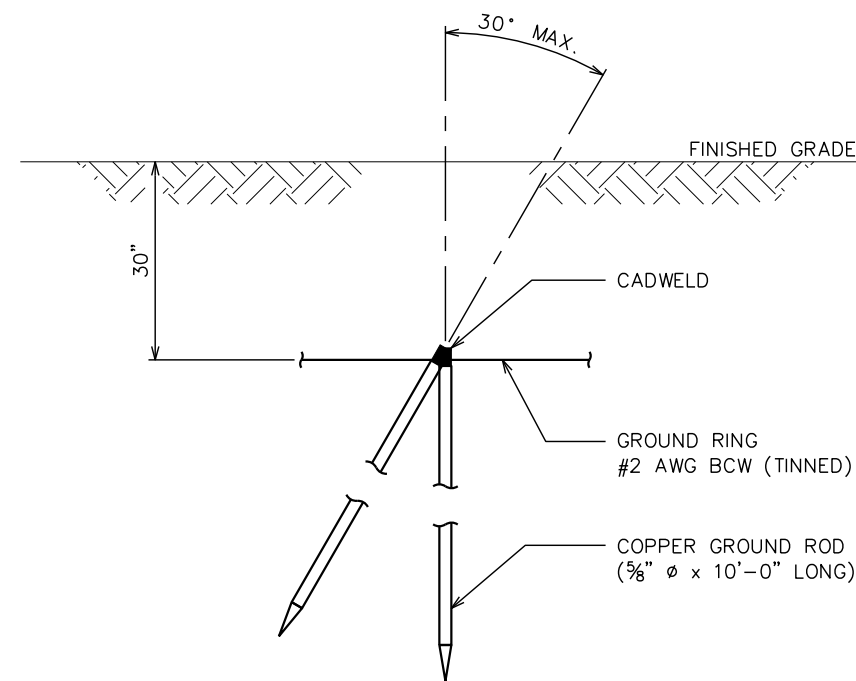


**NOTE:**

GROUND BAR SHALL BE SIZED TO ACCOMMODATE ALL GROUNDING CONNECTIONS REQUIRED AS WELL AS PROVIDE 50% SPARE CAPACITY

**STANDARD GROUND BAR DETAIL**

SCALE: N.T.S.



**COPPER-CLAD STEEL GROUND ROD DETAIL**

SCALE: N.T.S.

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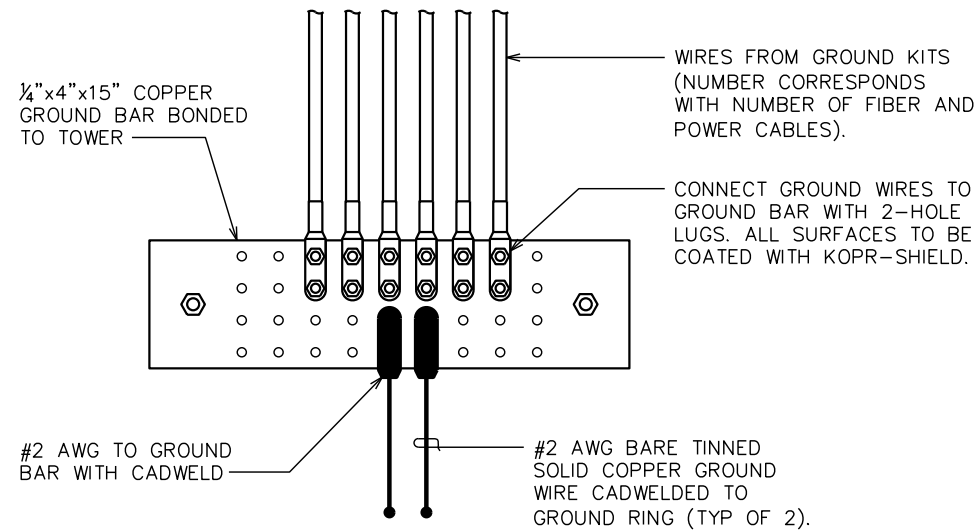
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**GROUNDING DETAILS I**

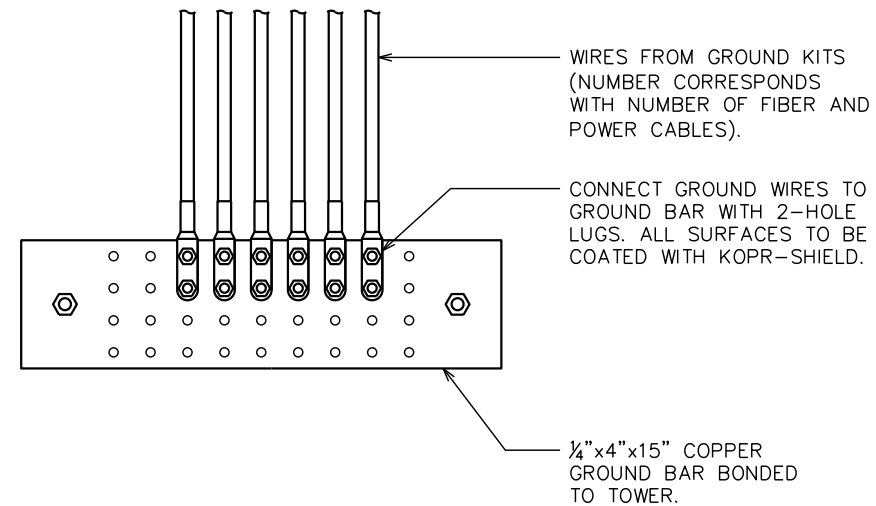
SHEET NUMBER: <b>E-5</b>	REVISION: <b>0</b>
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**END VIEW**

**NOTE:**

THE CONTRACTOR SHALL UTILIZE AN INTERMEDIATE GROUND BAR FOR ANTENNA RAD CENTERS OVER 200'.

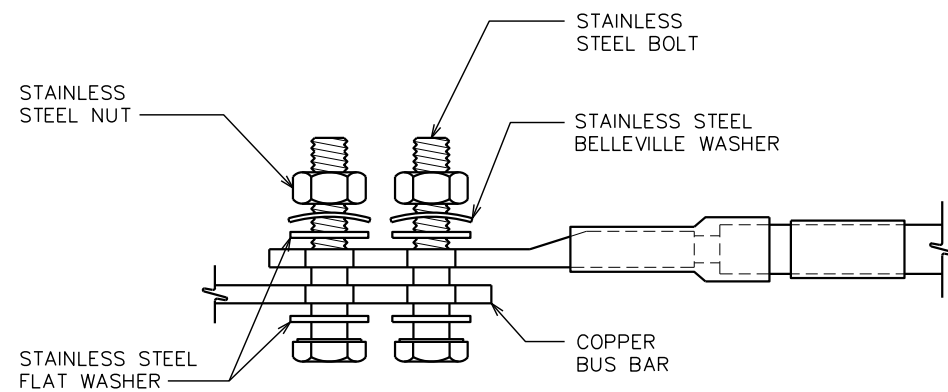


**LOWER GROUND BAR**

SCALE: N.T.S.

**UPPER / INTERMEDIATE GROUND BAR**

SCALE: N.T.S.

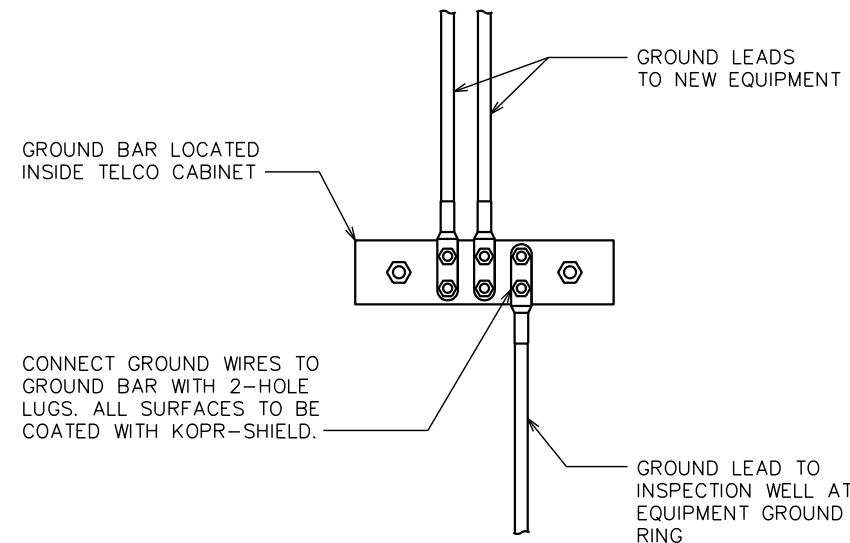


**NOTES:**

1. ALL HARDWARE SHALL BE 18-8 STAINLESS STEEL, INCLUDING THE BELLEVILLE WASHERS. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
2. FOR GROUND BOND TO STEEL ONLY; INSERT A DRAGON TOOTH WASHER BETWEEN THE LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.

**LUG DETAIL**

SCALE: N.T.S.



**GROUND BAR IN TELCO CABINET**

SCALE: N.T.S.

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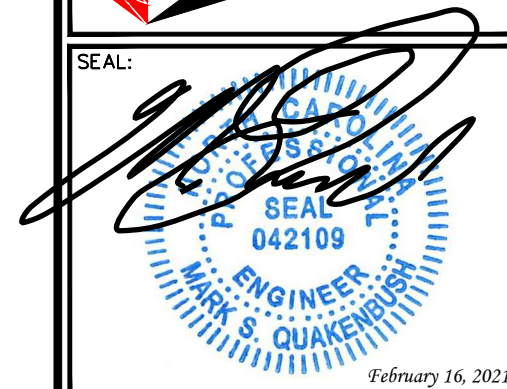
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SHEET TITLE:

**GROUNDING  
DETAILS II**

SHEET NUMBER:

**E-6**

REVISION:

**0**

TEP#: 55699.245455