

**COUNTY OF SAN MATEO  
PLANNING AND BUILDING DEPARTMENT**

**DATE:** April 2, 2026

**TO:** Zoning Hearing Officer

**FROM:** Planning Staff

**SUBJECT:** Consideration of a Use Permit Renewal, pursuant to Sections 6500 and 6510 of the San Mateo County Zoning Regulations, to allow the continued operation of a cellular communications facility located at the Half Moon Bay Airport, 9850 Cabrillo Highway, in the unincorporated Princeton area of San Mateo County.

County File Number: PLN2013-00051

**PROPOSAL**

The applicant proposes the continued operation of a wireless telecommunication facility located on an existing lattice tower located at Half Moon Bay Airport. The site consists of one 80-foot-tall lattice tower, which supports eight antennas for AT&T. The site also includes ground equipment for AT&T located within a fenced area. The site also supports other telecommunication companies' antennas on both the subject tower and a neighboring one. No modifications to the facility are proposed as part of this application.

**RECOMMENDATION**

That the Zoning Hearing Officer approve the Use Permit renewal, County File Number PLN2013-00051, by adopting the required findings and conditions of approval identified in Attachment A.

**BACKGROUND**

Report Prepared By: Katheryne Castro Rivera, Project Planner

Applicant: Greg Davis for Center Line Communications LLC on behalf of AT&T Wireless

Owner: County of San Mateo

Public Notification: Ten-day advanced notification for the hearing was mailed to property owners within 300 feet of the project parcel and a notice for the hearing posted in a newspaper (San Mateo County Times) of general public circulation.

Location: 9850 Cabrillo Highway, Princeton

APN: 037-292-030

Size: 319.53 acres

Existing Zoning: M-1/DR/CD (Light Industrial District/Design Review District/Coastal Development District)

General Plan Designation: Airport

Local Coastal Plan Designation: Airport

Sphere-of-Influence: City of Half Moon Bay

Existing Land Use: Airport

Flood Zone: Flood Zone X, Area of Minimal Flood Hazard. FEMA Flood Panel 06081C0138F, effective August 2, 2017.

Environmental Evaluation: Categorically exempt pursuant to Section 15301, Class 1, of the California Environmental Quality Act, which allows for the continued operation of an existing use.

Setting: The project site is at the Half Moon Bay Airport, located on the west side of Cabrillo Highway between El Granada and Moss Beach. The site is improved with runways, taxiways, parking areas, and various buildings and equipment associated with airport operations. Two lattice towers are located about 400 ft. to the southwest of the main airport terminal building. The existing AT&T cellular facility is co-located with T-Mobile on the northeast tower, which is approximately 150 feet west of Cabrillo Highway. Metro PCS and Sprint cellular facilities are co-located on the adjacent southwest tower.

Chronology:

<u>Date</u>	<u>Action</u>
January 1992	- Original Use Permit 91-0026 approved.
March 1997	- Zoning Hearing Officer approved Use Permit renewal.
August 2002	- Zoning Hearing Officer approved Use Permit renewal under County File No. PLN2002-00016.
February 2007	- Zoning Hearing Officer approved Use Permit renewal under County File No. PLN2006-00099

- February 2013 - Zoning Hearing Officer approved Use Permit renewal under current file number.
- May 2013 - Staff level approval of a minor modification to replace four existing antennas with six new panel antennas.
- June 2013 - Zoning Hearing Officer approved the Use Permit renewal.
- May 27, 2016 - Staff level approval of minor modification to Remote Radio Units (RRU) on tower and equipment cabinets in equipment shelter.
- June 25, 2018 - Staff level approval of minor modification to replace all 8 antennas, replace 4 RRUs and add 6 RRUs on tower
- May 2, 2019 - Staff level approval of minor modification to install one Wireless communications service (WCS) filter installed behind the existing antennas.
- March 30, 2021 - Minor Amendment to add a generator to site. The installation included a new 40 sq. ft. concrete pad foundation and underground conduit.
- September 15, 2025 - Use Permit renewal initiated.
- October 7, 2025 - Minor Modification approved to allow the removal and replacement of six antennas on existing lattice tower, removal of four RRUs, installation of two RRUs, and relocation of 16 batteries to new battery rack. County File No.BLD 2025-02031.
- October 23, 2025 - Application deemed complete.
- February 5, 2026 - Zoning Hearing Officer Meeting.

**DISCUSSION**

A. **KEY ISSUES**

1. **Conformance with the General Plan**

The project continues to conform with the applicable General Plan policies for Visual Quality as the project was constructed in accordance with its last approval and no physical changes to the existing facility are proposed at this time.

2. Conformance with the Zoning Regulations

Under the provisions of Section 6500 (Use Permits), wireless communications facilities are permitted in the M-1 (Light Industrial) District after issuance of a use permit. The project continues to comply with all development standards for this zoning district.

The project is also located within the Design Review (DR) Combining District. Typically, projects within the DR District must be reviewed by the Design Review Administrator for conformance with applicable design standards. Because wireless facilities require the issuance of a use permit, however, it is appropriate for the Zoning Hearing Officer to address issues related to project design and visual impacts. The project has been developed and maintained in accordance with approved plans and therefore continues to comply with the policies of the Community Design Manual and the Local Coastal Program and does not create a significant visual impact.

3. Compliance with Wireless Telecommunication Facilities Ordinance

The project continues to conform with the applicable standards of the Wireless Telecommunication Facilities (WTF) Ordinance, as discussed below:

a. Development and Design Standards

Section 6512.2 of the WTF ordinance discusses location, minimizing visual impacts, maximum height, and future co-location of wireless facilities. The existing AT&T facility is located on the developed portion of the airport property and is not in or near a sensitive habitat area. A vegetated drainage swale along Cabrillo Highway has some potential to be a riparian habitat, but it is at least 150 feet from the AT&T facility. The AT&T facility was established under use permit approval in 1991 and has been in operation ever since. The facility is co-located with three other cellular service providers (one on the same tower, two on the adjacent tower), which reduces the visual and environmental impacts of the cellular facilities. The facility was approved, constructed, and maintained in compliance with the M-1 Zoning District development standards.

b. Performance Standards

The existing facility continues to be compliant with the required performance standards of Section 6512.3 for lighting, licensing, provision of a permanent power source, timely removal of the facility, and visual resource protection. There is no lighting proposed, proper licenses have been obtained from both the Federal Communications Commission (FCC) and California Public Utilities Commission CPUC, power for the facility is provided by PG&E (existing service), there is minimal visual impact, and conditions of approval continue to require maintenance and/or removal of the facility when necessary.

c. Compliance with Wireless Telecommunication Facilities Ordinance in the Coastal Zone

The Wireless Telecommunication Facilities Ordinance provides additional requirements for facilities located in the coastal zone. Specifically, Section 6512.4.C states that at the time of renewal of the Use Permit the applicant shall incorporate all feasible new or advanced technologies that will reduce previously unavoidable environmental impacts, including reducing visual impacts in accordance with Section 6512.2.E., to the maximum extent feasible.

The existing facility has gone through numerous modifications over the years to implement new or advanced technologies. While the facility is visible from surrounding properties and from Cabrillo Highway, the visual impact of the facility is mitigated to the extent possible as the antennas are located on an existing tower and painted to blend well with the sky. Because of its location at the airport, it is unobtrusive, as it is customary to see towers, antennas and other communications equipment at an airport. Existing vegetation along the highway provides some screening, but due to the potential of interference with airport operations, additional vegetative screening is not feasible or practicable.

4. Compliance with Use Permit Findings

In order to grant the use permit renewal to continue the operation of this facility, the following use permit findings are necessary:

- a. **That the continued operation of the existing telecommunication facility will not result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in the neighborhood.**

The subject wireless facility has been in operation since 1991 and has not resulted in any adverse impacts to the surrounding area. The radio frequency analysis submitted by the applicant indicates that the facility continues to comply with the FCC's current prevailing standards for limiting human exposure to RF energy. As this is an unmanned communication facility, the operation does not create additional traffic, noise, or intensity of use of the property.

- b. **That the proposed project is necessary for the public health, safety, convenience or welfare.**

This project will continue to provide the clarity, range, and capacity of the existing cellular network in the area and will enhance service for the public in general and for emergency services. A cellular facility in this location is necessary for the convenience of cellular users and will not be detrimental to the public welfare.

B. ENVIRONMENTAL REVIEW

The proposed project is exempt from environmental review, pursuant to Section 15301, Class 1, of the California Environmental Quality Act, as a continued operation of an existing facility with no expansion of use.

C. REVIEWING AGENCIES

Coastside Fire Protection District

**ATTACHMENTS**

- A. Recommended Findings and Conditions of Approval
- B. Location Map
- C. Project Plans
- D. RF Report

County of San Mateo  
Planning and Building Department

**RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL**

Permit or Project File Number: PLN2013-00051

Hearing Date: April 2, 2026

Prepared By: Katheryne Castro Rivera,  
Project Planner

For Adoption By: Zoning Hearing Officer

**RECOMMENDED FINDINGS**

1. For the Environmental Review, Find:

That the project is categorically exempt pursuant to Section 15301, Class 1, of the California Environmental Quality Act, as a continued operation of an existing facility.

For the Use Permit, Find:

2. That the continued operation of the existing telecommunication facility will not result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in the neighborhood. The facility has been built and maintained in accordance with previous approvals. The facility is also in compliance with FCC requirements and is inaccessible to members of the general public.
3. That the continued operation is necessary for the public health, safety, convenience, or welfare. The operation of this facility will continue to provide wireless telecommunications services in this area to the surrounding community public and provide assistance in emergency situations.

**RECOMMENDED CONDITIONS OF APPROVAL**

Current Planning Section

1. The Use Permit shall be valid for a period of 10 years through April 2, 2036. If the applicant wishes to renew this use permit, an application for renewal must be submitted to the Planning and Building Department prior to the expiration date and shall be accompanied by the fees applicable at that time. An administrative review for compliance with conditions will be required after five years, on April 2, 2031.

2. The applicant is advised that “all activities, construction, storage of materials, and movement on the airport property are to be coordinated with and have the permission of the Airport Manager or their representative.”
3. The applicant shall continue to maintain and upon request, provide the County Planning and Building Department with a copy of the executed lease agreement between the applicant and the County of San Mateo.
4. All tower-mounted equipment shall be painted and maintained with a cool grey color. The ground-level storage cabinet shall continue to be maintained with a natural finish or an earth-tone color.
5. The wireless telecommunication facility and all equipment associated with it shall be removed in its entirety by the applicant within 90 days if the Federal Communications Commission (FCC) and/or California Public Utilities Commission (CPUC) license and registration are revoked or the facility is abandoned or no longer needed, and the site shall be restored and revegetated to blend with the surrounding area. The owner and/or operator of the wireless telecommunication facility shall notify the County Planning Department upon abandonment of the facility. Restoration and revegetation shall be completed within two months of the removal of the facility.
6. The applicant shall not enter into a contract with the landowner or lessee which reserves for one company exclusive use of the tower structure or the site for telecommunication facilities.
7. The applicant shall file, receive, and maintain all necessary licenses and registrations from the FCC, the CPUC and any other applicable regulatory bodies prior to initiating the operation of the wireless telecommunication facility. The applicant shall supply the Planning and Building Department with evidence of these licenses and registrations. If any required license is ever revoked, the applicant shall inform the Planning and Building Department of the revocation within 10 days of receiving notice of such revocation.



**COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT**

# **ATTACHMENT B**



0.57 0 0.28 0.57 Miles

WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
© Latitude Geographics Group Ltd.

1: 18,056



This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION



**COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT**

# **ATTACHMENT C**

### PROJECT DESCRIPTION

AT&T WIRELESS PROPOSES TO MODIFY AN EXISTING WIRELESS INSTALLATION. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- SELF SUPPORT WORK:**
- REMOVE (6) JAHH-65A-R3B ANTENNAS
  - REMOVE (2) RRSUS-11
  - REMOVE (2) 4478 B5 RRSUS
  - REMOVE (2) EXISTING MOUNTS
  - REMOVE (20) 7/8" COAX CABLES
  - INSTALL (2) AIR6472 B77G B77M ANTENNAS POS 2 @ 76-5" RAD
  - INSTALL (4) NNHH-65A-R4 ANTENNAS
  - INSTALL (2) 4490 B5/B12A RRSUS
  - INSTALL (2) SECTOR FRAME MOUNTS
  - INSTALL SIGNAGE AT BASE OF LATTICE TOWER PER EME REPORT
  - RELOCATE (2) RRSUS-32 B30 TO NEW MOUNT
  - RELOCATE (1) WCS-IMFQ-AMT-43 TO NEW MOUNT
  - RELOCATE (2) 4426 B66 RRSUS TO NEW MOUNT
  - RELOCATE (2) 4478 B14 RRSUS TO NEW MOUNT
  - RELOCATE (2) 4415 B2/B25 RRSUS TO NEW MOUNT
  - RELOCATE (2) JAHH-65A-R3B ANTENNAS TO NEW MOUNT
  - RELOCATE (1) TOWER MOUNT SLACK BOX TO SHELTER WALL

- GROUND WORK:**
- REMOVE (1) LINEAGE D 800A POWER PLANT
  - REMOVE (5) -48V (NE050AC48ATEZ) RECTIFIERS
  - REMOVE (2) -24V (NE075DC24A) CONVERTERS
  - REMOVE (1) AT&T GSM CABINET (RETIRED)
  - REMOVE (1) BATTERY RACK
  - INSTALL (1) NETSURE 7100 POWER PLANT
  - INSTALL (7) -58V CONVERTERS
  - INSTALL (8) -48V RECTIFIERS
  - INSTALL (4) 50AMP DC BREAKERS
  - INSTALL (1) G3/G4 BBU
  - INSTALL (1) +27 VDC VERTIV ESURE™ BULLET CONVERTER
  - INSTALL (1) BATTERY RACK
  - RELOCATE (16) 190 AH BATTERIES FROM BATTERY RACK TO NEW BATTERY RACK

### SITE INFORMATION

PROPERTY OWNER: COUNTY OF SAN MATEO  
 ADDRESS: 555 COUNTY CENTER, 5TH FLOOR  
 REDWOOD CITY, CA 94063  
 SITE ADDRESS: 9852 CABRILLO NORTH HWY  
 HALF MOON BAY, CA 94019  
 COUNTY: SAN MATEO  
 LATITUDE (NAD83): 37°30'45.8"N (37.5127089)  
 LONGITUDE (NAD83): 122°29'39.1"W (-122.494195)  
 GROUND ELEVATION: 4001'-0" AMSL  
 ZONING JURISDICTION: COUNTY OF SAN MATEO  
 ZONING: AIRPORT  
 PARCEL NUMBER: 037292030  
 OCCUPANCY GROUP: U  
 CONSTRUCTION TYPE: IB  
 ELECTRIC PROVIDER: PG&E  
 TELCO PROVIDER: AT&T

### CONTACT INFORMATION

APPLICANT/LESSEE: AT&T MOBILITY SERVICES, LLC  
 5005 EXECUTIVE PKWY  
 SAN RAMON, CA 94583  
 PROJECT MANAGER  
 CONTACT: ROSALIND DUNCAN  
 EMAIL: RR6459@ATT.COM

ENGINEER: TEP OPCO, LLC.  
 326 TRYON RD.  
 RALEIGH, NC 27603  
 CIVIL CONTACT: STEPHEN BUNTING  
 ELECTRICAL CONTACT: MARK S. QUAKENBUSH  
 PHONE: (919) 661-6351

RF ENGINEER: AT&T MOBILITY  
 5005 EXECUTIVE PKWY  
 SAN RAMON, CA 94583  
 CONTACT: MARCELO PONTIN

SITE ACQUISITION MANAGER: CENTERLINE COMMUNICATIONS  
 CONTACT: CHARLES OTIS  
 EMAIL: COTIS@CLINELLC.COM

CONSTRUCTION MANAGER: AT&T MOBILITY  
 5005 EXECUTIVE PKWY  
 SAN RAMON, CA 94583  
 CONTACT: PHUNG NGUYEN  
 EMAIL: PN644T@ATT.COM

CONSTRUCTION TEAM: ERICSSON  
 CONTACT: JOSE MIGUEL YOCUPICIO  
 EMAIL: JOSE.MIGUEL.YOCUPICIO@ERICSSON.COM

### RF DATA SHEET

RFDS ID	RFDS-26614
LAST MODIFIED DATE	06/19/2025
ISSUE DATE	04/01/2024

### CODE COMPLIANCE

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 THESE CODES.

- CALIFORNIA BUILDING STANDARDS CODE: 2022 TRIENNIAL EDITION OF TITLE 24, WITH AN EFFECTIVE DATE OF JANUARY 1, 2023.  
 PART 1 - CALIFORNIA ADMINISTRATIVE CODE  
 PART 2 - CALIFORNIA BUILDING CODE, BASED ON THE 2021 INTERNATIONAL BUILDING CODE  
 PART 2.5 - CALIFORNIA RESIDENTIAL CODE, BASED ON THE 2021 INTERNATIONAL RESIDENTIAL CODE  
 PART 3 - CALIFORNIA ELECTRICAL CODE, BASED ON THE 2020 NATIONAL ELECTRICAL CODE  
 PART 4 - CALIFORNIA MECHANICAL CODE, BASED ON THE 2021 UNIFORM MECHANICAL CODE  
 PART 5 - CALIFORNIA PLUMBING CODE, BASED ON THE 2021 UNIFORM PLUMBING CODE  
 PART 6 - CALIFORNIA ENERGY CODE  
 PART 7 - VACANT  
 PART 8 - CALIFORNIA HISTORICAL BUILDING CODE  
 PART 9 - CALIFORNIA FIRE CODE, BASED ON THE 2021 INTERNATIONAL FIRE CODE  
 PART 10 - CALIFORNIA EXISTING BUILDING CODE, BASED ON THE 2021 INTERNATIONAL EXISTING BUILDING CODE  
 PART 11 - CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC; ALSO KNOWN AS CALGREEN)  
 PART 12 - CALIFORNIA REFERENCED STANDARDS CODE ANSITIA-222 (REV H)
- 2021 NFPA 101, LIFE SAFETY CODE
- 2022 NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE
- 2022 NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS



# AT&T

Coastside Fire Protection District  
**CONDITIONAL APPROVAL**  
 Subject to field inspection and required test, notations herein, conditions in correspondence, and conformance with applicable regulations. The stamping of these plans shall not be held to permit or approve the violation of any law.  
 By Clinton Dyer Date 08/05/2025

REVIEWED FOR CODE COMPLIANCE  
 This review does not authorize violation of State or County building laws.

Aug 06 2025

SAN MATEO CO. BLDG. INSP. DIV.

JOB COPY  
 TO REMAIN ON  
 SITE AT ALL TIMES



5005 EXECUTIVE PKWY  
 SAN RAMON, CA 94583



6300 LEGACY DRIVE  
 PLANO, TX 75024



TEP OPCO, LLC.  
 326 TRYON RD. RALEIGH, NC  
 27603 OFFICE: (919) 661-6351

TEP IS A FAMILY OF COMPANIES LICENSED TO PROVIDE DIFFERENT SERVICES IN DIFFERENT JURISDICTIONS. DEPENDING ON THE JURISDICTION, PROFESSIONAL ENGINEERING AND LAND SURVEYING SERVICES ARE PROVIDED BY TEP OPCO LLC, A DELAWARE LIMITED LIABILITY COMPANY, TEP ENGINEERING, PLLC, A NORTH CAROLINA PROFESSIONAL LIMITED LIABILITY COMPANY, OR M&H ENGINEERING, PLLC, A NEW YORK PROFESSIONAL LIMITED LIABILITY COMPANY. GENERAL CONTRACTOR SERVICES ARE PROVIDED BY TEP OPCO LLC, A DELAWARE LIMITED LIABILITY COMPANY. WE ACQUIRE THE REQUISITE LICENSES IN EACH STATE. ADDITIONAL INFORMATION CAN BE OBTAINED FROM THE COMPANY.

**APPROVED PLANNING**  
 Oct 28, 2025  
 BY: kcastrorivera  
 San Mateo County

**SITE NAME: HALF MOON BAY 1 - CABRILLO NORTH HIGHWAY**

**SITE NUMBER: CCL05346**

**PROJECT TYPE: CBAND/5G NR UPGRADE**

**9852 CABRILLO NORTH HWY,  
 HALF MOON BAY CA 94019**

**IWM #: WSSFR0050915, WSSFR0050260, WSSFR0050731,**

**WSSFR0050746, WSSFR0051337**

**PTN #: 3701A1DWJ3, 3701A1DWB6, 3701A1DWLW,**

**3701A1DW8F, 3701A1E5RB**

**FA #: 10095794 USID:12776**

**SELF SUPPORT / INDOOR EQUIPMENT**



NO SCALE

### DRIVING DIRECTIONS

**DIRECTIONS FROM AT&T OFFICE - 5005 EXECUTIVE PARKWAY:**  
 GET ON I-680 S FROM EXECUTIVE PKWY, CAMINO RAMON AND BOLLINGER CANYON RD. HEAD WEST, TURN RIGHT, TURN RIGHT TOWARD TURN R, GHT TOWARD EXECUTIVE P TURN RIGHT ONTO EXECUTIVE PKWY, TURN RIGHT ONTO CAMINO RAMON, USE THE RIGHT 2 LANES TO TURN RIGHT ONTO BOLLINGER CANYON RD, SLIGHT RIGHT TO MERGE ONTO I-680 S, TAKE I-680 W TO CA-92 W IN SAN MATEO COUNTY, MERGE WITH I-680 S, USE THE RIGHT 2 LANES TO TAKE EXIT 30B TO MERGE WITH I-680 W TOWARD DUBLIN/OAKLAND, KEEP LEFT TO CONTINUE ON I-680 N, FOLLOW SIGNS FOR I-680, USE THE RIGHT 2 LANES TO TAKE EXIT 16A TO MERGE WITH I-680 S TOWARD SAN JOSE/SAN MATEO BRG, USE THE RIGHT 2 LANES TO TAKE EXIT 27 TOWARD SAN MATEO/HALF MOON BAY, MERGE WITH CA-92 W, FOLLOW CA-92 W AND CA-1 N/CABRILLO HWY N TO YOUR DESTINATION IN MOSS BEACH, KEEP LEFT TO STAY ON CA-92 W, TURN RIGHT ONTO MAIN ST, TURN RIGHT ONTO CA-1 N/CABRILLO HWY N, TURN LEFT, TURN LEFT, KWY EXECUTIVE PKWY.

**GENERAL NOTES**  
 THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

DRAWING INDEX	
SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
T-2	GENERAL NOTES
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EME-1	EME PLAN
C-1	SITE PLAN
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C-2	EQUIPMENT LAYOUTS
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C-3.1	NORTHWEST ELEVATIONS
C-4	ANTENNA LAYOUTS
C-5	ANTENNA SCHEDULES
D-1	EQUIPMENT DETAILS
D-1.1	EQUIPMENT DETAILS
E-1	ELECTRICAL PANELS
E-2	ONE LINE DIAGRAM

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

**UNDERGROUND SERVICE ALERT**  
 UTILITY NOTIFICATION CENTER OF CALIFORNIA  
 (800) 642-2444  
 WWW.CALIFORNIA811.ORG

CALL 2-14 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

PROJECT#:	345903
DRAWN BY:	KPP
CHECKED BY:	JC
RFDS:	RFDS-26614

REV	DATE	DESCRIPTION
3	07/22/25	100% CONSTRUCTION
2	07/10/25	100% CONSTRUCTION
1	06/20/25	100% CONSTRUCTION
0	06/10/25	100% CONSTRUCTION
F	05/30/25	ISSUED FOR REVIEW
E	04/11/25	ISSUED FOR REVIEW
D	04/02/25	ISSUED FOR REVIEW
C	03/26/25	ISSUED FOR REVIEW
B	03/10/25	ISSUED FOR REVIEW
A	02/05/25	ISSUED FOR REVIEW



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

HALF MOON BAY 1 - CABRILLO NORTH HIGHWAY  
 CCL05346  
 9852 CABRILLO NORTH HWY  
 HALF MOON BAY, CA 94019  
 C-BAND/5G NR UPGRADE

SHEET TITLE  
 TITLE SHEET

SHEET NUMBER  
**T-1**

**GENERAL CONSTRUCTION NOTES**

- PLANS ARE INTENDED TO BE DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL CONTACT USA (UNDERGROUND SERVICE ALERT) AT (800) 227-2600, FOR UTILITY LOCATIONS, 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE IBC / UBC'S REQUIREMENTS REGARDING EARTHQUAKE RESISTANCE, FOR, BUT NOT LIMITED TO, PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS, AND MECHANICAL EQUIPMENT. ALL WORK MUST COMPLY WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
- REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWINGS, SHALL NOT BE USED TO IDENTIFY OR ESTABLISH BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT / ENGINEER.
- THE BUILDING DEPARTMENT ISSUING THE PERMITS SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK, OR AS OTHERWISE STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING JURISDICTION.
- DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.
- ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON THE PLAN HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT / ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS, OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTORS SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
- CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, BOTH HORIZONTAL AND VERTICALLY, PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT / ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT / ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE.
- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
- ANY DRAIN AND/OR FIELD TILE ENCOUNTERED / DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON "AS-BUILT" DRAWINGS BY GENERAL CONTRACTOR, AND ISSUED TO THE ARCHITECT / ENGINEER AT COMPLETION OF PROJECT.
- ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
- INCLUDE MISC. ITEMS PER AT&T SPECIFICATIONS

A.B.	ANCHOR BOLT	FDN.	FOUNDATION	SCH.	SCHEDULE
ABV.	ABOVE	F.O.C.	FACE OF CONCRETE	SHT.	SHEET
ACCA	ANTENNA CABLE COVER ASSEMBLY	F.O.M.	FACE OF MASONRY	SIM.	SIMILAR
ADD'L	ADDITIONAL	F.O.S.	FACE OF STUD	SPEC.	SPECIFICATIONS
A.F.F.	ABOVE FINISHED FLOOR	F.O.W.	FACE OF WALL	SQ.	SQUARE
A.F.G.	ABOVE FINISHED GRADE	F.S.	FINISH SURFACE	S.S.	STAINLESS STEEL
ALUM.	ALUMINUM	FT.( ' )	FOOT (FEET)	STD.	STANDARD
ALT.	ALTERNATE	FTG.	FOOTING	STL.	STEEL
ANT.	ANTENNA	G.	GROWTH (CABINET)	STRUC.	STRUCTURAL
APPRX.	APPROXIMATE(LY)	GA.	GAUGE	TEMP.	TEMPORARY
ARCH.	ARCHITECT(URAL)	GI.	GALVANIZE(D)	THK.	THICK(NESS)
AWG.	AMERICAN WIRE GAUGE	G.F.I.	GROUND FAULT CIRCUIT	T.N.	TOE NAIL
BLDG.	BUILDING	INTERRUPTER		T.O.A.	TOP OF ANTENNA
BLK.	BLOCK	GLB. (GLU-LAM)	GLUE LAMINATED BEAM	T.O.C.	TOP OF CURB
BLKG.	BLOCKING	GPS	GLOBAL POSITIONING SYSTEM	T.O.F.	TOP OF FOUNDATION
BM.	BEAM	GRND.	GROUND	T.O.P.	TOP OF PLATE (PARAPET)
B.N.	BOUNDARY NAILING	HDR.	HEADER	T.O.S.	TOP OF STEEL
BTCW.	BARE TINNED COPPER WIRE	HGR.	HANGER	T.O.W.	TOP OF WALL
B.O.F.	BOTTOM OF FOOTING	HT.	HEIGHT	TYP.	TYPICAL
B/U	BACK-UP CABINET	ICGB.	ISOLATED COPPER GROUND BUS	U.G.	UNDER GROUND
CAB.	CABINET	IN. ( " )	INCH(ES)	U.L.	UNDERWRITERS LABORATORY
CANT.	CANTILEVER(ED)	INT.	INTERIOR	U.N.O.	UNLESS NOTED OTHERWISE
C.I.P.	CAST IN PLACE	LB.(#)	POUND(S)	V.I.F.	VERIFY IN FIELD
CLG.	CEILING	L.B.	LAG BOLTS	W	WIDE (WIDTH)
CLR.	CLEAR	L.F.	LINEAR FEET (FOOT)	w/	WITH
COL.	COLUMN	L.	LONG(ITUDINAL)	WD.	WOOD
CONC.	CONCRETE	MAS.	MASONRY	W.P.	WEATHERPROOF
CONN.	CONNECTION(OR)	MAX.	MAXIMUM	WT.	WEIGHT
CONST.	CONSTRUCTION	M.B.	MACHINE BOLT	⊕	CENTERLINE
CONT.	CONTINUOUS	MECH.	MECHANICAL	⊖	PLATE, PROPERTY LINE
d	PENNY (NAILS)	MFR.	MANUFACTURER		
DBL	DOUBLE	MIN.	MINIMUM		
DEPT.	DEPARTMENT	MISC.	MISCELLANEOUS		
D.F.	DOUGLAS FIR	MTL.	METAL		
DIA.	DIAMETER	(N)	NEW		
DIAG.	DIAGONAL	NO.(#)	NUMBER		
DIM.	DIMENSION	N.T.S.	NOT TO SCALE		
DWG.	DRAWING(S)	O.C.	ON CENTER		
DWL.	DOWEL(S)	OPNG.	OPENING		
EA.	EACH	P/C	PRECAST CONCRETE		
EL.	ELEVATION	PCS	PERSONAL COMMUNICATION		
ELEC.	ELECTRICAL	SERVICES			
ELEV.	ELEVATOR	PLY.	PLYWOOD		
EMT.	ELECTRICAL METALLIC TUBING	PPC	POWER PROTECTION CABINET		
E.N.	EDGE NAIL	PRC	PRIMARY RADIO CABINET		
ENG.	ENGINEER	P.S.F.	POUNDS PER SQUARE FOOT		
EQ.	EQUAL	P.S.I.	POUNDS PER SQUARE INCH		
EXP.	EXPANSION	P.T.	PRESSURE TREATED		
EXST.(E)	EXISTING	PWR.	POWER (CABINET)		
EXT.	EXTERIOR	QTY.	QUANTITY		
FAB.	FABRICATION(OR)	RAD.(R)	RADIUS		
F.F.	FINISH FLOOR	REF.	REFERENCE		
F.G.	FINISH GRADE	REINF.	REINFORCEMENT(ING)		
FIN.	FINISH(ED)	REQ'D/	REQUIRED		
FLR.	FLOOR	RGS.	RIGID GALVANIZED STEEL		

**ABBREVIATIONS:**

GLUE LAMINATED BEAM	GLUE LAMINATED BEAM
GLOBAL POSITIONING SYSTEM	GLOBAL POSITIONING SYSTEM
GROUND	GROUND
HEADER	HEADER
HANGER	HANGER
HEIGHT	HEIGHT
ISOLATED COPPER GROUND BUS	ISOLATED COPPER GROUND BUS
INCH(ES)	INCH(ES)
INTERIOR	INTERIOR
POUND(S)	POUND(S)
LAG BOLTS	LAG BOLTS
LINEAR FEET (FOOT)	LINEAR FEET (FOOT)
LONG(ITUDINAL)	LONG(ITUDINAL)
MASONRY	MASONRY
MAXIMUM	MAXIMUM
MACHINE BOLT	MACHINE BOLT
MECHANICAL	MECHANICAL
MANUFACTURER	MANUFACTURER
MINIMUM	MINIMUM
MISCELLANEOUS	MISCELLANEOUS
METAL	METAL
NEW	NEW
NUMBER	NUMBER
NOT TO SCALE	NOT TO SCALE
ON CENTER	ON CENTER
OPENING	OPENING
PRECAST CONCRETE	PRECAST CONCRETE
PERSONAL COMMUNICATION	PERSONAL COMMUNICATION
PLYWOOD	PLYWOOD
POWER PROTECTION CABINET	POWER PROTECTION CABINET
PRIMARY RADIO CABINET	PRIMARY RADIO CABINET
POUNDS PER SQUARE FOOT	POUNDS PER SQUARE FOOT
POUNDS PER SQUARE INCH	POUNDS PER SQUARE INCH
PRESSURE TREATED	PRESSURE TREATED
POWER (CABINET)	POWER (CABINET)
QUANTITY	QUANTITY
RADIUS	RADIUS
REFERENCE	REFERENCE
REINFORCEMENT(ING)	REINFORCEMENT(ING)
REQUIRED	REQUIRED
RIGID GALVANIZED STEEL	RIGID GALVANIZED STEEL

**JOB COPY  
TO REMAIN ON  
SITE AT ALL TIMES**

**APPLICABLE CODES, REGULATIONS AND STANDARDS**

- SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION.
- THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
- SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:
  - AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
  - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, FIFTEENTH EDITION
  - TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES
  - INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRICAL EQUIPMENT.
  - IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")
  - TIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS TELCORDIA GR-63 NETWORK
  - EQUIPMENT-BUILDING SYSTEM (NEBS): PHYSICAL PROTECTION
  - TELCORDIA GR-347 CENTRAL OFFICE POWER WIRING
  - TELCORDIA GR-1275 GENERAL INSTALLATION REQUIREMENTS
  - TELCORDIA GR-1503 COAXIAL CABLE CONNECTIONS
  - ANY AND ALL OTHER LOCAL & STATE LAWS AND REGULATIONS
  - FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

**SYMBOLS LEGEND:**

	BLDG. SECTION		GROUT OR PLASTER
	WALL SECTION		(E) BRICK
	DETAIL		(E) MASONRY
	ELEVATION		CONCRETE
	DOOR SYMBOL		EARTH
	WINDOW SYMBOL		GRAVEL
	TILT-UP PANEL MARK		PLYWOOD
	PROPERTY LINE		SAND
	CENTERLINE		PLYWOOD
	ELEVATION DATUM		SAND
	GRID/COLUMN LINE		(E) STEEL
	KEYNOTE, DIMENSION ITEM		MATCH LINE
	KEYNOTE, CONSTRUCTION ITEM		GROUND CONDUCTOR
	WALL TYPE MARK		OVERHEAD SERVICE CONDUCTORS
	ROOM NAME ROOM NUMBER		TELEPHONE CONDUIT
			POWER CONDUIT
			COAXIAL CABLE
			CHAIN LINK FENCE
			WOOD FENCE
			(P) ANTENNA
			(P) RRU
			(P) DC SURGE SUPPRESSION
			(F) ANTENNA
			(F) RRU
			(E) EQUIPMENT



PROJECT#:	345903
DRAWN BY:	KPP
CHECKED BY:	JC
RFDS:	RFDS-26614

REV	DATE	DESCRIPTION
3	07/22/25	100% CONSTRUCTION
2	07/10/25	100% CONSTRUCTION
1	06/20/25	100% CONSTRUCTION
0	06/10/25	100% CONSTRUCTION
F	05/30/25	ISSUED FOR REVIEW
E	04/11/25	ISSUED FOR REVIEW
D	04/02/25	ISSUED FOR REVIEW
C	03/26/25	ISSUED FOR REVIEW
B	03/10/25	ISSUED FOR REVIEW
A	02/05/25	ISSUED FOR REVIEW



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

HALF MOON BAY 1 -  
CABRILLO NORTH HIGHWAY  
CCL05346  
9852 CABRILLO NORTH HWY  
HALF MOON BAY, CA 94019  
C-BAND/5G NR UPGRADE

SHEET TITLE  
**GENERAL NOTES**

SHEET NUMBER  
**T-2**

This Site Operated by:  
**AT&T MOBILITY**  
 5005 EXECUTIVE PKWY,  
 SAN RAMON, CA 94583  
 IN CASE OF FIRE AND THE NEED FOR SHUTDOWN  
 TO DEACTIVATE ANTENNAS CALL THE  
 FOLLOWING NUMBER:  
 For 24 Hour Emergency Contact and Access Please Call:  
 1-800-638-2822 (OPTION 9 AND 3)  
 Reference Site #: CCL05346  
 Site Address: 9852 CABRILLO NORTH HIGHWAY  
HALF MOON BAY, CA 94019

10 FENCED COMPOUND SIGNAGE  
N.T.S.

**DANGER**  
**NO TRESPASSING**

**INFORMATION**  
 Federal Communications Commission  
 Tower Registration Number  
**1 2 3 4 5 6 7**  
 Posted in accordance with federal Communications  
 Commission rules and antenna tower registration  
 47CFR 17.4(g).

9 FENCED COMPOUND SIGNAGE  
N.T.S.

**NOTICE**  
**AUTHORIZED PERSONNEL ONLY**

6 FCC ASR SIGNAGE  
N.T.S.

Property of AT&T  
**Authorized Personnel Only**  
 No Trespassing  
 Violators will be Prosecuted  
 In case of emergency, or prior to performing  
 maintenance on this site, call \_\_\_\_\_  
 and reference cell site number \_\_\_\_\_

8 DOOR / EQUIPMENT SIGN  
N.T.S.

**DANGER**  
**DIESEL FUEL**  
**NO SMOKING**  
**NO OPEN FLAMES**

**DANGER**  
**LEAD ACID BATTERIES**  
 CORROSIVE LIQUIDS (ELECTROLYTE)  
 ENERGIZED ELECTRICAL CIRCUITS  
**NO SMOKING**

5 GATE SIGNAGE  
N.T.S.

Property of AT&T  
**Authorized Personnel Only**  
 In case of emergency, or prior to performing  
 maintenance on this site, call \_\_\_\_\_  
 and reference cell site number \_\_\_\_\_

7 NFPA HAZARD SIGN - TYPICAL  
N.T.S.

4 SHELTER / CABINET DOORS SIGNAGE  
N.T.S.

**NOTICE**

AT&T operates antennas at this site.  
*Beyond This Point* you are entering an area  
 where radio frequency (RF) fields may exceed the  
 FCC General Population Exposure Limits.  
 Follow safety guidelines for working in an RF  
 environment.  
 Contact AT&T at 800-638-2822, option 9 and 3,  
 and follow their instructions prior to performing any  
 maintenance or repairs above this point.

Notice Sign 2  
(8" x 12")

**CAUTION**

AT&T operates antennas at this site.  
*Beyond This Point* you are entering an area  
 where radio frequency (RF) fields may exceed the  
 FCC Occupational Exposure Limits.  
 Follow safety guidelines for working in an RF  
 environment.  
 Contact AT&T at 800-638-2822, option 9 and 3,  
 and follow their instructions prior to performing  
 maintenance or repairs above this point.

Caution Sign 2  
(8" x 12")

**NOTICE TO WORKERS**

AVISO A LOS TRABAJADORES

AT&T opera antenas en este sitio.  
 Más allá de este punto, usted está entrando en un área  
 donde los campos de radiofrecuencia (RF) pueden exceder los  
 límites de exposición general de la FCC.  
 Siga las pautas de seguridad para trabajar en un entorno  
 de RF.  
 Contacte a AT&T al 800-638-2822, opción 9 y 3,  
 y siga sus instrucciones antes de realizar cualquier  
 mantenimiento o reparaciones por encima de este punto.

Trilingual Notice Sign

**CAUTION**

AT&T operates antennas at this site.  
*In The Striped Area* you are entering an area  
 where radio frequency (RF) fields may exceed the  
 FCC Occupational Exposure Limits.  
 Follow safety guidelines for working in an RF  
 environment.  
 Contact AT&T at 800-638-2822, option 9 and 3,  
 and follow their instructions prior to performing  
 maintenance or repairs within the striped area.

Caution Sign 2A  
(8" x 12")  
Use only if instructed by RF safety

**CAUTION**

On this tower:  
 Radio frequency (RF) fields near some antennas  
 may exceed the FCC Occupational Exposure Limits.  
 Contact AT&T at 800-638-2822, option 9 and 3,  
 and follow their instructions prior to performing  
 maintenance or repairs beyond this point.  
 Personnel climbing this tower should be trained  
 for working in RF environments and use a personal  
 RF monitor if working near active antennas.

Caution Sign 2B Tower  
(8" x 12")  
Use for Towers only

**CAUTION**

AT&T operates antennas at this site.  
*Beyond This Point* you are entering an area  
 where radio frequency (RF) fields may exceed the  
 FCC Occupational Exposure Limits.  
 Follow safety guidelines for working in an RF  
 environment.  
 Contact AT&T at 800-638-2822, option 9 and 3,  
 and follow their instructions prior to performing  
 maintenance or repairs beyond this point.

Caution Sign 2C Parapet  
(5" x 7")

**JOB COPY  
 TO REMAIN ON  
 SITE AT ALL TIMES**

Warning Sign #WA-1B-AL-128

**WARNING**

AT&T operates antennas at this site.  
*Beyond This Point* you are entering an area  
 where radio frequency (RF) fields exceed the  
 FCC Occupational Exposure Limits.  
 Failure to follow safety guidelines for working  
 in an RF environment could result in serious injury.  
 Contact AT&T at 800-638-2822, option 9 and 3,  
 and request assistance prior to proceeding  
 beyond this point.

Note: Both signs have the same 8" x 12" dimensions.  
 Shall be used when barriers are present  
 or will be deployed around AT&T  
 antennas - **Warning 1B**

Warning Sign #WA-2A-AL-128

**WARNING**

AT&T operates antennas at this site.  
*In The Striped Area* you are entering an area  
 where radio frequency (RF) fields exceed the  
 FCC Occupational Exposure Limits.  
 Failure to follow safety guidelines for working  
 in an RF environment could result in serious injury.  
 Contact AT&T at 800-638-2822, option 9 and 3,  
 and follow their instructions prior to performing  
 maintenance or repairs within the striped area.

Shall be used in lieu of barriers along with striping when  
 barriers are not allowed - **Warning 2A**.

**REQUIRE HQ / MRFSE APPROVAL**

1. CONTRACTOR SHALL INSTALL ALL INFORMATION SIGNAGE IN ACCORDANCE W/ AT&T WIRELESS DOCUMENT #03-0074, RF EXPOSURE POLICY AND RF SAFETY COMPLIANCE PROGRAM, LATEST EDITION.

2. FABRICATION:

\*SIGN 1-1: ENTRANCE DOOR, SEE DETAIL 1A, THIS SHEET

SIGN 1 IS TO BE MADE ON THE 50 MIL ALUMINUM SHEETING (SIZE 8 INCHES BY 12 INCHES) W/ FOUR (4) 1/4 INCH MOUNTING HOLES, ONE EACH CORNER OF THE SIGN FOR MOUNTING W/ HARDWARE W/ TIE WRAPS. THE MAIN BACKGROUND COLOR IS TO BE WHITE FRONT & BACK W/ BLACK LETTERING.

THE INFORMATION BAND SHALL BE 1.2 INCH SOLID GREEN BAND W. 0.5 INCH HIGH BLACK LETTERING. THE BODY TEXT SHALL BE IN BLACK LETTERING W/ 0.2 INCH HIGH LETTERS. THE REF LINE SHALL BE IN 1/8 INCH LETTERS.

THE PLACEMENT OF TEXT SHALL BE DONE IN A MANNER THAT WILL PERMIT EASY READING FROM A DISTANCE OF APPROXIMATELY 6 FEET IN FRONT OF THE SIGN.

ALL PAINT WILL BE BAKED W/ ENAMEL W/ UV PROTECTIVE COATING OVER THE

FACE OF THE SIGN.

\*SIGN 1-2: POLE, SEE DETAIL 1B, THIS SHEET

SIGN 2 MUST BE A NON METALLIC LABEL W/ AN ADHESIVE BACKING. THE LABEL SHALL BE MADE USING VINYL OR SIMILAR WEATHERPROOF MATERIAL. THE LABEL SHALL BE APPROXIMATELY 5X7 INCHES W/ A WHITE BACKGROUND AND BLACK LETTERING. THE GREEN BAND SHALL BE 1.375 INCH IN HEIGHT & THE LETTERING SHALL BE BLACK W/ 0.75 INCH HIGH LETTERS. THE TEXT LETTERING SHALL BE BLACK W/ 1/8 INCH HIGH LETTERS. UV PROTECTION SHALL BE PLACED OVER THE FRONT OF THE LABEL.

\*SIGN 1-3: BACK OF ANTENNAS, SEE DETAIL 1C & 3, THIS SHEET

\*SIGN 3 IS A 1 INCH X 2 INCH PANEL THAT CAN BE APPLIED TO THE BACK OR SIDE OF AN ANTENNA TO IDENTIFY IT AS AN AT&T ANTENNA.

\*SIGN 1-4: SIDE OF ANTENNAS, SEE DETAIL 1D & 3, THIS SHEET

SIGN 4 IS MADE FROM TRANSPARENT MATERIAL 1-1/2 INCHES WIDE & 24 INCHES LONG. THE LETTERING IS TO BE BLACK W/ 1/8 INCH LETTERING IN A VERTICAL COLUMN. THE SPACING BETWEEN WORDS MUST BE SUCH THAT IT IS EASILY READ & FILLS THE LENGTH OF THE SIGN.

3 ALERTING & INFORMATION SIGNAGE  
N.T.S.

SIGNAGE AND STRIPING INFORMATION

- THE FOLLOWING INFORMATION IS A GUIDELINE W/ RESPECT TO PREVAILING STANDARDS LIMITING HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY AND SHOULD BE USED AS SUCH. IF THE SITE'S EMF REPORT OR ANY LOCAL, STATE OR FEDERAL GUIDELINES OR REGULATIONS SHOULD BE IN CONFLICT W/ ANY PART OF THESE NOTES OR PLANS, THE MORE RESTRICTIVE GUIDELINE OR REGULATION SHALL BE FOLLOWED AND OVERRIDE THE LESSER.
- IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND THE AREA IS PUBLICLY ACCESSIBLE (e.g. ROOF ACCESS DOOR THAT CANNOT BE LOCKED, OR FIRE EGRESS) THEN BOTH BARRICADES AND STRIPING SHALL BE PLACED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES AND STRIPING SHALL BE DETERMINED BY THE EMF REPORT. USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING.
- ALL TRANSMIT ANTENNAS REQUIRE A THREE LANGUAGE WARNING SIGN WRITTEN IN ENGLISH, SPANISH, AND CHINESE. THIS SIGN SHALL BE PROVIDED TO THE CONTRACTOR AND THE AT&T CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION. THE LARGER SIGN SHALL BE PLACED IN PLAIN SIGHT AT ALL ROOF ACCESS LOCATIONS AND ON ALL BARRICADES. THE SMALLER SIGN SHALL BE PLACED ON THE ANTENNA ENCLOSURES IN A MANNER THAT IS EASILY SEEN BY ANY PERSON ON THE ROOF. WARNING SIGNS SHALL COMPLY W/ ANSI C95.2 COLOR, SYMBOL, AND CONTENT CONVENTIONS. ALL SIGNS SHALL HAVE AT&T'S NAME AND THE COMPANY CONTACT INFORMATION (e.g. TELEPHONE NUMBER) TO ARRANGE FOR ACCESS TO THE RESTRICTED AREAS. THIS TELEPHONE NUMBER SHALL BE PROVIDED TO THE CONTRACTOR BY THE AT&T CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION.
- PHOTOS OF ALL STRIPING, BARRICADES & SIGNAGE SHALL BE PART OF THE CONTRACTORS CLOSE OUT PACKAGE & SHALL BE TURNED INTO THE AT&T CONSTRUCTION PACKAGE & SHALL BE TURNED INTO THE AT&T CONSTRUCTION PROJECT MANAGER AT THE END OF CONSTRUCTION. STRIPING SHALL BE DONE W/ FADE RESISTANT YELLOW SAFETY PAINT IN A CROSS-HATCH PATTERN AS DETAILED BY THE CONSTRUCTION DRAWINGS. ALL BARRICADES SHALL BE MADE OF AN RF FRIENDLY MATERIAL SO AS NOT TO BLOCK OR INTERFERE W/ THE OPERATION OF THE ANTENNAS. BARRICADES SHALL BE PAINTED W/ FADE RESTRAINT YELLOW SAFETY PAINT. THE CONTRACTOR SHALL PROVIDE ALL RF FRIENDLY BARRICADES NEEDED, & SHALL PROVIDE THE AT&T CONSTRUCTION PROJECT MANAGER W/ A DETAILED SHOP DRAWING OF EACH BARRICADE UPON CONSTRUCTION COMPLETION.

2 DRAWING OF EACH BARRICADE UPON CONSTRUCTION  
N.T.S.

**EMERGENCY SHUT DOWN**

FOR IMMEDIATE SHUT DOWN OF ALL RADIO FREQUENCY EMISSIONS OF THIS SITE,

1) CALL CONTACT NUMBER AND GIVE SITE IDENTIFICATION NO.

CONTACT PHONE NUMBER: 1-800-638-2822 (OPTION 9 AND 3)  
 SITE IDENTIFICATION NUMBER: CCL05346

2) DISCONNECT POWER AT MAIN SERVICE DISCONNECT: LOCATED IN THE ELECTRICAL PANEL, WITHIN EQUIPMENT AREA AT GROUND LEVEL

3) DISCONNECT BACK-UP POWER AT BATTERY DISCONNECT: LOCATED IN THE BATTERY CABINET, WITHIN EQUIPMENT AREA AT GROUND LEVEL

- DRAWING NOTES:
- SIGN SHALL BE A PHENOLIC LABEL WITH WHITE BACKGROUND AND BLACK LETTERING. THE TITLE BLOCK SHALL BE A RED BACKGROUND AND 1" HIGH WHITE LETTERING.
  - CONTRACTOR TO PLACE SIGNS IN FOLLOWING LOCATIONS:
    - CELL SITE EQUIPMENT ROOM DOOR
    - BATTERY LOCATION WITHIN PROXIMITY OF BATTERY DISCONNECT
    - FCC ROOM WITHIN PROXIMITY OF THE FIRE ALARM PANEL
    - BUILDING'S MAIN ELECTRICAL ROOM WITHIN PROXIMITY OF THE MAIN SHUTOFF AND/OR THE CELL SITE MAIN ELECTRICAL DISCONNECT

NOTE:  
SIGN TO BE PERMANENTLY MOUNTED AT THE FOLLOWING LOCATIONS:

- CELL SITE EQUIPMENT ROOM DOOR
- BATTERY LOCATION WITHIN PROXIMITY OF BATTERY DISCONNECT
- FCC ROOM WITHIN PROXIMITY OF THE FIRE ALARM PANEL
- BUILDING'S MAIN ELECTRICAL ROOM WITHIN PROXIMITY OF THE MAIN SHUTOFF AND/OR THE CELL SITE MAIN ELECTRICAL DISCONNECT

1 EMERGENCY SHUT DOWN SIGN  
N.T.S.

5005 EXECUTIVE PKWY  
 SAN RAMON, CA 94583

6300 LEGACY DRIVE  
 PLANO, TX 75024

TEP OPCO, LLC.  
 326 TRYON RD. RALEIGH, NC  
 27603 OFFICE: (919) 661-6351

TEP IS A FAMILY OF COMPANIES LICENSED TO PROVIDE DIFFERENT SERVICES IN DIFFERENT JURISDICTIONS. DEPENDING ON THE JURISDICTION, PROFESSIONAL ENGINEERING AND LAND SURVEYING SERVICES ARE PROVIDED BY TEP OPCO, LLC, A DELAWARE LIMITED LIABILITY COMPANY. TEP ENGINEERING, PLLC, A NORTH CAROLINA PROFESSIONAL LIMITED LIABILITY COMPANY, OR IMH ENGINEERING, PLLC, A NEW YORK PROFESSIONAL LIMITED LIABILITY COMPANY. GENERAL CONTRACTOR SERVICES ARE PROVIDED BY TEP OPCO, LLC, A DELAWARE LIMITED LIABILITY COMPANY. WE ACQUIRE THE REQUISITE LICENSES IN EACH STATE. ADDITIONAL INFORMATION CAN BE OBTAINED FROM THE COMPANY.

PROJECT#:	345903
DRAWN BY:	KPP
CHECKED BY:	JC
RFDS:	RFDS-26614

REV	DATE	DESCRIPTION
3	07/22/25	100% CONSTRUCTION
2	07/10/25	100% CONSTRUCTION
1	06/20/25	100% CONSTRUCTION
0	06/10/25	100% CONSTRUCTION
F	05/30/25	ISSUED FOR REVIEW
E	04/11/25	ISSUED FOR REVIEW
D	04/02/25	ISSUED FOR REVIEW
C	03/26/25	ISSUED FOR REVIEW
B	03/10/25	ISSUED FOR REVIEW
A	02/05/25	ISSUED FOR REVIEW

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HALF MOON BAY 1 -  
 CABRILLO NORTH HIGHWAY  
 CCL05346  
 9852 CABRILLO NORTH HWY  
 HALF MOON BAY, CA 94019  
 C-BAND/5G NR UPGRADE

SHEET TITLE  
**SITE SIGNAGE**

SHEET NUMBER  
**T-3**



### Battery Range Summary

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

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

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

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



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

**Construction**

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

**Installation and Operation**

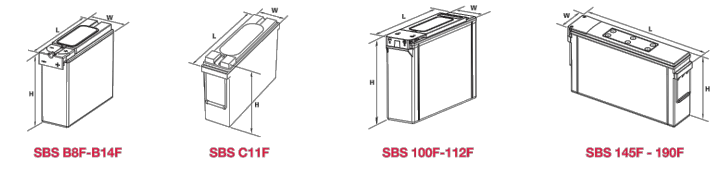
- Space efficient footprint
- VRLA design, reduces maintenance requirements
- Lifting handles for easy handling
- Greater than 10 year life expectancy in float service at 77°F (25°C)
- Increased active material surface area yields great cycling capability
- Operating temperature: -40°F (-40°C) to 122°F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

**Standards**

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

**General Specifications**

Cell Type	Nominal Capacity (Ah)		Nominal Dimensions			Weight - Volume				
	10 hr rate to 1.80Vpc @20°C	8 hr rate to 1.75Vpc @77°F	Length in	Width in	Height in	lbs	Unpacked kg			
SBS B8F	31	31	11.9	3.03	3.8	97	6.3	159	22.7	10.3
SBS B10F	38	38	11.9	3.03	3.8	97	7.2	184	28.2	12.8
SBS B14F	62	62	11.9	3.03	3.8	97	10.4	264	42.0	19.1
SBS C11F	92	91	16.4	4.17	4.1	105	10.1	256	61.6	28.0
SBS 100F	100	100	15.6	3.95	4.3	108	11.3	287	71.9	32.6
SBS 112F	112	112	22.1	5.61	4.9	125	9.0	228	90.4	41.1
SBS 145F	145	145	17.9	4.55	6.8	173	9.4	238	105.0	47.7
SBS 165F	165	165	17.9	4.55	6.8	173	10.8	273	117.4	53.3
SBS 170F	170	170	22.1	5.61	4.9	125	11.1	283	115.7	52.5
SBS 190F	190	190	22.1	5.61	4.9	125	12.4	318	132.3	60.0



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connect@alpinepowersystems.com  
877-993-8855

**Battery Services for Backup Power**

- Battery Installation
- Capacity and Acceptance
- Preventative Maintenance

backup power | telecom | motive power  
www.alpinepowersystems.com

5005 EXECUTIVE PKWY  
SAN RAMON, CA 94583

6300 LEGACY DRIVE  
PLANO, TX 75024

TEP OPCO, LLC.  
326 TRYON RD. RALEIGH, NC  
27603 OFFICE: (919) 661-6351

TEP IS A FAMILY OF COMPANIES LICENSED TO PROVIDE DIFFERENT SERVICES IN DIFFERENT JURISDICTIONS. DEPENDING ON THE JURISDICTION, PROFESSIONAL ENGINEERING AND LAND SURVEYING SERVICES ARE PROVIDED BY TEP OPCO, L.L.C., A DELAWARE LIMITED LIABILITY COMPANY; TEP ENGINEERING, P.L.L.C., A NORTH CAROLINA PROFESSIONAL LIMITED LIABILITY COMPANY; OR IMH ENGINEERING, P.L.L.C., A NEW YORK PROFESSIONAL LIMITED LIABILITY COMPANY. GENERAL CONTRACTOR SERVICES ARE PROVIDED BY TEP OPCO, L.L.C., A DELAWARE LIMITED LIABILITY COMPANY. WE ACQUIRE THE REQUISITE LICENSES IN EACH STATE. ADDITIONAL INFORMATION CAN BE OBTAINED FROM THE COMPANY.

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DRAWN BY:	KPP
CHECKED BY:	JC
RFDS:	RFDS-26614

REV	DATE	DESCRIPTION
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CCL05346  
9852 CABRILLO NORTH HWY  
HALF MOON BAY, CA 94019  
C-BAND/5G NR UPGRADE

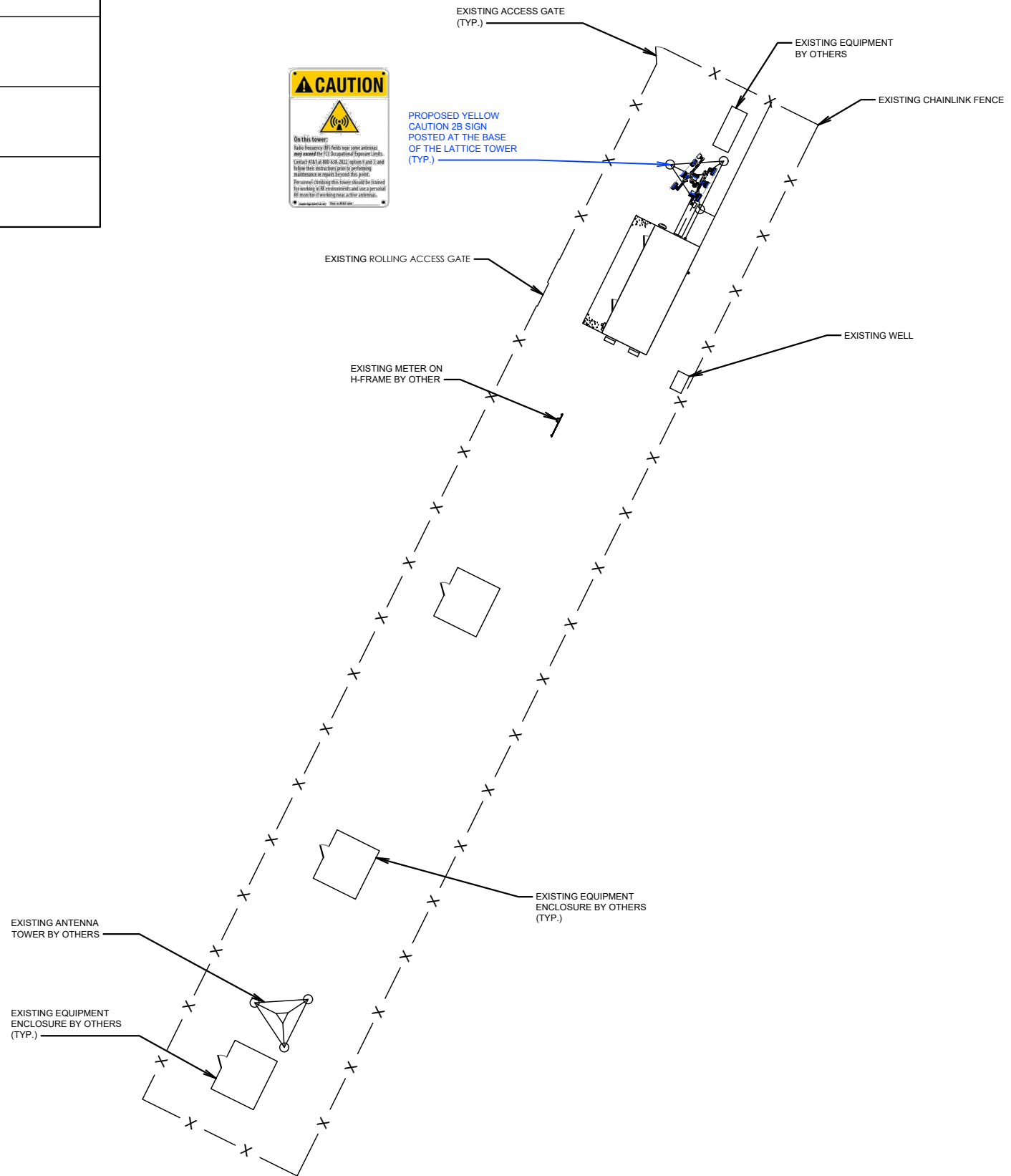
SHEET TITLE  
BATTERY INFORMATION

SHEET NUMBER  
**T-4**

BATTERY RESERVE TIME WITH FINAL BATTERY COUNT INCLUDING THIS SCOPE OF WORK				4 HOURS
BATTERY INFORMATION				
TOTAL KILOWATT HOURS (KWH) FOR SITE =		32.64		
TOTAL GALLONS OF ELECTROLYTES FOR SITE =		38.4		
INSTALLATION STATUS	BATTERY TYPE ( LEAD ACID)	TOTAL NUMBERS OF BATTERIES	TOTAL KWH FOR BATTERY TYPE	TOTAL GALLONS OF ELECTROLYTE
EXISTING	190A/HR	16	32.64	38.4
NEW	-	-	-	-
TOTAL	-	16	32.64	38.4

NOTE: BATTERY INSTALLATION WILL BE IN ACCORDANCE WITH CFC 2022 SECTION 12-7 INDOOR CABINETS.

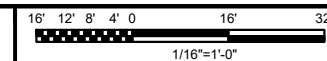
LOCATION	PROPOSED SIGNAGE	PROPOSED BARRIER(S)
ACCESS	YELLOW CAUTION 2B SIGN POSTED AT THE BASE OF THE LATTICE TOWER	NONE
ALPHA	NONE	NONE
BETA	NONE	NONE



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SITE AT ALL TIMES



EME PLAN



5005 EXECUTIVE PKWY  
SAN RAMON, CA 94583

6300 LEGACY DRIVE  
PLANO, TX 75024

TEP OPCO, LLC.  
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CCL05346  
9852 CABRILLO NORTH HWY  
HALF MOON BAY, CA 94019  
C-BAND/5G NR UPGRADE

SHEET TITLE  
EME PLAN

SHEET NUMBER  
**EME-1**

**NOTES**

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
  2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
  3. SITE PLAN DISCLAIMER: THE EXISTING INFORMATION SHOWN IN THESE PLANS HAVE BEEN BASED ON EXISTING SITE INFORMATION PROVIDED BY OTHERS. TEP HAS NOT COMPLETED A SITE SURVEY AND THEREFORE MAKES NO CLAIMS AS TO THE ACCURACY OF INFORMATION DEPICTED ON THIS SHEET.
- JOB COPY TO REMAIN ON SITE AT ALL TIMES
- THE TOWER IS LOCATED IN ZONE 'X' AREAS UNKNOWN OF MINIMAL FLOODING ACCORDING TO FEMA COMMUNITY PANEL# 06081C0037E EFFECTIVE DATED OCTOBER 16, 2012.



5005 EXECUTIVE PKWY  
SAN RAMON, CA 94583



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PLANO, TX 75024



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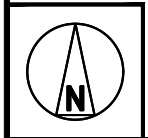
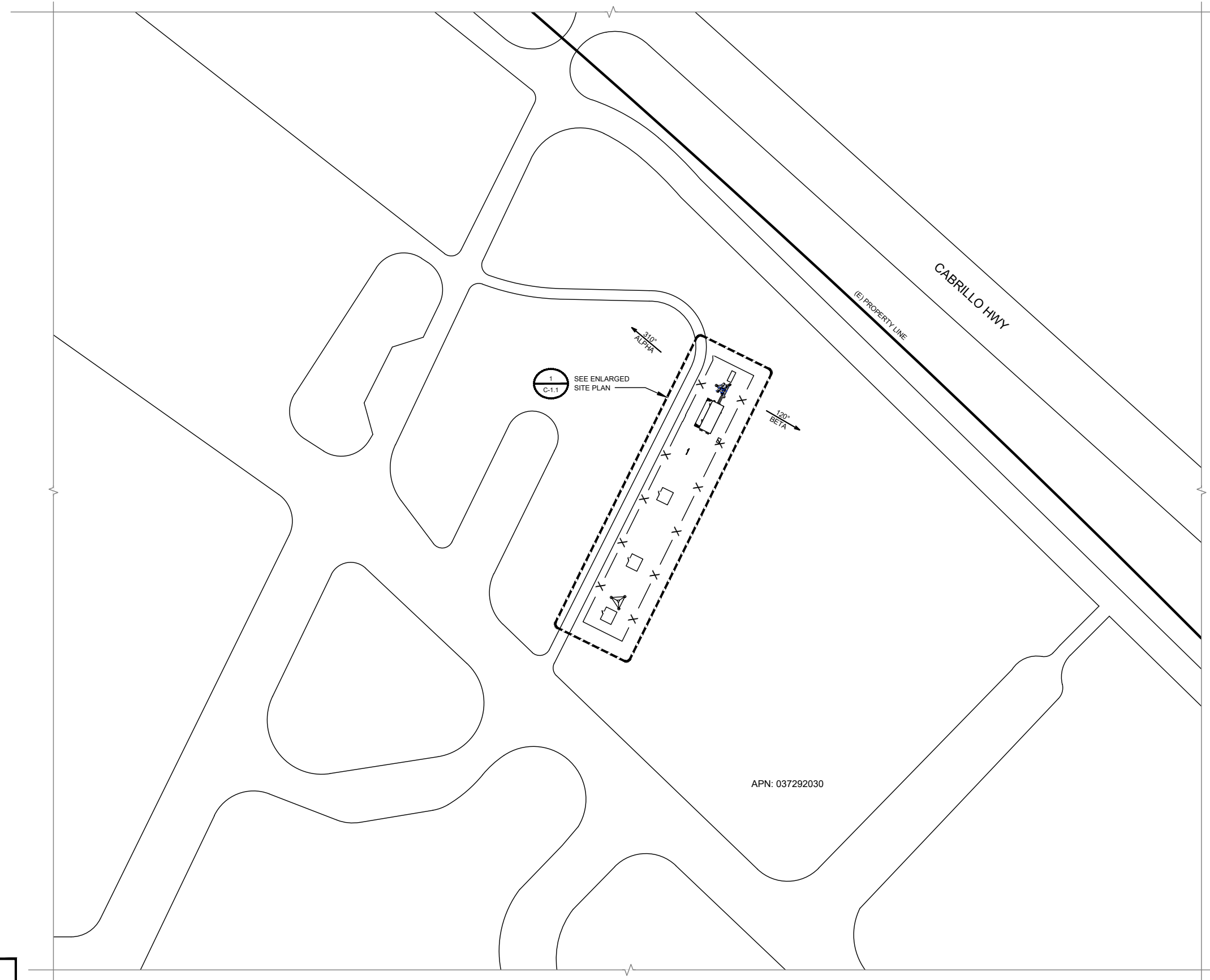


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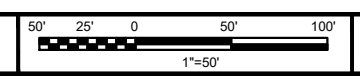
HALF MOON BAY 1 -  
CABRILLO NORTH HIGHWAY  
CCL05346  
9852 CABRILLO NORTH HWY  
HALF MOON BAY, CA 94019  
C-BAND/5G NR UPGRADE

SHEET TITLE  
SITE PLAN

SHEET NUMBER  
C-1



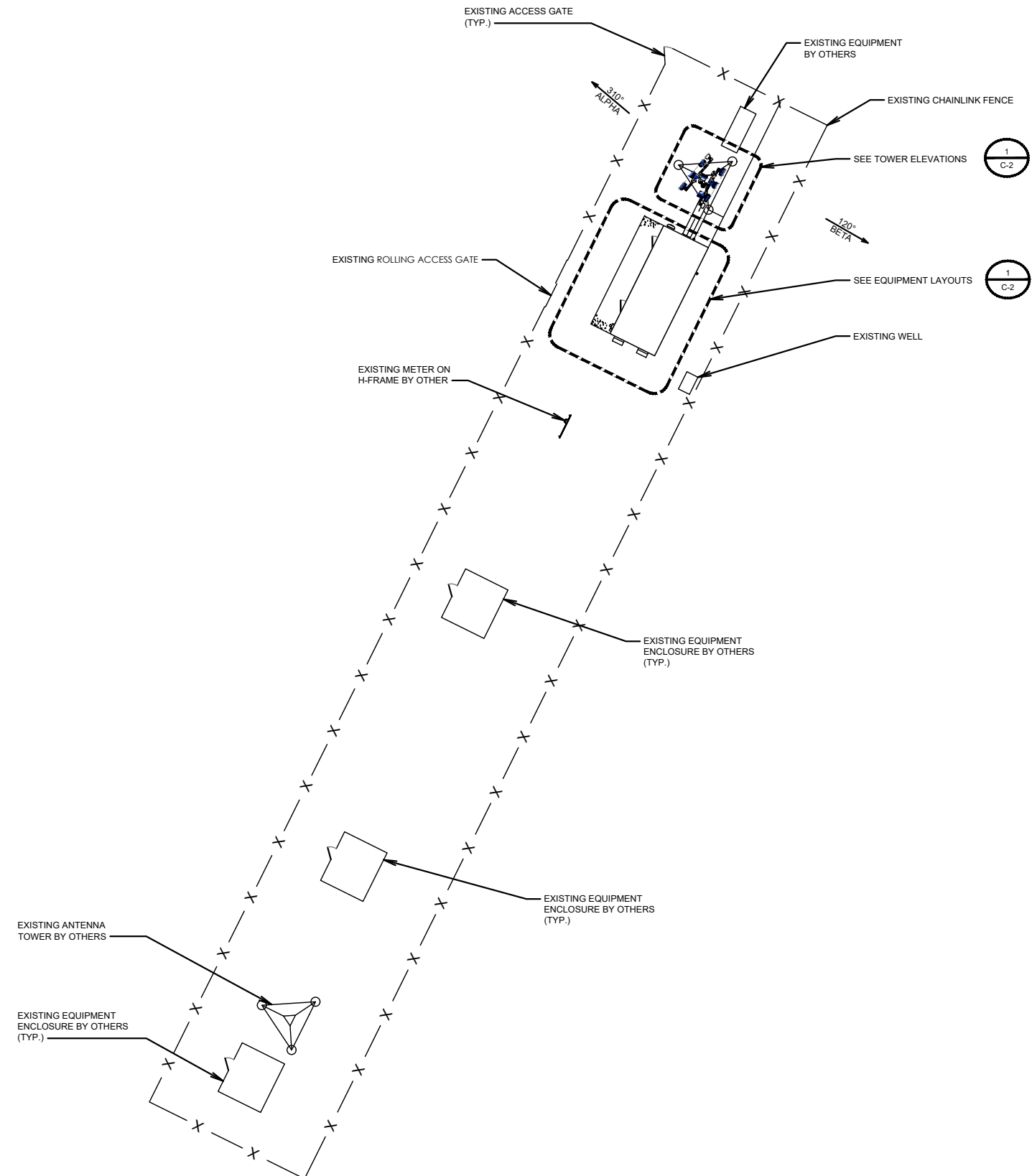
SITE PLAN



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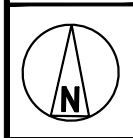


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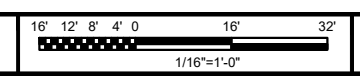
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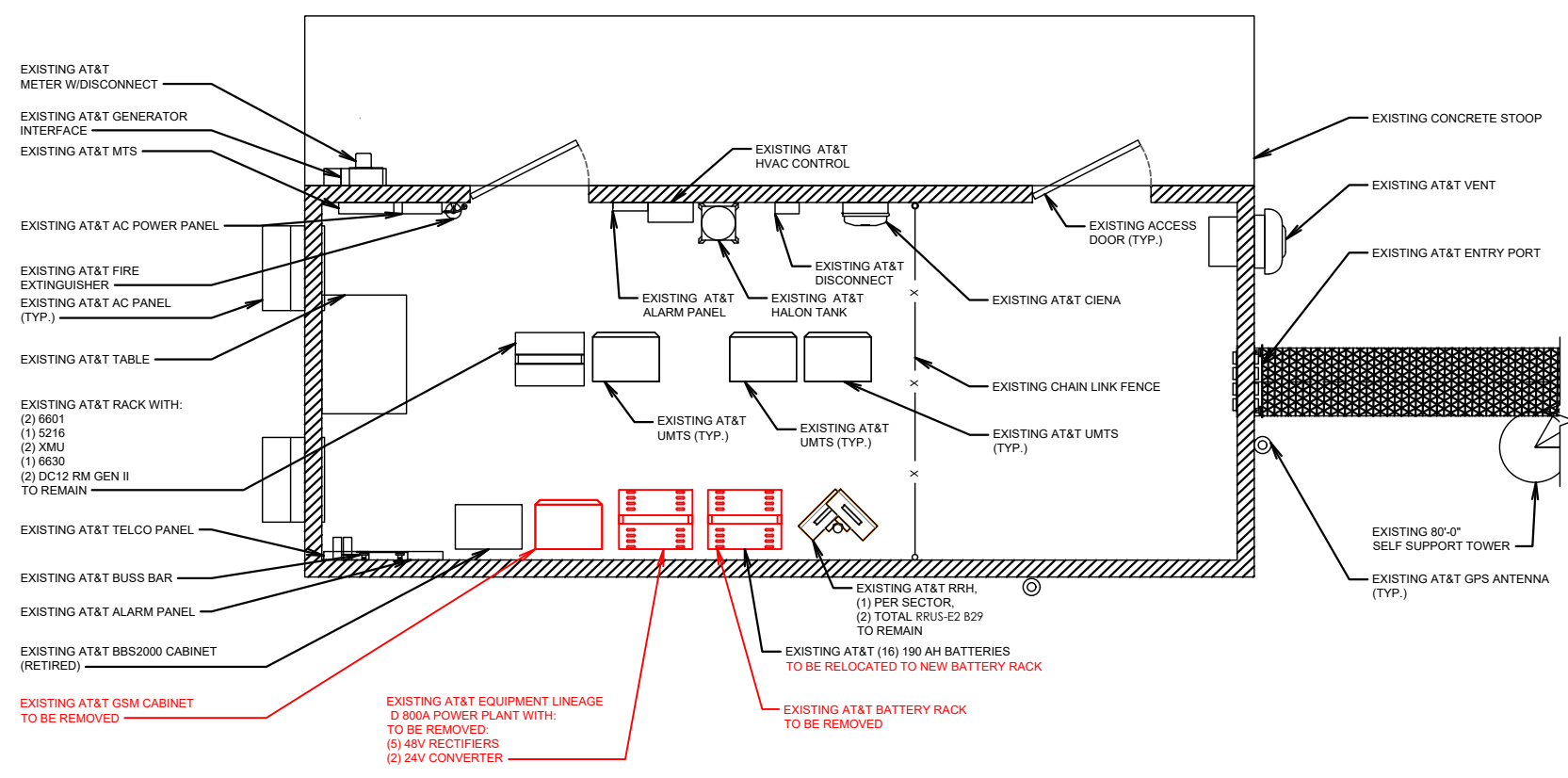
SHEET TITLE  
ENLARGED SITE PLAN

SHEET NUMBER  
**C-1.1**

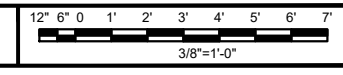


ENLARGED SITE PLAN

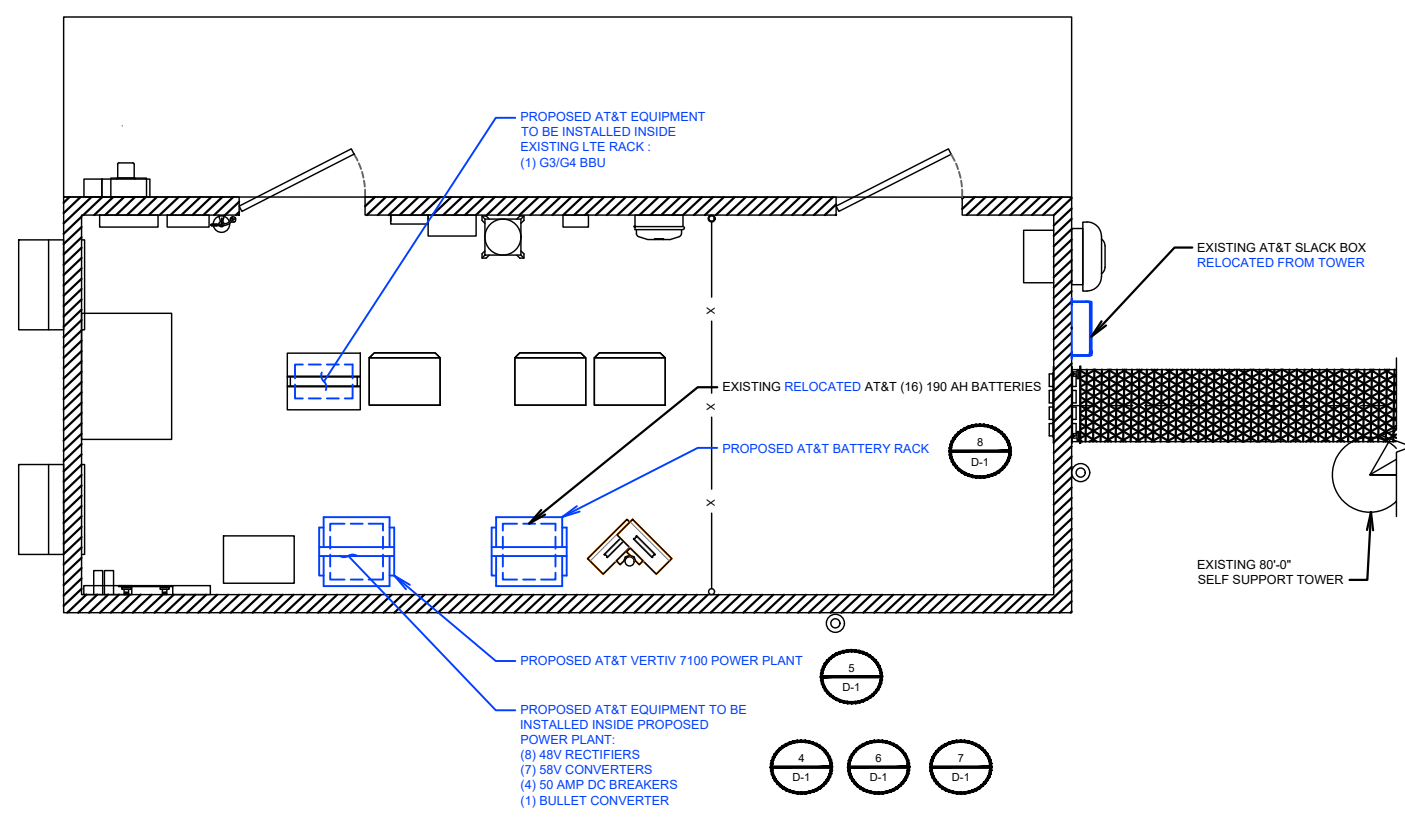




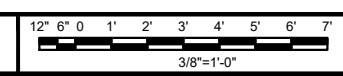
EXISTING EQUIPMENT LAYOUT



1



PROPOSED EQUIPMENT LAYOUT



2

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANY MODIFICATION TO THE EXISTING BONDING SYSTEM WILL BE RECONNECTED PRIOR TO COMPLETION OF CONSTRUCTION.
3. ALL EXISTING GROUNDING TO BE RECONNECTED PRIOR TO COMPLETION OF CONSTRUCTION.
4. TEP DID NOT PERFORM ANY HVAC ANALYSIS.

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SITE AT ALL TIMES

5005 EXECUTIVE PKWY  
SAN RAMON, CA 94583

6300 LEGACY DRIVE  
PLANO, TX 75024

TEP OPCO, LLC.  
326 TRYON RD. RALEIGH, NC  
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CCL05346  
9852 CABRILLO NORTH HWY  
HALF MOON BAY, CA 94019  
C-BAND/5G NR UPGRADE

SHEET TITLE  
EQUIPMENT LAYOUTS

SHEET NUMBER  
**C-2**

**CABLE SUPPORT HANGER NOTE:**

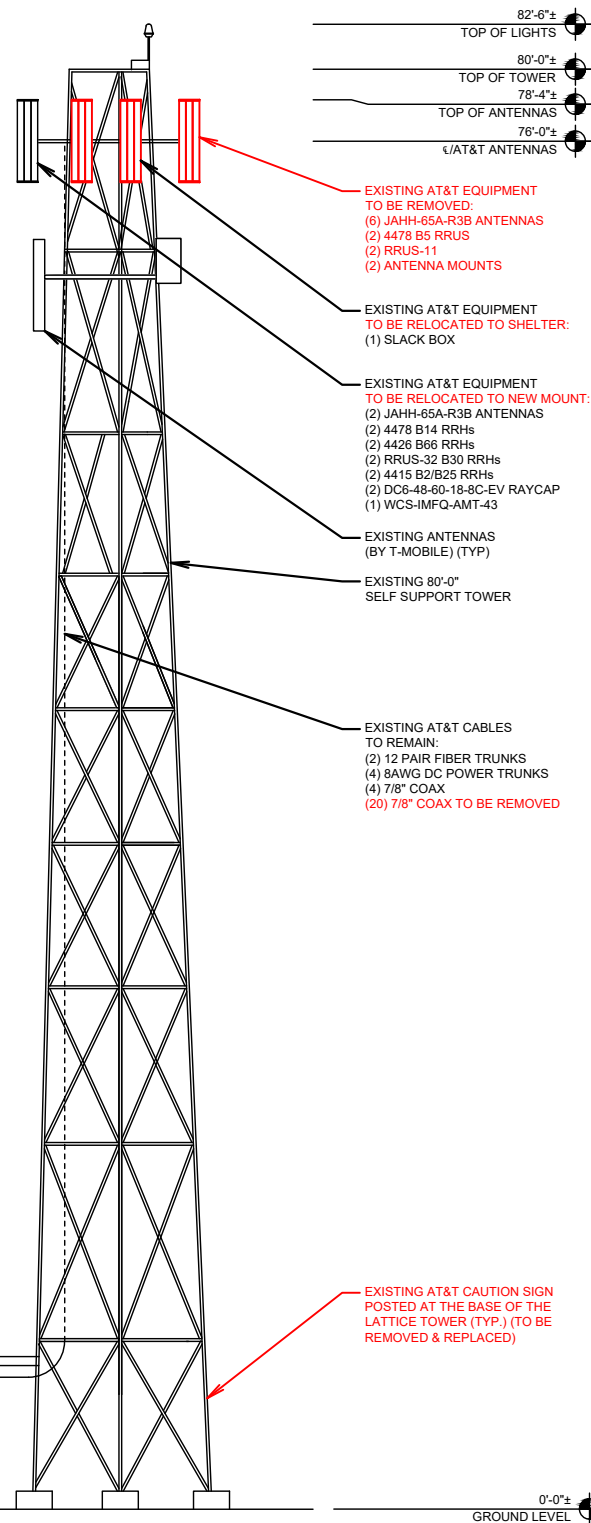
CONTRACTOR SHALL FIELD VERIFY EXISTING CABLE HOIST GRIPS SUPPORT METHOD. CONTRACTOR SHALL NOTE ANY EXISTING INSTALLATION NOT CONFORMING TO THE REQUIREMENTS APPROVAL. CONTRACTOR SHALL MAINTAIN A SUPPLY OF REMEDIATION HARDWARE WITH TOWER CREWS FOR ON-SITE REMEDIATION, WHEN APPROVED, WITHOUT REMOBILIZATION. INSTALL ALL HARDWARE PER MANUFACTURER REQUIREMENTS.

- ALL HOIST GRIPS SHALL BE SECURED TO TOWER STRUCTURE
- WRAPPING HOIST GRIPS OVER TOWER STEEL IS NOT PERMITTED
- USE OF SHACKLES IS PREFERRED
- BEAM CLAMPS OR ANGLE ADAPTERS ARE NOT PERMITTED FOR HOIST GRIPS
- HOIST GRIPS SHALL BE INSTALLED EVERY 200 FT OR PER CABLE MANUFACTURER REQUIREMENTS
- CHAIN NOT PERMITTED FOR HOIST GRIP SUPPORT

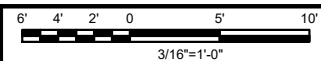
**COAX & CABLE INFORMATION**

- ALL EXISTING CABLES/COAX TO REMAIN UNLESS NOTED OTHERWISE
- (2) EXISTING 12 PAIR FIBER TRUNKS
- (4) EXISTING 8AWG DC POWER TRUNKS
- (4) EXISTING 7/8" COAX
- (20) EXISTING 7/8" COAX TO BE REMOVED

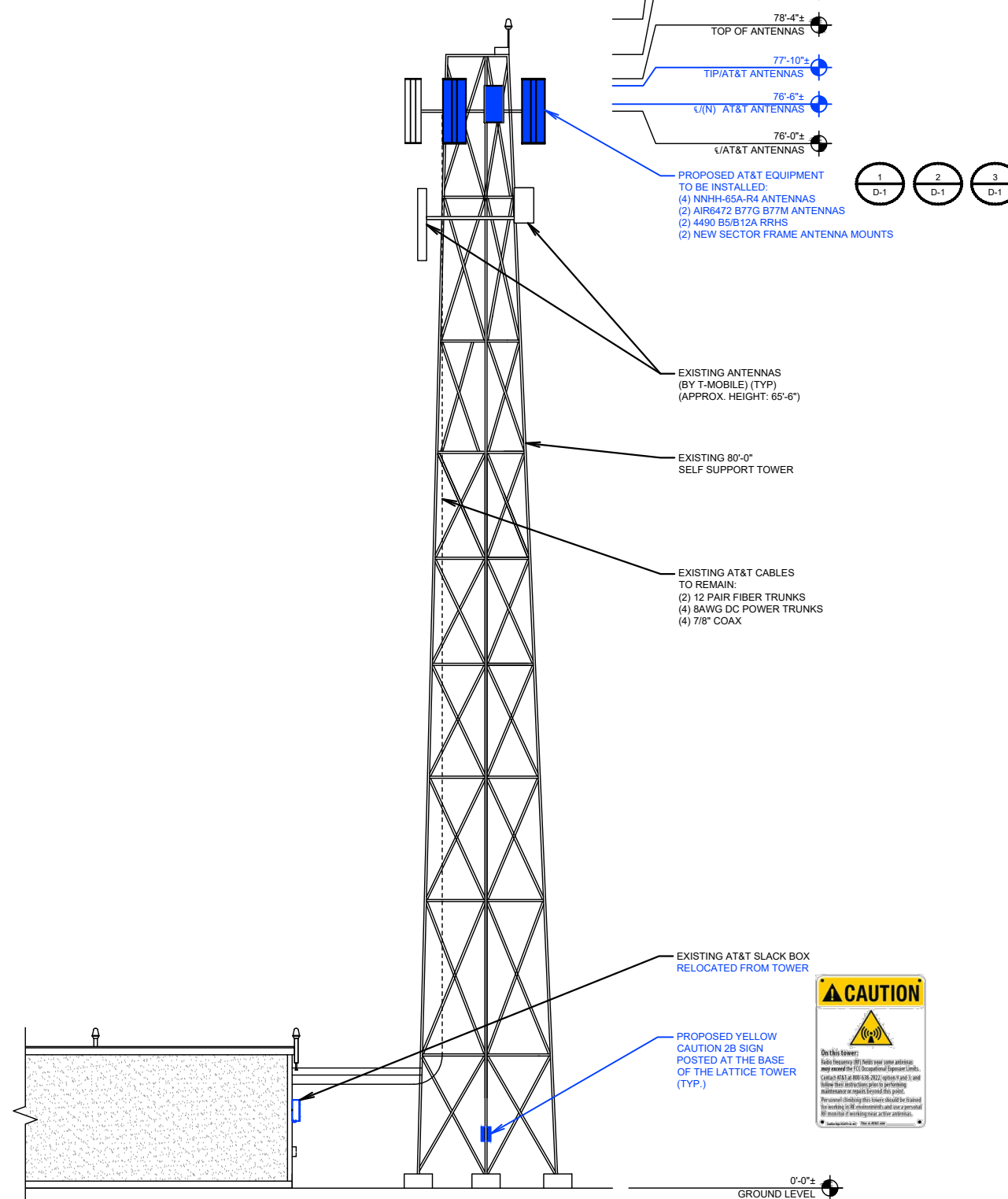
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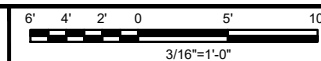
**EXISTING SOUTHEAST ELEVATION**



1



**PROPOSED SOUTHEAST ELEVATION**



2

5005 EXECUTIVE PKWY  
SAN RAMON, CA 94583

6300 LEGACY DRIVE  
PLANO, TX 75024

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SHEET TITLE  
SOUTHEAST ELEVATIONS

SHEET NUMBER  
**C-3**

**CABLE SUPPORT HANGER NOTE:**

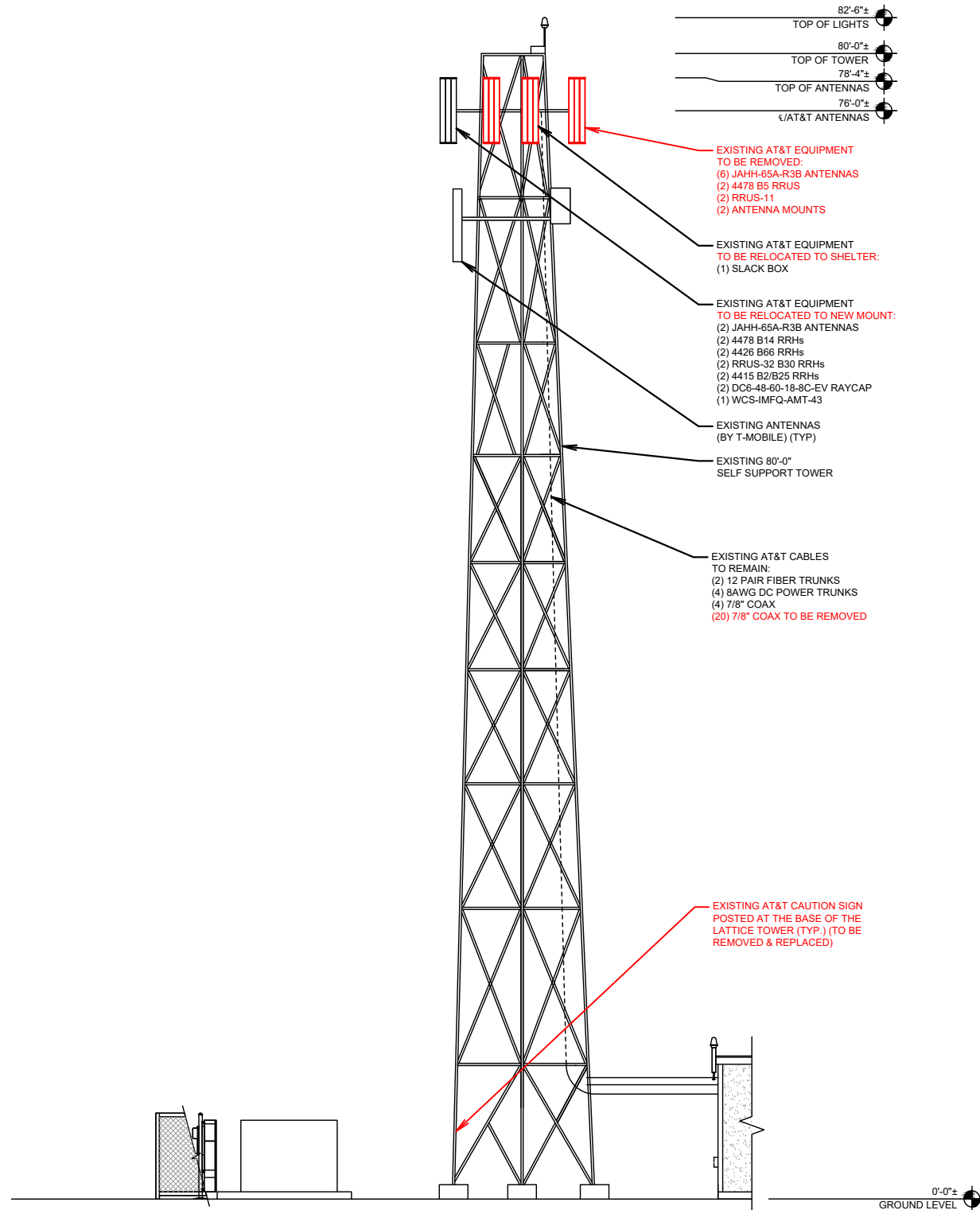
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- USE OF SHACKLES IS PREFERRED
- BEAM CLAMPS OR ANGLE ADAPTERS ARE NOT PERMITTED FOR HOIST GRIPS
- HOIST GRIPS SHALL BE INSTALLED EVERY 200 FT OR PER CABLE MANUFACTURER REQUIREMENTS
- CHAIN NOT PERMITTED FOR HOIST GRIP SUPPORT

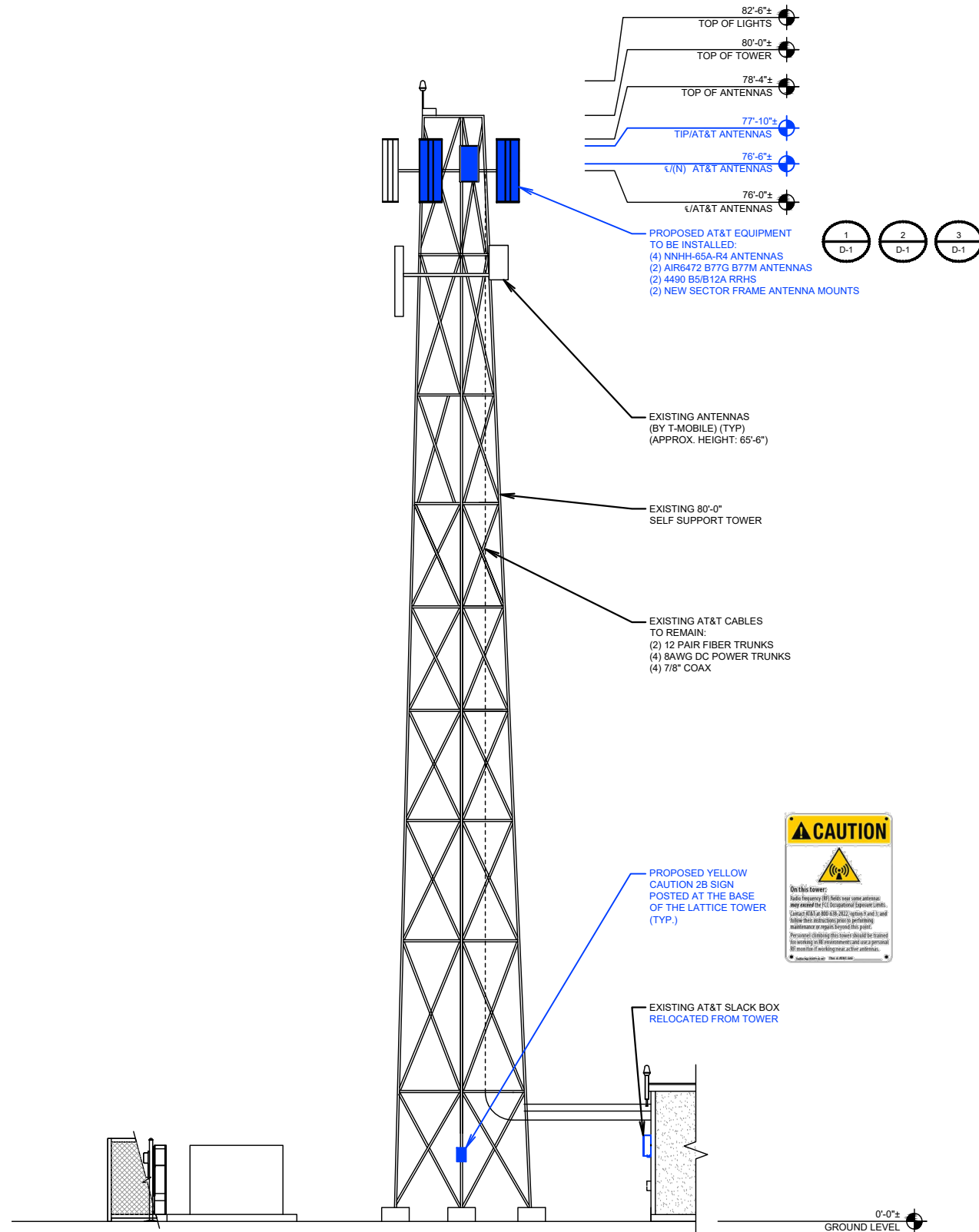
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SITE AT ALL TIMES**



**EXISTING NORTHWEST ELEVATION**



**PROPOSED NORTHWEST ELEVATION**

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SAN RAMON, CA 94583

6300 LEGACY DRIVE  
PLANO, TX 75024

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326 TRYON RD. RALEIGH, NC  
27603 OFFICE: (919) 661-6351

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PROJECT#:	345903
DRAWN BY:	KPP
CHECKED BY:	JC
RFDS:	RFDS-26614

REV	DATE	DESCRIPTION
3	07/22/25	100% CONSTRUCTION
2	07/10/25	100% CONSTRUCTION
1	06/20/25	100% CONSTRUCTION
0	06/10/25	100% CONSTRUCTION
F	05/30/25	ISSUED FOR REVIEW
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D	04/02/25	ISSUED FOR REVIEW
C	03/26/25	ISSUED FOR REVIEW
B	03/10/25	ISSUED FOR REVIEW
A	02/05/25	ISSUED FOR REVIEW

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HALF MOON BAY 1 -  
CABRILLO NORTH HIGHWAY  
CCL05346  
9852 CABRILLO NORTH HWY  
HALF MOON BAY, CA 94019  
C-BAND/5G NR UPGRADE

SHEET TITLE  
NORTHWEST ELEVATIONS

SHEET NUMBER  
**C-3.1**



5005 EXECUTIVE PKWY  
SAN RAMON, CA 94583



6300 LEGACY DRIVE  
PLANO, TX 75024



TEP OPCO, LLC.  
326 TRYON RD. RALEIGH, NC  
27603 OFFICE: (919) 661-6351

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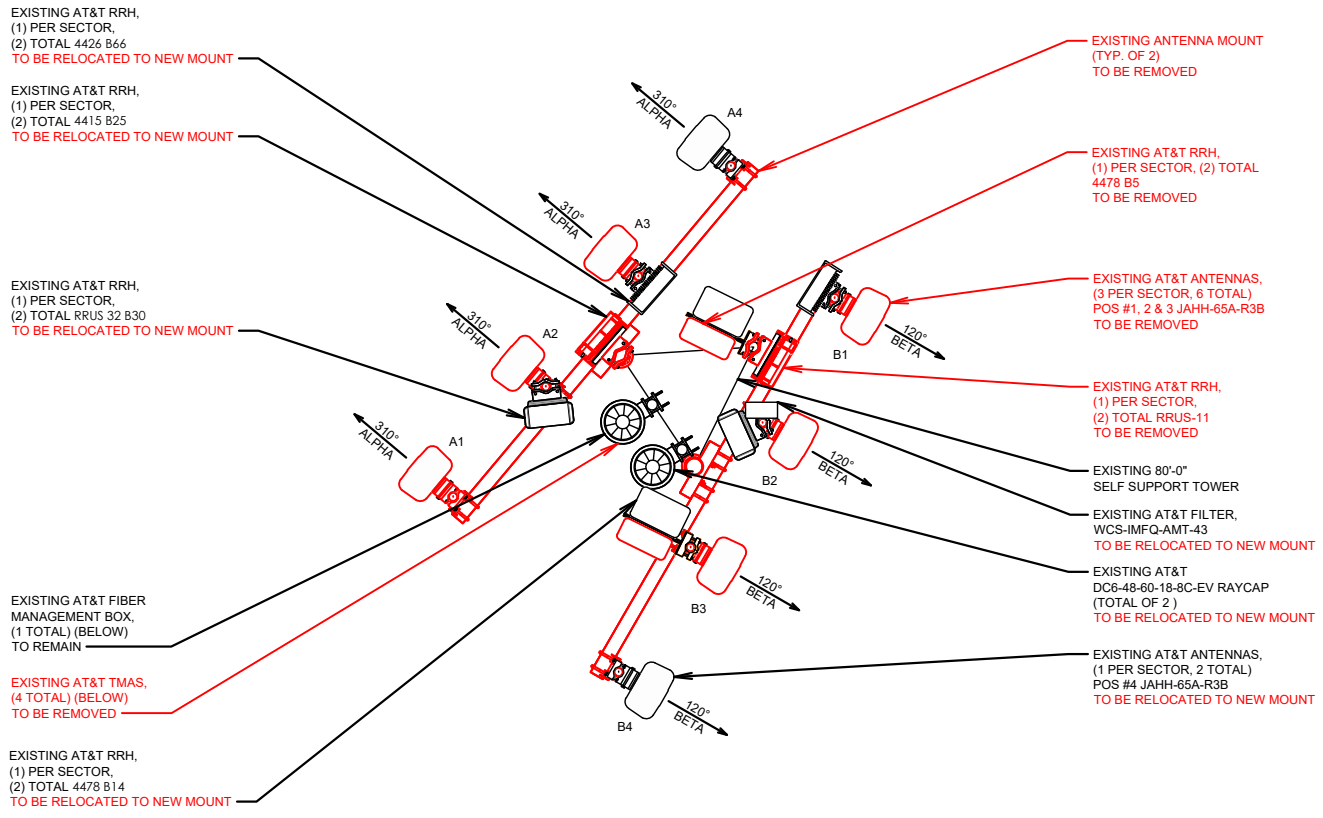
PROJECT#: 345903

DRAWN BY: KPP

CHECKED BY: JC

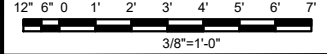
RFDS: RFDS-26614

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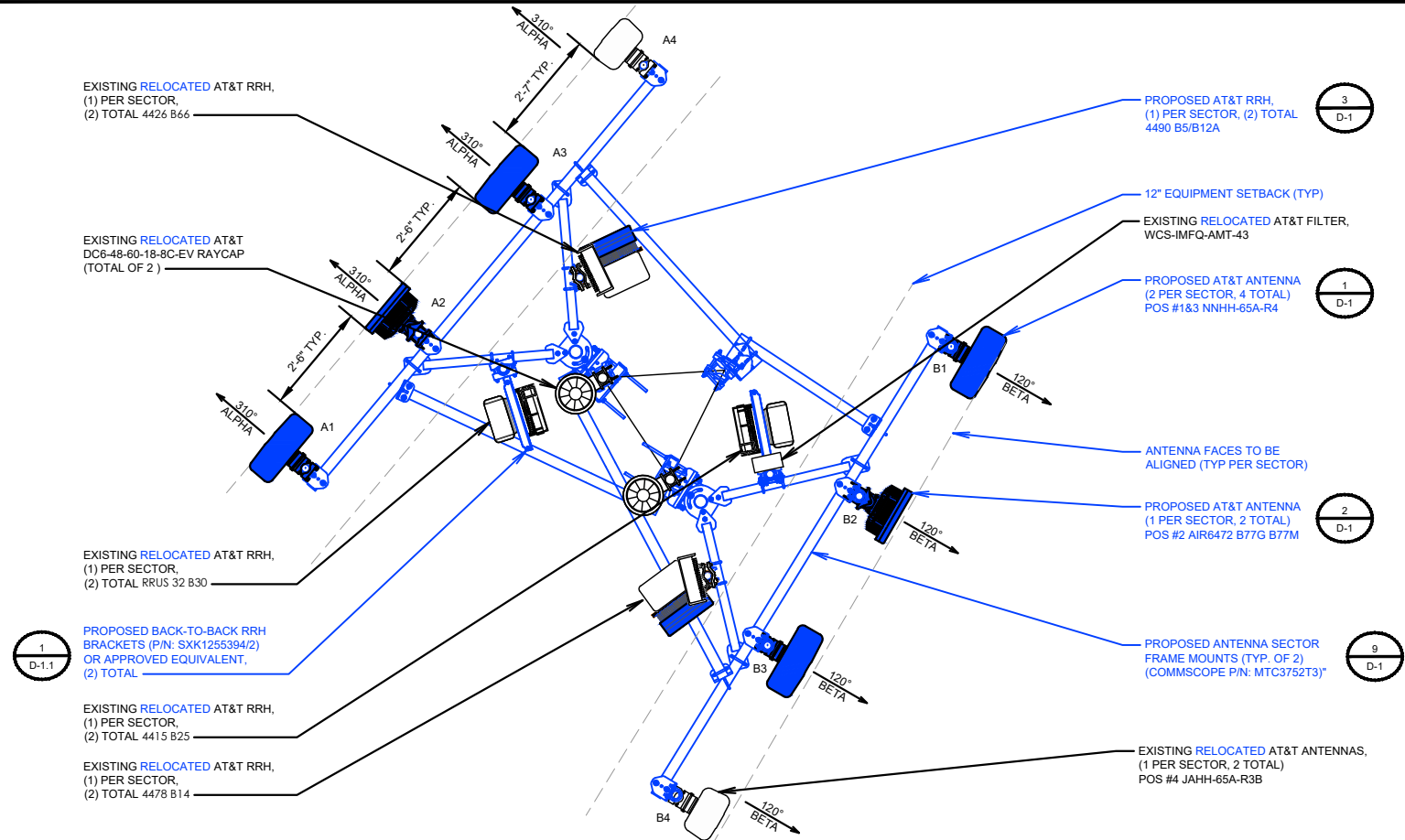
EXISTING ANTENNA LAYOUT



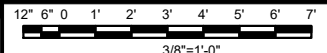
1

NOTE

1. ANTENNA PIPE MOUNTS TO BE EVENLY SPACED (PER SECTOR). ENSURE 24" SPACING IS MAINTAINED BETWEEN ANTENNAS.
2. ALL EXISTING GROUNDING TO BE RECONNECTED PRIOR TO CONSTRUCTION COMPLETE.



PROPOSED ANTENNA LAYOUT



2



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CABRILLO NORTH HIGHWAY  
CCL05346  
9852 CABRILLO NORTH HWY  
HALF MOON BAY, CA 94019  
C-BAND/5G NR UPGRADE

SHEET TITLE  
ANTENNA LAYOUTS

SHEET NUMBER  
C-4



5005 EXECUTIVE PKWY  
SAN RAMON, CA 94583



6300 LEGACY DRIVE  
PLANO, TX 75024



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CCL05346  
9852 CABRILLO NORTH HWY  
HALF MOON BAY, CA 94019  
C-BAND/5G NR UPGRADE

SHEET TITLE  
ANTENNA SCHEDULES

SHEET NUMBER  
**C-5**

SECTOR	TECH	ANTENNA MODEL	AZIMUTH	RAD CENTER	TMAS/FILTERS/COMBINERS	RRH/RRU MODEL & RELATED EQUIPMENT	SURGE SUPPRESSION MODEL	CABLE TYPE
A1	LTE	**JAHH-65A-R3B	310°	76'-0"		(1) RRUS 4415 B25 (1) RRUS-E2 B29	(1) DC6-48-60-18-8C-EV	(1) 12 PAIR FIBER TRUNK (2) 8AWG DC POWER TRUNK (2) 7/8" COAX <b>** (10) 7/8" COAX</b>
A2	LTE	**JAHH-65A-R3B	310°	76'-0"		(1) 4478 B14 (SHARED WITH A3) (1) RRUS-32 B30	-	SHARED
A3	LTE	**JAHH-65A-R3B	310°	76'-0"		(1) 4478 B14 (SHARED WITH A2) <b>** (1) 4478 B5</b> (1) 4426 B66	-	SHARED
A4	LTE	JAHH-65A-R3B	310°	76'-0"		<b>** (1) RRUS-11 LTE 700</b>	-	SHARED
B1	LTE	**JAHH-65A-R3B	120°	76'-0"		(1) RRUS 4415 B25 (1) RRUS-E2 B29	(1) DC6-48-60-18-8C-EV	(1) 12 PAIR FIBER TRUNK (2) 8AWG DC POWER TRUNK (2) 7/8" COAX <b>** (10) 7/8" COAX</b>
B2	LTE	**JAHH-65A-R3B	120°	76'-0"		(1) 4478 B14 (SHARED WITH A3) (1) RRUS-32 B30	-	SHARED
B3	LTE	**JAHH-65A-R3B	120°	76'-0"		(1) 4478 B14 (SHARED WITH A2) <b>** (1) 4478 B5</b> (1) 4426 B66	-	SHARED
B4	LTE	JAHH-65A-R3B	120°	76'-0"	WCS-IMFQ-AMT-43	<b>** (1) RRUS-11 LTE 700</b>	-	SHARED

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\*\*TO BE REMOVED

EXISTING ANTENNA SCHEDULE

NO SCALE

1

SECTOR	TECH	ANTENNA MODEL	AZIMUTH	RAD CENTER	TMAS/FILTERS/COMBINERS	RRH/RRU MODEL & RELATED EQUIPMENT	SURGE SUPPRESSION MODEL	CABLE TYPE
A1	5G	NNHH-65A-R4	310°	76'-0"		(1) 4490 B5/B12A (1) RRUS-32 B30	(1) DC6-48-60-18-8C-EV	(1) 12 PAIR FIBER TRUNK (2) 8AWG DC POWER TRUNK (2) 7/8" COAX
A2	5G	AIR6472 B77G B77M	310°	76'-6"		-	-	SHARED
A3	5G	NNHH-65A-R4	310°	76'-0"		(1) 4426 B66 (1) 4478 B14	-	SHARED
A4	LTE	JAHH-65A-R3B	310°	76'-0"		(1) RRUS E2 B29 (1) RRUS 4415 B25	-	SHARED
B1	5G	NNHH-65A-R4	120°	76'-0"	WCS-IMFQ-AMT-43	(1) 4490 B5/B12A (1) RRUS-32 B30	(1) DC6-48-60-18-8C-EV	(1) 12 PAIR FIBER TRUNK (2) 8AWG DC POWER TRUNK (2) 7/8" COAX
B2	5G	AIR6472 B77G B77M	120°	76'-6"		-	-	SHARED
B3	5G	NNHH-65A-R4	120°	76'-0"		(1) 4426 B66 (1) 4478 B14	-	SHARED
B4	LTE	JAHH-65A-R3B	120°	76'-0"		(1) RRUS E2 B29 (1) RRUS 4415 B25	-	SHARED

PROPOSED EQUIPMENT

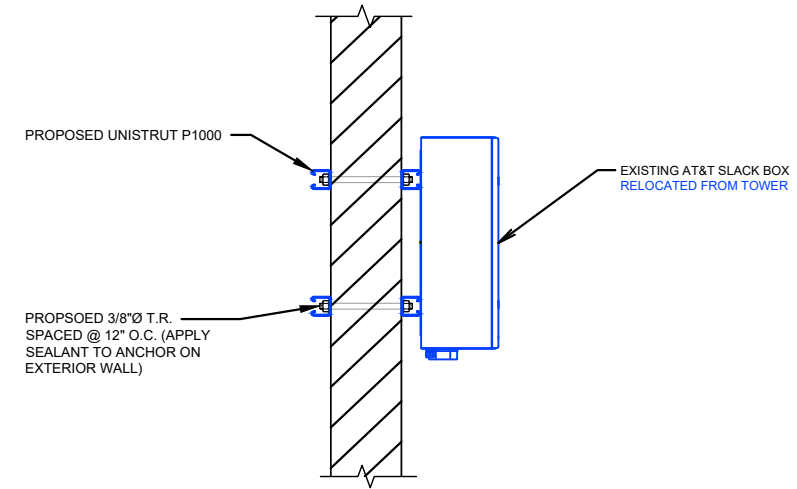
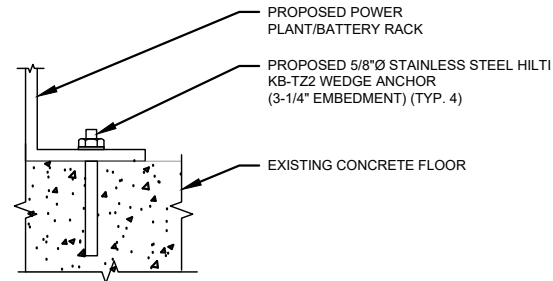
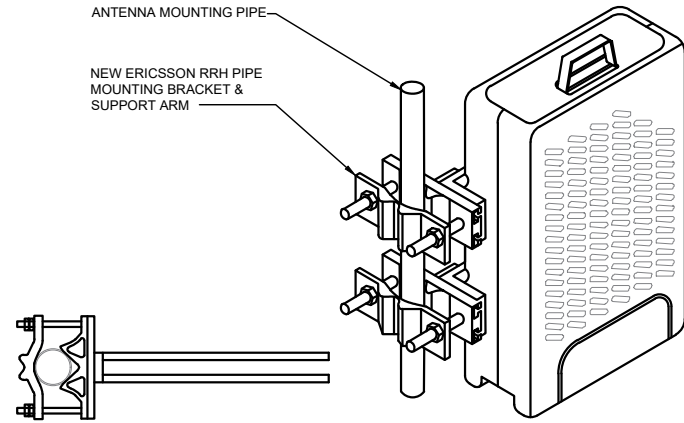
FINAL ANTENNA SCHEDULE

NO SCALE

2



ERICSSON SXX1255394/2  
 WEIGHT: 22.0 LBS  
 MAX EQUIPMENT WEIGHT: 2X110.0 LBS



DUAL RRH MOUNTING DETAIL

NO SCALE

1

PROPOSED CABINET ANCHORAGE DETAIL

NO SCALE

2

RELOCATED SLACK BOX MOUNTING DETAIL

NO SCALE

3

NOT USED

NO SCALE

4

NOT USED

NO SCALE

5

NOT USED

NO SCALE

6

NOT USED

NO SCALE

7

NOT USED

NO SCALE

8

NOT USED

NO SCALE

9

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5005 EXECUTIVE PKWY  
 SAN RAMON, CA 94583



6300 LEGACY DRIVE  
 PLANO, TX 75024



TEP OPCO, LLC.  
 326 TRYON RD. RALEIGH, NC  
 27603 OFFICE: (919) 661-6351

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HALF MOON BAY 1 -  
 CABRILLO NORTH HIGHWAY  
 CCL05346  
 9852 CABRILLO NORTH HWY  
 HALF MOON BAY, CA 94019  
 C-BAND/5G NR UPGRADE

SHEET TITLE  
 EQUIPMENT DETAILS

SHEET NUMBER  
**D-1.1**



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SAN RAMON, CA 94583



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CABRILLO NORTH HIGHWAY  
CCL05346  
9852 CABRILLO NORTH HWY  
HALF MOON BAY, CA 94019  
C-BAND/5G NR UPGRADE

SHEET TITLE  
ELECTRICAL PANELS

SHEET NUMBER  
E-1

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SITE AT ALL TIMES

EXISTING AC POWER PANEL A 120/240 VOLTS, 1-PHASE, 3-WIRE, 200A											
MAIN BREAKER RATING (A) :			200		SYSTEM VOLTAGE (V) :					240	
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
HVAC #1	4032	c	50/2	1	8064		2	50/2	c	4032	HVAC #2
	4032	c		3		8064	4		c	4032	
LIGHTS	500	nc	15/1	5	2420		6	20/1	nc	1920	INTERFACW
TOWER LIGHTS	500	nc	20/1	7		500	8	15/1	nc	0	LIGHT/OFF
RECTIFIER #1	611	c	40/2	9	1331		10	20/1	nc	720	RECEPT
	611	c		11		611	12	40/2	nc	0	SPARE
RECTIFIER #2	611	c	40/2	13	611		14		nc	0	SPARE
	611	c		15		611	16	40/2	nc	0	SPARE
RECTIFIER #3	611	c	40/2	17	611		18	40/2	nc	0	SPARE
	611	c		19		611	20	40/2	nc	0	SPARE
RECTIFIER #4	611	c	40/2	21	611		22		nc	0	SPARE
	611	c		23		1111	24	15/1	nc	500	HALON
RECTIFIER #5	611	c	40/2	25	1111		26	15/1	nc	500	EXT LIGHT
	611	c		27		611	28	20/1	nc	0	SPARE/OFF
3G/OFF	0	nc	15/2	29	0		30		nc	0	3G/OFF
	0	nc		31		0	32	15/2	nc	0	3G/OFF
3G/OFF	0	nc	15/2	33	0		34		nc	0	3G/OFF
	0	nc		35		0	36	15/2	nc	0	3G/OFF
3G/OFF	0	nc	20/2	37	0		38		nc	0	3G/OFF
	0	nc		39		0	40	20/2	nc	0	3G/OFF
BLANK				41	0		42				BLANK
PHASE TOTALS (VA):					14759	12119					
PHASE TOTALS (A):					123	101					
CURRENT PER PHASE W/ 125% Continuous Loads(A):					146	124	Amperes/phase cannot exceed main breaker rating				
PANEL TOTAL (VA):					26878	Legend: c = continuous, nc = non-continuous					
PANEL TOTAL W/ 125% Continuous Loads (VA):					32438						

PROPOSED AC POWER PANEL A 120/240 VOLTS, 1-PHASE, 3-WIRE, 200A											
MAIN BREAKER RATING (A) :			200		SYSTEM VOLTAGE (V) :					240	
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
HVAC #1	4032	c	50/2	1	8064		2	50/2	c	4032	HVAC #2
	4032	c		3		8064	4		c	4032	
LIGHTS	500	nc	15/1	5	2420		6	20/1	nc	1920	INTERFACW
TOWER LIGHTS	500	nc	20/1	7		500	8	15/1	nc	0	LIGHT/OFF
RECTIFIERS #1 & #2	1720	c	30/2	9	2440		10	20/1	nc	720	RECEPT
	1720	c		11		1720	12	40/2	nc	0	SPARE
RECTIFIERS #3 & #4	1720	c	30/2	13	1720		14		nc	0	SPARE
	1720	c		15		1720	16	40/2	nc	0	SPARE
RECTIFIERS #5 & #6	1720	c	30/2	17	1720		18	40/2	nc	0	SPARE
	1720	c		19		1720	20	40/2	nc	0	SPARE
RECTIFIERS #7 & #8	1720	c	30/2	21	1720		22		nc	0	SPARE
	1720	c		23		2220	24	15/1	nc	500	HALON
SPARE	0	c	40/2	25	500		26	15/1	nc	500	EXT LIGHT
	0	c		27		0	28	20/1	nc	0	SPARE/OFF
3G/OFF	0	nc	15/2	29	0		30		nc	0	3G/OFF
	0	nc		31		0	32	15/2	nc	0	3G/OFF
3G/OFF	0	nc	15/2	33	0		34		nc	0	3G/OFF
	0	nc		35		0	36	15/2	nc	0	3G/OFF
3G/OFF	0	nc	20/2	37	0		38		nc	0	3G/OFF
	0	nc		39		0	40	20/2	nc	0	3G/OFF
BLANK				41	0		42				BLANK
PHASE TOTALS (VA):					18584	15944					
PHASE TOTALS (A):					155	133					
CURRENT PER PHASE W/ 125% Continuous Loads(A):					186	164	Amperes/phase cannot exceed main breaker rating				
PANEL TOTAL (VA):					34528	Legend: c = continuous, nc = non-continuous					
PANEL TOTAL W/ 125% Continuous Loads (VA):					42000						

REVIEWED FOR CODE COMPLIANCE

This review does not authorize violation  
of State or County building laws.

Aug 06 2025

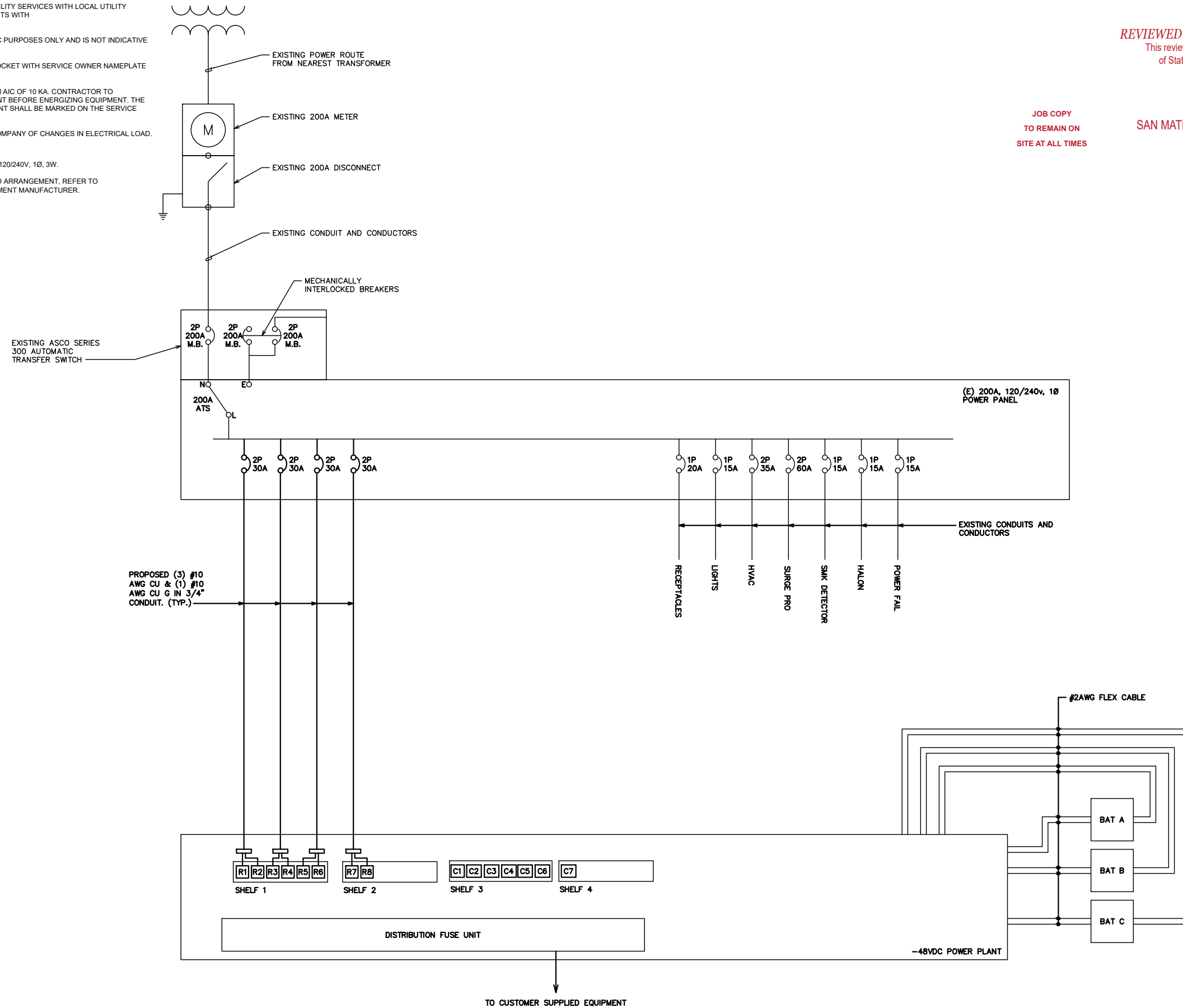
SAN MATEO CO. BLDG. INSP. DIV.

GENERAL NOTES:

- CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH POWER COMPANY AND ENSURE ALL ELECTRICAL EQUIPMENT IS SUITABLE FOR AVAILABLE FAULT CURRENT.
- CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH LOCAL UTILITY COMPANIES. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY STANDARDS.
- ONE-LINE DIAGRAM IS FOR SCHEMATIC PURPOSES ONLY AND IS NOT INDICATIVE OF THE ACTUAL EQUIPMENT LAYOUT.
- CONTRACTOR SHALL LABEL METER SOCKET WITH SERVICE OWNER NAMEPLATE WITH 1/2" HEIGHT MINIMUM LETTERS.
- 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.
- CONTRACTOR WILL NOTIFY UTILITY COMPANY OF CHANGES IN ELECTRICAL LOAD.

ONE-LINE DIAGRAM NOTES:

- ELECTRICAL SERVICE SHALL BE 200A, 120/240V, 1Ø, 3W.
- FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.



REVIEWED FOR CODE COMPLIANCE  
This review does not authorize violation  
of State or County building laws.

Aug 06 2025

SAN MATEO CO. BLDG. INSP. DIV.

*John Baird*

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CCL05346  
9852 CABRILLO NORTH HWY  
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C-BAND/5G NR UPGRADE

SHEET TITLE  
ONE LINE DIAGRAM

SHEET NUMBER  
E-2



**COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT**

**ATTACHMENT D**

# Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report

**Prepared For AT&T Mobility, LLC**

<b>Site Name:</b> <b>FA#:</b> <b>USID:</b> <b>Site ID:</b> <b>EBI Project Number:</b>	Half Moon Bay 1 - Cabrillo North Highway 10095794 12776 CCL05346 052663-PR
<b>Address:</b>	9852 Cabrillo North Highway Half Moon Bay, CA 94019
<b>County:</b> <b>Latitude:</b> <b>Longitude:</b> <b>Structure Type:</b>	San Mateo 37.5127 -122.4942 Lattice
<b>Ordered by:</b> <b>IWM Job:</b>	J5 Infrastructure Partners dba Centerline WSSFR0050915, WSSFR0050746, WSSFR0050260, WSSFR0050731, WSSFR0051337
<b>RFDS ID:</b>	RFDS-26614
<b>Report Writer:</b> <b>Report Date:</b>	Nathaniel Boucher 4 June 2025



## Statement of Compliance

Based on the information collected, AT&T Mobility will be Compliant with FCC Rules and Regulations at the nearest walking surface if the recommendations in the Compliance Summary are implemented.

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# 1. Executive Summary

## Purpose of Report

EBI Consulting has been contracted by AT&T Mobility, LLC to provide a Radio Frequency Electromagnetic Energy (RF-EME) compliance analysis and report for the above listed AT&T base station facility to determine whether the facility is in compliance with federal standards and regulations regarding RF emissions. This analysis includes theoretical emissions calculations to determine RF-EME exposure levels from proposed AT&T wireless communications equipment at this site. The Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures. This report summarizes the results of RF-EME modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

This report contains the RF EME analysis for the site, including the following:

- Site Plan with antenna locations
- Graphical representation of recommended signage and/or barriers

This document addresses the compliance of AT&T's transmitting facilities independently and in relation to all collocated facilities at the site.

<b>Table 1: Compliance status</b>	
Max Predictive Spatial Average MPE% at Ground Level (General Public):	4.517%
AT&T Mobility Site Compliance:	Based on the information collected, AT&T Mobility will be Compliant with FCC Rules and Regulations at the nearest walking surface if the recommendations in the Compliance Summary are implemented.

<b>Table 2: Documents used to prepare this report</b>	
Construction Drawings	10095794.AE201.RevF.CCL05346.06.02.25
RFDS	RFDS-26614_CCL05346_Design_Extract

## 2. Predicted Emissions

This section details predicted RF emissions levels present on any on-site applicable walking/working surfaces identified as well as applicable off-site areas, such as ground level or other points of interest, such as adjacent buildings. Results are provided as a percentage of the FCC OET 65 standard (unless otherwise specified).

EBI has conducted theoretical modeling to estimate the worst-case power density from AT&T antennas and other carrier antennas to document potential MPE levels at this location and ensure that site control measures are adequate to meet FCC requirements, as well as AT&T's corporate RF safety policies.

The assumptions used and inputs modelled are based upon information provided by AT&T and information gathered from other sources. T-Mobile antennas are present on the Lattice. Information about these antennas was included in the modeling analysis.

Information about the RF Compliance software and calculation methodology used are detailed in Appendix E: RF Compliance Simulation Software. Scale maps are included in highlighting mitigation strategies deployed or proposed to ensure EMF compliance, where applicable, as shown in Section 3: Mitigation Recommendations.

### 3. Mitigation Recommendations

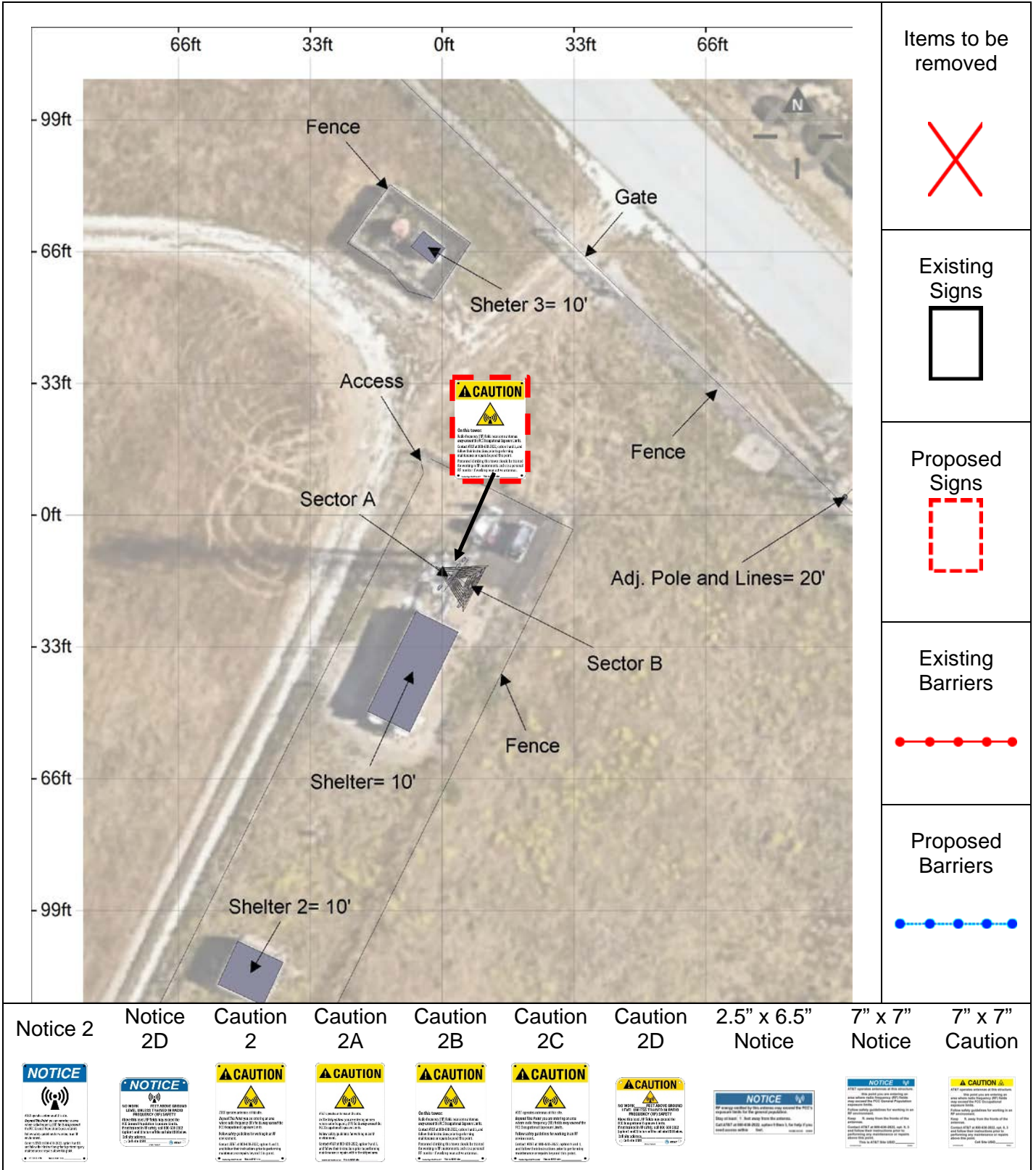
To reduce the risk of exposure and/or injury, EBI recommends that access to the Lattice or areas associated with the active antenna installation be restricted and secured where possible. Signage is recommended as presented below. Posting of the signage and installation of the recommended barriers brings the site into compliance with FCC rules and regulations and AT&T's corporate RF safety policies. Workers or members of the general public accessing areas directly in front of the other carrier antennas should contact the carrier and/or landlord to determine appropriate setbacks or measures to safely occupy those areas.

Table 3: Recommended Mitigation		
Location	Proposed Signage	Proposed Barrier(s)
Access	<ul style="list-style-type: none"> <li>▪ Yellow CAUTION 2B sign posted at the base of the lattice tower.</li> </ul>	None
Alpha Sector	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	None
Beta Sector	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	None

Barriers should be constructed of weather-resistant plastic or wood fencing. Barriers may consist of railing, rope, chain, or weather-resistant plastic if no other types are permitted or are feasible. Painted stripes should only be used as a last resort and only in regions where there is little chance of snowfall. If painted stripes are selected as barriers, it is recommended that the stripes and signage be illuminated. The signage and any barriers are graphically represented in the Signage Plan presented below. It is important to note that this Signage Plan is specific for AT&T antennas only and does not address RF emissions of other carrier antennas.

All workers and individuals accessing the Lattice or persons (including arborists), accessing elevated structures or trees within areas exceeding the general public MPE, must be made aware of the presence and locations of antennas and their associated fields, where applicable.

# Mitigation Overview



## 4. Limitations

This report was prepared for the use of AT&T Mobility, LLC to meet requirements outlined in AT&T's corporate RF safety guidelines. It was performed in accordance with generally accepted practices of the trade, albeit proprietary in specific content, including other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI and its partners are based solely on information supplied by AT&T, including modeling instructions, inputs, parameters and methods. Calculations, data, and modeling methodologies for C Band equipment include a statistical factor reducing the power to 32% of maximum theoretical power to account for spatial distribution of users, network utilization, time division duplexing, and scheduling time. AT&T recommends the use of this factor based on a combination of guidance from its antenna system manufacturers, supporting international industry standards, industry publications, and its extensive experience. The observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to EBI so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.

## 5. Appendices

## Appendix A: Certifications

### Report Preparer Certification

I, Nathaniel Boucher, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified “occupational” under the FCC regulations.
- I am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation.
- I have been trained in on the procedures outlined in AT&T’s RF Exposure: Responsibilities, Procedures & Guidelines document (dated October 28, 2014) and on RF-EME modelling using IXUS™ modelling software.
- I have reviewed the data provided by the client and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.



Reviewed and Approved by:



sealed 04jun2025

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Electrical Engineer  
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Note that EBI's scope of work is limited to an evaluation of the Radio Frequency – Electromagnetic Energy (RF-EME) field generated by the antennas and broadcast equipment noted in this report. The engineering and design of the building and related structures, as well as the impact of the antennas and broadcast equipment on the structural integrity of the building, are specifically excluded from EBI's scope of work.

## Appendix B: RF Exposure Policy Requirements

AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document, dated May 27, 2015, requires that:

1. All sites must be analyzed for RF exposure compliance;
2. All sites must have that analysis documented; and
3. All sites must have any necessary signage and barriers installed.

## Appendix C: AT&T Signage and Mitigation

Signs are the primary means for control of access to areas where RF exposure levels may potentially exceed the MPE. As presented in the AT&T guidance document, the signs must:

- Be posted at a conspicuous point;
- Be posted at the appropriate locations;
- Be readily visible; and
- Make the reader aware of the potential risks prior to entering the affected area.

The table below presents the signs that may be used for AT&T installations.

CRAN / HETNET Small Cell Decals / Signs		Alerting Signs	
<p style="text-align: center;"><b>2.5" x 6.5"</b> <b>NOTICE DECAL</b></p>	<p style="text-align: center;"><b>TRILINGUAL NOTICE</b></p>	<p style="text-align: center;"><b>NOTICE 2</b></p>	
<p style="text-align: center;"><b>7" x 7"</b> <b>NOTICE SIGN</b></p>	<p style="text-align: center;"><b>CAUTION 2 - ROOFTOP</b></p>	<p style="text-align: center;"><b>CAUTION 2A</b></p>	
<p style="text-align: center;"><b>2.5" x 6.5"</b> <b>CAUTION DECAL</b></p>	<p style="text-align: center;"><b>CAUTION 2B - TOWER</b></p>	<p style="text-align: center;"><b>CAUTION 2C - PARAPETS</b></p>	
<p style="text-align: center;"><b>7" x 7"</b> <b>CAUTION SIGN</b></p>	<p style="text-align: center;"><b>WARNING 1B</b></p>	<p style="text-align: center;"><b>WARNING 2A</b></p>	

## Appendix D: Federal Communications Commission (FCC) Requirements

The FCC has established Maximum Permissible Exposure (MPE) limits for human exposure to Radiofrequency Electromagnetic (RF-EME) energy fields, based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general public/uncontrolled exposure limits for members of the general public.

**Occupational/controlled exposure limits** apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general public/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

**General public/uncontrolled exposure limits** apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Table 1 and Figure 1 (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a particular facility and are "time-averaged" limits to reflect different durations resulting from controlled and uncontrolled exposures.

The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm<sup>2</sup>). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm<sup>2</sup>) and an uncontrolled MPE of 1 mW/cm<sup>2</sup> for equipment operating in the 1900 MHz frequency range. For the AT&T equipment operating at 700 MHz, the FCC's occupational MPE limit is 2.33 mW/cm<sup>2</sup> and an uncontrolled MPE limit of 0.47 mW/cm<sup>2</sup>. For the AT&T equipment operating at 1900 MHz, the FCC's occupational MPE is 5.0 mW/cm<sup>2</sup> and an uncontrolled MPE limit of 1.0 mW/cm<sup>2</sup>. These limits are considered protective of these populations.

**Table 1: Limits for Maximum Permissible Exposure (MPE)**

**(A) Limits for Occupational/Controlled Exposure**

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6

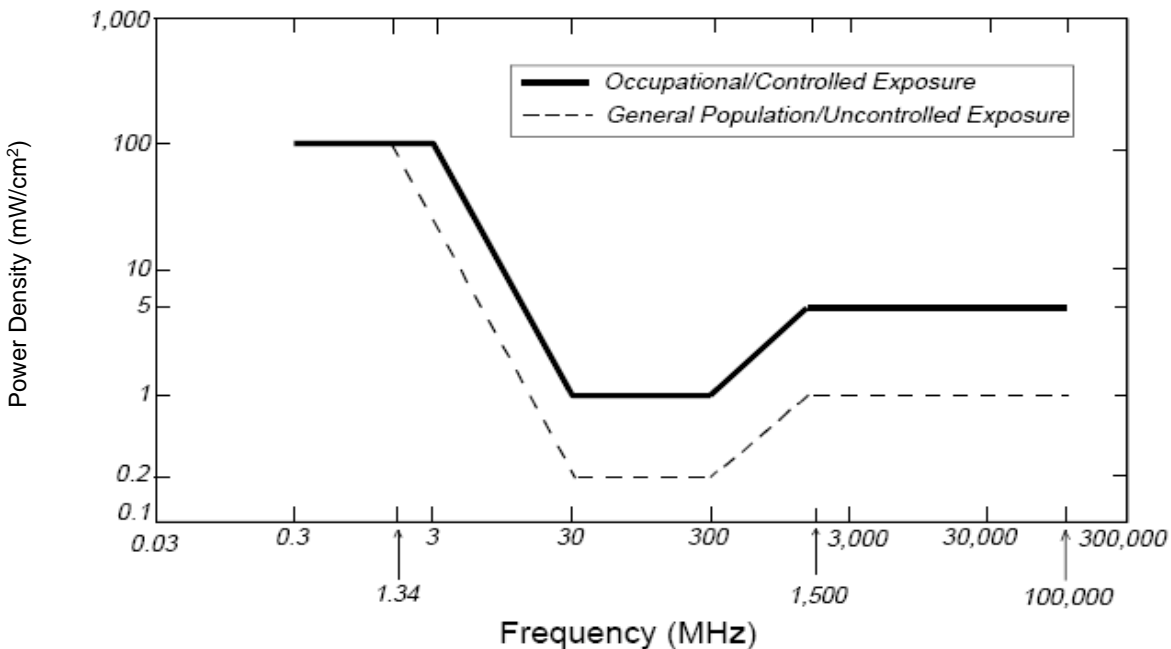
**(B) Limits for General Public/Uncontrolled Exposure**

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)

\* Plane-wave equivalent power density

**Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)**  
Plane-wave Equivalent Power Density



Based on the above, the most restrictive thresholds for exposures of unlimited duration to RF energy for several personal wireless services are summarized below:

Personal Wireless Service	Approximate Frequency	Occupational MPE	Public MPE
Microwave (Point-to-Point)	5,000 - 80,000 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
Broadband Radio (BRS)	2,600 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
Wireless Communication (WCS)	2,300 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
Advanced Wireless (AWS)	2,100 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
Personal Communication (PCS)	1,950 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
Cellular Telephone	870 MHz	2.90 mW/cm <sup>2</sup>	0.58 mW/cm <sup>2</sup>
Specialized Mobile Radio (SMR)	855 MHz	2.85 mW/cm <sup>2</sup>	0.57 mW/cm <sup>2</sup>
Long Term Evolution (LTE)	700 MHz	2.33 mW/cm <sup>2</sup>	0.47 mW/cm <sup>2</sup>
Most Restrictive Frequency Range	30-300 MHz	1.00 mW/cm <sup>2</sup>	0.20 mW/cm <sup>2</sup>

MPE limits are designed to provide a substantial margin of safety. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

Personal Communication (PCS) facilities used by AT&T in this area operate within a frequency range of 700-1900 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of areas directly in front of the antennas.

### FCC Compliance Requirement

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

## Appendix E: RF Compliance Simulation Software

The IXUS electromagnetic field (EMF) calculation software was used to assess all the RF field levels presented in this study. IXUS (<https://ixusapp.com/>) is a software product of Alphawave Mobile Network Products (Pty) Ltd, who specialize in electromagnetic software and systems. The IXUS software uses a fast and accurate EMF calculation tool that allows for the determination of RF field strength in the vicinity of radio communication base stations and transmitters. At its core, the IXUS EMF calculation module implements field evaluation techniques detailed in the ITU-T K.61, CENELEC 50383, and IEC62232 specifications. The calculation of EMF results at any point in 3-D space is achieved by either a synthetic ray tracing technique, a conservative cylindrical envelope method, or through full-wave EM simulation results obtained from a computational electromagnetic software tool.

The selection of the solution method is determined by the specific antenna being considered. In addition, a conservative and verified modelling technique for 5G beamforming antennas in IXUS is used. The simulation accuracy of the IXUS calculation module has been verified extensively with full-wave EM simulations.

**IXUS Version Number: 4.13 (0)2024.3.0 (Calculator: 2024.3).**

**Compliance Exposure Standard: FCC OET 65.**