TERRY SCHMIDTBAUER
Director

JAMES BEZEK
Assistant Director

ALLAN CALDER
Planning Services Manager

DEPARTMENT OF RESOURCE MANAGEMENT

SOLANO COUNTY

675 Texas Street, Suite 5500
Fairfield, CA 94533-6342
(707) 784-6765
Fax (707) 784-4805

www.solanocounty.com

ZONING ADMINISTRATOR STAFF REPORT

Application Number:	U-04-08-R1	**Hearing Date:**	October 6, 2022
CAMS Site Number(s):	260408	**Project Planner:**	Jeffrey Lum
Applicant:	New Cingular Wireless, PCS, LLC, C/O Complete Wireless Consulting	**Property Owner:**	American Tower Management, LLC

Action Requested:

Consideration of Revision No. 1 to Land Use Permit U-04-08 to install new antennas on an existing American Tower Management, LLC. lattice tower and propose a lease area within the existing compound to install equipment cabinet, ground-mounted equipment, and a standby diesel generator with fuel tank located on Gates Canyon Road, Vacaville, CA 95688, portion located in Solano County within the Watershed and Conservation "W-160" Zoning District, APN 0121-010-070.

DECISIONMAKER FOR THIS APPLICATION:
( ) Administrative (X) Zoning Administrator ( ) Planning Commission ( ) Board of Supervisors

Applicable Zoning Sections:	Section 28.81

Subject Property Information:

Parcel Size:	Total 40.10 ac *27.10 ac for APN 0121-010-070* *13.00 ac for APN 0033-200-17*	**Site Address:**	Gates Canyon Road
APN(s):	0121-010-070 & 0033-200-17	**CALFIRE State Responsibility Area Designation:**	Very High Fire Hazard Severity Zone
Zoning District:	Watershed and Conservation (W-160) for Solano County & Agriculture Watershed (AW) for Napa County	**General Plan Designation:**	Watershed
Ag. Contract:	N/A	**Utilities:**	N/A

Adjacent General Plan Designation, Zoning District, and Existing Land Use

	General Plan	Zoning
North	Watershed	W-160
South	Watershed	W-160
East	Watershed	W-160
West	Watershed	AW (Agriculture Watershed, Napa County)
Environmental Analysis	Class I Categorical Exemption CEQA Guidelines Section 15301, minor alteration of existing public or private structures.	

Motion to Approve
The Zoning Administrator does hereby **ADOPT** the attached resolution and **APPROVE** Revision No. 1 to Land Use Permit No. U-04-08, based on the enumerated findings and subject to the recommended conditions of approval.

PROJECT DESCRIPTION

The project site is located on Gates Canyon Road between Solano and Napa County, within Solano County Watershed and Conservation (W-160) Zoning District, APN: 0121-010-070 and Napa County Agriculture Watershed (AW) Zoning District, APN: 0033-200-17. Access to the property is via Blue Ridge Road & Gates Canyon Road. Figure 1 below is a vicinity map of the project site.

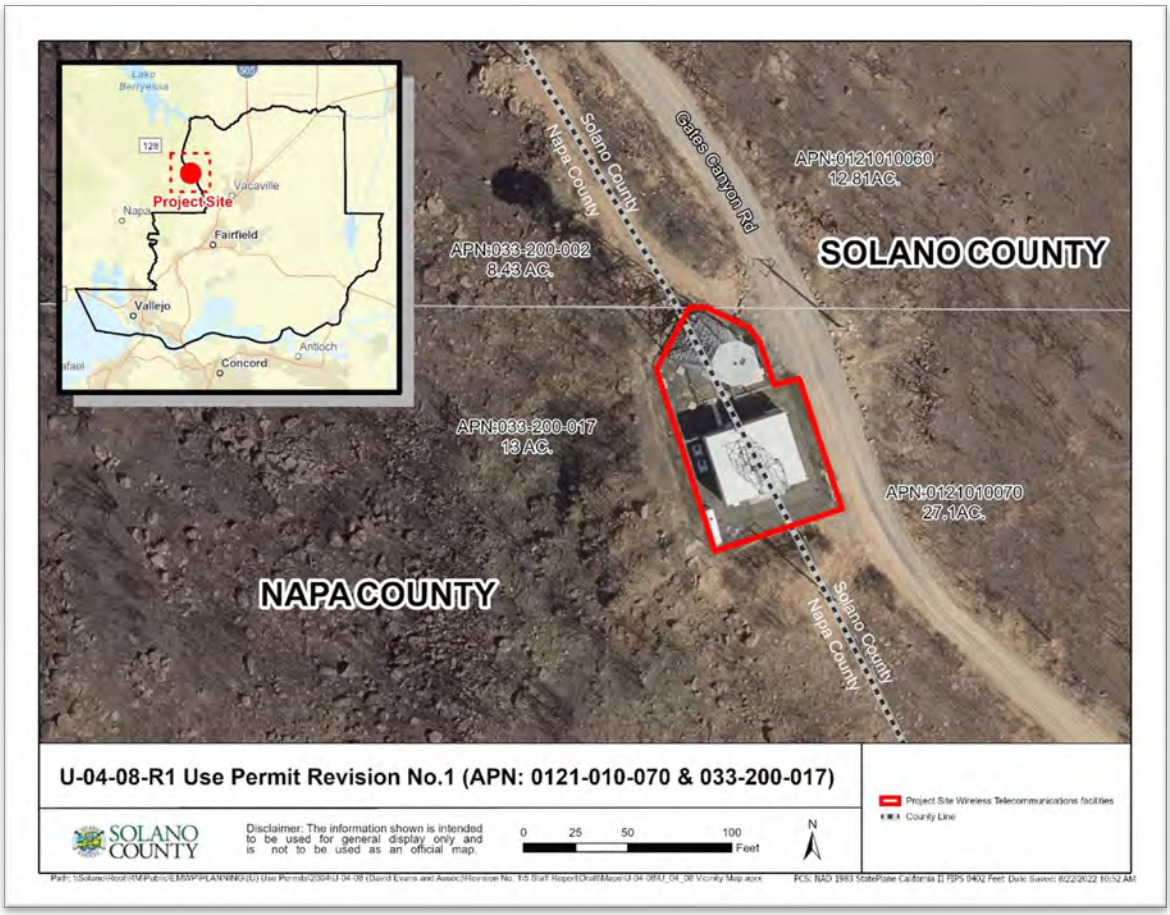


Figure 1 Vicinity Map

The existing lattice tower on site is permitted for a Doppler radar facility to provide advanced weather warning services. On June 23, 2022, the Planning Serves Division received a Use Permit Revision Application (U-04-08-R1) from New Cingular Wireless to collocate and install 15 new AT&T antennas and other associated equipment to an existing 111 foot tall lattice tower owned by American Tower Management, LLC.

Additionally, the applicant is also proposing a 296 square foot lease area within the existing compound, install an equipment cabinet, associated ground-mounted equipment, and a diesel generator with fuel tank and acoustic enclosure.

The operation is unmanned and requires no on-site personnel. Since the wireless facility is unmanned, there are no impacts to the existing local traffic patterns and no water or sanitation services will be required on site.

Figure 2 below is the site plan showing the layout and nature of the revision.

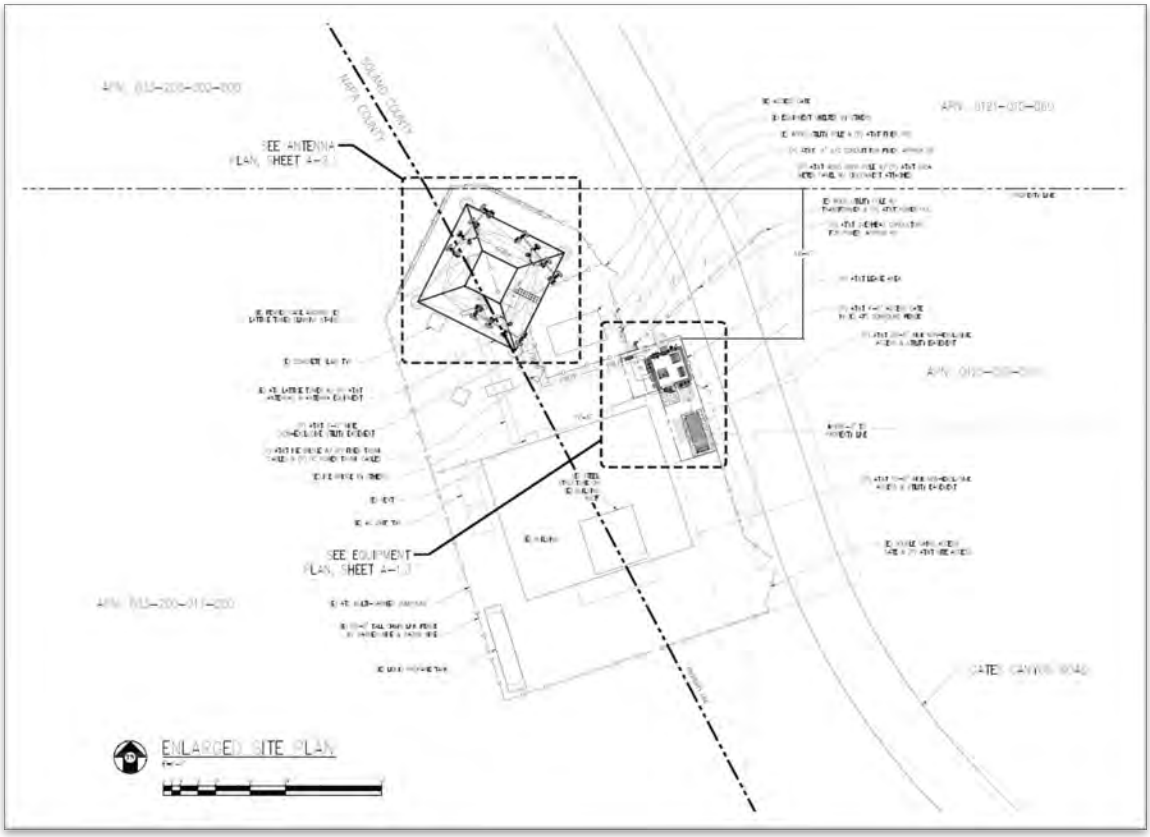


Figure 2 Project Site Plan

ANALYSIS

ZONING CONSISTENCY

The subject project site is split-zoned W-160 and AW. The proposed improvement install within Solano County is subject to the procedures and conditions described in Zoning Regulations Section 28.81, Wireless Communication Facilities. The height limit for wireless telecommunications facilities in zoning district W-160 is limited to the minimum functioning height. Setbacks are limited to 30 feet from the front, 20 feet from the side, and 20 feet from the rear. The project as submitted has met all the requirements of the Solano County Zoning Regulations, including height and setback requirements. However, a portion of the improvements are located within Napa County. Napa County staff requests that a building permit from Napa County be approved for this portion of the tower. As such, staff is recommending that a condition be incorporated, requiring the applicant to obtain a building permit from Napa County. The applicant understands and has agreed to this condition.

VISUAL IMPACTS

The project site is located more than 1000' feet outside the scenic corridor and has minimal to no visual impact to the area. The applicant has submitted a photo simulation, see Attachment G, which shows that the proposed tower-mounted equipment will have minimal visual impact to the area.

The applicant has also evaluated all existing towers within the project vicinity in order to utilize the co-location opportunity available to minimize the visual impact of a second freestanding facility.

RADIO FREQUENCY (RF ANALYSIS)

The applicant has submitted a radio frequency power density study which concluded that the proposed use complies with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not cause any substantial adverse effects on human beings, either directly or indirectly. As a result, it is not anticipated that the project will pose a health hazard to the general public.

ENVIRONMENTAL ANALYSIS

Staff has determined that this project is Categorically Exempt from California Environmental Quality Act (CEQA). The determination is based on the find that the proposed scope of work will have minor alterations to the existing facilities, pursuant to State CEQA Guidelines, Section 15301 Existing Facilities.

MANDATORY FINDINGS

1. **The establishment, maintenance or operation of the proposed use is in conformity with the County General Plan with regard to traffic circulation, population densities and distribution and other aspects of the General Plan;**

   The operation and maintenance of a Doppler radar facility is consistent with the goal and the objectives and policies of Chapters III, Agriculture and Open Space Land Use, and VIII, Public Facilities and Services, of the Solano County Land Use and Circulation Element concerning wireless facilities. It is also consistent with the Health and Safety Element since the facility will be unmanned and will not be in an area identified as having natural or man-made hazards.

2. **Adequate utilities, access roads, drainage and other necessary facilities have been or are being provided.**

   Access to the site will be via a privately maintained roads extending from Blue Ridge Road to Gates Canyon Road. The site has existing electrical power and the building plans will be reviewed and approved by the Solano and Napa County Building and Safety Division before a permit is issued.

3. **The subject use will not, under the circumstances of this particular case, constitute a nuisance or be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in or passing through the neighborhood of such proposed use or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.**

   Based on the radio frequency analysis, noise study, and photo simulation submitted by the applicant, there will be no significant degradation of the neighborhood or the County's health, safety, peace, morals, comfort, or general welfare.

CONDITIONS OF APPROVAL

1. The proposed wireless communication facility shall be established in accord to the plans and information submitted entitled Mount Vaca – ATC, Site Number, CCL06354, dated May 6, 2022, Use Permit Revision Application No. U-04-08-R1 approved by the Solano County Zoning Administrator.

2. Prior to Solano County Planning Division's approval, the applicant shall obtain a building permit approval from Napa County for all proposed modifications located within its jurisdiction. The applicant shall comply with all applicable building codes, zoning standards, and other requirements of Napa County Departments and Agencies for any portion of the telecommunication facility that is located within Napa County.

3. The applicant shall update its CERS submittals and ensure the information accurately reflect the amounts and locations of hazardous materials kept on site.

4. The applicant shall maintain all vegetation surrounding the existing facility according to California State Responsibility Area guideline for wildland fire protection for buildings/construction in the Wildland Urban Interface zone.

5. All requirements of the Federal Communications Commission shall be met prior to the issuance of a building permit and during operation of the subject facility. Ground level radiation shall not exceed standards adopted by the Federal Communications Commission and U.S. Environmental Protection Administration.

6. The permittee shall take such measures as may be necessary or as may be required by the County to prevent offensive noise, lighting, dust or other impacts, which constitute a hazard or nuisance to surrounding properties

7. Any expansion or change in the use may require a new or modified use permit and further environmental review.

8. No additional uses (including outdoor storage), new or expanded buildings shall be established or constructed beyond those identified on the approved plot plan without prior approval of a new permit or minor revision to the use permit.

9. The premises shall be maintained in a neat and orderly manner and kept free of accumulated debris and junk.

10. The equipment shelter shall be painted a non-reflective neutral color such as tan or brown to blend in with the surrounding vegetation.

11. The permittee shall obtain approval from the Building and Safety Division prior to construction, erection, enlargement, altering, repairing, moving, improving, removing, converting, demolishing any building or structure, fence or retaining wall regulated by the Solano County Building laws. Submit four (4) sets of plans to the Building and Safety Division for plan review and permits prior to beginning any improvements.

12. Prior to building permit approval from Solano County, the applicant shall submit warrant to Solano County for the past due Use Permit extension fee of $447.00.

13. The subject Use Permit Revision shall be in effect for a ten (10) year period ending on October 6, 2032. Upon termination or expiration of the subject use permit, the proposed wireless telecommunication facility infrastructure shall be removed from the site. All obsolete or unused facilities, including concrete pads, shall be removed within 12 months of cessation of operations at the site and the area regraded to natural conditions.

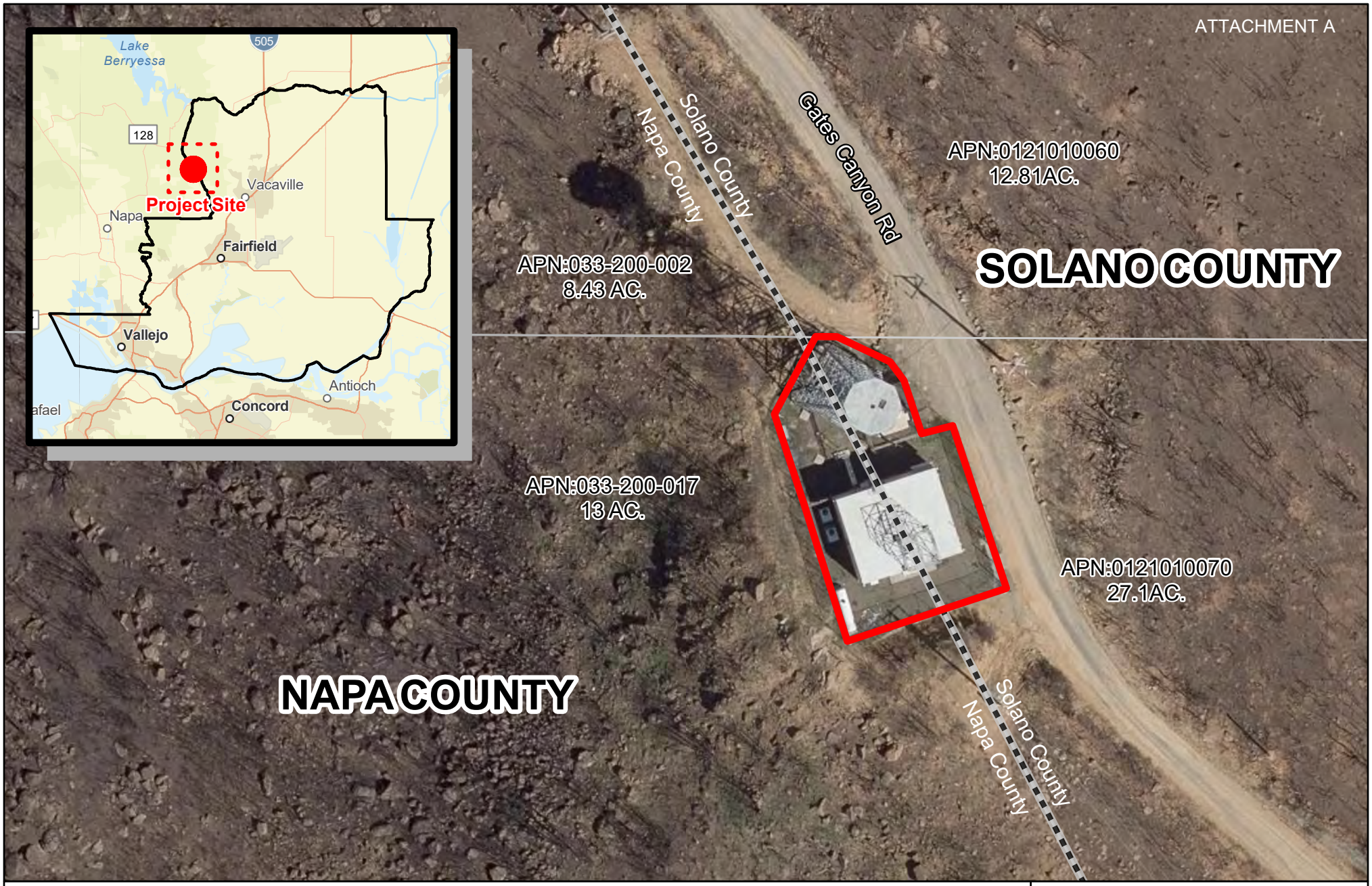
RECOMMENDATION

Staff recommends that the Zoning Administrator **ADOPT** the mandatory and suggested findings detailed in Attachment B and **APPROVE** Revision No.1 of Land Use permit U-04-08 subject to the recommended conditions of approval.

ATTACHMENTS

A. Vicinity Map
B. Draft Resolution with Conditions of Approval
C. Assessor's Parcel Map
D. General Zoning Consistency Checklist
E. Specific Zoning Consistency Checklist
F. Site Plans
G. Photo Simulation
H. Radio Frequency Report
I. Noise Study
J. Coverage Map

ATTACHMENT A



U-04-08-R1 Use Permit Revision No.1 (APN: 0121-010-070 & 033-200-017)

SOLANO COUNTY

Disclaimer: The information shown is intended to be used for general display only and is not to be used as an official map.

0 25 50 100 Feet

N

Project Site Wireless Telecommunications facilities

County Line

Path: \\Solano\Root\RM\Public\EMWP\PLANNING\(U) Use Permits\2004\U-04-08 (David Evans and Assoc)\Revision No. 1\5 Staff Report\Draft\Maps\U-04-08\U_04_08 Vicinity Map.aprx

PCS: NAD 1983 StatePlane California II FIPS 0402 Feet Date Saved: 8/22/2022 10:52 AM

SOLANO COUNTY ZONING ADMINISTRATOR
RESOLUTION NO. 22-XX

WHEREAS, the Solano County Zoning Administrator has considered Revision No. 1 to Land Use Permit U-04-08 to install new antennas on an existing ATC lattice tower and propose a lease area within the existing compound to install equipment cabinet, ground-mounted equipment, and a standby diesel generator with fuel tank located on Gates Canyon Road, Vacaville, CA 95688, between Solano and Napa County within the Watershed and Conservation "W-160" Zoning District APN 0121-010-070 & 033-200-017; and

WHEREAS, said Zoning Administrator has reviewed the report of the Department of Resource Management and heard testimony relative to the subject application at the duly noticed public hearing held on October 6, 2022; and

WHEREAS, after due consideration, the Zoning Administrator has made the following findings in regard to said proposal:

1. **That the establishment, maintenance or operation of the use or building is in conformity to the General Plan for the County with regard to traffic circulation, population densities and distribution, and other aspects of the General Plan considered by the Zoning Administrator to be pertinent.**

   The operation and maintenance of a Doppler radar facility is consistent with the goal and the objectives and policies of Chapters III, Agriculture and Open Space Land Use, and VIII, Public Facilities and Services, of the Solano County Land Use and Circulation Element concerning wireless facilities. It is also consistent with the Health and Safety Element since the facility will be unmanned and will not be in an area identified as having natural or man made hazards.

2. **Adequate utilities, access roads, drainage and other necessary facilities have been or are being provided.**

   Access to the site will be via a privately maintained roads extending from Blue Ridge Road to Gates Canyon Road. The site has existing electrical power and the building plans will be reviewed and approved by the Solano and Napa County Building and Safety Division before a permit is issued.

3. **The subject use will not, under the circumstances of this particular case, constitute a nuisance or be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in or passing through the neighborhood of such proposed use or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.**

   Based on the radio frequency analysis, noise study, and photo simulation submitted by the applicant, there will be no significant degradation of the neighborhood or the County's health, safety, peace, morals, comfort, or general welfare.

4. The project qualifies for a Class I Categorical Exemption from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15301, Existing Facilities.

BE IT THEREFORE RESOLVED, that the Zoning Administrator has approved Revision No. 1 to Land Use permit U-04-08 subject to the following recommended conditions of approval:

General

1. The above use shall be established in accord with the application materials and development plans as submitted with U-04-08-R1 filed May 6, 2022 and as approved by the Solano County Zoning Administrator. These conditions supersede all existing conditions of approval for U-04-08.

2. All requirements of the Federal Communications Commission shall be met prior to the issuance of a building permit and during operation of the subject facility. Ground level radiation shall not exceed standards adopted by the Federal Communications Commission and U.S. Environmental Protection Administration.

3. The permittee shall take such measures as may be necessary or as may be required by the County to prevent offensive noise, lighting, dust or other impacts, which constitute a hazard or nuisance to surrounding properties.

4. Any expansion or change in the use may require a new or modified use permit and further environmental review.

5. No additional uses (including outdoor storage), new or expanded buildings shall be established or constructed beyond those identified on the approved plot plan without prior approval of a new permit or minor revision to the use permit.

6. The premises shall be maintained in a neat and orderly manner and kept free of accumulated debris and junk.

7. The equipment shelter shall be painted a non-reflective neutral color such as tan or brown to blend in with the surrounding vegetation.

8. Prior to Solano County Planning Division's approval, the applicant shall obtain a building permit from Napa County for all proposed modifications located within the Napa County jurisdiction. The applicant shall comply with all applicable building codes, zoning standards, and other requirements of Napa County Departments and Agencies for any portion of the telecommunication facility that is located within the Napa County.

9. Prior to Solano County Planning Division's approval, the applicant shall submit warrant to Solano County for the past due Use Permit extension fee of $447.00.

10. The subject Use Permit Revision shall be in effect for a ten (10) year period ending on October 6, 2032. Upon termination or expiration of the subject use permit, the proposed wireless communication infrastructure shall be removed from the site. All obsolete or unused facilities, including concrete pads, shall be removed within 12 months of cessation of operations at the site and the area regraded to natural conditions.

Environmental Health Division

11. The applicant shall update its CERS submittals and ensure the information accurately reflect the amounts and locations of hazardous materials kept on site.

Vacaville Fire Protection District

12. The applicant shall maintain vegetation management around the existing facility according to State of California State Responsibility Area guideline for wildland fire protection for buildings/construction in the Wildland Urban Interface zone.

Building and Safety Division

13. While the following comments are not all inclusive, they will act as a guideline for the requirements for the construction of any buildings or structures on the site now and in the future. These comments are not required on the application plan for the Use Permit, but (4) sets of plans will be required to be submitted to reflect all of the requirements in the latest edition of the codes adopted by the State of California and Solano County at the time of a construction permit application. These requirements, as well as all other required code requirements, shall be reflected on all construction drawings submitted for permit through Solano County Building Division.

14. The Building and any site improvements shall be designed using the 2019 California Building Standards Codes including the mandatory measures found in the new 2019 California Green Building Code, Chapter(s) 1, 2, 3, 5, 6, 7, 8, and A5 for Voluntary Measures.

15. Prior to any construction or improvements taking place, a Building Permit Application shall first be submitted as per the 2019 California Building Code, or the most current edition of the code enforced at the time of building permit application. **"Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit."**

16. Plans and Specifications shall meet the requirements as per Section 105 of the 2019 California Building Code. **"Construction documents, statement of special inspections and other data shall be submitted in one or more sets with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional." Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official."**

17. Certificate of Occupancy "111.1 Use and Occupancy. No building shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion

thereof shall be made until the Building Official has issued a certificate of occupancy therefore as provided herein."

18. The Building Permit plans shall include a code analysis as listed below and the design shall be under the 2019 California Codes and all current rules, regulations, laws and ordinances of the local, state and federal requirements. Upon Building Permit submittal, the licensed architect shall provide a code analysis for each building and structure such as:

    a) Occupancy Classification
    b) Type of Construction
    c) Seismic Zone
    d) Occupant Load

19. Plans and Specifications shall meet the requirements as per Section 105 of the 2019 California Building Code. "**Construction documents, statement of special inspections and other data shall be submitted in one or more sets with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction of which the project is to be constructed. Where special conditions exist, the Building Official is authorized to require additional construction documents to be prepared by a registered design professional." Electronic media documents are permitted where approved by the Building Official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the Building Official."**

* *

I hereby certify that the foregoing resolution was adopted at the regular meeting of the Solano County Zoning Administrator on October 6, 2022.

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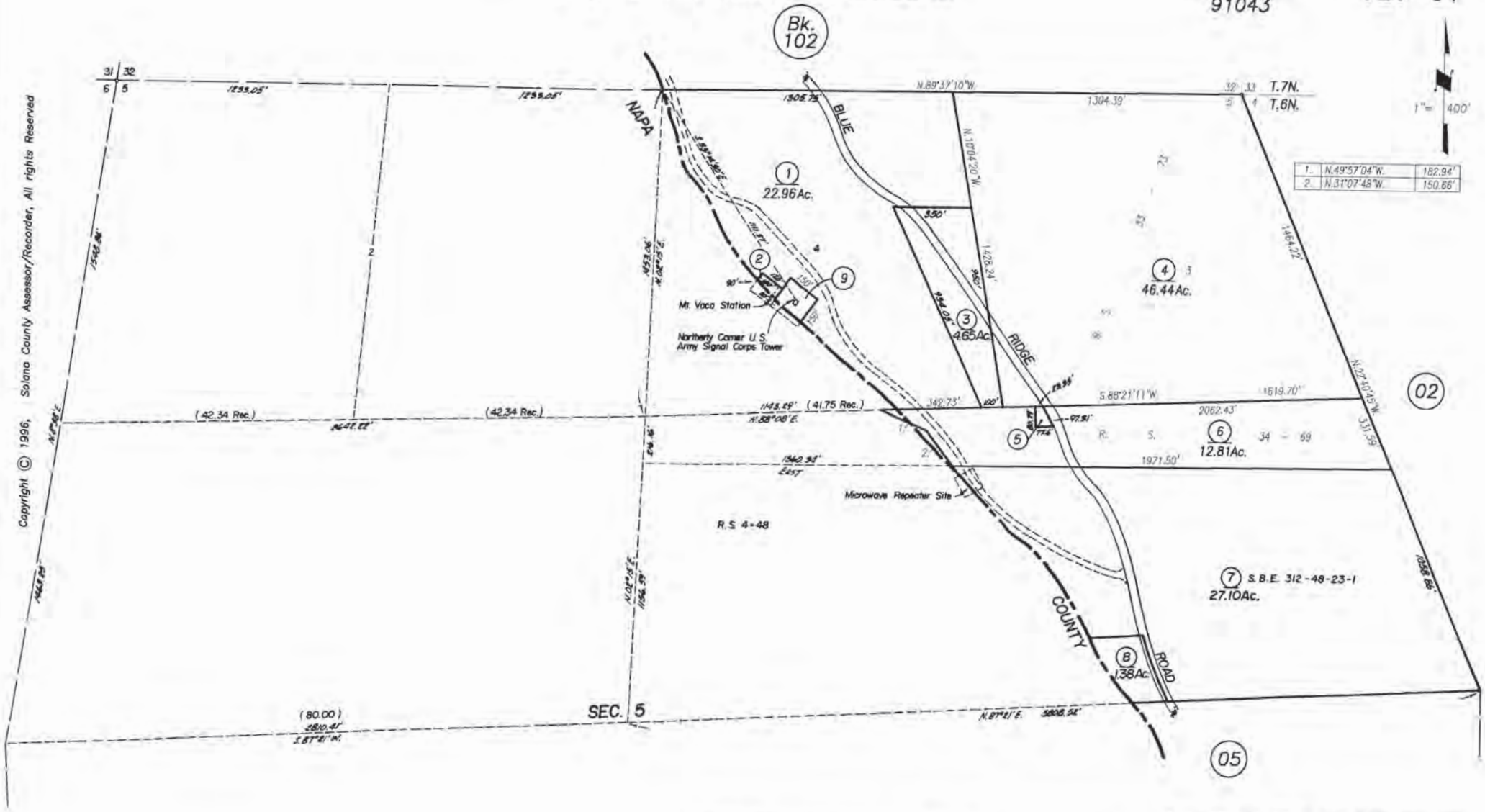
Allan M. Calder, Planning Manager
Resource Management

N. 1/2 SEC. 5, T.6N., R.2W., M.D.B.& M.

Tax Area Code 91043

121-01



1.	N.49°57'04"W.	182.94'
2.	N.31°07'48"W.	150.66'

REVISION	DATE	BY
010-06 (Rs)	5-19-21	DV
010-04&06 (Rs)	11-14-18	DV
010-09 (Dd)	3-18-13	Cr
SBE 327	1-17-86	DJ

NOTE: This map is for assessment purposes only. It is not intended to define legal boundary rights or imply compliance with land division laws.

Assessor's Map Bk. 121 Pg. 01
County of Solano, Calif.

22-23

Assessor's Block Numbers Shown in Ellipses, Assessor's Parcel Numbers Shown in Circles

SOLANO COUNTY
DEPARTMENT OF RESOURCE MANAGEMENT
Planning Services Division

(707) 784-6765 Office
(707) 784-4805 Fax
www.solanocounty.com
planning@solanocounty.com

General Development Standards Checklist (Section 28.70.10)

Application Number: **U-04-08-R1**

No use of land or buildings shall be conducted except in compliance with these general development standards.				
A. Zoning District Standards	YES	MAYBE	NO	N/A
Any use of land or buildings must meet the general development standards described in this section unless more stringent permitting and development standards are delineated in the applicable zoning district.				
B. Performance Standards				
1. **Prevent Offensive Noise, Dust, Glare, Vibration, or Odor**. All uses of land and structures shall be conducted in a manner, and provide adequate controls and operational management to prevent:				
a. Dust, offensive odors, or vibrations detectable beyond any property line;	x			
b. Noise that exceeds 65dBA LDN at any property line	x			
c. Glint or glare detectable beyond any property line or by overflying aircraft	x			
2. **Prevent Storm Water Pollution**. Any use of land or buildings shall contain measures to manage storm water to prevent any potential contaminants, processing wastes or by-products from entering any natural or constructed storm water facility or canal, creek, lake, pond, stream or river.	x			
3. **Parking.** Adequate off-street parking shall be provided pursuant to Section 28-94; parking areas and driveways shall be treated as necessary to control dust. Parking areas shall not be located any closer than 200 feet to an adjoining property. Shall provide off-street parking in accordance with Section 28-94 in addition to paved parking spaces, aisles and pathways for the disabled in accordance with Building Code.				x
4. **Removal of Natural Material.** Removal of natural material 1) shall prevent offensive noise, dust, vibrations or standing water from occurring beyond any property line; 2) shall not create finished grades of a greater slope than two to one; and 3) shall be so located that generated traffic will not constitute a hazard or nuisance to surrounding property.				x
5. **Solid Waste and General Liquid Waste Storage and Disposal.**				
a. All uses are prohibited from discharging liquid, solid, toxic, or hazardous wastes onto or into the ground and into streams, lakes, or rivers except as allowed by applicable local, State and federal laws and regulations.				x

b. The handling and storage of hazardous materials, the discharge of hazardous materials into the air and water, and the disposal of hazardous waste in connection with all uses shall be in conformance with all applicable local, State and federal regulations.	x			
c. All burning of waste materials accessory to any use shall comply with the Yolo-Solano Air Quality Management District or the San Francisco Bay Area Air Quality Management district based on geographic location of the activity specific to each air quality management district.				x
d. The disposal or dumping of solid wastes accessory to any use, including, but not limited to, slag, paper and fiber wastes or other industrial wastes, shall be in compliance with applicable local, State, and federal laws and regulations.				x
Note: Should the Director of Resource Management believe that a proposed use in any district is likely to violate the performance standards in B.1-8 above, the Director may invoke the performance standard procedures contained in Section 28-95.				
C. Fairfield Train Station Specific Plan Area				
1. Uses established in the Fairfield Train Station Area, designated an Urban Project Area by the Solano County General Plan shall, be consistent with existing development and considered interim uses which terminate upon annexation to the City of Fairfield.				x
D. Airport Land Use Compatibility Plans				
1. Within an airport area of influence or area of concern depicted in an airport land use compatibility plan adopted by the Solano County Airport Land Use Commission, land uses allowed by this Zoning Ordinance shall conform with the applicable compatibility policies and criteria set forth in that airport land use compatibility plan.				x
E. Other Permits.				
1. **Building and Safety Division**. The Building Services Division may require a building permit and/or occupancy permit prior to conducting any use authorized by this chapter. A building permit may also be required prior to any change in the occupancy type of a previously permitted building or structure.				
a. Building Permit Required	x			
b. Occupancy Permit Required			x	
c. Change of Occupancy Required			x	
2. **Environmental Health Services Division.** The Environmental Health Services Division administers a variety of laws and regulations which may require permits prior to conducting specific land uses authorized under this chapter, including:				
a. **Food facility permits**				
(1) Sale and Consumption of Food and Beverage. Any use of land or buildings which provide for the sale and/or consumption of the food or beverage must meet all federal, state and local laws and regulations, including Department of Resource Management			x	

Environmental Health Services Division approval (if required) prior to operation.				
(2) Food Preparation. Any use of land or buildings which provide for the sale of prepared food, must meet all federal, state and local laws and regulations, including Department of Resource Management Environmental Health Services Division approval (if required) prior to operation.			x	
a. Hazardous materials and waste program permits		x		
b. Recreational health facility permits			x	
c. Liquid and solid waste permits including septic system permits			x	
d. State small water system permits			x	
e. Water well permits			x	
3. **Public Works Engineering Division**. The Engineering Services Division administers a variety of regulations which may require permits including:				
a. Encroachment permits			x	
b. Grading and drainage permits			x	
4. **Fire Protection District**. Local fire protection districts may regulate certain uses of buildings and land.		x		
5. **Other Agencies**. Certain land uses are subject to laws and regulations administered by federal, state, regional and local agencies and may require additional licenses or permits, prior to conducting the land use. Prior to conducting any land use authorized under this chapter, any other licenses or permits required by any other agency must be obtained.				x

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Planning Services Division

(707) 784-6765 Office
(707) 784-4805 Fax
www.solanocounty.com
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WIRELESS COMMUNICATIONS FACILITIES (Section 28.81)

General Requirements. All new, altered and re-permitted wireless communication facilities in unincorporated Solano County, with the exception of those exempted in Sub-Section (c), shall meet the following general requirements, regardless of the zoning district in which they occur:				
1. **Zoning Districts**. Wireless communication facilities may be located in all zoning districts, except the Marsh Preservation (MP) District, upon approval of a Use Permit as described below.	YES	MAYBE	NO	N/A
2. **Use Permit Required**. All wireless communication facilities, other than those designated as exempt in Sub-Section (C), require a Use Permit. To obtain a use permit, a hearing is required before either the Zoning Administrator or the Planning Commission, as described in Sub-Section (E).	x			
3. **Building Permit Required**. All wireless communication facilities shall require a building permit issued by the County of Solano.	x			
4. **Height**. All wireless communication facilities shall conform to the following height requirements:				
a. All wireless communication facilities shall be of the minimum functional height, with additional provisions for co-location, as allowed in Sub-Section c., below.	x			
b. All wireless communication facilities constructed within 3/4 mile of a designated scenic corridor shall conform with the height limit in the zoning district in which they are located. New facilities that are co-located with an existing facility may exceed their zoning district's height limit, provided that the installation of the new facility does not require a height increase of the existing facility.				x
c. Outside of 3/4 mile of a designated scenic corridor, no wireless communication facility, except an exempt facility, may exceed 65 feet. A bonus of 20 additional feet per facility, up to a maximum height of 105 feet, is permissible for operators co-locating on a single tower.	x			
d. No roof-mounted wireless communication facility, except an exempt facility, may be more than 15 feet taller than the roof of the building on which it is mounted.				x
e. If an operator wishes to apply for an exception to these height limitations, then the facility shall be subject to a Use Permit before the Planning Commission, as described in Sub-Section (e) 2, below.				x
5. **Screening**. All wireless communication facilities shall be screened to the maximum extent possible, pursuant to the following requirements.				
a. Ground- and tower-mounted antennas and all accessory structures shall be located within areas where substantial screening by vegetation, landform and/or buildings can be achieved. Additional vegetation and/or other screening may be required as a condition of approval.	x			
b. The projection of structure-mounted antennas from the face of the structure to which they are attached shall be minimized.	x			
c. Roof-mounted antennas shall be set back from the edge of the roof a distance greater than or equal to the height of the antenna. For roof-mounted antennas, a screening structure that is architecturally				x

compatible with the building on which it is mounted may also be required as a condition of approval.				
6. **Radio-frequency exposure**. No wireless communication facility shall be sited or operated in such a manner that it poses, either by itself or in combination with other such facilities, a potential threat to public health. To that end, no wireless communication facility or combination of facilities shall produce at any time power densities that exceed the current FCC adopted standards for human exposure to RF fields. Certification that a facility meets this standard is required as described in Sub-Section (h).	x			
7. **Cabling**. For structure mounted antennas, all visible cabling between equipment and antennas shall be routed within the building wherever feasible. Cabling on the exterior of a building or monopole shall be located within cable trays painted to match. All cabling shall be performed in accordance with the NEC.	x			
8. **Painting and Lighting**. No wireless communication facility shall be installed at a location where special painting or lighting will be required by FAA regulations unless technical evidence acceptable to the Planning Commission is submitted showing that this is the only technically feasible location for this facility. Facilities shall be generally unlit except when authorized personnel are present at night. All facilities shall be painted or constructed of materials to minimize visual impact.	x			
9. **Noise**. All wireless communication facilities shall be designed to minimize noise. If a facility is located in or within 100 feet of a residential district, noise attenuation measures shall be included to reduce noise levels to a maximum exterior noise level of 50 Ldn at the facility site's property lines.	x			
10. **Accessory Structures**. Enclosures and cabinets housing equipment related to a wireless communication facility shall meet setback and height restrictions for such structures in their zoning districts. Such structures shall appear architecturally compatible with their surroundings and be designed to minimize their visual impact. To meet this requirement, underground vaults may be required.	x			
11. **Roads and Parking**. Wireless communication facilities shall be served by the minimum roads and parking areas necessary and shall use existing roads and parking areas whenever possible.	x			
12. **Provisions for Future Co-location**. All commercial wireless communication facilities shall be encouraged to promote future facility and site sharing. Technical evidence will be provided as to the infeasibility of co-location or grouping prior to the issuance of a new use permit for a facility that would not be considered to be co-located or grouped under this ordinance.	x			
13. **Removal Upon Discontinuation of Use**. All equipment associated with a wireless communication facility shall be removed within 90 days of the discontinuation of the use and the site shall be restored to its original pre-construction condition. The operator's agreeing to such removal and allowing the County access across private property to affect such removal shall be a condition of approval of each permit issued. At its discretion, the County may require a financial guarantee acceptable to the County to ensure removal.	x			
E. Permitting Requirements. All wireless communication facilities not specifically exempted from these regulations are subject to one of the two permit processes described below.				
1. **Use Permit before the Zoning Administrator**. Certain wireless communication facilities may be conditionally approved by the Zoning Administrator, as described in this sub-section.				
a. Qualifying Facilities. The following types of wireless communication facilities qualify for a use permit before the Zoning Administrator:				

(1) Receive-only radio and television antennas and satellite dishes or antennas that do not qualify for exemption under Sub-Section (c), including multiple antennas or dishes on a single parcel.				x
(2) Amateur radio facilities that do not qualify for exemption under Sub-Section (c). When required, a Use Permit before the Zoning Administrator shall be granted to amateur radio operators with no fee.				x
(3) Wireless communication facilities installed on publicly owned property, regardless of zoning district, provided they comply with the general requirements in Sub-Section (d) and hold an executed license or lease agreement.				x
(4) Co-located wireless communication facilities, regardless of zoning district, provided they comply with the general requirements in Sub-Section (d).	x			
(5) Wireless communication facilities located on sites that would be considered to be co-located or grouped under this ordinance in a Commercial District (C-H, C-G, C-S, C-O), Industrial Districts (M-L, M-G, I-WD) or Agricultural Districts (A, A-L) provided they comply with the general requirements in Sub-Section (d) and are not located within 500 feet of a residential zone (R-R, R-E, R-S, R-D, R-M).				x
b. <u>Required Findings</u>. In order for the Zoning Administrator to approve a proposed wireless communication facility under a Use Permit, the Zoning Administrator shall make the findings required for a Use Permit, as well as the following additional findings:				
(1) The facility complies with all applicable sub-sections of this section.	x			
(2) The facility either 1) does not require an RF Environmental Evaluation Report as described in Sub-Section (h), or 2) the RF Environmental Evaluation Report for the facility shows that the cumulative radio-frequency energy emitted by the facility and any near-by facilities will be consistent with FCC regulations.	x			
(3) The facility blends in with its existing environment and will not have significant visual impacts.	x			
2. **<u>Modifications to Facilities</u>**. To the extent necessary to ensure compliance with adopted FCC regulations regarding human exposure to RF emissions, or upon the recommendation of the Zoning Administrator, the operator shall modify the placement of the facilities; install fencing, barriers or other appropriate structures or devices to restrict access to the facilities; install signage, including the radio-frequency hazard warning symbol identified in ANSI C95.2-1982 and multi-lingual warnings if deemed necessary by the Zoning Administrator to notify persons that the facility could cause exposure to RF emissions; and/or implement any other practice reasonably necessary to ensure that the facility is operated in compliance with adopted FCC RF emission standards.				
3. **<u>Changes to FCC Standards</u>**. If the FCC RF emission standards are modified, the operator shall ensure that the facility is reevaluated for compliance with the new standards, and a recertification statement prepared by a Radio-frequency Exposure Professional shall be submitted by the Operator to the Zoning Administrator prior to the effective date of the new FCC RF emission standards. For an amateur radio station facility, self-certification of compliance by the amateur radio station license is acceptable if permitted by FCC regulations and conducted under standards and procedures set forth by the FCC.				
I. <u>Application</u>: Applications for use permits shall be made in writing on a form prescribed by the Zoning Administrator and shall be accompanied by plans and data to assure the fullest practical presentation of facts for the permanent record. Such application shall be accompanied by a fee or fees as may be set by the Board of Supervisors. Not part of such fee shall be refundable.	x			

AT&T SITE NUMBER: CCL06354
AT&T SITE NAME: MOUNT VACA - ATC

INITIATIVE / PROJECT: NSB
USID#: 315696
FA LOCATION CODE: 15530336
RFDS ID #: 5056282
RFDS VERSION: 2.00
RFDS DATE: 05/06/2022
PACE JOB#: MRSFR077614
PTN#: 3701A0YEDB

BLUE RIDGE ROAD
VACAVILLE, CA 95688
JURISDICTION: SOLANO COUNTY
APN: 0121-010-070

SITE TYPE: SHELTER / LATTICE TOWER

PROJECT DESCRIPTION

A (P) AT&T UNMANNED TELECOMMUNICATION FACILITY CONSISTING OF INSTALLING:

(P) LEASE AREA W/ ASSOCIATED GROUND MOUNTED EQUIPMENT & GENERATOR & (P) UTILITIES TO (P) SITE LOCATION. (P) ANTENNAS & ANTENNA EQUIPMENT ON (E) ATC LATTICE TOWER.

PROJECT INFORMATION

SITE NAME:	MOUNT VACA – ATC	SITE ACQUISITION COMPANY:	COMPLETE WIRELESS CONSULTING 2009 V STREET SACRAMENTO, CA 95818
SITE #:	CCL06354		
COUNTY:	SOLANO	LEASING CONTACT:	ATTN: KIM LE (916) 747-2314 KLE@COMPLETEWIRELESS.NET
JURISDICTION:	SOLANO COUNTY		
APN:	0121-010-070	ZONING CONTACT:	ATTN: NATALIE LIU (916) 838-6716 NLIU@COMPLETEWIRELESS.NET
SITE ADDRESS:	BLUE RIDGE ROAD VACAVILLE, CA 95688		
CURRENT ZONING:	W-160 (RESOURCE CONSERVATION)	CONSTRUCTION CONTACT:	BECHTEL ATTN: ANDY MCKENZIE (925) 309-0986 AJMCKENZ@BECHTEL.COM
CONSTRUCTION TYPE:	V-B		
OCCUPANCY TYPE:	U, (UNMANNED COMMUNICATIONS FACILITY)		
POWER:	PG&E		
LATITUDE:	N 38° 23' 53.90" NAD 83 N 38.398306°		
LONGITUDE:	W 122° 06' 11.48" NAD 83 W 122.103189°		
GROUND ELEVATION AMSL:	2,790.8'		
PROPERTY OWNER:	AMERICAN TOWER MANAGEMENT INC. PO BOX 723597 ATLANTA, GA 31139		
TOWER OWNER:	AMERICAN TOWER CORPORATION 3500 REGENCY PARKWAY, SUITE 100 CARY, NC 27518 SITE NAME: MOUNT VACA SITE NUMBER: 89343		
APPLICANT:	AT&T MOBILITY 5001 EXECUTIVE PARKWAY SAN RAMON, CA 94583		

VICINITY MAP

DRIVING DIRECTIONS

FROM: 5001 EXECUTIVE PARKWAY, SAN RAMON, CA 94583
TO: BLUE RIDGE ROAD, VACAVILLE, CA 95688

1.	START OUT GOING NORTH.	0.02 MILES
2.	TURN LEFT.	0.00 MILES
3.	TAKE THE 1ST RIGHT.	0.13 MILES
4.	TURN RIGHT.	0.06 MILES
5.	TAKE THE 1ST RIGHT ONTO EXECUTIVE PKWY.	0.24 MILES
6.	TURN LEFT ONTO CAMINO RAMON.	0.78 MILES
7.	TURN LEFT ONTO CROW CANYON RD.	0.21 MILES
8.	MERGE ONTO I-680 N TOWARD SACRAMENTO (PORTIONS TOLL).	34.76 MILES
9.	MERGE ONTO I-80 E VIA EXIT 71A TOWARD SACRAMENTO.	10.22 MILES
10.	TAKE THE EXIT TOWARD CHERRY GLEN RD.	0.22 MILES
11.	TURN LEFT ONTO LAGOON VALLEY RD.	0.15 MILES
12.	LAGOON VALLEY RD BECOMES CHERRY GLEN RD.	0.61 MILES
13.	TURN SLIGHT RIGHT TO STAY ON CHERRY GLEN RD.	0.23 MILES
14.	TURN LEFT ONTO PLEASANTS VALLEY RD.	5.03 MILES
15.	TURN LEFT ONTO MIX CANYON RD.	4.70 MILES
16.	TURN SLIGHT LEFT ONTO BLUE RIDGE RD (GATE ACCESS REQUIRED).	1.21 MILES

END AT: BLUE RIDGE ROAD, VACAVILLE, CA 95688

ESTIMATED TIME: 1 HOUR 20 MINUTES ESTIMATED DISTANCE: 58.6 MILES

CODE COMPLIANCE

ALL WORK & MATERIALS SHALL BE PERFORMED & 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:

2019 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2019 CALIFORNIA BUILDING CODE (CBC), PART 2, VOLUME 1&2, TITLE 24 C.C.R.
(2018 INTERNATIONAL BUILDING CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 C.C.R.
(2018 UNIFORM MECHANICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
(2018 UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R.
2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
(2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
2019 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
ANSI/EIA-TIA-222-H

ALONG WITH ANY OTHER APPLICABLE LOCAL & STATE LAWS AND REGULATIONS

DISABLED ACCESS REQUIREMENTS

THIS FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION. DISABLED ACCESS & REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA STATE BUILDING CODE, TITLE 24 PART 2, SECTION 11B-203.5

SHEET INDEX

Issued For:
CCL06354
MOUNT VACA - ATC
BLUE RIDGE ROAD
VACAVILLE, CA 95688

PREPARED FOR
at&t
5001 Executive Parkway
San Ramon, California 94583

Vendor:
COMPLETE Wireless Consulting, Inc.

AT&T SITE NO:	CCL06354
PROJECT NO:	-
DRAWN BY:	-
CHECKED BY:	J. GRAY
APPROVED BY:	-

ISSUE STATUS

REV	DATE	DESCRIPTION	CAD
2	05/31/22	ZD 100%	T.S.
1	04/19/22	CLIENT REV	T.S.
0	03/25/22	ZD 90%	

Licensee:
PRELIMINARY: NOT FOR CONSTRUCTION
KEVIN R. SORENSEN
S4469

ENGINEER:
Streamline Engineering and Design, Inc.
8445 Sierra College Blvd, Suite E Granite Bay, CA 95746
Contact: Kevin Sorensen Phone: 916-660-1930
E-Mail: kevin@streamlineeng.com Fax: 916-660-1941

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1.1

PROJECT GENERAL NOTES

1. THIS FACILITY IS AN UNOCCUPIED WIRELESS TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE.
3. THE SCOPE OF WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRM THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PAY FOR PERMIT FEES, AND TO OBTAIN SAID PERMITS AND TO COORDINATE INSPECTIONS.
6. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
7. CALL BEFORE YOU DIG. CONTRACTOR IS REQUIRED TO CALL 811 (NATIONWIDE "CALL BEFORE YOU DIG" HOTLINE) AT LEAST 72 HOURS BEFORE DIGGING.
8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
9. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. CONTRACTOR SHALL ALSO COORDINATE ALL PORTIONS OF THE WORK UNDER THE CONTRACT; INCLUDING CONTACT AND COORDINATION WITH THE CONSTRUCTION MANAGER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
10. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF THE PROJECT MANAGER.
11. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS AND RUBBISH. REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED, OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
13. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND ALL OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES.
14. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
15. THE CONTRACTOR SHALL PROVIDE A TOILET FACILITY DURING ALL PHASES OF CONSTRUCTION.
16. SUFFICIENT MONUMENTATION WAS NOT RECOVERED TO ESTABLISH THE POSITION OF THE BOUNDARY LINES SHOWN HEREON. THE BOUNDARY REPRESENTED ON THIS MAP IS BASED ON COMPILED RECORD DATA AND BEST FIT ONTO EXISTING IMPROVEMENTS. IT IS POSSIBLE FOR THE LOCATION OF THE SUBJECT PROPERTY TO SHIFT FROM THE PLACEMENT SHOWN HEREON WITH ADDITIONAL FIELD WORK AND RESEARCH. THEREFORE ANY SPATIAL REFERENCE MADE OR SHOWN BETWEEN THE RELATIONSHIP OF THE BOUNDARY LINES SHOWN HEREON AND EXISTING GROUND FEATURES, EASEMENTS OR LEASE AREA IS INTENDED TO BE APPROXIMATE AND IS SUBJECT TO VERIFICATION BY RESOLVING THE POSITION OF THE BOUNDARY LINES.
17. THE CONTRACTOR TO VERIFY THE LATEST/CURRENT RF DESIGN.
18. WHERE APPLICABLE, CONTRACTOR SHALL PROVIDE SEPARATE PLANS, SPECIFICATIONS, FEES AND PERMITS FOR ANY REVISION TO ANY FIRE SPRINKLER AND/OR ALARM SYSTEM ON THE PREMISES AS MAY BE NEEDED TO COMPLETE THE WORK DEPICTED HEREIN, USING A LICENSED SUBCONTRACTOR FOR ALL SUCH WORK.

RFDS DATE	05/06/22
RFDS REV	2.00

NOTE:
1. ANTENNA POSITIONS ARE LEFT TO RIGHT FROM FRONT OF ANTENNA.
2. EQUIPMENT IS PRELIMINARY & SUBJECT TO CHANGE.

ANTENNA SCHEDULE

	ANTENNAS						RRU'S		CABLING							
	SECTOR	TECHNOLOGY	ANTENNA MODEL	NO. OF COAX PORTS	CENTER	AZIMUTH	RRU MODEL	NO. OF RRU'S	NO. OF FIBER TRUNK CABLES	NO. OF DC POWER TRUNK CABLES	LENGTH OF CABLES	NO. OF COAX CABLES	COAX DIA.	SURGE SUPPRESSOR	NO. OF DIPLEXERS	NO. OF COMBINERS
ALPHA SECTOR	A1	LTE 700, 1900, 5G 850, 1900	CCI DMP65R-BU8DA-K	8	80'-0"	50°	8843 B2/B66, 4449 B5/B12	2	SHARED	SHARED	SHARED	0	–	SHARED	0	0
	A2	LTE FNET, 2100 5G 2100	CCI DMP65R-BU8DA-K	8	80'-0"	50°	4478 B14	1	SHARED	SHARED	SHARED	0	–	SHARED	0	0
	A3A	DOD BAND	ERICSSON AIR 6419	0	82'-9"	50°	INTEGRATED	0	1	3	140'	0	–	(1) DC9	0	0
	A3B	C-BAND	ERICSSON AIR 6449	0	79'-2"	50°	INTEGRATED	0	SHARED	SHARED	SHARED	0	–	SHARED	0	0
	A4	LTE B29, 2300	CCI DMP65R-BU8DA-K	8	80'-0"	50°	4415 B30, 2012 B29	2	SHARED	SHARED	SHARED	0	–	SHARED	0	0
BETA SECTOR	B1	LTE 700, 1900, 5G 850, 1900	CCI DMP65R-BU8DA-K	8	80'-0"	310°	8843 B2/B66, 4449 B5/B12	2	SHARED	SHARED	SHARED	0	–	SHARED	0	0
	B2	LTE FNET, 2100 5G 2100	CCI DMP65R-BU8DA-K	8	80'-0"	310°	4478 B14	1	SHARED	SHARED	SHARED	0	–	SHARED	0	0
	B3A	DOD BAND	ERICSSON AIR 6419	0	82'-9"	310°	INTEGRATED	0	1	3	150'	0	–	(1) DC9	0	0
	B3B	C-BAND	ERICSSON AIR 6449	0	79'-2"	310°	INTEGRATED	0	SHARED	SHARED	SHARED	0	–	SHARED	0	0
	B4	LTE B29, 2300	CCI DMP65R-BU8DA-K	8	80'-0"	310°	4415 B30, 2012 B29	2	SHARED	SHARED	SHARED	0	–	SHARED	0	0
GAMMA SECTOR	C1	LTE 700, 1900, 5G 850, 1900	CCI DMP65R-BU8DA-K	8	80'-0"	210°	8843 B2/B66, 4449 B5/B12	2	SHARED	SHARED	SHARED	0	–	SHARED	0	0
	C2	LTE FNET, 2100 5G 2100	CCI DMP65R-BU8DA-K	8	80'-0"	210°	4478 B14	1	SHARED	SHARED	SHARED	0	–	SHARED	0	0
	C3A	DOD BAND	ERICSSON AIR 6419	0	82'-9"	210°	INTEGRATED	0	1	3	140'	0	–	(1) DC9	0	0
	C3B	C-BAND	ERICSSON AIR 6449	0	79'-2"	210°	INTEGRATED	0	SHARED	SHARED	SHARED	0	–	SHARED	0	0
	C4	LTE B29, 2300	CCI DMP65R-BU8DA-K	8	80'-0"	210°	4415 B30, 2012 B29	2	SHARED	SHARED	SHARED	0	–	SHARED	0	0

Issued For:

CCL06354

MOUNT
VACA - ATC

BLUE RIDGE ROAD
VACAVILLE, CA 95688

PREPARED FOR

at&t

5001 Executive Parkway
San Ramon, California 94583

Vendor:

COMPLETE Wireless Consulting, Inc.

AT&T SITE NO:	CCL06354
PROJECT NO:	-
DRAWN BY:	-
CHECKED BY:	J. GRAY
APPROVED BY:	-

ISSUE STATUS

REV	DATE	DESCRIPTION	CAD
2	05/31/22	ZD 100%	T.S.
1	04/19/22	CLIENT REV	T.S.
0	03/25/22	ZD 90%	

Licensee:

PRELIMINARY:
NOT FOR
CONSTRUCTION

KEVIN R. SORENSEN
S4469

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.

ENGINEER:

Streamline Engineering and Design, Inc.

8445 Sierra College Blvd. Suite E Granite Bay, CA 95746
Contact: Kevin Sorensen Phone: 916-660-1930
E-Mail: kevin@streamlineeng.com Fax: 916-660-1941

THE DATA, IDEAS AND INFORMATIONS, AS WELL AS THE RIGHTS OF OWNERSHIP, OF ARTISTICAL, DESIGN, THE PLANS, DRAWINGS, SPECIFICATIONS, CALCULATIONS, REPORTS AND OTHER DOCUMENTS, PRODUCED BY THE ENGINEER, ARE THE PROPERTY OF THE ENGINEER. THEY MUST BE RETURNED AT THE ENGINEER'S REQUEST. THE REPRODUCTION, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION OF THE ENGINEER, OR THE USE OF THE DESIGN WITHOUT PAYMENT TO THE ENGINEER, IS A VIOLATION OF THE LAW. Copyright © 2020 - STREAMLINE ENGINEERING AND DESIGN, INC.

SHEET TITLE:

GENERAL
NOTES

SHEET NUMBER:

T-1.2

Lease Area Description

All that certain lease area being a portion those two parcels listed as 1) American Tower Management Inc. 2000-0005904 Napa County Records and 2) American Tower Management Co. Parcel One 2000-23103 Solano County Records as are shown on that certain Record of Survey filed for record at Book 49 of Surveys at Page 21, Official Records of Napa County, and being a portion of the NE 1/4 of Section 5, Township 6 North, Range 2 West, M.D.B.& M., and being located in the Counties of Napa and Solano, State of California, being more particularly described as follows:

Commencing at a 3/4" Iron Pipe LS7973 set at the Northerly intersection of the above referenced parcels as is shown on the above referenced Record of Survey from which a Mag Nail and Brass Tag LS7973 bears North 31°07'48" West 150.66' and North 49°57'04" West 182.94 feet; thence from said point of commencement South 49°06'39" East 58.23 feet to the True Point of Beginning; thence from said point of beginning North 72°14'35" East 14.50 feet; thence South 17°45'25" East 27.42 feet; thence South 72°14'35" West 8.50 feet; thence North 17°45'25" West 17.00 feet; thence South 75°24'25" West 6.00 feet; thence North 17°45'25" West 10.42 feet to the point of beginning.

Together with the a non-exclusive easement for access purposes of variable width from the above described lease area and running thence Easterly generally to the public right of way more commonly known as Gates Canyon Road.

Also together with the a non-exclusive easement for utility purposes six feet in width from the above described lease area and running thence Northwesterly as is generally shown hereon to the existing lattice tower; thence up, over, and upon said tower as is necessary to install, operate, and maintain the necessary communications equipment.

Also together with the a non-exclusive easement for utility purposes three feet in width from the above described lease area and running thence as is generally shown hereon to the existing telephone facilities.

Also together with the a non-exclusive easement for utility purposes six feet in width from the above described lease area and running thence as is generally shown hereon to the existing power facilities.

Geil Engineering
Engineering * Surveying * Planning
1226 High Street
Auburn, California 95603-5015
Phone: (530) 885-0426 * Fax: (530) 823-1309

A.T.& T. Mobility

Project No./Name: CCL06354 / ATC Mount Vaca

Project Site Location: Gates Canyon Road
Vacaville, CA 95688
Napa & Solano Counties

Date of Observation: 03-04-22

Equipment/Procedure Used to Obtain Coordinates: Trimble Pathfinder Pro XL post processed with Pathfinder Office software.

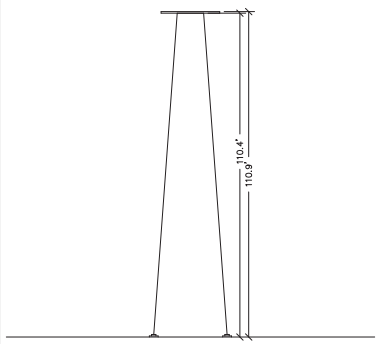
Type of Antenna Mount: Existing Lattice Tower

Coordinates
Latitude: N 38° 23' 53.90" (NAD83) N 38° 23' 54.22" (NAD27)
Longitude: W 122° 06' 11.48" (NAD83) W 122° 06' 07.59" (NAD27)

ELEVATION of Ground at Structure (NAVD88) 2790.8' AMSL
STRUCTURE HEIGHT: (Top of Tower) 110.9' AGL
OVERALL HEIGHT: (Top of Tower) 110.9' AGL

CERTIFICATION: I, the undersigned, do hereby certify elevation listed above is based on a field survey done under my supervision and that the accuracy of those elevations meet or exceed 1-A Standards as defined in the FAA ASAC Information Sheet 91:003, and that they are true and accurate to the best of my knowledge and belief.

Kenneth D. Geil California RCE 14803



TOWER DIAGRAM

DATE OF SURVEY: 03-04-22

SURVEYED BY OR UNDER DIRECTION OF: KENNETH D. GEIL, R.C.E. 14803

LOCATED IN THE COUNTY OF NAPA, STATE OF CALIFORNIA

BEARINGS SHOWN ARE BASED UPON MONUMENTS FOUND AND RECORD INFORMATION. THIS IS NOT A BOUNDARY SURVEY.

ELEVATIONS SHOWN ON THIS PLAN ARE BASED UPON U.S.G.S. N.A.V.D. 88 DATUM. ABOVE MEAN SEA LEVEL.

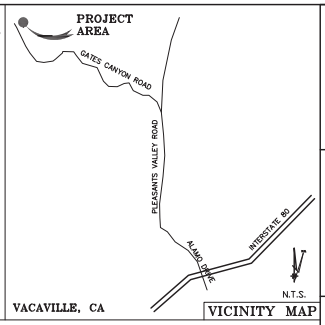
N.G.V.D. 1929 CORRECTION: SUBTRACT 2.75' FROM ELEVATIONS SHOWN.

CONTOUR INTERVAL: N/A

CONTRACTOR IS RESPONSIBLE TO VERIFY LEASE AREA PRIOR TO CONSTRUCTION.

ASSESSOR'S PARCEL NUMBER: 033-200-017-000(NAPA COUNTY)
0121-010-070(SOLANO COUNTY)

OWNER(S): AMERICAN TOWER MANAGEMENT INC.
PO BOX 723597
ATLANTA, GA 31139



VICINITY MAP

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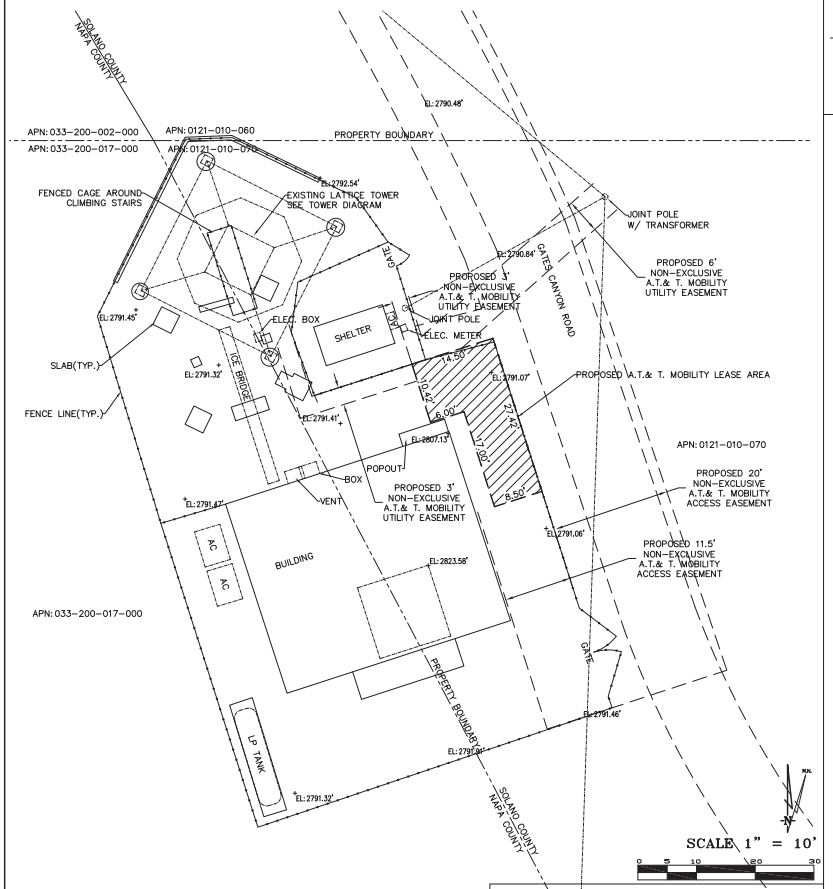
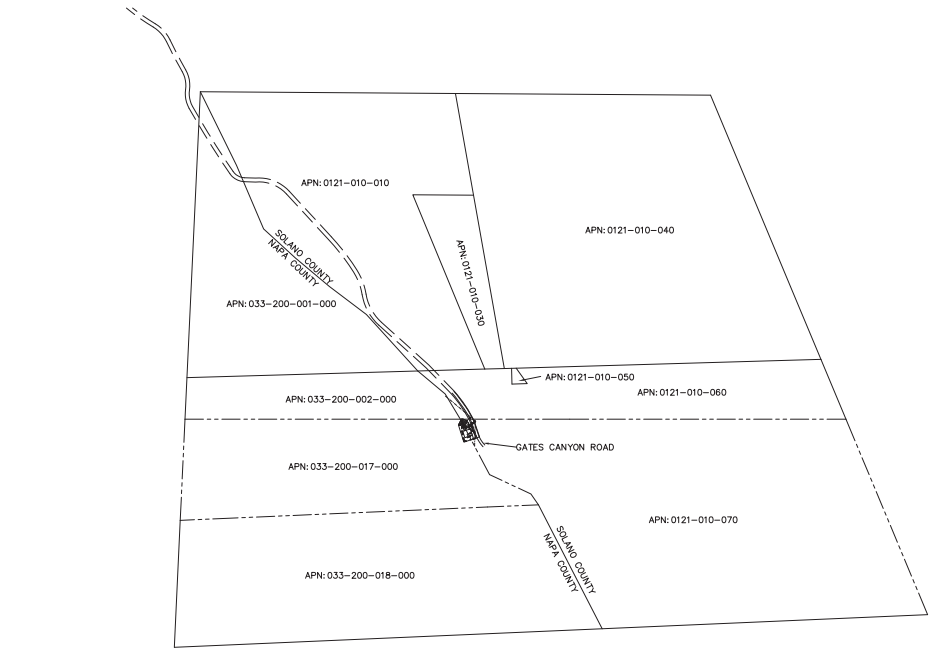
BOUNDARY SHOWN IS BASED ON MONUMENTATION FOUND AND RECORD INFORMATION. THIS IS NOT A BOUNDARY SURVEY. THIS IS A SPECIALIZED TOPOGRAPHIC MAP WITH PROPERTY LINES AND EASEMENTS BEING A GRAPHIC DEPICTION BASED ON INFORMATION GATHERED FROM VARIOUS SOURCES OF RECORD AND AVAILABLE MONUMENTATION FOUND DURING THE FIELD SURVEY. NO EASEMENTS WERE RESEARCHED OR PLOTTED. PROPERTY LINES AND LINES OF TITLE WERE NOT INVESTIGATED NOR SURVEYED. NO PROPERTY MONUMENTS WERE SET.



PROJECT AREA ENLARGEMENT



OVERALL SITE PLAN

DEPT	APPROVED	DATE
A&C		
RE		
RF		
INT		
EE\IN		
OPS		
EE\OUT		

Surveyor

GEIL ENGINEERING
ENGINEERING * SURVEYING * PLANNING
1226 HIGH STREET
AUBURN, CALIFORNIA 95603
Phone: (530) 885-0426
Fax: (530) 823-1309

at&t MOBILITY

CCL06354
ATC MOUNT VACA

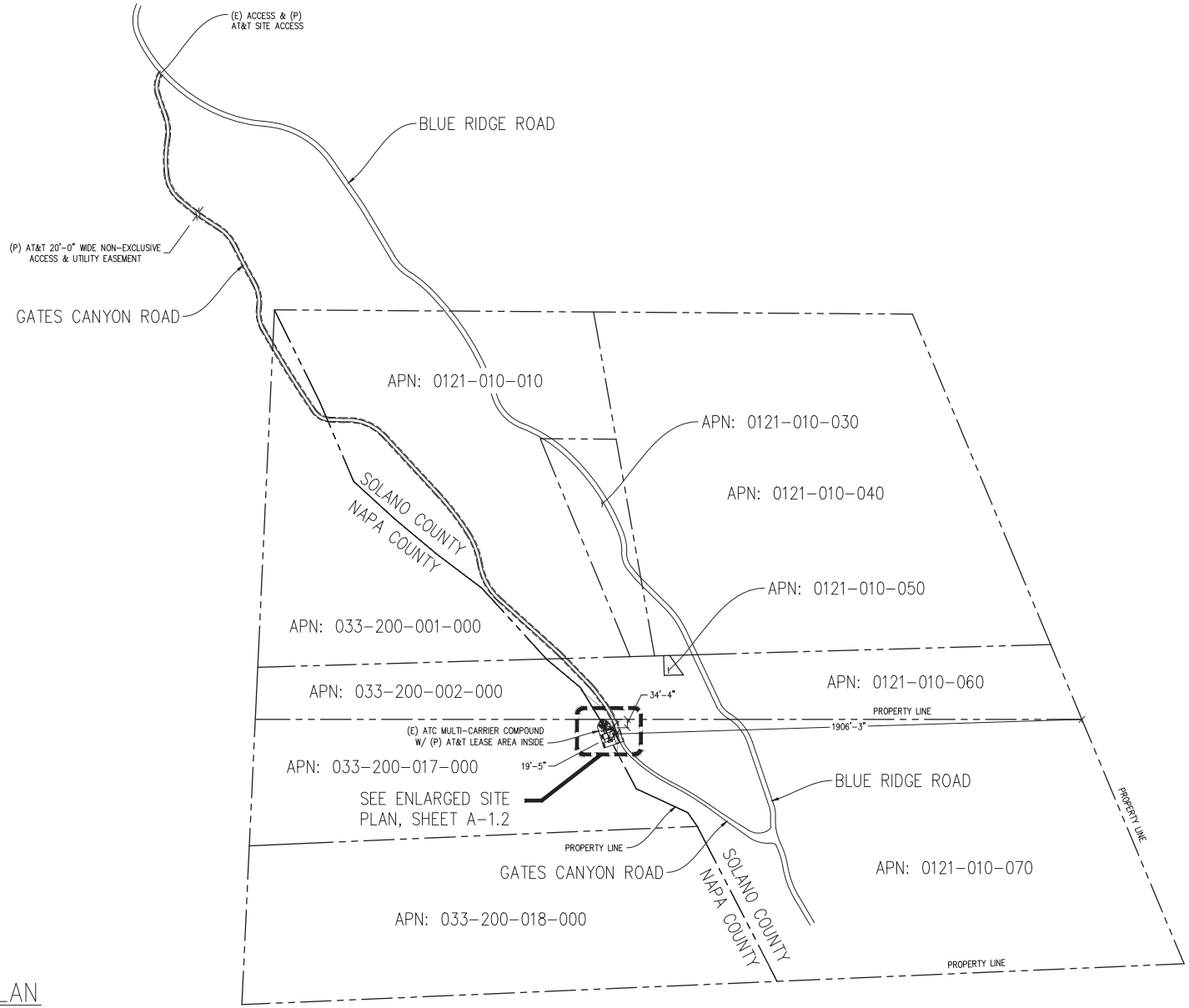
GATES CANYON ROAD
VACAVILLE, CA 95688
PLOT PLAN AND
SITE TOPOGRAPHY

REVISIONS		
REV	03-07-22 N. ROHDE	DRAWING SUBMITTAL
REV	04-20-22 N. ROHDE	LEASE AREA MOD.
REV	08-30-22 N. ROHDE	LEASE AREA MOD.
REV		
REV		

Sheet

C-1

ATTACHMENT F



OVERALL SITE PLAN

1"=200'-0"

0 100' 200' 400' 600' 1,000'

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MOUNT
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BLUE RIDGE ROAD
VACAVILLE, CA 95688

PREPARED FOR

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5001 Executive Parkway
San Ramon, California 94583

Vendor:

COMPLETE Wireless Consulting, Inc.

AT&T SITE NO:	CCL06354
PROJECT NO:	-
DRAWN BY:	-
CHECKED BY:	J. GRAY
APPROVED BY:	-

ISSUE STATUS

REV	DATE	DESCRIPTION	CAD
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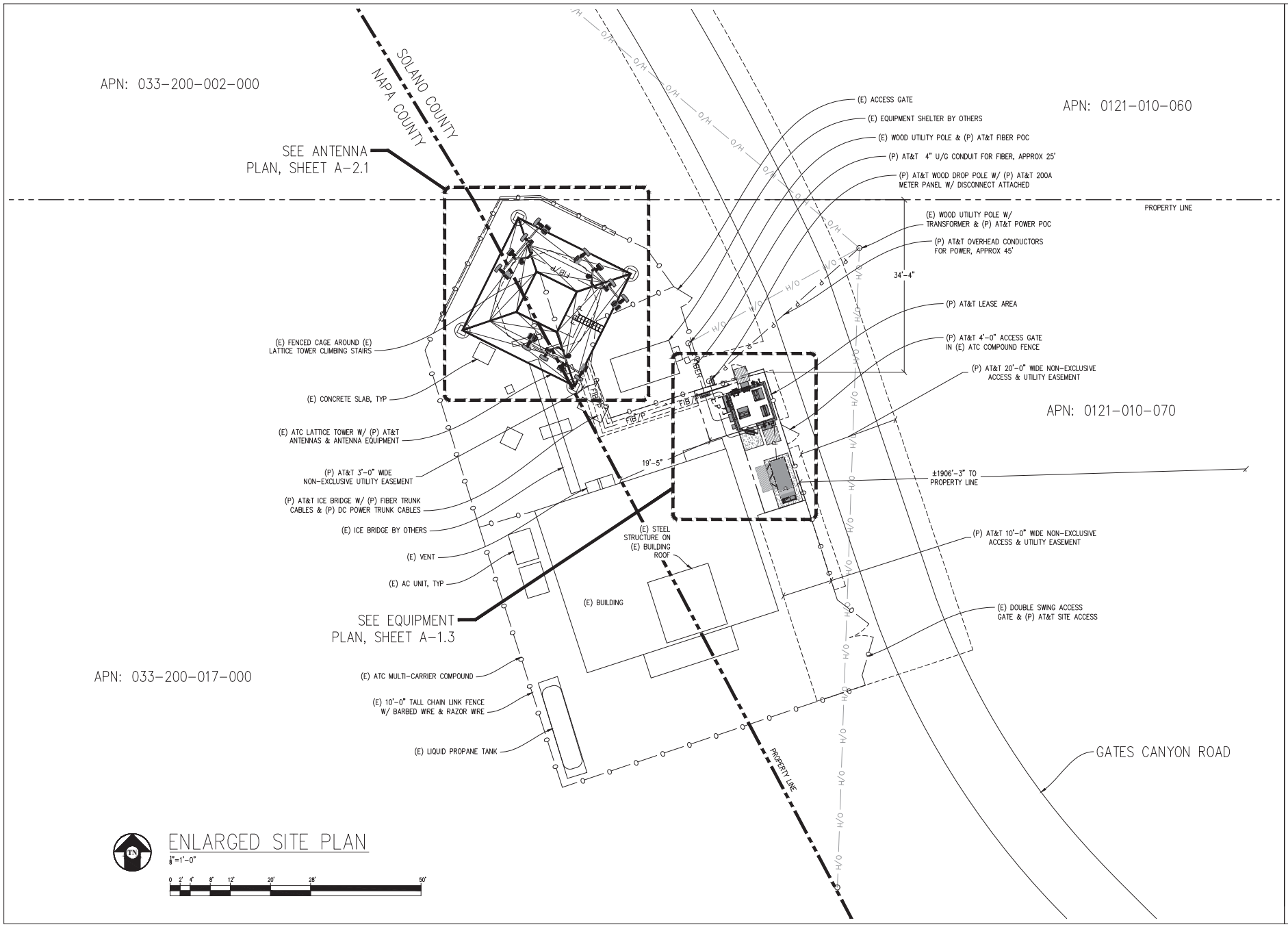
8445 Sierra College Blvd, Suite E Granite Bay, CA 95746
Contact: Kevin Sorensen Phone: 916-660-1930
E-Mail: kevin@streamlineeng.com Fax: 916-660-1941

SHEET TITLE:

OVERALL
SITE PLAN

SHEET NUMBER:

A-1.1



ENLARGED SITE PLAN

1/8"=1'-0"

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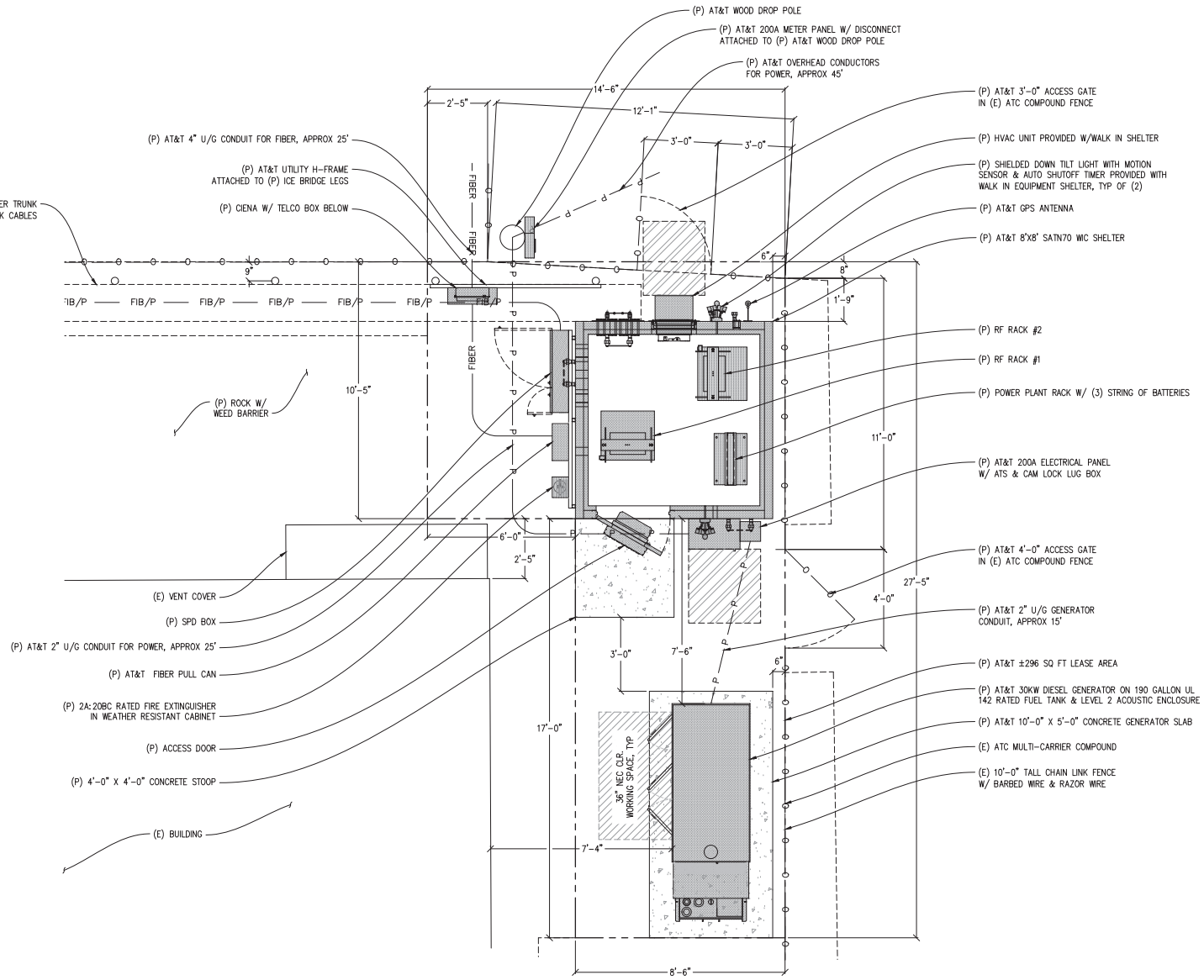
SHEET TITLE:

ENLARGED SITE PLAN

SHEET NUMBER:

A-1.2



EQUIPMENT PLAN

½"=1'-0"

0 6" 1' 2' 3' 5' 7' 10'

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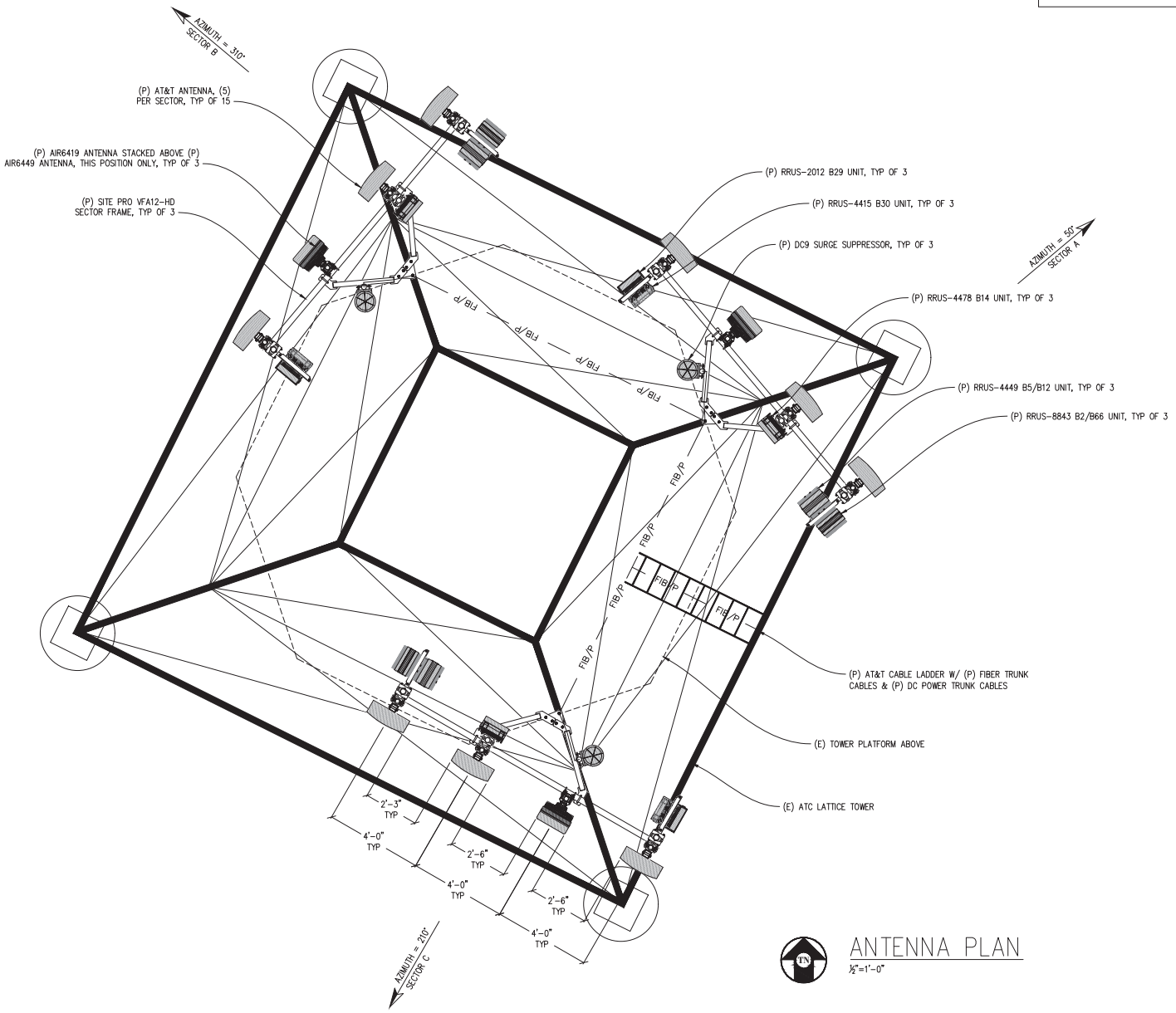
SHEET TITLE:

EQUIPMENT PLAN

SHEET NUMBER:

A-1.3

NOTES:
1. ANTENNA POSITIONS ARE LEFT TO RIGHT FROM FRONT OF ANTENNA.
2. EQUIPMENT IS PRELIMINARY & SUBJECT TO CHANGE.
3. SEE FULL ANTENNA SCHEDULE ON SHEET T-1.2.



ANTENNA PLAN

½"=1'-0"

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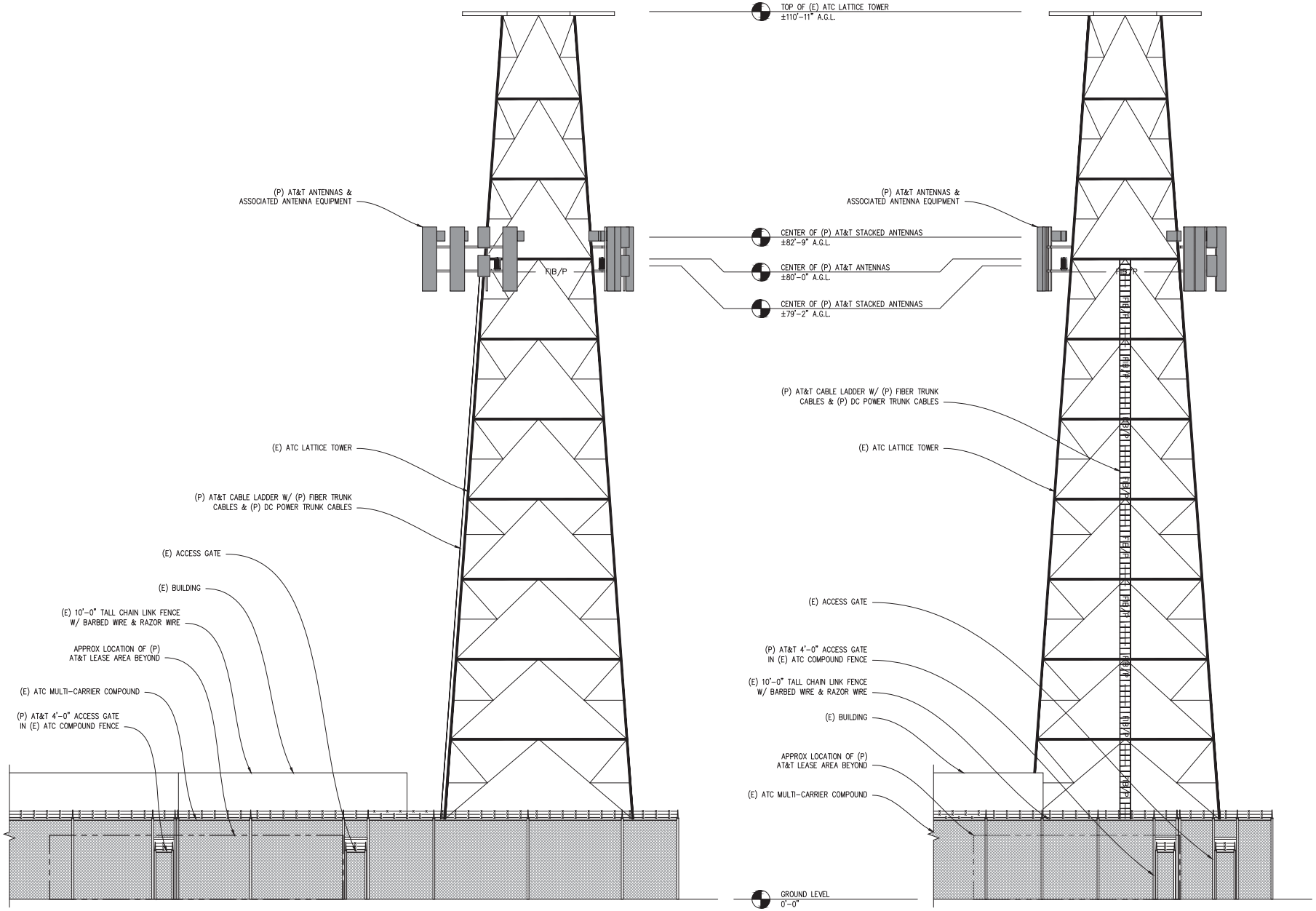
SHEET TITLE:

ANTENNA PLAN

SHEET NUMBER:

A-2.1

ATTACHMENT F



NORTH ELEVATION
3/16"=1'-0"

EAST ELEVATION
3/16"=1'-0"

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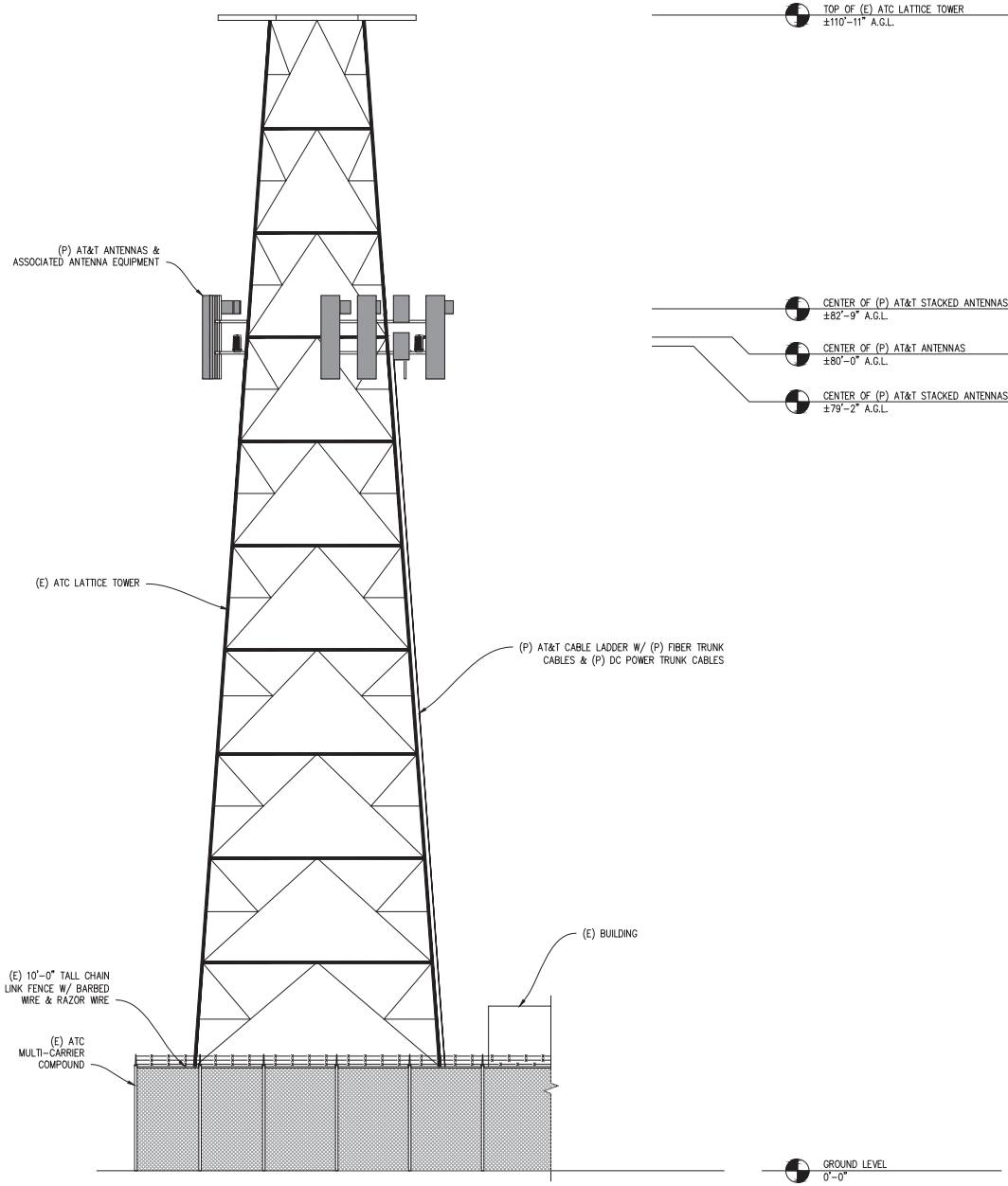
SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

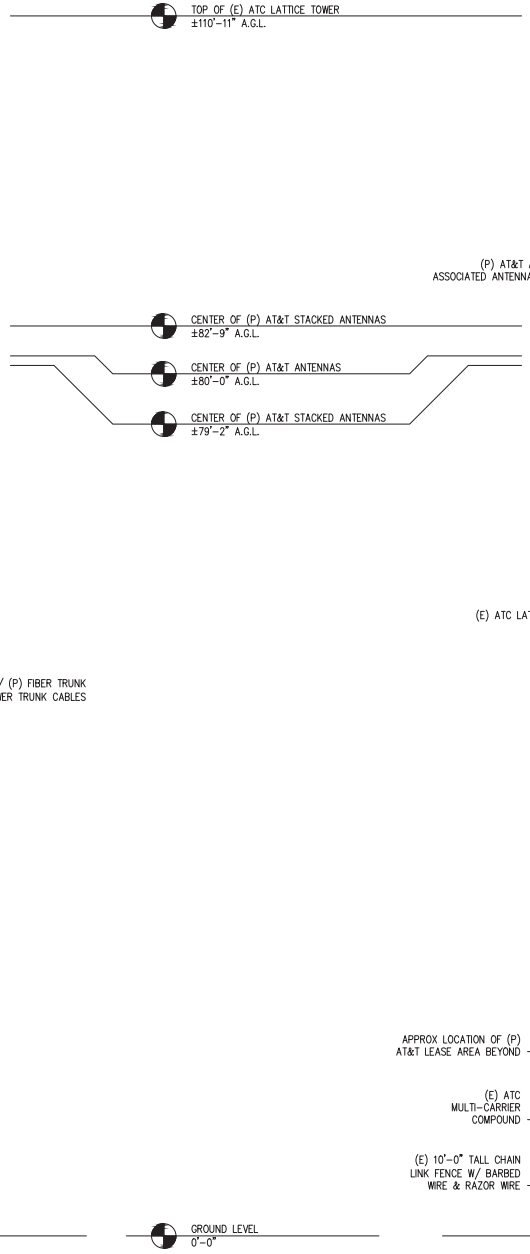
A-3.1

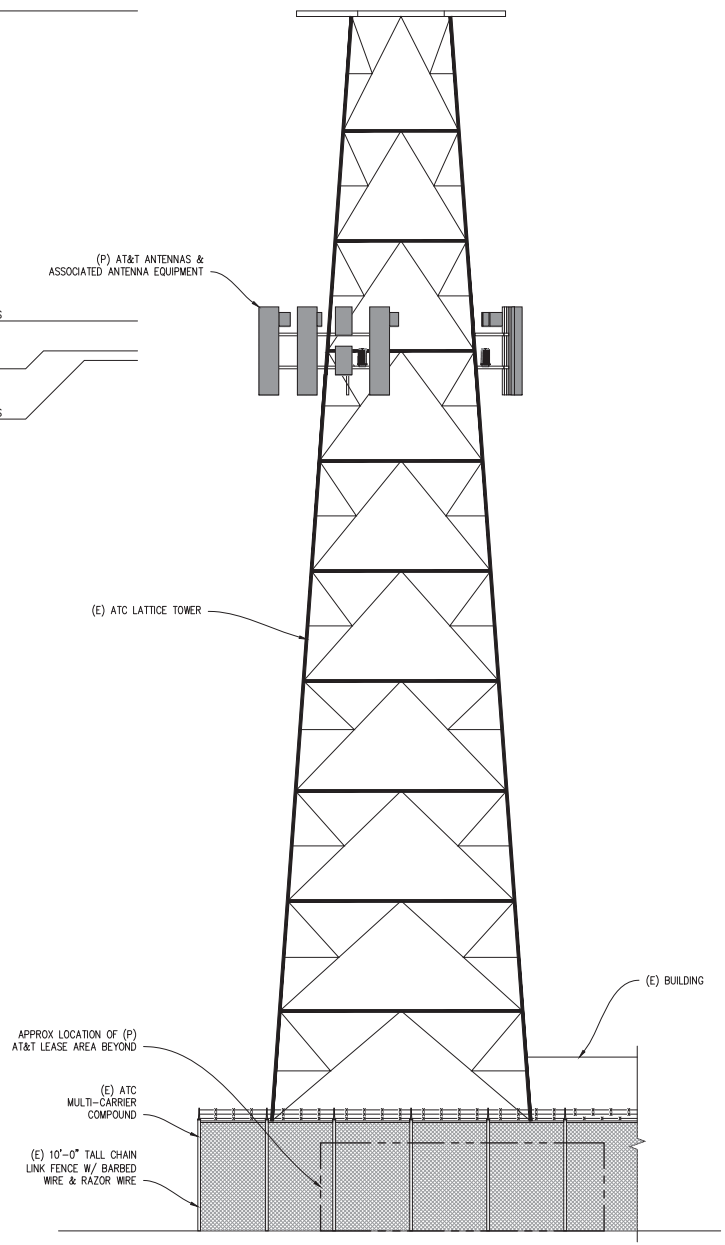
ATTACHMENT F



SOUTH ELEVATION

3/16"=1'-0"





WEST ELEVATION

3/16"=1'-0"

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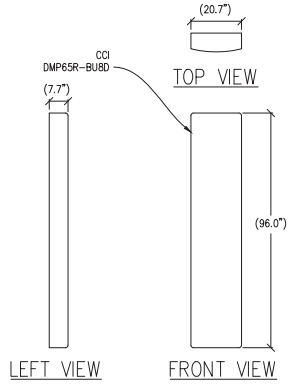
SHEET TITLE:

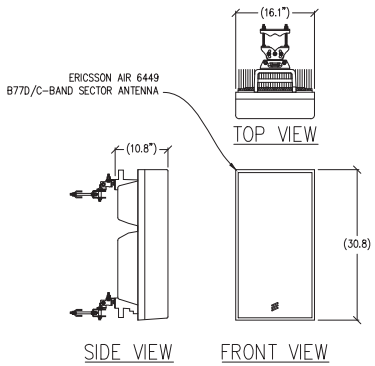
ELEVATIONS

SHEET NUMBER:

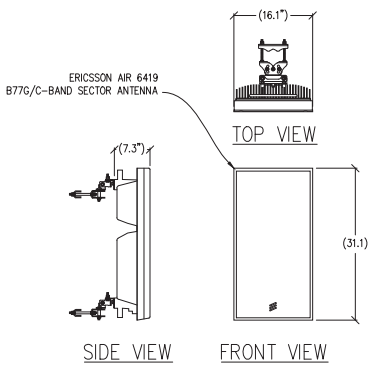
A-3.2



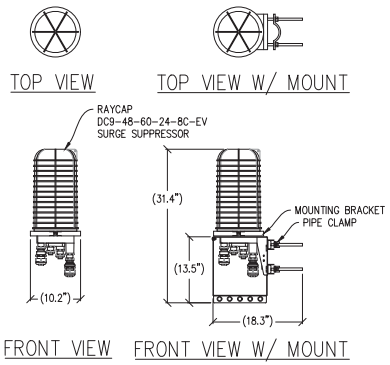
1 ANTENNA DETAIL
½"=1' MAX WEIGHT: 119 LBS



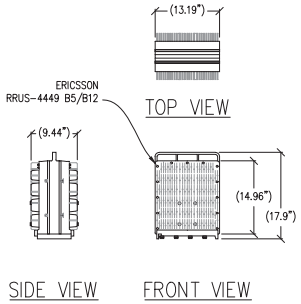
2 ANTENNA DETAIL
1"=1'-0" MAX WEIGHT: 88 LBS



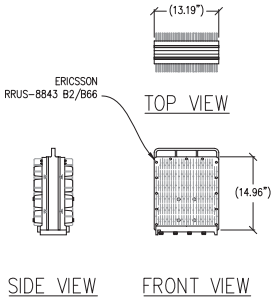
3 ANTENNA DETAIL
1"=1'-0" MAX WEIGHT: 55.4 LBS



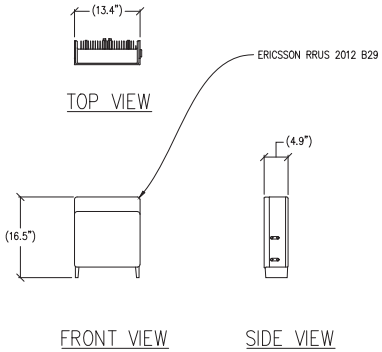
4 SURGE SUPPRESSOR DETAIL
1"=1'-0" MAX WEIGHT = 26.2 LBS



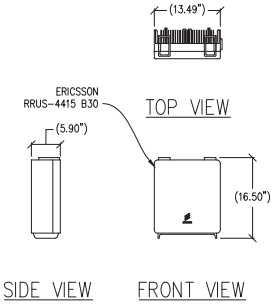
5 RRUS-4449 B5/B12 DETAIL
1"=1'-0" MAX WEIGHT: 71 LBS



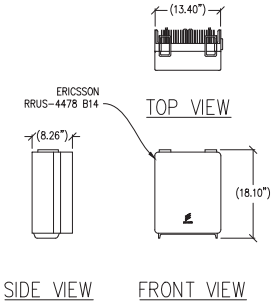
6 RRUS-8843 B2/B66 DETAIL
1"=1'-0" MAX WEIGHT: 75 LBS



7 RRUS-2012 B29 DETAIL
1"=1'-0" MAX WEIGHT: 46 LBS



8 RRUS-4415 B30 DETAIL
1"=1'-0" MAX WEIGHT: 46 LBS



9 RRUS-4478 B14 DETAIL
1"=1'-0" MAX WEIGHT: 59.4 LBS

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CHECKED BY:	J. GRAY
APPROVED BY:	-

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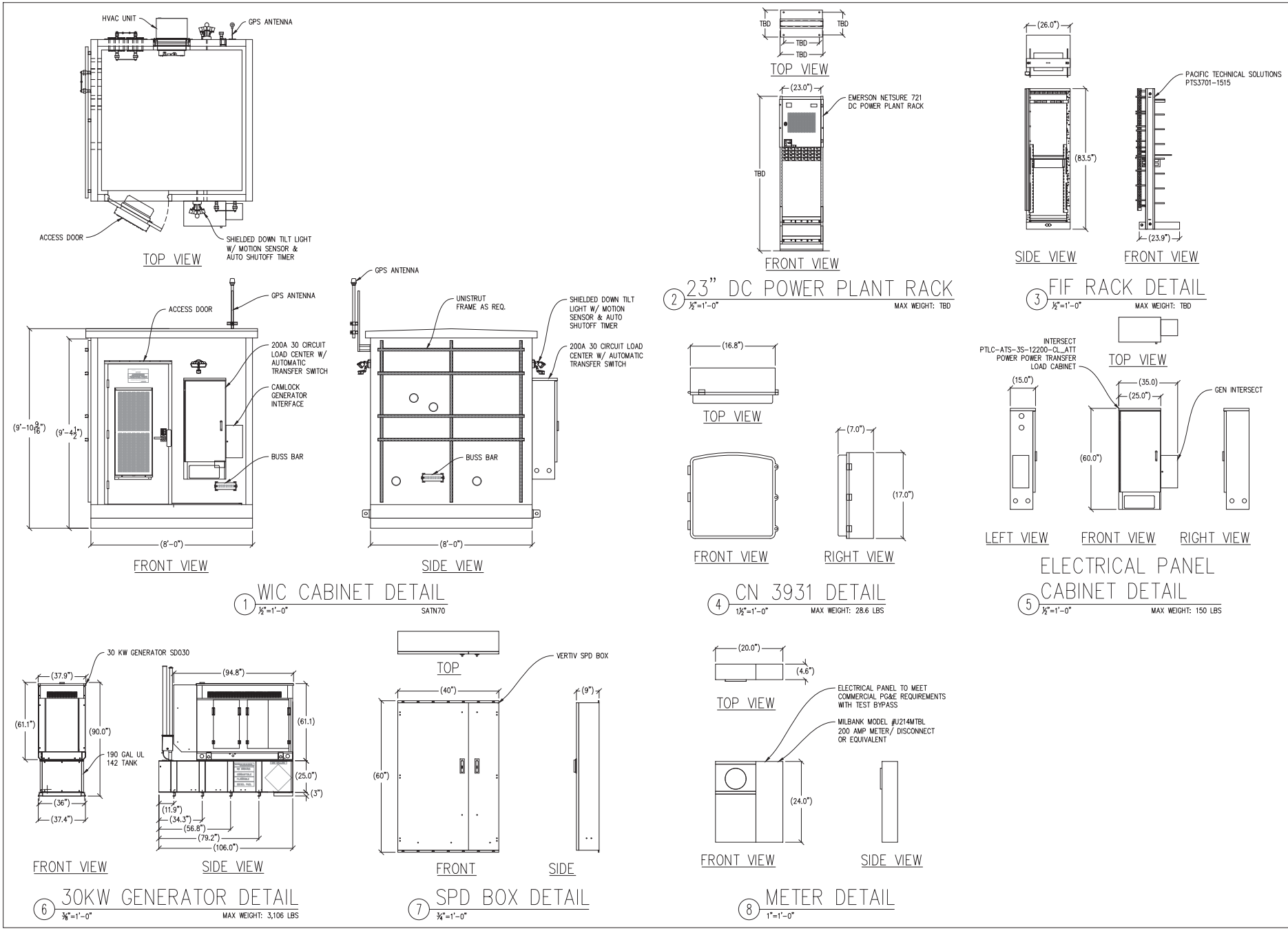
SHEET TITLE:

ANTENNA
DETAILS

SHEET NUMBER:

A-4.1

ATTACHMENT F



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SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER:

A-4.2

ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE 2019 CEC AS WELL AS ALL ADOPTED STANDARDS, APPLICABLE STATE AND LOCAL CODES.
2. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT, CONDUCTORS, PULL BOXES, TRANSFORMER PADS, POLE RISERS, AND PERFORM ALL TRENCHING AND BACKFILLING REQUIRED IN THE PLANS.
3. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER PLAN SPECIFICATIONS.
4. ALL CIRCUIT BREAKERS, FUSES, AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTION RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED WITH A MINIMUM OF 10,000 A.I.C. OR AS REQUIRED.
5. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
6. ELECTRICAL WIRING SHALL BE COPPER #12 AWG MIN WITH TYPE THHN, THWN-2 OR THW-2, INSULATION RATED FOR 90°C DRY OR 70°C WET.
7. ALL OUTDOOR EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE.
8. ALL BURIED WIRE SHALL RUN THROUGH SCHEDULE 40 PVC CONDUIT UNLESS OTHERWISE NOTED.
9. A GROUND WIRE IS TO BE PULLED IN ALL CONDUITS.
10. WHERE ELECTRICAL WIRING OCCURS OUTSIDE A STRUCTURE AND HAS THE POTENTIAL FOR EXPOSURE TO WEATHER, WIRING SHALL BE IN WATERTIGHT GALVANIZED RIGID STEEL OR FLEXIBLE CONDUIT.
11. WHERE PLANS CALL FOR A NEW ELECTRICAL SERVICE, PRIOR TO SUBMITTING BID, CONTRACTOR SHALL VERIFY PLAN DETAILS WITH THE UTILITY'S SERVICE PLAN & REQ'MTS INCLUDING SERVICE VOLTAGE, METER LOCATION, MAIN DISCONNECTING MEANS, AND AIC REQ'MT, AND SHALL OBTAIN CLARIFICATION FROM THE PROJECT ENGINEER ON ANY DEVIATIONS FOUND IN THESE PLANS.
12. WHERE THESE PLANS SHOW A DC POWER PLANT, THE INSTALLATION OPERATING AT LESS THAN 50 VDC UNGROUNDED, 2-WIRE, SHALL COMPLY WITH ARTICLE 720, AS FOLLOWS:
    A. POWER PLANT SHALL BE SUPPLIED BY THE WIRELESS CARRIER AS A PULL-TAG ITEM AND INSTALLED BY THE CONTRACTOR.
    B. CONDUCTORS SHALL NOT BE SMALLER THAN #12 AWG COPPER MIN, CONDUCTORS FOR BRANCH CIRCUITS SUPPLYING MORE THAN ONE APPLIANCE SHALL BE 10 AWG CU MIN; CONTRACTOR SHALL SIZE CONDUCTORS BASED ON MFGR'S DATA FOR THE APPLIANCES SERVED.
    C. THERE ARE NO DC RECEPTACLES OR LUMINARIES ALLOWED ON THIS PROJECT. ALL CIRCUITS SHALL ORIGINATE AT AN INTEGRATED DOUBLE LUG TAP OR SOCKET TERMINATION ON AN INTEGRATED DC CIRCUIT BREAKER AT AN INDIVIDUAL RECTIFIER MODULE AND TERMINATE AT THE SPECIALIZED LUG ON THE RESPECTIVE APPLIANCE AS A SINGLE RUN OF WIRE WITHOUT SPLICES. ALL DC WIRING SHALL BE LABELED AT THE DC PLANT WITH THE APPLIANCE SERVED AND THE DC VOLTAGE.
    D. ALL CABLING SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER AND SUPPORTED BY BUILDING STRUCTURE, EG. (P) CABLE TRAY OVERHEAD, IN SUCH A MANNER THAT THE CABLE WILL NOT BE DAMAGED BY NORMAL USE.

ELECTRICAL NOTES

GENERAL REQUIREMENTS:

ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODES. NOTHING IN THESE PLANS OR SPECIFICATIONS SHALL BE CONSTRUED AS TO PERMIT WORK NOT CONFORMING TO THE MOST STRINGENT OF THESE CODES. SHOULD CHANGES BE NECESSARY IN THE DRAWINGS OR SPECIFICATIONS TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND CEASE WORK ON PARTS OF THE CONTRACT WHICH ARE AFFECTED.

THE CONTRACTOR SHALL MAKE A SITE VISIT PRIOR TO BIDDING AND CONSTRUCTION TO VERIFY ALL (E) CONDITIONS AND SHALL NOTIFY ARCHITECT IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES. THE CONTRACTOR ASSUMES ALL LIABILITY FOR FAILURE TO COMPLY WITH THIS PROVISION.

THE EXTENT OF THE WORK IS INDICATED BY THE DRAWINGS, SCHEDULES, AND SPECIFICATIONS AND IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT. THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND SUPPLIES NECESSARY FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. THE WORK SHALL ALSO INCLUDE THE COMPLETION OF ALL ELECTRICAL WORK NOT MENTIONED OR SHOWN WHICH IS NECESSARY FOR SUCCESSFUL OPERATION OF ALL SYSTEMS.

THE CONTRACTOR SHALL PREPARE A BID FOR A COMPLETE AND OPERATIONAL SYSTEM, WHICH INCLUDES THE COST FOR MATERIAL AND LABOR.

WORKMANSHIP AND NEAT APPEARANCE SHALL BE AS IMPORTANT AS THE OPERATION. DEFECTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL ACCEPTANCE IN A MANNER ACCEPTABLE TO OWNER AND ENGINEER.

COMPLETE THE ENTIRE INSTALLATION AS SOON AS THE PROGRESS OF THE WORK WILL PERMIT. ARRANGE ANY OUTAGE OF SERVICE WITH THE OWNER AND BUILDING MANAGER IN ADVANCE. MINIMIZE DOWNTIME ON THE BUILDING ELECTRICAL SYSTEM.

THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT SHALL BE DELIVERED IN PROPER WORKING ORDER. REPLACE, WITHOUT ADDITIONAL COST TO THE OWNER, ANY DEFECTIVE MATERIAL AND EQUIPMENT WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.

ANY ERROR, OMISSION OR DESIGN DISCREPANCY ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION.

"PROVIDE" INDICATES THAT ALL ITEMS ARE TO BE FURNISHED, INSTALLED AND CONNECTED IN PLACE.

CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES.

EQUIPMENT LOCATION:

THE DRAWINGS INDICATE DIAGRAMMATICALLY THE DESIRED LOCATIONS OR ARRANGEMENTS OF CONDUIT RUNS, OUTLETS, EQUIPMENT, ETC., AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE LIMITATIONS OR INTERFERENCE OF STRUCTURE CONDITIONS ENCOUNTERED.

IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO FIELD CONDITIONS IN THE BUILDING CONSTRUCTION OR REARRANGEMENT OF FURNISHINGS OR EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST, PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIT RUNS, ETC., AND WORK DIRECTLY CONNECTED TO THE SAME IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.

LIGHTING FIXTURES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY. COORDINATE THE FIXTURE LOCATION WITH MECHANICAL EQUIPMENT TO AVOID INTERFERENCE.

COORDINATE THE WORK OF THIS SECTION WITH THAT OF ALL OTHER TRADES, WHERE CONFLICTS OCCUR, CONSULT WITH THE RESPECTIVE CONTRACTOR AND COME TO AGREEMENT AS TO CHANGES NECESSARY, OBTAIN WRITTEN ACCEPTANCE FROM ENGINEER FOR THE PROPOSED CHANGES BEFORE PROCEEDING.

SHOP DRAWINGS:

N/A UNLESS NOTED OTHERWISE.

SUBSTITUTIONS:

NO SUBSTITUTIONS ARE ALLOWED UNLESS OTHERWISE INDICATED

TESTS:

BEFORE FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL INSURE THAT ALL EQUIPMENT, SYSTEMS, FIXTURES, ETC., ARE WORKING SATISFACTORILY AND TO THE INTENT OF THE DRAWINGS.

PERMITS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING OUT AND PAYING FOR ALL REQUIRED PERMITS, INSPECTION AND EXAMINATION WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

GROUNDING:

THE CONTRACTOR SHALL PROVIDE A COMPLETE, AND APPROVED GROUNDING SYSTEM INCLUDING ELECTRODES, ELECTRODE CONDUCTOR, BONDING CONDUCTORS, AND EQUIPMENT CONDUCTORS AS REQUIRED BY ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.

CONDUITS CONNECTED TO EQUIPMENT AND DEVICES SHALL BE METALLICALLY JOINED TOGETHER TO PROVIDE EFFECTIVE ELECTRICAL CONTINUITY.

FEEDERS AND BRANCH CIRCUIT WIRING INSTALLED IN A NONMETALLIC CONDUIT SHALL INCLUDE A CODE SIZED GROUNDING CONDUCTOR HAVING GREEN INSULATION. THE GROUND CONDUCTOR SHALL BE PROPERLY CONNECTED AT BOTH ENDS TO MAINTAIN ELECTRICAL CONTINUITY.

REFER TO GROUND BUS DETAILS. PROVIDE NEW GROUND SYSTEM COMPLETE WITH CONDUCTORS, GROUND ROD AND DESCRIBED TERMINATIONS.

ALL GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #2 UNLESS NOTED OTHERWISE.

ALL NON-DIRECT BURIED TELEPHONE EQUIPMENT GROUND CONDUCTORS SHALL BE #2 STRANDED THHN (GREEN) INSULATION.

ALL GROUND CONNECTIONS SHALL BE MADE WITH "HYGROUND" COMPRESSION SYSTEM BURNDY CONNECTORS EXCEPT WHERE NOTED OTHERWISE.

PAINT AT ALL GROUND CONNECTIONS SHALL BE REMOVED.

GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FUTURE INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBMIT TEST REPORTS AND FURNISH TO SMART SMR ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".

UTILITY SERVICE:

TELEPHONE AND ELECTRICAL METERING FACILITIES SHALL CONFORM TO THE REQUIREMENTS OF THE SERVING UTILITY COMPANIES. CONTRACTOR SHALL VERIFY SERVICE LOCATIONS AND REQUIREMENTS. SERVICE INFORMATION WILL BE FURNISHED BY THE SERVING UTILITIES.

CONFORM TO ALL REQUIREMENTS OF THE SERVING UTILITY COMPANIES.

PRODUCTS:

ALL MATERIALS SHALL BE NEW, CONFORMING WITH NEC, ANSI, NEMA, AND THEY SHALL BE U.L. LISTED AND LABELED.

CONDUIT:
RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR, RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.

ELECTRICAL METALLIC TUBING SHALL U.L. LABEL, FITTINGS SHALL BE COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.

FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.

CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILING OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH ARCHITECT PRIOR TO INSTALLING.

ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE

ALL CONDUIT ONLY (C.O.) SHALL HAVE PULL ROPE.

CONDUITS RUN ON ROOFS SHALL BE INSTALLED ON 4X4 REDWOOD SLEEPERS, 6'-0" ON CENTER, SET IN NON-HARDENING MASTIC.

ALL WIRE AND CABLE SHALL BE COPPER, 600 VOLT, #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. TYPE THHN INSULATION USED UNLESS CONDUCTORS INSTALLED IN CONDUIT EXPOSED TO WEATHER, IN WHICH CASE TYPE THWN INSULATION SHALL BE USED.

PROVIDE GALVANIZED COATED STEEL BOXES AND ACCESSORIES SIZED PER CODE TO ACCOMMODATE ALL DEVICES AND WIRING.

DUPLEX RECEPTACLES SHALL BE SPECIFICATION GRADE WITH WHITE FINISH (UNLESS NOTED BY ENGINEER), 20 AMP, 125 VOLT, THREE WIRE GROUNDING TYPE, NEMA 5-20R. MOUNT RECEPTACLE AT +12" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED ON DRAWINGS OR IN DETAILS. WEATHERPROOF RECEPTACLES SHALL BE GROUND FAULT INTERRUPTER TYPE WITH SIERRA #WPD-8 LIFT COVERPLATES.

TOGGLE SWITCHES SHALL BE 20 AMP, 120 VOLT AC, SPECIFICATION GRADE WHITE (UNLESS NOTED OTHERWISE) FINISH. MOUNT SWITCHES AT +48" ABOVE FINISHED FLOOR.

PANELBOARDS SHALL BE DEAD FRONT SAFETY TYPE WITH ANTI-BURN SOLDERLESS COMPRESSION APPROVED FOR COPPER CONDUCTORS, COPPER BUS BARS, FULL SIZED NEUTRAL BUS, GROUND BUS AND EQUIPPED WITH QUICK-MAKE QUICK-BREAK BOLT-IN TYPE THERMAL MAGNETIC CIRCUIT BREAKERS. MOUNT TOP OF THE PANELBOARDS AT 6'-3" ABOVE FINISHED FLOOR. PROVIDE TYPE WRITTEN CIRCUIT DIRECTORY.

ALL CIRCUIT BREAKERS, MAGNETIC STARTERS AND OTHER ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.

GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10' LONG. COPPERWELD OR APPROVED EQUAL.

INSTALLATION:

PROVIDE SUPPORTING DEVICES FOR ALL ELECTRICAL EQUIPMENT, FIXTURES, BOXES, PANEL, ETC., SUPPORT LUMINARIES FROM UNDERSIDE OF STRUCTURAL CEILING, EQUIPMENT SHALL BE BRACED TO WITHSTAND HORIZONTAL FORCES IN ACCORDANCE WITH STATE AND LOCAL CODE REQUIREMENTS. PROVIDE PRIOR ALIGNMENT AND LEVELING OF ALL DEVICES AND FIXTURES.

CUTTING, PATCHING, CHASES, OPENINGS: PROVIDE LAYOUT IN ADVANCE TO ELIMINATE UNNECESSARY CUTTING OR DRILLING OF WALLS, FLOORS CEILINGS, AND ROOFS. ANY DAMAGE TO BUILDING STRUCTURE OR EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR. OBTAIN PERMISSION FROM THE ENGINEER BEFORE CORING.

IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER THE CIRCUMSTANCES.

LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.

PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE REQUIREMENTS OF THE C.B.C.

PROJECT CLOSEOUT:

UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALLS DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.

PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS.

ALL BROCHURES, OPERATING MANUALS, CATALOG, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.

GROUNDING NOTES:

ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION ACCORDING TO SITE CONDITIONS. AT&T'S GROUNDING SPECIFICATIONS NUMBER ATT-TP-76416 (CHAPTER 7), AND MANUFACTURER SPECIFICATION.

ALL GROUNDING CONDUCTORS: #2 AWG SOLID BARE TINNED COPPER WIRE UNLESS OTHERWISE NOTED.

GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED, FURNISHED AND INSTALLED BY THE VENDOR.

ALL BELOW GRADE CONNECTIONS: EXOTHERMIC WELD TYPE, ABOVE GRADE CONNECTIONS: EXOTHERMIC WELD TYPE.

GROUND RING SHALL BE LOCATED A MINIMUM OF 30" BELOW GRADE OR 6" MINIMUM BELOW THE FROST LINE.

INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1'-0" FROM EQUIPMENT CONCRETE SLAB, SPREAD FOOTING, OR FENCE.

EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST: TREAT WITH A COLD GALVANIZED SPRAY.

GROUND BARS:

EQUIPMENT GROUND BUS BAR (EGB) LOCATED AT THE BOTTOM OF ANTENNA POLE/MAST FOR MAKING GROUNDING JUMPER CONNECTIONS TO COAX FEEDER CABLES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. JUMPERS (FURNISHED BY OWNERS) SHALL BE INSTALLED AND CONNECTED BY ELECTRICAL CONTRACTOR.

ALL GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.

OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.

GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED (2 MINIMUM).

IF EQUIPMENT IS IN A C.L. FENCE ENCLOSURE, GROUND ONLY CORNER POSTS AND SUPPORT POSTS OF GATE. IF CHAIN LINK LID IS USED, THEN GROUND LID ALSO.

GROUNDING AT PPC CABINET SHALL BE VERTICALLY INSTALLED.

ALL GROUNDING FOR ANTENNAS SHALL BE CONNECTED SO THAT IT WILL BY-PASS MAIN BUSS BAR.

ALL EMT RUNS SHALL BE GROUNDED AND HAVE A BUSHING, NO PVC ABOVE GROUND.

USE SEPARATE HOLES FOR GROUNDING AT BUSS BAR. NO "DOUBLE-UP" OF LUGS.

POWER AND TELCO CABINETS SHALL BE GROUNDED (BONDED) TOGETHER.

NO LB'S ALLOWED ON GROUNDING.

PROVIDE STAINLESS STEEL CLAMP AND BRASS TAGS ON COAX AT ANTENNAS AND DOGHOUSE.

ABBREVIATIONS:

BCW	BARE COPPER WIRE
BTS	BASE TRANSCEIVER STATION
C	CONDUIT
(E)	(E)
EG	EQUIPMENT GROUND
(F)	FUTURE
FACP	FIRE ALARM CONTROL PANEL
GEN	GENERATOR
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
MCM	MILLION CIRCULAR MILLS
MI	MECHANICAL INTERLOCK
MP&S	SEE MECHANICAL PLANS & SPECIFICATIONS
(N)	NEW
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NL	NIGHT LIGHT - FIXTURE TO BE UNSWITCHED
PFB	PROVISION FOR FUTURE BREAKER
PVC	POLYVINYL CHLORIDE CONDUIT
(R)	RELOCATE
RG	RELAY TO MONITOR GENERATOR POWER
RU	RELAY TO MONITOR UTILITY POWER
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF
GFCI	GROUND FAULT CIRCUIT INTERRUPTER

NOTE: SYMBOLS INDICATED ABOVE MAY NOT NECESSARILY APPEAR AS PART OF THESE DRAWINGS IF NOT REQUIRED.

Issued For:

CCL06354

MOUNT
VACA - ATC

BLUE RIDGE ROAD
VACAVILLE, CA 95688

PREPARED FOR

at&t

5001 Executive Parkway
San Ramon, California 94583

Vendor:

COMPLETE Wireless Consulting, Inc.

AT&T SITE NO:	CCL06354
PROJECT NO:	-
DRAWN BY:	-
CHECKED BY:	J. GRAY
APPROVED BY:	-

ISSUE STATUS

REV	DATE	DESCRIPTION	CAD
2	05/31/22	ZD 100%	T.S.
1	04/19/22	CLIENT REV	T.S.
0	03/25/22	ZD 90%	

Licensee:

PRELIMINARY:
NOT FOR
CONSTRUCTION

KEVIN R. SORENSEN
S4469

ENGINEER:

Streamline Engineering and Design, inc.

8445 Sierra College Blvd, Suite E Granite Bay, CA 95746
Contact: Kevin Sorensen Phone: 916-660-1330
E-Mail: kevin@streamlineeng.com Fax: 916-660-1341

SHEET TITLE:

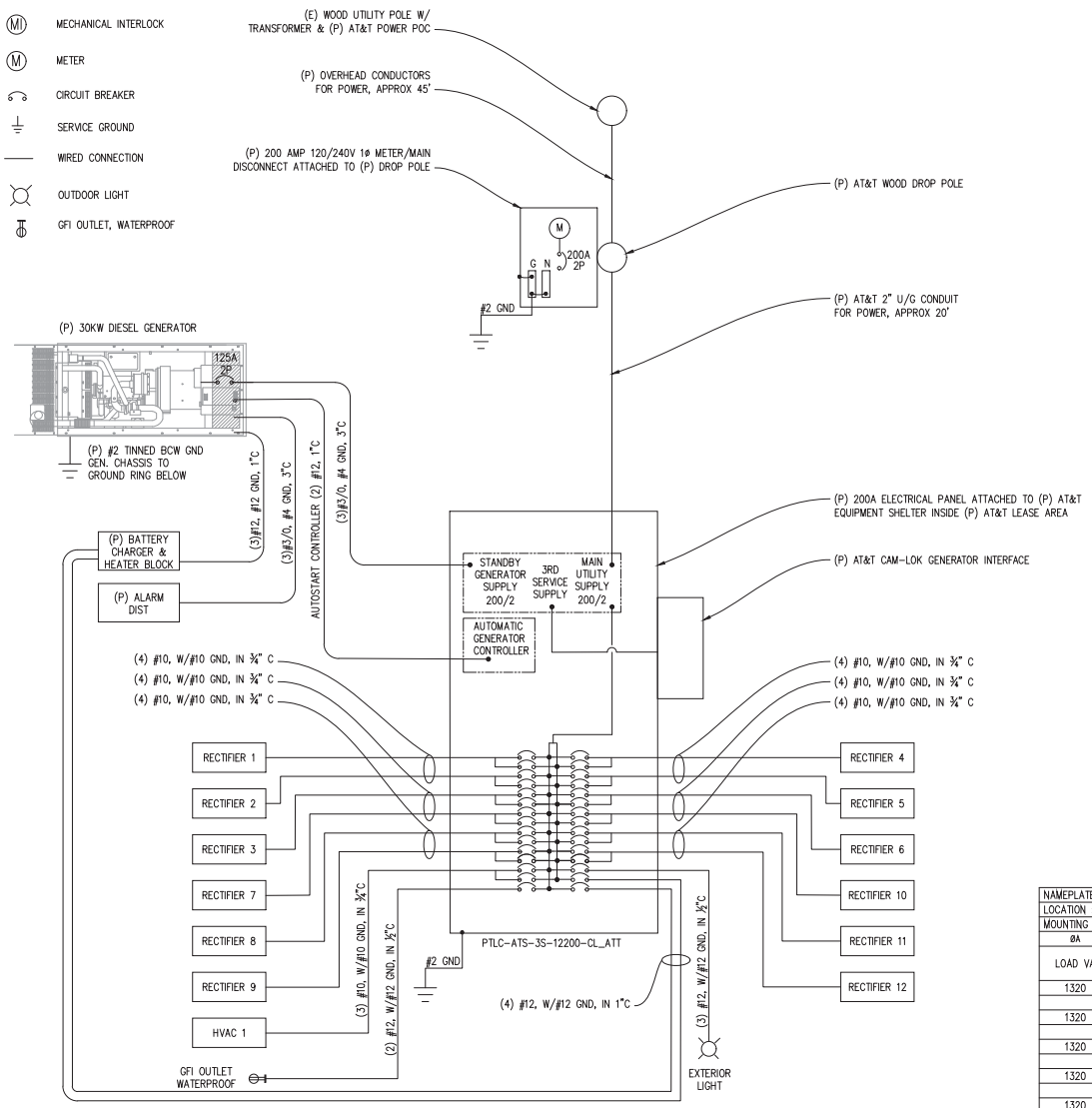
GENERAL
ELECTRICAL NOTES

SHEET NUMBER:

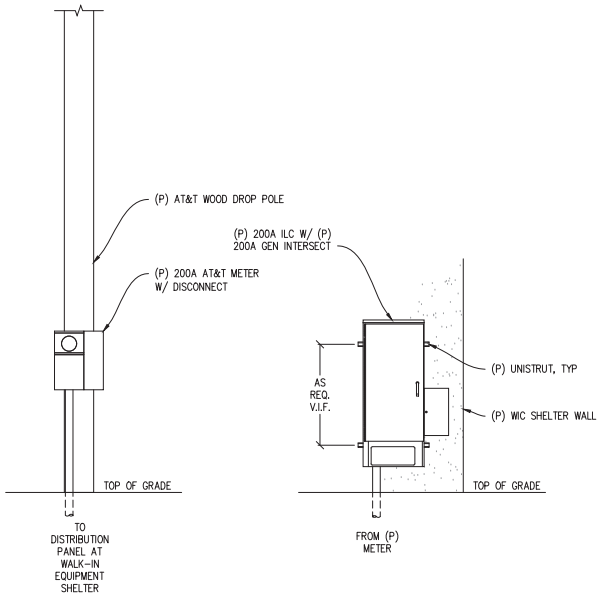
E-1.0

ELECTRICAL LEGEND

- (MI) MECHANICAL INTERLOCK
- (M) METER
- CIRCUIT BREAKER
- SERVICE GROUND
- WIRED CONNECTION
- OUTDOOR LIGHT
- GFI OUTLET, WATERPROOF



SINGLE LINE DIAGRAM



1 UTILITY ELEVATION

½"=1'-0"

PANEL SCHEDULE

NAMEPLATE : PANEL A			SC LEVEL : 22,000				VOLTS: 120V/240V, 1ø		
LOCATION : OUTSIDE							BUS AMPS: 200A		
MOUNTING : WALL							MAIN CB: 200A		
ØA	ØB							ØA	ØB
LOAD VA	LOAD VA	LOAD DESCRIPTION	BKR AMP/ POLE	CIRCUIT NO		BKR AMP/ POLE	LOAD DESCRIPTION	LOAD VA	LOAD VA
1320		RECTIFIER 1	30/2	1	2	30/2	RECTIFIER 4	1320	
	1320	" "	–	3	4	–	" "		1320
1320		RECTIFIER 2	30/2	5	6	30/2	RECTIFIER 5	1320	
	1320	" "	–	7	8	–	" "		1320
1320		RECTIFIER 3	30/2	9	10	30/2	RECTIFIER 6	1320	
	1320	" "	–	11	12	–	" "		1320
1320		RECTIFIER 7	30/2	13	14	30/2	RECTIFIER 10	1320	
	1320	" "	–	15	16	–	" "		1320
1320		RECTIFIER 8	30/2	17	18	30/2	RECTIFIER 11	1320	
	1320	" "	–	19	20	–	" "		1320
1320		RECTIFIER 9	30/2	21	22	30/2	RECTIFIER 12	1320	
	1320	" "	–	23	24	–	" "		1320
1600		HVAC 1	25/2	25	26	20/1	EXTERIOR LIGHT/DUPLEX RCPT	300	
	1600	" "	–	27	28	20/1	BATTERY CHARGER BLOCK		1000
180		RECEPTACLE	20/1	29	30	20/1	BATTERY HEATER BLOCK	250	
9700	9520	PHASE TOTALS					PHASE TOTALS	8470	7920
TOTAL VA =	35610	TOTAL AMPS =	148						

Issued For:

CCL06354

MOUNT
VACA - ATC

BLUE RIDGE ROAD
VACAVILLE, CA 95688

PREPARED FOR

at&t

5001 Executive Parkway
San Ramon, California 94583

Vendor:

COMPLETE Wireless Consulting, Inc.

AT&T SITE NO:	CCL06354
PROJECT NO:	-
DRAWN BY:	-
CHECKED BY:	J. GRAY
APPROVED BY:	-

ISSUE STATUS

REV	DATE	DESCRIPTION	CAD
2	05/31/22	ZD 100%	T.S.
1	04/19/22	CLIENT REV	T.S.
0	03/25/22	ZD 90%	

Licensee:

PRELIMINARY: NOT FOR CONSTRUCTION

KEVIN R. SORENSEN
S4469

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.

ENGINEER:

Streamline Engineering and Design, inc.

8445 Sierra College Blvd, Suite E Granite Bay, CA 95746
Contact: Kevin Sorensen Phone: 916-660-1330
E-Mail: kevin@streamlineeng.com Fax: 916-660-1341

SHEET TITLE:

ELECTRICAL PLAN

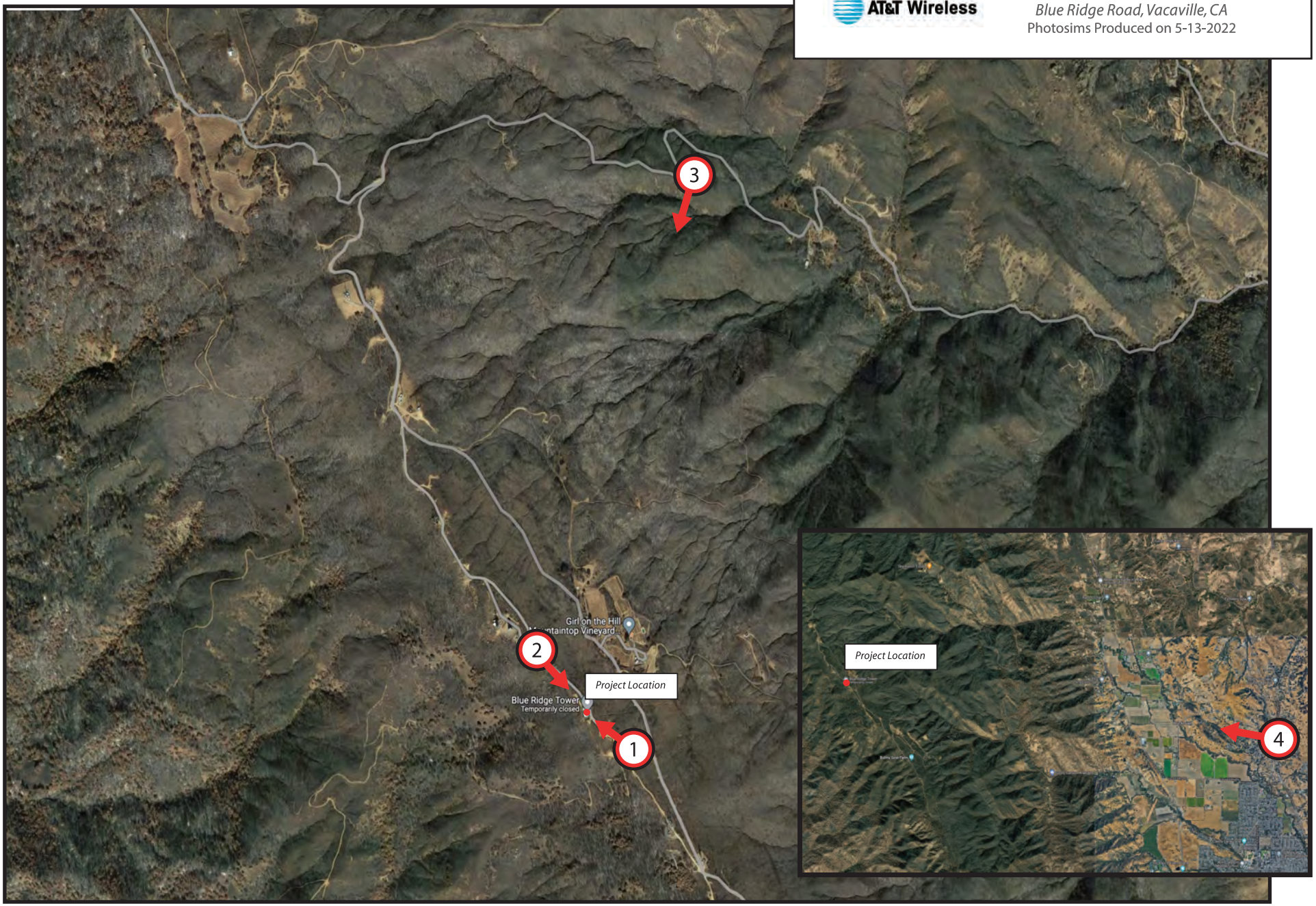
SHEET NUMBER:

E-1.1

ATTACHMENT G

AT&T Wireless

CCL06354 Mount Vaca ATC
Blue Ridge Road, Vacaville, CA
Photosims Produced on 5-13-2022



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

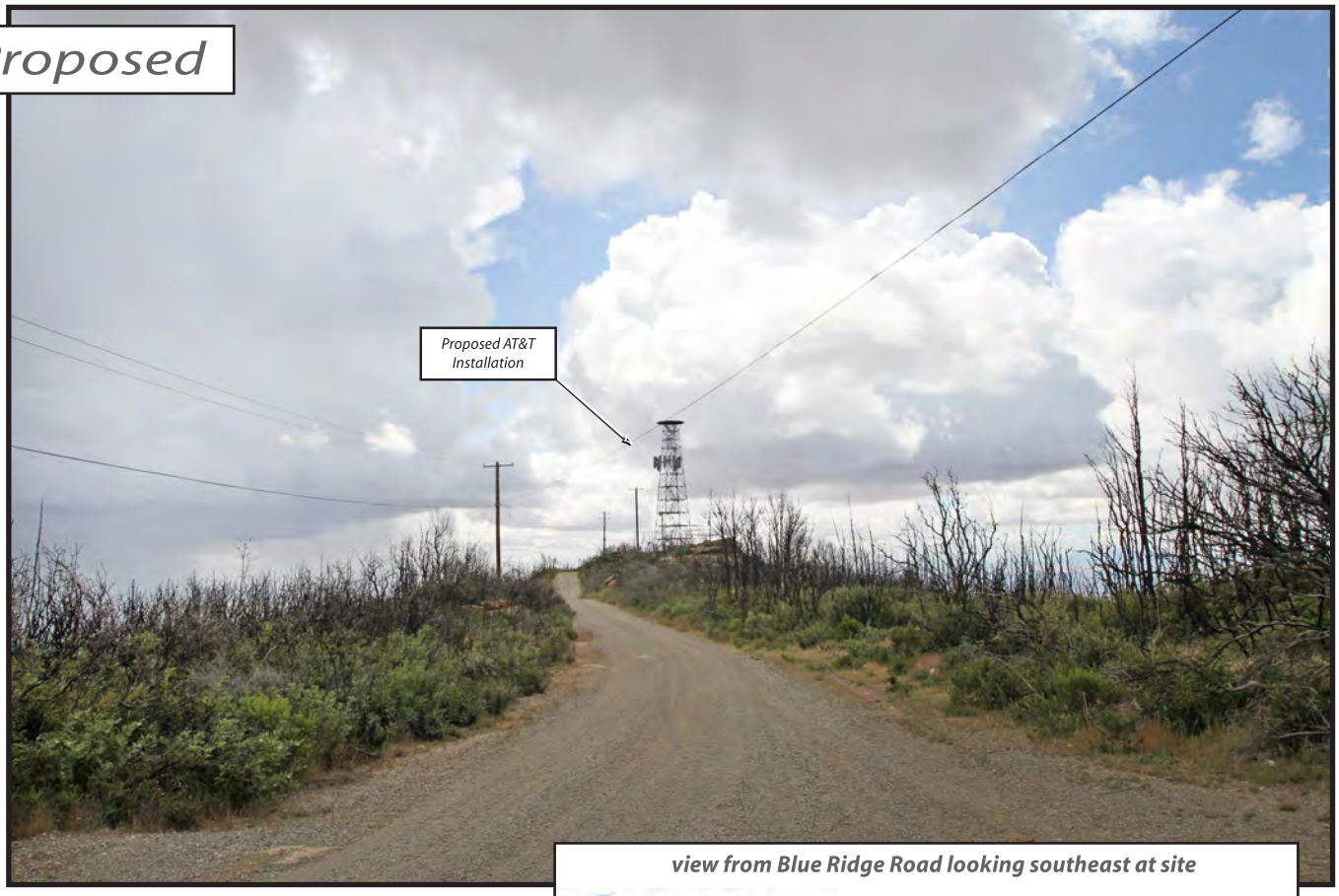
Shot Point Map

view from Blue Ridge Road looking northwest at site

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

AT&T Wireless

CCL06354 Mount Vaca ATC
Blue Ridge Road, Vacaville, CA
Photosims Produced on 5-13-2022

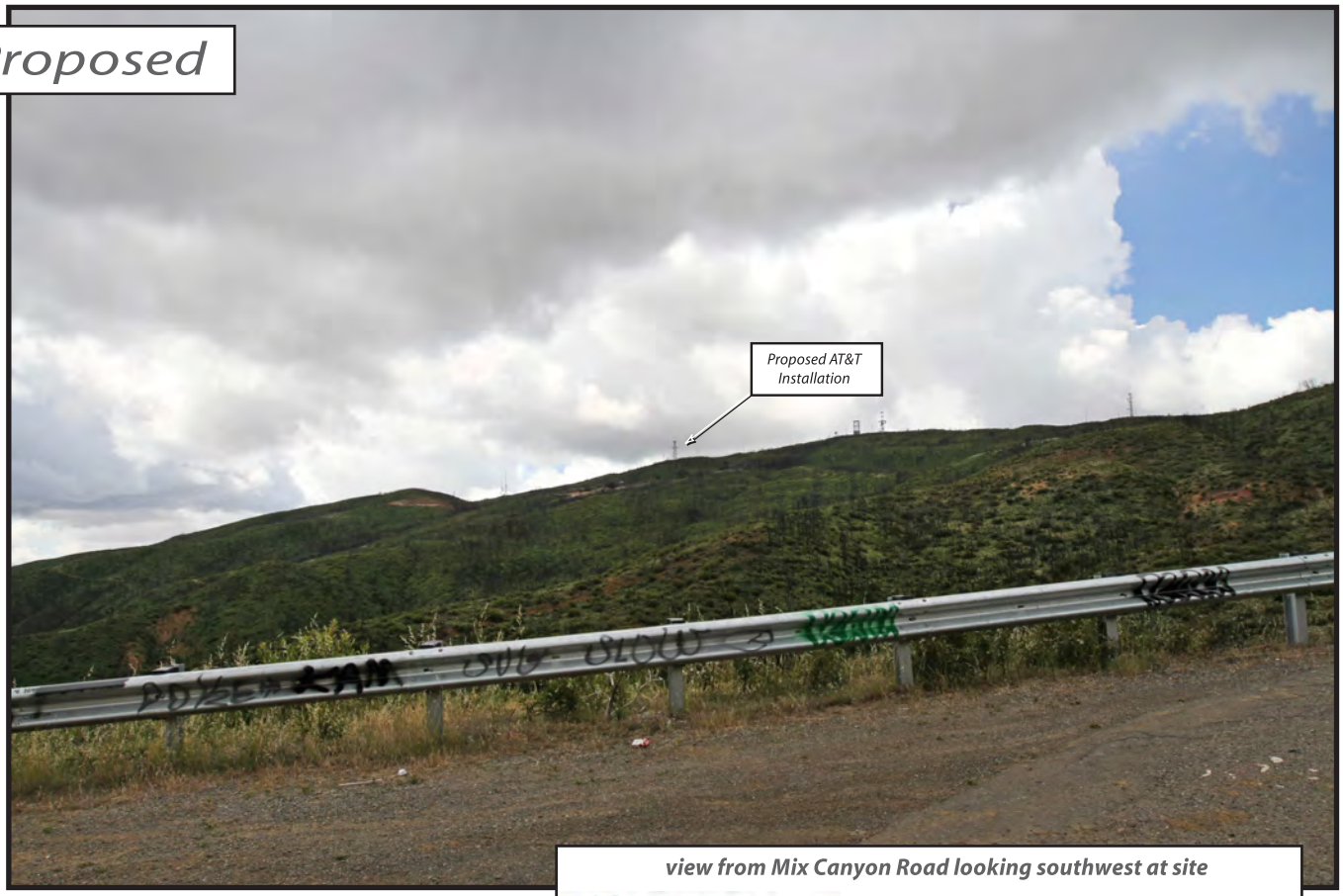


view from Blue Ridge Road looking southeast at site

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

AT&T Wireless

CCL06354 Mount Vaca ATC
Blue Ridge Road, Vacaville, CA
Photosims Produced on 5-13-2022



view from Mix Canyon Road looking southwest at site

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Photo Simulation Solutions
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AT&T Wireless

CCL06354 Mount Vaca ATC
Blue Ridge Road, Vacaville, CA
Photosims Produced on 5-13-2022

view from Gibson Canyon Road looking northwest at site

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Photo Simulation Solutions
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AT&T Wireless

CCL06354 Mount Vaca ATC
Blue Ridge Road, Vacaville, CA
Photosims Produced on 5-13-2022

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

Site No. CCL06354
MRSFR092252, MRSFR092264, MRSFR077614, MRSFR092268, MRSFR092272
Mount Vaca - ATC
Blue Ridge Road
Vacaville, California 95688
Solano County
38.39830400; -122.10314800 NAD83
Lattice Tower

The proposed AT&T installation will be in compliance with FCC regulations upon proper installation of recommended signage.

EBI Project No. 6222003891
June 20, 2022

Prepared for:

AT&T Mobility, LLC
c/o Complete Wireless Consulting
2009 V St
Sacramento, CA 95818

Prepared by:

EBI Consulting
environmental | engineering | due diligence

TABLE OF CONTENTS

APPENDICES

EXECUTIVE SUMMARY

Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by AT&T Mobility, LLC to conduct radio frequency electromagnetic (RF-EME) modeling for AT&T Site CCL06354 located at Blue Ridge Road in Vacaville, California to determine RF-EME exposure levels from proposed AT&T wireless communications equipment at this site. As described in greater detail in Section 1.0 of this report, 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 theoretical MPE fields based on modeling
- 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.

Statement of Compliance

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits <u>and</u> 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.

As presented in the sections below, based on worst-case predictive modeling, there are no modeled exposures on any accessible rooftop or ground walking/working surface related to ATT's proposed antennas that exceed the FCC's occupational and/or general public exposure limits at this site.

As such, the proposed AT&T installation is in compliance with FCC regulations upon proper installation of recommended signage and/or barriers.

AT&T Recommended Signage/Compliance Plan

AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document, dated October 28, 2014, 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.

Site compliance recommendations have been developed based upon protocols presented in AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document, dated October 28, 2014, additional guidance provided by AT&T, EBI's understanding of FCC and OSHA requirements, and common industry practice. Barrier locations have been identified (when required) based on guidance presented in AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document, dated October 28, 2014.

The following signage is recommended at this site:

- Yellow CAUTION 2B sign posted at the base of the lattice tower near the climbing ladder.

The signage proposed for installation at this site complies with AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document and therefore complies with FCC and OSHA requirements. Barriers are not recommended on this site. To reduce the risk of exposure and/or injury, EBI recommends that access to the lattice tower or areas associated with the active antenna installation be restricted and secured where possible. More detailed information concerning site compliance recommendations is presented in Section 4.0 and Appendix B of this report.

1.0 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^2). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm^2) and an uncontrolled MPE of 1 mW/cm2 for equipment operating in the 1900 MHz frequency range. For the AT&T equipment operating at 850 MHz, the FCC's occupational MPE is 2.83 mW/cm^2 and an uncontrolled MPE of 0.57 mW/cm^2. For the AT&T equipment operating at 700 MHz, the FCC's occupational MPE is 2.33 mW/cm^2 and an uncontrolled MPE of 0.47 mW/cm^2. These limits are considered protective of these populations.

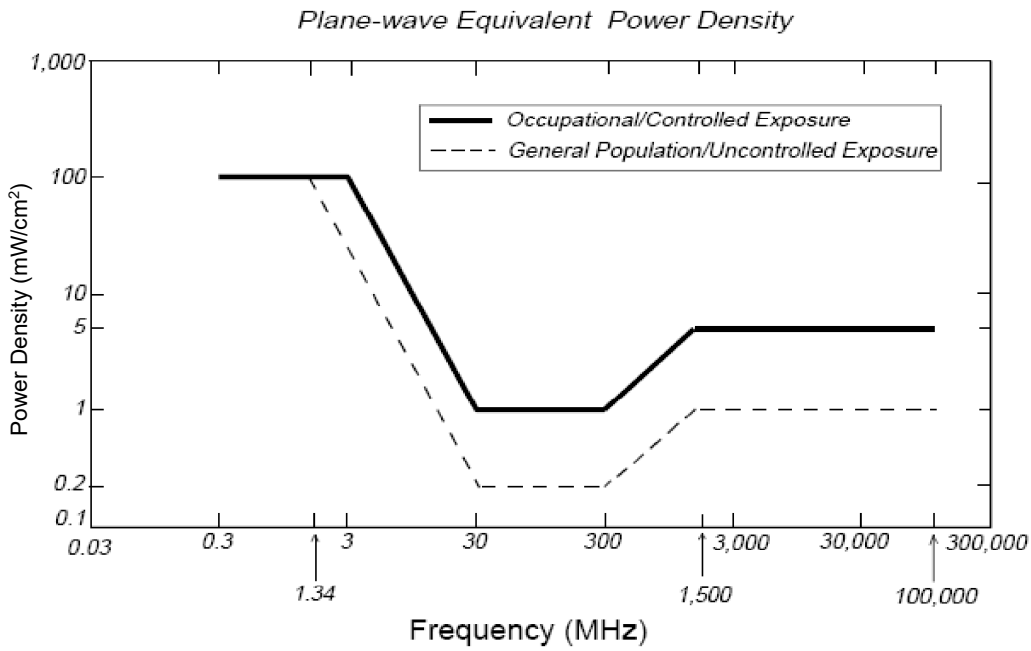
Table 1: Limits for Maximum Permissible Exposure (MPE)

(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^2)**	**Averaging Time $[E]^2$, $[H]^2$, or S (minutes)**
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6

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^2)**	**Averaging Time $[E]^2$, $[H]^2$, or S (minutes)**
(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^2)**	**Averaging Time $[E]^2$, $[H]^2$, or S (minutes)**
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-l,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)



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^2	1.00 mW/cm^2
Broadband Radio (BRS)	2,600 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Wireless Communication (WCS)	2,300 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Advanced Wireless (AWS)	2,100 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Personal Communication (PCS)	1,950 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Cellular Telephone	870 MHz	2.90 mW/cm^2	0.58 mW/cm^2
Specialized Mobile Radio (SMR)	855 MHz	2.85 mW/cm^2	0.57 mW/cm^2

Personal Wireless Service	Approximate Frequency	Occupational MPE	Public MPE
Long Term Evolution (LTE)	700 MHz	2.33 mW/cm^2	0.47 mW/cm^2
Most Restrictive Frequency Range	30-300 MHz	1.00 mW/cm^2	0.20 mW/cm^2

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.

2.0 AT&T RF EXPOSURE POLICY REQUIREMENTS

AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document, dated October 28, 2014, 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.

Pursuant to this guidance, worst-case predictive modeling was performed for the site. This modeling is described below in Section 3.0. Lastly, based on the modeling and survey data, EBI has produced a Compliance Plan for this site that outlines the recommended signage and barriers. The recommended Compliance Plan for this site is described in Section 4.0.

3.0 WORST-CASE PREDICTIVE MODELING

In accordance with AT&T's RF Exposure policy, EBI performed theoretical modeling using RoofMaster™ software to estimate the worst-case power density at the site rooftop and ground-level and/or nearby rooftops resulting from operation of the antennas. RoofMaster™ is a widely-used predictive modeling program that has been developed to predict RF power density values for rooftop and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. Using the computational methods set forth in Federal Communications (FCC) Office of Engineering & Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields" (OET-65), RoofMaster™ calculates predicted power density in a scalable grid based on the contributions of all RF sources characterized in the study scenario. At each grid location, the cumulative power density is expressed as a percentage of the FCC limits. Manufacturer antenna pattern data is utilized in these calculations. RoofMaster™ models consist of the Far Field model as specified in OET-65 and an implementation of the OET-65 Cylindrical Model (Sula9). The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit. A statistical power factor may be applied to the antenna system based on guidance from the carrier and system manufacturers.

For this report, EBI utilized antenna and power data provided by AT&T and compared the resultant worst-case MPE levels to the FCC's occupational/controlled exposure limits outlined in OET Bulletin 65.

The assumptions used in the modeling are based upon information provided by AT&T and information gathered from other sources. There are no other wireless carriers with equipment installed at this site.

Based on worst-case predictive modeling, there are no modeled exposures on any accessible rooftop or ground walking/working surface related to ATT's proposed antennas that exceed the FCC's occupational and/or general public exposure limits at this site.

At the nearest walking/working surfaces to the AT&T antennas on the adjacent roof level, the maximum power density generated by the AT&T antennas is approximately 3.66 percent of the FCC's general public limit (0.73 percent of the FCC's occupational limit). The composite exposure level from all carriers on this site is approximately 3.66 percent of the FCC's general public limit (0.73 percent of the FCC's occupational limit) at the nearest walking/working surface to each antenna. Based on worst-case predictive modeling, there are no areas at ground/street level related to the proposed AT&T antennas that exceed the FCC's occupational or general public exposure limits at this site. At ground/street level, the maximum power density generated by the antennas is approximately 2.43 percent of the FCC's general public limit (0.486 percent of the FCC's occupational limit).

A graphical representation of the RoofMaster™ modeling results is presented in Appendix B.

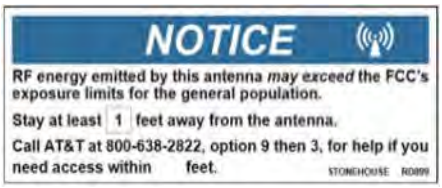
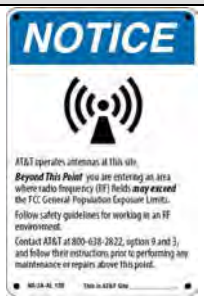
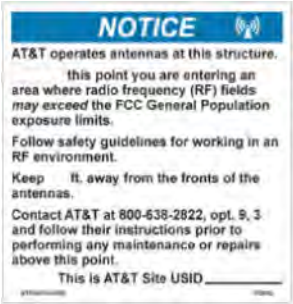
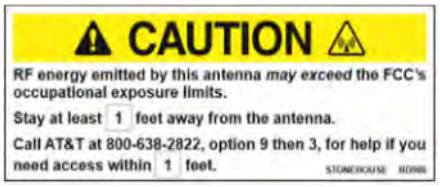
Microwave dish antennas are designed for point-to-point operations at the elevations of the installed equipment rather than ground-level coverage. Based on AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document, dated October 28, 2014, microwave antennas are considered compliant if they are higher than 20 feet above any accessible walking/working surface. There are no microwaves installed at this site.

4.0 RECOMMENDED SIGNAGE/COMPLIANCE PLAN

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	
	**NOTICE DECAL**	 **TRILINGUAL NOTICE**	 **NOTICE 2**
	**NOTICE SIGN**	 **CAUTION 2 – ROOFTOP**	 **CAUTION 2A**
	**CAUTION DECAL**	 **CAUTION 2B - TOWER**	 **CAUTION 2C - PARAPETS**
	**CAUTION SIGN**	 **WARNING 1B**	 **WARNING 2A**

Based upon protocols presented in AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document, dated October 28, 2014, and additional guidance provided by AT&T, the following signage is recommended on the site:

- Yellow CAUTION 2B sign posted at the base of the lattice tower near the climbing ladder.

No barriers are required for this site. 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 in Appendix B.

5.0 SUMMARY AND CONCLUSIONS

EBI has prepared this Radiofrequency Emissions Compliance Report for the proposed AT&T telecommunications equipment at the site located at Blue Ridge Road in Vacaville, California.

EBI has conducted theoretical modeling to estimate the worst-case power density from AT&T antennas to document potential MPE levels at this location and ensure that site control measures are adequate to meet FCC and OSHA requirements, as well as AT&T's corporate RF safety policies. As presented in the preceding sections, based on worst-case predictive modeling, there are no modeled exposures on any accessible rooftop or ground walking/working surface related to ATT's proposed antennas that exceed the FCC's occupational and/or general public exposure limits at this site.

To reduce the risk of exposure and/or injury, EBI recommends that access to the lattice tower or areas associated with the active antenna installation be restricted and secured where possible. Signage is recommended at the site as presented in Section 4.0 and Appendix B. Posting of the signage brings the site into compliance with FCC rules and regulations and AT&T's corporate RF safety policies.

6.0 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 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.

Appendix A

Personnel Certifications

Preparer Certification

I, Jacob McAlister, 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 modeling using RoofMaster™ modeling 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 20jun2022

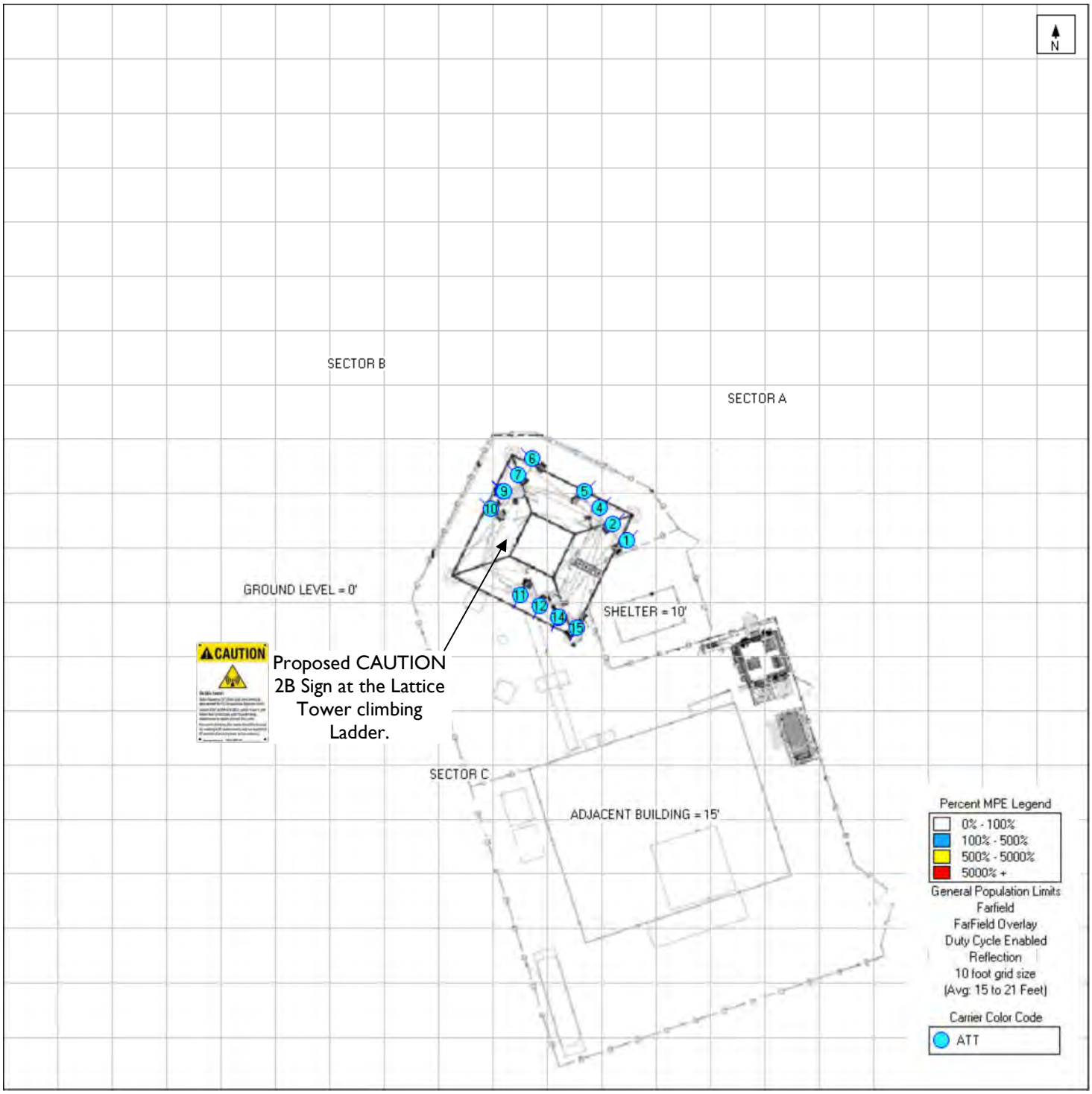
Michael McGuire
Electrical Engineer
mike@h2dc.com

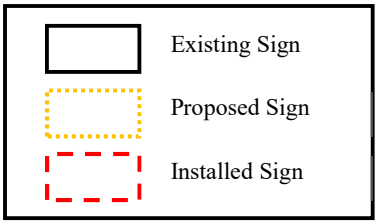
Note that EBI's scope of work is limited to an evaluation of the Radio Frequency – Electromagnetic Energy (RF-EME) field generated by the antennas and broadcast equipment noted in this report. The engineering and design of the building and related structures, as well as the impact of the antennas and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

Appendix B

Compliance/Signage Plan

Nearest Walking Surface Simulation





SIGN IDENTIFICATION LEGEND			
	AT&T NOTICE 2 Sign		AT&T CAUTION 2 – Rooftop Sign
	AT&T WARNING 1B and 2A Signs		AT&T CAUTION 2B – Tower Sign
	AT&T NOTICE Small Cell Signs		AT&T CAUTION 2C – Parapet Sign
	AT&T CAUTION Small Cell Signs		AT&T TRILINGUAL NOTICE Sign

Environmental Noise Assessment

CCL06354 AT&T Cellular Facility

Solano County, California

BAC Job # 2022-086

Prepared For:

Complete Wireless Consulting

Attn: Steve Proo
2009 V Street
Sacramento, CA 95818

Prepared By:

Bollard Acoustical Consultants, Inc.

Dario Gotchet, Principal Consultant

May 17, 2022

Introduction

The CCL06354 AT&T Wireless Unmanned Telecommunications Facility (project) proposes the installation of cellular equipment within a lease area located in Solano County, California (APN: 0121-010-070). The externally mounted HVAC equipment of a pre-manufactured concrete walk-in cabinet (WIC) and an emergency diesel standby generator have been identified as the primary noise sources associated with the project. The project site location with aerial imagery is shown in Figure 1. The proposed enlarged site plan is presented in Figure 2. The studied site drawings are dated April 19, 2022.

Bollard Acoustical Consultants, Inc. has been contracted by Complete Wireless Consulting, Inc. to complete an environmental noise assessment regarding the proposed project cellular equipment operations. Specifically, the following assessment addresses daily noise production and exposure associated with operation of the project emergency generator and HVAC equipment. Please refer to Appendix A for definitions of acoustical terminology used in this report. Appendix B illustrates common noise levels associated with various sources.

Criteria for Acceptable Noise Exposure

Solano County General Plan

The Public Health and Safety Element of the Solano County General Plan contains a noise section that establishes acceptable noise level limits for non-transportation (stationary) noise sources, such as those proposed by the project. The General Plan non-transportation noise level standards applied to residential uses have been reproduced and are provided below in Table 1. The General Plan requires that the noise level standards set forth below in Table 1 be applied at the outdoor activity areas (e.g., backyards) of residential uses.

Table 1
Noise Level Standards for Non-Transportation Noise Sources – Residential Uses

Noise Level Descriptor	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly L_{eq}, dB	55	50
Maximum Level (L_{max}), dB	70	65
Source: Solano County General Plan, Health and Safety Element.		

Solano County Code

Section 28.70.10(B)(1)(b) of the Solano County Code, which pertains to general development standards applicable to all uses in every zoning district, requires that all uses of land shall not generate noise that exceeds 65 dBA DNL at any property line.

In addition, Section 28.81(D)(10) of the Solano County Code, which pertains to noise generation of wireless communications facilities, reads as follows:

ATTACHMENT I

Legend

Proposed AT&T Cellular Equipment Lease Area (Approximate)

Residential Receiver

N

Scale (Feet)

0 500 1,000

CCL06354 AT&T Cellular Facility

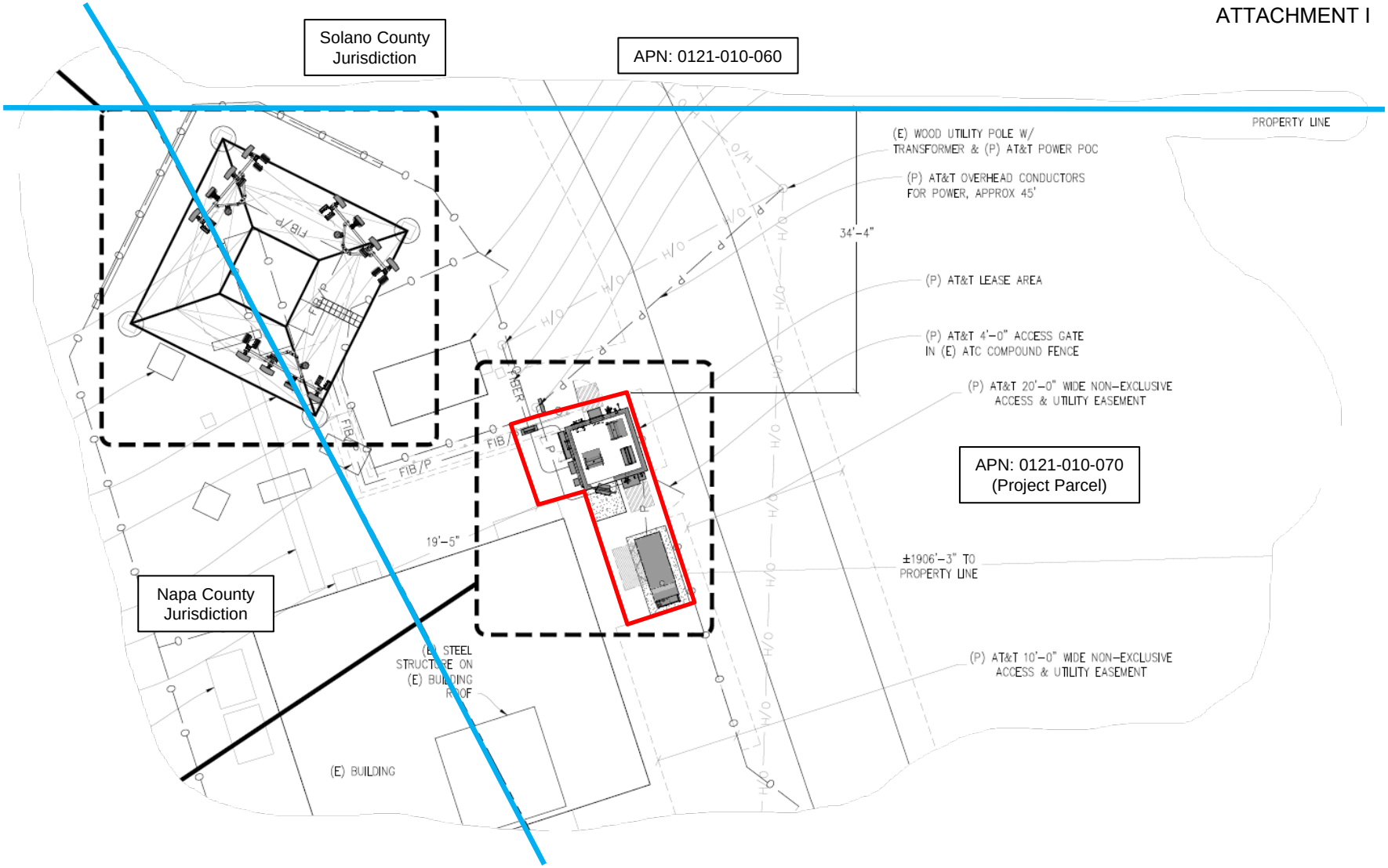
Solano County, California

Proposed Cellular Facility Lease Area
& Nearest Existing Residential Receiver

Figure 1

BOLLARD
Acoustical Consultants

ATTACHMENT I



Legend

- Proposed AT&T Cellular Equipment Lease Area
- Parcel Boundaries

N

Scale (Feet)

0 10 20

CCL06354 AT&T Cellular Facility

Solano County, California

Enlarged Site Plan

Figure 2

BOLLARD Acoustical Consultants

All wireless communication facilities shall be designed to minimize noise. If a facility is located in or within 100 feet of a residential district, noise attenuation measures shall be included to reduce noise levels to a maximum exterior noise level of 50 dB DNL at the facility site's property lines.

Noise Standards Applied to the Project

The Solano County General Plan non-transportation (stationary) noise level standards identified in Table 1 were applied at the outdoor activity areas (backyards) of the nearest off-site residential use to the project. The closest identified existing residential use to the cellular facility lease area is located approximately 4,500 feet to the south, identified as receiver 1 on Figure 1. Compliance with the General Plan noise level criteria at the closest residential use would ensure compliance at residential uses located farther away.

In addition to the General Plan noise level standards, the noise level standard of 65 dB DNL identified in Section 28.70.10(B)(1)(b) of the Solano County Code was applied at the nearest property line, located north of the proposed cellular facility equipment. Compliance with the County Code noise level standard at the nearest property line would ensure compliance at property lines located farther away.

Finally, the proposed cellular facility is not located in or within 100 feet of a residential district. As a result, the noise-related criteria contained in Section 28.81(D)(10) of Solano County Code would not be applicable to the project.

Project Noise Generation

As discussed previously, there are two project noise sources which are considered in this evaluation: the externally mounted HVAC unit of the pre-manufactured concrete walk-in cabinet and the emergency diesel generator. The evaluation of potential noise impacts associated with the operation of each noise source is evaluated separately as follows:

HVAC Equipment Noise Source and Reference Noise Level

The project proposes the installation of a pre-manufactured concrete walk-in cabinet equipped with one (1) externally mounted HVAC unit within the equipment lease area illustrated on Figure 1. According to the project site plans, the HVAC unit assumed for installation at this site is a Marvair Airxcel, Inc. Model ECUA18ACA. Based on reference noise level data obtained from the manufacturer (Marvair Airxcel, Inc.), this specific HVAC unit model has a reference noise level of 62 dB at a distance of 5 feet. The manufacturer's noise level data specification sheet for the proposed HVAC equipment is provided as Appendix C.

Generator Noise Source and Reference Noise Level

The project also proposes the installation of an emergency standby diesel generator within the lease area to maintain cellular service during emergency power outages. Based on the project site plans, the project proposes the installation of a Generac Industrial Power Systems Model SD030. The site plans further indicate that the proposed generator will be equipped with the Level 2 Acoustic Enclosure – which results in a reference noise level of 68 dB at a distance of 23 feet.

The manufacturer's noise level data specification sheet for the proposed generator and acoustical enclosure is provided as Appendix D.

The generator which is proposed at this site would only operate during emergencies (power outages) and brief daytime periods for periodic maintenance/lubrication. According to the project applicant, testing of the generator would occur twice per month, during daytime hours only, for a duration of approximately 15 minutes. The emergency generator would not operate at night, except during power outages.

Predicted Facility Equipment Noise Level Exposure

Assessment Relative to Solano County General Plan Noise Level Criteria

The closest identified existing residential use to the cellular facility lease area is located approximately 4,500 feet to the south, identified as receiver 1 on Figure 1. Assuming standard spherical spreading loss (-6 dB per doubling of distance), project-equipment noise exposure at the outdoor activity area (backyard) of the nearest identified existing residential use was calculated and the results of those calculations relative to the Solano County General Plan hourly average (L_{eq}) and maximum (L_{max}) noise level descriptors are presented below in Table 2.

Table 2
Summary of Project-Related Noise Exposure at the Nearest Existing Residential Use

Receiver[1]	Distance from Cellular Facility Lease Area (ft)[2]	Predicted Equipment Noise Levels (dB)	
		HVAC, L_{eq}	Generator, L_{max}
1	4,500	<20	22

[1] Residential receiver location is illustrated on Figure 1.
[2] Distance scaled using the provided site plans and the Solano County iMap application measurement tool.
Source: Bollard Acoustical Consultants, Inc. (2022)

Because the proposed HVAC unit could potentially be in operation during nighttime hours, the operation of the HVAC unit would be subject to the Solano County General Plan *nighttime* noise level standard of 50 dB L_{eq} (Table 1). As indicated in Table 2, the predicted HVAC equipment noise level of less than 20 dB L_{eq} at the nearest identified existing residential use (receiver 1) would satisfy the General Plan 50 dB L_{eq} nighttime noise level limit by a wide margin. As a result, no further consideration of HVAC equipment noise mitigation measures would be warranted for the project relative to the Solano County General Plan noise level criteria.

Project representatives have indicated that the proposed generator would be in operation for routine testing and maintenance twice a month during daytime hours for no more than 15 minutes and would only operate at night during emergencies. Because the project generator would only operate during daytime hours for brief periods required for testing and maintenance, the operation of the generator would be subject to the Solano County General Plan *daytime* noise level standard of 70 dB L_{max}. As shown in Table 2, the predicted generator noise level of 22 dB L_{max} at the nearest identified existing residential use (receiver 1) would satisfy the General Plan 70 dB L_{max} daytime noise level standard by a wide margin. As a result, no further consideration of emergency generator noise mitigation measures would be warranted for the project relative to the Solano County General Plan noise level criteria.

Assessment Relative to Solano County Code Noise Level Criteria

Assuming standard spherical spreading loss (-6 dB per doubling of distance), project-equipment noise exposure at the property line of the nearest parcel located within the jurisdiction of Solano County (APN: 0121-010-060, north of the project) was calculated and the results of those calculations relative to the Solano County Code day-night average (DNL) noise level descriptor is presented below in Table 3.

To calculate cellular facility equipment noise exposure relative to the County Code day-night average (DNL) noise level criteria, the number of hours per day the equipment would be in operation must be known. For the purposes of this analysis, the HVAC unit of the pre-manufactured walk-in cabinet was conservatively assumed to be operating continuously for 24 hours. As mentioned previously, the project applicant has indicated that routine testing and maintenance of the emergency generator is limited to daytime hours, twice per month, for a duration of less than 15 minutes. As a result, the assumption of one hour of generator operation during daytime hours is considered conservative.

Table 3
Summary of Project-Related Noise Exposure at the Nearest Solano County Property Line

	Distance from Equipment (ft)[2]		Predicted Equipment Noise Level, DNL (dB)		
APN[1]	HVAC	Generator	HVAC	Generator	Combined
0121-010-060	35	50	52	47	53

[1] Parcel boundaries are shown on Figure 2.
[2] Distances scaled using the provided site plans.
Source: Bollard Acoustical Consultants, Inc. (2022)

As indicated in Table 3, the predicted combined project equipment day-night average noise level of 53 dB DNL at the nearest Solano County property line (APN: 012-010-060) would satisfy the noise level standard of 65 dB DNL identified in Section 28.70.10(B)(1)(b) of the Solano County Code. As a result, no further consideration of project equipment noise mitigation measures would be warranted for the project relative to the County Code noise level standard.

Conclusions

Based on the equipment noise level data and analyses presented above, project-related equipment noise exposure is expected to satisfy the applicable Solano County General Plan and County Code noise level criteria. As a result, no further consideration of equipment noise mitigation measures would be warranted for this project.

This concludes our environmental noise assessment for the proposed CCL06354 AT&T Cellular Facility in Solano County, California. Please contact BAC at (530) 537-2328 or info@bacnoise.com with any questions or requests for additional information.

Appendix A
Acoustical Terminology

Acoustics The science of sound.

Ambient Noise The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.

Attenuation The reduction of an acoustic signal.

A-Weighting A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.

Decibel or dB Fundamental unit of sound. A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.

CNEL Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.

Frequency The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.

IIC Impact Insulation Class (IIC): A single-number representation of a floor/ceiling partition's impact generated noise insulation performance. The field-measured version of this number is the FIIC.

L_{dn} Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

L_{eq} Equivalent or energy-averaged sound level.

L_{max} The highest root-mean-square (RMS) sound level measured over a given period of time.

Loudness A subjective term for the sensation of the magnitude of sound.

Masking The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.

Noise Unwanted sound.

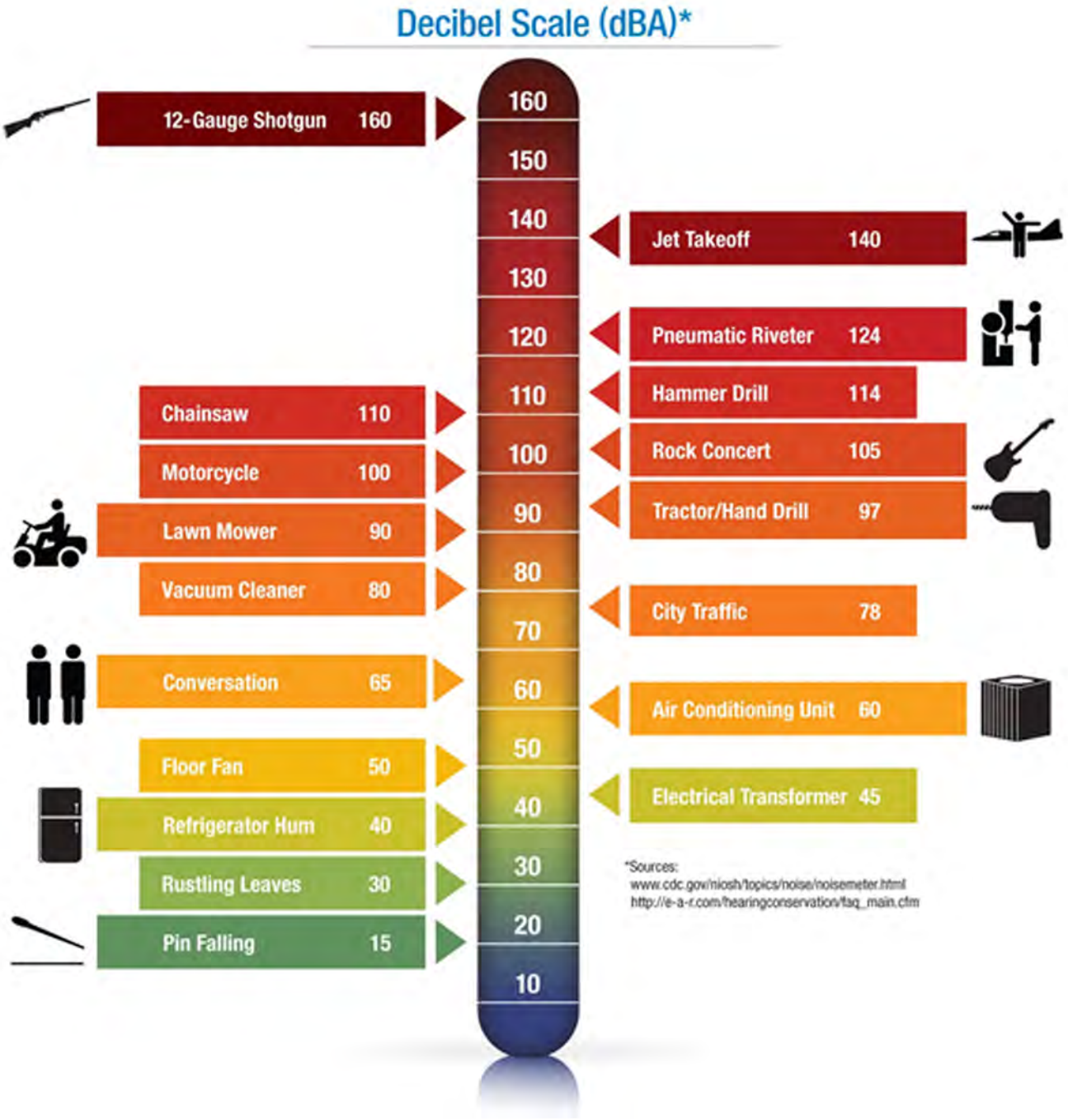
Peak Noise The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.

RT_{60} The time it takes reverberant sound to decay by 60 dB once the source has been removed.

STC Sound Transmission Class (STC): A single-number representation of a partition's noise insulation performance. This number is based on laboratory-measured, 16-band (1/3-octave) transmission loss (TL) data of the subject partition. The field-measured version of this number is the FSTC.

Appendix B

Typical A-Weighted Sound Levels of Common Noise Sources



Appendix C

Marvair

156 Seedling Drive
Cordele, Georgia 31015
229-273-0753

Sound Pressure Level for the Industrial Product Air Conditioners (dBA)						
Distance From Unit (Feet)	Model Number					
	ECUA06ACA	ECUA08ACA	ECUA012ACA	ECUA018ACA		
5			51.5	62		
10			50.7	58		
20			47.8	55		
30			46.5	51		
40			45.6			
50			45.6			
60						
70						
80						

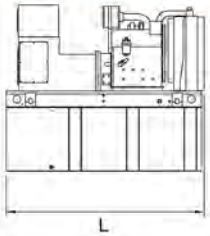
Notes: (1) Date: July 1,2019
(2) Background Sound Pressure Level: 41 dBA
(3) Sound Level Meter 1 Meter Above Ground Directly in Line with Outdoor Coil
(4) All units - 410A Refrigerant

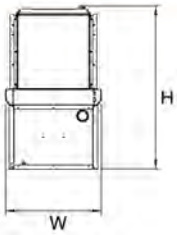
Appendix D

GENERAC | INDUSTRIAL POWER

30 kW Diesel

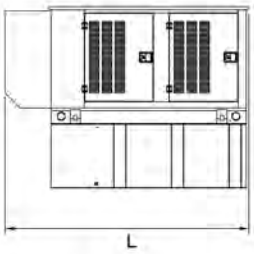
SD030 dimensions, weights and sound levels

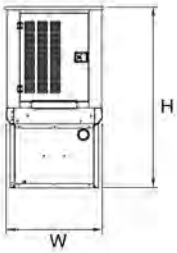




OPEN SET

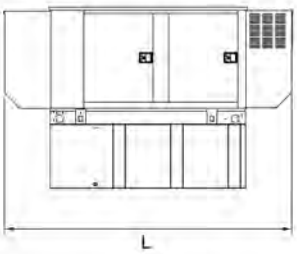
RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	76	38	46	2060	82
20	54	76	38	59	2540	
48	132	76	38	71	2770	
77	211	76	38	83	2979	
109	300	93	38	87	3042	

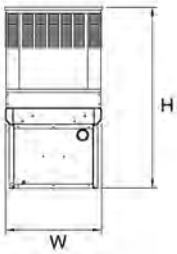




STANDARD ENCLOSURE

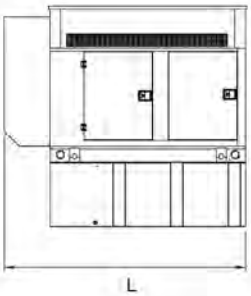
RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	95	38	50	2362	77
20	54	95	38	63	2842	
48	132	95	38	75	3072	
77	211	95	38	87	3281	
109	300	95	38	91	3344	

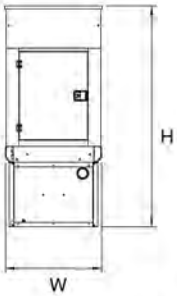




LEVEL 1 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	113	38	50	2515	70
20	54	113	38	63	2995	
48	132	113	38	75	3225	
77	211	113	38	87	3434	
109	300	113	38	91	3497	





LEVEL 2 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*
NO TANK	-	95	38	62	2520	68
20	54	95	38	75	3000	
48	132	95	38	87	3230	
77	211	95	38	99	3439	
109	300	95	38	103	3502	

*All measurements are approximate and for estimation purposes only. Weights are without fuel in tank. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.

Tank Options

○	MDEQ	OPT
○	Florida DERM/DEP	OPT
○	Chicago Fire Code	OPT
○	IFC Certification	CALL
○	ULC	CALL

Other Custom Options Available from your Generac Industrial Power Dealer

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

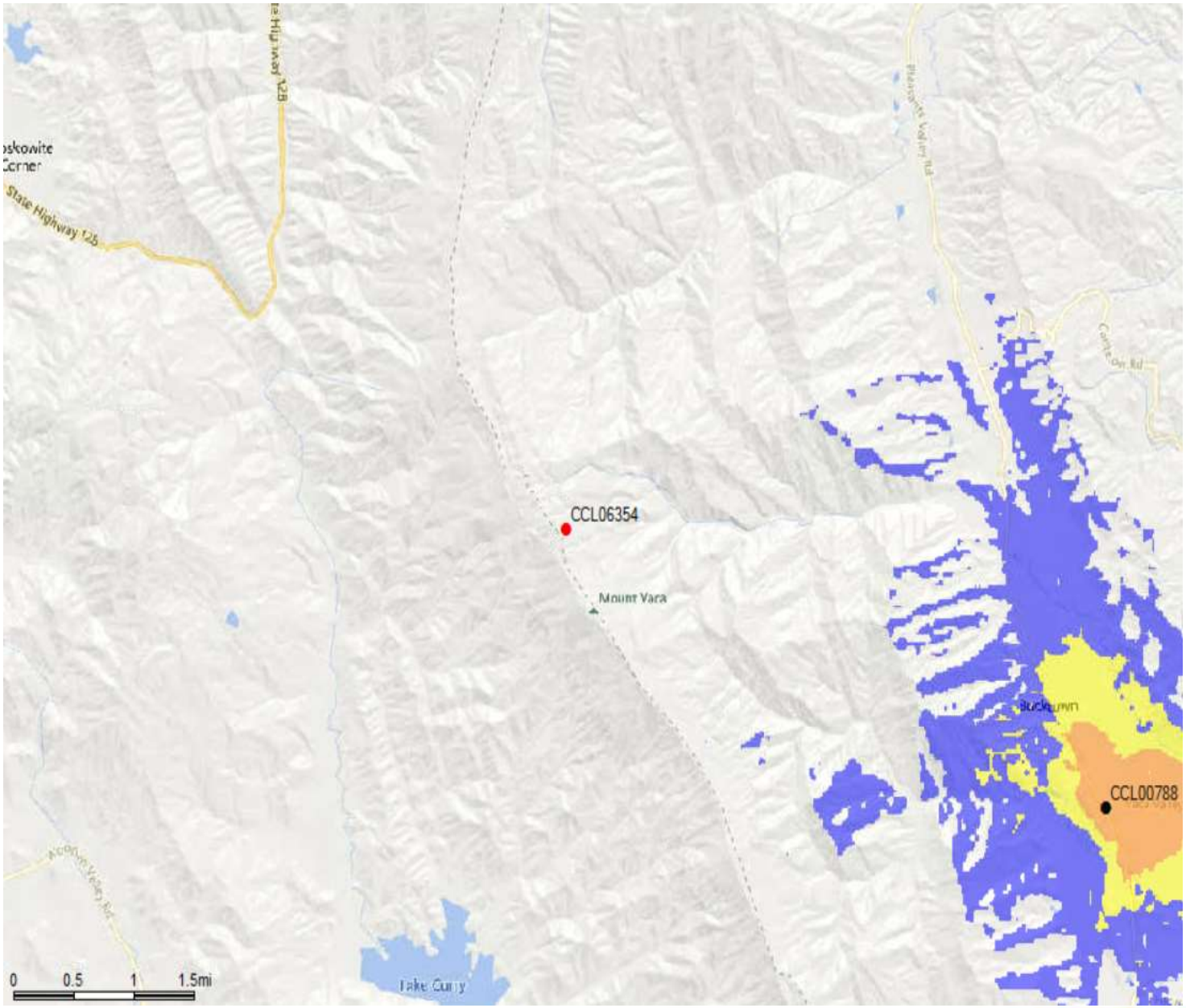
Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

Generac Power Systems, Inc. • S45 W29290 HWY. 59, Waukesha, WI 53189 • generac.com

CCL06354 Zoning Propagation Map

May 18, 2021

LTE 700 Existing Coverage



Legend

- Reliable Service Indoors/Outdoors
- Reliable Coverage in Transit Indoor Coverage Less Reliable
- Reliable Coverage Outdoors Only Indoor Coverage Less Reliable
- Existing site
- Proposed site

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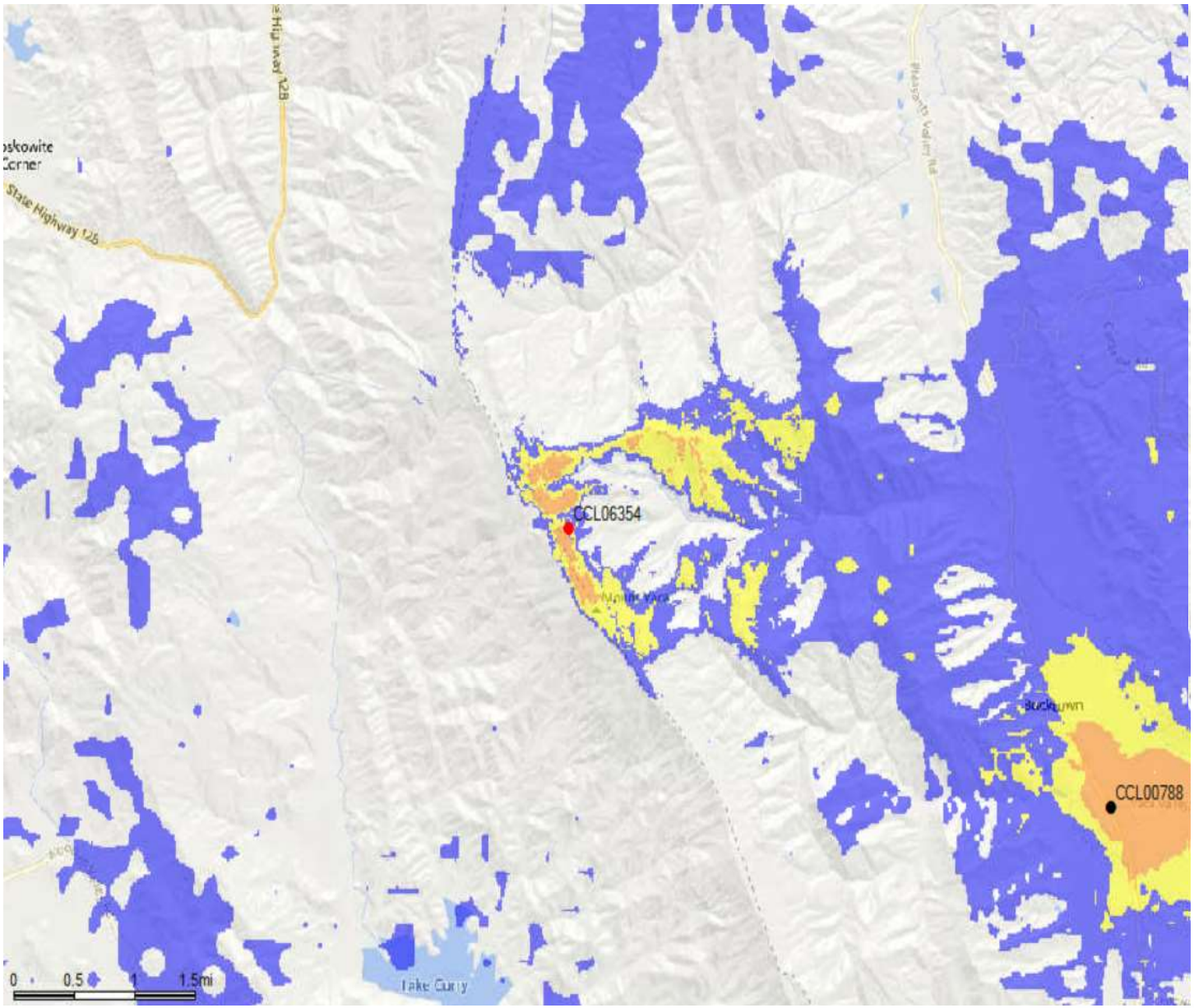
S

at&t

LTE 700 Coverage with Proposed NSB



Legend

- Reliable Service Indoors/Outdoors
- Reliable Coverage in Transit Indoor Coverage Less Reliable
- Reliable Coverage Outdoors Only Indoor Coverage Less Reliable
- Existing site
- Proposed site

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