

**COUNTY OF EL DORADO - ENVIRONMENTAL MANAGEMENT DEPARTMENT**  
 2850 FAIRLANE COURT, PLACERVILLE, CA 95667 (530) 621-5300  
 3368 LAKE TAHOE BLVD. #303, SOUTH LAKE TAHOE, CA 96150 (530) 573-3450

**Hazardous Materials Statement**  
**Solid Waste/Hazardous Materials Division (SW/HM)**

Owners Name: Kayna Westley LLC	APPROVED EL DORADO COUNTY	Date: October 19, 2022	Time:
Operators Name: AT&T Mobility	PLANNING COMMISSION	Business Lic. or Permit/Plan Check :	
Facility/Business Name: CVL06558	MARCH 23, 2023 BY KAREN L. GARNER/dw CUTIVE SECRETARY	Phone: 925-785-3727	
Physical Address: 5940 Pony Express Trail		Mailing Address: 27128 Paseo Espada #A-1521, San Juan Capi	

**Brief Business Description:** Cell Site Installation, including antennas and supporting shelter with backup diesel generator.

Please answer Yes or No to the following questions:

Note: The term "hazardous materials" includes gasoline, diesel, lubricating oils, solvents, flammable liquids and solids, toxic liquids and solids, corrosive liquids and solids, explosives, radioactive materials, and compressed gases, including propane when used for purposes other than facility heating.

A. Will this facility have on site for any purpose individual liquid hazardous materials in quantities equal to or greater than 55 gallons regardless of container size?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Will this facility have on site for any purpose individual solid hazardous materials quantities equal to or greater than 500 pounds regardless of container size?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C. Will this facility handle individual compressed gases in quantities equal to or greater than 200 standard cubic feet regardless of container pressure?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
D. Will this facility have on site for any purpose extremely hazardous substances in any quantity as specified in 40 CFR Part 355?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
E. Do you own or operate any underground storage tanks?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
F. Will this facility generate or treat hazardous waste in any quantity?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

If your facility will store reportable quantities of hazardous materials (55 gallons) or generate hazardous waste, prior to commencing operations the owner/operator must:  
 Prepare, submit and implement a hazardous materials business plan and pay appropriate fees.

- Obtain a hazardous waste generator identification number from the California Department of Toxic Substances Control.
- Train all employees to properly handle hazardous materials and wastes.
- Implement proper hazardous materials and hazardous waste storage methods in accordance with the Uniform Fire Code and Uniform Building Code.

Business owners and operators intending to handle hazardous materials in excess of reportable quantities are required by law to complete and file a hazardous materials business plan with our Department **prior to obtaining a business license or prior to having the materials onsite, whichever comes first.** Hazardous Materials Business Plan forms are available at [http://www.edcgov.us/Government/EMD/HazardousMaterials/Hazardous\\_Materials\\_Storage\\_Business\\_Plans.aspx](http://www.edcgov.us/Government/EMD/HazardousMaterials/Hazardous_Materials_Storage_Business_Plans.aspx)

**Certification: By signing below I acknowledge my responsibility to comply with the hazardous material and hazardous waste laws and regulations enforced by the EDC Environmental Management Department and agree to prepare and submit a plan when required.**

Applicant: *Tom Johnson* Date:

SW/HM Approval: \_\_\_\_\_ Date:

**AT&T Mobility • Proposed Base Station (Site No. CVL06558)  
5940 Pony Express Trail • Pollock Pines, California**

**Statement of Hammett & Edison, Inc., Consulting Engineers**

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a wireless telecommunications carrier, to evaluate its proposed base station (Site No. CVL06558) proposed to be located at 5940 Pony Express Trail in Pollock Pines, California, for compliance with appropriate guidelines limiting sound levels from the installation.

**Executive Summary**

AT&T proposes to construct a base station at 5940 Pony Express Trail in the Pollock Pines area of unincorporated El Dorado County. Noise levels from the proposed operation will comply with the County’s permitted limits.

**Prevailing Standard**

The County of El Dorado sets forth limits on sound levels in Chapter 130.37 “Noise Standards” of its Code of Ordinances, equal to the hourly averages listed in Table 130.37.060.1:

Land Use	Daytime <i>7 am to 7 pm</i>	Evening <i>7 pm to 10 pm</i>	Night <i>10 pm to 7 am</i>	Assessment Location <i>on adjacent property</i>
Community	55 dBA	50 dBA	45 dBA	at property line
Rural Region	50 dBA	45 dBA	40 dBA	100 ft from residence

Operation of back-up power generators to maintain wireless telecommunications service during an emergency, when commercial power is unavailable, is considered to be exempt from these limits under Section 130.37.020.B, which exempts “The use of any mechanical device, apparatus, or equipment related to or connected with emergency activities or emergency work to protect life or property.” Similarly, periodic, no-load testing of the generator\* is considered to be exempt under Section 130.37.020.F, which exempts “Noise sources associated with work performed by public or private utilities† in the maintenance or modification of its facilities.”

Figure 1 attached describes the calculation methodology used to determine applicable noise levels for evaluation against the prevailing standard.

**General Facility Requirements**

Wireless telecommunications facilities (“cell sites”) typically consist of two distinct parts: the electronic transceivers (“radios” or “cabinets”) that are connected to traditional wired telephone lines, and the antennas that send wireless signals created by the radios out to be received by individual subscriber units. The radios are located next to the antennas or at ground level, where they are typically mounted

\* Back-up power generators are typically exercised for a 15-minute period once a week during daytime hours on a non-holiday weekday.

† Wireless telecommunications carriers are regulated by the California Public Utilities Commission.



**AT&T Mobility • Proposed Base Station (Site No. CVL06558)  
5940 Pony Express Trail • Pollock Pines, California**

within individual cabinets that require environmental units to cool the electronics inside. Such cooling is often integrated into the cabinets, although external air conditioning may be installed when the cabinets are themselves housed within a larger enclosure.

Most cell sites have back-up battery power available, to run the base station for some number of hours in the event of a power outage. Many sites have back-up power generators installed, to run the station during an extended power outage.

**Site & Facility Description**

Based upon information provided by AT&T, including drawings by TSJ Consulting Inc., dated May 19, 2022, another carrier presently operates a wireless telecommunications facility sited within the fenced compound located on the north side of U.S. Highway 50, about 250 feet behind the two-story Best Western Stage Coach Inn, located at 5940 Pony Express Trail. That facility consists of antennas and radios on a pole, equipment contained within a shelter, and a back-up power generator.

AT&T proposes to install antennas and radios on a 20-foot extension above the existing 119-foot pole, configured to resemble a pine tree. AT&T proposes to install an equipment shelter within an extension to the existing fenced compound. For the limited purpose of this study, the two air-conditioning units<sup>‡</sup> are assumed to be one Marvair Model WAC200S on the west side of the shelter and one Marvair Model DAC200S on the east side. AT&T also proposes to install a Generac 30 kW diesel back-up power generator.

The nearest property line is about 40 feet away from the proposed equipment shelter; the land use designation of that parcel is zoned commercial, having no noise-sensitive uses. The nearest residential building is at the Pinecrest Mobile Home Park, about 270 feet to the east.

**Study Results**

The antennas and outdoor radios generate no noise. Marvair reports that the maximum noise level from its units is 62 dBA, measured at a reference distance of 5 feet. For the limited purpose of this study, the other carrier's existing equipment shelter is also assumed to use this air-conditioning unit. The maximum calculated noise level at 100 feet from the nearest residence, for the operation of both shelters' air-conditioning, is 34.9 dBA, meeting the County's most restrictive, nighttime limit of 40 dBA at such locations.

As noted above, the use and maintenance of the back-up power generators is exempt from the El Dorado County noise ordinance.

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<sup>‡</sup> These are typically installed as a pair for redundancy, such that both do not operate at the same time.



**AT&T Mobility • Proposed Base Station (Site No. CVL06558)  
5940 Pony Express Trail • Pollock Pines, California**

**Conclusion**

Based on the information and analysis above, it is the undersigned's professional opinion that the proposed installation of the back-up power generator at the AT&T Mobility base station at 5940 Pony Express Trail in the Pollock Pines area of unincorporated El Dorado County, California, will comply with the El Dorado County requirements for limiting acoustic noise emission levels.

**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2023. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



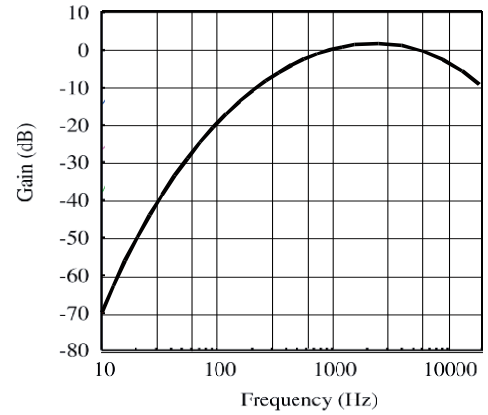
A handwritten signature in blue ink that reads "William F. Hammett".

William F. Hammett, P.E.  
707/996-5200

October 7, 2022

## Noise Level Calculation Methodology

Most municipalities and other agencies specify noise limits in units of dBA, which is intended to mimic the reduced receptivity of the human ear to Sound Pressure (“L<sub>p</sub>”) at particularly low or high frequencies. This frequency-sensitive filter shape, shown in the graph to the right as defined in the International Electrotechnical Commission Standard No. 179, the American National Standards Institute Standard No. 5.1, and various other standards, is also incorporated into most calibrated field test equipment for measuring noise levels.



30 dBA	library
40 dBA	rural background
50 dBA	office space
60 dBA	conversation
70 dBA	car radio
80 dBA	traffic corner
90 dBA	lawnmower

The dBA units of measure are referenced to a pressure of 20 μPa (micropascals), which is the threshold of normal hearing. Although noise levels vary greatly by location and noise source, representative levels are shown in the box to the left.

Manufacturers of many types of equipment, such as air conditioners, generators, and telecommunications devices, often test their products in various configurations to determine the acoustical emissions at certain distances. This data, normally expressed in dBA at a known reference distance, can be used to determine the corresponding sound pressure level at any particular distance, such as at a nearby building or property line. The sound pressure drops as the square of the increase in distance, according to the formula:

$$L_p = L_K + 20 \log(D_K/D_p),$$

where L<sub>p</sub> is the sound pressure level at distance D<sub>p</sub> and L<sub>K</sub> is the known sound pressure level at distance D<sub>K</sub>.

Individual sound pressure levels at a particular point from several different noise sources cannot be combined directly in units of dBA. Rather, the units need to be converted to scalar sound intensity units in order to be added together, then converted back to decibel units, according to the formula:

where L<sub>T</sub> is the total sound pressure level and L<sub>1</sub>, L<sub>2</sub>, etc are individual sound pressure levels.

$$L_T = 10 \log (10^{L_1/10} + 10^{L_2/10} + \dots),$$

Certain equipment installations may include the placement of barriers and/or absorptive materials to reduce transmission of noise beyond the site. Noise Reduction Coefficients (“NRC”) are published for many different materials, expressed as unitless power factors, with 0 being perfect reflection and 1 being perfect absorption. Unpainted concrete block, for instance, can have an NRC as high as 0.35. However, a barrier’s effectiveness depends on its specific configuration, as well as the materials used and their surface treatment.

DATE MARCH 23, 2023

BY KAREN L. GARNER/dw  
EXECUTIVE SECRETARY

# ELECTROMAGNETIC ENERGY (EME) EXPOSURE REPORT

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Site Name: Pony Express ATC  
Site ID: CVL06558  
USID: 315737  
FA Location: 15725006  
CASPR#: 3701A12DFY  
PACE #: MRSFR088754

Site Type: Stealth Pole-External Array

Location: 5940 Pony Express Trl.  
Pollock Pines, CA 95726

Latitude (NAD83): 38.7544830  
Longitude (NAD83): -120.5981360

Report Completed: May 26, 2022  
AT&T M-RFSC Casey Chan

Prepared By:



Prepared for: AT&T Mobility  
c/o Qualtek  
1150 Ballena Boulevard  
Suite #259  
Alameda, CA 94501

CUP-R22-0028 Exhibit G: Radio Frequency (RF) Report

## **Site Compliance Conclusion**

***The AT&T site located at 5940 Pony Express Trl., Pollock Pines, CA will comply with FCC Guidelines.***

## **Executive Summary**

Occupational Safety & Compliance Engineering (OSC Engineering) has been contracted by Qualtek to conduct an RF (radio frequency) computer simulated analysis. The Federal Communications Commission (FCC) has set limits on RF energy exposed to humans on a wireless cell site. The FCC has also mandated that all RF wireless sites must be in compliance with the FCC limits and a compliance check should be performed routinely to ensure site compliance. Per AT&T Policy simulations are performed at 75% duty cycle other than UTMS (100%) or as noted. RoofMaster software was utilized in the creation of this report.

OSC Engineering uses the FCC OET-65 as well as AT&T Standards to make recommendations based on results and information gathered from drawings and Radio Frequency Data Sheets. Included in this analysis is an Ericsson AIR (TDD) power reduction factor (0.32) of the maximum to account for spatial distribution of served users, as recommended by AT&T, based on the United Nations International Telecommunication Union ITU-T Series K, Supplement 16 (20 May 2019).

A site-specific compliance plan is recommended for each transmitting site. This report serves as a single piece of the overall compliance plan.

## **Site Overview and Description**

- The antennas are mounted on a Stealth Pole-External Array
- The AT&T site consists of three (3) sectors with a total of nine (9) antennas
- The site is within a fenced in area, access to the site is via a gate
- The site is co-located with Unknown Antennas
- Co-located antennas are modeled with standard estimated values





## **Compliance Results of the Proposed Site (theoretical simulation)**

A result over 100% does not make a site out of compliance with FCC guidelines. For results over 100% of the FCC Limit, further remediation is required to consider the site compliant per FCC Guidelines. See the page entitled **RECOMMENDATIONS** for compliance actions required for FCC and AT&T Compliance. Areas exceeding the FCC Limit are demarcated with barriers and appropriate signage. Areas Outside of the demarcated areas are below the FCC Limits (under 100% GP). The remediation actions bring the site into compliance. Results are given in terms of the FCC General Population. Please see the page entitled **FCC MPE Limits (from OET-65)** for further information. On-site measurements may yield different results, as antennas do not always operate at full capacity.

### **Maximum simulated RF Exposure Level from (cumulative ground):**

0.06 % FCC General Population MPE Limit

## Antenna Inventory

All technical data and specifications shown below are collected from drawings and/or documents provided by the client, as well as from online databases and/or a visit to this facility. Unknown wireless transmitting antennas are simulated using conservative values when information is not available.

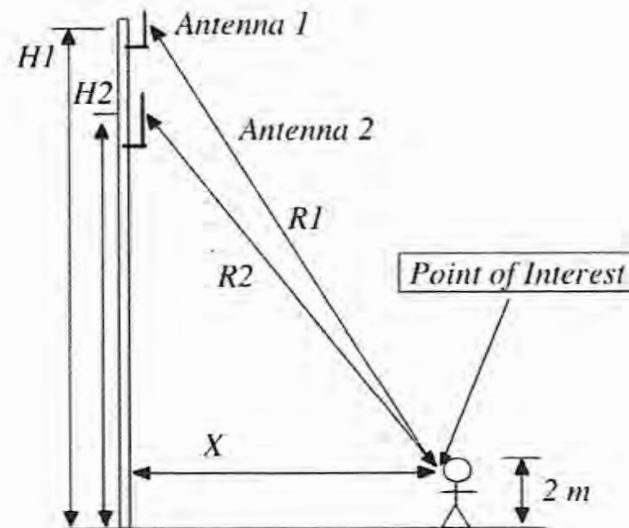
Antenna	Operator	Frequency (MHz)	Antenna Type	Antenna Make	Antenna Model	Azimuth (°T)	Ground (Z) (Rad) (ft)
A1	AT&T LTE	700	Panel	Quintel	QD8612-3D	80	120.00
A1	AT&T 5G	850	Panel	Quintel	QD8612-3D	80	120.00
A1	AT&T LTE / 5G	1900	Panel	Quintel	QD8612-3D	80	120.00
A1	AT&T LTE / 5G AWS	2100	Panel	Quintel	QD8612-3D	80	120.00
A2	AT&T LTE WCS	2300	Panel	QUINTEL	QD868-2	80	120.00
A3	AT&T LTE	700	Panel	Quintel	QD8612-3D	80	120.00
A3	AT&T LTE	1900	Panel	Quintel	QD8612-3D	80	120.00
B1	AT&T LTE	700	Panel	Quintel	QD8612-3D	330	120.00
B1	AT&T 5G	850	Panel	Quintel	QD8612-3D	330	120.00
B1	AT&T LTE / 5G	1900	Panel	Quintel	QD8612-3D	330	120.00
B1	AT&T LTE / 5G AWS	2100	Panel	Quintel	QD8612-3D	330	120.00
B2	AT&T LTE WCS	2300	Panel	QUINTEL	QD868-2	330	120.00
B3	AT&T LTE	700	Panel	Quintel	QD8612-3D	330	120.00
B3	AT&T LTE	1900	Panel	Quintel	QD8612-3D	330	120.00
C1	AT&T LTE	700	Panel	Quintel	QD8612-3D	230	120.00
C1	AT&T 5G	850	Panel	Quintel	QD8612-3D	230	120.00
C1	AT&T LTE / 5G	1900	Panel	Quintel	QD8612-3D	230	120.00
C1	AT&T LTE / 5G AWS	2100	Panel	Quintel	QD8612-3D	230	120.00
C2	AT&T LTE WCS	2300	Panel	QUINTEL	QD868-2	230	120.00
C3	AT&T LTE	700	Panel	Quintel	QD8612-3D	230	120.00
C3	AT&T LTE	1900	Panel	Quintel	QD8612-3D	230	120.00

Antenna	Operator	Frequency (MHz)	Antenna Type	Antenna Make	Antenna Model	Azimuth (° T)	Ground (Z) (Rad) (ft)
L1	Co-Lo 1	1900	Panel	Unknown	Unknown	80	113.00
L2	Co-Lo 2	1900	Panel	Unknown	Unknown	80	113.00
L3	Co-Lo 3	1900	Panel	Unknown	Unknown	80	113.00
M1	Co-Lo 4	1900	Panel	Unknown	Unknown	330	113.00
M2	Co-Lo 5	1900	Panel	Unknown	Unknown	330	113.00
M3	Co-Lo 6	1900	Panel	Unknown	Unknown	330	113.00
O1	Co-Lo 7	1900	Panel	Unknown	Unknown	230	113.00
O2	Co-Lo 8	1900	Panel	Unknown	Unknown	230	113.00
O3	Co-Lo 9	1900	Panel	Unknown	Unknown	230	113.00

## FCC Regulations and Guidelines from OET 65

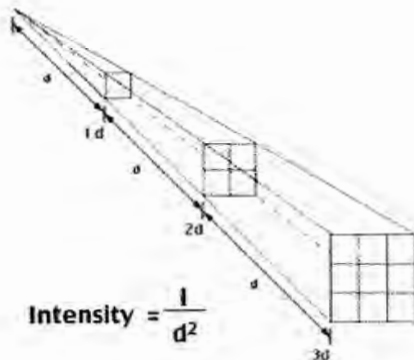
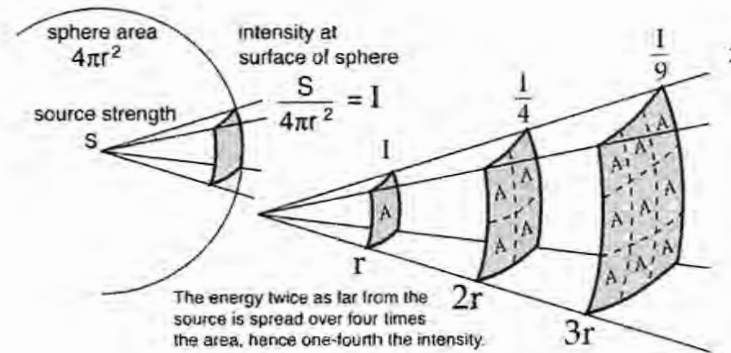
When considering the contributions to field strength or power density from other RF sources, care should be taken to ensure that such variables as reflection and re-radiation are considered. In cases involving very complex sites predictions of RF fields may not be possible, and a measurement survey may be necessary. The process for determining compliance for other situations can be similarly accomplished using the techniques described in this section and in Supplement A to this bulletin that deals with radio and television broadcast operations. However, as mentioned above, at very complex sites measurements may be necessary.

In the simple example shown in the below diagram, it is desired to determine the power density at a given location **X** meters from the base of a tower on which are mounted two antennas. One antenna is a CMRS antenna with several channels, and the other is an FM broadcast antenna. The system parameters that must be known are the total ERP for each antenna and the operating frequencies (to determine which MPE limits apply). The heights above ground level for each antenna, **H1** and **H2**, must be known in order to calculate the distances, **R1** and **R2**, from the antennas to the point of interest.



## Inverse Square Law

The inverse-square law, in physics, is any physical law stating that a specified physical quantity or intensity is inversely proportional to the square of the distance from the source of that physical quantity. The fundamental cause for this can be understood as geometric dilution corresponding to point-source radiation into three-dimensional space. The inverse-square law generally applies when some force, energy, or other conserved quantity is evenly radiated outward from a point source in three-dimensional space. Since the surface area of a sphere (which is  $4\pi r^2$ ) is proportional to the square of the radius, as the emitted radiation gets farther from the source, it is spread out over an area that is increasing in proportion to the square of the distance from the source.<sup>2</sup>



$$\frac{I_1}{I_2} = \frac{D_2^2}{D_1^2}$$

Where:

- $I_1$  = Intensity 1 at  $D_1$
- $I_2$  = Intensity 2 at  $D_2$
- $D_1$  = Distance 1 from source
- $D_2$  = Distance 2 from source

<sup>2</sup> [https://en.wikipedia.org/wiki/Inverse-square\\_law](https://en.wikipedia.org/wiki/Inverse-square_law)

<sup>3</sup> <http://hyperphysics.phy-astr.gsu.edu/hbase/Forces/isq.html>

<sup>4</sup> <https://www.nde-ed.org/GeneralResources/Formula/RTFormula/InverseSquare/InverseSquareLaw.htm>

**Result: Surrounding Building(s)**

The surrounding buildings will be below FCC MPE Limits for the General Population



## Certification

The undersigned is a Professional Engineer, holding a California Registration No. 19677

Reviewed and approved by:



John Bachoua, PE

Date: May 26, 2022

The engineering and design of all related structures as well as the impact of the antennas on the structural integrity of the design are specifically excluded from this report's scope of work. This report's scope of work is limited to an evaluation of the Electromagnetic Energy (EME) RF emissions field generated by the antennas listed in this report. When client and others have supplied data, it is assumed to be correct.

## **FCC MPE Limits (from OET-65)**

**Occupational/controlled**<sup>5</sup> 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 population/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. As discussed later, the occupational/controlled exposure limits also apply to amateur radio operators and members of their immediate household.

**General population/uncontrolled**<sup>6</sup> 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.

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<sup>5</sup> OET-65 "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields pg. 9.

<sup>6</sup> OET-65 "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields pg. 9.



## Limits for Maximum Permissible Exposure (MPE)<sup>7</sup>

"The FCC Exposure limits are based on data showing that the human body absorbs RF energy at some frequencies more efficiently than at others. The most restrictive limits occur in the frequency range of 30-300MHz where whole-body absorption of RF energy by human beings is most efficient. At other frequencies whole-body absorption is less efficient, and, consequently, the MPE limits are less restrictive."<sup>8</sup>

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

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100) <sup>*</sup>	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> ) <sup>*</sup>	6
32-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

### (B) Limits for General Population /Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100) <sup>*</sup>	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> ) <sup>*</sup>	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f= Frequency in MHz

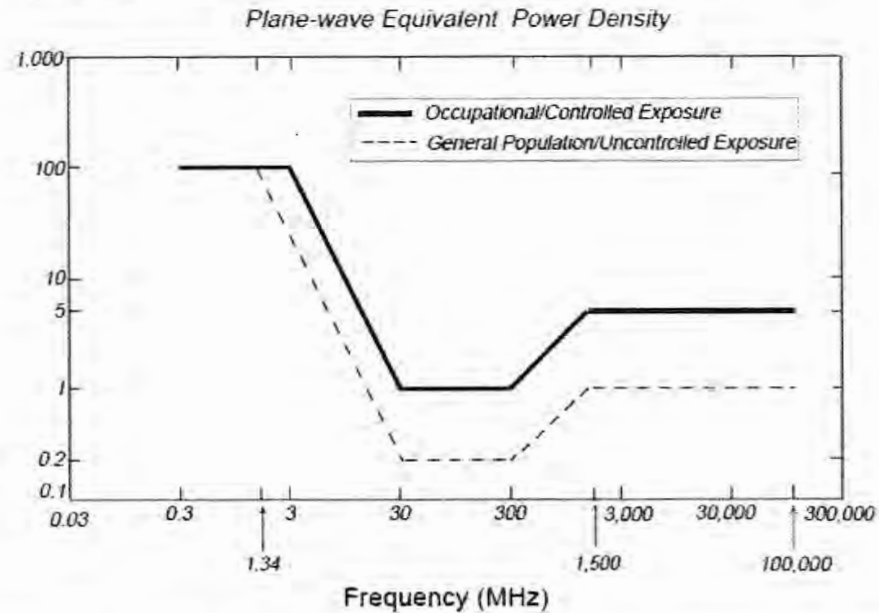
<sup>\*</sup>Plane-wave equivalent power density

<sup>7</sup> OET-65 "FCC Guidelines Table 1 pg. 72.

<sup>8</sup> OET-65 "FCC Guidelines for Evaluating Exposure to RF Emissions", pg. 8

## Limits for Maximum Permissible Exposure (MPE) continued<sup>9</sup>

Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)



"MPE Limits are defined in terms of power density (units of milliwatts per centimeter squared: mW/cm<sup>2</sup>), electric field strength (units of volts per meter: V/m) and magnetic field strength (units of amperes per meter: A/m). In the far-field of a transmitting antenna, where the electric field vector (E), the magnetic field vector (H), and the direction of propagation can be considered to be all mutually orthogonal ("plane-wave" conditions), these quantities are related by the following equation:

$$S = \frac{E^2}{3770} = 37.7H^2$$

where: S = power density (mW/cm<sup>2</sup>)  
 E = electric field strength (V/m)  
 H = magnetic field strength (A/m)

<sup>9</sup> OET-65 "FCC Guidelines Table 1 pg. 72.

## **Limitations**

OSC Engineering completed this report based on information and data provided by the client and on-site data collection. The data provided by the client is assumed to be accurate. This report is completed by OSC Engineering to determine whether the wireless communications facility complies with the Federal Communications Commission (FCC) Radio Frequency (RF) Safety Guidelines. The Office of Engineering and Technology (OET-65) *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Radiation* has been prepared to provide assistance in determining whether proposed or existing transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) fields adopted by the Federal Communications Commission (FCC)<sup>10</sup>. As the site is being upgraded and changed this report will become obsolete. A statistical factor reducing the actual power of the antenna system to 0.32 of maximum theoretical power is used 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. Use of this document will not hold OSC Engineering Inc. nor its employees liable legally or otherwise. This report shall not be used as a determination as to what is safe or unsafe on a given site: only for what is compliant per the FCC standards outlined in the OET-65. All workers or other people accessing any transmitting site should have proper EME awareness training. This includes, but is not limited to, obeying posted signage, keeping a minimum distance from antennas, watching EME awareness videos and formal classroom training.

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<sup>10</sup> OET-65 "FCC Guidelines for Evaluating Exposure to RF Emissions", pg. 1  
OSC Engineering Inc.

## **AT&T Antenna Shut-Down Protocol**

AT&T provides Lockout/Tagout (LOTO) procedures in Section 9.4<sup>11</sup> (9.4.1- 9.4.9) in the ND-00059. These procedures are to be followed in the event of anyone who needs access at or in the vicinity of transmitting AT&T antennas. Contact AT&T when accessing the rooftop near the transmitting antennas. Below is information regarding when to contact an AT&T representative.

### **9.4.7 Maintenance work being performed near transmitting antennas**

Whenever anyone is working within close proximity to the transmitting antenna(s), the antenna sector, multiple sectors, or entire cell site may need to be shut down to ensure compliance with the applicable FCC MPE limit. This work may include but is not limited to structural repairs, painting or non-RF equipment services by AT&T personnel/contractors or the owner of a tower, water tank, rooftop, or other low-centerline sites. The particular method of energy control will depend on the scope of work (e.g., duration, impact to the antenna or transmission cabling, etc.) and potential for RF levels to exceed the FCC MPE limits for General Population/Uncontrolled environments

### **9.4.8 AT&T Employees and Contractors**

AT&T employees and contractors performing work on AT&T cell sites must be trained in RF awareness and must exercise control over their exposure to ensure compliance with the FCC MPE limit for Occupational/Controlled Environments ("Occupational MPE Limit"),

The rule of staying at least 3 feet from antennas is no longer always adequate to prevent exposure above the Occupational MPE Limit. That general rule was applied early in the development of cellular when omni-directional antennas were primarily used and later when wide-beamwidth antennas were used. That application was then appropriate for the Occupational exposure category. However, the current prevalence of antennas with 60- and 70- degree horizontal half-power beamwidths at urban and suburban GSM and UMTS/HSDPA sites raises some question about the continued reliability of the 3-foot rule. Antennas with low bottom-tip heights and total input powers around 70-80 W can produce exposure levels exceeding the Occupational MPE Limits at 4 feet, and these levels can be augmented by emissions of co-located operators. Therefore, AT&T employees and contractors should apply the above general work procedures and use an RF personal monitor to assess exposure levels within the work vicinity.

### **9.4.9 Other Incidental Workers**

All other incidental workers who are not trained in RF safety are considered general public and subject to the FCC MPE limits for General Population/Uncontrolled Environments. In such instance, the M-RFSC (primary contact) or R-RFSC (secondary contact) must refer to the Mobility RF site survey plan to assess the potential RF exposure levels associated with the antenna system. If capable of exceeding the FCC General Population/Uncontrolled MPE limit, then local sector/site shutdown is necessary. The FE/FT must also follow the local shutdown procedure and use their RF personal monitor as a screening tool for verification, as necessary.

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<sup>11</sup> ND-00059\_Rev\_5.1 "Lockout/Tagout (LOTO) Procedures" Page 45.

## RECOMMENDATIONS

- **AT&T Access Point(s):**

To be installed: Caution Sign 2B (Tower) @ base of monopole

- **AT&T Sector A**

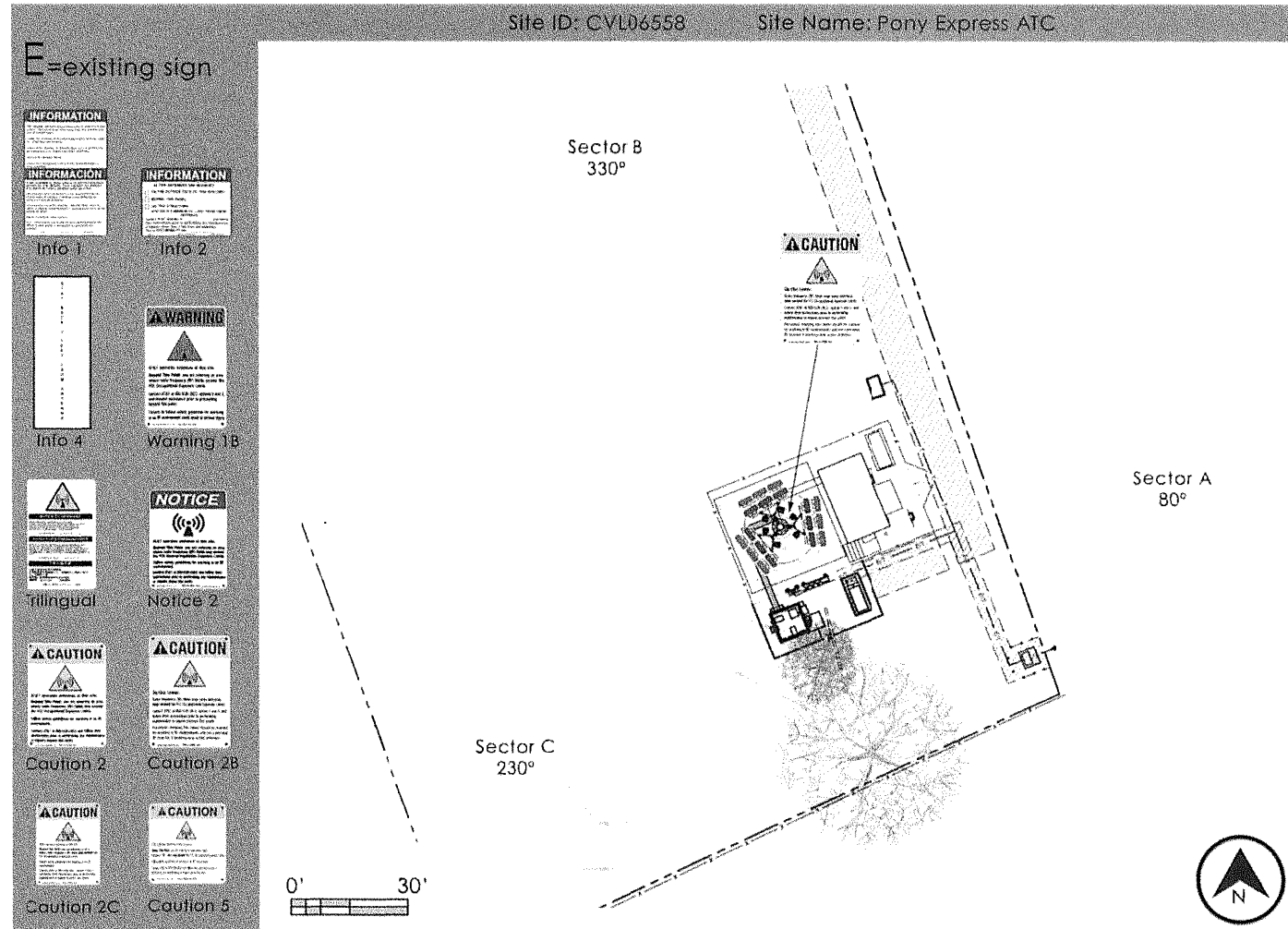
No signage or barrier action required

- **AT&T Sector B**

No signage or barrier action required

- **AT&T Sector C**

No signage or barrier action required



If work is being performed in the vicinity of the transmitting antennas, site shut-down procedures must be followed. See page entitled [AT&T Antenna Shut-down protocol](#) for further information.

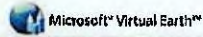
MARCH 23, 2023

BY KAREN L. GARNER / dg

EXECUTIVE SECRETARY



LOCATION



View from the North to the South

EXISTING



PROPOSED



Completed May 27, 2022

**CVL06558**

5940 Pony Express Trail  
Pollock Pines, CA 95726

**VIEW 1**

APPLICANT

AT&T Mobility  
5001 Executive Pkwy.  
San Ramon, CA 94583

CONTACT

TSJ Consulting Inc.  
Tom Johnson  
27128 Paseo Espada #A-1521  
San Juan Capistrano, Ca. 92675  
p 925.785.3727



BLUE WATER DESIGN  
blucwater-design.net  
michelle@blucwater-design.net  
p 425-615-0944

Photo simulation accuracy is based on information provided to Blue Water Design by the applicant.



LOCATION

Microsoft® Virtual Earth™



View from the East to the West

EXISTING



PROPOSED



Completed May 27, 2022

**CVL06558**

5940 Pony Express Trail  
Pollock Pines, CA 95726

**VIEW 2**

APPLICANT

AT&T Mobility  
5001 Executive Pkwy.  
San Ramon, CA 94583

CONTACT

TSJ Consulting Inc.  
Tom Johnson  
27128 Paseo Espada #A-1521  
San Juan Capistrano, Ca. 92675  
p 925.785.3727



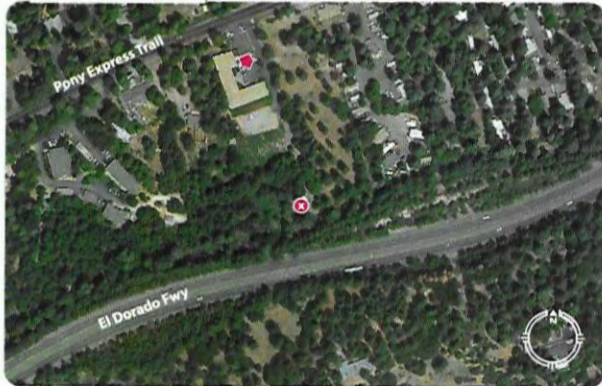
BLUE WATER DESIGN  
bluewater-design.net  
michelle@bluewater-design.net  
p 425-615-0944

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LOCATION

Microsoft® Virtual Earth™



View from the Northeast to the Southwest

EXISTING



PROPOSED



**CVL06558**

5940 Pony Express Trail  
Pollock Pines, CA 95726

**VIEW 3**

**APPLICANT**  
AT&T Mobility  
5001 Executive Pkwy.  
San Ramon, CA 94583

**CONTACT**  
TSJ Consulting Inc.  
Tom Johnson  
27128 Paseo Espada #A-1521  
San Juan Capistrano, Ca. 92675  
p 925.785.3727



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**BLUE WATER DESIGN**  
bluewater-design.net  
michelle@bluewater-design.net  
p 425-615-0944