

**NEVADA CITY PLANNING COMMISSION**  
**STAFF REPORT**

**APPLICANT:** Epic Wireless Group, Inc  
c/o Mark Lobaugh

**HEARING DATE:** June 16, 2016

**OWNER:** 109 North Pine Street Commercial  
Condominium Owners Association

**FILE TYPE:** Use Permit

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**PROJECT DESCRIPTION:** Application to the Planning Commission for a Conditional Use Permit to install eight (8) cellular antennas [mounted on four (4) pipe mounts] to various points of the rooftop of 109 North Pine Street. Other equipment associated with the antennas, including an HVAC condenser, are proposed with low enough profiles to be screened by the building's existing parapet from most public view sheds. Back-up batteries will be located in the interior equipment room, and are intended to provide power in the event of an electrical power outage.

The property is zoned General Business (GB), which allows for public and quasi-public uses with approval of a Conditional Use Permit. Public and quasi-public uses include communication equipment buildings and utility distribution stations in its definition. The project site is also designated within the City's Historical Combining District (HD), in recognition of the area's historical interest and aesthetic value. Any alteration to the exterior appearance of a structure within the Historical District may only be permitted if approved by the Planning Commission through an Architectural Review application. The Planning Commission approved an Architectural Review application at their February 18, 2016 meeting with conditions that require painting equipment gray and moving two antennae in a westerly direction to break up the massing for the infrastructure proposed at the southeastern corner.

The top of the antennas and supporting infrastructure will reach 50-feet above the ground elevation, amounting to a range between 3.5-feet and 9.5-feet above the height of the building parapet. The antennas will be visible from several public vantage points within downtown Nevada City. Access to the lease area is proposed from the interior of the building. The equipment lease area is proposed within a third story room in the existing structure. The facility will be unmanned and will require only occasional trips for maintenance purposes.

**LOCATION:** Intersection of Commercial Street and North Pine Street, 109 North Pine Street

**ASSESSOR'S PARCEL NO.:** 05-570-04

**PROJECT PLANNER:** Amy Wolfson, City Planner

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<b>General Plan:</b>	GC	<b>Water:</b>	City
<b>Zoning:</b>	GB-HD	<b>Sewage:</b>	City
<b>Flood Map:</b>	Panel 369, Zone X	<b>Fire:</b>	Nevada City Fire Dist.
<b>Parcel Size:</b>	0.14 ac.	<b>Schools:</b>	Nevada City School Dist
<b>Prev. File #(s):</b>		<b>Recreation:</b>	Nevada City Park & Rec District
		<b>Date Filed:</b>	December 7, 2015

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**ATTACHMENTS:**

1. Recommended Conditions of Approval
  2. Preliminary Plans - *See Attachment 1 of Initial Study*
  3. Vicinity and Public Notice Map
  4. Draft Initial Study/Mitigated Negative Declaration
  5. Public Submittals at ARC
  6. Service Coverage Maps
  7. Engineer's Report on RF Radiation- *See Attachment 3 of Initial Study*
  8. Email from Bill Hammett, consulting engineer dated June 9, 2016
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**RECOMMENDATION:**

1. Environmental Action: Mitigated Negative Declaration
2. Project Action: Conditional Approval of the Use Permit

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**SITE DESCRIPTION:** The property has a base zoning district of General Business and is already developed, with a three-story structure accommodating office space, restaurant use, retail, and a performing arts venue. Surrounding properties are zoned the same and are equally varied in their uses of retail, restaurant, counseling/therapy, residential, and professional office use. The antennas are proposed to be erected on the rooftop of the existing building, located in the heart of downtown and within the designated Historical District. The project site is accessed from both Commercial Street and North Pine Street, both of which are City-maintained roadways.

**BACKGROUND**

**Architectural Review:** Zoning Ordinance Section 17.80.020 requires that satellite and antenna installation be subject to architectural review and encourages their placement to areas that are not generally visible from public streets. Whenever visible placement of such facilities is technically required in order to receive communication signals, the installation shall be screened in a manner approved during architectural review.

After continuing the matter from the January 21, 2016 meeting, on March 17, 2016, in their capacity as Architectural Review Committee, the Planning Commission approved the application for Architectural Review for the installation of the eight antennae. The Commission is requiring that the antennae and any exposed infrastructure be painted gray in a shade that effectively recedes the equipment into the background (Mitigation Measure 1A). They also mandated that the four antennae shown in the southeast corner of the rooftop be separated in pairs, with one pair relocated in a westerly direction in order to break up the antenna massing (Mitigation Measure 1B). Ultimately, the Planning Commission made the finding that visible placement of the antennas is necessary for their proper function and that the incorporation of aforementioned mitigation measures will result in substantial conformity to Mother Lode Architecture.

**Advisory Review Committee:** On May 24, 2016 the Advisory Review Committee held a meeting in order to make a recommendation to the Planning Commission regarding environmental action pursuant to the California Environmental Quality Act and project action. At that meeting several members of the public voiced concerns over the potential harmful effects of radio frequency electromagnetic fields emanating from the proposed cellular antennas. Some literature on the subject was recommended including: “An Electronic Silent Spring” by Katie Singer and “Ten Ways To Keep Your Brain From Screaming Ouch” by David Moyer. An ABC television program “Catalyst” aired a program called “Wi-Fried” that was also recommended viewing. In addition to the above suggested material, items were distributed at the meeting, including the following hand-outs: “Wireless EMF Fact Sheet,” “International Appeal: Scientists Call For Protection From Non-ionizing Electromagnetic Field Exposure,” and a list of “Governments and Organizations that Ban or Warn Against Wireless Technology.” These handouts have been attached to this report in Attachment 5. Also submitted at that meeting were DVD copies of a documentary entitled “Take Back Your Power” which can also be found at the following YouTube link: <http://www.bing.com/videos/search?q=Take+Back+your+Power&view=detail&mid=4214FA4484D52477D42B4214FA4484D52477D42B&FORM=VIRE>.

Mark Lobaugh with Epic Wireless Group and Bill Hammet, Registered Professional Electrical Engineer, provided testimony on behalf of the applicant in response to concerns regarding electromagnetic radiation. Hammet explained that the radiation output of the proposed antennas is within the limits of safety guidelines adopted by the Federal Communications Commission (FCC) for human exposure to RF radiation. He also provided testimony that the distance of an antenna to a particular mobile device correlates to a lower energy output of that particular device, thereby resulting in lower radiation exposure for that individual user. When asked about potential effects of prolonged, low-level exposure to electromagnetic radiation, Hammett cited the American National Standards Institute’s publication on human exposure to radio frequency electromagnetic fields, ANSI C95.1, which provides independent,

peer-reviewed studies on the effects of RF radiation. Hammet indicated that this publication concludes that there is no evidence suggesting harmful effects of RF radiation exposure to humans (See Att. 8)

Mr. Lobaugh responded to questions about the necessity of the antennas when cellular service appears to be adequate. Lobaugh responded that the proposed antennas are intended to fill a current service gap outlined in the submitted coverage maps, Attachment 6. The antennas will also relieve the burden on existing surrounding antenna capacities, particularly during busy weekend and special events that concentrate a large volume of mobile device users to the downtown area.

### **ANALYSIS OF ISSUES:**

**Use Permit:** In considering an application for a conditional use, the commission shall give due regard to the nature and condition of all adjacent uses and structures. In authorizing a conditional use, the commission may impose such requirements and conditions with respect to location, construction, maintenance, and operation, in addition to those expressly stipulated in the Municipal Code for the particular use, as they may deem necessary for the protection of adjacent properties and the public interest.

**Aesthetics:** The cellular infrastructure is proposed on the rooftop of a building that is located within the Historical District of Nevada City. The original structure at the subject location was constructed in the 1880s with a second story added in 1912. The 1898 Sanborn Map identifies the structure as primarily constructed of brick. The building was listed as a contributing building for the Historical District's inclusion in the National Register of Historic Places. The entire structure was destroyed by fire in March 2002. Due to its contributing status, the City Council determined that reconstruction should occur in a manner that replicated the original structure as nearly as possible. The Planning Commission approved the reconstruction of the building on April 25, 2002. The present building closely resembles the original building architecture, including a brick face and roof parapet, along with iron trim details.

Zoning Ordinance Section 17.80.020 requires that satellite and antenna installation be subject to architectural review and encourages their placement to areas that are not generally visible from public streets. Whenever visible placement of such facilities is technically required in order to receive communication signals, the installation shall be screened in a manner approved during architectural review.

As discussed above, the Architectural Review Committee approved the application for Architectural Review for the antenna installation at the March 17, 2016 Planning Commission Meeting. As part of that approval the Committee imposed a condition that the antennae and any exposed infrastructure be painted gray in a shade that effectively recedes the equipment into the background (Mitigation Measure 1A). They also required that the four antennae shown in the southeast corner of the rooftop be separated in pairs, with one pair relocated in a westerly direction in order to break up the antenna massing (Mitigation Measure 1B). The Architectural Review Committee determined that public visibility was necessary to accommodate functionality of the antennas and made findings that aforementioned measures will effectively reduce impacts to such a degree that the project will substantially conform to Mother Lode Architecture. The Advisory Review Committee also recommended that the antennas and supporting infrastructure be removed from the site in the event that they are made obsolete by emerging technology, as provided in Mitigation Measure 1C.

**Traffic / Parking:** The project site is accessed from both Commercial Street and North Pine Street, both of which are City-maintained roadways. These local roadways are accessed from various other City-maintained roadways that stem from State Highway 49. The project is not expected to contribute to a substantial increase in traffic during the operational phase of the project because the facility is unmanned. With maintenance of the facility anticipated at only 1-2 times per month, the operational phase of the project will only require less than one added trip per day. This minor increase in trips is not anticipated to downgrade the existing Level of Service (LOS). However, the construction phase of the project may require cranes and other specialized equipment to facilitate the rooftop installation. Nevada

City has many narrow, twisting, and dead-end streets, and those characteristics apply to those streets accessing this project site. Mitigation 16A is included to ensure that appropriate permitting and authorization is obtained from the City Public Work's Department for any vehicle parking or equipment staging areas within City right-of-way.

The proposed project would not increase reliance on transit services as the site will only be accessed by employees driving company vehicles. Employee visits will be temporary and infrequent in nature. There is no private parking area designated for the project site and employees will rely on public parking at metered spaces along the street, or within the two public parking lots located in the downtown area. The Department of Public Works prefers that routine maintenance work be conducted during non-peak hours and not during any scheduled special event, such as Hot Summer Nights, Victorian Christmas, parades, etc. (Mitigation Measure 16B).

**Radio Frequency Radiation Exposure:** Radiofrequency (RF) radiation emanates from cellular antennae and is generated by the movement of electrical charges in the antenna. The energy levels it generates are not great enough to ionize, or break down, atoms and molecules, so it is known as "non-ionizing" radiation. The Federal Communications Commission (FCC) is the government agency responsible for the authorization and licensing of facilities such as cellular towers that generate RF radiation. For health and safety issues related to RF radiation, the FCC relies on other agencies and organizations for guidance, including the EPA, FDA, the National Institute for Occupational Safety and Health (NIOSH) and OSHA, which have all been involved in monitoring and investigating issues related to RF exposure. The FCC has developed and adopted guidelines for human exposure to RF radiation using the recommendations of the National Council on Radiation Protection and Measurements (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE), with the support of the EPA, FDA, OSHA and NIOSH. According to the FCC, both the NCRP exposure criteria and the IEEE standard were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects. The exposure guidelines are based on thresholds for known adverse effects, and they incorporate wide safety margins. In addition, under the National Environmental Policy Act (NEPA) the FCC is required to evaluate transmitters and facilities for significant impacts on the environment, including human exposure to RF radiation. When an application is submitted to the FCC for construction or modification of a transmitting facility or renewal of a license, the FCC evaluates it for compliance with the RF exposure guidelines which were previously evaluated under NEPA. Failure to show compliance with the FCC's RF exposure guidelines in the application process could lead to the additional environmental review and eventual rejection of an application.

The proposed wireless facility is subject to the FCC exposure guidelines, and must fall under the FCC's American National Standards Institute (ANSI) public limit standard of .58 mW/cm<sup>2</sup>. According to the report provided by Hammett and Edison, Inc, consulting engineers for Verizon Wireless, the maximum RF exposure limit to anyone on the ground will be 0.077 mW/cm<sup>2</sup>, 6.7% of the FCC's acceptable exposure limit. The maximum calculated exposure limit at any nearby building is only slightly higher at 7.1%.

Finally, it should be noted that Section 704 of the Telecommunications Act of 1996 states that, "No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions." Hammett and Edison, Inc, consulting engineers for Verizon Wireless, has provided a report that indicates the proposed project will comply with FCC guidelines limiting exposure to RF energy with adherence to mitigation measures. Mitigation described in Measures 8B includes prevention of public access to the rooftop equipment, providing training to access-authorized personnel, physically demarcating areas of high exposure rates, and erecting exposure limit signage at key access locations. Because the proposed facility would operate under federally mandated limits on RF radiation for cellular antennas, and is regulated by the FCC in this respect, the City may not regulate the placement or construction of this facility based on the RF emissions.

**ZONING AND GENERAL PLAN CONSISTENCY:** The project site is located in the General Commercial General Plan land use designation and is zoned GB-HD, “General Business with an Historical combining district.” The project site is the rooftop of an existing structure that includes varied uses including office space, restaurant, retail, and a performing arts venue. Surrounding properties are zoned the same and are equally varied in their uses of retail, restaurant, counseling/therapy, residential, and professional office use.

The building is served by pipe-treated City water and by City sewer. The General Business District is intended to provide for the sale of a variety of commodities, performance of services, tourist oriented sales, and other types of general enterprise. Public and quasi-public uses, defined as including public utility distribution facilities and communication equipment buildings, are permitted with a Conditional Use Permit.

The City Council has declared the area defined as the Historical District to be one of great historical interest and aesthetic value. The preservation of this area has been determined to be essential to the economic and cultural life of the city. As such, all buildings within said district which are altered as to their exterior appearance within public view are required to do so in a manner which substantially conforms with the Motherlode type of architecture pursuant to Zoning Ordinance Section 17.68.070. Motherlode Architecture is defined as that type of architecture generally used in the Motherlode region of the state of California during the period from 1849 to 1900.

Zoning Ordinance Section 17.80.020 requires that satellite and antenna installation be subject to Architectural Review and encourages their placement to areas that are not generally visible from public streets. Whenever visible placement of such facilities is technically required in order to receive communication signals, the installation shall be screened in a manner approved during architectural review. Due to the sensitivity associated with development in the Historical District, staff brought the Architectural Review application before the Planning Commission in advance of the Use Permit application. The Architectural Review hearing spanned two meetings, January 21 and March 21, 2016, and originally included a Stealth, faux-brick enclosure to screen the equipment. The Planning Commission ultimately approved the Architectural Review application for the cellular equipment without the Stealth enclosures but did require that any visible equipment be painted gray to screen the equipment from public view. They also required that the four antennas proposed on the southeastern corner be separated by moving two antennas westerly in order to break up the visual massing. These aesthetic modifications are already incorporated as mitigation measures 1A and 1B, to mitigate previously discussed aesthetic impacts.

**ENVIRONMENTAL REVIEW:** Staff has prepared and distributed a Notice of Availability/ Notice of Intent to adopt a Mitigated Negative Declaration (MND). The comment period for public input, agencies, and interested parties spans the 20 days prior to the Use Permit hearing. The draft Mitigated Negative Declaration (MND) is attached (*Attachment 4*). The MND identifies potential adverse impacts of the proposed cellular antennas related to aesthetics, air quality, environmental hazards, land use, noise, and transportation. Mitigation measures are recommended as part of the adoption of the MND in an effort to reduce these adverse impacts to a less than significant level.

**SUMMARY:** The project proposal is for the installation of eight (8) cellular antennas mounted on four (4) pipe mounts, affixed to various points of the rooftop of 109 North Pine Street. With implementation of recommended Mitigation Measures and Conditions of Approval, adverse impacts are not anticipated to significantly impact the surrounding community. The cellular antennas are considered compatible in the LB district provided that conditions are implemented in order to allow proper integration into the surrounding community. Staff has prepared recommended findings for approval of the Use Permit below.

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**RECOMMENDATION:** Staff recommends the Planning Commission take the following actions:

- I. Adopt a Mitigated Negative Declaration for the proposed cellular infrastructure project, making findings A-C.
  - A. The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major period of California history or prehistory.
  - B. That although the proposed project could have a significant effect on the environment (without proper precautions and preparations), there will not be a significant effect in this case because mitigation measures and conditions of approval have been attached to the project, and agreed to by the project proponents, and the project does not have impacts that are individually limited but cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
  - C. That the project does not have environmental effects which will cause substantial adverse effects on human beings either directly or indirectly.
  
- II. Approve the proposed Use Permit subject to the attached Conditions of Approval shown in Attachment 1, or as may be modified at the public hearing, making findings, A-E, pursuant to Sections 17.88.20 of the Nevada City Municipal Code:
  - A. That this project as conditioned is consistent with the Service Commercial (SC) General Plan land use designation applicable to this project site;
  - B. The proposed use, as conditioned is consistent with the purposes of the Local Business (LB) base zoning district which allows public and quasipublic uses with an approved use permit and is consistent with the Scenic Corridor (SC) combining district with adequate aesthetic protection of designated scenic roads and highways;
  - C. The proposed use as conditioned will not jeopardize, adversely affect, or be detrimental to public health, safety, and welfare or to the surrounding property and residents;
  - D. Adequate public facilities and public services exist within the project area and are available to serve the project without decreasing service levels to other area;
  - E. The conditions provided in Attachment 1 are deemed necessary to protect the public health, safety, and general welfare.

**RECOMMENDED MITIGATION MEASURES  
AND CONDITIONS OF APPROVAL**

**MITIGATION MEASURES**

**1. AESTHETICS:**

**Mitigation Measure 1A:** The antennae and any exposed infrastructure shall be painted gray in a shade that effectively recedes into the background.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

**Mitigation Measure 1B:** The four antennae shown in the southeast corner of the rooftop shall be separated in pairs, with one pair relocated in a westerly direction in order to break up the antennae massing.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

**Mitigation Measure 1C:** At such time that the technology advances to the point that cellular antennas or any other ancillary equipment become obsolete, the applicant shall remove such equipment within a timely manner. A note to this effect shall be placed on improvement plans.

*Timing: Prior to building permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

**3. AIR QUALITY:**

**Mitigation Measure 3A: Use low-VOC architectural coatings for the proposed antennae and equipment.** Building plans shall show that low-VOC architectural coatings shall be used in construction whenever feasible and shall coordinate with the NSAQMD to determine which coatings would reduce VOC emissions to the maximum degree feasible. This mitigation shall apply to the antennae and equipment coatings, as well as the RF advisory paint required pursuant to Mitigation Measure 8B.iv.

*Timing: Prior to building permit approval*

*Reporting: Approval of the building plans*

*Responsible Agency: Northern Sierra Air Quality Management District*

**Mitigation Measure 3B: Authority to Construct Permit.** Any person building, altering, replacing, or operating any source of air contaminants, whether portable or stationary (but not mobile), shall first obtain an Authority to Construct permit from the Air Pollution Control Officer, unless the District determines that such equipment is exempt from permitting or unless such equipment is currently registered with the California Air Resources Board under the Portable Equipment Registration Program. The applicant shall be responsible for communicating with the District regarding the possible need for permitting. The applicant is requested to contact the Deputy Air Pollution Control Officer, currently Joe Fish of the Northern Sierra Air Quality District directly at (530) 274-9360 x103 (or email at [joe@myairdistrict.com](mailto:joe@myairdistrict.com)) in order to determine whether or not equipment requires permitting from the NSAQMD.

Prior to building permit approval, the applicant shall provide the Planning Department with acknowledgement of this mitigation requirement and an agreement to obtain necessary permits in advance of any work that requires operation of any portable or stationary equipment that may contribute to air contaminants.

*Timing: Prior to building permit issuance AND prior to use of portable equipment*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department AND Northern Sierra Air Quality Management District*

## 12. NOISE

**Mitigation Measure 12A: Limit construction activities to reduce noise impacts.** Hours of operation for construction activities shall be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday. These limited hours of operation shall be noted on grading and building plans, which shall be reviewed and approved by the Planning Department prior to permit issuance.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

## 8. HAZARDS/HAZARDOUS MATERIAL

**Mitigation Measure 8A: Adhere to Battery Material Data Safety Sheet:** All handling of the batteries, including disposal, shall be conducted in a manner that complies with the Material Safety Data Sheet provided by NorthStar Battery Company, provided as Attachment 4 of this record. Prior to building permit issuance, the applicant shall provide a statement of acknowledgement of this requirement and agree to follow all recommendations outlined in the Material Data Safety Sheet, including but not limited to the following:

- i. **Engineering Controls.** Lead/acid batteries shall be stored with adequate ventilation. Room ventilation is required for batteries utilized for standby power generation. Batteries shall not be recharged in an unventilated, enclosed space.
- ii. **Work Practices.** Vent covers shall not be removed. All shipping and handling instructions applicable to the battery type shall be followed. Batteries shall not be double-stacked.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

**Mitigation Measure 8B: Adhere to Engineer Recommendations:** Pursuant to the Radio Frequency Report prepared by Hammett and Edison, Inc, dated March 31, 2016, provided as Attachment 3 of this record. Prior to building permit issuance, the applicant shall provide a statement of acknowledgement of this requirement and agree to follow all recommendations outlined in the Engineer's report, including but not limited to the following:

- i. The roof access ladder and hatch shall be kept locked so that Verizon antennas are not accessible to unauthorized persons.

- ii. To prevent occupational exposures in excess of the FCC guidelines, appropriate Radio Frequency safety training, which shall include review of personal monitor use and lockout/tagout procedures, shall be provided to all authorized personnel who have access to the roof, including employees and contractors of Verizon and employees of the property owner. The applicant shall provide satisfactory evidence that this training is part of routine protocol for Verizon employees and shall provide written verification that this training has been provided to the property owner and the owner's applicable employees.
- iii. No access within 16-feet directly in front of the antennas themselves, such as might occur during maintenance activities, shall be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met.
- iv. Boundary lines shall be marked on the roof with blue paint as provided in Figure 3 of the Statement of Hammett and Edison, Inc., Consulting Engineers, prepared by William F. Hammet, RPE, and dated May 3, 2016.
- v. Explanatory signs shall be posted at the roof access ladder, the roof access hatch, and on the antenna enclosure, readily visible from any angle of approach to persons who might need to work within that distance.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

## 16. TRANSPORTATION/CIRCULATION

**Mitigation Measure 16A: Obtain appropriate right-of-way permitting.** Any equipment parking or staging areas within City right-of-way or on public property that is necessary during the operational or construction phases of the project, shall obtain all appropriate permits through the Nevada City Public Works Department. Prior to building permit approval, the applicant shall provide the Public Works Department with a statement of acknowledgement of this mitigation requirement and an agreement to obtain necessary permits in advance of any work during either the construction phase or the operational phase that requires parking or staging within City right-of-way or within public property.

*Timing: Prior to building permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Nevada City Public Works Department*

**Mitigation Measure 16B: Non-Peak Hour Maintenance.** Any routine maintenance work associated with the cellular equipment shall be conducted during non-peak hours so that parking is not taken from business, and tourist use. Emergency service work may occur at any time provided appropriate notification is given to the Public Works Department to ensure adequate safety precautions are in place.

*Timing: Prior to building permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Nevada City Public Works Department*

**Mitigation Monitoring Matrix:**

<b>MEASURE</b>	<b>MONITORING AUTHORITY</b>	<b>WHEN IMPLEMENTED</b>
1A-B	Planning Department	Prior to Building Permit Issuance
3A	Northern Sierra Air Quality District	Prior to Building Permit Issuance
3B	Planning Department & NSAQMD	Prior to building permit issuance and use
8A-B	Planning Department	Prior to approval improvement plans
12A	Planning Department	Prior to Building Permit Issuance
16A-B	Department of Public Works	Prior to Building Permit Issuance

**CONDITIONS OF APPROVAL**

**PLANNING DEPARTMENT**

1. This Use Permit approval authorizes the installation of eight (8) cellular antennas mounted on four (4) pipe mounts, as well as ancillary infrastructure affixed to various points of the rooftop and equipment within an interior room of 109 North Pine Street, as depicted on the submitted exhibit.
2. The facility shall comply with all Federal Communications Commission regulations concerning radio frequency emissions.
3. Three complete sets of Construction Plans shall be submitted to the City Planner to review for compliance with the Use Permit approval prior to permit issuance.
4. Any noise that may be generated during the operational phase of the project shall comply with Section 8.20 of the City Municipal Code Operating
5. A Planning Commissioner(s) shall be appointed to act as liaison with the project applicant and to review and approve any minor modifications to the project. If the changes are beyond the scope of the liaison, the matter shall be referred to the Planning Commission for their approval.

**BUILDING DEPARTMENT**

6. Prior to construction, plans shall be approved by the building department and a permit issued for all proposed improvements.

**FIRE DEPARTMENT**

7. Prior to final occupancy of the building permits, verification that all fire safe standards have been fully satisfied shall be required from the Nevada City Fire Department, including placement of fire extinguisher if necessary.



# Zoning and Public Notice Map

109 N. Pine Street

Applicant: Epic Wireless Group on behalf of Verizon Wireless

Hearing Date: June 16, 2016



- Noticed parcels within 300-feet of the project site
- Additional noticed parcels
- Project site, 112 Nevada City Highway
- 300-foot radius boundary



**NEVADA COUNTY, CALIFORNIA  
INITIAL STUDY**

<b>TO:</b>	Nevada City Engineer – B. Falconi	Native American Heritage Foundation
	Nevada City Public Works – C. Schack	CA Fish & Wildlife
	Nevada City Police – T. Foley	AT&T
	Nevada City Fire – S. Goodspeed	PG&E
	Nev. Co. Building Dept. – C. Griesbach	Federal Aviation
	Nevada City School District	Friends of Nevada City
	CalTrans –B. deTerra	*City Manager – M. Prestwich
	Transportation Commission/Airport Manager	*City Attorney – H. DeGraw
	N. Sierra Air Quality Mgt. Dist.	

**Date:** May 27, 2016

**Prepared by:** Amy Kesler-Wolfson, Assistant Planner  
Nevada County Planning Department  
950 Maidu Avenue  
Nevada City, CA 95959  
(530) 265-1610  
Email: amy.wolfson@nevadacityca.gov

**Assessor's Parcel Number:** 05-570-04

**Applicant:** Epic Wireless  
ATTN: Mark Lobaugh  
8700 Auburn-Folsom Road, Ste. 400  
Granite Bay, CA 95746  
Telephone: (916) 203-4067

**Owner:** 109 North Pine Street Commercial Condominium Owners Association

**Zoning District(s):** GB-HD

**General Plan:** GC

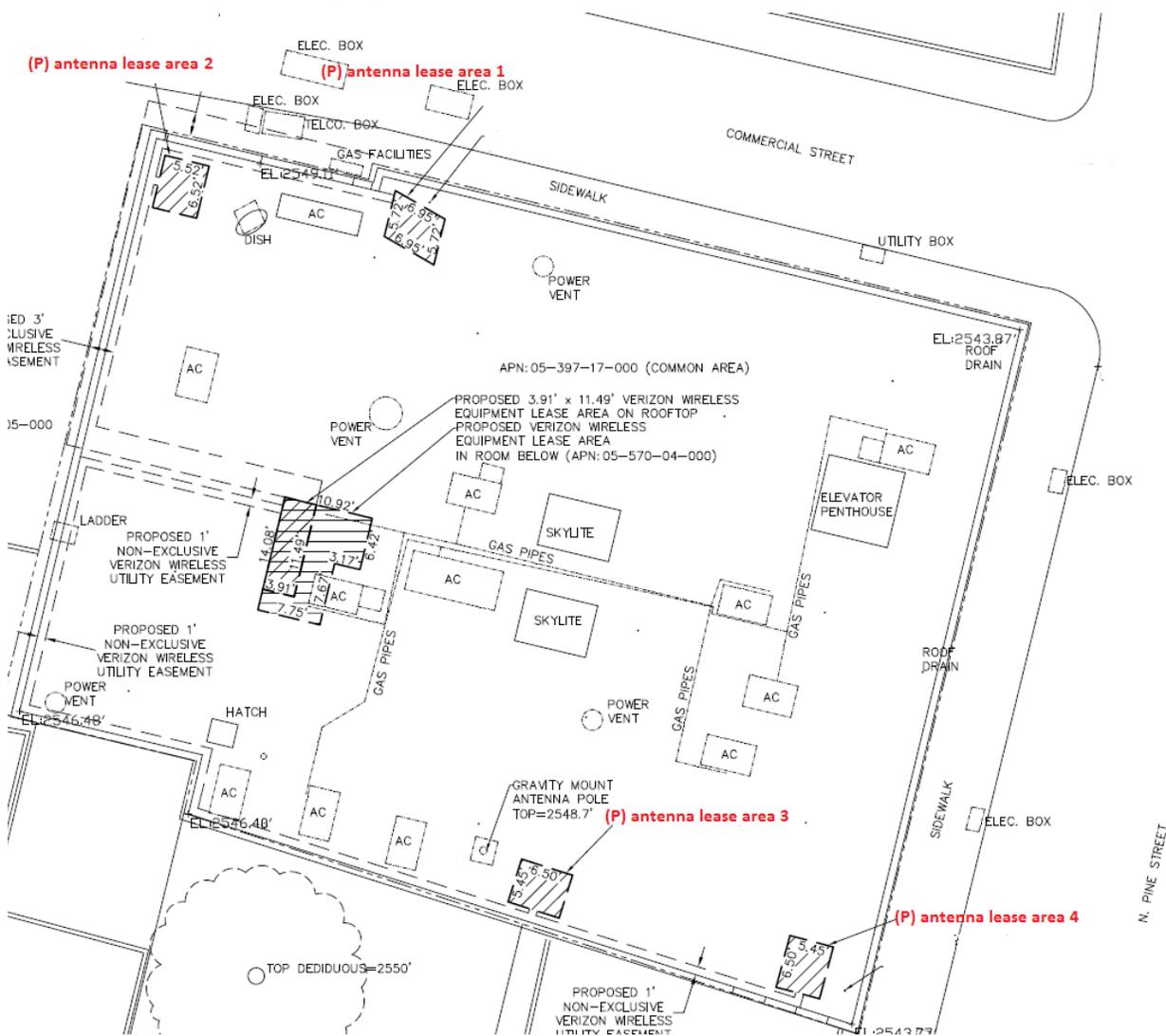
**Project Location:** 109 North Pine Street at the corner of Commercial Street and North Pine Street

**Project Description:**

Application to the Planning Commission for Architectural Review and Conditional Use Permit to install eight (8) cellular antennas mounted on four (4) pipe mounts, affixed to various points of the rooftop of 109 North Pine Street. The applicant is proposing to paint the antennas and any visible infrastructure gray as approved by the Planning Commission in their capacity as the Architectural Review Committee at the February 18, 2016 meeting. Other equipment associated with the antennas, including an HVAC condenser, are proposed with low enough profiles to be screened by the building's existing parapet from most public view sheds. Back-up batteries will be located in the interior equipment room and are intended to provide power in the event of an electrical power outage.

The property is zoned General Business (GB) which allows for public and quasi-public uses with approval of a Conditional Use Permit. Public and quasi-public uses include communication equipment buildings and utility distribution stations in its definition. The project site is also designated within the City's Historical Combining District (HD), in recognition of the area's historical interest and aesthetic value. Any alteration to the exterior appearance of a structure within the Historical District may only be permitted if approved by the Planning Commission through an Architectural Review application. The Planning Commission approved an Architectural Review application at their February 18, 2016 meeting with conditions that required painting equipment gray and requiring moving two antennae in a westerly direction to break up the massing for the infrastructure proposed at the southeastern corner.

The top of the antennas and supporting infrastructure will reach 50-feet above the ground elevation which amounts to a range between 3.5-feet and 9.5-feet above the height of the building parapet. The antennae will be visible from several public vantage points within downtown Nevada City. Access to the lease area is proposed from the interior of the building. The equipment lease area is proposed within a third story room in the existing structure. The facility will be unmanned and will require only occasional trips for maintenance purposes.



Antenna Plan

Epic Wireless  
May 27, 2016

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### **Project Location and Surrounding Land Uses:**

The project is proposed on the rooftop of the building located at the corner of North Pine Street and Commercial Street, addressed 109 North Pine Street. Current uses of that building are retail, restaurant, theater, and office use. In addition to the aforementioned uses, surrounding properties are also used as residences, and professional office use such as real estate, therapy, attorney, etc. The site is located in the General Business district which hosts a mix of various uses.

### **Other Permits Which May Be Necessary:**

Based on initial comments received, the following permits may be required from the designated agencies:

1. Building and grading permits – Nevada Co Building Dept (530) 265-1222

### **Relationship to Other Projects:**

There are no known projects related to this proposal.

## **SUMMARY OF IMPACTS AND PROPOSED MITIGATION MEASURES**

### **Environmental Factors Potentially Affected:**

All of the following environmental factors have been considered. Those environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant with Mitigation" as indicated by the checklist on the following pages.

✓ —	1. Aesthetics	—	2. Agriculture / Forestry Resources	✓ —	3. Air Quality
—	4. Biological Resources	—	5. Cultural Resources	—	6. Geology / Soils
—	7. Greenhouse Gas Emissions	✓ —	8. Hazards / Hazardous Materials	—	9. Hydrology / Water Quality
✓ —	10. Land Use / Planning	—	11. Mineral Resources	✓ —	12. Noise
—	13. Population / Housing	—	14. Public Services	—	15. Recreation
✓ —	16. Transportation / Circulation	—	17. Utilities / Service Systems	—	18. Mandatory Findings of Significance

### **Summary of Impacts and Recommended Mitigation Measures:**

## **SUMMARY OF MITIGATION MEASURES**

### **1. AESTHETICS:**

**Mitigation Measure 1A:** The antennae and any exposed infrastructure shall be painted gray in a shade that effectively recedes into the background.

**Timing:** Prior to building/grading permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Planning Department

**Mitigation Measure 1B:** The four antennae shown in the southeast corner of the rooftop shall be separated in pairs, with one pair relocated in a westerly direction in order to break up the antennae massing.

*Timing:* Prior to building/grading permit issuance

*Reporting:* Agency approval of permits or plans

*Responsible Agency:* Planning Department

**Mitigation Measure 1C:** At such time that the technology advances to the point that cellular antennas or any other ancillary equipment become obsolete, the applicant shall remove such equipment within a timely manner. A note to this effect shall be placed on improvement plans.

*Timing:* Prior to building permit issuance

*Reporting:* Agency approval of permits or plans

*Responsible Agency:* Planning Department

### 3. AIR QUALITY:

**Mitigation Measure 3A: Use low-VOC architectural coatings for the proposed antennae and equipment.** Building plans shall show that low-VOC architectural coatings shall be used in construction whenever feasible and shall coordinate with the NSAQMD to determine which coatings would reduce VOC emissions to the maximum degree feasible. This mitigation shall apply to the antennae and equipment coatings, as well as the RF advisory paint required pursuant to Mitigation Measure 8B.iv.

*Timing:* Prior to building permit approval

*Reporting:* Approval of the building plans

*Responsible Agency:* Northern Sierra Air Quality Management District

**Mitigation Measure 3B: Authority to Construct Permit.** Any person building, altering, replacing, or operating any source of air contaminants, whether portable or stationary (but not mobile), shall first obtain an Authority to Construct permit from the Air Pollution Control Officer, unless the District determines that such equipment is exempt from permitting or unless such equipment is currently registered with the California Air Resources Board under the Portable Equipment Registration Program. The applicant shall be responsible for communicating with the District regarding the possible need for permitting. The applicant is requested to contact the Deputy Air Pollution Control Officer, currently Joe Fish of the Northern Sierra Air Quality District directly at (530) 274-9360 x103 (or email at [joe@myairdistrict.com](mailto:joe@myairdistrict.com)) in order to determine whether or not equipment requires permitting from the NSAQMD.

Prior to building permit approval, the applicant shall provide the Planning Department with acknowledgement of this mitigation requirement and an agreement to obtain necessary permits in advance of any work that requires operation of any portable or stationary equipment that may contribute to air contaminants.

*Timing:* Prior to building permit issuance **AND** prior to use of portable equipment

*Reporting:* Agency approval of permits or plans

*Responsible Agency:* Planning Department **AND** Northern Sierra Air Quality Management District

**12. NOISE**

**Mitigation Measure 12A: Limit construction activities to reduce noise impacts.** Hours of operation for construction activities shall be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday. These limited hours of operation shall be noted on grading and building plans, which shall be reviewed and approved by the Planning Department prior to permit issuance.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

**8. HAZARDS/HAZARDOUS MATERIAL**

**Mitigation Measure 8A: Adhere to Battery Material Data Safety Sheet:** All handling of the batteries, including disposal, shall be conducted in a manner that complies with the Material Safety Data Sheet provided by NorthStar Battery Company, provided as Attachment 4 of this record. Prior to building permit issuance, the applicant shall provide a statement of acknowledgement of this requirement and agree to follow all recommendations outlined in the Material Data Safety Sheet, including but not limited to the following:

- i. **Engineering Controls.** Lead/acid batteries shall be stored with adequate ventilation. Room ventilation is required for batteries utilized for standby power generation. Batteries shall not be recharged in an unventilated, enclosed space.
- ii. **Work Practices.** Vent covers shall not be removed. All shipping and handling instructions applicable to the battery type shall be followed. Batteries shall not be double-stacked.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

**Mitigation Measure 8B: Adhere to Engineer Recommendations:** Pursuant to the Radio Frequency Report prepared by Hammett and Edison, Inc, dated March 31, 2016, provided as Attachment 3 of this record. Prior to building permit issuance, the applicant shall provide a statement of acknowledgement of this requirement and agree to follow all recommendations outlined in the Engineer's report, including but not limited to the following:

- i. The roof access ladder and hatch shall be kept locked so that Verizon antennas are not accessible to unauthorized persons.
- ii. To prevent occupational exposures in excess of the FCC guidelines, appropriate Radio Frequency safety training, which shall include review of personal monitor use and lockout/tagout procedures, shall be provided to all authorized personnel who have access to the roof, including employees and contractors of Verizon and employees of the property owner. The applicant shall provide satisfactory evidence that this training is part of routine protocol for Verizon employees and shall provide written verification that this training has been provided to the property owner and the owner's applicable employees.

- iii. No access within 16-feet directly in front of the antennas themselves, such as might occur during maintenance activities, shall be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met.
- iv. Boundary lines shall be marked on the roof with blue paint as provided in Figure 3 of the Statement of Hammett and Edison, Inc., Consulting Engineers, prepared by William F. Hammet, RPE, and dated May 3, 2016.
- v. Explanatory signs shall be posted at the roof access ladder, the rood access hatch, and on the antenna enclosure, readily visible from any angle of approach to persons who might need to work within that distance.

**Timing:** Prior to building/grading permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Planning Department

## 16. TRANSPORTATION/CIRCULATION

**Mitigation Measure 16A: Obtain appropriate right-of-way permitting.** Any equipment parking or staging areas within City right-of-way or on public property that is necessary during the operational or construction phases of the project, shall obtain all appropriate permits through the Nevada City Public Works Department. Prior to building permit approval, the applicant shall provide the Public Works Department with a statement of acknowledgement of this mitigation requirement and an agreement to obtain necessary permits in advance of any work during either the construction phase or the operational phase that requires parking or staging within City right-of-way or within public property.

**Timing:** Prior to building permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Nevada City Public Works Department

**Mitigation Measure 16B: Non-Peak Hour Maintenance.** Any routine maintenance work associated with the cellular equipment shall be conducted during non-peak hours so that parking is not taken from business, and tourist use. Emergency service work may occur at any time provided appropriate notification is given to the Public Works Department to ensure adequate safety precautions are in place.

**Timing:** Prior to building permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Nevada City Public Works Department

### Mitigation Monitoring Matrix:

MEASURE	MONITORING AUTHORITY	WHEN IMPLEMENTED
1A-B	Planning Department	Prior to Building Permit Issuance
3A	Northern Sierra Air Quality District	Prior to Building Permit Issuance
3B	Planning Department & NSAQMD	Prior to building permit issuance and use
8A-B	Planning Department	Prior to approval improvement plans
12A	Planning Department	Prior to Building Permit Issuance
16A-B	Department of Public Works	Prior to Building Permit Issuance

**INITIAL STUDY AND CHECKLIST****Introduction**

This checklist is to be completed for all projects that are not exempt from environmental review under the California Environmental Quality Act (CEQA). The information, analysis and conclusions contained in the checklist are the basis for deciding whether an Environmental Impact Report (EIR) or Negative Declaration is to be prepared. If an EIR is determined to be necessary based on the conclusions of the Initial Study, the checklist is used to focus the EIR on the effects determined to be potentially significant. This Initial Study uses the following terms to describe the level of significance of adverse impacts. These terms are defined as follows.

- **No Impact:** An impact that would result in no adverse changes to the environment.
- **Less than Significant Impact:** An impact that is potentially adverse but does not exceed the thresholds of significance as identified in the impact discussions. Less than significant impacts do not require mitigation.
- **Less than Significant with Mitigation:** An environmental effect that may cause a substantial adverse change in the environment without mitigation, but which is reduced to a level that is less than significant with mitigation identified in the Initial Study.
- **Potentially Significant Impact:** An environmental effect that may cause a substantial adverse change in the environment; either additional information is needed regarding the extent of the impact to make the significance determination, or the impact would or could cause a substantial adverse change in the environment. A finding of a potentially significant impact would result in the determination to prepare an EIR.

**1. AESTHETICS****Existing Setting**

The cellular infrastructure is proposed on the rooftop of a building that is located within the Historical District of Nevada City. The original structure at the subject location was constructed in the 1880s with a second story added in 1912. The 1898 Sanborn Map identifies the structure as primarily constructed of brick. The building was listed as a contributing building for the Historical District's inclusion in the National Register of Historic Places. The entire structure was destroyed by fire in March 2002. Due to its contributing status, the City Council determined that reconstruction should occur in a manner that replicated the previous structure as nearly as possible. The Planning Commission approved the reconstruction of the building on April 25, 2002. The present building closely resembles the original building architecture, including a brick face and roof parapet, along with iron trim details. Access to the site is from the interior of the building at a roof access point on the third story. The building is located on the corner of Commercial Street and North Pine Street, both of which are publicly maintained roadways.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in demonstrable, negative, aesthetic effects on scenic vistas or views open to the public?		✓			A, 5

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Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
b. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?		✓			A,1
c. Substantially degrade the existing visual character or quality of the site and its surroundings?		✓			A,1,5
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				✓	A
e. Create a visually incompatible structure within a designated historic district?		✓			A,1,5

### Impact Discussion

1a-c,e. The City Council has declared the area defined as the Historical District to be one of great historical interest and aesthetic value. The preservation of this area has been determined to be essential to the economic and cultural life of the city. As such, all buildings within said district which are altered as to their exterior appearance within public view are required to do so in a manner which substantially conforms with the Motherlode type of architecture pursuant to Zoning Ordinance Section 17.68.070.

Zoning Ordinance Section 17.80.020 requires that satellite and antenna installation be subject to architectural review and encourages their placement to areas that are not generally visible from public streets. Whenever visible placement of such facilities is technically required in order to receive communication signals, the installation shall be screened in a manner approved during architectural review.

The top of the antennas and supporting infrastructure will reach 50-feet above the ground elevation which amounts to a range between 3.5-feet and 9.5-feet above the height of the building parapet. The antennae will be visible from several public vantage points within downtown Nevada City. Access to the lease area is proposed from the interior of the building.

On March 17, 2016, in their capacity as Architectural Review Committee, the Planning Commission approved the application for Architectural Review for the installation of the eight antennae. The Commission is requiring that the antennae and any exposed infrastructure be painted gray in a shade that effectively recedes the equipment into the background (Mitigation Measure 1A). They also required that the four antennae shown in the southeast corner of the rooftop be separated in pairs, with one pair relocated in a westerly direction in order to break up the antenna massing (Mitigation Measure 1B). With these measures the Planning Commission was able to make the finding that the proposal will substantially conform to Mother Lode Architecture. Therefore aesthetic impacts are anticipated to be *less than significant with mitigation*.

1d. The applicant is not proposing any permanent or portable lighting with this project. Therefore, there will be *no impact regarding* the creation of new sources of light or glare.

### Mitigation

To prevent potentially adverse impacts to aesthetics associated with this project, the following mitigation measure shall be required and shall be shown on all grading/improvement plans:

**Mitigation Measure 1A:** The antennae and any exposed infrastructure shall be painted gray in a shade that effectively recedes into the background.

**Timing:** Prior to building/grading permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Planning Department

**Mitigation Measure 1B:** The four antennae shown in the southeast corner of the rooftop shall be separated in pairs, with one pair relocated in a westerly direction in order to break up the antennae massing.

**Timing:** Prior to building/grading permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Planning Department

**Mitigation Measure 1C:** At such time that the technology advances to the point that cellular antennas or any other ancillary equipment become obsolete, the applicant shall remove such equipment within a timely manner. A note to this effect shall be placed on improvement plans.

**Timing:** Prior to building permit issuance

**Reporting:** Agency approval of permits or plans

**Responsible Agency:** Planning Department

## 2. AGRICULTURAL/FORESTRY RESOURCES

### Existing Setting

The project site is mapped as “Urban and Built-up Land” as the farmland designation by the California Department of Conservation (2010). There are no agricultural resources in the vicinity of the project. The project site does not contain any land within a Williamson Act contract, and is not within a Timberland Production Zone.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation’s Division of Land Resource Protection, to non-agricultural use?				✓	M,W
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?				✓	A,R
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code section 12220(g)), timberland zoned Timberland Production Zone (per Section L-II 2.3.C of the Nevada County Land Use and Development Code)?				✓	A,1
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓	A,1
e. Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-				✓	A,1

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Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
forest use?					

### Impact Discussion

2a-e. The project site is the rooftop of an existing building and there will be no ground disturbance and no vegetation removal. Therefore, there would be *no impact* to farmlands from the proposed project.

**Mitigation:** None

## 3. AIR QUALITY

### Existing Setting

Nevada County is located in the Mountain Counties Air Basin. State and Federal air quality standards have been established for five ambient air pollutants, primarily to protect human health and welfare for western Nevada County. These five criteria air pollutants include carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and suspended particulate matter (PM10, particulate matter with a diameter of 10 microns or less). On August 9, 2012, the U.S. EPA signed direct final rule determining that western Nevada County, among others, had attained the 1997 Federal 8-hour ozone standard. When the monitored ambient air concentration exceeds an air quality standard, the State or Federal government designates the area “non-attainment” for that pollutant. If no violations of the air quality standards occur, an area is said to be “in attainment.”

The overall air quality in Nevada County is good with the exception of PM10. Nevada County is in attainment for all Federal standards. Under the more stringent California air quality standards, Nevada County is in non-attainment for the PM10 standards. PM10 violations in winter are primarily due to wood smoke from the use of woodstoves and fireplaces and debris burning, while summer and fall violations often occur during forest fires or periods of open burning.

In 1997, the Environmental Protection Agency (EPA) acknowledged that PM2.5 (particulate matter with a diameter of 2.5 microns or less) represents an air pollutant of concern and subsequently released new National Ambient Air Quality Standards (NAAQS) for PM2.5. Like PM10, PM2.5 is also primarily a product of combustion processes, e.g., woodstoves, forestry and residential open burning, vehicle traffic and wind-blown dust, common in the populated areas of Nevada County. Natural sources of suspended particulates occur from wind blow dust and pollen.

Ultramafic rock and its altered form, serpentinite rock (or serpentinite), both contain asbestos, a cancer-causing agent. The USGS National Geologic Map does not identify this site as having ultramafic rock.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in substantial air pollutant emissions or deterioration of ambient air quality?			✓		G
b. Violate any air quality standard or contribute to an existing or projected air quality violation?				✓	G
c. Expose sensitive receptors to substantial pollutant concentrations?				✓	G,1
d. Create objectionable smoke, ash, or odors?				✓	G,1
e. Generate dust?				✓	1

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Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
f. Exceed any potentially significant thresholds adopted in County Plans and Goals?				✓	A,G,1
g. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?		✓			G

### Impact Discussion

- 3a. Back-up power serving the facility will be provided by battery and housed in the third story lease area on the interior of the building. No generators will serve the project. Therefore, the potential adverse impact on the generation of substantial pollutant emissions or on the deterioration of ambient air quality is anticipated to be *less than significant*.
- 3b-d. The construction phase of this project will entail the erection of equipment on the rooftop of an existing building. No ground disturbance and no vegetation removal will be necessary for the project proposal. The existing access is via existing publicly maintained road way. Therefore there is *no impact* potential for the generation of substantial pollutant concentrations or air quality violations .
- 3f: The City has not adopted an air quality plan. Therefore the proposed project would not conflict with or obstruct implementation of any such plan and there will be *no impact* to potentially significant air quality thresholds adopted in City Plans and Goals.
- 3g: Nevada City is the County Seat for Nevada County. Nevada County has two known air quality problems: ozone and PM10. The common source for PM10 violations in the winter is from inefficient wood burning devices. During the dryer months, wildfires also contribute to sources of PM10 violations. Ground level ozone (smog) is not emitted directly into the air, but is created by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOCs) in the presence of sunlight. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of NOx and VOCs. Architectural coatings are also a major source of VOCs. Staff has included mitigation that requires the applicant to use low-VOC coatings in construction in an effort to reduce the impact on the ozone. The proposed project could also result in a temporary but incrementally small net increase in pollutants due to any construction vehicle and equipment emissions during the construction phase of the project and for periodic maintenance work during the operational phase of the project. The Northern Sierra Air Quality has recommended mitigation in the event portable equipment is used during either the construction phase or operational phase of the project (MM 3.B). Impacts relating to a cumulative net increase of a criteria pollutant are anticipated to be *less than significant with mitigation* implementation.

### Mitigation:

To prevent potentially adverse impacts to air quality associated with this project, the following mitigation measure shall be required and shall be shown on all improvement plans:

**Mitigation Measure 3A: Use low-VOC architectural coatings for the proposed antennae and equipment.** Building plans shall show that low-VOC architectural coatings shall be used in

construction whenever feasible and shall coordinate with the NSAQMD to determine which coatings would reduce VOC emissions to the maximum degree feasible. This mitigation shall apply to the antennae and equipment coatings, as well as the RF advisory paint required pursuant to Mitigation Measure 8B.iv.

**Timing:** *Prior to building permit approval*

**Reporting:** *Approval of the building plans*

**Responsible Agency:** *Northern Sierra Air Quality Management District*

**Mitigation Measure 3B: Authority to Construct Permit.** Any person building, altering, replacing, or operating any source of air contaminants, whether portable or stationary (but not mobile), shall first obtain an Authority to Construct permit from the Air Pollution Control Officer, unless the District determines that such equipment is exempt from permitting or unless such equipment is currently registered with the California Air Resources Board under the Portable Equipment Registration Program. The applicant shall be responsible for communicating with the District regarding the possible need for permitting. The applicant is requested to contact the Deputy Air Pollution Control Officer, currently Joe Fish of the Northern Sierra Air Quality District directly at (530) 274-9360 x103 (or email at [joe@myairdistrict.com](mailto:joe@myairdistrict.com)) in order to determine whether or not equipment requires permitting from the NSAQMD.

Prior to building permit approval, the applicant shall provide the Planning Department with acknowledgement of this mitigation requirement and an agreement to obtain necessary permits in advance of any work that requires operation of any portable or stationary equipment that may contribute to air contaminants.

**Timing:** *Prior to building permit issuance AND prior to use of portable equipment*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Planning Department AND Northern Sierra Air Quality Management District*

**4. BIOLOGICAL RESOURCES**

**Existing Setting**

The project site is developed with a multi-use structure, comprised of four condominium units. There are no channels, swales, or drainages traversing the project site. The site is fully developed and there is no vegetation and no pervious surface. Surrounding land uses are primarily commercial including retail, service, office, and some residential.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓	A,1
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?				✓	A,1
c. Result in a substantial reduction in the extent,				✓	A,1

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Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
diversity, or quality of native vegetation, including brush removal for fire prevention and flood control improvements?					
d. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓	A,1
e. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				✓	A,1
f. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓	A,1
g. Introduce any factors (light, fencing, noise, human presence and/or domestic animals), which could hinder the normal activities of wildlife?			✓		A,1

### Impact Discussion

- 4a. No biological evaluation was required for the project because there is no vegetation and there are no water channels on the site. The entire site is developed with the existing building rendering it unsuitable as wildlife habitat for breeding, foraging or shelter for any federal or state special status species. The surrounding area is similarly developed and so the subject rooftop is also not anticipated to be a suitable predatory perching site. Therefore, the proposed project is anticipated to have *no impact* on the loss of any special-status plant or animal species, nor on any riparian habitat or sensitive environmental communities.
- 4c-f. There is no ground disturbance or vegetation removal is necessary for the project. The proposed project is anticipated to result in *no impact* on native vegetation, wetlands, migratory wildlife, or any other biological resource.
- 4g. The proposed project could result in a small increase in noise levels, and human activity though the site is unmanned so these disturbances will be infrequent, occurring mainly while performing maintenance work at the site and during the construction phase. Further, these types of activities which are typical of human behavior, are already occurring as part of the existing commercial use of the property. Therefore, the impacts of this project on the normal activities of wildlife would be *less than significant*.

**Mitigation:** None

## 5. CULTURAL RESOURCES

### Existing Setting

The original structure at the subject location was constructed in the 1880s with a second story added in 1912. The 1898 Sanborn Map identifies the structure as primarily constructed of brick. The building was listed as a contributing building for the Historical District's inclusion in the National Register of Historic Places. The entire structure was destroyed by fire in March 2002. Due to its

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contributing status, the City Council determined that reconstruction should occur in a manner that replicated the previous structure as nearly as possible. The Planning Commission approved the reconstruction of the building on April 25, 2002. The present building closely resembles the original building architecture, including a brick face and roof parapet, along with iron trim details.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines?			✓		A,1
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines?			✓		A,1
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				✓	A,1
d. Disturb any human remains, including those interred outside of formal cemeteries?				✓	A,1

### Impact Discussion

5a-b. Section 15064.5 of the CEQA Guidelines defines a historical resource as that which is included in a local register of historical resources and those that are eligible for California's Register, including those that are "associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage." The Nevada City Historical District has been designated as historically significant under local authority and is likely eligible under the State's authority. However, while the subject structure is located within the Historical District, it is essentially a replica of the original 1880's building. It no longer holds the historical authenticity as a significant historic resource. Furthermore, no part of the existing structure will be demolished or physically altered in a manner that adversely impacts its physical characteristics. Additionally, several buildings within the Historical District boundaries, an area recognized on the National Register of Historic Places and assumed to be eligible on the California Register, have radio and other communication infrastructure on their rooftops which have not compromised the National Register status. Therefore, the addition of cellular infrastructure on the rooftop of the building at 109 N. Pine Street is anticipated to have a *less than significant impact* to an historical or archeological resource as defined under Section 15064.5 of the CEQA Guidelines.

5c-d. There will be no ground disturbance associated with the proposed project. Therefore there will be *no impact* to paleontological or geological formation resources, nor is there any potential for unearthing human remains.

**Mitigation: None**

## 6. GEOLOGY / SOILS

### Existing Setting

The project will entail the erection of antennae and associated infrastructure on the rooftop of the existing building located at 109 N. Pine Street. The building serving as the rooftop platform was

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constructed in 2003. The nearest known fault line is located approximately 3.5 miles east of the project site.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards?			✓		A,1
b. Result in disruption, displacement, compaction, or over-covering of the soil by cuts, fills, or extensive grading?				✓	A,1
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓		A,1
d. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				✓	A,1
e. Result in any increase in wind or water erosion of soils, on or off the site?				✓	A
f. Changes in siltation, deposition or erosion, which may modify the channel of a river, or stream, or the bed any bay, inlet or lake?				✓	A,1
g. Result in excessive grading on slopes of over 30 percent?				✓	A,1

### Impact Discussion

6a,c. The reconstruction of the building providing the rooftop platform was done in 2003. At that time, the building was required to meet all seismic standards stipulated in the California Building Code. Similarly, the communication equipment will be required to comply with the California Building Code (CBC) to ensure protection during seismic events and or soil compatibility issues. No specific potential hazards have been identified for the project site. The project is anticipated to have a *less than significant impact* associated with unstable earth conditions or an unstable geologic unit.

6b,e-g. All necessary equipment serving the project will be located either on the rooftop of the existing structure or within an equipment room located in the interior of the building. No grading or soil disturbance will occur as a result of this project. The project construction activities are anticipated to result in *no impact* as it relates to grading and erosion.

6d. The project is already developed with a commercial structure that is served by City sewer and will not require septic system use. Therefore there will be *no impact* on supporting the use of septic tanks or alternative wastewater disposal system.

**Mitigation:** None

**7. GREENHOUSE GAS EMISSIONS****Existing Setting**

Greenhouse gases (GHGs) are those gases that trap heat in the atmosphere. GHGs are emitted by natural and industrial processes, and the accumulation of GHGs in the atmosphere regulates the earth's temperature. Greenhouse gases (GHGs) include carbon dioxide (CO<sub>2</sub>), methane, halocarbons (HFCs), and nitrous oxide (NO<sub>2</sub>). CO<sub>2</sub> emissions, stemming largely from fossil fuel combustion, comprise about 87% of California emissions. In California, approximately 43% of the CO<sub>2</sub> emissions come from cars and trucks. Agriculture is a major source of both methane and NO<sub>2</sub>, with additional methane coming primarily from landfills. Most HFC emissions come from refrigerants, solvents, propellant agent, and industrial processes, and persist in the atmosphere for longer periods of time and have greater effects at lower concentrations compared to CO<sub>2</sub>. The adverse impacts of global warming include impacts to air quality, water supply, sea level rise (flooding), fire hazards, and an increase in health related problems.

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act, was adopted in September 2006 and requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This regulation amounts to a reduction of approximately 30% from the "business as usual" forecast 2020 emission levels, or a 10% reduction from today's levels. This reduction will be accomplished through regulations to reduce emissions from stationary sources and from vehicles. The California Air Resources Board (ARB) is the State agency responsible for developing rules and regulations to cap and reduce GHG emissions. In addition, the Governor signed Senate Bill 97 in 2007 directing the California Office of Planning and Research to develop guidelines for the analysis and mitigation of the effects of greenhouse gas emissions and mandating that GHG impacts be evaluated in CEQA documents. CEQA Guidelines Amendments for GHG Emissions were adopted by OPR on December 30, 2009.

Draft Thresholds of Significance for GHGs were developed and released by ARB in October 2008, but ARB is not taking action on adopting those thresholds, which now serve only for informational purposes (Douglass Ito, Air Resources Board, email to Jessica Hankins, January 4, 2010).

Currently, there are no federal laws regulating GHGs, but on April 17, 2009, the federal EPA formally declared that GHGs are a public health and safety issue, clearing the way for their identification as criteria pollutants that could be regulated under the Clean Air Act.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓		A,1
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			✓		A,1

**Impact Discussion**

7a-b. Carbon dioxide (CO<sub>2</sub>) is the main component of greenhouse gases. The California Emissions Estimator Model (CalEEMod) does not provide adequate inputs for unmanned communication tower facilities. Use of default inputs generally result in a gross overestimation of emissions. For this reason, the report was not used for this study. For the proposed project, it is anticipated that CO<sub>2</sub> levels would not be substantially significant because the project facility will be unmanned and will not contribute to substantially more vehicle trips than under existing conditions. The project is not expected to contribute to a substantial increase in traffic during the operational phase of the project because fewer than one new trip per day is anticipated for facility

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maintenance. There has been no applicable plan, policy or regulation adopted to reduce the emissions of greenhouse gases. Because the project is unmanned and there is no generator being proposed to serve as back-up power, Greenhouse Gas Emissions are anticipated to be *less than significant*.

**Mitigation: None**

## 8. HAZARDS/HAZARDOUS MATERIALS

### Existing Setting

The property is not within or adjacent to any active hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Department of Toxic Substances Control 2010). Geotracker does identify several closed cases of cleaned up underground storage leaks. All cases within the vicinity of the project have been closed by the California Regional Water Quality Control Board. All of the incorporated area of Nevada City is mapped in a High Fire Hazard Severity Zone as designated by CalFire in a 2008 Fire Hazard Severity Map.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		✓			A,1
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		✓			A,1
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		✓			A, W,1
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?				✓	A,C,Z,1
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓	A,W
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓	A,W
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓	A
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			✓		A,I

**Impact Discussion**

8a-b. Operation of the proposed project would not result in the routine transport, use, or disposal of hazardous materials. Back-up power will be supplied by a Lead Acid Battery supplied by the NorthStar Battery Company. The project will not require a fuel-powered generator. The Material Safety Data Sheet for the use of the Lead Acid Battery provides control measures, outlined as mitigation measures 8A-8C. Small quantities of hazardous materials may be stored, used, and handled during construction. The hazardous materials anticipated for use are small volumes of petroleum hydrocarbons and their derivatives (e.g., gasoline, oils, lubricants, and solvents) required to operate the construction equipment. These relatively small quantities would be below reporting requirements for hazardous materials business plans and would not pose substantial public health and safety hazards through release of emissions or risk of upset.

Radiofrequency (RF) radiation emanates from antenna on cellular towers and is generated by the movement of electrical charges in the antenna. The energy levels it generates are not great enough to ionize, or break down, atoms and molecules, so it is known as “non-ionizing” radiation. The Federal Communications Commission (FCC) is the government agency responsible for the authorization and licensing of facilities such as cellular towers that generate RF radiation. For health and safety issues related to RF radiation, the FCC relies on other agencies and organizations for guidance, including the EPA, FDA, the National Institute for Occupational Safety and Health (NIOSH) and OSHA, which have all been involved in monitoring and investigating issues related to RF exposure. The FCC has developed and adopted guidelines for human exposure to RF radiation using the recommendations of the National Council on Radiation Protection and Measurements (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE), with the support of the EPA, FDA, OSHA and NIOSH. According to the FCC, both the NCRP exposure criteria and the IEEE standard were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects. The exposure guidelines are based on thresholds for known adverse effects, and they incorporate wide safety margins. In addition, under the National Environmental Policy Act (NEPA) the FCC is required to evaluate transmitters and facilities for significant impacts on the environment, including human exposure to RF radiation. When an application is submitted to the FCC for construction or modification of a transmitting facility or renewal of a license, the FCC evaluates it for compliance with the RF exposure guidelines which were previously evaluated under NEPA. Failure to show compliance with the FCC’s RF exposure guidelines in the application process could lead to the additional environmental review and eventual rejection of an application. The proposed wireless facility is subject to the FCC exposure guidelines, and must fall under the FCC’s American National Standards Institute (ANSI) public limit standard of .58 mW/cm<sup>2</sup>. According to the report provided by Hammett and Edison, Inc, consulting engineers for Verizon Wireless, the maximum RF exposure limit to anyone on the ground will be 0.077 mW/cm<sup>2</sup>, 6.7% of the FCC’s acceptable exposure limit. The maximum calculated amount at any nearby building is only slightly higher at 7.1%.

Finally, it should be noted that Section 704 of the Telecommunications Act of 1996 states that, “No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.” Hammett and Edison, Inc, consulting engineers for Verizon Wireless, has provided a report that indicates the proposed project will comply with FCC guidelines limiting exposure to RF energy with adherence to mitigation measures. Mitigation described in Measure 8B include prevention of public access to the rooftop equipment, providing training to access-authorized personnel, physically demarcating areas of high exposure rates, and erecting exposure limit signage at key access locations. Because the

- proposed facility would operate under federally mandated limits on RF radiation for cellular antennas, and is regulated by the FCC in this respect, the City may not regulate the placement or construction of this facility based on the RF emissions. Impacts related to hazardous materials released from or generated by this project are anticipated to be *less than significant with mitigation*.
- 8c. There is one school within a quarter-mile of the project. The Yuba River Charter School is located at 505 Main Street in Nevada City and is located approximately a tenth of a mile (1/10) from the project site. Additionally, there are several day-care centers within a quarter-mile radius including Our Play House Too (415 Coyote Street), and Little Creek Nursery (215 Washinton Street). Routine maintenance of the antennas will require approximately two visits per month so vehicular emissions will not be appreciably increased from existing levels. No hazardous emissions are anticipated to emanate from the antennas other than RF, which are calculated to be within FCC guidelines, so long as the aforementioned mitigation measures are in place. Impacts related to the transport or handling of hazardous materials in proximity to any school is anticipated to be *less than significant with mitigation*.
- 8d. The project site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, so there would be *no impact*.
- 8e-f. The project site is not located within an airport land use plan and is approximately 1.5 miles southwest of the Alta Sierra airport, the nearest private airport. The Alta Sierra Airport was created as part of a 1977 subdivision map, FM77-38.1, which included 10-residential lots along with the airport site. Mitigation adopted for this map included restricting its use to property owners and invited guests of the Alta Sierra Airport Estates. It is located 10-miles southwest of the Nevada County Airport, well outside of the safety hazard zone adopted through the Nevada County Comprehensive Airport Land Use Plan (NCCALUP). Given the limited use of the private airport, the distance from the nearest public airport, along with the unmanned nature of the proposed facility, the project is not anticipated to result in a safety hazard for people residing or working in the project area and there would be *no impact*.
- 8g. There is currently no adopted emergency response plan for the project area. The proposed project would result in the installation of an unmanned cellular tower facility used for wireless communications. Thus, the project would not impair implementation of, or physically interfere with, adopted emergency response plans and *no impact* on any emergency response plan would occur as a result of the project.
- 8h. The project site is currently developed with one single family residence. The applicant will be required to provide defensible space around all of the proposed cellular tower facility consistent with PRC 4291, which requires up to 100 feet of fuels treatment or to the property line, whichever is closer. The proposed project would not expose people or structures to wildland fires, and therefore would be a *less than significant* impact.

**Mitigation:**

To prevent potentially adverse impacts to environmental hazards or hazardous material associated with this project, the following mitigation measure shall be required and shall be shown on all improvement plans:

**Mitigation Measure 8A: Adhere to Battery Material Data Safety Sheet:** All handling of the batteries, including disposal, shall be conducted in a manner that complies with the Material Safety Data Sheet provided by NorthStar Battery Company, provided as Attachment 4 of this

record. Prior to building permit issuance, the applicant shall provide a statement of acknowledgement of this requirement and agree to follow all recommendations outlined in the Material Data Safety Sheet, including but not limited to the following:

- iii. **Engineering Controls.** Lead/acid batteries shall be stored with adequate ventilation. Room ventilation is required for batteries utilized for standby power generation. Batteries shall not be recharged in an unventilated, enclosed space.
- iv. **Work Practices.** Vent covers shall not be removed. All shipping and handling instructions applicable to the battery type shall be followed. Batteries shall not be double-stacked.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

**Mitigation Measure 8B: Adhere to Engineer Recommendations:** Pursuant to the Radio Frequency Report prepared by Hammett and Edison, Inc, dated March 31, 2016, provided as Attachment 3 of this record. Prior to building permit issuance, the applicant shall provide a statement of acknowledgement of this requirement and agree to follow all recommendations outlined in the Engineer's report, including but not limited to the following:

- vi. The roof access ladder and hatch shall be kept locked so that Verizon antennas are not accessible to unauthorized persons.
- vii. To prevent occupational exposures in excess of the FCC guidelines, appropriate Radio Frequency safety training, which shall include review of personal monitor use and lockout/tagout procedures, shall be provided to all authorized personnel who have access to the roof, including employees and contractors of Verizon and employees of the property owner. The applicant shall provide satisfactory evidence that this training is part of routine protocol for Verizon employees and shall provide written verification that this training has been provided to the property owner and the owner's applicable employees.
- viii. No access within 16-feet directly in front of the antennas themselves, such as might occur during maintenance activities, shall be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met.
- ix. Boundary lines shall be marked on the roof with blue paint as provided in Figure 3 of the Statement of Hammett and Edison, Inc., Consulting Engineers, prepared by William F. Hammet, RPE, and dated March 31, 2016.
- x. Explanatory signs shall be posted at the roof access ladder, the rood access hatch, and on the antenna enclosure, readily visible from any angle of approach to persons who might need to work within that distance.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

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## 9. HYDROLOGY / WATER QUALITY

### Existing Setting

There are no channels, swales or drainages on site. The site is developed with a three-story building and all improvements will take place on the rooftop.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Violate any water quality standards or waste discharge requirements?				✓	A,W,1
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?				✓	A,B,1
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?				✓	A,W,1
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?				✓	A,W,1
e. Create or contribute to runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				✓	A,W,1
f. Otherwise substantially degrade water quality?				✓	A,W,1
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓	A,P,W,1
h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?.				✓	A,P,W,1
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				✓	A,W,1
j. Create inundation by mudflow?				✓	A,W,1

### Impact Discussion

9a-c-f,j. The project will not result in additional impervious coverage because all equipment will go on the exiting rooftop or within an interior room. The proposed communication tower facility is unmanned and does not require regular water service. If water is needed for emergency service or maintenance, the property is already served by pipe-treated City water and will not impact groundwater sources. Therefore, *no impact* related to drainage, erosion, mudflow, and groundwater are anticipated to occur as a result of this project.

- 9g-i. There is no flood hazard or designated flood zone on the project site. Therefore, there would be *no impact* associated with placement of the cellular antenna and associated equipment on the building rooftop. Likewise, the proposed project would not result in direct or indirect impacts to a levee or dam, and would not substantially contribute to storm water flows near a floodplain.

**Mitigation:** None

## 10. LAND USE / PLANNING

### Existing Setting

The project site is located in the General Commercial General Plan land use designation and is zoned GB-HD, "General Business with an Historical combining district." The project site is the rooftop of an existing structure that includes varied uses including office space, restaurant, retail, and performing arts. Surrounding properties are zoned the same and are equally varied in their uses of retail, restaurant, counseling/therapy, residential, and professional office use.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in structures and/or land uses incompatible with existing land uses?		✓			A,R,1
b. The induction of growth or concentration of population?				✓	A,1
c. The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project?				✓	A,B,1
d. Result in the loss of open space?				✓	A,W
e. Substantially alter the present or planned land use of an area, or conflict with a general plan designation or zoning district?				✓	A,X,1
f. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?		✓			A,R,1
g. Disrupt or divide the physical arrangement of an established community, including a low-income or minority community?				✓	A,1

### Impact Discussion

- 10a, f. The subject property is currently developed with a three story building that includes office use, retail use, restaurant use, and a performing arts theatre. The building is served by pipe-treated City water and by City sewer. The General Business District is intended to provide for the sale of a variety of commodities, performance of services, tourist oriented sales, and other types of general enterprise. Public and quasi-public uses, defined as including public utility distribution facilities and communication equipment buildings, are permitted with a Conditional Use Permit.

The City Council has declared the area defined as the Historical District to be one of great historical interest and aesthetic value. The preservation of this area has been determined to

be essential to the economic and cultural life of the city. As such, all buildings within said district which are altered as to their exterior appearance within public view are required to do so in a manner which substantially conforms with the Motherlode type of architecture pursuant to Zoning Ordinance Section 17.68.070. Motherlode Architecture is defined as that type of architecture generally used in the Motherlode region of the state of California during the period from 1849 to 1900.

Zoning Ordinance Section 17.80.020 requires that satellite and antenna installation be subject to Architectural Review and encourages their placement to areas that are not generally visible from public streets. Whenever visible placement of such facilities is technically required in order to receive communication signals, the installation shall be screened in a manner approved during architectural review. Due to the sensitivity associated with development in the Historical District, staff brought the Architectural Review application before the Planning Commission in advance of the Use Permit application. The Architectural Review hearing spanned two meetings, January 21 and March 21, 2016, and originally included a Stealth, faux-brick enclosure to screen the equipment. The Planning Commission ultimately approved the Architectural Review application for the cellular equipment without the Stealth enclosures but did require that any visible equipment be painted gray to screen the equipment from public view. They also required that the four antennas proposed on the southeastern corner be separated by moving two antennas westerly in order to break up the visual massing. These aesthetic modifications are already incorporated as mitigation measures 1A and 1B, to mitigate previously discussed aesthetic impacts. Therefore, impacts related to land use policy inconsistency and land use incompatibility are considered *less than significant with mitigation*.

- 10b,c,e. The proposed project would not result in the creation of any new parcels or changes in the allowable residential density of the area. This project is proposing to establish a communication facility that would serve existing businesses, homes, and visiting tourists. Power is supplied by existing underground electrical lines that already serve the building. The facility will be unmanned and will not require sewer or water disposal requirements. Therefore, this project will have *no impact* on the surrounding area in terms of the induction of growth or the need for additional utility service infrastructure.
- 10d. This project will establish a communication facility that would serve existing businesses, homes, and visiting tourists in the vicinity of this tower site. Road access is via City-maintained streets and roof access is controlled by the property owner. The lease areas include that of an interior equipment room, a rooftop equipment area, and four antenna lease areas on the rooftop of an existing building. The lease areas are described in detail on the preliminary plans submitted with this project. There is no loss of open space because all equipment installation will occur within the existing building footprint. Therefore, this project will have *no impact* on the loss of open space.
- 10g. The proposed project is located within a General Business land use designation, and the surrounding parcels are similarly sized and commercially developed. The cellular facility will be entirely on the roof top of an existing building with the exception of some equipment located in an interior room and will not disrupt the physical arrangement of an established community. Therefore, the proposed project would have *no impact* related to division of an existing community.

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**Mitigation:** To prevent potentially adverse impacts related to inconsistency with adopted land use policy, the following mitigation measure shall be required and shall be shown on all improvement plans:

*See Mitigation Measures 1A and 1B*

## 11. MINERAL RESOURCES

### Existing Setting

The project site is mapped within an Important Mineralized Area (MRZ-2) designated by the State Department of Mines and Geology. The project site developed with an existing building and there is no longer any evidence of previous mining activity on the site.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			✓		A,W 1
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			✓		A,W, 1

### Impact Discussion

11a-b. Much of the downtown area of Nevada City is encompassed by an Important Mineral Area (MRZ-2) as designated by the State Department of Mines and Geology. The subject site is located near the edge, but within one of these MRZ-2 designations. Classification of MRZ areas is based on geologic and economic factors without regard to existing land use and land ownership. In order to consider the significance of a resource, a mineral deposit must be actively mined under a valid permit or meet specific marketability and threshold values set by the CA Department of Conservation, Division of Mines and Geology. Because the site is already developed with a three-story building the proposed addition of cellular equipment on top and within the existing footprint is not anticipated to have little to no impact on the marketability or value thresholds of any significant mineral deposits. Therefore the project is anticipated to have *a less than significant impact* on the loss of or access to mineral resources.

**Mitigation:** None

## 12. NOISE

### Existing Setting

The existing ambient noise setting in the project vicinity is dominated by road and pedestrian traffic noise along Commercial Street and North Pine Street. The project site is located within a General Business land use designation. Adjacent land uses are primarily commercial in nature. Some residential apartments existing in the upper story of surrounding buildings. The distances from the cellular site to the closest residence is estimated to be 50-feet.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Expose persons to or generate noise levels in excess of the County's adopted standards established in the General Plan and Land Use and			✓		A,Q,1

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Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
Development Code?					
b. Expose persons to or generate excessive ground borne vibration or ground borne noise levels (e.g., blasting)?			✓		A,1
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			✓		A,1
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓			A,1
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓	A, W
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓	A, W

### Impact Discussion

12a-c. Nevada City has noise standards established for various land uses, but are only applicable when a discretionary land use is proposed. The ongoing operation of the cellular site will not alter the existing ambient noise levels within the local area nor will it result in the generation of ground vibrations or permanent changes to existing character of the area. Back-up power is proposed to be supplied by batteries housed within the interior building lease space. No generator is proposed which would have the potential to affect noise patterns around the site. While noise impacts are not anticipate, if any activity associated with maintenance of the facility has the potential to generate noise, it is subject to Noise Control standards outlined in Section 8.20 of the City Municipal Code. These controls include nighttime decibel levels that do not exceed 60dBA for a receiving residential property and no more than 75 dBA measured 25-feet from the source during daytime activity. Daytime is defined as the period from 7am to 9pm. Because these noise control limits are required by the Code they are not incorporated as mitigation specific to this project proposal, but will be incorporated as a Condition of Approval. The anticipated noise impacts associated with the proposed rooftop cellular equipment is anticipated to be *less than significant*.

12d. Construction noise and any potential ground vibration during the construction activities associated with this site could impact nearby residents, the nearest of whom are located approximately 50-feet from the cellular site. This impact would be less than significant with mitigation as recommended in Mitigation Measure 12A below, where reasonable hours are established for the construction activities. After the completion of the tower construction project, the on-going operation of the facility will be less than significant as noted above. With Mitigation Measure 12A identified below, any construction noise impacts would be reduced to a level that is *less than significant with mitigation*.

12e-f. The proposed project is not located within 2 miles of any public or private airport. Furthermore, the facility will be unmanned. Therefore, the development of this cellular site would not expose

any future equipment maintenance employees or occupants to excessive airport noise levels. There would be *no impacts* related to airport noise.

### Mitigation

To reduce potentially significant impacts associated with construction noise, the following mitigation measure shall be noted on improvement plans:

**Mitigation Measure 12A: Limit construction activities to reduce noise impacts.** Hours of operation for construction activities shall be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday. These limited hours of operation shall be noted on grading and building plans, which shall be reviewed and approved by the Planning Department prior to permit issuance.

*Timing: Prior to building/grading permit issuance*

*Reporting: Agency approval of permits or plans*

*Responsible Agency: Planning Department*

## 13. POPULATION / HOUSING

### Existing Setting

The subject property is currently developed with a three-story commercial building. The project site is zoned GB-HD, General Business with an Historical combining district. The General Business District is intended to provide for the sale of a variety of commodities, performance of services, tourist oriented sales, and other types of general enterprise. Mixed-use residential use is encouraged to increase the area's population and reduce energy consumption. Both residential and commercial uses are permissible within this zoning designation.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓	A,1
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓	A,1
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓	A,1

### Impact Discussion

13a-c. The proposed project would continue the same general type of land use that is currently developed and designated for this site and would not result in population growth or displacement of housing or people. All infrastructure will take place on the rooftop of the existing building or within the interior room within the building. Therefore, the proposed project would have *no impact* related to the displacement of people or homes, or result in population growth.

**Mitigation:** None

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## 14. PUBLIC SERVICES

### Existing Setting

The following public services are provided to this site:

Fire: The Nevada City Fire Department provides fire protection services to this site.

Police: The Nevada City Police Department provides law enforcement services.

Sewer: Nevada City provides sewer service

Water: Nevada City provides water service

Schools: The Nevada City and Nevada Union High School districts provide school services to this site.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following the public services:					
1) Fire protection?			✓		I
2) Police protection?			✓		A
3) Schools?			✓		A
4) Parks?			✓		A
5) Other public services or facilities?			✓		A, B

### Impact Discussion

14a(1-4). The project is not anticipated to have significant impacts on fire protection services, law enforcement services, schools, or public recreational facilities because the project would not result in a permanent or substantial temporary increase in population that could impact these services. Therefore, this impact is considered *less than significant*.

14a(5). The project facility is unmanned and not anticipated to significantly impact public services. The project would not impact sewer services or water services because, as an unmanned facility, the project does not require these services. Existing electrical lines already serving the building will serve the cellular infrastructure. No comments have been received from PG&E regarding this project. Impacts to public utility services are anticipated to be *less than significant*.

**Mitigation:** None

## 15. RECREATION

### Existing Setting

There are no recreation facilities in the project vicinity. The project is located within the Nevada City Recreation benefit zone.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such				✓	A

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Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
that substantial physical deterioration of the facility would occur or be accelerated?					
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				✓	A
c. Conflict with established recreation uses of the area, including biking, equestrian and/or hiking trails?				✓	A

### Impact Discussion

15a-c. The project would not adversely impact recreation facilities because they are not on or near the project site. The facility is unmanned and will not create demand for recreational services nor will it increase the use of existing recreational facilities. Therefore, the proposed project would have *no impact* related to these issues.

**Mitigation:** None

## 16. TRANSPORTATION / CIRCULATION:

### Existing Setting

The project site is accessed from both Commercial Street and North Pine Street, both of which are City-maintained roadways. These local roadways are accessed from various other City-maintained roadways that stem from State Highway 49. Nevada City has many narrow, twisting, and dead-end streets which enhances the City's small-town character, but can present challenges related to circulation.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?			✓		B
b. Result in a need for private or public road maintenance, or new roads?			✓		B
c. Result in effects on existing parking facilities, or demand for new parking?				✓	A
d. Substantially increase hazards due to a design feature (e.g., a sharp curve or dangerous intersection) or incompatible uses (e.g., farm equipment)?				✓	B
e. Result in a substantial impact upon existing transit systems (e.g., bus service) or alteration of present patterns of circulation or movement of people and/or goods?			✓		B
f. Result in an alteration of waterborne, rail, or air traffic patterns or levels?				✓	B
g. Result in an increase in traffic hazards to motor				✓	B

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
vehicles, bicyclists, or pedestrians, including short-term construction and long-term operational traffic?					
h. Result in inadequate: Sight distance? Ingress/egress? General road capacity? Emergency access (4290 Standard)?			✓		B
i. Result in inconsistency with adopted policies supporting the provision of transit alternatives to automobile transportation on an equitable basis with roadway improvements , e.g. clustered development, commuter-oriented transit, bus turnouts, sidewalks, paths, and bicycle racks?				✓	B

### Impact Discussion

16a,b,e,h. The project is not expected to contribute to a substantial increase in traffic during the operational phase of the project because the facility is unmanned. With maintenance of the facility anticipated at only 1-2 times per month, the operational phase of the project will only require less than one added trip per day. This minor increase in trips is not anticipated to downgrade the existing Level of Service (LOS). However, the construction phase of the project may require cranes and other specialized equipment to facilitate the rooftop installation. Nevada City has many narrow, twisting, and dead-end streets, and those characteristics apply to those streets accessing this project site. Mitigation 16A is included to ensure that appropriate permitting and authorization is obtained from the City Public Work's Department for any vehicle parking or equipment staging areas within City right-of-way. Therefore, the proposed project would have impacts that are *less than significant with mitigation* related to an increase in traffic, traffic hazards, excess of level of service standards, and incompatible uses on project area roadways.

16c,d,g,i. The proposed project would not increase reliance on transit services as the site will only be accessed by employees driving company vehicles. Employee visits will be temporary and infrequent in nature. There is no private parking area designated for the project site and employees will rely on public parking at metered spaces along the street, or within the two public parking lots located in the downtown area. The Department of Public Works prefers that routine maintenance work be conducted during non-peak hours and not during any scheduled special event, such as Hot Summer Nights, Victorian Christmas, parades, etc. (Mitigation Measure 16B) With this mitigation in place impacts related to adequate parking and circulation are anticipated to be *less than significant with mitigation*.

16f. The project would not result in an alteration of waterborne, rail, or air traffic patterns or levels. Therefore, there would be *no impact* related to this issue.

### Mitigation:

To prevent potentially adverse impacts to environmental hazards or hazardous material associated with this project, the following mitigation measure shall be required and shall be shown on all improvement plans:

**Mitigation Measure 16A: Obtain appropriate right-of-way permitting.** Any equipment parking or staging areas within City right-of-way or on public property that is necessary during the operational or construction phases of the project, shall obtain all appropriate permits through

the Nevada City Engineering/Public Works Department.. Signed acknowledgement of this requirement shall be provided to the City Engineering/Public Works Department prior to building permit issuance.

**Timing:** *Prior to building permit issuance*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Nevada City Engineering/Public Works Department*

**Mitigation Measure 16B: Non-Peak Hour Maintenance.** Any routine maintenance work associated with the cellular equipment shall be conducted during non-peak hours so that parking is not taken from business, and tourist use. Non-peak hours are between 9am and 3pm, Tuesday, Wednesday, and Thursday, and not during any scheduled special event. Special event schedules can be obtained by accessing the Nevada City Chamber of Commerce website. Emergency service work may occur at any time provided appropriate notification is given to the Public Works Department to ensure adequate safety precautions are in place. Signed acknowledgement of this requirement shall be provided to the City Engineering/Public Works Department prior to building permit issuance.

**Timing:** *Prior to building permit issuance*

**Reporting:** *Agency approval of permits or plans*

**Responsible Agency:** *Nevada City Engineering/ Public Works Department*

## 17. UTILITIES / SERVICE SYSTEMS

### Existing Setting

The site is currently served by City water for domestic water supply and by City sewer for its sewage disposal requirements. Pacific Gas and Electric provides electrical power to this site.

Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Result in a need for the extension of electrical power or natural gas?				✓	A,1
b. Require the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓	B,1
c. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓	A
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				✓	B
e. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓	B,1
f. Be served by a landfill or transfer station with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				✓	A,1
g. Comply with federal, state, and local statutes and regulations related to solid waste?		✓			A,1,4

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May 27, 2016

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Would the proposed project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
h. Require a need for the extension of communication systems?				✓	A,1

### Impact Discussion

17a-f,h. The proposed project would utilize existing utility services, primarily electrical service provided by PG&E, already available to the building. The project would not require the extension or expansion of any new utility service that is not currently available to this area. This project would result in *no impact* on these existing public utilities.

17g. The applicant is proposing to use a lead acid battery to serve as back-up power to the cellular facility in the event of a power outage. The Material Data Safety sheet outlines method for proper disposal of the batteries. These disposal methods are outlined in Mitigation Measure 17A. With incorporation of this measure, impacts related to compliance of solid waste disposal regulations will be *less than significant with mitigation*.

### Mitigation:

**Mitigation Measure 17A: Adhere to battery disposal methods outlined on the Material Data Safety Sheet:** Disposal of the battery shall be conducted in a manner that complies with the Material Safety Data Sheet provided by NorthStar Battery Company, provided as Attachment 4 of this record. Prior to building permit issuance, the applicant shall provide a statement of acknowledgement of this requirement and agree to follow all recommendations outlined in the Material Data Safety Sheet, including but not limited to the following:

- i. Battery electrolyte (acid): Neutralize, collect residue, and place in a drum or suitable container. Dispose of as hazardous waste.
- ii. Do not flush lead contaminated acid to sewer
- iii. In case of accidental spill, utilize persona; protective equipment, i.e., face shield rubber apron, rubber safety shoes
- iv. Batteries: Send to lead smelter for reclamation following applicable Federal, State, and local regulations. Product can be recycled along with automotive (SLI lead batteries.
- v. Battery may be returned, shipping pre-paid, to the manufacturer or any distributor for recycling. Information can be obtained at [www.northstarbattery.com/](http://www.northstarbattery.com/)

## 18. MANDATORY FINDINGS OF SIGNIFICANT ENVIRONMENTAL EFFECT

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish		✓			A,B,G,R

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California's history or prehistory?					
b. Does the project have environmental effects that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of the project are considered when viewed in connection with the effects of past, current, and probable future projects.)			✓		A
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?			✓		A
d. Does the project require the discussion and evaluation of a range of reasonable alternatives, which could feasibly attain the basic objectives of the project?			✓		A

### Impact Discussion

- 18a. Compliance with existing federal, state, and local regulations, as well as the mitigation measures identified in this Initial Study, would reduce all potential impacts of the proposed project to a less-than-significant level, including potential impacts to aesthetics, traffic contributions and traffic circulation, and greenhouse gas emissions. Therefore, the proposed project would not have the potential to substantially degrade the quality of the environment related to those resources, and the impact is *less than significant with mitigation*.
- 18b. A project’s cumulative impacts are considered significant when the incremental effects of the project are “cumulatively considerable,” meaning that the project’s incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. However, because most of this project’s impacts would be short-term construction impacts that are not anticipated to be substantially adverse with mitigation, the proposed project is not anticipated to considerably contribute to cumulative impacts. Therefore, the proposed project would have *less than significant* environmental effects that are individually limited but cumulatively considerable.
- 18c. Project construction and grading could result in temporary minor disturbance to human beings through local noise levels being minimally increased for a short period of time. However, with the required compliance with existing federal, state, and local regulations, and with the recommended mitigation offered to minimize these potential noise impacts, the proposed project would have a *less than significant impact* on human beings as a result of project approval.
- 18d. The basic objective of the project is to construct a new communications tower for improved service to downtown Nevada City and to relieve existing antennas at Banner Mountain and at the County Government Center, especially during special events that attract a high number of tourists. Construction would occur on a developed parcel and has been sited and camouflaged to avoid significant aesthetic impacts. The project does not require the discussion of feasible alternatives to this siting that would achieve the same objective due to the minimal impact of this

project proposal. Therefore, impacts associated with this project's feasibility and potential alternatives are considered *less than significant*.

**RECOMMENDATION OF THE PROJECT PLANNER:**

On the basis of this initial evaluation:

\_\_\_\_\_ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

  X   I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

\_\_\_\_\_ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

\_\_\_\_\_ I find that the proposed project MAY have a "potentially significant impact" or a "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

\_\_\_\_\_ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Amy Wolfson, City Planner

\_\_\_\_\_  
Date

**APPENDIX A****REFERENCE SOURCES**

- A. Planning Department
- B. Department of Engineering/ Public Works
- C. Environmental Health Department
- D. Building Department
- E. Nevada Irrigation District
- F. Finance/Administration Department
- G. Northern Sierra Air Quality Management District
- H. Caltrans
- I. Nevada City Fire Department
- J. Regional Water Quality Control Board (*Central Valley Region*)
- K. North Central Information Service, Anthropology Department, California State University, Sacramento
- L. California Department of Fish & Game
- M. California Department of Conservation, Farmland Mapping and Monitoring Program
- N. California Department of Forestry and Fire Protection (Calfire)
- O. Northern Sierra Air Quality Management District
- P. Federal Emergency Management Agency, *Flood Insurance Rate Maps*, as updated
- Q. Nevada City Subdivision Regulations, Chapter 16 of the City Municipal Code
- R. Nevada City Zoning Regulations, Chapter 17 of the City Municipal Code (adopted December 27, 1973 as amended)
- S. Nevada City Tree Preservation Regulations, Chapter 18 of the City Municipal Code
- T. Nevada City Design Guidelines, adopted 1990
- U. Nevada City Sanborn Map, 1898
- V. Nevada City National Register Application, 1985
- W. Nevada County Geographic Information System Mapping ([mynevadacounty.com](http://mynevadacounty.com))
- X. Nevada City General Plan
- Y. Nevada City Official Map, H. S. Bradley, Surveyor, 1869
- Z. CA Dept. of Toxic Substance Control, "Cortese List" and the provisions in Government Code Section 65962.5

**ATTACHMENTS:**

- 1. Preliminary Plans, Verizon Wireless, revised date March 30, 2016
- 2. Radio Frequency Report prepared by Hammett and Edison, Inc, consulting engineers for Verizon Wireless, dated May 3, 2016
- 3. Northstar Battery, Material Data Safety Sheet

# PROJECT : Historic Nevada City - New Build

109 NORTH PINE ST  
NEVADA CITY, CA 95959

LOCATION NO: 278749



PREPARED FOR



295 Parkshore Drive  
Folsom, California 94630

Vendor:



Project Address:

Architect:



PROJECT NO: 20130974364

LOCATION NO: 278749

DRAWN BY: H.L.H.

CHECKED BY: B.K.W.

REV	DATE	DESCRIPTION
G	03/30/16	100% ZD Rev 4
F	03/28/16	100% ZD Rev 3
E	03/04/16	100% ZD Rev 2
D	02/08/16	100% ZD Rev 1
C	06/15/15	100% ZD Submittal
B	01/14/15	95% ZD Submittal
A	12/10/14	90% ZD Submittal

Licensor:

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.

Issued For:

03/30/16  
100% ZD Submittal

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

A-0

## PROJECT DESCRIPTION

- NEW SITE BUILD UNMANNED TELECOMMUNICATIONS FACILITY TO BE LOCATED INSIDE AND ON TOP OF AN EXISTING STRUCTURE:
- (P) (3) STEALTH CHIMNEYS INSTALLED ON (E) ROOF DECK
  - ADD (2) PANEL ANTENNAS PER SECTOR (4 SECTORS, 8 ANTENNAS TOTAL)
  - ADD (3) RRUS WITH A2 MODULE OR RRUS 32 BEHIND PER SECTOR, FOR A TOTAL OF (12) MOUNTED BEHIND ANTENNAS.
  - ADD (4) VERIZON WIRELESS EQUIPMENT CABINETS IN (P) EQUIPMENT ROOM
  - ADD (P) METER, DISCONNECT, & TELCO BOARD IN (P) EQUIPMENT ROOM
  - ADD (4) SURGE SUPPRESSORS, (2) MOUNTED AT (P) ANTENNAS, (2) INSIDE (P) EQUIPMENT ROOM
  - ADD (2) HYBRID FIBER CABLES
  - PLACE (2) GPS ANTENNAS MOUNTED BEHIND (P) FRP STEALTH SCREEN

## PROJECT INFORMATION

**Property Information:**  
Site Name: HISTORIC NEVADA CITY  
Site Number: 278749  
Search Ring: HISTORIC NEVADA CITY  
Site Address: 109 NORTH PINE ST  
NEVADA CITY, CA 95959  
A.P.N. Number: 05-397-01-000  
Zoning: COMMERCIAL - HISTORIC DISTRICT  
Current Use: A-3, B-1  
Jurisdiction: NEVADA CITY

**Property Owner:**  
COUNTY OF NEVADA  
109 NORTH PINE STREET  
NEVADA CITY, CA 95959

**Power Agency:**  
PG&E  
77 Beale Street, 24th Floor  
San Francisco, CA 94105  
ph: (415) 973-8200

**Telephone Agency:**  
AT&T California  
525 MARKET STREET SAN FRANCISCO,  
CA 94105  
ph: (800) 310-2355

## PROJECT TEAM

**Construction Mgr.:**  
EPIC WIRELESS GROUP, INC.  
8700 AUBURN FOLSOM ROAD, SUITE 400  
GRANITE BAY, CA 95746  
contact: PETE MANAS  
email: pete.manas@epicwireless.net  
ph: (530) 383-5957

**Architect / Engineer:**  
BORGES ARCHITECTURAL GROUP, INC.  
1478 STONE POINT DRIVE, SUITE 350  
ROSEVILLE, CA 95661  
contact: BRIAN K. WINSLOW  
email: brian@borgesarch.com  
ph: (916) 782-7200

**Agent for Applicant, Planning and Zoning Mgr:**  
EPIC WIRELESS GROUP, INC.  
8700 AUBURN FOLSOM ROAD, SUITE 400  
GRANITE BAY, CA 95746  
contact: MARK LOBAUGH  
email: mark.lobaugh@epicwireless.net  
ph: (916) 203-4067

**Structural Engineer:**  
NORM SCHEEL STRUCTURAL ENGINEER  
5022 SUNRISE BLVD  
FAIR OAKS, CA 95628  
contact: NORM SCHEEL  
email: norm@nsse.com  
ph: (916) 536-9585

**Survey:**  
Geil Engineering  
1226 High Street  
Auburn, CA 95603  
contact: NEIL ROHDE  
ph: (530) 885-0426

**RF Engineer:**  
VERIZON WIRELESS  
255 PARKSHORE DRIVE  
FOLSOM, CA 95630  
contact: ERIC MALANA  
email: eric.malana@verizonwireless.com  
ph: (916) 357-2586

## SHEET INDEX

A-0	TITLE SHEET	F
COA-1	CONDITION OF APPROVAL	G
C-1	SITE SURVEY	F
A-1	OVERALL SITE PLAN	F
A-2.1	FLOOR PLANS	F
A-2.2	ENLARGED ROOF PLAN	F
A-3	EQUIPMENT & ANTENNA LAYOUTS	F
A-4.1	SITE ELEVATIONS	F
A-4.2	SITE ELEVATIONS	F

## REV

## CODE COMPLIANCE

- ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
- 2013 CALIFORNIA ADMINISTRATIVE CODE, CHAPTER 10, PART 1, TITLE 24 CODE OF REGULATIONS
  - 2013 CALIFORNIA BUILDING CODE (CBC) WITH CALIFORNIA AMENDMENTS, BASED ON THE 2012 IBC (PART 2, VOL 1-2)
  - 2013 CALIFORNIA RESIDENTIAL CODE (CRC) WITH APPENDIX H, PATIO COVERS, BASED ON THE 2012 IRC (PART 2.5)
  - 2013 CALIFORNIA GREEN BUILDINGS STANDARDS CODE (CALGREEN) (PART 11) [AFFECTED ENERGY PROVISIONS ONLY]
  - 2013 CALIFORNIA FIRE CODE (CFC), BASED ON THE 2012 IFC, WITH CALIFORNIA AMENDMENTS (PART 9)
  - 2013 CALIFORNIA MECHANICAL CODE (CMC), BASED ON THE 2012 UMC (PART 4)
  - 2013 CALIFORNIA PLUMBING CODE (CPC), BASED ON THE 2012 UPC (PART 5)
  - 2013 CALIFORNIA ELECTRICAL CODE (CEC) WITH CALIFORNIA AMENDMENTS, BASED ON THE 2011 NEC (PART 3)
  - 2013 CALIFORNIA ENERGY CODE (CEC)
  - ANSI / EIA-TIA-222-G
  - 2012 NFPA 101, LIFE SAFETY CODE
  - 2013 NFPA 72, NATIONAL FIRE ALARM CODE
  - 2013 NFPA 13, FIRE SPRINKLER CODE

## VICINITY MAP



## DIRECTIONS FROM VERIZON WIRELESS

DIRECTIONS FROM VERIZON WIRELESS'S OFFICE AT 255 PARKSHORE DRIVE, FOLSOM, CA

- Head northeast on Parkshore Dr toward Coolidge Dr
- Turn left onto Coolidge Dr
- Take the 3rd left onto Glenn Dr
- Turn right onto Folsom Blvd
- Continue onto Folsom-Auburn Rd
- Continue onto Auburn Folsom Rd
- Turn left onto Cavitt Stallman Rd
- Take the 1st right onto Laird Rd
- Turn right onto Horseshoe Bar Rd
- Take the 1st left to stay on Horseshoe Bar Rd
- Turn right to merge onto I-80 E
- Merge onto I-80 E
- Take the CA-49 exit toward Grass Valley/Placerville
- Turn left onto CA-193 W/CA-49 N/Grass Valley Hwy
- Take the Broad Street exit
- Turn left onto Broad St
- Take the 2nd right onto N Pine St

Destination will be on the left

## SPECIAL INSPECTIONS

POST INSTALLED CONCRETE WEDGE ANCHORS

## OCCUPANCY AND CONSTRUCTION TYPE

OCCUPANCY : U (UNMANNED)  
CONSTRUCTION TYPE: V-B  
**HANDICAP REQUIREMENTS**  
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ACCESSIBILITY ACCESS AND REQUIREMENTS ARE NOT REQUIRED, IN ACCORDANCE WITH CALIFORNIA BUILDING CODE, CODE OF REGULATIONS, TITLE 24, PART 2, VOLUME 1, CHAPTER 11B, DIVISION 2, SECTION 11B-203.5

## VERIZON SIGNATURE BLOCK

DISCIPLINE:	SIGNATURE:	DATE:
SITE ACQUISITION:		
CONSTRUCTION:		
RF:		
MICROWAVE:		
TELCO:		
EQUIPMENT:		
PROJECT ADMINISTRATOR:		
WO ADMINISTRATOR:		

## GENERAL CONTRACTOR NOTES

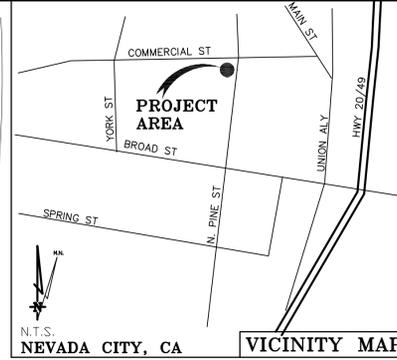
DO NOT SCALE DRAWINGS  
THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE AT 24" x 36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOBSITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME.





DATE OF SURVEY: 11-25-14  
 SURVEYED BY OR UNDER DIRECTION OF: KENNETH D. GEIL, R.C.E. 14803  
 LOCATED IN THE COUNTY OF NEVADA, 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 2.57' FROM ELEVATIONS SHOWN.  
 CONTOUR INTERVAL: N/A  
 CONTRACTOR IS RESPONSIBLE TO VERIFY LEASE AREA PRIOR TO CONSTRUCTION.  
 ASSESSOR'S PARCEL NUMBER: 05-397-17-000 & 05-570-04-000

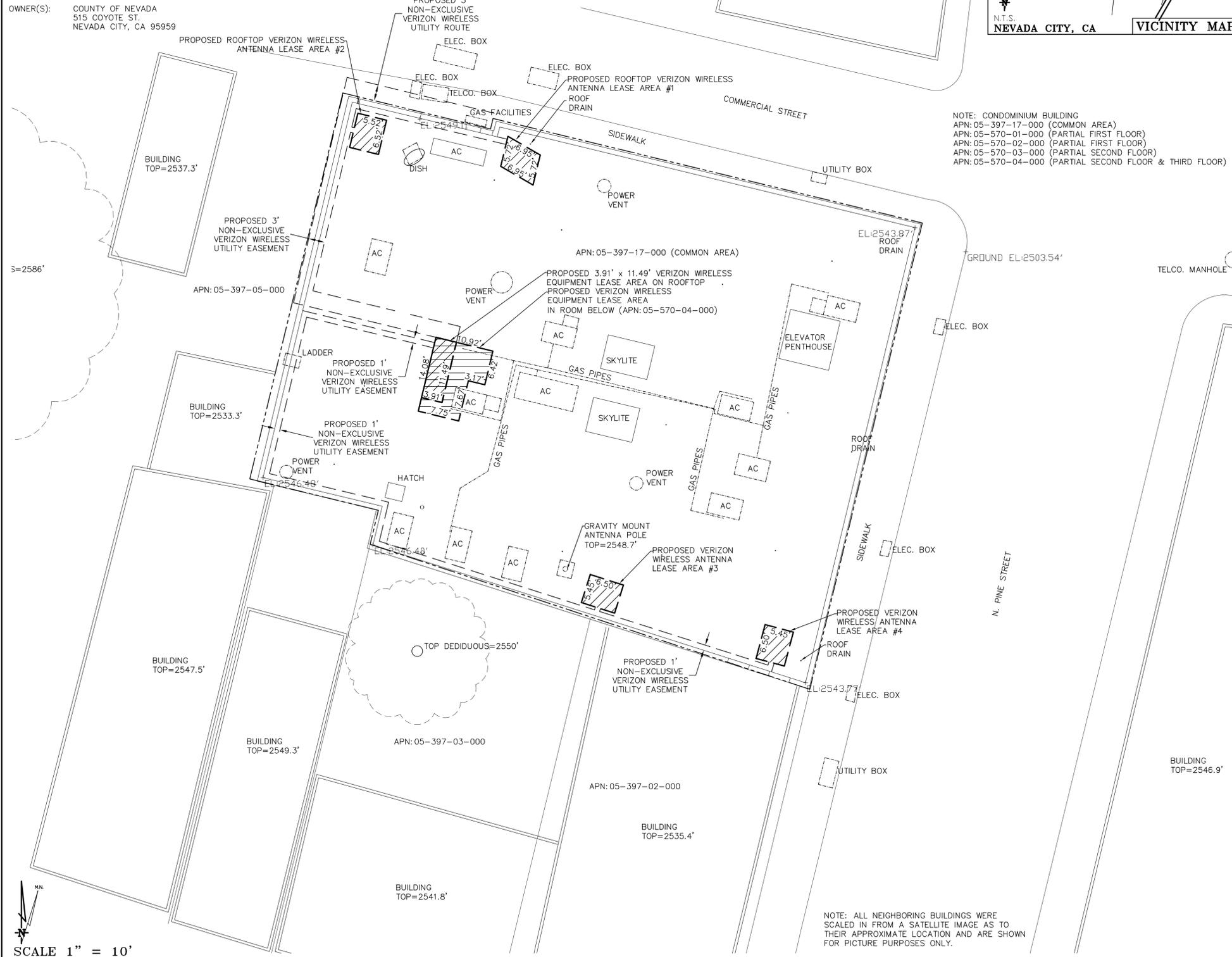
THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OF SERVICE, ARE THE EXCLUSIVE PROPERTY OF GEIL ENGINEERING AND THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE AND CARRIER FOR WHICH THEY ARE PREPARED. REUSE, REPRODUCTION OR PUBLICATION BY ANY METHOD, IN WHOLE OR IN PART, IS PROHIBITED EXCEPT BY WRITTEN PERMISSION FROM GEIL ENGINEERING TITLE TO THESE PLANS AND/OR SPECIFICATIONS SHALL REMAIN WITH GEIL ENGINEERING WITHOUT PREJUDICE AND VISUAL CONTACT WITH THEM SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.  
 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.



**Lease Area Description**  
 All that certain lease area being a portion of that certain Parcel 1 as is shown on that certain Parcel Map filed for record at Book 21 of Parcel Maps at Page 16, Nevada County Records, and being located in the City of Nevada City, County of Nevada, State of California, and being more particularly described as follows:  
**EQUIPMENT LEASE AREA:**  
 Beginning at a point in the existing building located on the above referenced Parcel 1 from which the Northeast corner of Lot 26, being the Northeast corner of said building per the above referenced parcel map, bears South 75°42'41" West 89.63 feet; thence from said point of beginning North 76°26'49" West 3.91 feet; thence South 13°33'11" West 11.49 feet; thence South 76°26'49" East 3.91 feet; thence North 13°33'11" East 11.49 feet to the Point of Beginning.  
**ROOFTOP EQUIPMENT LEASE AREA:**  
 Beginning at a point on the roof of the existing building located on the above referenced Parcel 1 from which the Northeast corner of Lot 26, being the Northeast corner of said building per the above referenced parcel map, bears South 73°27'50" West 83.50 feet; thence from said point of beginning North 76°26'49" West 10.92 feet; thence South 13°33'11" West 14.08 feet; thence South 76°26'49" East 7.75 feet; thence North 13°33'11" East 7.67 feet; thence South 76°26'49" East 3.17 feet; thence North 13°33'11" East 6.42 feet to the Point of Beginning.  
**ANTENNA LEASE AREA #1:**  
 Beginning at a point of the roof of the existing building located on the above referenced Parcel 1 from which the Northeast corner of Lot 26, being the Northeast corner of said building per the above referenced parcel map, bears South 78°14'14" East 78.90 feet; thence from said point of beginning South 60°03'55" East 6.95 feet; thence South 13°33'11" West 5.72 feet; thence North 60°03'55" West 6.95 feet; thence North 13°33'11" East 5.72 feet to the Point of Beginning.  
**ANTENNA LEASE AREA #2:**  
 Beginning at a point of the roof of the existing building located on the above referenced Parcel 1 from which the Northeast corner of Lot 26, being the Northeast corner of said building per the above referenced parcel map, bears South 79°02'49" East 107.18 feet; thence from said point of beginning South 76°26'49" East 5.52 feet; thence South 13°33'11" West 6.52 feet; thence North 76°26'49" West 5.52 feet; thence North 13°33'11" East 6.52 feet to the Point of Beginning.  
**ANTENNA LEASE AREA #3:**  
 Beginning at a point of the roof of the existing building located on the above referenced Parcel 1 from which the Northeast corner of Lot 26, being the Northeast corner of said building per the above referenced parcel map, bears North 43°30'52" East 89.91 feet; thence from said point of beginning South 72°24'08" East 6.50 feet; thence South 17°35'52" West 5.45 feet; thence North 72°24'08" West 6.50 feet; thence North 17°35'52" East 5.45 feet to the Point of Beginning.  
**ANTENNA LEASE AREA #4:**  
 Beginning at a point of the roof of the existing building located on the above referenced Parcel 1 from which the Northeast corner of Lot 26, being the Northeast corner of said building per the above referenced parcel map, bears North 21°28'28" East 80.04 feet; thence from said point of beginning South 72°24'08" East 5.45 feet; thence South 17°35'52" West 6.50 feet; thence North 72°24'08" West 5.45 feet; thence North 17°35'52" East 6.50 feet to the Point of Beginning.  
 Together with a non-exclusive easement for access purposes as is necessary from the above described lease areas and running thence in, on, under, and through the existing building and the underlying parcel to the public right of way more commonly known as North Pine Street.  
 Also together with a non-exclusive easement for utility purposes three feet in width the centerline of which is described as follows: beginning at a point which bears North 13°33'11" East 1.50 feet from the Northeast corner of the above described equipment lease area and running thence North 76°26'49" West 29.73 feet; thence North 13°25'25" East 38.8 feet more or less to the public right of way.  
 Also together with a non-exclusive easement for utility purposes from the above described Equipment Lease Area and running thence in, on, over, and through the underlying building as is necessary to the above described lease areas.

DEPT	APPROVED	DATE
ARC		
RE		
RF		
INT		
EE/IN		
OPS		
EE/OUT		

Surveyor: **GEIL ENGINEERING**  
 ENGINEERING • SURVEYING • PLANNING  
 1228 HIGH STREET  
 AUBURN, CALIFORNIA 95603  
 Phone: (530) 885-0426 Fax: (530) 823-1309



NOTE: CONDOMINIUM BUILDING  
 APN: 05-397-17-000 (COMMON AREA)  
 APN: 05-570-01-000 (PARTIAL FIRST FLOOR)  
 APN: 05-570-02-000 (PARTIAL FIRST FLOOR)  
 APN: 05-570-03-000 (PARTIAL SECOND FLOOR)  
 APN: 05-570-04-000 (PARTIAL SECOND FLOOR & THIRD FLOOR)

3=2586'

SCALE 1" = 10'



**Geil Engineering**  
 Engineering • Surveying • Planning  
 1228 High Street  
 Auburn, California 95603-5015  
 Phone: (530) 885-0426 • Fax: (530) 823-1309

**Verizon Wireless**  
 Project Name: HISTORIC NEVADA CITY  
 Project Site Location: 109 N. Pine Street  
 Nevada City, CA 95959  
 Nevada County

Date of Observation: 11-25-14  
 Equipment/Procedure Used to Obtain Coordinates: Trimble Pathfinder Pro XL post processed with Pathfinder Office software.  
 Type of Antenna Mount: Proposed Rooftop

Coordinates (Antenna Lease Area #1)  
 Latitude: N 39° 15' 47.46" (NAD83) N 39° 15' 47.84" (NAD27)  
 Longitude: W 121° 01' 08.14" (NAD83) W 121° 01' 04.32" (NAD27)

Coordinates (Antenna Lease Area #2)  
 Latitude: N 39° 15' 47.51" (NAD83) N 39° 15' 47.89" (NAD27)  
 Longitude: W 121° 01' 08.51" (NAD83) W 121° 01' 04.70" (NAD27)

Coordinates (Antenna Lease Area #3)  
 Latitude: N 39° 15' 46.70" (NAD83) N 39° 15' 47.08" (NAD27)  
 Longitude: W 121° 01' 07.94" (NAD83) W 121° 01' 04.12" (NAD27)

Coordinates (Antenna Lease Area #4)  
 Latitude: N 39° 15' 46.61" (NAD83) N 39° 15' 46.99" (NAD27)  
 Longitude: W 121° 01' 07.53" (NAD83) W 121° 01' 03.72" (NAD27)

ELEVATION of Ground at Structure (NAVD88) 2503.5' AMSL  
 STRUCTURE HEIGHT: (Top Parapet) 40.3' AGL  
 OVERALL HEIGHT: (Top Vent Pipe) 46.6' 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.

**verizon wireless**

**HISTORIC NEVADA CITY**  
 109 N. PINE STREET  
 NEVADA CITY, CA 95959  
 PLOT PLAN AND SITE TOPOGRAPHY

REVISIONS	PRELIMINARY DRAWING	APN'S ADDED
REV 11-26-14 N. RCHDE	LEASE AREA PLACED	LEASE AREA MOD.
REV 01-09-15 N. RCHDE	LEASE AREA MOD.	TITLE WORK UPDATE
REV 03-08-15 N. RCHDE	LEASE AREA MOD.	LEASE AREA MOD.
REV 03-16-15 N. RCHDE	LEASE AREA MOD.	LEASE AREA MOD.
REV 05-08-15 N. RCHDE	LEASE AREA MOD.	LEASE AREA MOD.

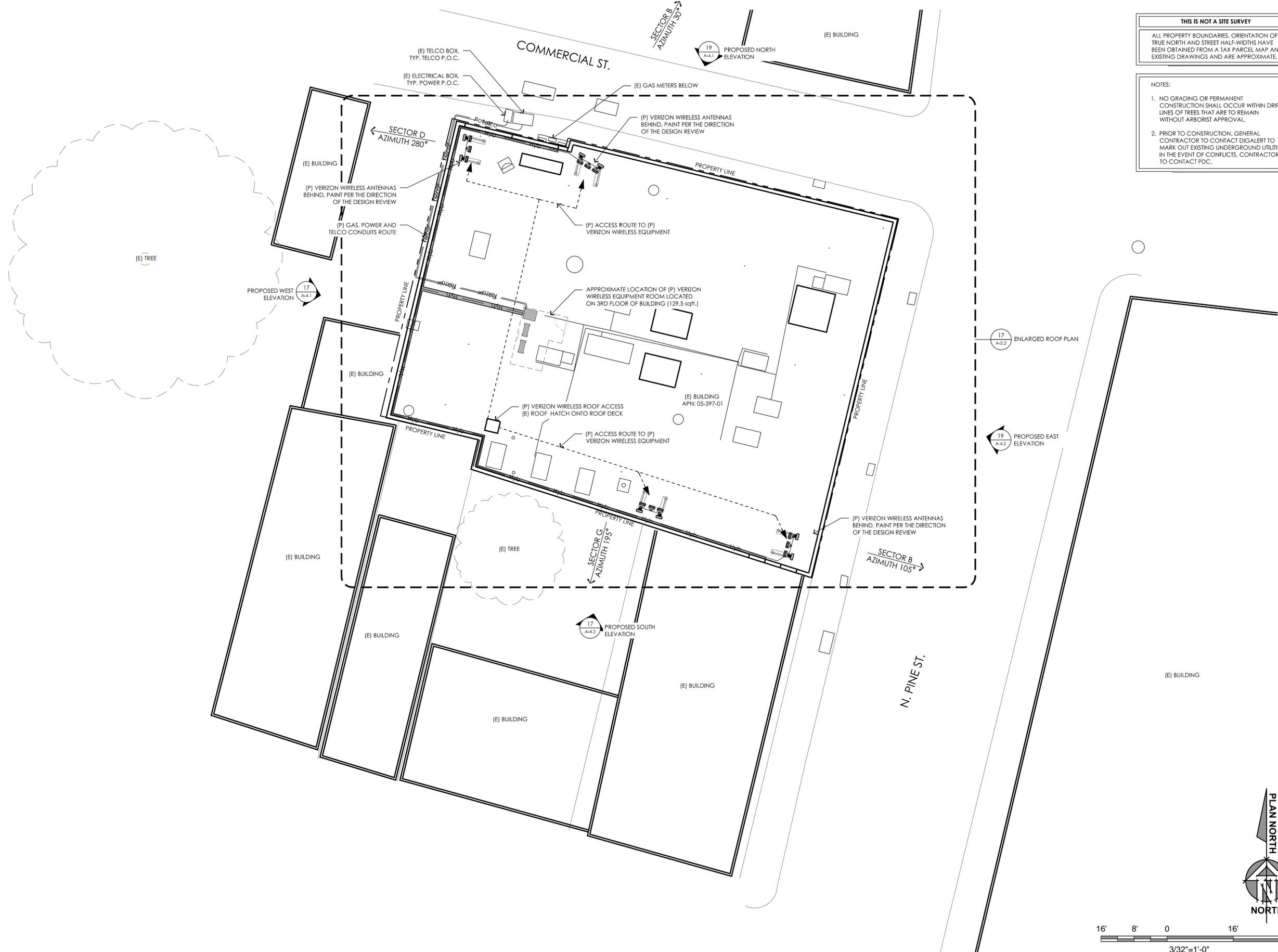
Sheet: **C-1**

OVERALL SITE PLAN

Kenneth D. Geil California RCE 14803

**THIS IS NOT A SITE SURVEY**  
 ALL PROPERTY BOUNDARIES, ORIENTATION OF TRUE NORTH AND STREET HALF-WIDTHS HAVE BEEN OBTAINED FROM A TAX PARCEL MAP AND EXISTING DRAWINGS AND ARE APPROXIMATE.

**NOTES:**  
 1. NO GRADING OR PERMANENT CONSTRUCTION SHALL OCCUR WITHIN DRIP LINES OF TREES THAT ARE TO REMAIN WITHOUT ARBORIST APPROVAL.  
 2. PRIOR TO CONSTRUCTION, GENERAL CONTRACTOR TO CONTACT DIGALERT TO MARK OUT EXISTING UNDERGROUND UTILITIES. IN THE EVENT OF CONFLICTS, CONTRACTOR TO CONTACT PDC.



PREPARED FOR  
**verizon**  
 295 Parkshore Drive  
 Folsom, California 94630

Vendor:  
  
**EPIC WIRELESS GROUP INC.**  
 8700 Auburn Folsom Road, Suite 400  
 Granite Bay, California 95746

Project Address:

Architect:  
  
**Borges**  
 ARCHITECTURAL GROUP  
 ARCHITECTURE  
 PLANNING  
 INTERIORS  
1401 STONE HOLLOW DRIVE SUITE 300  
 ROSELAND CA 94668  
 916 962 1200  
 2174 775 2017  
 BORGESARCH.COM

PROJECT NO: 20130974364  
 LOCATION NO: 278749  
 DRAWN BY: H.L.H.  
 CHECKED BY: B.K.W.

REV	DATE	DESCRIPTION
G	03/30/16	100% ZD Rev 4
F	03/28/16	100% ZD Rev 3
E	03/04/16	100% ZD Rev 2
D	02/08/16	100% ZD Rev 1
C	06/15/15	100% ZD Submittal
B	01/14/15	95% ZD Submittal
A	12/10/14	90% ZD Submittal

Licensor:  
 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.

Issued For:  
**03/30/16**  
 100% ZD Submittal

SHEET TITLE:  
**OVERALL SITE PLAN**

SHEET NUMBER:  
**A-1**











**MATERIAL SAFETY DATA SHEET****LEAD ACID BATTERY****I. PRODUCT IDENTIFICATION:**

- A. Chemical/Trade Name (per on label): Lead Acid Battery
- B. Chemical Family/Classification: Electrical Storage Battery
- C. Manufacturer's Name & Address: NorthStar Battery Co. LLC  
4000 Continental Way  
Springfield, MO 65803
- D. Contact: U.S. - NSB Safety and Health Department  
Phone: (417) 575-8219  
Fax: (417) 575-8250  
Aust. NorthStar Battery Pty Ltd  
Phone: 02 9888 1998
- E. Emergency Information: Chemtrec (US, Canada & Mexico)  
Phone: (800) 424-9300  
Chemtrec (Outside US, Canada & Mexico)  
Phone: +1 (703) 527-3887 (call collect)
- F. Non-Hazardous Classification  
Per US DOT, Northstar Battery Company products, submitted and tested by Wyle Labs, have been deemed to meet all requirements as specified in 49CFR§ 173.159 (d) for **exception** as hazardous material classification.

**II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION:**

NORTH AMERICAN INFORMATION:			Air Exposure Limits (ug/m <sup>3</sup> )		
Materials	Approx % by Wt.*	CAS Number	OSHA	AGGIH (TLV)	NIOSH
Lead	50	7439-92-1	50	150	100
Lead Oxide	20	1309-60-0	50	150	100
Electrolyte (Sulfuric Acid) 1.400 sg	17	7664-93-9	1	1	1

\*Please reference Appendix I (SES-544-16) for detailed product data.

AUSTRALIAN INFORMATION			
Chemical or Material	Australian Dangerous Goods Classification	Hazardous Substance Classification as per NOHSC Australia	Australian Poison Schedule Classification
Non-Spillable Lead Acid Battery	Exempt under A67 (NATA Identification Guide) and Clause 238 of the Australian Dangerous Goods Code, Appendix 3	R34/R41	Schedule 6 Agricultural, Domestic and Industrial Substances

Note: Product contains toxic chemicals that are subject to the reporting requirements of Section 302 and 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

**MATERIAL SAFETY DATA SHEET*****LEAD ACID BATTERY*****III. PHYSICAL DATA:**

Material is solid at normal temperatures.

**A. Electrolyte:**

- |    |                        |                                  |
|----|------------------------|----------------------------------|
| 1. | Specific Gravity:      | 1.250 – 1.350 kg/dm <sup>3</sup> |
| 2. | Boiling Point:         | 110°C (230°F)                    |
| 3. | % Volatiles By Weight: | Not Applicable                   |
| 4. | Solubility in Water:   | 100%                             |
| 5. | Melting Point Lead:    | 327°C (621°F)                    |
| 6. | Vapor Density          | Not Determined                   |

**B. Appearance and Odor**

1. Electrolyte is a clear liquid with an acidic odor.

**IV. HEALTH HAZARD INFORMATION:**

Under normal operating conditions, because the battery is “non-spillable”, the internal material will not be hazardous to your health. Only internally exposed material during production or case breakage or extreme heat (fire) may be hazardous to your health.

**A. Routes of Entry:**

1. Inhalation: Acid mist from formation process may cause respiratory irritation.
2. Skin Contact: Acid may cause irritation, burns and/or ulceration.
3. Skin Absorption Not a significant route of entry.
4. Eye Contact: Acid may cause sever irritation, burns, cornea damage and/or blindness.
5. Ingestion: Acid may cause irritation of mouth, throat, esophagus and stomach.

**B. Signs and Symptoms of Over Exposure:**

1. Acute Effects: Over exposure to lead may lead to loss of appetite, constipation, sleeplessness and fatigue. Over exposure to acid may lead to skin irritation, corneal damage of the eyes and upper respiratory system.
2. Chronic Effects: Lead and its components may cause damage to kidneys and nervous system. Acid and its components may cause lung damage and pulmonary conditions.
3. Potential to Cause Cancer: The International Agency for Research on Cancer has classified "strong inorganic acid mist containing sulfuric acid" as a Category 1 carcinogen, a substance that is carcinogenic to humans. This classification does not apply to liquid forms of sulfuric acid or sulfuric acid solutions contained within a battery. Inorganic acid mist is not generated under normal use of this product. Misuse of the product, such as overcharging, may however result in the generation of sulfuric acid mist.

**MATERIAL SAFETY DATA SHEET*****LEAD ACID BATTERY***

- C. Emergency and First Aid Procedures:
1. Inhalation: Remove from exposure, move to fresh air, and apply oxygen if breathing is difficult. Consult physician immediately.
  2. Skin: Wash with plenty of soap and water for at least 15 minutes. Remove any contaminated clothing. Consult physician if skin irritation appears.
  3. Eyes: Flush with plenty of water immediately for at least 15 minutes, lifting lower and upper eyelids occasionally. Consult a physician immediately.
  4. Ingestion: Do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Consult a physician immediately.
- D. HANDLING AND STORAGE
1. Safe Storage: Store in a cool, dry place in closed containers. Keep away from ignition sources and high temperatures.
    1. Contact NorthStar Battery Company (417-575-8200) for shelf life information.
  2. Handling: Avoid skin or eye contact. Avoid breathing vapors. Do not use near sources of ignition
- V. CARCINOGENICITY: See section IV, Part B "Signs and Symptoms of Over Exposure"  
 MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: See section IV, Part B "Signs and Symptoms of Over Exposure"
- VI. FIRE AND EXPLOSION HAZARD DATA:
- A. Flash Point: Hydrogen = 259°C
  - B. Auto ignition Temperature: Hydrogen = 580°C
  - C. Extinguishing Media: Dry chemical, foam, CO<sub>2</sub>
  - D. Unusual Fire and Explosion Hazards: Hydrogen and oxygen gases are produced in the cells during normal battery operation (hydrogen is flammable and oxygen supports combustion). These gases enter the air through the vent caps. To avoid the chance of a fire or explosion, keep sparks and other sources of ignition away from the battery.
  - E. Firefighting PPE: Full protective clothing and  
 NIOSH-approved self-contained breathing apparatus with full facepiece
- VII. REACTIVITY DATA:
- A. Stability: Stable
  - B. Conditions to Avoid: Sparks and other sources of ignition.
  - C. Incompatibility: (materials to avoid)
    1. Lead/lead compounds: Potassium, carbides, sulfides, peroxides, phosphorus, sulfur.

**MATERIAL SAFETY DATA SHEET*****LEAD ACID BATTERY***

2. Battery electrolyte (acid): Combustible materials, strong reducing agents, most metals, carbides, organic materials, chlorates, nitrates, picrates, and fulminates.

D. Hazardous Decomposition Products:

1. Lead/lead compounds: Oxides of lead and sulfur.
2. Battery electrolyte (acid): Hydrogen, sulfur dioxide, and sulfur trioxide.

E. Conditions to Avoid:

High temperature. Battery electrolyte (acid) will react with water to produce heat. Can react with oxidizing or reducing agents.

VIII. CONTROL MEASURES:

A. Engineering Controls:

Store lead/acid batteries with adequate ventilation. Room ventilation is required for batteries utilized for standby power generation. Never recharge batteries in an unventilated, enclosed space.

B. Work Practices:

Do not remove vent covers. Follow shipping and handling instructions which are applicable to the battery type. To avoid damage to terminals and seals, do not double-stack industrial batteries.

C. Personal Protective Equipment:

1. Respiratory Protection: None required under normal handling conditions. During battery formation (high-rate charge condition), acid mist can be generated which may cause respiratory irritation. Also, if acid spillage occurs in a confined space, exposure may occur. If irritation occurs, wear a respirator suitable for protection against acid mist.
2. Eyes and Face: Chemical splash goggles are preferred. Also acceptable are "visor-gogs" or a chemical face shield worn over safety glasses.
3. Hands, Arms, Body: Vinyl coated, VC, gauntlet type gloves with rough finish are preferred.
4. Other Special Clothing and Equipment: Safety shoes are recommended when handling batteries. All footwear must meet requirements of ANSI Z41.1 -Rev. 1972.

IX. ACCIDENTAL RELEASE MEASURES:

A. Not applicable under normal conditions.

B. In case of damage resulting in breakage of the battery container, see VIII, Sec. C Personal Protective Equipment.

**MATERIAL SAFETY DATA SHEET*****LEAD ACID BATTERY*****X. PRECAUTIONS FOR SAFE HANDLING AND USE:**

- A. Hygiene Practices: Following contact with internal battery components, wash hands thoroughly before eating, drinking, or smoking.
- B. Respiratory Protection: Wear safety glasses. Do not permit flames or sparks in the vicinity of battery(s). If battery electrolyte (acid) comes in contact with clothing, discard clothing.
- C. Protective Measures:
1. Remove combustible materials and all sources of ignition. Cover spills with soda ash (sodium carbonate) or quicklime (calcium oxide). Mix well. Make certain mixture is neutral, then collect residue and place in a drum or other suitable container. Dispose of as hazardous waste.
  2. Wear acid-resistant boots, chemical face shield, chemical splash goggles, and acid-resistant gloves. Do not release unneutralized acid.
- D. Waste Disposal Method (\*):
1. Battery electrolyte (acid): Neutralize as above for a spill, collect residue, and place in a drum or suitable container. Dispose of as hazardous waste.
  2. Do not flush lead contaminated acid to sewer.
  3. In case of accidental spill, utilize personal protective equipment, i.e., face shield, rubber apron, rubber safety shoes.
  4. Batteries: Send to lead smelter for reclamation following applicable Federal, State and local regulations. Product can be recycled along with automotive (SLI) lead acid batteries.
  5. Battery may be returned, shipping pre-paid, to the manufacturer or any distributor for recycling. See 1.C for manufacturer's address or visit our web site @ [www.northstarbattery.com](http://www.northstarbattery.com).
- \*In accordance to Local, State and Federal regulations and laws.
- E. Other Handling and Storage Precautions: None Required.

**XI. ECOLOGICAL INFORMATION:**

Lead and its compounds can pose a threat if released to the environment.  
See Waste Disposal Method in Section X, Part D.

**MATERIAL SAFETY DATA SHEET*****LEAD ACID BATTERY***

## XII. NFPA HAZARD RATING: SULFURIC ACID:

Flammability (Red)	=	0
Health (Blue)	=	3
Reactivity (Yellow)	=	1

## XIII. DEPARTMENT OF TRANSPORTATION AND INTERNATIONAL SHIPPING REGULATIONS:

Proper Shipping Name	UN2800 - Battery, wet, non-spillable (electric storage)
IATA	Batteries must be packed to protect against short circuits and firmly secured to skids or pallets. Packaging instruction 806 Not restricted per special provision A67.
US DOT	Northstar Battery Company products, submitted and tested by Wyle Labs, have been deemed to meet all requirements as specified in 49CFR§ 173.159 (d) for exception as hazardous material classification.
IMDG	Northstar Battery Company products, submitted and tested by Wyle Labs, have been deemed to meet all requirements as specified in special provision 238 for determination of "Non-Spillable" and are not subject to the provision of this Code.

## XIV. SPECIAL REQUIREMENTS:

## TLV

- Sulfuric Acid - Occupation Exposure Limit - AUSTRALIA TWA 1mg/m<sup>3</sup>, JAN1993
- Lead - Occupation Exposure Limit - AUSTRALIA TWA 0.15 mg/m<sup>3</sup>, 2002



**NorthStar Battery Lead and Acid Weights per 12-Volt Module**

Battery Type		NSB40	NSB70	NSB75	NSB90	NSB125	NSB40FT	NSB60FT	NSB90FT	NSB100FT	NSB110FT	NSB130FT	NSB155FT	NSB170FT	
Electrolyte	Weight	/kg	27	45	45	62	85	24	38	53	61	68	81	99	105
		/lbs	59	99	99	138	186	53	83	116	134	149	178	218	232
	Volume	/litres	20	34	34	47	63	1.8	28	39	45	50	60	74	78
		/gallons	0.5	0.9	0.9	1.2	1.7	0.5	0.7	1.0	1.2	1.3	1.6	2.0	2.08
Acid	Weight	/kg	1.2	2.0	2.0	2.8	3.8	1.1	1.7	2.4	2.8	3.0	3.6	4.4	4.8
		/lbs	2.6	4.3	4.4	6.2	8.4	2.4	3.7	5.2	6.1	6.7	8.0	9.7	10.5
	Volume	/litres	0.6	1.1	1.1	1.5	2.1	0.6	0.9	1.3	1.5	1.7	2.0	2.4	2.6
		/gallons	0.2	0.3	0.3	0.4	0.6	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7
	% Acid Weight to Total Weight		7%	7%	7%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Lead	Weight	/kg	89	149	146	197	220	72	98	136	156	184	205	232	266
		/lbs	197	329	322	435	484	158	217	300	345	406	451	511	587
Lead Oxide	Weight	/kg	32	47	53	75	104	30	47	63	80	84	101	114	136
		/lbs	7.0	10.4	11.7	16.5	23.0	6.5	10.3	13.9	17.7	18.6	22.2	25.2	29.9
Cells	# of Cells	6	6	6	6	6	6	6	6	6	6	6	6	6	
Total Weight	Weight	/kg	163	268	267	354	443	141	216	305	335	387	434	519	582
		/lbs	360	590	590	780	980	310	480	670	740	850	960	1140	1280

**Verizon Wireless • Proposed Base Station (Site No. 278749 “Historic Nevada City”)  
109 North Pine Street • Nevada City, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 278749 “Historic Nevada City”) proposed to be located at 109 North Pine Street in Nevada City, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

**Executive Summary**

Verizon proposes to install directional panel antennas above the roof of the three-story commercial building located at 109 North Pine Street in Nevada City. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy; certain mitigation measures are recommended to comply with FCC occupational guidelines.

**Prevailing Exposure Standards**

The U.S. Congress requires that the Federal Communications Commission (“FCC”) evaluate its actions for possible significant impact on the environment. A summary of the FCC’s exposure limits is shown in Figure 1. 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. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5–80 GHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
WiFi (and unlicensed uses)	2–6	5.00	1.00
BRS (Broadband Radio)	2,600 MHz	5.00	1.00
WCS (Wireless Communication)	2,300	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

**General Facility Requirements**

Base stations typically consist of two distinct parts: the electronic transceivers (also called “radios” or “channels”) that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A



**Verizon Wireless • Proposed Base Station (Site No. 278749 “Historic Nevada City”)  
109 North Pine Street • Nevada City, California**

small antenna for reception of GPS signals is also required, mounted with a clear view of the sky. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

### **Computer Modeling Method**

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, “Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation,” dated August 1997. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna’s radiation pattern is not fully formed at locations very close by (the “near-field” effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the “inverse square law”). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

### **Site and Facility Description**

Based upon information provided by Verizon, including zoning drawings by Borges Architectural Group, Inc., dated April 25, 2016, it is proposed to install eight Andrew Model SBNHH-1D45B directional panel antennas on short poles above the roof of the three-story Friar Tuck’s Restaurant and Bar, located at 109 North Pine Street in Nevada City. The antennas would employ up to 6° downtilt, would be mounted at an effective height of about 46 feet above ground, 6 feet above the roof, and would be oriented in pairs toward 30°T, 105°T, 195°T, and 280°T, away from the building. The maximum effective radiated power in any direction would be 15,440 watts, representing simultaneous operation at 6,910 watts for AWS, 6,350 watts for PCS, and 2,180 watts for 700 MHz service; no operation on cellular frequencies is presently proposed from the site. There are reported no other wireless telecommunications base stations, at the site or nearby.

### **Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.061 mW/cm<sup>2</sup>, which is 6.7% of the applicable public exposure limit. The maximum calculated level at any nearby building\* is 7.1% of the public exposure limit. It should be noted that these results include several “worst-case” assumptions and therefore are expected to overstate actual power density levels from the proposed operation. Levels may exceed the applicable public exposure limit on the roof of the subject building, in front of the antennas.

---

\* Including the adjacent building.

**Verizon Wireless • Proposed Base Station (Site No. 278749 “Historic Nevada City”)  
109 North Pine Street • Nevada City, California**

**Recommended Mitigation Measures**

It is recommended that the roof access ladder and hatch be kept locked, so that the Verizon antennas are not accessible to unauthorized persons. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training, to include review of personal monitor use and lockout/tagout procedures, be provided to all authorized personnel who have access to the roof, including employees and contractors of Verizon and of the property owner. No access within 18 feet directly in front of the Verizon antennas themselves, such as might occur during certain maintenance activities, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that the boundary lines be marked on the roof with blue and yellow paint to identify areas in which exposure levels are calculated to exceed the public and occupational FCC limits, respectively, as shown in Figure 3. It is recommended that explanatory signs<sup>†</sup> be posted at the roof access ladder, at the roof access hatch, and at the antennas, readily visible from any angle of approach to persons who might need to work within that distance.

**Conclusion**

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the base station proposed by Verizon Wireless at 109 North Pine Street in Nevada City, California, can comply with the prevailing standards for limiting human exposure to radio frequency energy and, therefore, need not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations. Locking the roof access ladder and hatch is recommended to establish compliance with public exposure limits; training authorized personnel, marking roof areas, and posting explanatory signs are recommended to establish compliance with occupational exposure limits.

---

<sup>†</sup> Signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (*e.g.*, a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required.



**Verizon Wireless • Proposed Base Station (Site No. 278749 “Historic Nevada City”)  
109 North Pine Street • Nevada City, California**

**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, 2017. 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.



*William F. Hammett*  
\_\_\_\_\_  
William F. Hammett, P.E.

707/996-5200

May 19, 2016

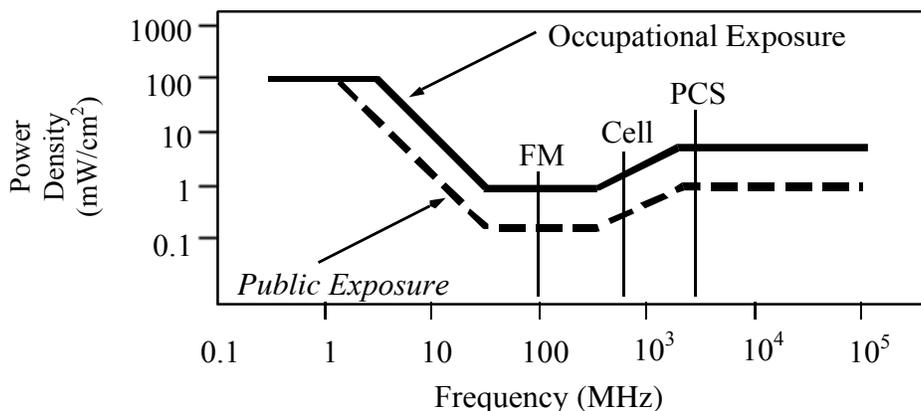


## FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission (“FCC”) to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, “Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements (“NCRP”). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, “Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency Applicable Range (MHz)	Electromagnetic Fields (f is frequency of emission in MHz)					
	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm <sup>2</sup> )	
0.3 – 1.34	614	<i>614</i>	1.63	<i>1.63</i>	100	<i>100</i>
1.34 – 3.0	614	<i>823.8/f</i>	1.63	<i>2.19/f</i>	100	<i>180/f<sup>2</sup></i>
3.0 – 30	1842/f	<i>823.8/f</i>	4.89/f	<i>2.19/f</i>	900/f <sup>2</sup>	<i>180/f<sup>2</sup></i>
30 – 300	61.4	<i>27.5</i>	0.163	<i>0.0729</i>	1.0	<i>0.2</i>
300 – 1,500	3.54√f	<i>1.59√f</i>	√f/106	<i>√f/238</i>	f/300	<i>f/1500</i>
1,500 – 100,000	137	<i>61.4</i>	0.364	<i>0.163</i>	5.0	<i>1.0</i>



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.



## RFR.CALC™ Calculation Methodology

### Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission (“FCC”) to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

#### Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density  $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$ , in mW/cm<sup>2</sup>,

and for an aperture antenna, maximum power density  $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$ , in mW/cm<sup>2</sup>,

where  $\theta_{BW}$  = half-power beamwidth of the antenna, in degrees, and  
 $P_{net}$  = net power input to the antenna, in watts,  
 $D$  = distance from antenna, in meters,  
 $h$  = aperture height of the antenna, in meters, and  
 $\eta$  = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

#### Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density  $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$ , in mW/cm<sup>2</sup>,

where ERP = total ERP (all polarizations), in kilowatts,  
 RFF = relative field factor at the direction to the actual point of calculation, and  
 D = distance from the center of radiation to the point of calculation, in meters.

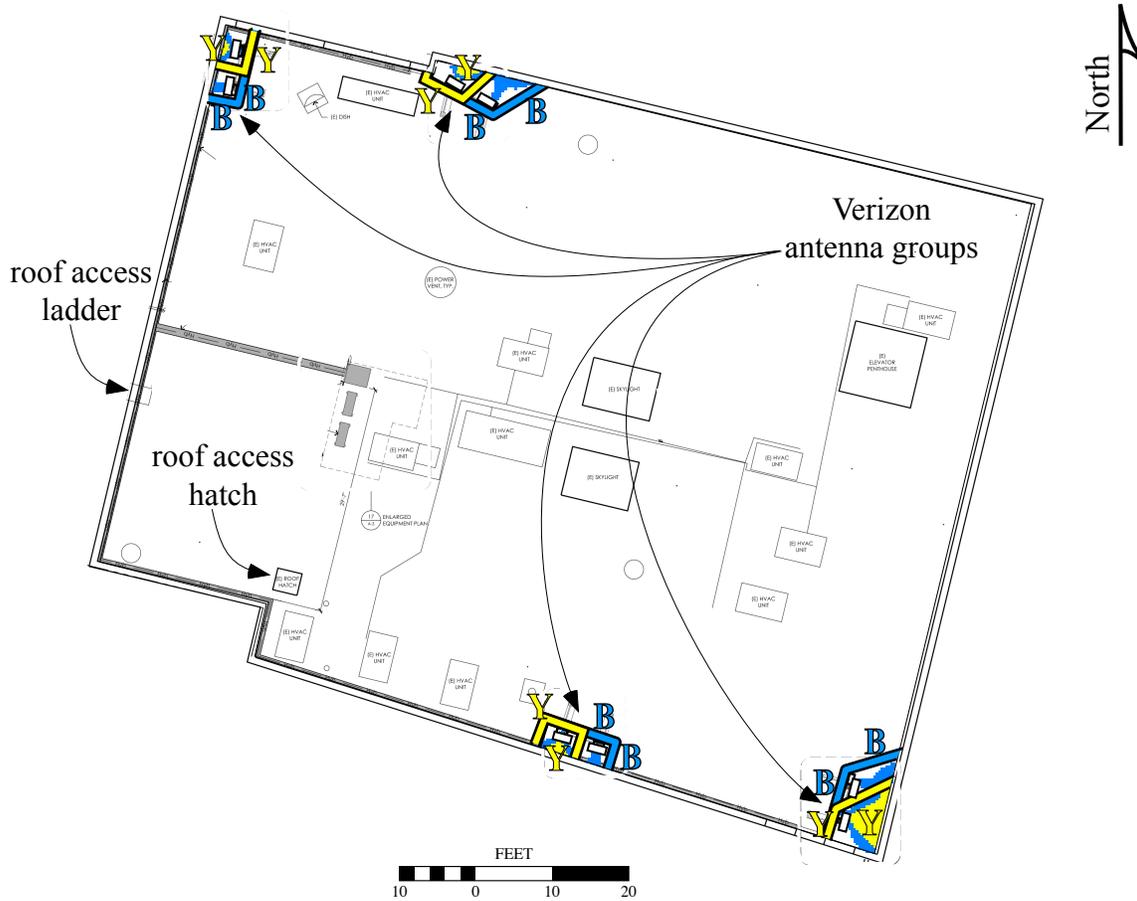
The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.

**Verizon Wireless • Proposed Base Station (Site No. 278749 “Historic Nevada City”)  
109 North Pine Street • Nevada City, California**

**Calculated RF Exposure Levels on Roof**

**Recommended Mitigation Measures**

- Lock roof access ladder and hatch
- Mark boundaries as shown
- Post explanatory signs
- Provide training



Notes: See text.

Base drawing from Borges Architectural Group, Inc., dated April 25, 2016.

Calculations performed according to OET Bulletin 65, August 1997.

<b>Legend:</b>	Less Than Public	Exceeds Public	Exceeds Occupational	Exceeds 10x Occupational
Shaded color	N/A	Blue	Yellow	Orange
Boundary marking	N/A	Blue line	Yellow line	Orange line
Sign type	I - Green INFORMATION	B - Blue NOTICE	Y - Yellow CAUTION	O - Orange WARNING





## WIRELESS EMF FACT SHEET

**All technological devices that generate electrical charges emit electromagnetic fields (EMFs). Decades ago, most people only owned receivers (radios). Today they carry and operate powerful transmitters. The Wireless Age has dawned, with portable devices**

**transmitting current at frequencies up to billions of cycles per second (Hz). Consumers worldwide are "going mobile" with little knowledge of the effects of microwave radiation on human health. Here are 10 facts you should know:**

The telecommunications industry has made trillions from its worldwide services and technologies. Since the U.S. Telecommunications Act was passed in 1996, the industry has flourished from de-regulation and protective legislation at the expense of public health.

Ionizing or thermal radiation (e.g., nuclear, X-ray) is known to harm living tissues. A decade of international research now confirms that similar damage is caused by non-ionizing non-thermal radio-frequency/microwave (RF/MW) radiation, emitted by every wireless device.

The FDA, FCC and American Cancer Society claim that RF/MW radiation poses no health risks, a conclusion based on studies funded by the telecom industry itself. But independent studies show that even low power-density signals issuing from transmitters held against the body are genotoxic, causing damage to our reproductive organs and DNA.

Cell-phone frequencies range from 850 MHz (megahertz/million Hz) to 1.2 GHz (gigahertz/billion Hz) for Smartphones, and up to 5.8 GHz for cordless phones. Compare this to the extremely low frequencies of Earth and nature, which peak at only 8 to 32 Hz.

Children and teenagers, whose bodies are still developing, are the fastest-growing segment of the wireless market. RF/MW radiation is linked to irreversible degeneration of nervous-system neurons. Brain cancer is now the leading cause of cancer death in children under 14.

Tissue damage from EMFs is cumulative. Years of exposure to microwaves may cause birth defects and sterility, and can also lead to hearing loss and damage to tissues of the eye, agglutination or clumping of red blood cells, and loss of brain function.

The thyroid, pineal and pituitary glands (located in the neck and brain) produce endocrine hormones that regulate our metabolism. The critical functions of these glands are impaired by chronic irradiation from cell-phone use.

RF/MWs now flow from millions of tower transmitters, utility Smart Meters, Internet Wi-Fi and WIMAX, GWEN (ground-wave emergency networks) and RFID (radio-frequency identification) systems. Wireless service providers offer financial incentives to property owners who place antennas on top of their buildings.

The farther a person is from the source of an EMF and the less time spent in it, the weaker its effect. Studies of people who live or work close to microwave antennas (e.g., cell towers) reveal symptoms of chronic fatigue, neurological impairment, insomnia, hormone imbalance, psychological problems and high cancer rates.

Electro-hypersensitivity (EHS) is an allergic auto-immune condition that is now appearing all over the world. Its symptoms can be so disabling that victims must isolate themselves from even the weakest electromagnetic fields.

# Wireless Radiation Resources

**Read any of these books:**

- Cell Phones: Invisible Hazards in the Wireless Age: An Insider's Alarming Discoveries About Cancer and Genetic Damage** by George Carlo and Martin Schram
- Disconnect: The Truth About Cell Phone Radiation** by Devra Davis
- Electromagnetic Fields: A Consumer's Guide to the Issues and How to Protect Ourselves** by B. Blake Levitt
- Currents of Death: Power Lines, Computer Terminals, and the Attempt to Cover Up Their Threat to Your Health** by Paul Brodeur
- Cell Towers: Wireless Convenience or Environmental Hazard?** by B. Blake Levitt
- Cell Phones and the Dark Deception: Find Out What You're Not Being Told and Why** by Carleigh Cooper
- The Body Electric: Electromagnetism and the Foundation of Life** by Robert O. Becker MD and Gary Selden
- The Invisible Disease: The Dangers of Environmental Illnesses Caused By Electromagnetic Fields and Chemical Emissions** by Gunni Nordstrom

**See these reports and documentaries:**

- The BioInitiative Report**
- ICNIRP Guideline Critique / Dr. Neil Cherry**
- Public Exposure DVD / James Heddle**
- Full Signal DVD / Talal Jabari**

**Visit any of these websites:**

- |  |  |
|--|--|
| <a href="http://www.bioinitiative.org">www.bioinitiative.org</a>   | <a href="http://www.thepeoplesinitiative.org">www.thepeoplesinitiative.org</a>     |
| <a href="http://www.powerwatch.org.uk">www.powerwatch.org.uk</a>   | <a href="http://www.emfacts.com">www.emfacts.com</a>                               |
| <a href="http://www.magdahavas.com">www.magdahavas.com</a>   | <a href="http://www.icems.eu">www.icems.eu</a>                                     |
| <a href="http://www.magdahavas.org">www.magdahavas.org</a>   | <a href="http://stopsmartmeters.org">http://stopsmartmeters.org</a>                |
| <a href="http://emfsafetynetwork.org">http://emfsafetynetwork.org</a>                                    | <a href="http://www.ewg.org/cellphoneradiation">www.ewg.org/cellphoneradiation</a> |
| <a href="http://emrpolicy.org">http://emrpolicy.org</a>  | <a href="http://www.cloutnow.org">www.cloutnow.org</a>                             |
| <a href="http://www.electricalpollution.com">www.electricalpollution.com</a>                             | <a href="http://www.weepinitiative.org">www.weepinitiative.org</a>                 |
| <a href="http://www.electrosensitivesociety.com">www.electrosensitivesociety.com</a>                     | <a href="http://www.es-uk.info">www.es-uk.info</a>                                 |
| <a href="http://www.wavr.org">www.wavr.org</a>   | <a href="http://www.hese-project.org/hese-uk">www.hese-project.org/hese-uk</a>     |
| <a href="http://www.radiationresearch.org">www.radiationresearch.org</a>                                 | <a href="http://www.cellphonetaskforce.org">www.cellphonetaskforce.org</a>         |
| <a href="http://www.emrnetwork.org">www.emrnetwork.org</a>   | <a href="http://www.whyfry.org">www.whyfry.org</a>                                 |
| <a href="http://www.microwavenews.com">www.microwavenews.com</a>   | <a href="http://www.wirelesswatchblog.com">www.wirelesswatchblog.com</a>           |
| <a href="http://www.environmentalhealthtrust.org">www.environmentalhealthtrust.org</a>                   | <a href="http://electromagnetichealth.org">http://electromagnetichealth.org</a>    |
| <a href="http://americanassociationforcellphonesafety.org">americanassociationforcellphonesafety.org</a> | <a href="http://www.wiredchild.org">www.wiredchild.org</a>                         |

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To: His Excellency Ban Ki-moon, Secretary-General of the United Nations  
Honorable Dr. Margaret Chan, Director-General of the World Health Organization  
U.N. Member States

# International Appeal

## Scientists call for Protection from Non-ionizing Electromagnetic Field Exposure

We are scientists engaged in the study of biological and health effects of non-ionizing electromagnetic fields (EMF). Based upon peer-reviewed, published research, we have serious concerns regarding the ubiquitous and increasing exposure to EMF generated by electric and wireless devices. These include—but are not limited to—radiofrequency radiation (RFR) emitting devices, such as cellular and cordless phones and their base stations, Wi-Fi, broadcast antennas, smart meters, and baby monitors as well as electric devices and infra-structures used in the delivery of electricity that generate extremely-low frequency electromagnetic field (ELF EMF).

### Scientific basis for our common concerns

Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life.

These findings justify our appeal to the United Nations (UN) and, all member States in the world, to encourage the World Health Organization (WHO) to exert strong leadership in fostering the development of more protective EMF guidelines, encouraging precautionary measures, and educating the public about health risks, particularly risk to children and fetal development. By not taking action, the WHO is failing to fulfill its role as the preeminent international public health agency.

### Inadequate non-ionizing EMF international guidelines

The various agencies setting safety standards have failed to impose sufficient guidelines to protect the general public, particularly children who are more vulnerable to the effects of EMF.

The International Commission on Non-Ionizing Radiation Protection (ICNIRP) established in 1998 the "Guidelines For Limiting Exposure To Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz)"<sup>[1]</sup>. These guidelines are accepted by the WHO and numerous countries around the world. The WHO is calling for all nations to adopt the ICNIRP guidelines to encourage international harmonization of standards. In 2009, the ICNIRP released a statement saying that it was reaffirming its 1998 guidelines, as in their opinion, the scientific literature published since that time "has provided no evidence of any adverse effects below the basic restrictions and does not necessitate an immediate revision of its guidance on limiting exposure to high frequency electromagnetic fields"<sup>[2]</sup>. ICNIRP continues to the present day to make these assertions, in spite of growing scientific evidence to the contrary. It is our opinion that, because the ICNIRP guidelines do not cover long-term exposure and low-intensity effects, they are insufficient to protect public health.

The WHO adopted the International Agency for Research on Cancer (IARC) classification of extremely low frequency electromagnetic field (ELF EMF) in 2002<sup>[3]</sup> and radiofrequency radiation (RFR) in 2011<sup>[4]</sup>. This classification states that EMF is a *possible human carcinogen (Group 2B)*. Despite both IARC findings, the WHO continues to maintain that there is insufficient evidence to justify lowering these quantitative exposure limits.

Since there is controversy about a rationale for setting standards to avoid adverse health effects, we recommend that the United Nations Environmental Programme (UNEP) convene and fund an independent multidisciplinary committee to explore the pros and cons of alternatives to current practices that could substantially lower human exposures to RF and ELF fields. The deliberations of this group should be conducted in a transparent and impartial way. Although it is essential that industry be involved and cooperate in this process, industry should not be allowed to bias its processes or conclusions. This group should provide their analysis to the UN and the WHO to guide precautionary action.

**Collectively we also request that:**

1. children and pregnant women be protected;
2. guidelines and regulatory standards be strengthened;
3. manufacturers be encouraged to develop safer technology;
4. utilities responsible for the generation, transmission, distribution, and monitoring of electricity maintain adequate power quality and ensure proper electrical wiring to minimize harmful ground current;
5. the public be fully informed about the potential health risks from electromagnetic energy and taught harm reduction strategies;
6. medical professionals be educated about the biological effects of electromagnetic energy and be provided training on treatment of patients with electromagnetic sensitivity;
7. governments fund training and research on electromagnetic fields and health that is independent of industry and mandate industry cooperation with researchers;
8. media disclose experts' financial relationships with industry when citing their opinions regarding health and safety aspects of EMF-emitting technologies; and
9. white-zones (radiation-free areas) be established.

1) <http://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf>

2) <http://www.icnirp.org/cms/upload/publications/ICNIRPStatementEMF.pdf>

3) <http://monographs.iarc.fr/ENG/Monographs/vol80/>

4) <http://monographs.iarc.fr/ENG/Monographs/vol102/>

**Release date: May 11, 2015.**

**Inquiries can be made through Elizabeth Kelley, M.A., Director, EMFscientist.org, at [info@EMFscientist.org](mailto:info@EMFscientist.org).**

*Note: the signatories to this appeal have signed as individuals, giving their professional affiliations, but this does not necessarily mean that this represents the views of their employers or the professional organizations they are affiliated with.*

## Translations of the Appeal

Arabic  
 Chinese  
 Farsi  
 Finnish  
 French  
 German  
 Greek  
 Hebrew  
 Italian  
 Japanese  
 Korean  
 Norwegian  
 Portuguese  
 Spanish  
 Swedish  
 Turkish

## Signatories

### Armenia

**Prof. Sinerik Ayrapetyan, Ph.D.**, Life Sciences International Postgraduate Educational Center, UNESCO Chair, Armenia

### Australia

**Dr. Priyanka Bandara, Ph.D.**, Independent Environmental Health Educator/Researcher, Australia; Advisor, Environmental Health Trust and Doctors for Safer Schools

**Dr. Bruce Hocking, MD, MBBS, FAFOEM (RACP), FRACGP, FARPS**, specialist in occupational medicine; Victoria, Australia

**Dr. Gautam (Vini) Khurana, Ph.D., F.R.A.C.S.**, Director, C.N.S. Neurosurgery, Australia

**Dr. Don Maisch, Ph.D.**, Australia

**Dr. Elena Pirogova, Ph.D.**, Biomed Eng., B. Eng (Hon) Chem. Eng., Engineering & Health College; RMIT University, Australia

**Dr. Mary Redmayne, Ph.D.**, Department of Epidemiology & Preventive Medicine, Monash University, Australia

**Dr. Charles Teo, BM, BS, MBBS**, Member of the Order of Australia, Director, Centre for Minimally Invasive Neurosurgery at Prince of Wales Hospital, NSW, Australia

#### Austria

**Dr. Michael Kundi, MD**, University of Vienna, Austria

**Dr. Gerd Oberfeld, MD**, Public Health Department, Salzburg Government, Austria

**Dr. Bernhard Pollner, MD**, Pollner Research, Austria

**Prof. Dr. Hugo W. Rüdiger, MD**, Austria

#### Bahrain

**Dr. Amer Kamal, MD**, Physiology Department, College of Medicine, Arabian Gulf University, Bahrain

#### Belgium

**Prof. Marie-Claire Cammaerts, Ph.D.**, Free University of Brussels, Faculty of Science, Brussels, Belgium

#### Brazil

**Vânia Araújo Condessa, MSc.**, Electrical Engineer, Belo Horizonte, Brazil

**Prof. Dr. João Eduardo de Araujo, MD**, University of Sao Paulo, Brazil

**Dr. Francisco de Assis Ferreira Tejo, D. Sc.**, Universidade Federal de Campina Grande, Campina Grande, State of Paraíba, Brazil

**Prof. Alvaro deSalles, Ph.D.**, Federal University of Rio Grande Del Sol, Brazil

**Prof. Adilza Dode, Ph.D., MSc.** Engineering Sciences, Minas Methodist University, Brazil

**Dr. Daiana Condessa Dode, MD**, Federal University of Medicine, Brazil

**Michael Condessa Dode**, Systems Analyst, MRE Engenharia Ltda, Belo Horizonte, Brazil

#### Canada

**Dr. Magda Havas, Ph.D.**, Environmental and Resource Studies, Centre for Health Studies, Trent University, Canada

**Dr. Paul Héroux, Ph.D.**, Director, Occupational Health Program, McGill University; InvitroPlus Labs, Royal Victoria Hospital, McGill University, Canada

**Dr. Tom Hutchinson, Ph.D.**, Professor Emeritus, Environmental and Resource Studies, Trent University, Canada

**Prof. Ying Li, Ph.D.**, InVitroPlus Labs, Dept. of Surgery, Royal Victoria Hospital, McGill University, Canada

**James McKay M.Sc.**, Ecologist, City of London; Planning Services, Environmental and Parks Planning, London, Canada

**Prof. Anthony B. Miller, MD, FRCP**, University of Toronto, Canada

**Prof. Klaus-Peter Ossenkopp, Ph.D.**, Department of Psychology (Neuroscience), University of Western Ontario, Canada

**Prof. Michael A. Persinger, Ph.D.**, Behavioural Neuroscience and Biomolecular Sciences, Laurentian University, Canada

#### China

**Prof. Huai Chiang**, Bioelectromagnetics Key Laboratory, Zhejiang University School of Medicine, China

**Prof. Yuqing Duan, Ph.D.**, Food & Bioengineering, Jiangsu University, China

**Dr. Kaijun Liu, Ph.D.**, Third Military Medical University, Chongqing, China

**Prof. Xiaodong Liu**, Director, Key Lab of Radiation Biology, Ministry of Health of China; Associate Dean, School of Public Health, Jilin University, China

**Prof. Wenjun Sun, Ph.D.**, Bioelectromagnetics Key Lab, Zhejiang University School of Medicine, China

**Prof. Minglian Wang, Ph.D.**, College of Life Science & Bioengineering, Beijing University of Technology, China

**Prof. Qun Wang, Ph.D.**, College of Materials Science & Engineering, Beijing University of Technology, China

- Prof. Haihu Zhang, Ph.D.**, School of Food & BioEngineering, Jiangsu University, China  
**Prof. Jianbao Zhang**, Associate Dean, Life Science and Technology School, Xi'an Jiaotong University, China  
**Prof. Hui-yan Zhao**, Director of STSCRW, College of Plant Protection, Northwest A & F University, Yangling Shaanxi, China  
**Prof. J. Zhao**, Department of Chest Surgery, Cancer Center of Guangzhou Medical University, Guangzhou, China

### Croatia

- Ivancica Trosic, Ph.D.**, Institute for Medical Research and Occupational Health, Croatia

### Egypt

- Prof. Dr. Abu Bakr Abdel Fattth El-Bediwi, Ph.D.**, Physics Dept., Faculty of Science, Mansoura University, Egypt  
**Prof. Dr. Emad Fawzy Eskander, Ph.D.**, Medical Division, Hormones Department, National Research Center, Egypt  
**Prof. Dr. Heba Salah El Din Aboul Ezz, Ph.D.**, Physiology, Zoology Department, Faculty of Science, Cairo University, Egypt  
**Prof. Dr. Nasr Radwan, Ph.D.**, Neurophysiology, Faculty of Science, Cairo University, Egypt

### Estonia

- Dr. Hiie Hinrikus, Ph.D., D.Sc.**, Tallinn University of Technology, Estonia

### Finland

- Dr. Mikko Ahonen, Ph.D.**, University of Tampere, Finland  
**Dr. Marjukka Hagström, LL.M., M.Soc.Sc.**, Principal Researcher, Radio and EMC Laboratory, Finland  
**Dariusz Leszczynski, Ph.D.**, Adjunct Professor of Biochemistry, University of Helsinki, Finland; Member of the IARC Working Group that classified cell phone radiation as possible carcinogen

### France

- Prof. Dr. Dominique Belpomme, MD, MPH**, Professor in Oncology, Paris V Descartes University, ECERI Executive Director  
**Dr. Pierre Le Ruz, Ph.D.**, Criirem, Le Mans, France

### Georgia

- Prof. Besarion Partsvania, Ph.D.**, Head of Bio-cybernetics Department of Georgian Technical University, Georgia

### Germany

- Prof. Dr. Franz Adlkofer, MD**, Chairman, Pandora Foundation, Germany  
**Prof. Dr. Hynek Burda, Ph.D.**, University of Duisburg-Essen, Germany  
**Dr. Horst Eger, MD**, Electromagnetic Fields in Medicine, Association of Statutory Health Insurance Physicians, Bavaria, Germany  
**Dr. rer. nat. Lebrecht von Klitzing, Ph.D.**, Head, Institute of Environ. Physics; Ex-Head, Clinical Research, Fribourg Medical University, Germany  
**Dr.Sc. Florian M. König, Ph.D.**, Florian König Enterprises (FKE) GmbH, Munich, Germany  
**Dr. Ulrich Warnke, Ph.D.**, Bionik-Institut, University of Saarlandes, Germany

### Greece

- Dr. Adamantia F. Fragopoulou, M.Sc., Ph.D.**, Department of Cell Biology & Biophysics, Biology Faculty, University of Athens, Greece  
**Dr. Christos Georgiou, Ph.D.**, Biology Department, University of Patras, Greece  
**Prof. Emeritus Lukas H. Margaritis, Ph.D.**, Depts. Cell Biology, Radiobiology & Biophysics, Biology Faculty, Univ. of Athens, Greece  
**Dr. Aikaterini Skouroliakou, M.Sc., Ph.D.**, Department of Energy Technology Engineering, Technological Educational Institute of Athens, Greece  
**Dr. Stelios A Zinelis, MD**, Hellenic Cancer Society-Kefalonia, Greece

### Iceland

**Dr. Ceon Ramon, Ph.D.**, Affiliate Professor, University of Washington, USA; Professor, Reykjavik University, Iceland

### India

**Prof. Dr. B. D. Banerjee, Ph.D.**, Fmr. Head, Environmental Biochemistry & Molecular Biology Laboratory, Department of Biochemistry, University College of Medical Sciences, University of Delhi, India  
**Prof. Jitendra Behari, Ph.D.**, Ex-Dean, Jawaharlal Nehru University; presently, Emeritus Professor, Amity University, India  
**Prof. Dr. Madhukar Shivajirao Dama**, Institute of Wildlife Veterinary Research, India  
**Dr. Kavindra K. Kesari, MBA, Ph.D.**, Resident Environmental Scientist, University of Eastern Finland, Finland; Assistant Professor, Jaipur National University, India  
**Prof. Rashmi Mathur, Ph.D.**, Head, Department of Physiology, All India Institute of Medical Sciences, New Delhi, India  
**Prof. N.N. Sareesh, Ph.D.**, Melaka Manipal Medical College, Manipal University, India

### Iran

**Prof. Dr. Soheila Abdi, Ph.D.**, Physics, Islamic Azad University of Safadasht, Tehran, Iran  
**Prof. G.A. Jelodar, D.V.M., Ph.D.**, Physiology, School of Veterinary Medicine, Shiraz University, Iran  
**Prof. Hamid Mobasheri, Ph.D.**, Head, BRC; Head, Membrane Biophysics & Macromolecules Lab; Institute of Biochemistry and Biophysics, University of Tehran, Iran  
**Prof. S.M.J. Mortazavi, Ph.D.**, Head, Medical Physics & Engineering; Chair, NIER Protection Research Center, Shiraz University of Medical Sciences, Iran  
**Prof. Amirnader Emami Razavi, Ph.D.**, Clinical Biochem., National Tumor Bank, Cancer Institute, Tehran Univ. Medical Sciences, Iran  
**Dr. Masood Sepehrimanesh, Ph.D.**, Gastroenterohepatology Research Center, Shiraz University of Medical Sciences, Iran  
**Prof. Dr. Mohammad Shabani, Ph.D.**, Neurophysiology, Kerman Neuroscience Research Center, Iran

### Israel

**Dr. Yael Stein, MD**, Hebrew University of Jerusalem, Hadassah Medical Center, Israel  
**Dr. Danny Wolf, MD**, Pediatrician and General Practitioner, Sherutey Briut Clalit, Shron Shomron district, Israel  
**Dr. Ronni Wolf, MD**, Assoc. Clinical Professor, Head of Dermatology Unit, Kaplan Medical Center, Rehovot, Israel

### Italy

**Prof. Sergio Adamo, Ph.D.**, La Sapienza University, Rome, Italy  
**Prof. Fernanda Amicarelli, Ph.D.**, Applied Biology, Dept. of Health, Life and Environmental Sciences, University of L'Aquila, Italy  
**Dr. Pasquale Avino, Ph.D.**, INAIL Research Section, Rome, Italy  
**Dr. Fiorella Belpoggi, Ph.D.**, FIATP, Director, Cesare Maltoni Cancer Research Center, Ramazzini Institute, Italy  
**Prof. Emanuele Calabro**, Department of Physics and Earth Sciences, University of Messina, Italy  
**Prof. Franco Cervellati, Ph.D.**, Department of Life Science and Biotechnology, Section of General Physiology, University of Ferrara, Italy  
**Prof. Stefano Falone, Ph.D.**, Researcher in Applied Biology, Dept. of Health, Life and Environmental Sciences, University of L'Aquila, Italy  
**Prof. Dr. Speridione Garbisa**, ret. Senior Scholar, Dept. Biomedical Sciences, University of Padova, Italy  
**Dr. Settimio Grimaldi, Ph.D.**, Associate Scientist, National Research Council, Italy  
**Prof. Livio Giuliani, Ph.D.**, Director of Research, Italian Health National Service, Rome-Florence-Bozen; Spokesman, ICEMS - International Commission for Electromagnetic Safety, Italy  
**Prof. Dr. Angelo Levis, MD**, Dept. Medical Sciences, Padua University, Italy  
**Prof. Salvatore Magazù, Ph.D.**, Department of Physics and Science, Messina University, Italy  
**Dr. Fiorenzo Marinelli, Ph.D.**, Researcher, Molecular Genetic Institute of the National Research Council, Italy  
**Claudio Poggi**, Electronics Engineer, Research Director, Sistemi s.r.l., (TN), Genoa, Italy  
**Prof. Raoul Saggini**, University G. D'Annunzio, Chieti, Italy  
**Dr. Morando Soffritti, MD**, Honorary President, National Institute for the Study and Control of Cancer and Environmental Diseases B. Ramazzini, Bologna, Italy

## GOVERNMENTS AND ORGANIZATIONS THAT BAN OR WARN AGAINST WIRELESS TECHNOLOGY

- 1993: Environmental Protection Agency (EPA):** The FCC's exposure standards are "seriously flawed." Official comments to the FCC on guidelines for evaluation of electromagnetic effects of radio frequency radiation, FCC Docket ET 93-62, November 9, 1993.
- 1993: Food and Drug Administration (FDA):** "FCC rules do not address the issue of long-term, chronic exposure to RF fields." Comments of the FDA to the FCC, November 10, 1993.
- 1993: National Institute for Occupational Safety and Health (NIOSH):** The FCC's standard is inadequate because it "is based on only one dominant mechanism—adverse health effects caused by body heating." Comments of NIOSH to the FCC, January 11, 1994.
- 1994: Amateur Radio Relay League Bio-Effects Committee:** "The FCC's standard does not protect against non-thermal effects." Comments of the ARRL Bio-Effects Committee to the FCC, January 7, 1994.
- 2000: UK Department of Education:** Children under 16 should not use cell phones except in an emergency. [http://www.cellular.co.za/news\\_2000/news-08052000\\_uk\\_schools\\_warned\\_over\\_radiation.htm](http://www.cellular.co.za/news_2000/news-08052000_uk_schools_warned_over_radiation.htm)
- 2002: Interdisciplinary Society for Environmental Medicine (3000 physicians in Germany)** recommends banning cell phone use by children and banning cell phones and cordless phones in preschools, schools, hospitals, nursing homes, events halls, public buildings and vehicles. [http://www.bioprotechnology.com/Press\\_FREIBURGER\\_APPEAL.aspx](http://www.bioprotechnology.com/Press_FREIBURGER_APPEAL.aspx)
- 2003: American Bird Conservancy and Forest Conservation Council:** Brought a lawsuit against the FCC because millions of migratory birds were being disoriented by microwave radiation and crashing into cell towers. [http://www.ewire.com/display.cfm/Wire\\_ID/1498](http://www.ewire.com/display.cfm/Wire_ID/1498)
- 2004: International Association of Fire Fighters** opposes communication antennas on fire stations. <http://www.iaff.org/HS/Facts/CellTowerFinal.asp>
- 2005: Salzburg, Austria's Public Health Department** bans WLAN and DECT phones in public schools. [http://www.mastsanity.org/index.php?option=com\\_docman&task=doc\\_download&gid=2&Itemid=64](http://www.mastsanity.org/index.php?option=com_docman&task=doc_download&gid=2&Itemid=64)
- August 2005: Austrian Medical Association:** Warns against Wi-Fi, cordless phones, and cell phone use by children. [http://www.thepeoplesinitiative.org/Wifi\\_and\\_Schools.html](http://www.thepeoplesinitiative.org/Wifi_and_Schools.html)
- August 2005: Vienna Medical Association** warns against Wi-Fi, and cell phone use by children up to age 16. [http://www.mastsanity.org/index.php?option=com\\_docman&task=doc\\_download&gid=2&Itemid=64](http://www.mastsanity.org/index.php?option=com_docman&task=doc_download&gid=2&Itemid=64)
- 2006: Frankfurt, Germany's government** states it will not install WiFi in its schools until it has been shown to be harmless. [http://www.icems.eu/docs/deutscher\\_bundestag.pdf](http://www.icems.eu/docs/deutscher_bundestag.pdf)
- 2006: UK schools** remove their wireless networks: Prebandal Preparatory School, Chichester, West Sussex; Ysgol Pantycelyn School in Carmarthenshire, Wales; and Stowe School, in Buckinghamshire, England. *London Times*, November 20, 2006. [http://www.timesonline.co.uk/tol/life\\_and\\_style/education/article642575.ece](http://www.timesonline.co.uk/tol/life_and_style/education/article642575.ece)

- 2007: Ballinderry Primary School, Ireland: Removed Wi-Fi to protect young children.**  
[http://www.ni4kids.com/Features/article.aspx?listing\\_id=d5bdd25f-90bc-41c1-aeb1-f974ab325edf&cat\\_id=3286371c-bbaf-4c93-985c-e2d13117659a](http://www.ni4kids.com/Features/article.aspx?listing_id=d5bdd25f-90bc-41c1-aeb1-f974ab325edf&cat_id=3286371c-bbaf-4c93-985c-e2d13117659a)
- 2007 Bavaria, Germany's Parliament recommends against Wi-Fi in schools.**  
[http://www.icems.eu/docs/deutscher\\_bundestag.pdf](http://www.icems.eu/docs/deutscher_bundestag.pdf)
- 2007 Australian Democrats: The "explosion in wireless communications technology" is causing widespread illness.** [http://www.democrats.org.au/docs/2007/Joining the Dots ExecSummary.pdf](http://www.democrats.org.au/docs/2007/Joining_the_Dots_ExecSummary.pdf)
- 2007: European Environmental Agency, Europe's top environmental watchdog, calls for immediate action to reduce exposure to radiation from Wi-Fi, mobile phones and their masts.**  
[http://www.nzherald.co.nz/world/news/article.cfm?c\\_id=2&objectid=10463870](http://www.nzherald.co.nz/world/news/article.cfm?c_id=2&objectid=10463870)
- 2008: International Commission on Electromagnetic Safety (comprised of scientists from 16 nations): Recommends limiting cell phone use by children, teenagers, pregnant women and the elderly.**  
<http://www.icems.eu/resolution.htm>
- 2007: Therold, Ontario closes down its citywide Wi-Fi pilot scheme.**  
<http://www.glastonburynaturalhealth.co.uk/WhyWi-Fi.html>
- 2008: Lakehead University, Ontario bans Wi-Fi on campus.** <http://policies.lakeheadu.ca/policy.php?pid=178>
- 2008: Madhya Pradesh, India: Bans cell phones in schools by both students and teachers.**  
[http://www.indiaedunews.net/Madhya\\_Pradesh/Teachers\\_students\\_unhappy\\_with\\_mobile\\_phone\\_ban\\_in\\_schools\\_5241/](http://www.indiaedunews.net/Madhya_Pradesh/Teachers_students_unhappy_with_mobile_phone_ban_in_schools_5241/)
- 2008: National Library of France: Removes Wi-Fi because of health concerns and limits installation to cable connections.** <http://www.next-up.org/pdf/FranceNationalLibraryGivesUpWiFi07042008.pdf>
- 2008: Paris, France removes Wi-Fi from four public libraries because of health concerns.**  
[http://www.accessmylibrary.com/coms2/summary\\_0286-35451555\\_ITM](http://www.accessmylibrary.com/coms2/summary_0286-35451555_ITM)
- 2008 Sainte-Geneviève University, Paris: Removes Wi-Fi from its library because of health concerns.**  
<http://www.next-up.org/pdf/AnalysisWiFiHotSpotsDeactivationSainteGenevieveLibraryParis24052008.pdf>
- 2008: Progressive Librarians Guild recommends against wireless technology in libraries.**  
<http://libr.org/plg/wifiresolution.php>
- 2008: Russian National Committee for Non-Ionizing Radiation Protection warns that cell phones are unsafe even for short conversations. Children under 16, pregnant women, epileptics, and people with memory loss, sleep disorders and neurological diseases should never use cell phones.**  
[http://www.radiationresearch.org/pdfs/mcnirp\\_children.pdf](http://www.radiationresearch.org/pdfs/mcnirp_children.pdf)
- 2008 Sebastopol, California: Reneges on its contract to install citywide Wi-Fi.**  
<http://www.boingboing.net/2008/03/24/town-of-sebastopol-c.html>
- 2008: University of Pittsburgh Cancer Institute: Children should never use a cell phone except in an emergency.** <http://www.post-gazette.com/pg/08205/898803-114.stm>

- 2008: Voice (UK Teachers Union) calls for a ban on Wi-Fi in schools.**  
<http://www.voicetheunion.org.uk/index.cfm/page/sections.content.cfm/cid/1326/navid/434/parentid/330>
- 2009: Hérouville Saint-Clair, France: Bans Wi-Fi in public schools.** <http://www.wifinschools.org.uk/4.html>
- 2009: Irish Doctors Environmental Association: Warns that current safety guidelines are “not appropriate.”**  
<http://www.ideaireland.org/>
- 2009: Karnataka State, India: Bans cell phones in all schools and pre-university colleges.**  
<http://www.hindu.com/2009/09/14/stories/2009091454460500.htm>
- May 2009: U.S. Fish and Wildlife Service urges Congress to focus on the potential connection between electromagnetic fields and “Bee Colony Collapse”.** <http://electromagnetichealth.org/electromagnetic-health-blog/emf-and-warnke-report-on-bees-birds-and-mankind/>
- July, 2010: France prohibits advertising cell phones to children under 14; prohibits children up to age 14 from using cell phones in pre-schools and public schools; requires cell phones to be labeled with SAR values and a recommendation to use headsets.** [http://www.next-up.org/pdf/Legifrance\\_Loi\\_nr\\_2010\\_788\\_du\\_12\\_07\\_2010\\_article\\_183\\_et\\_184\\_code\\_postes\\_et\\_des\\_communications\\_electroniques.pdf](http://www.next-up.org/pdf/Legifrance_Loi_nr_2010_788_du_12_07_2010_article_183_et_184_code_postes_et_des_communications_electroniques.pdf).

**DOCTORS AND SCIENTISTS CALLING FOR STRICTER REGULATION AND/OR A MORATORIUM ON WIRELESS TECHNOLOGY** <http://international-emf-alliance.org/index.php/appeals>,  
<http://www.ralf-woelfle.de/elektrosmog/redir.htm?http://www.ralf-woelfle.de/elektrosmog/allgemein/appelle.htm>, <http://www.avaate.org/IMG/doc/Alcalaci.doc>

**Vienna Resolution 1998**  
**Salzburg Resolution 2000**  
**Declaration of Alcalá 2002**  
**Catania Resolution 2002**  
**Freiburger Appeal 2002**  
**Bamberger Appeal 2004**  
**Maintaler Appeal 2004**  
**Coburger Appeal 2005**  
**Stockacher Appeal 2005**  
**Oberammergauer Appeal 2005**  
**Haibacher Appeal 2005**  
**Pfarrkirchener Appeal 2005**

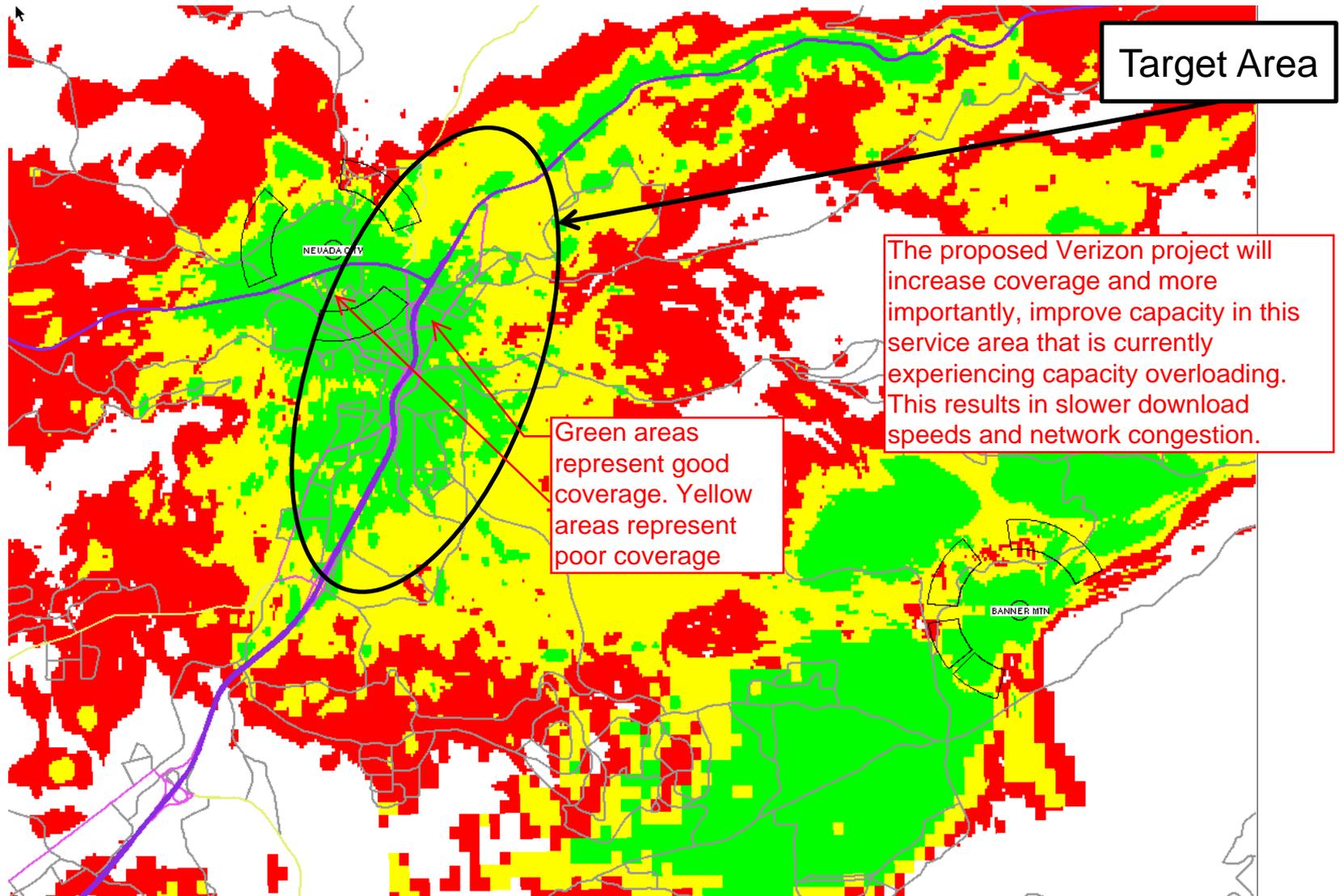
**Freienbacher Appeal 2005**  
**Lichtenfelser Appeal 2005**  
**Hofer Appeal 2005**  
**Helsinki Appeal 2005**  
**Parish Kirchner Appeal 2005**  
**Saarlander Appeal 2005**  
**Benevento Resolution 2006**  
**Allgäuer Appeal 2006**  
**WiMax Appeal 2006**  
**Brussels Appeal 2007**  
**Schlüchterner appeal**  
**Venice Resolution 2008**

**Berlin Appeal 2008**  
**Paris Appeal 2009**  
**London Resolution 2009**  
**Porto Alegre Resolution 2009**  
**European Parliament**  
**EMF Resolution 2009**  
**Dutch Appeal 2009**  
**Int'l Appeal of Würzburg 2010**  
**Copenhagen Resolution 2010**



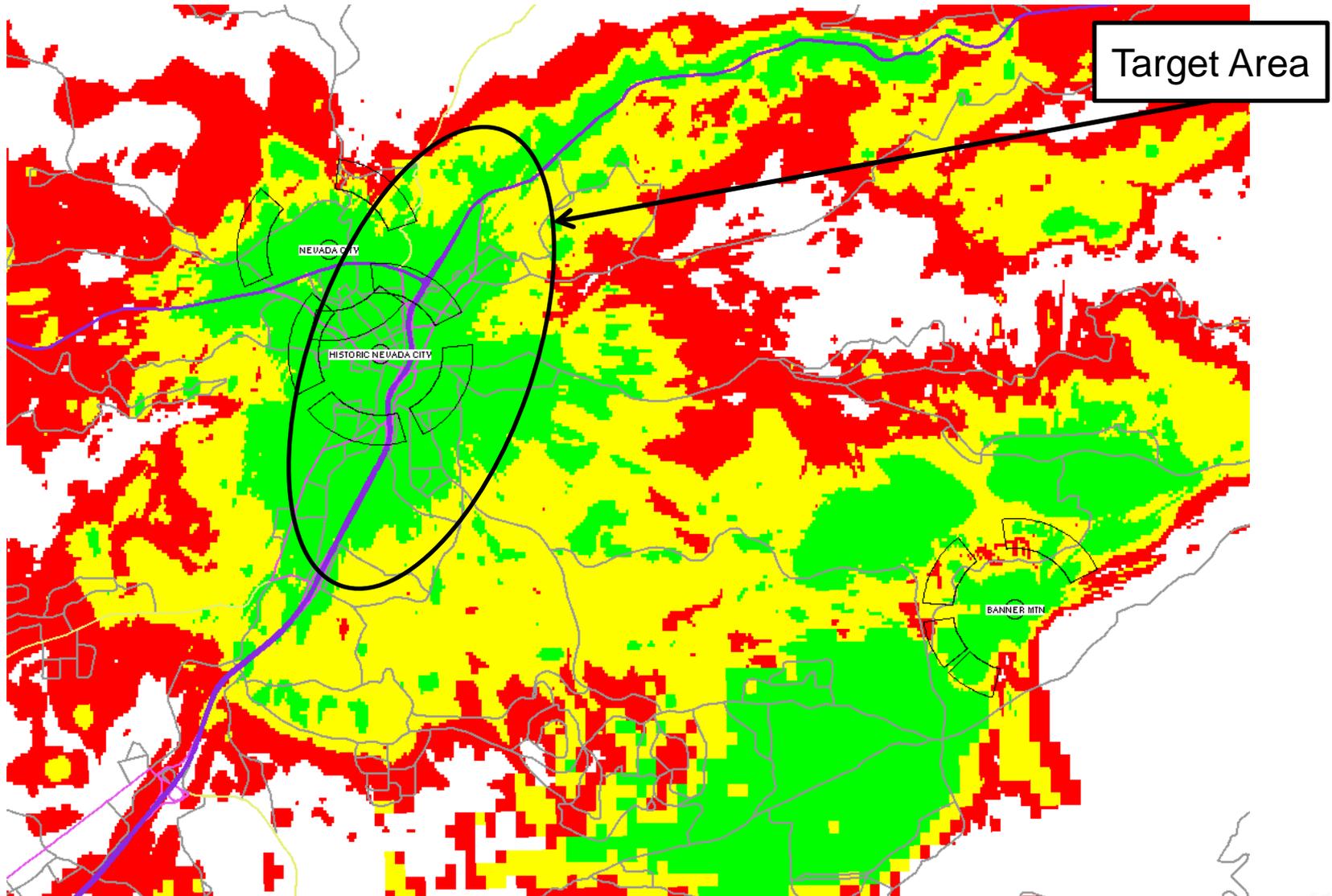
# Historic Nevada City

Objective: Capacity offload for Nevada City and Banner Mtn sites. Also to provide additional coverage for Nevada City



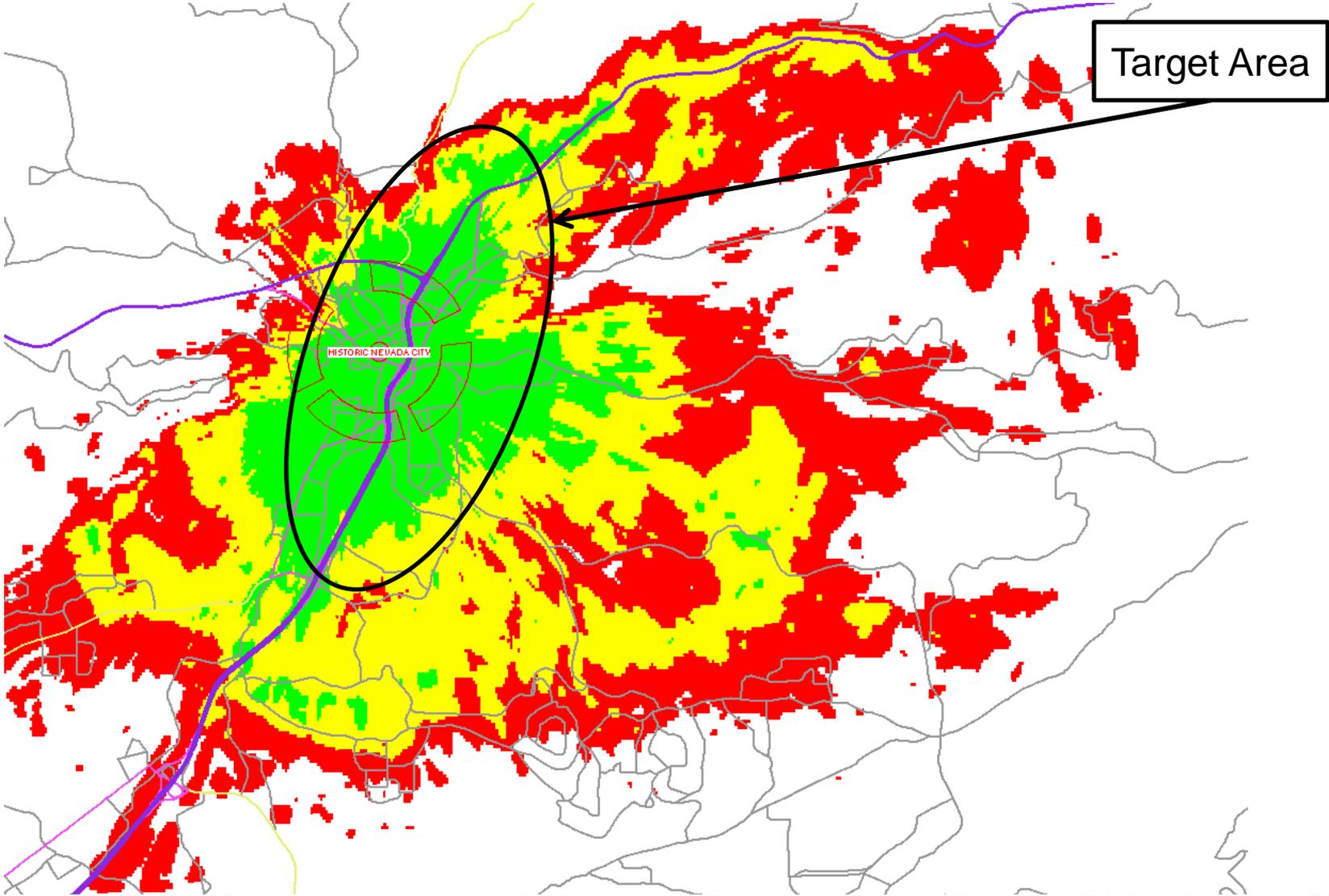


# Historic Nevada City After Coverage



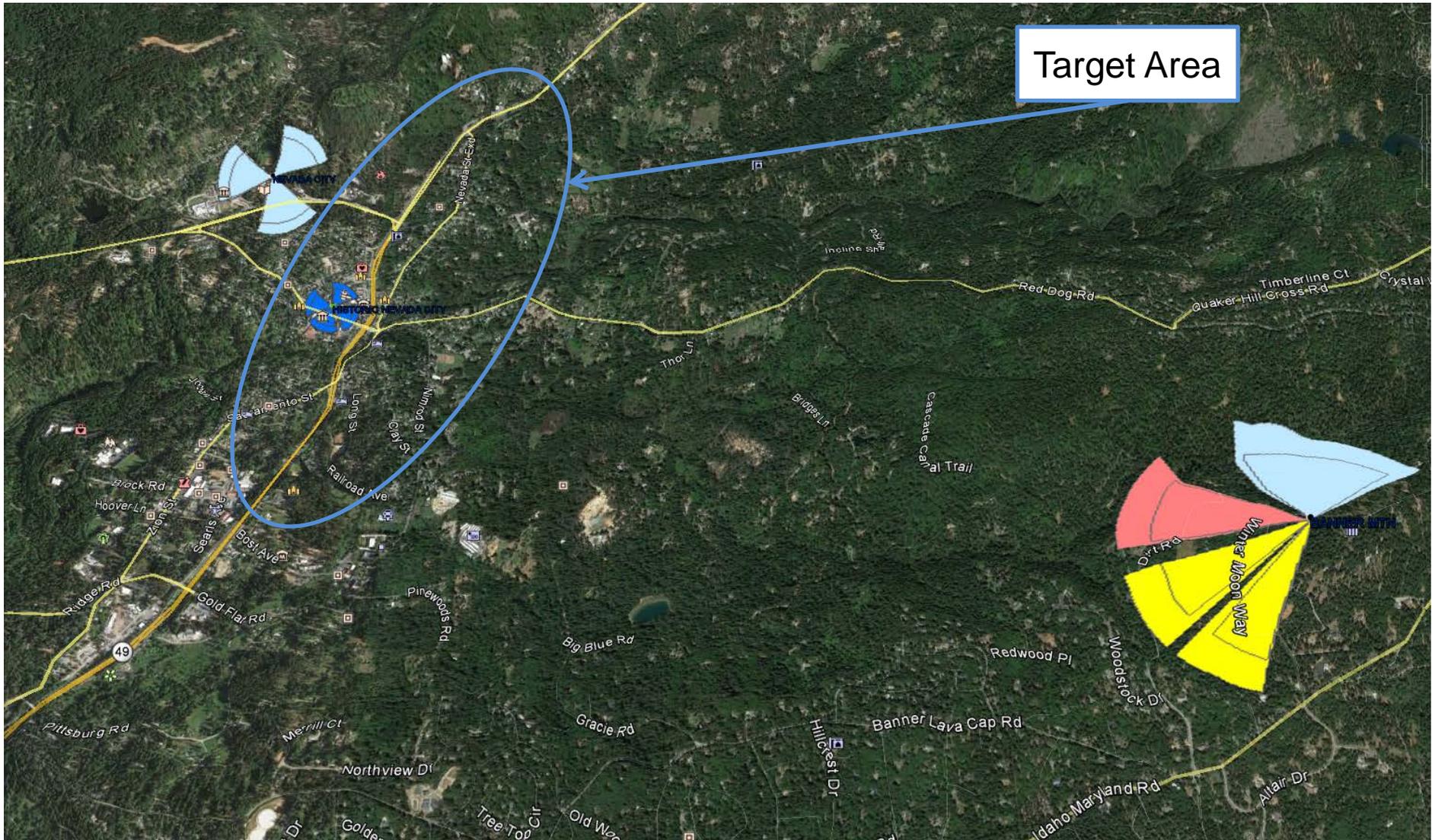


# Historic Nevada City Site Only Coverage

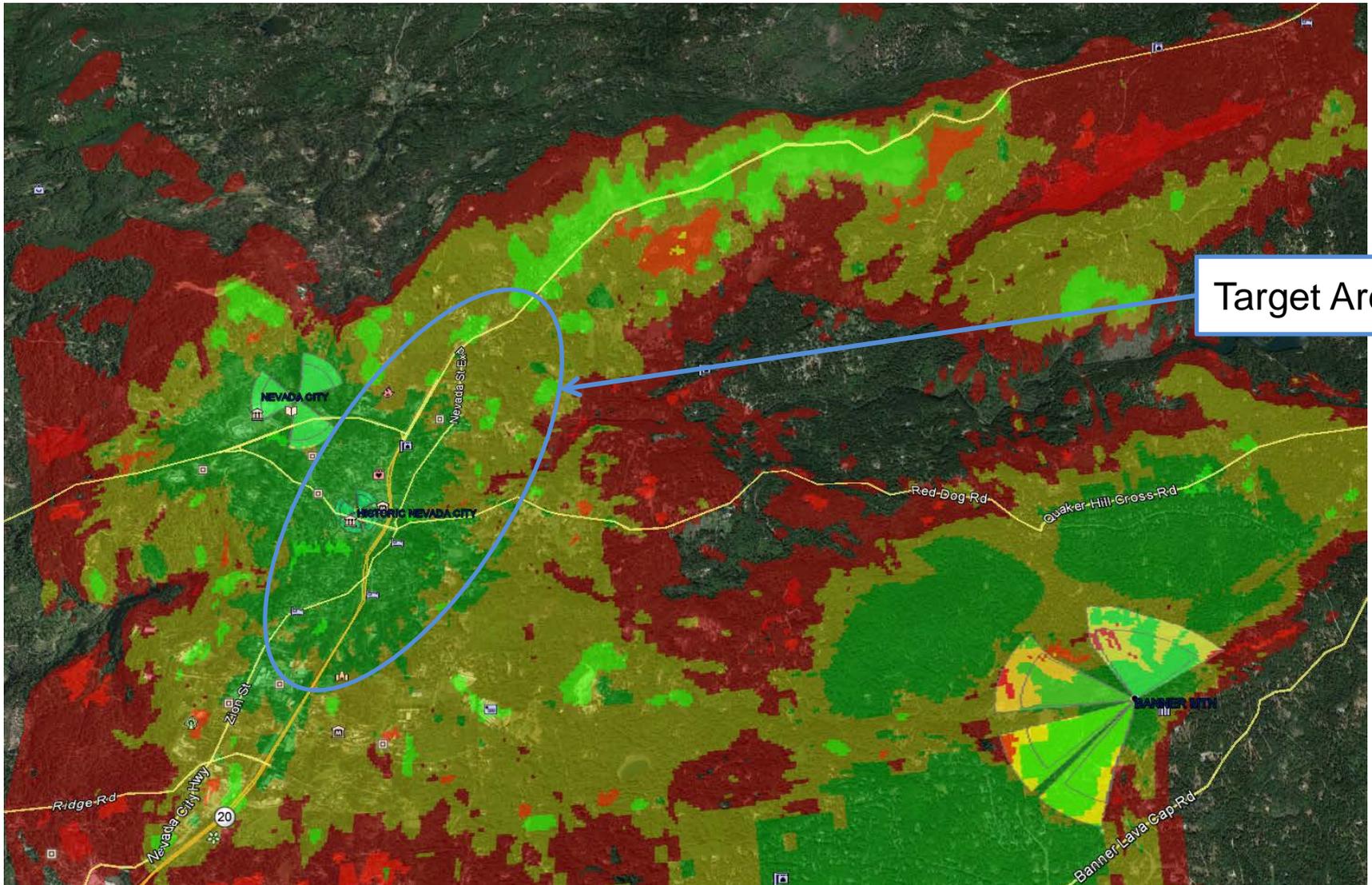




# Historic Nevada City Google Earth View

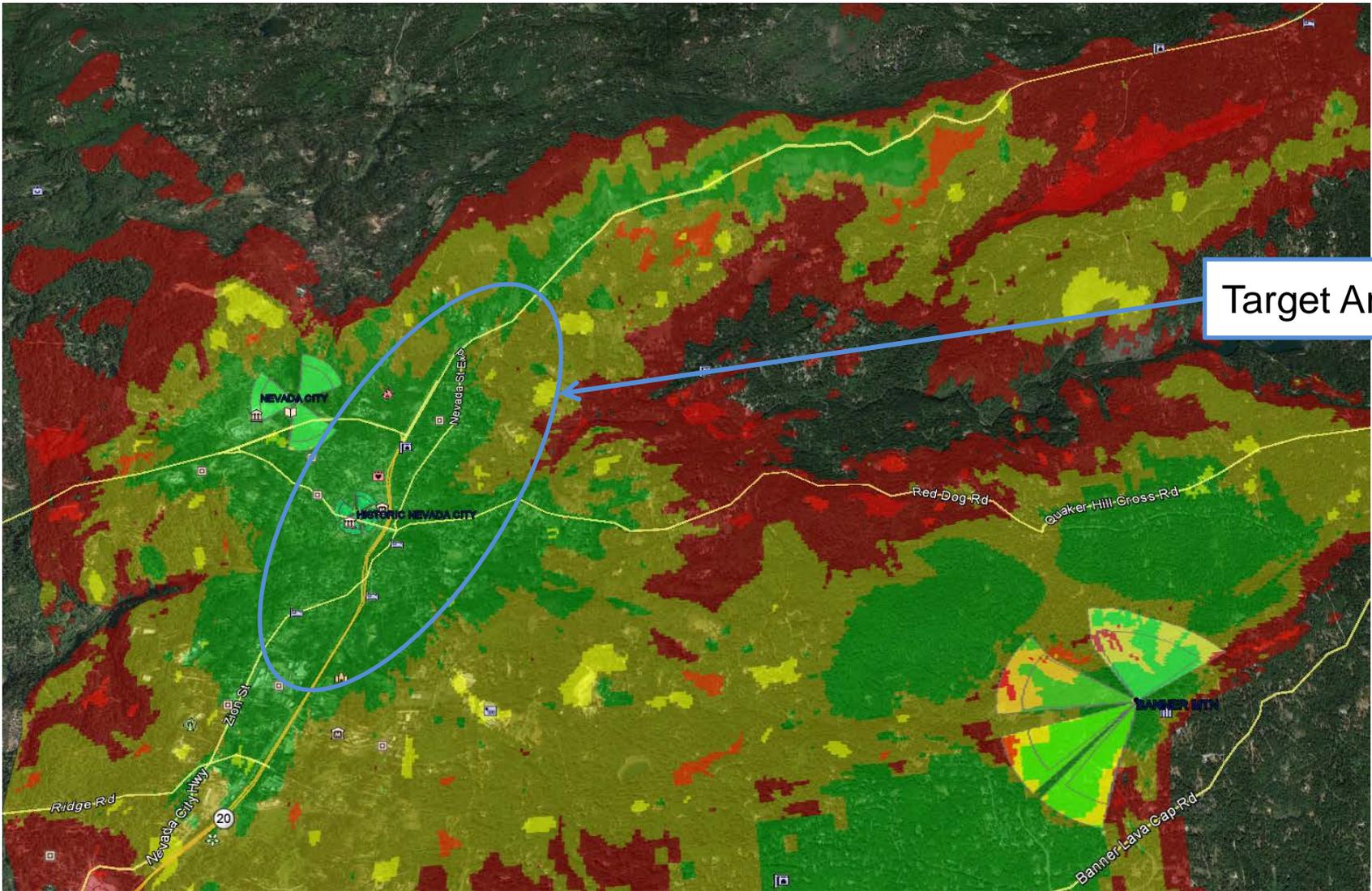


# Historic Nevada City Before Coverage – Google Earth





# Historic Nevada City After Coverage – Google Earth



Target Area

**From:** Mail [mailto:mail@h-e.com]  
**Sent:** Thursday, June 09, 2016 4:12 PM  
**To:** Amy Wolfson <Amy.Wolfson@nevadacityca.gov>  
**Cc:** Mark Lobaugh <MARK.LOBAUGH@epicwireless.net>; Bill Hammett <bhammett@h-e.com>  
**Subject:** Historic Nevada City - ANSI Report

Amy -

Mark Lobaugh asked that we send you the pertinent excerpts from the IEEE C95.1-2005 standard that I quoted at the recent public meeting.

### **C.1.2 Risk profile for adverse effects**

**6) Low-level effects:** Despite more than 50 years of RF research, low-level biological effects have not been established. No theoretical mechanism has been established that supports the existence of any effect characterized by trivial heating other than microwave hearing. Moreover, the relevance of reported low-level effects to health remains speculative and such effects are not useful for standard setting.

### **C.2.2.1 Basic restrictions for whole-body exposure**

**Paragraph 4:** ... the weight of scientific evidence supports the conclusion that no measurable risk is associated with RF exposures less than ... this standard ...

Please let us know if we can provide any further information at this time.

Regards,

Bill Hammett

**Hammett & Edison, Inc. • Consulting Engineers**  
Regulatory Compliance Services for the Wireless Industry  
RF Exposure, Noise, Interference & Coverage Studies  
707/996-5200 office • E-mail: [mail@h-e.com](mailto:mail@h-e.com)