NEVADA CITY PLANNING COMMISSION
STAFF REPORT

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

HEARING DATE: August 18, 2016

OWNER: 109 North Pine Street Commercial Condominium Owners Association

FILE TYPE: Use Permit

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

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

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. Applicant Exhibits Provided at June 16, 2016 Meeting
6. Croul Email to Epic Wireless, July 1, 2016
7. Epic Wireless Response to Croul Email
8. Photo Simulations: 6-foot antennas, 4-foot antennas, 4-foot antennas with stealth enclosure
9. Coverage and Capacity Analysis of Proposed Location by Verizon
10. Public Comments submitted since June 16, 2016

REQUESTED ACTION:

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

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:

The Planning Commission, in their capacity as Architectural Review Committee approved the Architectural Review of the antenna proposal at the March 17, 2016 meeting, finding that this particular antenna system's visible placement is necessary for functionality, and finding that mitigation measures could minimize the visual impact. The Use Permit proposal was first presented to the Planning Commission at the June 16, 2016 meeting. At that meeting several members of the public expressed concerns for the potential harmful effects of radio frequency electromagnetic fields emanating from the proposed cellular antennas. Some also objected to the visual obtrusiveness of the antennas within the Historical District.

The Planning Commission was divided in their opinion of the antennas. Some commissioners felt that the cellular infrastructure was a necessary component of modern life and that this was just one more addition to an environment immersed in technological infrastructure. Others questioned the necessity of the antennas at the proposed location. The applicant provided several exhibits intended to show a capacity deficit in the area. Commissioners noted that the heaviest use was actually southwest of the Historical District (see Attachment 5.1) and suggested that a better location may be near our Light-Industrial District where it would be more appropriate to serve the most intensive use area. Another location would have the added benefit of minimizing the visual impact and minimizing health concerns of residents and visitors if proposed in a location that doesn't concentrate a large number of people. Other reservations had to do with whether there might be more advanced technologies available that would be less visually obtrusive, such as antennas outside the Historical District with smaller profile booster cells throughout the City that could still augment capacity in the downtown area.

The Verizon representative reached out to the Commission Chair after the meeting in an attempt to specifically address some of his concerns for the project proposal. Chair Croul provided comments he sent to Mark Lobaugh, the spokesperson for the project, provided as Attachment 6. In addition to reiterating some of the concerns mentioned above, Croul requested clarification on whether enabling WiFi capability could eliminate the need for additional cellular signals. He also questioned Verizon's pending roll out of

their 5G program in the coming year, which will require smaller systems to cover a given area. He suggests that smaller systems with a lower power output may be more suitable for the Historic District.

APPLICANT RESPONSE:

The applicant has responded to the commission's concerns by proposing a smaller antenna profile. The smaller antenna reduces the size of each antenna from a six-foot height to a four-foot height. The applicant has also re-proposed the idea of placing a faux chimney stealth enclosure around the four-foot antenna. The stealth enclosure was originally considered for the six-foot antennas as part of the Architectural Review component of this application. At that time, the commission found the stealth enclosures were too large and were too visually obtrusive. However, the applicant is presenting them again as an option for the four-foot antennas as they are less visually obtrusive when used to screen the lower profile antenna option. Epic wireless cautions, however, that the four-foot antennas will result in some signal reduction as compared to the six-foot antenna option. All three options before the commission are represented in the photo simulations provided in Attachment 8.

Epic Wireless has provided a written response to Chair Croul's email, included as Attachment 7. In summary, the applicant indicates that they would need 30 microcells in order to meet the coverage objective of the proposed eight standard antennas due to the challenging terrain of the area. Their response also indicates that WiFi technology is not as reliable as cellular-based systems and that Verizon does not plan on deploying WiFi networks.

PUBLIC COMMENT:

Staff has received several comment statements in the form of letters, video files, and exhibits from the public and from public agencies. Amongst these statements, is a letter from the Nevada County Historical Society voicing its objection to the erection of cellular antennas in the Historical District. We've also received video file links which staff has provided links to on the webpage devoted to this project on the City's website at NevadaCityCA.gov. All written comments are provided as Attachment 10 of this report.

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 initial Use Permit hearing on June 16, 2016. Staff continues to accept comments until final action is taken on the project. 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 GB base zoning district provided that conditions are implemented in order to allow proper integration into the surrounding community. Staff has prepared recommended findings below in the event the Planning Commission is prepared to approve the Use Permit application. In the event the Planning Commission intends to deny the application, staff recommends that they do so with a *Motion of Intent* so that staff can draft clear findings for adoption at the following meeting.

RECOMMENDATION:

In approving this application 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 General Business (GB) base zoning district which allows public and quasipublic uses with an approved use permit and is consistent with the Historic District (HD) combining district with adequate aesthetic mitigation measures in place;

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) 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

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

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NEVADA COUNTY, CALIFORNIA
INITIAL STUDY

TO:

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

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

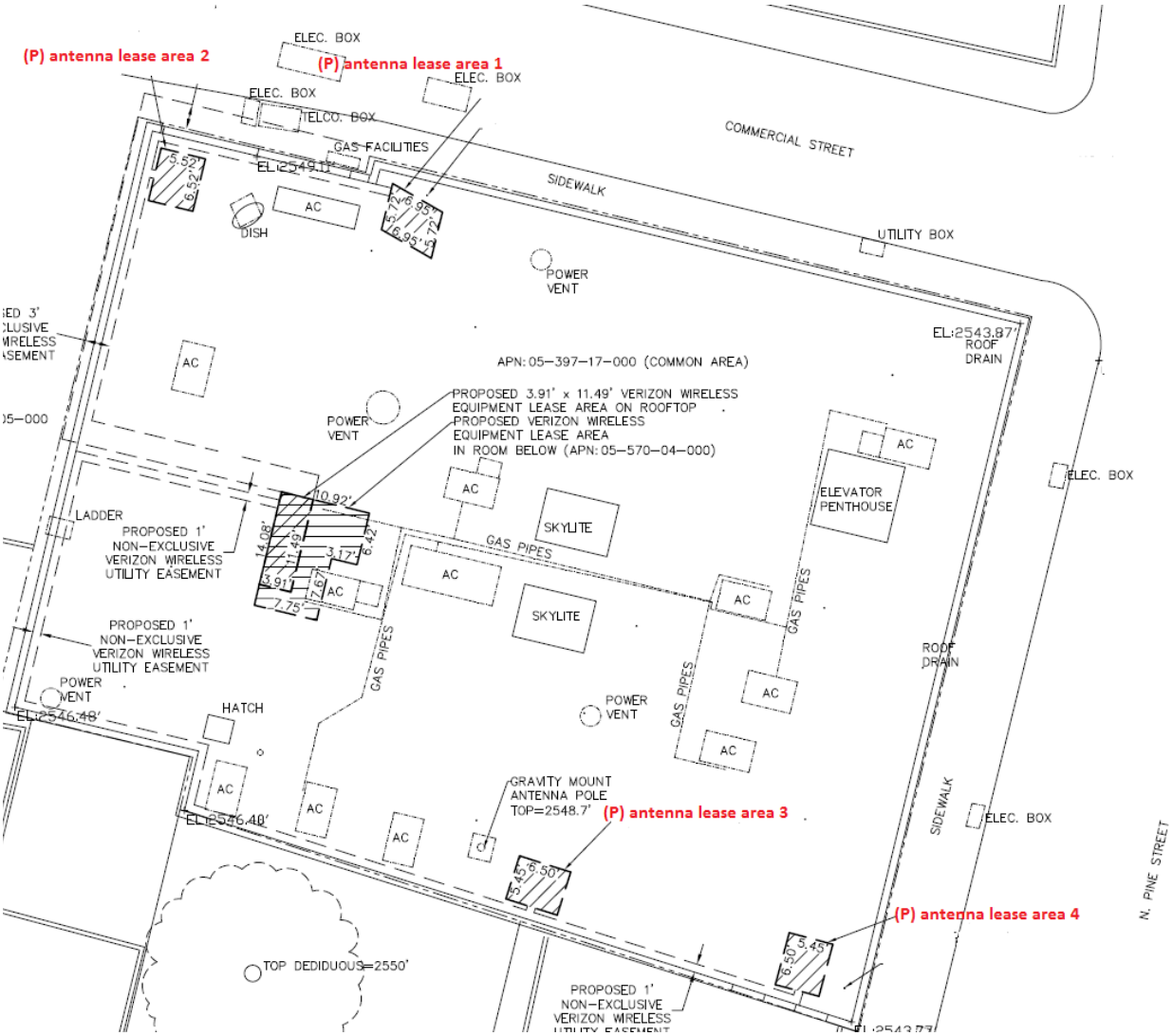
Project Location: 109 North Pine Street at the corner of Commercial Street and North Pine Street

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

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. <u>AIR QUALITY:</u>

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) 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

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 form 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

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, serpentine rock (or serpentine), 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

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) 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

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

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. <u>GEOLOGY / SOILS</u>

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

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 (CO2), methane, halocarbons (HFCs), and nitrous oxide (NO2). CO2 emissions, stemming largely from fossil fuel combustion, comprise about 87% of California emissions. In California, approximately 43% of the CO2 emissions come from cars and trucks. Agriculture is a major source of both methane and NO2, 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 CO2. 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 (Douglas 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 (CO2) 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 CO2 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

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 Avid 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/cm². 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/cm², 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 raidus 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*

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 form 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.

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

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

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

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

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/

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)
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

PROJECT DESCRIPTION

NEW SITE BUILD UNMANNED TELECOMMUNICATIONS FACILITY TO BE LOCATED INSIDE AND ON TOP OF AN EXISTING STRUCTURE:

1. (P) (3) STEALTH CHIMNEYS INSTALLED ON (E) ROOF DECK
2. ADD (2) PANEL ANTENNAS PER SECTOR (4 SECTORS, 8 ANTENNAS TOTAL)
3. ADD (3) RRUS WITH A2 MODULE OR RRUS 32 BEHIND PER SECTOR, FOR A TOTAL OF (12) MOUNTED BEHIND ANTENNAS.
4. ADD (4) VERIZON WIRELESS EQUIPMENT CABINETS IN (P) EQUIPMENT ROOM
5. ADD (P) METER, DISCONNECT, & TELCO BOARD IN (P) EQUIPMENT ROOM
6. ADD (4) SURGE SUPPRESSORS, (2) MOUNTED AT (P) ANTENNAS, (2) INSIDE (P) EQUIPMENT ROOM
7. ADD (2) HYBRID FIBER CABLES
8. 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: COMMERICAL - 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 STREETSAN 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

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

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

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

		REV
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

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.

1) 2013 CALIFORNIA ADMINISTRATIVE CODE, CHAPTER 10, PART 1, TITLE 24 CODE OF REGULATIONS
2) 2013 CALIFORNIA BUILDING CODE (CBC) WITH CALIFORNIA AMENDMENTS, BASED ON THE 2012 IBC (PART 2, VOL 1-2)
3) 2013 CALIFORNIA RESIDENTIAL CODE (CRC) WITH APPENDIX H, PATIO COVERS, BASED ON THE 2012 IRC (PART 2.5)
4) 2013 CALIFORNIA GREEN BUILDINGS STANDARDS CODE (CALGREEN) (PART 11) (AFFECTED ENERGY PROVISIONS ONLY)
5) 2013 CALIFORNIA FIRE CODE (CFC), BASED ON THE 2012 IFC, WITH CALIFORNIA AMENDMENTS (PART 9)
6) 2013 CALIFORNIA MECHANICAL CODE (CMC), BASED ON THE 2012 UMC (PART 4)
7) 2013 CALIFORNIA PLUMBING CODE (CPC), BASED ON THE 2012 UPC (PART 5)
8) 2013 CALIFORNIA ELECTRICAL CODE (CEC) WITH CALIFORNIA AMENDMENTS, BASED ON THE 2011 NEC (PART 3)
9) 2013 CALIFORNIA ENERGY CODE (CEC)
10) ANSI / EIA-TIA-222-G
11) 2012 NFPA 101, LIFE SAFETY CODE
12) 2013 NFPA 72, NATIONAL FIRE ALARM CODE
13) 2013 NFPA 13, FIRE SPRINKLER CODE

VICINITY MAP

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

DIRECTIONS FROM VERIZON WIRELESS

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

1. Head northeast on Parkshore Dr toward Coolidge Dr
2. Turn left onto Coolidge Dr
3. Take the 3rd left onto Glenn Dr
4. Turn right onto Folsom Blvd
5. Continue onto Folsom-Auburn Rd
6. Continue onto Auburn Folsom Rd
7. Turn left onto Cavitt Stallman Rd
8. Take the 1st right onto Laird Rd
9. Turn right onto Horseshoe Bar Rd
10. Take the 1st left to stay on Horseshoe Bar Rd
11. Turn right to merge onto I-80 E
12. Merge onto I-80 E
13. Take the CA-49 exit toward Grass Valley/Placerville
14. Turn left onto CA-193 W/CA-49 N/Grass Valley Hwy
15. Take the Broad Street exit
16. Turn left onto Broad St
17. Take the 2nd right onto N Pine St

Destination will be on the left

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.

DIGALERT
800-227-2600
Call 2 Full Working Days In Advance

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:

ARCHITECTURE PLANNING INTERIORS
ARCHITECTURAL GROUP Borges
1478 STONE POINT DRIVE SUITE 350 ROSEVILLE CA 95661 T| 916 782 7200 F| 916 773 3037 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:
TITLE SHEET

SHEET NUMBER:
A-0

140002-35

Plot Date:3/30/2016 2:36:59 PM File Name(s):20141714002 - Epic Wireless VZW\14002-35_Historic Nevada City_278749\278749 Historic Nevada City Sheets\Title Sheet.dwg Plotted By:Susan Dutrich

City of Nevada City

March 22, 2016

Epic Wirelesss Group, Inc.
ATTN: Mark Lobaugh
8700 Auburn Folsom Road, Ste. 400
Granite Bay, CA 95746

Subject: Approved Architectural Review Application for the erection of cellular antennae and supporting infrastructure on the rooftop of 109 North Pine Street

Dear Mr. Lobaugh,

On March 17, 2016 the Planning Commission considered your applications for Architectural Review 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. The Planning Commission approved your Architectural Review application subject to the following conditions:

CONDITIONS:

1. Any permits associated with the construction of this project shall substantially conform to the exhibits presented to the Commission as modified at the public hearing.
2. Prior to issuance of building permits, the applicant must obtain approval for a Conditional Use Permit pursuant to Zoning Ordinance, Section 17.88.
3. The antennae and any exposed infrastructure shall be painted gray in a shade that effectively recedes into the background. No Stealth concealment enclosures shall be installed.
4. The four antennae shown in the southeast corner of the rooftop shall be separated in pairs, with one pair relocated along the rooftop in a westerly direction in order to break up the massing of the antennae.

Pursuant to Section 17.88.050 of the Nevada City Municipal Code, any decision of the Planning Commission may be appealed to the City Council. Appeals must be made in writing to the city clerk, within fifteen (15) days of the decision. The appeal letter or information must include the reason why the appeal is necessary and must be accompanied by the filing fees currently prescribed by ordinance. The deadline for appeal of this approval decision is **Friday, Aprill 1, 2016 by 5:00** p.m. You are advised not to commence work until after the appeal period. Please let me know if you have any questions.

Sincerely,

Amy Wolfson
City Planner
(530) 265-2496 x130

City Hall • 317 Broad Street • Nevada City, California 95959 • (530) 265-2496

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:

ARCHITECTURE PLANNING INTERIORS
ARCHITECTURAL GROUP Borges
8478 STONE POINT DRIVE
SUITE 200
ROSEVILLE CA 95661
T| 916 781 7200
F| 916 773 3037
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:

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Issued For:

03/30/16

100% ZD Submittal

SHEET TITLE:

CONDITIONS OF APPROVAL

SHEET NUMBER:

COA-1

14002-35

Plot Date:3/30/2016 2:41:12 PM File Name:C:\2014\14002 - Epic Wireless\Dwg\14002-35_Historic Nevada City,278749\278749 Historic Nevada City Sheets\COA-1 Conditions of Approval.dwg Plotted By:Susan Daniels

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

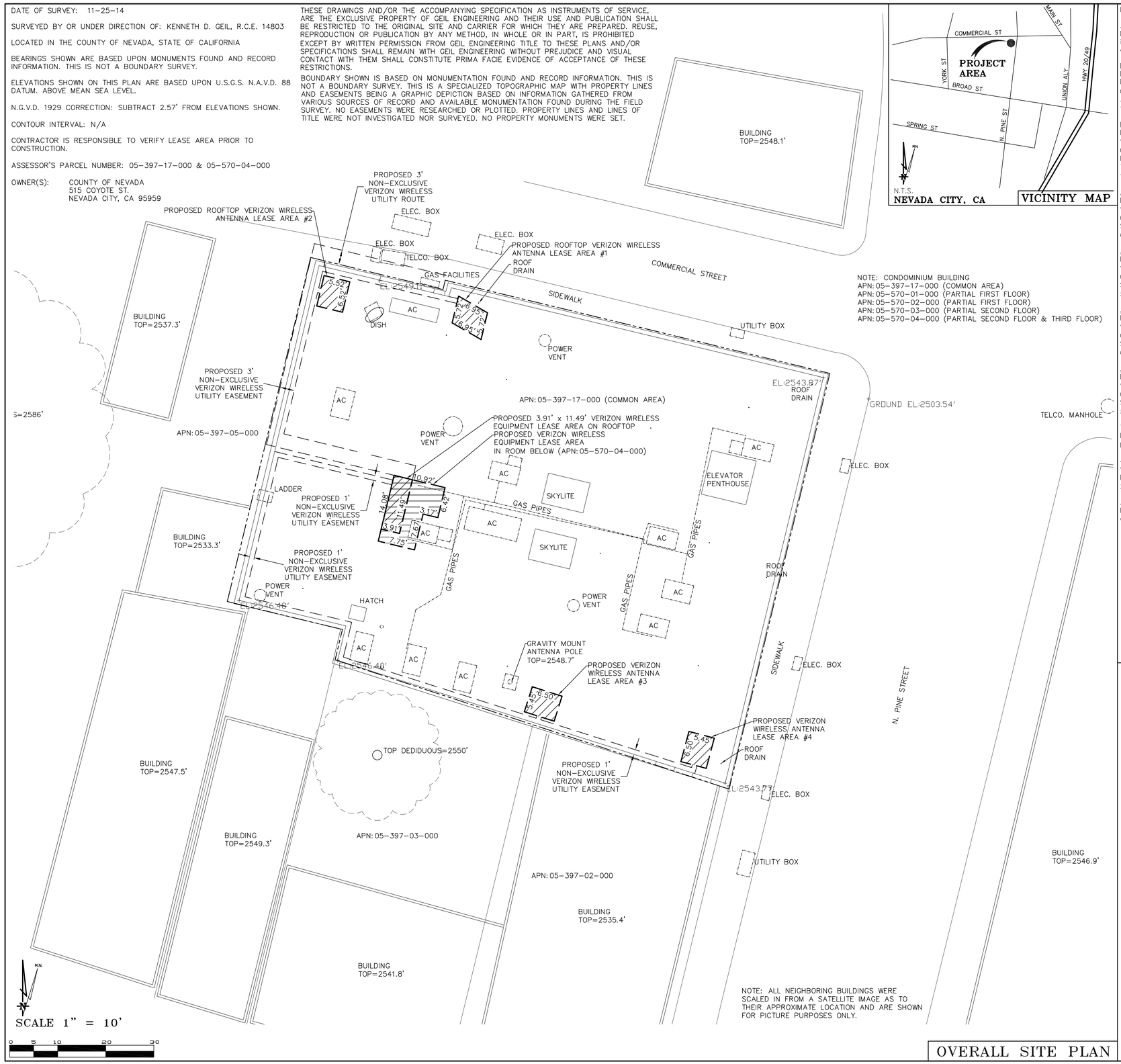
CONTRACTOR IS RESPONSIBLE TO VERIFY LEASE AREA PRIOR TO CONSTRUCTION.

ASSESSOR'S PARCEL NUMBER: 05–397–17–000 & 05–570–04–000

OWNER(S): COUNTY OF NEVADA
515 COYOTE ST.
NEVADA CITY, CA 95959

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.



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)

NOTE: ALL NEIGHBORING BUILDINGS WERE SCALED IN FROM A SATELLITE IMAGE AS TO THEIR APPROXIMATE LOCATION AND ARE SHOWN FOR PICTURE PURPOSES ONLY.

OVERALL SITE PLAN

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.

Geil Engineering
Engineering * Surveying * Planning
1226 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.

Kenneth D. Geil California RCE 14803

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

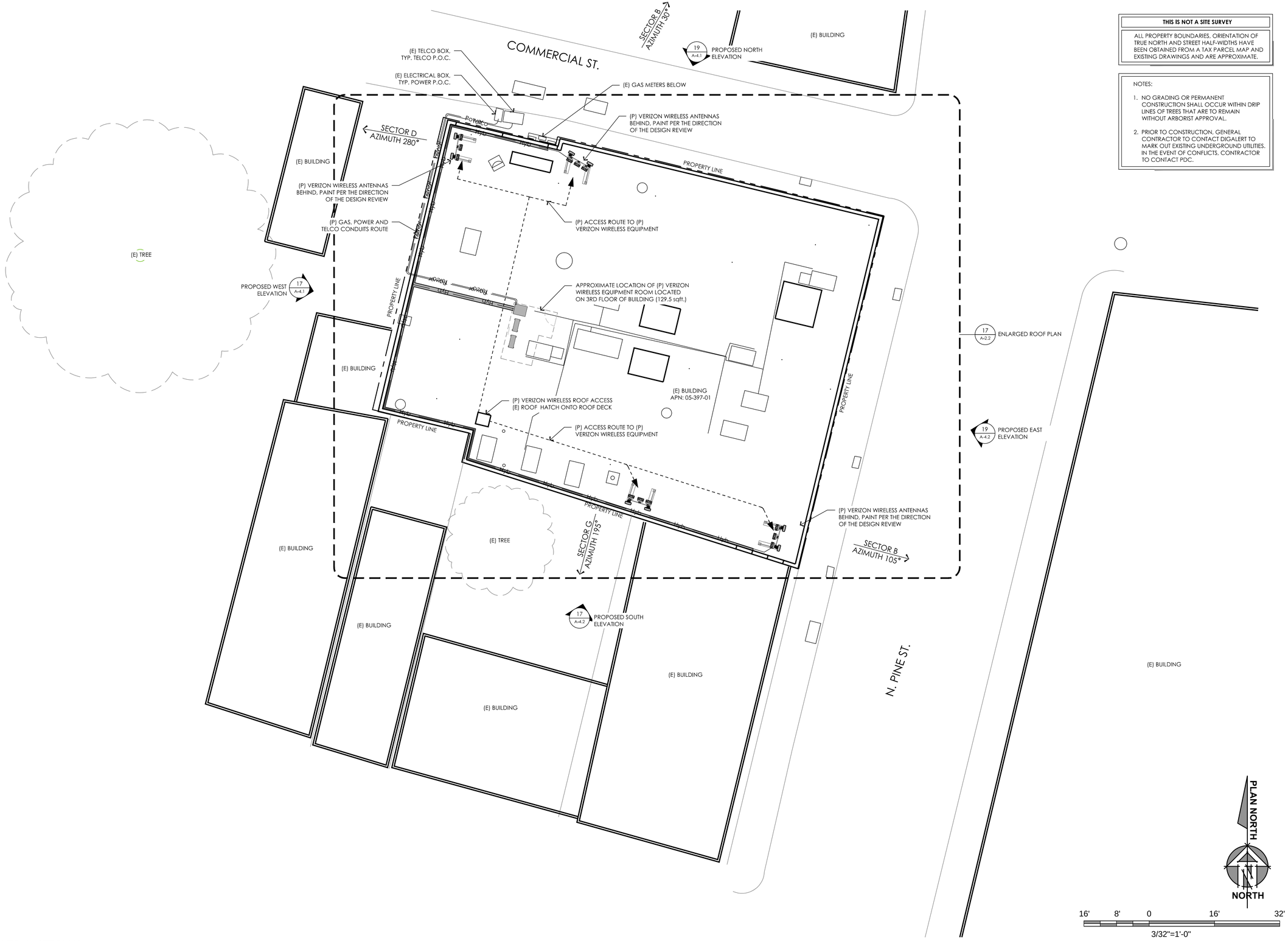
Surveyor
GEIL ENGINEERING
ENGINEERING * SURVEYING * PLANNING
1226 HIGH STREET
AUBURN, CALIFORNIA 95603
phone: (530) 885–0426
fax: (530) 823–1309

verizon wireless

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

REVISIONS			
REV	11–26–14	PRELIMINARY DRAWING	
REV	N. ROHDE		
REV	01–09–15	LEASE AREA PLACED	
REV	N. ROHDE		
REV	03–06–15	LEASE AREA MOD.	
REV	N. ROHDE		
REV	03–16–15	LEASE AREA MOD.	
REV	N. ROHDE		
REV	05–08–15	LEASE AREA MOD.	
REV	N. ROHDE		
REV	12–23–15	APN'S ADDED	
REV	N. ROHDE		
REV	02–10–16	LEASE AREA MOD.	
REV	N. ROHDE		
REV	03–16–16	TITLE WORK UPDATE	
REV	N. ROHDE		
REV	03–30–16	LEASE AREA MOD.	
REV	N. ROHDE		
REV			

Sheet
C–1



17 OVERALL SITE PLAN
3/32" = 1'-0"

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:

ARCHITECTURE PLANNING INTERIORS
ARCHITECTURAL GROUP Borges
8478 STONE POINT DRIVE
SUITE 200
ROSEVILLE CA 95661
T| 916 782 7200
F| 916 773 3037
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
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SHEET TITLE:

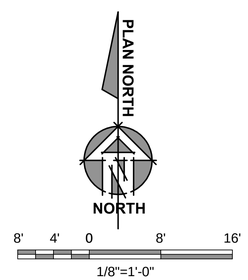
OVERALL SITE PLAN

SHEET NUMBER:

A-1

14002-35

Plot Date:3/30/2016 2:41:51 PM File Name:T:\2014\14002-35_Boone Nevada City\278749 Boone Nevada City\Sheets\A-1 Overall Site Plan.dwg Plotted By:Susan Daniels

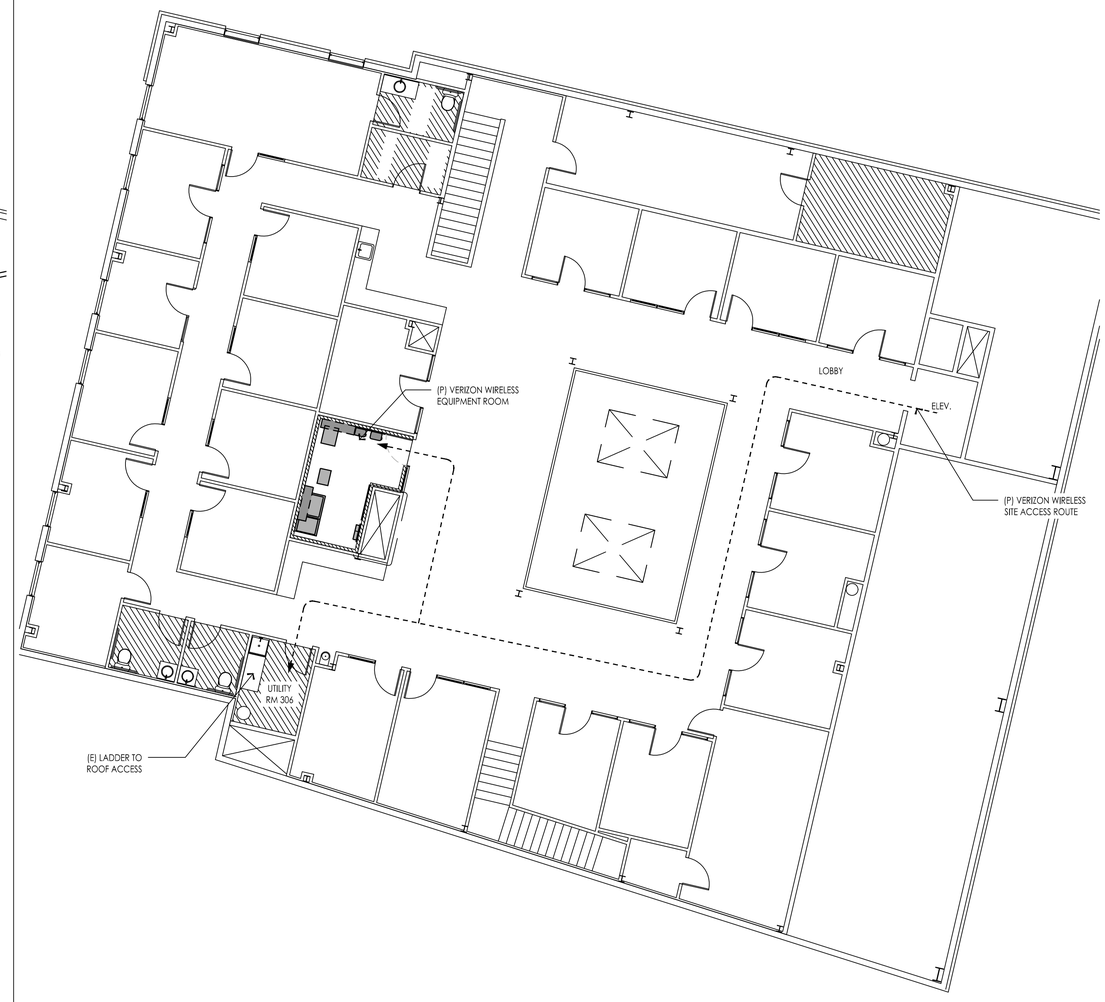


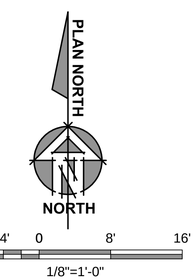
8' 4' 0 8' 16'

1/8"=1'-0"

17 GROUND FLOOR PLAN

1/8" = 1'-0"





8' 4' 0 8' 16'

1/8"=1'-0"

9 THIRD FLOOR PLAN

1/8" = 1'-0"

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Project Address:

Architect:

ARCHITECTURE PLANNING INTERIORS

ARCHITECTURAL GROUP Borges

8478 STONE POINT DRIVE
SUITE 200
ROSEVILLE CA 95661
T| 916 782 7200
F| 916 773 3037
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PROJECT NO:	20130974364
LOCATION NO:	278749
DRAWN BY:	H.L.H.
CHECKED BY:	B.K.W.

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SHEET TITLE:

FLOOR PLANS

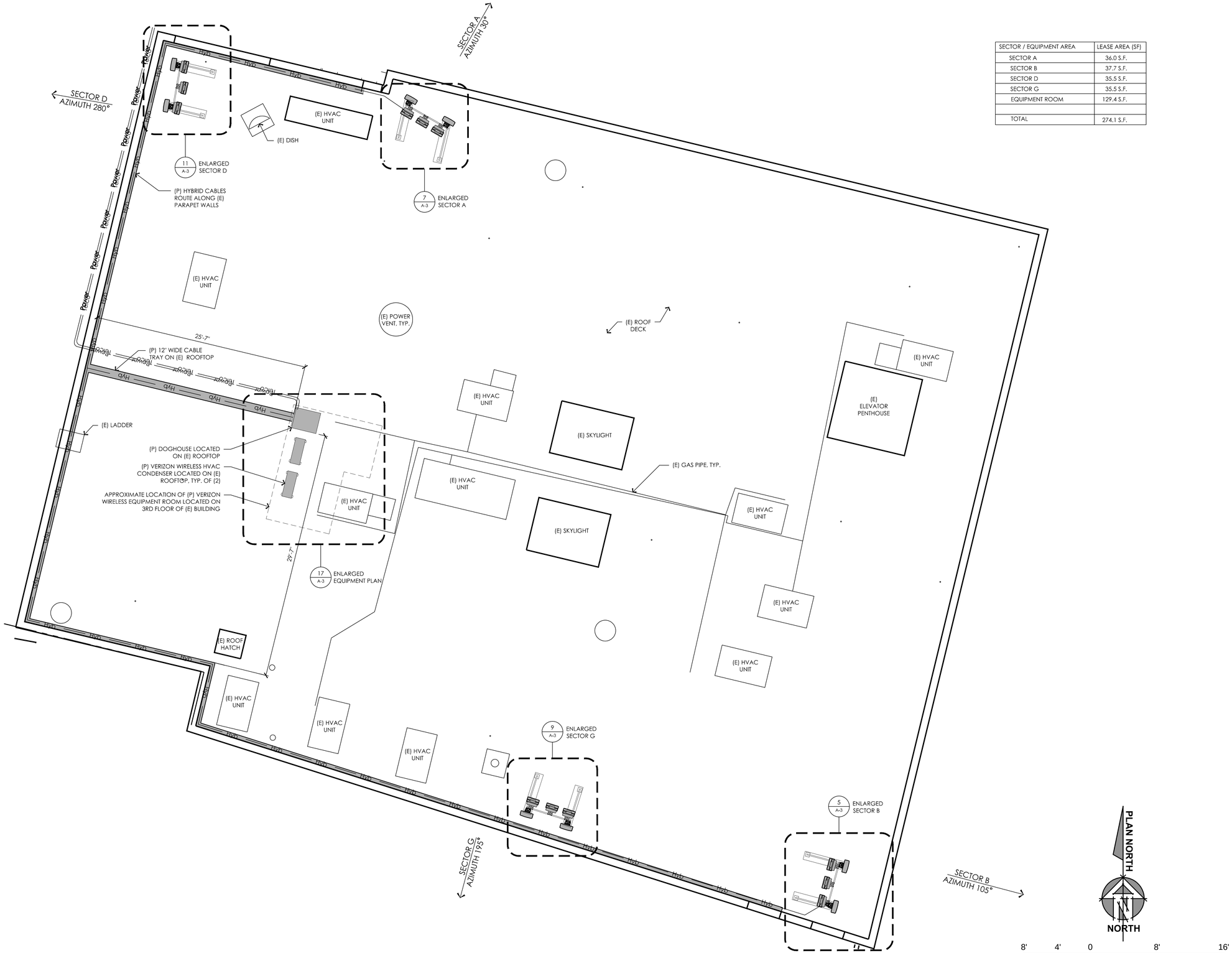
SHEET NUMBER:

A-2.1

14002-35

Plot Date:3/30/2016 2:48:58 PM File Name:T:\20141\14002-35_Bonnie Nevada City\278749 Bonnie Nevada City\Sheets\A-2.1 Floor Plans.dwg Plotted By:Susan Daniels

SECTOR / EQUIPMENT AREA	LEASE AREA (SF)
SECTOR A	36.0 S.F.
SECTOR B	37.7 S.F.
SECTOR D	35.5 S.F.
SECTOR G	35.5 S.F.
EQUIPMENT ROOM	129.4 S.F.
TOTAL	274.1 S.F.



17 ENLARGED ROOF PLAN
3/16" = 1'-0"

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:

ARCHITECTURE PLANNING INTERIORS
ARCHITECTURAL GROUP Borges
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ROSEVILLE CA 95661
T| 916 781 7200
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PROJECT NO:	20130974364
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DRAWN BY:	H.L.H.
CHECKED BY:	B.K.W.

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03/30/16
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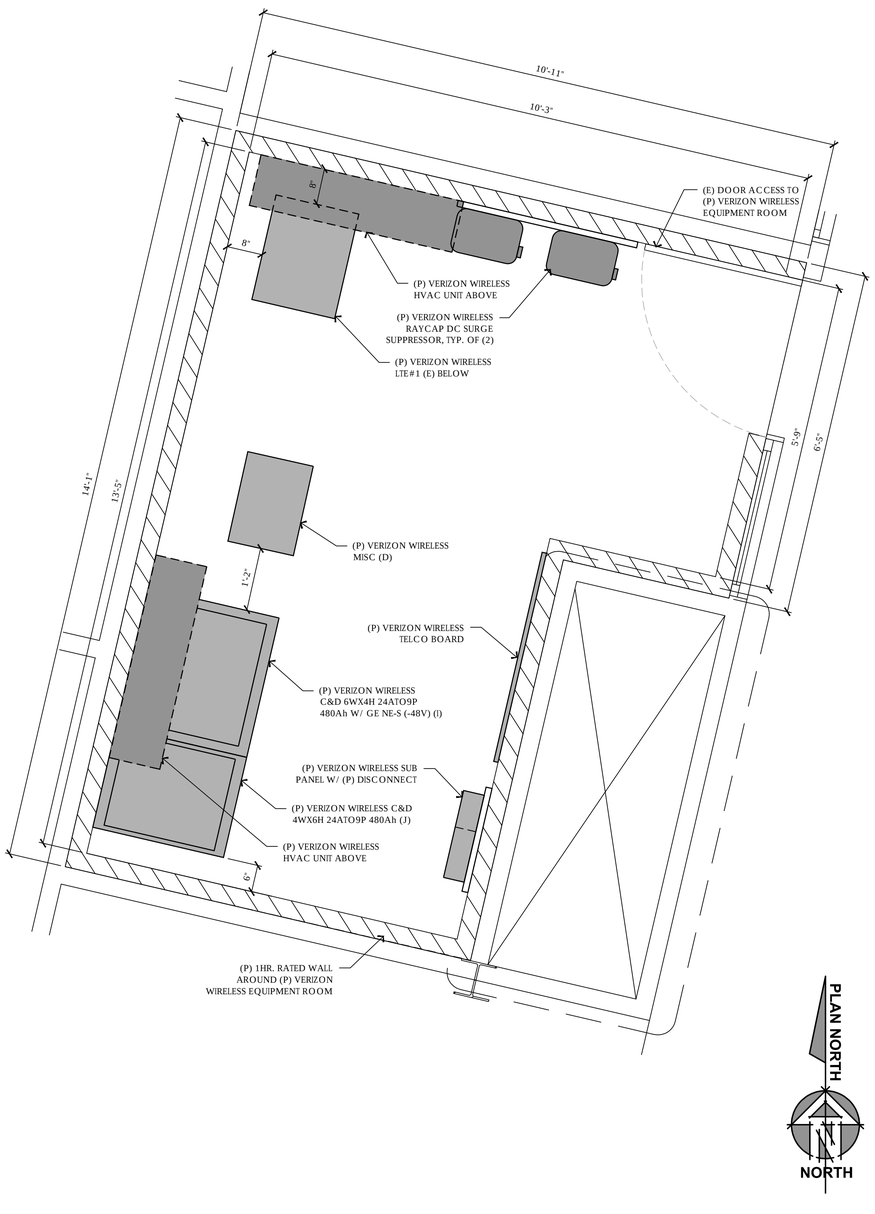
SHEET TITLE:
ENLARGED ROOF PLAN

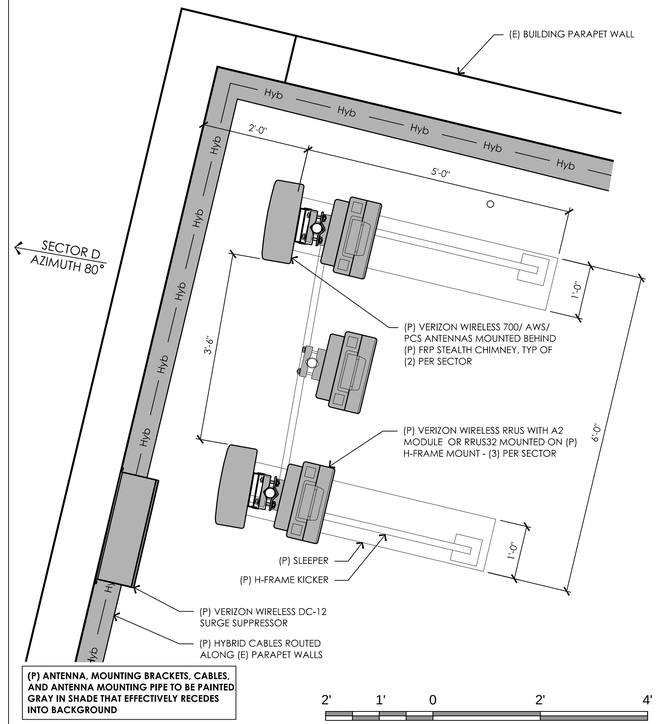
SHEET NUMBER:
A-2.2

14002-35

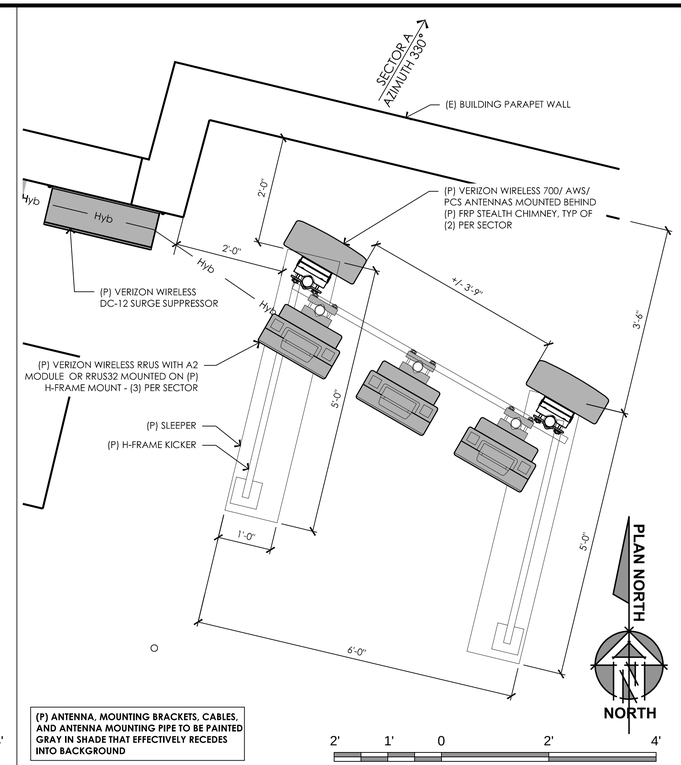
Plot Date:3/30/2016 2:51:11 PM File Name:T:\2014\14002 - Epic Wireless\VIW\14002-35_Historic Nevada City\Sheets\A-2.2 Enlarged Site Plan.dwg Plotted By:Susan Daniels



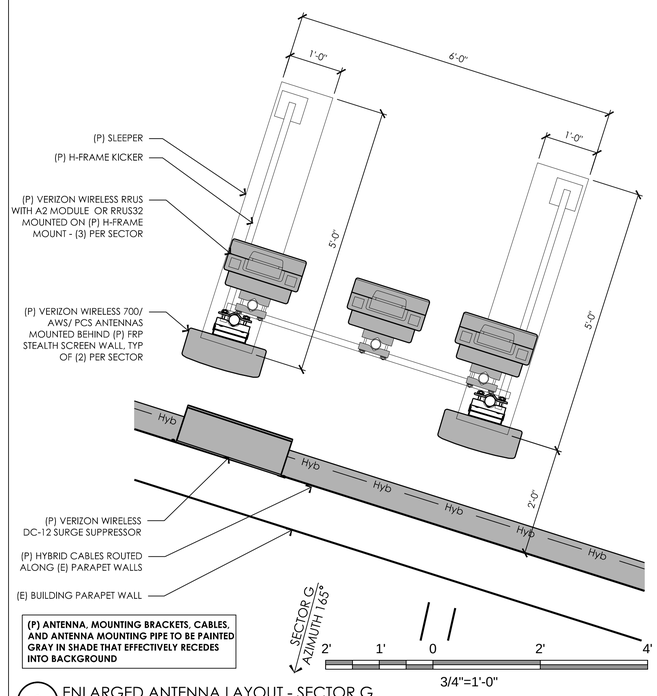
17 ENLARGED EQUIPMENT PLAN
3/4" = 1'-0"



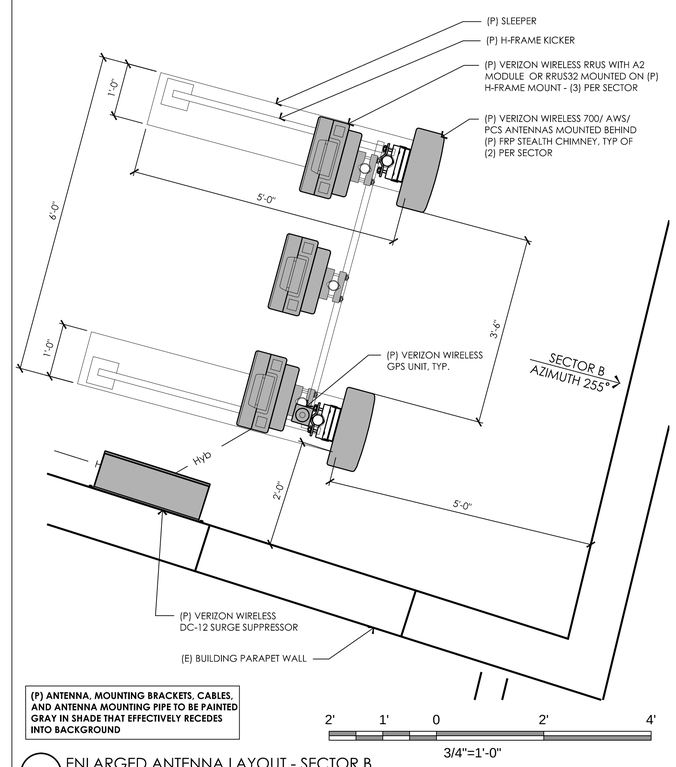
11 ENLARGED ANTENNA LAYOUT - SECTOR D
3/4" = 1'-0"



7 ENLARGED ANTENNA LAYOUT - SECTOR A
3/4" = 1'-0"



9 ENLARGED ANTENNA LAYOUT - SECTOR G
3/4" = 1'-0"



5 ENLARGED ANTENNA LAYOUT - SECTOR B
3/4" = 1'-0"

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295 Parkshore Drive
Folsom, California 94630

Vendor:

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

Project Address:

Architect:

ARCHITECTURE PLANNING INTERIORS
ARCHITECTURAL GROUP Borges
8478 STONE POINT DRIVE SUITE 200
ROSEVILLE CA 95661
T| 916 781 7200
F| 916 773 3037
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PROJECT NO:	20130974364
LOCATION NO:	278749
DRAWN BY:	H.L.H.
CHECKED BY:	B.K.W.

REV	DATE	DESCRIPTION
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SHEET TITLE:

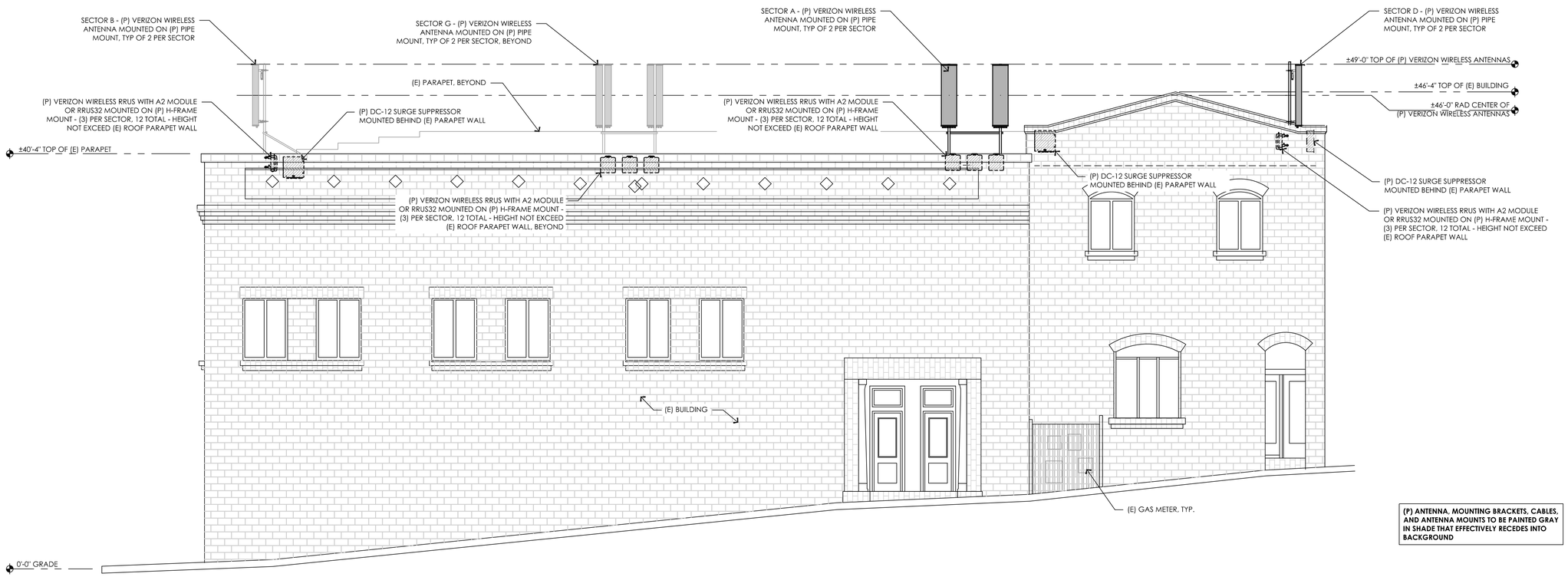
EQUIPMENT & ANTENNA LAYOUTS

SHEET NUMBER:

A-3

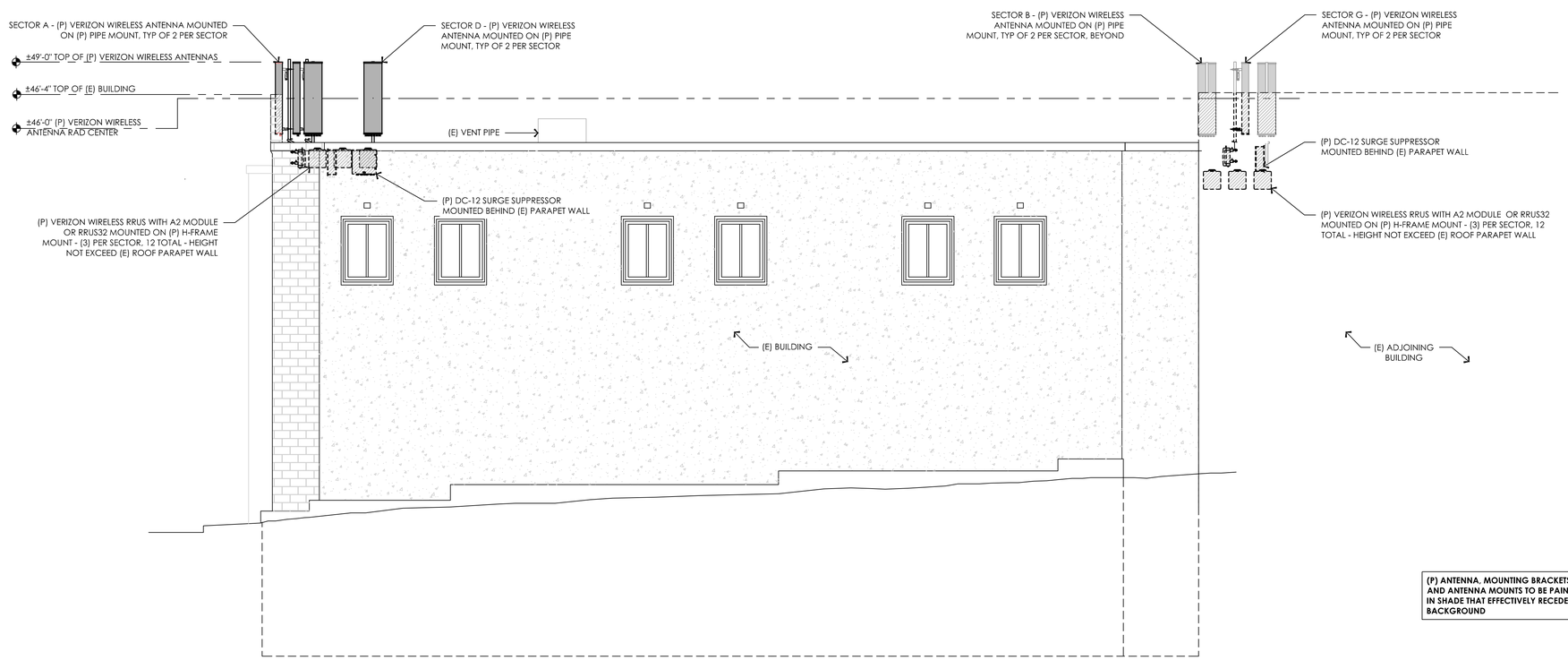
14002-35

Plot Date:3/30/2016 3:33:18 PM File Name:T:\20141\14002-35_Bonnie Nevada City\Shares\A-3 Equipment & Antenna Layouts.dwg Plotted By:Susan Daniels



(P) ANTENNA, MOUNTING BRACKETS, CABLES, AND ANTENNA MOUNTS TO BE PAINTED GRAY IN SHADE THAT EFFECTIVELY RECEDES INTO BACKGROUND

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



(P) ANTENNA, MOUNTING BRACKETS, CABLES, AND ANTENNA MOUNTS TO BE PAINTED GRAY IN SHADE THAT EFFECTIVELY RECEDES INTO BACKGROUND

17 PROPOSED WEST ELEVATION
3/16" = 1'-0"

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295 Parkshore Drive
Folsom, California 94630

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

Project Address:

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ARCHITECTURE PLANNING INTERIORS
ARCHITECTURAL GROUP Borges
8478 STONE POINT DRIVE SUITE 200
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T| 916 782 7200
F| 916 773 3037
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PROJECT NO:	20130974364
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DRAWN BY:	H.L.H.
CHECKED BY:	B.K.W.

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03/30/16

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SHEET TITLE:

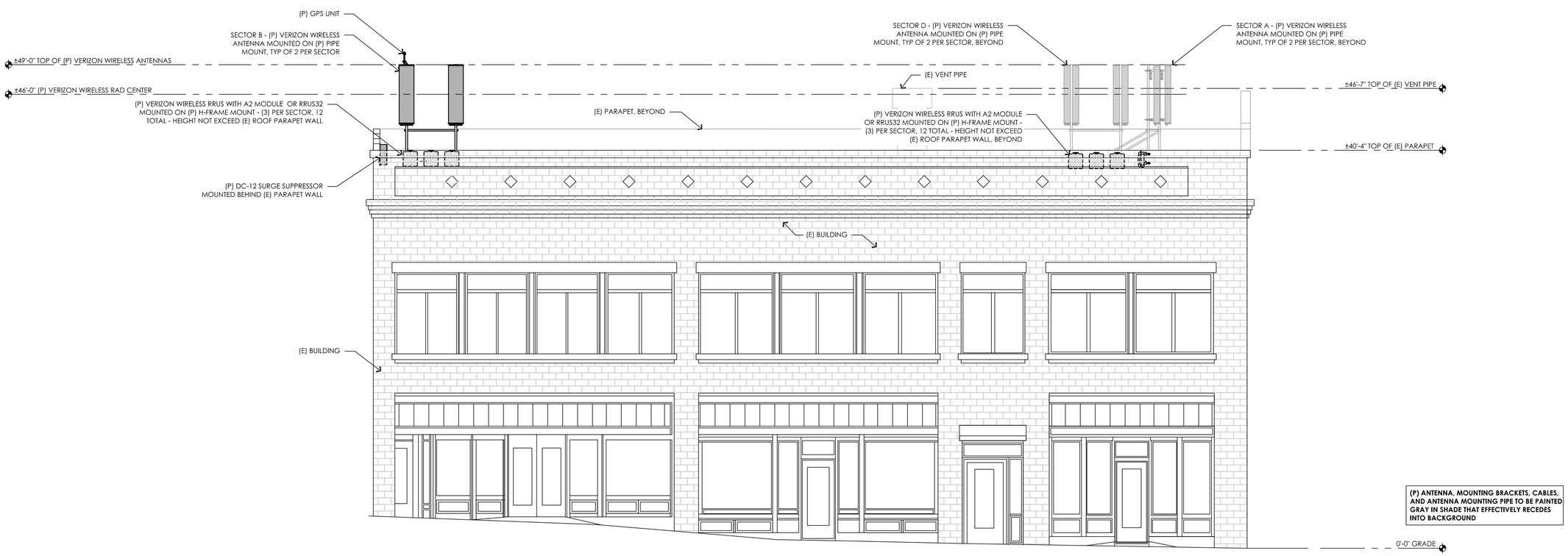
ELEVATIONS

SHEET NUMBER:

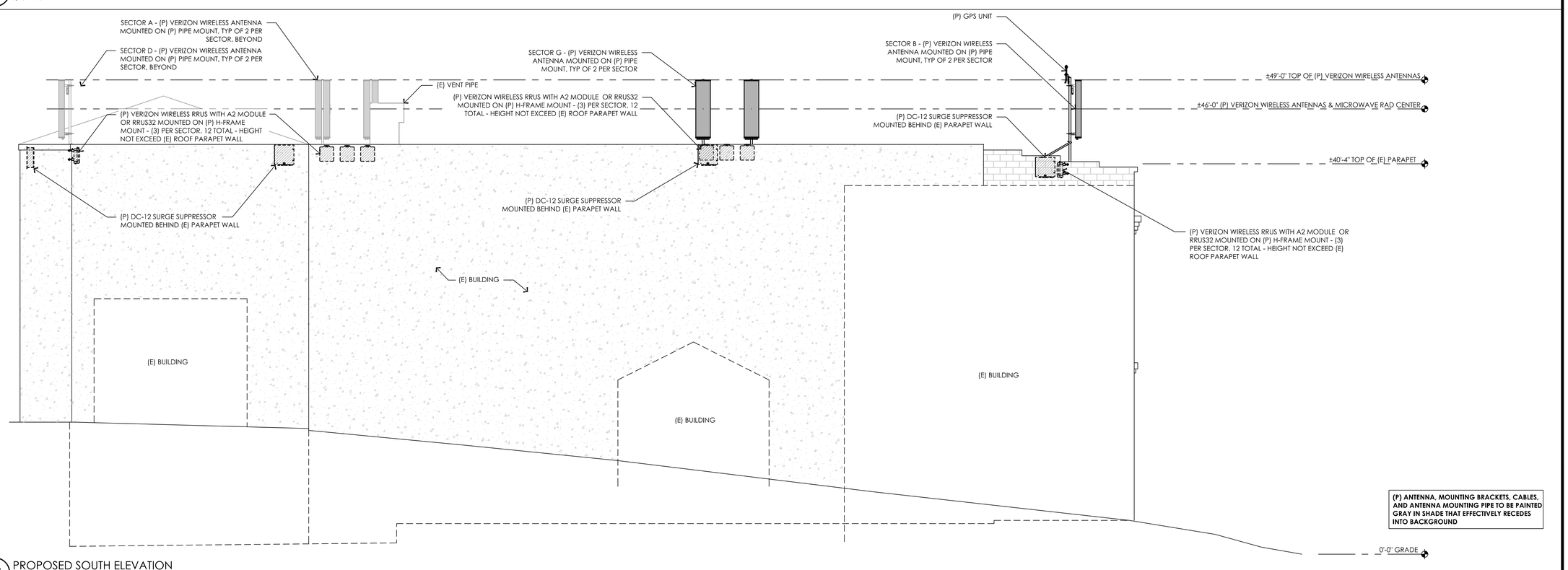
A-4.1

14002-35

Plot Date:3/30/2016 3:03:31 PM File Name:F:\2014\14002-Epic Wireless VZW\14002-35_Historic Nevada City\Sheets\A-4.1 Elevations.dwg Plotted By:Susan Dzieck



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



17 PROPOSED SOUTH ELEVATION
3/16" = 1'-0"

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295 Parkshore Drive
Folsom, California 94630

Vendor:

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

Project Address:

Architect:

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8478 STONE POINT DRIVE
SUITE 200
ROSEVILLE CA 95661
T| 916 781 7200
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BORGESARCH.COM

PROJECT NO:	20130974364
LOCATION NO:	278749
DRAWN BY:	H.L.H.
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Issued For:

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SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-4.2

14002-35

Plot Date:3/30/2016 3:15:56 PM File Name:F:\2014\14002-Epic Wireless VZW\14002-35_Historic Nevada City\278749 Historic Nevada City\Sheets\A-4.2 Elevations.dwg Plotted By:Susan Daroch

MATERIAL SAFETY DATA SHEET

LEAD ACID BATTERY

NORTHSTAR BATTERY COMPANY
Springfield, Missouri

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^3)		
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

NORTHSTAR BATTERY COMPANY

Springfield, Missouri

III. PHYSICAL DATA:

Material is solid at normal temperatures.

A. Electrolyte:

1.	Specific Gravity:	1.250 – 1.350 kg/dm^3
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

NORTHSTAR BATTERY COMPANY

Springfield, Missouri

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_2

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.

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

NORTHSTAR BATTERY COMPANY

Springfield, Missouri

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.

*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

NORTHSTAR BATTERY COMPANY

Springfield, Missouri

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/m3,JAN1993
- Lead - Occupation Exposure Limit - AUSTRALIA TWA 0.15 mg/m3, 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	2.7	4.5	4.5	6.2	8.5	2.4	3.8	5.3	6.1	6.8	8.1	9.9	10.5
		/lbs	5.9	9.9	9.9	13.8	18.6	5.3	8.3	11.6	13.4	14.9	17.8	21.8	23.2
	Volume	/litres	2.0	3.4	3.4	4.7	6.3	1.8	2.8	3.9	4.5	5.0	6.0	7.4	7.8
		/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	8.9	14.9	14.6	19.7	22.0	7.2	9.8	13.6	15.6	18.4	20.5	23.2	26.6
		/lbs	19.7	32.9	32.2	43.5	48.4	15.8	21.7	30.0	34.5	40.6	45.1	51.1	58.7
Lead Oxide	Weight	/kg	3.2	4.7	5.3	7.5	10.4	3.0	4.7	6.3	8.0	8.4	10.1	11.4	13.6
		/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	16.3	26.8	26.7	35.4	44.3	14.1	21.6	30.5	33.5	38.7	43.4	51.9	58.2
		/lbs	36.0	59.0	59.0	78.0	98.0	31.0	48.0	67.0	74.0	85.0	96.0	114.0	128.0

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^2	1.00 mW/cm^2
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

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^2, 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† 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.

† 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.

REGISTERED PROFESSIONAL ENGINEER
WILLIAM F. HAMMETT
E-13026
M-20676
Exp. 6-30-2017
ELECTRICAL
MECHANICAL
STATE OF CALIFORNIA

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

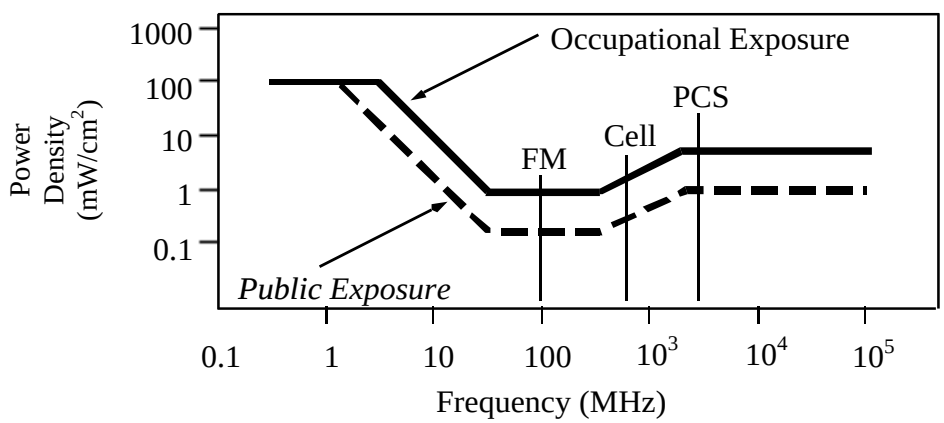
May 19, 2016

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



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 $S = \frac{180}{\#_{BW}} \forall \frac{0.1 \forall P_{net}}{! \ \forall D \ \ \forall h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \forall 16 \forall \# \forall P_{net}}{! \ \forall h^2}$, in mW/cm^2,

where $\forall_{BW}$ = 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
$!$ = 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:

$$\text{power density} \quad S = \frac{2.56 \forall 1.64 \forall 100 \forall RFF^2 \forall ERP}{4 \forall ! \ \forall D^2}, \text{ in } mW/cm^2,$$

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.

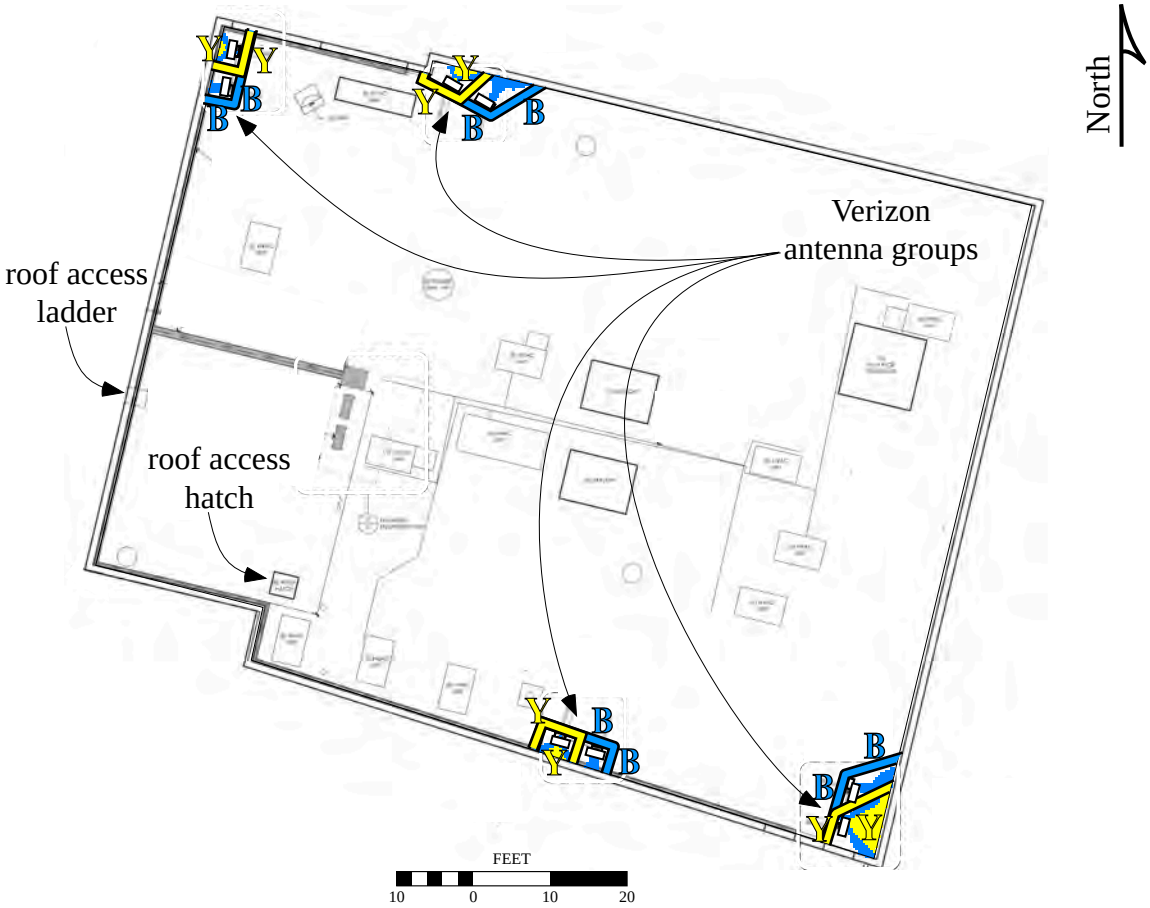
The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units 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.

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

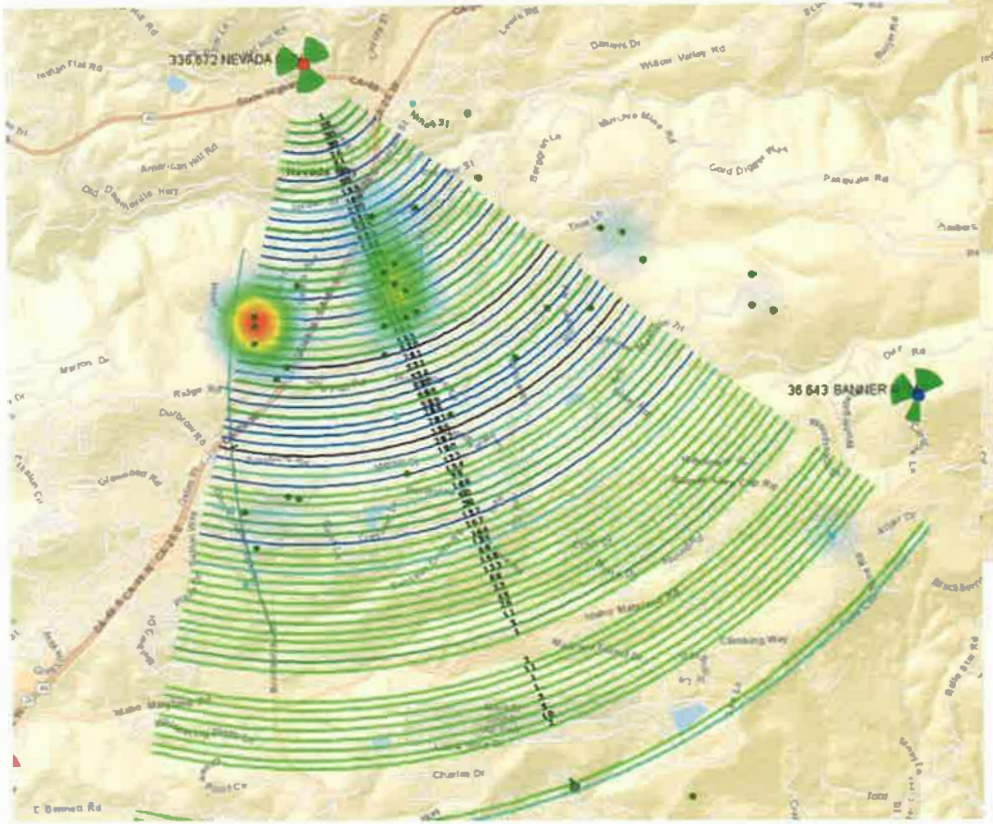
HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

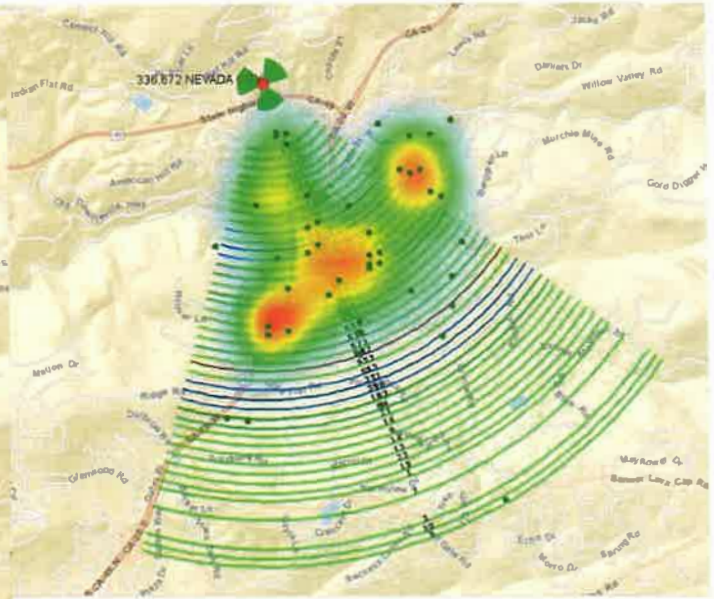
T9GZ.2
Figure 3

Exhibit 1

Submitted by applicant at June 16, 2016 meeting

Site: 336672 NEVADA_CITY, sector 2





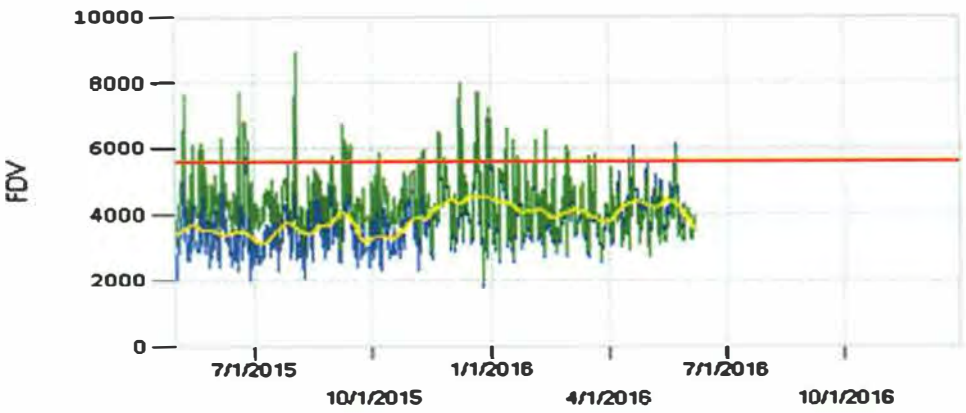
Site: 336672 NEVADA_CITY, 700

Site: 336672 NEVADA_CITY, AWS

Exhibit 2

Submitted by applicant at June 16, 2016 meeting

Site: 336672 NEVADA_CITY, sector 2



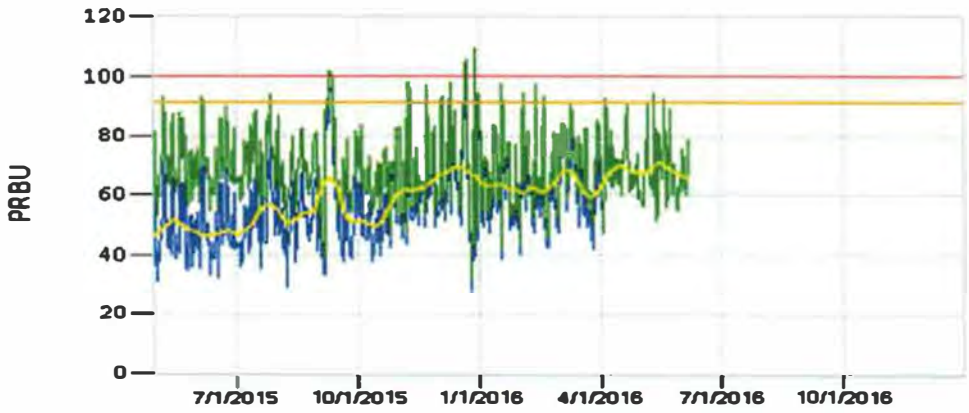


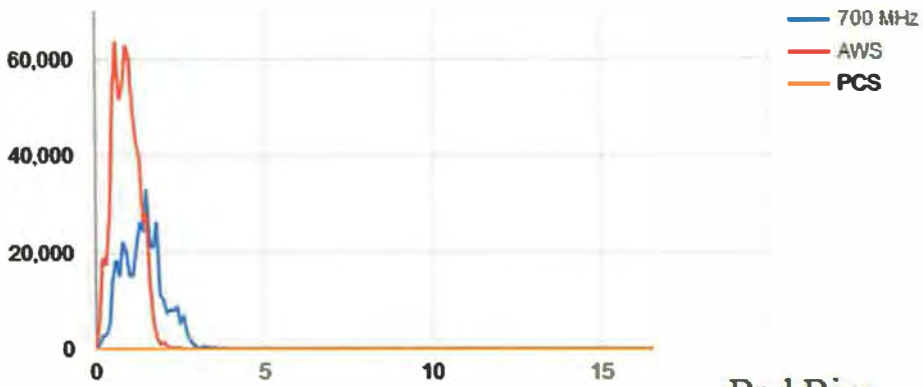
Exhibit 3

Submitted by applicant at June 16, 2016 meeting

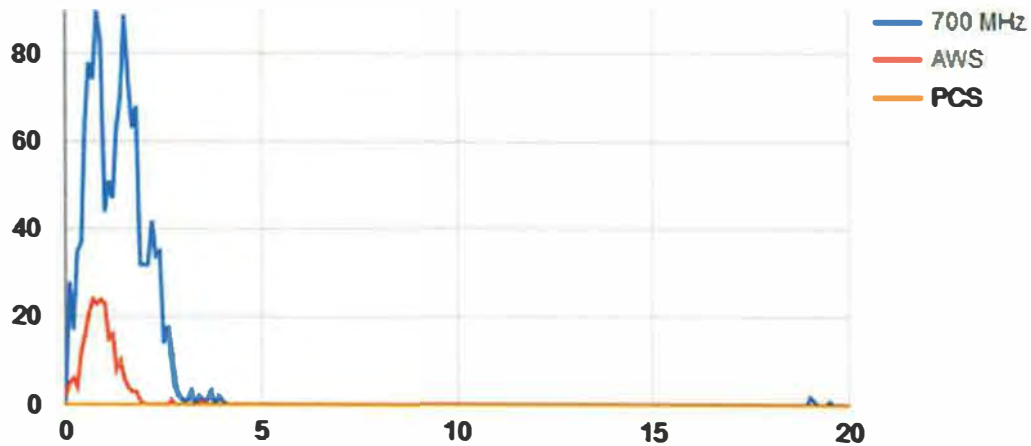
Site: 336672 NEVADA_CITY, sector 2

Sector: 36672_2

Good Bins

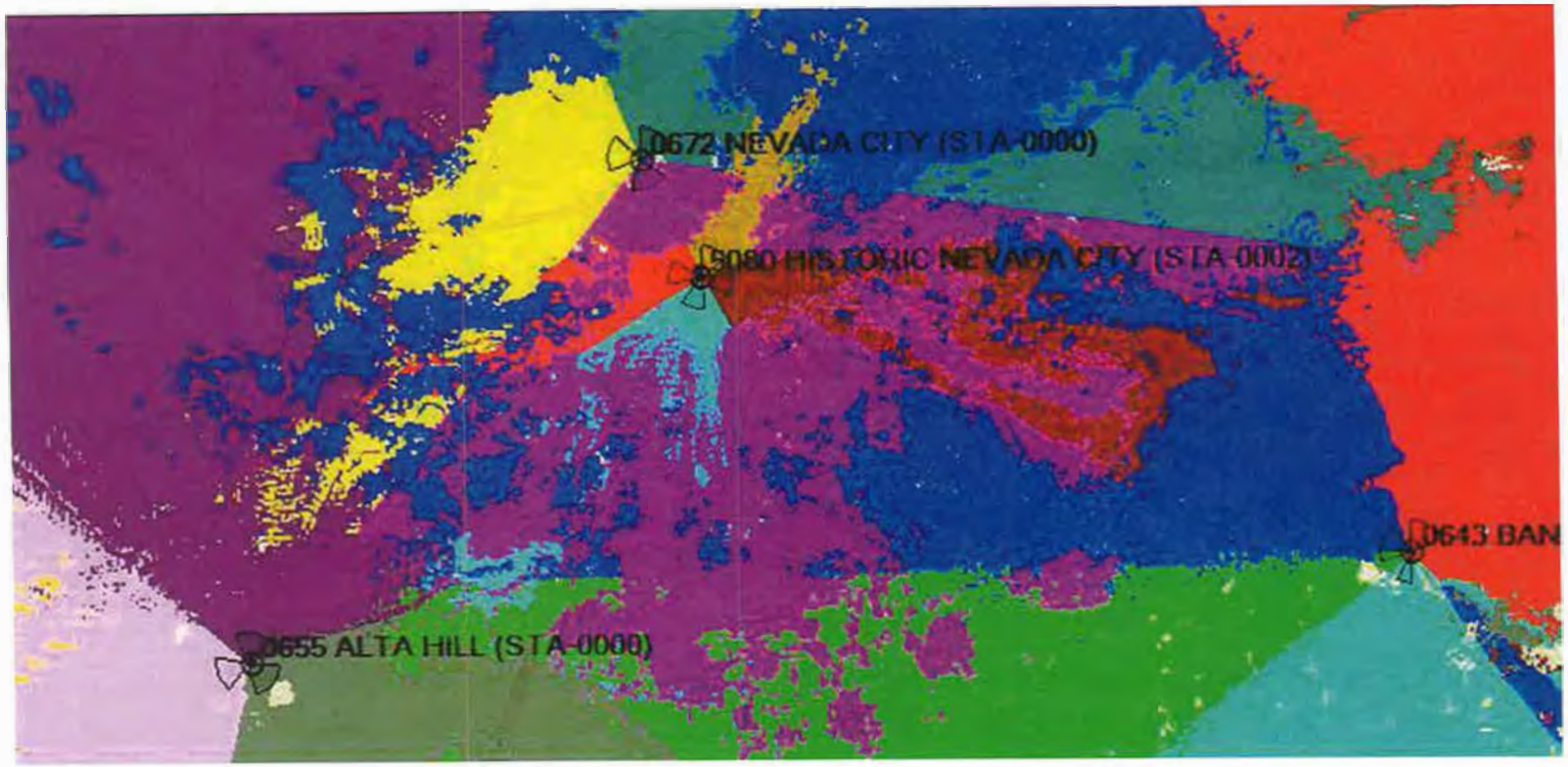


Bad Bins



Daily totals

Best Server After Plot



Legend

LTE: Best Server - After

- 0643-D1-B13_10MHz_5230 (5-0000) Alta Hill – Sector 1
- 0643-D2-B13_10MHz_5230 (5-0000) Alta Hill – Sector 2
- 0643-D3-B13_10MHz_5230 (5-0000) Alta Hill – Sector 3
- 0643-D5-B13_10MHz_5230 (5-0000) Banner Mtn – Sector 1
- 0655-D1-B13_10MHz_5230 (5-0000) Banner Mtn – Sector 2
- 0655-D2-B13_10MHz_5230 (5-0000) Banner Mtn – Sector 3
- 0655-D3-B13_10MHz_5230 (5-0000) Banner Mtn – Sector 5
- 0672-D1-B13_10MHz_5230 (5-0000) Nevada City – Sector 1
- 0672-D2-B13_10MHz_5230 (5-0000) Nevada City – Sector 2
- 0672-D3-B13_10MHz_5230 (5-0000) Nevada City – Sector 3
- 5080-D1-B13_10MHz_5230 (8-0002) Historic Nevada City – Sector 1
- 5080-D2-B13_10MHz_5230 (8-0002) Historic Nevada City – Sector 2
- 5080-D3-B13_10MHz_5230 (8-0002) Historic Nevada City – Sector 3
- 5080-D4-B13_10MHz_5230 (8-0002) Historic Nevada City – Sector 4

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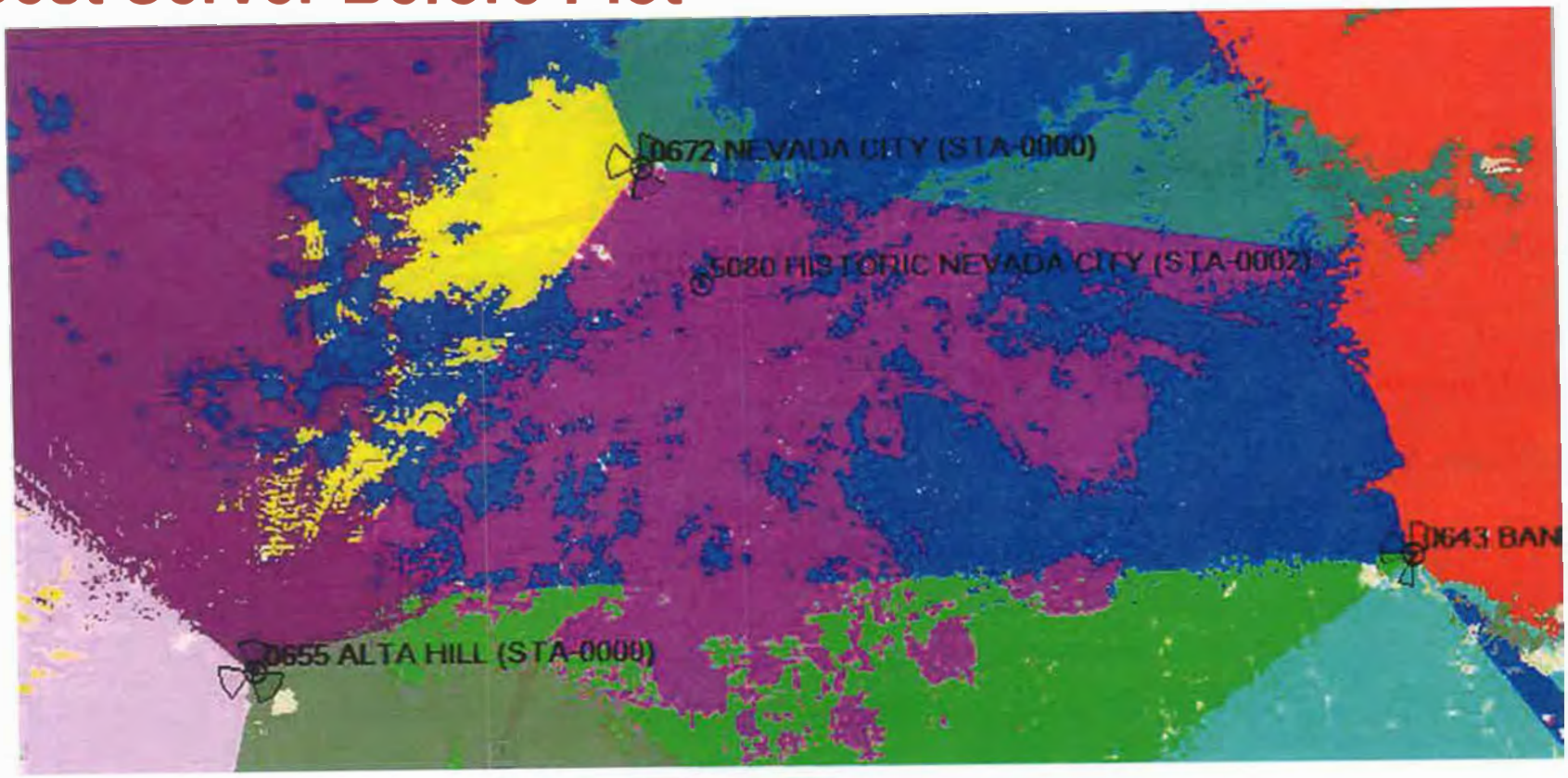
Exhibit 5

Submitted by applicant at June 16, 2016 meeting

Best Server Before Plot



Legend

LTE: Best Server - Before

- 0643-D1-B13_10MHz_5230 (5-0000) Alta Hill – Sector 1
- 0643-D2-B13_10MHz_5230 (5-0000) Alta Hill – Sector 2
- 0643-D3-B13_10MHz_5230 (5-0000) Alta Hill – Sector 3
- 0643-D5-B13_10MHz_5230 (5-0000) Banner Mtn – Sector 1
- 0655-D1-B13_10MHz_5230 (5-0000) Banner Mtn – Sector 2
- 0655-D2-B13_10MHz_5230 (5-0000) Banner Mtn – Sector 3
- 0655-D3-B13_10MHz_5230 (5-0000) Banner Mtn – Sector 5
- 0672-D1-B13_10MHz_5230 (5-0000) Nevada City – Sector 1
- 0672-D2-B13_10MHz_5230 (5-0000) Nevada City – Sector 2
- 0672-D3-B13_10MHz_5230 (5-0000) Nevada City – Sector 3

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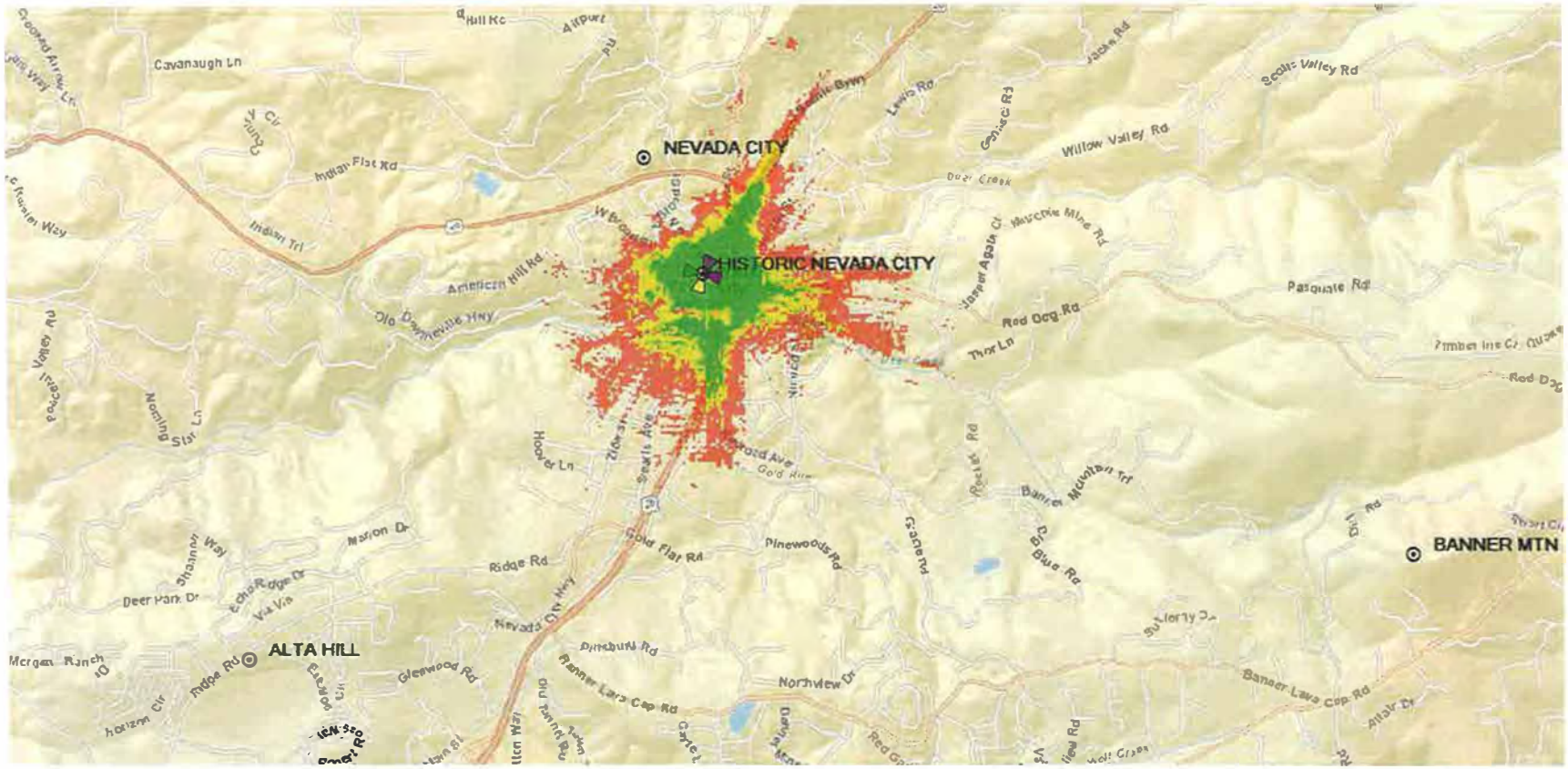
Site Only AWS RSRP



Legend

LTE: AWS: RSRP - Site Coverage

- Best Signal Level (dBm) >= -80
- Best Signal Level (dBm) >= -90
- Best Signal Level (dBm) >= -100

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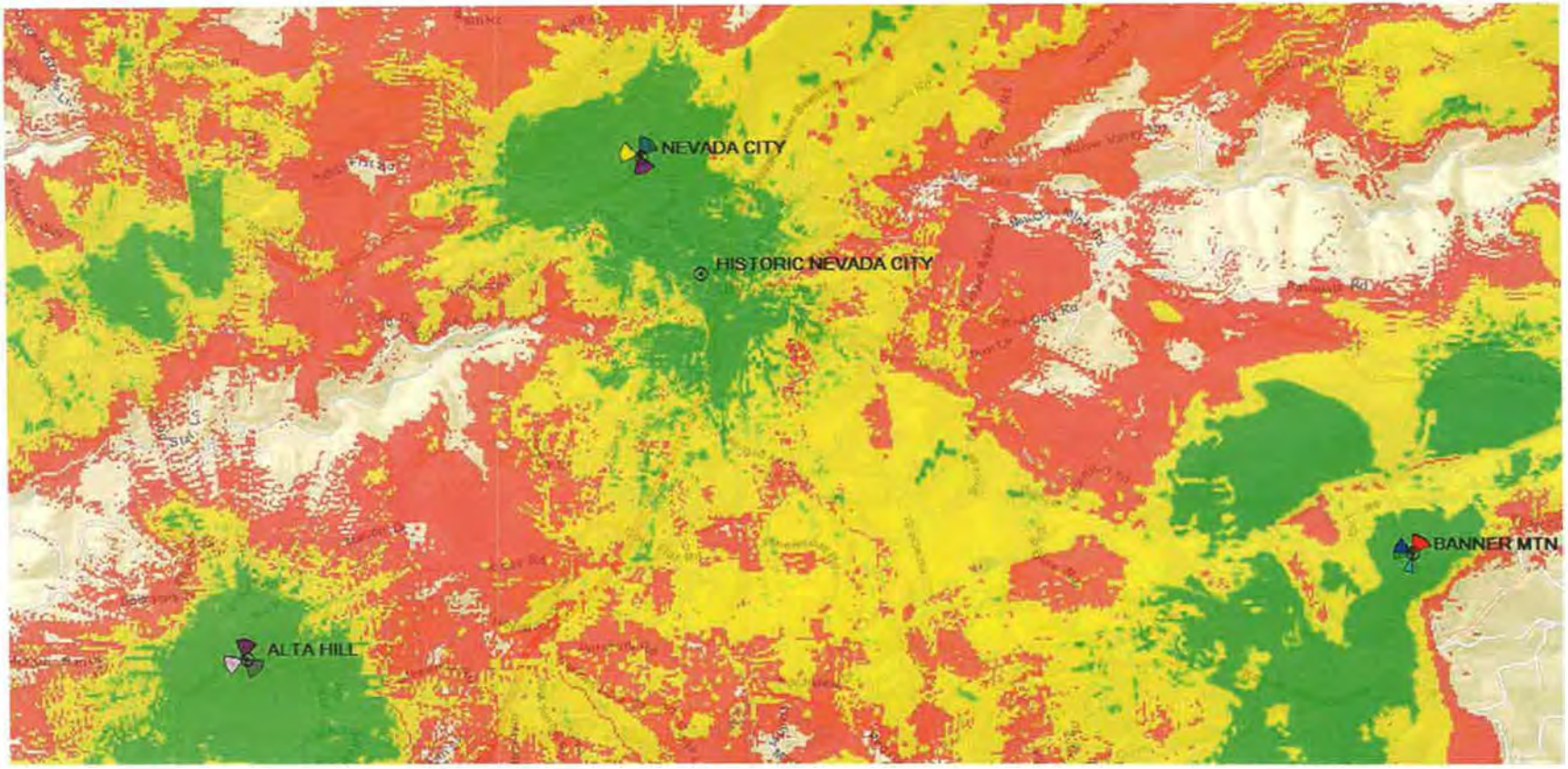
Exhibit 7

Submitted by applicant at June 16, 2016 meeting

Existing RSRP



Legend

LTE: RSRP - Existing Coverage

- Best Signal Level (dBm) >=-80
- Best Signal Level (dBm) >=-90
- Best Signal Level (dBm) >=-100

verizon

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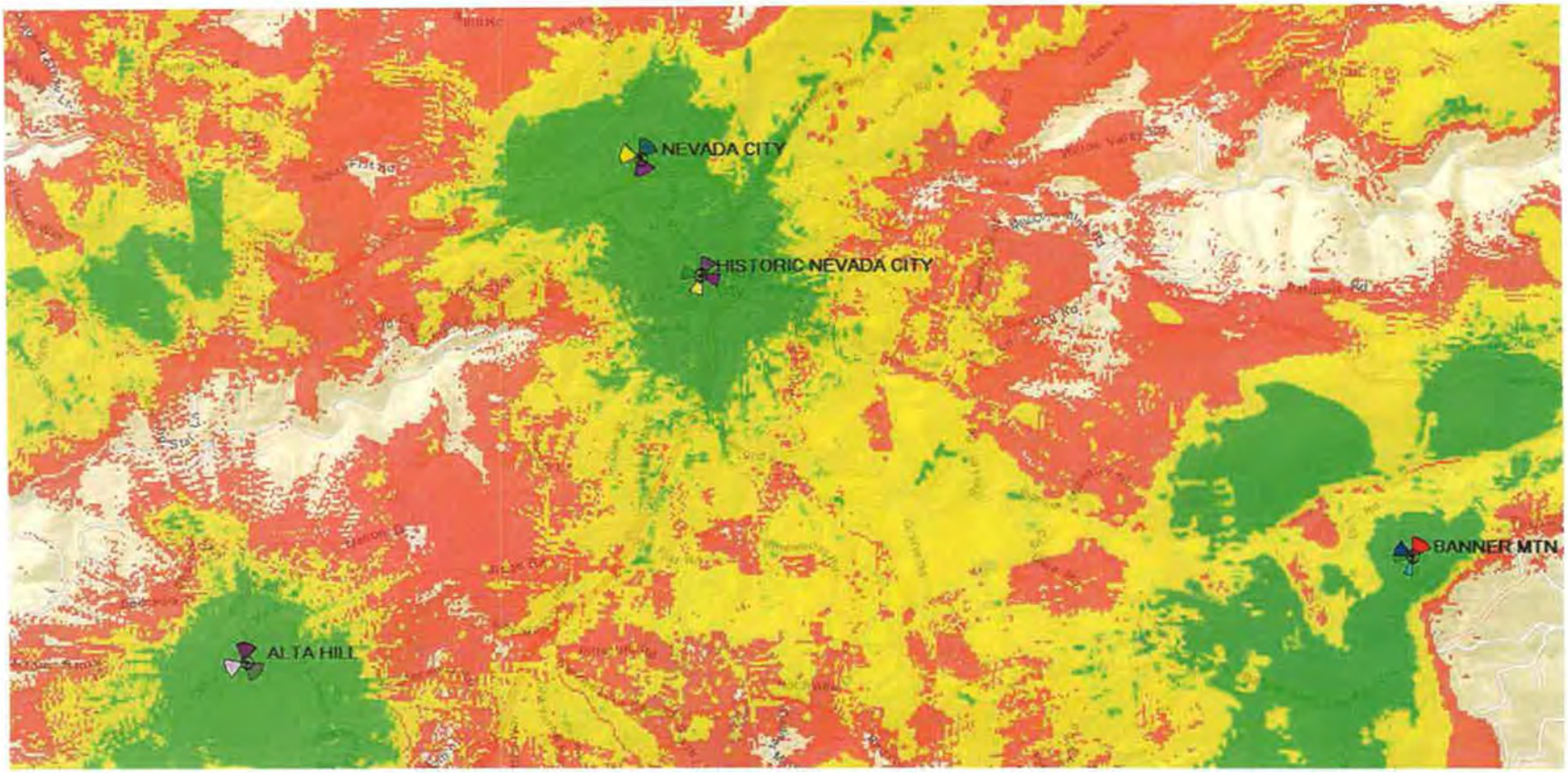
After RSRP



Legend

LTE: RSRP - After Coverage

- **Best Signal Level (dBm) >=-80**
- **Best Signal Level (dBm) >=-90**
- **Best Signal Level (dBm) >=-100**

verizon

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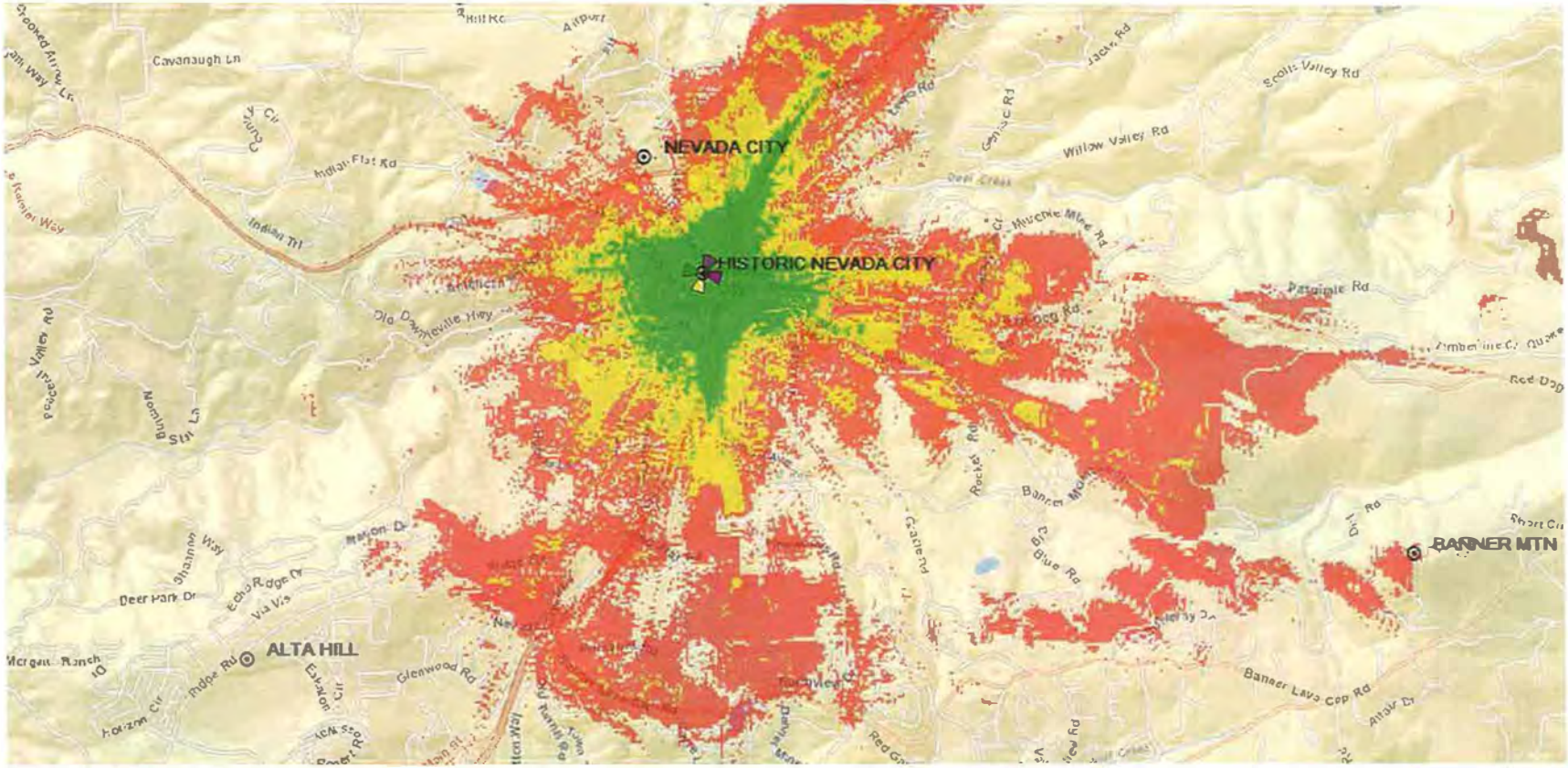
Site Only RSRP



Legend

LTE: RSRP - Site Coverage

- Best Signal Level (dBm) >=-80
- Best Signal Level (dBm) >=-90
- Best Signal Level (dBm) >=-100

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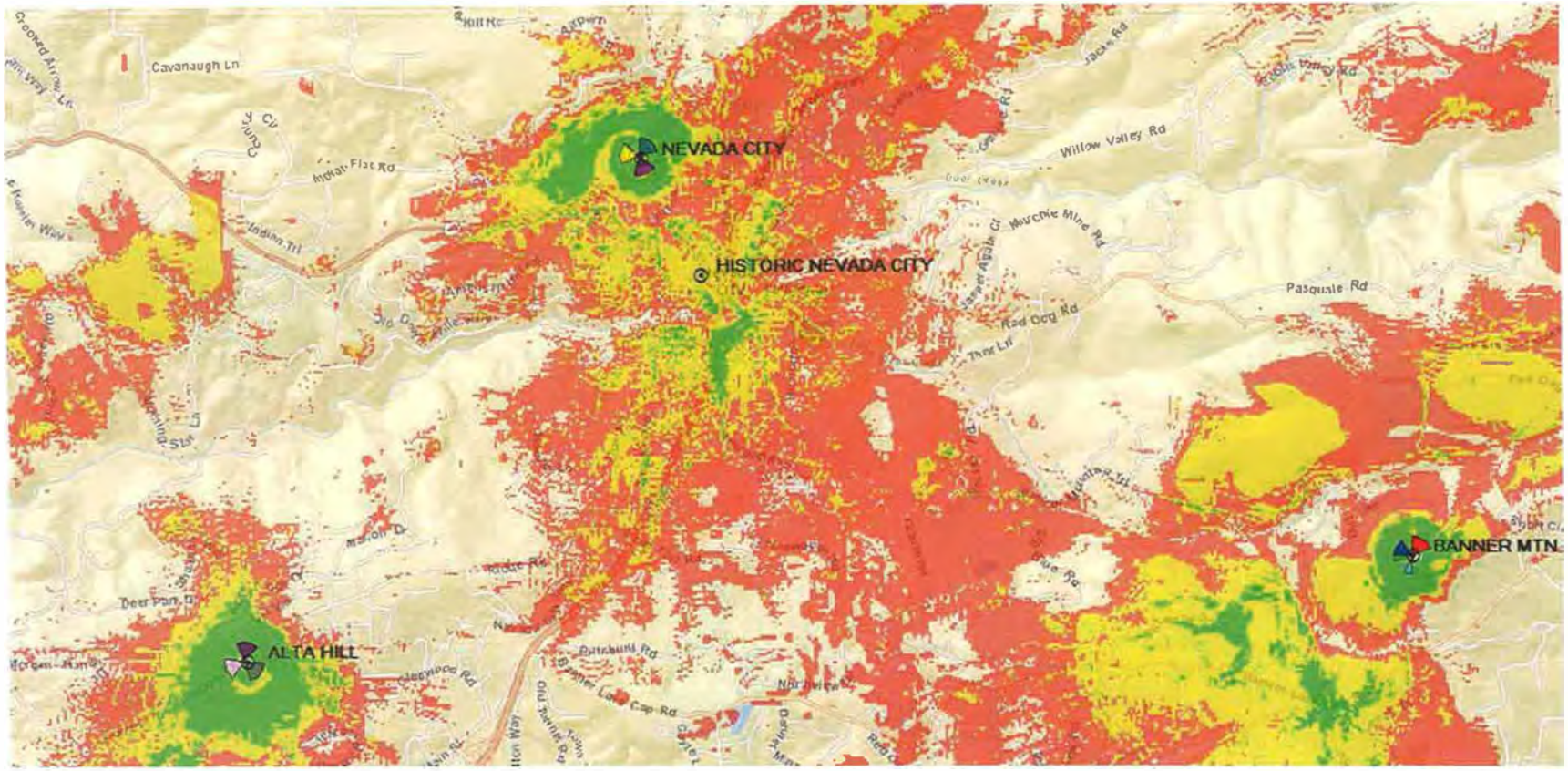
Existing AWS RSRP



Legend

LTE: AWS: RSRP - Existing Coverage

- Best Signal Level (dBm) > = -80
- Best Signal Level (dBm) > = -90
- Best Signal Level (dBm) > = -100

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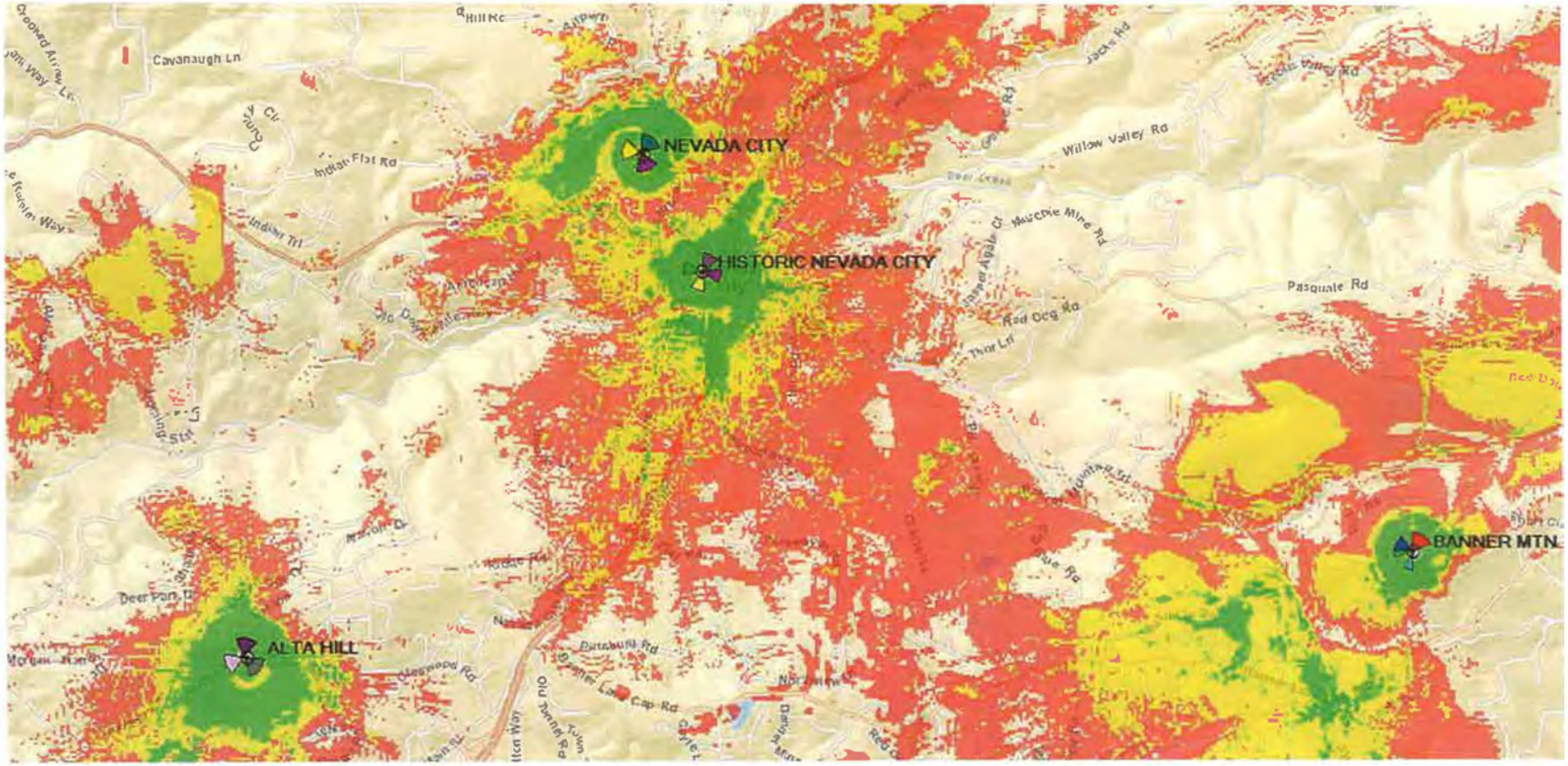
After AWS RSRP



Legend

LTE: AWS: RSRP - After Coverage

- Best Signal Level (dBm) >= -80
- Best Signal Level (dBm) >= -90
- Best Signal Level (dBm) >= -100

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From: BC <jbcroul@yahoo.com>
To: Mark Lobaugh <Mark.Lobaugh@epicwireless.net>
Sent: Friday, July 1, 2016 8:23 AM
Subject: Re: Verizon "Historic Nevada City" / Meeting with Planning commissioner to discuss request for additional info

Hi Mark,

I am still out of town, but want to discuss a little further the idea of multiple small antenna systems vs. the standard size array you are currently proposing.

Now that Verizon, Google and others are using WIFI in their cell phones to make calls and access data, I would like to hear ideas on designing something that takes advantage of this opportunity that would lessen the need for large antennas on the tops of buildings. I contacted Google FI and was told that their phones are set up to pick WIFI or use cellular antennas depending which had the better signal. However, Verizon told me that their system only uses WIFI if there is no cellular signal. If Verizon designed the software/firmware of their phones to work like a WIFI/cellular enabled tablet such an iPad for example, it would seem to me that you would be able to solve much of the data/cellular congestion issues Verizon will be running into in the future.

There is also the fact that Verizon is going to start testing 5G cellular in the next year. From what I gather, 5G will require multiple small antennas throughout a given area since the signal is less able to penetrate buildings, but that the bandwidth if 5G and higher frequencies is much greater.

Smaller less obvious, and lower power, antenna systems would, I think, be a better fit for an historic town like Nevada City. If we had a big water tower in the center of town I might think otherwise since that could be a good place for antenna locations.

I think I remember the idea of a 'public', possibly open, WiFi network being proposed for the downtown area of Nevada City. This idea could also work to Verizon's advantage using WIFI cell phones that default to WIFI before cellular network instead of the other way around.

Both WIFI and cellular still require Verizon to use cable/fiber to backhaul the data through the Internet, so it seems like some kind of 5G (I already have a 5G WIFI router) accessing the fiber network in multiple discrete locations could be good way to go. The antennas would also be less obvious since the frequencies are much higher, eliminating the need for larger antennas.

I would likeVerizon to consider using Nevada City as a one of their testing areas as they roll out 5G.

Verizon could also offer WIFI/cellular hot spot routers/access points at buildings/businesses that are big users.

I have to get back on the road, but I hope that gives you some idea about what I think would be best for the Historic District in Nevada City.

Thank you,

Brad Croul
Planning Commissione

EPIC
WIRELESS GROUP INC.

Historic Nevada City 08/08/16

DAS and Microcells
To replicate the coverage objective , we would need at a minimum thirty microcells/small cells. This would require power and fiber lines, including possible trenching) being routed to each microcell/small cell location, a pole location, an antenna installed at the top of the pole, and radio equipment at each location. Microcells do not replace the need for overlying macro sites; they are used in conjunction with macro sites. This area is terrain challenged and the relatively small height of the microcell/small cells would require multiple locations to cover the same objective.
For this location a single well placed macro site will serve this area effectively and is more reliable during an emergency.
Wi-Fi
Some of our devices are Wi-Fi voice capable and our customers do use Wi-Fi voice today. We do not count on Wi-Fi for capacity relief or coverage needs for several reasons. The customers are using a non-Verizon Wireless Wi-Fi network and Verizon Wireless does not have the ability to monitor or control the coverage and reliability. There are also concerns on for911 calls/emergency response while on a Wi-Fi network; such as providing accurate location information to emergency services. Verizon builds carrier-grade networks that are hardened to survive emergency conditions and has no plans to deploy Wi-Fi networks.
5G
We have no information to publicly share regarding 5G.

8700 Auburn Folsom Rd Suite 400 | Granite Bay, CA 95746 | 916.781.5921 main | 916.781.5927 fax

Existing

Proposed

view from Commercial Street looking east at site

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Commercial Street looking west at site

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

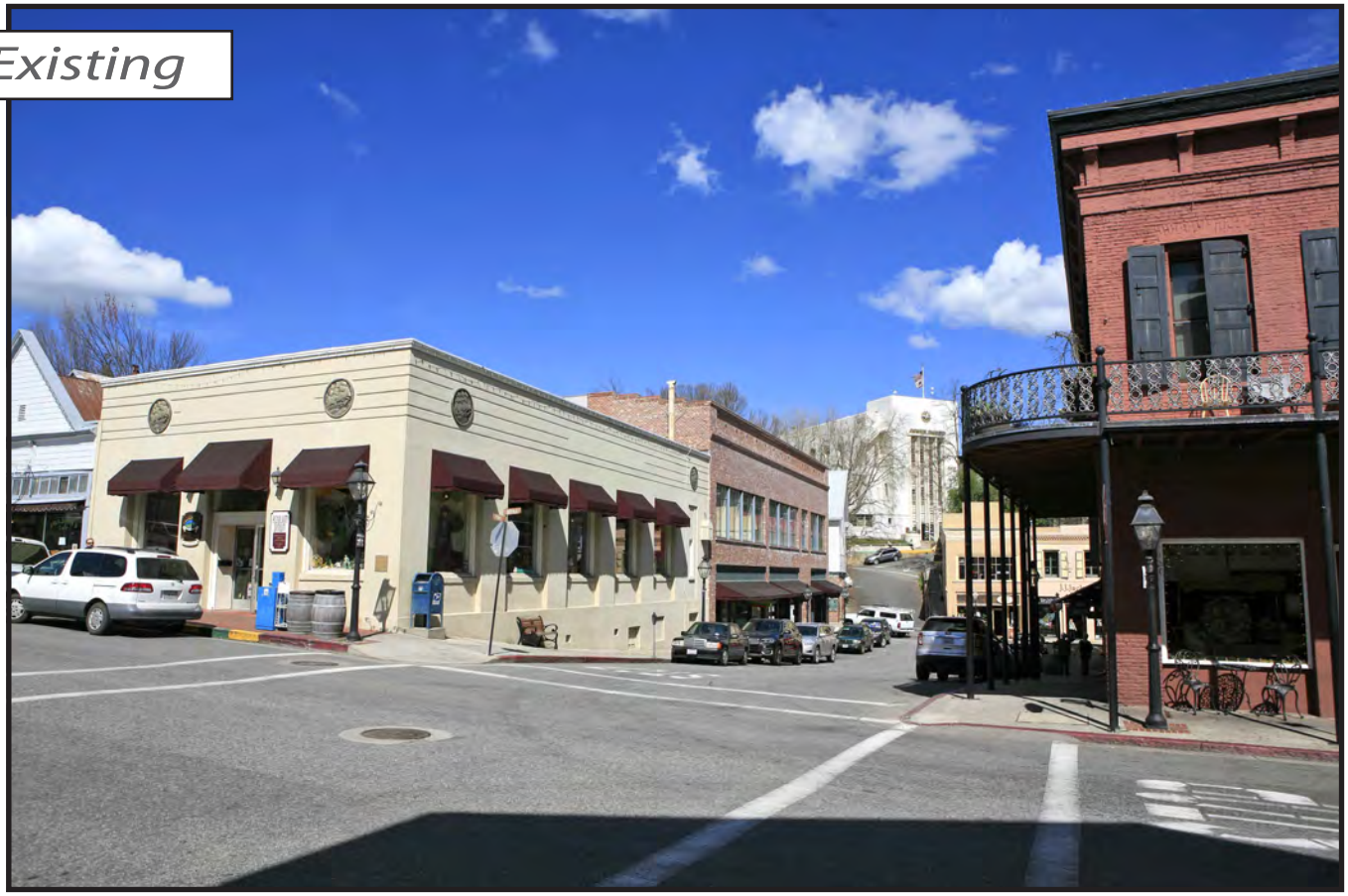
AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from North Pine Street looking south at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Broad Street looking north at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

Existing

Proposed

view from Commercial Street looking east at site

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view from Commercial Street looking west at site

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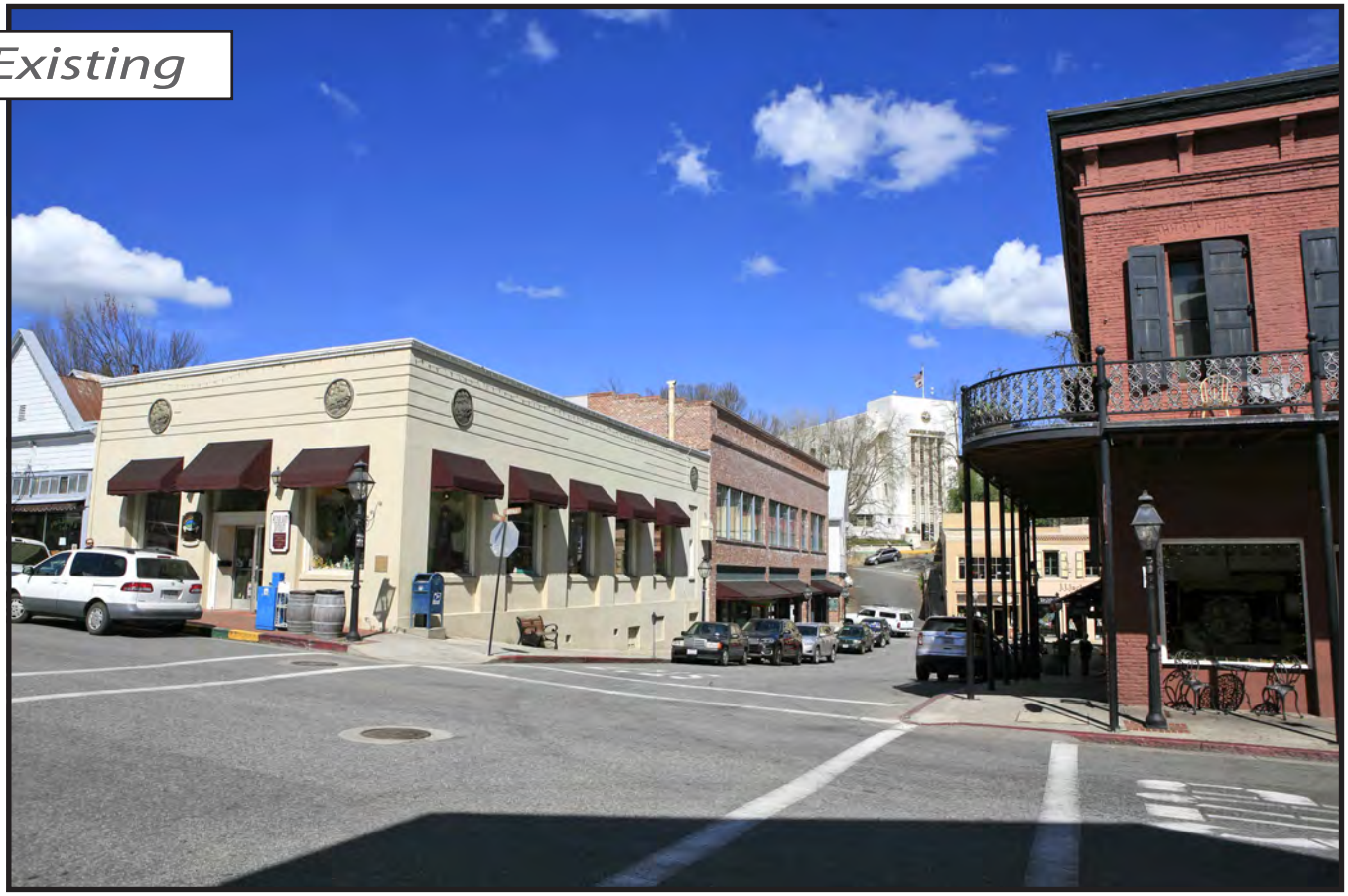
view from North Pine Street looking south at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

Existing



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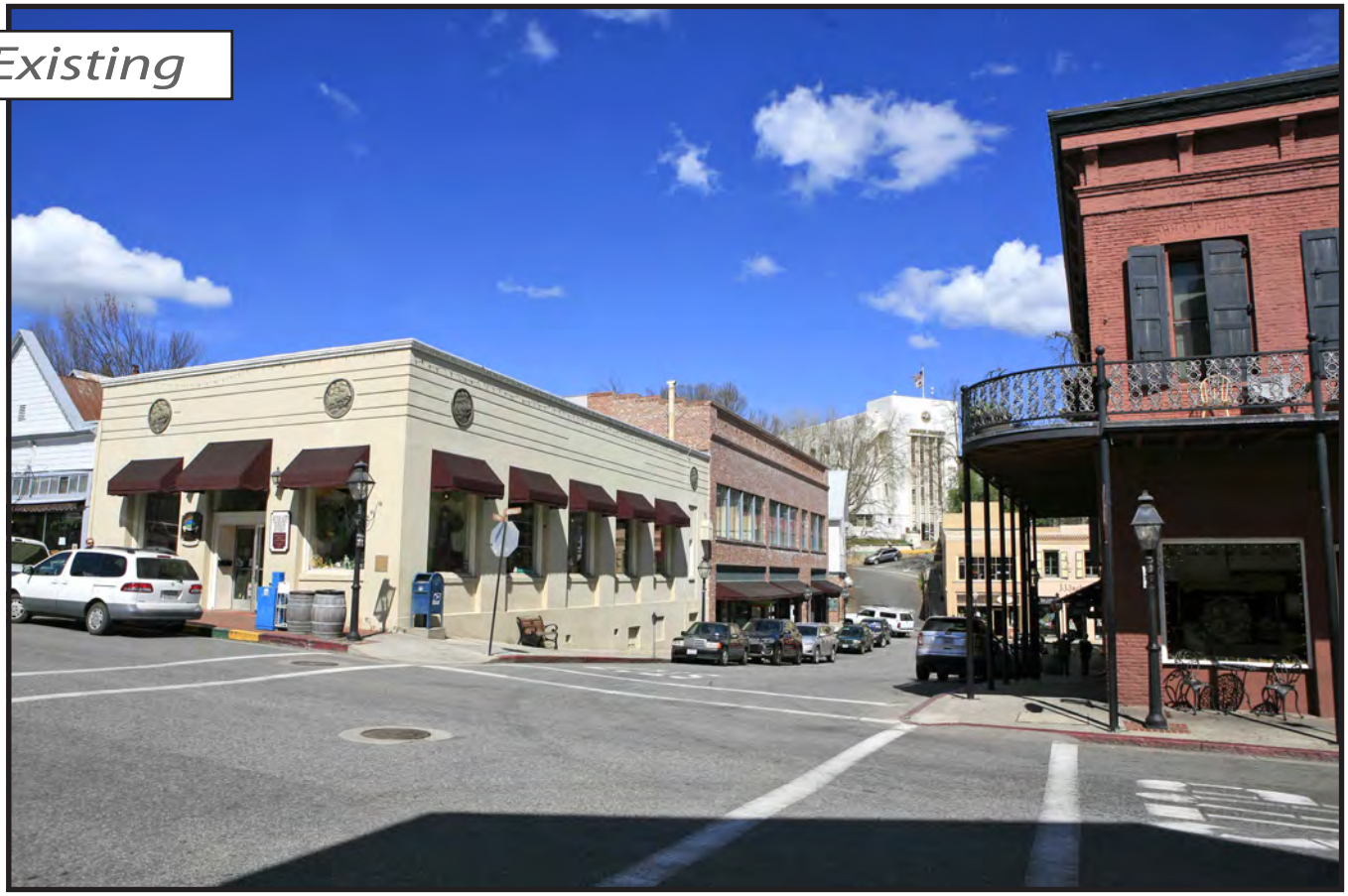

Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Broad Street looking north at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

Historic Nevada City Analysis

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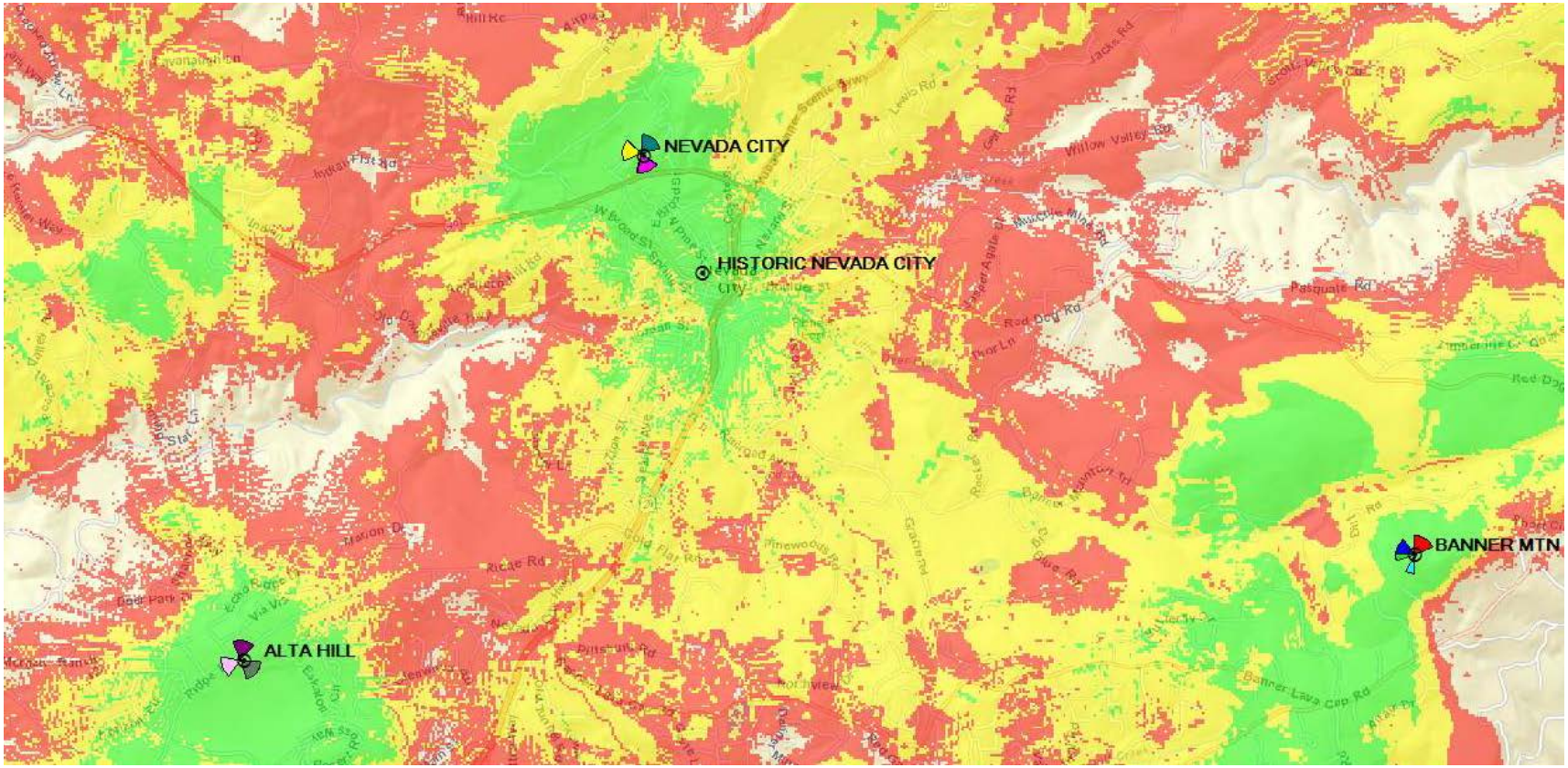
Existing RSRP



Legend

LTE: RSRP - Existing Coverage

- Best Signal Level (dBm) >=-80
- Best Signal Level (dBm) >=-90
- Best Signal Level (dBm) >=-100

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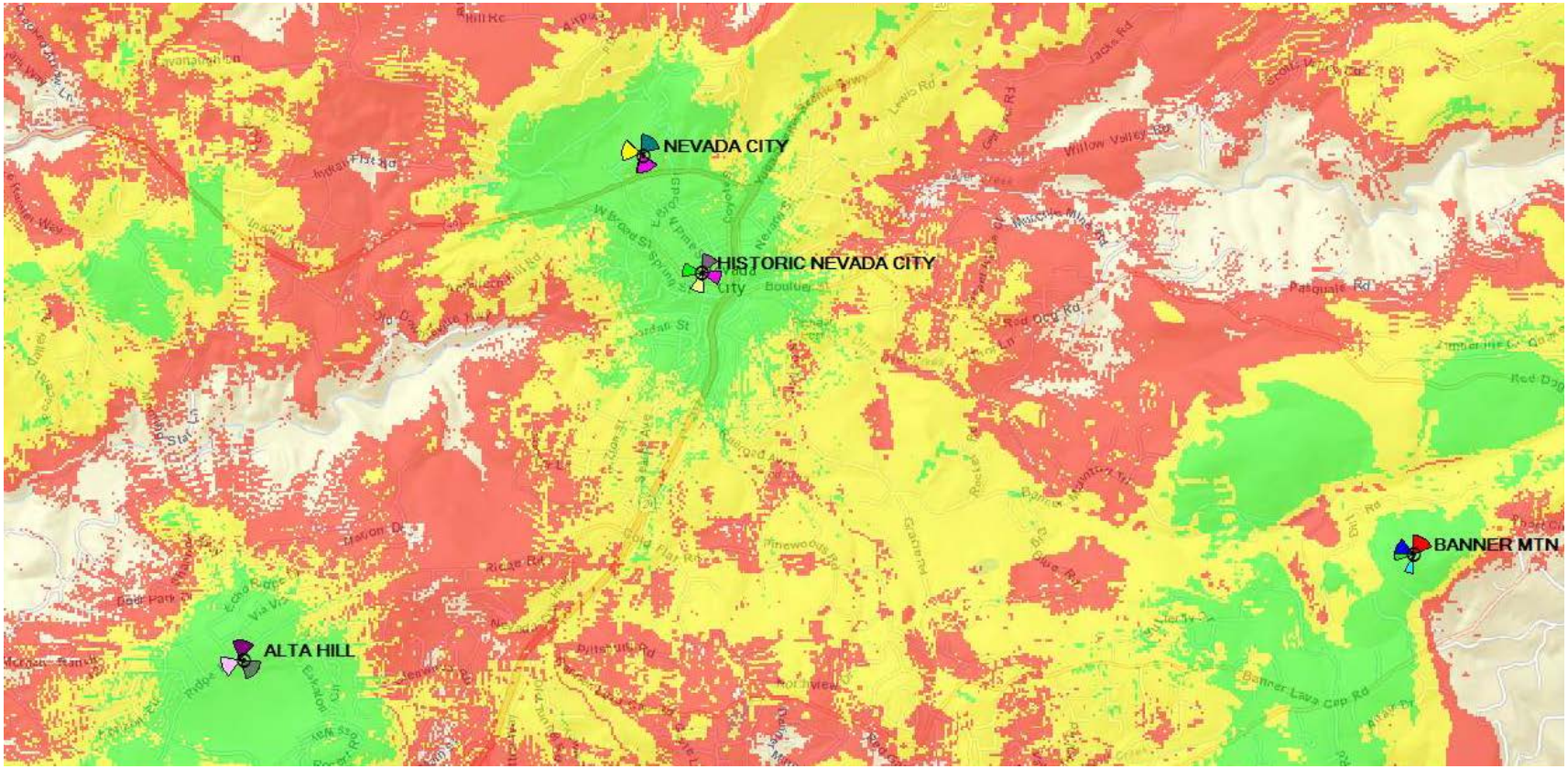
After RSRP



Legend

LTE: RSRP - After Coverage

- Best Signal Level (dBm) >=-80
- Best Signal Level (dBm) >=-90
- Best Signal Level (dBm) >=-100

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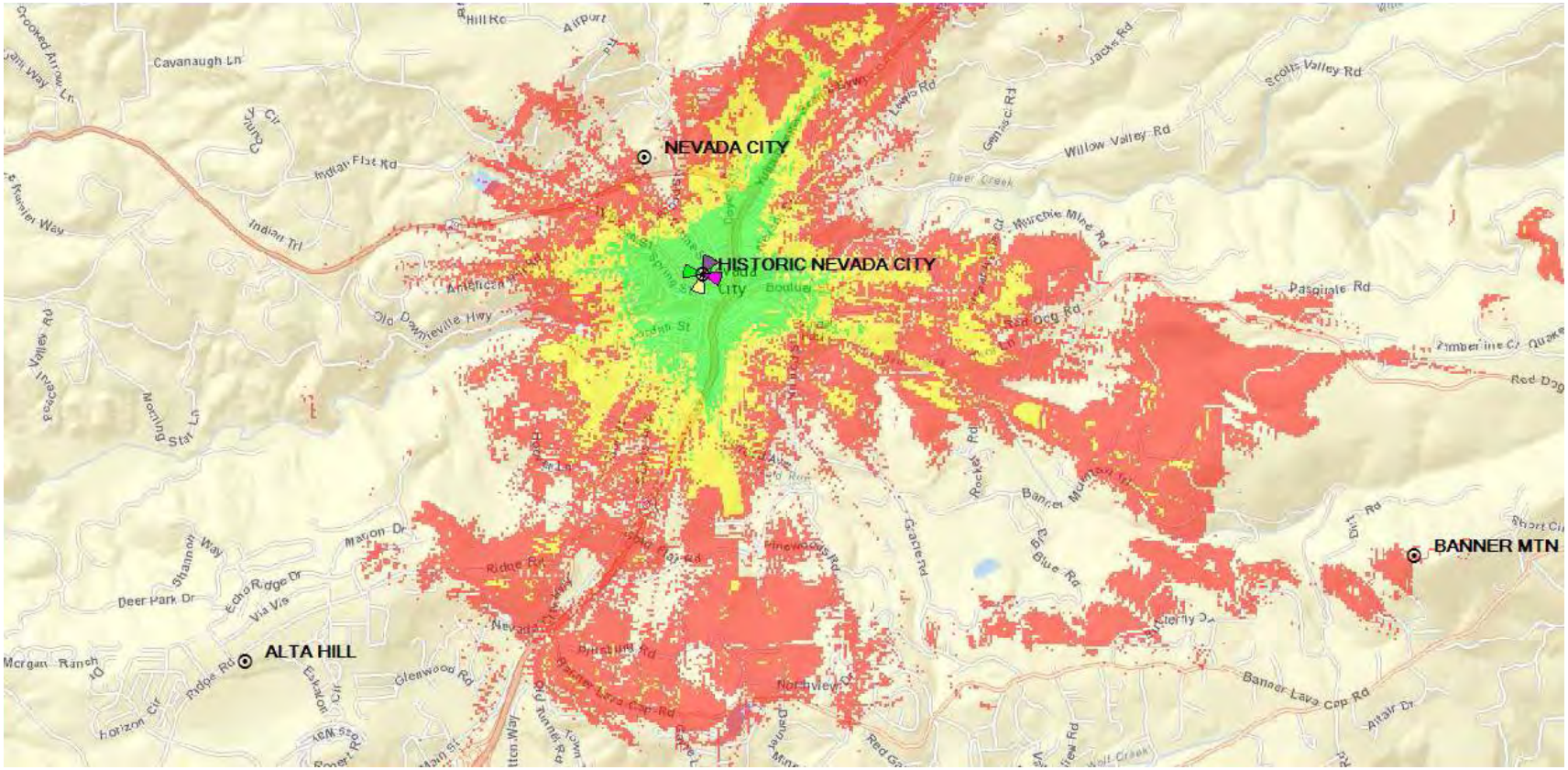
Site Only RSRP



Legend

LTE: RSRP - Site Coverage

- Best Signal Level (dBm) >= -80
- Best Signal Level (dBm) >= -90
- Best Signal Level (dBm) >= -100

verizon

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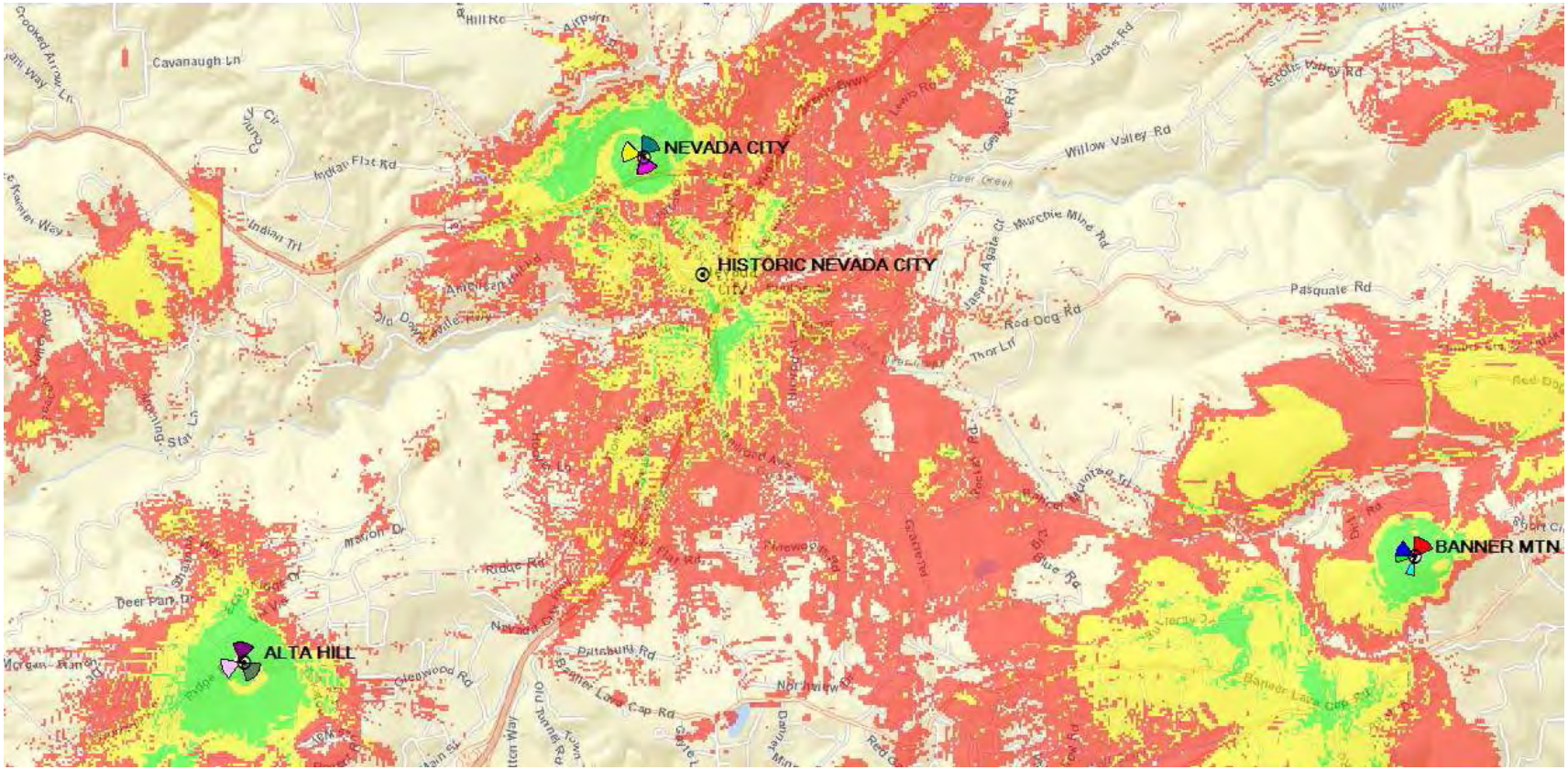
Existing AWS RSRP



Legend

LTE: AWS: RSRP - Existing Coverage

- Best Signal Level (dBm) >= -80
- Best Signal Level (dBm) >= -90
- Best Signal Level (dBm) >= -100

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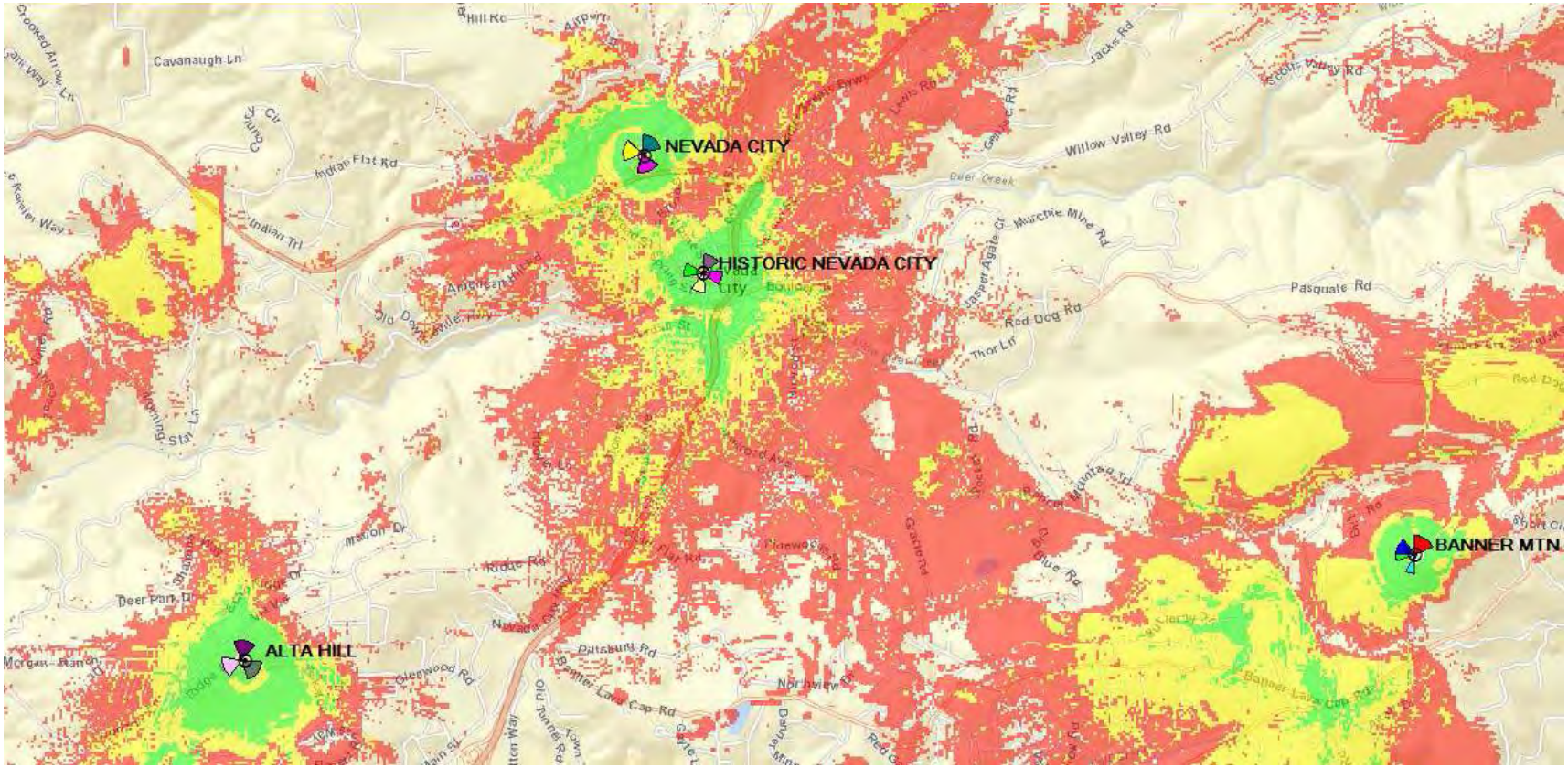
After AWS RSRP



Legend

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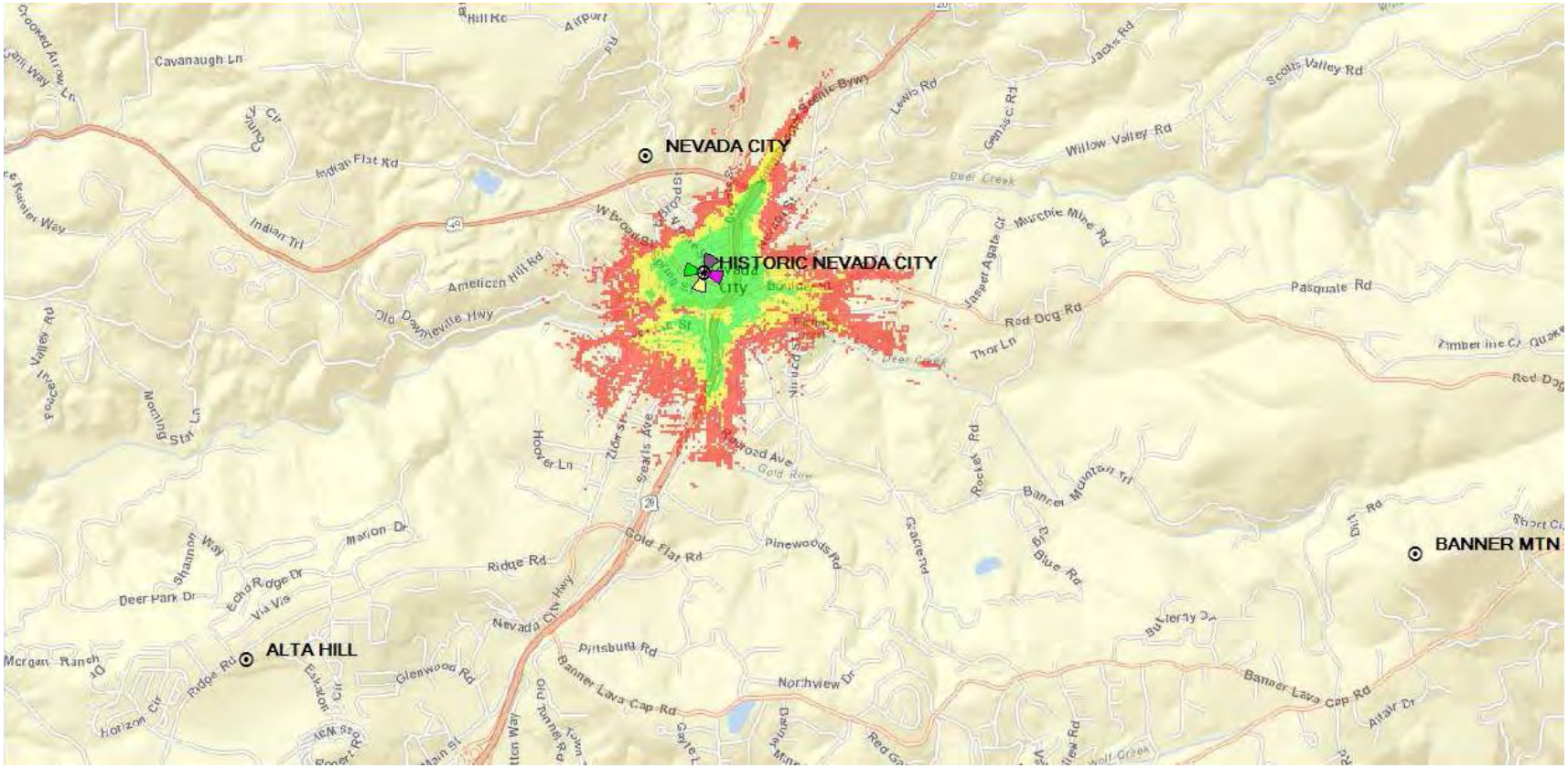
Site Only AWS RSRP



Legend

LTE: AWS: RSRP - Site Coverage

- Best Signal Level (dBm) >= -80
- Best Signal Level (dBm) >= -90
- Best Signal Level (dBm) >= -100

verizon

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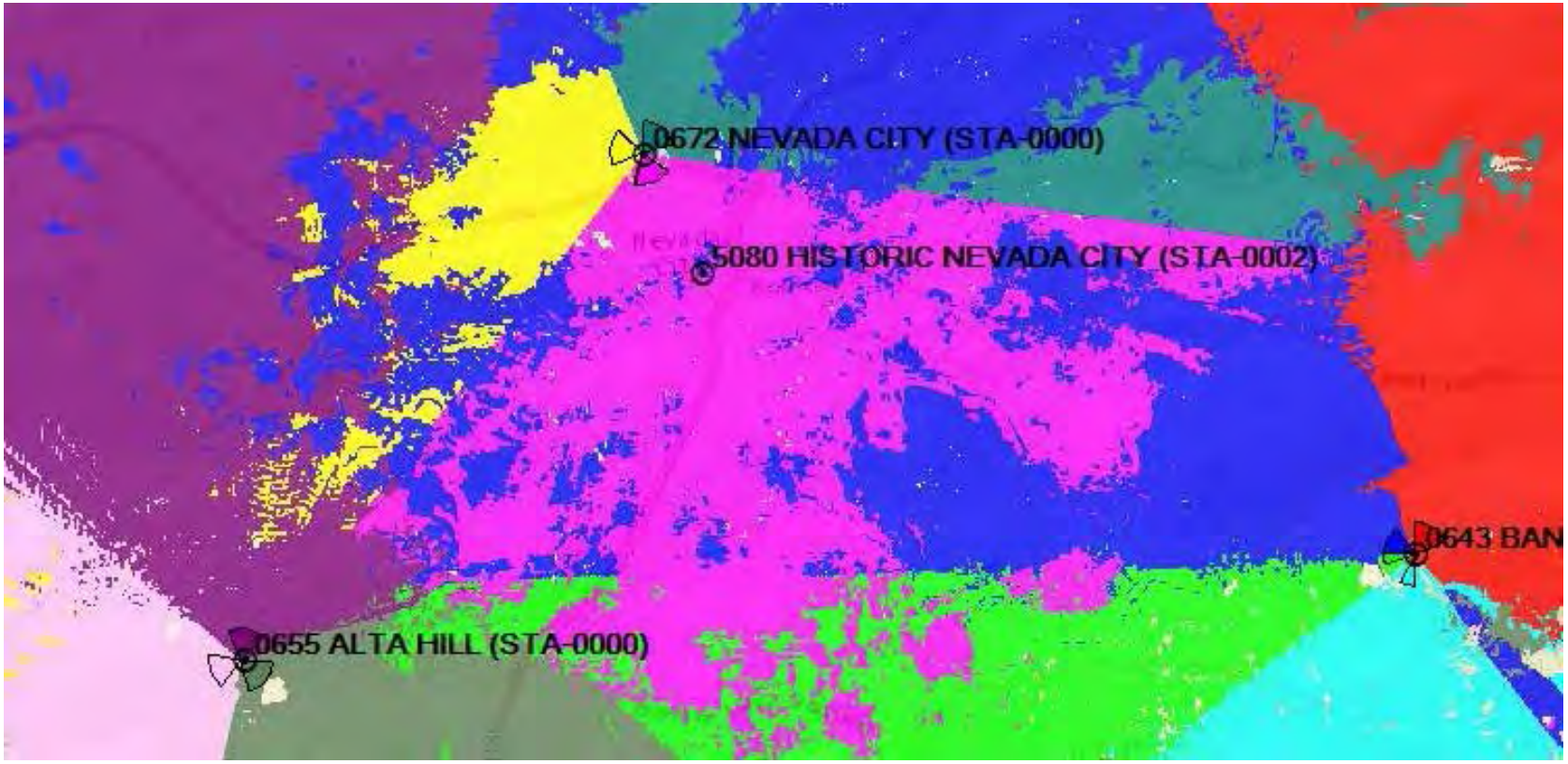
Best Server Before Plot



Legend

LTE: Best Server - Before

- 0643-D1-B13_10MHz_5230 (5-0000) **Banner Mtn – Sector 1**
- 0643-D2-B13_10MHz_5230 (5-0000) **Banner Mtn – Sector 2**
- 0643-D3-B13_10MHz_5230 (5-0000) **Banner Mtn – Sector 3**
- 0643-D5-B13_10MHz_5230 (5-0000) **Banner Mtn – Sector 5**
- 0655-D1-B13_10MHz_5230 (5-0000) **Alta Hill – Sector 1**
- 0655-D2-B13_10MHz_5230 (5-0000) **Alta Hill – Sector 2**
- 0655-D3-B13_10MHz_5230 (5-0000) **Alta Hill – Sector 3**
- 0672-D1-B13_10MHz_5230 (5-0000) **Nevada City – Sector 1**
- 0672-D2-B13_10MHz_5230 (5-0000) **Nevada City – Sector 2**
- 0672-D3-B13_10MHz_5230 (5-0000) **Nevada City – Sector3**

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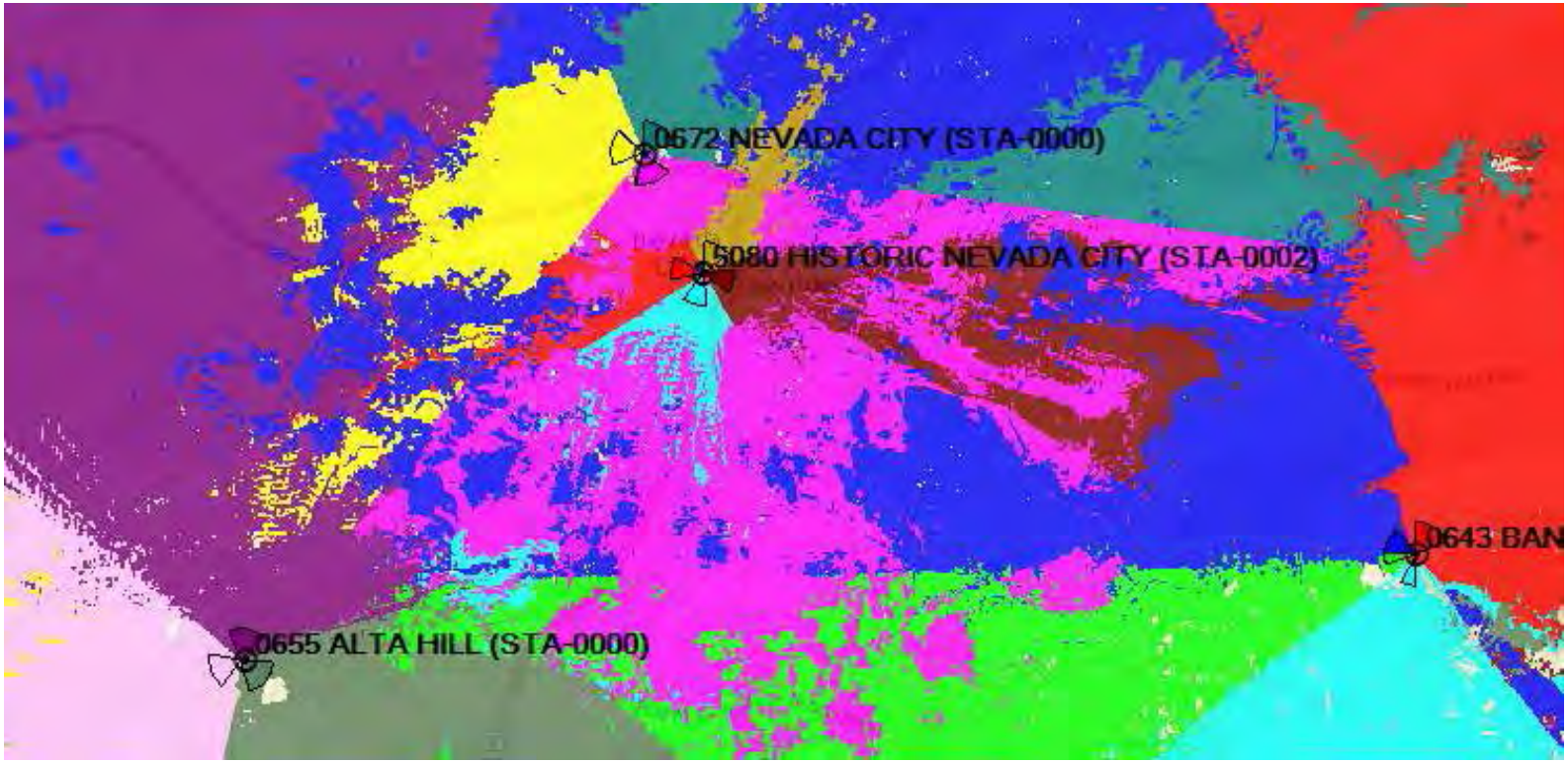
Best Server After Plot



Legend

LTE: Best Server - After

0643-D1-B13_10MHz_5230 (5-0000)	**Alta Hill – Sector 1**
0643-D2-B13_10MHz_5230 (5-0000)	**Alta Hill – Sector 2**
0643-D3-B13_10MHz_5230 (5-0000)	**Alta Hill – Sector 3**
0643-D5-B13_10MHz_5230 (5-0000)	**Banner Mtn – Sector 1**
0655-D1-B13_10MHz_5230 (5-0000)	**Banner Mtn – Sector 2**
0655-D2-B13_10MHz_5230 (5-0000)	**Banner Mtn – Sector 3**
0655-D3-B13_10MHz_5230 (5-0000)	**Banner Mtn – Sector 5**
0672-D1-B13_10MHz_5230 (5-0000)	**Nevada City – Sector 1**
0672-D2-B13_10MHz_5230 (5-0000)	**Nevada City – Sector 2**
0672-D3-B13_10MHz_5230 (5-0000)	**Nevada City – Sector 3**
5080-D1-B13_10MHz_5230 (8-0002)	**Historic Nevada City – Sector 1**
5080-D2-B13_10MHz_5230 (8-0002)	**Historic Nevada City – Sector 2**
5080-D3-B13_10MHz_5230 (8-0002)	**Historic Nevada City – Sector 3**
5080-D4-B13_10MHz_5230 (8-0002)	**Historic Nevada City – Sector 4**

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Reference Map

Circle color	Radius (miles)
Blue	0.6
Red	1

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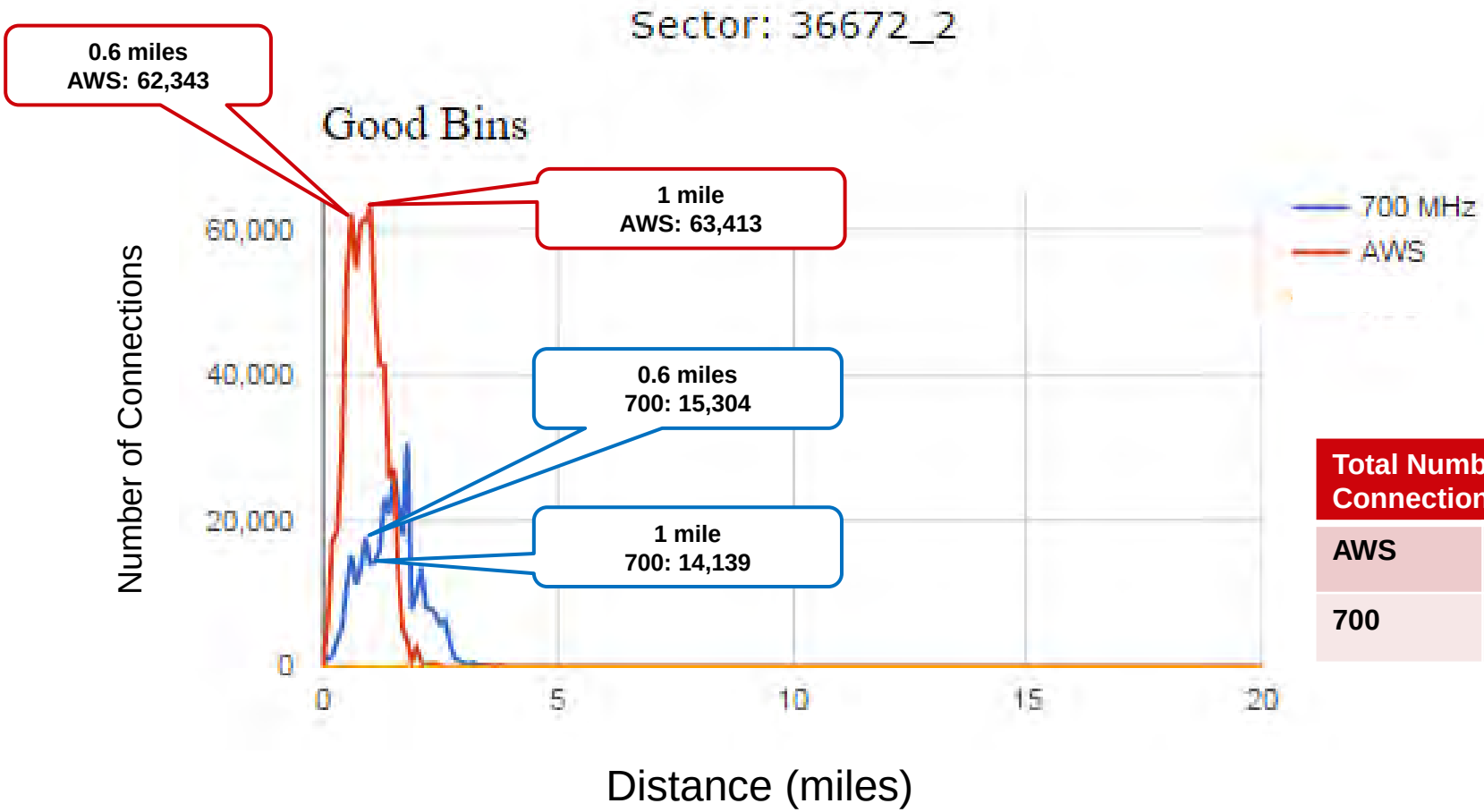
Distance Histogram – Nevada City

Data Date: 08/08/16



Total Number of Connections in 1 mile	
AWS	125,756
700	29,443

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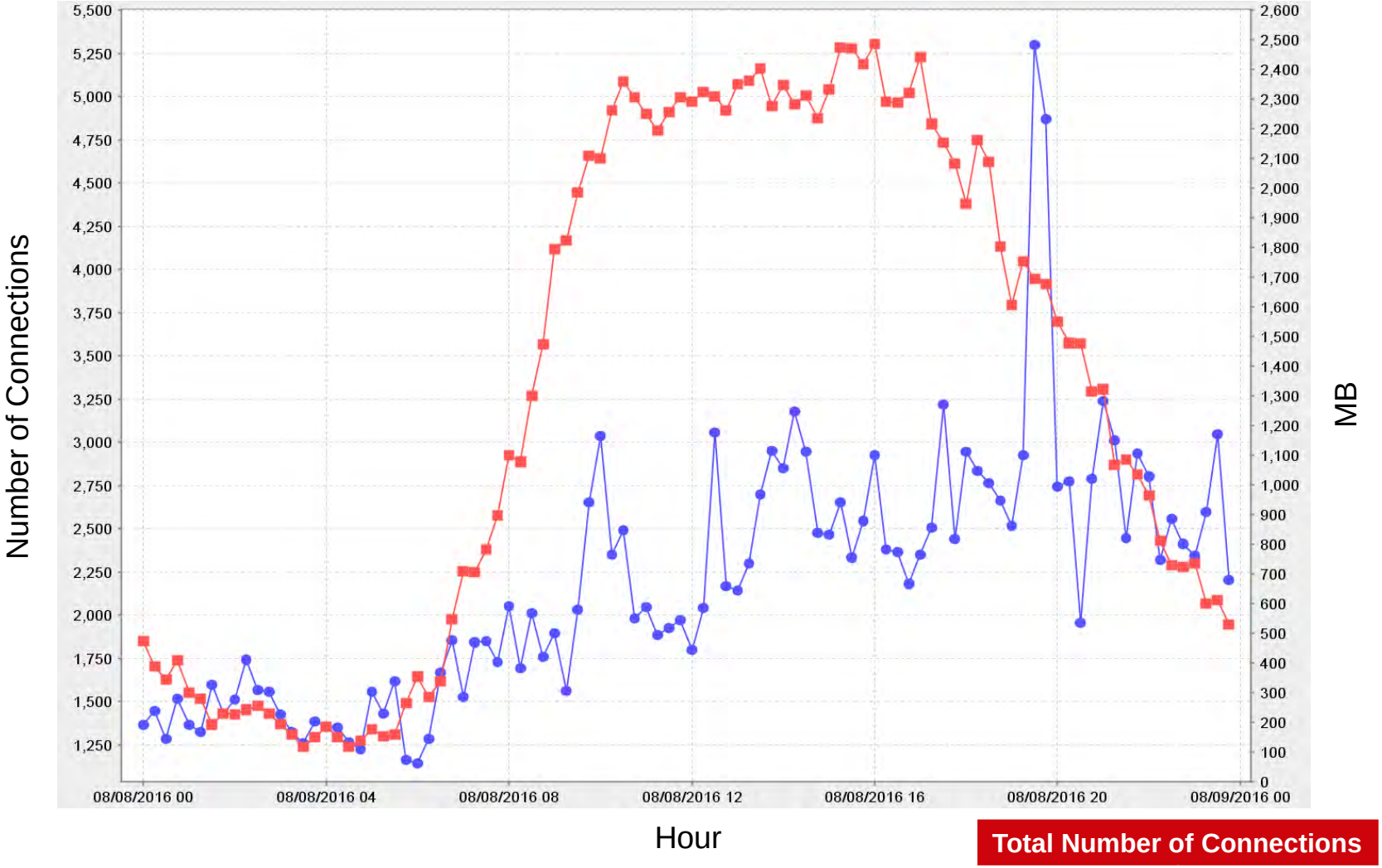
Connections vs. Data Volume – Nevada City
Hourly for 08/08/16



Total Number of Connections	
AWS	637,730

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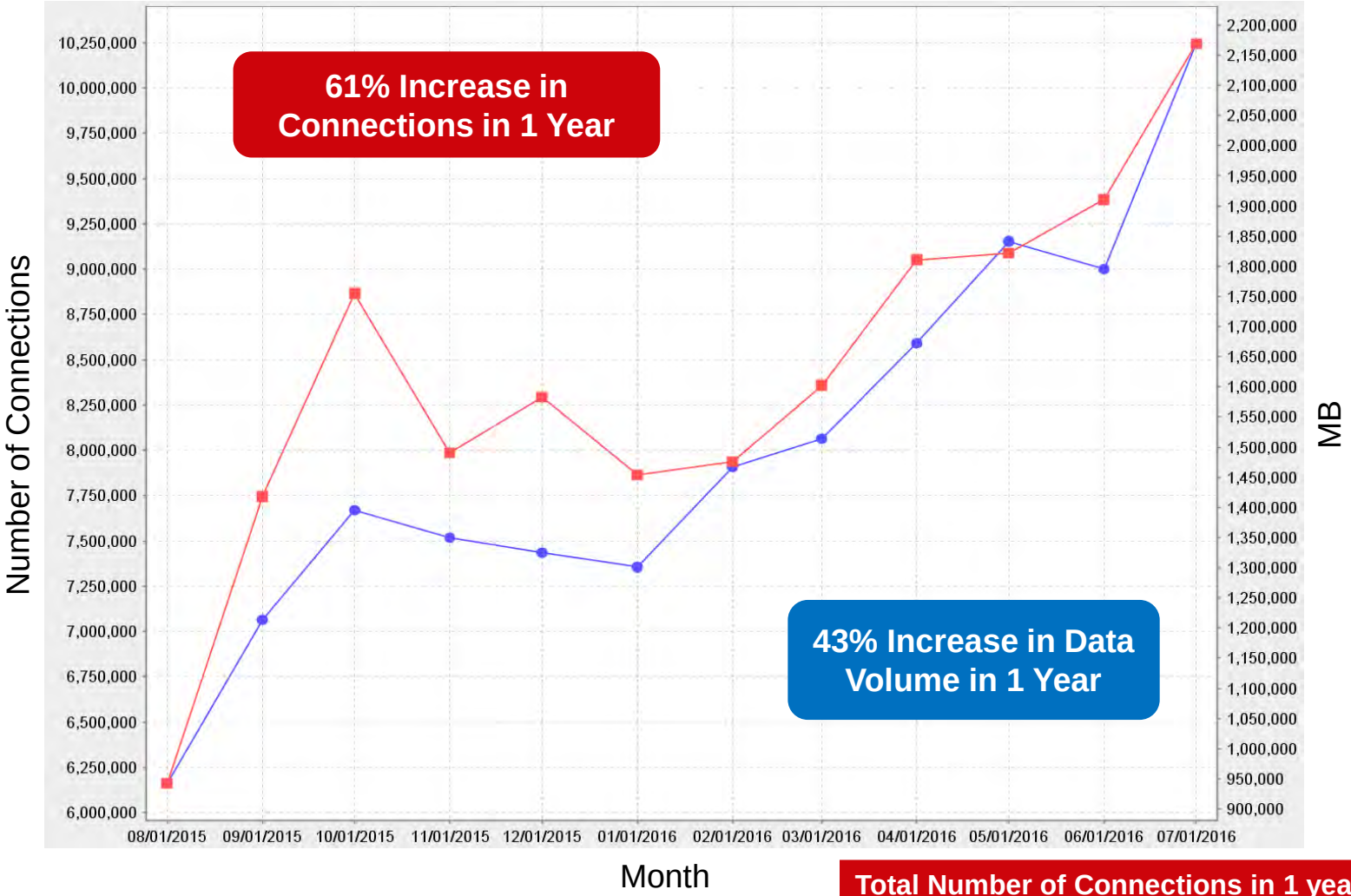
Connections vs. Data Volume – Nevada City
Monthly



Total Number of Connections in 1 year	
AWS	206,820,741

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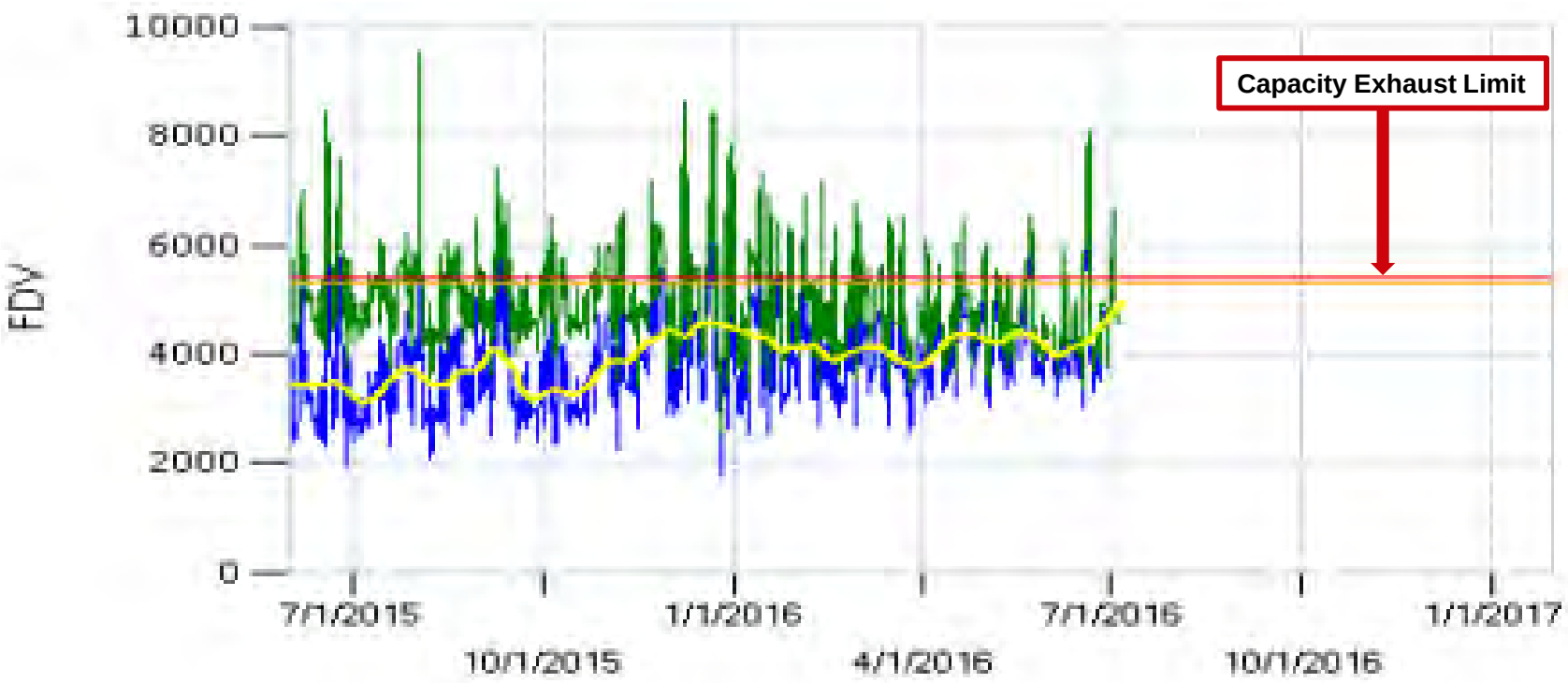
Capacity Chart – Nevada City



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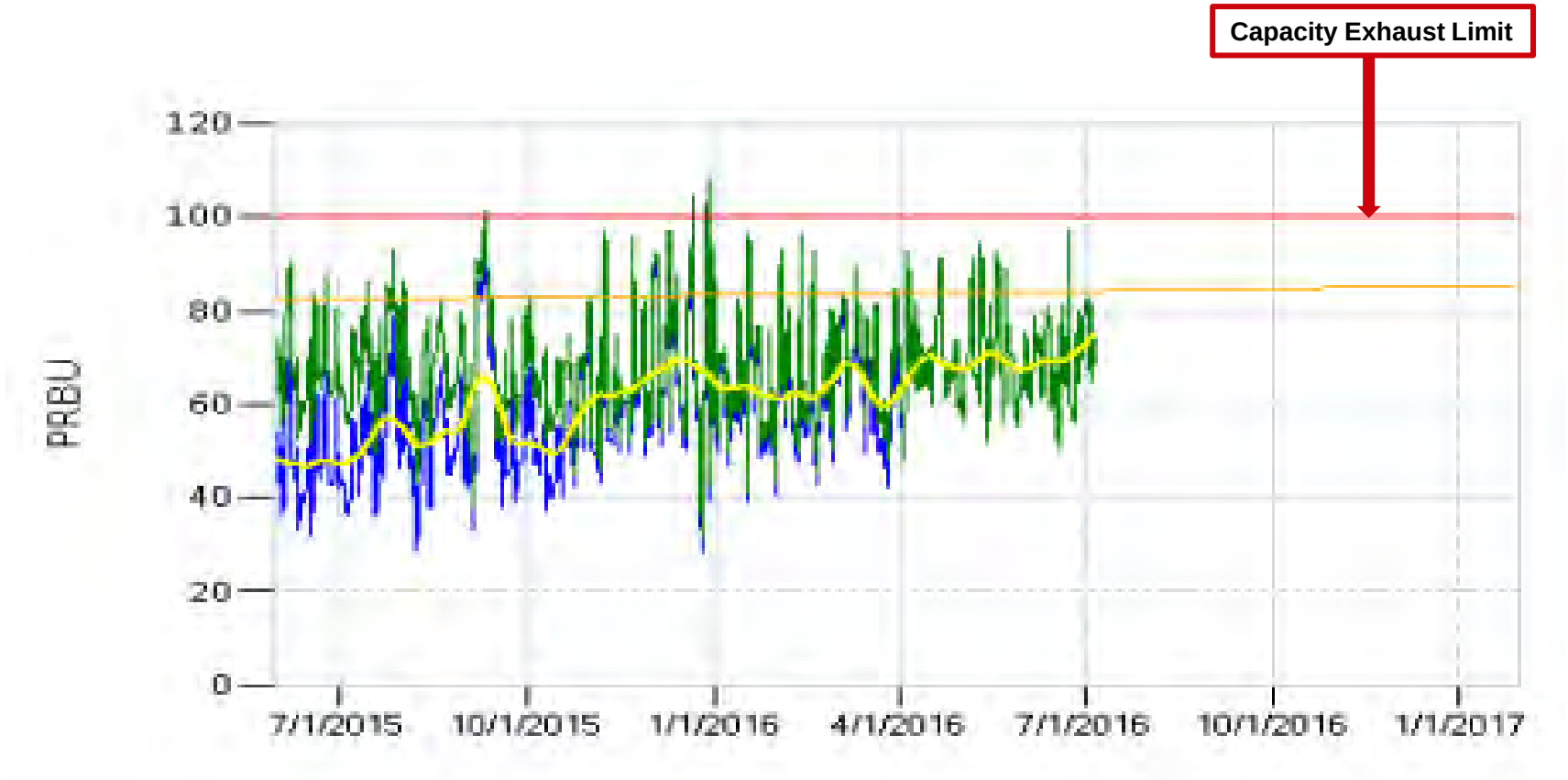
Resource Block Chart – Nevada City



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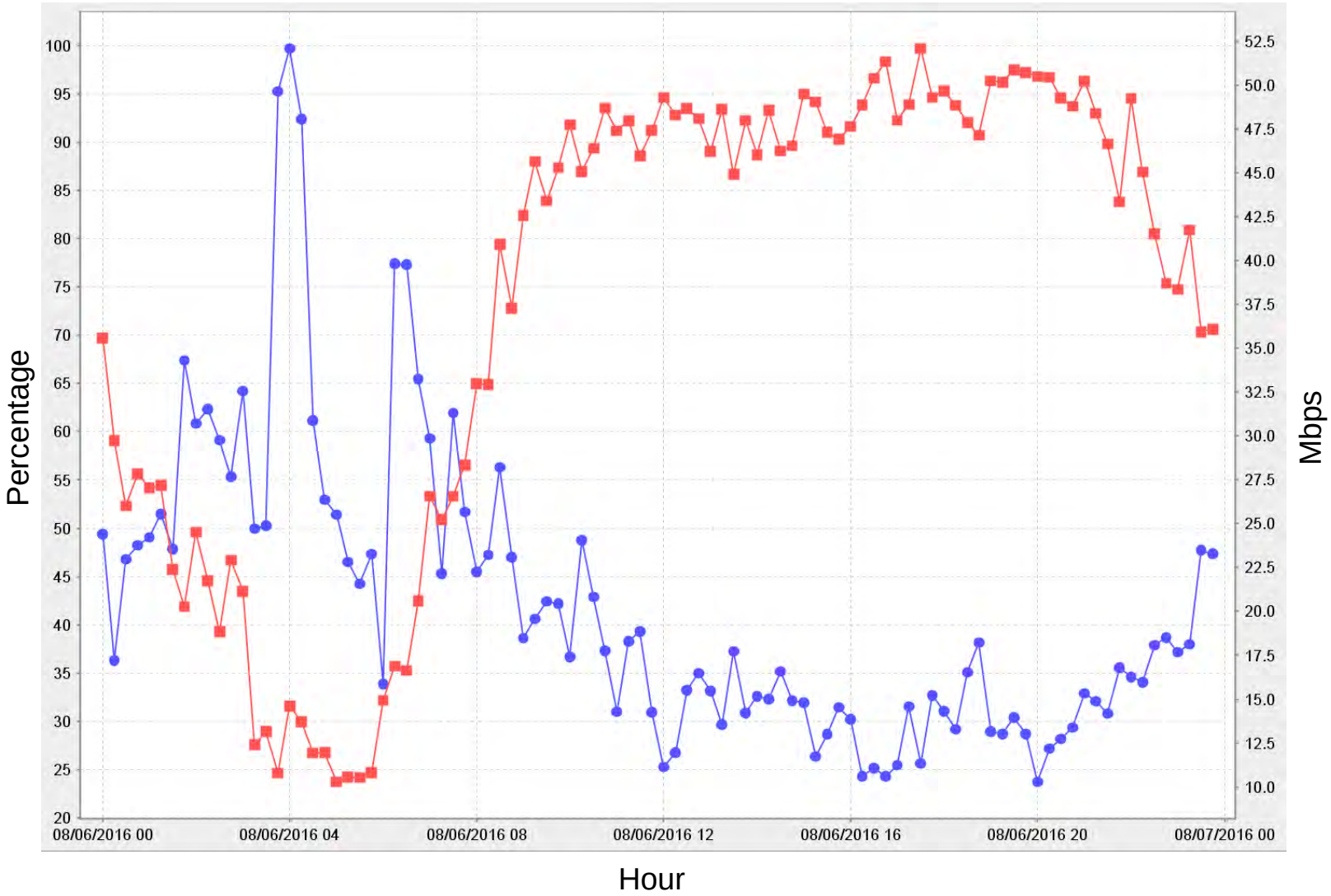
Control Channel Utilization vs. DL Throughput – Nevada City



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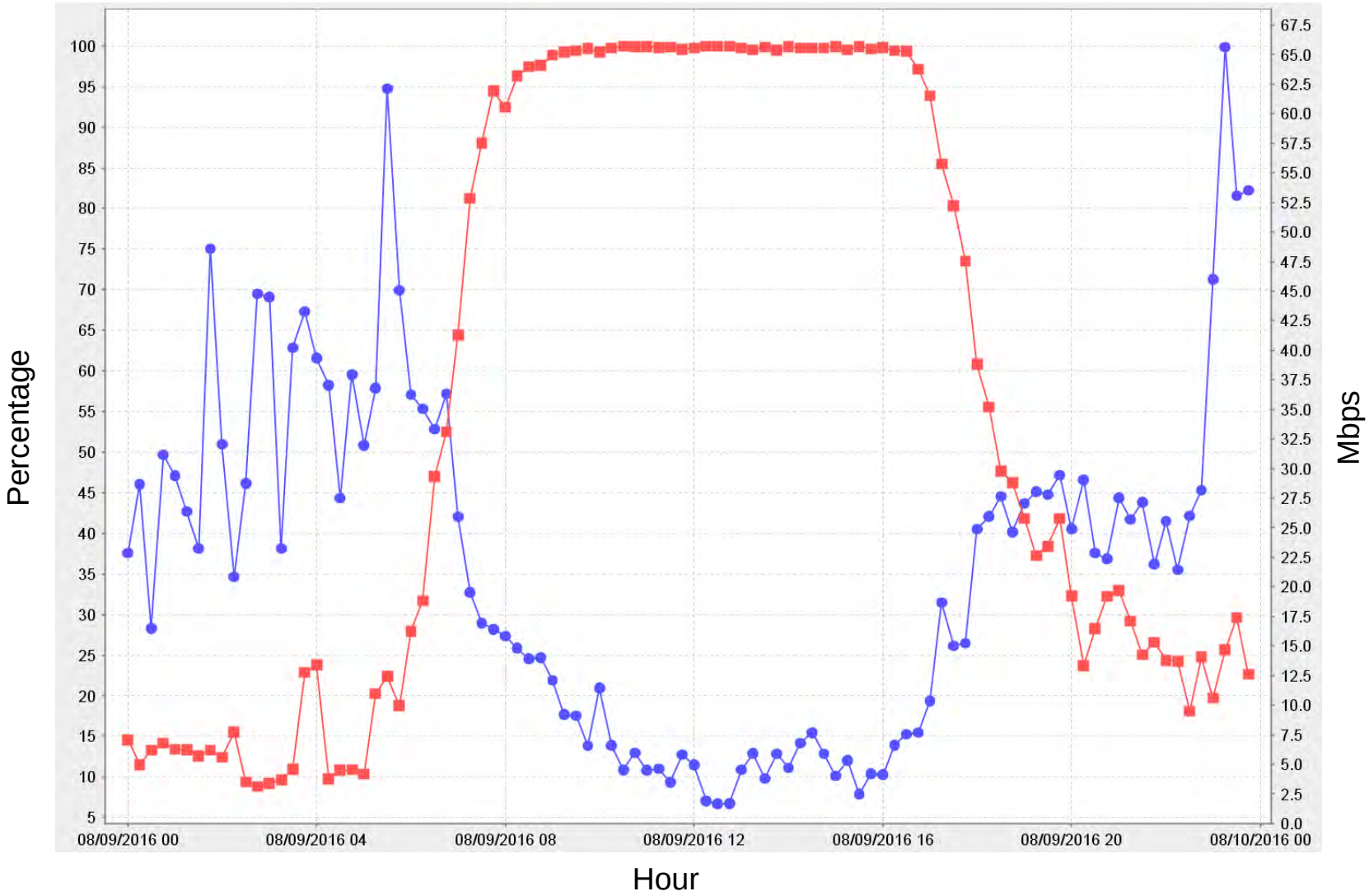
Control Channel Utilization vs. DL Throughput – Example Data



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Final Remarks

The current rooftop site is the least visually intrusive means of providing improved cellular and broadband coverage to Downtown Nevada City, due to the following reasons:

1. **The proposed single location provides a consolidated cell site on one rooftop, rather than a distributed network that use multiple antenna locations around town.**
2. **In order to minimize visibility and maximize functionality of site, split antenna arrays will be positioned on the rooftop.**
3. **A centrally located site will provide maximum coverage for downtown Nevada City.**

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Thank you.

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List of Received Public Comments after June 16, 2016

1. Nevada County Historical Society, August 5, 2016

2. Graph: "Symptoms by People in the Vicinity of Cellular Phone Base Station," submitted by Marston Schultz

3. Email: *Re: Property Devaluation Near Cell Towers and Antennas*, submitted by Paula Orloff

4. Email: *Re: Decrease in Property Values for Properties near Cellular Antennas and Towers*, submitted by David Adams, Richard Cristdahl, Paula Orloff, Susan Pelican, and a Group of Concerned Citizens, Businesses, and Property Owners

5. Email: *Re: Cell Tower Project Review August 18, 2016*, submitted by Jill Fuerst

6. The following video links have also been submitted by Marston Schultz and are available for viewing on the City's website at the following URL: http://www.nevadacityca.gov/pview.aspx?id=20767&catid=564

    a. Cell Tower Community Meeting, Dr. Magda Havas
    b. Health Risks of EMF, Dr. Martin Blank
    c. "Wake Up Call" Olle Johannsson EMF Expert
    d. RESONANCE Beings of Frequency

THE NEVADA COUNTY
Historical
Society EST. 1941
Celebrating and Preserving
the History of
Nevada County, California

161 Nevada City Hwy., Nevada City, CA 9595
info@nevadacountyhistory.org
www.NevadaCountyHistory.org

RECEIVED
AUG 11 2016
CITY OF NEVADA CITY

August 5, 2016

EBI Consulting
Attn. Tara Cubie
3703 Long Beach Blvd., Ste. 421, 2nd Floor
Long Beach, CA 90807

Re: Proposed Cell Antenna Installation
109 N. Pine Street, Nevada City, California
EBI Project #6115002400

Ms. Cubie,

I am writing in response to your letter of July 26, 2016 soliciting input from the Nevada County Historical Society on the matter of the proposed call antennas requested for permission to be installed on the roof at 109 N. Pine Street, Nevada City, California.

Our Board of Directors has reviewed this matter and offers the following opinion and position statement on this proposal:

1. We are opposed to the installation of any visible cell antenna installation in Nevada City's Historic District. Although we recognize that new or expanded wireless technology may be necessary or desirable, visible antenna would be in direct conflict with the City's stated intent in the City's Ordinance 338 that "...buildings which may hereafter be constructed or altered as to their exterior appearance, situated within the Historical District and fronting upon the streets or alleys within or bounding said District, shall as to their exterior appearance within public view substantially conform with the Mother Lode type of architecture." As I am sure you know, in the 1970s the town underwent a decade of major renovation to place utilities underground to enhance the historic character and distinctive architecture of the District. We cannot support an action that would erode that effort. A consideration of non-intrusive cell antenna technology should be explored.

2. The City of Nevada City is renowned and recognized for its legacy of preserving the historic look and character of the downtown district. Past elected leadership and city staff have exhibited commendable effort in honoring the requirements of the Historic District. Recently, we have noted the profound erosion as to the intent to carry forward a preservation effort and thus we are concerned.

3. On this basis, we ask that the City Council carefully consider this proposal relative to the exact requirements as set forth in the Historic District's governing documents. And we ask the City Council to evaluate what, if any, state of federal regulations apply as a result of the District's position on the National Register of Historic Places.

An approval that violates the intent of the Historic District will result in a dangerous precedent and that may result in the further potential expansion and inappropriate installation of more antennas.

Your consideration of the Society's concerns are greatly appreciated.

Respectfully Submitted,

Daniel R. Ketcham
President – Board of Directors

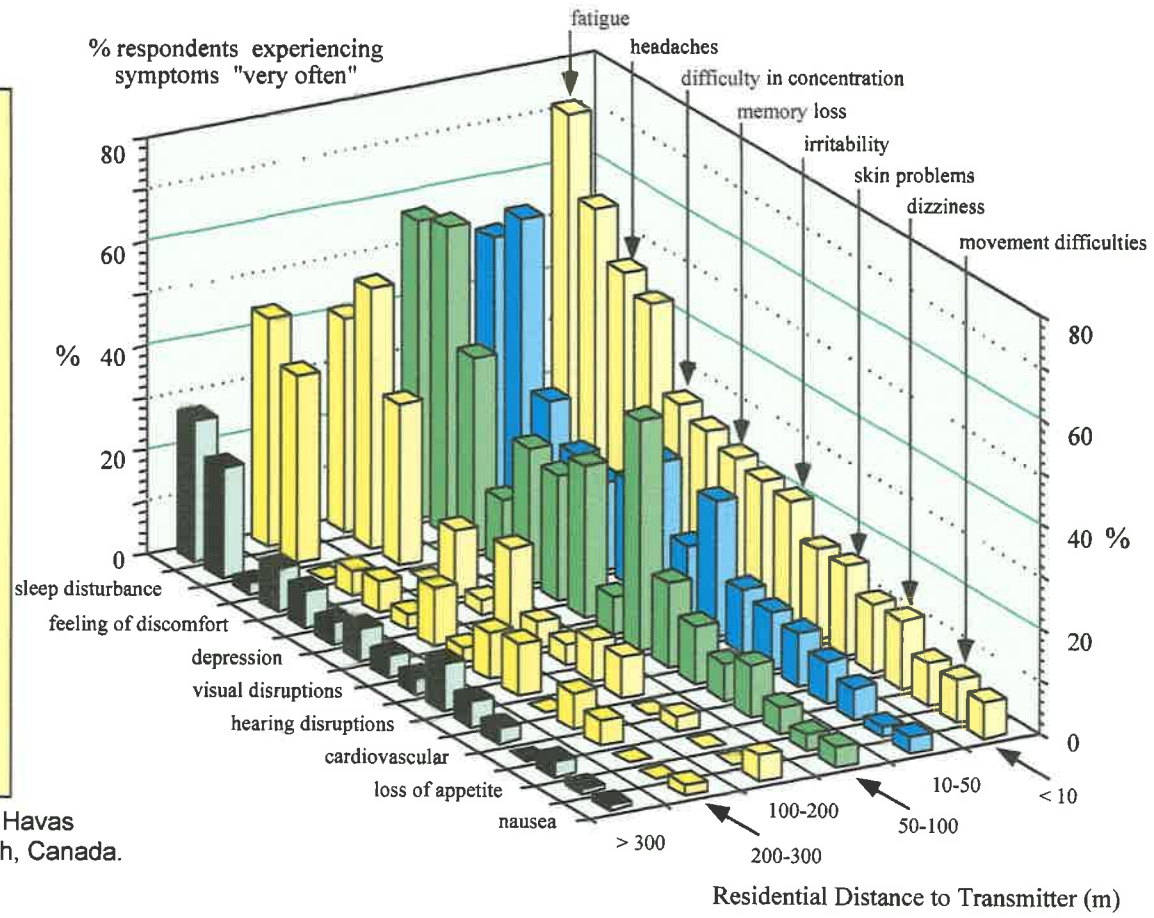
Cc: Nevada City Council members and planning staff

2001 Spain

Symptoms experience by people in the vicinity of cellular phone base station *[from Santini 2001, La Presse Medicale].*

Symptoms

1. Fatigue
2. Sleep disturbance
3. Headaches
4. Feeling of discomfort
5. Difficulty concentrating
6. Depression
7. Memory loss
8. Visual disruptions
9. Irritability
10. Hearing disruptions
11. Skin problems
12. Cardiovascular
13. Dizziness
14. Loss of appetite
15. Movement difficulties
16. Nausea



Slide designed by Dr. Magda Havas
Trent University, Peterborough, Canada.
Based on Santini 2001.

From: Paula Orloff [mailto:paulaorloff@yahoo.com]
Sent: Friday, July 22, 2016 11:37 PM
To: Amy Wolfson <Amy.Wolfson@nevadacityca.gov>
Subject: Property Devaluation near cell towers and antennas

Hi Amy Wolfson,
Please post this survey also on cell towers or antennas near properties for the Planning Commission to review before the August meeting.
Thank You,
Paula Orloff 272 7019

Real Estate Survey: Do Cell/Grid Towers Impact a Property's Desirability?

July 04, 2014

by Take Back Your Power
health, property value, real estate, smart grid, smart meters, towers

2 Comments

126
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by ElectromagneticHealth.org | see original news release

94% of respondents said a nearby cell tower or group of antennas would negatively impact value or interest in a property

The National Institute for Science, Law and Public Policy's survey **"Neighborhood Cell Towers & Antennas—Do They Impact a Property's Desirability?"** initiated June 2, 2014, has now been completed by 1,000 respondents as of June 28, 2014. The survey, which circulated online through email and social networking sites, in both the U.S. and abroad, sought to determine if nearby cell towers and antennas, or wireless antennas placed on top of or on the side of a building, would impact a home buyer's or renter's interest in a real estate property.

The overwhelming majority of respondents (94%) reported that cell towers and antennas in a neighborhood or on a building would impact interest in a property and

the price they would be willing to pay for it. And 79% said under no circumstances would they ever purchase or rent a property within a few blocks of a cell tower or antenna.

- **94% said a nearby cell tower or group of antennas would negatively impact interest in a property or the price they would be willing to pay for it.**
- **94% said a cell tower or group of antennas on top of, or attached to, an apartment buildingwould negatively impact interest in the apartment building or the price they would be willing to pay for it.**
- **95% said they would opt to buy or rent a property that had zero antennas on the building over a comparable property that had several antennas on the building.**
- **79% said under no circumstances would they ever purchase or rent a property within a few blocks of a cell tower or antennas.**
- **88% said that under no circumstances would they ever purchase or rent a property with a cell tower or group of antennas on top of, or attached to, the apartment building.**
- **89% said they were generally concerned about the increasing number of cell towers and antennas in their residential neighborhood.**

The National Institute for Science, Law and Public Policy (NISLAPP) was curious if respondents had previous experience with physical or cognitive effects of wireless radiation, or if their concern about neighborhood antennas was unrelated to personal experience with the radiation.

Of the 1,000 respondents, **57% had previously experienced cognitive effects from radiation emitted by a cell phone, wireless router, portable phone, utility smart meter, or neighborhood antenna or cell tower, and 43% had not experienced cognitive effects. 63% of respondents had previously experienced physical effects from these devices or neighborhood towers and antennas and 37% had not experienced physical effects.**

The majority of respondents provided contact information indicating they would like to receive the results of this survey or news related to the possible connection between neighborhood cell towers and antennas and real estate decisions.

Comments from real estate brokers who completed the NISLAPP survey:

"I am a real estate broker in NYC. I sold a townhouse that had a cell tower attached. Many potential buyers chose to avoid purchasing the property because of it. There was a long lease."

"I own several properties in Santa Fe, NM and believe me, I have taken care not to buy near cell towers. Most of these are rental properties and I think I would have a harder time renting those units… were a cell tower or antenna nearby. Though I have

not noticed any negative health effects myself, I know many people are affected. And in addition, these antennas and towers are often extremely ugly–despite the attempt in our town of hiding them as chimneys or fake trees."
"We are home owners and real estate investors in Marin County and have been for the last 25 years. We own homes and apartment building here in Marin. We would not think of investing in real estate that would harm our tenants. All our properties are free of smart meters. Thank you for all of your work."
"I'm a realtor. I've never had a single complaint about cell phone antennae. Electric poles, on the other hand, are a huge problem for buyers."

Study: 21% reduction in property value if cell phone tower built

Concern was expressed in the comments section by respondents about potential property valuation declines near antennas and cell towers. While the NISLAPP survey did not evaluate property price declines, a study on this subject by Sandy Bond, PhD of the New Zealand Property Institute, and Past President of the Pacific Rim Real Estate Society (PRRES), The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods, was published in *The Appraisal Journal* of the Appraisal Institute in 2006. The Appraisal Institute is the largest global professional organization for appraisers with 91 chapters.
The study indicated that **homebuyers would pay from 10%–19% less to over 20% less for a property if it were in close proximity to a cell phone base station.** The 'opinion' survey results were then confirmed by a market sales analysis. **The results of the sales analysis showed prices of properties were reduced by around 21% after a cell phone base station was built in the neighborhood."**

Additional comments

The Appraisal Journal study added,

"Even buyers who believe that there are no adverse health effects from cell phone base stations, knowing that other potential buyers might think the reverse, will probably seek a price discount for a property located near a cell phone base station."

James S. Turner, Esq., Chairman of the National Institute for Science, Law & Public Policy and Partner, Swankin & Turner in Washington, D.C., says,

"The recent NISLAPP survey suggests there is now a high level of awareness about potential risks from cell towers and antennas. In addition, the survey indicates respondents believe they have personally experienced cognitive (57%) or physical (63%) effects from radiofrequency radiation from towers, antennas or other radiating devices, such as cell phones, routers, smart meters and other consumer electronics. Almost 90% are concerned about the increasing number of cell towers and antennas generally. A study of real estate sales prices would be beneficial at this time in the Unites States to determine what discounts homebuyers are currently placing on properties near cell towers and antennas."

Betsy Lehrfeld, Esq., an attorney and Executive Director of NISLAPP, says,

"The proliferation of this irradiating infrastructure throughout our country would never have occurred in the first place had Section 704 of the Telecommunications Act of 1996 not prohibited state and local governments from regulating the placement of wireless facilities on health or environmental grounds. The federal preemption leaves us in a situation today where Americans are clearly concerned about risks from antennas and towers, some face cognitive and physical health consequences, yet they and their families increasingly have no choice but to endure these exposures, while watching their real property valuations decline."

The National Institute for Science, Law, and Public Policy (NISLAPP) in Washington, D.C. was founded in 1978 to bridge the gap between scientific uncertainties and the need for laws protecting public health and safety. Its overriding objective is to bring practitioners of science and law together to develop intelligent policy that best serves all interested parties in a given controversy. Its focus is on the points at which these two disciplines converge.

NISLAPP contact:

James S. Turner, Esq.
(202) 462-8800 / jim@swankin-turner.com
Emily Roberson
er79000@yahoo.com

TO: Nevada City Planning Commission
FROM: David Adams, Richard Cristdahl, Paula Orloff, Susan Pelican, and a Group of Concerned Citizens, Businesses, and Property Owners
DATE: August 3, 2016
RE: Decrease in Property Values for Properties near Cellular Antennas and Towers

This memo documents our points about decreases in property values in the vicinity of cellular antennas. It is increasingly recognized and documented that putting cell antennas and towers near business or residential properties is just bad business. For residential owners, it means decreased property values. For local property businesses (realtors and brokers) representing and listing these properties, it creates decreased income. For city governments, it results in decreased revenue (property taxes).

Residents and property owners are justifiably concerned about the proposed cluster of 8 cellular antennas reducing the value of their homes and businesses. Who would want to live or work right next to one, or under one – let alone 8? And there is the disappointment to people who purchase their dream home or start their dream business, only to later have an unwanted cell antenna/tower installed just outside their window. This negative effect can also contribute to a deterioration of neighborhoods and school districts when residents want to move out or pull their children out because they don't want to live or have their children attend schools nearby a cluster of cellular antennas.

Studies find that people don't want to live next to them not just because of health concerns, but also due to aesthetics and public safety reasons, i.e., cell towers/antennas become eyesores, obstructing or tarnishing cherished or historic views, and also in some areas can attract crime, are potential noise nuisances, and create fire and fall hazards.

While the Telecommunications Act of 1996 states that health concerns will not impact decisions regarding location of cellular antennas, Congress is unable to dictate the marketplace that responds to such installations. It can be argued that installing these antennas constitutes a taking of property without due process.

Here is a selection of studies and articles documenting the above:

1. The National Institute for Science, Law and Public Policy's survey "Neighborhood Cell Towers and Antennas—Do They Impact a Property's Desirability?" completed by 1,000 respondents as of June 28, 2014, found the following:

- 94% said a nearby cell tower or group of antennas would negatively impact interest in a property or the price they would be willing to pay for it.
- 94% said a cell tower or group of antennas on top of, or attached to, an apartment building would negatively impact interest in the apartment building or the price they would be willing to pay for it.
- 95% said they would opt to buy or rent a property that had zero antennas on the building over a comparable property that had several antennas on the building.
- 79% said under no circumstances would they ever purchase or rent a property within a few blocks of a cell tower or antennas.
- 88% said that under no circumstances would they ever purchase or rent a property with a cell tower or group of antennas on top of, or attached to, the apartment building.

2. "Cell Towers Are Sprouting in Unlikely Places," ***The New York Times***, January 9, 2000 (fears that property values could drop **between 5 and 40 percent** because of neighboring cell towers).

3. A ***New York Times*** news story**, "A Pushback Against Cell Towers,"** published in the paper's Real Estate section, on August 27, 2010, found that **property values will decrease 4 to 10%,** depending on

the nearness and size of a cellular installation. “Homeowners have given voice to concerns that proximity to a monopole or antenna may not be just aesthetically unpleasing but also harmful to property values. Many also perceive health risks in proximity to radio frequency radiation emissions, . . .” Tina Canaris, an associate broker and a co-owner of RE/MAX Hearthstone in Merrick, N.Y., said, “You can see a buyer’s dismay over the sight of a cell tower near a home just by their expression, even if they don’t say anything.” http://www.nytimes.com/2010/08/29/realestate/29Lizo.html?_r=1&ref=realestate.

4. The Appraisal Institute, the largest global professional membership organization for appraisers with 91 chapters throughout the world, has spotlighted the issue of cell towers/antennas and the fair market value of a home and educated its members that such an installation should, in fact, **cause a decrease in home value**. It concluded that "media attention to the potential health hazards of [cellular phone towers and antennas] has spread concerns among the public, resulting in increased resistance" to sites near those towers. **The percentage of decrease moves toward the higher range the closer the property is to the cellular antenna**.”

5. A market transaction-based regression study in Christchurch, N.Z. included **4283 property sales in four suburbs that occurred between 1986 and 2002** (approximately 1000 sales per suburb). The sales data that occurred before a CPBS was built were compared to sales data after a CPBS (Cell Phone Base Station, i.e., antenna) was built to determine any variance in price, “If purchasing or renting a property near a CPBS, over a third (38%) of the control group respondents would **reduce price of their property by more than 20%.”** Bond, S.G., Beamish, K. (2005). “Cellular Phone Towers: Perceived Impact on Residents and Property Values”, ***Pacific Rim Property Research Journal***, vol. 11, no. 2, pp. 158-177. Also: Sandy Bond and Karen Beamish, "Residents' Perceptions Towards Living Near Cell Phone Towers" presented to the **Twentieth American Real Estate Society Conference**, April 20-24, 2004, Captiva Island, Florida.

6. Case studies were performed in four suburbs of Christchurch, New Zealand where a cellular base station had been established. Survey data was collected on people's perceptions about the impact of the base station on their property value and, most importantly, that data was combined with actual housing price changes over time In the two suburbs studied where towers were built in 2000, the effect of a tower on home prices was **a decrease of between 20.7% and 21%.** Bond, S.G. and Wang, K. (2005). "The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods", ***The Appraisal Journal*** (Summer 2005) Volume LXXIII, No.3, pp.256-277; http://goliath.ecnext.com/coms2/gi_0199-5011857/The-impact-of-cell-phone.html

7. This 2004 study in Christchurch, N.Z., involved analysis of the residential transaction data for a total of ten suburbs: five suburbs with CPBSs located in them and five control suburbs without CPBSs. “The effect of proximity to a CPBS **reduces price by 15%, on average.** This effect reduces with distance from the CPBS and is negligible after 1000 feet.” Bond, S.G. and Xue, J., “Cell Phone Tower Proximity Impacts on House Prices: A New Zealand Case Study”, **European Real Estate Society and International Real Estate Society Conference**, June 15-18, 2005, Dublin, Ireland.

8. 27 Burbank, CA real estate professionals in December 2009, signed a petition/statement offering their professional opinion that a proposed T-Mobile cell tower at Brace Canyon Park would negatively impact the surrounding homes, stating: "It is our professional opinion that **cell towers decrease the value of homes in the area tremendously**. Peer reviewed research also concurs that cell sites do indeed cause a decrease in home value.” , , , Higher property values mean more tax revenue for the city, which helps improve our city."
"’I’ve done research on the subject and as well as spoken to many real estate professionals in the area, and they all agree that there’s no doubt that cell towers negatively affect real estate values.’ **Steve Hovakimian, Burbank, California real estate broker, and the publisher of “Home by Design”**

monthly real estate magazine, stated that he has seen properties near cell towers **lose up to 10% of their value** due to proximity of the cell tower. . . So even if they try to disguise them as tacky fake metal pine trees, as a real estate professional you're required by the California Association of Realtors that sellers and licensees must disclose material facts that affect the value or desirability of a property including conditions that are known outside and surrounding areas."
(Submitted to City Council, Planning Board, City Manager, City Clerk and other city officials via e-mail on June 18, 2010. To see a copy of this, scroll down to bottom of page and click "Subpages" or: http://sites.google.com/site/nocelltowerinourneighborhood/home/decreased-real-estate-value/burbank-real-estate-professionals-statement)

9. Windsor Hills/View Park, CA, 2009: Residents opposing a T-Mobile antenna in their neighborhood received several letters from local real estate companies, appraisers, homeowner associations, and resident organizations in their community confirming that **real estate values would decrease with a cell phone antenna** in their neighborhood, which must be disclosed to buyers according to the California Association of Realtors as a "known condition" that "affects the value or desirability of the property." To see copies of these letters, see "Report from Los Angeles County Regional Planning Commission regarding CUP Case No. 200700020-(2)," from L.A. County Board of Supervisors September 16, 2009, Meeting documents, Los Angeles County website at: http://file.lacounty.gov/bos/supdocs/48444.pdf

1**0. A Houston jury** awarded **$1.2 million** to a couple in 1999 because a 100-foot-tall cell tower was determined to have **lessened the value of their property** and caused them mental anguish: Nissimov, R., "GTE Wireless Loses Lawsuit over Cell-Phone Tower," *Houston Chronicle*, February 23, 1999, Section A, page 11. (Property values depreciated by **about 10 percent** because of the tower.)

11. In 2001 the assessed values of sixteen residential properties located in **Colwood, British Columbia** were **reduced by BC Assessment by an average of 7.2%** (approx. $9,500 each) due to the aesthetic impacts of a broadcasting antenna tower installation. Facsimile from Dave Hitchcock, area assessor, BC Assessment (February 23, 2001) Re: Radio Transmissions and Towers, Triangle Mountain, Colwood, 2001 Assessment Reductions Due to Proximity to Transmission Towers; provided by the Colwood Transmission Towers Citizens Committee at a meeting held on 21 August 2003 in Colwood, BC.

12. Glendale, CA: During the January 7, 2009 Glendale City Council public hearing about a proposed T-mobile cell tower in a residential neighborhood, local real estate professional Addora Beall described how a Spanish home in the Verdugo Woodlands, listed for 1 million dollars, sold for **$25,000 less** because of a power pole across the street. "Perception is everything," said Ms. Beall stated. "It the public perceives it to be a problem, then it is a problem. It really does affect property values." See Glendale City Council meeting, January 7, 2009, video of Addora Beall comments @ 2:35:24: uhttp://glendale.granicus.com/MediaPlayer.php?view_id=12&clip_id=1227

13. "Tower Opponents Ring Up a Victory," by Phil Brozynski, in the ***Barrington [Illinois] Courier-Review***, February 15, 1999, 5, reporting how the Cuba Township assessor **reduced the value of 12 homes** following the construction of a cell tower in Lake County, IL.
http://spot.colorado.edu/~maziara/appeal&attachments/Newton-43-LoweredPropertyValuation/

14. Santa Cruz, CA: This is a story about how a preschool closed because of a cell tower installed on its grounds; "**Santa Cruz Preschool Closes Citing Cell Tower Radiation,"** *Santa Cruz Sentinel*, May 17, 2006; Source, EMFacts website: http://www.emfacts.com/weblog/?p=466.

15 This British article reports that a new cell-phone antenna/tower/mast "will knock **between 15 and 25 per cent off the value** of a house, depending on how close it is and the size of the structure. "Melfyn Williams, chairman of the National Association of Estate Agents, said in some cases a mast could see a

home **reduce in value by between 5 and 10 per cent**. . . . "Campaigners are considering **legal action** to seek compensation for the loss in value of their properties or to get the masts removed. Last week, seven householders in Swindon won sums of **between £10,000 and £20,000 each** from their local council after it mistakenly allowed a mast to be erected in the middle of their residential street, causing their properties to crash in value."
The Observer (U.K.), "Phone masts blight house sales: Health fears are alarming buyers as masts spread across Britain to meet rising demand for mobiles," Sunday May 25, 2003 or:
http://www.guardian.co.uk/money/2003/may/25/houseprices.uknews

Almost any prospective property buyer would take the existence of a nearby cellular antenna cluster into account. Nevada City government should do what it can to protect its citizens' investments in their homes, businesses, and land — which includes having rules against unwanted intrusions by cell phone towers and antennas.

From: Jill Fuerst [mailto:jmbluemoon@gmail.com]
Sent: Wednesday, August 10, 2016 4:00 PM
To: Amy Wolfson <Amy.Wolfson@nevadacityca.gov>
Subject: Cell tower project review Augusr 18, 2016

Attention: Amy Wolfson
City Planner

Dear Amy,

Thank you for your time and directions to include my concerns for the meeting August 18, 2016, regarding the proposal for a cell tower project within the historical district of Nevada City. I am not able to attend the meeting due to my work schedule.

I have not been able to review the project description and/or attend the prior meeting. It is my *understanding* that the proposal is to put 1, maybe 2 ??, cell towers on top of what is known as the "Frair Tuck Building" and/or 104 South Pine Street, Nevada City.

I moved here in 1985 & was involved with the review of the Nevada Woods project, since my property borders this development. I became interested in the workings of the process of review, and have sat in on various other reviews across the years for signage, trees, businesses, etc in the historical district, as well as Nevada City in general.

The local people who have chosen to make this area their home -- those of us who have our property within the city limits -- have been amused, exasperated with, and in the end, appreciative for this diligence & stewardship of the town for its historical district & greater surrounding areas.

People from out of the area come here for an experience back-in-time, for the natural beauty, and the unique heart & soul of the people of this community. I don't imagine a cell tower would be on anyone's list.

Where is the diligence of the planning commission to allow one - or is it 2 cell towers ? into this mix? **Into the historical district of one of the top 10 small towns of America?**

I attended the fire town hall meeting in Nevada City, Monday, August 8, 2016.
This was put together following a recent fire in the South Yuba River Canyon, I believe just upstream from Edwards Crossing. A major concern expressed was the lack of communication via cell phones in this area to alert for fires, medical, search & recovery operations. The moderator of the meeting stated that two cell companies ***had*** been approached re getting cell communication within this area - I believe one of them was Verizon, the other I can't recall -- **they were not interested because it would not be profitable for them to do so.**

Prior to the meeting, in an interview on local radio station KVMR, it was stated, that if a fire got hold in the canyon, it would take 13 minutes for it to reach Cement Hill Road. It would take 30 minutes to reach the Rood Center. This is why I went to the town hall meeting. I was here for

the 49er fire. I brought groceries & listened to the checker say her home was burning in Lake Wildwood. I saw the helicopters dumping water & retardant & was told to prepare to evacuate - that the town could be involved while I was working in Grass Valley.

If the companies are not interested in assisting the town/county because it is not profitable to do so, I ask why we would consider them to put up cell towers in the town to make a further profit off the citizens, who are at risk of losing their homes, property **AND** town should a fire take hold?

If project is approved, I would hope that regional, local companies, who would provide service, protection & employment, would be considered as our first line of defense for consultation and possible choice. This is an opportunity to consider and negotiate for the best outcome for our town and county.

I strongly object to a cell tower/s in the historical district -- let alone on top of a building. Will it be disguised as a pine tree? And then, will we have the distinction of being the "Lone Pine" of the Western Sierras?

Best regards,

Jill Fuerst

966 Gold Flat Road
Nevada City CA 95959
jmbluemoon@gmail.com

I limit my time on the cell phone, so I m not listing it.