



Board of Adjustment Staff Report

Meeting Date: June 4, 2015

Subject: Special Use Permit Case Number SB14-014
Applicants: Verizon Wireless
Agenda Item Number: 8B
Project Summary: To construct a new wireless facility consisting of a sixty-one (61) foot monopole utilizing a stealth design disguised as a pine tree, and associated ground equipment.
Recommendation: Approval with conditions
Prepared by: Chad Giesinger, Senior Planner
Planning and Development Division
Washoe County Community Services Department
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Email: cgiesinger@washoecounty.us

Description

Special Use Permit Case Number SB14-014 (Verizon Wireless Timberline) – Hearing, discussion, and possible action to approve a Special Use Permit for the construction of a new wireless facility consisting of a sixty-one (61) foot monopole utilizing a stealth design disguised as a pine tree, three (3) antenna sectors with two (2) panel antennas per sector, a prefabricated equipment shelter measuring 11'6" x 16'11", a 48kw emergency standby diesel generator with a 210 gallon fuel tank and associated equipment enclosed within a 50' x 50' lease area surrounded by a 6' chain link security fence with tan colored screening slats and a retaining wall. The 2,500 square foot project site is located at 150 Timberline View Court approximately 1,260' northwest of the intersection of the Mount Rose Highway (SR431) and Timberline Drive on a ±7.34 acre parcel.

- Applicant: Verizon Wireless
- Consultant: Complete Wireless Consulting
- Property Owner: Thomas B and Kelly S Courson
- Project Address: 150 Timberline View Court, Reno, NV 89511
- Assessor's Parcel Number: 049-070-49
- Total Parcel Size: ±7.34 Acres
- Total Project Size: 50 feet x 50 feet (2,500 square feet)
- Master Plan Category: Rural (R)
- Regulatory Zone: General Rural (GR)
- Area Plan: Forest
- Citizen Advisory Board: South Truckee Meadows/Washoe Valley
- Development Code: Authorized in Article 324, Communication Facilities and Article 810, Special Use Permits
- Commission District: 2 – Commissioner Lucey
- Section/Township/Range: Portion of SW ¼ Section 34, T18N, R19E, MDM, Washoe County, NV

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Special Use Permit

The purpose of a Special Use Permit is to allow a method of review to identify any potential harmful impacts on adjacent properties or surrounding areas for uses that may be appropriate within a regulatory zone; and to provide for a procedure whereby such uses might be permitted by further restricting or conditioning them so as to mitigate or eliminate possible adverse impacts. If the Board of Adjustment grants an approval of the Special Use Permit, that approval is subject to Conditions of Approval. Conditions of Approval are requirements that need to be completed during different stages of the proposed project. Those stages are typically:

- Prior to permit issuance (i.e., a grading permit, a building permit, etc.).
- Prior to obtaining a final inspection and/or a certificate of occupancy on a structure.
- Prior to the issuance of a business license or other permits/licenses.
- Some Conditions of Approval are referred to as “Operational Conditions.” These conditions must be continually complied with for the life of the business or project.

If the Board of Adjustment denies the Special Use Permit, no Conditions of Approval are issued. However, a written decision stating the reasons for denial must be issued pursuant to NRS 707.575-585 and related legal provisions.



VICINITY MAP
Verizon Wireless Timberline
APN 049-070-49
150 Timberline View Ct.

Source: Planning and Development

Date: March, 2015



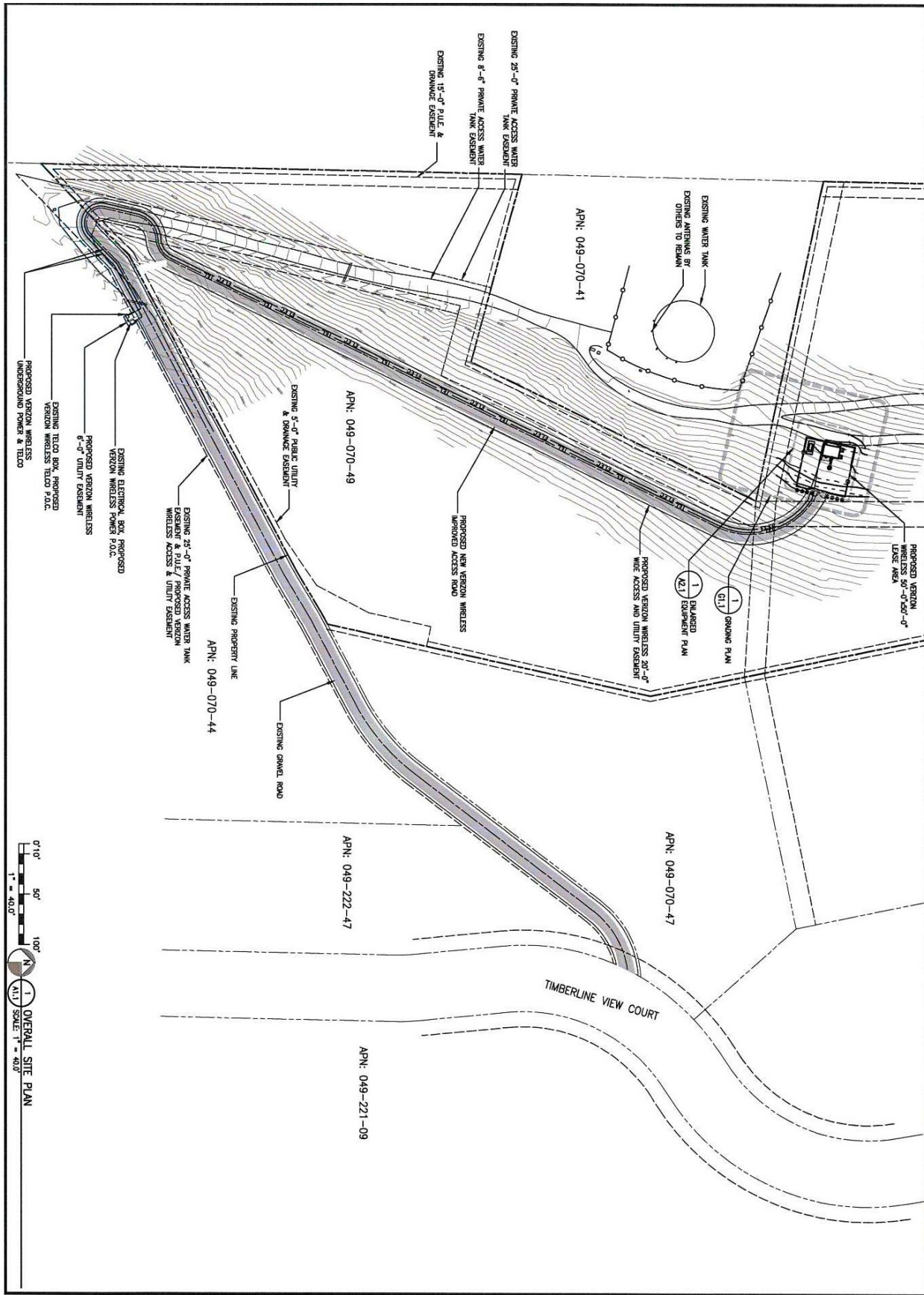
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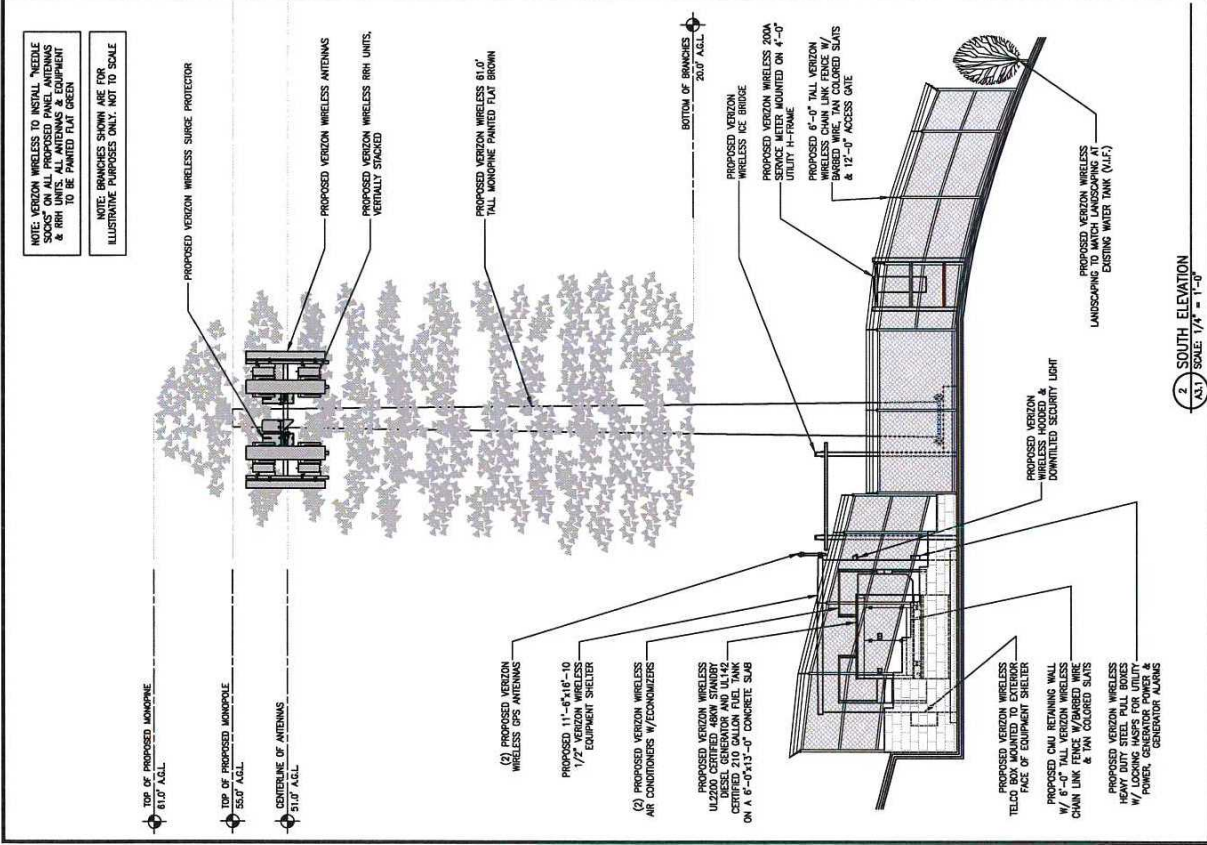
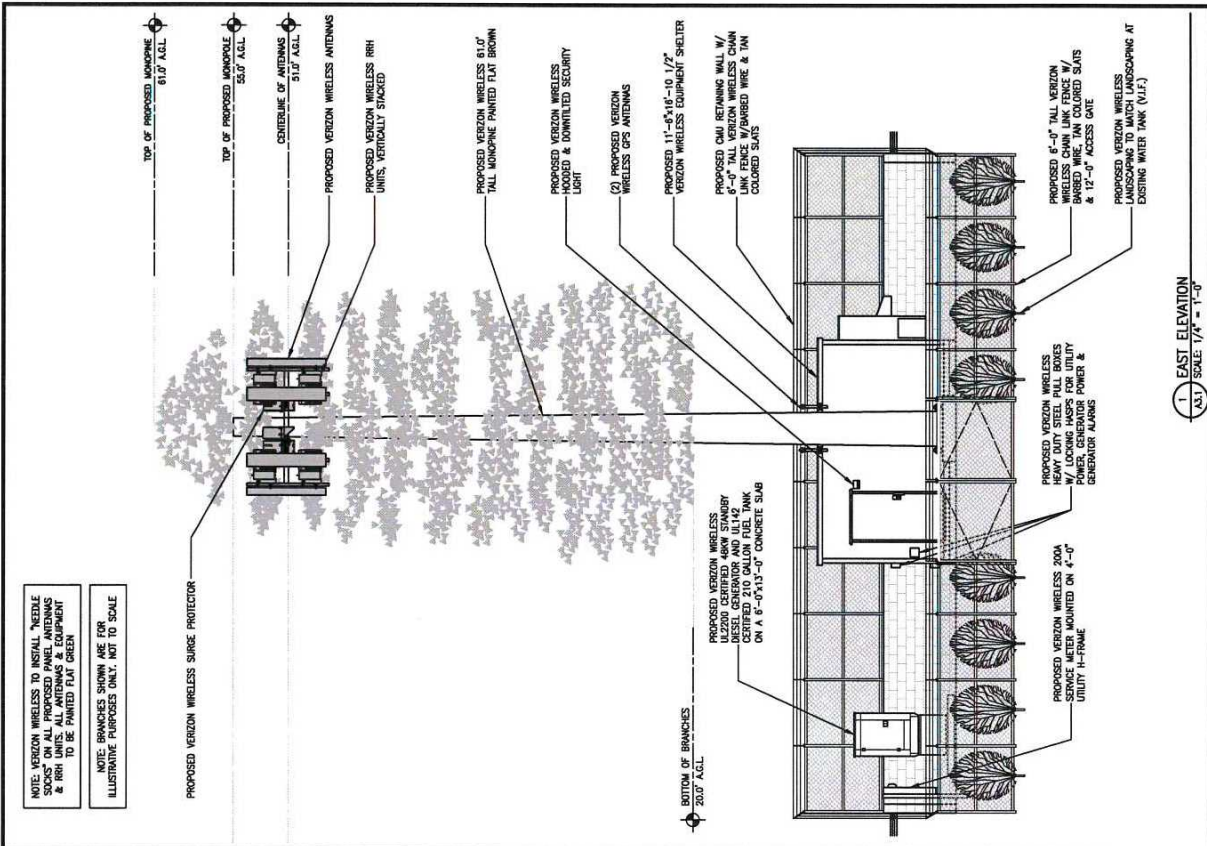
A1.1	DATE: 05/15/2015
	PROJECT: 150 TIMBERLINE VIEW COURT
	CLIENT: VERIZON WIRELESS
	SCALE: 1" = 40'


TIMBERLINE
 150 TIMBERLINE VIEW COURT
 RENO, NV 89511

O'Connor Freeman & Associates
 Structural Engineering Services
 225 30th Street, Suite 201, Sacramento, CA 95816
 Phone: (916) 441-5721 Fax: (916) 441-5697

Overall Site Plan

 <p>225 30th Street, Suite 201, Sacramento, CA 95816 Phone: (916) 441-5721 Fax: (916) 441-5697</p>	<p>PROJECT ELEVATIONS</p> <p>Verizon Wireless 150 TIMBERLINE VIEW COURT RENO, NV 89511</p>	<p>SHEET TITLE</p> <p>TIMBERLINE 150 TIMBERLINE VIEW COURT</p>	<p>DATE: 11/17/2014 12/17/2014 1/16/2015</p>	<p>DATE: 11/17/2014 12/17/2014 1/16/2015</p>	<p>A3.1</p> <p>JOB NO. 151218</p>
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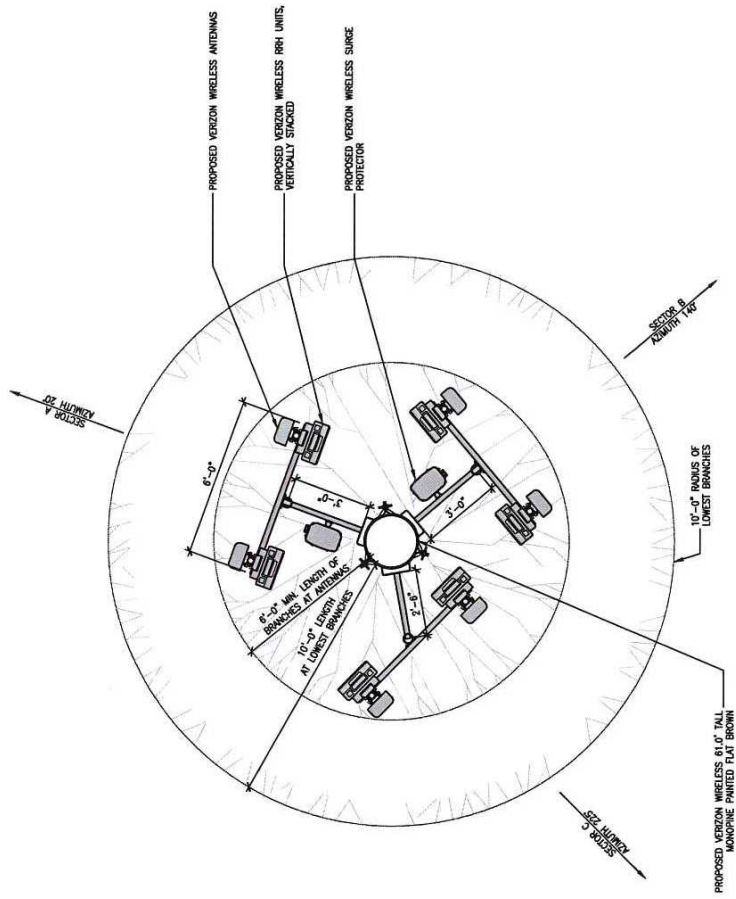
Verizon Wireless
 150 TIMBERLINE VIEW COURT
 RENO, NV 89511
 SHEET TITLE: ENLARGED ANTENNA PLAN

DATE: 05/14/2015	DATE: 05/14/2015	DATE: 05/14/2015	DATE: 05/14/2015
BY: WJW/2015	BY: WJW/2015	BY: WJW/2015	BY: WJW/2015
CHK: WJW/2015	CHK: WJW/2015	CHK: WJW/2015	CHK: WJW/2015
DATE: 05/14/2015	DATE: 05/14/2015	DATE: 05/14/2015	DATE: 05/14/2015
BY: WJW/2015	BY: WJW/2015	BY: WJW/2015	BY: WJW/2015
CHK: WJW/2015	CHK: WJW/2015	CHK: WJW/2015	CHK: WJW/2015
DATE: 05/14/2015	DATE: 05/14/2015	DATE: 05/14/2015	DATE: 05/14/2015
BY: WJW/2015	BY: WJW/2015	BY: WJW/2015	BY: WJW/2015
CHK: WJW/2015	CHK: WJW/2015	CHK: WJW/2015	CHK: WJW/2015

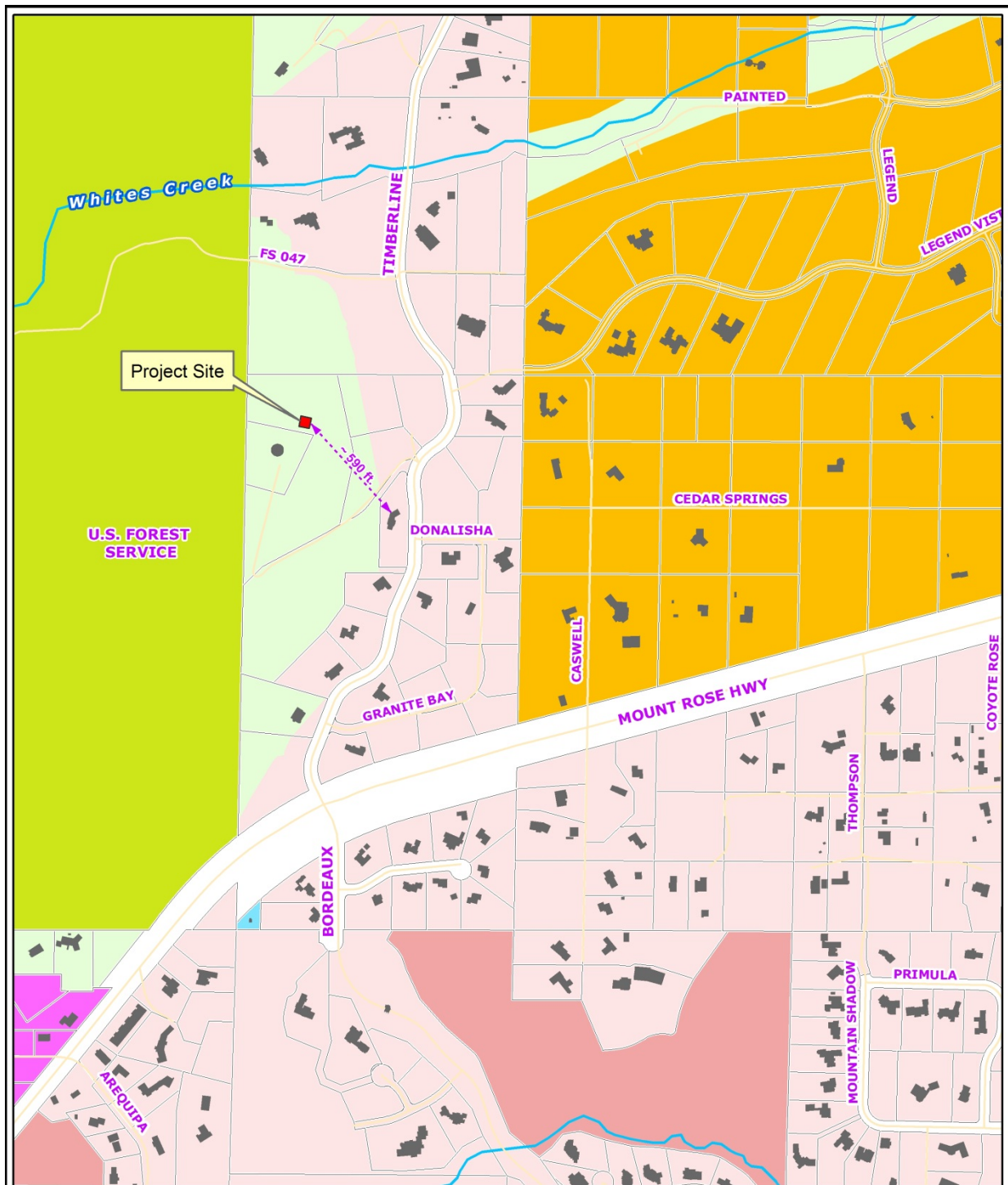
Drawn By: WJW
 Checked By: WJW
 Scale: as noted
 Date: 05/14/2015
 LSP No. 1031209

A2.2

EQUIPMENT	DESCRIPTION	QUANTITY			TOTAL
		SECTION A	SECTION B	SECTION C	
ANTENNA	TO BE DETERMINED	2	2	2	6
RRH	RRH12 W/A2	4	4	4	12
TMA OR DIPLEXER	N/A				
SURGE PROTECTOR/HYBRID	RAYCAP DC1054 / HYBRID TRUNK CABLE		2/2		2/2
COAXIAL CABLE	N/A	0	0	0	0
RET CABLE	N/A	0	0	0	0



10'
 5'
 1'
 0'
 1/2" = 1'-0"
 1 ENLARGED ANTENNA LAYOUT PLAN
 2.2 SCALE: 1/2" = 1'-0"

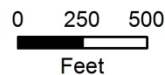


ZONING AND SURROUNDING DEVELOPMENT
Verizon Wireless Timberline

- | | | |
|---------------------|-----|----|
| Building Footprints | LDS | NC |
| HDR | MDS | OS |
| | GR | |

Source: Planning and Development

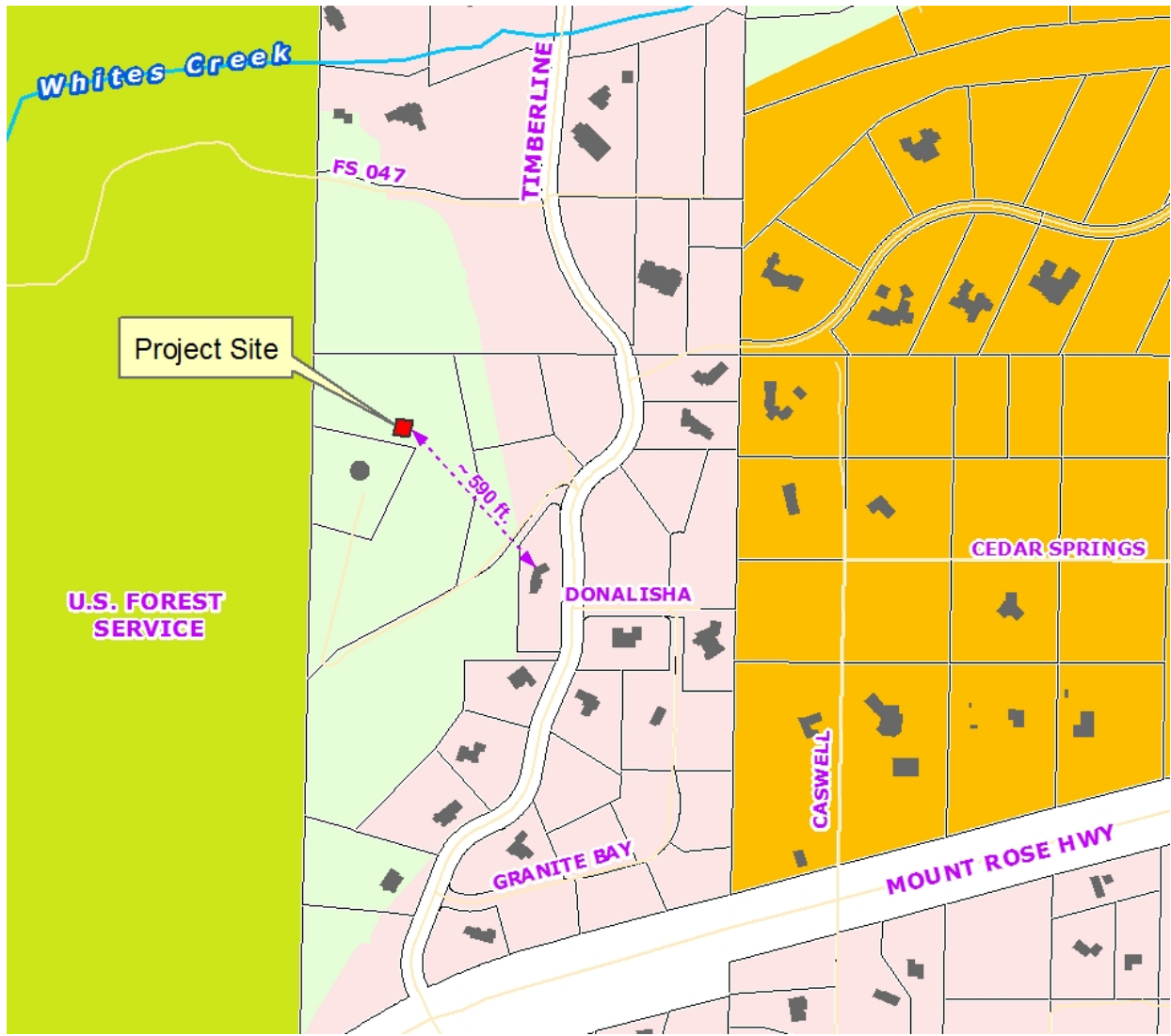
Date: March, 2015



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Zoning and Surrounding Development Enlarged View

Nearest residential structure is approximately 590 feet from proposed site.



Public Notice

NRS 278.315 and Washoe County Development Code, Article 810, Special Use Permits, require a minimum 500 foot radius from the subject parcel and notice of the public hearing to a minimum of 30 separate property owners. The notices must be mailed at least 10 days prior to the public hearing date.

Notification of Special Use Permit Case Number SB14-014 was initially mailed out on March 2, 2015 as a supplemental courtesy notice. The notice advised of the tentatively scheduled April 2, 2015, public hearing date before the Washoe County Board of Adjustment (BOA) and of the March 12, 2015, Southwest Truckee Meadows/Washoe Valley Citizen Advisory Board (SWTM/WV CAB) meeting where the proposal would be discussed. Because the application was postponed and rescheduled for the June 4, 2015 BOA meeting, the application was noticed again on April 23, 2015, no less than 10 days prior to the public hearing date to 30 separate property owners who own parcels that are located within a 500 foot radius of the subject parcel. Although the application was discussed at the March 12, 2015 SWTM/WV CAB meeting, it was heard again by the CAB at the May 14, 2015 meeting. All notices included a telephone number and email address for the assigned staff planner (see Exhibit A).

Project Evaluation

The applicant, Verizon Wireless, is requesting a Special Use Permit to allow the construction of a wireless communications facility in the Galena-Callahan Suburban Character Management Area of the Forest Area Plan. The application proposes a sixty-one (61) foot monopole utilizing a stealth design disguised as a pine tree with three (3) antenna sectors consisting of two (2) panel antennas per sector and associated ground support equipment, all enclosed within a 6' chain link security fence with tan colored screening slats and a retaining wall. The 50' x 50' lease area (2,500 sq.ft.) is on a ±7.34 acre parcel located at 150 Timberline View Court approximately 1,260' northwest of the intersection of the Mount Rose Highway (SR431) and Timberline Drive.

Verizon Wireless advises that the surrounding area is currently served by two "overloaded" communication facility sites, Slide Mountain and Wolf Run. Verizon also states that the area surrounding the proposed project site is within a significant coverage gap (see Exhibit D). The objective of the proposed facility is to both fill in this gap in coverage and also provide support capacity to the existing overloaded facilities. The proposed site would provide coverage to the north and northeast of Mt. Rose Highway as well as the Montreaux golf course area and surrounding residential areas to the south and southwest.

The proposed wireless communication facility would be located approximately 550 feet up the hill from Timberline Drive and 160 feet to the north of an existing water tank facility. The fenced perimeter of the site is located 36 feet from the northern property line of the adjacent parcel to the south owned by the Truckee Meadows Water Authority (TMWA). A 20 foot equestrian and pedestrian access easement (per Parcel Map 4688, see Exhibit B) that provides access through the subject site to the adjacent U.S. Forest Service lands runs between the proposed project site and the TMWA parcel. The project, as proposed, will not block this access easement. The fenced perimeter of the project site is 155 feet from the eastern property line, 188 feet from the northern property line, and approximately 250 feet from the western property line. The site is roughly 1/3 of a mile (1,750 feet) from the Mt. Rose Highway scenic corridor.

The subject parcel is zoned General Rural (GR), which requires a 30 foot building setback from front and rear property lines and a 50 foot side yard setback. Communication facilities are allowed in the GR zone subject to approval of a Special Use Permit and compliance with certain location and height requirements. The proposed location of the monopole satisfies the required building setbacks.

Washoe County Code (WCC) Section 110.324.50(e)(10)(i) restricts monopole antennas from being located within 1,000 feet of a public trail unless it can be proven by technical studies that a “significant gap” in existing cellular coverage exists. The Whites Creek public trail, as depicted by Parks and Open Space program documents, is approximately 715 feet from the proposed project site (see graphic below); however, the applicant is claiming that a significant gap in coverage exists (see Exhibit D). A wireless cellular facility is permitted at any location if an applicant can demonstrate that a site is “necessary to close an existing significant gap or gaps in the availability of personal wireless service.” WCC Section 110.324.55 defines a significant gap as a “white area” where no cellular service from *any* (single) carrier is available.

It should be noted that since the time this significant gap definition was adopted into County Code in 2004, case law and Federal Communications Commission (FCC) guidance has evolved to favor the “multiple carrier” interpretation/definition of what constitutes a significant gap. Under the multiple carrier interpretation (versus the “single” or “any” carrier interpretation), a carrier must only prove that a gap exists within *their* individual service area and need not consider whether any *other* carrier provides service in the target area. Hence a significant gap can exist for multiple carriers in a given area even if another carrier has coverage. Verizon is claiming a significant gap in their individual service coverage which necessitates the proposed facility, and is also claiming that the facility will alleviate demand on other existing overloaded facilities (i.e. at Slide Mountain and Wolf Run). At the request of staff, and to document and justify the significance of Verizon’s claimed coverage gap, the applicant has provided additional evidence and studies beyond what was originally submitted in their application (see Exhibit D).

As noted, the county cannot prohibit or “effectively prohibit” a wireless service provider from providing service. Courts have ruled that preventing a provider from closing a significant gap in its coverage amounts to an effective prohibition. This board must therefore determine whether there is a significant gap in the applicant’s coverage and whether, under the law, the proposed facility will appropriately close that gap. If so, the county cannot deny the application provided it otherwise complies with the law. If not, then the county’s discretion to deny the permit would hinge on the facts in the record and the applicable land use laws. Because one such land use law here would prohibit the placement of a monopole within 1,000 feet of a public trail unless the placement is necessary to close a significant gap, and because this facility would be within 1,000 feet of a public trail, approval of this application hinges on the significant gap analysis.

In deciding whether a significant gap exists, this board must undertake a two-part inquiry. First, the applicant must demonstrate that there is a gap in its coverage. See American Tower Corp. v. City of San Diego, 763 F.3d 1035 (9th Cir. 2014). There is no bright-line rule applicable to this determination. But the board is not required to take the word of the applicant on the point. And the law does not guarantee a provider coverage free of small dead spots. The gap, once identified, must be “truly significant.”

A number of factors have been considered in assessing whether a coverage gap is truly significant, including the following: whether the gap affected significant commuter or highway traffic; the nature and character of the area proposed for the site; the number of potential users in the area who may be affected by the gap; whether the proposed facility is needed to improve weak signal or fill a complete void in coverage; whether the gap covers well-traveled roads on which customers lack roaming capabilities; whether the gap affects a commercial district; whether the gap is demonstrated by an expertly performed “drive test” in which phones are driven through an area to assess the strength of signal and the quality of communication; whether the gap poses a public safety risk. This list of factors, while not exhaustive, is taken from a Ninth Circuit Court of Appeals case called Sprint PCS Assets, LLC v. City of Palos Verdes Estates, 583 F.3d 716 (9th Cir. 2009), which should help inform the board in making its own significant gap determination here.

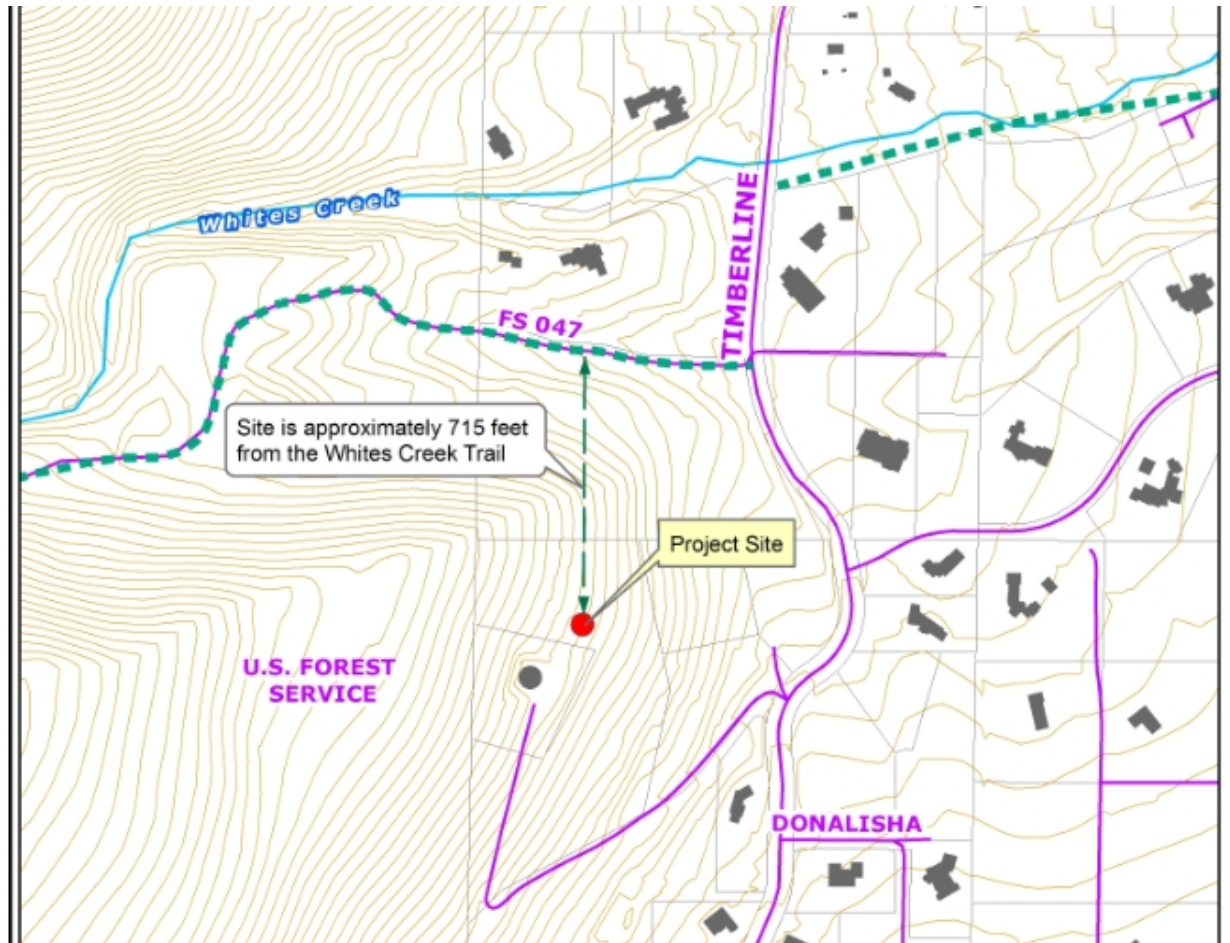
Second, if the applicant demonstrates the existence of a significant gap in its coverage, it must then demonstrate the infeasibility of alternative facilities or site locations. Courts have referred to this prong of the analysis alternatively as a review of the intrusiveness or necessity of the proposed means of closing the gap. In this jurisdiction, this does not require a showing that there is no other possible alternative site. Rather, it requires a review of alternative sites or facilities and a comparison of them to the chosen site to determine if it is the least intrusive on the values sought to be served. It is more of a balancing test than an “all or nothing” determination of whether any other possible site could also have been chosen. See MetroPCS, Inc. v. City and County of S.F., 400 F.3d 715 (9th Cir. 2005).

Determinations about significant gap must be made on a substantial evidence standard, as with other determinations to be made in connection with this application. This is the common standard applicable in most land use decisions. Substantial evidence has been defined generally as that amount of evidence, based on facts in the record, which a reasonable mind might accept as adequate to support a conclusion.

Notwithstanding the validity of whether or not a significant gap exists, the proximity of the proposed monopole should have minimal impact on the Whites Creek public trail view shed. The topography of the trail route, as well as existing vegetation, should obscure any view of the proposed facility. In addition, this part of the trail primarily follows an existing and partially paved Forest Service road. The improved trailhead for the Whites Creek trail is located further to the west and higher up in elevation in the creek corridor. The proposed site is located about a quarter of the way up the south facing slope of the foothill separating the Whites Creek drainage from the Mt. Rose Highway corridor and the trail is located on the north facing side down in the creek drainage (see contour map on following page).

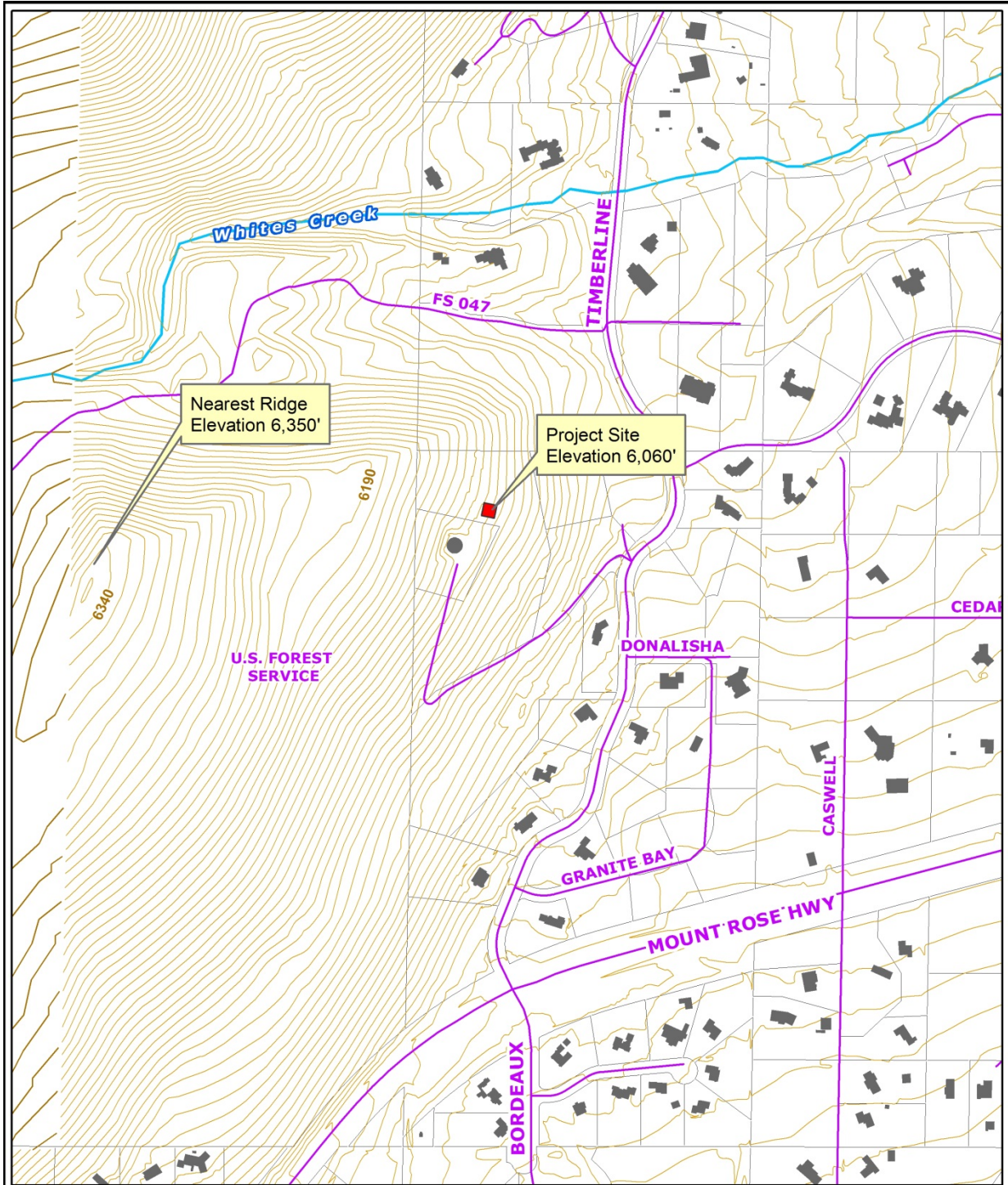


View of the site from near the Whites Creek Trail. The site is obscured by topography and trees.




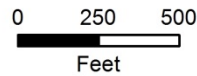
Ridgelines and Slopes

The proposed monopole does not appear to affect any significant ridgelines (see ridgeline and slope assessment map on following page). While the applicant proposes to disguise the monopole as a pine tree, the site will nevertheless be clearly visible to surrounding residents as it is located on a prominent hillside and the location of the existing water tank and road cut draws attention to the location. The proposed site is located in a relatively treeless area of the hillside, so the “monopine” will likely stand out as the only tall tree in the vicinity as taller trees do not exist until further up the slope or to the north in the Whites Creek drainage. The pole portion of the monopine will be approximately 2 feet in diameter and will be painted flat brown. The faux branches will begin at a height of 20 feet up the pole and will extend 5 feet above the top of the pole terminating in a conical shape. The branches will extend horizontally to a circumference of 10 feet at the lowest branches and narrow to 6 feet at the highest branches, which will ensure screening of the proposed antenna panels/arrays.



SLOPE AND RIDGELINE ASSESSMENT
 Verizon Wireless Timberline

-  Contours (10 foot intervals)
-  Contours (10 meter intervals)



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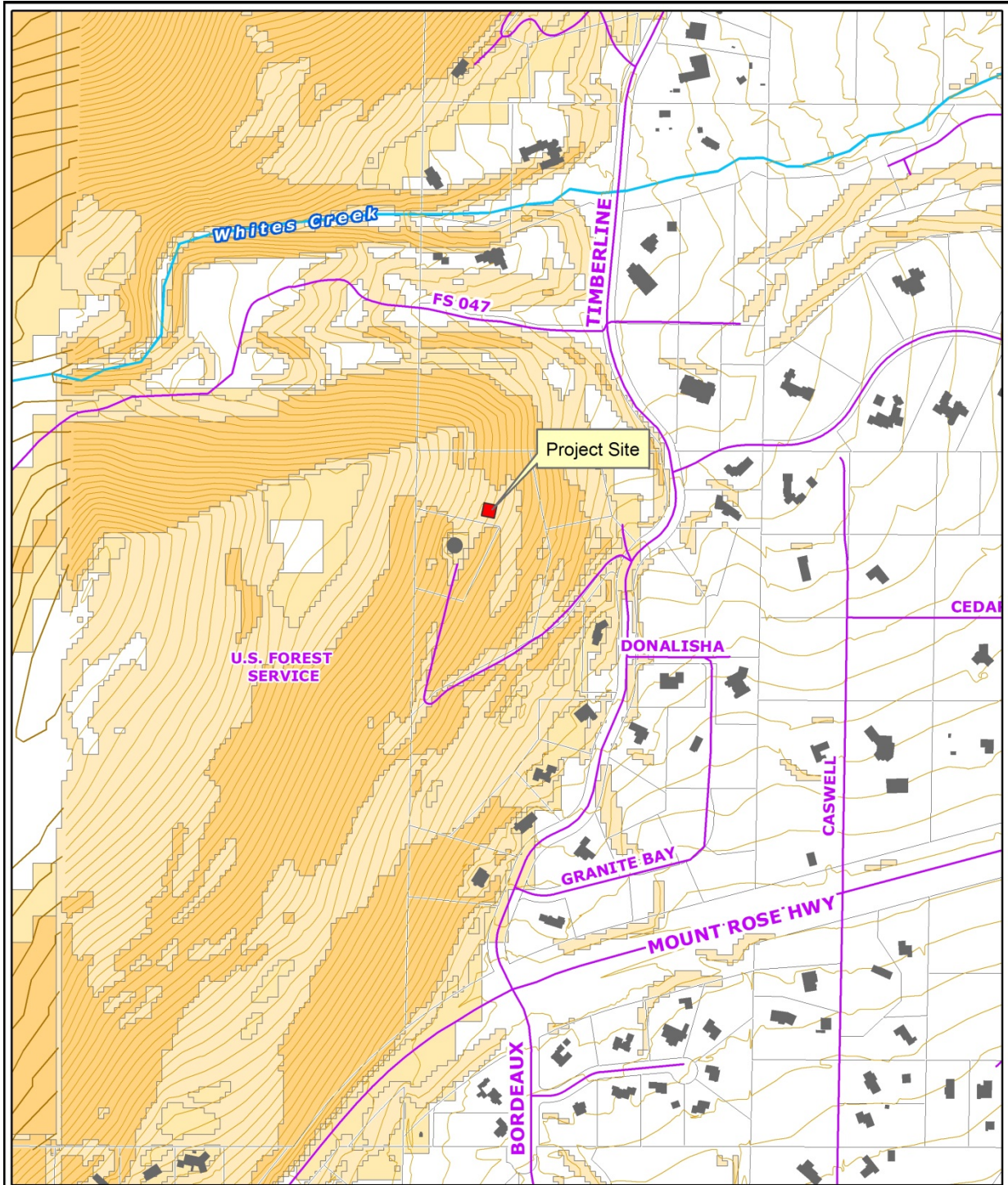
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Source: Planning and Development

Date: March, 2015



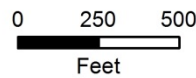
SLOPE AND RIDGELINE ASSESSMENT

Verizon Wireless Timberline

- Contours (10 foot intervals)
- Contours (10 meter intervals)

Slope Percentage

- >15 - 30%
- >30%



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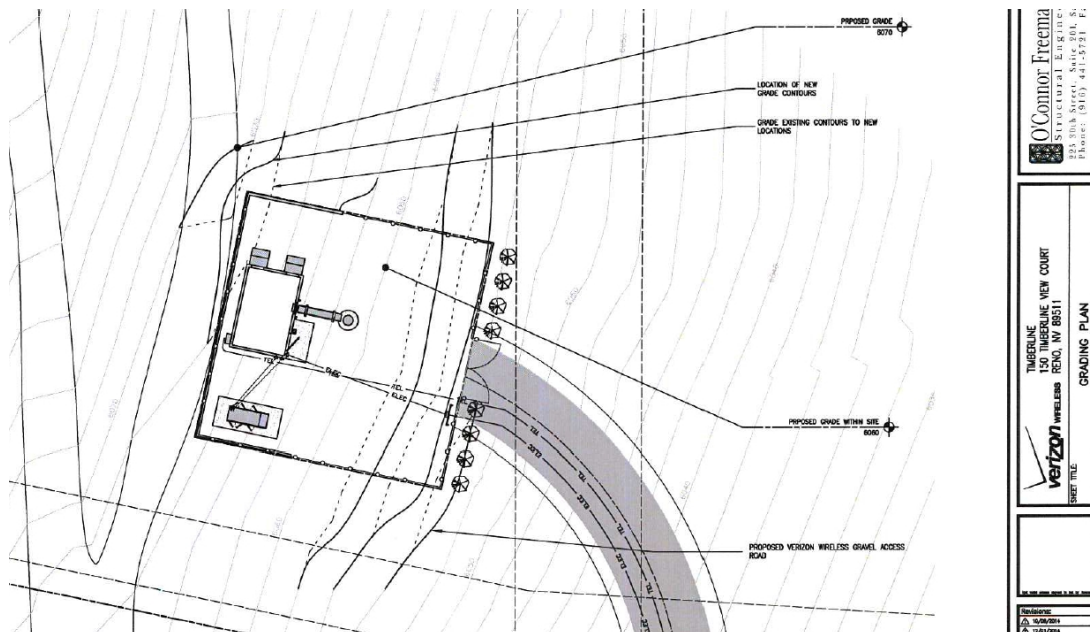
Source: Planning and Development

Date: March, 2015

Access, Grading, and Utilities

Electric power and telecommunication utilities to service the proposed project are available off of Timber View Court. The utility lines will be placed underground and will be extended from Timber View Court up to the project site through a new combined utility and access easement necessary to serve the site. The site will be accessed, in part, via an existing gravel road off of Timberline Court that provides access to a water tank owned by the Truckee Meadows Water Authority (TMWA). In order to avoid traversing the TMWA owned parcel to access the proposed cellular site to the north of the water tank, the applicant proposes to construct a new 20 foot wide road cut directly below the water tank running parallel to the parcel line and along slope contours. The new road cut would begin where the existing road switchbacks to the north and would cross through an area of 30% slopes, requiring significant cuts and fills. It would be far more desirable, from staff’s perspective, to utilize the existing dirt road that runs directly to the proposed cell tower pad, albeit through the TMWA owned parcel, than build a new road through such a steep and boulder strewn area (see photos on following page). Staff therefore requested that the applicant explore the possibility of using the existing dirt access road in lieu of constructing a new one, but was advised that Verizon could not negotiate use of the access easement with lease arrangements acceptable to both Verizon and TMWA.

The potential visual and environmental impact of the grading for the proposed new road is of great concern to staff. The initial application contained no grading details for this proposed new road. After repeated requests by staff for detailed grading plans, and after advising the applicant that grading in areas of 30% slopes would normally trigger a Special Use Permit of its own, staff finally received a preliminary grading plan. This plan, however, was inadequate and did not meet county code, contained numerous errors, and was not stamped by a licensed engineer. Staff again requested grading plans that met Washoe County grading codes (i.e. WCC 110.438). After further delay, staff received a revised set of stamped plans and a geotechnical report (see Exhibit E). After reviewing the resubmitted plans, staff identified a number of areas where the plans still do not meet the requirements of the grading Codes. In lieu of continuing the lengthy back and forth with the applicant regarding plans that meet code requirements, and in the interest of time, staff decided instead to craft potential conditions of approval addressing road grading concerns (see attached conditions of approval, Exhibit H). Grading of the cell tower pad site is of less concern as the location chosen is already disturbed, partly graded, and proposed pad site grading appears to meet the grading Codes.



Grading for the pad site



Existing dirt road on the TMWA parcel that provides direct access to the proposed pad/site. A new access road is proposed to the right and below (downslope) this road.



Location of proposed new road. Note the presence of large boulders and steepness of slope. The existing dirt road is located upslope and to the left of the area pictured.

Operation and Maintenance, Landscaping, and Lighting

The wireless communications facility would be unmanned, except for regular maintenance visits, which average about twice a month and would occur during normal business hours. The site will include one parking space suitable for a maintenance vehicle. One down shielded sensor light would be placed on the outside of the equipment shelter and one small sign with Verizon’s name and contact information would be attached to the fence that encloses the facility. The entire pad site will be screened from view by a 6 foot tall chain link security fence with tan colored slats. The tower, antennas, and ground equipment will be finished in non-reflective, neutral colors to blend into the surrounding landscape. A backup generator will be installed to provide emergency power to the facility, but will only operate for short durations during bi-weekly maintenance checks or during emergency power outages. Landscaping similar to what was installed as part of the adjacent TMWA water tank will be provided around the fenced site.

Collocation Potential and Construction

The applicant states that the facility has been designed in a manner that would allow for future collocation. Future carriers seeking collocation would be limited to a maximum centerline height of approximately 41 feet. Any future carriers would also need additional space for associated ground equipment. The applicant estimates a construction timeline of 10-12 weeks to complete the project, if approved. Building permits will need to be processed and approved prior to any construction activity, which could extend the proposed construction timeline.

Antenna Height

Because the project is utilizing a “stealth design” and is also claiming a significant gap in coverage, there are 2 options or methods for determining maximum allowable antenna height for the proposed monopole. The first method is set forth in WCC Section 110.324.50 (e) and Table 110.324.50.1, which establishes allowable height for new monopoles based on regulatory zoning and distances from residentially zoned property or from a public paved right of way. Using this method the pole is granted a 25% height bonus if it is located in the General Rural regulatory zone and utilizes a stealth design (e.g. a tree). The second method is enabled by Table 110.324.55.1 *Significant Gap Antenna Pole Height* as shown below. Either method of determining maximum allowable height would enable the proposed height of 61 feet. The most permissive method would be under the “significant gap” code provisions. The proposed cell tower site is located approximately 300 feet from the nearest residentially zoned property line.

Table 110.324.55.1

SIGNIFICANT GAP ANTENNA POLE HEIGHT

Design Standards	Distance from Residential Property						
	50'	200'	400'	600'	1,000'	1,500'	2,000'
Distance from Residentially Zoned Property or Public Paved Right of Way (closest adjacent use will be applied)							
Permitted Height of Pole	45'	50'	60'	70'	80'	90'	+100'
Bonus Allowed	10'	15'	20'	25'	30'	35'	40'
Total Permitted Height of Pole	55'	65'	80'	95'	110'	125'	140'+

Source: Washoe County Department of Community Development

Alternative Sites Considered

Verizon's feasibility study included an analysis of alternate sites, as listed below, which were not chosen over the proposed site. These alternative sites were not chosen for a variety of reasons, including a lack of collocation options in the target area (that would meet service objectives), topography/height considerations, and lack of interest from contacted property owners in executing a lease/use agreement. Only sites that potentially met County regulations for a new monopole were analyzed. The following locations were investigated and not selected:

- a. Water tank collocation at 16125 Timberline Drive (APN 049-070-41) – rejected due to poor property owner responsiveness and difficulty in negotiating joint use.
- b. ATT collocation at 16255 Mount Rose Hwy (APN 049-070-30) – rejected due to low elevation.
- c. Terrell new build monopole at 16100 Mount Rose Hwy (APN 049-070-27) – rejected due to low elevation.
- d. Adams new build monopole at 16275 Mount Rose Hwy (APN 049-070-32) – rejected due to low elevation.
- e. Lee new build monopole at 16150 Mount Rose Hwy (APN 049-070-11) – landlord did not respond to numerous attempts at negotiation.
- f. TL Mount Rose Estates new build monopole at 15045 Goldenrod Drive (APN 150-420-01) – property owners did not respond to numerous calls, emails, and US mail.
- g. Bentson new build monopole at 4875 Rose Rock Lane (APN 049-090-17) – property owner non-responsive.

Map of Alternative Sites Considered



Radio Frequency and Environmental Impacts

Under federal law [47 U.S.C. 332 (c) (7) (B) (iv)], if the proposed telecommunications facility complies with FCC regulations, this Board cannot regulate its placement, construction, and modification based on the potential environmental effects of radio frequency emissions. Under state law [NRS 707.575 (4)] this Board “shall not consider the environmental effects of radio frequency emissions” in rendering a decision of approving or denying this special use permit.

A “*Radio Frequency - Electromagnetic Energy (RF-EME) Compliance Report*” (see Exhibit C, *Project Application*), was submitted with the application which summarizes the results of RF-EME modeling in relation to relevant Federal Communications Commission RF-EME compliance standards for limiting human exposure to RF-EME fields. The report concludes that there are no areas in front of the Verizon antennas that exceed the FCC standards for occupational or general public exposure. A certification of qualifications of the person who prepared this report is included at the back of the RF-EME compliance report.

Nevada Revised Statutes (NRS) and United States Code (USC)

The proposed stealth monopole is a “*communications facility*” under WCC Article 110.324, and a “*facility for personal wireless service*” under NRS 707.555 (NRS Chapter 707, *Telecommunications*) and the Federal Telecommunications Act of 1996 (TCA). This special use permit is guided by NRS 707.550 through 707.585 and 47 U.S.C. § 332 (c) (7). The state statute establishes standards and procedures for approving such wireless service facilities, and federal law provides that when considering this application, this Board:

1. Shall not unreasonably discriminate among providers of functionally equivalent services (per the American Tower Corp. case cited above in the discussion of “significant gap” analysis, unreasonable discrimination occurs if a provider is treated differently from other similarly situated providers in terms of the structure, placement, or cumulative impact of the facilities involved);
2. Shall not prohibit or have the effect of prohibiting the provision of personal wireless services (see above analysis); and
3. Shall not 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 FCC regulations regarding such emissions. (NRS 707.575 (4) also prohibits the consideration of environmental effects of radio frequency emissions if the facility complies with FCC regulations.) 47 U.S.C. § 332 (c) (7) (C), defines “*personal wireless services*” as commercial mobile services, unlicensed wireless services and common carrier wireless exchange access services; and “*personal wireless service facilities*” as facilities for the provision of personal wireless services.

Consistency with the Forest Area Plan

Policy F.2.2 requires site development plans in the Forest Planning Area to submit a plan for the control of noxious weeds. The plan should be developed through consultation with the Washoe County Health District, the University of Nevada Cooperative Extension, and/or the Washoe-Storey Conservation District. Implementation of the control plan is on a voluntary compliance basis.

Staff Comment: The applicant has not submitted a plan for the control of noxious weeds and is likely unaware of this policy requirement. Staff will craft a recommended condition of approval to address this issue. Control of noxious weeds is particularly important at this site since it is adjacent to sensitive Forest Service lands and open space.

Policy F.2.3 states “applicants required to present their items to the Citizen Advisory Board (CAB) must submit a statement to staff regarding how the final proposal responds to the community input received from the CAB.”

Staff Comment: Staff will request said statement and include in the public record.

Policy F.2.10 states “The impact of development on adjacent land uses will be mitigated. The appropriate form of mitigation may include, but will not be limited to, open space buffering or parcel matching and should be determined through a process of community consultation and cooperation. Applicants shall be prepared to demonstrate how the project conforms to this policy.”

Staff Comment: The applicant attended the SWTM/WV CAB twice to consult with the community and listen to concerns. As mentioned above, staff will request a statement from the applicant demonstrating how they have responded to community input. The applicant is also attempting to mitigate the impact of the facility on adjacent land uses by utilizing a “stealth” design and disguising the tower as a pine tree.

Policy F.2.13 states “the approval of all special use permits and administrative permits must include a finding that the community character as described in the Character Statement can be adequately conserved through mitigation of any identified potential negative impacts.”

Staff Comment: The character statement for the Forest Area Plan contains many references to maintaining the scenic qualities of the area and limiting commercial uses. While the tower will be disguised as a pine tree, it will stand out as the most prominent feature on a prominent hillside within the community. The applicant, though, has few other options to mitigate the potential visual impact other than locating it elsewhere. Staff does not feel qualified to determine whether or not the project adequately mitigates the potential negative impact to scenic resources. The Board should consider and make such a finding in its deliberations.

Policy F.7.2 states “the Washoe County Departments of Community Development and Public Works will establish and oversee compliance with design standards for grading that minimize the visual impact of all residential and non-residential hillside development, including road cuts and driveways. See Policy 2.1 regarding grading under Goal Two.”

Staff Comment: Staff will ensure that grading for the project complies with Article 438 grading standards. As mentioned earlier in this report, staff is not satisfied with grading details submitted to date and will therefore condition any approval to obtain a subsequent Special Use Permit for grading on slopes in excess of 30% which will address hillside grading, cuts, and fills.

Policy F.7.4 states “when necessary to mitigate the impact of road cuts, driveways and similar features on prominent hillsides, staff may require the installation of landscaping that will significantly soften the visual impact within three years of installation. Maintenance plans for these landscaped areas may be required.”

Staff Comment: Staff will address this policy as part of the Special Use Permit for grading on slopes in excess of 30% that will be a condition of any approval.

Policy F.12.3 states “the granting of special use permits in the Forest planning area must be accompanied by a finding that no significant degradation of air quality will occur as a result of the permit. As necessary, conditions may be placed on special use permits to ensure no significant degradation of air quality will occur. The Department of Community Development will seek the advice and input of the Air Quality Division of the Department of Health in the implementation of this policy.”

Staff Comment: Staff will address this policy as a condition of approval and work with the Air Quality Division to determine compliance. The only air quality concerns staff is aware of that

are relevant to the project is the bi-weekly testing of the backup power generator. It is highly unlikely this activity would degrade overall air quality.

Policy F.13.1 states “development proposals, with the exception of single family homes and uses accessory to single family homes, within the Forest planning area will include detailed soils and geo-technical studies sufficient to:

- a. Ensure structural integrity of roads and buildings.
- b. Provide adequate setbacks from potentially active faults or other hazards.
- c. Minimize erosion potential.
- d. Tentative subdivision maps must identify the locations of all active faults.”

Staff Comment: The applicant has submitted a geotechnical study (see Exhibit E) that will be used in the review of the Special Use Permit for grading.

South Truckee Meadows/Washoe Valley Citizen Advisory Board (STM/WV CAB)

The proposed project was presented by the applicant at the regularly scheduled STM/WV CAB meeting twice, first on April 9, 2015 and then again on May 14, 2015. Staff was unable to attend the April 9th meeting, but did attend the May 14th meeting and had significant dialogue with the community. At the conclusion of the first meeting (April 9th), the CAB voted unanimously to request the applicant to return with a County representative to address compliance issues and further discuss the project. Minutes for the April 9th meeting are provided below. Minutes for the May 14th meeting were not available at the time this staff report was written, but many of the same concerns brought up at the April 9th meeting were again expressed. There was an in depth discussion of whether or not a “significant gap” existed and how it is defined. Proposed grading of the new access road was also discussed at length and the CAB was very frustrated that TMWA and Verizon were unable to work together on sharing infrastructure. A petition expressing opposition to the facility had been circulated and signed by many of the surrounding property owners. At the conclusion of the May 14th meeting, a motion was made to recommend approval of the cell tower subject to a special use permit for grading of the proposed access road. The motion ended in a tie vote (3 to 3) and the CAB requested that their comments and concerns be included in the record.

April 9th meeting minutes:

- Pat asked if this was to replace the one that was turned down from Washoe Valley. Jenny said no, it's not to replace. The projects are 5 miles apart. Not the same exact coverage.
- Jenny (the applicant's consultant) showed a 'coverage' map: green means building coverage, yellow means intermediate, red means poor coverage.
- The water tank has a sprint antenna.
- Eric Scheetz asked about the tower at the fire station, and asked if they would allow other services to locate at this tower. Jenny said the one at the fire station is not Verizon and yes, this proposed facility could co-located.
- Jenny said it was proposed originally as a monopole; it's been re-located away from residences and changed the design as a pine tree to be stealth and in code and blend nicely with the aesthetics. It will have a realistic appearance.
- Tom Judy asked about code compliance. Jenny said they have been working with Chad in the Washoe County Planning Department regarding the zoning and setbacks. Tom Judy asked about the area plan (Southwest/Forest plan). She said staff said it complies. Jenny said they will conduct an acoustic study 65 decibel maximum allowance; the back-up generator is only 36 decibels. She said they also conducted an emissions study. They had less than 1% of what the FCC requires.
- Debbie Sheltra asked about the fuel tank placement in the ground and possibility of explosion. Jenny, it won't be underground. It will be a diesel generator. In case of emergency, it's standard to have a generator. There is an automatic switch, and

dispatched to Verizon and will be mediated immediately. Debbie said this is twice as high as other trees in the area. Jenny said this is a foe tree and the height is necessary; line of sight technology to communicate with other towers and your devices. This height is in full compliance for County height requirements. Antennas will be at 42 feet, and they will request a taller tree for the taper affect of the pine tree.

- Randy Collins said he is a Reno business owner of 42 years. He said the 2012 tower was constructed by NV energy as a communication tower. He brought it to the Planning Commission's attention as this is a Trojan horse for other towers. Randy Collins submitted a letter for the record. He would like to go on record in opposition to the planned construction of the proposed cell tower project for the following reasons:
 1. There are no trees in proximity to disguise the tree.
 2. According to the 2000 Open Space Bond, there is a public trail within 700 feet of the tower tree. There are restrictions with placement of the tower near public trail.
 3. CCRs – this is out of the spec of the particular CCR. It must be installed below ground. It wasn't in Verizon's application. Not in compliance with the CCRs.
 4. The non-compliance has not been completed. The photos were not submitted in the proper formatted.
- Bonnie Meyers said the antennas on the water tower belong to Sprint. Bonnie showed a map. She said there is a man who is building his home in the area and might not know of the tree cell tower. It won't blend in with the current landscape. It will create a silhouette. It's proposed to be installed next to a popular trail. The service road will be an additional scar that will detract from the beauty of the hillside. There is currently a tower at the sierra fire station.
- Jenny said the square on the map was the original location, and the proposed tower has been moved up and further away from the residences. There is a landscaping provision that they will be in compliances with. There is a 6 foot fence and landscaping around the fence. The landscaping and shrubs will be a screen from Highway 431. Verizon has conducted their due diligence with a Title clearance to make sure they can move forward. They signed lease with property owner.
- Pat asked Jenny to look into the CCRs. Jenny said she will provide Chad with that information.
- Judy Savage said she lives on Timberline, and where the tower tree is proposed is a blank hillside. It would stand out. She said she would like to register her strong opposition. Esthetically, it won't blend. There are no trees. There would be this big, unnatural tree. It does violate the US forest mandate to be 1000 feet away from the trail. It would be a fire hazard. The chain link fence will be in full view. It's unpleasing. She asked, would you like this built outside your window? What will it do to the property values? She said she is very concerned about this. This is a very beautiful, rural area. Please don't allow this to proceed. Pat asked about a landscape screen. Jenny said landscaping will be installed. There can be additional extensive landscaping. The trees can't be higher than the antennas because that will block the service.
- Ginger Pierce said this is the forest area. She said she used to be the CAB chair and she did all four of the area plans. She asked about how the branches will withstand the high winds? What can be done for maintenance to keep the limbs on the trees? There are 100 mile winds on that hill. That's why there aren't any trees. This could create noise when the wind picks up. How much money is paid to the property owner? Jenny said it's proprietary.
- Sheila Hlubcek gave the CCRs to the board. She said as a homeowner, this is a scar in our area. It's not necessary and won't blend with the low shrubs and it won't tolerate the high winds. It will fall apart. There are recreational users and their view would also be diminished. It's very unfortunate. She showed on the map where her home is located. It's approximately 800 feet to the proposed tower. Jenny said it's in compliance with the setbacks with the County code.

- Julie Mottes said that the esthetics doesn't fit into the natural beauty. She said she hikes the trails in this area. This would look terrible. They aren't disguised even when designed as a tree. Please don't approve this.
- Brett Cothorn said he opposes this tower. Our property values would be negatively impacted due to our views.
- Bill Naylor said a couple things bother him: they immediately wrote off the water tower to co-located saying it would be too difficult to work with TMWA. They should have tried harder to co-locate at the tower. They also said they couldn't co-locate with ATT because it didn't work with their requirements. Why wouldn't that work for Verizon if it works for ATT? The residential parcels are close to the tower proposal. Mt rose scenic byway is in that location.
- Jenny said we looked at the water tower, and there were a lot of terms to prevent co-location; water district required the contract to be renewed every 5 years, and it wasn't feasible. There was a change in ownership. We fully vetted the water tower and it wasn't reasonable for us. The change in elevation is very important.
- Tom Judy said two things that need to be addressed: CCRs & the trail proximity to tower might be in violation.
- Jenny said Verizon goes through vetting and full title search of the property before entering into lease agreement. Title has been cleared. It hasn't been an issue to this point. The set back from trails hasn't been brought up in planning. It was brought up in December in planning, and hasn't been brought up within the past 6 months. We are calculated not to take risks with violation.
- Brad Stanley said there are two issues that need to be reviewed: Look at CCRs and make sure the trail isn't within the tower.
- Amy Collins said they have enjoyed the views and is opposed any towers being built on the hill. There is already a cell tower built at the fire station. She said she is disappointed that a fellow parcel owner would lease this to Verizon.
- Kathy Bowling said its part of the Mt. Rose Scenic Corridor. Just because you have a cleared title doesn't mean you are in compliance with CCRs. If there is a statute regarding the tower proximity to the trail, it has to be thrown out. She asked the board take a stand at the County Commissioners. You can't throw our statutes out. The noise can be a major issue. Who will maintain the cell tower pine tree? The wind damaged the tower at the fire station. Maintenance wasn't in the agreement.
- Julie Savage asked about the proposed tower in Washoe Valley that didn't get approved. She said please be careful with this proposal. Jenny said the commission turned it down. Tom Judy said it wasn't in compliance with the South Valley Plan.
- Randy Collins said the generator will be run on a bi-weekly basis. There is an issue of silhouetting. Jenny said the generator runs for 15 minutes every 2 weeks to make sure it's working. It will run during the day, not at night.
- This will be heard on June 4 at the Board of Adjustments.
- Jim Rummings wants this to come back to get an update from Chad. Sarah Tone said comments can be submitted to Chad and he can respond.
- Tom Judy asked if we vote on this, is it's reasonable to ask that the CCRs, trail proximity, and scenic byway be addressed and request those factors be in compliance. As well as other compliance issues such as pictures.

MOTION: Tom Judy moved to request the item come back with a County representative to address compliance issues: CCR, trail proximity, Mt. Rose Scenic Byways, Photos submitted and other compliance issues as well as issue of maintenance. Brad Stanley seconded the motion. The motion passed unanimously.

Discussion:

- Eric Scheetz said he has ATT and wishes he had better coverage. He said this is better than the other proposed tower.

- Tom Judy said if this meets all requirements, we can't deny it based on the fact that it doesn't look good. If it meets code, it's not reason enough to deny the project.
- Eric Scheetz said as a special use permit process, they need to prove their case to show why it's useful. There will always be something out of the rules.
- Brad Stanley said it's a matter of law, ordinance, and hurdles must be cleared. All the comments of the views and neighborhood will be submitted to the commission and other bodies. You have made your wishes known for your neighborhood. Its special use has hurdles.

May 14th staff notes from the meeting:

- Concern was expressed that the facility would lower property values for surrounding residents.
- Were earthquake faults considered? Is the facility safe?
- How is a "significant gap" determined?
- Will the applicant agree to a maintenance plan for the monopine?
- General opposition based on aesthetic concerns and degradation of the scenic qualities of the area.
- A resident suggested closing the "gaps" in coverage by placing 2 smaller towers directly in the "dead" zones located in Montreaux and the Callahan area.
- Would the applicant be willing to plant additional mature trees clustered around the tower to make it blend in more and not stand out on the hillside?
- It was requested that the applicant work with TMWA to share the access road and avoid building a new road that would be highly visible and further scar the hillside.
- How will the equestrian and access easement that runs through the subject parcel to adjacent Forest Service lands and across the new access road be accommodated and preserved?
- Why can't Verizon collocate on the existing ATT pine tree at the fire station? Coverage would still be improved.
- What hours will the generator run and how loud will it be?
- Will Verizon provide the number of dropped calls and complaints is has received about poor coverage in the area?
- Several citizens did not feel the gaps in coverage were truly significant and that county code should be enforced as written (regarding the definition of a significant gap and any carrier language) and not as interpreted by legal counsel or the courts.
- Brad Stanley (board member) asked that besides the access road grading issues, was the project otherwise in compliance with code?
- The board asked what would be the staff recommendation on the application.
- Is approval of the grading a separate review process?
- Will the county get an independent analysis of the significant gap issue?
- Are CC&R's applicable and is the county involved in enforcing them?
- Why does the residential zoning of the site allow commercial uses such as this?
- Is the proposed antenna height allowed or justified?
- What other alternate locations were considered?
- Is the project subject the Mount Rose Scenic Corridor standards?
- It was opined that the CAB should focus on aesthetic considerations and also ensuring that the access road is constructed with the minimal amount of visual impact as possible.

Public Comment

Washoe County Planning and Development staff received several written public comments in opposition to this application, which are provided below. As mentioned earlier in this report, a citizen petition in opposition to the project has been circulated and signed by the majority of adjacent property owners, but staff has been unable to obtain a copy of the petition as of the

writing of this report. Staff did not receive any correspondence in support of the application; however, at the May 14th CAB meeting two CAB members did express support for the project based on improved cell coverage and enhanced emergency 911 services for the area.

Public comment from Michele Norman:

Mr. Giesinger, I just received notification of the above application and have several concerns that I am hoping someone can address. My husband and I own the adjacent property 155 Timberline View Court and we want to make sure our view of Mt. Rose/Slide Mountain will not be impeded by this very tall and big structure. Also, are there studies proving that this wireless facility poses no health hazards to those living in such close proximity? While we want to be good and accommodating neighbors we need to be prudent about our investment and future. We live in Atlanta, Ga and cannot make the meeting. We appreciate anything you can do to relay our concerns. Thank you so much. Michele Norman.

Public comment from Randy Collins (April 9, 2015):

I would like to go on record in opposition to the planned construction of the proposed cell tower project, for the following concerns:

- 1) The general aesthetics are out of character with the natural rural surroundings and national forest lands that surround the project, and therefore would stand out. There are no other trees in the proximity of the proposed structure of a cell phone tower disguised as a tree.
- 2) Proximity from an established trail system that was developed by Washoe County, (under the 2000 voter approved bond for open space), as well as the Carson Ranger Forest District. Under article 324, "Communication facilities" of the Washoe County development code, Section 324.50(e)(10)(i) restricts the placement of monopole antennas within 1,000 feet of a public trail. The proposed Verizon cell tower sits approximately 750 feet from the trail. Furthermore, the tower will be visible from the lower section of the Whites creek trailhead.
- 3) The tower is out of compliance with use of utilities stated in the Declaration of Covenants and Restrictions (CC&Rs): Washoe County, NV document ID # 1551399 page 4 (15), Timberline Estates II (filed in the County of Washoe, State of Nevada) dated March 5th 1992 states, " all utility service lines within the subdivision including but not limited to power, telephone, water and television shall be installed underground. Television antennas, satellite dishes and antennas for shortwave or H.A.M. radio installations will not be installed on any lot or parcel without the express written permission of TBC (Timberline Building Committee).
- 4) The proposed tower is not in compliance with the restrictions for commercial use stated in the Timberline Estates II CC&R's : Washoe, NV document Doc ID 1551399 page 2 (4) Timberline Estates, phase 2 (county of Washoe, State of Nevada) dated March 5th 1992 states, "No hospital, sanitarium, rest home, hotel , public boarding or lodging house store, butcher shop, grocer profit or nonprofit day care or child care center, or other business or commercial enterprise shall be maintained, carried on or conducted upon said property, or any portion thereof, nor shall any noise or offensive activity be carried on, on said property, or become an annoyance or nuisance to the neighborhood."
- 5) Non-compliance in the application: Lack of complete photo submissions required by the application. Section 110.324.60 requires applicant of cell towers to submit 8 photos of the East, West, South and Northern views of any project. The applicant for the cell phone tower application has only submitted 6 photos facing the southwest portion of the mountain. Had all photos required direction been presented they would show that the structure would create a silhouette during the dusk and sunset hours of the day. Furthermore, the application states the lack of any past, or present CC&R"s. A question required on the application for the cell tower on page 4 line item # 12 and defined above in lines 3 and 4.

- 6) In conclusion, if the cell tower is constructed it will detract from the natural beauty of the surrounding area for all users as well as the home owners. Regardless of how the cell tower is disguised it will not blend in with the existing and native sage, bitterbrush, mountain mahogany present on the mountain now. If constructed it will create an obvious silhouette of a cell tower and the 250 square feet of fencing will be visible to many of the local home owners as well as the recreational users. The constructed a service road to maintain the cell tower will result in an additional scar on the hillside of approximately 450 feet south to north, that will further detract from the beauty of the hillside that is visible from Timberline Drive.

Lastly, it should be noted that there is a current cell tower at the Sierra Fire Station which is approximately 3800 feet from the proposed Verizon tower. I have also tested my own cell reception in addition to my neighbors and we have experienced no cell phone reception problems in the area.

Public Comment received May 14, 2015:

Questions concerning the proposed road construction, grading plan, and statement by Verizon of a significant coverage gap in the area and surrounding areas.

- 1) The proposed service road to the Verizon Cell tower situated on the lot of 150 Timberline Court will require a 12 foot wide road tread as well as grading, or back-slope and down slope, resulting in a total combined 55 to 32 foot back slope and down slope cut in the hillside for a distance of approximately 376 linear feet.
- 2) The grading plans submitted by Dyer Engineering sheets c-1 and c-2, does not address the existing 20 foot Equestrian & Pedestrian Access Easement # PM4688, which will be crossed by the planned cell tower access road. The grading and/or the potential building of a retaining wall for the road will result in an interruption of the existing easement for equestrian & pedestrian access. Additionally, the planned starting and running of the power generator two times a month, which stands less than 10 feet from the equestrian trail, could startle horses or riders.
- 3) Does the planned access road and grading meet the code requirements of a hill side with side slopes of 58 to 63 percent?
- 4) What will be done with the dirt spoils that will be removed during the road and additional construction?
- 5) With regard to the, "significant gap in coverage" as an exception to the 1000 foot distance from a trail (section 110.324.50(e), has Verizon proven with certified independent testing that a "significant gap" in coverage exists?
- 6) What is the justification that only this location, and no other alternative location, is available to cover this "significant gap?" What is a "significant gap" in coverage, and what is the methodology used to determine this gap?

Reviewing Agencies

The following agencies received a copy of the project application for review and evaluation.

- Washoe County Planning and Development Division
- Washoe County Engineering and Capital Projects Division, Land Development
- Truckee Meadows Water Authority
- Washoe County Health District
 - Environmental Health Division to include Vector-Borne Diseases
 - Air Quality Division
- Truckee Meadows Fire Protection District
- Washoe County Regional Parks and Open Space

- **Regional Transportation Commission**

The following agencies/departments provided comments and/or recommended conditions of approval in response to their evaluation of the project application. A **summary** of each agency's comments and/or recommended conditions of approval and their contact information is provided below.

- Planning and Development, Washoe County Planning and Development Division is recommending approval of this application subject to several conditions. Staff is requesting, in addition to standard development conditions, that as a condition of receiving approval for the cell tower use, the applicant submit a separate Special Use Permit for grading of the new access road as required by WCC Section 110.438.35(a)(3) – grading of slopes in excess of 30%. Staff is also requesting that the applicant submit a maintenance plan for the faux pine tree, submit a plan for noxious weed control, demonstrate how the existing equestrian and pedestrian access easement will be perpetuated, plant additional mature trees around the project site to offset the singular nature of the 61 foot high monopine, and submit a report to the CAB stating how they have responded to community concerns and input.

Contact: Chad Giesinger, Senior Planner, 775.328.3626,
cgiesinger@washoecounty.us

- Land Development, Washoe County Engineering and Capitol Project Division is recommending that the applicant:
 - Submit a complete set of construction improvement drawings, including an on-site grading plan, when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. All grading shall comply with WCC Article 438, Grading Standards. Silts shall be controlled on-site.
 - The applicant shall provide permanent easements for the lease area, access and utilities. A copy of the recorded easements shall be submitted to the Engineering Division prior to issuance of a building permit.
 - All existing and proposed easements shall be shown on the site and/or grading plan. The County Engineer shall determine compliance with this condition.

Contact: Leo Vesely, 775.325.8032, lvesely@washoecounty.us

- Regional Parks and Open Space, Washoe County Planning and Development Division is requesting that the applicant provide additional information that substantiates their claims of a significant gap in coverage (which subsequently allows locating the tower within 1,000 feet of a public trail), and also provide additional detail related to why co-location at APN 049-070-30 is not feasible (i.e. the tower is full and the only mounting spots are too low). Because the proposed access road cuts through a 20' wide private equestrian & pedestrian access easement per Parcel Map 4688A, Parks is also requesting additional detail related to the road intersection and this access easement. Please note that the future road alignment shall not impede current and future pedestrian and equestrian traffic. Future construction methods must take into consideration the impacts of this crossing.

Contact: Dennis Troy, 775.325.8094, dtroy@washoecounty.us

- Truckee Meadows Fire Protection District will approve permits for the facility with the following conditions:

- Defensible space and construction elements shall be required, dependent upon the fire hazard assessment rating, as designated by the *International Wildland Urban Interface Code* and the fire hazard map per NAC 472, shall be required.
- This structure shall meet the provisions of the WCC Chapter 60. Verification that lot has water for fire suppression or is within 5 road miles of a fire station shall be provided.

Contact: Amy Ray, 775.326.6005, aray@washoecounty.us

Staff Comment on Required Findings

Following are required findings from WCC Article 810 Special Use Permits and Article 324 Communication Facilities, and from Policy F.2.13 of the Forest Area Plan, a part of the Washoe County Master Plan. All of these findings must be made to the satisfaction of the Board before granting approval of the request. Staff has completed an analysis of the special use permit application, has provided comment under each of the following findings, and has determined that the proposal is in compliance with all of the following findings, provided the recommended conditions of approval are met.

Findings from WCC Section 110.810.30 of Article 810 Special Use Permits

1. **Consistency.** That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the Forest Area Plan.

Staff Comment: The proposed facility does not conflict with the objective / prescriptive based action programs, policies, standards, and maps of the Master Plan and the Forest Area Plan. Regarding the more subjective action programs, policies, and standards of the Master Plan and the Forest Area Plan, such as maintaining the scenic qualities of an area or conserving the Community Character, an argument could be made that the project is either consistent or inconsistent, depending on one's point of view and interpretation of the evidence. The Board should make this determination based on the evidence, discussions, and public testimony provided at the public hearing.

2. **Improvements.** That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven.

Staff Comment: There is existing partial access to the site from Timberline View Court, and access and utility easements leading to/from the communications facility for underground power and telephone utility lines are part of the proposal. Roadway improvement plans proposed for a new portion of access road to the pad site are currently inadequate and do not meet county code. This situation will be mitigated by a condition of approval requiring a separate special use permit for grading of the road (if the application is approved).

3. **Site Suitability.** That the site is physically suitable for the type of development and for the intensity of development.

Staff Comment: As the adjacent utility water tank demonstrates, the site is physically suitable for the type of development (i.e. utility infrastructure) and for the intensity of development, provided that the recommended conditions of approval are met. The hillside does not contain an abundance of large trees, so the site is not ideally suited to accommodate a faux pine tree of this intensity. Staff is recommending a condition of approval that additional, mature trees be

planted around the site to offset the singular nature of the proposed 61 foot monopine.

4. **Issuance Not Detrimental.** That issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area.

Staff Comment: Provided the recommended conditions of approval are met, the project will not be significantly detrimental to the public health, safety or welfare. In fact, it could be argued that approval of the facility will improve public health and safety since emergency 911 service coverage will be enhanced. Whether or not the facility is injurious to the property or improvements of adjacent properties, or detrimental to the character of the surrounding area, is more subjective and could be argued either way depending on point of view. There will undoubtedly be impacts to adjacent properties and surrounding character, but given time and implementation of the conditions of approval, these impacts may not rise to the level of being significantly detrimental.

5. **Effect on a Military Installation.** Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

Staff Comment: There is no nearby military installation within 3,000 feet of the proposed site.

Findings from WCC Section 110.324.75 of Article 324 Communication Facilities

1. **Meets Standards.** That the wireless communications facility meets all the standards of Sections 110.324.40 through 110.324.60 as determined by the Director of the Planning and Development Division and/or his authorized representative;

Staff Comment: The proposed wireless communications facility meets the standards of WCC Sections 110.324.40 through 110.324.60. Because the applicant is claiming a "significant gap" per WCC Section 110.324.55, the facility may be located within 1,000 feet of an existing or future public trail corridor and thus complies with (or is exempted from) WCC Section 110.324.50 (e) (10).

2. **Public Input.** That public input was considered during the public hearing review process;

Staff Comment: Public notification of Special Use Permit Case Number SB14-014 was initially mailed out on March 2, 2015. The notice advised of the tentatively scheduled April 2, 2015, public hearing date before the BOA and of the March 12, 2015, STM/WV CAB meeting where the proposal would be discussed. Because the application was postponed and rescheduled for the June 4, 2015 BOA meeting, the application was noticed again on April 23, 2015. Notices were sent to 30 separate property owners who own parcels that are located within a 500 foot radius of the subject parcel. Although the application was discussed at the March 12, 2015 SWTM/WV CAB meeting, it was heard again by the CAB at the May 14, 2015 meeting. Extensive public input was provided at both of these meetings.

3. **Impacts.** That the wireless communications facility will not unduly impact the adjacent neighborhoods or the vistas and ridgelines of the County.

Staff Comment: As mentioned previously, this is subjective and depends on point of view. Surrounding property owners have expressed their opinion that the facility will unduly impact the adjacent neighborhood and the vistas of the

area. The applicant is proposing a stealth design in the form of a pine tree, as encouraged by County Code, has met all other standards of Article 324, and appears to have made a good faith effort to mitigate impacts. Staff defers to the Board regarding this finding and has no further comment or professional guidance on the matter.

Finding for Policy F.2.13, of the Forest Area Plan

1. **Impact on the Community Character.** The approval of all special use permits and administrative permits must include a finding that the community character as described in the Character Statement can be adequately conserved through mitigation of any identified potential negative impacts.

Staff Comment: As noted earlier in this staff report, this is subjective and depends on one's point of view. The character statement for the Forest Area Plan contains many references to maintaining the scenic qualities of the area and limiting commercial uses. While the tower will be disguised as a pine tree, it will stand out as the most prominent feature on a prominent hillside within the community. The applicant, though, has few other options to mitigate the potential visual impact (other than locating it elsewhere, or planting additional mature trees around the facility as recommended by staff). Surrounding property owners have expressed their opinion that the facility will unduly impact the adjacent neighborhood and the vistas of the area. Staff defers to the Board regarding this finding and has no further comment or professional guidance on the matter.

Recommendation

After a thorough analysis and review, Special Use Permit Case Number SB14-014 for Verizon Wireless (Timberline) is being recommended for approval with conditions. Staff offers the following motion for the Board's consideration.

Motion

I move that, after considering the information contained within the staff report and the information received during the public hearing, the Washoe County Board of Adjustment approve, with the conditions included at Exhibit H to the staff report for this item, Special Use Permit Case Number SB14-014 for Verizon Wireless, being able to make the findings required by Washoe County Code Section 110.810.30, Section 110.324.75 and the finding required by Policy F.2.13 of the Forest Area Plan, a part of the Washoe County Master Plan, for approval of Special Use Permits:

Findings from Section 110.810.30:

1. **Consistency.** That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the Forest Area Plan;
2. **Improvements.** That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven;
3. **Site Suitability.** That the site is physically suitable for a wireless communications facility and for the intensity of such a development;
4. **Issuance Not Detrimental.** That issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or

improvements of adjacent properties; or detrimental to the character of the surrounding area;

5. Effect on a Military Installation. That issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation;

Findings from Section 110.324.75:

1. Meets Standards. That the wireless communications facility meets all the standards of Sections 110.324.40 through 110.324.60 as determined by the Director of the Planning and Development Division and/or his authorized representative;
2. Public Input. That public input was considered during the public hearing review process; and
3. Impacts. That the proposal will not unduly impact the adjacent neighborhoods or the vistas and ridgelines of the County.

Findings from Policy F.2.13, of the Forest Area Plan:

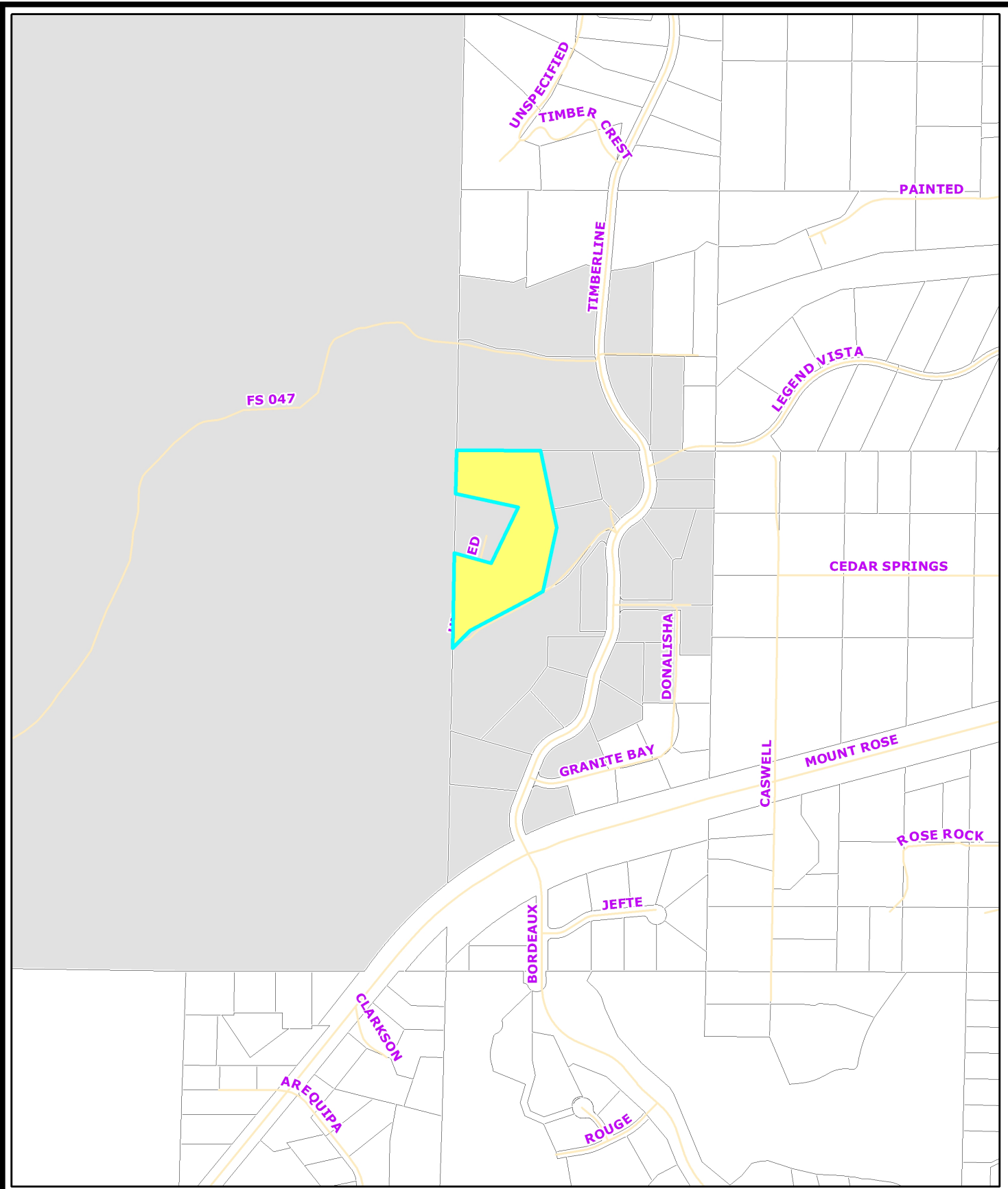
1. Impact on the Community Character. That impact on the Community Character can be adequately conserved through mitigation of any identified potential negative impacts.

Appeal Process

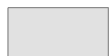
Board of Adjustment action will be effective 10 calendar days after the written decision is filed with the Secretary to the Board of Adjustment, unless the action is appealed to the Washoe County Board of County Commissioners, in which case the outcome of the appeal shall be determined by the Washoe County Board of County Commissioners. Any appeal must be filed in writing with the Planning and Development Division within 10 calendar days after the written decision is filed with the Secretary to the Board of Adjustment.

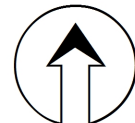
xc: Applicant: Complete Wireless Consulting
dba Verizon Wireless
Attn: Jenny Blocker
2009 V Street
Sacramento, CA 95818


Property Owner: Thomas and Kelly Courson
1733 Kodiak Circl
Reno, NV 89511



**EXHIBIT A
Public Notice Map**

 Noticed parcels



0 250 500

 Feet

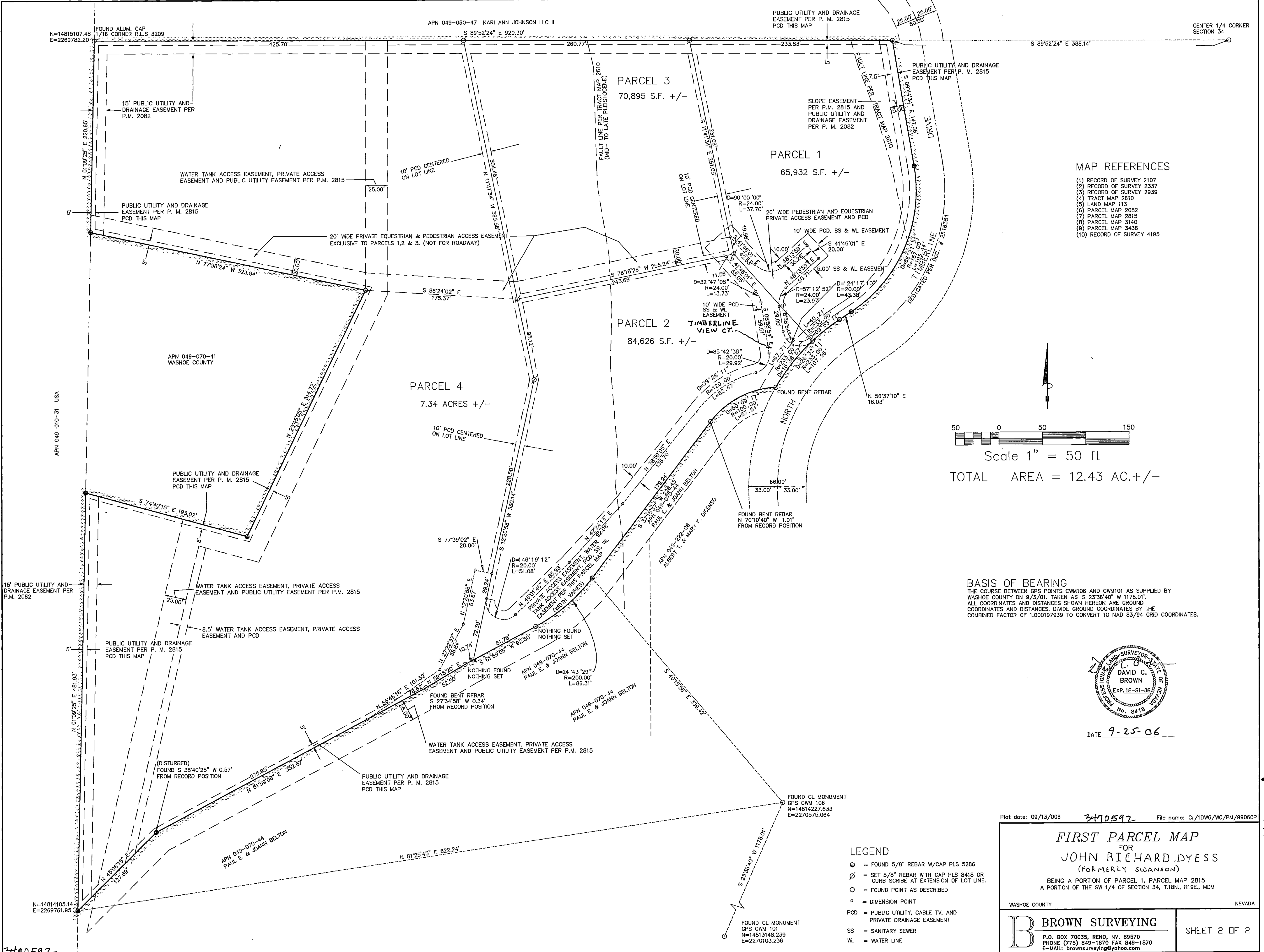
Department of
 Community
 Development

**WASHOE COUNTY
 NEVADA**

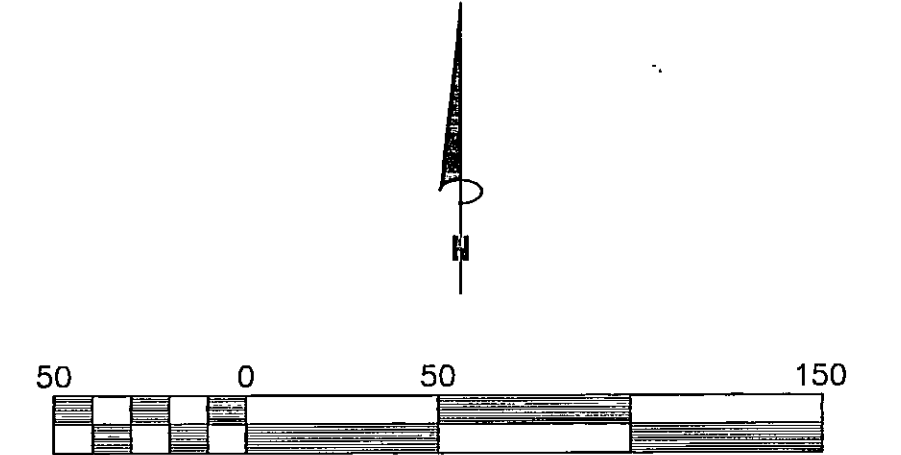
Post Office Box 11130
 Reno, Nevada 89520
 (775) 328-3600



4688A

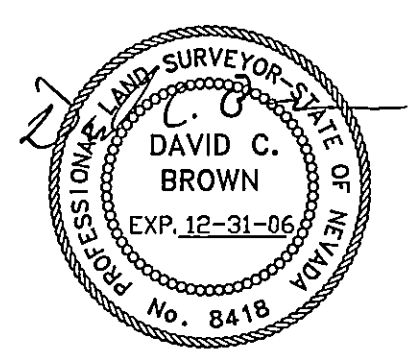


- MAP REFERENCES**
- (1) RECORD OF SURVEY 2107
 - (2) RECORD OF SURVEY 2337
 - (3) RECORD OF SURVEY 2939
 - (4) TRACT MAP 2610
 - (5) LAND MAP 113
 - (6) PARCEL MAP 2082
 - (7) PARCEL MAP 2815
 - (8) PARCEL MAP 3140
 - (9) PARCEL MAP 3436
 - (10) RECORD OF SURVEY 4195



Scale 1" = 50 ft
TOTAL AREA = 12.43 AC. +/-

BASIS OF BEARING
THE COURSE BETWEEN GPS POINTS CWM106 AND CWM101 AS SUPPLIED BY WASHOE COUNTY ON 9/3/01, TAKEN AS S 23°36'40" W 1178.01'. ALL COORDINATES AND DISTANCES SHOWN HEREON ARE GROUND COORDINATES AND DISTANCES. DIVIDE GROUND COORDINATES BY THE COMBINED FACTOR OF 1.000197939 TO CONVERT TO NAD 83/94 GRID COORDINATES.



DATE: 9-25-06

- LEGEND**
- ⊙ = FOUND 5/8" REBAR W/CAP PLS 5286
 - ⊙ = SET 5/8" REBAR WITH CAP PLS 8418 OR CURB SCRIBE AT EXTENSION OF LOT LINE.
 - = FOUND POINT AS DESCRIBED
 - = DIMENSION POINT
 - PCD = PUBLIC UTILITY, CABLE TV, AND PRIVATE DRAINAGE EASEMENT
 - SS = SANITARY SEWER
 - WL = WATER LINE

Plot date: 09/13/05 **3470592** File name: C:\DWG\WC\PM\99080P

FIRST PARCEL MAP
FOR
JOHN RICHARD DYESS
(FORMERLY SWANSON)
BEING A PORTION OF PARCEL 1, PARCEL MAP 2815
A PORTION OF THE SW 1/4 OF SECTION 34, T.18N., R.19E., MDM

WASHOE COUNTY NEVADA

B BROWN SURVEYING
P.O. BOX 70035, RENO, NV. 89570
PHONE (775) 849-1870 FAX 849-1870
E-MAIL: brownsurveying@yahoo.com

SHEET 2 OF 2

CUMULATIVE INDEXES SHOULD BE EXAMINED FOR ANY SUBSEQUENT CHANGES TO THIS MAP

3470592

Parcel Map 4688A

CUMULATIVE INDEXES SHOULD BE EXAMINED FOR ANY SUBSEQUENT CHANGES TO THIS MAP



February 17, 2015

Via Overnight Mail

Washoe County Community Services Department
Planning and Development Division
Attn: Planning Intake
1001 E. Ninth Street
Bldg A - 2nd Floor
Reno, NV 89512
775-328-3600

RE: RE SUBMITTAL PLANNING PERMIT APPLICATION (APN: 049-070-49, 150 Timberline View Ct, Verizon Wireless site name: "Timberline")

This package is intended as a formal re-submittal/application for the Use Permit Application for a proposed Verizon Wireless communications facility located at the above referenced location. The items listed below are enclosed, per the County's submittal requirements:

1. ~~Planning Application Fee: \$3060; Check #16783 (PREVIOUSLY SUPPLIED with initial application)~~
2. Complete Development Application (10 Copies)
3. Owner Affidavit (10 copies (original already sent in with initial submittal package))
4. Supplemental Information Form (10 Copies)
5. Site Plans and Elevations (6 copies 24"X36"; 4 copies 11"X17"; 10 copies 8 1/2" X 11" reduction)
6. Updated Project Support Statement with Findings and Statement of Compliance (10 Copies)
7. Updated Photosimulations (3 views) (10 Copies)
8. Site Photos (10 Copies)
9. Updated Radio Frequency Emissions Study - Hammet & Edison (10 Copies)
10. Updated Coverage/Propagation Maps (10 Copies)
11. Updated Acoustic report – Bollard Acoustical Consultants (10 Copies)
12. Proof of Property Tax Payment (1 Copy)
13. FCC License Information (1 Copy)
14. Grant Deed (1 Copy)
15. Preliminary Title Report (1 Copy)
16. Disk (1) with application materials

Please feel free to contact me at (916) 217-7503 regarding any further information that may be required as part of this application.

Sincerely,

Jenny Blocker
Project Manager
jblocker@completewireless.net

www.completewireless.net

2009 V Street
Sacramento, CA 95818

**SB14-014
EXHIBIT C**

Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Development staff at 775.328.3600.

Project Information		Staff Assigned Case No.: _____	
Project Name: Verizon Wireless "Timberline"			
Project Description: Proposal to construct a new wireless facility to include 61' monopine, 3 antenna sectors w/ 2 panel antennas each sector, 11'6" X16'10 1/2" prefabricated equipment shelter, 48kw emergency standby diesel generator w/ 210 gal. fuel tank, and associated equipment.			
Project Address: 150 Timberline View Court			
Project Area (acres or square feet): 2500 sq. ft.			
Project Location (with point of reference to major cross streets AND area locator): Approx. 1260' northwest of intersection of NV-431 (Mt Rose Hwy) and Timberline Drive.			
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No(s):	Parcel Acreage:
049-070-49	7.34		
Section(s)/Township/Range: Sect. 34 T.18N R.19E			
Indicate any previous Washoe County approvals associated with this application: Case No.(s).			
Applicant Information (attach additional sheets if necessary)			
Property Owner:		Professional Consultant:	
Name: Thomas B and Kelly S Courson		Name: Complete Wireless Consulting	
Address: 1733 Kodiak Circle		Address: 2009 V Street	
Champaign Reno	Zip: 89511	Sacramento, CA	Zip: 95818
Phone:	Fax:	Phone: 916-217-7503	Fax:
Email:		Email: jblocker@completewireless.net	
Cell:	Other:	Cell:	Other:
Contact Person:		Contact Person: Jenny Blocker	
Applicant/Developer:		Other Persons to be Contacted:	
Name: Verizon Wireless		Name:	
Address: 255 Parkshore Drive		Address:	
Folsom, CA	Zip: 95630		Zip:
Phone:	Fax:	Phone:	Fax:
Email:		Email:	
Cell:	Other:	Cell:	Other:
Contact Person:		Contact Person:	
For Office Use Only			
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Special Use Permit Application Supplemental Information

(All required information may be separately attached)

Chapter 110 of the Washoe County Code is commonly known as the Development Code. Specific references to special use permits may be found in Article 810, Special Use Permits.

1. What is the type of project being requested?

An unmanned wireless communication facility to include: 61' monopine , 3 antenna sectors w/ 2 panel antennas each sector, 11'6" X16'10 1/2" prefabricated equipment shelter, 48kw emergency standby diesel generator w/ 210 gal. fuel tank, and associated equipment within a 50'X50' lease area surrounded by a 6' chain link security fence w/ tan colored screening slats and retaining wall.

2. What currently developed portions of the property or existing structures are going to be used with this permit?

The proposal includes the existing access driveway and power and telco utilities from Timber View Court.

3. What improvements (e.g. new structures, roadway improvements, utilities, sanitation, water supply, drainage, parking, signs, etc.) will have to be constructed or installed and what is the projected time frame for the completion of each?

61' monopine , 3 antenna sectors w/ 2 panel antennas each sector, 11'6" X16'10 1/2" prefabricated equipment shelter, 48kw emergency standby diesel generator w/ 210 gal. fuel tank, and associated equipment within a 50'X50' lease area surrounded by a 6' chain link security fence w/ tan colored screening slats and retaining wall. Access via existing gravel driveway. Existing power and telco utilities available at existing driveway connected to site via a proposed utility easement. Construction typically lasts 2-3 months.

4. What is the intended phasing schedule for the construction and completion of the project?

Grading- Wks 1-2
Underground utilities to site : Wk 3
Retaining wall construction: Wks 3-4
Tower foundation excavation: Wks 4-5
Tower, shelter, and generator foundation concrete pour: Wk 5
Tower Installation: Wk 7
Antenna and associated equipment installation: Wks 8-10
Site operational testing and completion: Wks 10-12

5. What physical characteristics of your location and/or premises are especially suited to deal with the impacts and the intensity of your proposed use?

The proposed site is located on a mostly undeveloped 7.34-acre parcel. The nearest existing residential structure is located approximately 500' to the east of the site. The site is located outside of the 500' buffer area for the Mt Rose Highway Scenic Corridor.

6. What are the anticipated beneficial aspects or effects your project will have on adjacent properties and the community?

The proposed wireless communication site will improve wireless service for residents, businesses, and emergency responders in this area of Washoe County.

7. What will you do to minimize the anticipated negative impacts or effects your project will have on adjacent properties?

The proposed ground equipment at the site will be screened from view by a 6' tall chain link security fence with tan colored slats. The tower, antennas, and ground equipment will be finished in non-reflective, neutral colors to blend into the surrounding landscape. The generator will operate only for short durations during bi-weekly maintenance checks and emergency power outages. When operating the noise produced by the generator will be within Washoe County Noise limits. During operation, the facility will comply with FCC public limits for RF exposure and interference prohibitions.

8. Please describe operational parameters and/or voluntary conditions of approval to be imposed on the project special use permit to address community impacts:

Proposed facility to comply with all FCC public limits for RF exposure and licensing restrictions regarding interference.

9. How many improved parking spaces, both on-site and off-site, are available or will be provided? (Please indicate on site plan.)

The site will include 1 parking space suitable for a maintenance vehicle.

10. What types of landscaping (e.g. shrubs, trees, fencing, painting scheme, etc.) are proposed? (Please indicate location on site plan.)

Landscaping treatments to include a 6' fence with tan colored slats to provide visual screening of ground equipment.

Per direction of Staff, facility now includes landscaping to match landscaping at existing water tank. Landscaping plan is illustrated on the "Landscaping Plan Sheet L1.1"

11. What type of signs and lighting will be provided? On a separate sheet, show a depiction (height, width, construction materials, colors, illumination methods, lighting intensity, base landscaping, etc.) of each sign and the typical lighting standards. (Please indicate location of signs and lights on site plan.)

The site will include 24-hr emergency contact information and warning signs as required by FCC guidelines. The tower will be unlit unless required by the FAA. 1 hooded, down-tilted security light will be located above the equipment shelter door.

12. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that apply to the area subject to the special use permit request? (If so, please attach a copy.)

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--


13. Community Sewer Not applicable


<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

Community Water Not applicable

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

Z D DRAWING SIGN - OFF

DATE:	TIME:	X	CWC-PLEASE RETURN BY:
	SIGNATURE		DATE
SITE ACQUISITION:	_____		_____
PLANNING:	_____		_____
CONSTRUCTION:	_____		_____
MANAGEMENT:	_____		_____

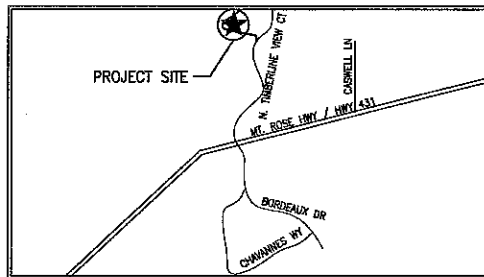
	SIGNATURE		DATE
CONSTRUCTION:	_____		_____
REAL ESTATE:	_____		_____
RF ENGINEER:	_____		_____
EQUIPMENT ENGINEER:	_____		_____
MW ENG./TRANSPORT:	_____		_____

OTHER (IF APPLICABLE)	SIGNATURE		DATE
_____	_____		_____



255 Parkshore Drive, Folsom, CA 95630

TIMBERLINE
 150 TIMBERLINE VIEW COURT
 RENO, NV 89511
 APN: 049-070-49
 LOCATION #: 278742



RENO, NV

LOCATION PLAN 

DIRECTIONS

- FROM VERIZON OFFICE @ 255 PARKSHORE DR., FOLSOM, CA 95630:
1. HEAD NORTHEAST ON PARKSHORE DR TOWARD COOLIDGE DR.
 2. MAKE A U-TURN AT COOLIDGE DR.
 3. TURN RIGHT ONTO FOLSOM BLVD.
 4. CONTINUE ONTO FOLSOM-AUBURN RD.
 5. CONTINUE ONTO AUBURN-FOLSOM RD.
 6. TURN LEFT ONTO LARGO RD.
 7. TURN RIGHT ONTO HORSESHOE BAR RD.
 8. TAKE THE 1ST LEFT TO STAY ON HORSESHOE BAR RD.
 9. TURN RIGHT TO MERGE ONTO I-80 E.
 10. MERGE ONTO I-80 E.
 11. TAKE EXIT 19 TO MERGE ONTO I-580 S/US-395 S TOWARD CARSON CITY.
 12. TAKE EXIT 58 FOR NEVADA 431/MT ROSE.
 13. MERGE ONTO NV-431 W/MT ROSE HWY.
 14. TURN RIGHT ONTO N TIMBERLINE DR.
 15. TAKE THE 1ST LEFT ONTO TIMBERLINE VIEW CT.
 16. DESTINATION WILL BE ON THE LEFT.

INDEX OF DRAWINGS

- | | | |
|----|------|--|
| 1. | T1.1 | TITLE SHEET, LOCATION PLAN, PROJECT DATA |
| 2. | C1 | CIVIL SURVEY SHEET |
| 3. | A1.1 | OVERALL SITE PLAN |
| 4. | A2.1 | ENLARGED EQUIPMENT LAYOUT PLAN |
| 5. | A2.2 | ANTENNA LAYOUT PLAN |
| 6. | A3.1 | PROJECT ELEVATIONS |
| 7. | G1.1 | GRADING PLAN |
| 8. | L1.1 | LANDSCAPING PLAN |

PROJECT DIRECTORY

APPLICANT:
 VERIZON WIRELESS
 255 PARKSHORE DRIVE
 FOLSOM, CA 95630

PROPERTY OWNER:
 THOMAS & KELLY COURSON
 1733 KODIAK CIRCLE
 RENO, NV 89511

ENGINEER:
 O'CONNOR FREEMAN & ASSOC.
 225 30TH STREET, SUITE 201
 SACRAMENTO, CA 95816
 916-441-5721 PH
 916-441-5857 FX

CONSTRUCTION MANAGER:
 BOB SCHROEDER
 COMPLETE WIRELESS CONSULTING, INC.
 2008 V STREET
 SACRAMENTO, CA 95818
 916-217-7512
 bschroeder@completwireless.net

PROJECT SUMMARY

ASSESSOR'S PARCEL NUMBER: 049-070-49
 JURISDICTION: WASHOE COUNTY
 OCCUPANCY: S-2 (UNMANNED TELECOMMUNICATIONS FACILITY) U (TOWER)
 TYPE OF CONSTRUCTION: V-B
 ZONING: GR (GENERAL RURAL)

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. 2012 INTERNATIONAL BUILDING CODE
2. 2012 INTERNATIONAL RESIDENTIAL CODE
3. 2012 INTERNATIONAL MECHANICAL CODE
4. 2012 INTERNATIONAL FUEL GAS CODE
5. 2012 UNIFORM MECHANICAL CODE
6. 2012 UNIFORM PLUMBING CODE
7. 2011 NATIONAL ELECTRIC CODE
8. 2009 INTERNATIONAL ENERGY CONSERVATION CODE W/AMENDMENTS
9. 2003 INTERNATIONAL FIRE CODE W/AMENDMENTS
10. 2012 NORTHERN NEVADA AMENDMENTS

ACCESSIBILITY REQUIREMENTS:
 THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE.

PROJECT DESCRIPTION

PROPOSED VERIZON WIRELESS UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING:

- A 50'-0"x50'-0" LEASE AREA.
- A FENCE @ LEASE AREA PERIMETER.
- A PRE-FABRICATED EQUIPMENT SHELTER.
- POWER & TELCO UTILITIES BROUGHT TO FACILITY.
- A STANDBY GENERATOR.
- A CABLE ICE BRIDGE.
- (6) ANTENNAS W/ASSOCIATED TOWER MOUNTED EQUIPMENT MOUNTED ON A PROPOSED 61.0' TALL MONOPINE.

PROJECT MILESTONES

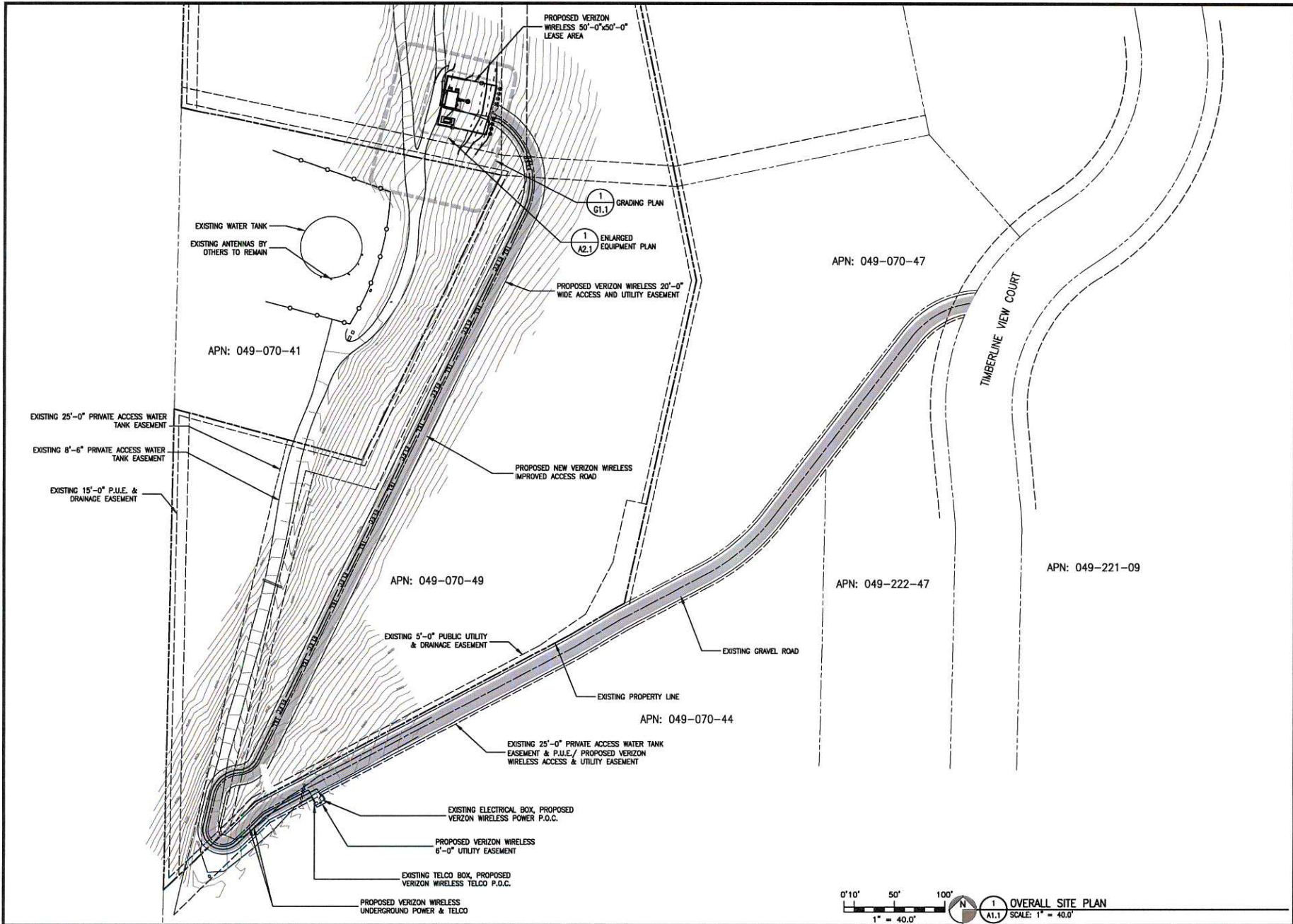
08/21/2014	90% ZONING DOCUMENTS
09/15/2014	100% ZONING DOCUMENTS
10/08/2014	100% ZONING DOCUMENTS REV 1
12/01/2014	100% ZONING DOCUMENTS REV 2
12/09/2014	100% ZONING DOCUMENTS REV 3
01/07/2014	100% ZONING DOCUMENTS REV 4
02/13/2015	100% ZONING DOCUMENTS REV 5
XX/XX/XXXX	90% CONSTRUCTION DOCUMENTS
XX/XX/XXXX	100% CONSTRUCTION DOCUMENTS

O'Connor Freeman & Associates
 Structural Engineering Services
 225 30th Street, Suite 201, Sacramento, CA 95816
 Phone: (916) 441-5721 Fax: (916) 441-6607

TIMBERLINE
 150 TIMBERLINE VIEW COURT
 RENO, NV 89511
 TITLE SHEET, LOCATION PLAN, PROJECT DATA

Revisions:
1. 12/24/2014
2. 12/24/2014
3. 01/27/2014
4. 01/27/2014
5. 01/27/2014
6. 01/27/2014
7. 01/27/2014
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97. 01/27/2014
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99. 01/27/2014
100. 01/27/2014

Job No. 102129
T1.1



O'Connor Freeman & Associates
 Structural Engineering Services
 225 30th Street, Suite 204, Sacramento, CA 95816
 Phone: (916) 441-5721 Fax: (916) 441-5697

TIMBERLINE
 150 TIMBERLINE VIEW COURT
 RENO, NV 89511
verizon WIRELESS
 SHEET TITLE: OVERALL SITE PLAN

Not valid unless signed by the PE Engineer.

Revisions:

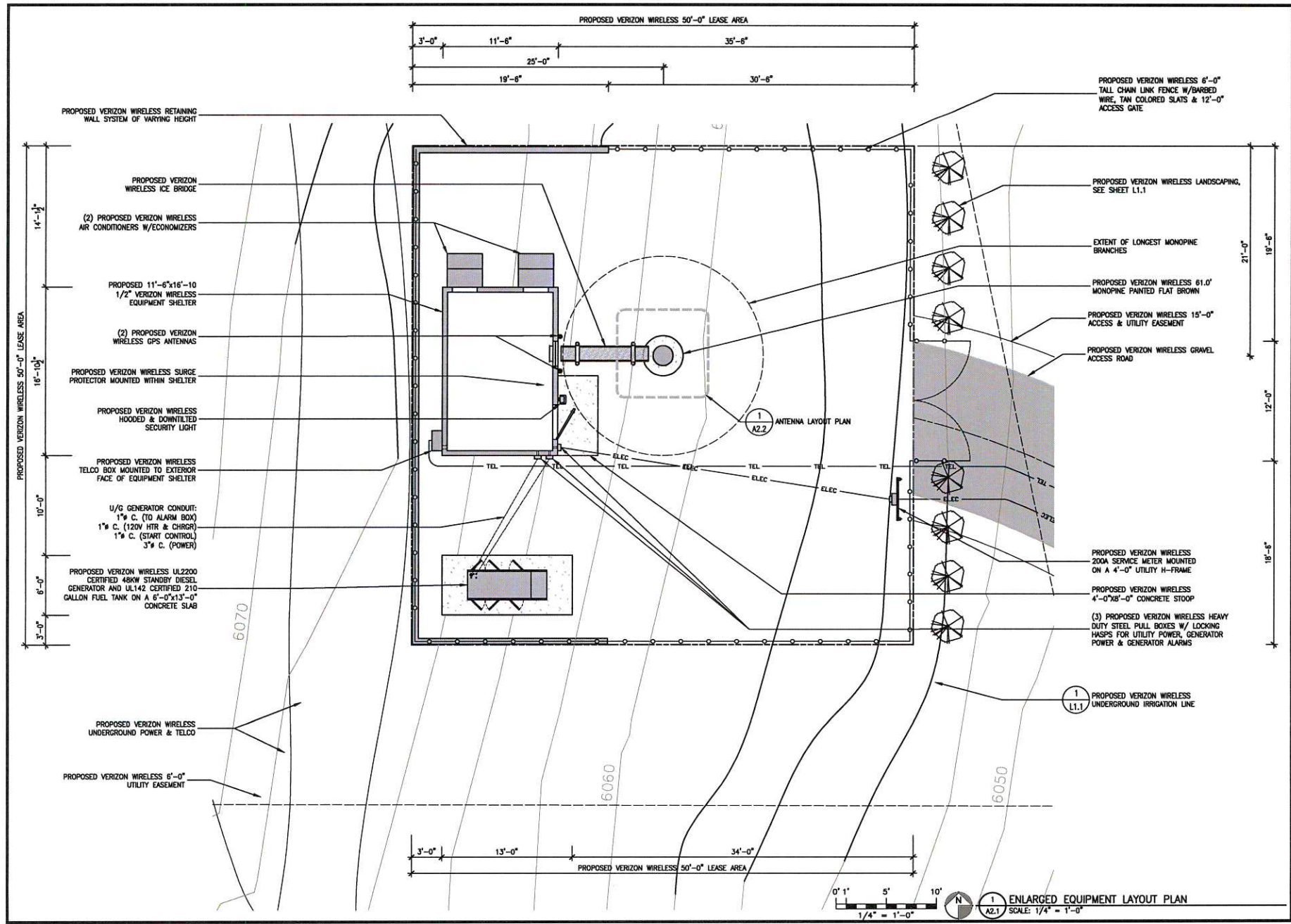
10/08/2014
12/01/2014
12/08/2014
01/07/2015
02/13/2015

File: 102-1228A11.dwg
 Drawn By: ABE
 Checked By: WSR
 Scale: AS NOTED
 Date: 02/13/2015

Job No. 102-1228

A1.1

0' 10' 50' 100' N
 1" = 40.0' OVERALL SITE PLAN
 SCALE: 1" = 40.0'



O'Connor Freeman & Associates
 Structural Engineering Services
 225 30th Street, Suite 201, Sacramento, CA 95816
 Phone: (916) 441-5721 Fax: (916) 441-5697

TIMBERLINE
 150 TIMBERLINE NEW COURT
 VERIZON WIRELESS RENO, NV 89511
ENLARGED EQUIPMENT PLAN

SHEET TITLE:

Revisions:

▲	10/08/2014
▲	12/01/2014
▲	12/08/2014
▲	01/20/2015
▲	02/13/2015

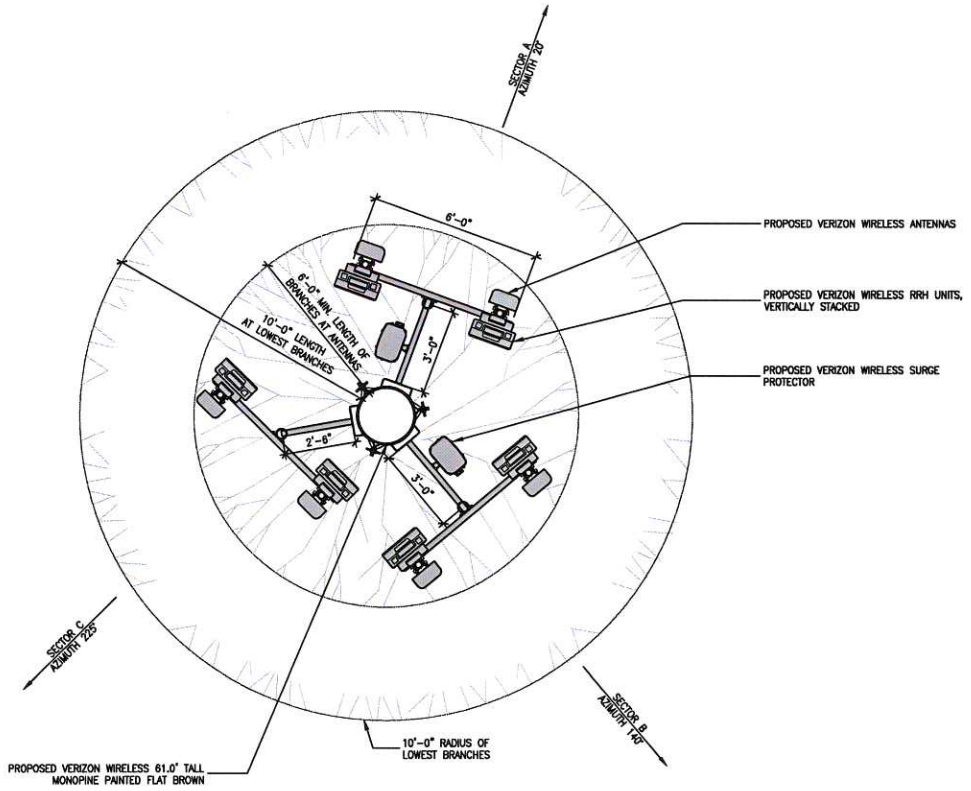
File: 102.1228A21.dwg
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 Checked By: MTR
 Scale: AS NOTED
 Date: 02/13/2015

Job No. 102.1228

A2.1

SB14-014
EXHIBIT C

EQUIPMENT SCHEDULE					
EQUIPMENT	DESCRIPTION	QUANTITY			TOTAL
		SECTOR A	SECTOR B	SECTOR C	
ANTENNA	TO BE DETERMINED	2	2	2	6
RRH	RRUS12 W/A2	4	4	4	12
TMA OR DIPLEXER	N/A				
SURGE PROTECTOR/HYBRID	RAYCAP DC1064 / HYBRID TRUNK CABLE		2/2		2/2
COAXIAL CABLE	N/A	0	0	0	0
RET CABLE	N/A		0		0



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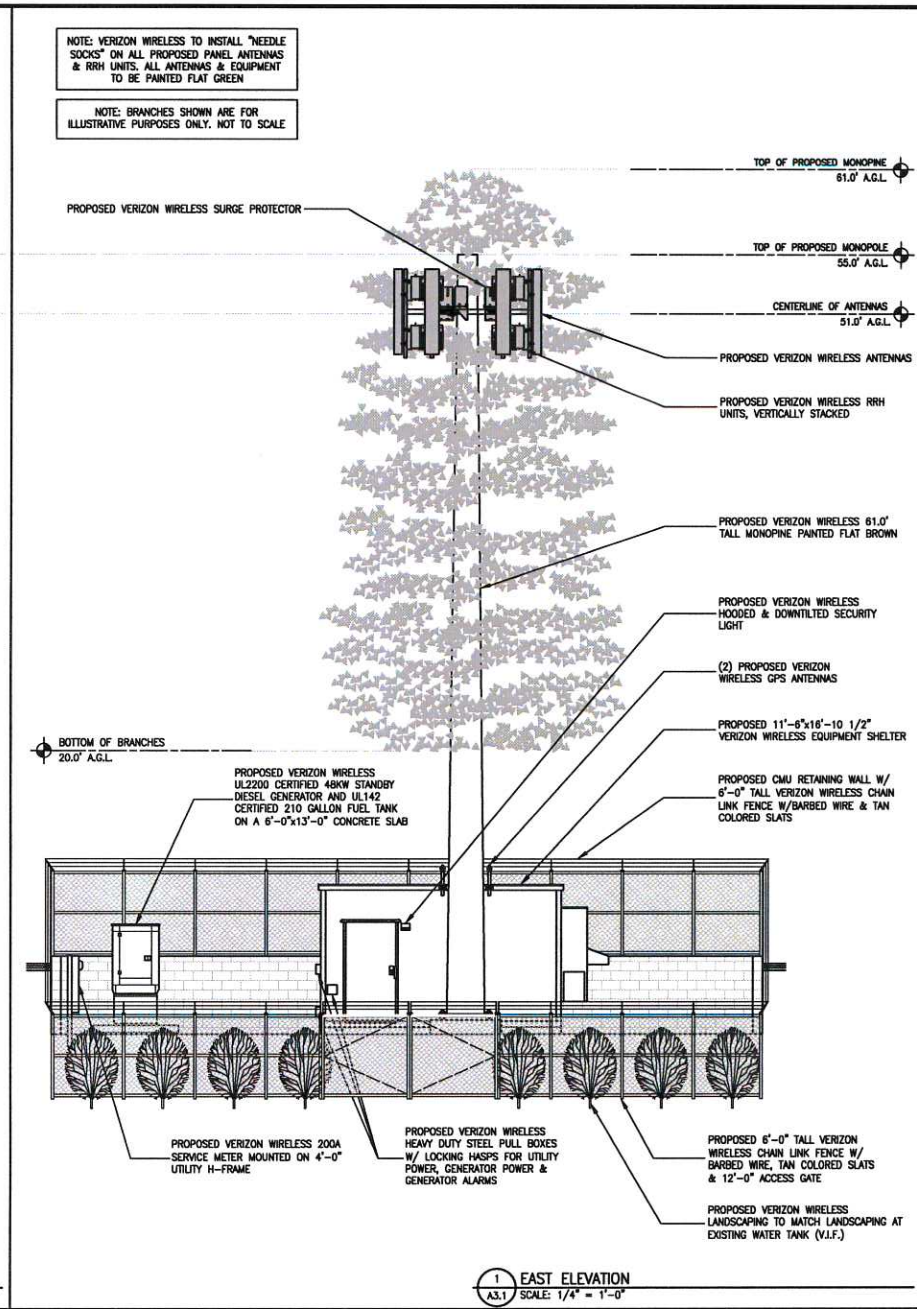
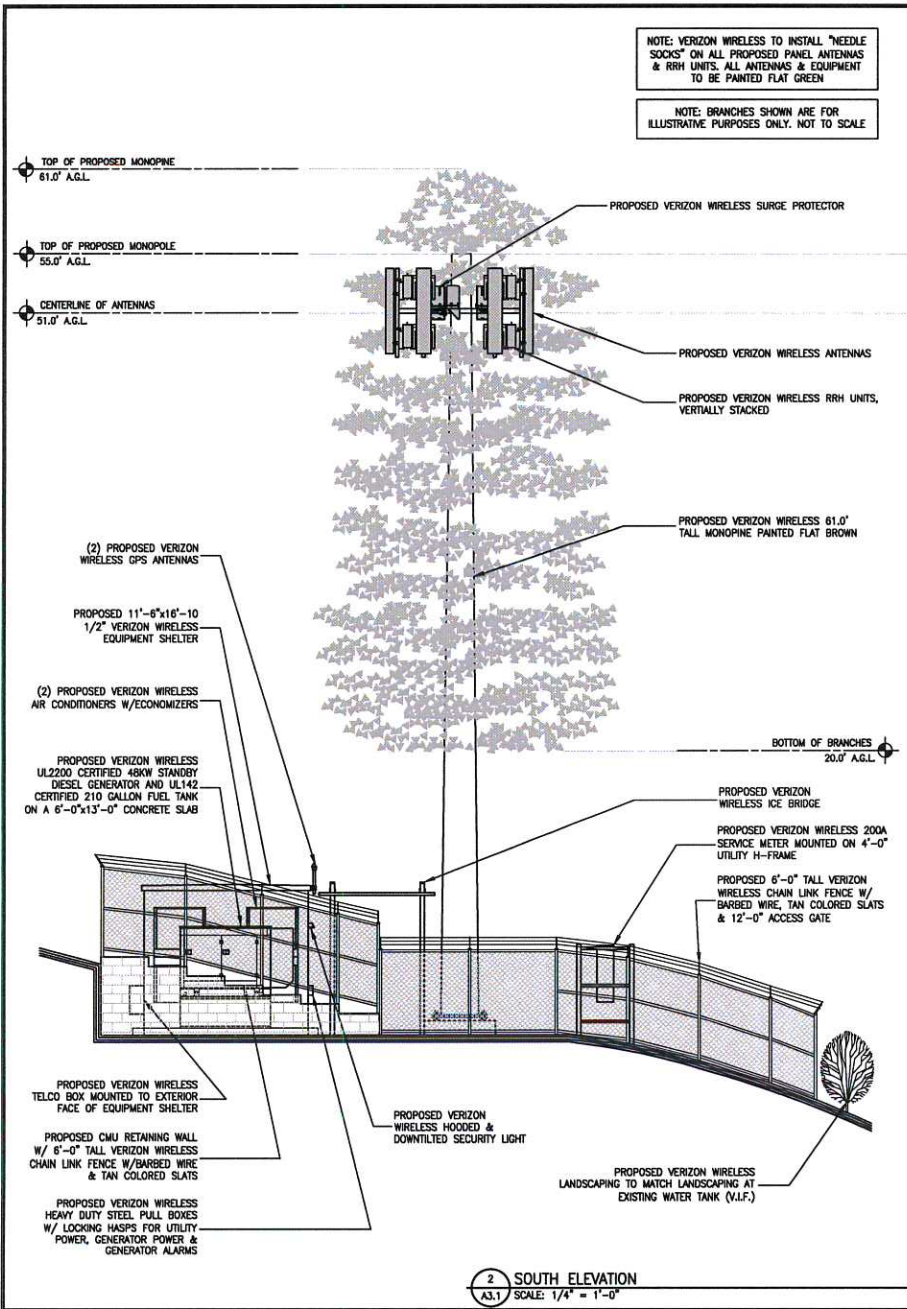
TIMBERLINE
 150 TIMBERLINE VIEW COURT
 RENO, NV 89511
verizon WIRELESS
 SHEET TITLE: ENLARGED ANTENNA PLAN

Revision:
10/28/2014
11/01/2014
12/08/2014
01/07/2015
02/13/2015

File: 162-1228-A2.2.dwg
 Drawn By: JMC
 Checked By: WJR
 Scale: AS NOTED
 Date: 02/13/2015

Job No. 162-1228

A2.2



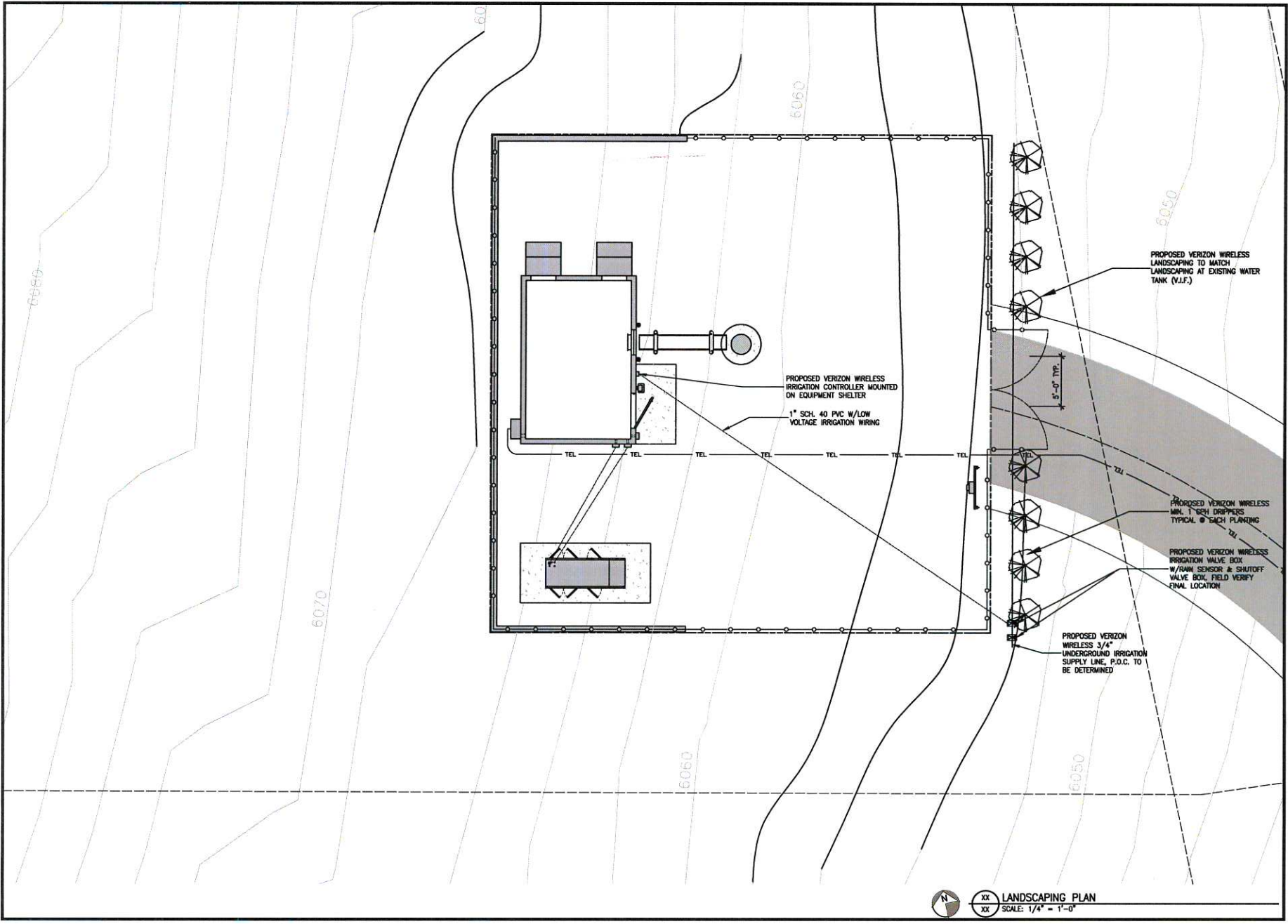
O'Connor Freeman & Associates
Structural Engineering Services
225 30th Street, Suite 201, Sacramento, CA 95816
Phone: (916) 441-5721 Fax: (916) 441-5697

TIMBERLINE
150 TIMBERLINE NEW COURT
VERIZON WIRELESS RENO, NV 89511
PROJECT ELEVATIONS
SHEET TITLE:

Revisions:
▲ 10/06/2014
▲ 12/01/2014
▲ 12/08/2014
▲ 01/07/2015
▲ 02/13/2015
File: 102.1228A31.dwg
Drawn By: AAE
Checked By: BBT
Scale: AS NOTED
Date: 02/13/2015

Job No. 142.1228

A3.1



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TIMBERLINE VIEW COURT
 150 TIMBERLINE VIEW COURT
 RENO, NV 89511

verizon WIRELESS

SHEET TITLE

LANDSCAPING PLAN

Not for construction without the seal of the engineer.

Revisions:

▲	10/08/2014
▲	12/01/2014
▲	12/08/2014
▲	01/07/2015
▲	02/13/2015

File: 102.1226A1.dwg
 Drawn By: JMT
 Checked By: JMT
 Scale: AS NOTED
 Date: 02/13/2015

Job No. 102.1226

L1.1

PROJECT SUPPORT STATEMENT VERIZON WIRELESS

SITE NAME: Timberline

LOCATION: 150 Timberline View Court Reno, NV 89511

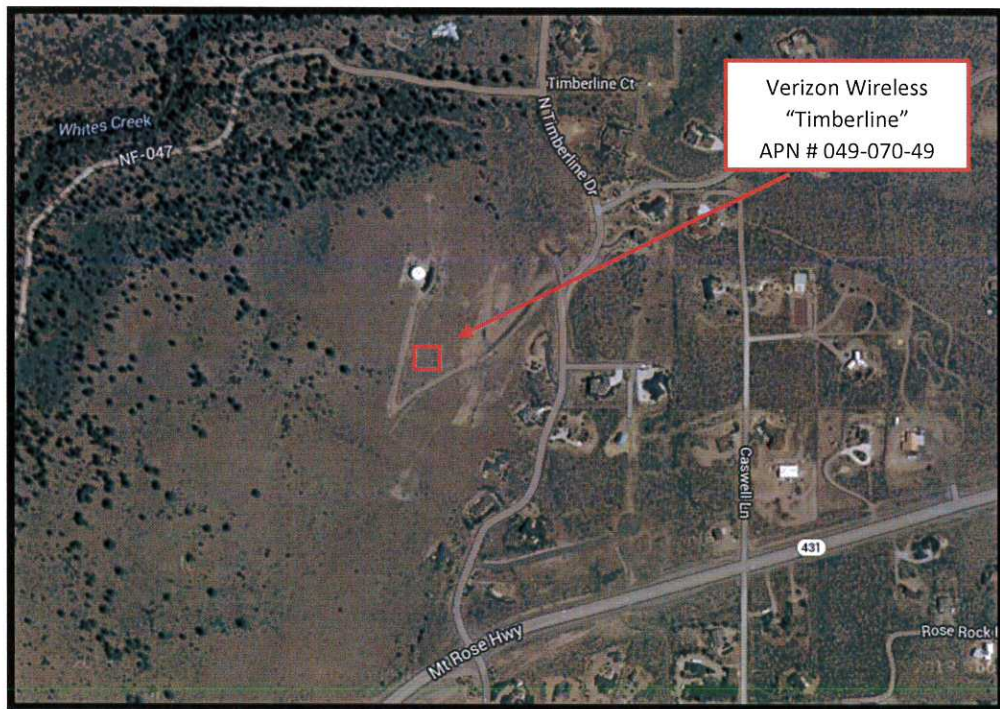
APN: 049-070-49

Introduction

Verizon Wireless is seeking to improve communications service to residences, businesses and travelers in Washoe County. Verizon maintains a strong customer base in the County and strives to improve coverage for both existing and potential customers. Verizon Wireless is currently experiencing a significant coverage gap for rural areas north of the 431 Mt Rose Hwy and east of NF -047. This Washoe County site is being built to provide coverage of the N and NE of Mt Rose Hwy and of the golf course and surrounding residential areas to the S and SW in addition to off-loading Verizon's Slide Mountain and Wolf Run towers. This project will expand Verizon's existing network in an effort to improve call quality, signal strength, and wireless connection services. The increase in wireless signal strength will benefit residents, local businesses, and public safety communications systems within the City.

Location

Verizon Wireless proposes a new wireless communications facility, (6) antennas with associated tower mounted equipment on a proposed 61' monopine located at 150 Timberline View Court. The property is located in the General Rural (GR) zone and the surrounding area consists of similarly zoned properties. This roughly 7.34 acre property is used as single family residence and the lease area is located in the southern portion of the property.



Project Support Statement – Verizon Wireless “Timberline”

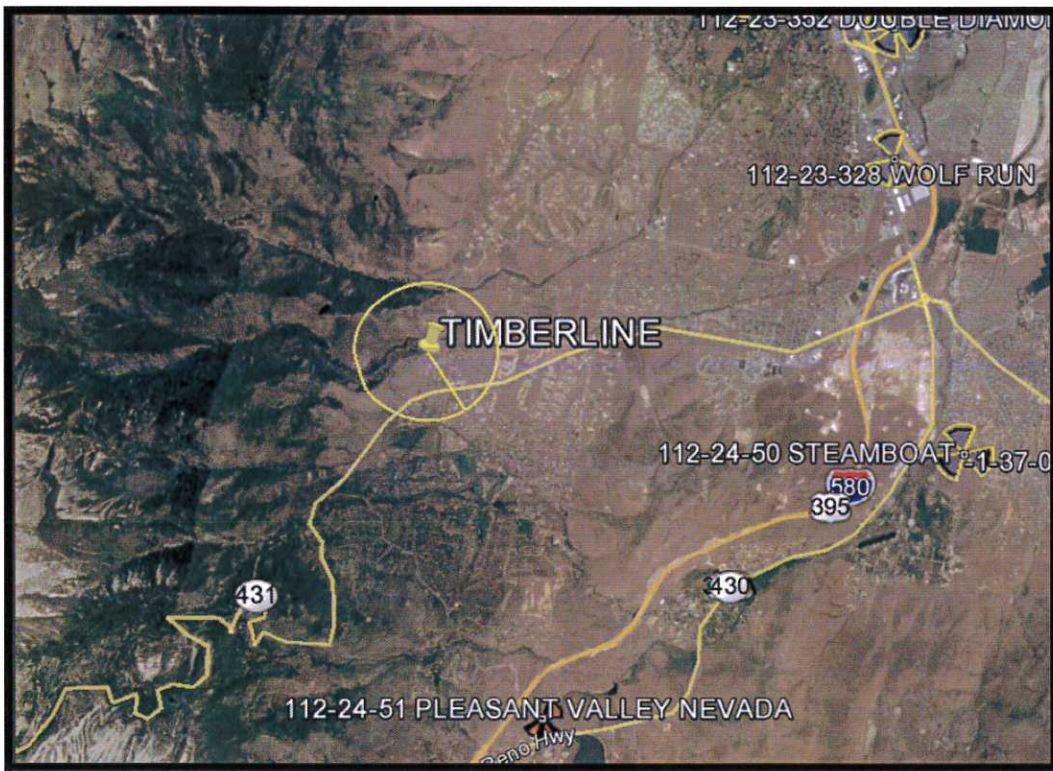
Proposed Facility

The proposed facility consists of 6 Verizon Wireless panel antennas with 3 proposed antenna sectors and 2 antennas per sector to be mounted on a proposed 61’ monopine. There are a total of 12 Verizon Wireless RRH units that will be mounted behind the antennas with 3 proposed Verizon Wireless surge protectors mounted on the proposed Monopine, and 1 surge protector located at the equipment shelter. An 11’6” x 16’10 ½” prefabricated equipment shelter will be installed along with a 48kw standby diesel generator and 210 gallon fuel tank. A 6’ tall chain link security fence with tan colored screening slats will be installed with a 12’ access gate around the 50’ x 50’ lease area perimeter. The power and telecommunications cables will be installed underground to the lease area. The unmanned facility will provide enhanced wireless network coverage 24 hours a day, 7 days a week.

Service Objective

The objective of the proposed facility is both to fill in a gap in coverage in Washoe County, as well as to provide support capacity to the existing overloaded facilities (Slide Mountain and Wolf Run), In order to achieve this service objective, VZW identified a potential candidate "Search Ring". A Search Ring is a circle on a map that is determined by Verizon’s Radio Frequency Engineer. The circle identifies the geographic area within which the proposed facility must be located to satisfy the intended service objective. In creating the Search Ring, the RF Engineer takes into account many factors, such as topography, proximity to existing structures, current coverage areas, existing obstructions, etc.

For a visual representation of the Search Ring, see the images below.



COMPLIANCE WITH WASHOE COUNTY ZONING ORDINANCE

This project has been carefully designed to comply with all the applicable standards set forth in the Washoe County Zoning Code. Specific focus was given to Article 324 (Communication Facilities) and Section 110.324.35 (Commercial Antennas). Below is an explanation for each of the specifically relevant requirements listed in the Washoe County Zoning Code:

Article 810, Special Use Permits

Section 110.810.30 Findings. Prior to approving an application for a special use permit, the Planning Commission, Board of Adjustment or a hearing examiner shall find that all of the following are true:

(a) *Consistency. The proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the applicable area plan;*

Wireless communications facilities are a conditionally allowed use within the General Rural zoning designation. The proposed facility represents a diligent effort to comply with the Washoe County Zoning Ordinance.

(b) *Improvements. Adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven;*

The parcel provides the necessary physical access, access to telephone utility lines, and access to power, which is needed to allow this proposed facility to function.

(c) *Site Suitability. The site is physically suitable for the type of development and for the intensity of development;*

This site provides an ideal location for addressing the current capacity and coverage issues experienced in the area. The size of the parcel allows for the facility to be setback from other structures and rights of way by a significant distance. This is important as it will limit public access to the facility. Finally, the proposed location contains the topography needed to allow for a quality wireless signal.

(d) *Issuance Not Detrimental. Issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area; and*

The proposed facility will not impact the health, safety, or welfare of any person or property in the surrounding area.

(e) *Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.*

The proposed facility will not negatively impact the military. The only impact to the military that this facility could have is improved wireless service.

Article 324, Communication Facilities

Section 110.324.45 Wireless Communication/Cellular Facilities Preferred Placement

As is discussed in the Alternatives Analysis section (below), each of the potential facility alternative site options were considered within this search area, in the order of Washoe County’s preference. Given the fact that this location is the only feasible location for the proposed facility, a free standing tower is required for this proposed facility.

Section 110.324.50 Wireless Communication/Cellular Facilities Placement Standards

Monopole antennas are allowed within the General Rural zoning designation. The height of the facility (55’) complies with the setback requirement that the antennas from both residentially zoned property and any Public Paved Right of Way.

Project Support Statement – Verizon Wireless “Timberline”

Section 110.324.55 Significant Gap Coverage

The proposed site is needed for both capacity and coverage. This area is served by two high level sites (Slide Mountain and Wolf Run) and the proposed site is needed to provide offload capacity to these two sites. Additionally, this Washoe County site is proposed to provide coverage to the north and northeast along Mt Rose Hwy, the golf course, and surrounding residential areas to the south and southwest. The proposed site is needed to close a significant gap in service for customers in this area.

Section 110.324.60 Wireless Communication/Cellular Facilities Permitting Requirements

- (a) *Information Required Prior to Issuance of Any Permit. In addition to the requirements of the Building and Safety Department, the following information must be provided to the Department of Community Development before any permit can be issued for the construction and installation of a wireless communication/cellular facility:*

Regarding items 1 – 16, each items has been addressed by either the attached documents or within this Project Support Statement.

Section 110.324.75 Special Use Permit Required: Findings. Subsequent to review under

Sections 110.324.40 through 110.324.70, monopole antennas and lattice towers shall require the issuance of a special use permit under the process enumerated in Article 810, Special Use

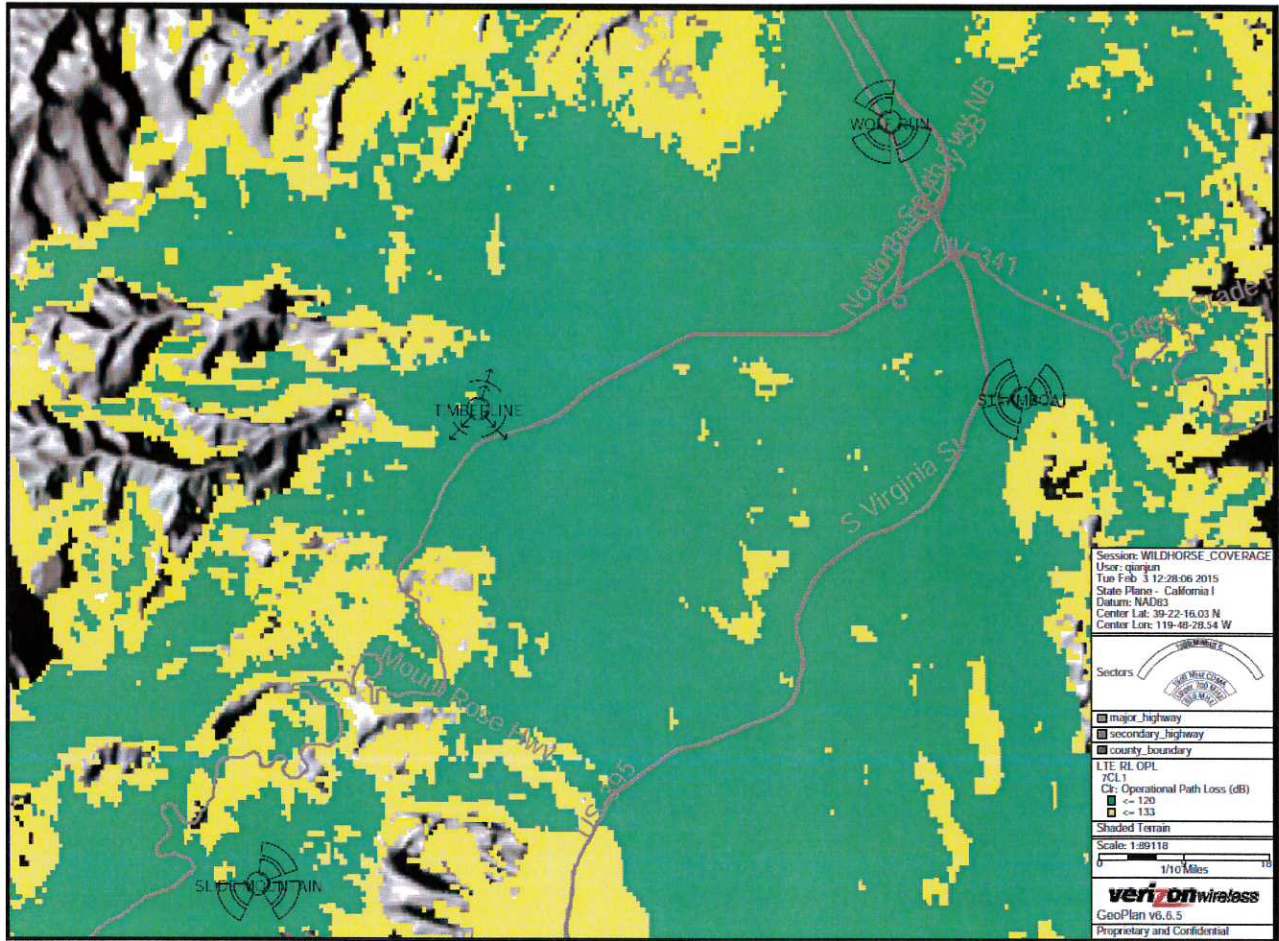
Permits, by the Washoe County Planning Commission, subject to the findings enumerated below.

- (a) *That the communications facility meets all the standards of Sections 110.324.40 through 110.324.60 as determined by the Director of Community Development and/or his/her authorized representative;*
- (b) *That public input was considered during the public hearing review process; and*
- (c) *That the monopole or lattice tower will not unduly impact the adjacent neighborhoods or the vistas and ridgelines of the County.*

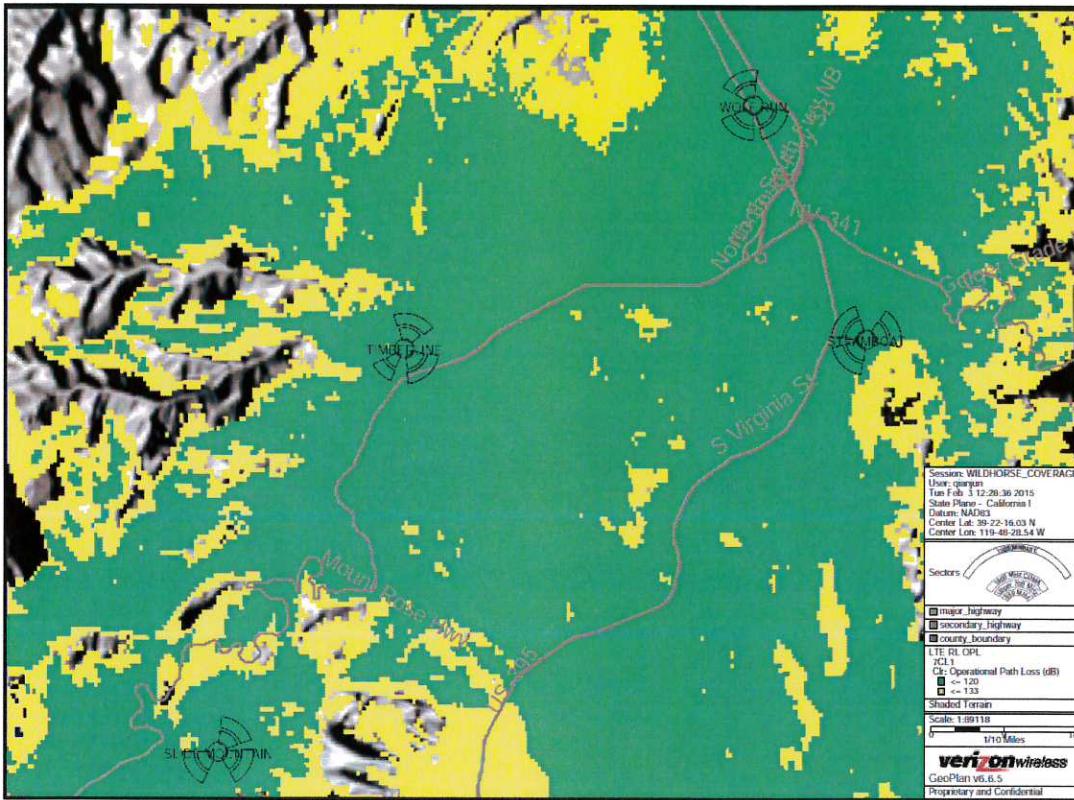
Coverage Maps

Below is a visual depiction of the improved AWS and LTE coverage to be provided by the proposed facility. The first map represents Verizon's existing AWS coverage conditions in the area. The second map represents Verizon's the AWS coverage conditions given approval of the proposed facility. Maps three and four show the before and after LTE conditions. The green areas on both maps represents areas with good indoor/outdoor coverage. The yellow areas on both maps below represents areas with good outdoor coverage. The white portions of the maps represent areas with poor quality outdoor coverage.

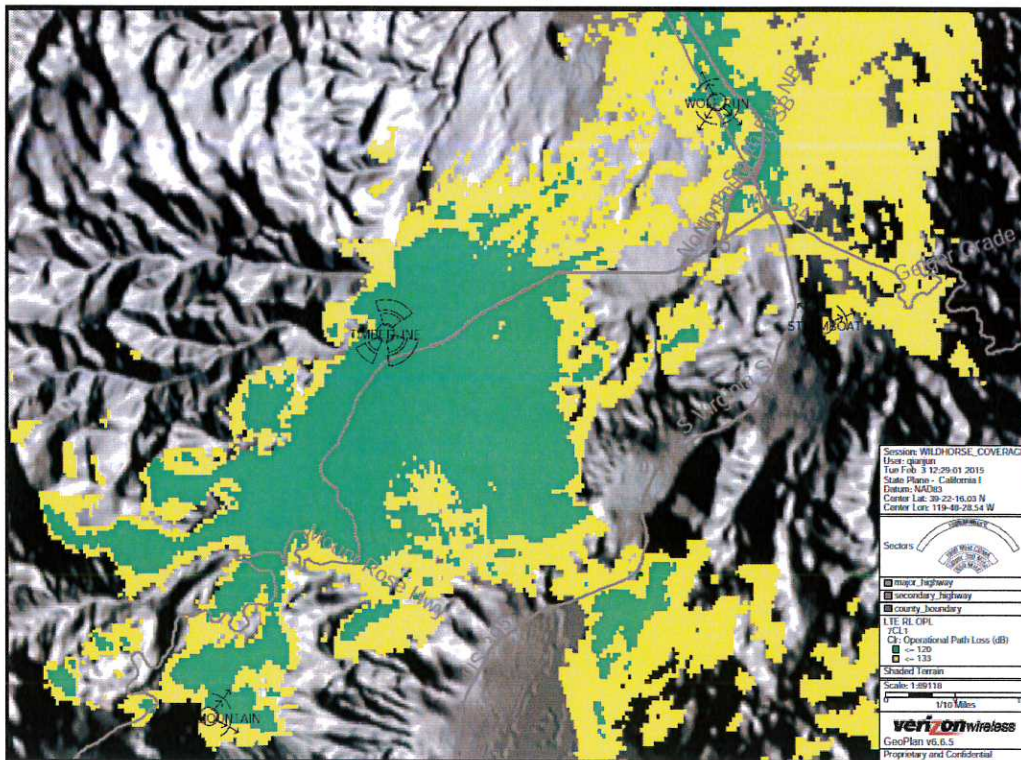
Existing Coverage



Proposed Coverage



This Facility Alone



Alternative Site Analysis

The location of a wireless telecommunications facility to fulfill the above referenced service objective is dependent upon many different factors, such as topography, zoning regulations, existing structures, co-location opportunities, available utilities, access and a willing landlord. Wireless communication is a line-of-sight technology that requires facilities to be in relative close proximity to the wireless handsets in order to be served. Each proposed site is unique and must be investigated and evaluated on its own terms. Verizon strives to minimize visual and noise impacts for each facility and seeks to incorporate ways to preserve the local community character to the greatest extent feasible at all stages of site selection for a wireless telecommunication facility.

The site selection process for this proposed facility began in September 2013 with the issuance of the above reference Search Ring. When identifying feasible wireless facility locations, VZW first looks for collocation opportunities on existing towers, which could potentially allow for the satisfaction of the necessary coverage objectives. In this instance, no feasible collocation opportunities on existing towers exist within the necessary geographic area (the Search Ring). Once collocation opportunities on existing towers were exhausted, Verizon next looked for opportunities for roof-mounts, flush-mounts, façade-mounts, etc. Verizon was not able to find any building-mounted collocation opportunities within the necessary Search Ring.

Due to the lack of feasible collocation opportunities in this area Verizon began a site search for feasible new build facility locations. After analyzing the relevant Washoe County regulations, Verizon identified all parcels within the Search Ring area which could serve as potential candidates for a new wireless facility location. A form letter was sent out to all of the potential candidates identified. Of the 8 property owners notified, 4 property owners showed an interest in having their property as a candidate for a new facility. Below is a summary of each the alternative candidates, and the reason each candidate was not selected for the new facility location.

1. **Water Tank Colocation- 16125 N Timberline Drive APN # 049-070-41 Zoned GR** - poor property owner responsiveness as site is in transition in jurisdictional ownership
2. **ATT Colocation 16255 Mount Rose Hwy APN # 049-070-30 Zoned HDR** - RF rejected due to low elevation
3. **Terrell New Build Monopole - 16100 Mount Rose Hwy APN # 049-070-27 Zoning HDR** - RF rejected due to low elevation
4. **Adams New Build Monopole - 16275 Mount Rose Hwy APN # 049-070-32 Zoned HDR** -- RF rejected due to low elevation
5. **Lee New Build Monopole - 16150 Mt Rose Hwy APN # 049-070-11 Zoned HDR** - Landlord did not respond to numerous attempts at negotiation
6. **TL Mt Rose Estates New Build Monopole - 15045 Goldenrod Drive APN # 150-420-01 Zoned GR** – property owners did not respond to numerous calls, emails and US mail
7. **Bentson New Build Monopole -- 4875 Rose Rock Lane APN # 049-090-17 Zoned LDS** - property owner non- responsive

A map showing the proposed location and each alternative location considered is provided below.

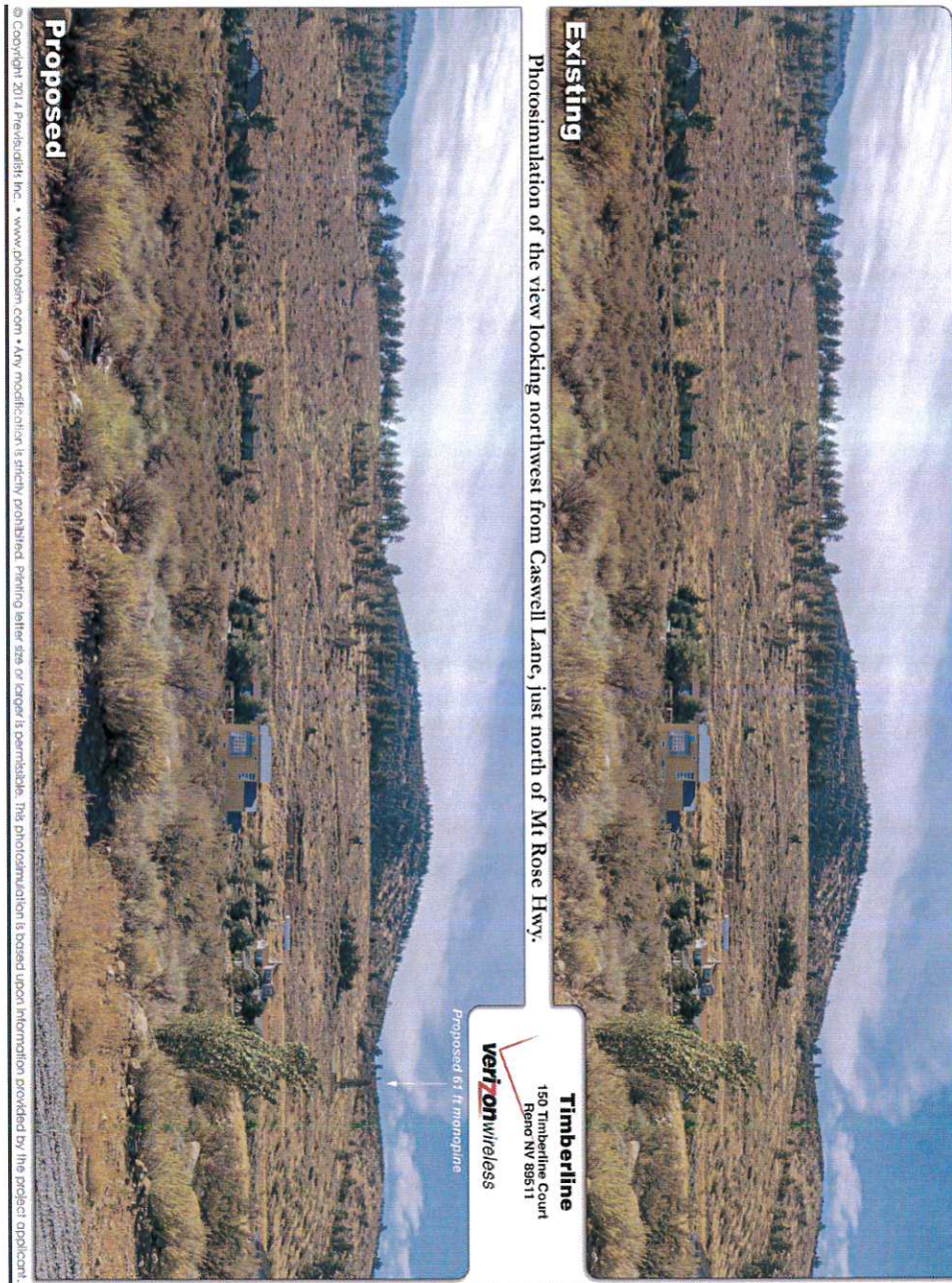
Map of Alternative Sites Considered



Design Justification

The Proposed facility design is a monopole. The lease area is located on a 7.34-acre parcel and situated on an open hillside with limited vegetation. The proposed facility has been designed to create the least possible visual impact to the area. While Verizon Wireless is certainly open to considering any other design options that Staff and/or the Planning Commission may feel to be appropriate for this particular location, a monopole is the least intrusive design and would blend with the surrounding area.

Photosimulation of 61' ft Monopine as viewed from Mt Rose Hwy





Existing

Photosimulation of the view looking northwest from the clearest view along Mt Rose Hwy.

Timberline
150 Timberline Court
Reno NV 89511
verizonwireless



Proposed

© Copyright 2014 Previsajktk Inc. • www.photosm.com • Any modification is strictly prohibited. Printing letter size or larger is permissible. This photosimulation is based upon information provided by the project applicant.

Project Support Statement – Verizon Wireless “Timberline”

[10]



Staff has suggested a monopine for this location. Other stealth designs would likely create more of a conflict with the rural nature of the parcel and the surrounding area.

Future Colocation Potential

Project Support Statement – Verizon Wireless “Timberline”

The proposed site has been designed in a manner that would allow for future collocation. An approximately 41’ centerline would be the highest available centerline for a future carrier. Space for future carrier’s ground equipment would need to be negotiated with the property owner.

Safety Benefits of Improved Wireless Service

Verizon Wireless offers its customers multiple services such as voice calls, text messaging, mobile email, picture/video messaging, mobile web, navigation, broadband access, V CAST, and E911 services. Mobile phone use has become an extremely important tool for first responders and serves as a back-up system in the event of a natural disaster. Verizon Wireless will install a standby generator at this facility to ensure quality communication for the surrounding community in the event of a natural disaster or catastrophic event. This generator will be fully contained within the equipment shelter and will provide power to the facility in the event that local power systems are offline.

Lighting

Unless tower lighting is required by the FAA, the only lighting on the facility will be a down-tilted and shielded motion sensor light above the door on the equipment shelter.

Maintenance and Standby Generator Testing

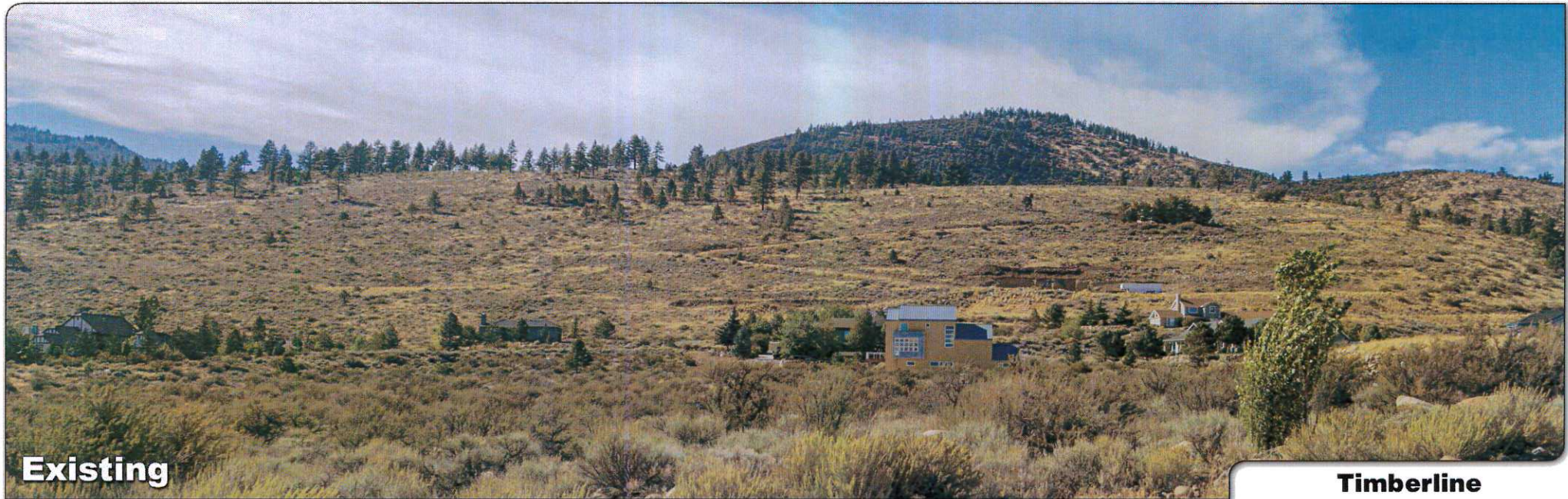
Verizon Wireless installs a standby generator and batteries at all of its cell sites. The generator and batteries serve a vital role in Verizon’s emergency and disaster preparedness plan. In the event of a power outage, Verizon Wireless communications equipment will first transition to the back-up batteries. The batteries can run the site for a few hours depending upon the demand placed upon the equipment. Should the power outage extend beyond the capacity of the batteries, the back-up generator will automatically start and continue to run the site for up to 24 hours. The standby generator will operate for approximately 15 minutes bi-weekly for maintenance purposes, during daytime business hours. Back-up batteries and generators allow Verizon Wireless’ communications sites to continue providing valuable communications services in the event of a power outage, natural disaster or other emergency.

Construction Schedule

The construction of the facility will be in compliance with all local rules and regulations. The typical duration is two months. The crew size will range from two to ten individuals. The construction phase of the project will last approximately two months and will not exceed acceptable noise levels.

Notice of Actions Affecting Development Permit

In accordance with California Government Code Section 65945(a), Verizon Wireless requests notice of any proposal to adopt or amend the: general plan, specific plan, zoning ordinance, ordinance(s) affecting building or grading permits that would in any manner affect this development permit. Any such notice may be sent to Verizon Wireless c/o Complete Wireless Consulting 2009 V Street, Sacramento, CA 95818.



Existing

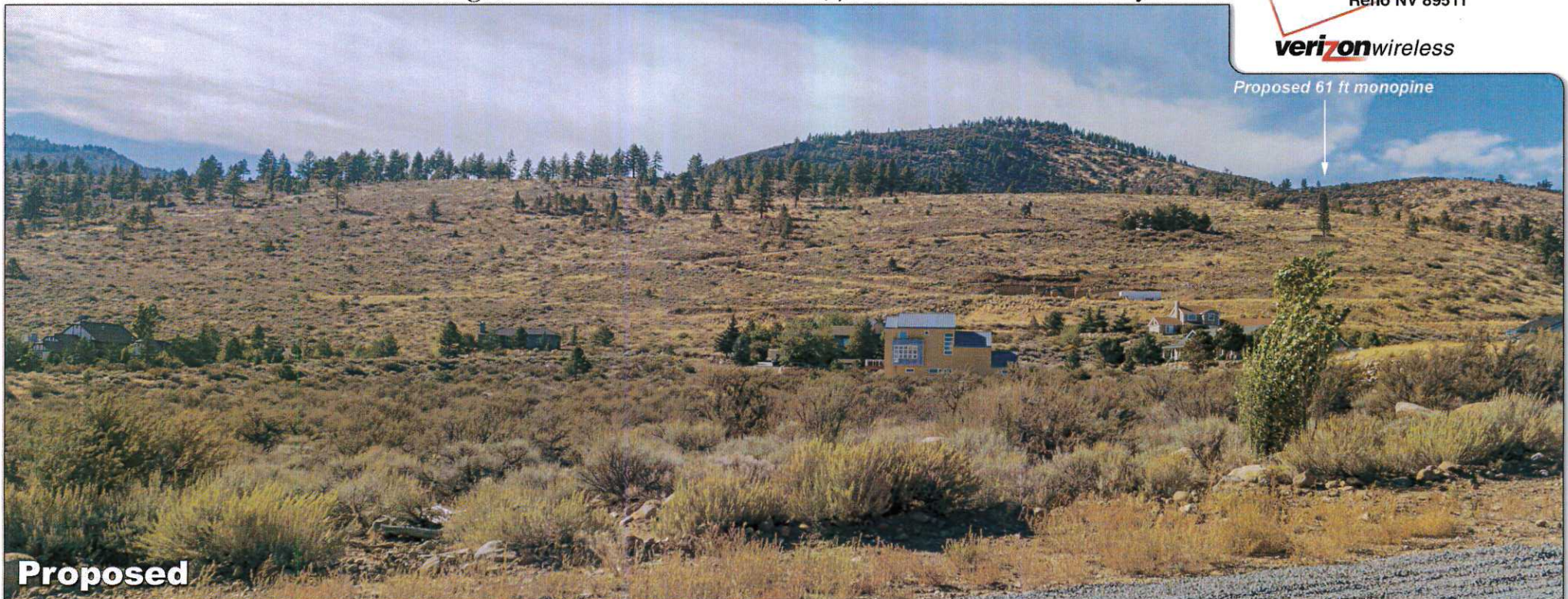
Photosimulation of the view looking northwest from Caswell Lane, just north of Mt Rose Hwy.

Timberline

150 Timberline Court
Reno NV 89511



Proposed 61 ft monopine



Proposed



Existing

Photosimulation of the view looking northwest from the clearest view along Mt Rose Hwy.

Timberline

150 Timberline Court
Reno NV 89511



Proposed 61 ft monopine

Proposed



Existing

Photosimulation of a super telephoto zoom view as seen looking northwest from Caswell Lane.

Timberline

150 Timberline Court
Reno NV 89511



Proposed 61 ft monopine

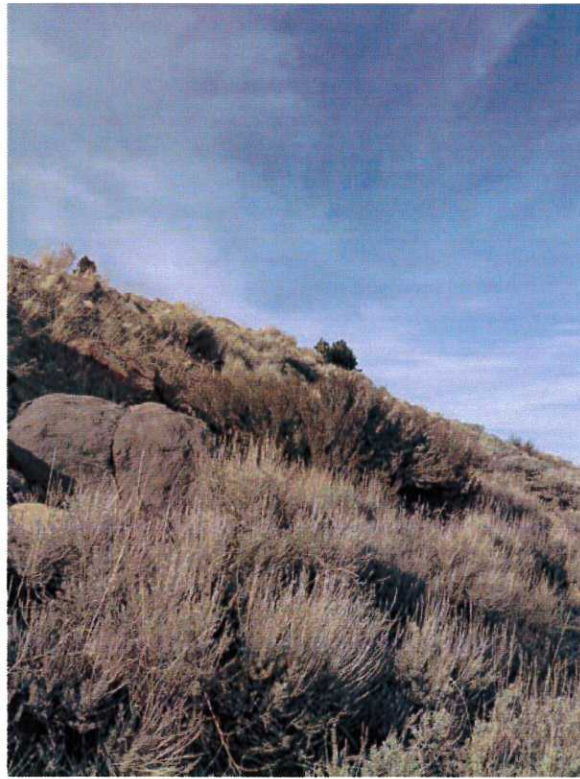


Proposed

SB14-014

EXHIBIT C

Verizon Wireless "Timberline"

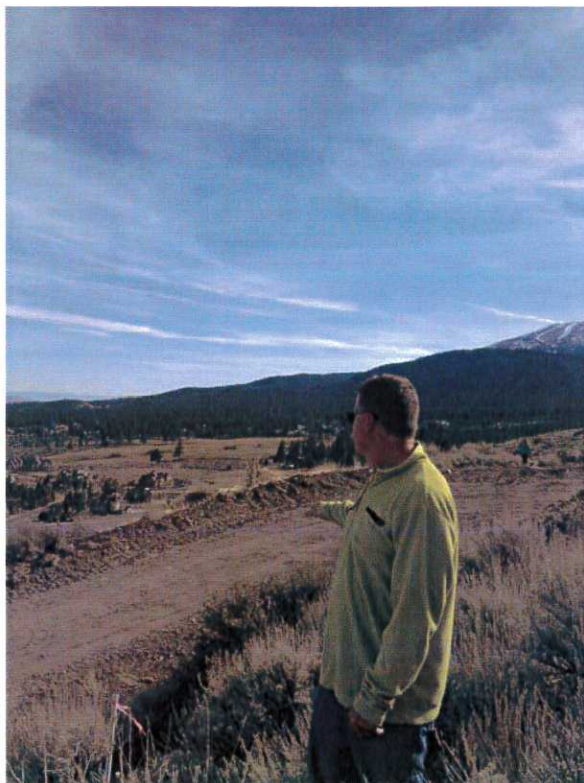


North



East

Verizon Wireless "Timberline"



South



West

Verizon Wireless "Timberline"



Power and Telco



Lease Area

Verizon Wireless "Timberline"



Access



Panoramic View from North to South facing East

**Verizon Wireless • Proposed Base Station (Site No. 278742 “Timberline”)
150 Timberline View Court • Incline Village, Nevada**

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. 278742 “Timberline”) proposed to be located at 150 Timberline View Court in Incline Village, Nevada, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

Executive Summary

Verizon proposes to install directional panel antennas on a tall steel pole to be located at 150 Timberline View Court in Incline Village. The proposed operation will, together with the existing base station nearby, comply with the FCC guidelines limiting public exposure to RF energy.

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)	5,000–80,000 MHz	5.00 mW/cm ²	1.00 mW/cm ²
BRS (Broadband Radio)	2,600	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.



**Verizon Wireless • Proposed Base Station (Site No. 278742 “Timberline”)
150 Timberline View Court • Incline Village, Nevada**

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 O'Connor Freeman & Associates, dated January 7, 2015, it is proposed to install six directional panel antennas – four Andrew Model SBNHH-1D65B and two CSS Model X7CAP-640-V – on a new 55-foot steel pole, configured to resemble a pine tree, to be installed about 160 feet to the northeast of the water tank located at 150 Timberline View Court in Incline Village. The Andrew antennas would be mounted with up to 14° downtilt at an effective height of about 51 feet above ground and would be oriented in pairs toward 20°T and 140°T. The CSS antennas would be mounted with up to 4° downtilt at an effective height of about 51 feet above ground and would be oriented toward 225°T. The maximum effective radiated power in any direction from the Andrew antennas would be 12,200 watts, representing simultaneous operation at 4,130 watts for AWS, 4,030 watts for PCS, 2,870 watts for cellular, and 1,170 watts for 700 MHz service. The maximum effective radiated power in any direction from the CSS antennas would be 23,600 watts, representing simultaneous operation at 7,150 watts for AWS, 7,150 watts for PCS, 6,730 watts for cellular, and 2,570 watts for 700 MHz service.



**Verizon Wireless • Proposed Base Station (Site No. 278742 “Timberline”)
150 Timberline View Court • Incline Village, Nevada**

Located on the sides of the nearby water tank are similar antennas for use by Sprint. For the limited purpose of this study, the transmitting facilities of that carrier are assumed to be as follows:

Service	Maximum ERP	Antenna Model	Downtilt	Height
BRS	1,500 watts	KMW ET-X-WM-18-65-8P	0°	17 ft
PCS	3,000	KMW ET-X-TS-70-15-62-18	0	17
SMR	1,500	KMW ET-X-TS-70-15-62-18	0	17

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation by itself is calculated to be 0.091 mW/cm², which is 13% of the applicable public exposure limit. The maximum calculated cumulative level at ground, for the simultaneous operation of both carriers, is 34% of the public exposure limit. The maximum calculated cumulative level at the second-floor elevation of any nearby residence* is 0.72% of the public exposure limit. The maximum calculated level due to the proposed Verizon operation by itself at the nearby water tank is calculated to be 34% of the public limit. It should be noted that these results include several “worst-case” assumptions and therefore are expected to overstate actual power density levels.

No Recommended Mitigation Measures

Due to their mounting locations, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that the carriers will, as FCC licensees, take adequate steps to ensure that their employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

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 150 Timberline View Court in Incline Village, Nevada, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will 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.

* Located at least 470 feet away, based on photographs from Google Maps.



Verizon Wireless • Proposed Base Station (Site No. 278742 "Timberline")
150 Timberline View Court • Incline Village, Nevada

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-20309, which expires on March 31, 2015. This work has been carried out under her direction, and all statements are true and correct of her own knowledge except, where noted, when data has been supplied by others, which data she believes to be correct.



Andrea L. Bright

Andrea L. Bright, P.E.
707/996-5200

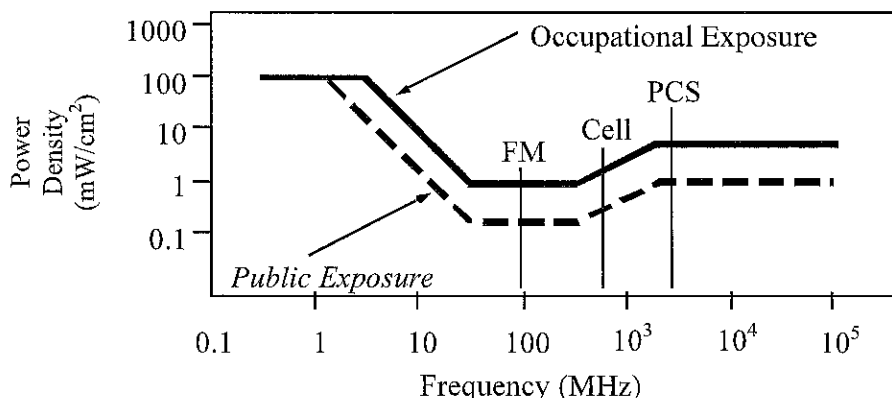
February 13, 2015

FCC Radio Frequency Protection Guide

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

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

Frequency Applicable Range (MHz)	Electromagnetic Fields (<i>f</i> is frequency of emission in MHz)					
	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm ²)	
0.3 – 1.34	614	<i>614</i>	1.63	<i>1.63</i>	100	<i>100</i>
1.34 – 3.0	614	<i>823.8/f</i>	1.63	<i>2.19/f</i>	100	<i>180/f²</i>
3.0 – 30	1842/f	<i>823.8/f</i>	4.89/f	<i>2.19/f</i>	900/f ²	<i>180/f²</i>
30 – 300	61.4	<i>27.5</i>	0.163	<i>0.0729</i>	1.0	<i>0.2</i>
300 – 1,500	3.54√ <i>f</i>	<i>1.59√f</i>	√ <i>f</i> /106	<i>√f/238</i>	<i>f</i> /300	<i>f/1500</i>
1,500 – 100,000	137	<i>61.4</i>	0.364	<i>0.163</i>	5.0	<i>1.0</i>



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



RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

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

Near Field.

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

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm²,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm²,

where θ_{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

η = aperture efficiency (unitless, typically 0.5-0.8).

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

Far Field.

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

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm²,

where ERP = total ERP (all polarizations), in kilowatts,

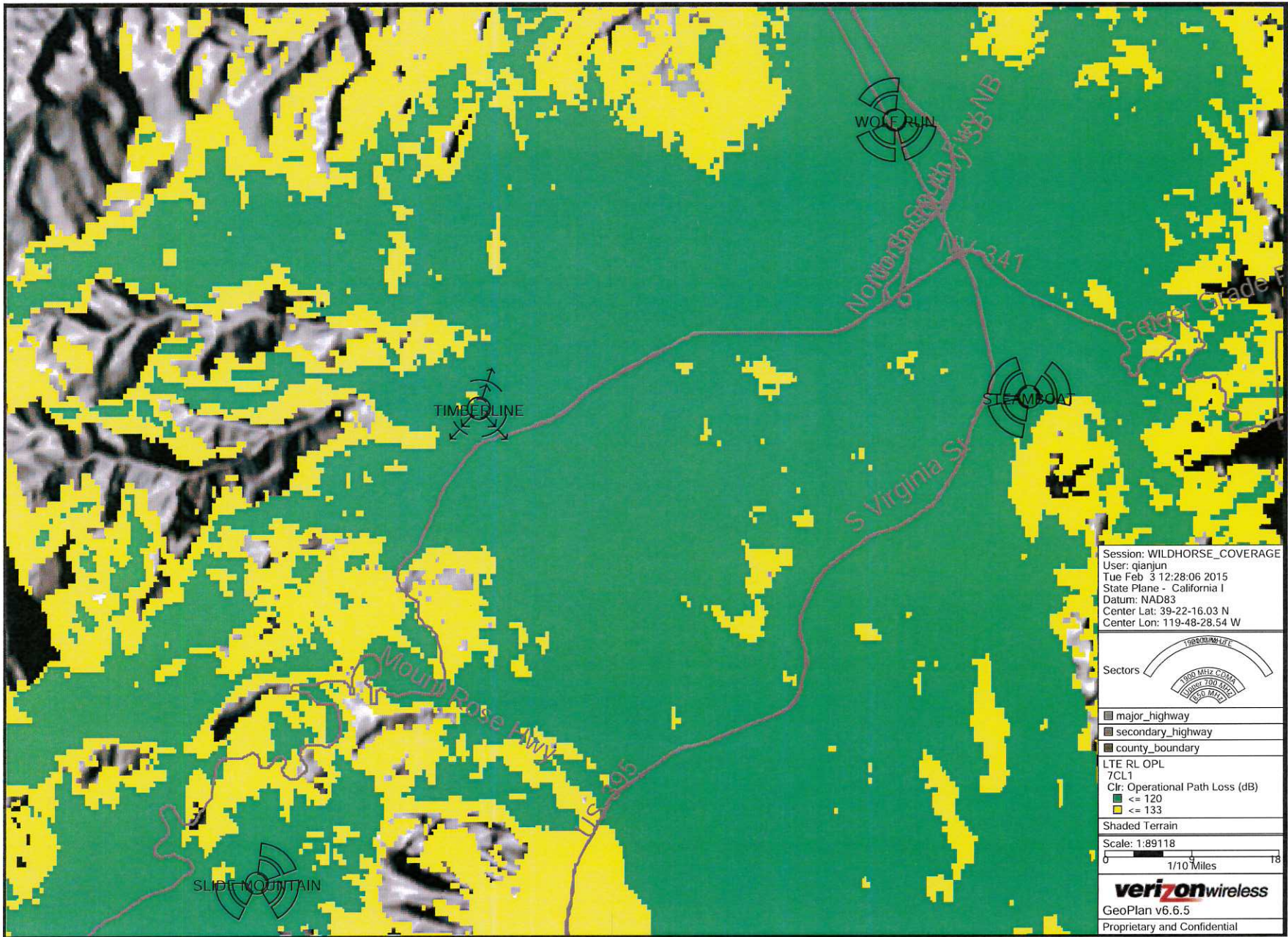
RFF = relative field factor at the direction to the actual point of calculation, and

D = distance from the center of radiation to the point of calculation, in meters.

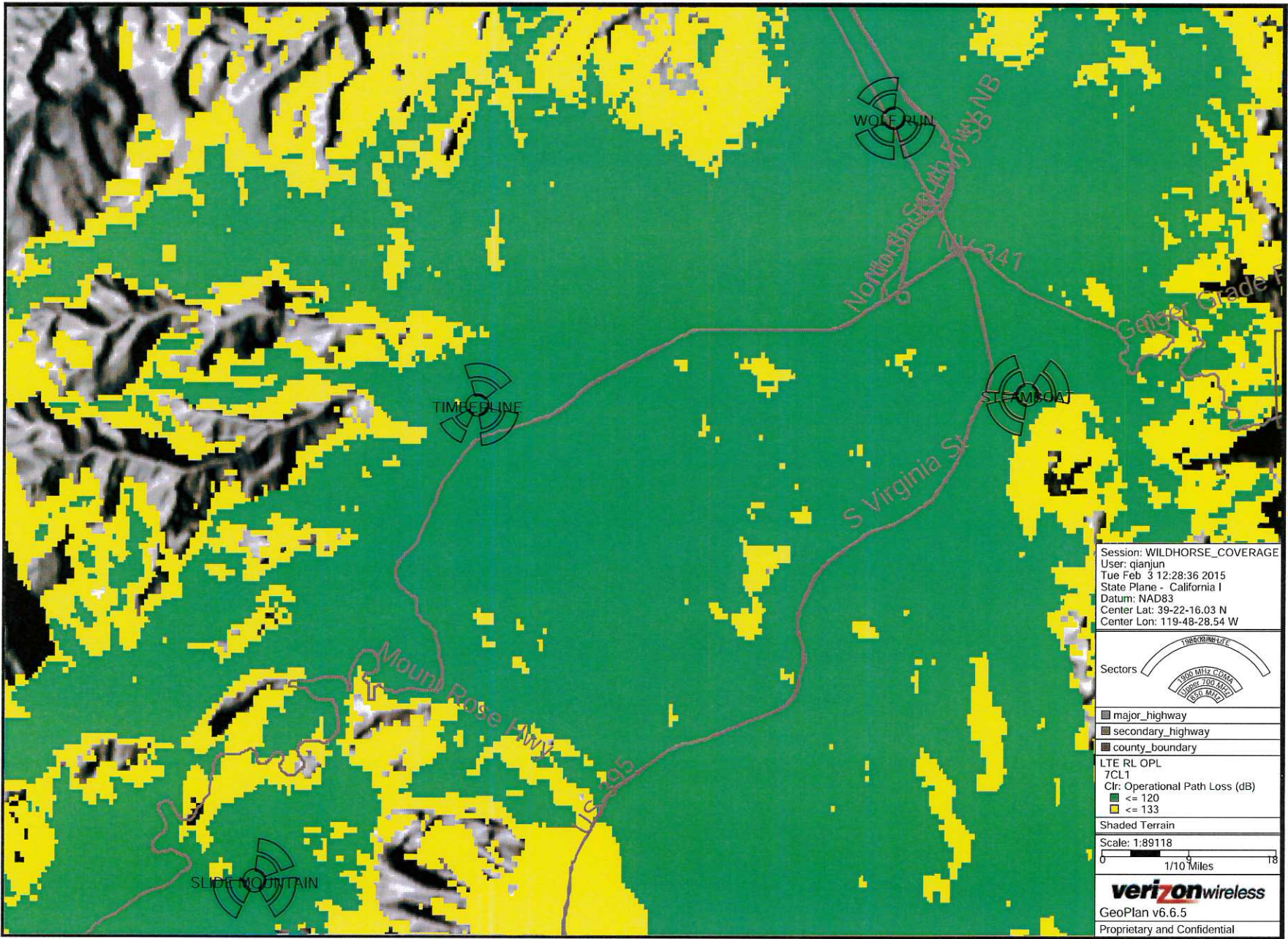
The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units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



BEFORE



BEFORE



Session: WILDHORSE_COVERAGE
User: qjanjun
Tue Feb 3 12:28:36 2015
State Plane - California I
Datum: NAD83
Center Lat: 39-22-16.03 N
Center Lon: 119-48-28.54 W



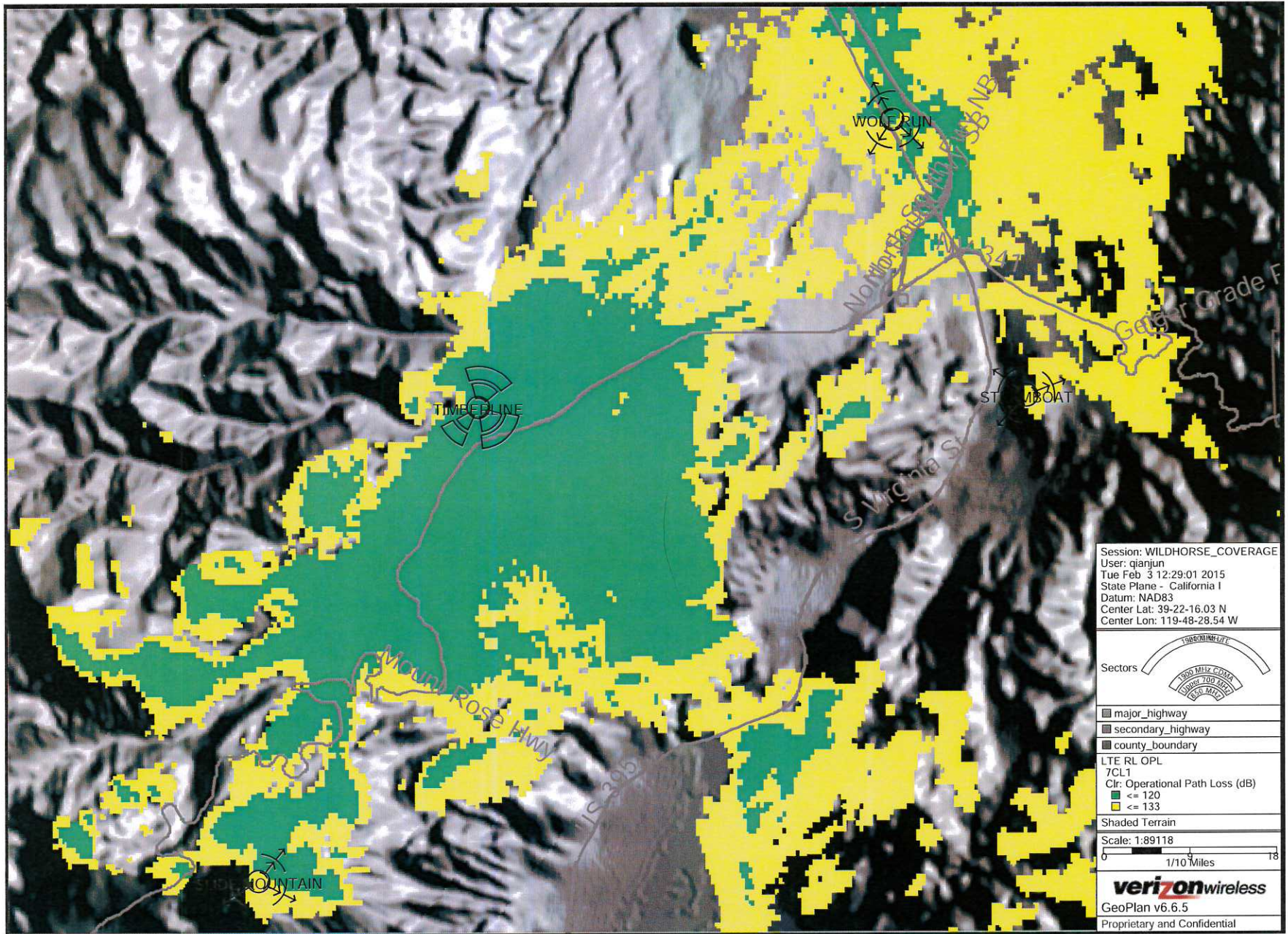
- major_highway
- secondary_highway
- county_boundary

LTE RL OPL
7CL1
Cl: Operational Path Loss (dB)
■ <= 120
■ <= 133

Shaded Terrain
Scale: 1:89118
0 1/10 Miles 18

verizonwireless
GeoPlan v6.6.5
Proprietary and Confidential

THIS FACILITY ONLY



Environmental Noise Analysis

Timberline Cellular Facility

Washoe County, Nevada

BAC Job # 2014-265

Prepared For:

Complete Wireless Consulting

Attn: Ms. Danielle Hanover
2009 V Street
Sacramento, CA 95818

Prepared By:

Bollard Acoustical Consultants, Inc.



Paul Bollard, President

January 16, 2015



Introduction

The Timberline Verizon Wireless Unmanned Telecommunications Facility Project (project) proposes the construction of a cellular tower (monopole), a cellular equipment shelter, and an emergency diesel standby generator inside a fenced area located at 150 Timberline View Court, Washoe County, Nevada. The external HVAC units of the equipment shelter and the emergency diesel standby generator have been identified as primary noise sources associated with the project. Please see Figure 1 for the general site location. The studied site design is dated January 7, 2015.

Bollard Acoustical Consultants, Inc. has been contracted by Complete Wireless Consulting, Inc. to complete an environmental noise assessment regarding the proposed project cellular equipment operations. Specifically, the following addresses daily noise production and exposure associated with operation of the project emergency generator and external HVAC equipment.

Please refer to Appendix A for definitions of acoustical terminology used in this report.

Criteria for Acceptable Noise Exposure

Section 110.414.05 of the Washoe County Development Code establishes a 65 dB L_{dn} noise level standard for determining compatibility of noise sources affecting residential uses, applied at the property line of the receiving land use.

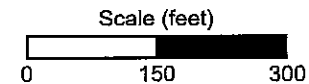
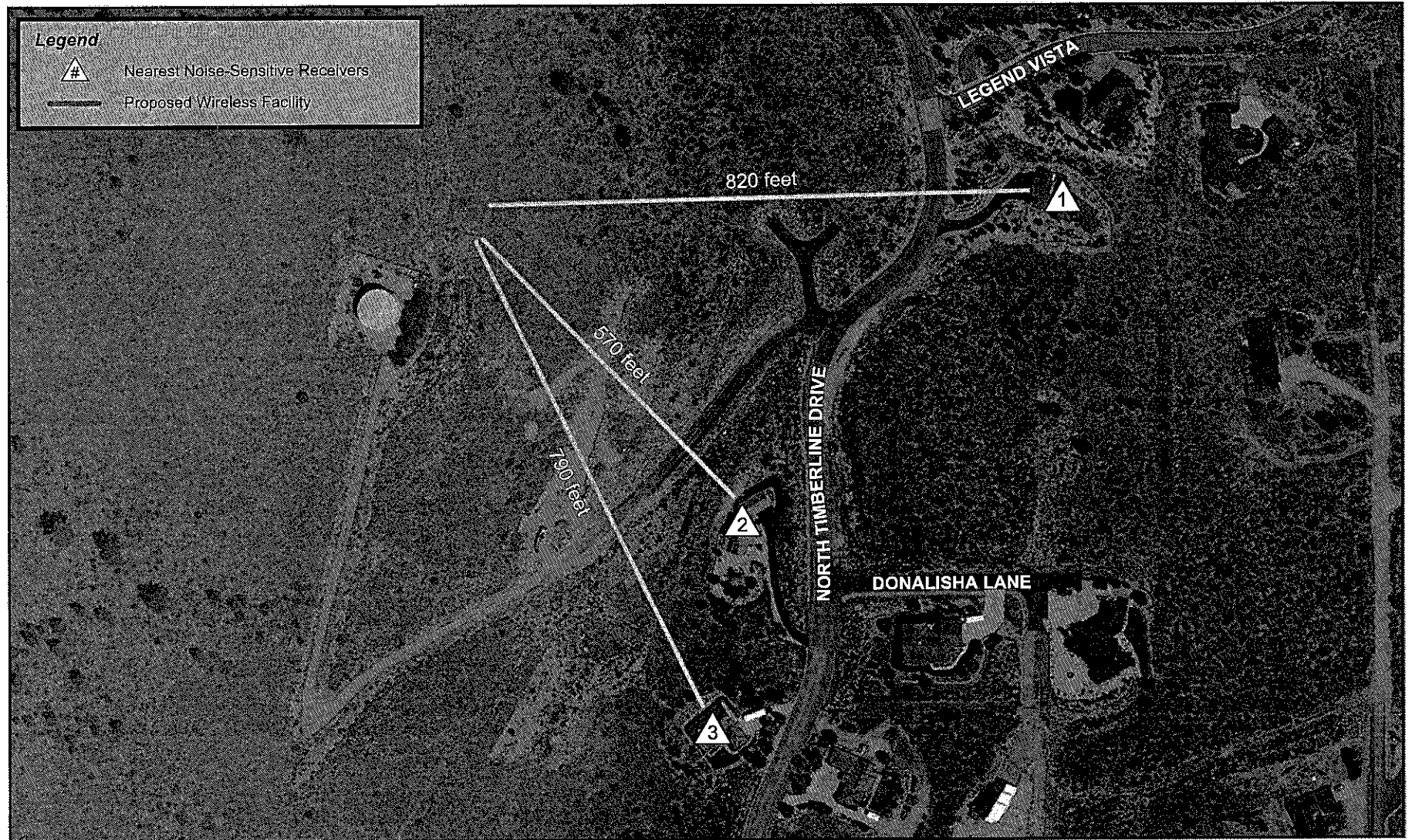
Project Noise Generation

Noise exposure from the proposed project HVAC units is expected to be approximately 67 dB (L_{eq}) at a distance of 10 feet from the equipment. This reference noise level of 67 dB at 10 feet is based on a Bard WA3S1 Wall-Mount Step Capacity Air Conditioner, which is reportedly similar to the type of equipment being proposed at the project site.

The generator which is proposed at this site would only operate during emergencies (power outages) and brief daytime periods for periodic maintenance/lubrication. The reference noise level for the generator is 63 dB at 23 feet (Generac Power Systems, Inc. 48 kW SD050 Diesel). The generator noise level data specification sheet is provided as Appendix B.

The project emergency generator would be tested during daytime hours only, and even then only for brief periods of time. The emergency generator would only operate at night during power outages. It is expected that nighttime operation of the project emergency generator would be exempt from the County's exterior noise exposure criteria due to the need for continuous cellular service provided by the project equipment.

Figure 1
Timberline Cellular Facility - Washoe County, Nevada
Project Area and Nearest Noise-Sensitive Receivers



Predicted Facility Noise Levels at Nearby Sensitive Receptors

As indicated in Figure 1, the project equipment maintains a separation of 570-820 feet from the nearest noise-sensitive land uses identified as receivers 1-3. Assuming standard spherical spreading loss (-6 dB per doubling of distance), project-equipment noise exposure at the closest receivers was calculated and the results of those calculations are presented in Table 1.

For the purpose of this analysis, the HVAC units were conservatively assumed to be operating continuously for 24 hours. Additionally, the proposed generator was conservatively assumed to be operating continuously for a one hour period during daytime hours for routine testing and maintenance.

Table 1
Summary of Project-Related Noise Exposure at Nearest Residences
Timberline Verizon Wireless Telecommunications Facility Project

Nearest Receiver ¹	Distance from Cellular Equipment (feet)	Predicted Noise Levels, L _{dn} (dBA)		
		HVAC ²	Generator ³	Combined
1	820	35	18	35
2	570	38	21	38
3	790	35	18	36

Notes:

1. Receiver locations can be seen in Figure 1.
2. HVAC units were assumed to be running continuously for 24 hours.
3. Generator was assumed to be running continuously for 1 daytime hour for routine testing and maintenance.

As shown in Table 1 above, the predicted HVAC noise levels of 35-38 dB L_{dn} would satisfy the County's 65 dB L_{dn} noise level standard. The predicted generator noise levels of 18-21 dB L_{dn} would also satisfy the County's 65 dB L_{dn} noise level standard. Furthermore, the combined project noise exposure at the nearest noise-sensitive locations were calculated and determined to satisfy the Washoe County noise level criteria.

Conclusions

Based on the equipment noise level data and analyses presented above, project-related equipment noise exposure is expected to satisfy the applicable Washoe County noise exposure limits at the closest receivers.

This concludes our environmental noise assessment for the proposed Timberline Cellular Facility in Washoe County, Nevada. Please contact me at (916) 663-0500 or paulb@bacnoise.com if you have any questions or require additional information.

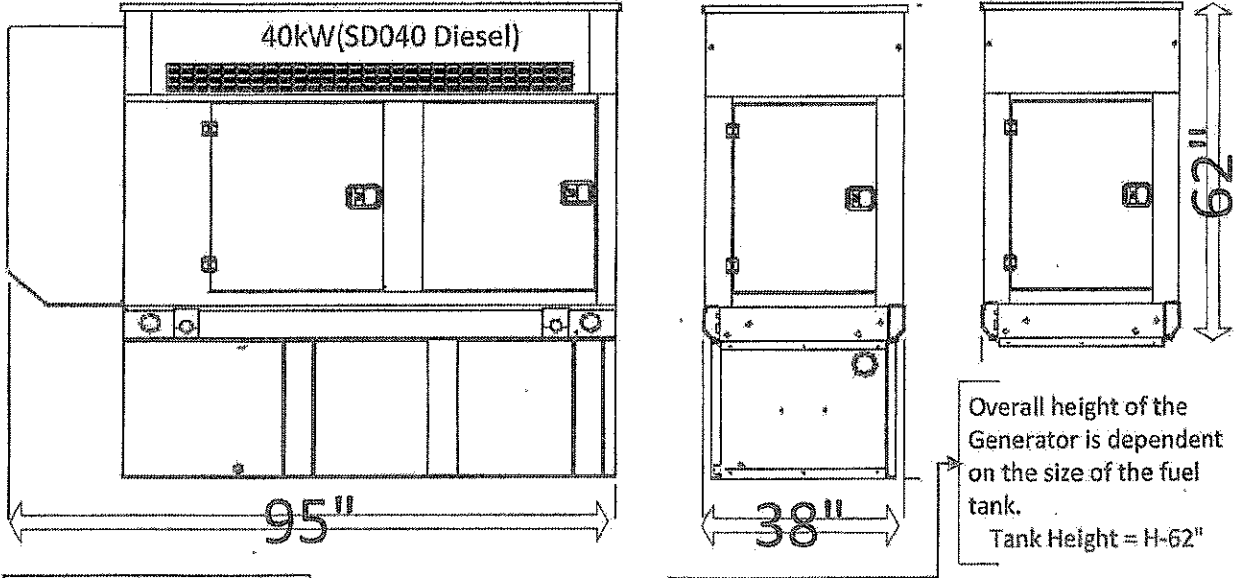
Appendix A Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Masking	The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.
Noise	Unwanted sound.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the Maximum level, which is the highest RMS level.
RT₆₀	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.
SEL	A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy of the event into a 1-s time period.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.

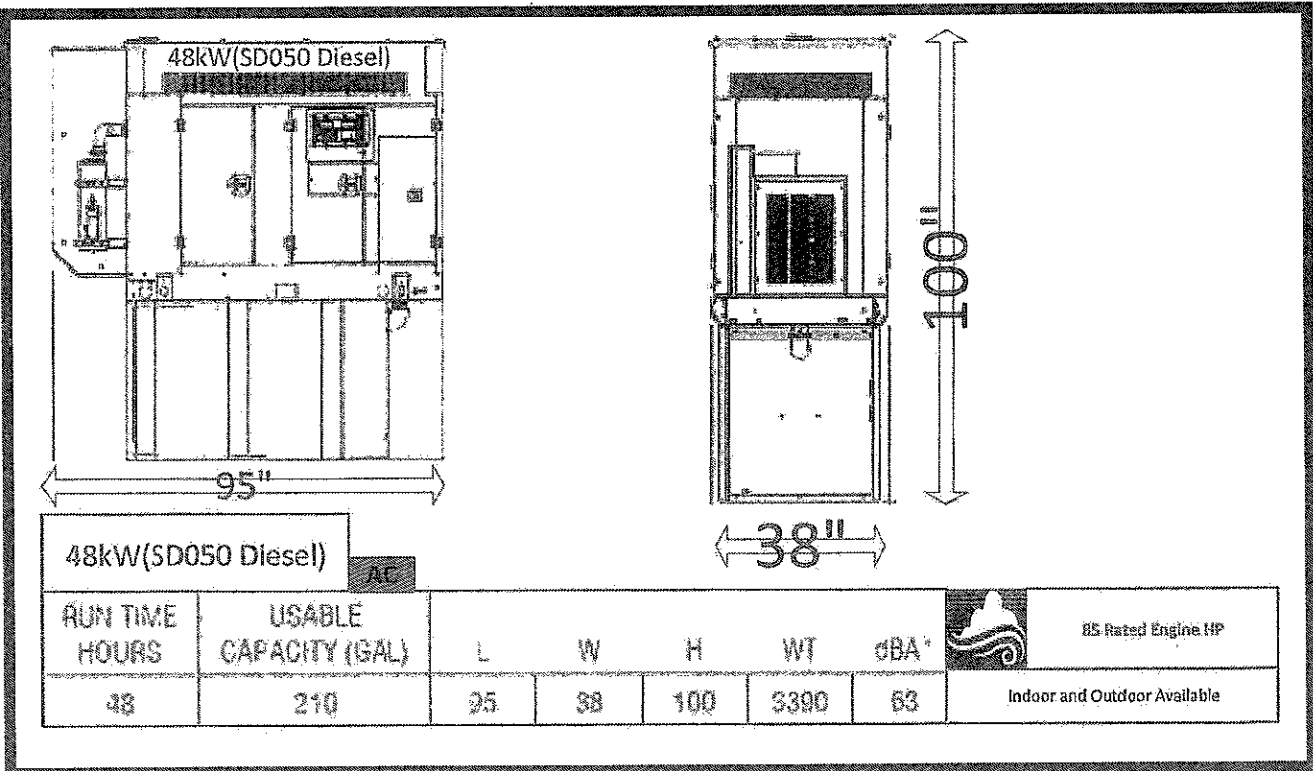


APPENDIX B

Generac 40kW & 48kW Diesel



40kW(SD030 Diesel)		AC						85 Rated Engine HP	
RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*	Indoor and Outdoor Available		
38	132	95	38	87	2986	70			
60	211	95	38	99	3195				



48kW(SD050 Diesel)		AC						85 Rated Engine HP	
RUN TIME HOURS	USABLE CAPACITY (GAL)	L	W	H	WT	dBA*	Indoor and Outdoor Available		
48	210	95	38	100	5390	63			

REFERENCE COPY

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
 CELLCO PARTNERSHIP
 1120 SANCTUARY PKWY #150 GASASREG
 ALPHARETTA, GA 30009-7630

Call Sign WQJQ694	File Number
Radio Service WU - 700 MHz Upper Band (Block C)	

FCC Registration Number (FRN): 0003290673

Grant Date 11-26-2008	Effective Date 01-14-2014	Expiration Date 06-13-2019	Print Date
Market Number REA006	Channel Block	Sub-Market Designator 0	
Market Name West			
1st Build-out Date 06-13-2013	2nd Build-out Date 06-13-2019	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

ULS License

700 MHz Upper Band (Block C) License - WQJQ694 - Cellco Partnership

PA This license has pending applications: 0006109255, 0005977860, 0005962233, 0005826931

Call Sign WQJQ694 Radio Service WU - 700 MHz Upper Band (Block C)

Status Active Auth Type Regular

Market

Market REA006 - West Channel Block C

Submarket 0 Associated Frequencies (MHz) 000746.00000000-000757.00000000-000776.00000000-000787.00000000

Dates

Grant 11/26/2008 Expiration 06/13/2019

Effective 01/14/2014 Cancellation

Buildout Deadlines

1st 06/13/2013 2nd 06/13/2019

Notification Dates

1st 2nd

Licensee

FRN 0003290673 Type General Partnership

Licensee

Cellco Partnership P:(770)797-1070
 1120 Sanctuary Pkwy, #150 GASA5REG F:(770)797-1036
 Alpharetta, GA 30009-7630 E:LicensingCompliance@VerizonWireless.com
 ATTN Regulatory

Contact

Verizon Wireless P:(770)797-1070
 Licensing Manager F:(770)797-1036
 LicensingCompliance@VerizonWireless.com E:LicensingCompliance@VerizonWireless.com
 Alpharetta, GA 30009-7630
 ATTN Regulatory

Ownership and Qualifications

Radio Service Mobile
 Type
 Regulatory Status Common Carrier Interconnected Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government? No

Is the applicant an alien or the representative of an alien? No

Is the applicant a corporation organized under the laws of any foreign government? No

Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? No

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? **Yes**

If the answer to the above question is 'Yes', has the applicant received a ruling(s) under Section 310(b)(4) of the Communications Act with respect to the same radio service involved in this application?

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender



Timberline In-depth Analysis

May 2015 – Verizon Wireless

RF Engineer: Katy Qian

SB14-014
EXHIBIT D



There are two main drivers that prompt the creation of a cell site project, coverage and/or capacity. Most sites provide a mixture of both, but increasingly some sites are pure capacity.

Coverage is the need for expanded service often requested by our customers or emergency services personnel. While this initially meant providing coverage in vehicles, as usage patterns have shifted this now means improving coverage inside of buildings and in residential areas.

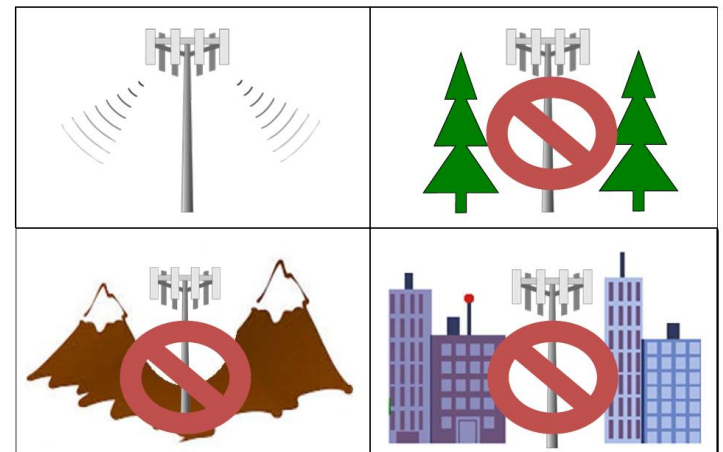
Capacity is the need for more bandwidth of service. In the simplest form this means a cell site can handle a limited number of voice calls, data mega bites, or total number of active users. When any one of these limits are met the user experience within the coverage area of that cell quickly starts to degrade during the busier hours of use.



Coverage is best shown in coverage maps.

Cell phone signal need line of sight. We use tools that take into account terrain, vegetation, building types, and cell site specifics to show predictions of the existing coverage and what we expect to see with a given cell site. The prediction models make some assumptions such as that the antennas are above the nearby ground clutter (Buildings and vegetation).

Once the antennas fall below the ground clutter the models become inaccurate and cannot tell that specific trees or buildings are blocking the RF signal. Due to this, modeling of tower height requirements is frequently not accurate and misleading.





Capacity is best shown in graphs of usage growth and projected exhaustion.

We utilize sophisticated programs to model current usage growth and project it into the future to determine when additional capacity will be required. The algorithms that predict capacity growth output numbers that are not easily explained. Since it takes 2-3 years on average to complete a cell site project, we are looking about 3 years into the future to meet future customer demand.

While data capacity may not seem urgent, beginning in 2014 voice traffic will begin to migrate from the older 3G voice technology to 4G VoLTE (Voice over IP). This will add additional load to the 4G network. Since voice is delay sensitive, exhaustion of the data network can cause degradation of voice calls including 911 calls.





“Why do you need a site here???”

A good capacity cell will be close to the user population and have the traffic evenly spread around the site. When we cannot get a location that accomplishes being close to the customers and central to the usage, we end up having to build additional cells to meet the demands for service. Capacity sites are generally lower in height than a coverage site with a full cell needing to be above the ground clutter and a small cell being one that is at or below the ground clutter.

Where our customers use their wireless devices continues to evolve. While we once needed to cover highways and business districts, we are seeing increasing issues with high growth in residential areas. Current statistics show that about 1 of 3 American households no longer have a landline phone. To serve this need we have to increase the cells we have in or very near residential areas.



“What technologies would this site provide?”

Verizon provides two networks - Voice (850 MHz CDMA) & Data (700 MHz and AWS LTE).

These are two separate networks that seem like one network to the customer. The customer devices will show signal from either of those networks (depending on the type of device they have).

The objective of this site is to improve the Data network.

700 MHz covers this area well, but is trending to be at capacity in 2015. An overloaded data network will result in lost connections and low throughput speeds. AWS is being added to this area to add capacity to the Data network.



Timberline Primary Objectives – Significant Gaps

HWY 431, or Mount Rose East Highway, is a popular route from north Tahoe to south Reno, especially during the ski/summer seasons. It is a very terrain limited area, due to the numerous mountaintops, the windy roads, and the trees that clutter our RF signal.

Timberline would cover majority of the south face of the highway going towards Tahoe.

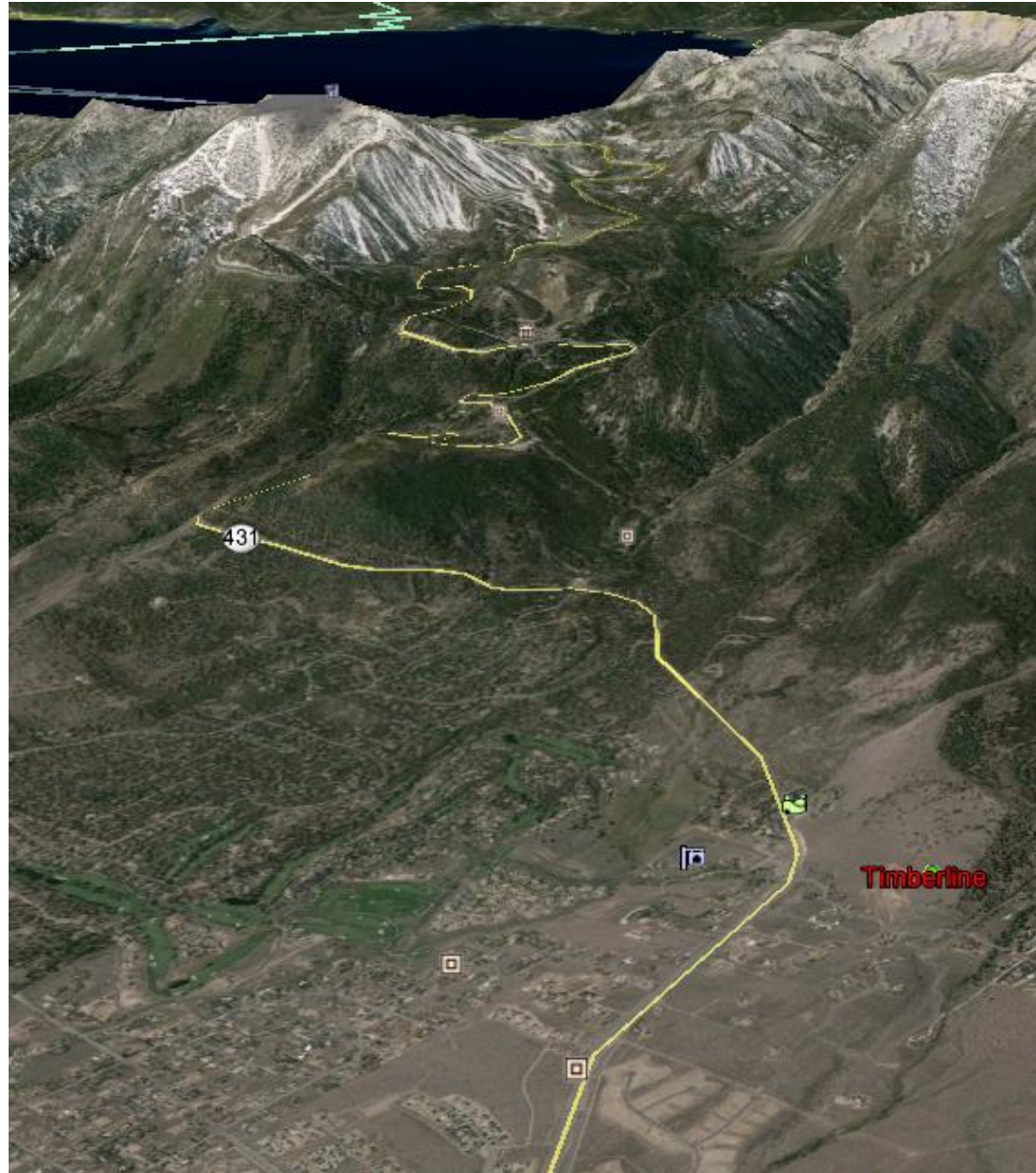
South Reno & the surrounding community is a large sprawl of residential and commercial properties that currently has weak to no cell phone coverage service. The nearest VZW cell sites are Wolf Run 5.25 miles NE, Steamboat 5.65 miles E, and Slide Mountain 5.45 SW miles away from the proposed Timberline site. Verizon receives frequent customer complaints in this area regarding coverage, such as dropped calls & low signal.

Timberline would add both coverage & capacity to greatly enhance customer experience in this area.

Alternative candidate ATT Colo, although has a similar tower height, has too low of an elevation to cover the significant gaps as effectively, especially in the South Reno area.



HWY 431 & South Reno community



SB14-014
EXHIBIT D



Detailed Coverage Map – Legend

The following are RSRP coverage map -
[Reference Signal Receive Power]

Green is from -70 to -80.
Represents in-building coverage.

Yellow is from -80 to -90.
Represents in-vehicle coverage.

Red is from -90 to -100.
Represents outdoor coverage.

Before Maps –

Shows the propagated coverage
EXCLUDING the site in question.

After Maps –

Shows the propagated coverage
INCLUDING the site in question.

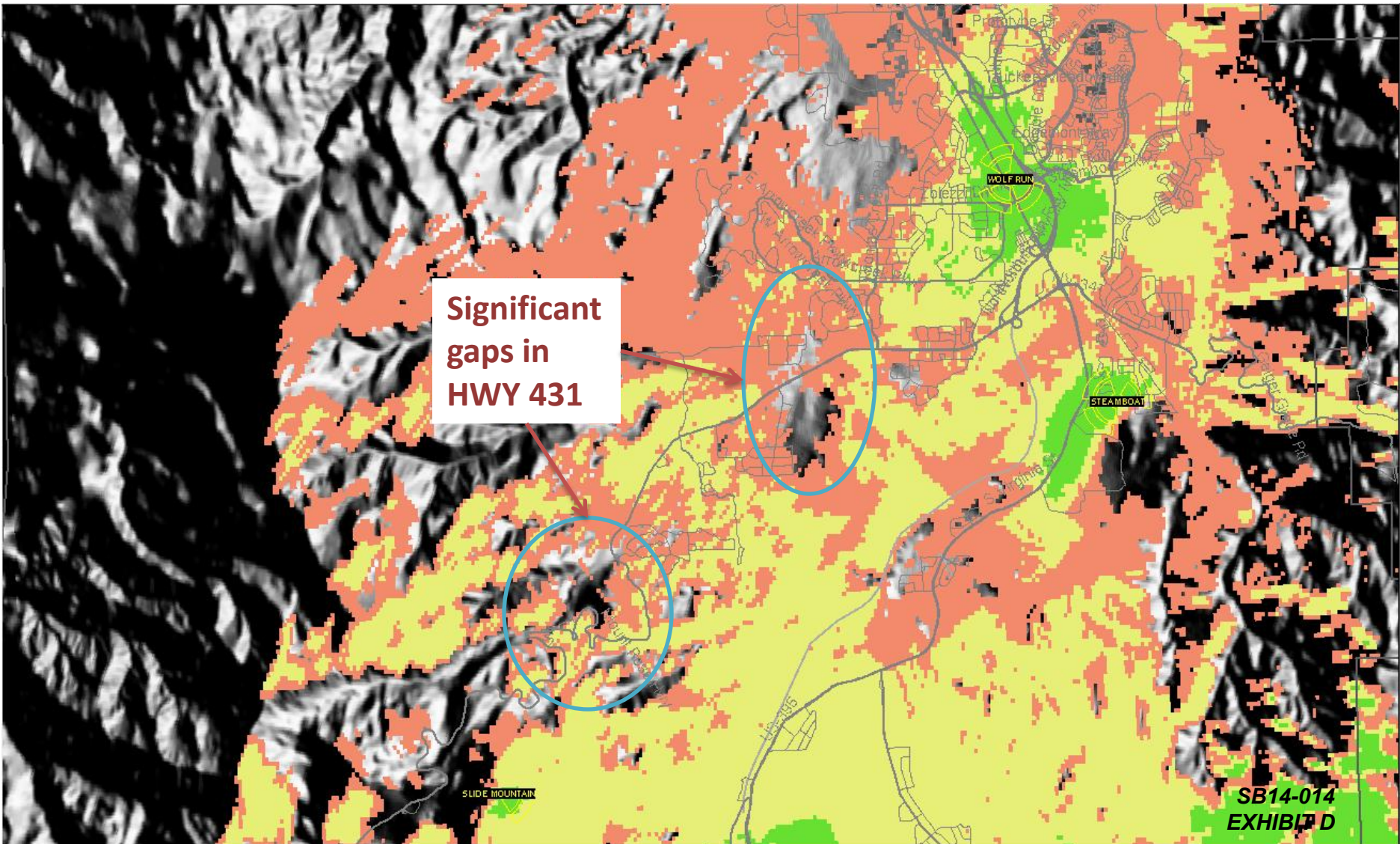
Only Maps –

Shows ONLY the propagated coverage of
the site in question.

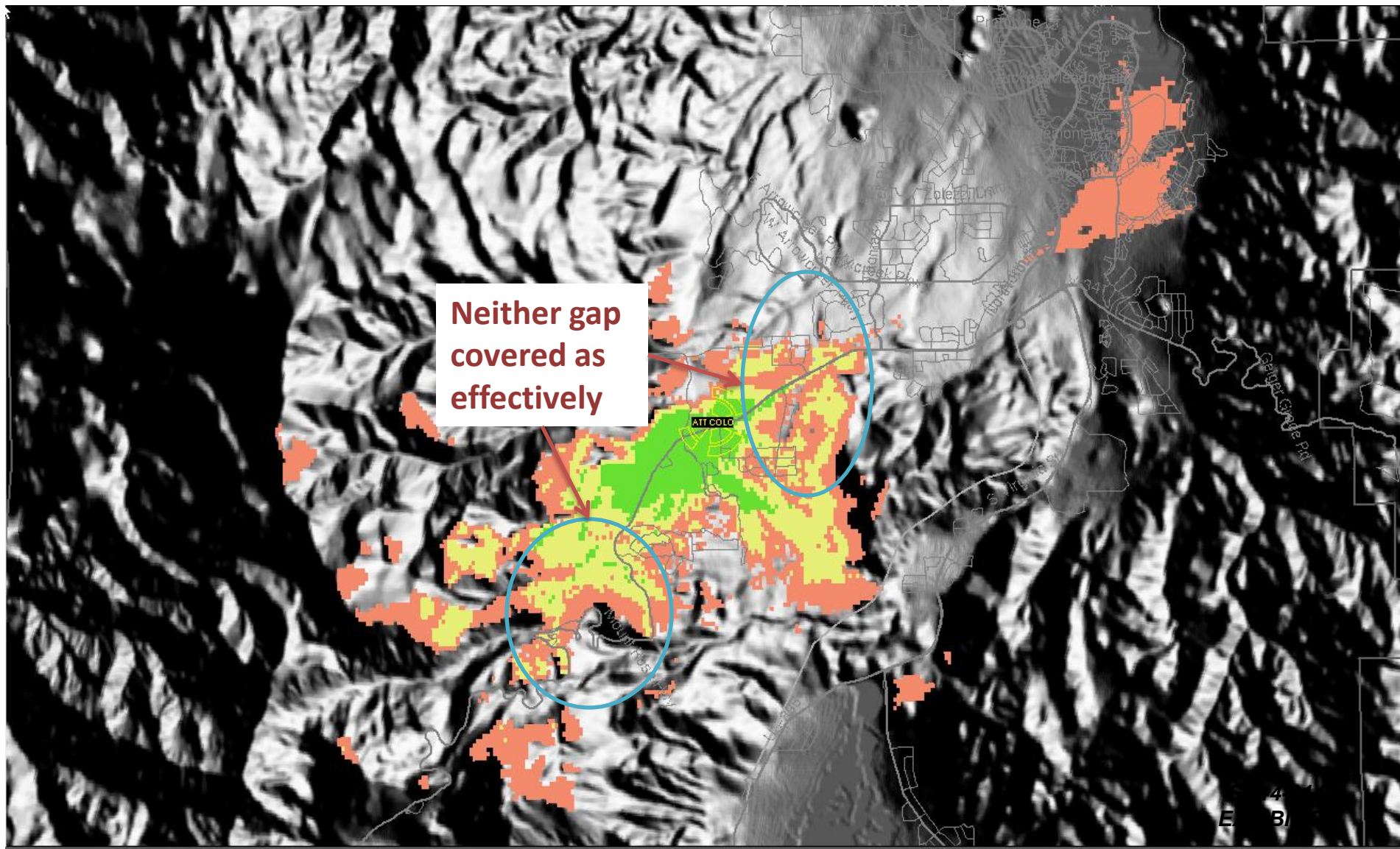
Note:

The surrounding sites are either existing
designs today, or future near-term
changes.

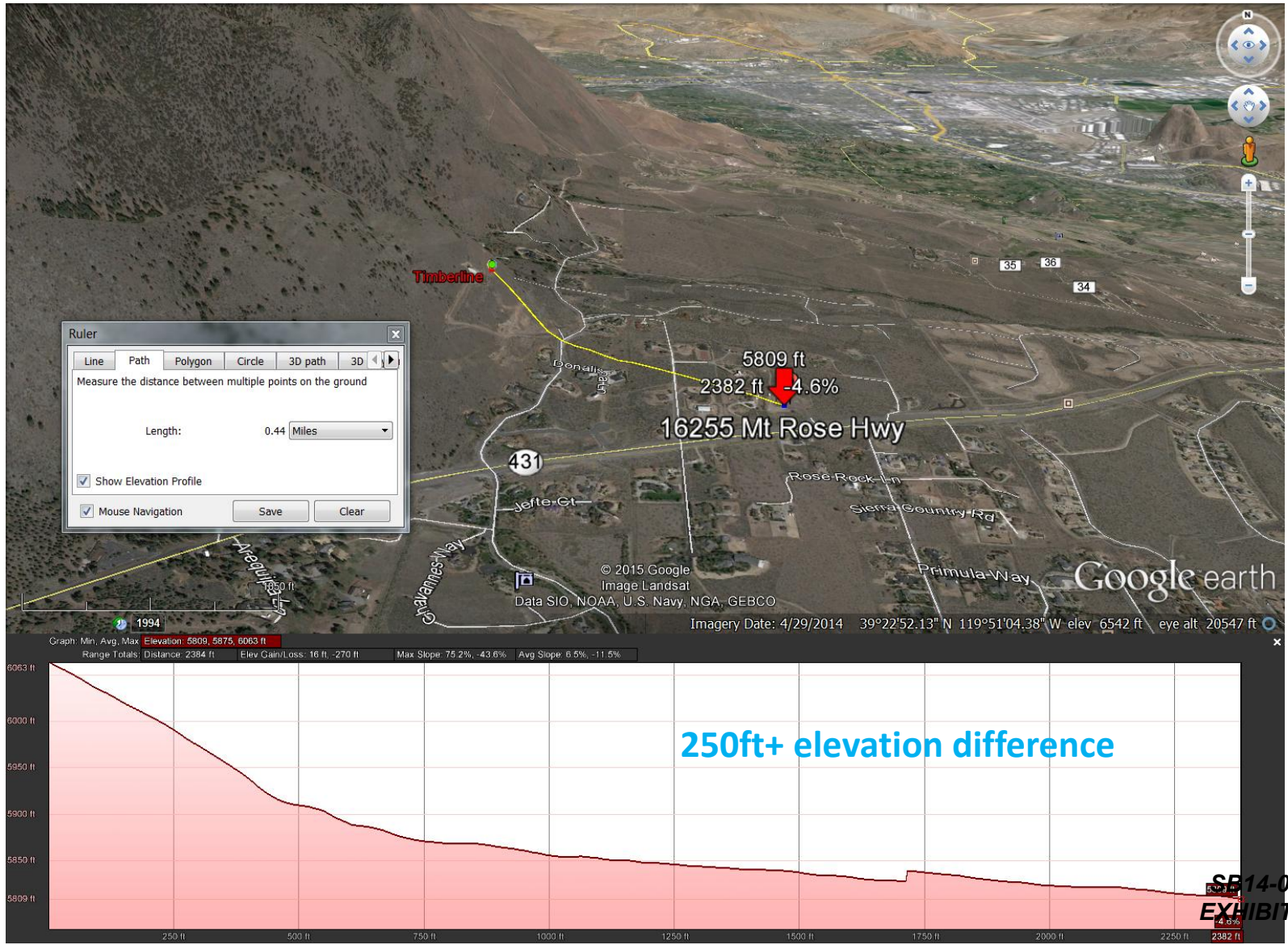
Before Maps Showing Gaps



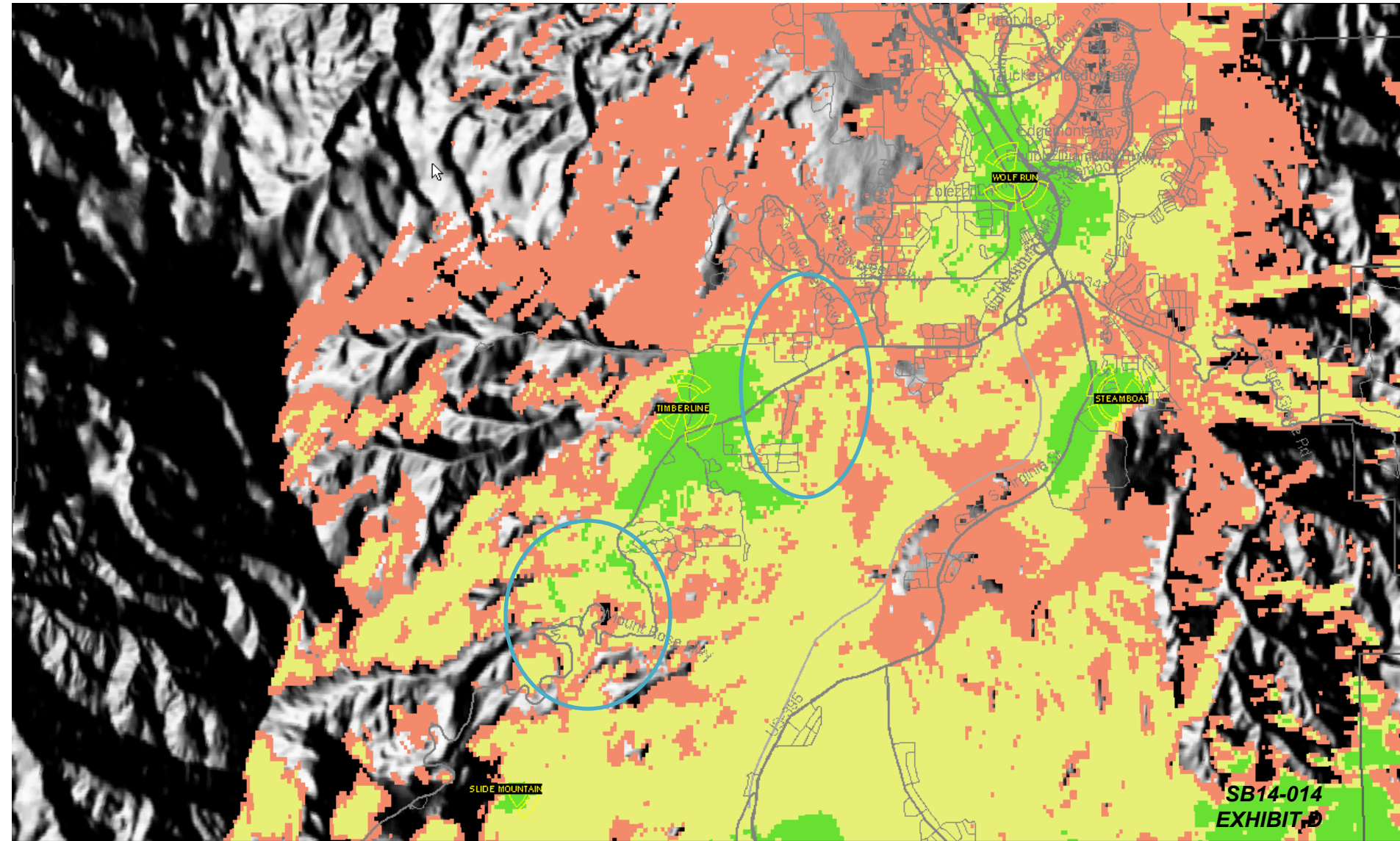
Alternate Candidate – ATT Colo



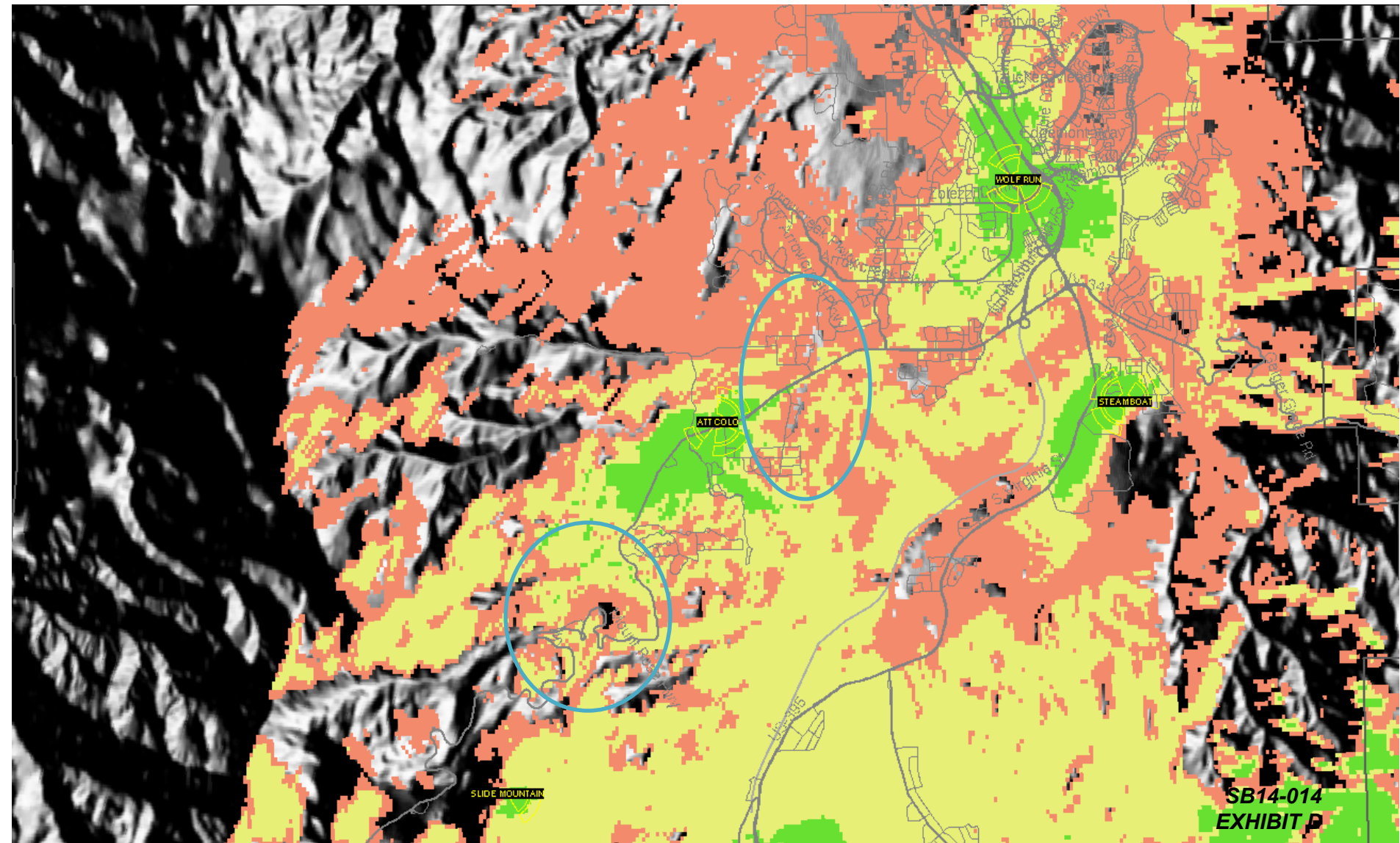
Google Earth Snapshot



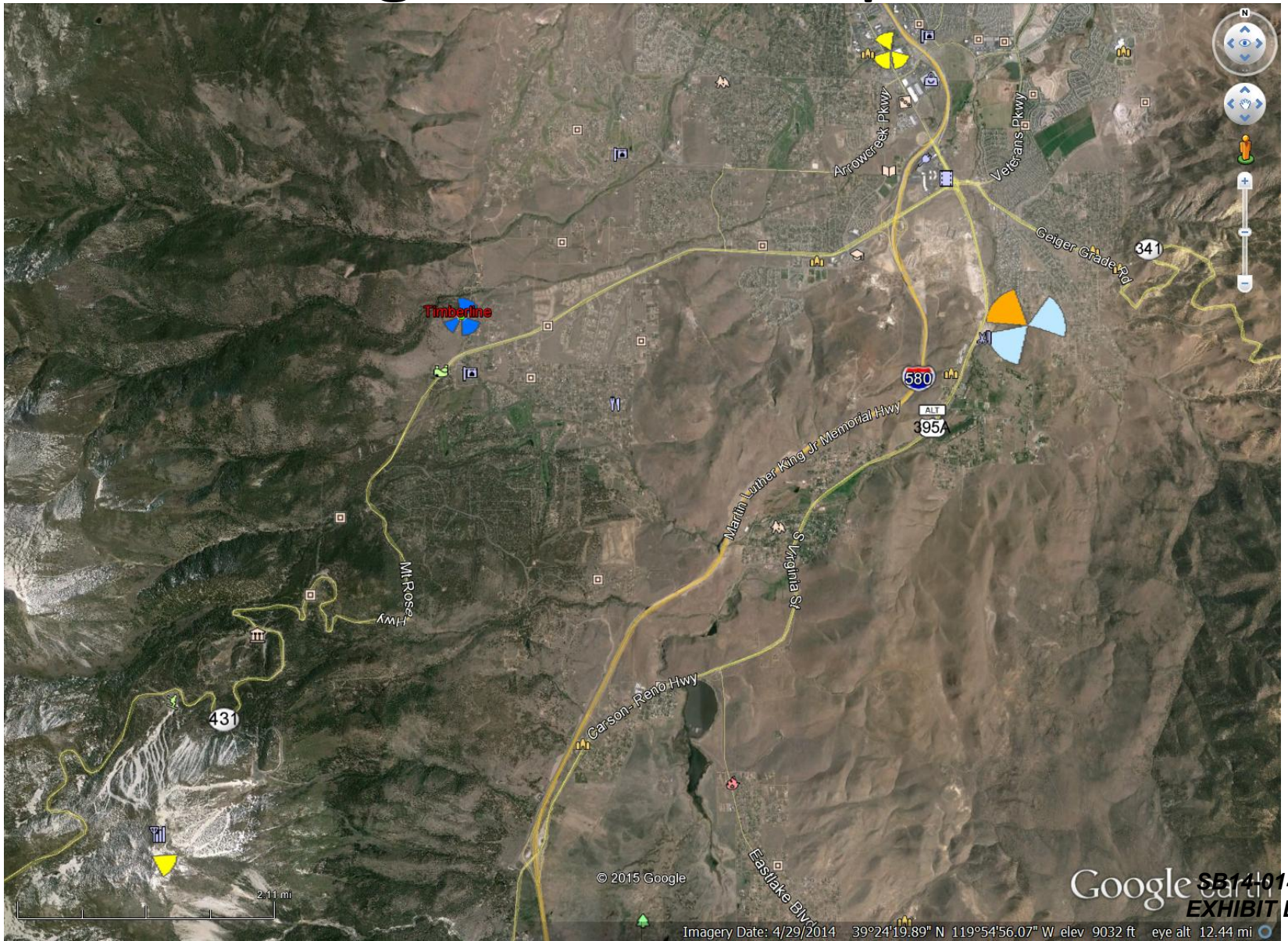
After Maps - Timberline



After Maps – ATT Colo



Google Earth Snapshot





**GEOTECHNICAL
INVESTIGATION
REPORT**

PROPOSED TELECOMMUNICATIONS FACILITY

**IGO, LOCATION #: 281996
NORTH OF SOUTH FORK ROAD
SHASTA COUNTY, CALIFORNIA
MPE NO. 02340-01**



MID PACIFIC ENGINEERING, INC.

REDDING
530-246-9499 p
530-246-9527 f

WEST SACRAMENTO
916-927-7000 p
916-372-9900 f

GEOTECHNICAL ENGINEERING | EARTHWORK TESTING | MATERIALS ENGINEERING AND TESTING | SPECIAL INSPECTIONS

February 27, 2015
MPE No. 02340-01

Mr. Bob Schroeder
Complete Wireless Consulting
2009 V Street
Sacramento, California 95818

**Subject: Geotechnical Investigation
Proposed Telecommunications Facility
Igo, Location #: 281996
North of South Fork Road
Shasta County, California**

Dear Mr. Schroeder:

Mid Pacific Engineering is pleased to present the attached geotechnical investigation report for a proposed telecommunications facility to be located north of South Fork Road in the Igo area of Shasta County, California. Results of our study indicate the site is not within a current Earthquake Fault Zone or other area known to possess a significant geologic risk to site development. Further, we anticipate conventional grading practices may be used for most site earthwork activities (if any) and that a mat foundation may be used for support of the proposed steel monopole towers; foundation support for the planned prefabricated equipment shelter may be provided using shallow spread footings and/or a mat foundation.

Though we anticipate the site may be developed generally using conventional grading and foundation construction techniques, it should be noted conditions were identified by our field exploration program that may require special design and/or construction provisions for some project components. A brief summary of these conditions, as well as possible design and/or construction provisions to address these potential concerns, are outlined below.

- Highly-weathered volcanic rock was initially encountered during our field exploration program at an approximate depth of 1½ feet below existing site grade. In our opinion, the presence of shallow rock will hinder some site excavations, necessitating

the use of a mat foundation to support the planned tower (i.e., a drilled pier foundation system would not be applicable for this site).

- The presence of shallow rock may also impact trench (and other shallow) excavations into these materials. In our opinion a large, track-mounted excavator, possibly equipped with a single ripper tooth, hydraulic percussion hammer, rock wheel, or other similar equipment specifically intended for rock removal may be required to advance excavations within some areas of the site or which extend to deeper depths.
- In addition to excavation difficulties, perched water may develop above on-site rock subsequent to wet weather. The presence of perched groundwater could hinder trenching operations and may necessitate the use of a sump or other type of dewatering system for some trench and/or other earthwork excavations.

Specific comments regarding the conditions outlined above, as well as recommendations regarding the geotechnical aspects of project design and construction, are presented in the following report.

We appreciate the opportunity of providing our services for this project. If you have questions regarding this report or if we may be of further assistance, please contact the undersigned.

Sincerely,

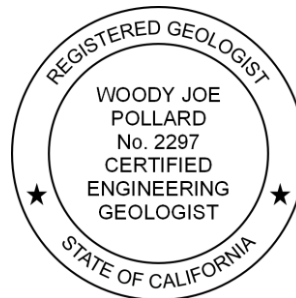
Mid Pacific Engineering, Inc.



Todd Kamisky, P.E. 02/27/2015
Principal Engineer



Woody Joe Pollard, C.E.G. 02/18/2015
Project Geologist



cc: Client

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FIGURES 1 THROUGH 5



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**GEOTECHNICAL INVESTIGATION REPORT
PROPOSED TELECOMMUNICATIONS FACILITY
IGO, LOCATION #: 281996
NORTH OF SOUTH FORK ROAD
SHASTA COUNTY, CALIFORNIA
MPE NO. 02340-01**

INTRODUCTION

GENERAL

This report presents the results of our geotechnical investigation for a proposed telecommunications facility to be located north of South Fork Road in the Igo area of Shasta County, California. The purpose of our investigation was to explore and evaluate the subsurface conditions at the site in order to develop recommendations related to the geotechnical aspects of project design and construction.

The project site is located within the southeast portion of the United States Geological Survey (USGS) 7.5 minute *Igo quadrangle* at coordinates¹ N 40° 30' 19" (40.5053), W 122° 32' 40" (122.5445). The approximate site location relative to existing topographic features and roads is shown on Figure 1.

PROPOSED CONSTRUCTION

We understand the proposed project will involve construction of a telecommunications facility which will include the installation a 106-foot-high, steel tower (configured to resemble an elevated water storage tank) as well as a prefabricated equipment shelter supported-on-grade. Appurtenant construction may include underground utilities and possibly a partially-improved site access roadway.

Plans indicating final site grades were not available at the time this report was prepared; however, as existing site topography is relatively level, we anticipate minimal earthwork cuts

¹ Datum reference: North American Datum of 1983.

and fills (i.e., less than approximately one to two feet in vertical extent) will be required for this project. Excavations for below-grade utilities are not anticipated to exceed approximately five feet below existing and final site grades.

A Test Pit Location Map indicating the proposed project area is presented on Figure 2.

SCOPE OF SERVICES

The scope of our services was outlined in our proposal dated February 10, 2015, and included the following:

- ▶ Review readily available (and relevant) literature pertaining to site geology, faulting, and seismicity.
- ▶ Exploration of the subsurface conditions at the site through the excavation of one exploratory test pit.
- ▶ Preparation of this report which includes:
 - A description of the proposed project;
 - A summary of our field exploration program;
 - A description of site surface and subsurface conditions encountered during our field investigation;
 - Our comments regarding potential geologic hazards which could affect the site or proposed project;
 - California Building Code (CBC, 2013 edition) seismic parameters; and
 - Recommendations related to the geotechnical aspects of site preparation and engineered fill, temporary excavations and trench backfill, foundation design and construction, concrete slabs supported-on-grade, and a partially-improved site access roadway.

FIELD INVESTIGATION

Subsurface conditions at the site were explored on February 19, 2015, by excavating one test pit to an approximate depth of ten feet below existing site grade. The test pit was excavated using a Bobcat 435 ZHS, track-mounted excavator equipped with a 24-inch-wide bucket. The approximate location of the test pit excavated for this investigation is shown on Figure 2.

Our geologist maintained a log of the test pit, visually classified the soils and rock encountered according to the Unified Soil Classification System (see Figure 3) or Rock Classification Legend (see Figure 4), respectively, and obtained representative samples of the subsurface materials. After the test pit was completed, it was loosely backfilled with the excavated material. A log of the exploratory test pit excavated for this investigation is presented on Figure 5.

SITE CONDITIONS

GEOLOGY AND SEISMICITY

Geologic Setting

The project site is located near the boundary between the northern portion of the Great Valley and Coast Range geomorphic provinces of California. The Great Valley province is comprised of a large elongated northwest-trending asymmetric structural trough that has been filled with a tremendously thick sequence of sediments ranging in age from Jurassic to Recent. The Great Valley is bounded on the east by the Sierra Nevada Mountains, on the north by the Klamath Mountains and the Cascade Ranges, and on the west by the Coast Ranges. Sediments that form the thick valley section were largely derived from erosion of these surrounding mountain ranges.

The geologic structure of the Coast Range province is complex, having been molded by numerous mountain building events characterized by extensive folding, faulting, and fracturing of variable intensity. Regionally, these folds and faults trend northwesterly and are responsible for the development of a pronounced northwest trending ridge-valley system.

Based on our review of the USGS map titled: "*Digital Geologic Map of the Redding 1°X2° Degree Quadrangle, Shasta, Tehama, Humboldt, and Trinity Counties, California*," compiled by

L.A. Fraticelli, J.P. Albers, W.P. Irwin, M.C. Blake, Jr., and C.M. Wentworth," (published 2012), the project site lies within an area of Devonian-age volcanic rock.

Faulting and Seismicity

The project site is located within a region of California characterized by minor active faulting. The closest, active² fault mapped by the California Geological Survey (CGS)³ is the Battle Creek fault, located approximately 20.2 miles east-southeast of the site.

SURFACE

The project site consists of a rectangular-shaped area located north of South Fork Road in the Igo area of Shasta County, California. The site is bounded to all sides by undeveloped, cattle grazing land. At the time of our field investigation, the site area was dirt, rock, low grasses, and weeds. Existing topography within the immediate site area was relatively level.

SUBSURFACE

Earth materials encountered in the test pit excavated for this investigation consisted predominantly of soft silt to an approximate depth of 18 inches below existing site grade. Below these near-surface soils, highly to moderately weathered, friable to moderately strong volcanic rock was encountered to the maximum depth explored (approximately ten feet below existing site grade).

No free groundwater was encountered during our field investigation. However, groundwater conditions can vary depending on the season, precipitation, runoff conditions, irrigation and/or groundwater pumping practices (both on and off site), the level of nearby bodies of water, and possibly other factors. Further, during the winter or spring season, or shortly after significant precipitation, perched groundwater (or groundwater seepage) may be present above on-site rock. Therefore, groundwater conditions presented in this report may not be representative of those which may be encountered during or subsequent to construction.

² Within this report, a fault is considered active if there is evidence of Holocene (i.e., within the past 10,000 to 12,000 years) surface displacement along one or more of its segments or branches.

³ Reference: California Geological Survey map titled "2010 Fault Activity Map of California and Adjacent Areas," compiled by Charles W. Jennings and William A. Bryant, published 2010.

A more detailed description of the subsurface conditions encountered during our field investigation is provided on the attached log.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

Results of our study indicate the site is not within a current Earthquake Fault Zone or other area known to possess a significant geologic risk to site development. Further, we anticipate conventional grading practices may be used for most site earthwork activities (if any) and that a mat foundation may be used for support of the proposed steel monopole towers; foundation support for the planned prefabricated equipment shelter may be provided using shallow spread footings and/or a mat foundation.

Though we anticipate the site may be developed generally using conventional grading and foundation construction techniques, it should be noted conditions were identified by our field exploration program that may require special design and/or construction provisions for some project components. A brief summary of these conditions, as well as possible design and/or construction provisions to address these potential concerns, are outlined below.

- Highly-weathered volcanic rock was initially encountered during our field exploration program at an approximate depth of 1½ feet below existing site grade. In our opinion, the presence of shallow rock will hinder some site excavations, necessitating the use of a mat foundation to support the planned tower (i.e., a drilled pier foundation system would not be applicable for this site).
- The presence of shallow rock may also impact trench (and other shallow) excavations into these materials. In our opinion a large, track-mounted excavator, possibly equipped with a single ripper tooth, hydraulic percussion hammer, rock wheel, or other similar equipment specifically intended for rock removal may be required to advance excavations within some areas of the site or which extend to deeper depths.
- In addition to excavation difficulties, perched water may develop above on-site rock subsequent to wet weather. The presence of perched groundwater could hinder trenching operations and may necessitate the use of a sump or other type of dewatering system for some trench and/or other earthwork excavations.

Specific comments regarding the conditions outlined above, as well as recommendations regarding the geotechnical aspects of project design and construction, are presented in the following sections of this report.

GEOLOGIC HAZARDS

Ground Rupture

No active faults are known to cross the site area, nor is the site within a current Alquist-Priolo Earthquake Fault Zone. Therefore, it is our professional opinion that the potential for ground rupture (or other similar effect) at the site in the event of a seismic event is unlikely.

CBC Seismic Design Parameters

In the event the California Building Code (CBC, 2013 edition) is used for seismic design, it is our opinion encountered subsurface conditions (and those suspected below the maximum depth explored) would warrant a Type C (i.e., Very Dense Soil and Soft Rock) Site Classification. Further, using software provided by the United States Geological Survey (i.e. USGS computer program *United States Seismic Design Maps* (v3.1.0 - 7-11-13)), site-specific spectral response acceleration parameters were obtained for the maximum considered earthquake and are summarized in the table below.

Spectral Response Acceleration Parameters		Value
Mapped spectral acceleration for short periods	S_S	0.714g
Mapped spectral acceleration at 1-second period	S_1	0.335g
Site coefficient for short periods	F_a	1.114
Site coefficient at 1-second period	F_v	1.465
Adjusted earthquake spectral response acceleration for short periods	S_{MS}	0.796g
Adjusted earthquake spectral response acceleration at 1-second period	S_{M1}	0.491g
Design earthquake spectral response acceleration for short periods	S_{DS}	0.531g
Design earthquake spectral response acceleration at 1-second period	S_{D1}	0.327g

Liquefaction

Liquefaction is a phenomenon whereby loose, saturated, granular soil deposits lose a significant portion of their shear strength due to excess pore water pressure buildup resulting from cyclic loading, such as that caused by an earthquake. Among other effects, liquefaction can result in densification of such deposits after an earthquake as excess pore pressures are dissipated (and hence settlements of overlying deposits). The primary factors deciding liquefaction potential of a soil deposit are: (1) the level and duration of seismic ground motions; (2) the type and consistency of the soils; and (3) the depth to groundwater.

Subsurface earth materials encountered during our field investigation generally consisted of soft silt underlain (at a relatively shallow depth) by highly to moderately weathered, friable to moderately strong volcanic rock. No free groundwater was encountered during our field investigation.

Given the presence of shallow rock encountered during our field investigation, it is our professional opinion that the potential for liquefaction at the site during or subsequent to a seismic event is unlikely.

Ground Subsidence

Ground subsidence within the site area would typically be due to densification of subsurface soils during or subsequent to a seismic event. Generally, loose, granular soils would be most susceptible to densification, resulting in ground subsidence.

Given the presence of shallow rock encountered during our field investigation, it is our professional opinion that the potential for significant ground subsidence at the site during or subsequent to a seismic event is unlikely.

Landslides

The project site is located within an area of relatively level topography. Since earthwork grading for the project will likely only result in sloped or braced excavations, it is our professional opinion that landsliding is unlikely at the site and that earthwork grading (if implemented using accepted construction practices) should not result in a potential for slope instability within or in the immediate vicinity of the site.

SHALLOW ROCK

Highly to moderately weathered, friable to moderately strong volcanic rock was encountered in the test pit excavated for this investigation at an approximate depth of 18 inches below existing site grade. Based on this experience, as well as our general knowledge of the site area, we anticipate trench (and other shallow) excavations into these materials may be difficult with a conventional backhoe. Therefore, a large, track-mounted excavator, possibly equipped with a single ripper tooth, hydraulic percussion hammer, rock wheel, or other similar equipment specifically intended for rock removal may be required to advance excavations within some areas of the site or which extend to deeper depths.

In addition to excavation difficulties, perched water may develop above on-site rock subsequent to wet weather. The presence of perched groundwater could hinder trenching operations and may necessitate the use of a sump or other type of dewatering system for some trench and/or other earthwork excavations (see section below titled: “TEMPORARY DEWATERING”).

SITE PREPARATION

Stripping

Within the area of proposed construction, any existing vegetation, organic soil, or debris should be stripped and disposed of off-site or outside the construction limits. In the event organic soils or tree roots are encountered (or suspected) at or beneath the stripped surface, deep stripping or grubbing will be required to remove these (or other similar) deleterious materials.

Exploratory Test Pit Backfill

Backfill used to fill the exploratory test pit excavated for this investigation was loosely-placed and, therefore, may be compressible or susceptible to future subsidence. If planned improvements will be located over this area, we recommend all backfill associated with this test pit be excavated and replaced with engineered fill. The approximate location of the test pit excavated for this investigation is shown on Figure 2.

Scarification and Compaction

If engineered fill is required for this project, we recommend the ground surface upon which this fill will be placed be scarified to a depth of eight inches, uniformly moisture-conditioned

to between 0 and 5 percent above the optimum moisture content, and compacted to at least 90 percent of the maximum dry density as determined by ASTM (American Society for Testing and Materials) Test Method D 1557⁴. In the event the exposed subgrade consists of undisturbed on-site rock, scarification and compaction may be omitted if approved by the project Geotechnical Engineer.

Overexcavation of Loose or Disturbed Material

Within areas grubbed or otherwise disturbed below an approximate depth of 12 inches, in-place scarification and compaction may not be adequate to densify all disturbed soil. Therefore, overexcavation of the disturbed soil, scarification and compaction of the exposed subgrade, and replacement with engineered fill may be required in these areas.

Existing Utilities

If abandoned (or to be abandoned), below-grade utility lines, septic tanks, cesspools, wells, and/or foundations are encountered or are known to exist within the area of construction, they should be removed and disposed of off-site. Existing, below-grade utility pipelines (if any) which extend beyond the limits of the proposed construction and will be abandoned in-place should be plugged with cement grout to prevent migration of soil and/or water. All excavations resulting from removal activities should be cleaned of all loose or disturbed material (including previously-placed backfill) prior to placing any fill or backfill.

TEMPORARY DEWATERING

Though no free groundwater was encountered during our field investigation, we anticipate even shallow excavations may encounter groundwater perched over on-site rock during or subsequent to wet weather. If perched groundwater is encountered during construction, dewatering may be required to facilitate construction. In our opinion dewatering of narrow trench excavations which penetrate less than a few feet below the groundwater surface and do not encounter loose and/or cohesionless soil or highly-fractured rock may be possible using a sump system. Dewatering of more extensive excavations, or excavations which encounter loose and/or cohesionless soil or highly-fractured rock, will likely require well points, deep wells, and/or deep sumps. To help maintain the stability of these types of

⁴ This test procedure should be used wherever relative compaction, maximum dry density, or optimum moisture content is referenced within this report.

excavations, groundwater levels should be drawn-down a minimum of two feet below the lowest portion of the excavation prior to excavating.

Since temporary dewatering will impact and be dependent on construction methods and scheduling, we recommend the contractor be solely responsible for the design, installation, maintenance, and performance of all temporary dewatering systems. Further, perched water conditions can be highly dependent on the season, precipitation, runoff conditions, and possibly other factors. Therefore, groundwater conditions presented in this report may not be representative of those which may be encountered at the time of construction. We recommend the contractor verify groundwater conditions and evaluate dewatering requirements prior to bidding and/or construction.

TEMPORARY EXCAVATIONS

General

All excavations must comply with applicable local, state, and federal safety regulations including the current OSHA Excavation and Trench Safety Standards. Construction site safety generally is the responsibility of the contractor, who should be solely responsible for the means, methods, and sequencing of construction operations.

Construction Considerations

Construction equipment, building materials, excavated soil, vehicular traffic, and other similar loads should not be allowed near the top of any unshored or unbraced excavation. Where the stability of adjoining buildings, walls, pavements, or other similar improvements is endangered by excavation operations, support systems such as shoring, bracing, or underpinning may be required to provide structural stability and to protect personnel working within the excavation. Since excavation operations are dependent on construction methods and scheduling, the contractor should be solely responsible for the design, installation, maintenance, and performance of all shoring, bracing, underpinning, and other similar systems. Under no circumstances should comments provided herein be inferred to mean that Mid Pacific Engineering is assuming any responsibility for temporary excavations, or for the design, installation, maintenance, and performance of any shoring, bracing, underpinning, or other similar systems.

During wet weather, earthen berms or other methods should be used to prevent runoff water from entering all excavations. All runoff water within or adjacent to any excavations should be collected and disposed of outside the construction limits.

Excavation Conditions

Shallow rock was encountered in the test pit excavated for this investigation at an approximate depth of 18 inches below existing site grade. Based on this experience, as well as our general knowledge of the site area, we anticipate trench (and other shallow) excavations into these materials may be difficult with a conventional backhoe. Therefore, a large, track-mounted excavator, possibly equipped with a single ripper tooth, hydraulic percussion hammer, rock wheel, or other similar equipment specifically intended for rock removal may be required to advance excavations within some areas of the site or which extend to deeper depths.

In addition to excavation difficulties, perched water may develop above on-site rock subsequent to wet weather. The presence of perched groundwater could hinder trenching operations and may necessitate the use of a sump or other type of dewatering system for some trench and/or other earthwork excavations (see section above titled: "TEMPORARY DEWATERING").

TRENCH BACKFILL**Materials**

Pipe zone backfill (i.e., material beneath and in the immediate vicinity of the pipe) should consist of on-site or imported soil and/or soil-aggregate mixtures generally less than one inch in maximum dimension and free of organic or other deleterious debris; trench zone backfill (i.e., material placed between the pipe zone backfill and finished subgrade) may consist of on-site soil or processed rock⁵, generally less than three inches in maximum dimension and free of organic or other deleterious debris.

If imported material is used for pipe or trench zone backfill, we recommend it not consist of gravel due to the potential for soil migration into, and water seepage along, trenches backfilled with this type of material.

Recommendations provided above for pipe zone backfill are minimum requirements only. More stringent material specifications may be required to fulfill local codes and/or bedding

⁵ On-site rock may require special handling and or processing to reduce the size of the excavated material.

requirements for specific types of pipe. We recommend the project Civil Engineer develop these material specifications based on planned pipe types, bedding conditions, and other factors beyond the scope of this study.

Placement and Compaction

Trench backfill should be uniformly moisture-conditioned to between 0 and 5 percent above the optimum moisture content, placed in horizontal lifts less than eight inches in loose thickness, and compacted to at least 90 percent relative compaction. Within pavement areas, trench backfill should be compacted to at least 95 percent relative compaction within 12 inches of finished subgrade⁶. Mechanical compaction is strongly recommended; ponding or jetting should not be allowed unless specifically reviewed and approved by the project Geotechnical Engineer prior to construction.

Important Note: All pipe zone backfill should be placed on undisturbed earth materials. In the event earth materials located directly beneath the planned pipe zone backfill are disturbed during construction, these materials should either be compacted in-place (if the depth of disturbance is less than approximately 12 inches deep), or removed (if the depth of disturbance is greater than approximately 12 inches) and replaced in accordance with recommendations provided above for trench backfill.

ENGINEERED FILL

Materials

As site topography within the area of planned improvements is relatively level, we anticipate little-to-no earthwork grading will be performed for this project. However, some fill may be required to backfill around foundations or for other purposes. If required, we recommend this material consist of on-site or imported⁷ soil, processed on-site rock, and/or soil-aggregate mixtures generally less than three inches in maximum dimension, nearly-free of organic or other deleterious debris, and essentially non-plastic. Typically, well-graded mixtures of gravel, sand, non-plastic silt, and small quantities of clay and/or rock fragments would be acceptable for use as engineered fill.

⁶ Within this report, finished subgrade refers to the top surface of undisturbed on-site rock, on-site soil compacted during site preparation, compacted trench backfill, and/or engineered fill.

⁷ All imported soil and/or soil-aggregate mixtures used for engineered fill should be sampled, tested and approved by the project Geotechnical Engineer prior to being transported to the site.

Placement and Compaction

Soil, processed on-site rock, and/or soil-aggregate mixtures used for engineered fill should be uniformly moisture-conditioned to between 0 and 5 percent above the optimum moisture content, placed in horizontal lifts less than eight inches in loose thickness, and compacted to at least 90 percent relative compaction. In pavement areas, engineered fill placed within 12 inches of finished subgrade should be compacted to at least 95 percent relative compaction.

TOWER FOUNDATION - MAT

General

Due to the presence of on-site rock, we anticipate it would be difficult to construct a conventional drilled, cast-in-place concrete pier foundation to support the planned tower. Hence, provided below are geotechnical parameters for the design and construction of a mat foundation. In general, we recommend this proposed mat be constructed of reinforced concrete, a minimum of five feet wide, embedded at least three (but no more than approximately five) feet below the lowest adjacent final subgrade⁸, and founded on undisturbed on-site rock.

Allowable Bearing Pressure

An allowable bearing pressure of 3,000 pounds per square foot (psf) may be used for the design of a mat foundation with the above minimum dimensions. The allowable bearing pressure provided is a net value; therefore, the weight of the foundation (which extends below finished subgrade) may be neglected when computing dead loads. The allowable bearing pressure provided herein applies to dead plus live loads, includes a calculated factor of safety of at least three, and may be increased by 1/3 for short-term loading due to wind or seismic forces. For a mat foundation subject to overturning, the maximum edge pressure should not exceed the allowable bearing pressure.

⁸ Within this report, final subgrade refers to the top surface of undisturbed on-site soil or rock, on-site soil compacted during site preparation, and/or engineered fill.

Estimated Settlement

Based on anticipated foundation dimensions and loads, we estimate maximum settlement of the proposed mat foundation to be on the order of ½ inch. Settlement of this foundation is expected to occur rapidly, and should be essentially complete shortly after initial application of the loads.

Overturning Resistance

Overturning tower forces may be resisted by the weight of the proposed concrete mat foundation (and any soil and/or processed on-site rock placed over this foundation) and edge bearing of the foundation on undisturbed on-site rock. If soil (and/or processed on-site rock) is to be placed over the proposed mat, the unit weight of this material may be taken as 100 pounds per cubic foot.

Lateral Resistance

Resistance to lateral loads (including those due to wind or seismic forces) may be provided by frictional resistance between the bottom of the proposed concrete mat foundation and the underlying rock, and by passive earth pressure against the sides of the foundation. A coefficient of friction of 0.3 may be used between cast-in-place concrete foundations and the underlying rock; passive pressure available in undisturbed on-site soil, rock, and/or engineered fill may be taken as equivalent to the pressure exerted by a fluid weighing 280 pounds per cubic foot (pcf). To account for the possible future loss of subgrade support due to surface disturbance, we recommend earth materials located within the uppermost one foot of the embedded portion of the proposed tower mat foundation be neglected when evaluating passive resistance.

Friction and passive pressure parameters provided above are ultimate values. Therefore, a suitable factor of safety should be applied to these values for design purposes. The appropriate factor of safety will depend on the design condition and should be determined by the project Structural Engineer. Depending on the application, typical factors of safety could range from 1.0 to 1.5. Frictional and passive resistance may be used in combination, provided a suitable factor of safety is applied to these values during design.

Construction Considerations

Prior to placing steel or concrete, the excavation for the proposed tower mat foundation should be cleaned of all debris, loose or disturbed rock, and any water.

EQUIPMENT SHELTER FOUNDATIONS

General

Foundation support for the planned equipment shelter may be provided using either spread footings or a mat foundation (mat foundations should typically consist of a slab with thickened edges). In general, these proposed foundations should be constructed of reinforced concrete and founded on undisturbed native soil, on-site rock, and/or engineered fill. In addition, we recommend all spread footings be a minimum of 18 inches wide and embedded a minimum of 18 inches below the lowest adjacent final subgrade; the thickened edge of all mat slab foundations should also be embedded a minimum of 18 inches below the lowest adjacent final subgrade.

Allowable Bearing Pressure

An allowable bearing pressure of 1,500 pounds per square foot (psf) may be used for the design of proposed spread and/or mat foundations which possess the above minimum dimensions. The allowable bearing pressure provided is a net value; therefore, the weight of the foundation (which extends below finished subgrade) may be neglected when computing dead loads. The allowable bearing pressure provided herein applies to dead plus live loads, includes a calculated factor of safety of at least three, and may be increased by 1/3 for short-term loading due to wind or seismic forces. For mat foundations subject to overturning forces, the maximum edge pressure should not exceed the allowable bearing pressure.

Lateral Resistance

Resistance to lateral loads (including those due to wind or seismic forces) may be provided by frictional resistance between the bottom of proposed concrete foundations and the underlying soil or rock, and by passive earth pressure against the sides of the foundations. A coefficient of friction of 0.3 may be used between cast-in-place concrete foundations and the underlying soil or rock; passive pressure available in undisturbed native soil, on-site rock, and/or engineered fill may be taken as equivalent to the pressure exerted by a fluid weighing 280 pounds per cubic foot (pcf). To account for possible future loss of subgrade support due to surface disturbance, we recommend earth materials located within the uppermost six inches of the embedded portion of all shallow foundations be neglected when evaluating passive pressures.

Lateral resistance parameters provided above are ultimate values. Therefore, a suitable factor of safety should be applied to these values for design purposes. The appropriate

factor of safety will depend on the design condition and should be determined by the project Structural Engineer. Depending on the application, typical factors of safety could range from 1.0 to 1.5.

Construction Considerations

Prior to placing steel or concrete, foundation excavations should be cleaned of all debris, loose or disturbed soil or rock, and any water.

CONCRETE SLABS SUPPORTED-ON-GRADE

Subgrade Preparation

Subgrade soils supporting concrete floor slabs should be scarified to a depth of eight inches, uniformly moisture-conditioned to between 0 and 5 percent above the optimum moisture content, and compacted to at least 90 percent relative compaction. Scarification and compaction may be omitted if slabs are to be placed directly on undisturbed on-site rock and/or engineered fill and if approved by the project Geotechnical Engineer.

Surrounding Grades

It has been our experience that ground surface grades surrounding structures can affect the post-construction presence and quantity of water beneath such structures, as well as vapor emissions from interior concrete floor slabs. In order to reduce the possibility for these potentially adverse conditions, we recommend areas adjacent to all structures be graded, or floor slabs raised, so that the bottoms of all interior concrete floor slabs are elevated at least four inches above adjacent, finished pad grades.

Rock Capillary Break

Interior concrete floor slabs supported-on-grade should be underlain by a capillary break consisting of free-draining durable rock at least four inches thick, graded such that 100 percent passes the one-inch sieve and less than five percent passes the No. 4 sieve⁹. This rock should be compacted to the extent possible using light vibratory equipment prior to

⁹ In general, Caltrans Class 2 aggregate base (or other similar material) will not meet the gradation requirements provided above for a capillary break. Therefore, we recommend this material not be used for a capillary break beneath interior concrete slabs supported-on-grade.

placing any vapor membranes or slab concrete. Further, precautions should be taken during construction to reduce contamination of the rock with soil or other materials.

Contamination of the rock with soil or other materials may significantly reduce the effectiveness of the capillary break, possibly resulting in excessive (and adverse) free water transmission to the bottom of the overlying slab.

Vapor Emission Considerations

Though generally not a geotechnical consideration, it has been our experience that a plastic or vinyl membrane is often placed directly over the rock capillary break to reduce water migration from the subgrade soils up to the overlying concrete floor slab. If used, we suggest this membrane be installed in a manner to reduce punctures and penetrations. Where penetrations are unavoidable, or adjacent to footings or other similar obstructions, the vapor membrane should be placed tightly against these features. Further, it has been our experience that sand, one to two inches thick, is often placed on top of the membrane prior to placing slab concrete to promote more uniform curing of the slab. If used, we strongly suggest that concrete not be placed if sand overlying the vapor membrane has become wet (due to precipitation or excessive moistening), or if standing water is present above the membrane. It has been our experience that excessive water beneath interior floor slabs can result in significant, post-construction vapor transmission through the slab, adversely affecting floor coverings, and possibly resulting in potentially hazardous molds.

In addition to a capillary break and vapor membrane, it has also been our experience that concrete quality is critical to the ability of concrete floor slabs to resist vapor transmission. As a minimum, we suggest that concrete used for floor slab construction possess a maximum water/cement ratio of 0.5. Since water is often added to uncured concrete to increase workability, it is important that strict quality control be exercised during the installation of all slab concrete to insure water/cement ratios are not altered prior or during placement.

It must be recognized comments provided above are suggestions only. These comments are intended to assist the project Architect, Structural Engineer, or other design professional, and should not be inferred to mean that Mid Pacific Engineering is assuming the design responsibility for interior concrete floor slabs or appurtenant vapor reduction provisions. In all cases, it is solely the responsibility of the project Architect, Structural Engineer, or other design professional to determine the design based on project specific requirements (which were beyond our knowledge or involvement with the project). In the event the project Architect, Structural Engineer, or other design professional is unfamiliar with concrete slab-on-grade issues, or if the project will include floor coverings sensitive to

slab vapor emissions, a professional specializing in vapor transmission should be consulted to provide project specific recommendations and design provisions.

SITE ACCESS ROADWAY

General

We anticipate the proposed facility may be accessed using a new, partially-improved roadway. Further, we anticipate a conventional surfacing material (such as asphalt concrete) would not be considered applicable due to cost and possibly other considerations beyond the scope of this study. Therefore, provided below are our comments regarding surfacing these areas with gravel.

Note: Comments and recommendations provided below are intended to assist the project Civil Engineer in the design of a partially-improved roadway to service the site subsequent to construction. In general, we anticipate such use will involve infrequent automobile traffic. Recommendations provided below are not intended for the design of roadways to be utilized by cranes and other similar equipment during construction. If such use is anticipated, we recommend the project Civil Engineer prepare a design based on anticipated loads and other relevant conditions (which were not available at the time this report was prepared and completely beyond the scope of this study).

Surface Drainage

Areas to be surfaced with gravel, as well as adjoining areas, should be adequately graded to provide positive drainage such that surface water is not allowed to accumulate on or near areas intended to carry vehicular traffic.

Subgrade Preparation

Subgrade areas to be surfaced with gravel should be scarified to a depth of eight inches below finished subgrade, uniformly moisture conditioned to between one and three percent above the optimum moisture content, and compacted to at least 95 percent relative compaction. In the event the exposed subgrade consists of undisturbed on-site rock, scarification and compaction may be omitted if approved by the project Geotechnical Engineer.

Gravel Surfacing - Materials and Placement

To provide increased subgrade support, dust control, and a wearing surface, we anticipate gravel (such as Caltrans Class 2 aggregate baserock or other similar material) may be spread and compacted over the area of the possible (or planned) site access roadway. Should Caltrans Class 2 aggregate baserock (or other similar material) be used, we recommend it be at least six inches thick. Baserock used as surfacing material should be compacted to at least 95 percent relative compaction.

Depending on the frequency of use and vehicle loading, it may be desirable to underlay gravel surfacing material (such as Caltrans Class 2 aggregate baserock) with a geotextile stabilization fabric. The primary purpose of this fabric would be to reduce migration of subgrade soil into the baserock and redistribute concentrated loads, thereby extending the service life of this type of surfacing material. If a geotextile fabric is used, we recommend it consist of Mirafi 500X or other equivalent fabric approved by the project Geotechnical Engineer.

ADDITIONAL SERVICES

We recommend Mid Pacific Engineering review final earthwork grading (if any) and/or foundation plans and specifications to evaluate that recommendations contained herein have been properly interpreted and implemented during design. Further, all site earthwork activities, including site preparation, placement of engineered fill and trench backfill, construction of roadway subgrades, and all foundation excavations should be monitored by a representative from Mid Pacific Engineering.

Monitoring services are an essential component of our design services. Monitoring allows us to observe the soil conditions encountered during construction, evaluate the applicability of the recommendations presented in this report to the soil conditions encountered, and recommend appropriate changes in design or construction procedures if conditions differ from those described herein.

LIMITATIONS

This report has been prepared in substantial accordance with the generally accepted geotechnical engineering practice as it existed in the site area at the time our services were rendered. No warranty is either expressed or implied.

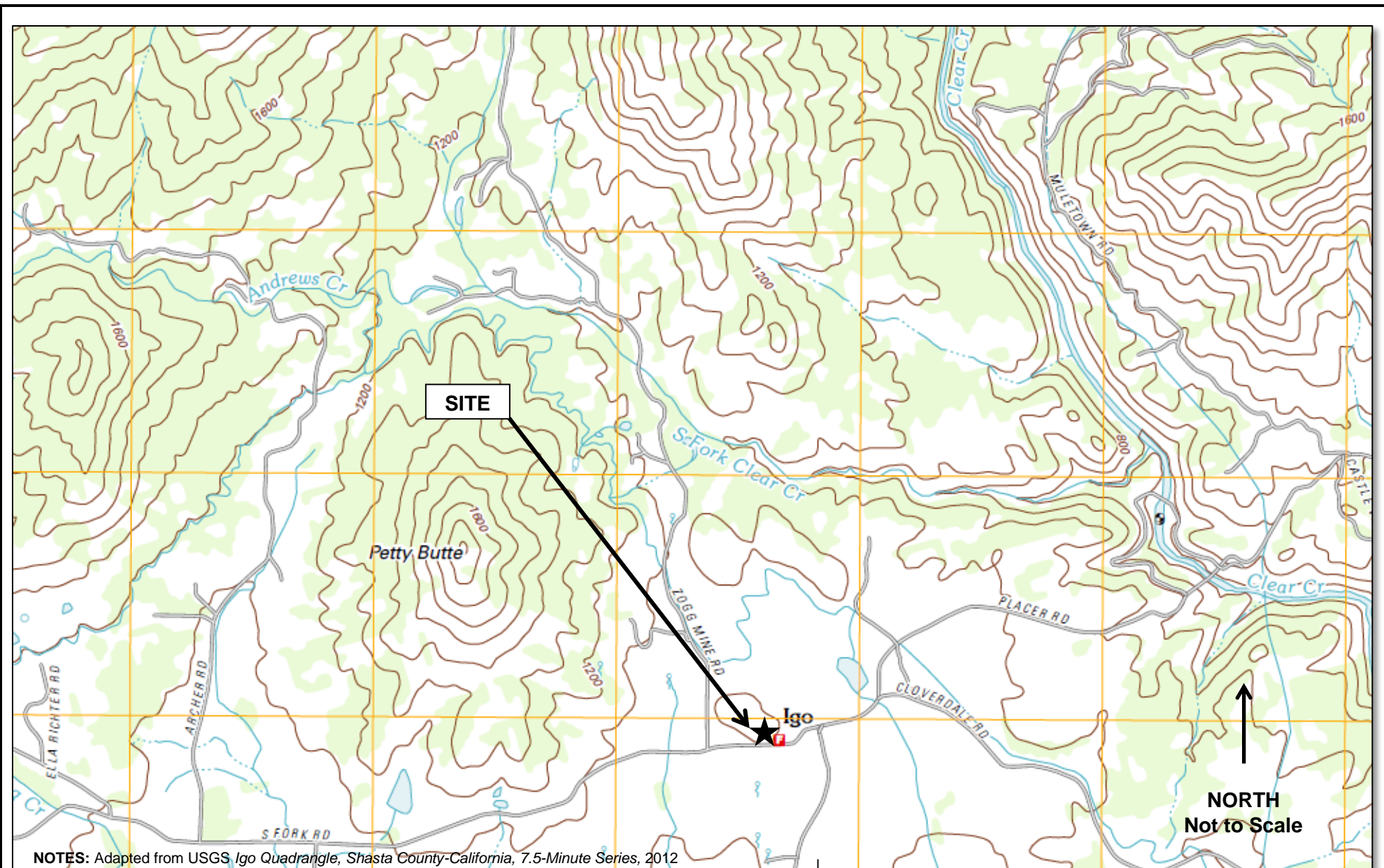
Conclusions and recommendations contained in this report were based on the conditions encountered during our field investigation and are applicable only to those project features described above (see section titled "PROPOSED CONSTRUCTION"). It is possible subsurface conditions could vary beyond the point explored. If conditions are encountered during construction which differ from those described in this report, or if the scope or nature of the proposed construction changes, we should be notified immediately in order to review and, if deemed necessary, conduct additional studies and/or provide supplemental recommendations.

Recommendations provided in this report are based on the assumption that an adequate program of tests and observations will be conducted by Mid Pacific Engineering during the construction phase in order to evaluate compliance with our recommendations.

The scope of services provided by Mid Pacific Engineering for this project did not include the investigation and/or evaluation of toxic substances, or soil or groundwater contamination of any type. If such conditions are encountered during site development, additional studies may be required. Further, services provided by Mid Pacific Engineering for this project did not include the investigation and/or evaluation of soil corrosivity. Depending on planned pipe types, bedding conditions, and other factors beyond the scope of this study, it may be appropriate to evaluate soil corrosivity prior to development.

This report may be used only by our client, and only for the purposes stated herein, within a reasonable time from its issuance. Land use, site conditions, and other factors may change over time which may require additional studies. In the event a significant period of time elapses between the date of this report and construction, Mid Pacific Engineering shall be notified of such occurrence in order to review current conditions. Depending on that review, additional studies and/or an updated or revised report may be required prior to completion of final design.

Any party other than our client who wishes to use all or any portion of this report shall notify Mid Pacific Engineering of such intended use. Based on the intended use as well as other site-related factors, Mid Pacific Engineering may require that additional studies be conducted and that an updated or revised report be issued. Failure to comply with any of the requirements outlined above by the client or any other party shall release Mid Pacific Engineering from any liability arising from the unauthorized use of this report.



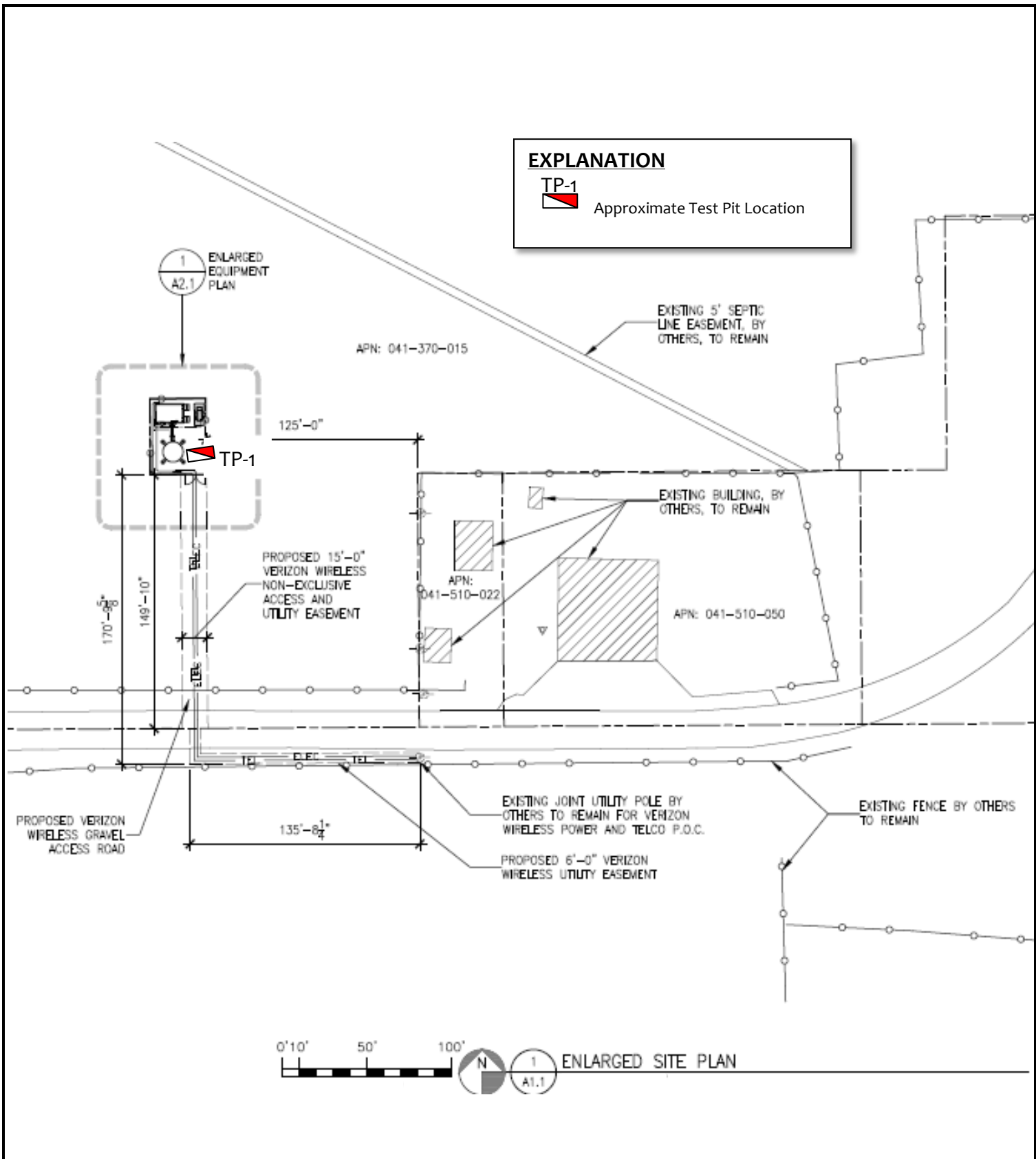
VICINITY MAP
PROPOSED TELECOMMUNICATIONS FACILITY
 Igo, Location #: 281996
 Igo, California

FIGURE 1

Date: 03/15

MPE No. 02340-01

SB14-014
EXHIBIT E



NOTES: Adapted from Igo, Enlarged Site Plan, Sheet A-1, prepared by MST Architects, dated January 29, 2015






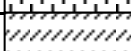
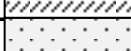
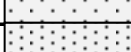








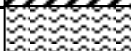


TEST PIT LOCATION MAP
PROPOSED TELECOMMUNICATIONS FACILITY
 Igo, Location #: 281996
 Igo, California

FIGURE 2








Date: 03/15
 MPE No. 02340-01

SB14-014
EXHIBIT E

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		SYMBOL	CODE	TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of soil > no. 200 sieve size)	GRAVELS (More than 50% of coarse fraction > no. 4 sieve size)	GW		Well graded gravels or gravel - sand mixtures, little or no fines
		GP		Poorly graded gravels or gravel - sand mixtures, little or no fines
		GM		Silty gravels, gravel - sand - silt mixtures
		GC		Clayey gravels, gravel - sand - silt mixtures
	SANDS (50% or more of coarse fraction < no. 4 sieve size)	SW		Well graded sands or gravelly sands, little or no fines
		SP		Poorly graded sands or gravelly sands, little or no fines
		SM		Silty sands, sand - silt mixtures
		SC		Clayey sands, sand clay mixtures
FINE GRAINED SOILS (More than 50% of soil < no. 200 sieve size)	SILTS & CLAYS LL < 50	ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
		CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL		Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS LL ≥ 50	MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH		Inorganic clays of high plasticity, fat clays
		OH		Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS		Pt		Peat and other highly organic soils
ROCK		RX		Rocks, weathered to fresh
FILL		FILL		Artificially placed fill material

OTHER SYMBOLS

	= Drive Sample: 2-1/2" O.D. Modified California sampler
	= Hand Driven Sample
	= SPT Sampler
	= Initial Water Level
	= Final Water Level
	= Estimated or gradational material change line
	= Observed material change line
Laboratory Tests	PI = Plasticity Index EI = Expansive Index UCC = Unconfined Compression Test TR = Triaxial Compression Test GR = Gradation Analysis (Sieve) K = Permeability Test

GRAIN SIZE CLASSIFICATION

CLASSIFICATION	RANGE OF GRAIN SIZES	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL coarse (c) fine (f)	3" to No. 4	76.2 to 4.76
	3" to 3/4"	76.2 to 19.1
SAND coarse (c) Medium (m) fine (f)	3/4" to No. 4	19.1 to 4.76
	No. 4 to No. 200	4.76 to 0.074
	No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200	4.76 to 2.00 2.00 to 0.420 0.420 to 0.074
SILT & CLAY	Below No. 200	Below 0.074

MPE

Mid Pacific Engineering, Inc.

**UNIFIED SOIL CLASSIFICATION SYSTEM
PROPOSED COMMUNICATIONS FACILITY**
Igo, Location #: 281996
Igo, California

FIGURE 3

Date: 03/15

MPE No. 02340-01

SB14-014

EXHIBIT E

FRACTURING	
LOG TERM	DEFINITION
Very Wide	> 6 feet
Wide	2 to 6 feet
Moderately	8 to 24 inches
Closely	2 1/2 to 8 inches
Very Closely	3/4 to 2 1/2 inches

ROCK QUALITY DESIGNATION (ROD)	
ROD (%)	ROCK QUALITY
90 to 100	Excellent
75 to 90	Good
50 to 75	Fair
25 to 50	Poor
0 to 25	Very Poor

WEATHERING	
LOG TERM	DESCRIPTION/DEFINITION
Fresh	No visible sign of decomposition or discoloration. Rings under hammer impact
Slightly Weathered	Slight discoloration inwards from open fractures; otherwise similar to fresh
Moderately Weathered	Discoloration throughout. Strength less than fresh rock, specimens cannot be broken by hand or scraped with knife
Highly Weathered	Specimens can be broken by hand with effort and shaved with knife. Textures becoming indistinct but fabric preserved
Completely Weathered	Mineral decomposed to soil but fabric and structure preserved. Specimens easily crumbled or penetrated.

COMPETENCY			
CLASS	LOG TERM	DESCRIPTION/DEFINITION	APPROXIMATE RANGE OF UNCONFINED COMPRESSIVE STRENGTHS (tsf)
I	Extremely Strong	Many blows with geologic hammer required to break intact specimens	>2000
II	Very Strong	Hand held specimens break with pick end of hammer under more than one blow	1000 to 2000
III	Strong	Hand held specimens can be broken with singer, moderate blow with pick end of hammer	500 to 1000
IV	Moderately Strong	Specimens can be scraped with knife; light blow with pick end of hammer causes indentations	250 to 500
V	Weak	Specimens crumble under moderate blow with pick end of hammer	10 to 250
VI	Friable	Specimens crumble in hand	N/A



ROCK LEGEND
PROPOSED TELECOMMUNICATIONS FACILITY
 Igo, Location #: 281996
 Igo, California

FIGURE 4

Date: 03/15
MPE No. 02340-01

LOG OF TEST PIT TP-1
February 19, 2015
Bobcat 435 ZHS with a 24-Inch Bucket

Test Pit 1

- 0 – 18” Colluvium: (Completely weathered volcanic rock) - Slightly red-brown, silt (ML), with trace coarse sand, moist, soft, few cobble size, angular volcanic rock fragments.

- 18” – 7’ Volcanic rock: Blue-gray, highly weathered, friable to weak, very closely fractured. Weathering decreases with depth.

- 7 – 10’ Volcanic rock: Orange-brown, highly to moderately weathered, very closely to closely fractured, moderately strong.

Bottom of Test Pit at 10 feet
No groundwater encountered.
Backfilled with excavated material.



LOG OF TEST PIT TP-1
**PROPOSED TELECOMMUNICATIONS
FACILITY**
Igo, Location #: 281996
Igo, California

FIGURE 5
Date: 03/15
MPE No. 02340-01

SB14-014
EXHIBIT E



WASHOE COUNTY
COMMUNITY SERVICES DEPARTMENT
Engineering and Capital Projects Division

"Dedicated to Excellence in Public Service"

1001 East 9th Street PO Box 11130 Reno, Nevada 89520 Telephone: (775) 328-2040 Fax: (775) 328-3699

INTEROFFICE MEMORANDUM

DATE: March 05, 2015
TO: Chad Giesinger, Planning and Development Division
FROM: Leo R. Vesely, P.E., Engineering and Capitol Projects Division
SUBJECT: **SB14-014**
APN 049-070-49
VERIZON WIRELESS TIMBERLINE

I have reviewed the referenced special use permit case and recommend the following conditions:

1. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. All grading shall comply with County Code Article 438, Grading Standards. Silts shall be controlled on-site.
2. The applicant shall provide permanent easements for the lease area, access and utilities. A copy of the recorded easements shall be submitted to the Engineering Division prior to issuance of a building permit.
3. All existing and proposed easements shall be shown on the site and/or grading plan. The County Engineer shall determine compliance with this condition.

LRV/lrv

SB14-014
EXHIBIT F



Community Services Department

Planning & Development Division

Regional Parks & Open Space

TO: Chad Geisinger, AICP

FROM: Dennis Troy, Park Planner

DATE: April 1, 2015

SUBJECT: Special Use Permit Case Number SB14-014 (Verizon Wireless)

The proposed project site lies within Park District 1C and is adjacent to public open space owned by Washoe County (APN 049-000-31). Additionally, the site is located adjacent to the Mt. Rose scenic corridor and also adjacent to a scenic viewshed as identified in map 12 of the Washoe County Regional Open Space & Natural Resource Management Plan.

The Washoe County's Regional Open Space and Natural Resource Management Plan identifies the following goals within this plan:

Goal 1 (page 43): Protect the regions visual and scenic resources

Goal 2 (page 44): Preserve and protect the visual integrity of our region's hillsides, ridges and hilltops.

Corrections:

1. Section 110.324.75(c) Special Use Permits states "That the monopole or lattice tower will not unduly impact the adjacent neighborhoods or the vistas and ridgelines of the County." As proposed the monopole tower impacts both the Mt. Rose scenic corridor and also the adjacent scenic viewshed. While the applicant has made efforts to blend the tower into the existing landscape, they have not exhausted all options to co-locate and provided a burden of proof. The applicant has stated that the option of co-locating on APN 049-070-30 was "rejected due to low elevation". However, the applicant has not provided evidence to substantiate this claim. While the applicant is claiming a "Significant Gap" (110.324.55.b) staff has not been presented with this evidence. The existing and proposed coverage maps (pg. 5 & 6 of application) appear to be identical in nature. The Parks and Openspace division is requesting that the applicant provide additional information that substantiates their claims of a significant gap in coverage, and also provide additional detail related to why co-location at APN 049-070-30 is not feasible (i.e. the tower is full and the only mounting spots are too low).

2. The proposed access road cuts through a 20' wide private equestrian & pedestrian access easement per Parcel Map 4688A. Please provide additional detail related to the road intersection and this access easement. Please note that the future road alignment shall not impede current and future pedestrian and equestrian traffic. Future construction methods must take into consideration the impacts of this crossing.



Conditions of Approval

Special Use Permit Case Number SB14-014 (Verizon Wireless)

The project approved under **Special Use Permit Case Number SB14-014 for Verizon Wireless (Timberline)** shall be carried out in accordance with the Conditions of Approval granted by the Board of Adjustment on June 4, 2015. Conditions of Approval are requirements placed on a permit or development by each reviewing agency. Conditions of Approval may require submittal of documents, applications, fees, inspections, amendments to plans and more. **Conditions of Approval do not relieve the applicant from the obligation to obtain any other approvals and licenses from relevant authorities required under any other act, nor do these conditions relieve the applicant from abiding by all other generally applicable code regulations.**

Unless otherwise specified, all conditions related to the approval of this special use permit shall be met or financial assurance must be provided to satisfy the Conditions of Approval prior to issuance of a grading or building permit. The agency responsible for determining compliance with a specific condition shall determine whether the condition must be fully completed or whether the applicant shall be offered the option of providing financial assurance. All agreements, easements, or other documentation required by these conditions shall have a copy filed with the Washoe County Engineer and Washoe County Planning and Development.

Compliance with the Conditions of Approval related to this special use permit is the responsibility of the applicant, his/her successor in interest, and all owners, assignees, and occupants of the property and their successors in interest. Failure to comply with any of the conditions imposed in the approval of this special use permit may result in the initiation of revocation procedures.

Washoe County reserves the right to review and revise the Conditions of Approval related to this special use permit should it be determined that a subsequent license or permit issued by Washoe County violates the intent of this approval.

For the purpose of conditions imposed by Washoe County, “may” is permissive and “shall” or “must” is mandatory.

Conditions of Approval are usually complied with at different stages of the proposed project. Those stages are typically:

- Prior to permit issuance (i.e., grading permits, building permits, etc.)
- Prior to obtaining a final inspection and/or a certificate of occupancy
- Prior to the issuance of a business license or other permits/licenses
- Some “Conditions of Approval” are referred to as “Operational Conditions”. These conditions must be continually complied with for the life of the project or business.

The Washoe County Commission oversees many of the reviewing agencies/departments with the exception of the following agencies.

- **The DISTRICT BOARD OF HEALTH, through the Washoe County Health District, has jurisdiction over all public health matters in the Health District. Any conditions set by the Health District must be appealed to the District Board of Health.**
- **The RENO-TAHOE AIRPORT AUTHORITY is directed and governed by its own Board. Therefore, any conditions set by the Reno-Tahoe Airport Authority must be appealed to their Board of Trustees.**
- **The REGIONAL TRANSPORTATION COMMISSION (RTC) is directed and governed by its own board. Therefore, any conditions set by the Regional Transportation Commission must be appealed to that Board.**

THE FOLLOWING ARE CONDITIONS OF APPROVAL REQUIRED BY THE REVIEWING AGENCIES. EACH CONDITION MUST BE MET TO THE SATISFACTION OF THE ISSUING AGENCY.

Washoe County CSD – Planning and Development

1. The following conditions are requirements of Planning and Development, which shall be responsible for determining compliance with these conditions.

Contact: Chad Giesinger, 775.328.3626, cgiesinger@washoecounty.us

- a. The applicant shall demonstrate substantial conformance to the plans approved as part of this special use permit. Planning and Development shall determine compliance with this condition.
- b. All related utilities, including telephone and electrical lines connected with the proposed wireless communications facility and within any and all Verizon utility easements on the subject site shall be placed underground pursuant to Forest Area Plan Policy F.7.1.
- c. The total height of the cell tower, including all elements of the faux pine tree, antennas, or any other apparatus shall not exceed 61 feet from lowest grade.
- d. The applicant shall submit complete construction plans and building permits shall be issued within two years from the date of approval by Washoe County. The applicant shall complete construction within the time specified by the building permits. Compliance with this condition shall be determined by Planning and Development.
- e. Security fencing shall be erected around the entire 50 foot x 50 foot wireless communications facility compound. The installation of security fencing shall assure the facility is protected from climbing by unauthorized persons. Said security fencing shall be screened by the use of tan colored slats as well as landscaping.

- f. All equipment, fencing, ground cabinet, tower, and aesthetic design shall be painted a neutral color that will blend with the rural character of the area.
- g. In addition to the landscaping depicted on submitted plans, the applicant shall plant at least 5 additional pine trees (matching species found on adjacent Forest Service land) with a height of at least 14 feet near the perimeter of the pad site to offset the singular nature of the monopine. As part of the building permit submittal for the cell tower, the applicant shall work with staff and consult with a licensed landscape architect to submit and finalize a revised landscaping plan that satisfies this condition. Planning and Development shall determine compliance with this condition.
- h. Prior to the issuance of any building permits or grading activity, the applicant shall obtain a Special Use Permit (SUP), pursuant to WCC Section 110.438.35 and WCC Section 110.810, which approves construction of the proposed access road. The approved SUP shall demonstrate how the existing equestrian and pedestrian access easement depicted on Parcel Map 4688A will be perpetuated through the subject parcel to the adjacent Forest Service lands to the west.
- i. The applicant shall attach a copy of the action order granting approval of this project to all administrative permit applications (including building permits) applied for as part of this special use permit.
- j. Per Policy F.2.3 of the Forest Area Plan, the applicant shall submit a statement to staff regarding how the final proposal responds to the community input received from the South Truckee Meadows/Washoe Valley Citizen Advisory Board.
- k. The applicant shall submit a plan for the control of noxious weeds as part of any building permit submittals resulting in grading or ground disturbance.
- l. A note shall be placed on all construction drawings and grading plans stating:

NOTE

Should any prehistoric or historic remains/artifacts be discovered during site development, work shall temporarily be halted at the specific site and the State Historic Preservation Office of the Department of Museums, Library and Arts shall be notified to record and photograph the site. The period of temporary delay shall be limited to a maximum of two working days from the date of notification.

- m. The following **Operational Conditions** shall be required for the life of the project:
 - 1. This Special Use Permit shall expire and become null and void within 2 years from the final date of approval if final building permits have not been issued by said date.
 - 2. The applicant and any successors shall be responsible for maintenance/repairs of everything within the 50 ft x 50 ft wireless communications compound and shall be responsible for all

maintenance/repairs of the entire wireless communications facility, including required landscaping around the perimeter of the site, and for maintenance of the fence enclosing the 50 ft x 50 ft wireless communications site compound. The applicant shall take action not more than 30 days after receiving a report from Washoe County of any damage to the wireless communications facility, landscaping, or the fence.

3. The wireless communications facility shall be maintained by the applicant and any successors in substantially the same condition as the wireless communications facility was proposed and approved by this Special Use Permit.
4. Failure to comply with the Conditions of Approval shall render this approval null and void. Compliance with this condition shall be determined by Washoe County Planning and Development.
5. The applicant and any successors shall direct any potential purchaser/operator of the site and/or the special use permit to meet with Washoe County Planning and Development to review conditions of approval prior to the final sale of the site and/or the special use permit. Any subsequent purchaser/operator of the site and/or the special use permit shall notify the Washoe County Planning and Development of the name, address, telephone number, and contact person of the new purchaser/operator within 30 days of the final sale.
6. This special use permit shall remain in effect as long as the subject wireless communications facility is in operation and remains in compliance with the conditions of approval.

Washoe County CSD – Engineering and Capital Projects

2. The following conditions are requirements of the Engineering and Capital Projects Division, which shall be responsible for determining compliance with these conditions.

Contact: Leo Vesely, 775.325.8032, ivesely@washoecounty.us

- a. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. Silts shall be controlled on-site.
- b. The applicant shall provide permanent easements for the lease area, access and utilities. A copy of the easements shall be submitted to the Engineering Division prior to issuance of a building permit.
- c. All existing and proposed easements shall be shown on the site and/or grading plan. The County Engineer shall determine compliance with this condition.

Washoe County CSD – Parks and Open Spaces

3. The following conditions are requirements of Parks and Open Space, which shall be responsible for determining compliance with these conditions.

Contact: Dennis Troy, 775.325.8094, dtroy@washoecounty.us

- a. The applicant will construct the project using *Best Management Practices* (BMPs) to reduce the introduction of noxious weeds to the project area, as it is located directly adjacent to open space and Forest Service lands. The applicant shall require all contractors and subcontractors to use BMPs on the project site at all times as outline in the attached BMPs.
- b. Disturbed land as part of the project will be revegetated with an approved seed mix and application method consistent with the surrounding environment. Placement of stockpile materials will be in a pre-approved location and protected to ensure no contamination of adjacent open space and Forest Service lands.
- c. The applicant will make every effort reasonably possible to collaborate with local residents to ensure that the project blends into the natural environment as much as possible, as this is a significant scenic view shed.
- d. The future road alignment for the proposed new access road shall not impede current and future pedestrian and equestrian traffic. Future construction methods must take into consideration the impacts of this crossing.

Truckee Meadows Fire Protection District

4. The following conditions are requirements of the Truckee Meadows Fire Protection District, which shall be responsible for determining compliance with these conditions.

Contact: Amy Ray, 775.328.6005, aray@tmfpd.us

- a. Defensible space and construction elements shall be required, dependent upon the fire hazard assessment rating, as designated by the *International Wildland Urban Interface Code* and the fire hazard map per NAC 472, shall be required.
- b. The structure shall meet the provisions of Washoe County Code Chapter 60. Verification that the lot has water for fire suppression or is within 5 road miles of a fire station shall be provided.

***** End of Conditions *****