

**EL DORADO COUNTY DEVELOPMENT SERVICES  
PLANNING COMMISSION  
STAFF REPORT**



<b>Agenda of:</b>	April 24, 2008
<b>Item No.:</b>	7.b.
<b>Staff:</b>	Robert Peters

**SPECIAL USE PERMIT**

**FILE NUMBER:** S07-0024/Union Mine Tower

**APPLICANT:** Verizon Wireless c/o Complete Wireless Consulting

**AGENT:** Stephen A. Smith, Project Manager

**PROPERTY OWNER:** El Dorado County Fire Protection District

**REQUEST:** Special use permit to allow the construction of a wireless communications facility to include a 110-foot self-supporting lattice tower with 12 panel antennas and related ground equipment within a 1,750 square-foot proposed lease area. The proposed lattice tower will replace an existing 90-foot guyed lattice tower. The project includes relocation of all existing emergency agency antennas to the new tower at the same heights. The facility is proposed be enclosed by a six-foot tall chain link fence with barbed wire atop.

**LOCATION:** On the east side of Quartz Drive approximately 0.6 miles north of the intersection with ~~State Route 49~~ Crystal Boulevard, in the El Dorado area, Supervisorial District II (Exhibit A).

**APN:** 092-152-04 (Exhibit B)

**ACREAGE:** 0.23 acre

**GENERAL PLAN:** Low Density Residential-Platted Lands (LDR-PL) (Exhibit C and D)

**ZONING:** One-Acre Residential (R1A) (Exhibit E)

**ENVIRONMENTAL DOCUMENT:** Categorically Exempt pursuant to Section 15302 of the CEQA Guidelines

**SUMMARY RECOMMENDATION:** Conditional Approval

**BACKGROUND:** The Telecommunications Act of 1996 became effective on February 8, 1996. This act preserves the authority of the State or local government over decisions regarding the placement, construction, and modifications of personal wireless services, subject to two limitations. Section 704.(7)B(iii) requires any denials to be in writing and supported by “substantial evidence.” Section 704.(7)B(iv) prohibits denial on the basis of radio frequency emissions if those emissions are compliant with Federal regulations.

The American National Standards Institute and the Institute of Electrical and Electronics Engineers (IEEE) have published a standard called ANSI/IRRR C95.1-1992, which until recently set recommended maximum power density levels for radio frequency (RF) energy originating from communications sites and other sources. The Federal Communications Commission (FCC) has also produced its own guidelines, which are more stringent and supersede the ANSI standard. The FCC rules categorically exclude certain transmitting facilities from routine evaluations for compliance with the RF emission guidelines if it can be determined that it is unlikely to cause workers or the general public to become exposed to emission that exceed the guidelines. The following table represents the FCC limits for both occupational and general population exposures to different radio frequencies:

Frequency Range (F) (MHz)	Occupational Exposure (mW/cm <sup>2</sup> )	General Public Exposure (mW/cm <sup>2</sup> )
0.3-1.34	100	100
1.34-3.0	100	180/F <sup>2</sup>
3.0—30	900/F <sup>2</sup>	180/F <sup>2</sup>
30-300	1.0	0.2
300-1,500	F/300	F/1500
1,500-100,000	5.0	1.0

Based on the proposed Verizon Wireless facility Radio Frequency Analysis, (Verizon Wireless Site at 6109 Quartz Drive, El Dorado, California, Jerrold Bushberg, Health and Medical Physics Consulting, January 25, 2008), analysis and computation, the maximum public RF exposure from the site, with all channels on antennas operating at full capacity power density at this location is less than 3.2 percent of the public safety standard established by the FCC (Exhibit F). Therefore, the risk of release of hazardous materials or emissions to the public is remote.

Existing Facilities Background: The project site is currently developed with an El Dorado Fire Protection District Station. An existing 90-foot guyed lattice tower is also located on the subject parcel immediately south of the fire station. The existing tower currently supports emergency agency antennas. No private carrier wireless communication facilities currently exist on the site.

## STAFF ANALYSIS

**Project Description:** The project applicant requests to construct a wireless communications facility to include a 110-foot self-supporting lattice tower with 12 panel antennas at the 100-foot level. Also, related ground equipment including a 360 square-foot equipment shelter, a back-up emergency diesel generator, and two Global Positioning System (GPS) antenna are proposed to be located within a 1,750 square-foot lease area. A 30-foot long six-foot utility easement is proposed from the western property line to the proposed lease area. The facility is proposed be

enclosed by a six-foot tall chain link fence with barbed wire atop. The existing tower and all guyed wires will be removed. All existing emergency agency antennas will be replaced on the new tower at the same heights. Collocation opportunities exist on the proposed tower and 10-foot tower extension are also available for future collocations.

The proposed 1,750 square-foot lease area will be accessed from an existing paved access off of Quartz Drive and a proposed 15-foot access easement. A 12-foot Verizon Wireless entrance with a 12-foot access gate is proposed. The proposed fencing will enclose approximately 64 percent (1,120 square-feet) of the proposed lease area. The project will require no significant grading. The area directly under the tower, the equipment shelter, and the back-up generator is proposed to be developed with 12 Verizon Wireless cell block foundation sections (7' x 7' each) resulting in 588 square-feet of paved area. The remainder of the fenced area for the proposed tower and support equipment will utilize existing lawn. Project plans are included as Exhibits G, H, and I.

The facility will be maintained by a technician who will visit the site approximately twice a month to perform any necessary maintenance which may be required. The back-up emergency generator will be utilized in response to power outages or disaster. The generator will be located in a noise attenuating enclosure which is muffled to reduce noise impacts on adjacent land uses. The generator will be operated for approximately 30 minutes per week for testing and during any outage or disaster. The weekly testing will be required to be conducted during normal business hours, Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m. (see conditions of approval).

**Site Description:** The project site is located on a 0.23-acre parcel that is located at approximately 1,880-foot elevation above sea level. The subject site is located immediately east of Quartz Drive which is a County maintained road. El Dorado Fire Protection District Station #44 is located on the site. Also, the site contains a 90-foot guyed lattice tower immediately south of the fire station structure. No significant native vegetation exists on site.

**Adjacent Land Uses:**

	<b>Zoning</b>	<b>General Plan</b>	<b>Land Use/Improvements</b>
<b>Site</b>	R1A	LDR-PL	El Dorado Fire Protection District Station #44, Existing Tower Site
<b>North</b>	RE-5	LDR-PL	Undeveloped Residential Property
<b>South</b>	CP	C-PL	Undeveloped Commercial Property
<b>East</b>	CP	C-PL	Undeveloped Commercial Property
<b>West</b>	RE-5	LDR-PL	Single Family Residential

Discussion: The adjoining parcel to the south/east is a commercially zoned property which is currently undeveloped. The adjoining parcel to the north is a residentially zoned parcel which is currently undeveloped. Quartz Drive runs the length of the western property line, and single-family residential land uses exist on the west side. The project site is not within any airport safety zone or airport land use plan area.

**General Plan:** The General Plan designation of the subject site is Low-Density Residential (LDR). This land use designation establishes areas for single-family residential development in a rural setting. General Plan Policy 2.2.5.21 states: “Development projects shall be located and designed in a manner that avoids incompatibility with adjoining land uses that are permitted by the policies in effect at the time the development project is proposed. Development projects that are potentially incompatible with existing adjoining uses shall be designed in a manner that avoids any incompatibility or shall be located on a different site.” The proposed self-supporting lattice tower has been designed to minimize the effects on adjacent properties. The lattice tower is to be painted a flat grey color consistent with the color of the existing fire station and other towers in the vicinity (Exhibits J1, J2, and J3). The proposed ground equipment is to be painted a flat tan color. Planning Services will require proposed chain link fencing to be covered entirely by tan colored slats and sufficient landscaping be installed to further screen the facility from adjacent land uses.

General Plan Policy 5.6.1.4 states: “Special Use Permits shall be required for the installation of community telecommunications facilities (e.g. microwave towers) in residential areas to ensure that siting, aesthetics, environmental issues, surrounding land uses, and health and safety concerns are considered.” The applicant has designed the wireless facility in compliance with County regulations, addressing aesthetics, environmental issues, and health and safety concerns. The proposed self-supporting lattice tower and the associated ground equipment have been designed to blend with the surroundings by painting the tower a flat grey color to match the existing fire station and other towers in the vicinity (Exhibits J1, J2, and J3), and by painting the ground equipment a flat tan color. Planning Services will require proposed chain link fencing to be covered entirely by tan colored slats or sufficient landscaping be installed to further screen the facility. All project-related environmental issues have been evaluated during the research leading up to this staff report.

**Conclusion:** Staff finds that the project, as proposed and conditioned, conforms to the General Plan, specifically Policies 2.2.5.21 and 5.6.1.4.

**Zoning:** The County permits wireless communication facilities in all districts, provided they follow development standards and permitting requirements defined in Section 17.14.200 of the County Code. Section 17.14.200 (D)(5)(b) of the County Code requires a Special Use Permit for location of new towers or monopoles outside of industrial, commercial and research and development zoned districts shall be subject to approval of a special use permit by the planning commission pursuant to Section 17.22.500 et seq. The project proposal and its application and associated materials have been submitted and reviewed in accordance with the requirements of Section 17.22.500 et seq.

Section 17.14.200 (B) of the County Code requires that all wireless providers collocate their equipment on existing sites where possible. Communication service providers are, therefore, encouraged to: a) Employ all reasonable measures to site their antenna equipment on existing structures as façade mounts, roof mounts, or collocation on existing towers prior to applying for new towers or poles; b) Work with other service providers and planning staff to collocate where feasible. Where collocation on an existing site is not feasible, develop new sites which are multi-carrier to facilitate future co-location thereby reducing the number of sites countywide; and c)

Develop communication facilities (i.e. tower companies) with commitments from licensed carriers. As discussed in the “Project Support Statement,” received by Planning Services July 31, 2007, the tower is proposed in order to improve Verizon’s substandard service in the area and to cover and enhance safety for State Route 49 in southwestern El Dorado County and El Dorado and Diamond Springs communities. The “Project Support Statement” discusses three alternative sites for tower location and reasons for choosing the proposed location are explained.

Section 17.14.200(E) through (J) of the County Code requires that all wireless communication facilities meet certain criteria. Below is an analysis of these standards:

- E. *Visual: Visual simulations of the wireless communications facility (including all support facilities) shall be submitted. A visual simulation can consist of either a physical mockup of the facility, balloon simulation, computer simulation or other means. Three photo simulations from three different vantage points have been submitted to Planning Services (Exhibits K1, K2, and K3).*
  
- F.1. *Screening: All facilities shall be screened with vegetation or landscaping. Where screening with vegetation is not feasible, the facilities shall be disguised to blend with the surrounding area (tees, barns, etc.). The facility shall be painted to blend with the prevalent architecture, natural features or vegetation of the site. The applicant is proposing to place the self-supporting lattice tower and ground equipment within a six-foot-tall chain link fence enclosure. Visual simulations of the wireless facility have been submitted. As illustrated in the simulations, the lattice tower is designed as best as possible to match the existing fire station and towers in the immediate area. Although not shown in the visual simulations, the ground equipment shall be painted a flat tan color to help blend in with the surrounding environment. Planning staff will require the installation of tan colored slats on proposed chain link fencing and sufficient landscaping be installed to further screen the facility from adjacent land uses (See conditions of approval).*
  
- F.2. *Setbacks: As set forth in each applicable zoning district, except where locating the facility inside those setbacks is the most practical and unobtrusive location possible on the proposed site. The self-supporting lattice tower and ground equipment will meet all required setbacks as required by Section 17.28.080 (E) which requires a 30-foot front and 15-foot side setback.*
  
- F.3. *Maintenance: All improvements associated with the communication facility, including equipment shelters, towers, antenna, fencing, and landscaping shall be properly maintained at all times. Colors of towers and other improvements shall be maintained to ensure the appearance remains consistent with approved conditions related to color. Maintenance personnel would visit the site approximately twice a month, at which time the facilities would be inspected to ensure proper operation. The project has been conditioned to require that the colors and materials of the self-supporting lattice tower, ground equipment and fencing be maintained at all times and consistent with the features depicted in the visual simulations (See conditions of approval).*

- G. *Radio Frequency Radiation (RF) Requirement: The application for a land use permit shall contain a report or summary of the estimates of the non-ionizing radiation generated by the facility. The report shall include estimates of the maximum electric and magnetic field strengths at the edge of the facility site, the extent that measurable fields extend in all directions from the facility. The Radio Frequency Radiation report is discussed above in more detail in the “Background” section.*
- H. *Availability: All existing communication facilities shall be available to other carriers as long as structural or technological obstacles do not exist. The project has been conditioned to allow for collocation, with no further review by the Planning Commission required provided that all ground-mounted equipment is located within the proposed leased area and provided that no more than 12 panel antennas are placed on the self-supporting lattice tower at any one time by any one carrier (See conditions of approval).*
- I. *Unused Facilities: All obsolete or unused communication facilities are to be removed within six (6) months after the use of that facility has ceased or the facility has been abandoned. The applicant shall notify the planning department at the time of abandonment and all disturbance related to the communication facility shall be restored to pre-project condition. The project has been conditioned to comply with this requirement (See conditions of approval).*
- J. *Permit Application Requirements: In order to protect the visual character of established neighborhoods and to protect school children for potential safety hazards due to a potentially attractive nuisance, in addition to the noticing requirements of Chapter 17.22, the following shall be provided by the applicant:*
1. *The school district(s) in which the facility is located shall be identified. If the proposed wireless facility is located within 1000 feet of a school, the school district listed shall be notified during the initial consultation.*
  2. *For facilities proposed to be located on residentially-zoned land, the applicant shall identify any homeowners association established by CC&Rs which might govern the property. Any homeowners association identified will be notified during the initial consultation.*

There are no schools within 1,000 feet of the site and the parcel is not part of a subdivision which is governed by CC&Rs.

After review of the submitted site plan and a visual simulations, it has been determined that the proposed project meets the standards contained in Section 17.14.200 E through J of the County Code. The aesthetic impacts associated with the project have been fully considered.

Conclusion: As discussed above, staff finds the project, as proposed and conditioned, is consistent with all applicable provisions of County Zoning Ordinance Title 17.



**ATTACHMENT 1**  
**CONDITIONS OF APPROVAL**

**FILE NUMBER S07-0024**  
**Union Mine Tower**

**El Dorado County Planning Services**

1. This special use permit approval is based upon and limited to compliance with the approved project description and Conditions of Approval set forth below. Any deviations from the project description, exhibits, or conditions must be reviewed and approved by the County for conformity with this approval. Deviations may require approved changes to the permit and/or further environmental review. Deviations without the above described approval will constitute a violation of permit approval.

The project description is as follows:

Construction and operation of a new Verizon wireless communications facility to include a 110-foot self-supporting lattice tower with 12 panel antennas at the 100-foot level. Also, related ground equipment including a 360 square-foot equipment shelter, a back-up emergency diesel generator, and two Global Positioning System (GPS) antenna are to be located within a 1,750 square-foot lease area. A 30-foot long six-foot wide utility easement is provided from the western property line to the lease area. The facility is enclosed by a six-foot tall chain link fence with barbed wire atop. The self-supporting lattice tower replaces a 90-foot guyed lattice tower which currently supports emergency agency antennas and is located in the lease area. The existing tower and all guyed wires shall be removed within 60 days of new tower operation. All existing emergency agency antennas will be replaced on the new tower at the same heights.

The 1,750 square-foot lease area will be accessed from an existing paved access off of Quartz Drive and a 15-foot access easement. A 12-foot entrance is secured with a 12-foot access gate. Fencing will enclose approximately 64 percent (1,120 square-feet) of the lease area. The project will require no significant grading. The area directly under the tower, the equipment shelter, and the back-up generator will be developed with 12 Verizon Wireless cell block foundation sections (7' x 7' each) resulting in 588 square-feet of paved area. The remainder of the fenced area for the tower and support equipment will utilize existing lawn.

The facility will be maintained by a technician who will visit the site approximately twice a month to perform any necessary maintenance which may be required. The back-up emergency generator will be utilized in response to power outages or disaster. The generator will be operated for approximately 30 minutes per week for testing and during any outage or disaster.

2. All site improvements shall conform to the site plan and elevations attached as Exhibits G, H, and I.
3. The self-supporting lattice tower shall be painted a flat grey color. All equipment shelters, cabinets or other auxiliary structures shall be painted a flat tan color. The chain link fence shall be covered entirely by tan colored slats to further screen the facility. Said fence shall not have gaps at any portion where it touches ground level and shall have barbed wire attached to the entire top portion. Planning Services shall verify the painting of the structures and the installation of fencing and slats prior to final inspection and approval of the facility.
4. Planning Services shall require landscaping to be installed along the wireless communications facility perimeter fencing. Landscaping shall be sufficient to further screen the facility and the perimeter fencing from adjacent land uses. The required landscaping plan shall be developed and reviewed by Planning Services staff prior to issuance of the building permit. The operator or property owner shall contact Planning Services to verify the installation and/or maintenance of required landscaping 3 years after installation or after landscaping has sufficiently screened the fenced area.
5. Lighting shall only be used for night-time maintenance. A security light may be permitted; however, it shall operate by a motion sensor only and be fully-shielded.
6. For collocation purposes, no further review by the Planning Commission shall be required, provided that all ground-mounted equipment is located within the proposed leased area and provided that any one of the proposed carriers installs no more than 12 panel antennas per carrier on the tower and the overall height of the tower shall not be increased by more than 15 feet.
7. All improvements associated with the communication facility, including equipment shelters, antennae, fences, and landscaping be properly maintained at all times. Planning Services requires that that all colors of the equipment enclosure and other improvements visible to the public shall be maintained to ensure the appearance remains consistent.
8. Weekly testing of the proposed diesel generator shall be conducted during normal business hours, Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m.
9. The applicant shall assume full responsibility for resolving television reception interference, if any, caused by operation of this facility. The applicant shall take corrective action within 30 days of receipt by Planning Services of any written television interference complaint.
10. All obsolete or unused communication facilities shall be removed by the applicant within six months after the use of that facility has ceased or the facility has been abandoned. The applicant shall notify Planning Services at the time of abandonment and all

disturbance related to the communication facility shall be restored to pre-project condition.

11. Due to the ever-changing technology of wireless communication systems, this Special Use Permit shall be reviewed by the Planning Commission every five years. At each five-year review, the permit holder shall provide the Planning Commission with a status report on the then current use of the subject site and related equipment. The Planning Commission shall review the status report and, based on an assessment of the information provided, current wireless communications technology, and possible local or cumulative impacts, determine whether to:
  - (1) Modify the conditions of approval in order to reduce identified adverse impacts; and
  - (2) Initiate proceedings to revoke the special use permit, requiring the facility's removal, if it is no longer an integral part of the wireless communication system; or
  - (3) Allow the facility to operate under all applicable conditions.

By operation of this condition, it is the intent of the Planning Commission to reserve the right to modify existing or add new conditions, consistent with the language specified above. The failure of the Planning Commission to conduct or complete a five-year review in a timely fashion shall not invalidate this special use permit. The applicant shall pay a fee as determined by the Development Services Director or his designee to cover the cost of processing a five-year review.

12. In the event of the discovery of human remains, all work is to stop and the County coroner shall be immediately notified pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.98 of the Public Resources Code. If the remains are determined to be Native American, the Coroner must contact the Native American Heritage Commission within 24 hours. The treatment and disposition of human remains shall be completed consistent with guidelines of the Native American Heritage Commission.
13. Prior to final inspection, the applicant shall provide a written description, together with appropriate documentation, showing conformance of the project with each condition imposed as part of the project approval. The applicant shall also schedule an inspection by Planning Services for verification of compliance with applicable conditions of approval. The operator shall pay Planning Services for the time spent reviewing the site on a time and materials basis.
14. The operator (lessee) and property owner (lessor) are responsible for complying with all conditions of approval contained in this Special Use Permit. Any zoning violations concerning the installation, operation, and/or abandonment of the facility are the responsibility of the owner and the operator.

El Dorado County Environmental Management:

15. Under the Certified Unified Program Agency (CUPA) programs, if the operation, at any time, will involve the storage of reportable quantities of hazardous materials for backup power generation, a hazardous materials business plan for the site must be submitted to the Department and applicable fees paid.
16. The District Mitigation measures for the control of fugitive dust shall comply with the requirements of Rule 223, 223.1, and 223.2, whichever rule is appropriate. In addition, a Fugitive Dust Plan (FDP) Application shall be submitted to and approved by the District prior to the start of project construction. These conditions are addressed during the building permit process.

Diamond Springs-El Dorado Fire Protection District:

17. Knox Box shall be installed per District Requirements. Additional requirements may be necessary once a full set of plans are submitted to the district for review. These conditions are addressed during the building permit process.

## ATTACHMENT 2 FINDINGS

### FILE NUMBER S07-0024 Union Mine Tower

The special use permit may be approved or conditionally approved based on the following findings:

#### **1.0 CEQA FINDING**

**1.1** Staff has determined that the proposed project will have no significant impact on the environment and is exempt from CEQA pursuant to Section 15302 of the CEQA Guidelines. Class 2 exemptions consist of replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced.

**1.2** The documents and other materials which constitute the record of proceedings upon which this decision is based are in the custody of the Development Services Department, Planning Services, at 2850 Fairlane Court, Placerville, CA.

#### **2.0 SPECIAL USE PERMIT FINDINGS**

##### **2.1 The issuance of the permit is consistent with the General Plan;**

It can be found the proposed use is consistent with the policies in the 2004 El Dorado County General Plan, as discussed in the General Plan section of this staff report. The proposed use is consistent with the Policies 2.2.5.21 and 5.6.1.4 in the 2004 El Dorado County General Plan because the aesthetics of the proposed self-supporting lattice tower have been addressed and the designed attempts to minimize the effects on adjacent properties. The lattice tower is to be painted a flat grey color to match the existing fire station and other towers in the vicinity, and the ground equipment will be painted flat tan color. Proposed chain link fencing is to be covered entirely by tan colored slats or sufficient landscaping shall be installed to further screen the facility.

##### **2.2 The proposed use would not be detrimental to the public health, safety and welfare, or injurious to the neighborhood;**

The proposed use would not create hazards that would be considered detrimental to the public health, safety, and welfare, or injurious to the neighborhood based on the data and conclusions contained in the staff report. At less than 3.2 percent of the public safety standard established by the FCC the risk of the release of hazardous materials or emissions to the public is remote. Also, improved cellular coverage in the area will assist in backing-up land lines for emergency uses.

**2.3 The proposed use is specifically permitted by a special use permit pursuant to this Title.**

Section 17.14.200 (D)(5)(b) of the County Code requires a Special Use Permit for location of new towers or monopoles outside of industrial, commercial and research and development zoned districts shall be subject to approval of a special use permit by the planning commission pursuant to Section 17.22.500 et seq. Also, the proposed use complies with the requirements of County Code Sections 17.14 and 17.28.050 thru 17.28.080.