



## Staff Report to the Zoning Administrator

Application Number: **05-0481**

**Applicant:** Evan Shepherd Reiff  
**Owner:** James Huxtable  
**APN:** 060-261-11

Agenda Date: March 3, 2006  
Agenda Item #: 8  
Time: After 1:00 p.m.

**Project Description:** Proposal to remove an existing 45-foot telecommunications monopole and replace it with a 60-foot co-locatable monopole, reinstall two existing antennas, construct six new antennas, install three equipment cabinets. one ground-mounted GPS antenna, two power/telco boxes, a 24 square foot concrete pad and a new six-foot cyclone fence.

**Location:** Project located on the west side of El Rancho Drive, approximately 900 feet south of the intersection with Carbonera Drive (200 El Rancho Drive).

**Supervisory District:** 1st District (District Supervisor: Janet Beautz)

**Permits Required:** Amendment to Commercial Development Permit 97-0880, 01-0312, and 03-0056

### Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 05-0481, based on the attached findings and conditions

### Exhibits

- |   |  |
|---|--|
| A. Project plans                              | F. Zoning map                          |
| B. Findings                                   | G. Comments & Correspondence           |
| C. Conditions                                 | H. Aerial Photos and Photosimulation   |
| D. Categorical Exemption (CEQA determination) | I. NIER Study by Hammet & Edison, Inc. |
| E. Assessor's parcel map                      |  |

### Parcel Information

**Parcel Size:** 1.6 acres  
**Existing Land Use - Parcel:** Residential, Wireless Communications facility

Existing Land Use - Surrounding: Residential, Public Facility (Highway 17)  
Project Access: El Rancho Drive  
Planning Area: Carbonera  
Land Use Designation: P (Public Facility/Institutional Designation)  
Zone District: SU (Special Use)  
Coastal Zone: ☐ Inside ☒ Outside

#### Environmental Information

Geologic Hazards: Not mapped/no physical evidence on site  
Soils: 177-Watsonville Loam, **2-15%** slopes  
Fire Hazard: Not a mapped constraint  
Slopes: Area of development contains slopes of 0-15%  
Env. Sen. Habitat: Mapped biotic resources, however none identified by Environmental Planning staff and habitat not present  
Grading: No grading proposed  
Tree Removal: No trees proposed to be removed  
Scenic: Not visible from Highway 17  
Drainage: Existing drainage adequate  
Archeology: Mapped resource area, however no archeological site assessment did not reveal presence of resources

#### Services Information

Urban/Rural Services Line: ☒ Inside ☐ Outside  
Water Supply: N/A  
Sewage Disposal: N/A  
Fire District: Scotts Valley Fire Protection District  
Drainage District: None

#### History

Three approvals for wireless communications facilities have been granted on the subject property. Commercial Development Permit (CDP) 97-0880 allowed the construction of a wireless telecommunications facility for Pacific Bell, consisting of a 40-foot **high** monopole and a 10 square foot concrete pad. Commercial Development Permit 01-03 12 was approved on 11/16/01 to amend CDP 97-0880 to allow the construction of a new 48-foot high monopole, as well as a 220 square foot equipment shed in addition to the existing 40 foot monopole. On 03/18/04 CDP 03-0056 was approved to transfer ownership of the wireless facility associated with the 48-foot **cell** tower **from** Sprint to AT&T Wireless, and to delete the equipment storage building and replace it with a reduced equipment enclosure by constructing a concrete slab and 6-foot high fenced area to house three equipment cabinets.

## **Project Setting**

The project site is located on the west side of El Rancho Drive in the Carbonera Planning Area. The site is located between El Rancho Drive and Highway 17 and is developed with two existing wireless facilities and a single-family dwelling. Highway 17 is located to the west, with residential development located to the north, east and south.

## **Analysis and Discussion**

The current proposal would replace the existing 40-foot monopole with a new 60-foot monopole, camouflaged to **look** like a pine tree (monopine). The existing monopole serves T-Mobile/Cingular. The additional 15 feet of pole height resulted from prior negotiations with a third carrier (Verizon) who sought co-location on the existing tower. Proper separation from these two carriers required additional height. Additionally the 60-foot height is required in order to provide uninterrupted service from Scotts Valley to Ocean Street in Santa Cruz. Three existing antennas will be relocated on the new monopine at a height of 36'9" and six new antennas will be mounted at a height of 55 feet. The proposed replacement pole provides a camouflaged design in place of the existing 40-foot slimline pole, which is not camouflaged and is currently visible from Highway 17. The proposed monopine will service both metroPCS as well as T-Mobile/Cingular.

## **Zoning & General Plan Consistency**

The subject property is a 1.6-acre lot, located in the SU (Special Use) zone district, with a P (Public Facility) General Plan designation. This zone district is considered supportive of the Public Facility land use designation which is intended to provide for present and future availability of land for both public and quasi-public facilities. Specifically, General Policy 2.21.1(a) provides for development or increases in intensity of use for private non-residential public facilities.

## **Wireless Ordinance/Zoning Issues**

This application is subject to County Code 13.10.659 (Regulations for the siting, design, and construction of wireless communications facilities). Regarding subsection 13.10.659(h)(1), the application is consistent with site location requirements in that the proposed replacement monopole is located and camouflaged to preserve the visual character and aesthetic values of the parcel and surrounding area. The proposal, while not a co-location, does utilize a parcel currently approved and developed with a wireless communication facility. Additionally, the proposed monopine is designed to accommodate future co-location in accordance with County policies. Development on this site does not place new development on a ridge, nor does the development disturb the existing topography or on-site vegetation. Site lighting will be limited to motion activated security/maintenance lighting. The proposed location for the replacement monopine is on an area of the lot that is not directly adjacent to surrounding residential uses. While the subject parcel is zoned SU (Special Use), the General Plan Designation is Public Facility, therefore the subject parcel is not considered a Restricted Area per County Code 13.10.661(c).

Regarding subsection 13.10.659(2), the non-flammable, self-supporting monopine and support facility are consistent with the regulations in that the support structure is 60 feet in height and screened by mature landscaping already present on the site. ~~Per~~ County Code 13.10.510(d)(2) non-commercial antennas are allowed to exceed the proscribed zone district height limit by 25 feet. For the subject parcel, this would allow a 53-foot tall tower. Additionally the Code Section allows a further 25-foot height extension with a Level IV Use Approval. For the subject proposal, the monopine would require the approval of 7 additional feet in height, for the maximum of 60. As mentioned previously, the proposed pole will be camouflaged as a pine tree to mimic the surrounding vegetation and reduce visual impacts to the adjacent Highway 17 corridor.

### Visual Impacts

The project site is located within the Highway 17 Scenic Corridor. The proposed Wireless Communication Facility and associated equipment cabinets comply with the requirements of the County Design Review Ordinance, in that the proposed 60-foot pole and associated antennas will be camouflaged to look like a pine tree. Mature native vegetation on the property also provides screening and reduces the project's visual impact on the surrounding residences as well as Highway 17. The County's Urban Designer has reviewed and accepted the proposed design with several conditions of approval including painting the proposed antennas to match the existing monopine and providing only manual lighting.

### Radio Frequency (RF) Exposure

The applicant has submitted a study by Hammett and Edison, Inc., consulting engineers which indicates that the maximum exposure to ambient RF (Radio Frequency) levels will be 0.12 percent of applicable public exposure limit.

Section 47 USC 332 (c)(7)(iv) of the Telecommunications Act of 1996 forbids jurisdictions from regulating the placement, construction, or modification of Wireless Communications Facilities based on the environmental effects of RF emissions if these emissions comply with FCC standards. The RF emissions of the proposed wireless communications facility comply with the FCC standards.

### Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

### Staff Recommendation

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- APPROVAL of Application Number **05-0481**, based on the attached findings and conditions.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: [www.co.santa-cruz.ca.us](http://www.co.santa-cruz.ca.us)

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## Wireless Communication Facility Use Permit Findings

1. The development of the proposed wireless communications facility as conditioned will not significantly affect any designated visual resources, environmentally sensitive habitat resources (as defined in the Santa Cruz County General Plan/LCP Sections 5.1, 5.10. and 8.6.6), and/or other significant County resources, including agricultural, open space, and community character resources; or there are no other environmentally equivalent and/or superior and technically feasible alternatives to the proposed wireless communications facility as conditioned (including alternative locations and/or designs) with less visual and/or other resource impacts and the proposed facility has been modified by conditions and/or project design to minimize and mitigate its visual and other resource impacts.

The proposal will not significantly affect any designated visual resources in that, while the site is within a vista from a designated scenic road (Highway 17), and is therefore protected by General Plan Policy 5.10.3, steps have been taken to reduce the visual impacts of the development to a less than significant level. Specifically, the monopole is proposed to replace an existing monopole in the same location. The existing monopole is not currently camouflaged, while the proposed pole will be camouflaged to blend into the existing natural surrounding. The proposed equipment sheds will be screened by existing vegetation, will be painted a neutral earth tone color, and will not be visible from the scenic highway, as demonstrated by visual simulations provided by the applicant. The County Urban Designer has reviewed the proposed design of the facility and has approved the design as proposed and conditioned.

2. That the site is adequate for the development of the proposed wireless communications facility and that the applicant has demonstrated that there are not environmentally superior and technically feasible alternative sites or designs for the proposed facility.

This finding can be made in that the proposed site is not located in a prohibited or restricted area as set forth in Sections 13.10.661(b) and 13.10.661(c). As such, no alternative site analysis or alternative designs are required. Wireless communication facilities are an allowed use within the SU (Special Use) zone district.

As discussed in Wireless Communication Facility Use Finding #1, the proposed camouflaged monopole would replace a non-camouflaged slimline pole that is currently visible from the Highway 17 scenic corridor. The subject parcel is an environmentally superior site in that the proposal has the potential to reduce the existing impact to the corridor.

3. That the subject property upon which the wireless communications facility is to be built is in compliance with all rules and regulations pertaining to zoning uses, subdivisions, and any other applicable provisions of this title and that all zoning violation abatement costs, if any, have been paid.

This finding can be made, in that **the** existing wireless telecommunications facilities are permitted uses under permits 97-0880, 01-0312, and 03-0056. The existing and proposed uses, as designed, are compatible with the **zone** district and General Plan designation.

No zoning violation abatement fees are applicable to the subject property.

4. That the proposed wireless communications facility will not create a hazard for aircraft in flight.

The proposed facility will not create a hazard for aircraft in flight in that the top of the monopole will be lower than the tops of the existing trees in the area. The monopole will be closely integrated into the existing tall trees that surround **the** proposed building site.

5. That the proposed wireless communications facility is in compliance with all FCC and California PUC standards and requirements.

The facility is in compliance with all FCC and California PUC standards and requirements in that the equipment for the facility is reviewed by the appropriate state and federal agencies.

The maximum ambient RF at ground level due to the proposed operation are calculated to 0.0012 mW/cm<sup>2</sup>, which is 0.12 percent of the most restrictive applicable limit. The maximum effective radiated power in any direction would be 1,000 watts.

Cingular Wireless, another telecommunications carrier, has a similar base station located about 95 feet to the north. The existing base station, during its 1997 **ZA** hearing, reported a maximum effective radiated power of 200 watts, and a maximum ambient RF of 0.012 percent. Collectively these facilities are well below acceptable safety standards.

## Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

The location of the 60-foot replacement monopole and the equipment cabinets and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity in that the project is located in an area designated for public/private utility use and is not encumbered by physical constraints to development. The maximum ambient RF at ground level due to the proposed operation are calculated to  $0.0012 \text{ mW/cm}^2$ , which is 0.12 percent of the most restrictive applicable limit. The maximum effective radiated power within any direction would be 1,000 watts.

Cingular Wireless, another telecommunications carrier, has a similar base station located about 95 feet to the north. The existing base station, during its 1997 Zoning Administrator hearing, reported a maximum effective radiated power of 200 watts, and a maximum ambient RF of 0.012 percent. Collectively these facilities are well below acceptable safety standards.

Construction will comply with prevailing building technology, the Uniform Building Code, and the County Building ordinance to insure the optimum in safety and the conservation energy and resources.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

The project site is located in the SU zone district. The proposed location of the replacement antenna and equipment and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the SU zone district, which are established by the General Plan designation of P (Public Facilities). See Finding 3.

The ordinance regulating the location wireless communications facilities (13.10.659(f)(2)) authorizes the construction of such devices within the SU zone districts with other than a residential General Plan designation. See Finding 3.



**3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.**

The subject parcel has a land use designation of P (Public Facilities). The proposed private, non-residential public facility is consistent with all elements of the General Plan in that the use is permitted by General Plan Policy 2.21.1(a), and that the proposal is consistent with General Plan Policy 8.6.6 as the development does not disturb ridge tops or natural land forms. Further, the use is not located in a hazardous or environmentally sensitive area and the proposal protects natural resources by expanding in an area designed for this type of development.

The subject property is located within the Highway 17 scenic corridor. The tower is visible from points along the corridor, however the existing topography and vegetation along the highway will only allow brief views of the tower structure. The proposed tower will be camouflaged to appear as a natural pine tree, and additional vegetation will be planted to provide additional screening for the tower and associated equipment. The visual impact is less than significant.

A specific plan has not been adopted for this portion of the County.

**4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.**

The use will not overload utilities and will not generate traffic on the streets in the vicinity in that the facilities are planned for unattended/non-habitable operation. Improved wireless communication resulting from the installation of this facility may have a positive impact on traffic circulation in that drivers will have improved access to emergency services thereby reducing response time.

**5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.**

The proposed facilities will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects in that the monopole structure will be camouflaged to blend into the existing natural area and the associated equipment cabinets will be painted in earth tone colors and screened by the existing mature vegetation in the area. The proposed design will adequately camouflage the wireless communications facility from view. Additionally the proposed camouflaged tower replaces an existing tower that is not camouflaged and is currently visible from Highway 17.

**6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.**

The proposed wireless communications facility is consistent with the Design Standards and Guidelines in that the proposed facility will be camouflaged to reduce potential visual impacts to the surrounding neighborhood.

## **Conditions of Approval**

**Exhibit A:** Project Plans entitled "T-Mobile/Pasatiempo SF16550-B," prepared by Omni Design Group, Inc., 6 sheets, dated June 6, 2005.

- I. This permit amends and incorporates all of the findings and conditions of Commercial Development Permit 97-0880, Commercial Development Permit 01-0312, and Commercial Development Permit 03-0056. Any findings or conditions contained in this permit that are in conflict with prior permits will be superseded by the conditions contained within this permit. This permit authorizes the removal of an existing 40-foot telecommunications monopole and the replacement with a 60-foot co-locatable monopole, the reinstallation of two existing antennas, the construction of six new antennas, the installation of three equipment cabinets and a ground-mounted GPS antenna, two power/telco boxes, a 24 square foot concrete pad, and a new six-foot cyclone fence.
  - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
  - B. Obtain a Demolition Permit from the Santa Cruz County Building Official.
  - C. Obtain a Building Permit from the Santa Cruz County Building Official.
  - D. Obtain an Encroachment Permit from the Department of Public Works for all off-site work performed in the County road right-of-way.
  - E. The applicant shall obtain approval from the California Public Utilities Commission and the Federal Communications Commission to install and operate this facility.
  - F. To ensure that the storage of hazardous materials on the site does not result in adverse environmental impacts, the applicant shall submit a Hazardous Materials Management Plan for review and approval by the County Department of Environmental Health Services.
- II. Prior to issuance of a Building Permit the applicant/owner shall:
  - A. Submit proof that these conditions have been recorded in the official records of the County of Santa **Cruz** (Office of the County Recorder).
  - B. Submit final architectural plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. Any changes from the approved Exhibit "A" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:

1. Identify finish and color of the proposed camouflage materials for Planning Department approval. Paint for the antennas must be non-reflective and match the existing paint color of the monopole, while the proposed equipment shelter/cabinets shall be painted a neutral earth tone color.
  2. Identify the height and material of fencing surrounding the lease area for Planning Department approval. New fence shall match existing.
  3. Grading, drainage, and erosion control plans.
  4. For any structure proposed to be within 2 feet of the maximum height limit for the zone district, the building plans must include a roof plan and a surveyed contour map of the ground surface, superimposed and extended to allow height measurement of all features. Spot elevations shall be provided at points on the structure that have the greatest difference between ground surface and the highest portion of the structure above. This requirement is in addition to the standard requirement of detailed elevations and cross-sections and the topography of the project site which clearly depict the total height of the proposed structure.
  5. All new electric and telecommunications lines shall be placed underground.
  6. Details showing compliance with fire department requirements.
- C. Submit four copies of the approved Discretionary Permit with the Conditions of Approval attached. The Conditions of Approval shall be recorded prior to submittal, if applicable.
- D. To guarantee that the camouflaged, ground-mounted tower remains in good visual condition and to ensure the continued provision of mitigation of the visual impact of the wireless communications facility, the applicant shall submit a maintenance program prior to building permit issuance which includes the following:
1. A signed contract for maintenance with the company that provides the exterior finish and camouflage materials, for annual visual inspection and follow-up repair, painting, and resurfacing as necessary.
- E. Meet all requirements of and pay all required drainage fees to the County Department of Public Works, Drainage. Drainage fees will be assessed on the net increase in impervious area.
- F. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services.

- G. Meet all requirements and pay any applicable plan check fee of the Scotts Valley Fire Protection District.
  - H. Submit 3 copies of a soils report prepared and stamped by a licensed Geotechnical Engineer.
  - I. Submit a plan review letter from the project soils engineer, which states that the final building, grading and drainage plans are in conformance with the recommendations made in the soils report prepared for the site.
- III. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:
- A. All site improvements shown on the final approved Building Permit plans shall be installed.
  - B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.
  - C. The project must comply with all recommendations of the approved soils reports. Submit an observation from the project soils engineer, which states that the project, as constructed, is in compliance with report recommendations.
  - D. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.
- IV. Operational Conditions
- A. A Planning Department review that includes a public hearing shall be required for any future co-location at this wireless communications facility.
  - B. Any modification in the type of equipment shall be reviewed and acted on by the Planning Department staff. The County may deny or modify the conditions at this time, or the Planning Director may refer it for public hearing before the Zoning Administrator.
  - C. The equipment cabinet area must be locked at all times except when authorized personnel are present. The antennas must not be accessible to the public.

- D. The NIER hazard zone will be posted with bilingual NIER hazard warning signage that also indicates the facility operator and a 24-hour emergency contact who is authorized by the applicant to act on behalf of the applicant regarding an emergency situation.
- E. The camouflage materials, ground-mounted tower and antennas shall be permanently maintained and replacement materials and/or paint shall be applied as necessary to maintain the camouflage of the tower.
- F. All noise generated from the approved uses shall be contained on the property.
- G. Within 90 days of the commencement of normal operations, or within 90 days after any modification to power output of the facility, a report must be submitted documenting the non-ionizing electromagnetic radiation (NIER) emissions of the project in order to verify compliance with the FCC's NIER standards.
- H. All site, building, security and landscape lighting shall be directed onto the lease site and away from the scenic corridor and adjacent properties. Light sources shall not be visible from adjacent properties. Light sources can be shielded by landscaping, structure, **fixture** design or other physical means. Building and security lighting shall be integrated into the building design.
- I. If future technological advances would allow for reduced visual impacts resulting from the proposed telecommunication facility, the applicant agrees through accepting the terms of this permit to make those modifications, which would allow for reduced visual impact of the proposed facility as part of the normal replacement schedule. If, in the future, the facility is no longer needed, the applicant agrees to abandon the facility and be responsible for the removal of all permanent structures and the restoration of the site as needed to re-establish the area consistent with the character of the surrounding vegetation.
- J. If, as a result of future scientific studies and alterations of industry-wide standards resulting from those studies, substantial evidence is presented to Santa Cruz County that radio frequency transmissions may pose a hazard to **human** health and/or safety, the Santa Cruz County Planning Department shall set a public hearing and in its sole discretion, may revoke or modify the conditions of this permit.
- K. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.

- V. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, its officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.
- A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.
- B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
1. COUNTY bears its own attorney's fees and costs; and
  2. COUNTY defends the action in good faith.
- C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.
- D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor(s) in interest, transferee(s), and assign(s) of the applicant.
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Application #: 05-0481  
APN: 060-261-11  
Owner: James Huxtable

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

**Please note: This permit expires two years from the effective date unless you obtain the required permits and commence construction.**

Approval Date: \_\_\_\_\_

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

\_\_\_\_\_  
Don Bussey  
Deputy Zoning Administrator

\_\_\_\_\_  
Robin Bolster-Grant  
Project Planner

\_\_\_\_\_  
Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

# CALIFORNIA ENVIRONMENTAL QUALITY ACT

## NOTICE OF EXEMPTION

The Santa **Cruz** County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 05-0481

Assessor Parcel Number: 060-261-11

Project Location: 200 El Rancho Drive

**Project Description: Amendment to Commercial Development Permit 01-0312, 03-0056, and 97-0880**

**Person or Agency Proposing Project: Evan Shepherd Reiff**

**Contact Phone Number: (831) 345-2245**

- A. ☐ The proposed activity is not a project under CEQA Guidelines Section 15378.  
B. ☐ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).  
C. ☐ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.  
D. ☐ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type:

E. ☒ **Categorical Exemption**

Specify type: Class 5 - Minor Alterations in Land Use Limitations (Section 15302)

**F. Reasons why the project is exempt:**

Replacement of existing monopole where new structure will be located on the same site as the structure replaced and will have substantially the same capacity as the structure replaced.

In addition, none of the conditions described in Section 15300.2 apply to this project.

\_\_\_\_\_  
Robin Bolster-Grant, Project Planner

Date: \_\_\_\_\_

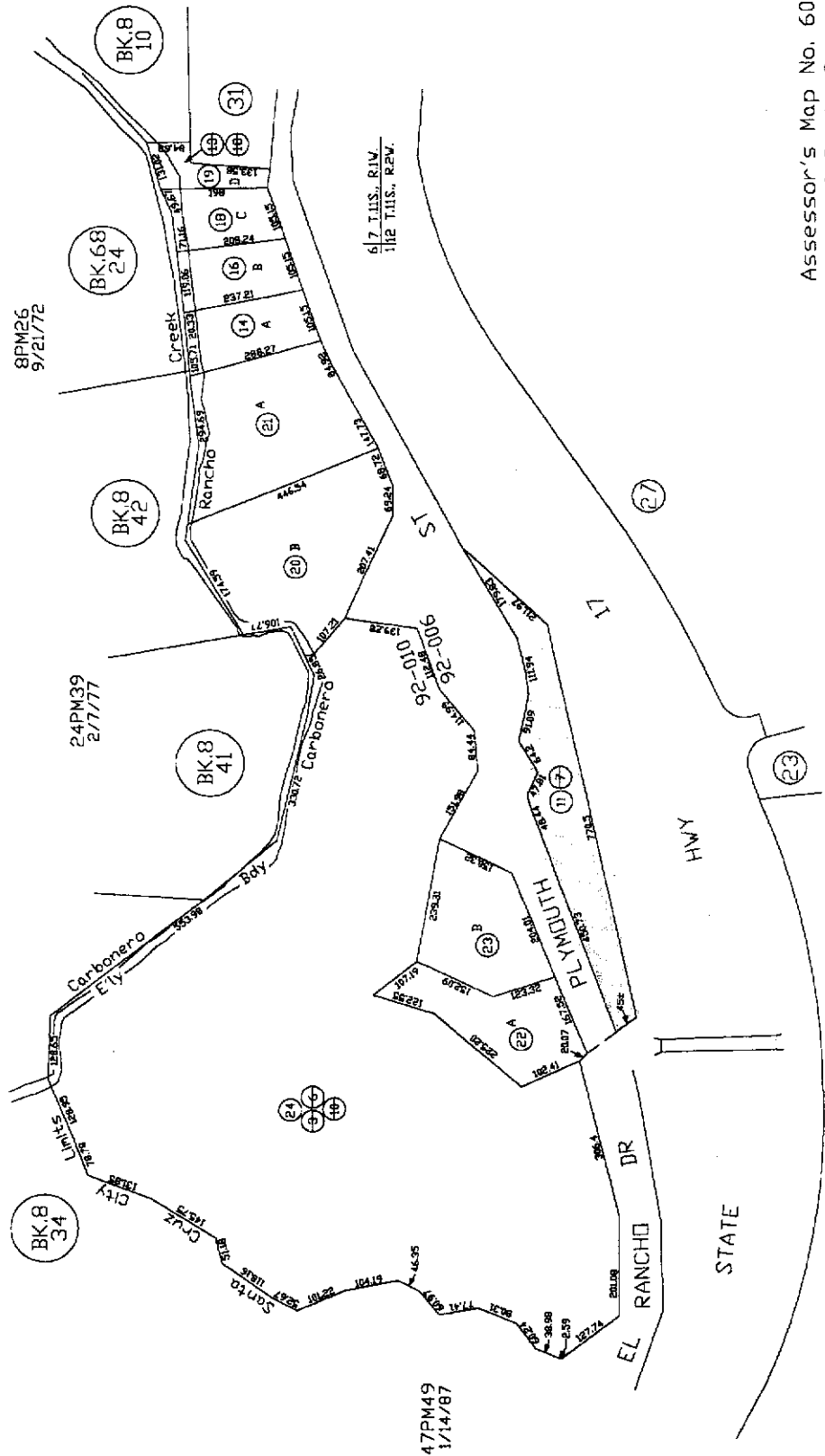
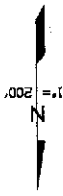


FOR TAX PURPOSES ONLY  
 THE ASSessor MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY  
 LIABILITY FOR ANY USE. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.  
 © COPYRIGHT SANTA CRUZ COUNTY ASSESSOR 2002

POR. CARBONERO RANCHO  
 SEC. 1 & 12, T.11S., R.2W., &  
 SEC. 6 & 7, T.11S., R.1W., M.D.B. & M.

Tax Area Code  
 92-006 92-010

90-20



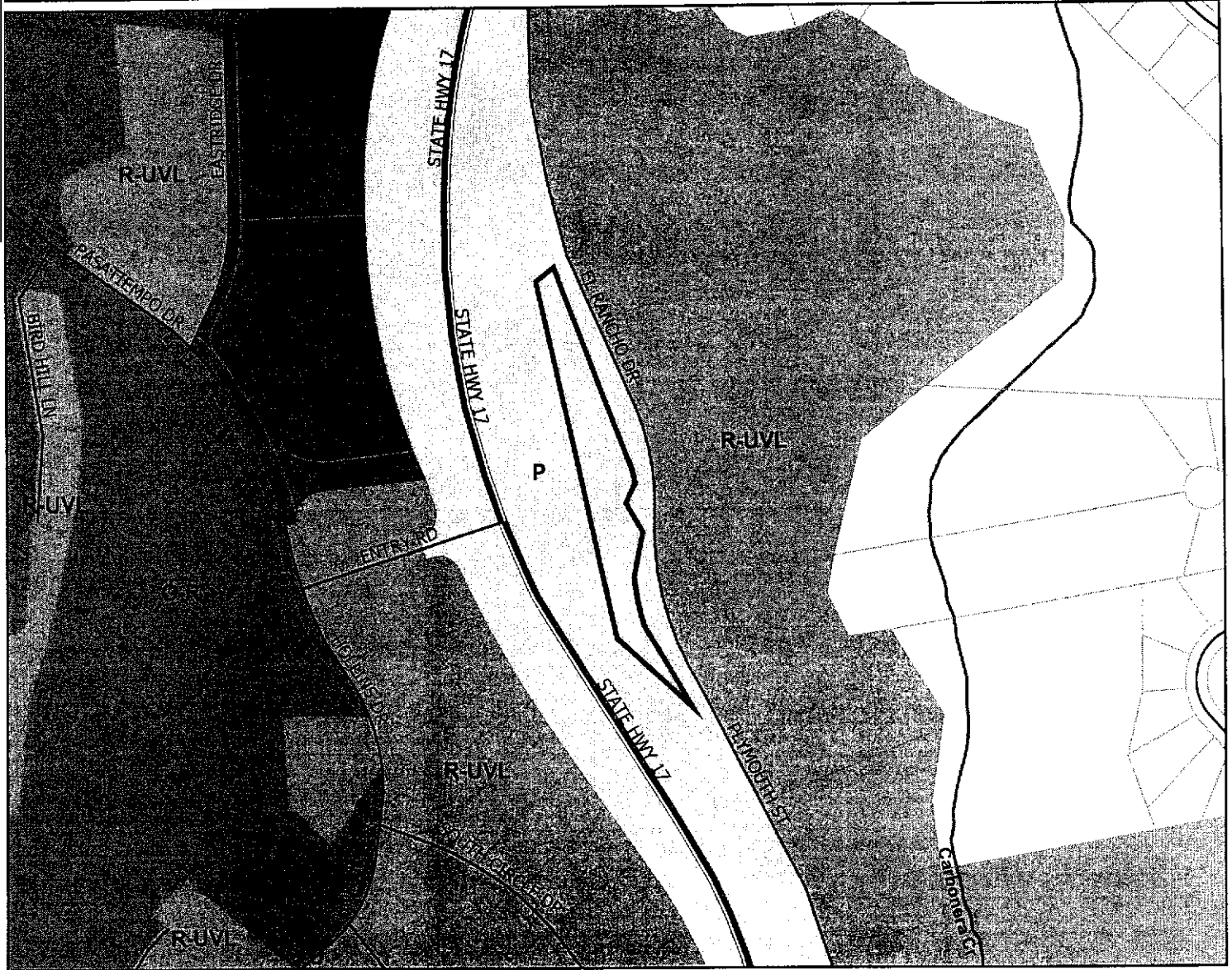
Assessor's Map No. 60-26  
 County of Santa Cruz, Calif.  
 Jan. 2002

Note - Assessor's Parcel & Block  
 Numbers are Shown in Circles.










electronically repositioned 1/3/02 KSA  
 by Santa Cruz City Replanning 1/3/02 KSA

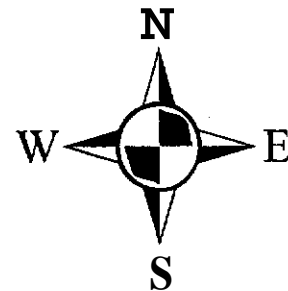


# General Plan Designation Map



## Legend

-  APN 060-261-11
-  Streets
-  Assessors Parcels
-  State Highways
-  PERENNIAL STREAM
-  Public Facilities (P)
-  Residential - Urban Very Low Density (R-UVL)
-  Parks and Recreation (O-R)
-  Commercial-Visitor Accom. (C-V)

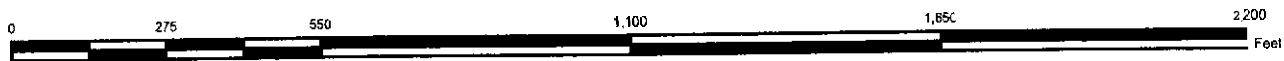
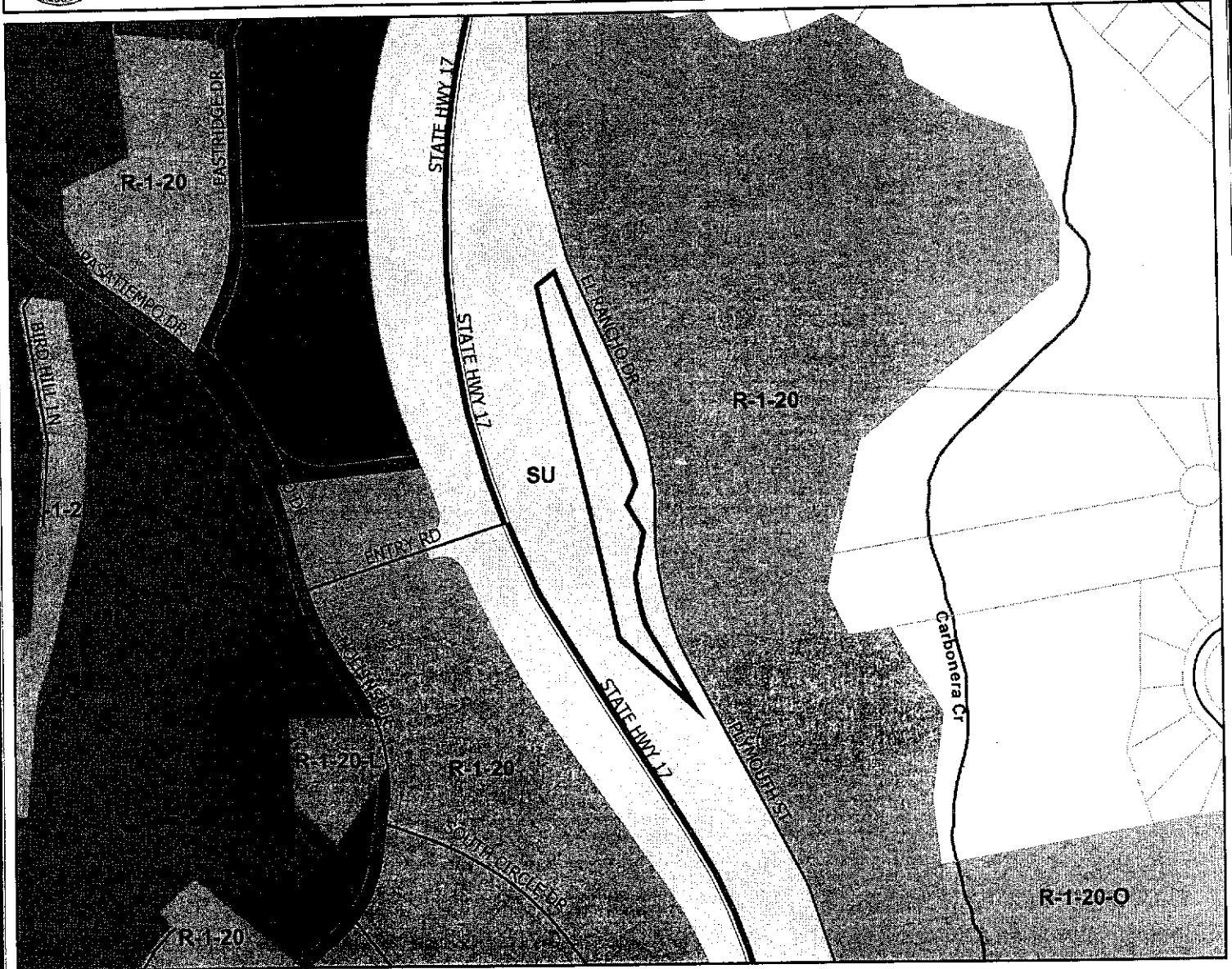


Map Created by  
County of Santa Cruz  
Planning Department  
August 2005

EXHIBIT F

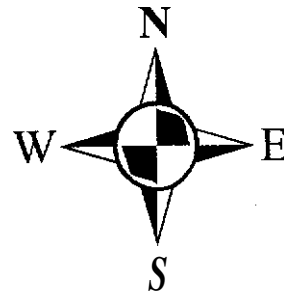


# Zoning Map



## Legend

- APN 060-261-11
- Streets
- Assessors Parcels
- State Highways
- PERENNIAL STREAM
- SPECIAL USE (SU)
- RESIDENTIAL-SINGLE FAMILY (R-1)
- PARK (PR)
- COMMERCIAL-VISITOR ACCOM (VA)
- CITY PROPERTY



Map Created by  
County of Santa Cruz  
Planning Department  
August 2005

**EXHIBIT F**

COUNTY OF SANTA CRUZ

Inter-Office Correspondence

DATE: August 10, 2005

TO: Tom Burns, Planning Director  
Cathy Graves, Planner  
✓ David Heinlein, Planner

FROM: Supervisor Jan Beautz *JB*

RE: COMMENTS ON APP. 05-0481, APN 060-261-11,  
200 EL RANCHO DRIVE, CELL SITE

---

Please consider the following areas of concern in your evaluation of the above application to remove an existing 45 foot monopole and construct a replacement 60 foot co-locatable monopole, reinstall two existing antennas and construct six additional antennas and three equipment cabinets, one ground mounted GPS antenna, two power boxes, a concrete pad and new six foot chain link fence.

This parcel, containing one existing residential dwelling, is zoned SU. Code Section 13.10.382(a) states that the allowed uses for an SU zoned parcel would be all uses allowed in the RA and R-1 Zone District. Additionally, this SU parcel is directly adjacent to R-1-20 zoning on all sides. Code requires that the most restrictive adjacent zone district standards apply, which in this case would be R-1-20.

Code Section 13.10.661(b) prohibits wireless communication facilities in single family residential zone districts. The current monopole was constructed prior to this Code restriction for residential parcels. The applicant is proposing to remove an existing monopole so that one of greater height can be constructed capable of offering future co-location abilities. This has the potential to significantly intensify the wireless communication capabilities of this residential parcel. Does the removal of the existing monopole constitute the loss of development rights for a replacement monopole as this replacement tower would have to comply with current Code requirements?

JKB:ted

3283A1

## INTEROFFICE MEMO

---

**APPLICATION NO: 05-0481**

**Date:** August 16, 2005

**To:** David Heinlein, Project Planner

**From:** Larry Kasparowitz Urban Designer

**Re:** Design Review for a wireless antennae co-location at 200 El Rancho Drive, Santa Cruz (James Huxtable / owner, Peacock and Associates / applicant)

---

*Add Conditions of Approval that require:*

*Antennas shall be painted non-reflective green to match the existing monopine.*

- *Manual lighting only.*
- *New fence shall match existing.*
- *Equipment shelter/cabinets shall be painted a neutral earth tone color,*

**C O U N T Y   O F   S A N T A   C R U Z**  
**DISCRETIONARY APPLICATION COMMENTS**

Project Planner: Robin Bolster  
Application No.: 05-0481  
APN: 060-261-11

Date: February 1, 2006  
Time: 16:09:47  
Page: 1

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**Environmental Planning Completeness Comments**

===== REVIEW ON AUGUST 18, 2005 BY ANDREA M KOCH =====

No comments. ===== UPDATED ON DECEMBER 7, 2005 BY ANDREA M KOCH =====

**Environmental Planning Miscellaneous Comments**

===== REVIEW ON AUGUST 18, 2005 BY ANDREA M KOCH =====

Please submit a geotechnical (soils) report addressing soil characteristics and the design of the monopine foundation.

**Dpw Drainage Completeness Comments**

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON AUGUST 18, 2005 BY CARISA REGALADO =====

Plans accepted as submitted. Discretionary stage application review is complete for this division. (Additional note in Miscellaneous Comments.)

**Dpw Drainage Miscellaneous Comments**

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON AUGUST 18, 2005 BY CARISA REGALADO =====

Maintain existing drainage patterns and do not adversely affect adjacent and/or downstream structures and properties (by flooding, erosion, etc.).

**Scotts Valley Fire District Completeness Comments**

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON AUGUST 9, 2005 BY MARIANNE E MARSANO =====

DEPARTMENT NAME: Scotts Valley Fire District

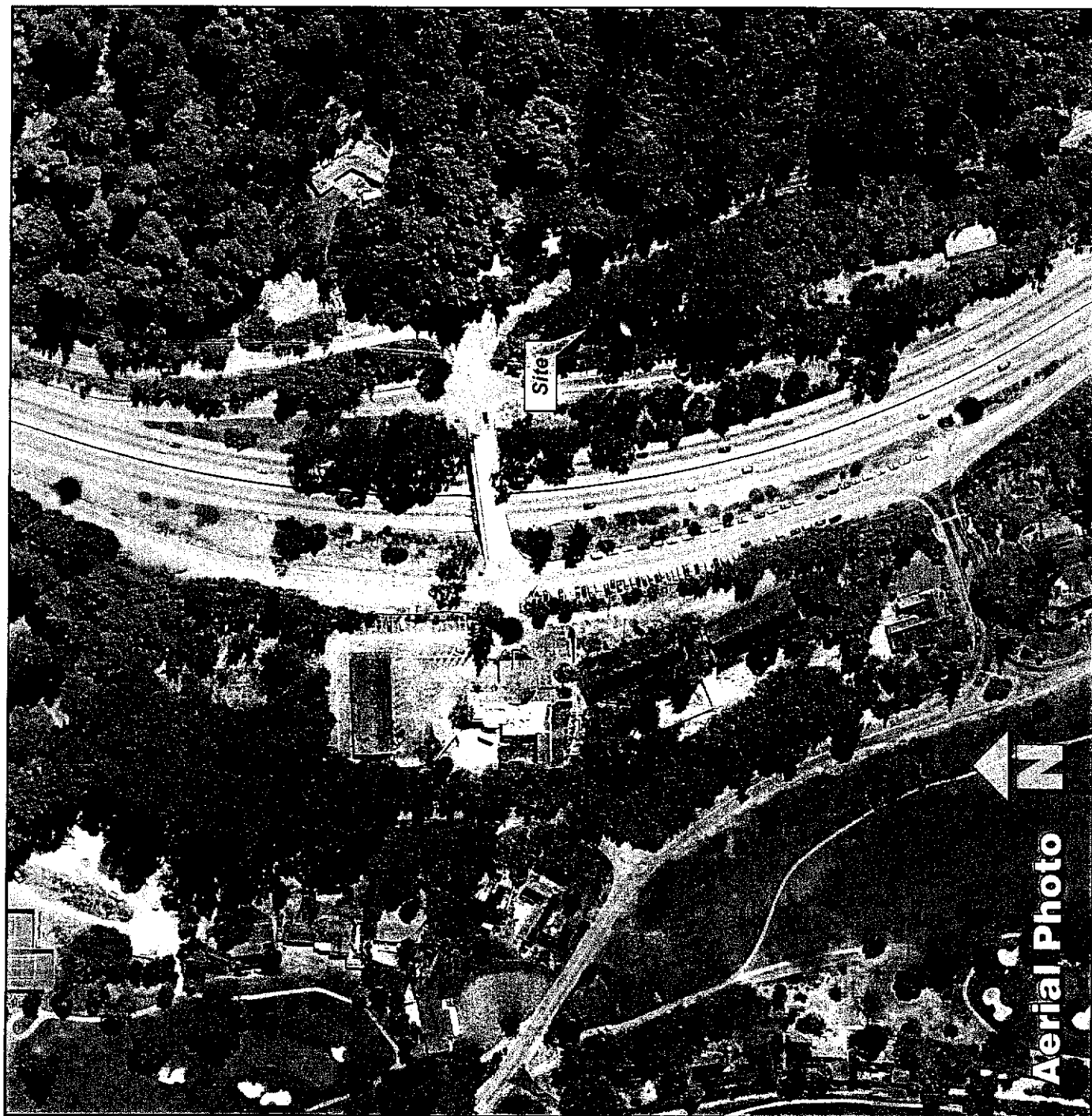
Add the appropriate NOTES and DETAILS showing this information on your plans and RESUBMIT, with an annotated copy of this letter:

A clearance of combustible vegetation of 30 feet is required around the site.

**Scotts Valley Fire District Miscellaneous Comments**

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON AUGUST 9, 2005 BY MARIANNE E MARSANO =====



**Site Location** - The site was located by using the street address, plotted on MapQuest, found with posted address sign at the driveway and confirmed by locating the slimline pole on site and adjacent tree pole.

**Viewpoint Selection** - The site is located on the east side of Hwy 17, just south of the Pasatiempo off-ramp, among very dense trees. It was difficult to find the site, even though there is an existing pole there. To get the southbound shot, the photographer walked up the off-ramp to get a view through the trees. Because of the curve in the road and tree cover, the existing pole does not come into view until seconds before passing the site. A photograph was provided from the Inn across the freeway. Again, the photographer walked back and forth in the parking lot to get a clear shot. For the northbound shot, there was no place to stop on Hwy 17, so a photo was provided from across the freeway from walking down the on-ramp to get a clear view. The dense trees made any views from the east impossible.

**Scale** - The proposed antennas will be mounted to a proposed co-location tree pole which will replace an existing slimline pole. The existing slimline pole was measured in the field, and because of the extremely dense vegetation there is some disagreement on the exact height of the existing pole. Therefore, the measurements used for the photosimulations will be "worst case scenario". It is important to note that if the field measurements were off, then the proposed pole will appear slightly shorter than is shown on the photosimulations.

**Equipment Information** - The images were taken with a Canon 1Ds Mark II Professional Digital camera with a 1:1 conversion ratio using standard lenses. GPS equipment: Garmin Vista. Distance measured with Bushnell 1000 digital laser range finder. Height scale achieved with a Crain 25 ft scale pole, photographed in the same plane. All image manipulation is done using Adobe Photoshop on Macintosh G5 workstations.

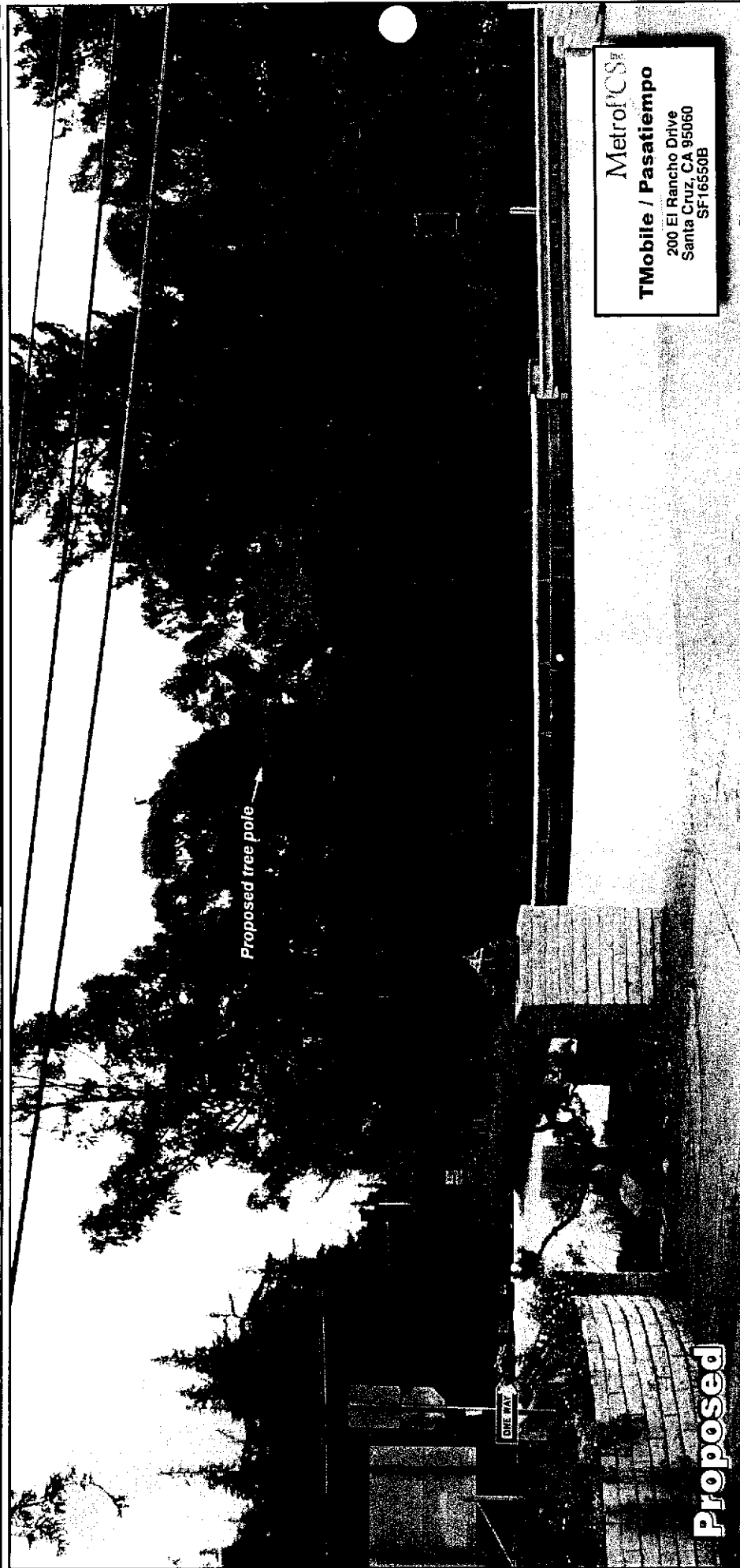
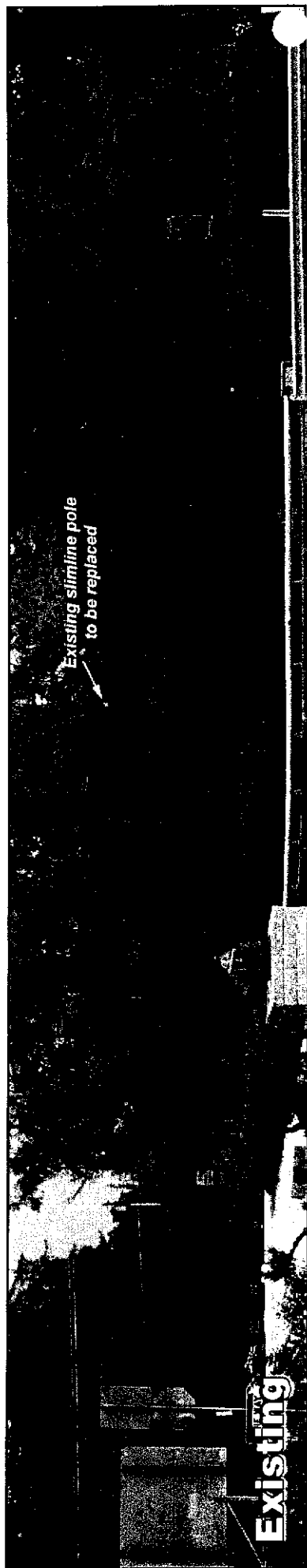
**MetroPCS<sup>®</sup>**  
**TMobile / Pasatiempo**  
 200 El Rancho Drive  
 Santa Cruz, CA 95060  
 SF16550B

# Photosimulation of view looking south from the shoulder of southbound Hwy 17.





# Photosimulation of view looking east from the Pasatiempo Inn, across Hwy 17.



# Photosimulation of view looking north from the private driveway (not a public viewpoint).



**Existing**



**Proposed**

**MetrolCS**  
**T-Mobile / Pasatiempo**  
 200 El Rancho Drive  
 Santa Cruz, CA 95060  
 SF16550B

**MetroPCS • Proposed Base Station (Site No. SF16550-B)  
200 El Rancho Drive • Santa Cruz, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of MetroPCS, a personal wireless telecommunications carrier, to evaluate the base station (Site No. SF16550-B) proposed to be located at 200 El Rancho Drive in Santa Cruz, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

**Prevailing Exposure Standards**

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. In Docket 93-62, effective October 15, 1997, the FCC adopted the human exposure limits for field strength and power density recommended in 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 Institute of Electrical and Electronics Engineers ("IEEE") Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes nearly identical exposure limits. 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 limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

<u>Personal Wireless Service</u>	<u>Approx. Frequency</u>	<u>Occupational Limit</u>	<u>Public Limit</u>
Personal Communication ("PCS")	1,950 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
Cellular Telephone	870	2.90	0.58
Specialized Mobile Radio	855	2.85	0.57
[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 "cabinets") 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 about 1 inch thick. 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







**MetroPCS • Proposed Base Station (Site No. SF16550-B)  
200 El Rancho Drive • Santa Cruz, California**

the horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, 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 attached 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 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 Metro, including zoning drawings by Omni Design Group, Inc., dated June 6, 2005, it is proposed to mount six EMS Model RR6518-00DPL directional panel PCS antennas on a new 60-foot steel pole, configured to resemble a tree, to replace an existing pole located at 200 El Rancho Drive in Santa Cruz. The antennas would be mounted at an effective height of about 53 feet above ground and would be oriented in pairs at 120" spacing, to provide service in all directions. The maximum effective radiated power in any direction would be 1,890 watts, representing six channels operating simultaneously at 315 watts each.

Presently located on the existing pole and on another nearby pole are similar antennas for use by T-Mobile and Cingular Wireless, other wireless telecommunications carriers, respectively. It is assumed that T-Mobile will continue to use two EMS panel antennas mounted at an effective height of about 34 feet above ground one Model RR9017-02DP antenna oriented toward 205°T and one Model RR6518-00DP antenna toward 350°T, operating with a maximum effective radiated power in any direction of 200 watts. Cingular reports that it is using three Allgon Model 7920 directional dualband antennas mounted at an effective height of about 43 feet above ground. Those antennas are oriented toward 60°T, 180°T, and 350°T, operating with a maximum effective radiated power in any direction of 1,650 watts.

**Study Results**

For a person anywhere at ground, the maximum ambient RF exposure level due to the proposed Metro operation by itself is calculated to be  $0.0034 \text{ mW/cm}^2$ , which is 0.34% of the applicable public exposure limit. The maximum calculated cumulative level at ground for the simultaneous operation of



**MetroPCS • Proposed Base Station (Site No. SF16550-B)  
200 El Rancho Drive • Santa Cruz, California**

all three carriers is 0.77% of the public exposure limit; the maximum calculated cumulative level at the second floor elevation of any nearby building is 1.4% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels, Figure 3 attached provides the specific data required under Santa Cruz County Code Section 13.10.659(g)(2)(ix), for reporting the analysis of RF exposure conditions.

**No Recommended Mitigation Measures**

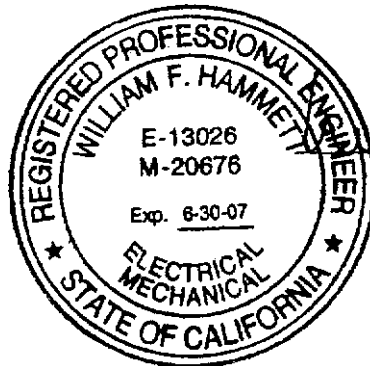
Since they are to be mounted on a tall pole, the Metro antennas are not accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Metro, T-Mobile, and Cingular will, as FCC licensees, take adequate steps to ensure that their employees or contractors 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 the base station proposed by MetroPCS at 200 El Rancho Drive in Santa Cruz, California, 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.

**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2007. This work has been carried out by him or under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



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

July 25, 2005



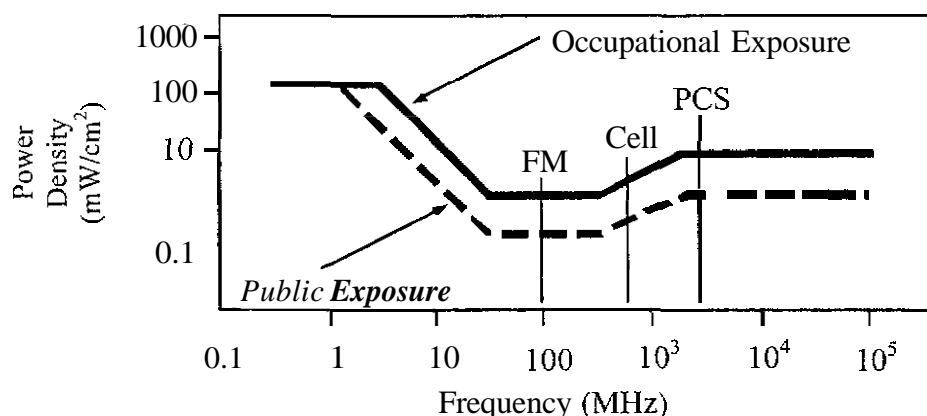
**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

## 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, which are nearly identical to the more recent Institute of Electrical and Electronics Engineers Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz." These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

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

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



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FCC Guidelines  
Figure 1



## 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 cell sites. The near field zone is defined by the distance, D, from an antenna beyond which the manufacturer's published, far field antenna patterns will be fully formed; the near field may exist for increasing D until some or all of three conditions have been met:

$$1) D > \frac{2h^2}{\lambda} \qquad 2) D > 5h \qquad 3) D > 1.6\lambda$$

where h = aperture height of the antenna, in meters, and  
 $\lambda$  = wavelength of the transmitted signal, in meters.

The FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives this formula for calculating power density in the near field zone about an individual RF source:

$$\text{power density } S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}, \text{ in mW/cm}^2,$$

where  $\theta_{BW}$  = half-power beamwidth of antenna, in degrees, and  
 $P_{net}$  = net power input to the antenna, in watts.

The factor of 0.1 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates distances to FCC public and occupational limits.

### Far Field.

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

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

where ERP = total ERF (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.

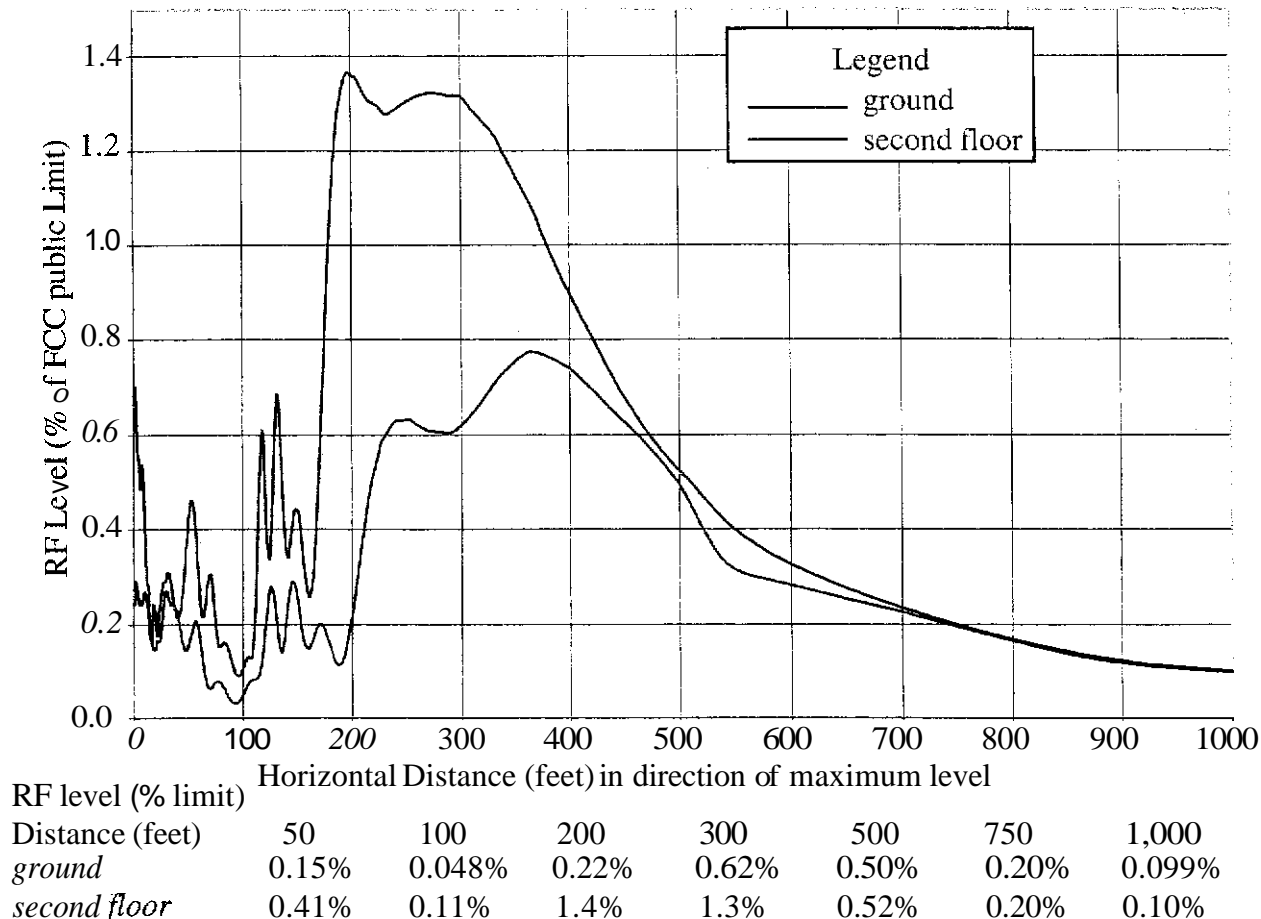


**MetroPCS • Proposed Base Station (Site No. SF16550-B)  
200 El Rancho Drive • Santa Cruz, California**

**Compliance with Santa Cruz County Code §13.10.659(g)(2)(ix)**

"Compliance with the FCC's non-ionizing electromagnetic radiation (NIER) standards or other applicable standards shall be demonstrated for any new wireless communication facility through submission, at the time of application for the necessary permit or entitlement, of NIER calculations specifying NIER levels in the area surrounding the proposed facility. Calculations shall be made of expected NIER exposure levels during peak operation periods at a range of distances from fifty (50) to one thousand (1,000) feet, taking into account cumulative NIER exposure levels from the proposed source in combination with all other existing NIER transmission sources within a one-mile radius. This should also include a plan to ensure that the public would be kept at a safe distance from any NIER transmission source associated with the proposed wireless communication facility, consistent with the NIER standards of the FCC, or any potential future superceding standards."

**Calculated Cumulative NIER Exposure Levels during Peak Operation Periods**



Calculated using formulas in FCC Office of Engineering Technology Bulletin No. 65 (1997).  
considering terrain variations within 1,000 feet of site.

Maximum effective radiated power (peak operation) - 1,890 watts

Effective Metro antenna height above ground - 53 feet

Other sources nearby - T-Mobile and Cingular

Other sources within one mile - No AM, FM, or TV Broadcast stations  
No two-way stations close enough

Plan for restricting public access - Antennas are mounted on a tall pole



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MP1655595  
Figure 3A