

Case File Number: CMD09272-R01

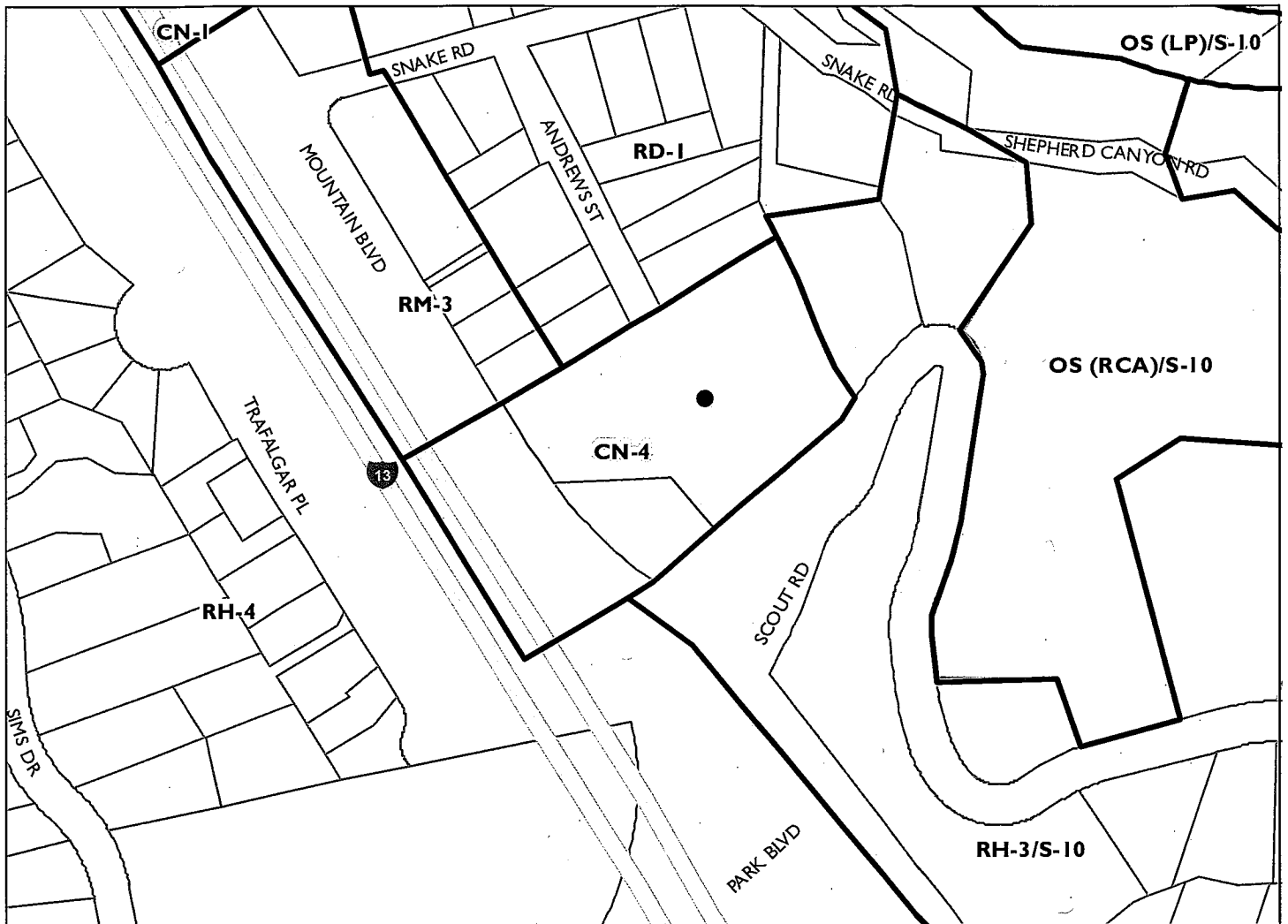
July 16, 2014

Location:	2220 Mountain Boulevard (See map on reverse)
Assessor's Parcel Numbers:	(048D-7244-021-05)
Proposal:	Revision of Major Conditional Use Permit and Design Review CMD09272 (Approved August 2, 2010) to allow for the removal and replacement of 6 antennas and addition of 2 radio Remote Units (RRU's) and other related equipment on a previously existing Monopole.
Applicant:	Gary Gochberg / Crown Castle for Verizon Wireless
Contact Person/ Phone Number:	Gary Gochberg/(707)364-5164
Owner:	Montclair Village, LLC.
Case File Number:	CMD09272-R01
Planning Permits Required:	Major Conditional Use Permit and Regular Design Review for Macro-telecommunication facility (attached to an existing monopole) within 100 feet of a residential zone.
General Plan:	Neighborhood Center Commercial
Zoning:	CN-4 Zone Regulations
Environmental Determination:	Exempt, Section 15301 of the State CEQA Guidelines; minor additions and alterations to an existing facility Exempt, Section 15183 of the State CEQA Guidelines; projects consistent with a community plan, General Plan or zoning.
Historic Status:	Not a Potential Designated Historic Property; Survey rating: X
Service Delivery District:	2
City Council District:	4
Date Filed:	3/24/14
Finality of Decision:	Appealable to City Council within 10 days
For Further Information:	Contact case planner Moe Hackett at (510) 238-3973 or mhackett@oaklandnet.com

SUMMARY

The proposed project is for the alteration of an existing unmanned wireless telecommunication facility located on an existing monopole with existing collocated telecommunications facilities. The site is at the Village Square Shopping Center. The Village Square Shopping Center is a 1.86-acre up-slope parcel. The site contains a variety of commercial uses, two large parking lots, and the existing 35' tall monopole and associated equipment enclosure. The monopole is over 130' from the nearest public roadway (Mountain Boulevard). This proposal would remove and replace six (6) existing antennas located on the 34' level of the monopole, add two (2) remote Radio head (RRH) units, and a new surge suppressors.

CITY OF OAKLAND PLANNING COMMISSION



Case File: CMD09272-R01

Applicant: Gary Gochberg/Crown Castle for Verizon Wireless

Address: 2220 Mountain Boulevard

Zone: CN-4

TELECOMMUNICATIONS BACKGROUND

Limitations on Local Government Zoning Authority under the Telecommunications Act of 1996

Section 704 of the Telecommunications Act of 1996 (TCA) provides federal standards for the siting of "Personal Wireless Services Facilities." "Personal Wireless Services" include all commercial mobile services (including personal communications services (PCS), cellular radio mobile services, and paging); unlicensed wireless services; and common carrier wireless exchange access services. Under Section 704, local zoning authority over personal wireless services is preserved such that the FCC is prevented from preempting local land use decisions; however, local government zoning decisions are still restricted by several provisions of federal law.

Under Section 253 of the TCA, no state or local regulation or other legal requirement can prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.

Further, Section 704 of the TCA imposes limitations on what local and state governments can do. Section 704 prohibits any state and local government action which unreasonably discriminates among personal wireless providers. Local governments must ensure that its wireless ordinance does not contain requirements in the form of regulatory terms or fees which may have the "effect" of prohibiting the placement, construction, or modification of personal wireless services.

Section 704 also preempts any local zoning regulation purporting to regulate the placement, construction and modification of personal wireless service facilities on the basis, either directly or indirectly, on the environmental effects of radio frequency emissions (RF) of such facilities, which otherwise comply with FCC standards in this regard. See, 47 U.S.C. 332(c)(7)(B)(iv) (1996). This means that local authorities may not regulate the siting or construction of personal wireless facilities based on RF standards that are more stringent than those promulgated by the FCC.

Section 704 mandates that local governments act upon personal wireless service facility siting applications to place, construct, or modify a facility within a reasonable time. 47 U.S.C.332(c)(7)(B)(ii). See FCC Shot Clock ruling setting forth "reasonable time" standards for applications deemed complete.

Section 704 also mandates that the FCC provide technical support to local governments in order to encourage them to make property, rights-of-way, and easements under their jurisdiction available for the placement of new spectrum-based telecommunications services. This proceeding is currently at the comment stage.

For more information on the FCC's jurisdiction in this area, contact Steve Markendorff, Chief of the Broadband Branch, Commercial Wireless Division, Wireless Telecommunications Bureau, at (202) 418-0640 or e-mail "smarkend@fcc.gov".

PROJECT DESCRIPTION

The applicant is proposing one for one swap out of six (6) existing antennas and the addition of two (2) RRH's as well as other related equipment. The new antennas will expand slightly the visual mass of the monopole's macro antenna array, but given the location of the monopole and the size of the parking lot will not alter the visual impact to a great extent. The antennas will be

the upper antenna placement on the monopole at approximately 36' above the parking lot below. Through the proposal's design, the antennas and related appurtenances will blend in with the monopole within the existing setting. **Specific Condition # 13** will ensure that they are painted and textured to better match the existing surrounding hillsides as seen from across the Warren Freeway (Highway 13). The proposal would not affect the existing equipment cabinet in a nearby ground level enclosure. All proposed antennas and associated equipment will not be accessible to the public.

PROPERTY DESCRIPTION

The subject property (Village Square Shopping Center) is a 1.86 acre up-slope parcel. The site contains a variety of commercial uses and two large parking lots. It is located above Mountain Boulevard and above Highway 13. The monopole currently has 14 panel antennas. This number would not change.

GENERAL PLAN ANALYSIS

The subject property is located within the Neighborhood Center Mixed Use General Plan designation. The neighborhood Center Mixed Use land use classification is intended to identify, create, maintain and enhance mixed use neighborhood commercial centers that are typically smaller in scale and pedestrian oriented. Ideally these centers should have continuous street frontage. This shopping center is located above the main thoroughfare (Mountain Boulevard) and has a continuous shopping level adjacent to a large surface parking lot. The proposed replacement of existing wireless telecommunication facilities (panel antennas) on the existing monopole will not adversely affect and detract from the characteristics of the commercial activities or of the nearby residential neighborhood. The antennas will be mounted on the existing monopole in the same basic locations of the upper mounting arm. Two new RRH units and a surge suppressor will also be mounted on the same arm. Two existing panel antennas from another carrier will not be affected beyond the color change required by **Specific Condition # 13**. General Plan Policy N1.5 states that the City encourages commercial developments that are designed in a manner that is sensitive to the surrounding residential uses.

The project is located on an existing monopole within close proximity to residential uses. This proposal precludes the necessity of establishing a second /new monopole, and creates only minor visual modifications to that existing monopole thus lessening the effects to the surrounding residential uses. The site is in the Neighborhood Center Mixed Use area under the General Plan's Land Use & Transportation Element (LUTE) adopted 1998. The 'Intent' of the area is: *"to create, maintain, and enhance mixed use neighborhood commercial centers"* and the 'Desired Character and Uses' is that *"Future development within this classification should be commercial or mixed uses that are pedestrian-oriented and serve nearby neighborhoods."* The project would meet these descriptions: the changes at the site, located at a shopping center within a commercial district would increase telecommunications service at an ideal hilltop location. Features would be camouflaged (by a dark green color) and the proposal is backed by a satisfactory emissions report.

ZONING ANALYSIS

The proposal is to remove 6 existing panel antennas located on ends of the upper mounting arms of an existing monopole (in a shopping center parking lot) and replace them with 6 slightly larger

antennas. New RRH units and other equipment would also be added as well. The existing antennas are placed tightly in groups and would, when replaced, be placed in the same basic location. The monopole also has six (6) antennas mounted on the lower three mounting arms and two small antennas mounted mid-way on the upper arm (note: these are sited as belonging to another carrier and are not to be removed. However, all panel antennas on the monopole are subject to the requirements of the **Specific Condition # 13**). The subject property is located in the CN-4 Zone and is within 100 feet of a Residential Zone, and as such requires Planning Commission review. The CN-4 Zone is intended to preserve and enhance mixed use neighborhood commercial centers. These centers are typically characterized by smaller scale mix of commercial activities in a pedestrian oriented active open space environment. The surrounding zones range from RM-3, RD-1 and RH3 /S-10. The project is an addition and alteration of the previously approved Macro Telecommunication location (CMD09272). The previous approvals at this site account for 14 antennas total.

The proposal requires a Major Conditional Use Permit for proximity within 100 feet of a residential zone which is required to meet the findings in both the Section 17.134.050 – General Use permit Criteria and the additional findings in Section 17.128.070C for Macro Telecommunications Facilities, and Regular Design Review which is required to meet both the Section 17.136.050B - Non-Residential Design Review Findings and the Section 17.128.070 Macro Telecommunications findings of the Planning Code.

The existing monopole is able to support the new wireless antenna additions. The proposal would minimally alter the existing Monopole facility, and include a color change that would better camouflage the new and existing facilities as viewed against a back-drop of trees. There are no other significant changes and no area expansion proposed beyond the existing facilities (monopole and ground level equipment compound. The proposal includes a satisfactory emissions report, and is consistent with the Findings required for approval. The project would improve telecommunications to residents, consumers, and freeway users without being located directly adjacent to residential structures.

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines list the projects that qualify as categorical exemptions from environmental review. The proposed project is categorically exempt from the environmental review requirements pursuant to Section 15301, additions and alterations to existing facilities, and 15183, projects consistent with a community plan, general plan or zoning. Section 15301(e) of the State CEQA Guidelines exempts project involving additions to existing facilities or structures. The proposal to remove and replace 6 of the 8 with other minor equipment upgrades at ground-level meets this description: visually the project would constitute only a minor change in the size of the antennas. The project is therefore exempt from Environmental Review.

KEY ISSUES AND IMPACTS

1. Visual Clutter

The key issues identified by Staff's review deal with visual clutter concerns. As proposed the design removes and replaces 6 existing antennas and adds 2 new RRH units. The existing monopole and the walled-in equipment compound, would in most commercial or residential settings, be extremely difficult to justify. However, this site is located above the main street thoroughfare of Mountain Boulevard and is situated within the visual level of the tree line (as opposed to being located on the crest or ridge line above). The subject facilities are located at the outer most portion of the parking lot away from the shopping center in what is the least prominent location on the site. The new antennas will be mounted on existing horizontal support elements and will not increase the height or width of the monopole or its horizontal mounting apertures (arms). As such, this swap of antennas is viewed by Staff to be generally unobtrusive and adds little or no new visual clutter beyond that which currently exists. The equipment cabinets will be located within the existing walled-in ground level compound below the monopole and will not be directly visible by the public.

Staff has not identified any other major concerns or issues and finds that the facility is appropriately designed for the nature of its use.

2. Project Site

Section 17.128.110 of the City of Oakland Telecommunication Regulations indicate that new wireless facilities shall generally be located on designated properties or facilities in the following order of preference:

- A. Co-located on an existing structure or facility with existing wireless antennas.
- B. City owned properties or other public or quasi-public facilities.
- C. Existing commercial or industrial structures in non-residential zones.
- D. Existing commercial or industrial structures in residential zones.
- E. Other non-residential uses in residential zones.
- F. Residential uses in non-residential zones.
- G. Residential uses in residential zones.

Facilities locating on an A, ranked preference does not require a site alternatives analysis.

Since the proposed project involves co-locating the installation of new antennas and associated equipment cabinets on an existing facility, the proposed project meets (A) co-locating on an existing structure or facility with existing wireless antennas.

3. Project Design

Section 17.128.120 of the City of Oakland Telecommunications Regulations indicates that new wireless facilities shall generally be designed in the following order of preference:

- A. Building or structure mounted antennas completely concealed from view.
- B. Building or structure mounted antennas set back from roof edge, not visible from public right-of way.
- C. Building or structure mounted antennas below roof line (facade mount, pole mount) visible from public right-of-way, painted to match existing structure.
- D. Building or structure mounted antennas above roof line visible from public right of-way.
- E. Monopoles.
- F. Towers.

Facilities designed to meet an A or D ranked preferences do not require a site design alternatives analysis.

Facilities designed to meet a C through F ranked preference, inclusive, must submit a site design alternatives analysis as part of the required application materials. A site design alternatives analysis shall, at a minimum, consist of:

Written evidence indicating why each higher preference design alternative cannot be used. Such evidence shall be in sufficient detail that independent verification could be obtained if required by the City of Oakland Zoning Manager. Evidence should indicate if the reason an alternative was rejected was technical (e.g. incorrect height, interference from existing RF sources, inability to cover required area) or for other concerns (e.g. inability to provide utilities, construction or structural impediments).

City of Oakland Planning staff has reviewed and determined that the site selected is conforming to all other telecommunication regulation requirements. The project has met design criteria (E) since the antennas shall be mounted on an existing monopole with other existing telecommunications facilities, and is intended to be painted and to match the surrounding hillside and tree line. To address visual impacts at the ground level within the parking lot **Specific Condition # 13** will require site improvements such as, due to the large scale of the site and its relatively seclusion, the monopole and equipment cabinets fairly well incorporated into the centers and hillside /tree line setting as viewed from the public right of way.

4. Project Radio Frequency Emissions Standards

Section 17.128.130 of the City of Oakland Telecommunication Regulations requires that the applicant submit the following verifications including requests for modifications to existing facilities:

- a. With the initial application, a RF emissions report, prepared by a licensed professional engineer or other expert, indicating that the proposed site will operate within the current

- acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.
- b. Prior to commencement of construction, a RF emissions report indicating the baseline RF emissions condition at the proposed site.
 - c. Prior to final building permit sign off, an RF emissions report indicating that the site is actually operating within the acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.

The applicant states that the proposed project meets the radio frequency (RF) emissions standards as required by the regulatory agency. Submitted with the initial application was a RF emissions report, prepared by David Charles Cotton Jr. (Engineer) (**Attachment D**). The report states that the proposed project will comply with the Site Safety Plan for limiting public exposure to radio frequency energy and, therefore, will not cause a significant impact on the environment. Additionally, staff recommends that prior to the final building permit sign off; the applicant submits certified RF emissions report stating that the facility is operating within acceptable thresholds established by the regulatory federal agency.

In addition to ensuring this type of request meets required legal findings, proposed wireless telecommunications facilities must meet specific development standards, and site location and design preferences, and possesses a satisfactory radio frequency emissions report.

Following are the standards met by this proposal from these areas of consideration:

Site Location Preferences (OMC Sec. 17.128.110)

The proposal adheres to the following Site Location Preferences:

A. Co-located on an existing structure or facility with existing wireless antennas.

Facilities locating on an A, B or C ranked preference do not require a site alternatives analysis.

The 6 new replacement antennas would be collocated on a monopole hosting various wireless carriers totaling 14 antennas in total (as assessed by Staff).

Site Design Preferences (OMC Sec. 17.128.120)

The proposal adheres to the following Site Design Preferences:

C. Building or structure mounted antennas below roof line (façade mount, pole mount) visible from public right-of-way, painted to match existing structure.

D. Building or structure mounted antennas above roof line visible from public right-of-way.

Facilities designed to meet a C through F ranked preference, inclusive, must submit a site design alternatives analysis as part of the required application materials. A site design alternatives analysis shall, at a minimum, consist of:

a. Written evidence indicating why each such higher preference design alternative cannot be used. Such evidence shall be in sufficient detail that independent verification could be obtained if required by the City of Oakland Zoning Manager. Evidence should indicate if the reason an alternative was rejected was technical (e.g. incorrect height, interference

from existing RF sources, inability to cover required area) or for other concerns (e.g. inability to provide utilities, construction or structural impediments).

The new antennas would be located on an existing monopole facility. The site would normally require a site design alternative analysis because the creation of a new monopole and antennas would not be concealed from view from the public right-of-way. However, due to the fact that the site is a collocation site with existing antennas on an existing pole, and the request merely features the replacement of 6 existing antennas, staff has waived the requirement of the applicant to provide this study.

Radio Frequency Emissions Standards (OMC Sec. 17.128.130)

The proposal adheres to the following requirement that safe emissions levels be demonstrated prior to and during operation of the facility:

- a. With the initial application, a RF emissions report, prepared by a licensed professional engineer or other expert, indicating that the proposed site will operate within the current acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.*
- b. Prior to commencement of construction, a RF emissions report indicating the baseline RF emissions condition at the proposed site.*
- c. Prior to final building permit sign off, an RF emissions report indicating that the site is actually operating within the acceptable thresholds as established by the Federal government or any such agency who may be subsequently authorized to establish such standards.*

The applicant has submitted a satisfactory emissions report.

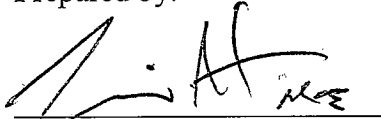
CONCLUSION

The addition of new antennas to existing Telecommunications facilities as a revision of a previously approved design is common, and such co-locations are often encouraged. Staff believes that the findings for approval can be made to support the Conditional Use Permit and Design Review. City of Oakland planning staff recommends the Planning Commission approve the project.

RECOMMENDATIONS:

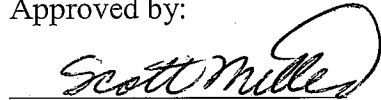
1. Affirm staff's environmental determination and;
2. Approve the Conditional Use Permit and Design Review application CMD09272-R01 subject to the attached findings and conditions of approval.

Prepared by:



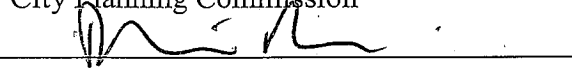
Moe Hackett
Planner II

Approved by:



Scott Miller
Zoning Manager

Approved for forwarding to the
City Planning Commission



Darin Ranelletti, Deputy Director
Planning and Building Department

ATTACHMENTS:

- A. Findings
- B. Conditions of Approval
- C. Project Plans & Photo simulations
- D. Radio Frequency – Crown Castle on behalf of Verizon Wireless –Hwy 13 Revised Site (RF) Compliance Report

ATTACHMENT A**FINDINGS FOR APPROVAL:**

This proposal meets all the required findings under Sections 17.134.050(General Use Permit criteria), 17.136.050.B(Non-Residential Design Review criteria), 17.128.070.B(Design Review criteria for Macro Facilities), 17.128.070.C (Conditional Use Permit criteria for Macro Facilities); as set forth below and which are required to approve your application. Required findings are shown in **bold** type; reasons your proposal satisfies them are shown in normal type.

SECTION 17.134.050 – GENERAL USE PERMIT FINDINGS:

A. That the location, size, design, and operating characteristics of the proposed development will be compatible with, and will not adversely affect, the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage, and density; to the availability of civic facilities and utilities; to harmful effect, if any upon desirable neighborhood character; to the generation of traffic and the capacity of surrounding streets; and to any other relevant impact of the development.

The proposed telecommunications antennas (and RRH's) will be located on the 34 foot height level of the horizontal support structure / mounting hardware of an existing 35 foot tall monopole for up to 8 panel antennas . It will not adversely affect the operating characteristic or livability of the existing area. The facility will be unmanned and will not create additional vehicular traffic in the area. The minor expansion of the existing telecommunications operations located on an existing monopole within the grounds of a commercial complex will not create any noticeable or adverse impacts. Staff supports the collocation of antennas over the construction of new and additional monopoles or towers when possible.

B. That the location, design, and site planning of the proposed development will provide a convenient and functional living, working, shopping, or civic environment, and will be as attractive as the nature of the use and its location and setting warrant.

The proposal is a Telecommunications Facility on a monopole. It meets this finding by incorporating the existing use and by allowing for the co-location of telecommunication antennas on an existing facility (monopole) and thus reducing the need for more telecommunications facilities on other nearby properties. The equipment and antennas have been painted a Forest Green color, and will be repainted in a deeper color (Autumn Fern) to better camouflage / match the surrounding (evergreen) tree line (See Specific Condition #13).

C. That the proposed development will enhance the successful operation of the surrounding area in its basic community functions, or will provide an essential service to the community or region.

The proposed development will enhance the successful operation of the surrounding area in its basic community function and will provide an essential service to the community or region. This will be achieved by improving the functional use of the site by providing a regional

telecommunication facility for the community and will be available to police, fire, public safety organizations and the general public.

D. That the proposal conforms to all applicable design review criteria set forth in the DESIGN REVIEW PROCEDURE of Chapter 17.136 of the Oakland Planning Code.

The proposal conforms to all significant aspects of the design review criteria set forth in Chapter 17.136 of the Oakland Planning Code, as outlined below.

E. That the proposal conforms in all significant respects with the Oakland General Plan and with any other applicable plan or development control map which has been adopted by the City Council.

The proposal conforms in all significant aspects with the Oakland General Plan and with any other applicable plan or zoning maps adopted by the City of Oakland. The proposed macro-telecommunication facility in the Neighborhood Center Commercial General Plan designation will enhance and improve communication service for a mixture of commercial, residential, civic, and institutional uses in the area.

17.136.050(B) – NONRESIDENTIAL DESIGN REVIEW CRITERIA:

1. That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk, height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other facilities in the vicinity; and the relation of the proposal to the total setting as seen from key points in the surrounding area. Only elements of design which have some significant relationship to outside appearance shall be considered, except as otherwise provided in Section 17.136.060;

The proposal is the alteration of monopole mounted macro telecommunications facilities which includes the removal and replacement of six (6) new panel antennas, and two (2) RRH's. These six (6) new panel antennas and two (2) RRH's on this monopole will be located on the same horizontal structures that the existing antenna array and will not create any additional height beyond the existing 36-foot level. The antennas and RRH's will not be screened but will be painted to blend in to surrounding tree line as seen from within the shopping center and from across the Warren Freeway (HWY 13) (See **Specific Condition # 13**). The associated equipment cabinets will be sited below in an existing walled compound.

2. That the proposed design will be of a quality and character which harmonizes with, and serves to protect the value of, private and public investments in the area;

The proposal protects and preserves the surrounding neighborhood context by adding additional wireless telecommunication antennas to a commercial and residential area. The antennas will be incorporated into the existing visual nature of the shopping center (with regard to it as a stand-alone purpose as a telecommunications transmission device) and as such will not greatly impact the surrounding neighborhood or commercial facilities beyond what is currently present by the design and placement.

3. That the proposed design conforms in all significant respects with the Oakland General Plan and with any applicable design review guidelines or criteria, district plan, or development control map which have been adopted by the Planning Commission or City Council.

The proposal conforms with the City of Oakland Comprehensive General Plan meeting specific General Plan policies and the Supplemental Report and Recommendations on Revisions to the Citywide Telecommunications Regulations. The proposal will conform to performance standards for noise set forth in Section 17.120.050 for decibels levels in residential areas for both day and nighttime use. The Project conforms to all macro-facility definitions set forth in Section 17.128.070 and meets all design review criteria to minimize all impacts throughout the neighborhood.

17.128.070(B) - DESIGN REVIEW CRITERIA FOR MACRO FACILITIES

1. Antennas should be painted and/or textured to match the existing structure:

The proposed antennas will be painted to match the surrounding tree lined area as seen from various vantage points on and off of the site. The location of the pole on the outer edge of the parking lot lessens its prominence in comparison to the sites visual focal point which is the shopping center's main building to the north-west.

2. Antennas mounted on architecturally significant structures or significant architectural details of the building should be covered by appropriate casings which are manufactured to match existing architectural features found on the building:

The antennas will be mounted on a horizontal "arm" /hardware mount of the monopole with new color to match the surrounding tree line area. (See **Specific Condition # 13**). The monopole is an existing visual element in the area and the new slightly larger antennas will blend in and not detract from the current setting.

3. Where feasible, antennas can be placed directly above, below or incorporated with vertical design elements of a building to help in camouflaging:

The proposed antennas shall be mounted in line with the existing antennas and will not increase the vertical height of the pole and it existing appurtenances. The new and existing antennas, monopole, and cable trays shall be painted in a darker shade of green (Autumn Fern) to match the color of the surrounding tree lined hills (See **Specific Condition # 13**).

4. Equipment shelters or cabinets shall be screened from the public view by using landscaping, or materials and colors consistent with surrounding backdrop:

The equipment will be screened within the existing compound located in the parking lot below the monopole and will not be visible from the street, parking lot, or shopping facilities(s).

5. Equipment shelters or cabinets shall be consistent with the general character of the area.

The equipment will be located in an existing walled compound that will not be visible from the street.

6. For antennas attached to the roof, maintain a 1:1 ratio for equipment setback; screen the antennas to match existing air conditioning units, stairs, or elevator towers; avoid placing roof mounted antennas in direct line with significant view corridors.

The proposed antennas will be co-located on a 35-foot tall monopole. As such the criterion of and for a 1:1 ratio for an attached rooftop setback does not apply.

7. That all reasonable means of reducing public access to the antennas and equipment has been made, including, but not limited to, placement in or on buildings or structures, fencing, anti-climbing measures and anti-tampering devices.

The antennas will be mounted to horizontal mounting hardware /arms of a 35-foot tall monopole with fencing around its base perimeter and will not be accessible to the public. The equipment will be located in a separate Walled compound and will not be accessible to the public.

Section 17.128.070(C) - CONDITIONAL USE PERMIT (CUP) FINDINGS FOR MACRO FACILITIES

1. The project must meet the special design review criteria listed in subsection B of this section (17.128.070B):

The proposed project meets the special design review criteria listed in section 17.128.070B.

2. The proposed project must not disrupt the overall community character:

This site was previously approved as CMD09272 on July 27th 2010. As proposed this revision will continue to meet the intent and criteria of its prior approval. Due to the very minor nature of the changes proposed this revision will represent only a slight modification to the monopole and the site, and it will not disrupt the overall community character.

ATTACHMENT BCONDITIONS OF APPROVALSTANDARD CONDITIONS:1. Approved Use*Ongoing*

a) The project shall be constructed and operated in accordance with the authorized use as described in the application materials, plans submitted on **March 24, 2014**, with revisions (color pallet) submitted **June 19th 2014** and as amended by the following conditions. Any additional uses or facilities other than those approved with this permit, as described in the project description and the approved plans, will require a separate application and approval. Any deviation from the approved drawings, Conditions of Approval or use shall require prior written approval from the Director of City Planning or designee.

b) This action by the City Planning Commission ("this Approval") includes the approvals set forth below. This Approval includes: **The proposal to alter and establish macro telecommunications facility located at the 36foot high level of an existing 35-foot tall monopole at 2220 Mountain Boulevard (APN: 048D-7244-021-05), under Oakland Municipal Code 17.128, 17.136, and 17.134.**

2. Effective Date, Expiration, Extensions and Extinguishment*Ongoing*

Unless a different termination date is prescribed, this Approval shall expire **two calendar years** from the approval date, unless within such period all necessary permits for construction or alteration have been issued, or the authorized activities have commenced in the case of a permit not involving construction or alteration. Upon written request and payment of appropriate fees submitted no later than the expiration date of this permit, the Director of City Planning or designee may grant a one-year extension of this date, with additional extensions subject to approval by the approving body. Expiration of any necessary building permit for this project may invalidate this Approval if the said extension period has also expired.

3. Scope of This Approval; Major and Minor Changes*Ongoing*

The project is approved pursuant to the **Planning Code** only. Minor changes to approved plans may be approved administratively by the Director of City Planning or designee. Major changes to the approved plans shall be reviewed by the Director of City Planning or designee to determine whether such changes require submittal and approval of a revision to the approved project by the approving body or a new, completely independent permit.

4. Conformance with other Requirements*Prior to issuance of a demolition, grading, P-job, or other construction related permit*

a) The project applicant shall comply with all other applicable federal, state, regional and/or local laws/codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City's Building Services Division, the City's Fire Marshal, and the City's Public Works Agency. Compliance with other applicable requirements may require changes to the

approved use and/or plans. These changes shall be processed in accordance with the procedures contained in Condition of Approval #3.

- b) The applicant shall submit approved building plans for project-specific needs related to fire protection to the Fire Services Division for review and approval, including, but not limited to automatic extinguishing systems, water supply improvements and hydrants, fire department access, elevated walking pathways, safety railings, emergency access and lighting.

5. Conformance to Approved Plans; Modification of Conditions or Revocation

Ongoing

- a) Site shall be kept in a blight/nuisance-free condition. Any existing blight or nuisance shall be abated within 60-90 days of approval, unless an earlier date is specified elsewhere.
- b) Violation of any term, **Conditions of Approval** or **project description** relating to the **Conditions of Approval** is unlawful, prohibited, and a violation of the Oakland Municipal Code. The City of Oakland reserves the right to initiate civil and/or criminal enforcement and/or abatement proceedings, or after notice and public hearing, to revoke the Approvals or alter these **conditions of approval** if it is found that there is violation of any of the **Conditions of Approval** or the provisions of the Planning Code or Municipal Code, or the project operates as or causes a public nuisance. This provision is not intended to, nor does it; limit in any manner whatsoever the ability of the City to take appropriate enforcement actions. The project applicant shall be responsible for paying fees in accordance with the City's Master Fee Schedule for inspections conducted by the City or a City-designated third-party to investigate alleged violations of the Conditions of Approval.

6. Signed Copy of the Conditions of Approval

Ongoing

A copy of the approval letter and **Conditions of Approval** shall be signed by the property owner, notarized, and submitted with each set of permit plans to the appropriate City agency for this project.

7. Indemnification

Ongoing

- a) To the maximum extent permitted by law, the applicant shall defend (with counsel acceptable to the City), indemnify, and hold harmless the City of Oakland, the Oakland City Council, the City of Oakland Redevelopment Agency, the Oakland City Planning Commission and its respective agents, officers, and employees (hereafter collectively called City) from any liability, damages, claim, judgment, loss (direct or indirect) action, causes of action, or proceeding (including legal costs, attorneys' fees, expert witness or consultant fees, City Attorney or staff time, expenses or costs) (collectively called "Action") against the City to attack, set aside, void or annul, (1) an approval by the City relating to a development-related application or subdivision or (2) implementation of an approved development-related project. The City may elect, in its sole discretion, to participate in the defense of said Action and the applicant shall reimburse the City for its reasonable legal costs and attorneys' fees.

- b) Within ten (10) calendar days of the filing of any Action as specified in subsection A above, the applicant shall execute a Letter of Agreement with the City, acceptable to the Office of the City Attorney, which memorializes the above obligations. These obligations and

the Letter of Agreement shall survive termination, extinguishment or invalidation of the approval. Failure to timely execute the Letter of Agreement does not relieve the applicant of any of the obligations contained in this condition or other requirements or Conditions of Approval that may be imposed by the City.

8. Compliance with Conditions of Approval

Ongoing

The project applicant shall be responsible for compliance with the recommendations in any submitted and approved technical report and all the Conditions of Approval set forth below at its sole cost and expense, and subject to review and approval of the City of Oakland.

9. Severability

Ongoing

Approval of the project would not have been granted but for the applicability and validity of each and every one of the specified **Conditions of Approval**, and if one or more of such **Conditions of Approval** is found to be invalid by a court of competent jurisdiction, this Approval would not have been granted without requiring other valid **Conditions of Approval** consistent with achieving the same purpose and intent of such Approval.

10. Landscape Maintenance.

Ongoing

All new landscaping shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements.

11. Operational Noise-General

Ongoing.

Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

PROJECT SPECIFIC CONDITIONS FOR TELECOMMUNICATIONS FACILITIES

12. Emissions Report

Prior to a final inspection

The applicant shall provide an RF emissions report to the City of Oakland Zoning Division indicating that the site is actually operating within the acceptable thresholds as established by the Federal government or any such agency that may be subsequently authorized to establish such standards.

13. Paint Color, Texture, and Ongoing Maintenance

Prior to a final inspection

and ongoing

The final color of the monopole, antennas, cables, and cable harnesses shall be changed from its current color to the color approved by the planning commission (Autumn Fern or darker)

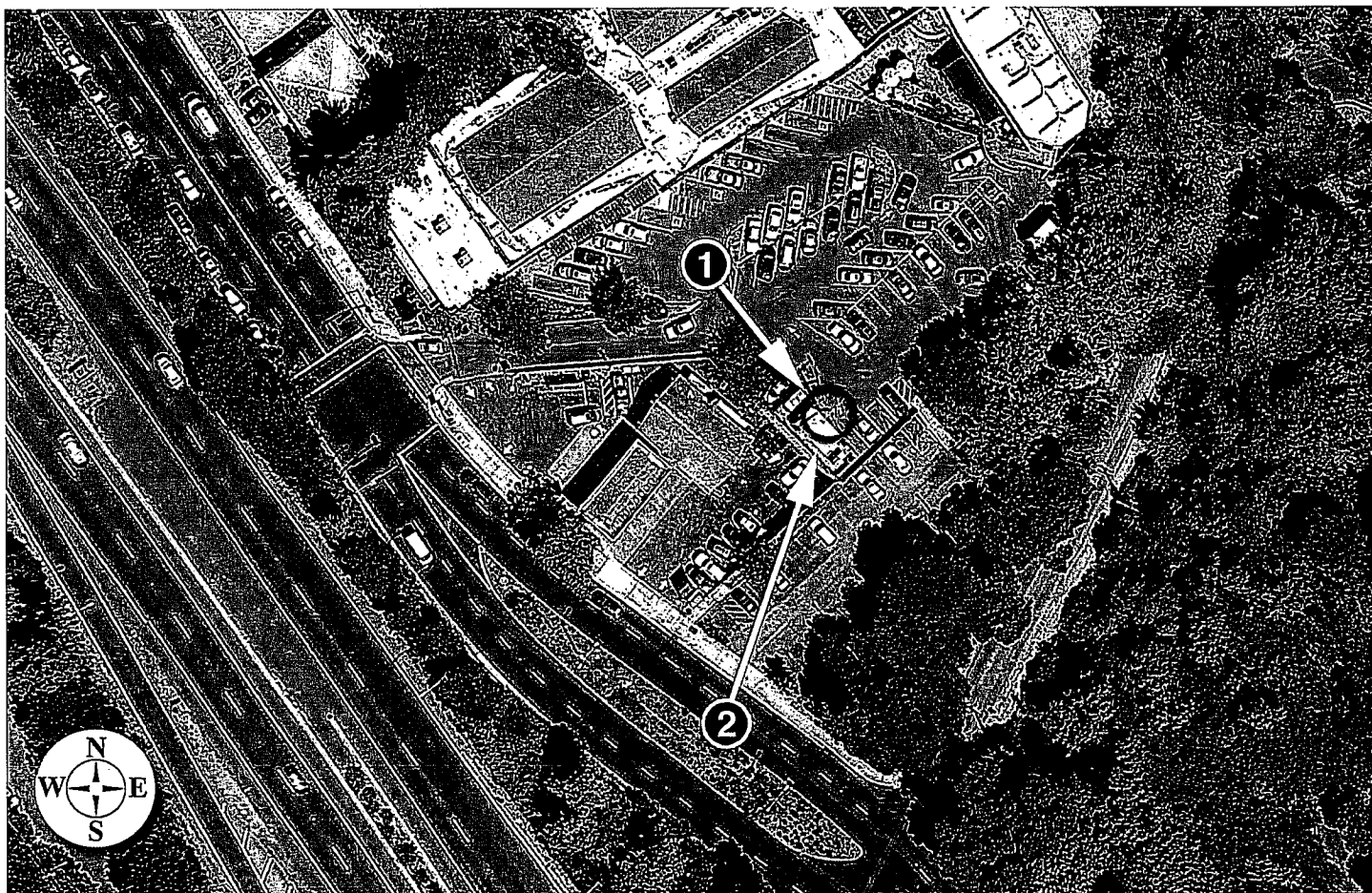
to better match the surrounding hills sides and abutting tree lines The monopole, antennas and associated appurtenances color shall be approved by the Zoning Administrator or his designee prior to final inspection. All facilities shall be maintained in good condition and shall be partly or wholly re-painted as needed or as directed at the discretion of the Zoning Administrator. Graffiti, if any, shall be removed within 2 weeks of defacement.

APPROVED BY:

City Planning Commission: _____ (date) _____ (vote)

City Council: _____ (date) _____ (vote)

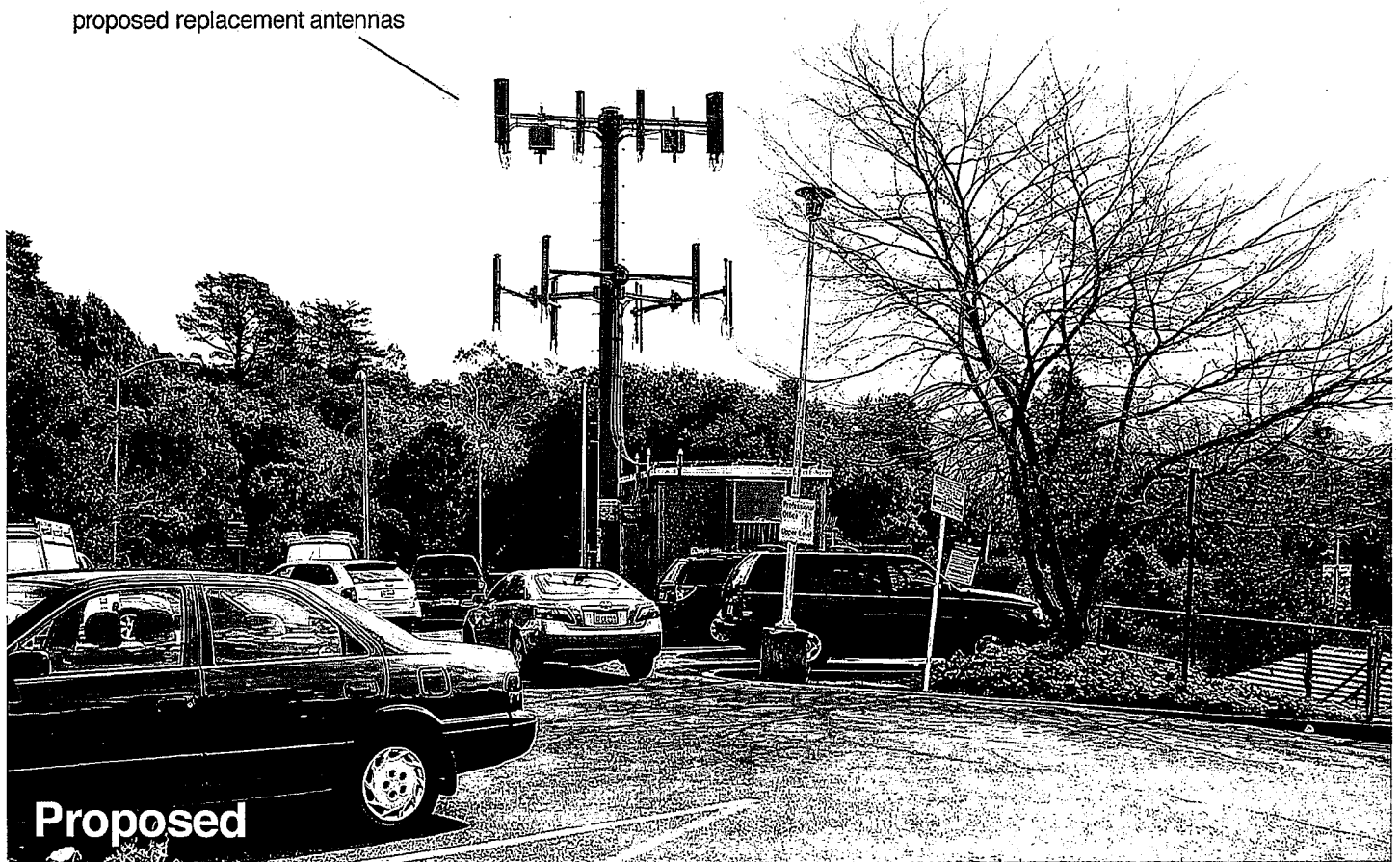
ATTACHMENT C



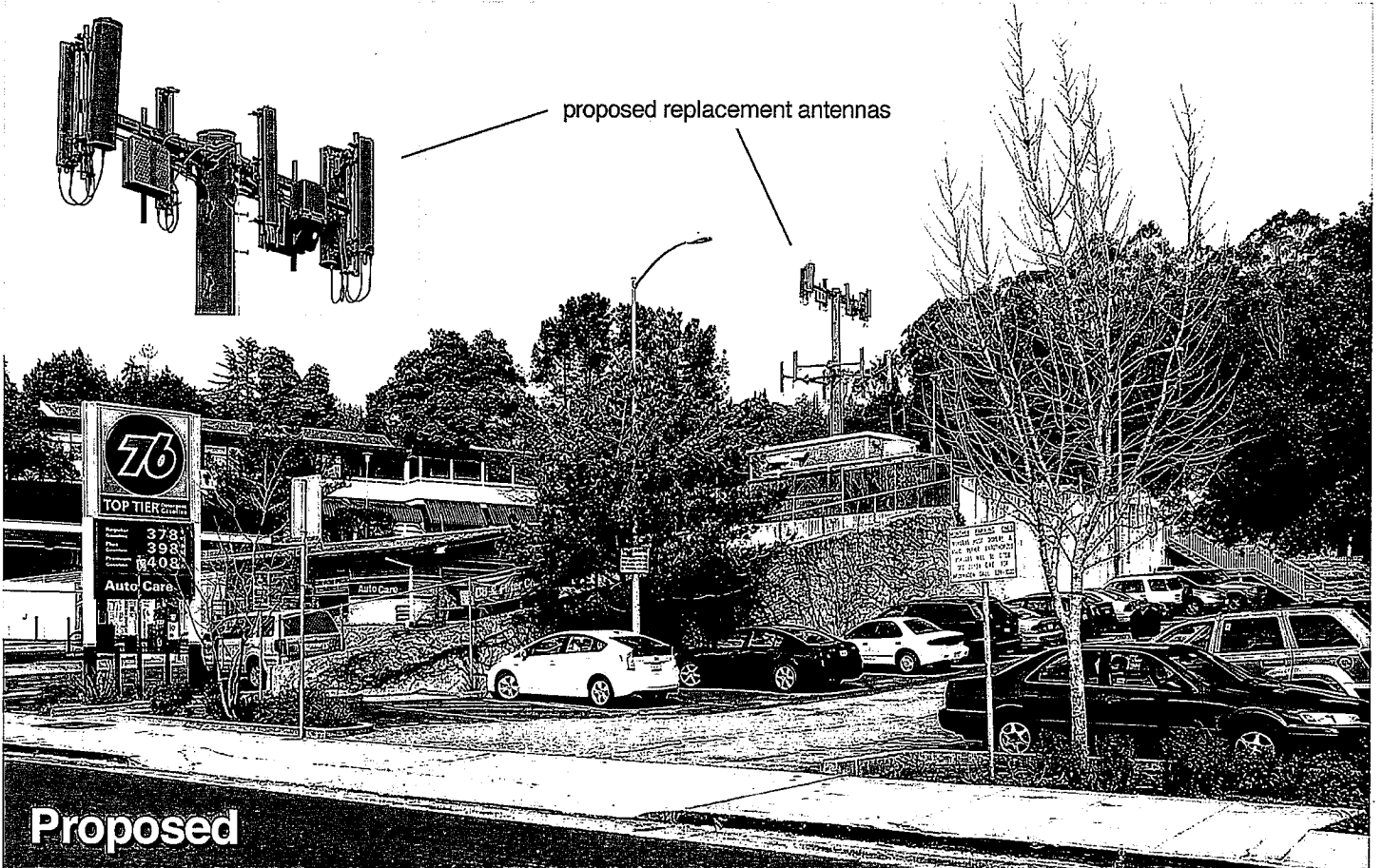


Existing

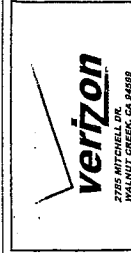
proposed replacement antennas



Proposed



myCOLORSTUDIO™



PROJECT INFORMATION:
HIGHWAY 13
CROWN CASTLE SITE# 815026
VERIZON WIRELESS J0012013XXXXX
VERIZON WIRELESS SITE# 191908
2220 MICHIGAN BLVD.
OAKLAND, CA 94611

CURRENT ISSUE DATE: 02/27/14
ISSUED FOR:

100% CONSTRUCTION
REV.: DATE: DESCRIPTION: BY:

1	01/15/14	RFDS 11/06/13	MC

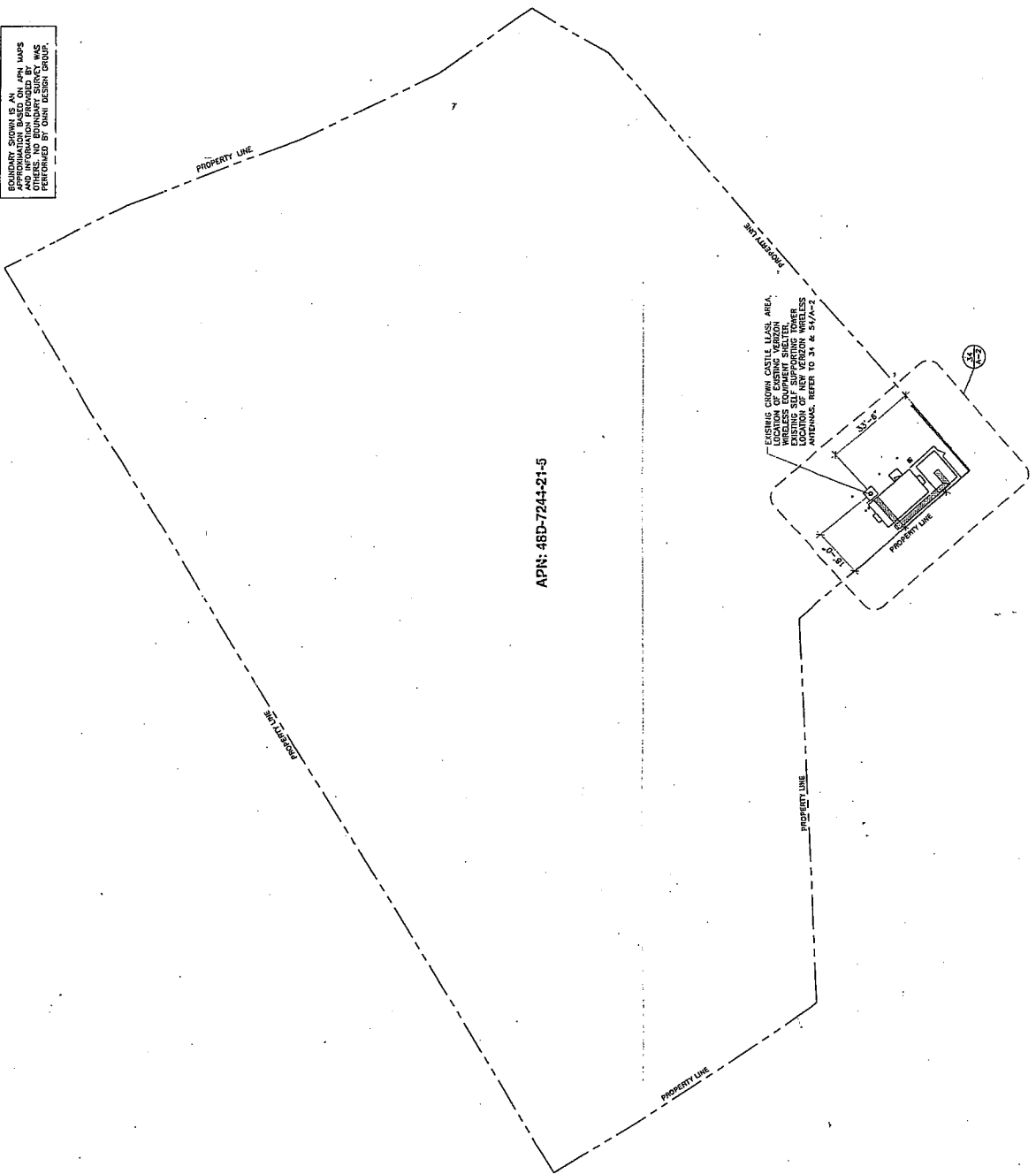
COORDINATING ARCHITECT:
O.G. omni
211 Oak Term Road Suite 100
Oakland, CA 94612
Phone: (510) 424-8200
www.ogomni.com
info@ogomni.com

CONSULTANT:
CROWN CASTLE

DRAWN BY: CHK.: APV.:
MPC NB TR
SHEET TITLE: OVERALL SITE PLAN
SHEET NUMBER: REVISION:

A-1
640-340A

BOUNDARY SHOWN IS AN
APPROXIMATE LOCATION OF THE
PROPERTY LINE. NO BOUNDARY SURVEY WAS
PERFORMED BY THE ARCHITECT.



APN: 48D-7244-21-5



**Crown Castle on behalf of Verizon Wireless
Hwy 13 Revised - 815026
Radio Frequency (RF) Site Compliance Report**



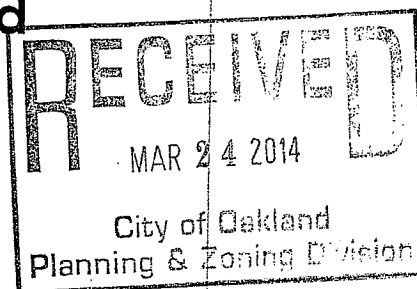
2220 Mountain Boulevard, Oakland, CA 94611

**Crown Castle on behalf of
Verizon Wireless
Site ID – 815026
Site Name – Hwy 13 Revised
Site Compliance Report**

**2220 Mountain Boulevard
Oakland, CA 94611**

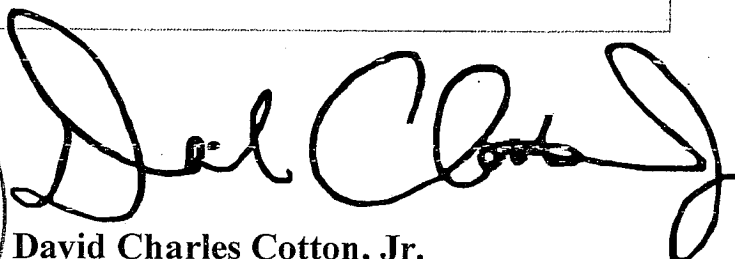
Latitude: N37-49-23.73
Longitude: W122-12-26.29
Structure Type: Monopole

Report generated date: March 8, 2014
Report by: Tony DeMattia
Customer Contact: Gary Gochberg



**Verizon Wireless Will Be Compliant based on
FCC Rules and Regulations.**

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**David Charles Cotton, Jr.
Registered Professional Engineer (Electrical)
State of California, 18838
Date: 2014-March-09**

ATTACHMENT D



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1 Executive Summary

Crown Castle on behalf of Verizon Wireless has contracted with Sitesafe, Inc. (Sitesafe), an independent Radio Frequency (RF) regulatory and engineering consulting firm, to determine whether the proposed communications site, 815026 - Hwy 13 Revised, located at 2220 Mountain Boulevard, Oakland, CA, is in compliance with Federal Communication Commission (FCC) Rules and Regulations for RF emissions.

This report contains a detailed summary of the RF environment at the site including:

- diagram of the site;
- inventory of the make / model of all antennas
- theoretical MPE based on modeling.

This report addresses exposure to radio frequency electromagnetic fields in accordance with the FCC Rules and Regulations for all individuals, classified in two groups, "Occupational or Controlled" and "General Public or Uncontrolled." This **site will be compliant** with the FCC rules and regulations, as described in OET Bulletin 65.

This document and the conclusions herein are based on the information provided by Verizon Wireless.

If you have any questions regarding RF safety and regulatory compliance, please do not hesitate to contact Sitesafe's Customer Support Department at (703) 276-1100.

2 Regulatory Basis

2.1 FCC Rules and Regulations

In 1996, the Federal Communication Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to accessible areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

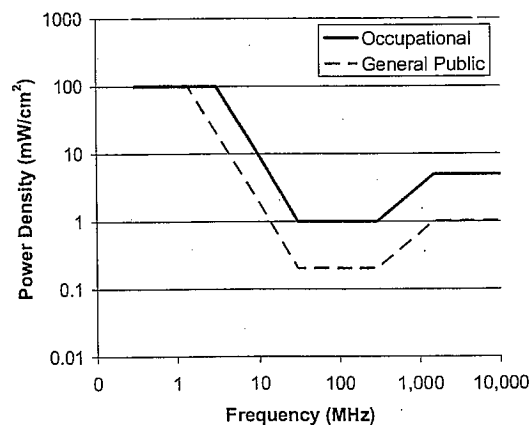
Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:

FCC Limits for Maximum Permissible Exposure (MPE)
Plane-wave Equivalent Power Density



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

*Plane-wave equivalent power density

2.2 OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

- (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
- (2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.



3 Site Compliance

3.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, Sitesafe has determined that:

This **site will be compliant** with the FCC rules and regulations, as described in OET Bulletin 65.

The compliance determination is based on theoretical modeling, RF signage placement recommendations, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the Verizon Wireless's proposed deployment plan could result in the site being rendered non-compliant.

3.2 Actions for Site Compliance

Based on common industry practice and our understanding of FCC and OSHA requirements, this section provides a statement of recommendations for site compliance. RF alert signage recommendations have been proposed based on theoretical analysis of MPE levels. Barriers can consist of locked doors, fencing, railing, rope, chain, paint striping or tape, combined with RF alert signage.

This site will be compliant with the FCC rules and regulations.

4 Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3 foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram: Section 5 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

5 Analysis

5.1 RF Emissions Diagram

The RF diagram(s) below display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix B.

The key at the bottom of each diagram indicates if percentages displayed are referenced to FCC General Population Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Gray represents areas predicted to be at 5% of the MPE limits, or below.
- Green represents areas predicted to be between 5% and 100% of the MPE limits.
- Blue represents areas predicted to be between 100% and 500% of the MPE limits.
- Yellow represents areas predicted to be between 500% and 5000% of the MPE limits.
- Red areas indicated predicted levels greater than 5000% of the MPE limits.

General Population diagrams are specified when an area is accessible to the public; i.e. personnel that do not meet Occupational or RF Safety trained criteria, could gain access.

If trained occupational personnel require access to areas that are delineated as **Blue** or above 100% of the limit, Sitesafe recommends that they utilize the proper personal protection equipment (RF monitors), coordinate with the carriers to reduce or shutdown power, or make real-time power density measurements with the appropriate power density meter to determine real-time MPE levels. This will allow the personnel to ensure that their work area is within exposure limits.

The key at the bottom also indicates the level or height of the modeling with respect to the main level. The origin is typically referenced to the main rooftop level, or ground level for a structure without access to the antenna level. For example:

Average from 0 feet above to 6 feet above origin

and

Average from 20 feet above to 26 feet above origin

The first indicates modeling at the main rooftop (or ground) level averaged over 6 feet. The second indicates modeling at a higher level (possibly a penthouse level) of 20 feet averaged over 6 feet.

Abbreviations used in the RF Emissions Diagrams

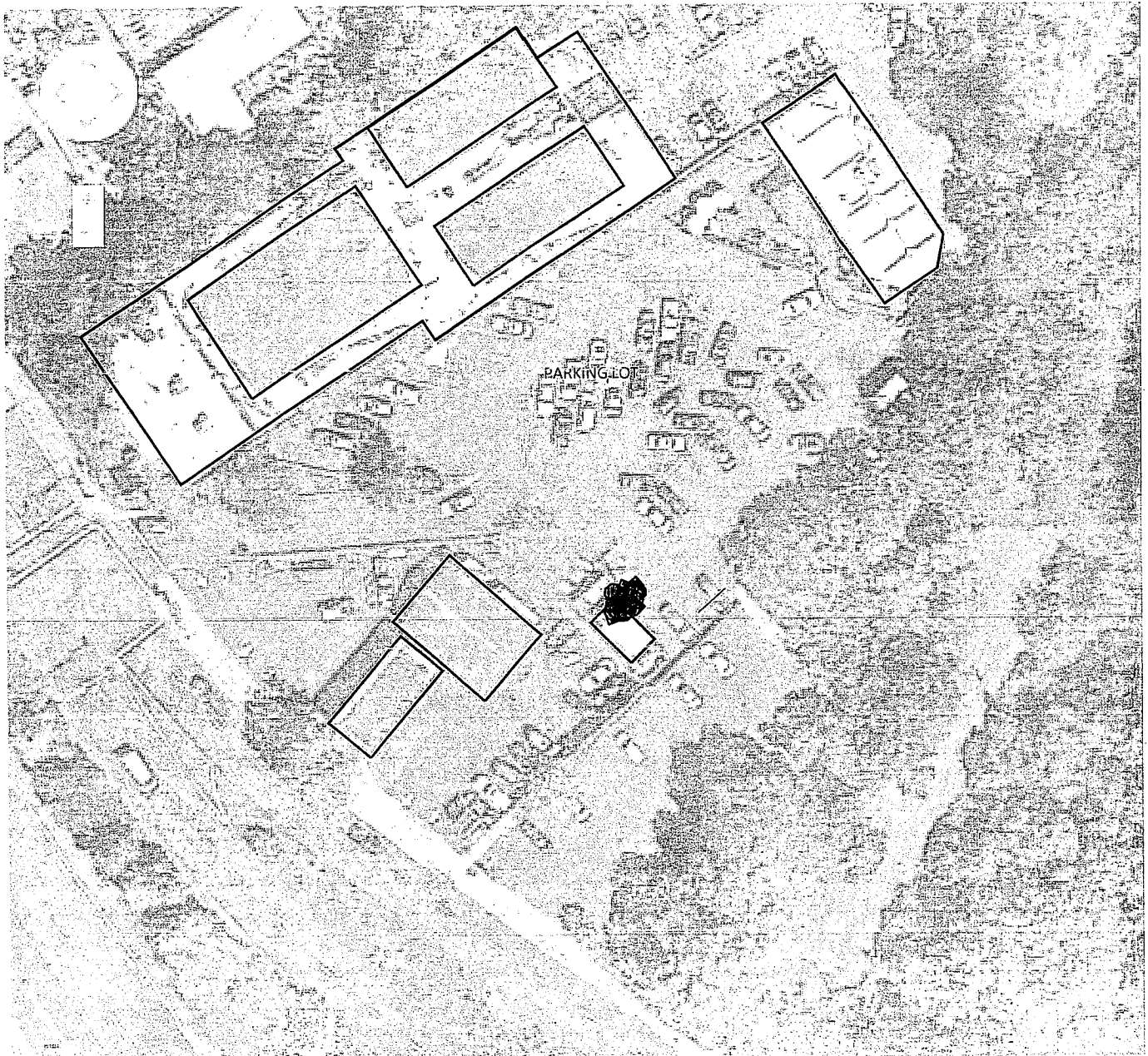
PH=##'	Penthouse at ## feet above main roof
--------	--------------------------------------

Additional Information in the RF Emissions Diagrams Key

The RF Emission Diagram provides indications of RF signage, barriers and locked doors. The table below lists the abbreviations used to indicate locked doors, signs and barriers:

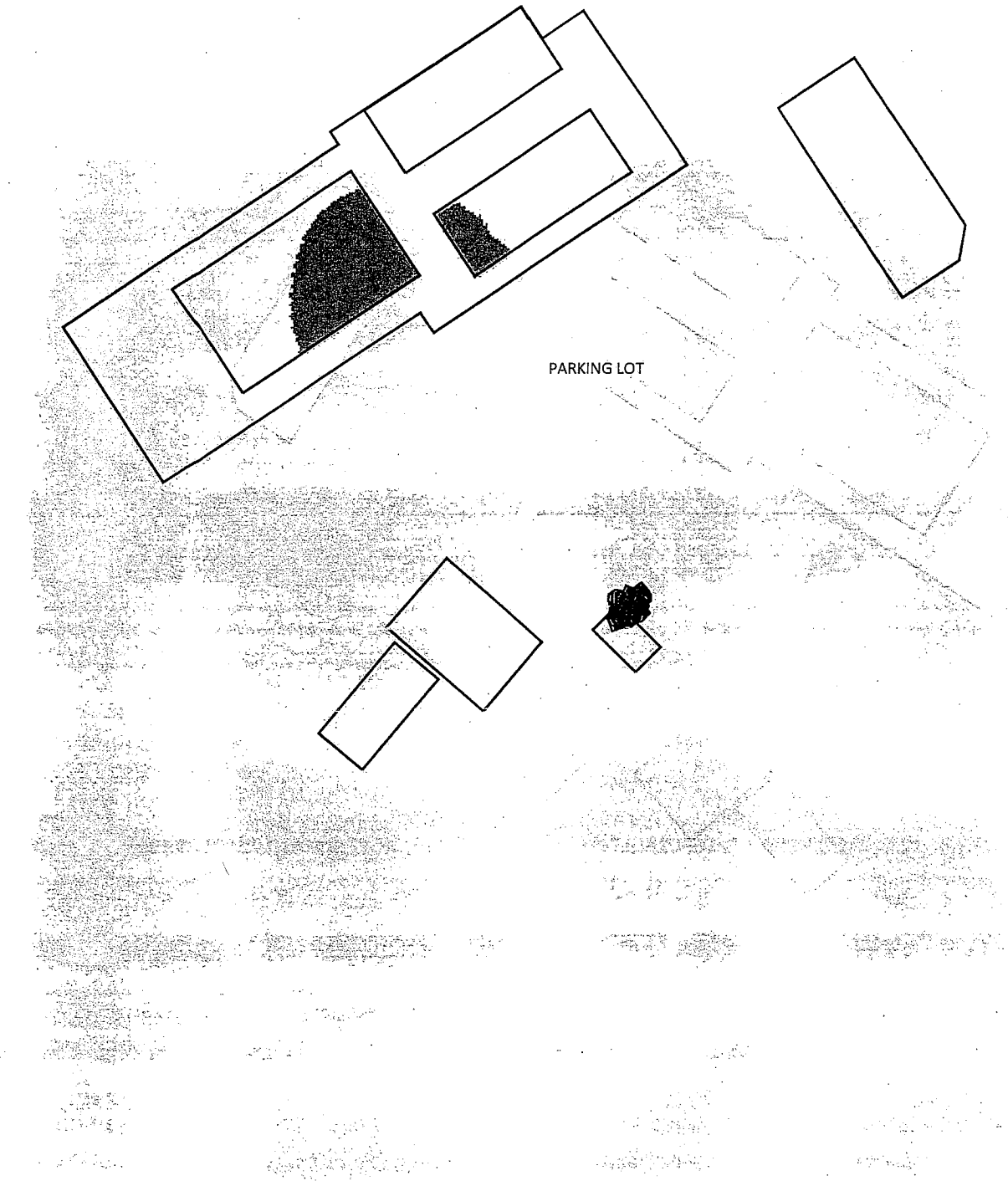
Table 1: RF Signage and Barrier Key					
RF Signage			Barriers		
Type	Existing Location	Recommended Location	Type	Existing Location	Recommended Location
Notice	<u>NE</u>	<u>NR</u>	Locked Door	<u>LE</u>	<u>LR</u>
Caution	<u>CE</u>	<u>CR</u>	Fencing	<u>RE</u>	<u>RR</u>
Warning	<u>WE</u>	<u>WR</u>	Rope Chain		
Info Sign	<u>IE</u>		Paint Stripes		
NOC Information	<u>INOCE</u>	<u>INOCR</u>			
10 Step Guideline	<u>10SE</u>	<u>10SR</u>			

RF Emissions Simulation For: Hwy 13 Revised Site Map

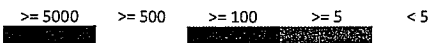
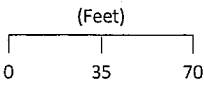


AT&T MOBILITY LLC	VERIZON WIRELESS	T-MOBILE	SPRINT-NEXTEL	METROPCS	CRICKET COMMUNICATIONS	CLEARWIRE

RF Emissions Simulation For: Hwy 13 Revised Composite View



% of FCC Public Exposure Limit
Spatial average 0' - 6'



AT&T MOBILITY LLC	VERIZON WIRELESS	T-MOBILE	SPRINT-NEXTEL	METROPCS	CRICKET COMMUNICATIONS	CLEARWIRE

Sitesafe Inc. assumes no responsibility for modeling results not verified by Sitesafe personnel. Contact Sitesafe Inc. for modeling assistance at (703) 276-1100. Sitesafe/TC Version: 1.0.0.0 3/8/2014 6:26:35 PM

6 Antenna Inventory

The Antenna Inventory shows all transmitting antennas at the site. This inventory was provided by the customer, and was utilized by Sitesafe to perform theoretical modeling of RF emissions. The inventory coincides with the site diagrams in this report, identifying each antenna's location at 815026 - Hwy 13 Revised. The antenna information collected includes the following information:

- Licensee or wireless operator name
- Frequency or frequency band
- Transmitter power – Effective Radiated Power ("ERP"), or Equivalent Isotropic Radiated Power ("EIRP") in Watts
- Antenna manufacturer make, model, and gain

For other carriers at this site, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information with regard to carrier, their FCC license and/or antenna information was not available nor could it be secured while on site. Equipment, antenna models and nominal transmit power were used for modeling, based on past experience with radio service providers.

The following antenna inventory, on this and the following page were provided by the customer and were utilized to create the site model diagrams:

Table 3: Antenna Inventory												
Ant #	Operated By	TX Freq (MHz)	ERP (Watts)	Antenna Gain (dBd)	Az (Deg)	Antenna Model	Ant Type	Len (ft)	Horizontal Half Power Beamwidth (Deg)	Location		
										X	Y	Z
1	VERIZON WIRELESS (Proposed)	850	563.7	11.49	140	Andrew LNX-8513DS-A1M	Panel	4.2	85	295.7'	341.6'	34'
2	VERIZON WIRELESS (Proposed)	850	563.7	11.49	340	Andrew LNX-8513DS-A1M	Panel	4.2	85	294.7'	340.6'	34'
3	VERIZON WIRELESS (Proposed)	1970	1679	16.23	140	Andrew HBX-6517DS-VTM	Panel	6.2	65	296.5'	340.2'	34'
4	VERIZON WIRELESS (Proposed)	751	1172.6	12.91	140	Andrew SBNH-1D6565B	Panel	6.1	70	286.9'	330.9'	34'
5	VERIZON WIRELESS (Proposed)	1970	1679	16.23	340	Andrew HBX-6517DS-VTM	Panel	6.2	65	285.7'	329.9'	34'
6	VERIZON WIRELESS (Proposed)	751	1172.6	12.91	240	Andrew SBNH-1D6565B	Panel	6.1	70	285.4'	331.3'	34'
7	METROPCS	1900	3076.5	18.86	113	Kathrein-Scala 742-445	Panel	4.3	35.1	291.5'	340.6'	24'
8	METROPCS	1900	3076.5	18.86	113	Kathrein-Scala 742-445	Panel	4.3	35.1	295.3'	336.2'	24'
9	METROPCS	1900	3076.5	18.86	223	Kathrein-Scala 742-445	Panel	4.3	35.1	294.7'	333.1'	24'
10	METROPCS	1900	3076.5	18.86	223	Kathrein-Scala 742-445	Panel	4.3	35.1	290.3'	330.7'	24'
11	METROPCS	1900	3076.5	18.86	323	Kathrein-Scala 742-445	Panel	4.3	35.1	286.2'	333.4'	24'
12	METROPCS	1900	3076.5	18.86	323	Kathrein-Scala 742-445	Panel	4.3	35.1	285.6'	339.5'	24'

NOTE: X, Y and Z indicate relative position of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates antenna height above the main site level unless otherwise indicated. ERP values provided by the client and used in the modeling may be greater than are currently deployed. For other carriers at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to carrier, their FCC license and/or antenna information was not available nor could it be secured while on site. Equipment, antenna models and nominal transmit power were used for modeling, based on past experience with radio service providers.



7 Engineer Certification

The professional engineer whose seal appears on the cover of this document hereby certifies and affirms that:

I am registered as a Professional Engineer in the jurisdiction indicated in the professional engineering stamp on the cover of this document; and

That I am an employee of Sitesafe, Inc., in Arlington, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Tony DeMattia.

March 8, 2014



Appendix A – Statement of Limiting Conditions

Sitesafe will not be responsible for matters of a legal nature that affect the site or property.

Due to the complexity of some wireless sites, Sitesafe performed this analysis and created this report utilizing best industry practices and due diligence. Sitesafe cannot be held accountable or responsible for anomalies or discrepancies due to actual site conditions (i.e., mislabeling of antennas or equipment, inaccessible cable runs, inaccessible antennas or equipment, etc.) or information or data supplied by Verizon Wireless, the site manager, or their affiliates, subcontractors or assigns.

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, observed during the survey of the subject property or that Sitesafe became aware of during the normal research involved in performing this survey. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data provided by a second party and physical data collected by Sitesafe, the physical data will be used.

Appendix B – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The site has been modeled with these assumptions to show the maximum RF energy density. Sitesafe believes this to be a worst-case analysis, based on best available data. Areas modeled to predict emissions greater than 100% of the applicable MPE level may not actually occur, but are shown as a worst-case prediction that could be realized real time. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Thus, at any time, if power density measurements were made, we believe the real-time measurements would indicate levels below those depicted in the RF emission diagram(s) in this report. By modeling in this way, Sitesafe has conservatively shown exclusion areas – areas that should not be entered without the use of a personal monitor, carriers reducing power, or performing real-time measurements to indicate real-time exposure levels.

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

Gain (of an antenna) – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

General Population/Uncontrolled Environment – Defined by the FCC, as an area where RFR exposure may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.



Maximum Permissible Exposure (MPE) – The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are **aware** of the potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency Radiation – Electromagnetic waves that are propagated from antennas through space.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.

Appendix C – Rules & Regulations

Explanation of Applicable Rules and Regulations

The FCC has set forth guidelines in OET Bulletin 65 for human exposure to radio frequency electromagnetic fields. Specific regulations regarding this topic are listed in Part 1, Subpart I, of Title 47 in the Code of Federal Regulations. Currently, there are two different levels of MPE - General Public MPE and Occupational MPE. An individual classified as Occupational can be defined as an individual who has received appropriate RF training and meets the conditions outlined below. General Public is defined as anyone who does not meet the conditions of being Occupational. FCC and OSHA Rules and Regulations define compliance in terms of total exposure to total RF energy, regardless of location of or proximity to the sources of energy.

It is the responsibility of all licensees to ensure these guidelines are maintained at all times. It is the ongoing responsibility of all licensees composing the site to maintain ongoing compliance with FCC rules and regulations. Individual licensees that contribute less than 5% MPE to any total area out of compliance are not responsible for corrective actions.

OSHA has adopted and enforces the FCC's exposure guidelines. A building owner or site manager can use this report as part of an overall RF Health and Safety Policy. It is important for building owners/site managers to identify areas in excess of the General Population MPE and ensure that only persons qualified as Occupational are granted access to those areas.

Occupational Environment Explained

The FCC definition of Occupational exposure limits apply to persons who:

- are exposed to RF energy as a consequence of their employment;
- have been made aware of the possibility of exposure; and
- can exercise control over their exposure.

OSHA guidelines go further to state that persons must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

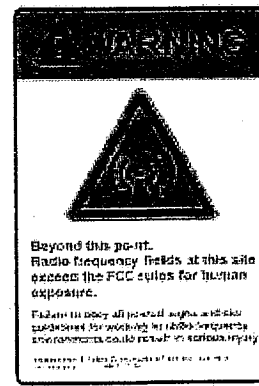
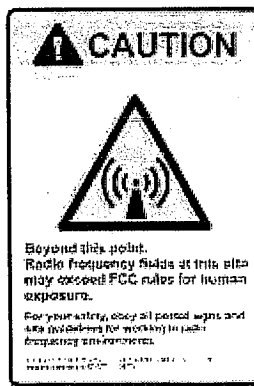
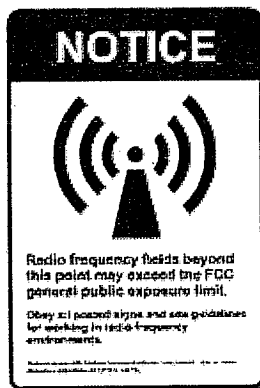
In order to consider this site an Occupational Environment, the site must be controlled to prevent access by any individuals classified as the General Public. Compliance is also maintained when any non-occupational individuals (the General Public) are prevented from accessing areas indicated as Red or Yellow in the attached RF Emissions diagram. In addition, a person must be aware of the RF environment into which they are entering. This can be accomplished by an RF Safety Awareness class, and by appropriate written documentation such as this Site Compliance Report.

All Verizon Wireless employees who require access to this site must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

Appendix D – General Safety Recommendations

The following are *general recommendations* appropriate for any site with accessible areas in excess of 100% General Public MPE. These recommendations are not specific to this site. These are safety recommendations appropriate for typical site management, building management, and other tenant operations.

1. All individuals needing access to the main site (or the area indicated to be in excess of General Public MPE) should wear a personal RF Exposure monitor, successfully complete proper RF Safety Awareness training, and have and be trained in the use of appropriate personal protective equipment.
2. All individuals needing access to the main site should be instructed to read and obey all posted placards and signs.
3. The site should be routinely inspected and this or similar report updated with the addition of any antennas or upon any changes to the RF environment including:
 - adding new antennas that may have been located on the site
 - removing of any existing antennas
 - changes in the radiating power or number of RF emitters
4. Post the appropriate **NOTICE**, **CAUTION**, or **WARNING** sign at the main site access point(s) and other locations as required. Note: Please refer to RF Exposure Diagrams in Appendix B, to inform everyone who has access to this site that beyond posted signs there may be levels in excess of the limits prescribed by the FCC. The signs below are examples of signs meeting FCC guidelines.



5. Ensure that the site door remains locked (or appropriately controlled) to deny access to the general public if deemed as policy by the building/site owner.
6. For a General Public environment the four color levels identified in this analysis can be interpreted in the following manner:
 - Gray represents area at below 5% of the General Public MPE limits or below. This level is safe for a worker to be in at any time.
 - Green represents areas predicted to be between 5% and 100% of the General Public MPE limits. This level is safe for a worker to be in at any time.

- Blue represents areas predicted to be between 100% and 500% of the General Public MPE limits. This level is safe for a worker to be in at any time.
- Yellow represents areas predicted to be between 500% and 5000% of the General Public MPE limits. This level is safe for a worker to be in.
- Red areas indicated predicted levels greater than 5000% of the General Public MPE limits. This level is not safe for the General Public to be in.

7. For an Occupational environment the four color levels identified in this analysis can be interpreted in the following manner:

- Areas indicated as Gray are at 5% of the Occupational MPE limits or below. This level is safe for a worker to be in at any time.
- Green represents areas predicted to be between 5% and 20% of the Occupational MPE limits. This level is safe for a worker to be in at any time.
- Yellow represents areas predicted to be between 20% and 100% of the Occupational MPE limits. Only individuals that have been properly trained in RF Health and Safety should be allowed to work in this area. This is not an area that is suitable for the General Public to be in.
- Red areas indicated predicted levels greater than 100% of the Occupational MPE limits. This level is not safe for the Occupational worker to be in for prolonged periods of time. Special procedures must be adhered to such as lock out tag out procedures to minimize the workers exposure to EME.

8. Use of a Personal Protective Monitor: When working around antennas, Sitesafe strongly recommends the use of a Personal Protective Monitor (PPM). Wearing a PPM will properly forewarn the individual prior to entering an RF exposure area.

Keep a copy of this report available for all persons who must access the site. They should read this report and be aware of the potential hazards with regards to RF and MPE limits.

Additional Information

Additional RF information is available by visiting both www.Sitesafe.com and www.fcc.gov/oet/rfsafety. OSHA has additional information available at: <http://www.osha-slc.gov/SLTC/radiofrequencyradiation>.

Hackett, Maurice

From: Bradley, Michael
Sent: Tuesday, January 21, 2014 3:24 PM
To: Vollmann, Peterson; Merkamp, Robert
Cc: Herrera, Jose; Hackett, Maurice; Madani, Jason
Subject: Vacation coverage for Michael Bradley

Hi Robert and Pete,
I will be out of the office on Friday and Monday.

Here is my Monday Phone coverage:

Monday Phones

9AM-10AM – Jose

10AM-12noon – Moe

2PM-4PM – Jason

Thanks,

Michael Bradley
Planner I
City Of Oakland, Department of Planning & Building
(510)238-6935

Hackett, Maurice

From: Kaminski, Laura
Sent: Friday, May 09, 2014 10:22 AM
To: Hackett, Maurice
Cc: Merkamp, Robert
Subject: Monday Counter shift

Moe,

My shift on Monday is from 10:00 – 11:30. Just let me know when you want me to cover a shift for you.

Thank you so much!

Laura B. Kaminski, AICP

City of Oakland | Department of Planning and Building | Strategic Planning Division

250 Frank H. Ogawa Plaza - Suite. 3315 | Oakland, CA 94612

P: (510)238-6809 F: (510)238-6538 | Website: www.oaklandnet.com | Email: lkaminski@oaklandnet.com