

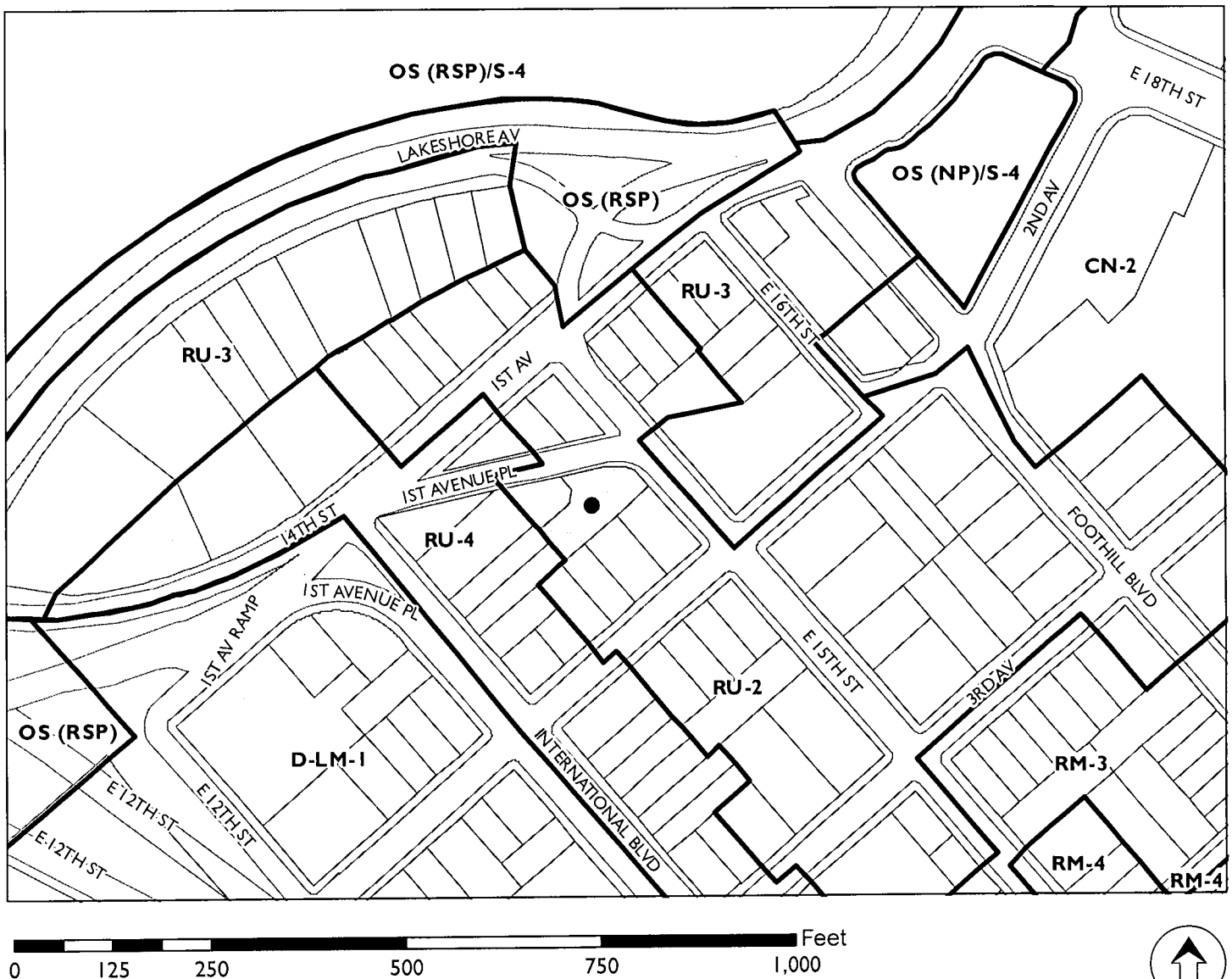
**Case File Number: PLN15-236****September 2, 2015**

<b>Location:</b>	<b>1444 1<sup>st</sup> Avenue Place. (See map on reverse)</b>
<b>A.P.N. :</b>	<b>(020-0130-02-02)</b>
<b>Proposal:</b>	Installation of a Wireless Telecommunications facility involving nine (9) new antennas with associated equipment cabinets and backup generator concealed within two (2) new enclosures (13'x 15' and 6'x 18') antenna lease area located on the roof of a three –story residential building.
<b>Applicant:</b>	Complete Wireless for Verizon Wireless.
<b>Contact Person</b>	Maria Kim
<b>Phone Number:</b>	(916)247-6087
<b>Owner:</b>	Moris & Janet Hercowitz.
<b>Planning Permits Required:</b>	Major Conditional Use Permit and Regular Design Review to install new roof-top antennas and associated equipment (Macro Telecommunications Facility) located in a residential zone.
<b>General Plan:</b>	Urban Residential
<b>Zoning:</b>	RU-2 Urban Residential Zone.
<b>Environmental Determination:</b>	Exempt, Section 15301 and 15303 of the State CEQA Guidelines: minor alterations to existing facilities and small structure; Section 15183 of the State CEQA Guidelines: projects consistent with a Community Plan, General Plan or Zoning.
<b>Historic Status:</b>	Potential Designated Historic Property; Survey Rating: D3
<b>Service Delivery District:</b>	3
<b>City Council District:</b>	2
<b>Status:</b>	Pending
<b>Finality of Decision:</b>	Appealable to City Council within 10 days
<b>For Further Information:</b>	Contact case planner Jason Madani at <b>(510) 238-4790</b> or <a href="mailto:jmadani@oaklandnet.com">jmadani@oaklandnet.com</a>

**SUMMARY**

The proposed project is to install a wireless Telecommunications Macro facility involving nine (9) new antennas and associated equipment cabinet and back generator concealed within two (2) new enclosures located on the roof of a three-story residential building. The site is located within the Urban Residential General Plan designation and the RU-2 Urban Residential zone. A Major Conditional Use Permit and Design Review are required to install a Macro Telecommunications Facility on a building. The proposal will provide enhanced Telecommunications service to support the residential, commercial and civic uses in the neighborhood. The project meets all of the applicable findings for approval (see findings sections). Therefore, staff recommends approval of the project subject to the attached conditions of approval.

# CITY OF OAKLAND PLANNING COMMISSION



Case File: PLN15236

Applicant: Complete Wireless Consulting for Verizon Wireless

Address: 1444 1st Avenue Place

Zone: RU-2

## PROJECT DESCRIPTION

The applicant, (Complete Wireless, for Verizon Wireless) is proposing to install nine (9) new antennas with associated equipment cabinets and backup generator concealed within two (2) new enclosures (13'x 15' and 6'x 18') antenna lease area located on the roof of a three-story residential building. (See attachment A)

## PROPERTY DESCRIPTION

The subject property is an approximately 8,285 square feet parcel with a three-story residential building. The subject property is located on 1<sup>st</sup> Avenue Place and E.15<sup>th</sup> Street near 2<sup>nd</sup> Avenue, and is bounded with other apartment buildings and senior housing structure across street from the subject site.

## 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 sitting 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".

### **GENERAL PLAN ANALYSIS**

The subject property is located within the Urban Residential General Plan Designation. The Urban Residential land use classification is intended to create, maintain and enhance areas of the City that are appropriate for multi-unit, mid-rise or high-rise residential structures in locations with good access to transportation and other services. The proposed unmanned wireless telecommunication facility will not adversely affect and detract from the urban residential characteristics of the neighborhood. The proposal will preserve a convenient and functional residential building and will not likely affect the general quality and character of the neighborhood. The proposed project will have minimal effect on the existing structure and surrounding area.

### **ZONING ANALYSIS**

The subject property is located in the RU-2 Urban Residential Zone. The intent of the RU-2 is to create, maintain, and enhance areas of the City that are appropriate for multi-unit, low-rise residential structures and neighborhood businesses where appropriate in locations with good access to transportation and other services. The project requires a Major Conditional Use Permit, Design Review within a residential zone. Staff finds that the proposed application meets applicable RU-2 Zoning and City of Oakland Telecommunications Regulations as discussed under the "Key Issues" and Section of "Findings" of this report.

### **ENVIRONMENTAL DETERMINATION**

The California Environmental Quality Act (CEQA) Guidelines lists 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, 15303 for additions and alterations to existing facilities, and small structure. In addition, the project is also exempt per Section 15183, for projects consistent with a community plan, general plan or zoning.



## **KEY ISSUES AND IMPACTS**

### **1. Conditional Use Permit, Design Review**

Section 17.19.02 of the City of Oakland Planning Code requires a Conditional Use Permit and Design Review to install a Macro Telecommunication facility in the RU-2 Urban Residential Zone. Furthermore, pursuant to Section 17.134.020 (A) (3) (i) and

17.148.050A, 17.136.050B of the Oakland Planning Code, a Major Conditional Use Permit and Design Review is required for any telecommunication facility in or within one hundred (100) feet of the boundary of any residential zone. The required findings for a major Conditional Use Permit and Design Review are listed and included in staff's evaluation as part of this report.

### **2. Project Site**

Section 17.128.110 of Oakland's 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 (excluding all HBX Zones and the D-CE3 and D-C-4 Zones).
- D. Existing commercial or industrial structures in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.
- E. Other non-residential uses in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.
- F. Residential uses in non-residential zones. (excluding all HBX Zones and the D-CE-3 and D-CE-4 Zones).
- G. Residential uses in residential zones, HBX Zones, or the D-CE-3 or D-CE-4 Zones.

Since the proposed project involves installation new antennas on an existing residential structure within an RU-2 zone, the proposed project meets (G) and hence a site alternatives analysis is required.

Written evidence must indicate why each higher preference design alternative can not 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 the applicant's written evidence of alternative sites analysis (see attachment A) and determined that the site selected conforms to the telecommunication regulation requirements. In addition, and agree that no other sites are more suitable. The project has met design criteria (A) and (G) since, the proposed nine (9) new

antennas and associated equipment are located inside two new penthouse screening enclosures located on the roof of a three-story residential building within the RU-2 zone.

### **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 B ranked preference does not require a site design alternatives analysis. Facilities designed to meet A through B 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 must indicate why each higher preference design alternative can not 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 project has met design criteria (A) and (B) since the nine (9) new antennas will be located within the penthouse enclosures located on two sectors of the roof of the existing three-story residential building. Hence, a site design alternatives analysis is not required.

### **4. Project Radio Frequency Emissions Standards**

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

- a. The Telecommunications regulations require that the applicant submit written documentation demonstrating that the emission from the proposed project are within the limits set by the Federal Communications Commission. In the document (attachment B) prepared by HAMMETT & EDISON, INC, Consulting Engineers, the proposed project was evaluated for compliance with appropriate guidelines limiting human exposure to radio frequency electromagnetic fields. According to the report on the proposal, the project will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, the proposed site will operate within the current acceptable thresholds as established by the

Federal Government or any such agency that may be subsequently authorized to establish such standards.

*b.* 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 information submitted with the initial application was an RF emissions report, prepared by HAMMETT & EDISON, INC, Consulting Engineers (Attachment B). The report states that the proposed project will comply with the prevailing standards 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.

**CONCLUSION**

Staff believes that the new telecommunication facility will not have significant visual impacts on the operating characteristic of the existing residential building. It will provide an essential telecommunication services to the community and the City of Oakland at large. It will also be available to emergency services such as Police, Fire and Health response teams. Staff believes that the findings for approval can be made to support the Conditional Use Permit, Design Review.

**RECOMMENDATIONS:**

1. Affirm staff's Environmental Determination
2. Approve the Conditional Use Permit, Design Review, (PLN15-236) subject to the attached Findings and Conditions of Approval

Prepared by:



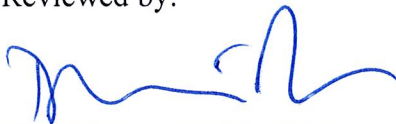
Jason Madani  
Planner II

Reviewed by:



Scott Miller,  
Zoning Manager

Reviewed by:



Darin Ranelletti, Deputy Director  
Bureau of Planning

Approved for forwarding to the  
City Planning Commission



Rachel Flynn, Director  
Bureau of Planning and Building

**ATTACHMENTS:**

- A. Project Plans & Alternative site selection & Photo simulations
- B. Hammett & Edison, Inc. Consulting Engineer RF Emissions Report

**FINDINGS FOR APPROVAL**

This proposal meets the required findings under Sections 17.134.050 (General Use Permit criteria); and 17.136.050 (B) (Non-Residential Design Review criteria); 17.128.060(B) (Telecommunications Macro Facilities 17.128.060 (C), as set forth below. Required findings are shown in **bold** type; reasons 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 purpose of the project is to enhance wireless telecommunications service in the area. The installation of new antennas will not adversely affect the operating characteristics or livability of the existing area because the proposed antennas will be inside of a penthouse screening enclosures located on the roof of the residential building. The facility will be unmanned and will not create additional vehicular traffic in the area.

**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 location, design and site planning of the proposed development will provide enhanced telecommunication service for the area. It will maintain the use of the residential building. The proposal will preserve the use of the existing residential building and not expected to negatively affect the general quality and character of the neighborhood.

**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 Telecommunications facility for the community and will be available to the Police, Fire Services, and the 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 with 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 Urban Residential land use classification is intended to create, maintain and enhance areas of the City that are appropriate for multi-unit, mid-rise or high-rise residential structures in locations with good access to transportation and other services. The proposed unmanned wireless telecommunication facility will not adversely affect and detract from the urban residential characteristics of the neighborhood. The proposal will preserve a convenient and functional residential building and will not likely affect the general quality and character of the neighborhood. The proposed project will have minimal effect on the existing structure and surrounding 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 proposed nine (9) new antennas are located inside the penthouse enclosure and will be camouflaged and blend in with the existing HVAC equipment located on the roof of residential building and surrounding residential buildings. Photo simulations submitted for the project show the view of the proposed antennas and screen, as seen from the street, with minimum visual impacts. Therefore, the proposal will not have significant impacts on the operating characteristic of the existing residential building and surrounding neighborhood.

**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;**

See above #1 findings

**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.**

See above #E

**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 screening enclosures are compatible with the existing building material, and blends in with the architectural style of the residential building.

**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 proposed antennas and a generator are located inside the penthouse enclosure and will be camouflaged and blend in with the existing rooftop stairwell of residential building and surrounding residential buildings.

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

See findings above.

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

The proposed screening enclosures are compatible with the existing building material, and blend in with the architectural style of the building.

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

See above findings.

**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 placement of the antennas and associated equipment within the rooftop penthouse located on the roof of residential building and meets the 1:1 ratio for equipment setback from the edge of building roof line.

**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 proposed panel antennas and associated equipment will be mounted on the roof of the building and will not be accessible to the public due to its location.

**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.  
(see above).

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

The proposed Telecommunications facility is fully screened from public view and, therefore the proposal will not disrupt the overall community character surrounding the subject site.



**CONDITIONS OF APPROVAL**  
**PLN15-236**

**STANDARD 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, **PLN15-236**, and the plans dated **June 25, 2015** and submitted on **July 15<sup>th</sup>, 2015** 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 required 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: **Installation of a Wireless Telecommunications facility involving nine (9) new antennas with associated equipment cabinets and backup generator concealed within two (2) new enclosures (13'x 15' and 6'x 18') antenna lease area located on the roof of a three-story residential building.**

**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 **Oakland 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 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.

- 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
- c) limited to automatic extinguishing systems, water supply improvements and hydrants, fire department access, and vegetation management for preventing fires and soil erosion.

**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) The City of Oakland reserves the right at any time during construction to require certification by a licensed professional that the as-built project conforms to all applicable zoning requirements, including but not limited to approved maximum heights and minimum setbacks. Failure to construct the project in accordance with approved plans may result in remedial reconstruction, permit revocation, permit modification, stop work, permit suspension or other corrective action.
- c) Violation of any term, conditions or project description relating to the Approvals 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 if it is found that there is violation of any of the conditions 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.

**6. Signed Copy of the Conditions****With submittal of a demolition, grading, and building permit**

A copy of the approval letter and conditions 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**

- i. 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.

- ii. 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, and if any one or more of such conditions is found to be invalid by a court of competent jurisdiction this Approval would not have been granted without requiring other valid conditions consistent with achieving the same purpose and intent of such Approval.

#### **10. Job Site Plans**

##### ***Ongoing throughout demolition, grading, and/or construction***

At least one (1) copy of the stamped approved plans, along with the Approval Letter and Conditions of Approval, shall be available for review at the job site at all times.

#### **11. Special Inspector/Inspections, Independent Technical Review, Project Coordination and Management**

##### ***Prior to issuance of a demolition, grading, and/or construction permit***

The project applicant may be required to pay for on-call special inspector(s)/inspections as needed during the times of extensive or specialized plan check review, or construction. The project applicant may also be required to cover the full costs of independent technical and other types of peer review, monitoring and inspection, including without limitation, third party plan check fees, including inspections of violations of Conditions of Approval. The project applicant shall establish a deposit with the Building Services Division, as directed by the Building Official, Director of City Planning or designee.

#### **12. Days/Hours of Construction Operation**

##### ***Ongoing throughout demolition, grading, and/or construction***

The project applicant shall require construction contractors to limit standard construction activities as follows:

- a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating

activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

- b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.
- c) Construction activity shall not occur on Saturdays, with the following possible exceptions:
  - i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.
  - ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.
- d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.
- e) No construction activity shall take place on Sundays or Federal holidays.
- f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

#### **PROJECT SPECIFIC CONDITIONS:**

##### **13. Radio Frequency Emissions**

###### ***Prior to the final building permit sign off.***

The applicant shall submit a certified RF emissions report stating the facility is operating within the acceptable standards established by the regulatory Federal Communications Commission.

##### **14. Operational**

###### **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.

**15. Compliance with Title 24**

***Prior to issuance of certificate of occupancy.***


The applicant shall implement acoustical techniques in compliance with Title 24 to ensure that noise levels in interior spaces remain at or below 45 CNEL with all doors and windows closed.

**16. Height Limitation**

***Ongoing.***

The maximum height of the screening enclosure shall be 10 feet. Any height beyond 10 feet would compromise the appropriate scale and proportionality with the existing building mass.

# ATTACHMENT A

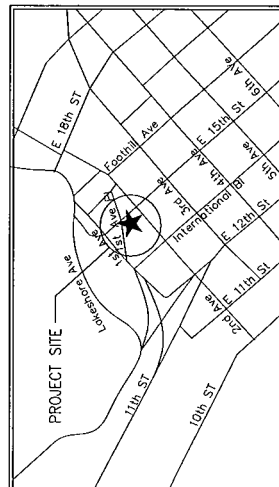


## verizon WIRELESS


2785 Mitchell Drive, Walnut Creek, CA 94598

### LAKESHORE

1444 1ST AVENUE PLACE  
OAKLAND, CA 94606  
APN: 020-0130-002-02  
LOCATION #: XXXXX



LOCATION PLAN

Z D D R A W I N G S I G N - O F F	
DATE: _____ TIME: _____ CMC-PLEASE RETURN BY: _____  SIGNATURE: _____ DATE: _____  SITE ACQUISITION: _____ PLANNING: _____ CONSTRUCTION: _____ MANAGEMENT: _____	 CONSTRUCTION: _____ DATE: _____ REAL ESTATE: _____ RF ENGINEER: _____ EQUIPMENT ENGINEER: _____ W/E ENG./TRANSPORT: _____ OTHER (IF APPLICABLE): _____ DATE: _____

## RETURN

JUL 15 2015

City of Oakland  
Planning & Zoning Division


### DIRECTIONS

1. FROM VERIZON OFFICE @ 2785 MITCHELL DRIVE, WALNUT CREEK, CA 94598:
2. HEAD NORTHEAST ON MITCHELL DR TOWARD OAK GROVE RD
3. TURN RIGHT ONTO OAK GROVE RD
4. TURN LEFT ONTO HILSDALE RD
5. TURN RIGHT ONTO THE RAMP TO CA-24 W
6. CONTINUE ONTO CA-24 W TO STAY ON CA-24 W
7. TAKE THE RIGHT HAND TURN ONTO INTERSTATE 580 E
8. TAKE THE RIGHT HAND TURN ONTO INTERSTATE 580 E
9. MERGE ONTO I-580 E
10. TAKE THE EXIT TOWARD GRAND AVE/LAKESHORE AVE
11. TAKE THE RIGHT HAND TURN ONTO LAKESHORE AVE
12. TURN RIGHT ONTO 1ST AVE
13. MERGE ONTO 1ST AVE
14. SHARP LEFT ONTO 1ST AVE PL

### INDEX OF DRAWINGS

1. T1.1 2. T1.2 3. A1.1 4. A2.1 5. A2.2 6. A3.1 7. A3.2 8. A3.3	TITLE SHEET, LOCATION PLAN, PROJECT DATA SET BACK OVERALL SITE PLAN ANTENNA LAYOUT PLAN PROJECT ELEVATIONS PROJECT ELEVATIONS - LINE OF SIGHT
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<h3 style="text-align: center;">PROJECT DIRECTORY</h3> <p><b>APPLICANT:</b> VERIZON WIRELESS 2785 MITCHELL DRIVE WALNUT CREEK, CA 94598</p> <p><b>PROPERTY OWNER:</b> MORIS HERSKOWITZ</p> <p><b>CONSTRUCTION MANAGER:</b> MARK CASEY COMPLETE WIRELESS CONSULTING, INC. 1505 VINTAGE PARKWAY SACRAMENTO, CA 95818 916-567-8830 mcasey@completewireless.net</p> <p><b>ARCHITECT:</b> MANUEL S. TSHLAS MST ARCHITECTS, INC. 1505 VINTAGE PARKWAY SACRAMENTO, CA 95818 916-567-8830 manuel@mstarchitects.com</p>	<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>ASSESSOR'S PARCEL NUMBER:</b> 020-0130-002-02</p> <p><b>JURISDICTION:</b> CITY OF OAKLAND</p> <p><b>OCCUPANCY:</b> S-2 (UNMANNED TELECOMMUNICATIONS FACILITY) U (TOWER)</p> <p><b>TYPE OF CONSTRUCTION:</b> V-B</p> <p><b>ZONING:</b> RU-2</p>	<h3 style="text-align: center;">CODE COMPLIANCE</h3> <p>ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CALIFORNIA ELECTRICAL CODES AS ADOPTED BY THE LOCAL GOVERNMENT. THE FOLLOWING LISTING OF THE CALIFORNIA ELECTRICAL CODES (CEC) CONCERNING PERMITS, NOTING THESE PLANS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES:</p> <ol style="list-style-type: none"> <li>1. 2013 CALIFORNIA ADMINISTRATIVE CODE (CAC) (INCL. TITLE 24 &amp; 25)</li> <li>2. 2013 CALIFORNIA ELECTRICAL CODE (CEC)</li> <li>3. 2013 CALIFORNIA ELECTRICAL CODE (CEC)</li> <li>4. 2013 CALIFORNIA MECHANICAL CODE (CMC)</li> <li>5. 2013 CALIFORNIA PLUMBING CODE (CPC)</li> <li>6. 2013 CALIFORNIA ENERGY CODE (CEC)</li> <li>7. 2013 CALIFORNIA FIRE CODE (FC)</li> <li>8. 2013 CALIFORNIA FIRE CODE (FC)</li> <li>9. 2013 CALIFORNIA FIRE CODE (FC)</li> <li>10. LOCAL COUNTY OR CITY ORDINANCES</li> </ol> <p>ACCESSIBILITY REQUIREMENTS: THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ACCESSIBILITY NOT REQUIRED IN ACCORDANCE WITH THE 2013 CBC 119-2013.5, AND 118-2013.4 EXCEPTION 7.</p>	<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p>PROPOSED VERIZON WIRELESS UNMANNED TELECOMMUNICATIONS FACILITY, INCLUDING:</p> <ul style="list-style-type: none"> <li>- A 13'-0"x15'-0" EQUIPMENT LEASE AREA.</li> <li>- A 6'-0"x15'-0" ANTENNA LEASE AREA.</li> <li>- A METAL EQUIPMENT PLATFORM.</li> <li>- POWER &amp; TELCO UTILITIES BROUGHT TO FACILITY.</li> <li>- (G) ANTENNAS W/ASSOCIATED TOWER MOUNTED EQUIPMENT MOUNTED ON AN EXISTING ROOFTOP</li> </ul>	<h3 style="text-align: center;">PROJECT MILESTONES</h3> <p>04/01/2015 50% ZONING DOCUMENTS 05/13/2015 100% ZONING DOCUMENTS 09/23/2015 100% ZONING DOCUMENTS REV1</p> <p>XX/XX/XXXX 50% CONSTRUCTION DOCUMENTS XX/XX/XXXX 100% CONSTRUCTION DOCUMENTS</p>
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**MST ARCHITECTS**  
1505 VINTAGE PARKWAY  
SACRAMENTO, CA 95818  
916-567-8830  
manuel@mstarchitects.com

**Verizon WIRELESS**  
1444 1ST AVENUE PLACE  
LAKESHORE OAKLAND, CA 94606

**TITLE SHEET, LOCATION PLAN, PROJECT DATA**

**DATE:** 07/15/2015  
**DRAWN BY:** [Signature]  
**CHECKED BY:** [Signature]  
**DATE:** 07/15/2015

**T1.1**

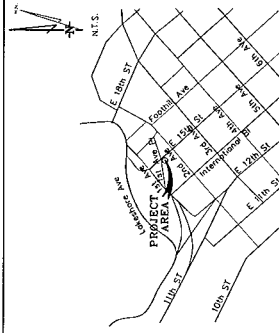
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**SCALE:** AS SHOWN  
**DATE:** 07/15/2015

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LAKESHORE  
1444 1st Avenue Place  
Oakland, CA 94606  
PLOT PLAN AND  
SITE TOPOGRAPHY



DEPT	APPROVED DATE	GELL ENGINEERING ENGINEERING • SURVEYING • PLANNING 1224 HIGH STREET ALBUQUERQUE, CALIFORNIA 98003 Phone: (509) 885-0420 Fax: (509) 885-1808
AEC		
RE		
RF		
NI		
CE/M		
OPS		
ELVOL		



OAKLAND, CA VICINITY MAP

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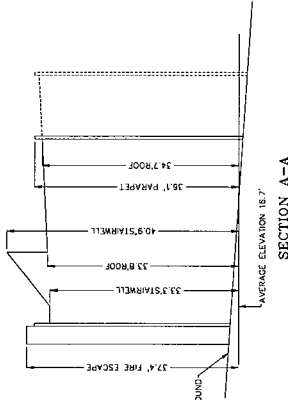
**Lakeshore  
Foster Area Description**

All those certain lesser areas being a portion of Lots 1, 2 and 3 as shown on the map of "Property of Alameda County Land Company" filed in Book 15 of Maps 14, Alameda County, California records and being more particularly described as follows:

Equipment Issues: Area Commencing at the West most corner of the aforementioned North of the Southwest boundary line on South 47°43'27" East 24.84 feet, West 14.13 feet to a point on the boundary North 47°43'38" East 14.13 feet to a point on the roof of an existing building now constructed there having an elevation of 51.5 feet above mean sea level more or less said point being the True Point of Beginning; thence from said point of Beginning South 47°43'27" West 15.00 feet to a point of Beginning South 47°43'03" East 13.00 feet to a point of Beginning; thence South 47°43'03" East 13.00 feet to the True point of Beginning.

**Arcting, Ice, and** West must cover all the aforementioned lot 1, thence along the Southeast boundary thereof South 74°45'22" West 54.70 feet; thence leaving said Southeast boundary North 42°14'38" West 19.12 feet to a point on the road; thence along the road North 10°00'00" West 100.00 feet to an elevation of 51.5 feet above mean sea level more or less, said point being the True Point of Beginning; thence from said point of beginning South 40°22'57" West 6.00 feet; thence North 41°37'03" West 18.00 feet; thence North 48°57'57" True 8.00 feet; thence South 41°57'03" East 18.00 feet to the true

Together with an easement for access and utility purposes, over, across, through and on the existing building and underlying parcel of land as necessary for utilization of the



DATE OF SURVEY: 17-05-14  
SURVEYED BY OR UNDER DIRECTION OF: KENNETH D. OEL, RCE  
16033  
LOCATED IN THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA  
BEARINGS SHOWN ARE BASED UPON MONUMENTS FOUND AND  
RECORD INFORMATION. THIS IS NOT A BOUNDARY SURVEY.  
ELEVATIONS SHOWN ON THIS PLAN ARE BASED UPON U.S.C.S.  
ELEVATION POINT 16033, ADJACENT TO THE SAN JOAQUIN RIVER,  
OTHERWISE NOTED.  
N.S.D. 1929 CORRECTION: SUBTRACT 2.70' FROM ELEVATIONS  
SHOWN.  
CONTOUR INTERVAL: N.A.  
ASSESSOR'S PARCEL NUMBER: 020-0130-002-02

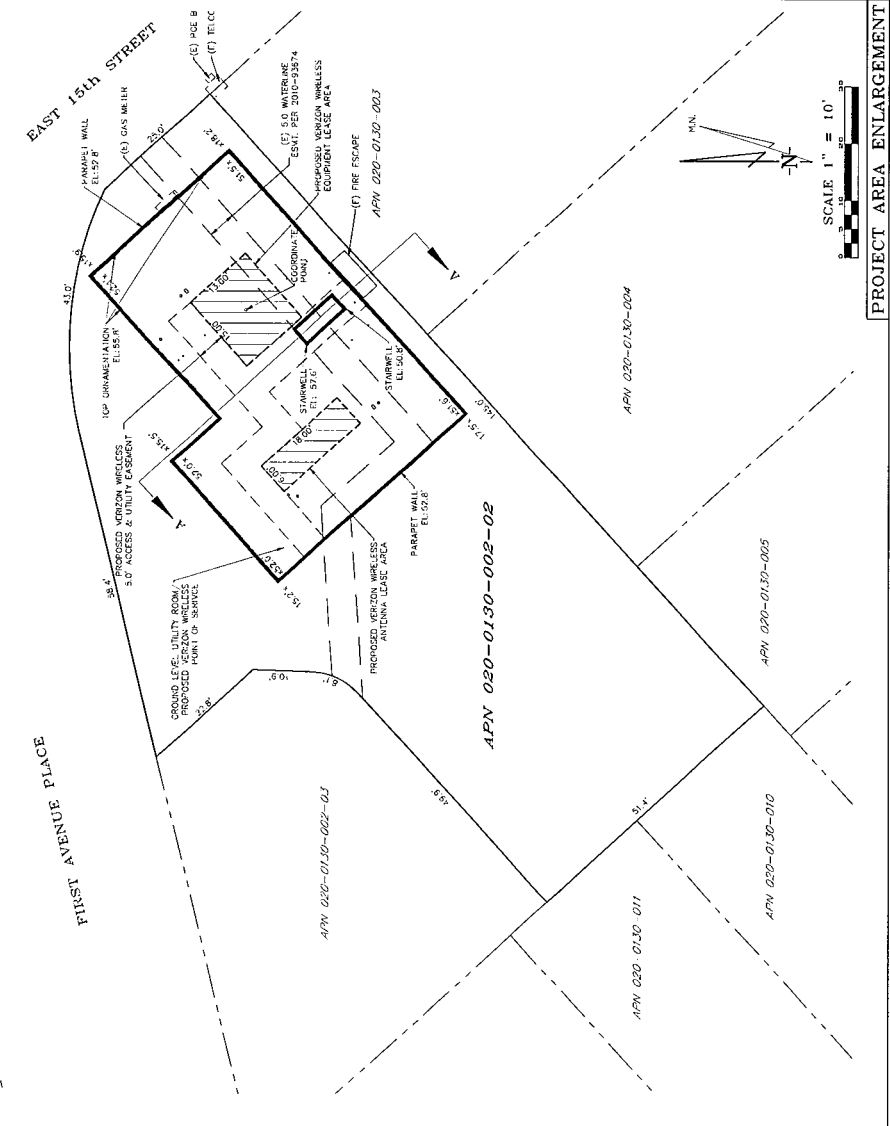
**Project Name:** Lakeshore  
**Project Site Location:** 1444 First Avenue Place  
Oakland, CA 94606


Date of Observation: 12-04-14  
Equipment/Procedure Used to Obtain Coordinates: Trimble Geo  
XL post processed with Pathfinder Office software.  
Type of Antenna Mount: Proposed Roof Top Mount

Coordinates

Latitude: N 37°47'55.72" (NAD83)	N 37°47'55.96" (NAD27)
Longitude: W 122°15'21.29" (NAD83)	W 122°15'11.41" (NAD27)


ELEVATION of Ground at Structure (NAVD88) 15.7' AGL  
Height of Structure (Parapet) 36.1' AGL  
Overall Height (Signal) 40.9' AGL





**MST ARCHITECTS**  
 155 BRIDGEWAY DRIVE, SUITE 200  
 OAKLAND, CA 94606  
 (415) 764-8800  
 www.mstarchitects.com

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**Verizon WIRELESS**  
 1444 1ST AVENUE PLACE  
 LAKESHORE  
 OAKLAND, CA 94606

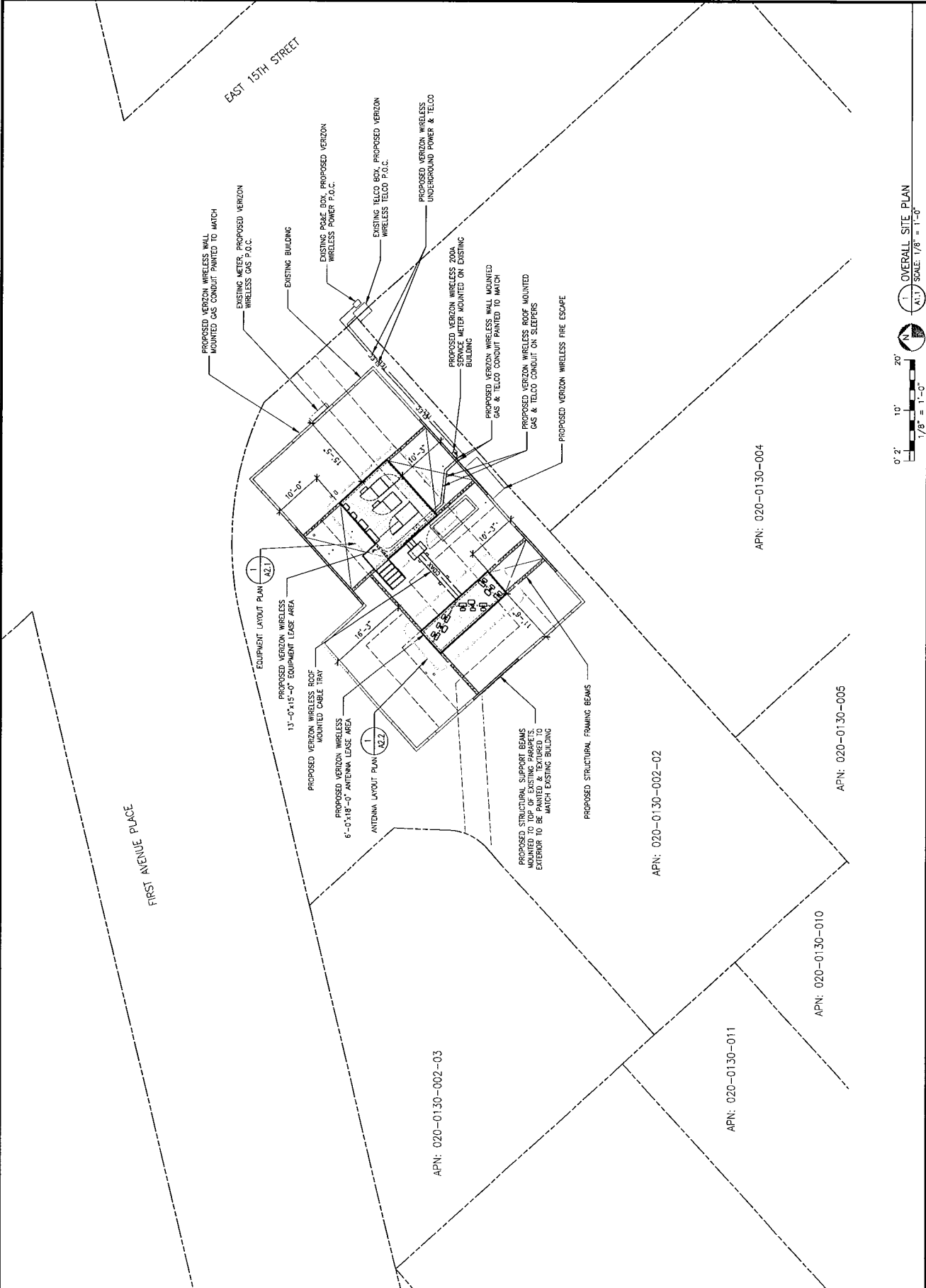
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**OVERALL SITE PLAN**

REVISIONS:  
 1. 06/22/2015  
 2. 06/22/2015  
 3. 06/22/2015  
 4. 06/22/2015  
 5. 06/22/2015  
 6. 06/22/2015  
 7. 06/22/2015  
 8. 06/22/2015  
 9. 06/22/2015  
 10. 06/22/2015

FILE: 020-0130-004.dwg  
 Drawn By: xos  
 Checked By: m  
 Scale: AS NOTED  
 Date: 06/22/2015

Job No. 020-0130-004

**A1.1**

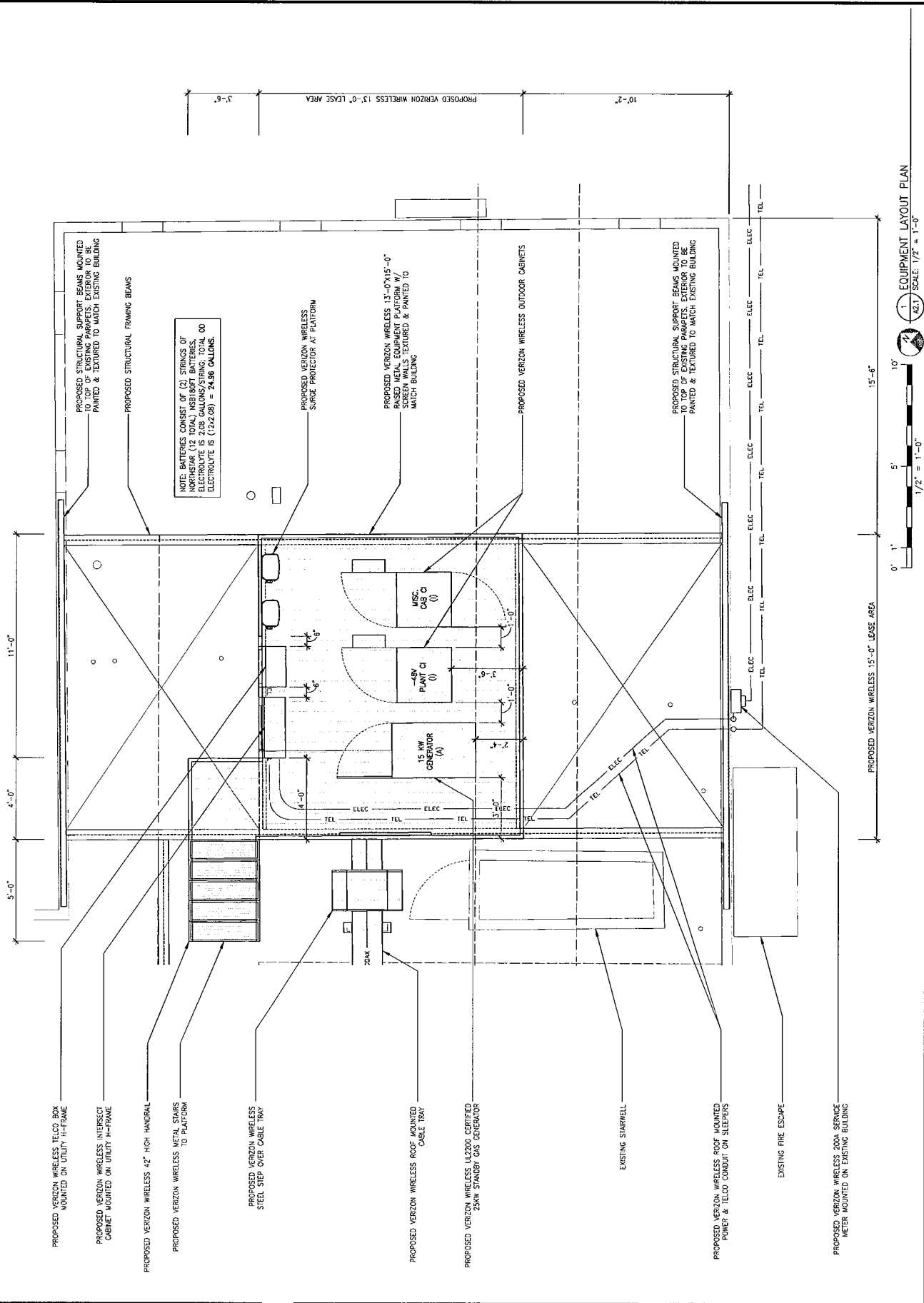


0' 2' 10' 20'

1/8" = 1'-0"

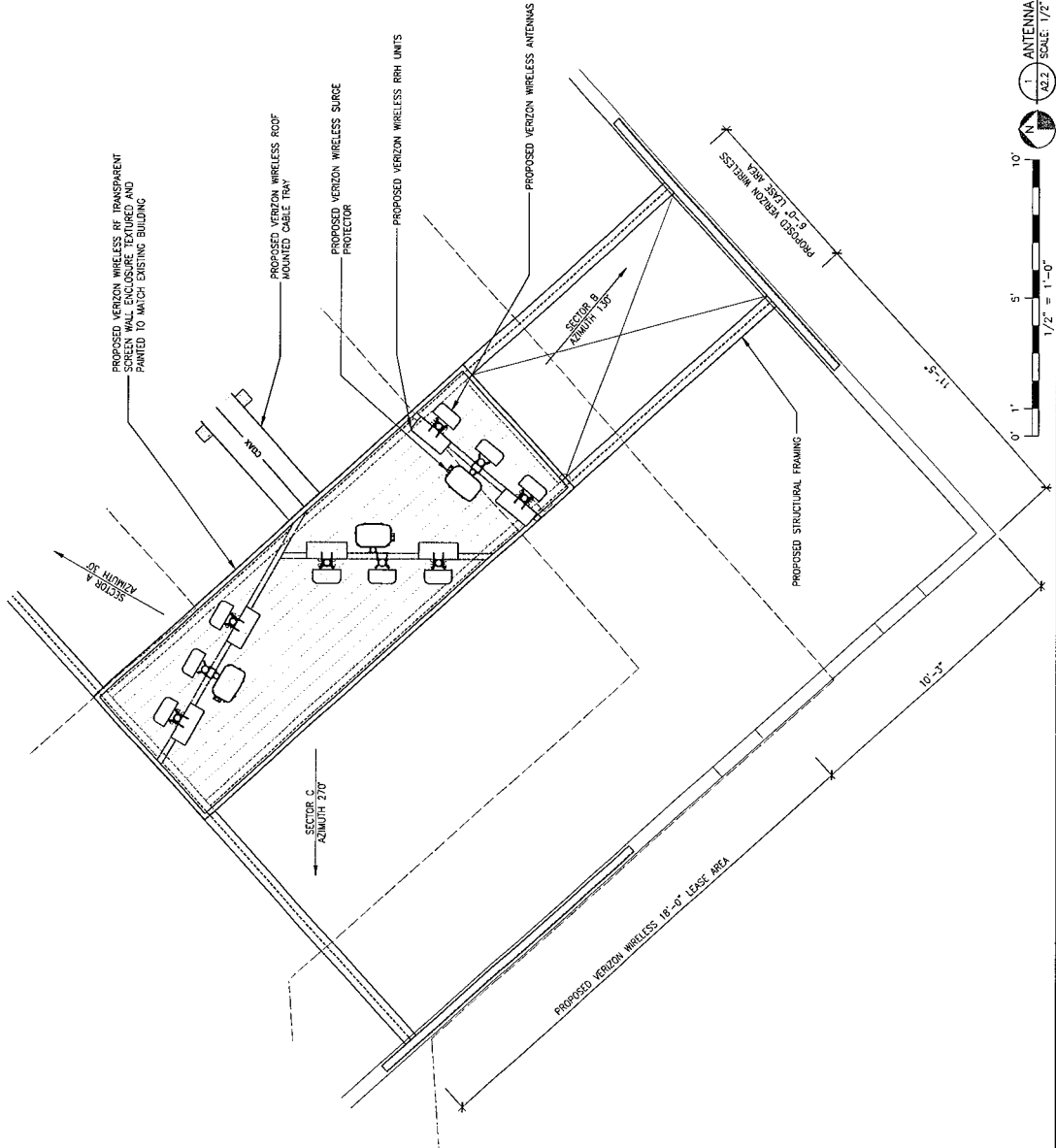
OVERALL SITE PLAN  
 A1.1 SCALE: 1/8" = 1'-0"



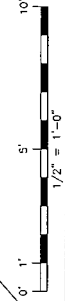


EQUIPMENT SCHEDULE

EQUIPMENT	DESCRIPTION	QUANTITY				TOTAL
		SECTOR A	SECTOR B	SECTOR C		
ANTENNA	SDMH-10659	3	3	3		9
RRH	RLS12	4	4	4		12
TMA OR DIPLEXER	N/A	0	0	0		0
SURGE PROTECTOR/HYBRID	RAYCAP DC3315 / HYBRID TRUNK CABLE		2/2			2/2
COAXIAL CABLE	1 5/8" DIAMETER COAX	0	0	0		0
PET CABLE	N/A	0	0	0		0



1 ANTENNA LAYOUT PLAN  
A2.2 SCALE 1/2" = 1'-0"



JOB NO. 18.1-02

DATE: 06/27/2015

SHEET: 42.2

CHECKED BY: M

DRAWN BY: M

FILE: A2.2

PROJECT:

DATE: 06/27/2015

SCALE: 1/2" = 1'-0"

18'-0" BASE AREA

11'-5"

10'-3"

6'-0" (LAKS 4023)

PROPOSED VERIZON WIRELESS ANTENNAS

PROPOSED VERIZON WIRELESS RRH UNITS

PROPOSED VERIZON WIRELESS SURGE PROTECTOR

PROPOSED VERIZON WIRELESS ROOF MOUNTED CABLE TRAY

PROPOSED VERIZON WIRELESS RF TRANSPARENT PROTECTORS MOUNTED ON EXISTING BUILDING PAINTED TO MATCH EXISTING BUILDING

SECTOR A AZIMUTH 30°

SECTOR B AZIMUTH 150°

SECTOR C AZIMUTH 270°

PROPOSED STRUCTURAL FRAMING

18'-0" BASE AREA

11'-5"

10'-3"

6'-0" (LAKS 4023)

PROPOSED VERIZON WIRELESS ANTENNAS

PROPOSED VERIZON WIRELESS RRH UNITS

PROPOSED VERIZON WIRELESS SURGE PROTECTOR

PROPOSED VERIZON WIRELESS ROOF MOUNTED CABLE TRAY

PROPOSED VERIZON WIRELESS RF TRANSPARENT PROTECTORS MOUNTED ON EXISTING BUILDING PAINTED TO MATCH EXISTING BUILDING

SECTOR A AZIMUTH 30°

SECTOR B AZIMUTH 150°

SECTOR C AZIMUTH 270°

PROPOSED STRUCTURAL FRAMING

18'-0" BASE AREA

11'-5"

10'-3"

6'-0" (LAKS 4023)

PROPOSED VERIZON WIRELESS ANTENNAS

PROPOSED VERIZON WIRELESS RRH UNITS

PROPOSED VERIZON WIRELESS SURGE PROTECTOR

ANTENNA LAYOUT PLAN

LAKE SHORE  
1444 1ST AVENUE PLACE  
OAKLAND, CA 94606

verizon WIRELESS

SHEET TITLE:



MST ARCHITECTS  
1550 BAY PARK DRIVE, SUITE 200, OAKLAND, CA 94612  
WWW.MSTARCHITECTS.COM



COMPLET

**MST ARCHITECTS**  
3100 BROADWAY DRIVE, SUITE 200, SAN FRANCISCO, CA 94133  
415.774.8888  
WWW.MSTARCHITECTS.COM

**COMPLETE**  
Architectural Consulting, Inc.

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**Verizon Wireless**  
1444 1ST AVENUE, PLACE  
LAKE SHORE  
OAKLAND, CA 94606

PROJECT ELEVATIONS

SHEET TITLE:

DATE: 07/27/2015

SCALE: AS SHOWN

CHECKED BY: JF

DRAWN BY: JF

FILE: 161\_002.dwg

DATE: 07/27/2015

SCALE: AS SHOWN

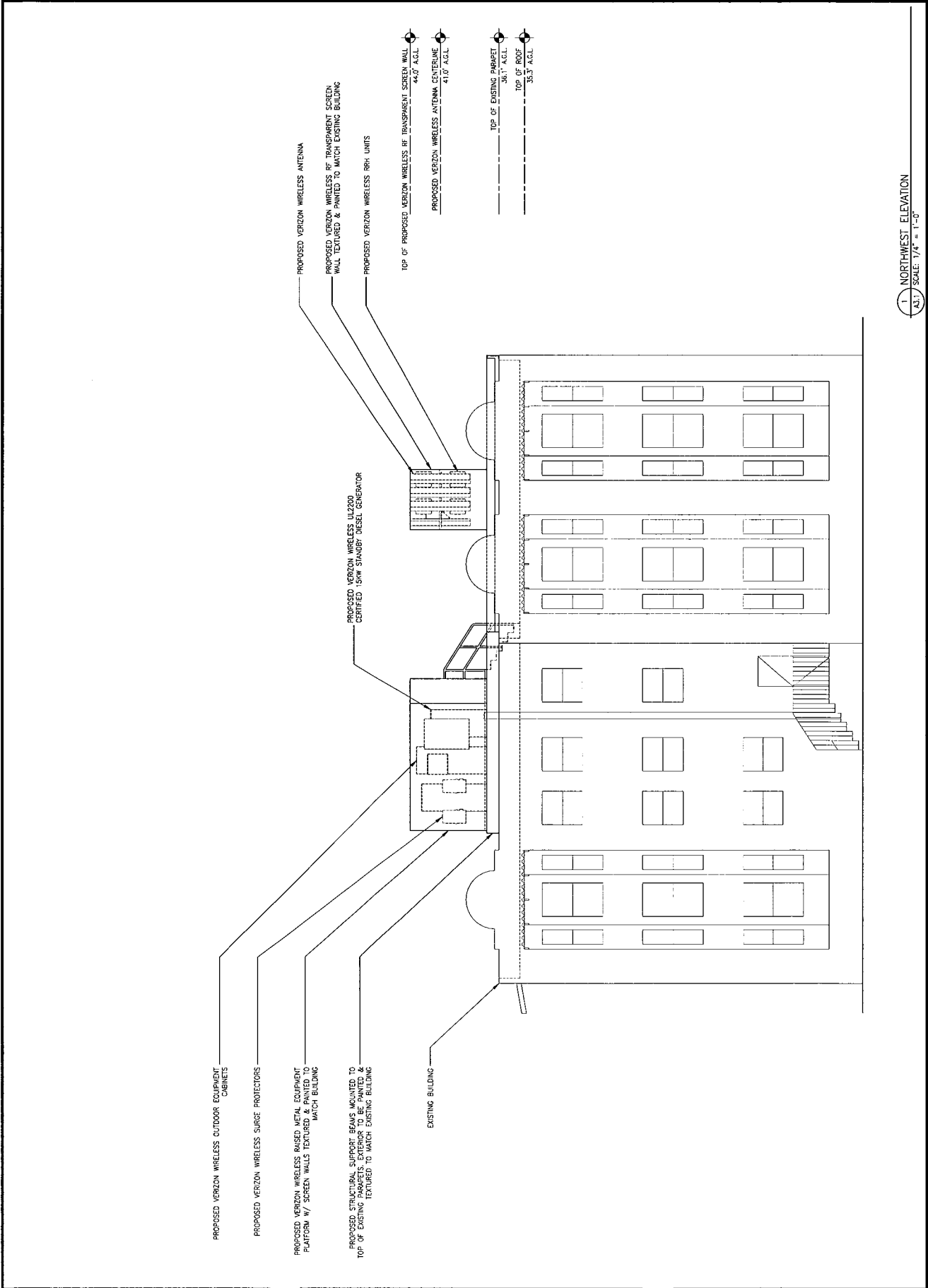
CHECKED BY: JF

DRAWN BY: JF


FILE: 161\_002.dwg

Job No. 161-002

**A3.1**




1 NORTHWEST ELEVATION  
A3.1 SCALE: 1/4" = 1'-0"



**MST ARCHITECTS**  
 1525 BROADWAY DRIVE, SUITE 200, OAKLAND, CA 94612  
 510.587.9510  
 www.mstarchitects.com

COMPLETE  
 Wireless Consulting, Inc.



**PROJECT ELEVATIONS**  
 LAKESHORE  
 1444 1ST AVENUE PLACE  
 OAKLAND, CA 94606

SHEET TITLE:

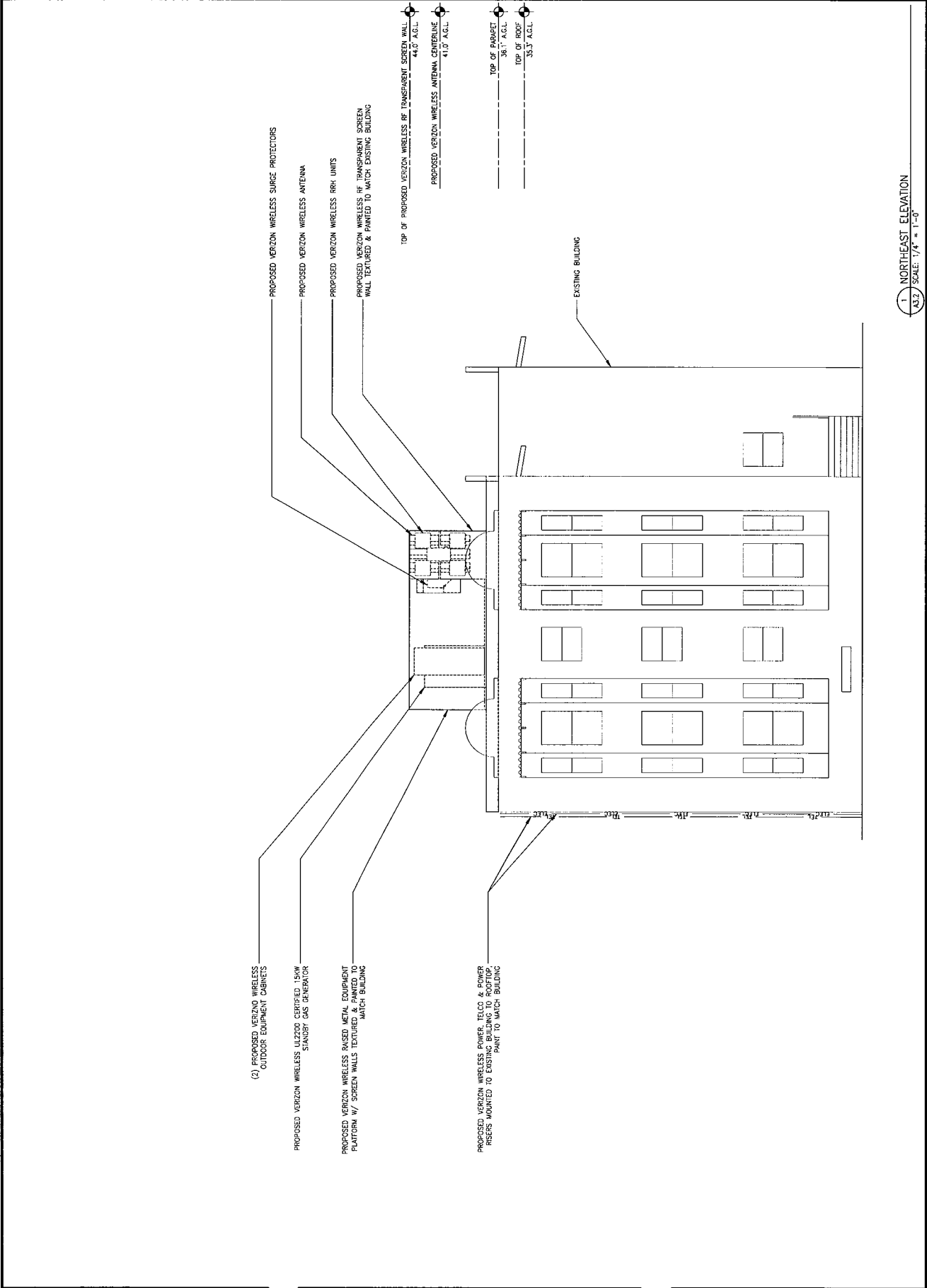
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SUB NO. 181.407

FILE: 181.407.A3.2.dwg  
 Drawn By: MLC  
 Checked By: MLC  
 Scale: AS NOTED  
 Date: 06/29/2013

REVISIONS:

NO.	DATE	DESCRIPTION
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Aerial photograph showing the viewpoints for the photosimulations and surrounding buildings.

## ATTACHMENT A



**Lakeshore**

1444 1st Avenue  
Oakland CA 94606

**verizon**wireless





**Existing**

**Lakeshore**

1444 1st Avenue Place  
Oakland CA 94606

**verizon**wireless



**Proposed**





**Existing**

Photosimulation of the view looking northeast from International Blvd.

**Lakeshore**

1444 1st Avenue Place  
Oakland CA 94606

**verizon**wireless



**Proposed**





Photosimulation of the view looking west from across 15th Street.

**Lakeshore**

1444 1st Avenue Place  
Oakland CA 94606

**verizon**wireless





# ATTACHMENT A

## PROJECT SUPPORT STATEMENT VERIZON WIRELESS

**Site Name:** Lakeshore  
**Location:** 1444 1<sup>st</sup> Avenue Place, Oakland, CA 94606  
**APN:** 020-0130-002-02

### Introduction

Verizon Wireless is seeking to improve communications service to residences, businesses and travelers in Oakland and strives to improve coverage for both existing and potential customers. Verizon Wireless is currently experiencing a significant coverage and capacity gap for residential areas in Oakland, south of Lake Merritt. This site will serve to offload the following existing VZW site Lane College to the south. This project will expand Verizon's existing network in an effort to improve call quality, signal strength, and wireless connection services. The increase in wireless signal strength will benefit residents, local businesses, and public safety communications systems in the city of Oakland.

### Project Location & Design

Verizon Wireless proposes a new wireless communications facility on the rooftop of a 2 story building at 1444 1<sup>st</sup> Avenue Place, Oakland, CA 94606. The property is zoned RU-2 (Urban Residential Zone-2) and the building is primarily used as multi-residence building. The surrounding area consists of urban residential zones, RU-3, RU-4, RM-3, and RM-4. The proposed unmanned Verizon Wireless facility consists of nine (9) antennas with associated equipment concealed within two (2) new RF transparent enclosures, with a 13' x 15' and 6' x 18' antenna lease area. All power, telco, and utilities will be brought to the facility.

*Map Location of Proposed Project Site*

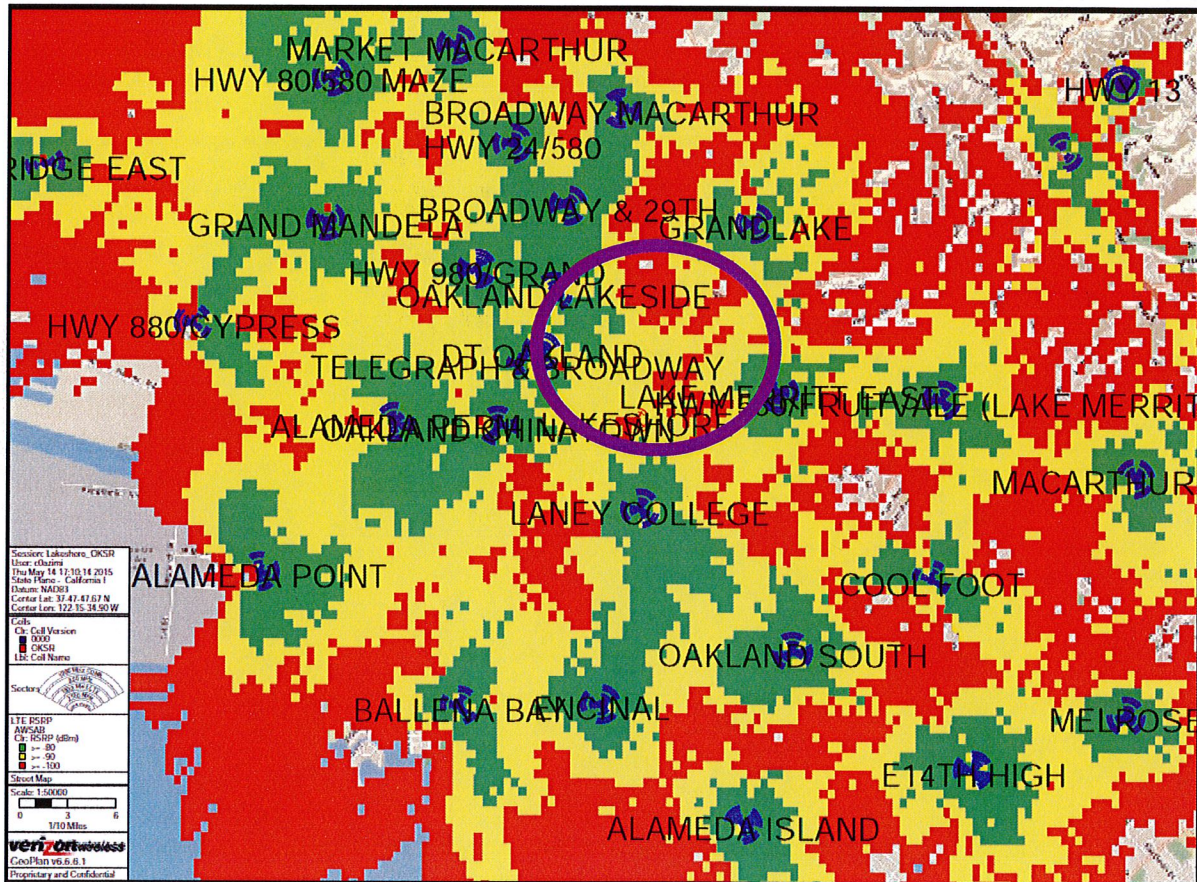




### Coverage Analysis

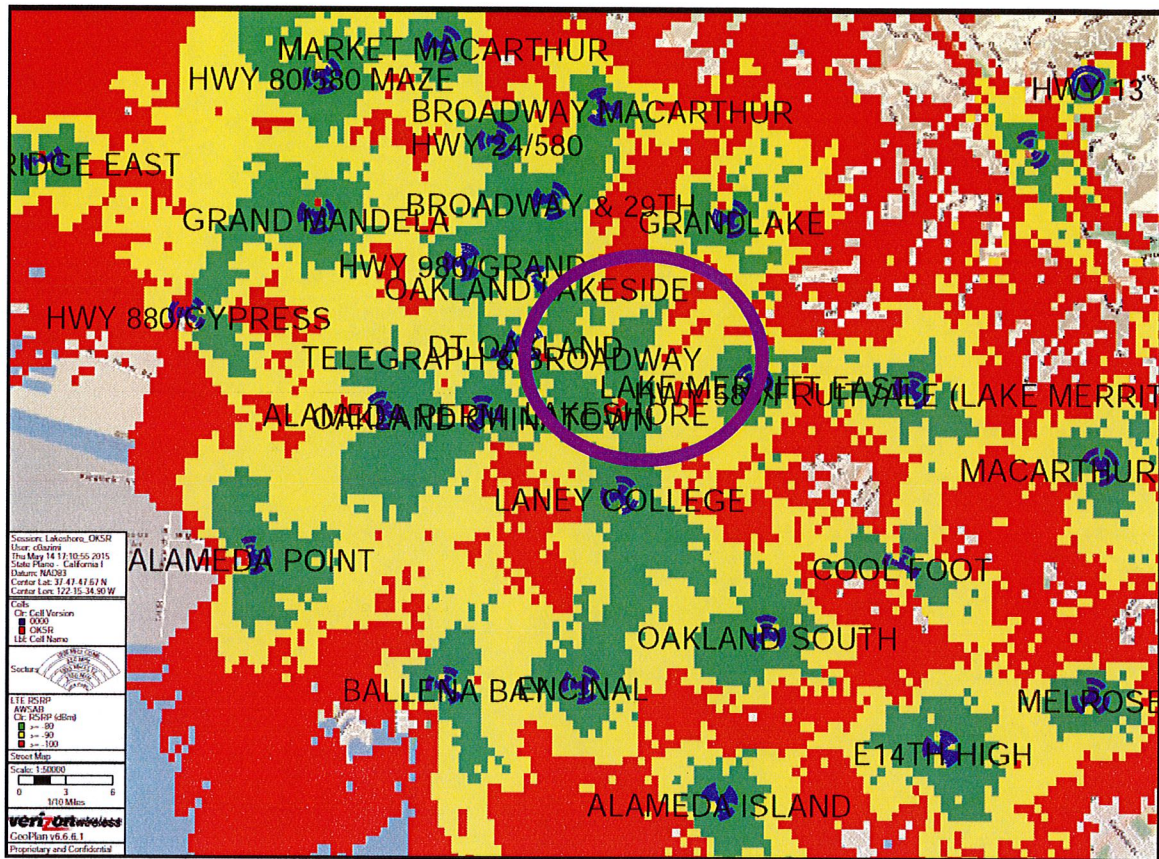
Also included are coverage maps that visually depict the improved coverage to be provided by the proposed telecommunications site. The first map represents Verizon's existing coverage conditions in the area. The second map represents Verizon's the coverage conditions given approval of the proposed telecommunications site. The yellow areas on both maps represent areas with good indoor/outdoor coverage. Green is considered good in-building signal strength. The yellow areas on both maps below represent areas with good outdoor and in-vehicle coverage. The red portions of the maps represent areas with only outdoor coverage. The propose facility is circled in purple.

#### Existing Coverage





Proposed Coverage



**Compliance with City Development Requirements**

The choice of a wireless telecommunications facility at this location was made due to a number of factors, taking into account the needs of Verizon’s network as well as the community values as expressed in the City’s Code. Chapter 17.128 (Telecommunications Regulations); Chapter 17.134 (Conditional Use Permit), and Chapter 17.136 (Design Review). The proposed facility on an existing rooftop has been designed to conform to the applicable section of the City’s code and particularly section 17.128.070 which established guidelines for facilities located on existing buildings, poles or other existing support structures, i.e. “Macro Facilities.”

**Compliance with City Development Requirements**

The choice of a wireless telecommunications facility at this location was made due to a number of factors, taking into account the needs of Verizon’s network and the community values as expressed in the City’s Code. Chapter 17.128 (Telecommunications Regulations); Chapter 17.134 (Conditional Use Permit), and Chapter 17.136 (Design Review). The Proposed collocation on an existing monopole has been designed to conform to the applicable section of the City’s code and particularly section 17.128.070 which established guidelines for facilities with six (6) antennas, i.e. “Macro Facilities.”

#### A. Siting, Location and Alternatives

Section 17.128.110 sets forth the City’s preference for siting new wireless facilities in order of preference, with the leading three preferential locations being collocation on an existing structure or facility with existing wireless antennas, city-owned properties or other public or quasi-public facilities, existing commercial or industrial structures in non-residential zones, existing commercial or industrial structures in residential zone, non-residential uses in residential zones, residential uses in non-residential zones, and residential uses in residential zones. Proposed facilities locating in these ranked preferences do not require a site alternatives analysis.

Here, Verizon is placing equipment on the roof with (9) antennas with a centerline of 41’ tall, located on a residential building in an urban residential zone. Due to the extreme restrictiveness of this search ring, which is completely located in urban residential zones, Verizon first looked to any existing tall buildings in the area that would accommodate a high centerline and achieve Verizon’s coverage and capacity objectives. This search ring provides no A, B, or C ranked alternatives.

##### **Athol Plaza Park**

Verizon first looked to Athol Plaza, in the Open Space Neighborhood Park zone, for a possible collocation opportunity on the light stands or a new monopole or monopine within the taller trees northeast of the tennis courts. However, Oakland requires tracking of open space lands and Verizon requires the installation of ground equipment, such as equipment cabinets and an emergency backup generator that necessitates the use of ground space. Unable to comply with the City’s Open Space requirements, Verizon looked to taller buildings within the search ring.

##### **Lake Merritt United Methodist Church**

This property is located in the RU-3 zone. Verizon’s RF engineer eliminated this candidate from review due to the inability of the upper roof to house any equipment due to the existing architecture and the inability of the lower roof to provide the coverage and capacity required of this proposed facility.

##### **1200 Lakeshore Avenue**

This property is zoned RU-3 and was considered due to the existing height it offers in the search area. After initial interest by the property, through its representatives ComSites West, the property owner was unwilling to negotiate further after initial discussions.

#### B. Site Design Preferences

Section 17.128.120 establishes an order of preference for design which includes building or structure mounted completely concealed from view as the most preferred with towers as the least preferred. If the site design does not include a building or structure mounted antennas completely concealed from view or set back from the roof edge, then a site alternatives analysis is required.

Here, the proposed collocation involves structure mounted antennas below the roof line and visible from the public right-of-way. Section 17.128.120 (C) (Site Design Preference). Here, the proposed facility fulfills the most favorable preferences.

*a. Building or Structure Mounted Antennas Completely Concealed from View.*

All roof equipment will be enclosed by RF transparent screens that will completely conceal the equipment from public view.

*b. Building or Structure Mounted Antennas set back from roof edge, not visible from public right-of-way.*

Similar to above, the equipment will be set back at a 1:1 ratio from the roof's edge and will not be visible from the public right-of-way.

C. General Development for Macro Facilities

Section 17.128.070 (A) provides general development standards for macro facilities.

*a. The Macro Facilities shall be located on existing building, poles or other existing support structures, or shall be post mounted.*

The proposed facility here will be located on an existing building, located at 1444 1<sup>st</sup> Avenue Place.

*b. The equipment shelter or cabinet must be concealed from public view or made compatible with the architectures of the surrounding structures or placed underground. The shelter or cabinet must be regularly maintained.*

Verizon's equipment cabinets and emergency standby generator are located within two RF transparent screens and are concealed from public view on the roof. Accordingly, Verizon's facility conforms to this requirement and a Verizon technician will visit 1-2 times a month for routine maintenance.

*c. Macro Facilities may exceed the height limitation specified for all zones but may not exceed fifteen (15) feet above the roof line or parapet.*

The proposed roof-mounted equipment will not exceed 15 ft. above the roof line.

*d. Ground post mounted Macro Facilities must not exceed seventeen (17) feet to the top of the antenna.*

This requirement is not applicable. The proposed structure is not ground post mounted.

- e. The applicant shall submit written documentation demonstrating that the emissions from the proposed project are within the limits set by the FCC.*

All emissions from the proposed project are within the limits set by FCC. Please see attached Radio Frequency study prepared by independent licensed engineering firm, Hammett & Edison, Inc. Verizon has also agreed and complied with the RF emissions standards set forth in section 17.128.130.

D. Regular Design Review Criteria for Nonresidential Facilities.

- a. 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 results 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 has some significant relationship to outside appearance shall be considered, except as otherwise provided in Section 17.136.060.*

The proposed facility seeks to offload capacity from existing Verizon sites in the Oakland area, especially Laney College to the south and Lake Merritt East. All rooftop equipment complies with City zoning codes and is designed with RF transparent enclosures that completely stealth the facility and blends into the existing building. Please see Coverage Maps and Photosimulations for additional information.

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

The proposed facility’s stealthing will allow it to blend into the existing building and harmonizes with the aesthetics of the area.

- c. That the proposed design conforms in all significant respect 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 proposed facility provides an important community benefit to this commercial and residential area of the city and in a manner that confirms with the City's General Plan as well as the Telecommunications and Design Review codes. A finding that this criteria is satisfied is appropriate.

E. Additional Design Review Criteria for Macro Facilities.

Section 17.128.070 (B) provides general development standards for macro facilities.



- a. *Antennas should be painted and/or textured to match the existing structure.*

Verizon’s proposed antennas painted and/or textured to match the exterior of the existing monopole.

- b. *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.*

This requirement is not applicable.

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

The antennas will be enclosed by RF transparent screen that are manufactured to match the existing structure of the building.

- d. *Equipment shelters or cabinets shall be screen from public view by using landscaping, or materials and colors consistent with surrounding backdrop or place underground or inside existing facilities or behind screening fences.*

Verizon’s equipment shelter will be concealed from public view by enclosing all rooftop equipment in RF transparent enclosures that will be painted/textured to match the existing building. Verizon is compliant with this requirement.

- e. *Equipment shelters or cabinets shall be consistent with the general character of the area.*

The RF enclosures around the equipment cabinets will match the existing building and not affect the general character of the area

- f. *For antennas attached to the roof, maintain a 1:1 ratio for equipment setback.*

All rooftop equipment complies with a 1:1 setback and is screened to match the existing roof structures.

- g. *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-claiming measures and anti-tampering devices.*

Public access to the proposed site’s antennas and equipment is restricted. This is an unmanned facility with restricted public access to Verizon’s equipment or antennas which will be accessible only to authorized personnel. A Verizon technician will visit 1-2 times per month for routine maintenance.

F. RF Emissions Standards

An RF report has been prepared by independent licensed engineering firm Hammett & Edison, demonstrating that the Verizon facility has been designed to comply with FCC requirements. Additionally, Verizon agrees to additional RF study and reporting requirements for the facility set forth in section 17.128.130 (b)-(c).

G. Conditional Use Permit Section 17.128.70 (C)

Verizon’s Proposed Facility conforms to the design requirements set forth in Section 17.128 (B) and has been designed to not disrupt, and rather complement the overall community character of the area. Additionally, this site conforms to the general use permit criteria set forth in section 17.134.050.

Verizon’s facility, a rooftop location on an existing building brings important wireless service to the community which enhances the community’s convenience, function and operations of homes and businesses who rely on Verizon’s network. Verizon features a rooftop design that proposes to conceal and aesthetically match the existing building while blending in with the natural character of the neighborhood; not adversely affecting the livability or appropriate development of abutting properties. Verizon’s facility is appropriately designed and harmonious with the size, scale and bulk in a manner that is compatible with the building and the area. A finding that the CUP standards are satisfied is appropriate.



#### H. RF Emissions Standards

An RF report has been prepared by independent licensed engineering firm, Hammett & Edison, Inc., demonstrating that the Verizon facility has been designed to comply with FCC requirements. Additionally, Verizon agrees to additional RF study and reporting requirements for the facility set forth in section 17.128.130 (b)-(c).

#### **Safety Benefits of Improved Wireless Service**

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

#### **Standby Generator Testing**

Verizon Wireless installs a standby generator and batteries at all of its cell sites. The generator and batteries serve a vital role in Verizon Wireless’ emergency and disaster preparedness plan. In the event of a power outage, Verizon Wireless’ communications equipment will first transition over to the backup batteries. The batteries can run the site for a roughly 8 hours, depending upon the demand placed upon the equipment. Should the power outage extend beyond the capacity of the batteries, the backup generator will automatically start and recharge the batteries. This two state backup plan is an extremely important component of every Verizon Wireless communications site.

As one of the nation’s largest wireless companies, Verizon Wireless is the mobile phone service of choice to many Federal, State, and Local public safety agencies. While many public safety agencies employ their own two-way radio systems for intra-agency communications, Verizon Wireless phones are often the link to other agencies and the outside world. Backup batteries and generators allow Verizon Wireless’ communications sites to continue providing valuable communications services in the event of a power outage, natural disaster or other emergency.

#### **Operations & Maintenance**

Visitation to the site by a service technician for routine maintenance typically occurs on an average of once per month. The proposed site is entirely self-monitored and connected directly to a central office where sophisticated computers alert personnel to any equipment malfunction. Because the wireless facility is unmanned, there is no regular hours of operation and no impacts to existing local traffic patterns. No water or sanitation services will be required.

**Compliance with FCC Standards**

Verizon Wireless complies with all FCC rules governing construction requirements, technical standards, interference protection, power and height limitations and radio frequency standards. In addition, Verizon complies with all FAA rules on site location and operation.

**Notice of Actions Affecting This Development Permit**

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

**Verizon Wireless • Proposed Base Station (Site No. 286672 “Lakeshore”)  
1444 1st Avenue Place • Oakland, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 286672 “Lakeshore”) proposed to be located at 1444 1st Avenue Place in Oakland, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

**Executive Summary**

Verizon proposes to install directional panel antennas above the roof of the residential building located at 1444 1st Avenue Place in Oakland. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy; certain mitigation measures are recommended to comply with FCC occupational guidelines.

**Prevailing Exposure Standards**

The U.S. Congress requires that the Federal Communications Commission (“FCC”) evaluate its actions for possible significant impact on the environment. A summary of the FCC’s exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5–80 GHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
WiFi (and unlicensed uses)	2–6	5.00	1.00
BRS (Broadband Radio)	2,600 MHz	5.00	1.00
WCS (Wireless Communication)	2,300	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

**General Facility Requirements**

Base stations typically consist of two distinct parts: the electronic transceivers (also called “radios” or “channels”) that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky.



**Verizon Wireless • Proposed Base Station (Site No. 286672 “Lakeshore”)  
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Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

### **Computer Modeling Method**

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, “Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation,” dated August 1997. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna’s radiation pattern is not fully formed at locations very close by (the “near-field” effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the “inverse square law”). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

### **Site and Facility Description**

Based upon information provided by Verizon, including zoning drawings by MST Architects, Inc., dated June 25, 2015, it is proposed to install nine Andrew Model HEX456CW0000 directional panel antennas within a new view screen enclosure to be installed above the roof of the three-story residential building located at 1444 1st Avenue Place in Oakland. The antennas would employ no downtilt, would be mounted at an effective height of about 41 feet above ground, 6 feet above the roof, and would be oriented in groups of three toward 30°T, 130°T, and 270°T. The maximum effective radiated power in any direction would be 10,850 watts, representing simultaneous operation at 4,460 watts for AWS, 4,160 watts for PCS, and 2,230 watts for 700 MHz service; no operation on cellular frequencies is presently proposed from this site. There are reported no other wireless telecommunications base stations at the site or nearby.

### **Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.048 mW/cm<sup>2</sup>, which is 4.9% of the applicable public exposure limit. The maximum calculated level at the top-floor elevation of any nearby building is 30% of the public exposure limit. It should be noted that these results include several “worst-case” assumptions and therefore are expected to overstate actual power density levels from the proposed operation. Levels are calculated to exceed the applicable public exposure limit on the roof of the subject building, in front of the antennas.



**Verizon Wireless • Proposed Base Station (Site No. 286672 “Lakeshore”)  
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**Recommended Mitigation Measures**

It is recommended that barricades be erected, as shown in Figure 1, to preclude unauthorized access in front of the antennas. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training, to include review of personal monitor use and lockout/tagout procedures, be provided to all authorized personnel who have access to the barricaded area, including employees and contractors of Verizon and of the property owner. No access within 12 feet directly in front of the antennas themselves, such as might occur during certain maintenance activities, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that the boundary lines be marked on the roof yellow paint to identify areas that are calculated to exceed the occupational FCC limit, as shown in Figure 3. It is further recommended that explanatory signs\* be posted at the roof access door, on the barricades, and at the boundary lines, readily visible from any angle of approach to persons who might need to work within that distance.

**Conclusion**

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the base station proposed by Verizon Wireless at 1444 1st Avenue Place in Oakland, California, can comply with the prevailing standards for limiting human exposure to radio frequency energy and, therefore, need not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is 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. Erecting barricades is recommended to establish compliance with public exposure limits; training authorized personnel, marking roof areas, and posting explanatory signs are recommended to establish compliance with occupational exposure limits.

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\* Signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (*e.g.*, a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required.

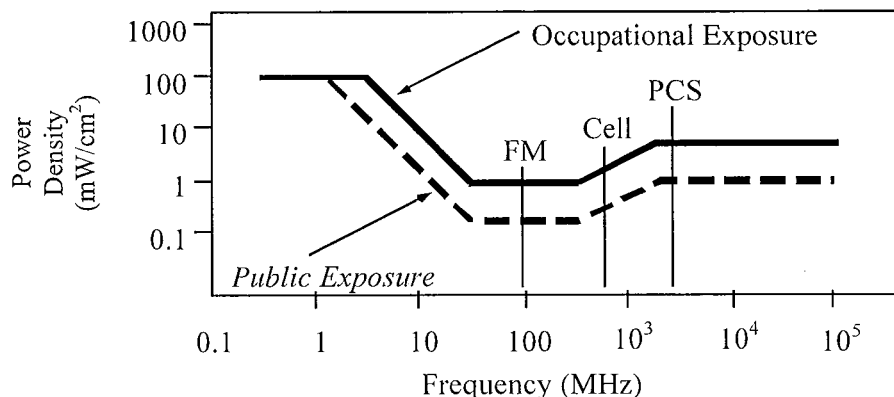


## FCC Radio Frequency Protection Guide

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

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

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



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

## RFR.CALC™ Calculation Methodology

### Assessment by Calculation of Compliance with FCC Exposure Guidelines

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

#### Near Field.

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

For a panel or whip antenna, power density  $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$ , in mW/cm<sup>2</sup>,

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

where  $\theta_{BW}$  = half-power beamwidth of the antenna, in degrees, and

$P_{net}$  = net power input to the antenna, in watts,

$D$  = distance from antenna, in meters,

$h$  = aperture height of the antenna, in meters, and

$\eta$  = aperture efficiency (unitless, typically 0.5-0.8).

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

#### Far Field.

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

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

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

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

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

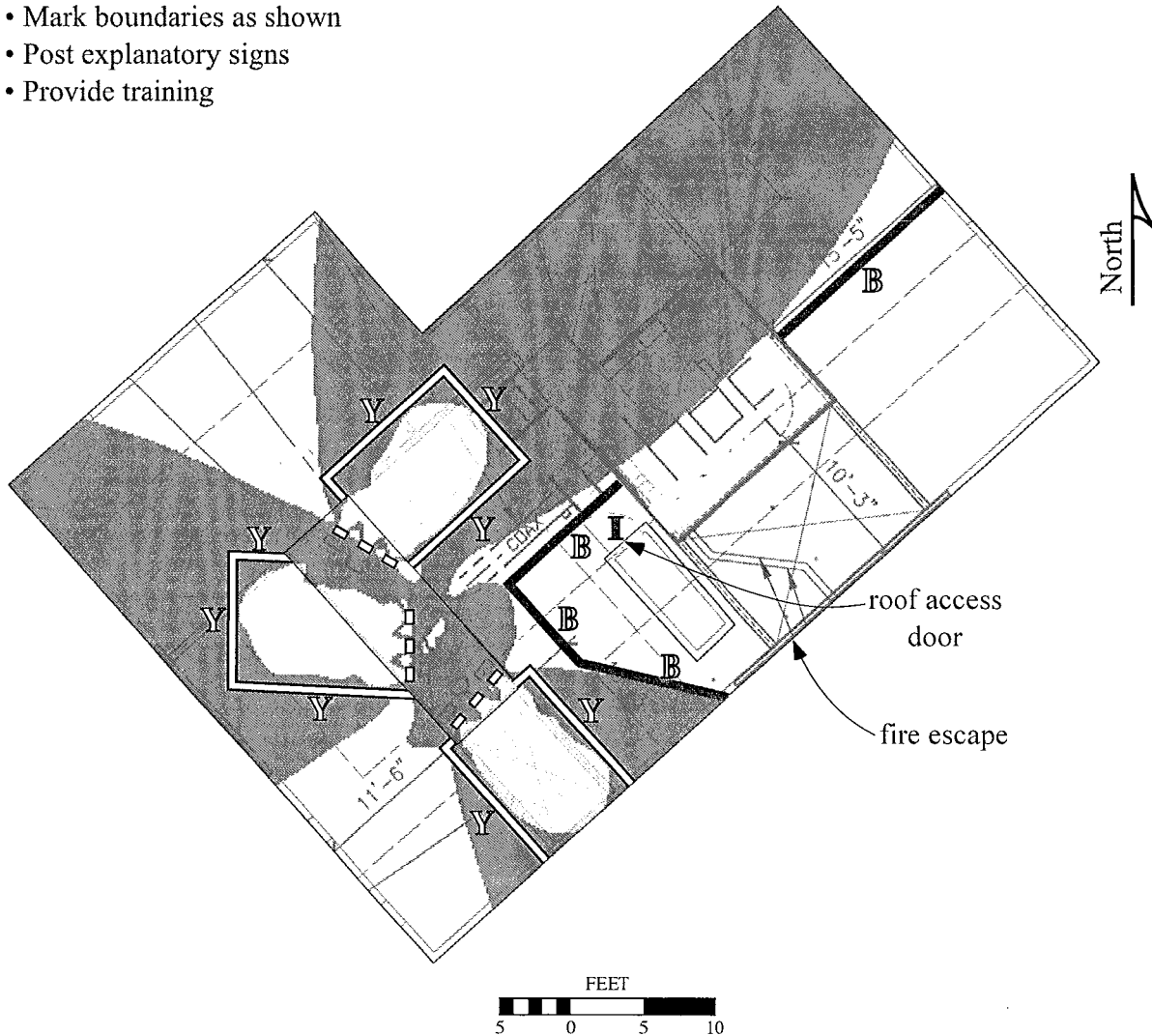
The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.

**Verizon Wireless • Proposed Base Station (Site No. 286672 "Lakeshore")  
1444 1st Avenue Place • Oakland, California**

**Calculated RF Exposure Levels on Roof**

**Recommended Mitigation Measures**

- Install secure barricades
- Mark boundaries as shown
- Post explanatory signs
- Provide training



**Notes:**

Base drawing from MST Architects, dated June 25, 2014.

Calculations performed according to OET Bulletin 65, August 1997.

Training should be provided to all persons requiring access within barricades.

<b>Legend:</b>	<u>Less Than Public</u>	<u>Exceeds Public</u>	<u>Exceeds Occupational</u>	<u>Exceeds 10x Occupational</u>
Shaded color	N/A			
Boundary marking	N/A			
Sign type	<b>I</b> - Green INFORMATION	<b>B</b> - Blue NOTICE	<b>Y</b> - Yellow CAUTION	<b>O</b> - Orange WARNING
Barricades shown as green lines				



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