

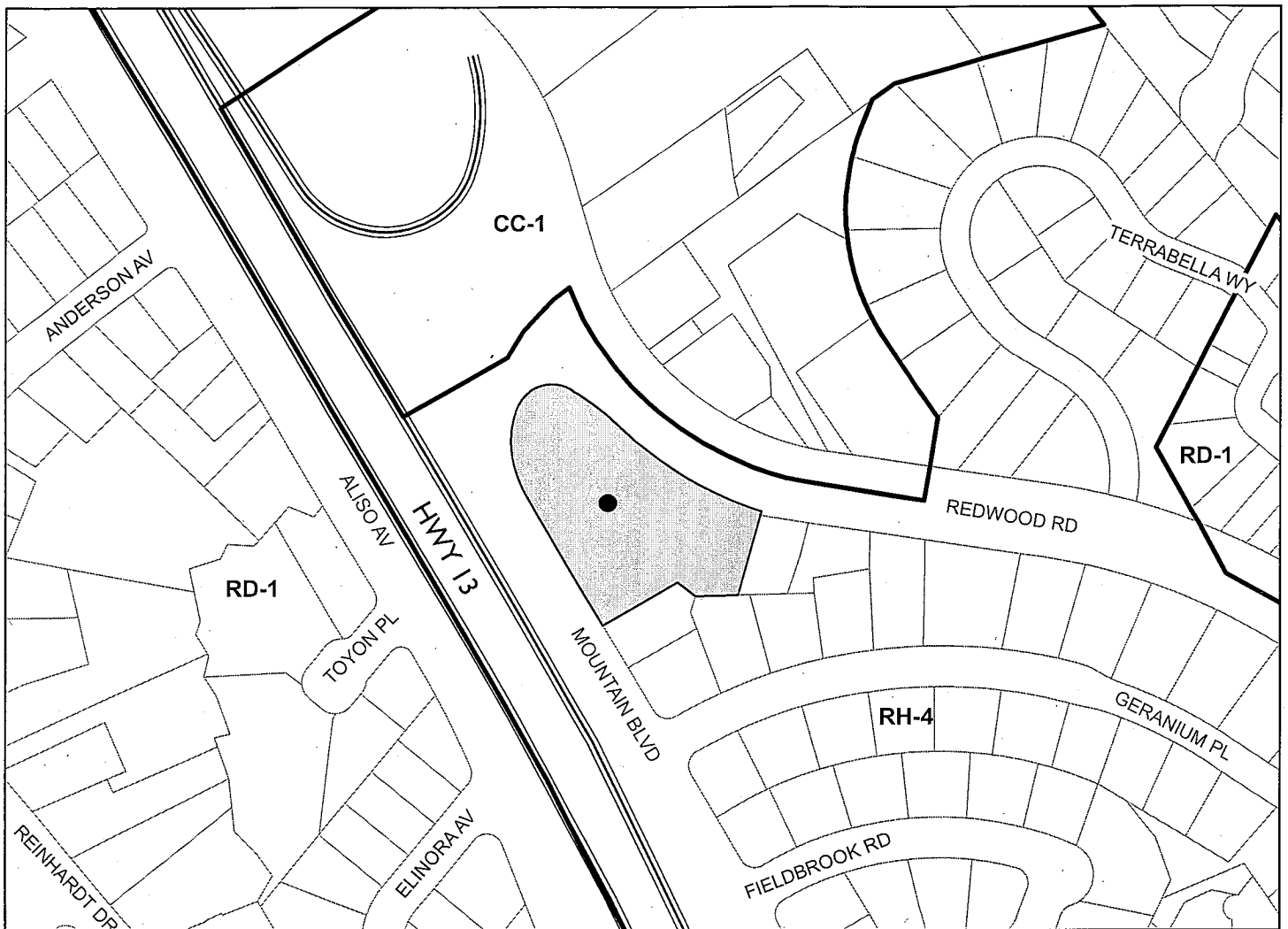
<b>Location:</b>	<b>4100 Mountain Boulevard</b>
<b>Assessor's Parcel Number:</b>	<b>037 -2575-008-10</b>
<b>Proposal:</b>	Request for a Major Conditional Use Permit and Design Review for the modifications to an existing unmanned macro telecommunications facility. Project will remove six unscreened antennas from the church steeple and replace with three new antennas inside RF screen enclosures located throughout the property. The modifications also include increasing the height of an existing RF enclosure on the steeple 1' to accommodate an antenna (total of 14 onsite), 1 GPS antennas, six RRU's. All proposed antennas and equipment will be fully screened from public view and painted to match the Medhani Alem Ethiopian Orthodox Church.
<b>Contact Person/</b>	Sam Savig for Streamline Engineering
<b>Phone Number:</b>	(916) 622-3737
<b>Owner:</b>	Medhani Alem Ethiopian Orthodox Church
<b>Planning Permits Required:</b>	Major Conditional Use Permit to modify a Macro wireless telecommunications facility located within 100-feet of a residential zone (OMC Sec. 17.33.040(A), 17.134.020(A)(3)(i); Regular Design Review (non-residential) to expand a Macro facility also requiring a conditional use permit (OMC Sec. 17.33.040(A), 17.136.050(B)(2); Additional findings for a Macro facility (OMC Sec. 17.128.070 (B), (C).
<b>General Plan:</b>	Hillside Residential
<b>Zoning:</b>	RH-4 Hillside Residential 4 Zone
<b>Environmental</b>	Exempt, Section 15303 of the State CEQA Guidelines:
<b>Determination:</b>	Small Structures, Section 15301 existing facilities' Section 15183 of the State CEQA Guidelines: Projects consistent with a community plan, general plan or zoning
<b>Historic Status:</b>	Not A Potentially Designated Historic Property. OCHS Survey Rating:
<b>Service Delivery District:</b>	4
<b>City Council District:</b>	VI
<b>Date Filed:</b>	08/130/12
<b>Staff Recommendation:</b>	Approve with the attached conditions
<b>Finality of Decision:</b>	<i>Appealable to City Council within 10 days</i>
<b>For Further Information:</b>	Contact case planner <b>Jose M. Herrera-Preza, Planner I</b> at (510) 238-3808 or <a href="mailto:jherrera@oaklandnet.com">jherrera@oaklandnet.com</a>

## SUMMARY

This project would provide for the modifications to an existing unmanned Telecommunications Facility through the removal of six unscreened panel antennas located on the property's church steeple, adding three (3) new panel antennas within existing and new RF screen enclosures located at various locations throughout the property, to a previously approved telecommunications "Macro" facility located throughout the Medhani Alem Ethiopian Orthodox Church property.

A Major Conditional Use Permit and Design Review are required for modifications to a Macro Telecommunications Facilities located in residential zones. As detailed below, the project meets all of the required findings for approval. Therefore, staff recommends approval of the project subject to the attached conditions of approval.

# CITY OF OAKLAND PLANNING COMMISSION



0 125 250 500 750 1,000 Feet



Case File: CMD12-164  
Applicant: Sam Savig for Streamline Engineering  
Address: 4100 Mountain Boulevard  
Zone: RH-4

## **PROJECT DESCRIPTION**

The proposal would involve modifications to an existing unmanned telecommunications facility consisting of removing six existing unscreened panel antennas, adding three new antennas inside new and existing RF screen enclosures, adding one GPS antenna, six RRU's and associated equipment upgrades. The new antennas will be sited inside three RF screens located at various locations throughout the property to visually screen the antennas from neighboring properties and reduce the number of façade mounted antennas on the church steeple. The subject property is entirely located within a residential zone. The scope of work entails the removal of six existing antennas and installation of three new antennas, resulting in a total of 14 antennas on-site. (See Attachment A)

## **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".

## **PROPERTY DESCRIPTION**

The subject property is located on the 4100 block of Mountain Boulevard adjacent to Highway 13 and situated between the Redwood Road Shopping Center and an established residential neighborhood. The subject property is located on a large lot and is improved with a church. The subject property has a fully functioning community assembly civic activity, Medhani Alem Ethiopian Orthodox Church, on the site. The property was first developed post 1945 (based on Alameda County Assessors Data) with a civic building. The Medhani Alem Ethiopian Orthodox Church site currently hosts four telecommunication facilities on this property (Metro PCS, Clearwire, Sprint & AT&T) of which all antennas are attached the exterior of the church steeple and not screened from view.

## **GENERAL PLAN ANALYSIS**

The property is located in a Hillside Residential area under the General Plan's Land use & Transportation Element (LUTE). The intent of the area: *"is to create, maintain, and enhance residential areas that are primarily characterized by detached, single unit structures on hillside lots."* The proposed modification to an unmanned wireless telecommunications facility will not adversely affect and detract from the residential and commercial characteristics of the neighborhood. The proposal to modify a telecommunications facility through the removal and relocation of antennas and equipment on an existing building would enhance an essential service in a residential district adjacent Highway 13 and Mountain Blvd. neighborhood while ensuring the facility is reasonably concealed from both. The project therefore conforms to the area's intent and the following objective of the LUTE.

### **Sense of Community**

#### **Objective N9.9**

City encourages that new development respects the architectural integrity of a building's original style. The proposed development will have no effect on the existing buildings on site.

### **Civic and Institutional uses**

#### **Objective N2**

Encourage adequate civic, institutional and educational facilities located within Oakland, appropriately designed and sited to serve the community.

Staff finds the proposal to be in conformance with the objectives of the General Plan.

## **ZONING ANALYSIS**

The project requires a Major Conditional Use Permit and Regular Design Review (non-residential) each with additional telecommunications findings because it features the modifications of an unmanned wireless telecommunications facility located within a residential zone. The review ensures the modified facility will not generate negative aesthetic impacts to the adjacent neighborhoods and improve current site conditions.

The property is located in the RH-4 Hillside Residential 4 Zone. The intent of the RH-4 Zone is: *"to create, maintain, and enhance areas for single-family dwellings on lots of 6,500 to 8,000 square feet and is typically appropriate in already developed areas of the Oakland Hills"*

The proposal meets the telecommunications Regulations regarding Site Location and Design Preferences and co-locating on a building with an existing wireless telecommunications facility; therefore site alternatives and design analyses are not required. The existing antennas were approved in 1997 when the screening requirement was not in effect. The proposal will reduce the number of unscreened antennas from the surrounding residential neighborhood and Highway 13. The proposal will bring this telecommunications carrier into conformity with current telecommunications regulations.

Staff finds the proposal to be consistent with the Planning Code.

## **ENVIRONMENTAL DETERMINATION**

The California Environmental Quality Act (CEQA) Guidelines categorically exempts specific types of projects from environmental review. Section 15301(e) of the State CEQA Guidelines exempts project involving additions to existing facilities or structures. The proposal to relocate three antennas and install four new microwave dishes on a rooftop at an existing wireless telecommunications facility meets this description: the project would constitute a minor modification only as microwave dishes are currently exempt. The project is therefore exempt from further environmental review.

## **KEY ISSUES AND IMPACTS**

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.

### **1. Conditional Use Permit**

Section 17.33.040 of the City of Oakland Planning Code requires a conditional use permit to modify a Macro Telecommunication facility in the RH-4 Zone and requires a Major Conditional use permit if located within a residential zone. The required findings for a major conditional use permit are attached and included in staff's evaluation as part of this report.

### **2. Project Site**

Section 17.128.110 of the City of Oakland Telecommunication Regulations requires that 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, B or C ranked preference do not require a site alternatives analysis.

Since the proposed project involves the removal and relocation of new antennas on an existing structure within an existing wireless facility, the proposed development meets the (A) co-located on an existing structure or facility with existing wireless antennas, therefore a site alternatives analysis is not required.

### **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 do not require 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:

The project meets design criteria (A) since all the proposed antennas will be mounted behind inside existing and new RF screen enclosures intended to look like part of the church steeple and part of the church itself that will be textured and finished to match the building. The associated equipment will be located inside the building and will have no visual impact. In its entirety, the project will be reasonably concealing this carriers' antennas from the right of way and neighbors and bring the site closer conformity with current telecommunications regulations.

### **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. 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.

RF-EME Electromagnetic Energy Compliance Report, prepared by Alison Martin, an employee with EnviroBusiness Inc (EBI Consulting), indicates that the proposed project meets the radio frequency (RF) emissions standards as required by the regulatory agency. 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 as a condition of approval that prior to the issuance of a final building permit, the applicant submits a certified RF emissions report stating that the facility is operating within acceptable thresholds established by the regulatory federal agency.

## **CONCLUSION**

The proposed project meets all of the required findings for approval. Therefore, staff recommends approval of the project subject to the attached conditions.

- RECOMMENDATIONS:**
1. Affirm staff's environmental determination.
  2. Approve the Major Conditional Use Permit and Regular Design Review subject to the attached Findings and Conditions.


Prepared by:

  
\_\_\_\_\_  
Jose M. Herrera-Preza  
Planner I

Approved by:

  
\_\_\_\_\_  
Robert D Merkamp  
Acting Zoning Manager

Approved for forwarding to the  
City Planning Commission:

  
\_\_\_\_\_  
Scott Miller  
Acting Deputy Director  
Planning, Building and Neighborhood Preservation

## **ATTACHMENTS:**

- A. Project Plans & Photo Simulations
- B. RF-EME Electromagnetic Energy Compliance Report

## Findings for Approval

This proposal meets the required findings under Section 17.134.050, General Use Permit Criteria; Section 17.128.070(C), Conditional Use Permit Criteria for Macro Facilities; Section 17.136.050(B), Regular Design Review; and Section 17.128.070(B), Design Review Criteria for Mini Facilities, as set forth below. Required findings are shown in bold type; explanations as to why these findings can be made are in normal type.

### **SECTION 17.134.050 – GENERAL USE PERMIT CRITERIA:**

**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 proposal is to modify an existing Macro wireless telecommunications facility consisting of removing a total of six unscreened panel antennas mounted on the façade of the church steeple and adding three new antennas and associated equipment upgrades. The new antennas would be completely screened from public view within an existing extension on the top of the church steeple and at the rear of the church building itself and therefore would not adversely affect the abutting properties. The facility is located within a residential zone. The purpose of the project is to enhance wireless telecommunications in the area while improving the current site conditions and bring the site as a whole closer to conformity with current regulations. The increased height of the tower would be warranted given that it provides an opportunity to conceal the proposed antennas as opposed to simply attaching them to the exterior of the steeple, so antennas will not be visible from the public right of way within the residential district and Highway 13. The antennas and related equipment including attachment posts and coaxials (cables) will be painted to match the color of the building.

**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 proposed modifications to the unmanned telecommunications facility will result in an improvement to the exterior appearance of the entire property by removing existing non-conforming panel antennas from the exterior façade of the church steeple. The modifications at a large church located in the vicinity of Highway 13 would increase service without generating negative functional or aesthetic impacts to the area. The increased height of the tower would be warranted given that it provides an opportunity to conceal the proposed antennas as opposed to simply attaching them to the exterior of the steeple. Furthermore allowing the antennas at a higher elevation allows for a broader signal reach thereby improving the functionality of the facility.

**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

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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 at Section 17.136.070.**

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 Comprehensive Plan and with any other applicable plan or development control map which has been adopted by the City Council.**

The project is consistent with the following Policy of the Oakland General Plan's Land Use & Transportation Element (adopted 1998):

***Policy N9.9 Respecting Architectural Integrity***

*City encourages that new development respects the architectural integrity of a building's original style. The proposed development will have no effect on the existing buildings on site.*

**17.128.070(C), Conditional Use Permit Criteria for Macro Facilities**

**1. The project must meet the special design review criteria listed in subsection B of this section.**

The project meets the required design review criteria for this application.

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

The proposal will remove six existing antennas from the façade of the steeple and add three new antennas into an existing and proposed RF screens which will improve site conditions and thus the neighborhood.

**SECTION 17.136.050.A - REGULAR DESIGN REVIEW CRITERIA:**

**1. That the proposed design will create a building or set of buildings that are well related to the surrounding area in their setting, scale, bulk, height, materials, and textures:**

The proposal would modify an existing unmanned telecommunications facility through the removal of six existing antennas and replacing with three new panel antennas. The subject property is adjacent to Highway 13 and situated between commercial and residential uses. The existing property accommodates a number of telecommunications providers, all of which are unscreened and mounted on the exterior façade of the church steeple. Unlike the existing antennas, the proposal will screen the new antennas from public view by co-locating inside an existing screen on the steeple and providing a new screen at the rear of the building. Specifically, the project would provide for a 1' extension of the existing RF screen to the church steeple. The FR screen extension will match the existing steeple in color, texture and finish materials. The new antennas will be fully concealed behind an RF friendly screen. The proposed cabinet will be located behind the church inside a screened enclosure. The project will not change the scale or location of the facility and therefore is consistent and well related to the surrounding area.

**2. That the proposed design will protect, preserve, or enhance desirable neighborhood characteristics;**

The proposed design meets the intent of the current zoning and general plan land use designations. The proposal protects and preserves the surrounding neighborhood context by removing un-screened antennas located along the exterior of the church steeple and reasonably concealing the new antennas. The antennas will be fully concealed behind an FR screen that is painted and textured to match the steeple and building thus visually mitigating any impact to the surrounding neighborhood. The equipment cabinet will be located at the rear of the building in a dedicated equipment room.

**3. That the proposed design will be sensitive to the topography and landscape.**

The proposed project involves modification to an existing telecommunications facility. This finding is not applicable.

**4. That, if situated on a hill, the design and massing of the proposed building relates to the grade of the hill.**

This criterion is not applicable to this proposal.

**5. 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 Revision to the Citywide Telecommunications Regulations. The proposal will conform to performance standards for noise set forth in Section 17.143.020(j) and (k) for decibel levels in residential areas for both day and nighttime use. The

## ***CONDITIONS OF APPROVAL***

project conforms to all mini-facility definitions set forth in Section 17.128.050 and meets all design review criteria to minimize impacts throughout the neighborhood.

**Design Review Criteria for Macro Facilities.**

Chapter 17.136, the following specific additional criteria must be met when design review is required Before an application can be granted:

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

The proposed antennas will be located within existing and new RF screens which will be painted and textured to match the building. The proposed extension to the steeple will be textured and painted to match the steeple.

**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 located with an extension to the existing church steeple and at the rear of the building which will both be painted and textured to match the structures.

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

This finding is not applicable: the antennas would be located within an extension to an existing church steeple which would be painted to match the existing structure.

**4. Equipment shelters or cabinets shall be screened from the public view by using landscaping, or materials and colors consistent with surrounding backdrop or placed underground or inside existing facilities or behind screening fences.**

The equipment cabinets are located at the rear of the building in a dedicated equipment area thus will be concealed from public view.

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

The equipment shelters will be screened from all public view and would be consistent with the general character of the area.

**6. For antennas attached to the roof, maintain a 1:1 ratio (example: ten feet high antenna requires ten feet setback from facade) for equipment setback unless an alternative placement would reduce visual impact; treat or screen the antennas to match existing air conditioning units, stairs, elevator towers, or other background; avoid placing roof mounted antennas in direct line with significant view corridors.**

This finding is not applicable since the antennas would not be attached to the roof.

**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.**

Antennas will be located in areas not accessible to the public and equipment cabinets will be located in a secured area to the rear of the building.

***CONDITIONS OF APPROVAL***

**CONDITIONS OF APPROVAL**  
**CMDV12-164**

**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, **CMD12-164**, and the plans dated **August 30<sup>th</sup>, 2012** and submitted on **August 30<sup>th</sup>, 2012** 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: **The modification of an existing unmanned macro telecommunications facility located along the church steeple and building, under Oakland Planning Code 17.128**

**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 Telecommunications Regulations** 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 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***

- 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 Agreement with the City, acceptable to the Office of the City

***CONDITIONS OF APPROVAL***

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 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 plancheck 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.

**PROJECT SPECIFIC CONDITIONS:**

**12. Radio Frequency Emissions**

***Prior to issuance of building permit***

The applicant shall submit a certified RF emissions report to the City of Oakland stating that the proposed facility will operate within the established RF standards set by the Federal Communications Commission.

***Prior to the issuance of a 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.

***CONDITIONS OF APPROVAL***

**13. 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.

**14. Compliance with Title 24**

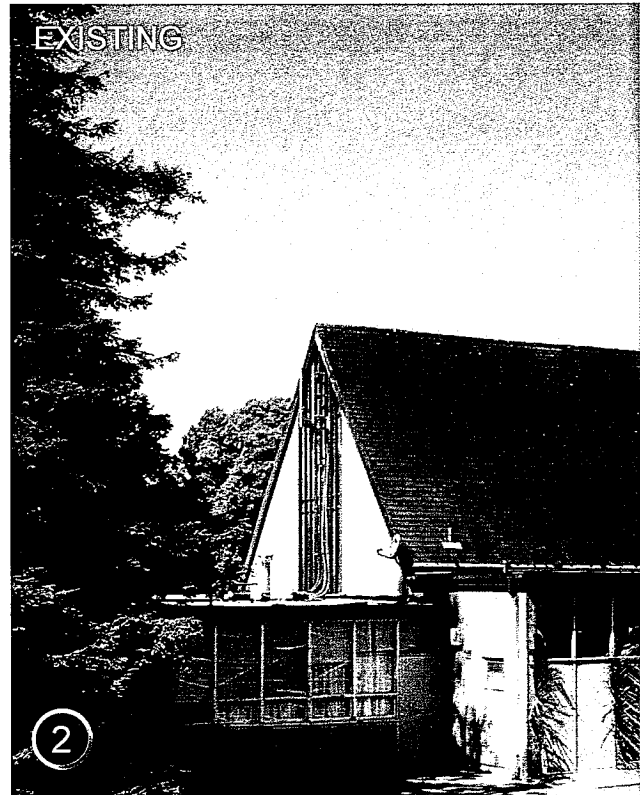
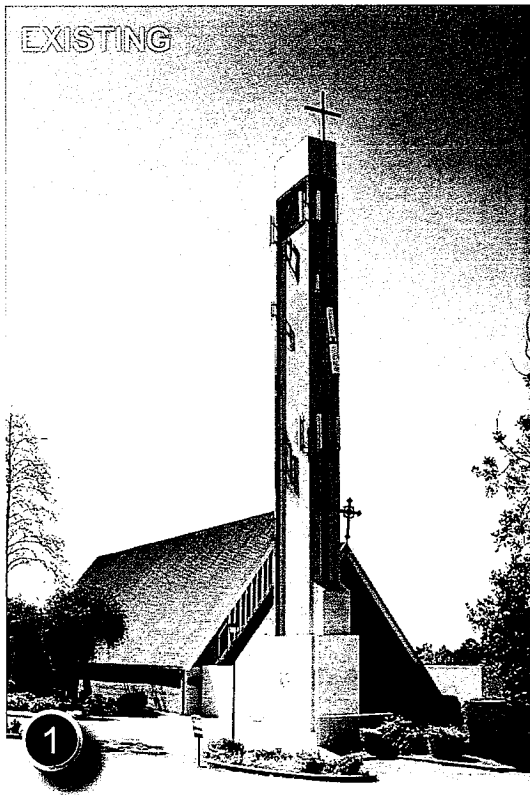
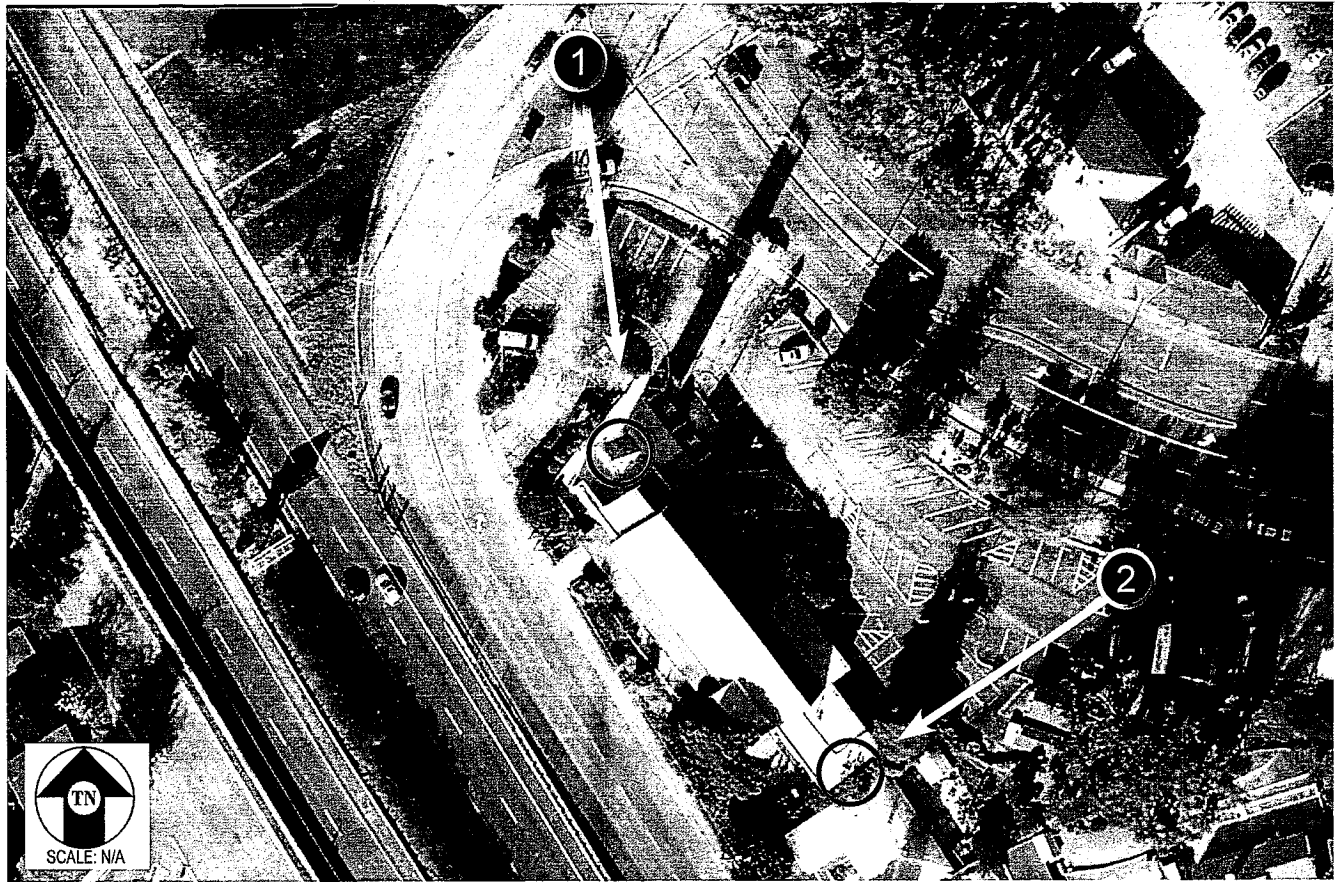
***Prior to issuance of certificate of occupancy.***

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.

**APPROVED BY:**

City Planning Commission: \_\_\_\_\_ (February 6, 2013) \_\_\_\_\_ (vote)

***CONDITIONS OF APPROVAL***



*Streamline Engineering*

**and Design, Inc.**

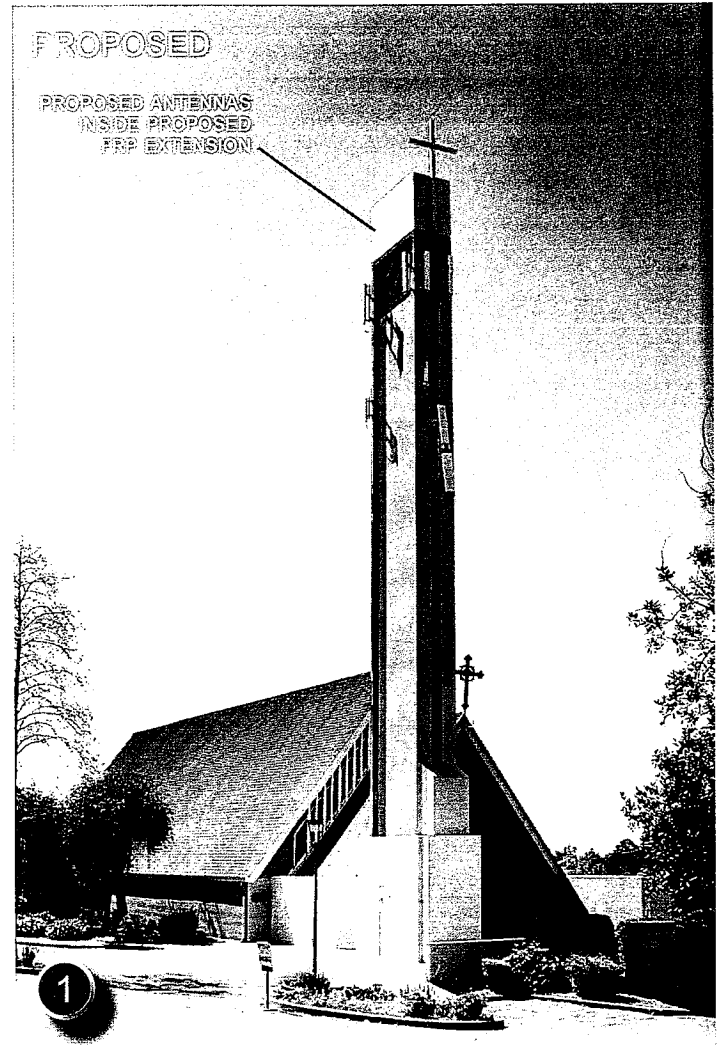
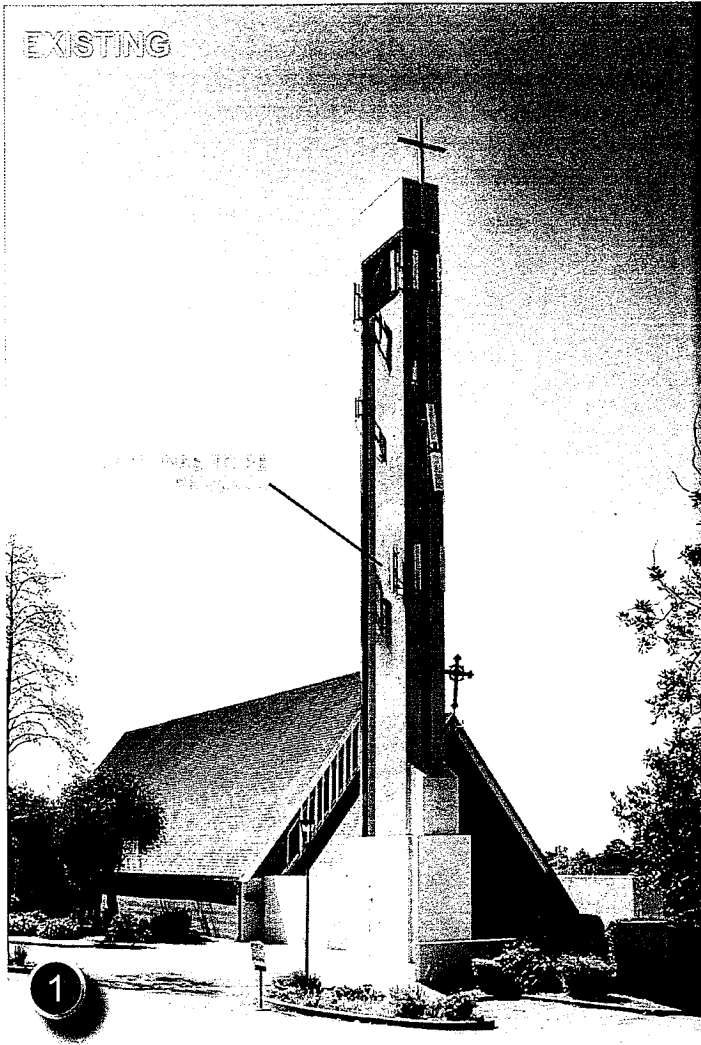
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**SITE PLAN & RESPECTIVE VIEWS**  
**SPRINT-FN03XC024- FIRST LUTHERAN CHURCH**  
 4100 MOUNTAIN BLVD, OAKLAND, CA 94619

8445 SIERRA COLLEGE BLVD, SUITE E  
 GRANITE BAY, CA 95746  
 PHONE: (916) 660-1930 FAX: (916) 600-1941

08/21/12





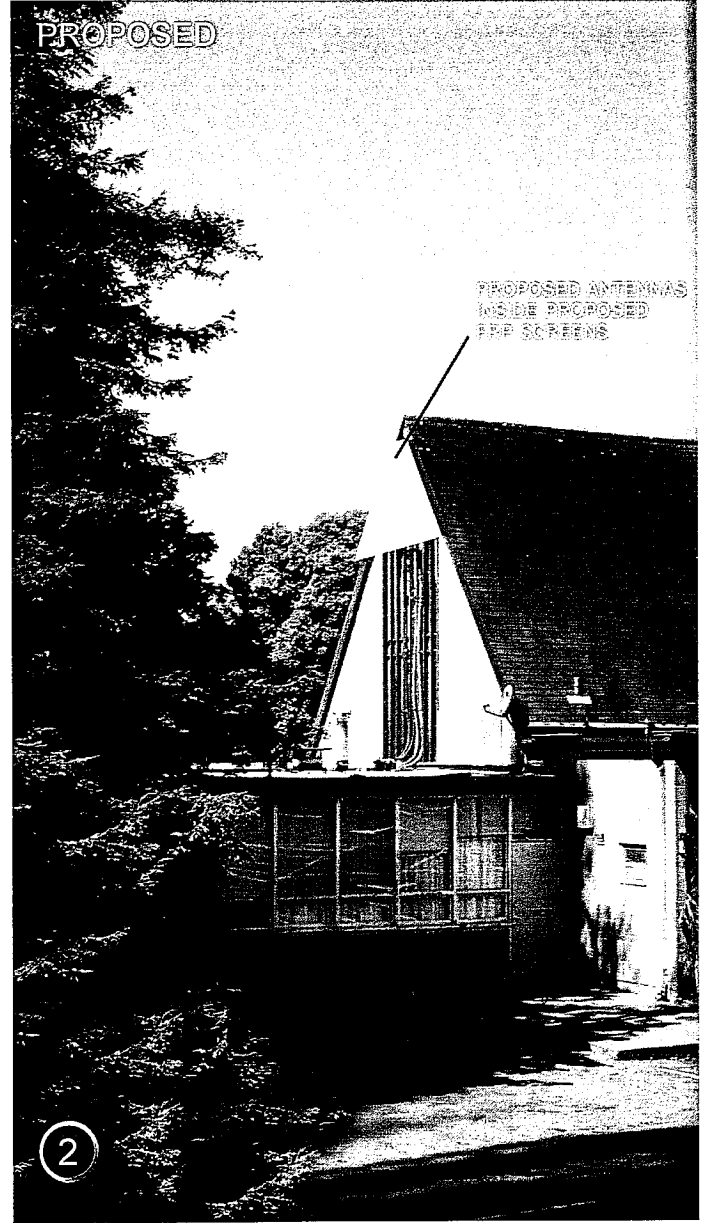
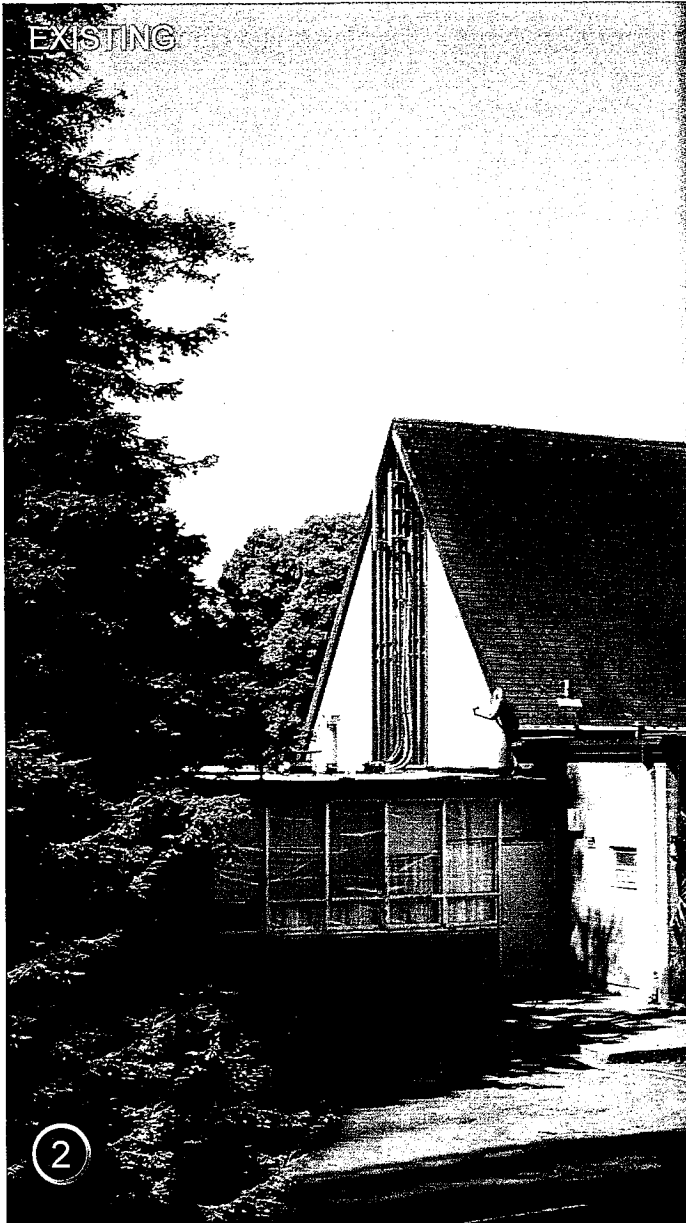
**Sprint**

VIEW 1: LOOKING SOUTH FROM  
MOUNTAIN BLVD  
SPRINT-FN03XC024- FIRST LUTHERAN CHURCH  
4100 MOUNTAIN BLVD, OAKLAND, CA 94619

*Streamline Engineering*  
and Design, Inc.

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08/21/12



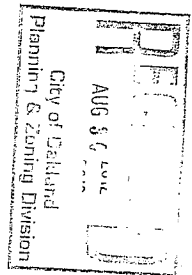
Sprint

VIEW 2: LOOKING SW FROM PARKING LOT  
SPRINT-FN03XC024- FIRST LUTHERAN CHURCH  
4100 MOUNTAIN BLVD, OAKLAND, CA 94619

*Streamline Engineering*  
and Design, Inc.

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GRANITE BAY, CA 95746  
PHONE: (916) 660-1930 FAX: (916) 600-1941

08/21/12



PROJECT: NETWORK VISION MM  
MARKET: SAN FRANCISCO BAY

# FN03XC024-B - FIRST LUTHERAN CHURCH

4100 MOUNTAIN BLVD  
OAKLAND, CA 94619

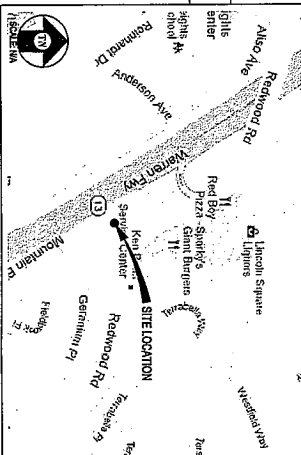
## PROJECT DESCRIPTION

A PROPOSITION TO AMEND UNIMATED TELECOMMUNICATION FACILITY CONSTRUCTION OF REPAIRING & REPLACING (C) SPRINT ANTENNAS W/ (C) GPS SPRINT ANTENNAS & ADDING A (P) MMS CABLE, A (P) DATA UNIT, A (P) LAN UNIT, (P) PRIUS, A (P) GPS ANTENNA, & (C) (P) HYBRID CABLES FOR FIBER & DC POWER, ALSO REPAIRING (C) SPRINT CABLES, (C) SPRINT ANTENNAS & ADDING A T EXTENSION TO (C) THE SCREEN.

## PROJECT INFORMATION

SITE NAME:	FIRST LUTHERAN CHURCH	SITE #:	FN03XC024-B
COUNTY:	ALAMEDA	JURISDICTION:	CITY OF OAKLAND
APN:	007-2525-008-11-10	POWER:	POLE
SITE ADDRESS:	4100 MOUNTAIN BLVD OAKLAND, CA 94619	TELEPHONE:	ALXI
CURRENT ZONING:	-		
CONSTRUCTION TYPE:	Y		
CONTRACTOR:	U. (UNIMATED COMMUNICATIONS FACILITY)		
PROPERTY OWNER:	MERRILL ALAN ELLERMAN ORTHODOX CHURCH 4100 MOUNTAIN BLVD OAKLAND, CA 94619		
APPLICANT:	BLACK & VEATCH 400 WALNUT CREEK, CA 94597		
LEASING CONTACT:	ALIN: MARIA SQUATY (925) 944-5978		
ZONING CONTACT:	ALIN: LARRY HIGHTBY (916) 725-4180		
CONSTRUCTION CONTACT:	ALIN: KEVIN FOSTER (925) 281-4675		
LATITUDE:	N 37° 47' 45" NAD 83		
LONGITUDE:	W 122° 10' 38.4" NAD 83		
AMS:	N 122.182889 NAD 83 5449.5		

## VICINITY MAP



## DRIVING DIRECTIONS

- FROM: 3800 OAK RD SUITE 400, WALNUT CREEK, CA 94597  
TO: 4100 MOUNTAIN BLVD, OAKLAND, CA 94619
1. HEAD SOUTHEAST ON OAK RD TOWARD COCCINS DR.
  2. TURN RIGHT ONTO TRICK BLVD.
  3. CONTINUE STRAIGHT TO STAY ON TRICK BLVD.
  4. TURN RIGHT ONTO N MAIN ST.
  5. TURN RIGHT ONTO THE INTERSTATE 880 S RAMP TO OAKLAND/SAN JOSE.
  6. MERGE ONTO I-880 S.
  7. TAKE EXIT 46 FOR CALIFORNIA 24 TOWARD LAFAYETTE/OAKLAND.
  8. MERGE ONTO CA-24 N.
  9. TAKE EXIT 5A TO MERGE ONTO CA-13 S TOWARD HAYWARD.
  10. TAKE EXIT 10 FOR REDWOOD RD TOWARD OAKLAND ST.
  11. TURN LEFT ONTO REDWOOD RD.
  12. TAKE THE 1ST RIGHT TOWARD MOUNTAIN BLVD.
  13. CONTINUE STRAIGHT ONTO MOUNTAIN BLVD.
- END AT: 4100 MOUNTAIN BLVD, OAKLAND, CA 94619  
ESTIMATED TIME: 22 MINUTES ESTIMATED DISTANCE: 17.9 MILES

## CODE COMPLIANCE

- ALL WORK & MATERIALS SHALL BE PERFORMED & INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSIDERED TO PREVENT WORK NOT CONFORMING TO THESE CODES.
1. 2010 CALIFORNIA ADUSTRAL CODE (INCL. TITLES 24 & 25)
  2. 2010 CALIFORNIA BUILDING CODE
  3. 2010 CALIFORNIA ELECTRICAL CODE
  4. 2010 CALIFORNIA MECHANICAL CODE
  5. 2010 CALIFORNIA PLUMBING CODE
  6. 2010 CALIFORNIA FIRE CODE
  7. LOCAL BUILDING ORDINANCES
  8. CITY/COUNTY ORDINANCES
  9. AHS/ESA-TL-222-9
- ALONG WITH ANY OTHER APPLICABLE LOCAL & STATE LAWS AND REGULATIONS

## DISABLED ACCESS REQUIREMENTS

THIS FACILITY IS UNIMATED & NOT FOR HUMAN INVIATION. DISABLED ACCESS & REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA STATE BUILDING CODE TITLE 27 PART 2, SECTION 1103.6.1.1, EXCEPTION 4

## SHEET INDEX

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET	-
A-1	SITE PLAN	-
A-2	EXISTING/INTERIM EQUIPMENT PLAN & DETAILS	-
A-3	FINAL CONFIGURATION EQUIPMENT PLAN & DETAIL	-
A-4	EXISTING ANTENNA PLANS	-
A-5	INTERIM ANTENNA PLANS	-
A-6	FINAL CONFIGURATION ANTENNA PLANS & DETAILS	-
A-7	ELEVATIONS	-

## APPROVAL

**StreamLine Engineering and Design, Inc.**

8445 Sierra College Blvd, Suite E Granite Bay, CA 95746  
Contact: Larry Houghtby Phone: 916-275-4180  
E-Mail: larry@streamlineeng.com Fax: 916-660-1941

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF STREAMLINE ENGINEERING AND DESIGN, INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF STREAMLINE ENGINEERING AND DESIGN, INC.

**ISSUE STATUS**

DATE	DESCRIPTION
07/17/12	20 SHEET
07/27/12	20 100% J.K.
08/14/12	CLIENT REV. J.K.
-	-
-	-
-	-

DESIGN BY: A. SMITH  
CHECKED BY: J. GRAY  
APPROVED BY: -  
DATE: 08/14/12

**FIRST LUTHERAN CHURCH**

FN03XC024-B  
4100 MOUNTAIN BLVD  
OAKLAND, CA 94619

**Sprint**

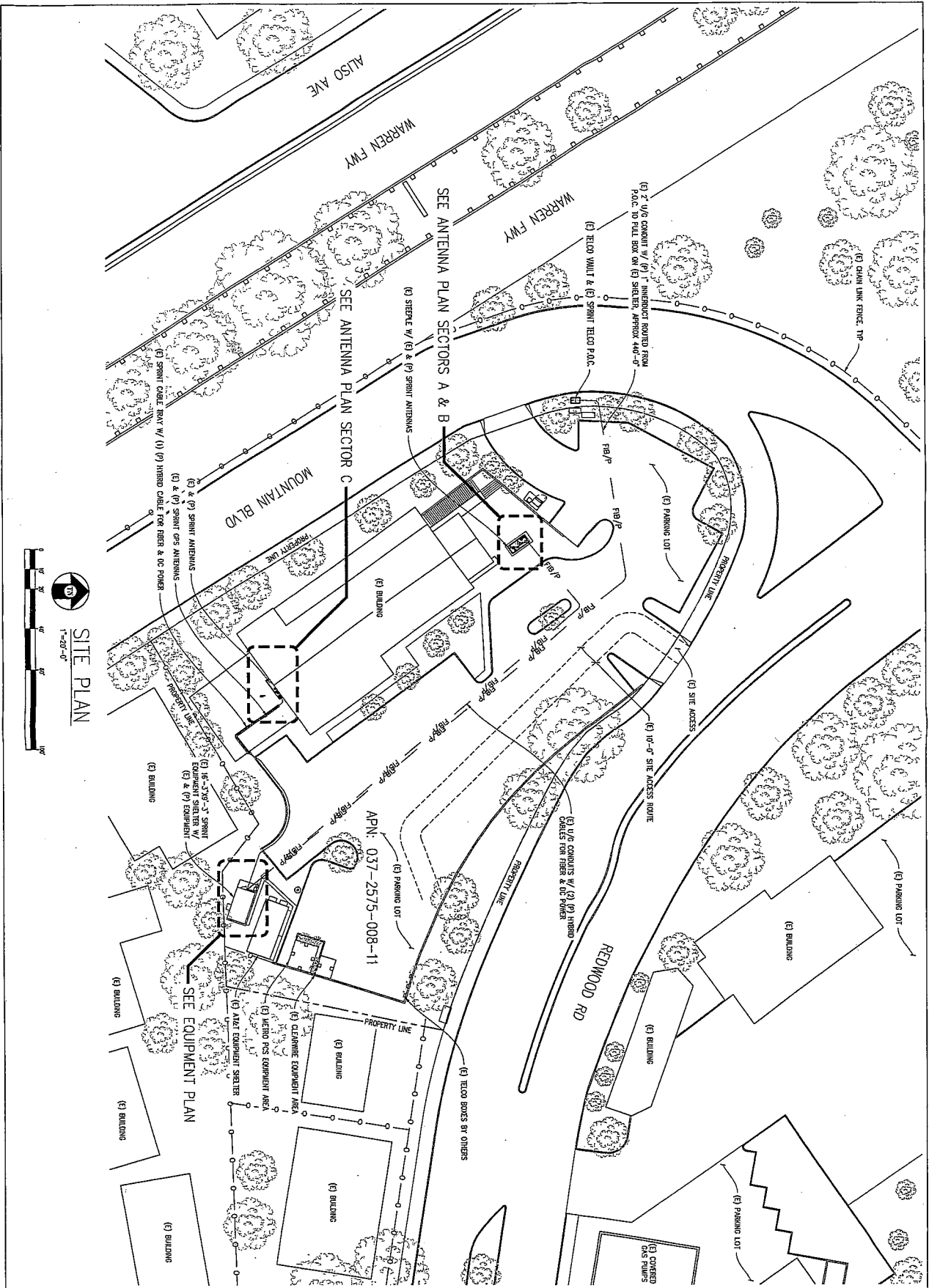
12857 ALCOSTA BLVD SUITE 300  
SAN RAMON, CA 94583

**SHEET TITLE:**

TITLE

**SHEET NUMBER:**

T-1



<b>StreamLine Engineering</b> and Design, Inc. 8445 Sierra College Blvd, Suite E Granite Bay, CA 95746 Contact: Larry Houghtby Phone: 916-275-4180 E-Mail: larry@streamlineeng.com Fax: 916-660-1841		<b>ISSUE STATUS</b> <table border="1"> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> <tr> <td>07/27/12</td> <td>1.S.</td> <td>J.K.</td> </tr> <tr> <td>08/14/12</td> <td>2.D.</td> <td>J.K.</td> </tr> <tr> <td>08/14/12</td> <td>3.C.</td> <td>J.K.</td> </tr> <tr> <td>08/14/12</td> <td>4.C.</td> <td>J.K.</td> </tr> </table>		DATE	DESCRIPTION	BY	07/27/12	1.S.	J.K.	08/14/12	2.D.	J.K.	08/14/12	3.C.	J.K.	08/14/12	4.C.	J.K.
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12657 ALCOLTA BLVD SUITE 300 SAN RAMON, CA 94583		<b>FIRST LUTHERAN CHURCH</b> FN03XC024-B 4100 MOUNTAIN BLVD OAKLAND, CA 94619																
SHEET TITLE: <b>SITE PLAN</b>		SHEET NUMBER: <b>A-1</b>																

**FIRST LUTHERAN CHURCH**  
**FN03XC024-B**  
 4100 MOUNTAIN BLVD  
 OAKLAND, CA 94619

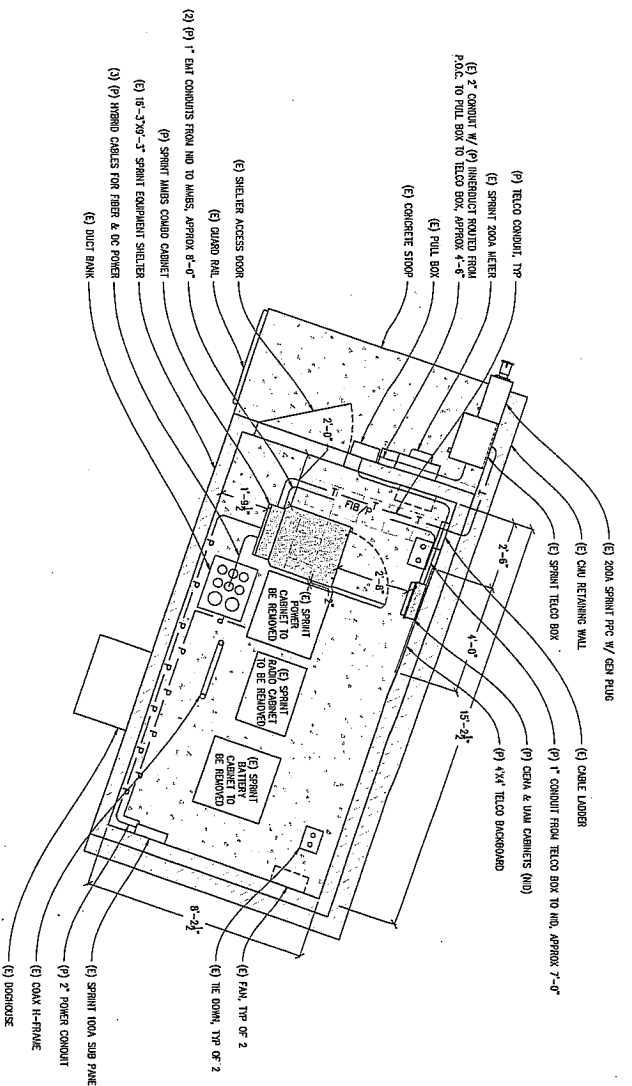
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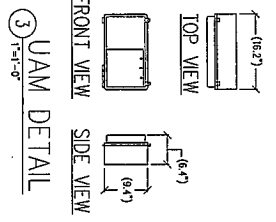
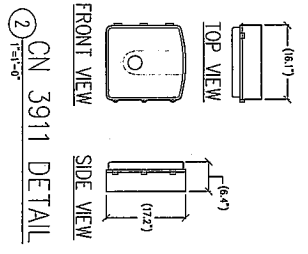
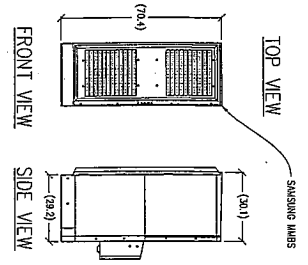
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 Contact: Larry Houghtby Phone: 916-275-4180  
 E-Mail: larry@streamlineeng.com Fax: 916-660-1941

**Sprint**  
 12657 ALCOSTA BLVD SUITE 300  
 SAN RAMON, CA 94583

SHEET TITLE:	EXISTING / INTERIM
PLAN & DETAILS	EQUIPMENT PLAN
SHEET NUMBER:	A-2

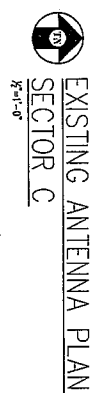
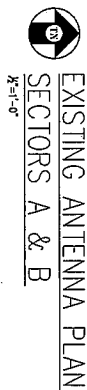



**① MMBS CABINET**  
 8'-1'-0"

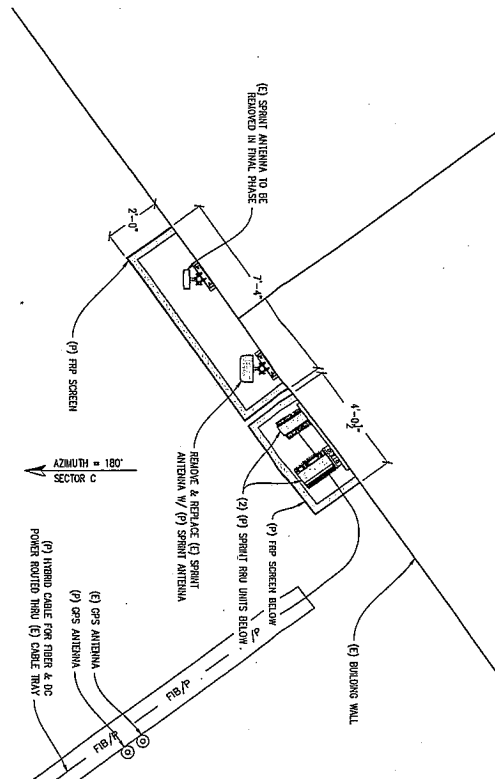
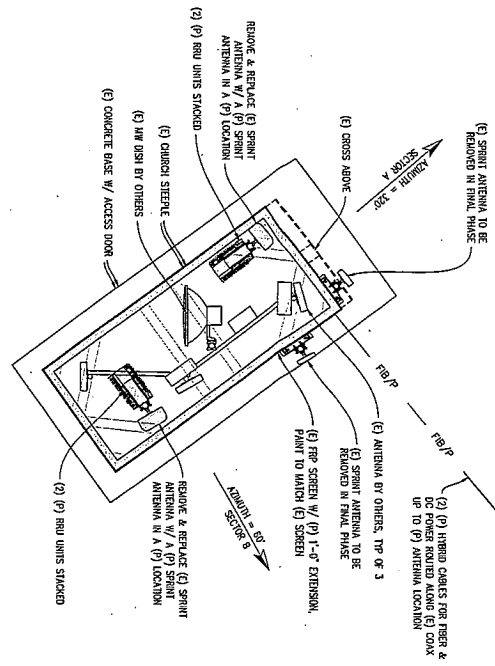


**EXISTING / INTERIM EQUIPMENT PLAN**  
 8'-1'-0"

SHEET TITLE:
FINAL CONFIGURATION EQUIPMENT PLAN & DETAIL
SHEET NUMBER:
A-3



A-4	SHEET NUMBER	EASTING ANTENNA PLANS	SHEET TITLE	 12657 ALCOSTA BLVD SUITE 300 SAN RAMON, CA 94583	<h2 style="margin: 0;">Streamline Engineering</h2> <h3 style="margin: 0;">and Design, Inc.</h3> <p style="margin: 0;">8445 Sierra College Blvd, Suite E Granite Bay, CA 95746          Contact: Larry Houghby Phone: 916-275-1180          E-Mail: larry@streamlineeng.com Fax: 916-660-1941</p> <p style="font-size: small; margin: 0;">THESE PLANS AND SPECIFICATIONS ARE INSTRUMENTS OF SERVICE, AND ARE THE SOLE PROPERTY OF STREAMLINE ENGINEERING AND DESIGN, INC. (SED). NO PART OF THESE PLANS OR SPECIFICATIONS MAY BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SED. ANY VIOLATION OF THESE TERMS SHALL BE CONSIDERED A BREACH OF CONTRACT AND SHALL BE SUBJECT TO LEGAL ACTION. THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF SED AND ARE TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. ANY OTHER USE OF THESE PLANS AND SPECIFICATIONS WITHOUT THE WRITTEN PERMISSION OF SED IS STRICTLY PROHIBITED. ANY VIOLATION OF THESE TERMS SHALL BE CONSIDERED A BREACH OF CONTRACT AND SHALL BE SUBJECT TO LEGAL ACTION.</p>	DATE: 09/11/12 APPROVED BY: DESIGNED BY: J. SMITH CHECKED BY: J. SMITH	ISSUE STATUS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 5%;">Δ</th> <th style="width: 15%;">DATE</th> <th style="width: 40%;">DESCRIPTION</th> <th style="width: 10%;">BY</th> <th style="width: 10%;">REV.</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">07/17/12</td> <td>20 SDC</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">09/11/12</td> <td>20 ISS</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">09/11/12</td> <td>20 ISS</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">09/11/12</td> <td>20 ISS</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">09/11/12</td> <td>20 ISS</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;">09/11/12</td> <td>20 ISS</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">7</td> <td style="text-align: center;">09/11/12</td> <td>20 ISS</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">8</td> <td style="text-align: center;">09/11/12</td> <td>20 ISS</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">9</td> <td style="text-align: center;">09/11/12</td> <td>20 ISS</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">09/11/12</td> <td>20 ISS</td> <td style="text-align: center;">J.S.</td> <td style="text-align: center;">1.0</td> </tr> </table>	Δ	DATE	DESCRIPTION	BY	REV.	1	07/17/12	20 SDC	J.S.	1.0	2	09/11/12	20 ISS	J.S.	1.0	3	09/11/12	20 ISS	J.S.	1.0	4	09/11/12	20 ISS	J.S.	1.0	5	09/11/12	20 ISS	J.S.	1.0	6	09/11/12	20 ISS	J.S.	1.0	7	09/11/12	20 ISS	J.S.	1.0	8	09/11/12	20 ISS	J.S.	1.0	9	09/11/12	20 ISS	J.S.	1.0	10	09/11/12	20 ISS	J.S.	1.0	PN03XC024-B LUTHERAN CHURCH OAKLAND, CA 94612
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10	09/11/12	20 ISS	J.S.	1.0																																																											



**INTERIM ANTENNA PLAN**  
SECTORS A & B

**INTERIM ANTENNA PLAN**  
SECTOR C

**FIRST LUTHERAN CHURCH**  
4100 MOUNTAIN BLVD  
OAKLAND, CA 94619

**ISSUE STATUS**

DATE	DESCRIPTION	BY
07/17/12	ISSUED	J.S.
07/21/12	REVISED	J.K.
08/14/12	CLIENT REV	J.K.
08/14/12	ISSUED	J.S.

DATE: 08/14/12

DESIGNED BY: J. GRAY

CHECKED BY: J. GRAY

APPROVED BY: -

**StreamLine Engineering and Design Inc.**

8445 Sierra College Blvd, Suite E Granite Bay, CA 95746  
Contact: Larry Houghtby Phone: 916-275-4180  
E-Mail: larry@streamlineeng.com Fax: 916-660-1941



12657 ALCOSTA BLVD SUITE 300  
SAN RAMON, CA 94583

INTERIM ANTENNA PLANS

SHEET NUMBER

A-5



[illegible]

Technical drawing of the antenna detail showing three views: TOP VIEW, FRONT VIEW, and LEFT VIEW. The drawing includes the following dimensions and labels:

- TOP VIEW:** Shows a rectangular shape with a width dimension of  $(120)$ . A curved arrow points from the label "PES-16-22P-RR" to the top edge of the rectangle.
- FRONT VIEW:** Shows a rectangular shape with a height dimension of  $(720)$ .
- LEFT VIEW:** Shows a rectangular shape with a width dimension of  $(16)$ .

The drawing is labeled "1 ANTENNA DETAIL" with a dimension  $X_1=1-0"$  indicated below the title.

2 ANTENNA DETAIL

$\theta = 0^\circ$

P90-15-LEF-RR  
(16.0)

TOP VIEW  
(120.0)

FRONT VIEW  
(72.0)

LEFT VIEW

③ 1900MHZ RRU UNIT

**④** 800MHZ RRU UNIT  
T=1-10"

# Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report

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Prepared for:  
Sprint Nextel  
c/o Alcatel-Lucent  
26801 West Agoura Road  
Calabasas, CA, 91301

Site No. FN03XC024  
First Lutheran Church  
4100 Mountain Blvd.  
Oakland, California 94619  
Alameda County  
37.796361; -122.182889 NAD83  
rooftop

EBI Project No. 62123639  
August 21, 2012



## **EXECUTIVE SUMMARY**

### **Purpose of Report**

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by Sprint Nextel to conduct radio frequency electromagnetic (RF-EME) modeling for Sprint Site FN03XC024 located at 4100 Mountain Blvd. in Oakland, California to determine RF-EME exposure levels from existing and proposed Sprint wireless communications equipment at this site. As described in greater detail in Section II.0 of this report, the Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures. This report summarizes the results of RF-EME modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

This report contains a detailed summary of the RF EME analysis for the site.

This document addresses the compliance of Sprint's proposed transmitting facilities independently and in relation to all collocated facilities at the site.

## **1.0 LOCATION OF ALL EXISTING ANTENNAS AND FACILITIES AND EXISTING RF LEVELS**

This project involves the removal of three (3) existing antennas replaced with three (3) proposed Sprint wireless telecommunication antennas on a rooftop located at 4100 Mountain Blvd. in Oakland, California. There are three Sectors (A, B, and C) proposed to be replaced at the site, with one (1) antenna to be re-installed per sector.

Based on drawings and aerial photography review, five Unknown carriers also have wireless antennas on the rooftop. These antennas were included in the modeling analysis.

## **2.0 LOCATION OR ALL APPROVED (BUT NOT INSTALLED) ANTENNAS AND FACILITIES AND EXPECTED RF LEVELS FROM THE APPROVED FACILITIES**

There are no antennas or facilities that are approved and not installed based on information provided to EBI and Sprint at the time of this report.

## **3.0 NUMBER AND TYPES OF WTS WITHIN 100 FEET OF THE PROPOSED SITE AND ESTIMATES OF CUMULATIVE EMR EMISSIONS AT THE PROPOSED SITE**

With the exception of the antennas mentioned in Section 1.0, there are no other Wireless Telecommunication Service (WTS) sites observed within 100 feet of the proposed site.

## **4.0 LOCATION AND NUMBER OF THE SPRINT ANTENNAS AND BACK-UP FACILITIES PER BUILDING AND NUMBER AND LOCATION OF OTHER TELECOMMUNICATION FACILITIES ON THE PROPERTY**

Sprint proposes the removal of three (3) existing antennas replaced with three (3) proposed Sprint wireless telecommunication antennas on a rooftop located at 4100 Mountain Blvd. in Oakland, California. There are three Sectors (A, B, and C) proposed to be replaced at the site, with one (1) antenna to be re-installed per sector. In each sector, there is proposed to be one antenna transmitting in the 800 MHz and the 1900 MHz frequency ranges. The Sector A antennawill be oriented 320° from true north. The Sector B antenna will be oriented 60° from true north. The Sector C antenna will be oriented 180° from true north. The bottoms of the Sector A and B antennas will be 75 feet above ground level. The bottoms of the Sector C antennas will be 12.5 feet above a lower rooftop.

Based on drawings and aerial photography review, five unknown carriers also have wireless antennas on the rooftop. These antennas were included in the modeling analysis.

## **5.0 POWER RATING FOR ALL EXISTING AND PROPOSED BACKUP EQUIPMENT SUBJECT TO THE APPLICATION**

The operating power for modeling purposes was assumed to be 20 Watts per transmitter for the 800 MHz antenna and there will be one (1) transmitter operating at this frequency. Additionally, for modeling purposes it was assumed to be 20 Watts per transmitter and three (3) transmitters operating at the 1900 MHz.

## **6.0 TOTAL NUMBER OF WATTS PER INSTALLATION AND THE TOTAL NUMBER OF WATTS FOR ALL INSTALLATIONS ON THE BUILDING**

The effective radiated power (ERP) for the 800 MHz transmitter combined on site is 576 Watts. The ERP for the 1900 MHz transmitters combined on site is 2,994 Watts. The ERPs for other carriers on site was not provided.

## **7.0 PREFERRED METHOD OF ATTACHMENT OF PROPOSED ANTENNA WITH PLOT OR ROOF PLAN INCLUDING: DIRECTIONALITY OF ANTENNAS, HEIGHT OF ANTENNAS ABOVE NEAREST WALKING SURFACE, DISCUSS NEARBY INHABITED BUILDINGS**

Based on the information provided to EBI, the information indicates that the proposed antennas are to be mounted to the steeple and building façade, operating in the directions, frequencies, and heights mentioned in section 4.0 above. The surrounding buildings are residential.

## **8.0 ESTIMATED AMBIENT RADIO FREQUENCY FIELDS FOR THE PROPOSED SITE**

Based on worst-case predictive modeling, there are no modeled exposures on any accessible rooftop or ground-level walking/working surface related to proposed equipment in the area that exceed the FCC's occupational and general public exposure limits at this site. As such, the proposed Sprint project is in compliance with FCC rules and regulations. At the nearest walking/working surfaces to the proposed Sprint antennas, the maximum power density is 30.40 percent of the FCC's general public limit (6.08 percent of the FCC's occupational limit). The composite exposure level from all other carriers existing on this site combined with Sprint's proposed antennas is 30.40 percent of the FCC's general public limit (6.08 percent of the FCC's occupational limit) at the nearest walking/working surface to each antenna. Based on worst-case predictive modeling, there are no areas at ground level related to the proposed Sprint antennas that exceed the FCC's occupational or general public exposure limits at this site. At ground level, the maximum power density generated by the Sprint antennas combined with the existing other carriers antennas on site is 11.90 percent of the FCC's general public limit (2.38 percent of the FCC's occupational limit). The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix B.

There are no modeled areas on the rooftop or ground that exceed the FCC's limits for general public or occupational exposure in front of the other carrier antennas.

## **9.0 SIGNAGE AT THE FACILITY IDENTIFYING ALL WTS EQUIPMENT AND SAFETY PRECAUTIONS FOR PEOPLE NEARING THE EQUIPMENT AS MAY BE REQUIRED BY THE APPLICABLE FCC ADOPTED STANDARDS (DISCUSS SIGNAGE FOR THOSE WHO SPEAK LANGUAGES OTHER THAN ENGLISH)**

Signs are the primary means for control of access to areas where RF exposure levels may potentially exceed the MPE. It is recommended that additional signage be installed for the new antennas making people aware of the antennas locations. There are no exposures above the FCC limits in front of the proposed antennas and therefore barriers are not recommended.

Additionally, there are areas where workers elevated above the ground or rooftop may be exposed to power densities greater than the general population and occupational limits. Workers and the general public should be informed about the presence and locations of antennas and their associated fields.

Access to this site is unknown. To be conservative, the modeling results are reported as though the general public is able to access the rooftop.

## **10.0 STATEMENT ON WHO PRODUCED THIS REPORT AND QUALIFICATIONS**

Please see the certifications attached in Appendix A below.

## 11.0 FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS

The FCC has established Maximum Permissible Exposure (MPE) limits for human exposure to Radiofrequency Electromagnetic (RF-EME) energy fields, based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general public/uncontrolled exposure limits for members of the general public.

**Occupational/controlled exposure limits** apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general public/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

**General public/uncontrolled exposure limits** apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Table I and Figure I (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a particular facility and are "time-averaged" limits to reflect different durations resulting from controlled and uncontrolled exposures.

The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm<sup>2</sup>). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm<sup>2</sup>) and an uncontrolled MPE of 1 mW/cm<sup>2</sup> for equipment operating in the 1900 MHz frequency range. For the Sprint equipment operating at 800 MHz, the FCC's occupational MPE is 2.66 mW/cm<sup>2</sup> and an uncontrolled MPE of 0.53 mW/cm<sup>2</sup>. These limits are considered protective of these populations.

Table I: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6

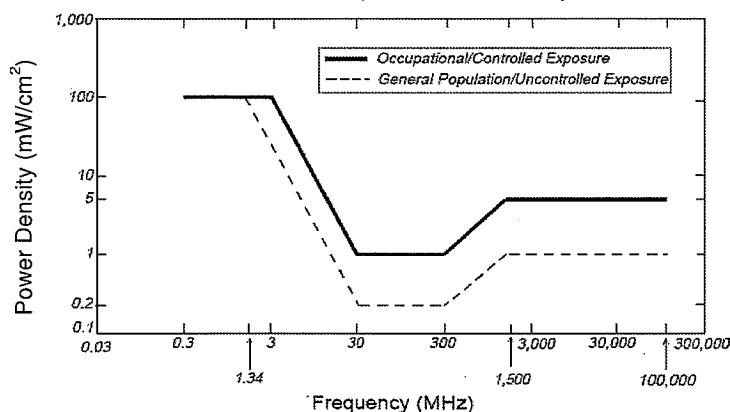
**Table I: Limits for Maximum Permissible Exposure (MPE)**

<b>(A) Limits for Occupational/Controlled Exposure</b>				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
1,500-100,000	--	--	5	6
<b>(B) Limits for General Public/Uncontrolled Exposure</b>				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)

\* Plane-wave equivalent power density

**Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)**  
Plane-wave Equivalent Power Density



Based on the above, the most restrictive thresholds for exposures of unlimited duration to RF energy for several personal wireless services are summarized below:

Personal Wireless Service	Approximate Frequency	Occupational MPE	Public MPE
Personal Communication (PCS)	1,950 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
Cellular Telephone	870 MHz	2.90 mW/cm <sup>2</sup>	0.58 mW/cm <sup>2</sup>
Specialized Mobile Radio	855 MHz	2.85 mW/cm <sup>2</sup>	0.57 mW/cm <sup>2</sup>
Most Restrictive Freq, Range	30-300 MHz	1.00 mW/cm <sup>2</sup>	0.20 mW/cm <sup>2</sup>

MPE limits are designed to provide a substantial margin of safety. 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.

Personal Communication (PCS) facilities used by Sprint in this area operate within a frequency range of 800-1900 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of areas directly in front of the antennas.

### **Statement of Compliance**

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

### **12.0 LIMITATIONS**

This report was prepared for the use of Sprint Nextel. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information provided by the client. The observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to EBI so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made

### **13.0 SUMMARY AND CONCLUSIONS**

EBI has prepared this Radiofrequency Emissions Compliance Report for the proposed Sprint telecommunications equipment at the site located at 4100 Mountain Blvd. in Oakland, California.

EBI has conducted theoretical modeling to estimate the worst-case power density from Sprint antennas and the other carriers' existing antennas to document potential MPE levels at this location and ensure that site control measures are adequate to meet FCC and OSHA requirements. As presented in the preceding sections, based on worst-case predictive modeling, there are no modeled exposures on any accessible rooftop or ground-level walking/working surface related to proposed equipment in the area that exceed the FCC's occupational and general public exposure limits at this site. As such, the proposed Sprint project is in compliance with FCC rules and regulations.

Signage is recommended at the site as presented in Section 9.0. Posting of the signage brings the site into compliance with FCC rules and regulations.



## **Appendix A**

### **Certifications**

## Preparer Certification

I, Alison Martin, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified "occupational" under the FCC regulations.
- I am familiar with the FCC rules and regulations as well as OSHA regulations both in general and as they apply to RF-EME exposure.
- I have reviewed the data provided by the client and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.

*Alison Martin*

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## **Appendix B**

### **Roofview® Export File**

