

Location:	5745 Thornhill Drive (APN:048G-7420-002-00)
Proposal:	To relocate and replace an existing 9 s.f., 7' high wireless enclosure with a new 45 s.f., 7' high wireless enclosure that would replace 4 antenna panels with 2 new concealed antenna panels, collocate 4 concealed small Radio Remote Unit (RRU's) antennas and to replace 3 equipment cabinets with 2 concealed cabinets, located on the roof of a mixed-use facility. (NOTE: <i>This application was not discussed, but it was continued from the July 11th Planning Commission meeting</i>)
Applicant/Contact Person:	Streamline Engineering, Sam Savig (for Sprint)
Phone Number:	(916) 622-3737
Owner/Contact:	Carlos Yang & Alicia Halperin
Case File Number:	CMD12-056
Planning Permits Required:	Major Conditional Use Permit for a Mini Telecommunication Facility within 100 feet of the boundary of a residential zone; and Regular Design Review for alterations to existing wireless facility.
General Plan:	Neighborhood Center
Zoning:	CN-3 Neighborhood Commercial Zone
Environmental Determination:	Exempt, Section 15301(e) of the State CEQA Guidelines: Existing Facilities (additions to existing structures); Section 15183 of the State CEQA Guidelines: Projects consistent with a Community Plan, General Plan or Zoning
Historic Status:	Not a Potential Designated Historic Property Survey Rating: X
Service Delivery District:	2
City Council District:	4
Date Filed:	May 10, 2012 (revised plans submitted on June 12, 2012)
Action to be Taken:	Decision based on staff report
Finality of Decision:	Appealable to City Council within 10 calendar days
For Further Information:	Contact Case Planner Mike Rivera at (510) 238-6417, or by email at mriviera@oaklandnet.com

PROJECT BACKGROUND

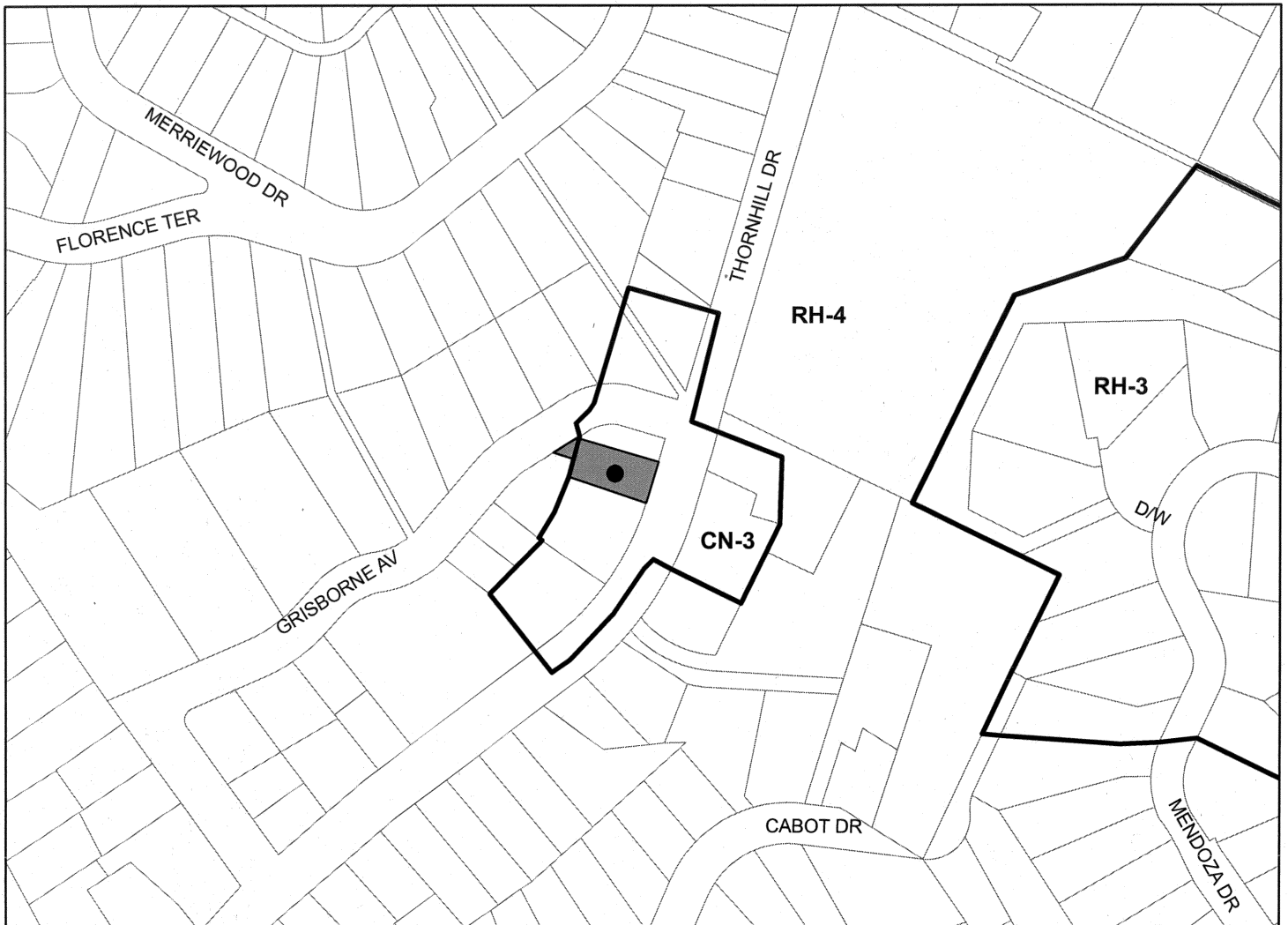
This addendum is to the July 11, 2012 Staff Report attached to this document. (See **Attachment 1**) This addendum addresses the issues raised regarding the Radio Frequency Report, as explained below.

On July 2, 2012, staff received two letters of concern from the public regarding the project's Radio Frequency report. These two letters were not attached to the July 11th staff report because they were submitted after the report was completed. However, copies of these letters were made available at the July 11th Planning Commission meeting and to the general public.

At the July 11th meeting and at Staff's request, the Planning Commission continued the item to the next available August 29th meeting.

On August 9, 2012, the City mailed out new public notices for this proposed application to the surrounding property owners within 300 feet from the subject property, and public notices were also posted around the site in five different locations.

CITY OF OAKLAND PLANNING COMMISSION



Case File: CMD12-056
Applicant: Streamline Engineering, Sam Savig (for Sprint)
Address: 5745 Thornhill Drive
Zone: CN-3

PUBLIC COMMENTS

The two separate letters submitted on July 2, 2012 by Ms. Karen Chambers (residing at 5747 Grisborne Avenue) and by Ms. Myra Mitzman (residing at 5741 Grisborne Avenue) raised concerns about the information contained in Section 8.0 for the "ESTIMATED AMBIENT RADIO FREQUENCY FIELDS FOR THE PROPOSED SITE" of the Radio Frequency report, prepared on May 3, 2012 by EBI Consulting. In summary, the neighbors' concerns relate to the proposed replacement of the existing wireless antenna facility, and its excess of emitting higher levels of radio frequency electromagnetic fields. (See Attachment 2)

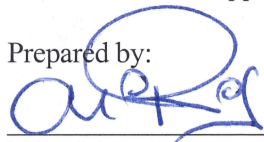
APPLICANT'S RESPONSE

To address the neighbors concerns, staff asked the applicant to respond to the neighbors concerns and submit a revised Radio Frequency report that made it clear that the replacement of the wireless facility meets the requirements of the (FCC) Federal Communications Commission. On August 14, 2012 the applicant submitted a revised Radio Frequency report, dated August 13, 2012, prepared by the same consultant EBI. (See Attachment 3) Furthermore, on August 16, 2012, the applicant submitted a letter by EBI Consulting stating that EBI completed a pre-construction and theoretical post construction monitoring at the proposed development site. EBI concluded that there were no levels above the FCC general public or occupational limits based on current conditions. (See Attachment 4) The applicant has also indicated that the project engineer for EBI Consulting will attend the Planning Commission meeting to answer any questions.

STAFF COMMENTS

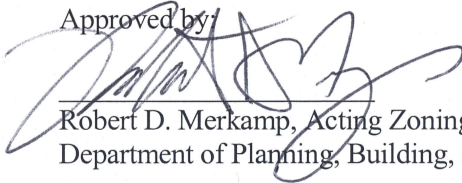
Based on the additional information submitted by the applicant, T-Mobile and based on the original staff report prepared for the July 11, 2012 Planning Commission meeting, staff's position has not changed and thus recommends approval subject to those Finding and Conditions of Approval. (See Attachment 1)

Prepared by:




Mike Rivera
City Planner II

Approved by:



Robert D. Merkamp, Acting Zoning Manager
Department of Planning, Building, and Neighborhood Preservation

Approved for forwarding to the
City Planning Commission:



Scott Miller, Interim Director
Department of Planning, Building, and Neighborhood Preservation

ATTACHMENTS

1. Original Staff Report, dated July 11, 2012
2. Neighbors Letters of Concerns, dated received July 2, 2012
3. Revised Radio Frequency report by EBI Consultant, dated received August 14, 2012
4. EBI Consultant's Letter, dated received August 16, 2012

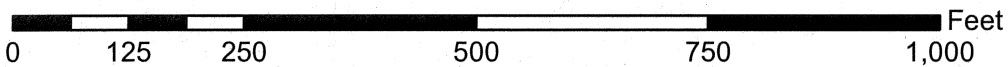
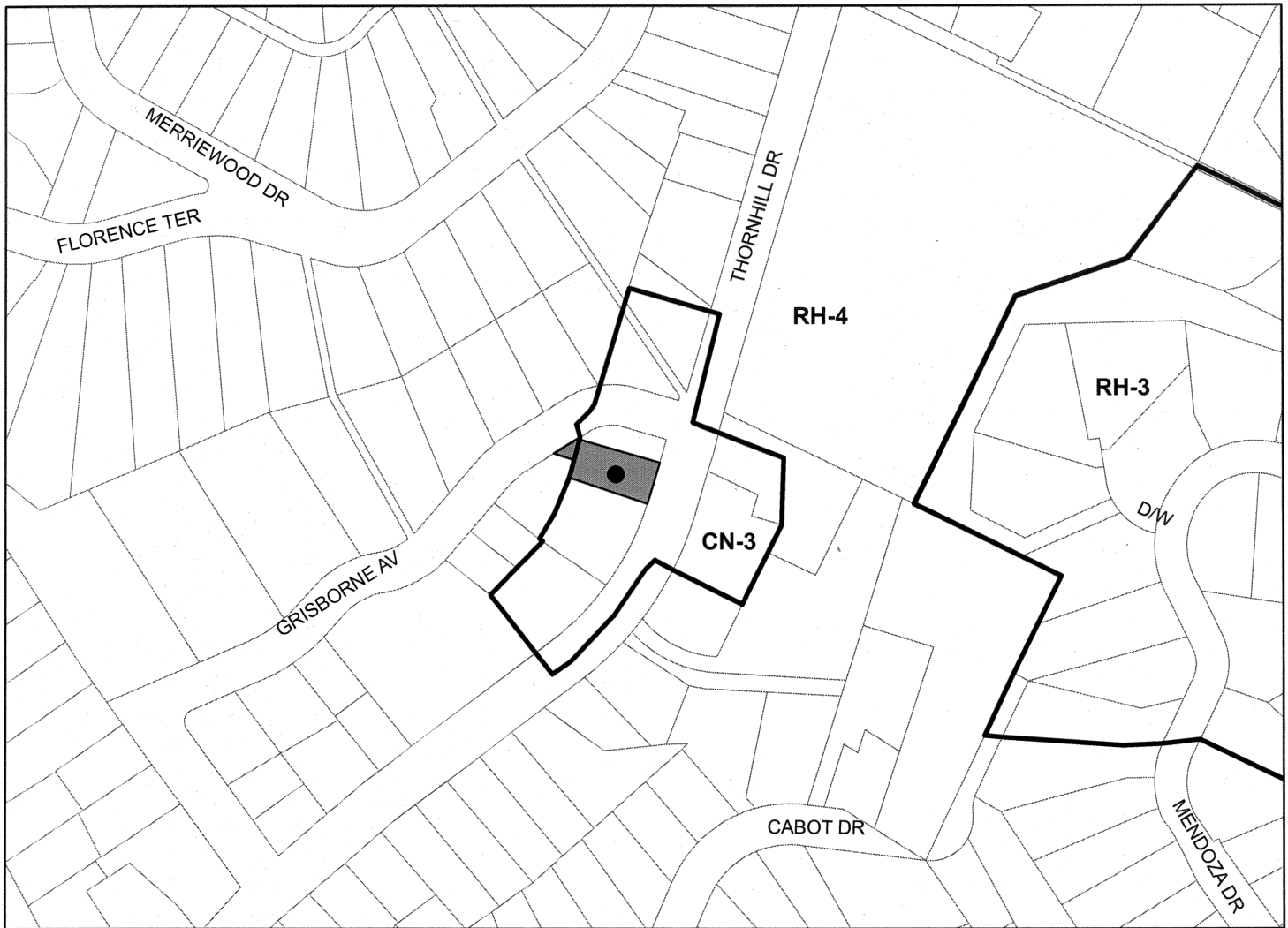
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Finality of Decision:	Appealable to City Council within 10 calendar days
For Further Information:	Contact Case Planner Mike Rivera at (510) 238-6417, or by email at mrivera@oaklandnet.com

PROJECT SUMMARY

The applicant, on behalf of Sprint, requests a Major Conditional Use Permit and Regular Design Review to relocate an existing 9 square foot, 7 foot high (enclosed by a faux chimney) wireless facility with a new 45 square, and 7 foot high wireless facility to be located near the center of the second-story roof. The relocation of the new wireless facility includes the replacement of 4 antenna panels with 2 new antenna panels and the collocation of 4 new small Radio Remote Unit (RRU's) antennas. The new wireless facility will also be screened by a new fiberglass reinforced panel enclosure. The proposal includes the replacement of 3 equipment cabinets with 2 new cabinets inside the existing equipment room located on the rear roof of the one-story commercial building. The property is surrounded to the north, east and south by commercial zone properties and to the west by residential zone properties.

Per Section 17.134.020(A)(3)(i) of the Oakland Planning Code, a Major Conditional Use Permit is required for a Telecommunications Facility located within one hundred (100) feet of the boundary of any residential zone. This property is located within 100 feet of the RH-4 Residential Zone to the west. The Planning Commission is the decision-making body for this proposed application.

CITY OF OAKLAND PLANNING COMMISSION



Case File: CMD12-056
Applicant: Streamline Engineering, Sam Savig (for Sprint)
Address: 5745 Thornhill Drive
Zone: CN-3

Staff recommends approval subject to the required Findings (**Attachment A**) and Conditions of Approval (**Attachment B**).

TELECOMMUNICATIONS BACKGROUND

Under the Telecommunications Act of 1996, the Federal Communications Commission (FCC) provided limits on cities' zoning jurisdiction over wireless telecommunications facilities, essentially limiting their authority to aesthetic review and confirmation of satisfactory radio frequency (RF) emissions reports. For further information, the Federal Communications Commission can be contacted at 1-888-225-5322 or at www.fcc.gov

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 level parcel measures 5,620 square foot and contains a long rectangular-shaped 13 foot high, one-story commercial building with a cantilevered 22 foot high, second-story residential building to the rear.

The second-story building is located about 60 feet from Thornhill Drive (to the east), and about 30 feet from Grisborne Avenue (to the west). The property also has a long driveway along the north side of the building that starts from Thornhill Drive, goes under the cantilevered second-story building and connects to the other side of the property on Brisborne Avenue. The property is occupied by different commercial businesses, and contains an existing telecommunication facility (Sprint) that was approved by the City with a Conditional Use Permit and Design Review in 2000 (CD00-14). The existing wireless facility is located about 3 feet from the edge of the second-story building roof, and contains four (4) antenna panels that are enclosed by a 9 square foot and 7 foot high faux chimney. The existing 10 feet high, 250 square foot equipment room that contains 3 equipment cabinets is located on the far west side of the one-story building roof. The commercial facility is bounded to the north, east (across Thornhill Drive), and south by one-story and two-story mixed-use commercial facilities, and to the west by one-story and two-story residential properties.

PROJECT DESCRIPTION

The applicant proposes to replace and relocate the existing 9 square foot, 7 foot high (faux chimney) wireless facility with a new 45 square foot, 7 foot high penthouse wireless facility. The new facility will replace 4 antenna panels with 2 new antenna panels, and collocate 4 small Radio Remote Unit (RRU's) antennas. The proposed wireless facility will be screened by a fiberglass reinforced panel penthouse, and will be set back 7 feet farther west from the edge of the two-story building roof. The proposed wireless facility will be finished with stucco and will have a decorative stucco band wrapped around the top edge of the penthouse and painted to match the main building. On Sheet A-4 of the proposed plans, it shows the two 6 foot high antenna panels mounted on a steel frame and each of them is positioned to the northeast (Sector A), and to the southwest (Sector C). The plans also show the collocation of a total of four small Radio Remote Unit (RRU'S) antennas mounted on the same steel frame structure, and located east of the facility. The plans also show the installation of new hybrid cables for fiber and power routed through an existing 12- inch cable tray running to the south and west over the roof of the two-story and one-story building. The existing cable tray will be connected to the existing rear cabinet equipment room. The proposal also includes the replacement of 3 equipment cabinets with 2 new equipment cabinets, inside the existing equipment room, located west on the rear of the one-story building. **(See Attachment C)**

The proposal also includes existing and proposed photo simulations of the property viewed from different public areas around the property. View #1 and View #2 shows existing (faux chimney) and proposed (penthouse) photos of the enclosed wireless facility, looking northwest and southwest from and along Thornhill Drive. View #3 also shows existing (faux chimney) and proposed (penthouse) photos of the enclosed wireless facility, looking southeast from and along Grisborne Avenue. **(See Attachment E)**

The proposal also includes a Radio Frequency (RF) Emissions Report, prepared by EBI Consulting. **(See Attachment D)** Staff will discuss the content of this document in the Key and Impacts section of this staff report.

GENERAL PLAN ANALYSIS

The property is located in the Neighborhood Center Mixed Use Land Use Classification of the Oakland General Plan. The intent of the Neighborhood Center Mixed Use is to identify, create, maintain and enhance mixed use neighborhood commercial centers. The goals set forth in the General Plan include personal and business services and entertainment uses. The proposed wireless communication facility will provide and improve telephone, data and internet services to meet the demand of the daily and long-term needs of the public. Improvements to the telecommunication networks are important to provide services to the surrounding businesses and to the general public. The General Plan Objective I/C3 states that Oakland needs to serve a wide variety of commercial uses and provide personal and professional services. Therefore, the proposal will serve the needs of the surrounding businesses and residents alike, because of the demand for faster, quality and reliable wireless communication service and internet use.

ZONING ANALYSIS

The property is located in the CN-3 Neighborhood Commercial Zone. The intent of the CN-3 zone is to create, improve, and enhance areas of neighborhood commercial centers that have a compact, vibrant pedestrian environment. The intent of the CN-3 Zone is to enhance the character of the neighborhood commercial centers that have compact and vibrant pedestrian environment. The proposal to replace the existing wireless telecommunication facility with new equipment would be a service enhancement to the established commercial neighborhood and to the general public. The proposal would meet the need and demand for basic and improved wireless communication services to residential and commercial establishments in the immediate area.

Per Sections 17.128.02 and 17.134.020(A)(3)(i) of the Oakland Planning Code, the proposal for a Mini Telecommunication Facility if located within one hundred (100) feet of the boundary of any residential zone requires a Major Conditional Use Permit. The proposal is situated within 100 feet of the boundary of the RH-4 Hillside Residential Zone located west. The purpose of the Major Conditional Use Permit is to analyze the operating characteristics or potential adverse effects of a proposed development on the surrounding areas.

Per Sections 17.33.020 and 17.128.060(B) of the Planning Code, the proposal for a Mini Telecommunication Facility also requires the making of Design Review Findings. The purpose of Design Review is to analyze projects that require special design treatment and consideration of relationship to the physical surroundings. Staff will evaluate these findings in the Findings section of this report and can justify approval of the proposed application. (See Attachment A)

ENVIRONMENTAL DETERMINATION

The California Environmental Quality Act (CEQA) Guidelines lists the projects that qualify as Categorical Exemptions from environmental review. The development proposal is categorically exempt from the environmental review requirements pursuant to Section 15301(e) for additions and/or alterations to existing structures and pursuant to Section 15183 for projects consistent with a Community Plan, General Plan or Zoning.

KEY ISSUES AND IMPACTS

Site Location Preferences

Planning Code Section 17.128.110 of the Telecommunication Regulations, states that new wireless facilities shall generally be located on the following properties or facilities in order of preference:

- A. Collocated 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.

The regulations above state that wireless facilities proposals locating on an A, B or C ranked preference, do not require a site alternative analysis. In this case, the proposal to replace the existing 4 antenna panels with 2 similar antenna panels and 4 small radio remote unit antennas within a relocated new wireless enclosure corresponds with the first site location preference (A) for collocating with other existing wireless antennas, located on the roof of the second-story building. (See Attachment C)

Staff finds that the collocation of the proposed antenna on a new steel frame structure and concealed by a fiberglass reinforced panel enclosure is more preferable because the relocated wireless facility will be set back farther from the edge of the two-story roof to meet regulations and will be finished with stucco and painted to match the building, thus the proposed wireless antennas will not be visible from public view. Therefore, a site alternative analysis will not be required.

Site Design Preferences

Per Planning Code, Section 17.128.120 of the Telecommunication Regulations it states that new wireless facilities shall generally be designed in the following order of preference:

- A. Building or structure mounted antennas 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 (façade mount, pole mount) visible from public right-of-way, painted to match existing structure;
- D. Building or structure mounted antennas above roof line visible from public right-of-way;
- E. Monopoles;
- F. Towers.

The regulations above state that proposed telecommunication facilities (mounted wireless antennas) designed to meet A or B ranked preference, do not require a site design alternative analysis. For facilities designed to meet C through F must submit a site design alternative analysis. A site design alternative analysis consists of written evidence showing the reason each higher preference design alternative can not be used. This evidence must be in sufficient detail for independent verification that can be obtained if required by the Zoning Manager. The evidence should indicate if the reason an alternative was rejected due to technical issues (e.g. inappropriate height or interference with other Radio Frequency (RF) sources), or for other constraints (e.g. inability to provide utilities or construction impediments).

Staff finds the proposal to collocate two antenna panels and four small radio remote unit antennas inside the new penthouse wireless enclosure fits with Site Design Preference (A). The collocation of the wireless antenna panels are completely concealed from view, and no part of the antennas or associated equipment cabinets will be visible from the public right-of-way.

Radio Frequency Emissions Standards

Planning Code Section 17.128.130 of the Telecommunications Regulations, requires the applicant to submit the following verifications:

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

The proposal includes a site compliance study on Radio Frequency Emissions, dated May 3, 2012. The report prepared by the project engineer, Drew Dunklee from EBI Consulting analyzes the proposal based on information and plans submitted by the applicant, Sprint. In summary, the report concludes that the proposal

will comply with the set standards for limiting public exposure to Radio Frequency Emissions and will not cause significant impacts on the environment. **(See Attachment D)** To confirm that the applicant meets the standards of Section 17.128.130 of the Planning Code, staff requires a condition of approval that the applicant submits a final Radio Frequency emissions report prior to the issuance of a final building permit stating that the facility is operating within the acceptable thresholds as established by the regulatory Federal Communication Commission. **(See Conditions of Approval # 14)**

CONCLUSION

The proposal to replace the antenna panels and to collocate four small radio remote unit antennas inside the relocated telecommunication penthouse, located on the roof of a two-story commercial building is a compatible use for the commercial and residential area because the telecommunication facility will improve wireless telephone services, data and internet use to the general public, without creating impacts to the environment. Staff finds that the collocation and replacement of telecommunication facility will not create a cumulative impact to the site because the antenna and radio remote unit panels are located inside the penthouse facility. Therefore, the proposal will not be visible from public view. The proposal also complies with the regulations for Radio Frequency emissions set by the Federal Communication Commission. Staff determines that the application meets the required findings **(See Attachment A)**, and recommends approval to the Planning Commission, subject to the Conditions **(See Attachment B)**.

RECOMMENDATIONS

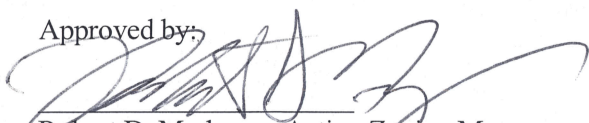
1. Affirm staff's environmental determination.
2. Approve Major Conditional Use Permit and Regular Design Review application CMD12-056 subject to the attached findings and conditions of approval.

Prepared by:



Mike Rivera
City Planner II

Approved by:


Robert D. Merkamp, Acting Zoning Manager
Department of Planning, Building, and Neighborhood Preservation

Approved for forwarding to the
City Planning Commission:


Scott Miller, Interim Director
Department of Planning, Building, and Neighborhood Preservation

ATTACHMENTS

- A. Conditional Use Permit and Regular Design Review Findings
- B. Conditions of Approval
- C. Revised Project Plans, submitted on June 27, 2012
- D. Radio Frequency Emissions Report, dated May 3, 2012
- E. Revised Photo Simulations, dated June 27, 2012

ATTACHMENT A

Findings for Approval

The findings required granting your application for Major Conditional Use Permit and Design Review found in Sections 17.134.050, 17.128.060(C), 17.128.060(B) and 17.136.050(D) of the Oakland Zoning Regulations, and the reasons your proposal satisfy these findings, are as follows:

SECTION 17.134.050 –CONDITIONAL 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 proposal will not adversely affect the development of the surrounding neighborhood. The antenna panels and related equipment cabinets will be screened by a new penthouse, and by an existing equipment room. The penthouse will be placed farther away from the edge of the roof on a building well set back from the streets and will have stucco finish with a decorative trim to match with the design and color of the main building. The proposal also includes a Radio Frequency Emissions report and determines that the development complies with the regulations set by the Federal Communication Commission. To comply with the Radio Frequency Standards, staff recommends the applicant submit a final Radio Frequency Emissions report prior to the final building permit sign-off stating that the facility is operating within the acceptable Federal Communication Commission (FCC) thresholds. (See Condition of Approval #14)

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

The proposal will create a convenient and functional working environment. The wireless facility will be located farther from the edge of the building roof, and will be screened by a new penthouse, thus minimizing its visibility from public views. The proposal will provide high speed internet, reliable and quality wireless phone services to the general public.

- 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 proposal will provide improved wireless telephone communication and internet services to surrounding commercial and residential users. The location of the antenna panels is designed to cover distant areas along public streets and surrounding properties, thus improving essential services to motorists including residents.

- D. That the proposal conforms with all applicable Regular Design Review criteria set forth in Section 17.136.050 of the Oakland Planning Code.**

FINDINGS

The proposal conforms to the applicable design review findings in section 17.128.060(B) for Telecommunication Macro Facilities. See design review findings listed 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 property is located in the Neighborhood Center Mixed Use Land Use Classification of the Oakland General Plan. The proposed wireless communication facility will provide and improve telephone, data and internet services to meet the demand of the daily and long-term needs of the public. Improvements to the telecommunication networks are important to provide services to the surrounding businesses and to the general public.

SECTION 17.128.060 (C)–CONDITIONAL USE PERMIT CRITERIA FOR MINI FACILITIES

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

The development proposal conforms to the design review criteria for Mini Facilities as described in section 17.128.060 (B). See design review findings listed below.

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

The proposal will not disrupt the characteristics of the commercial and nearby residential zone. The wireless antenna panels and related equipment cabinets will not be visible because they are located inside the new telecommunication penthouse and the existing equipment cabinet room, thus concealing their visibility from public view.

- 3. In the residential RH, RD, RM, RU-1, or RU-2 zones, and in HBX zones, the project must not have any visual impact.**

The proposal is located in the CN-3 Neighborhood Commercial zone; therefore this required finding does not apply.

SECTION 17.128.060 (B)–DESIGN REVIEW CRITERIA FOR MINI WIRELESS FACILITIES

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

The proposal does not require the antenna panels to be painted because the antennas will be concealed by a fiberglass reinforced panel enclosure (penthouse) and will be finished with stucco, contain a horizontal band and painted to match the main building.

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

The proposed antenna panels will not be mounted on an architectural significant structure or significant architectural detail of the building. The existing building does not have any distinctive design elements; therefore the proposal does not require the installation of casings to cover the wireless antennas. The enclosure will be painted and textured to match the building.

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

FINDINGS

The proposed wireless antenna panels and small radio remote unit antennas will be located inside the telecommunication penthouse; therefore, the collocation of the wireless antennas does not need to be camouflaged.

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, inside existing facilities or behind screening fences.**

The proposal does not include the installation of any related equipment shelters. However, the proposal includes the replacement of 3 cabinets with 2 cabinets inside the existing equipment room, located on the rear of the one-story building roof.

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

The proposal includes the replacement of equipment cabinets located inside the existing equipment room, located to the rear of the property. Therefore, this required finding does not apply.

6. **For antennas attached to the roof, maintain a 1:1 ratio (example: ten feet high antenna requires ten feet setback from façade) for equipment setback; screen the antennas to match existing air conditioning units, stairs, or elevator towers; avoid placing roof mounted antennas in direct line with significant view corridors.**

The proposed wireless antenna panels are located inside the penthouse. The antennas and the enclosed penthouse will be set back to meet the regulations for the 1:1 ratio from the edge of the building 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.**

The location of the penthouse that contains the wireless antenna panels is located on the roof of the second-story building. The equipment cabinets are also located inside a room located on the rear roof of the one-story building. Access to the roof is limited to authorized personnel and access to the wireless facilities requires a key for the door.

ATTACHMENT B

Conditions of approval

1. Approved Use

Ongoing

- a) The project shall be constructed and operated in accordance with the authorized use as described in the application materials, and the *revised* design review plans dated **June 11, 2012** and submitted to the City on **June 12, 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 design 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 **Planning Commission** ("this Approval") includes the approvals set forth below. This Approval is to replace and relocate the existing 9 square foot, 7 feet high (faux chimney) wireless facility with a new 45 square foot, 7 foot high penthouse wireless facility. The new facility will be enclosed and will replace 4 antenna panels with 2 new antenna panels, and collocate 4 small Radio Remote Unit (RRU's) antennas. This proposal includes the replacement of 3 equipment cabinets with 2 small equipment cabinets located inside the existing equipment room.

2. Effective Date, Expiration, Extensions and Extinguishment

Ongoing

Unless a different termination date is prescribed, this Approval shall expire **two (2) years** from the approval date, unless within such period all necessary permits for construction or alteration have been issued, or the authorized activities have commenced in the case of a permit not involving construction or alteration. Upon written request and payment of appropriate fees submitted no later than the expiration date of this permit, the Director of City Planning or designee may grant a one-year extension of this date, with additional extensions subject to approval by the approving body. Expiration of any necessary building permit for this project may invalidate this Approval if the said extension period has also expired.

3. Scope of This Approval; Major and Minor Changes

Ongoing

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

4. Conformance with other Requirements

Prior to issuance of a demolition, grading, P-job, or other construction related permit

- a) The project applicant shall comply with all other applicable federal, state, regional and/or local laws/codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City's Building Services Division, the City's Fire Marshal, and the City's Public Works Agency. Compliance with other applicable requirements may require changes to the approved use and/or plans. These changes shall be processed in accordance with the procedures contained in Condition of Approval #3.
- b) The applicant shall submit approved building plans for project-specific needs related to fire protection to the Fire Services Division for review and approval, including, but not limited to automatic extinguishing systems, water supply improvements and hydrants, fire department access, elevated walking pathways, safety railings, emergency lighting and vegetation management for preventing fires.

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 of approval** 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 of approval** if it is found that there is violation of any of the **conditions of approval** or the provisions of the Planning Code or Municipal Code, or the project operates as or causes a public nuisance. This provision is not intended to, nor does it, limit in any manner whatsoever the ability of the City to take appropriate enforcement actions. The project applicant shall be responsible for paying fees in accordance with the City's Master Fee Schedule for inspections conducted by the City or a City-designated third-party to investigate alleged violations of the Conditions of Approval.

6. Signed Copy of the Conditions of Approval

With submittal of a demolition, grading, and building permit

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

7. Indemnification

Ongoing

- a. To the maximum extent permitted by law, the applicant shall defend (with counsel acceptable to the City), indemnify, and hold harmless the City of Oakland, the Oakland City Council, the City of Oakland Redevelopment Agency, the Oakland City Planning Commission and its respective agents, officers, and employees (hereafter collectively called City) from any liability, damages, claim, judgment, loss (direct or indirect) action, causes of action, or proceeding (including legal costs, attorneys' fees, expert witness or consultant fees, City Attorney or staff time, expenses or costs) (collectively called "Action") against the City to attack, set aside, void or annul, (1) an approval by the City relating to a development-related application or subdivision or (2) implementation of an approved development-related project. The City may elect, in its sole discretion, to participate in the defense of said Action and the applicant shall reimburse the City for its reasonable legal costs and attorneys' fees.
- b. Within ten (10) calendar days of the filing of any Action as specified in subsection A above, the applicant shall execute a Letter 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 Agreement does not relieve the applicant of any of the obligations contained in this condition or other requirements or conditions of approval that may be imposed by the City.

8. Compliance with Conditions of Approval

Ongoing

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

9. Severability

Ongoing

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

10. 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 by City officials and project developer 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 third-party 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 review 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. Operational Noise-General

Ongoing.

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

13. Lighting Plan

Prior to the issuance of an electrical or building permit

The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans shall be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. All lighting shall be architecturally integrated into the site.

SPECIFIC PROJECT CONDITIONS

14. Emissions Report

Prior to final inspection

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

15. Encroachment Permits

Prior to issuance of a demolition, grading or building permit

The applicant shall obtain any encroachment permits, waiver of damages or other approvals required by the Building Services Division, for any privately constructed public improvements, or any permanent or temporary elements located in the public right of way. This shall include telecommunication equipment, overhead wires, underground trenching, etc.

APPROVED BY:

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

CONDITIONS OF APPROVAL



PROJECT: NETWORK VISION MM
MARKET: SAN FRANCISCO BAY

SF33XC712-B-THORNHILL DRIVE WEST

5745 THORNHILL DR
OAKLAND, CA 94611

PROJECT DESCRIPTION

A MODIFICATION TO AN (E) UNLICENSED TELECOMMUNICATION FACILITY CONSISTING OF REMOVING A REPEATING AN (E) FAULT CARRIER W/ (N) 9-0-705-07 RFP REHOUSE & (2) (E) SPRINT ANTENNAS W/ (2) (N) ANTENNAS AS WELL AS ADDING (4) (N) SPRINT REO/S, A (N) GPS ANTENNA & (2) (N) HYBRID CABLES FOR FIBER & DC POWER ROUTED THRU (E) 12" CABLE TRAY, ALSO REMOVING (3) (E) SPRINT CABINETS & REPEATING W/ A (N) SPRINT BATTERY CABINET & ADDING A (N) MMS CABINET.

PROJECT INFORMATION

SITE NAME: THORNHILL DRIVE WEST
COUNTY: ALAMEDA
APN: 480-1420-2
SITE ADDRESS: 5745 THORNHILL DR, OAKLAND, CA 94611
TELEPHONE: AIRET
CURRENT ZONING: -
CONSTRUCTION TYPE: V
OCCUPANCY TYPE: U, (UNLICENSED COMMUNICATIONS FACILITY)
PROPERTY OWNER: CARLOS M. YANG & ALIDA HALEPIN
APPLICANT: BLACK & VEATCH
2899 OAK RD, SUITE 490
WALNUT CREEK, CA 94597
LEASING CONTACT: ATRN. LARRY HOUGHTBY
(925) 948-5976
ZONING CONTACT: ATRN. LARRY HOUGHTBY
(916) 275-4180
CONSTRUCTION CONTACT: ATRN. KEN FOSTER
(925) 281-4675
LATITUDE: N 37° 50' 55" NAD 83
LONGITUDE: W 122° 12' 44.6" NAD 83
AMSL: 1435

VICINITY MAP



DRIVING DIRECTIONS

FROM: 2899 OAK RD, SUITE 490, WALNUT CREEK, CA 94597
TO: 5745 THORNHILL DR, OAKLAND, CA 94611

1. HEAD SOUTHEAST ON OAK RD TOWARD COONS DR
2. TURN RIGHT ONTO TREAT BLVD
3. CONTINUE STRAIGHT TO STAY ON TREAT 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 LAFFETTE/OAKLAND
8. MERGE ONTO CA-24 W
9. TAKE EXIT 54 TO MERGE ONTO CA-13 S TOWARD HAYWARD
10. TAKE EXIT 4 FOR MORAGA AVENUE E TOWARD THORNHILL DRIVE
11. MERGE ONTO MORAGA AVE
12. TURN LEFT TOWARD THORNHILL DR
13. TURN LEFT ONTO THORNHILL DR

DESTINATION WILL BE ON THE LEFT

END AT: 5745 THORNHILL DR, OAKLAND, CA 94611
ESTIMATED TIME: 20 MINUTES ESTIMATED DISTANCE: 15.1 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 CONSTRUED TO PREVENT WORK NOT CONFORMING TO THESE CODES:

1. 2010 CALIFORNIA ADMINISTRATIVE CODE (NCL, 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 CODES
 8. CITY/COUNTY ORDINANCES
 9. AHS/BA-1A-222-G
- ALONG WITH ANY OTHER APPLICABLE LOCAL & STATE LAWS AND REGULATIONS

DISABLED ACCESS REQUIREMENTS

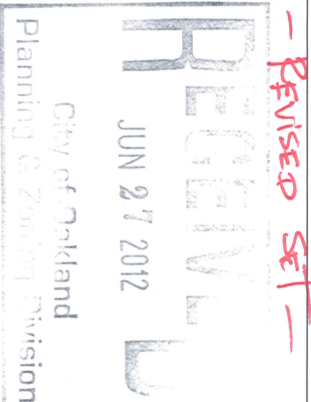
THIS FACILITY IS UNLICENSED & NOT FOR HUMAN HABITATION. DISABLED ACCESS & REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA STATE BUILDING CODE TITLE 24 PART 2, SECTION 11348.2.1, EXCEPTION 4.

SHEET INDEX

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

APPROVAL

RF	REVISION
RF	
LEASING	
ZONING	
CONSTRUCTION	



THORNHILL DRIVE WEST
SF33XC712-B
5745 THORNHILL DR
OAKLAND, CA 94611

DATE	DESCRIPTION
03/09/12	20 90% U.S.
04/02/12	20 100% U.S.
04/02/12	20 100% U.S.
06/27/12	CLIENT REV. U.S.
06/27/12	CLIENT REV. U.S.

DRAWN BY: M. STARR
CHECKED BY: L. HOUGHTBY
APPROVED BY: -
DATE: 06/27/12

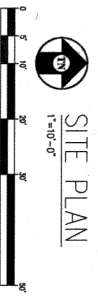
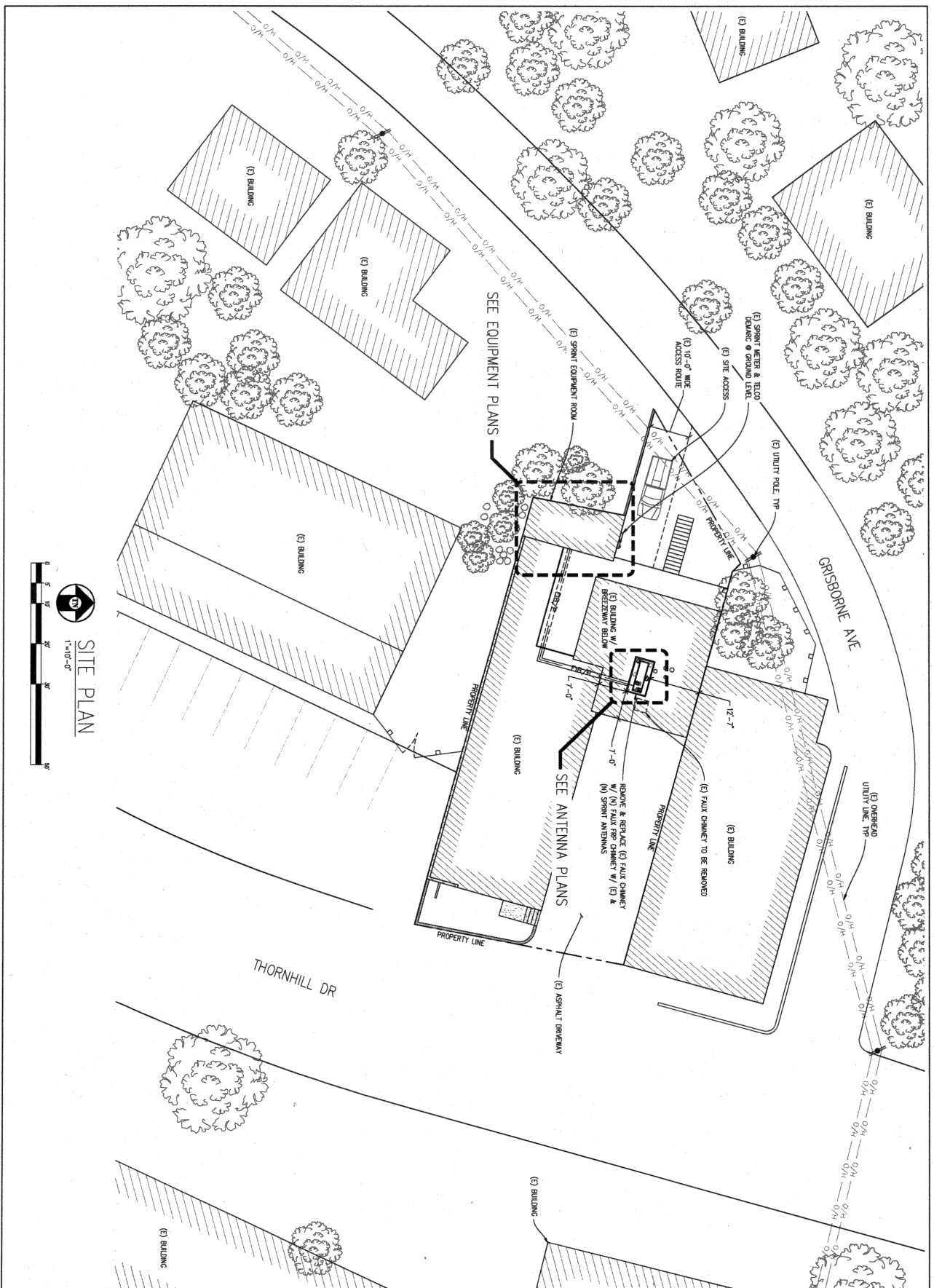
Streamline Engineering and Design Inc.
3268 Perenn Rd, Suite 200 Loomis, CA 95600
Contact: Larry Houghtby Phone: 916-275-4180
E-Mail: larry@streamlineeng.com Fax: 916-660-1941



12657 ALCOSTA BLVD SUITE 300
SAN RAMON, CA 94583

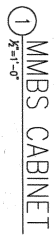
SHEET TITLE:
TITLE
SHEET NUMBER:
T-1

ATTACHMENT C



SITE PLAN

<p>SHEET TITLE: SITE PLAN</p> <p>SHEET NUMBER: A-1</p>	<p>12657 ALCOSTA BLVD SUITE 300 SAN RAMON, CA 94583</p>	<p>Streamline Engineering and Design, Inc.</p> <p>3288 Penryn Rd, Suite 200 Loomis, CA 95650 Contact: Larry Houghtby Phone: 916-275-4100 E-Mail: larry@streamlineeng.com Fax: 916-860-1941</p> <p><small>THESE PLANS AND SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF STREAMLINE ENGINEERING AND DESIGN INC. NO PART OF THESE PLANS OR SPECIFICATIONS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. Copyright © 2006, Streamline Engineering and Design, Inc. All rights reserved.</small></p>	<p>ISSUE STATUS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>A</th> <th>DATE</th> <th>DESCRIPTION</th> <th>M.S.</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>09/27/12</td> <td>2D DWG</td> <td>M.S.</td> </tr> <tr> <td>02</td> <td>09/27/12</td> <td>3D DWG</td> <td>M.S.</td> </tr> <tr> <td>03</td> <td>09/27/12</td> <td>CLEAR REV</td> <td>J.K.</td> </tr> <tr> <td>04</td> <td>09/27/12</td> <td>CLEAR REV</td> <td>J.K.</td> </tr> </tbody> </table> <p>DESIGN BY: M. STARR CHECKED BY: L. HOUGHTBY APPROVED BY: - DATE: 09/27/12</p>	A	DATE	DESCRIPTION	M.S.	01	09/27/12	2D DWG	M.S.	02	09/27/12	3D DWG	M.S.	03	09/27/12	CLEAR REV	J.K.	04	09/27/12	CLEAR REV	J.K.	<p>THORNHILL DRIVE WEST</p> <p>SE33XC712-B 344 THORNHILL LANE OAKLAND, CA 94611</p>
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02	09/27/12	3D DWG	M.S.																					
03	09/27/12	CLEAR REV	J.K.																					
04	09/27/12	CLEAR REV	J.K.																					



ISSUE STATUS			
Δ	DATE	DESCRIPTION	M.S.
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	04/03/12	ZD 100%	M.S.
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	06/27/12	CLIENT REV	J.M.
	-	-	-
	-	-	-

DRAWN BY:	M. STARR
CHECKED BY:	L. HOUGHTBY
APPROVED BY:	-
DATE:	06/27/12

StreamLine Engineering
and Design, Inc.

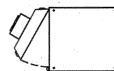
3268 Penryn Rd, Suite 200 Loomis, CA 95650
Contact: Larry Houghtby Phone: 916-275-4180
E-Mail: larry@streamlineeng.com Fax: 916-650-1941

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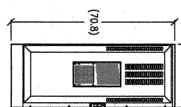


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SHEET NUMBER:	

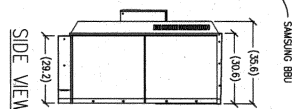
A-2



TOP VIEW

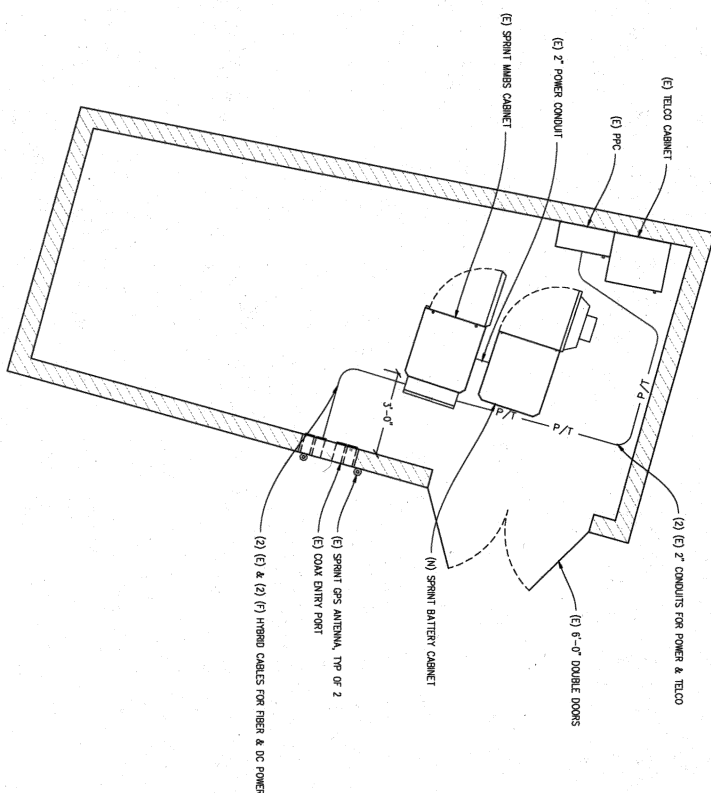


FRONT VIEW



SIDE VIEW

① BATTERY CABINET
1/8"=1'-0"



FINAL CONFIGURATION EQUIPMENT PLAN
1/8"=1'-0"



**THORNHILL
DRIVE
WEST**
SF33XC712-B
5745 THORNHILL DR
OAKLAND, CA 94661

ISSUE STATUS

A	DATE	DESCRIPTION	BY
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2	05/09/12	2D DWG	M.S.
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4	06/27/12	CLIENT REV	J.L.K.

DRAWN BY: M. STARR

CHECKED BY: L. HUGHES

APPROVED BY: -

DATE: 06/27/12

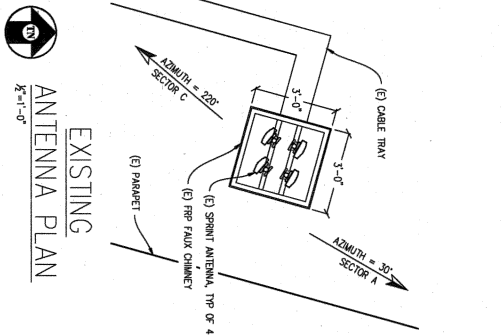
Streamline Engineering
and Design, Inc.
3268 Penryn Rd, Suite 200 Loomis, CA 95660
Contact: Larry Houghtby Phone: 916-275-4190
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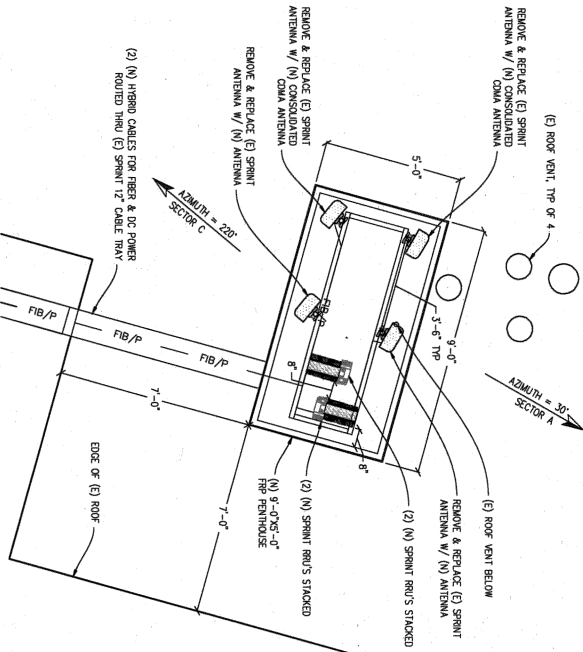
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12657 ALCOSTA BLVD SUITE 300
SAN RAMON, CA 94583

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EQUIPMENT PLAN & DETAIL
SHEET NUMBER:
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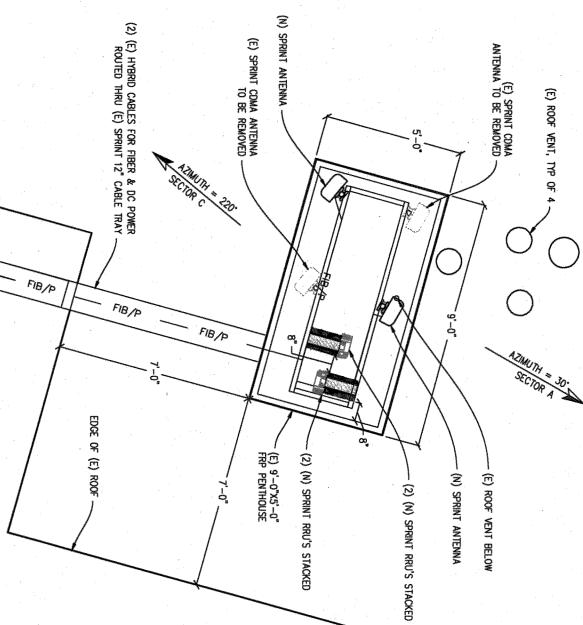
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					NO. OF RIS	NO. OF RIS	NUMBER OF RIS	NUMBER OF RIS	NO. OF RIS	HYBRID CABLE LENGTH (LINEAR FEET)	NO. OF COAX CABLES	COAX DIA.	COAX LENGTH
ALPHA SECTOR													
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A2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
A3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
BETA SECTOR													
B1	800/1900 MHz	PGS-16-XLP-RH	25'-7"	220°	1	1	1	1	1				
B2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
B3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
GAMMA SECTOR													
G1	800/1900 MHz	PGS-16-XLP-RH	25'-7"	30°	1	1	1	1	1				
G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				



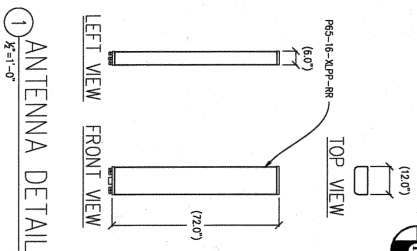
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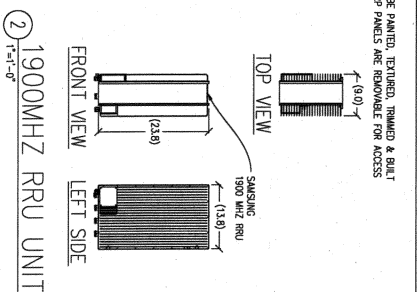
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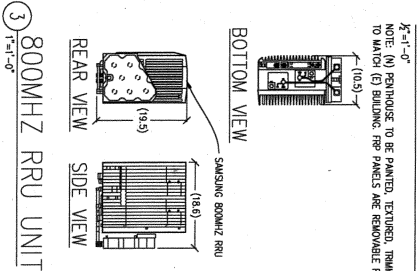
FINAL CONFIGURATION ANTENNA PLAN
1/2"=1'-0"



ANTENNA DETAIL
1/2"=1'-0"



1900MHZ RRU UNIT
1/2"=1'-0"



800MHZ RRU UNIT
1/2"=1'-0"

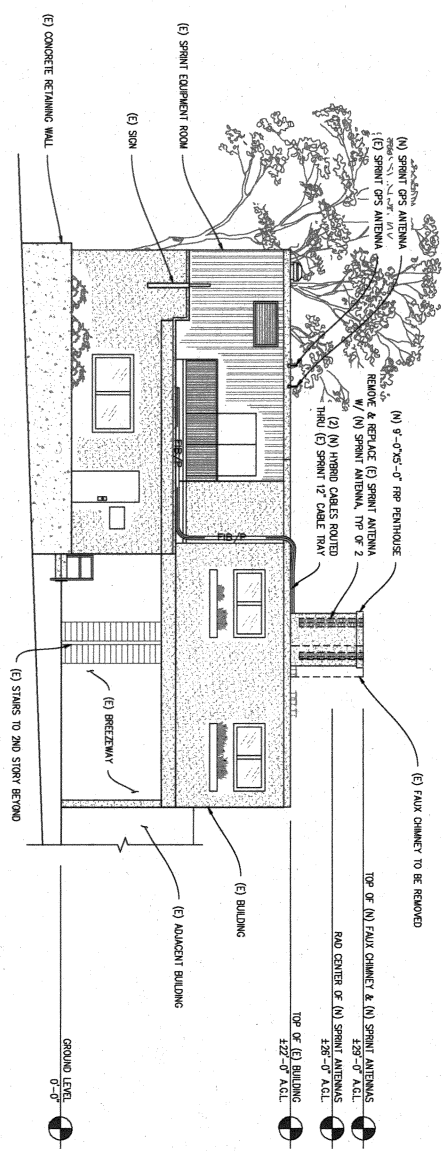
THORNHILL
DRIVE
WEST
SF33XC712-B
5745 THORNHILL DR
OAKLAND, CA 94611

ISSUE STATUS	
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84	06/27/12 CLIENT REV
85	06/27/12 CLIENT REV
86	06/27/12 CLIENT REV
87	06/27/12 CLIENT REV
88	06/27/12 CLIENT REV
89	06/27/12 CLIENT REV
90	06/27/12 CLIENT REV
91	06/27/12 CLIENT REV
92	06/27/12 CLIENT REV
93	06/27/12 CLIENT REV
94	06/27/12 CLIENT REV
95	06/27/12 CLIENT REV
96	06/27/12 CLIENT REV
97	06/27/12 CLIENT REV
98	06/27/12 CLIENT REV
99	06/27/12 CLIENT REV
100	06/27/12 CLIENT REV

Streamline Engineering
and Design, Inc.
3288 Penryn Rd, Suite 200 Loomis, CA 95650
Contact: Larry Houghtby Phone: 916-275-4180
E-Mail: larry@streamlineeng.com Fax: 916-660-1941

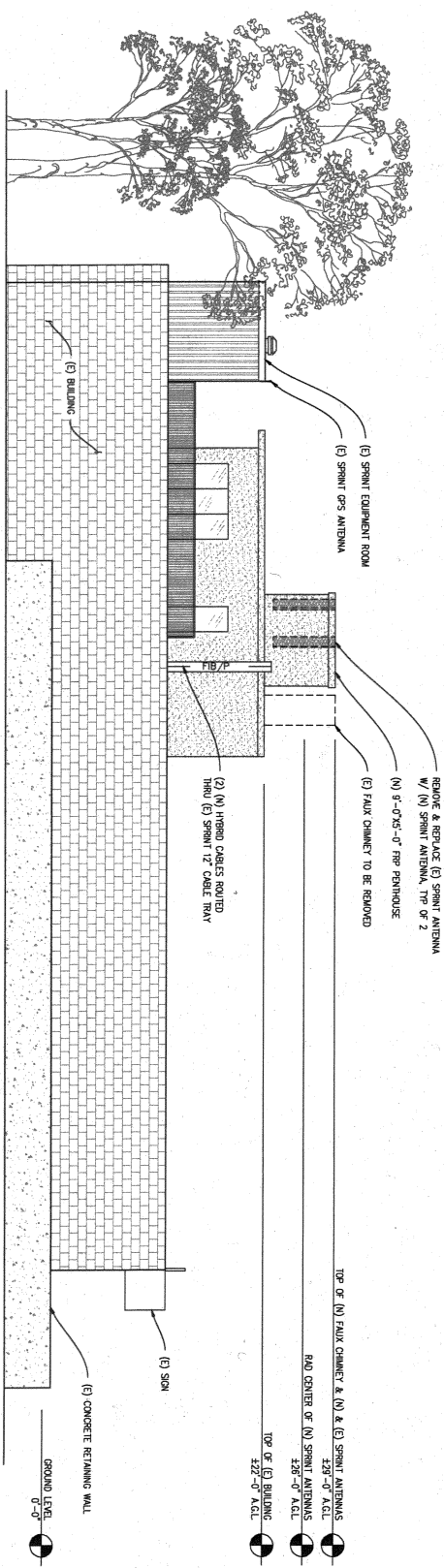
Sprint
12657 ALCASTA BLVD SUITE 300
SAN RAMON, CA 94583

SHEET TITLE:
EXISTING/INTERIM & FINAL
ANTENNA PLANS & DETAILS
SHEET NUMBER:
A-4



EAST ELEVATION

1/8"=1'-0"
 NOTE: (N) PENHOUSE TO BE PAINTED, TEXTURED, TRIMMED & BUILT TO MATCH (E) BUILDING. FRP PANELS ARE REMOVABLE FOR ACCESS



SOUTHWEST ELEVATION

1/8"=1'-0"
 NOTE: (N) PENHOUSE TO BE PAINTED, TEXTURED, TRIMMED & BUILT TO MATCH (E) BUILDING. FRP PANELS ARE REMOVABLE FOR ACCESS

**THORNHILL
 DRIVE
 WEST**
 SF33XC712-B
 5745 THORNHILL DR
 OAKLAND, CA 94611

ISSUE STATUS	
A. DATE	DESCRIPTION
02/09/12	01 20% MS
05/01/12	20 30% MS
05/01/12	40 60% MS
05/27/12	CLIENT REV K2
	CLIENT REV J1K

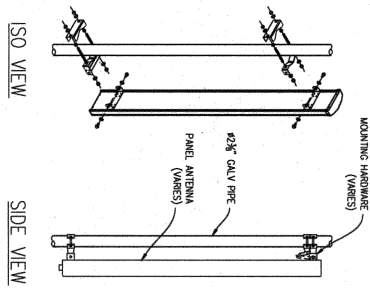
DRAWN BY: M. STARR
 CHECKED BY: L. HOUGHTBY
 APPROVED BY: -
 DATE: 04/27/12

**Streamline Engineering
 and Design, Inc.**
 3288 Penryn Rd, Suite 200 Loomis, CA 95650
 Contact: Larry Houghtby Phone: 916-275-4180
 E-Mail: larry@streamlineeng.com Fax: 916-850-1941

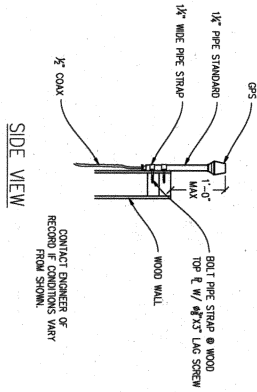


12657 ALCOSTA BLVD SUITE 300
 SAN RAMON, CA 94583

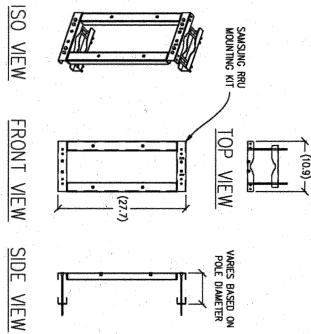
SHEET TITLE
ELEVATIONS
SHEET NUMBER
A-5



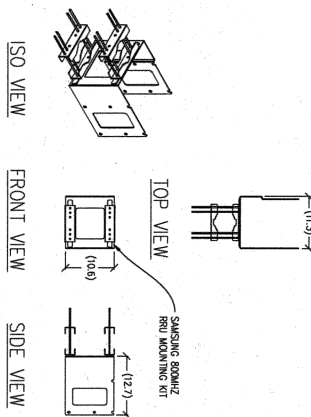
1 ANTENNA MOUNT DETAIL
1"=1'-0"



4 GPS ANTENNA DETAIL
1"=1'-0"



2 1900MHZ RRU PIPE MOUNT
1"=1'-0"



3 800MHZ RRU PIPE MOUNT
1"=1'-0"

**THORNHILL
DRIVE
WEST**
SAN RAMON, CA 94561
SF33XC712-B

ISSUE STATUS	
AL	DESCRIPTION
05/09/12	2D SWK M.S.
06/03/12	2D SWK J.K.
06/17/12	CLIENT REV K.P.
06/27/12	CLIENT REV J.K.
-	-
-	-
DRAWN BY:	M. STARR
CHECKED BY:	L. HODGKINBY
APPROVED BY:	-
DATE:	06/27/12

StreamLine Engineering
and Design, Inc.

3288 Penryn Rd, Suite 200 Loomis, CA 95660
Contact: Larry Houghtby Phone: 916-272-4180
E-Mail: larry@streamlineeng.com Fax: 916-682-1941
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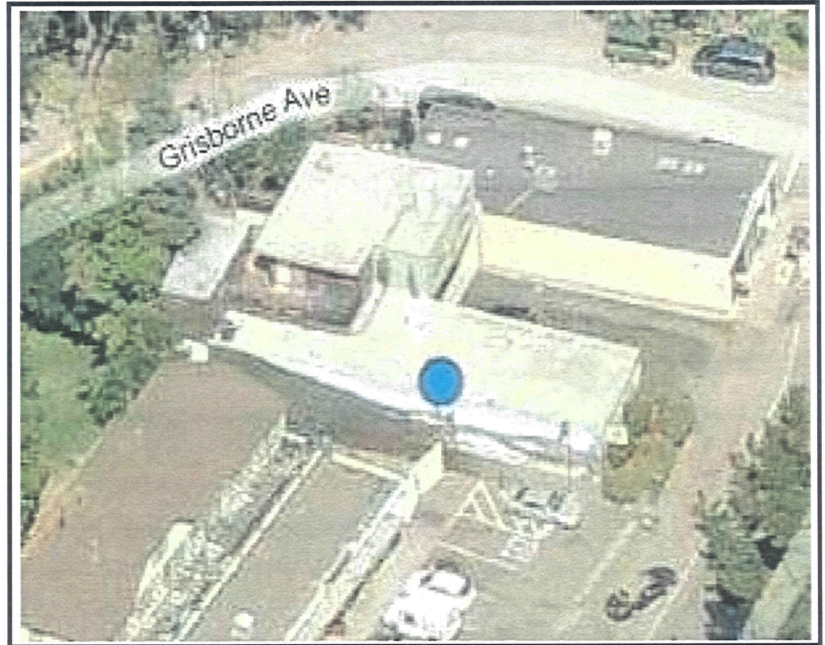
Sprint

12857 ALCOSTA BLVD SUITE 300
SAN RAMON, CA 94583

SHEET TITLE:
DETAILS
SHEET NUMBER:
A-6

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

Prepared for:
Sprint Nextel
c/o Black & Veatch Corporation
2999 Oak Rd. Suite 910
Walnut Creek, CA 94597



Site No. SF33XC712
Thornhill Drive West
5745 Thornhill Dr.
Oakland, California 94611
Alameda County
37.834889; -122.212389 NAD83
rooftop

EBI Project No. 62120987
May 3, 2012



ATTACHMENT D

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 SF33XC712 located at 5745 Thornhill Dr. 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 11.0 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.

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

This project involves the removal of four (4) existing antennas and replaced with two (2) proposed Sprint wireless telecommunication antennas on a rooftop located at 5745 Thornhill Dr. in Oakland, California. There are two Sectors (A and C) proposed to be replaced at the site, with one (1) antenna that may be re-installed per sector.

There were no collocated carriers on the rooftop.

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

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 four (4) existing antennas and replaced with two (2) proposed Sprint wireless telecommunication antennas on a rooftop located at 5745 Thornhill Dr. in Oakland, California. There are three Sectors (A and C) proposed to be replaced at the site, with one (1) antenna that may 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 antenna will be oriented 30° from true north. The Sector C antenna will be oriented 220° from true north. The bottoms of the Sector antennas will be 1 foot above the main roof level.

There were no collocated carriers on the rooftop.

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 five (5) 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 442 Watts. The ERP for the 1900 MHz transmitters combined on site is 4,113 Watts.

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 pipe mounted behind a faux chimney on a rooftop, operating in the directions, frequencies, and heights mentioned in section 4.0 above. This site appears to be located in a commercial/residential area.

8.0 ESTIMATED AMBIENT RADIO FREQUENCY FIELDS FOR THE PROPOSED SITE

Based on worst-case predictive modeling, there are predicted areas on accessible rooftop or groundlevel walking/working surface related to the proposed Sprint antennas that exceed the FCC's occupational and general public exposure limits at this site. At the nearest walking/working surfaces to the proposed Sprint antennas, the maximum power density is 1,638.10 percent of the FCC's general public limit (327.62 percent of the FCC's occupational limit). 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 is 13.40 percent of the FCC's general public limit (2.68 percent of the FCC's occupational limit). The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix B.

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 fields in front of the proposed antennas and therefore barriers are recommended.

Additionally, there are areas where workers elevated above the 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.

Additionally, access to this site is unknown. It is unknown if the site is monitored and as such, 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.

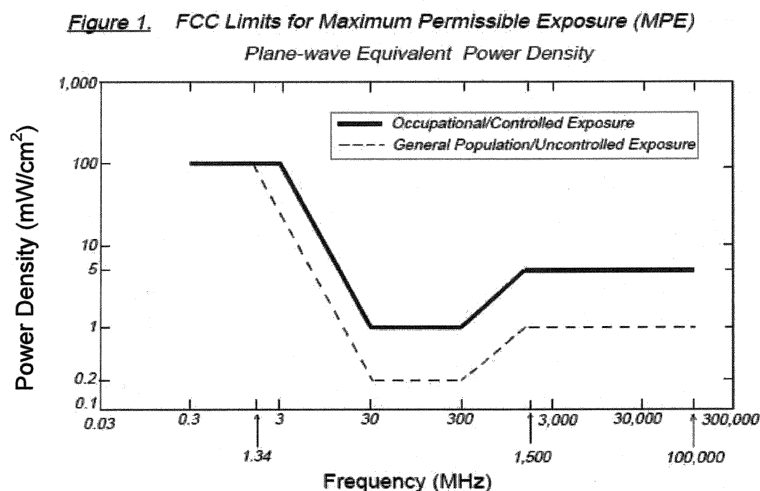
The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm²). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm²) and an uncontrolled MPE of 1 mW/cm² for equipment operating in the 1900 MHz frequency range. For the Sprint equipment operating at 800 MHz, the FCC's occupational MPE is 2.66 mW/cm² and an uncontrolled MPE of 0.53 mW/cm². 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 ²)	Averaging Time [E] ² , [H] ² , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time [E] ² , [H] ² , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30

Table 1: 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 ²)	Averaging Time [E] ² , [H] ² , or S (minutes)
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)

* 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 ²	1.00 mW/cm ²
Cellular Telephone	870 MHz	2.90 mW/cm ²	0.58 mW/cm ²
Specialized Mobile Radio	855 MHz	2.85 mW/cm ²	0.57 mW/cm ²
Most Restrictive Freq. Range	30-300 MHz	1.00 mW/cm ²	0.20 mW/cm ²

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 5745 Thornhill Dr. in Oakland, California.

EBI has conducted theoretical modeling to estimate the worst-case power density from Sprint 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, the worst-case emitted power density may exceed the FCC's general public limit within approximately 3 feet of Sprint proposed antennas at the main roof level. Modeling also indicates that the worst-case emitted power density may exceed the FCC's occupational limit within approximately 12 feet of Sprint proposed antennas at the main roof level.

Posting of the signage and installation of the recommended barriers will bring the site into compliance with FCC rules and regulations.

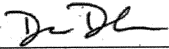
Appendix A

Certifications

Preparer Certification

I, Drew Duncklee, 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.



Appendix B
Roofview® Export File

Map, Settings, Antenna, and Symbol Data Table ... Exported from workbook -> RoofView 4.15.xls
Done on 5/2/2012 at 2:23:32 PM.

Use this format to prepare other data sets for the RoofView workbook file.

You may use as many rows in this TOP header as you wish.

The critical point are the cells in COLUMN ONE that read 'Start...' (eg. StartMapDefinition)

If used, these (4) headers are required to be spelled exactly, as one word (eg. StartMapDefinition)

The very next row will be considered the start of that data block.

The first row of the data block can be a header (as shown below), but this is optional.

When building a text file for import, Add the Map Info first, then the Antenna data, followed by the symbol data.

All rows above the first marker line 'Start...' will be ignored, no matter how many there are.

This area is for you use for documentation.

End of help comments.

You can place as much text here as you wish as long as you don't place it below

the Start Map Definition row below the blue line.

You may insert more rows using the Insert menu.

Should you need additional lines to document your project, simply insert additional rows

by highlighting the row number adjacent to the blue line below and then clicking on the Insert menu

and selecting rows.

StartMapDefinition

Roof Max > Map Max > Map Max > Y Offset X Offset Number of envelope

170 160 180 170 10 10 1 \$US41:\$FX \$US41:\$FX\$210

StartSettingsData

Standard Method

4

StartAntennaData

It is advisable to provide an ID (ant.1) for all antennas

ID	Name	Freq (MHz)	Trans Power	Trans Count	Coax Len	Coax Type	Coax Loss	Other Loss	Input Power	Calc Power	Mfg	Model	X	Y	Z	Type	Aper	Gain	Pt Dir	Optimz Profile
SPT C1		800	20	1	5	1/2 LDF	0.5	0.5	17.33924	KMW	1900 800 KMW 65 Type 1	1900 800 KMW 65 Type 1	22	22	1	6	13.2	70:220	ON*	
SPT C1		1900	20	2	5	1/2 LDF	0.5	0.5	34.67848	KMW	1900 800 KMW 65 Type 1	1900 800 KMW 65 Type 1	22	22	1	6	15.9	60:220	ON*	
SPT C1		1900	20	3	5	1/2 LDF	0.5	0.5	52.01771	KMW	1900 800 KMW 65 Type 1	1900 800 KMW 65 Type 1	22	22	1	6	15.9	60:220	ON*	
SPT A1		800	20	1	5	1/2 LDF	0.5	0.5	17.33924	KMW	1900 800 KMW 65 Type 1	1900 800 KMW 65 Type 1	27	25	1	6	13.2	70:30	ON*	
SPT A1		1900	20	2	5	1/2 LDF	0.5	0.5	34.67848	KMW	1900 800 KMW 65 Type 1	1900 800 KMW 65 Type 1	27	25	1	6	15.9	60:30	ON*	
SPT A1		1900	20	3	5	1/2 LDF	0.5	0.5	52.01771	KMW	1900 800 KMW 65 Type 1	1900 800 KMW 65 Type 1	27	25	1	6	15.9	60:30	ON*	

StartSymbolData

Map Mark: Roof X Roof Y Map Label Description (notes for this table only)

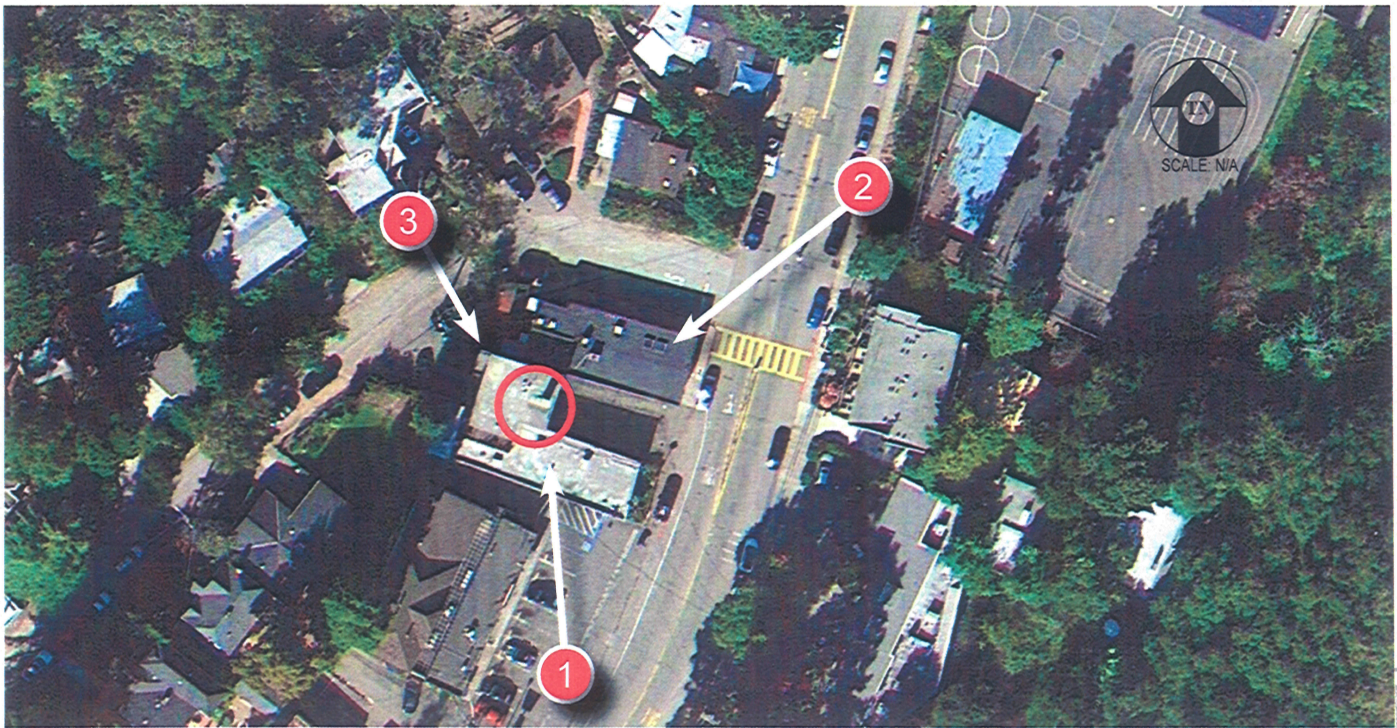
Sym 5 35 AC Unit Sample symbols

Sym 14 5 Roof Access

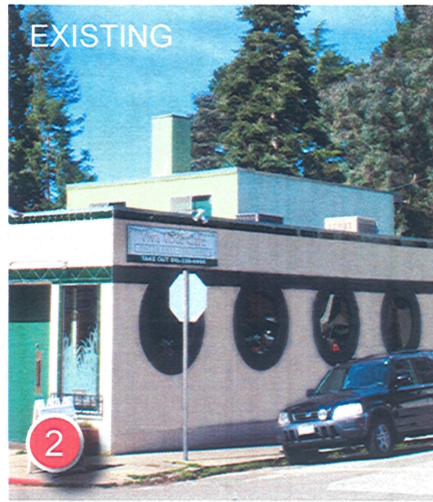
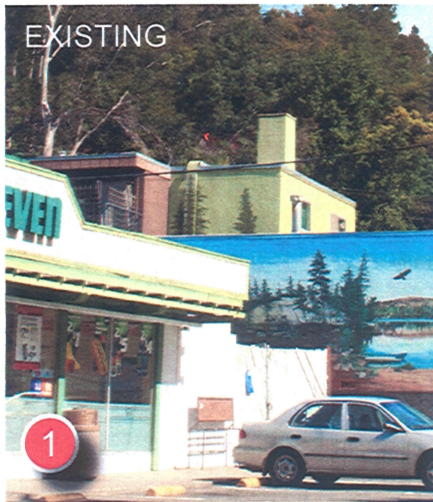
Sym 45 5 AC Unit

Sym 45 20 Ladder

List Of Areas
\$US41:\$FX



RECEIVED
JUN 27 2012
- REVISED SET -
City of Oakland
Planning & Zoning Division



ATTACHMENT E

- CMP12-056 -

StreamLine Engineering

and Design, Inc.

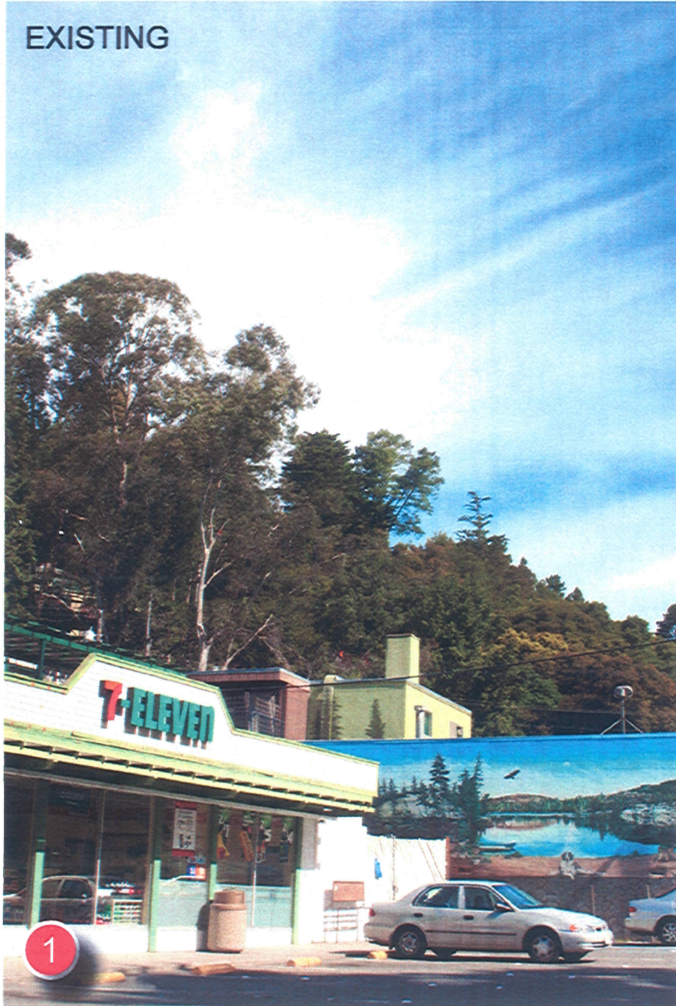
3268 PENRYN RD, SUITE 200 LOOMIS, CA 95650
PHONE: (916) 660-1930
FAX: (916) 600-1941



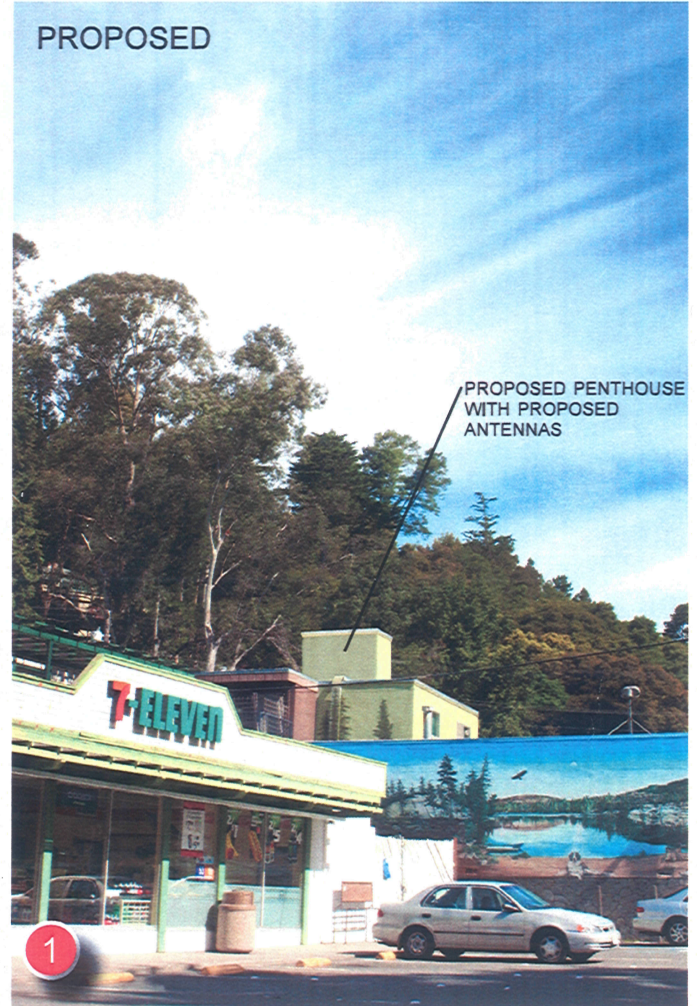
SITE PLAN & RESPECTIVE VIEWS
SPRINT-SF33XC712- THORNHILL DRIVE WEST
5745 THORNHILL DR, OAKLAND, CA 94611

06/22/12

EXISTING



PROPOSED



VIEW 1: LOOKING NW FROM THORNHILL DR
SPRINT-SF33XC712- THORNHILL DRIVE WEST
5745 THORNHILL DR, OAKLAND, CA 94611

Streamline Engineering
and Design, Inc.

3268 PENRYN RD, SUITE 200 LOOMIS, CA 95650
PHONE: (916) 660-1930
FAX: (916) 600-1941

06/22/12

EXISTING



PROPOSED

PROPOSED PENTHOUSE
WITH PROPOSED
ANTENNAS



VIEW 2: LOOKING SW FROM THORNHILL DR
SPRINT-SF33XC712- THORNHILL DRIVE WEST
5745 THORNHILL DR, OAKLAND, CA 94611

Streamline Engineering
and Design, Inc.

3268 PENRYN RD, SUITE 200 LOOMIS, CA 95650
PHONE: (916) 660-1930
FAX: (916) 600-1941

06/22/12



Streamline Engineering
and Design, Inc.



VIEW 3: LOOKING SE FROM GRISBORNE AVE
SPRINT-SF33XC712- THORNHILL DRIVE WEST
5745 THORNHILL DR, OAKLAND, CA 94611

3268 PENRYN RD, SUITE 200 LOOMIS, CA 95650
PHONE: (916) 660-1930
FAX: (916) 600-1941

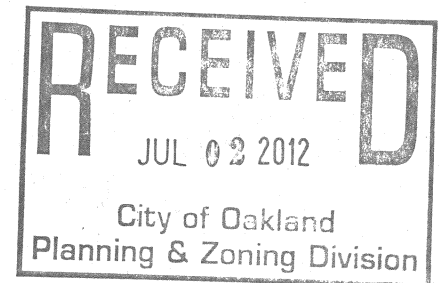
06/22/12

June 30, 2012

Karen Chambers
Owner & Resident
5747 Grisborne Avenue
Oakland, CA 94611

City Planning Commission
City of Oakland
Planning & Zoning Services

RE: 5745 Thornhill Drive (APN: 048G-7420-002-00)
Proposal to Relocate & Replace High Wireless Enclosure



To the Oakland City Planning Commission,

I am the owner and resident of 5747 Grisborne Avenue, a single family home that is located directly across the street from the building containing the wireless enclosure that is the subject of this proposal. I am writing this letter to voice concerns on behalf of my family and our neighborhood community.

About our neighborhood and this location:

1. The existing enclosure was installed in 2000. I did not become aware of its existence until this proposal was made nor was it disclosed when we purchased our home in 2005.
2. This antenna enclosure sits directly on top of a residential apartment. The address of this apartment is 5756 Grisborne Avenue. The equipment room is located approximately 5 feet from the apartment's front door and directly across from the apartment's kitchen.
3. There is a one block commercial strip that sits directly in and completely surrounded by our residential neighborhood. The building in question has residential homes surrounding it on 3 sides either adjacent to or directly across the street. The homes directly behind the cell tower are on an upslope and sit at an elevation that is at or above both the existing and the

Attachment 2

proposed cell tower – these homes sit in the direct path of the tower. The apartment building across the street on Thornhill is 3 stories tall and also sits in the direct path of the tower.

4. There are 4 pre-schools/day care facilities within ONE block of this facility.
5. Thornhill Elementary School is located diagonally across the street from this facility.
6. The Thornhill Coffee Shop is directly across the street from this building. This is a popular congregating spot for the neighborhood. Many Thornhill students hang out at the coffee shop for one to three hours each afternoon on school days socializing and doing homework until their parents pick them up. This is a direct line from the tower and a very short distance away.
7. There is a restaurant in the building next door to the tower.
8. The equipment room for this wireless facility is in the building which houses a vet hospital. Pets reside in the hospital overnight recovering from medical procedures.
9. This spot is inside a canyon where there is not great air flow in and out of the canyon.

What the Radio Frequency – Electromagnetic Energy Compliance Report states:

1. Section 8.0 states, “Based on worst-case predictive modeling, there are predicted areas on accessible rooftop or ground level walking/working surface related to the propose Sprint antennas that **exceed the FCC’s occupational and general public limits at this site. At the nearest walking walking/working surfaces to the proposed Sprint antennas, the maximum power density is 1,638.10 percent of the FCC’s general public limit.**”
2. The limits for General Public exposure (which includes nearby residential areas) set out in Table 1. The average time of exposure listed in this table is **30 minutes.**
3. After Table 1, the report states, “Antennas are constructed to concentrate **energy towards the horizon...**”

Summary of Concerns

- The tower is emitting **164 TIMES** the FCC’s general public limit.
- Even the “worst-case” predictive modeling only assumes an average exposure of 30 minutes for the General Public. What about all the people who live, work and attend school within a stone’s throw of this tower?

- This cell tower sits directly on a residential apartment and is only a few feet above the bedrooms in this apartment. These residents are at even greater risk than occupational workers as they LIVE within 12 feet of the tower.
- This tower also sits at the same elevation of several surrounding homes that will be in the direct path of the energy emission coming from this tower.
- The neighborhood includes babies, young children and young teens who will be particularly vulnerable to any radiation exposure, particularly in light of the fact that they are in their homes up to 24 hours a day.
- Our community also includes stay at home parents and work at home parents. These people are subjected to 20 plus hours a day of elevated radiation exposure, especially those in homes at the height of the tower.
- There are **FIVE** preschool, daycare, and elementary school facilities within one block of this tower. These kids will be exposed for several hours each day to elevated levels of radiation from this tower.

We are asking the Planning Commission to deny the Conditional Use Permit and remove this harmful threat from our community. We are prepared to exhaust all avenues to eliminate this threat from our community.

Thank you for your consideration.

Regards, Karen Chambers



MAILING ADDRESS:
6114 LASALLE AVENUE
SUITE 488
OAKLAND, CA 94611

(510) 338-0220 PHONE
(510) 338-0202 FAX
MYRA@MITZMAN.COM

June 29, 2012

(510) 238-4730-Fax
MRivera@oaklandnet.com

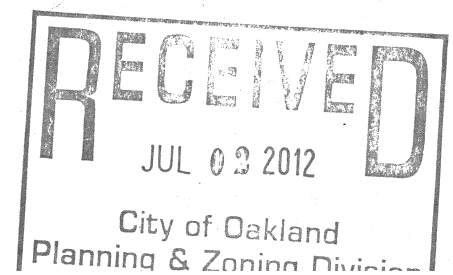
City Planning Commission
City of Oakland
Planning & Zoning Services

Re: 5745 Thornhill Drive (APN: 048G-7420-002-00)
Proposal to relocate and replace the existing 9 s.f., 7' high wireless enclosure with a new 45 s.f., 7' high wireless enclosure that would replace 4 antenna panels with 2 new concealed antenna panels, collocate 4 concealed small Radio Remote Unit (RRU) antennas and to replace 3 equipment cabinets with 2 concealed cabinets, located on the roof of a commercial facility
Hearing Date: July 11, 2012

Ladies and Gentlemen:

I am the homeowner at 5741 Grisborne Avenue, Oakland, California. I am writing this letter on behalf of myself and my family, as well as other concerned Grisborne Avenue residents, inasmuch as the proposed structure is located in the midst of a residential neighborhood surrounded by several homes at a similar elevation, as well as restaurants, schools and childcare facilities at street level.

After reading through the materials Mike Rivera forwarded to Karen Chambers Siegel on June 27th, I must say we are quite concerned about the information contained in the Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report prepared for Sprint Nextel by EBI Consulting (the "Report"). According to the Report, the proposed tower is going to emit "1,638.10 percent" (i.e., almost 164 **TIMES**) the maximum level of permitted radiation under FCC guidelines (see Section 8.0 of the Report) at the "nearest walking/working surface," which presumably means on the roof next to the proposed facility. The proposed cell tower will sit directly on top of a residential apartment whose tenants live a scant few feet below these high levels of potentially harmful radiation. Moreover, the homes on the North side of Grisborne Avenue and the South side of Thornhill Drive are likewise at approximately the same elevation and in close proximity to the proposed tower. As such, nearby residents are extremely vulnerable to the adverse effects of higher-than-permissible EMF levels as our homes are not at "ground level".



As the Report clearly states, this new tower will generate levels of EMF's obscenely in excess of FCC permitted levels at the tower site. Many of the immediate neighbors, myself included, have children and include stay-at-home and work-at-home parents. These people will be exposed up to 24 hours per day to unacceptably high levels of radiation.

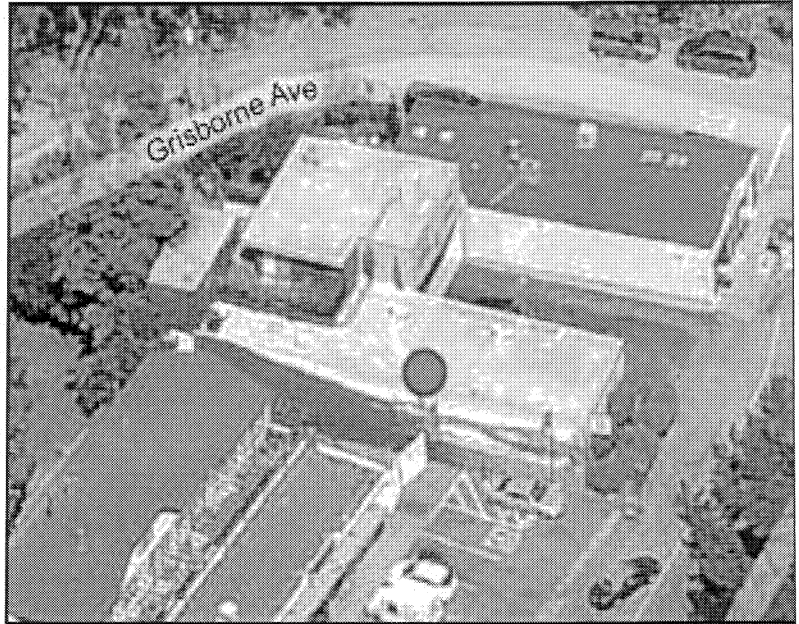
For the above reasons, I hereby go on record as strenuously opposing the granting of the proposed Conditional Use Permit and intend to exhaust all avenues of appeal if it is granted.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Myra Mitzman", with a stylized, flowing script.

Myra S. Mitzman

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

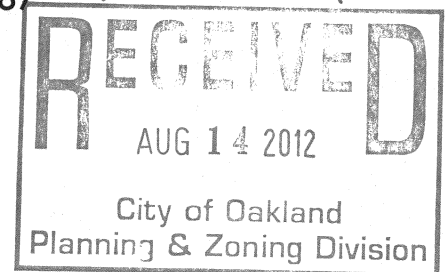


Prepared for:
Sprint Nextel
c/o Black & Veatch Corporation
2999 Oak Rd. Suite 910
Walnut Creek, CA 94597

Site No. SF33XC712
Thornhill Drive West
5745 Thornhill Drive
Oakland, California 94611
Alameda County
37.834889; -122.212389 NAD83
rooftop

EBI Project No. 62120987
August 13, 2012

-REVISED REPORT-



EXECUTIVE SUMMARY

Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by Sprint Nextel to conduct radio frequency electromagnetic (RF-EME) monitoring and modeling for Sprint Site SF33XC712 located at 5745 Thornhill Drive 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 11.0 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 monitoring and modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

EBI field personnel visited this site on August 10, 2012. 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.

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

This project involves the removal of four (4) existing antennas and replaced with two (2) proposed Sprint wireless telecommunication antennas on a rooftop located at 5745 Thornhill Drive in Oakland, California. There are two Sectors (A and C) proposed to be replaced at the site, with one (1) antenna that may be re-installed per sector.

EBI conducted a site visit on August 10, 2012. No additional carriers were collocated on the two-story rooftop located at 5745 Thornhill Drive in Oakland, California. Measurements were taken at the rooftop and ground to record existing RF-EME levels resulting from the existing Sprint antennas prior to the installation of Sprint's proposed equipment.

During the survey, no spatially averaged power density readings above 2.4160% of the FCC's occupational MPE (12.0800% of the general public MPE) were encountered on any rooftop surface. In addition, no spatially averaged power density readings greater than 4.0490% of the FCC's uncontrolled or general public MPE were encountered at ground level.

Monitoring results are presented in Appendix C.

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

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 four (4) existing antennas and replaced with two (2) proposed Sprint wireless telecommunication antennas on a rooftop located at 5745 Thornhill Drive in Oakland, California. There are two Sectors (A and C) proposed to be replaced at the site, with one (1) antenna that may 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 antenna will be oriented 30° from true north. The Sector C antenna will be oriented 220° from true north. The bottoms of the antennas will be 1 foot above the main roof level.

There were no collocated carriers on the rooftop.

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 five (5) 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 442 Watts. The ERP for the 1900 MHz transmitters combined on site is 4,114 Watts.

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 pipe-mounted behind a faux chimney on a rooftop, operating in the directions, frequencies, and heights mentioned in section 4.0 above. This site appears to be located in a commercial/residential area.

8.0 ESTIMATED AMBIENT RADIO FREQUENCY FIELDS FOR THE PROPOSED SITE

Based on worst-case predictive modeling, there are predicted areas on accessible rooftop-level walking/working surfaces related to the proposed Sprint antennas that exceed the FCC's occupational and general public exposure limits at this site. At the nearest walking/working surfaces to the proposed Sprint antennas, the maximum power density is 1,638.10 percent of the FCC's general public limit (327.62 percent of the FCC's occupational limit). 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 is 13.40 percent of the FCC's general public limit (2.68 percent of the FCC's occupational limit). The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix B.

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 fields in front of the proposed antennas and therefore barriers are recommended.

Additionally, there are areas where workers elevated above the 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.

At the time of the site survey, it was noted that there was a blue "Notice" sign located on the equipment room door on the lower roof.

Additionally, access to this site upper rooftop is accomplished via a portable extension ladder. Access to the facility is monitored and as such, the general public is not able to access the upper 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.

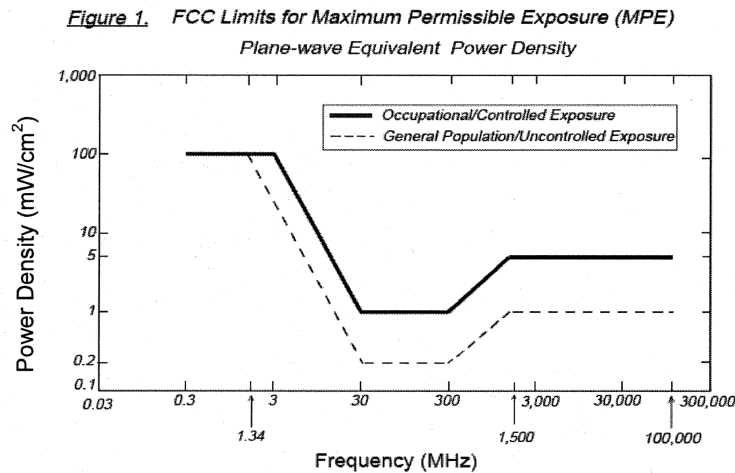
Table I and Figure I (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a 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 (cm²). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm²) and an uncontrolled MPE of 1 mW/cm² 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/cm² and an uncontrolled MPE of 0.53 mW/cm². These limits are considered protective of these populations.

Table 1: 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 ²)	Averaging Time [E] ² , [H] ² , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time [E] ² , [H] ² , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)

* 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 ²	1.00 mW/cm ²
Cellular Telephone	870 MHz	2.90 mW/cm ²	0.58 mW/cm ²
Specialized Mobile Radio	855 MHz	2.85 mW/cm ²	0.57 mW/cm ²
Most Restrictive Freq. Range	30-300 MHz	1.00 mW/cm ²	0.20 mW/cm ²

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 collected during the site survey and 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 5745 Thornhill Drive in Oakland, California.

EBI has conducted theoretical modeling combined with on site monitoring to estimate the worst-case power density from Sprint 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, the worst-case emitted power density may exceed the FCC's general public limit within approximately 12 feet of Sprint's proposed antennas at the upper roof level. Modeling also indicates that the worst-case emitted power density may exceed the FCC's occupational limit within approximately 3 feet of Sprint's proposed antennas at the upper roof level.

Additionally, based on the FCC criteria, there are no measured areas on any accessible rooftop and ground-level walking/working surface related to the existing site conditions that exceed the FCC's occupational and general public exposure limits at this site.

Signage has been installed at the site as presented in Section 9.0. Posting of the additional signage and installation of the recommended barriers will bring the site into compliance with FCC rules and regulations.

Appendix A

Certifications

Field Personnel Certification

I, David Oliver, state that:

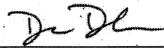
- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified "occupational" 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 been trained in the proper use of the RF-EME measurement equipment, and have successfully completed EBI training in the policies and procedures for site survey protocols.
- All information collected during the site survey and contained in this report is true and accurate to the best of my knowledge and based on the data gathered.



Preparer Certification

I, Drew Duncklee, 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 collected during the site survey and 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.



Appendix B
Roofview® Export File

Map, Settings, Antenna, and Symbol Data Table .. Exported from workbook -> RoofView 4.15.xls

Done on 5/2/2012 at 2:23:32 PM.

Use this format to prepare other data sets for the RoofView workbook file.

You may use as many rows in this TOP header as you wish.

The critical point are the cells in COLUMN ONE that read 'Start...' (eg. StartMapDefinition)

If used, these (4) headers are required to be spelled exactly, as one word (eg. StartMapDefinition)

The very next row will be considered the start of that data block.

The first row of the data block can be a header (as shown below), but this is optional.

When building a text file for import, Add the Map info first, then the Antenna data, followed by the symbol data.

All rows above the first marker line 'Start...' will be ignored, no matter how many there are.

This area is for you use for documentation.

End of help comments.

You can place as much text here as you wish as long as you don't place it below

the Start Map Definition row below the blue line.

You may insert more rows using the Insert menu.

Should you need additional lines to document your project, simply insert additional rows

by highlighting the row number adjacent to the blue line below and then clicking on the Insert menu

and selecting rows.

StartMapDefinition

Roof Max X Map Max Y Map Max X Y Offset X Offset Number of envelope

170 160 180 170 10 10 1 \$US41:\$FX \$US41:\$FX\$210

StartSettingsData

Standard Method Uptime Scale Fact Low Thr Low Color Mid Thr Mid Color Hi Thr Hi Color Over Color Ap Ht Mult Ap Ht Method

4 2 3 1 100 1 500 1 5000 2 3 1.5 1

StartAntennaData

ID Name Freq (MHz) Trans Power Count Len Type Coax Type Model X (ft) Y (ft) Z (ft) Type (ft) dBS Gain Pt Dir BWDth Uptime Profile ON flag

SPT C1	1900	20	1	5	1/2	LDF	0.5	17.33924	KMW	1900	800	K	22	22	1	1	13.2	70:220	ON	ON
SPT C1	1900	20	2	5	1/2	LDF	0.5	34.67848	KMW	1900	800	K	22	22	1	1	15.9	60:220	ON	ON
SPT C1	1900	20	3	5	1/2	LDF	0.5	52.01771	KMW	1900	800	K	22	22	1	1	15.9	60:220	ON	ON
SPT A1	800	20	1	5	1/2	LDF	0.5	17.33924	KMW	1900	800	K	27	25	1	1	13.2	70:30	ON	ON
SPT A1	1900	20	2	5	1/2	LDF	0.5	34.67848	KMW	1900	800	K	27	25	1	1	15.9	60:30	ON	ON
SPT A1	1900	20	3	5	1/2	LDF	0.5	52.01771	KMW	1900	800	K	27	25	1	1	15.9	60:30	ON	ON

StartSymbolData

Sym Map Mark Roof X Roof Y Map Label Description (notes for this table only)

Sym 5 35 AC Unit Sample symbols

Sym 14 5 Roof Access

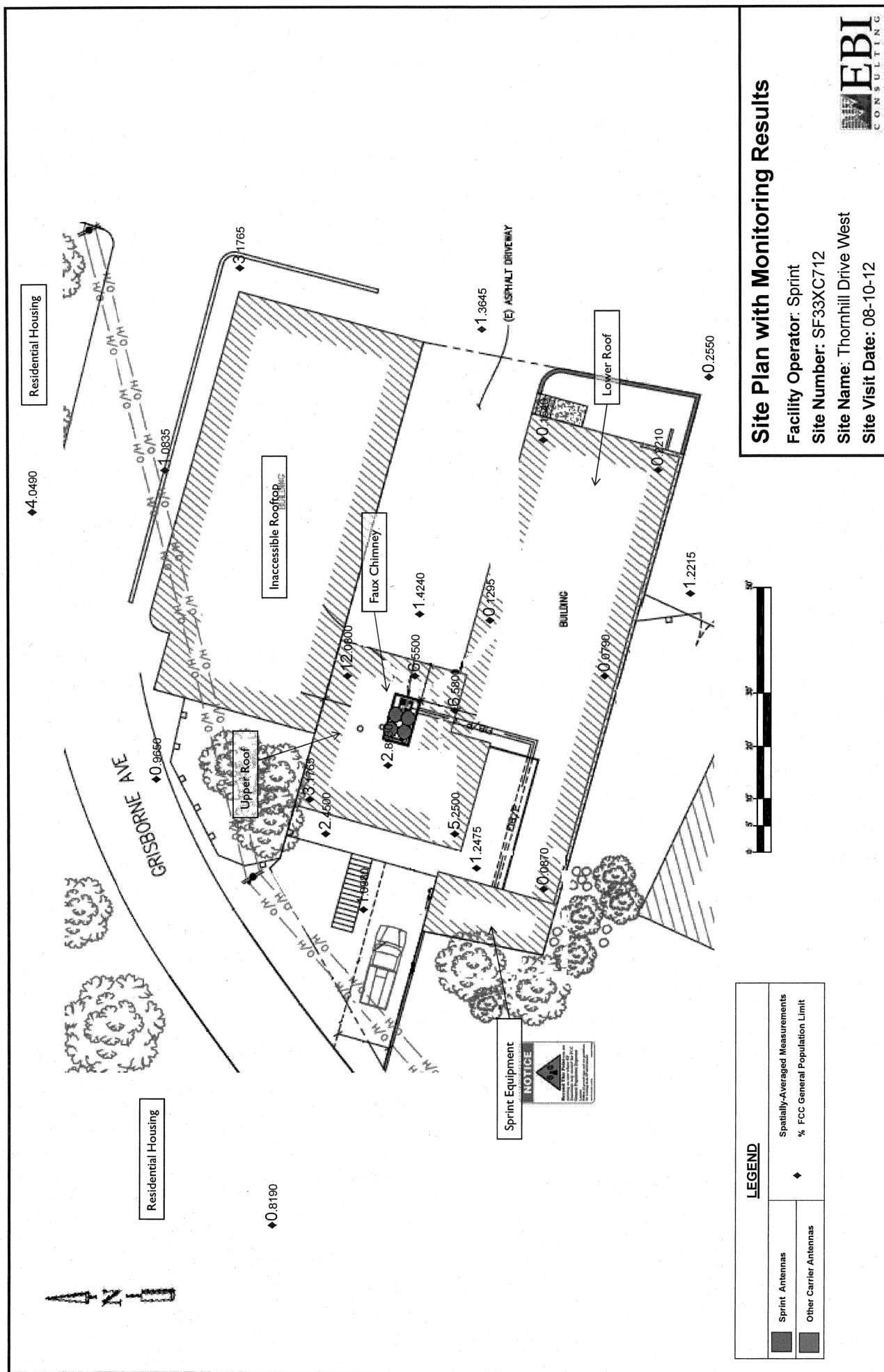
Sym 45 5 AC Unit

Sym 45 20 Ladder

List Of Area
\$US41:\$FX

Appendix C

Monitoring Plan



Site Plan with Monitoring Results

Facility Operator: Sprint
 Site Number: SF33XC712
 Site Name: Thornhill Drive West
 Site Visit Date: 08-10-12



LEGEND

Sprint Antennas	Spatially-Averaged Measurements
◆	% FCC General Population Limit
Other Carrier Antennas	
■	

Date: August 16, 2012
To: Streamline Engineering
From: Stephanie Penta, EBI
Re: Post Construction Monitoring SF33XC712

EBI has completed pre-construction monitoring and theoretical post construction monitoring at Sprint site SF33XC712 located in Oakland, CA. It was concluded that there were no levels above the FCC general public or occupational limits based on current conditions. It is recommended that on site monitoring is conducted post modification to ensure that the site is operating within the FCC limits. The theoretical modeling predicts conditions on site at the worst-case scenarios. On site monitoring will reflect actual emissions post modification.

Sincerely,



Stephanie Penta
Program Manager

Attachment 4

