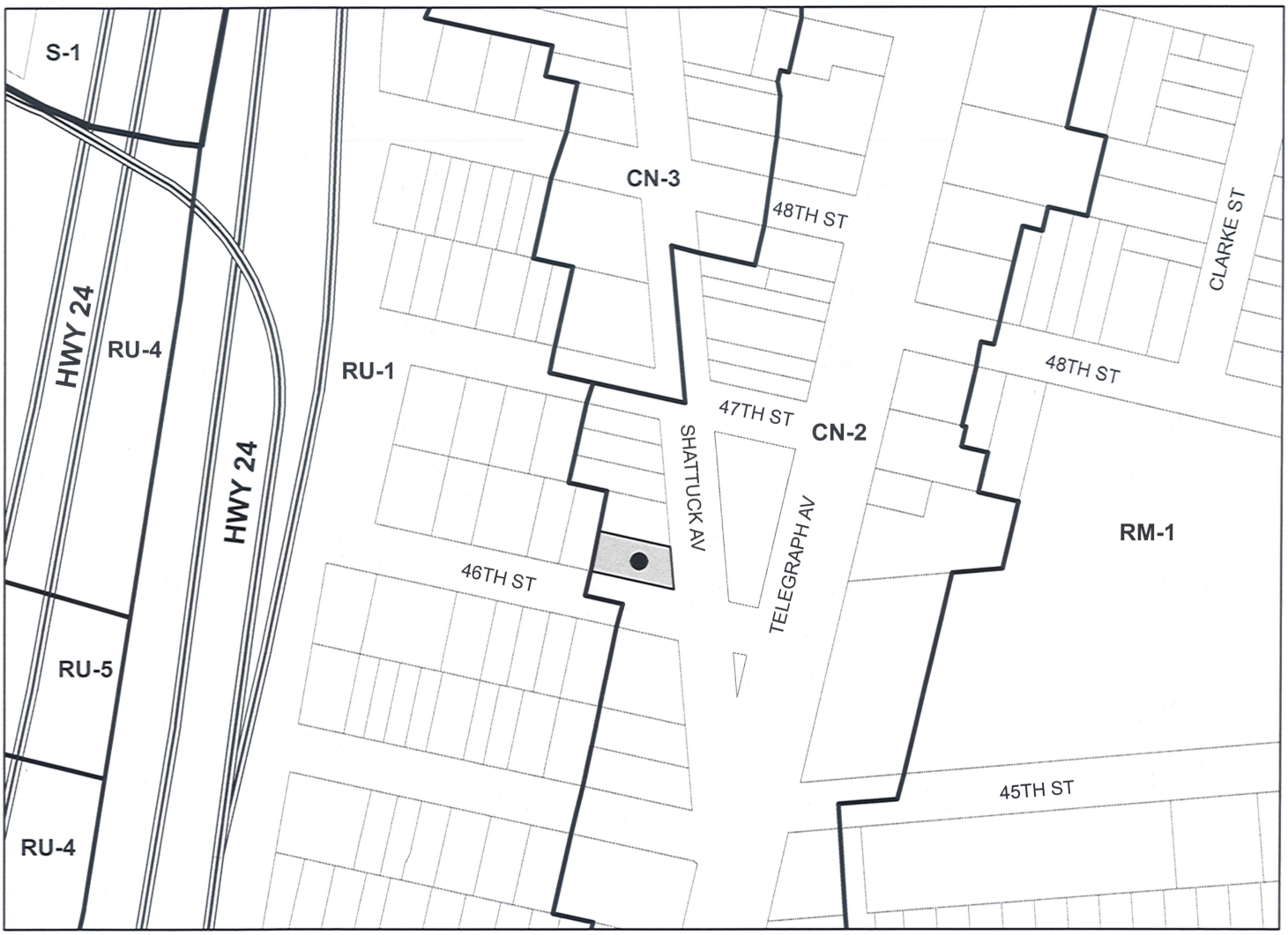
2.	**Location:**	**4601 Shattuck Avenue (APN013-1160-005-00)**
	Proposal:	To collocate 3 new concealed antenna panels on the roof, remove 9 wall-mounted antenna panels around the upper exterior building walls and replace 3 equipment cabinets with 2 cabinets inside the first floor of a commercial facility. **NOTE: At the November 16, 2011 hearing, the Planning Commission asked the applicant to relocate the proposed antenna panels from the exterior building walls to the roof.**
Applicant/Contact Person: **Phone Number:**		Cortel, LLC/Sprint, Michelle Weller (925) 997-1312
Owner/Contact:		Storquest Self Storage
Case File Number:		**CMD11-159**
Planning Permits Required:		Major Conditional Use Permit to install a Macro Telecommunication Facility within 100 feet of the boundary of a residential zone; and Regular Design Review for alterations to an existing wireless facility.
General Plan:		Neighborhood Center
Zoning:		CN-2 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:		Potential Designated Historic Property (PDHP) Survey Rating: C3, Secondary Importance
Service Delivery District:		2
City Council District:		1
Date Filed:		August 18, 2011 (revised plans submitted on 10/ 19 /12
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 City Planner **Mike Rivera** at (510) 238-6417, or by email at **mrivera@oaklandnet.com**

PROJECT BACKGROUND

At the October 19, 2011 Planning Commission meeting, the Commission reviewed the applicant's request to replace a total of six unconcealed directional antenna panels, located to the west, north and east sides of the exterior upper walls of a commercial facility. The project would have replaced the 4.5 foot high by 9 inch wide antennas with new 6 foot high by 1 foot wide antennas in the same location and would have been painted to match with the facade of the building. The project also would have collocated nine small RRU's (Radio Remote Unit) antennas behind the 4.5 foot high building parapet, and would have replaced two equipment cabinets inside the 6th floor of the building. The Commission found that the proposal would have an adverse cumulative visual impact to the site, and recommended a site design alternative that would relocate the proposed antennas on the roof so that they are less visible from public view. The Commission continued the application to the November 16th 2011 public meeting.

At the November 16th 2011 Planning Commission meeting, the applicant presented a site design alternative roof plan with photo simulations showing the proposed antenna panels mounted near the north, southwest and southeast sides of the roof edge on a 10 foot high steel-frame support structure, with a

CITY OF OAKLAND PLANNING COMMISSION



Case File: CMD11-159
Applicant: Cortel, LLC / Sprint, Michelle Weller
Address: 4601 Shattuck Avenue
Zone: CN-2

partially screened fiberglass reinforced panel. The Commission felt that the new proposal could not be supported because they were visible from view and recommended the antenna panels be relocated near the center of the building roof. The Commission continued the application to the January 18, 2012 public meeting. On December 16, 2011 the applicant requested that the application be continued to a future meeting because a new site design alternative plan will require further analysis to determine the operation feasibility.

PROJECT SUMMARY

The applicant requests a Major Conditional Use Permit and Regular Design Review Permit to replace nine unconcealed antenna panels with three concealed antenna panels including the collocation of six small Radio Remote Unit (RRU's) antennas near the center of the building roof. The project also includes the replacement of two equipment cabinets inside the first floor of the building. The proposed antenna panels and the RRU antennas will be enclosed by two new utility penthouses and painted to match. The application is considered a Macro Telecommunication Facility because the site has more than twelve antennas collocated on the 6-story high commercial building, which contains other permitted wireless antenna facilities. The commercial property is located at the corner of Shattuck Avenue and 46th Street, near the intersection of Telegraph Avenue in the Temescal District.

Pursuant to 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. In this case, the proposal is within 100 feet of the RU-1 Urban Residential Zone located to the west and southwest of the subject property. The Planning Commission is the decision-making body for the proposed application. Staff recommends approval of the revised project subject to the required findings in **Attachment A** and conditions of approval in **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 the 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 (Federal Communications Commission) 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 4,800 square foot corner parcel contains an approximately 25,000 square foot, six-story commercial property, which is used as a self-storage facility. The property is in the CN-2 Neighborhood Commercial Zone as are the properties located to the north, east and south. To the west and southwest, the property is adjacent to the RU-1 Urban Residential Zone. The property is also located near Highway-24 and BART (to the west) and Telegraph Avenue (to the east), a major thoroughfare. The commercial building was constructed around 1925 and is mainly used as a self-storage ("StorQuest") facility, and it is also used a site for wireless telecommunication facilities. The property contains four different permitted telecommunication facilities: Sprint, Nextel, ClearWire and T-Mobile. Most of the antenna panels are flush-mounted to the exterior top building walls/parapet and other are screened and painted to match the building. Some other small dish-antennas are mounted steel-frame support structures and set back from the edge of the roof.

PROJECT DESCRIPTION

The project is to remove nine unconcealed antenna panels located to the north, east and west sides of the upper exterior building walls/parapet, and replace them with three concealed antenna panels. The proposed antenna panels will be enclosed by two new utility penthouses, located to the north and to the east from the center of the building roof. The purpose of the antenna panels is to transmit and receive wireless signals. The project also includes the collocation of six small Radio Remote Unit (RRU) antennas located inside the new penthouses, and the replacement of two equipment cabinets located inside the first floor of the commercial building. The RRU antennas provide support to the main antenna panels by transmitting data to the equipment cabinets. Two of the proposed antenna panels will be mounted on a steel frame support structure and will be concealed by a new reinforced fiberglass panel utility penthouse, that measures 15.5 feet tall, and it is setback 15.5 feet from the north edge of the building roof. The other proposed single antenna panel will also be mounted on a steel frame support structure and will be concealed by second new utility penthouse that measures 10 feet tall, and it is setback 10 feet from the east edge of the building roof. **(See Attachment C)** The application also includes photo simulations of the proposed project showing the utility penthouses viewed from different public views at the intersection of Shattuck Avenue and 46th Street, at the intersection of Shattuck Avenue and 47th Street and near the intersection of 45th Street and Telegraph Avenue. **(See Attachment D)**

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 project 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. The proposed project for wireless communication facility will serve the needs of the surrounding businesses and residents alike, because of the demand for quality and reliable wireless communication service and internet use.

ZONING ANALYSIS

The property is located in the CN-2 Neighborhood Commercial Zone. The intent of the CN-2 Zone is to enhance the character of the established neighborhood commercial centers that have a compact, vibrant pedestrian environment. The proposed project will improve the existing wireless telecommunications facility, and therefore will enhance the character of the neighborhood commercial area. The project will continue to meet the need for basic wireless communication services to residential and commercial users in the Temescal District and surrounding neighborhoods.

Per Section 17.134.020(A)(3)(i) of the Oakland Planning Code, the proposal for a Telecommunication Facility (Macro) requires a Major Conditional Use Permit if located within one hundred (100) feet of the boundary of any residential zone. The proposed project is located within 100 feet from the RU-1 Urban Residential Zone. Per Section 17.33.040 of the Oakland Planning Code, a Minor Conditional Use Permit is required for a Telecommunication Facility (Macro) proposal in the CN-2 Neighborhood Commercial Zone. The purpose of the Conditional Use Permit is to analyze the operating characteristics or potential adverse effects on the surrounding areas. Per Section 17.33.020 of the Planning Code, the proposed project for a Telecommunication Facility (Macro) requires Design Review. The purpose of Design Review is to analyze projects that require special design treatment and consideration of relationship to the physical surroundings. Staff has analyzed the required Conditional Use Permit and Design Review findings and can justify approval of the proposed Telecommunication Facility. **(See Attachment A)**

ENVIRONMENTAL DETERMINATION

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

KEY ISSUES AND IMPACTS

Conditional Use Permit and Regular Design Review Findings

Per Section 17.128.070(C) and 17.128.070(B) of the Planning Code, the proposed project requires additional Conditional Use Permit and Design Review findings for Macro facilities. The purpose of the Conditional Use Permit and Design Review findings is to analyze the operating characteristics or potential adverse effects on the surrounding uses, and community character. Staff will evaluate these required Findings in the content of this report.

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 above regulation states that proposed facilities locating on an A, B or C ranked preference, do not require a site alternative analysis. Staff finds that the proposed project to replace and collocate new antenna panels on an existing commercial facility that contains other approved wireless telecommunication antennas correspond with the first site location preference (A) for placing the antennas with other existing wireless antennas on the roof of the six-story building. Therefore, staff believes that the replacement and collocation of the proposed antenna panels on the existing commercial building meets the Site Location Preference, and a site alternative analysis will not be required.

Site Design Preferences

Per Planning Code, Section 17.128.120 of the Telecommunication Regulations 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.

This regulation states that proposed telecommunication facilities which are designed to meet A or B ranked preference do not require a site design alternative analysis; however, 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 is due to technical issues (e.g. inappropriate height or interference with other RF sources), or for other constrains (e.g. inability to provide utilities or construction impediments). The proposed project to replace the nine exterior wall-mounted unconcealed antenna panels with three concealed antenna panels located on the roof of the building fits with Site Design Preferences A and B. The project meets Preferences A and B because the proposed three antenna panels are concealed from view by a new fiberglass reinforced panel structure (utility penthouse), and are set back from the edge of the roof, thus making them not visible from 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 established 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 project includes a Radio Frequency (RF) Emissions report prepared by EBI Consulting Engineering, dated September 25, 2012 **(See Attachment E)** The project engineer, Kyle Saunders analyzed the proposal and determined that the project will comply with the set standards for limiting public exposure to radio frequency energy and will not cause significant impacts on the environment. In order 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 alterations to the existing Sprint facility is operating within the acceptable thresholds as established by the regulatory Federal Communication Commission. **(See Conditions of Approval # 14)**

CONCLUSION

Staff finds the project is a compatible use for the surrounding area because it improves wireless communication services, and internet use to the general public, without creating adverse impacts to the environment. The project will not create a cumulative impact to the site because it reduces the number of antenna panels from nine to three, the new antenna panels are relocated to the roof of the building, and are screened 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, subject to the Conditions of Approval. **(See Attachment B)**

RECOMMENDATIONS

1. Affirm staff's environmental determination.
2. Approve Major Conditional Use Permit and Regular Design Review application CMD11-159, subject to the attached Findings and Conditions of Approval.

Prepared by:

Mike Rivera
City Planner

Approved by:

Robert Merkamp
Acting Zoning Manager

Approved for forwarding to the
City Planning Commission:

Scott Miller
Interim Deputy Director for
Planning, Building and Neighborhood Preservation

ATTACHMENTS

A. Findings
B. Conditions of Approval
C. Revised Project Plans, submitted on October 19, 2012
D. Revised Photo Simulations, submitted on October 19, 2012
E. Revised Radio Frequency Emissions Report, submitted on September 28, 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, 17.128.070(C), 17.128.070(B) and 17.136.050(B) 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 project will not adversely affect the livability or development of abutting properties because the nine wall-mounted unconcealed antennas will be replaced and relocated with three concealed antennas on the roof of the building. The new antenna panels will be enclosed by two utility penthouses and set back far from the edge of the roof. The size and design of the penthouses are compatible to the site and the new facilities will be painted to match the building. The project meets the federal regulations for radio frequency emissions.

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

The location, design and site planning of the project will be convenient because the antennas will provide functional services thus making the use of the facility attractive to the surrounding residents and businesses.

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 project will enhance wireless communication and internet services to the surrounding commercial and residential users. The project will also continue to provide essential services to motorists traveling along the nearby Highway-24, BART riders and to local officials.

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

The project conforms to the applicable design review findings in section 17.128.070(B) for Macro Facilities, and section 17.136.050(B) for Non-Residential 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 project is located in the Neighborhood Center Mixed Use Land Use Classification of the Oakland General Plan. The intent of this classification is to identify, create, maintain, and enhance mixed use neighborhood commercial centers that are characterized by smaller scale pedestrian-oriented, continuous street frontage with a mix of retail, housing, office, active open space, eating and drinking places, personal and business services and smaller scale educational, cultural or entertainment uses. The replacement of the wireless antennas will improve and provide services to a wide range of commercial and residential users as the quality and reliable use of high speed internet is in high demand. The project is compatible with the site because the antennas will be placed near the center of the roof and will be concealed from public view.

SECTION 17.128.070 (C)–CONDITIONAL USE PERMIT CRITERIA FOR MACRO FACILITIES

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

   The projet conforms to the design review criteria for Macro Facilities as described in section 17.128.070 (B). See design review findings listed below.

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

   The project will not disrupt the characteristics of the surrounding commercial and residential properties because the antennas will be on the building roof, will be concealed and will meet the Federal regulations for radio frequency emissions.

SECTION 17.128.070 (B)–DESIGN REVIEW CRITERIA FOR MACRO FACILITIES

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

   The project is to remove nine antenna panels and replace them with three antenna panels that will be located inside two utility penthouses on the roof of a five-story commercial 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 project to remove the antenna panels from the exterior walls of the building will be relocated on the roof and will be enclosed by two utility penthouses.

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

   The proposed antennas will be placed on the roof and will be concealed by two new utility penthouses to help camouflage their visibility from public view.

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 proposed equipment cabinets will be located inside the 1st floor of the commercial building. Therefore, the equipment cabinets will not be visible from public view.

FINDINGS

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

   The replacement of the equipment cabinets will be consistent with the general character of the area because they will not create a visual nuisance to the general public.

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 project meets this finding because the antennas will be set back from the building facade to meet the required 1:1 ratio. The proposal will not affect direct line with significant view corridors of abutting two-story or three-story high properties because the project is located on the roof of a 6-story high building.

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 concealed antennas are located on the roof and the equipment will be located in the first floor of a 6-story commercial building. Access to the first floor and to the roof is limited to authorized personnel and requires a key or a security code.

SECTION 17.136.050 (B)–DESIGN CRITERIA FOR NON RESIDENTIAL FACILITIES

1. **That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk, height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other facilities in the vicinity; and the relation of the proposal to the total setting as seen from key points in the surrounding area.**

   The project will improve the site and relate to the group of existing wireless facilities because the existing antenna panels will be removed from the exterior walls of the building to improve its appearance. The project will also improve the surrounding setting because the antenna panels will be enclosed by two separate utility penthouses and will be painted to match the building to concealed them from public view.

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

   The project will be enclosed by two new utility penthouses that will be set back from the edge of the roof and will be painted to match the design of the building. Therefore, the project design will be of a quality to protect the value of private and public investment in the neighborhood.

3. **That the proposed design conforms in all significant respects with the Oakland General Plan and with any applicable design review guidelines or criteria, district plan.**

   The proposal conforms to the Oakland General Plan Objectives and Policies including the Design Review Findings 17.128.070(b) & 17.136.050(b) found within this staff report.

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 submitted on October 5, 2011, and as amended by the following conditions. Any additional uses or facilities other than those approved with this permit, as described in the project description and the approved plans, will require a separate application and approval. Any deviation from the approved drawings, Conditions of Approval or use shall required prior written approval from the Director of City Planning or designee.

   b) This action by the **Planning Commission** ("this Approval") includes the approvals set forth below. The collocation of three new concealed antenna panels on the roof, and the replacement of three equipment cabinets with 2 new cabinets, located inside the first floor of a commercial facility at 4601 Shattuck Avenue

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)

Sprint

SITE NAME: UC STORAGE WAREHOUSE

SITE NUMBER: FN03XC017-A
MARKET NAME: SF BAY
NETWORK VISION MM LAUNCH

CMD11-159

SITE ADDRESS: 4601 SHATTUCK AVE.
OAKLND, CA 94609
ALAMEDA COUNTY

SITE TYPE: BASEMENT EQUIPMENT
ROOFTOP ANTENNAS

RECEIVED
OCT 19 2012
City of Oakland
Planning & Zoning Division

– REVISED SET –

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

SITE INFORMATION

SITE ADDRESS:
4601 SHATTUCK AVE.
OAKLAND, CA 94609

PROPERTY OWNER:
STORQUEST OAKLAND LLC
201 WILSHIRE BLVD.
SANTA MONICA, CA 90401
PHONE: (310) 451-2130

APPLICANT REPRESENTATIVE:
MICHELLE WELLER
CORTEL, LLC
EMAIL: michelle.weller@cortel-llc.com
PHONE: (925) 997-1312

CONSTRUCTION MANAGER:
STEVE WEBB
OVERLAND CONTRACTING
2999 OAK ROAD SUITE 910
WALNUT CREEK, CA 94597
EMAIL: WEBBS@OVERLANDCONTRACTING.COM
PHONE: (925) 344-2805

EQUIPMENT SUPPLIER:
SAMSUNG TELECOMMUNICATIONS AMERICA (STA)
1301 EAST LOOKOUT DRIVE
RICHARDSON, TX 75082-4124
PHONE: (972) 761-7000

COUNTY:
ALAMEDA

APN
013-1160-005-00

ZONING
C-28 COMMERCIAL

ELEVATION:
±105' A.M.S.L.

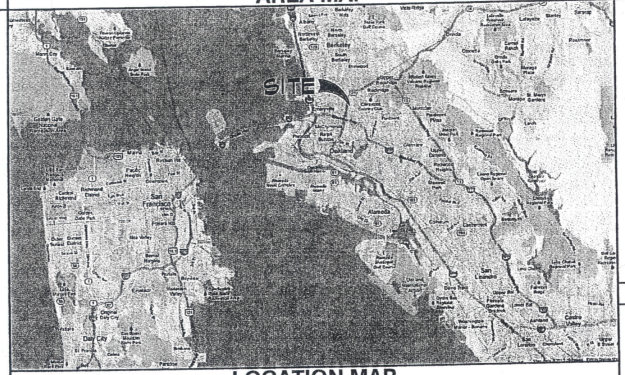
LATITUDE (NAD83):
37° 50' 1.93" N
37.83387

LONGITUDE (NAD83):
122° 15' 49.86" W
-122.263849

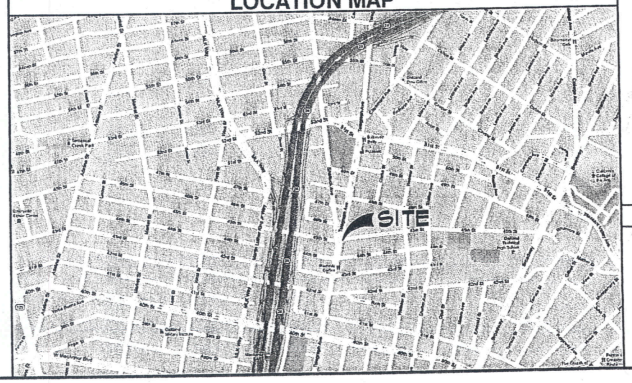
POWER COMPANY:
PG&E

TELCO COMPANY:
AT&T

AREA MAP



LOCATION MAP



APPLICABLE CODES

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

2010 CALIFORNIA BUILDING CODE
2010 CALIFORNIA MECHANICAL CODE
2010 CALIFORNIA PLUMBING CODE
2010 CALIFORNIA ELECTRICAL CODE

IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL

DRAWING INDEX

PROJECT DESCRIPTION

THE PROPOSED PROJECT SHALL INCLUDE:

REMOVAL AND NEW INSTALLATION OF EQUIPMENT ON THE EXISTING EQUIPMENT STEEL PLATFORM:

REMOVE (3) EXISTING INDOOR SPRINT EQUIPMENT CABINETS
INSTALL (2) NEW INDOOR SPRINT EQUIPMENT CABINETS

REMOVAL AND NEW INSTALLATION OF ANTENNAS TO BE MOUNTED WITHIN PROPOSED ROOFTOP 'PENTHOUSE' SCREENING:

REMOVE (9) EXISTING PANEL ANTENNAS/MOUNTS & (1) EXISTING GPS ANTENNA
INSTALL (3) NEW SPRINT PANEL ANTENNAS WITHIN NEW RF TRANSPARENT 'PENTHOUSE' ANTENNA SCREENING

INSTALLATION & REMOVAL OF ASSOCIATED EQUIPMENT/CABLING AT THE SITE:

INSTALL (1) NEW GPS ANTENNA
INSTALL (6) NEW RRUS
INSTALL (3) NEW FILTERS ON THE PROPOSED RRUS

INSTALL NEW HYBRID ANTENNA CABLING WITHIN NEW CONDUITS FROM NEW EQUIPMENT TO THE ANTENNAS ALONG THE EXISTING COAX PATH
REMOVE AND DISPOSE OF ALL UNUSED SPRINT ROOFTOP CABLE TRAY

ATTACHMENT C

ENGINEER OF RECORD

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. STE 200
IRVINE, CA 92612
ENGINEER: HISSAM ZALZALI (P.E.# C71655)
PHONE: (949) 609-9559
PM: DEAN WALKER
PHONE: (714) 230-5714
www.zalzali.com

DRIVING DIRECTIONS FROM NEAREST AIRPORT

FROM SFO AIRPORT:

TAKE THE RAMP TO US-101 N. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR US-101 N/SAN FRANCISCO AND MERGE ONTO US-101 N. SLIGHT RIGHT ONTO I-80 E (SIGNS FOR BAY BRIDGE/OAKLAND). TAKE EXIT 8B TO MERGE ONTO I-580 E TOWARD CA-24/HAYWARD/STOCKTON. TAKE EXIT 19B FOR CA-24 E TOWARD BERKELEY/WALNUT CREEK. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR 51ST ST. TURN RIGHT ONTO 52ND ST. TAKE THE 1ST RIGHT ONTO SHATTUCK AVE. SITE WILL BE ON THE RIGHT.

4601 SHATTUCK AVE, OAKLAND, CA 94609

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

REV	DATE	DESCRIPTION
I	10/17/2012	100% ZD'S FOR ZAP
0	09/19/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

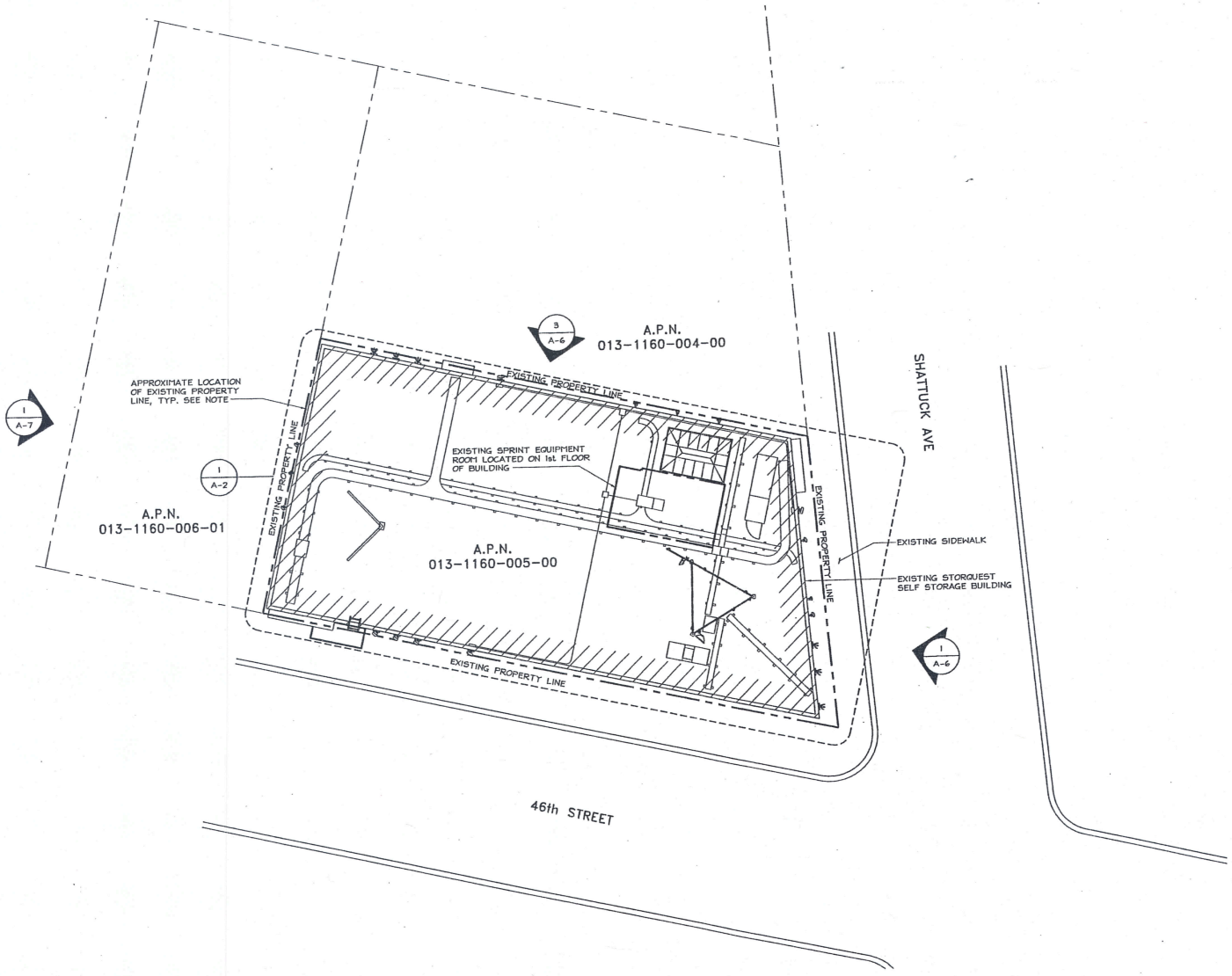
NOT TO BE USED FOR CONSTRUCTION

FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

NOTE:
1. PROPERTY LINES SHOWN ARE PRELIMINARY AND DONE WITHOUT THE BENEFIT OF A SITE SURVEY.



N
W E
S

24"x36" SCALE: 1" = 10'-0"
11"x17" SCALE: 1" = 20'-0"
10' 5' 0' 10'

1

SITE PLAN

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

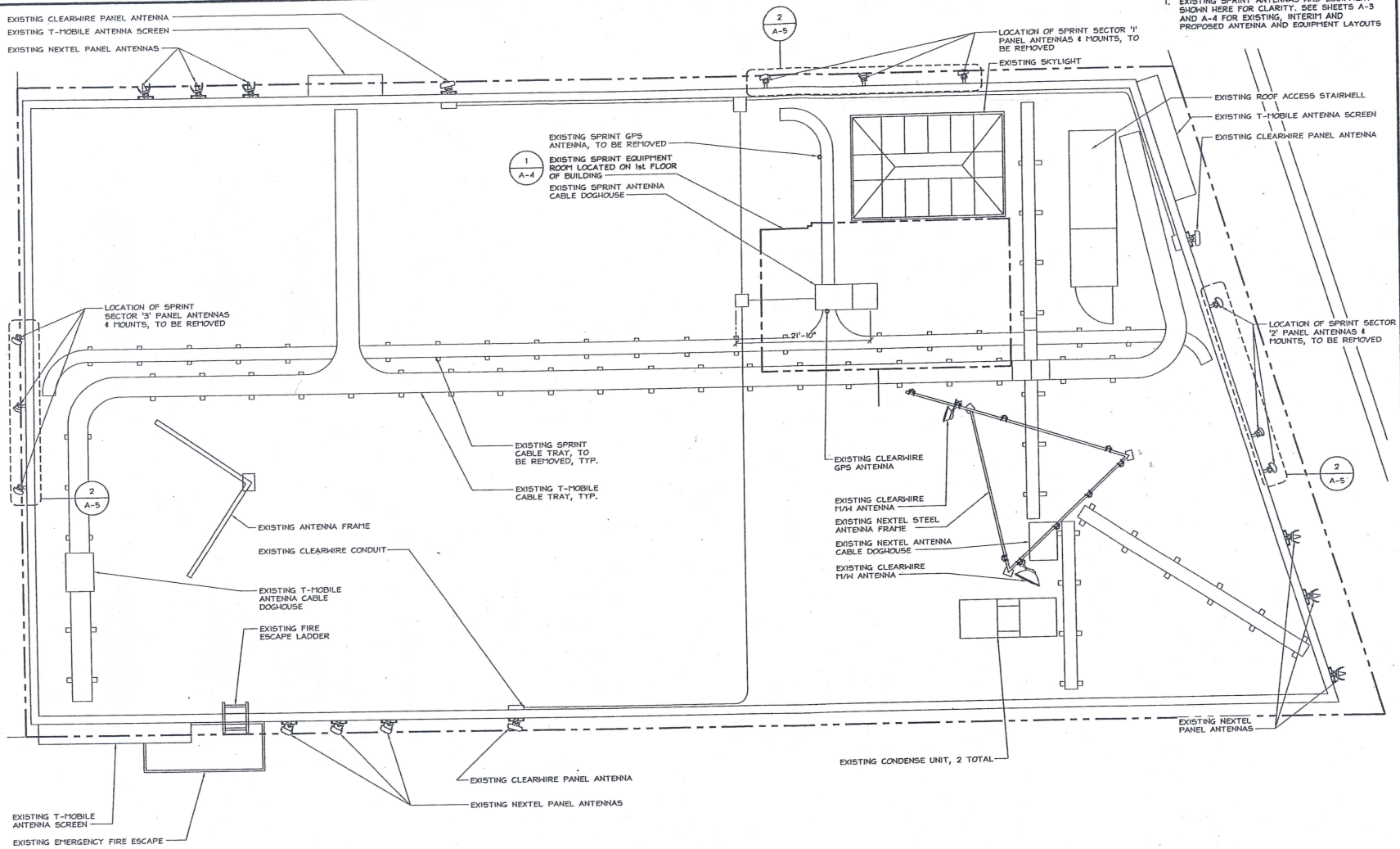
REV	DATE	DESCRIPTION
1	10/17/2012	100% ZD'S FOR ZAP
0	09/11/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

NOT TO BE USED FOR CONSTRUCTION

FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609

SHEET TITLE
SITE PLAN

SHEET NUMBER
A-1



24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"
4' 3' 2' 1' 0' 4'

1

EXISTING ROOF PLAN

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

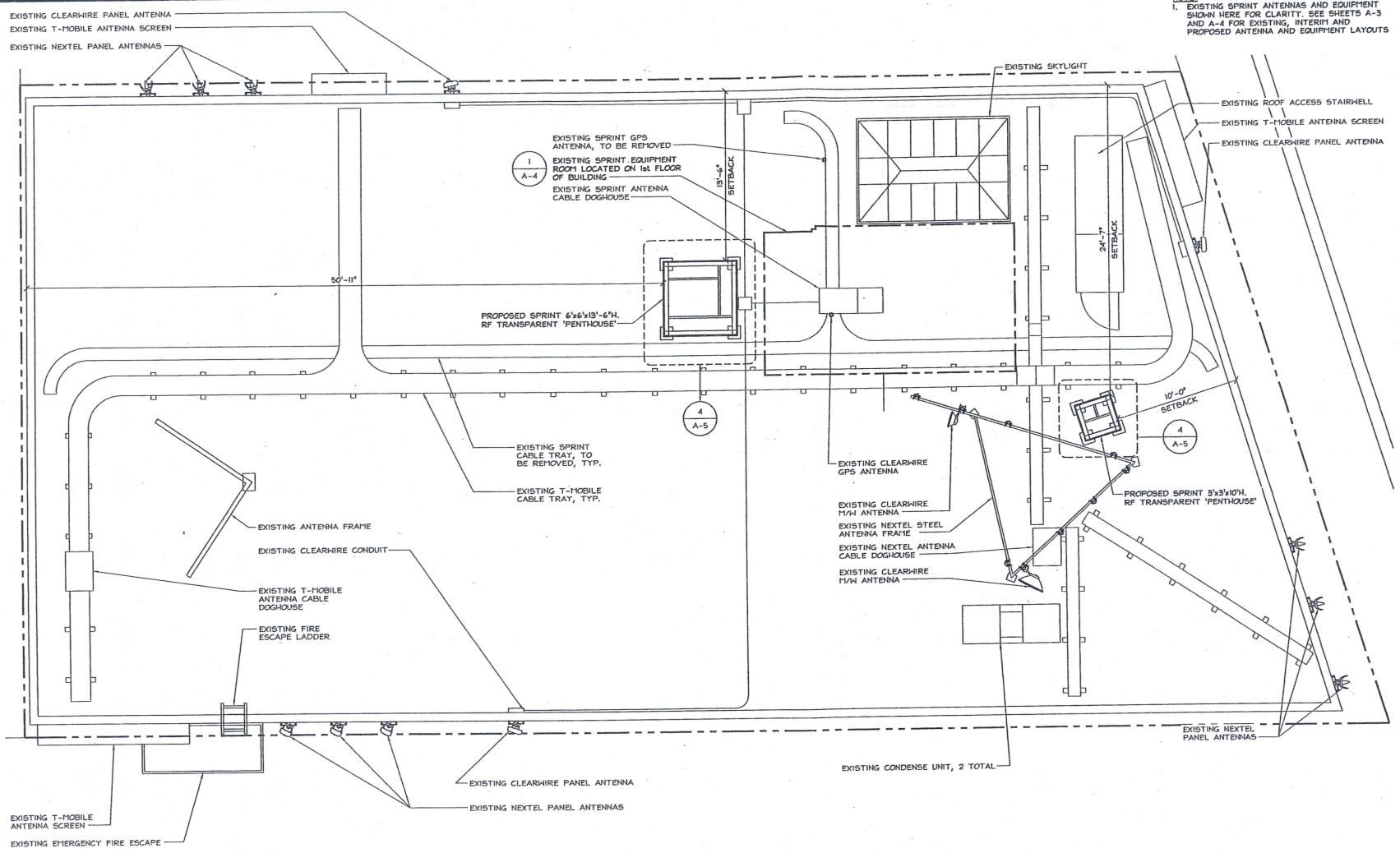
REV	DATE	DESCRIPTION
1	10/17/2012	100% ZD'S FOR ZAP
0	09/11/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

NOT TO BE USED FOR CONSTRUCTION

FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609

SHEET TITLE
EXISTING ROOF PLAN

SHEET NUMBER
A-2



PROPOSED ROOF PLAN

24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"
4' 3' 2' 1' 0' 4'

1

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

REV	DATE	DESCRIPTION
1	10/17/2012	100% ZD'S FOR ZAP
0	09/11/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

NOT TO BE USED FOR CONSTRUCTION

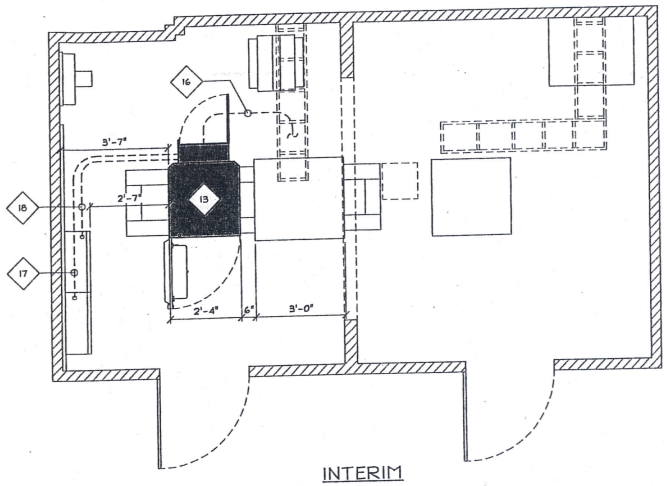
FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609

SHEET TITLE
PROPOSED ROOF PLAN.

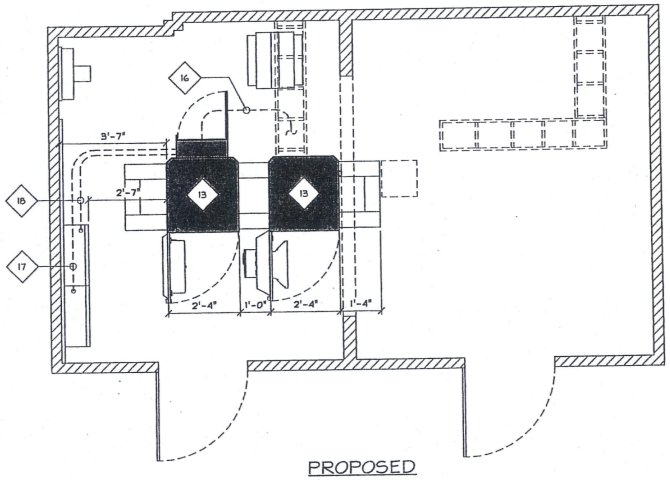
SHEET NUMBER
A-3

KEYNOTES:

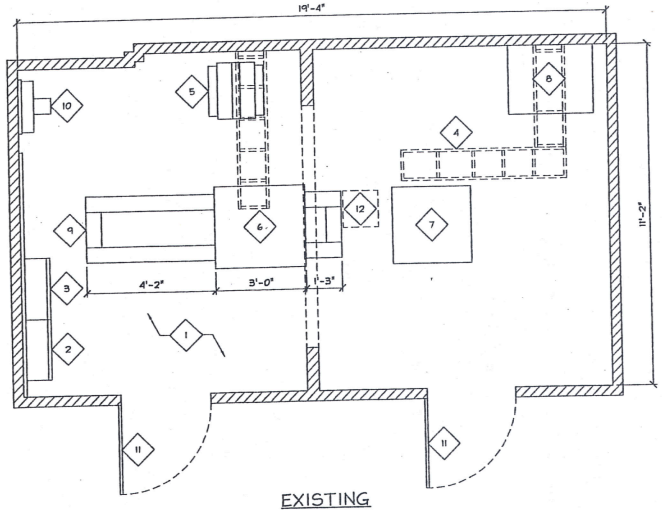
1. EXISTING SPRINT EQUIPMENT AREA LOCATED ON THE 1st FLOOR
2. EXISTING 200A SPRINT PPC CABINET
3. EXISTING SPRINT TELCO CABINET
4. EXISTING SPRINT OVERHEAD CABLE TRAY, TYP.
5. EXISTING CLEARWIRE EQUIPMENT RACK
6. EXISTING SPRINT CDMA RADIO CABINET, TO BE REMOVED
7. EXISTING SPRINT POWER CABINET, TO BE REMOVED
8. EXISTING SPRINT BATTERY RACK, TO BE REMOVED
9. EXISTING SPRINT EQUIPMENT PLATFORM
10. EXISTING EXHAUST FAN
11. EXISTING 3' WIDE ACCESS DOOR
12. EXISTING CONCRETE COLUMN
13. PROPOSED SPRINT MMBS COMBO CABINET MOUNTED ON EXISTING CONCRETE PAD (4 / D-1)
14. PROPOSED SPRINT MMBS EQUIPMENT CABINET MOUNTED ON EXISTING CONCRETE PAD (4 / D-1)
15. PROPOSED SPRINT BBU EQUIPMENT CABINET MOUNTED ON EXISTING CONCRETE PAD (4 / D-1)
16. PROPOSED CONDUITS W/ HYBRID CABLE FROM MMBS MUDROOM TO ANTENNAS ALONG EXISTING COAX ROUTE
17. PROPOSED (2) 2" SURFACE MOUNTED RGS CONDUITS W/ CAT 5 CABLE FROM TELCO CABINET TO MMBS MUDROOM (ROUTE VIF)
18. PROPOSED (1) 2" SURFACE MOUNTED RGS CONDUIT W/ (3) #2 AWG + (1) #2 AWG GROUND FROM MMBS CABINET TO PPC PANEL 'A'



INTERIM



PROPOSED



EXISTING

24"x36" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"

1

EQUIPMENT LAYOUT PLANS

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

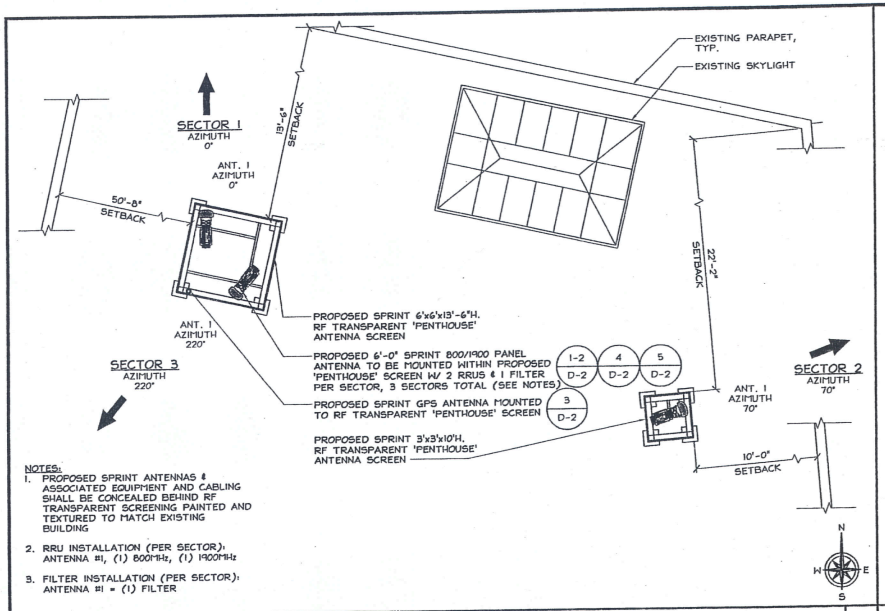
REV	DATE	DESCRIPTION
1	10/17/2012	100% ZD'S FOR ZAP
0	09/11/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

NOT TO BE USED FOR CONSTRUCTION

FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609

SHEET TITLE
EQUIPMENT LAYOUT PLANS

SHEET NUMBER
A-4



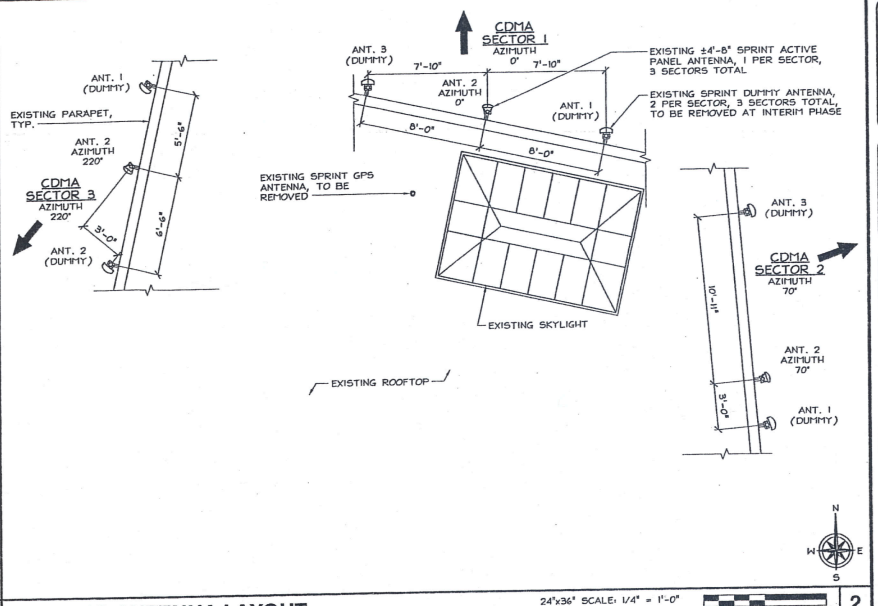
NOTES:

1. PROPOSED SPRINT ANTENNAS & ASSOCIATED EQUIPMENT AND CABLING SHALL BE CONCEALED BEHIND RF TRANSPARENT SCREENING PAINTED AND TEXTURED TO MATCH EXISTING BUILDING
2. RRU INSTALLATION (PER SECTOR): ANTENNA #1, (1) 800MHz, (1) 1900MHz
3. FILTER INSTALLATION (PER SECTOR): ANTENNA #1 = (1) FILTER

PROPOSED ANTENNA LAYOUT

24"x36" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

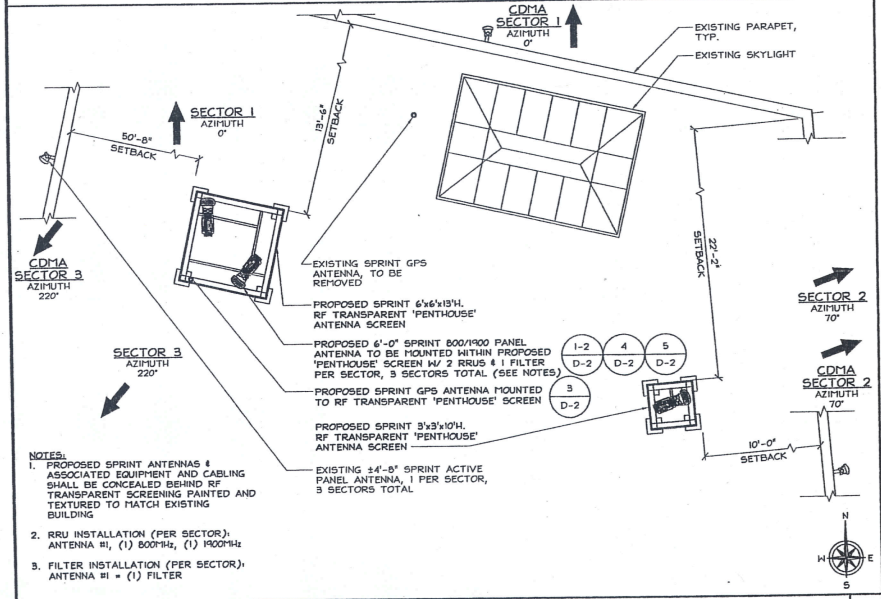
4



EXISTING ANTENNA LAYOUT

24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"
4' 3' 2' 1' 0" 4'

2



NOTES:

1. PROPOSED SPRINT ANTENNAS & ASSOCIATED EQUIPMENT AND CABLING SHALL BE CONCEALED BEHIND RF TRANSPARENT SCREENING PAINTED AND TEXTURED TO MATCH EXISTING BUILDING
2. RRU INSTALLATION (PER SECTOR): ANTENNA #1, (1) 800MHz, (1) 1900MHz
3. FILTER INSTALLATION (PER SECTOR): ANTENNA #1 = (1) FILTER

INTERIM ANTENNA LAYOUT

24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"
4' 3' 2' 1' 0" 4'

3

PROPOSED OPTIMAL ANTENNA AND TRANSMISSION CABLES REQUIREMENT (VERIFY WITH CURRENT EBTS)

	ANTENNA	PROPOSED TECHNOLOGY	ANTENNA MODEL		ANTENNA AZIMUTH		RAD CENTER	DOWN-TILT (RET*)	TRANSMISSION LINE		
			EXISTING	PROPOSED	EXISTING	PROPOSED			LENGTH	TYPE(S)	CONVEYANCE
SECTOR 1	1	800/1900 MHZ	'DUMMY'	P65-16-XLPP-RR	0°	0°	75'-2"	(800/1900) 6 / 5	±120'	FIBER & +48VDC	RGS OR SEALTITE FLEX
	2	-	RR65-19-02DPL5	-	-	-	-	-	-	-	-
	3	-	'DUMMY'	-	-	-	-	-	-	-	-
SECTOR 2	1	800/1900 MHZ	'DUMMY'	P65-16-XLPP-RR	70°	70°	71'-6"	(800/1900) 3 / 6	±120'	FIBER & +48VDC	RGS OR SEALTITE FLEX
	2	-	RR65-19-02DPL5	-	-	-	-	-	-	-	-
	3	-	'DUMMY'	-	-	-	-	-	-	-	-
SECTOR 3	1	800/1900 MHZ	'DUMMY'	P90-15-XLPP-RR	220°	220°	75'-2"	(800/1900) 6 / 6	±120'	FIBER & +48VDC	RGS OR SEALTITE FLEX
	2	-	RR90-17-V05DPL2	-	-	-	-	-	-	-	-
	3	-	'DUMMY'	-	-	-	-	-	-	-	-
GPS	-	GPS L1	-	GPS-TMG-HR-26N	-	-	-	-	±120'	1/2"ø COAX	RGS OR SEALTITE FLEX

NOTES:

1. EXISTING ANTENNAS ARE CDMA UNLESS NOTED OTHERWISE.
2. DIMENSIONS OF EXISTING ANTENNAS SPACING OR PLATFORMS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY PRIOR TO START OF CONSTRUCTION (SEE GENERAL NOTES, SHEETS GN-1 AND GN-2).
3. PROPOSED SPRINT ANTENNAS INCLUDE RESPECTIVE RRU'S WHICH SHALL BE MOUNTED ON THE PIPE BEHIND THE ANTENNA SIMILAR TO THAT SHOWN IN RRU MOUNTING DETAILS ON SHEET D-2.
4. FIELD VERIFY EXISTING AZIMUTH BEFORE SLIDING THE ANTENNA. PRIOR APPROVAL FROM SPRINT MUST BE OBTAINED BEFORE MOVING ANY ANTENNAS.

ANTENNA MOUNTING NOTES

1. APPROXIMATE LENGTH OF (1) ANTENNA CABLE RUN = APPROX. LENGTH OF LATERAL DISTANCE + ANTENNA MOUNTING HEIGHT + 20'
2. CONTRACTOR SHALL VERIFY THE DOWNTILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
3. CONTRACTOR TO CONFIRM ANTENNA CABLE COLOR CODING PRIOR TO CONSTRUCTION. (SEE SHEET RF-2)
4. COLOR BANDING SHALL BE 2" WIDE ON THE MAIN LINE (5 WRAP MIN.) SPACING TO BE 1" BETWEEN COLORS. COLOR BAND ON JUMPERS 1" WIDE WITH 1" SPACE START COLOR BANDS 2" BEYOND WEATHERPROOFING. START SECTOR COLOR NEXT TO END CONNECTOR. SEE SHEET RF-2 FOR HYBRID ANTENNA CABLE COLOR CODING.
5. COAX JUMPERS SHALL NOT EXCEED 15' IN LENGTH; CONFIRM SPECIFIC LENGTH PER SITE WITH CURRENT EBTS

ANTENNA SCHEDULE

24"x36" SCALE: NTS
11"x17" SCALE: NTS

1

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

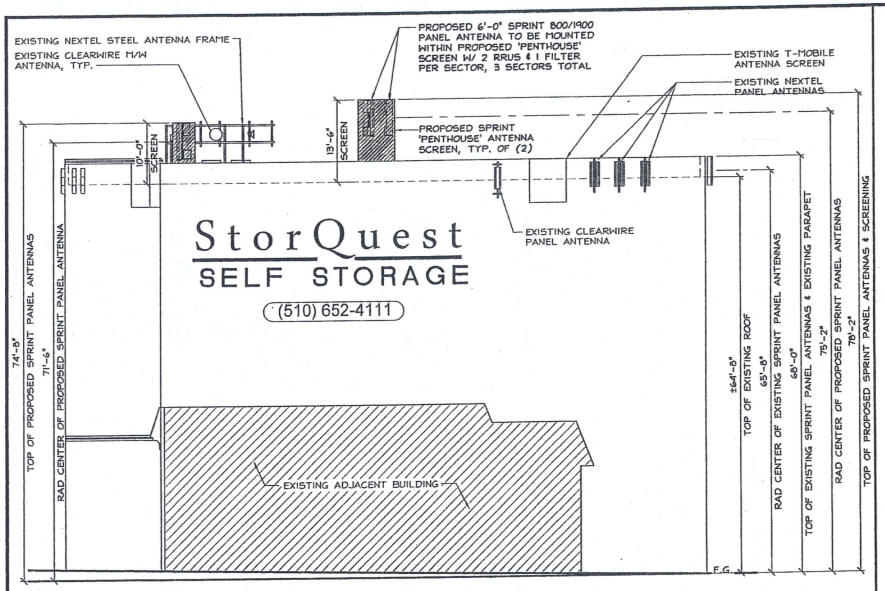
REV	DATE	DESCRIPTION
1	10/17/2012	100% ZD'S FOR ZAP
0	09/11/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

NOT TO BE USED FOR CONSTRUCTION

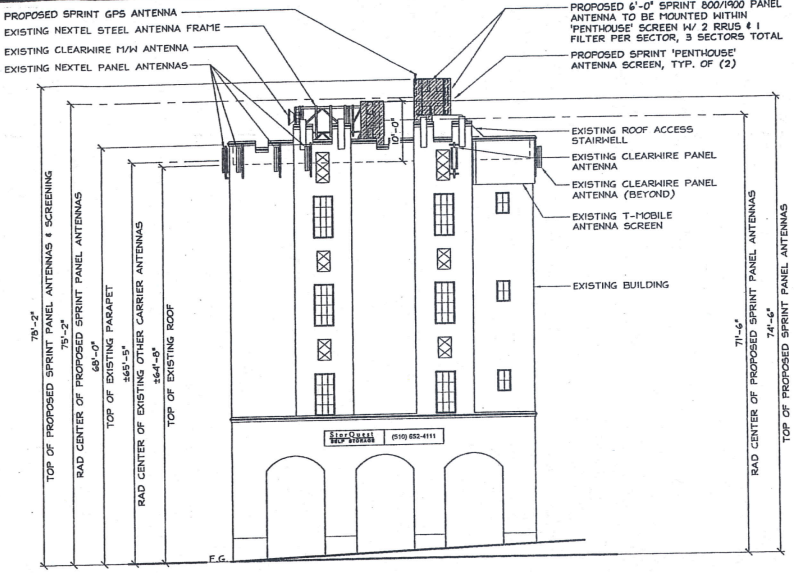
FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609

SHEET TITLE
ANTENNA LAYOUT & SCHEDULE

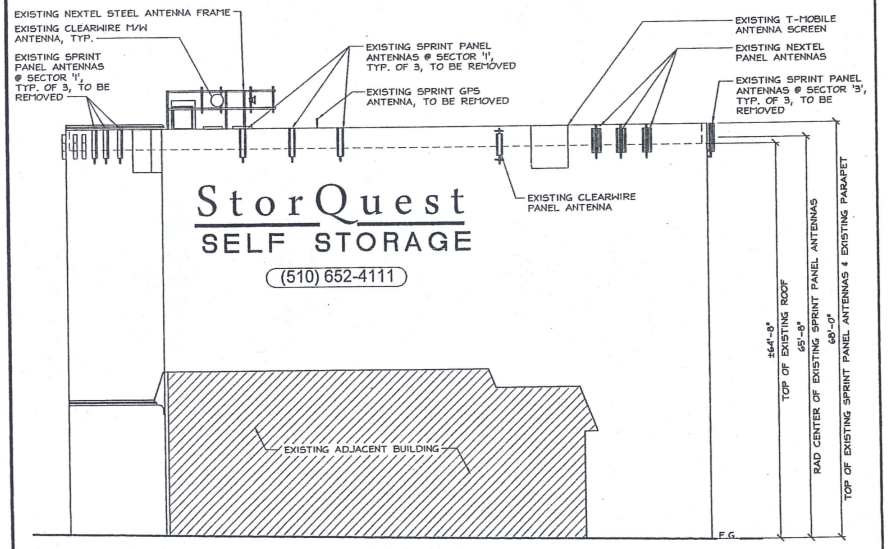
SHEET NUMBER
A-5



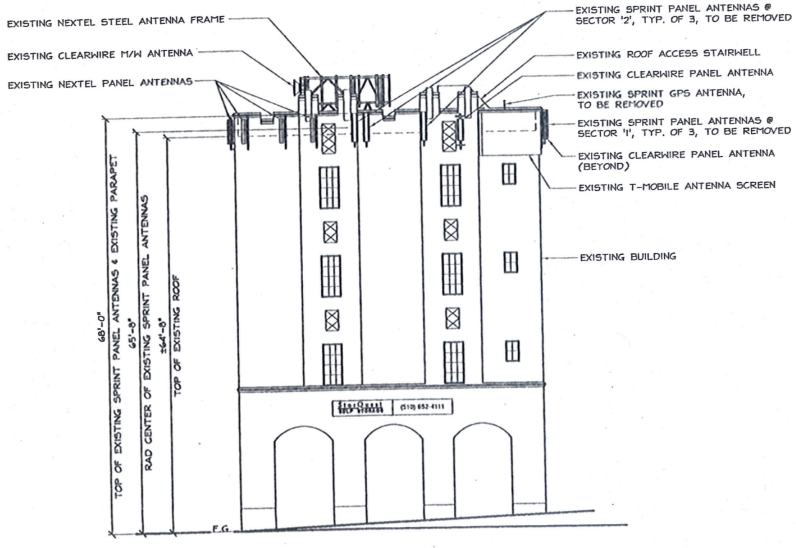
PROPOSED NORTH ELEVATION 24"x36" SCALE: 1" = 10'-0" 11"x17" SCALE: 1" = 20'-0" 4



PROPOSED EAST ELEVATION 24"x36" SCALE: 1" = 10'-0" 11"x17" SCALE: 1" = 20'-0" 2



EXISTING NORTH ELEVATION 24"x36" SCALE: 1" = 10'-0" 11"x17" SCALE: 1" = 20'-0" 3



EXISTING EAST ELEVATION 24"x36" SCALE: 1" = 10'-0" 11"x17" SCALE: 1" = 20'-0" 1

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

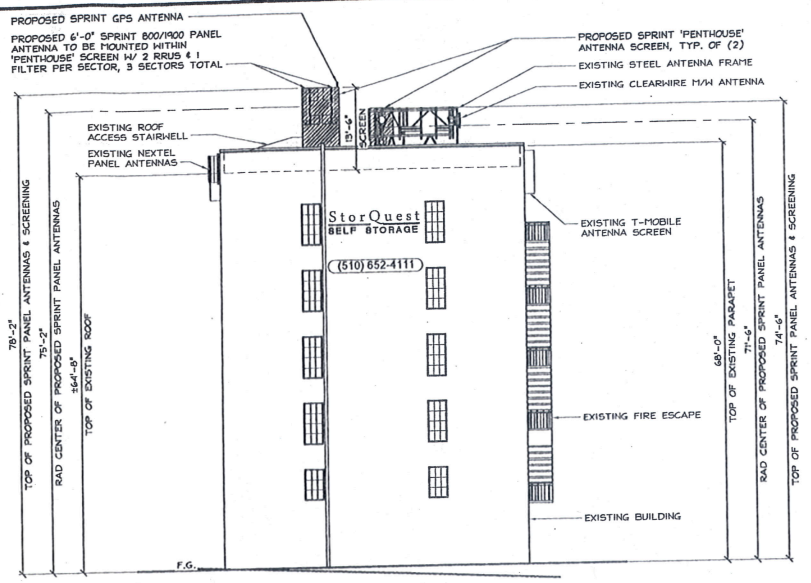
REV	DATE	DESCRIPTION
1	10/17/2012	100% ZD'S FOR ZAP
0	09/11/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

NOT TO BE USED FOR CONSTRUCTION

FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609

SHEET TITLE
ELEVATIONS

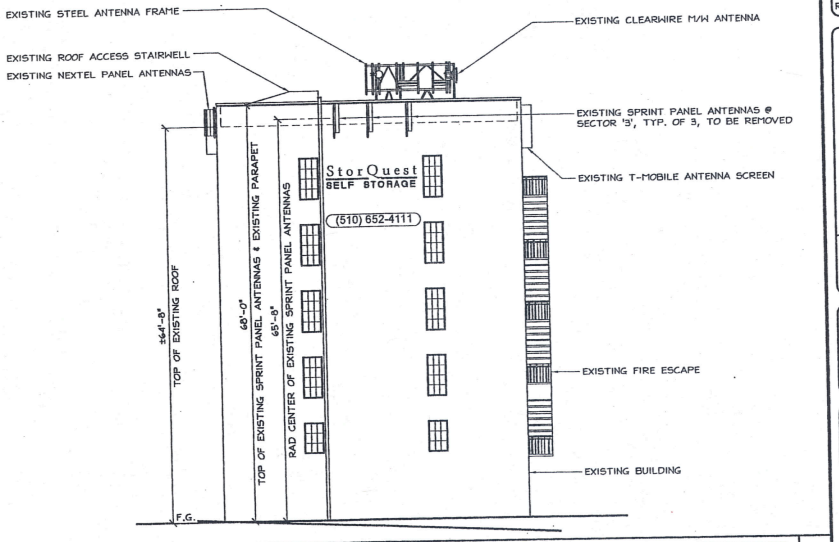
SHEET NUMBER
A-6



24"x36" SCALE: 1" = 10'-0"
11"x17" SCALE: 1" = 20'-0"
10' 5' 0' 10'

2

PROPOSED WEST ELEVATION



24"x36" SCALE: 1" = 10'-0"
11"x17" SCALE: 1" = 20'-0"
10' 5' 0' 10'

1

EXISTING WEST ELEVATION

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

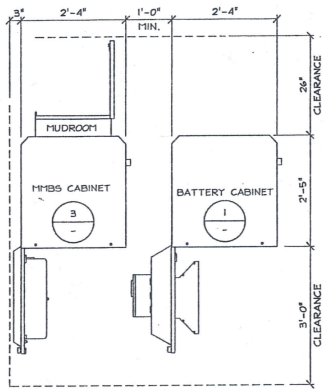
REV	DATE	DESCRIPTION
1	10/17/2012	100% ZD'S FOR ZAP
0	09/11/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

NOT TO BE USED FOR CONSTRUCTION

FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609

SHEET TITLE
ELEVATIONS

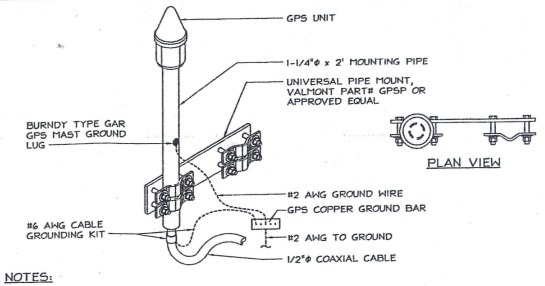
SHEET NUMBER
A-7

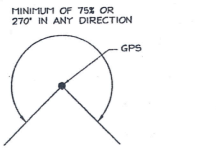


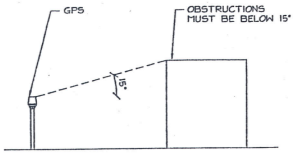
MMBS/BBU TYPICAL FLOOR PLAN

24"x36" SCALE: NTS
11"x17" SCALE: NTS

4







MINIMUM SKY VIEW REQUIREMENTS

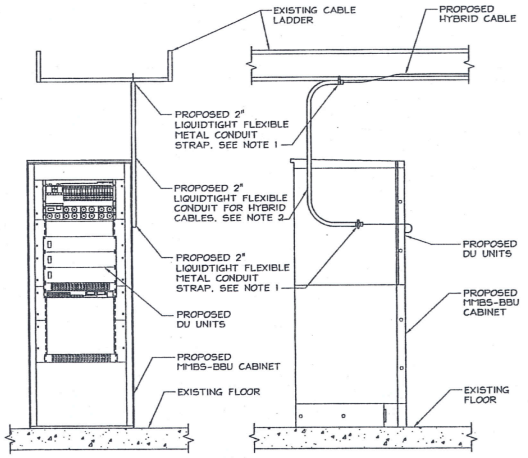
NOTES:

1. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40, GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18 INCHES) USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DE-BURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.
2. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF VERTICAL AND THE BASE OF THE ANTENNA IS WITHIN 2 DEGREES OF LEVEL.
3. DO NOT SWEEP TEST GPS ANTENNA.
4. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED SUCH THAT MIN. SKY VIEW REQUIREMENTS ARE MET, (SEE RIGHT).

GPS ANTENNA GROUNDING & SPECIFICATIONS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

2



NOTES

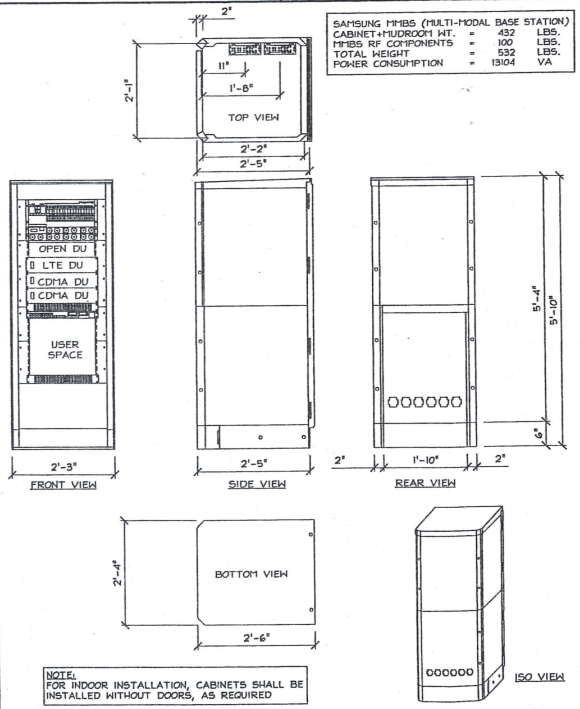
1. PROPOSED LIQUIDTIGHT FLEXIBLE METAL CONDUIT FROM CABLE LADDER TO CABINET SUPPORT SHALL BE STRAPPED AT TOP AND BOTTOM AT INTERVALS NOT EXCEEDING 3'-0".
2. LIQUIDTIGHT FLEXIBLE METAL CONDUIT SHALL BE ROUTED FROM CABLE TRAY TO EQUIPMENT CABINET TO SUPPORT HYBRID CABLES.

HYBRID/TELCO SUPPORT DETAIL

24"x36" SCALE: NTS
11"x17" SCALE: NTS

5

SAMSUNG MMBS (MULTI-MODAL BASE STATION)			
CABINET+MUDROOM WT.	=	432	LBS.
MMBS RF COMPONENTS	=	100	LBS.
TOTAL WEIGHT	=	532	LBS.
POWER CONSUMPTION	=	13104	VA



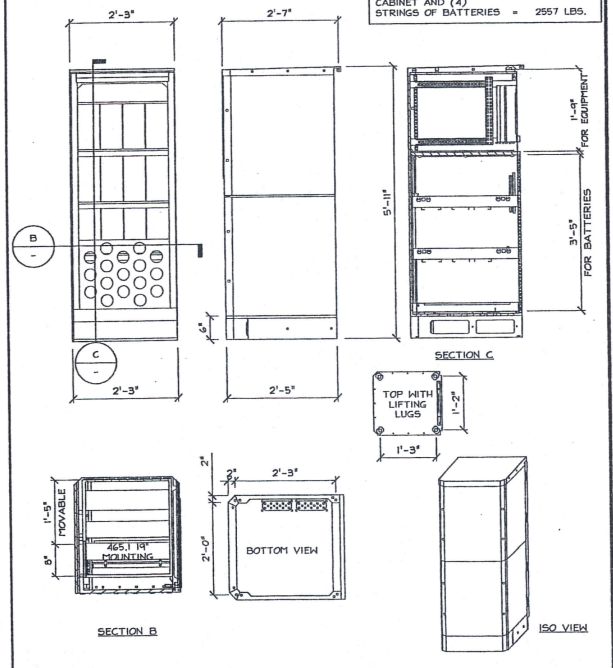
NOTE:
FOR INDOOR INSTALLATION, CABINETS SHALL BE INSTALLED WITHOUT DOORS, AS REQUIRED

MMBS SPECIFICATIONS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

3

SAMSUNG BBU (BATTERY BACKUP UNIT)			
CABINET WEIGHT	=	441	LBS.
BATTERY STRING	=	529	LBS.
CABINET AND (4) STRINGS OF BATTERIES	=	2557	LBS.



BBU (BATTERY CABINET) SPECIFICATIONS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

1

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

REV	DATE	DESCRIPTION
1	10/17/2012	100% ZD'S FOR ZAP
0	09/11/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

NOT TO BE USED FOR CONSTRUCTION

FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
D-1

NOT USED

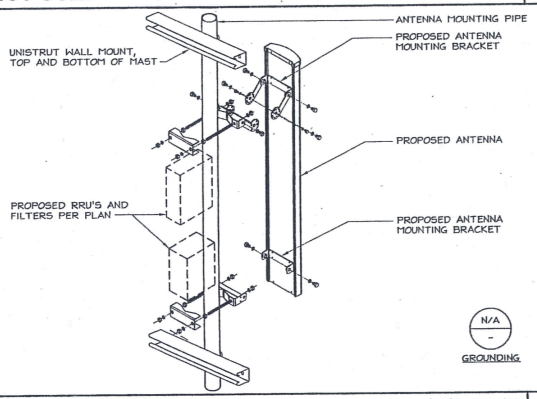
24"x36" SCALE: NTS
11"x17" SCALE: NTS

9

ANTENNA MOUNTING DETAIL

24"x36" SCALE: NTS
11"x17" SCALE: NTS

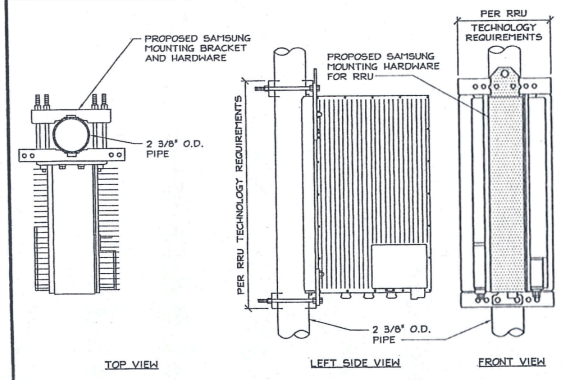
8



RRU POLE / MAST MOUNT.

24"x36" SCALE: NTS
11"x17" SCALE: NTS

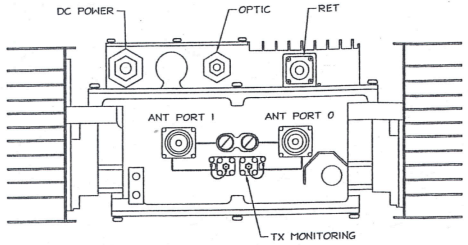
7



800 MHZ RRU PINOUT DIAGRAM

24"x36" SCALE: NTS
11"x17" SCALE: NTS

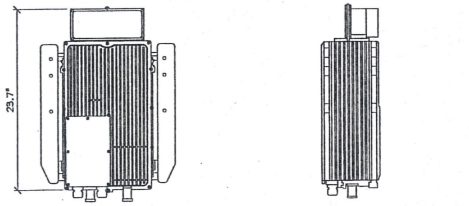
6



800 MHZ RRU SPECIFICATIONS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

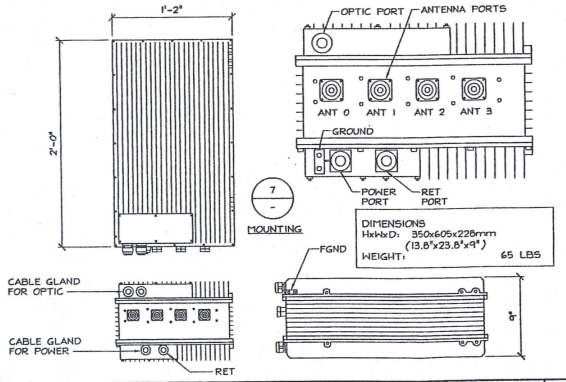
5



1900 MHZ RRU SPECIFICATIONS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

4



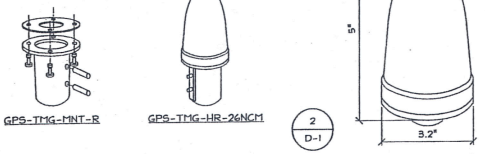
GPS SPECIFICATIONS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

3

PCTEL GPS ANTENNA GPS-TMG-HR-26N

DIMENSIONS, HxD:	126x81mm (5.0"x3.2")
WEIGHT, WITH PRE-MOUNTED BRACKETS:	0.6 lbs
CONNECTOR:	N, FEMALE (ONE - BOTTOM FED)
MOUNTING:	FIT PIPES 1" - 1.45" (25 - 37mm)
FREQUENCY BAND	1575.42 +/- 1.2MHz



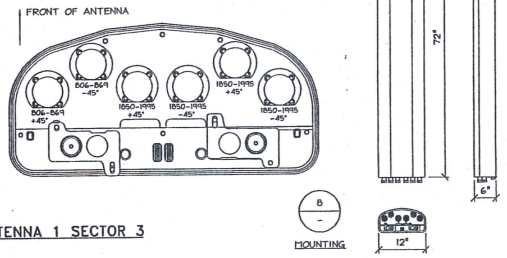
800/1900 MHZ ANTENNA SPECIFICATIONS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

2

POWERWAVE ANTENNA P90-15-XLPP-RR

DIMENSIONS, HxWxD:	1828x305x152mm (72"x12"x6")
WEIGHT, WITHOUT BRACKETS:	19.5kg (43 lbs)
CONNECTOR:	(6) 7/16 DIN FEMALE (BOTTOM)



ANTENNA 1 SECTOR 3

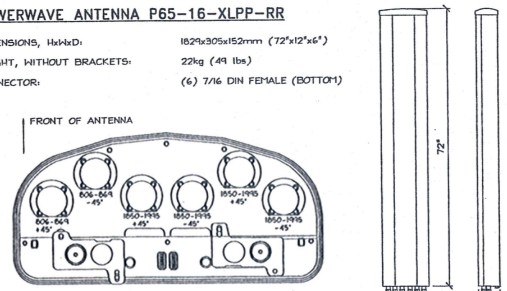
800/1900 MHZ ANTENNA SPECIFICATIONS

24"x36" SCALE: NTS
11"x17" SCALE: NTS

1

POWERWAVE ANTENNA P65-16-XLPP-RR

DIMENSIONS, HxWxD:	1829x305x152mm (72"x12"x6")
WEIGHT, WITHOUT BRACKETS:	22kg (49 lbs)
CONNECTOR:	(6) 7/16 DIN FEMALE (BOTTOM)



ANTENNA 1 SECTORS 1 & 2

Sprint
6580 SPRINT PARKWAY
OVERLAND PARK, KANSAS 66251

SAMSUNG

BLACK & VEATCH

ZALZALI & ASSOCIATES INC.
2070 BUSINESS CENTER DR. SUITE 200
IRVINE, CA 92612

PROJECT NO:	-
DRAWN BY:	SS
CHECKED BY:	DW

REV	DATE	DESCRIPTION
1	10/17/2012	100% ZD'S FOR ZAP
0	09/11/2012	100% ZD'S FOR ZAP
B	08/23/2012	100% ZD'S FOR REDLINE
A	08/02/2012	90% ZD'S FOR REDLINE

NOT TO BE USED FOR CONSTRUCTION

FN03XC017-A
UC STORAGE WAREHOUSE
4601 SHATTUCK AVE.
OAKLAND, CA 94609.

SHEET TITLE
ANTENNA, RRU & FILTER DETAILS

SHEET NUMBER
D-2


ATTACHMENT D
– CM011-159 –
REVISED PHOTOS
SITE
47th St
526
47th St
47th St
47th St
Maya
2
Shattuck Ave
Telegraph Ave
Speak Out
Speakers
& Artists
Acorn Kitche
& Baths
A
StorQuest
Self Storage
46th St
46th St
520
1
Good Bellies
4601
4599
Shattuck Ave
45th St
45th St
3
4500
502
45th St

- CMD 11-159 -

- REVISED PHOTOSIMS -

ATTACHMENT D

FN03XC017-A

UC STORAGE WAREHOUSE
4601 SHATTUCK AVE
OAKLAND, CA 94609

VIEW #: 1

Sprint

OCTOBER 15, 2012

LOCATION

EXISTING

PROPOSED

SPRINT

The illustration above is a representation of the proposed project based on information provided by the client. Actual construction may vary dependent on approved construction plans and therefore the A&E firm will not be held responsible for any post production design changes.

ZALZALI & ASSOCIATES, INC.
2070 BUSINESS CENTER DRIVE, SUITE 200
IRVINE, CA 92612
949.609.9559
949.606.7222 (FAX)

REV:
A


REMOVED EXISTING ANNTENNAS
StorQuest
510-632-4111


PROPOSED SPRINT ANTENNAS MOUNTED BEHIND
PROPOSED RF TRANSPARENT SCREENING
(PAINTED TO MATCH)
StorQuest
510-652-4111

FN03XC017-A

UC STORAGE WAREHOUSE
4601 SHATTUCK AVE
OAKLAND, CA 94609

VIEW #: 2

Sprint

OCTOBER 15, 2012

LOCATION

EXISTING

PROPOSED

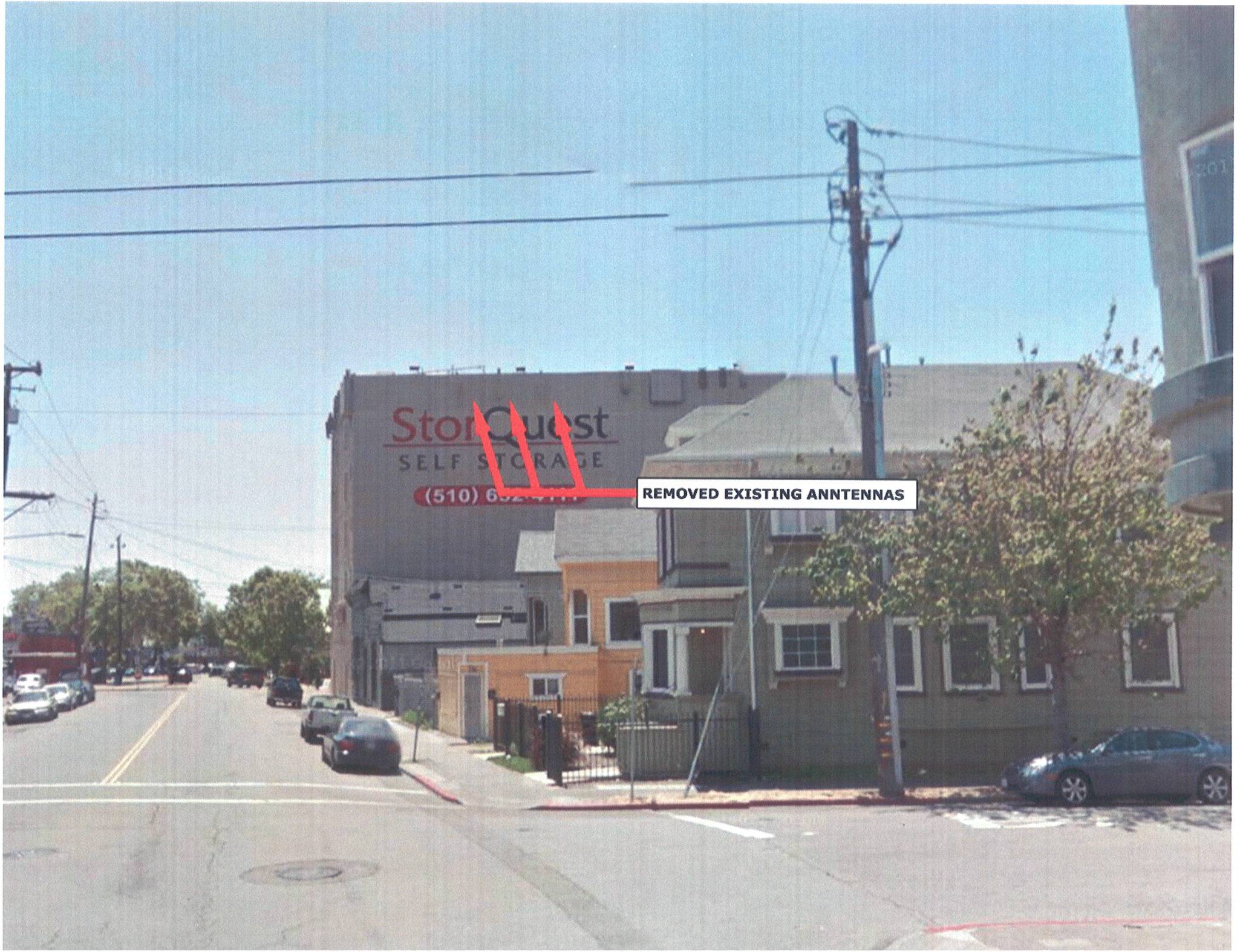
SPRINT

The illustration above is a representation of the proposed project based on information provided by the client. Actual construction may vary dependent on approved construction plans and therefore the A&E firm will not be held responsible for any post production design changes.

ZALZALI & ASSOCIATES, INC.
2070 BUSINESS CENTER DRIVE, SUITE 200
IRVINE, CA 92612
949.609.9559
949.606.7222 (FAX)

REV:
A

BASED ON FILE:FN03XC017-A UC Storage Warehouse_CD90_RevA_For Redline_09272012.pdf


StorQuest
SELF STORAGE
REMOVED EXISTING ANNTENNAS

FN03XC017-A

UC STORAGE WAREHOUSE
4601 SHATTUCK AVE
OAKLAND, CA 94609

VIEW #: 3

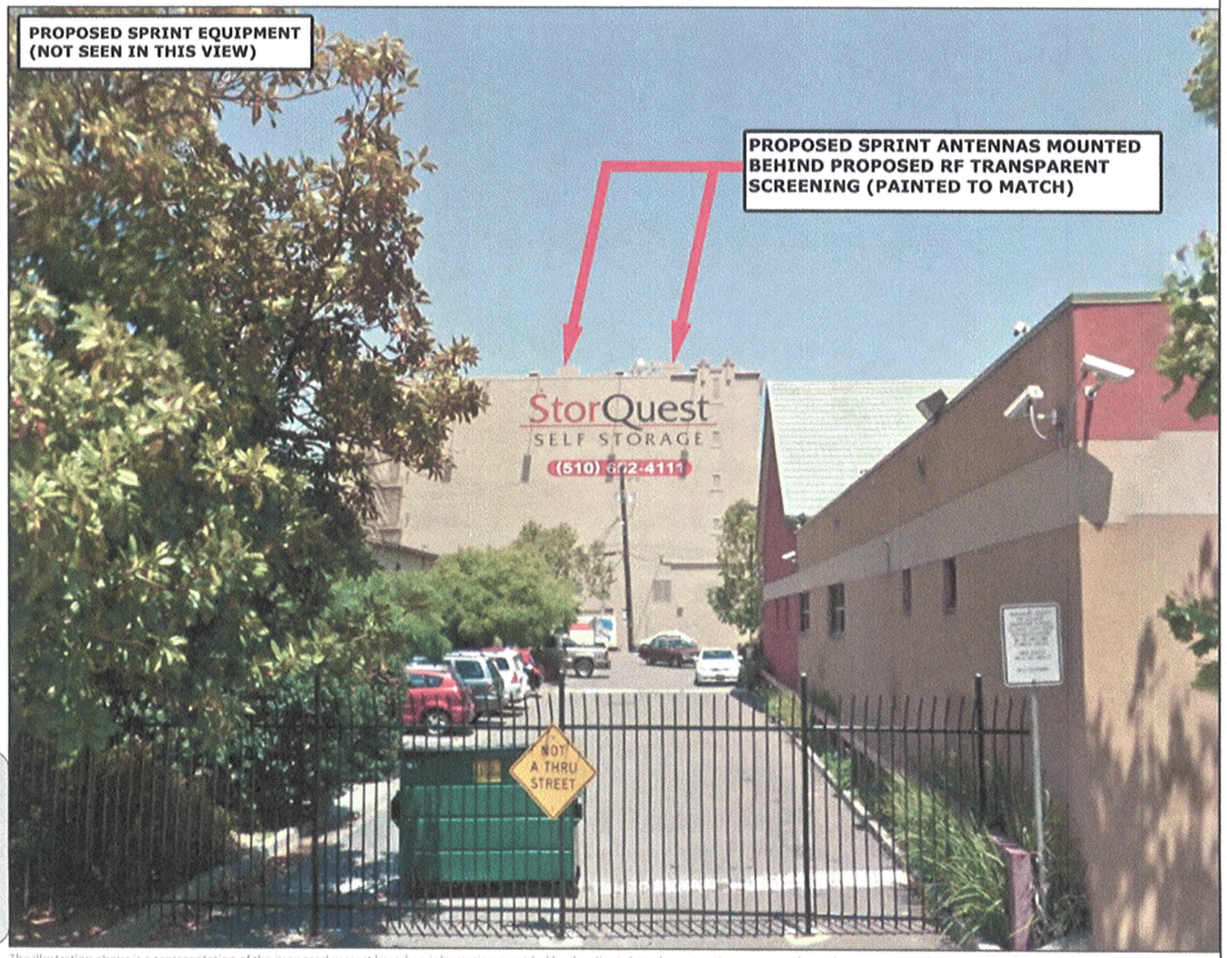
Sprint

OCTOBER 15, 2012

LOCATION

EXISTING

PROPOSED



SPRINT

The illustration above is a representation of the proposed project based on information provided by the client. Actual construction may vary dependent on approved construction plans and therefore the A&E firm will not be held responsible for any post production design changes.

ZALZALI & ASSOCIATES, INC.
2070 BUSINESS CENTER DRIVE, SUITE 200
IRVINE, CA 92612
949.609.9559
949.606.7222 (FAX)

REV:
A

BASED ON FILE: FN03XC017-A UC Storage Warehouse_CD90_RevA_For Redline_08272012.pdf

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

CMD11-159

– REVISED Report –

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

Site No. FN03XC017-A
UC Storage Warehouse
4601 Shattuck Ave
Oakland, California 94609
Alameda County
37.833870; -122.263849 NAD83
rooftop

EBI Project No. 62124423
September 25, 2012

EBI CONSULTING
Creating Value for Your Business

ATTACHMENT E

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 FN03XC017-A located at 4601 Shattuck Ave 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 and in relation to all collocated facilities at the site.

1.0 Location of all Existing Antennas and Facilities and Existing RF Levels

This project involves the removal of nine (9) existing antennas replaced with three (3) proposed Sprint wireless telecommunication antennas on a rooftop located at 4601 Shattuck Ave in Oakland, California. There are three Sectors (A, B, and C) proposed to be replaced at the site, with one (1) antenna to be re-installed per sector.

Based on drawings and aerial photography review, Nextel, T-Mobile, and Clearwire also have wireless antennas on the rooftop. These antennas were included in the modeling analysis.

2.0 Location or all approved (but not installed) antennas and facilities and Expected RF Levels from the Approved Facilities

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

3.0 Number and Types of WTS within 100 Feet of the Proposed Site and Estimates of Cumulative EMR Emissions at the Proposed Site

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

4.0 Location and Number of the Sprint Antennas and Back-up Facilities per Building and Number and Location of Other Telecommunication Facilities on the Property

Sprint proposes the removal of nine (9) existing antennas replaced with three (3) proposed Sprint wireless telecommunication antennas on a rooftop located at 4601 Shattuck Ave in Oakland, California. There are three Sectors (A, B, and C) proposed to be replaced at the site, with one (1) antenna to be re-installed per sector. In each sector, there is proposed to be one antenna transmitting in the 800 MHz and the 1900 MHz frequency ranges. The Sector A antenna will be oriented 0° from true north. The Sector B antenna will be oriented 70° from true north. The Sector C antennas will be oriented 220° from true north. The bottoms of the Sector A and C antennas will be 7.6 feet above the main rooftop, while the bottom of the Sector B antenna will be 4.3 feet above the main rooftop.

Based on drawings and aerial photography review, Nextel, T-Mobile, and Clearwire also have wireless antennas on the rooftop. These antennas were included in the modeling analysis.

5.0 Power Rating for all Existing and Proposed Backup Equipment Subject to the Application

The operating power for modeling purposes was assumed to be 20 Watts per transmitter for the 800 MHz antenna and there will be one (1) transmitter operating at this frequency. Additionally, for modeling purposes it was assumed to be 20 Watts per transmitter and six (6) 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 521 Watts. The ERP for the 1900 MHz transmitters combined on site is 5,358 Watts. The ERPs for other carriers on site was not provided.

7.0 Preferred Method of Attachment of Proposed Antenna with Plot or Roof Plan including: Directionality of Antennas, Height of Antennas above Nearest Walking Surface, Discuss Nearby Inhabited Buildings

Based on the information provided to EBI, the information indicates that the proposed antennas are to be pipe mounted to the rooftop masts, operating in the directions, frequencies, and heights mentioned in section 4.0 above. The site building is in a dense commercial area, and there are other commercial buildings within 50 feet in each direction.

8.0 Estimated Ambient Radio Frequency Fields for the Proposed Site

Based on worst-case predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 5 feet of Sprint proposed Sector B antennas, and within 2 feet of the Sector A and C 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 1 feet of Sprint proposed Sector B antennas at the main roof level. At the nearest walking/working surfaces to the proposed Sprint antennas, the maximum power density is 713.40 percent of the FCC's general public limit (142.68 percent of the FCC's occupational limit). The composite exposure level from all other carriers existing on this site combined with Sprint's proposed antennas is 581.20 percent of the FCC's general public limit (116.24 percent of the FCC's occupational limit) at the nearest walking/working surface to each antenna. Based on worst-case predictive modeling, there are no areas at ground level related to the proposed Sprint antennas that exceed the FCC's occupational or general public exposure limits at this site. At ground level, the maximum power density generated by the Sprint antennas combined with the existing other carriers antennas on site is 2.40 percent of the FCC's general public limit (0.48 percent of the FCC's occupational limit). The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix B.

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

9.0 Signage at the Facility Identifying all WTS Equipment and Safety Precautions for People Nearing the Equipment as may be Required by the Applicable FCC Adopted Standards (Discuss Signage for Those who Speak Languages Other than English)

Signs are the primary means for control of access to areas where RF exposure levels may potentially exceed the MPE. It is recommended that additional signage be installed for the new antennas making people aware of the antennas locations. There are exposures above the FCC limits in front of the proposed antennas and therefore barriers are recommended.

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

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

10.0 Statement on Who Produced This Report and Qualifications

Please see the certifications attached in Appendix A below.

11.0 FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS

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

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

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

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

Table 1 and Figure 1 (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a particular facility and are "time-averaged" limits to reflect different durations resulting from controlled and uncontrolled exposures.

The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm^2). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm^2) 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/cm^2 and an uncontrolled MPE of 0.53 mW/cm^2. These limits are considered protective of these populations.

Table 1: Limits for Maximum Permissible Exposure (MPE)

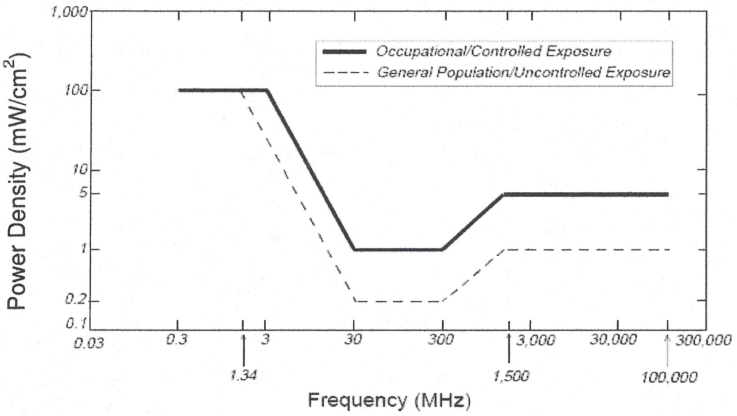
(A) Limits for Occupational/Controlled Exposure

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

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	--	--	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

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



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

Personal Wireless Service	Approximate Frequency	Occupational MPE	Public MPE
Personal Communication (PCS)	1,950 MHz	5.00 mW/cm^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 4601 Shattuck Ave in Oakland, California.

EBI has conducted theoretical modeling to estimate the worst-case power density from Sprint antennas and the other carriers' existing antennas to document potential MPE levels at this location and ensure that site control measures are adequate to meet FCC and OSHA requirements. As presented in the preceding sections, based on worst-case predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 5 feet of Sprint proposed Sector B, and within 2 feet of the Sector A and C 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 1 feet of Sprint proposed Sector B antennas at the main roof level.

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

Map, Settings, Antenna, and Symbol Data Table .. Exported from workbook -> RoofView 4.15.xls
Done on 9/25/2012 at 9:57:35 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 Y	Roof Max X	Map Max Y	Map Max X	Y Offset	X Offset	Number of envelope		List Of Areas
170	170	190	210	20	0	1	$K$31:FX	$K$31:$FX$200

StartSettingsData

Standard	Method	Uptime	Scale Facto	Low Thr	Low Color	Mid Thr	Mid Color	Hi Thr	Hi Color	Over Color	Ap Ht Mult	Ap Ht Method
4	2	1	1	100	1	500	4	5000	2	3	1.5	1

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

ID	Name	(MHz) Freq	Trans Power	Trans Count	Coax Len	Coax Type	Other Loss	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	(ft) Aper	dBd Gain	BWdth Pt Dir	Uptime Profile	ON flag
SPR A1	Sprint	800	20	1	15	1/2 LDF	0.5		16.40703	Powerware	P65-16-XLF	70	53	7.66		6	12.7	66;350		ON•
SPR A1	Sprint	1900	20	2	15	1/2 LDF	0.5		32.81406	Powerware	P65-16-XLF	70	53	7.66		6	15.1	63;350		ON•
SPR A1	Sprint	1900	20	4	15	1/2 LDF	0.5		65.62812	Powerware	P65-16-XLF	70	53	7.66		6	15.1	63;350		ON•
SPR B1	Sprint	800	20	1	15	1/2 LDF	0.5		16.40703	Powerware	P65-16-XLF	104	41	4.33		6	12.7	66;60		ON•
SPR B1	Sprint	1900	20	2	15	1/2 LDF	0.5		32.81406	Powerware	P65-16-XLF	104	41	4.33		6	15.1	63;60		ON•
SPR B1	Sprint	1900	20	4	15	1/2 LDF	0.5		65.62812	Powerware	P65-16-XLF	104	41	4.33		6	15.1	63;60		ON•
SPR C1	Sprint	800	20	1	15	1/2 LDF	0.5		16.40703	Powerwave	P90-15-XLF	72	49	7.66		6	11.7	86;210		ON•
SPR C1	Sprint	1900	20	2	15	1/2 LDF	0.5		32.81406	Powerwave	P90-15-XLF	72	49	7.66		6	13.9	80;210		ON•
SPR C1	Sprint	1900	20	4	15	1/2 LDF	0.5		65.62812	Powerwave	P90-15-XLF	72	49	7.66		6	13.9	80;210		ON•
NXT A1	Nextel	850	100	1			3		50.11872	unknown		27	69	63.42		4	12	90;340		ON•
NXT A2	Nextel	850	100	1			3		50.11872	unknown		32	69	63.42		4	12	90;340		ON•
NXT A3	Nextel	850	100	1			3		50.11872	unknown		37	69	63.42		4	12	90;340		ON•
NXT B1	Nextel	850	100	1			3		50.11872	unknown		120	31	63.42		4	12	90;90		ON•
NXT B2	Nextel	850	100	1			3		50.11872	unknown		121	26	63.42		4	12	90;90		ON•
NXT B3	Nextel	850	100	1			3		50.11872	unknown		122	21	63.42		4	12	90;90		ON•
NXT C1	Nextel	850	100	1			3		50.11872	unknown		47	16	63.42		4	12	90;270		ON•
NXT C2	Nextel	850	100	1			3		50.11872	unknown		43	16	63.42		4	12	90;270		ON•
NXT C3	Nextel	850	100	1			3		50.11872	unknown		39	16	63.42		4	12	90;270		ON•
TMB A1	T-Mobile	1900	20	1			3		10.02374	unknown		44	69	62.92		5	16	65;340		ON•
TMB B1	T-Mobile	1900	20	1			3		10.02374	unknown		110	63	62.92		5	16	65;90		ON•
TMB C1	T-Mobile	1900	20	1			3		10.02374	unknown		25	16	62.92		5	16	65;270		ON•
CLW A1	Clearwire	2500	20	1			3		10.02374	unknown		52	69	63.79		3.25	16	90;340		ON•
CLW B1	Clearwire	2500	20	1			3		10.02374	unknown		113	55	63.79		3.25	16	90;90		ON•
CLW C1	Clearwire	2500	20	1			3		10.02374	unknown		57	16	63.79		3.25	16	90;270		ON•

StartSymbolData

Sym	Map Marke	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	

Preparer Certification

I, Kyle Saunders, 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.