



# SAN FRANCISCO PLANNING DEPARTMENT

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## Executive Summary Conditional Use Authorization

HEARING DATE: JANUARY 8, 2015

1650 Mission St.  
Suite 400  
San Francisco,  
CA 94103-2479

Reception:  
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*Date:* January 2, 2015  
*Case No.:* **2014.0560C**  
*Project Address:* **4377 Mission Street**  
*Current Zoning:* Excelsior Outer Mission Street Neighborhood Commercial District  
Excelsior Outer Mission Street Alcohol Restricted Use District  
Fringe Financial Services Restricted Use District  
40-X Height and Bulk District  
*Block/Lot:* 6013/033  
*Project Sponsor:* Sprint represented by  
Maria Miller, Modus  
149 Natoma, 3<sup>rd</sup> Floor  
San Francisco, CA 94105  
*Staff Contact:* Omar Masry – (415) 575-9116  
Omar.Masry@sfgov.org

### PROJECT DESCRIPTION

The proposal is to allow the modification of an existing Sprint macro wireless telecommunication services (“WTS”) facility. The macro WTS facility would consist of six (6) screened rooftop-mounted panel antennas, and electronic equipment necessary to run the facility on the roof and within a portion of the ground floor area. Based on the zoning and land use, the existing WTS facility is at a Location Preference 6 Site (Limited Preference, Individual Neighborhood Commercial District) according to the WTS Facilities Siting Guidelines.

The proposed faux stairwell penthouse would replace an existing radome, which currently houses three (3) Sprint panel antennas and rises approximately twelve (12) feet above the roof. The proposed faux stairwell penthouse would rise ten (10) feet above the roof, which is 35’ 3” above ground level. The faux penthouse would measure four (4) feet wide by four (4) feet and seven (7) inches deep, and be setback at least five (5) feet from the nearest roof edge, along the Mission Street frontage.

The screening material used to simulate a stairwell penthouse would be composed of a fiberglass like material known as fibre-reinforced plastic (FRP), which would be painted and textured to mimic a penthouse structure. The FRP material allows for the screening of panel antennas and related electronic equipment, while still allowing radio waves to pass through.

Electronic equipment necessary to run the facility would be located in two locations. A portion of the equipment would be located on the roof, but at locations (height and setback from roof edges) that would not be visible from adjacent public rights-of-way. An existing global positioning system (GPS) antenna, used for network synchronization, would be relocated from the roof edge along the Mission Street frontage and attached to a cable tray, so as to reduce visibility from adjacent surrounding streets. The

relatively larger, equipment cabinets would remain located within an approximately 280 square-foot area of the first floor, and would include a battery back-up cabinet to provide backup power in the event of a power outage or disaster.

## **SITE DESCRIPTION AND PRESENT USE**

The Project Site is located on Assessor's Block 6013, Lot 033 at the southeast corner of Mission Street and Avalon Avenue. The Subject Building is an approximately 35-foot tall, three-story tall mixed-use building, with eight (8) dwellings, above a ground floor commercial space. The Project Site features an existing Sprint macro WTS facility with three (3) panel antennas in a single radome, and equipment in a ground floor room (Case No. 1996.383C).

## **SURROUNDING PROPERTIES AND NEIGHBORHOOD**

The Project Site is situated in the Excelsior neighborhood, and borders the Outer Mission neighborhood, which is to the west across Mission Street. The surrounding neighborhood features a single-family neighborhood to the east, and mixed-use buildings (two residential stories above ground floor commercial space) to the south. The area to the west across Mission Street includes a mix of two-story single-family residences, single-story commercial buildings (auto repair and optometrist), and a mixed-use building (two residential stories above ground floor commercial space), at the corner of Mission Street and Theresa Street (which becomes Avalon Avenue east of Mission Street). The Jewish Home, a convalescent center, is located to the north across Avalon Avenue.

## **ENVIRONMENTAL REVIEW**

The Project is exempt from the California Environmental Quality Act ("CEQA") as a Class 3 categorical exemption. The categorical exemption and all pertinent documents may be found in the files of the Planning Department, as the custodian of records, at 1650 Mission Street, San Francisco.

## **HEARING NOTIFICATION**

<b>TYPE</b>	<b>REQUIRED PERIOD</b>	<b>REQUIRED NOTICE DATE</b>	<b>ACTUAL NOTICE DATE</b>	<b>ACTUAL PERIOD</b>
Classified News Ad	20 days	December 19, 2014	December 17, 2014	22 days
Posted Notice	20 days	December 19, 2014	December 19, 2014	20 days
Mailed Notice	10 days	December 29, 2014	December 19, 2014	20 days

## **PUBLIC COMMENT**

As of January 2, 2015, the Department has received no comments regarding the proposed Project.

In addition, the Project Sponsor held a community meeting at the Excelsior Branch of the San Francisco Public Library, at 4400 Mission Street, to discuss the Project at 6:00 p.m. on November 5, 2014. Two (2) community members attended the meeting and indicated their support for the proposed Project.

## **ISSUES AND OTHER CONSIDERATIONS**

- Health and safety aspects of all wireless Projects are reviewed under the Department of Public Health, San Francisco Fire Department, and the Department of Building Inspection. The RF emissions associated with this Project have been determined to comply with limits established by the Federal Communications Commission (FCC).
- An updated Five Year Plan with approximate longitudinal and latitudinal coordinates of proposed locations, including the Project Site, is on file with the Planning Department.
- All required public notifications were conducted in compliance with the Planning Code and adopted WTS policies.

## **REQUIRED COMMISSION ACTION**

Pursuant to Sections 745.83 and 303 of the Planning Code, a Conditional Use Authorization is required for a macro WTS facility (classified as a “Public Use” per Planning Code Section 790.80) in the Excelsior Outer Mission Street Neighborhood District.

## **BASIS FOR RECOMMENDATION**

This Project is necessary and/or desirable under Section 303 of the Planning Code for the following reasons:

- The Project complies with the applicable requirements of the Planning Code.
- The Project is consistent with the Objectives and Policies of the General Plan.
- The Project is consistent with the 1996 WTS Facilities Siting Guidelines, Planning Commission Resolution No. 14182, 16539, and 18523 supplementing the 1996 WTS Guidelines.
- Health and safety aspects of all wireless projects are reviewed under the Department of Public Health and the Department of Building Inspections.
- The expected RF emissions fall well within the limits established by the Federal Communications Commission (FCC).
- According to the Wireless Telecommunications Services (WTS) Facilities Siting Guidelines, the Project Site is Location Preference 6 (Limited Preference, Individual Neighborhood Commercial District) site. As the Project Site features an existing Sprint macro WTS facility, which was approved pursuant to the 1996 WTS Guidelines, no alternative site analysis is required.
- Based on propagation maps provided by Sprint, the Project would provide enhanced 850 – 2,500 Megahertz 4G LTE (4<sup>th</sup> Generation, Long-Term-Evolution, voice and data) coverage in an area that currently experiences gaps in coverage and capacity.
- Based on the analysis provided by Sprint, the Project will provide additional capacity in an area that currently experiences insufficient service during periods of high data usage.
- Based on independent third-party evaluation, the maps, data, and conclusions about service coverage and capacity provided by Sprint are accurate.
- The roof-mounted antennas would be fully screened by a single enclosure intended to mimic a stairwell penthouse. Related electronic equipment would be located on the roof and a portion of the ground floor. With the exception of the existing facade-mounted cable tray, the roof-mounted electronic equipment would be placed at a height and setback from roof edge, so as to not be visible from adjacent public rights-of-way. The facility would continue to avoid intrusion into

public vistas, avoid significant disruption of the architectural integrity of building and insure harmony with neighborhood character.

- The Project has been reviewed by staff and found to be categorically exempt from further environmental review, as a Class 3 exemption of the California Environmental Quality Act.

<b>RECOMMENDATION:</b>	<b>Approval with Conditions</b>
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- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Executive Summary   | <input checked="" type="checkbox"/> Project sponsor submittal |
| <input checked="" type="checkbox"/> Draft Motion        | Drawings: <u>Proposed Project</u>                             |
| <input checked="" type="checkbox"/> Zoning District Map | <input checked="" type="checkbox"/> Check for legibility      |
| <input type="checkbox"/> Height & Bulk Map              | <input checked="" type="checkbox"/> Photo Simulations         |
| <input checked="" type="checkbox"/> Parcel Map          | <input checked="" type="checkbox"/> Coverage Maps             |
| <input checked="" type="checkbox"/> Sanborn Map         | <input checked="" type="checkbox"/> RF Report                 |
| <input checked="" type="checkbox"/> Aerial Photo        | <input checked="" type="checkbox"/> DPH Approval              |
| <input checked="" type="checkbox"/> Context Photos      | <input checked="" type="checkbox"/> Community Outreach Report |
| <input checked="" type="checkbox"/> Site Photos         | <input checked="" type="checkbox"/> Independent Evaluation    |

Exhibits above marked with an "X" are included in this packet \_\_\_\_\_ on \_\_\_\_\_ Planner's Initials



# SAN FRANCISCO PLANNING DEPARTMENT

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## Planning Commission Motion No. XXXXX

HEARING DATE: JANUARY 8, 2015

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*Case No.:* 2014.0560C  
*Project Address:* 4377 Mission Street  
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**ADOPTING FINDINGS RELATING TO THE APPROVAL OF A CONDITIONAL USE AUTHORIZATION UNDER PLANNING CODE SECTIONS 303(c) AND 745.83 TO MODIFY AN EXISTING MACRO WIRELESS TELECOMMUNICATIONS SERVICES FACILITY CONSISTING OF SIX SCREENED PANEL ANTENNAS AND ASSOCIATED EQUIPMENT LOCATED ON THE ROOFTOP AND WITHIN THE FIRST FLOOR AREA OF AN EXISTING MIXED-USE BUILDING AS PART OF SPRINT'S WIRELESS TELECOMMUNICATIONS NETWORK WITHIN THE EXCELSIOR OUTER MISSION STREET NEIGHBORHOOD COMMERCIAL DISTRICT ZONING DISTRICT, EXCELSIOR OUTER MISSION STREET ALCOHOL RESTRICTED USE DISTRICT, AND A 40-X HEIGHT AND BULK DISTRICT.**

### PREAMBLE

On April 15, 2014, Sprint (hereinafter "Project Sponsor"), submitted an application (hereinafter "Application"), for a Conditional Use Authorization on the property at 4377 Mission Street, Lot 033, in Assessor's Block 6013, (hereinafter "Project Site") to install a wireless telecommunications service facility (hereinafter "WTS") consisting of six (6) screened panel antennas and equipment located on the roof and first floor area of the Subject Building, as part of Sprint's telecommunications network, within the Excelsior Outer Mission Street Neighborhood Commercial District, Excelsior Outer Mission Street Alcohol Restricted Use District Street, and a 40-X Height and Bulk District.

The Project is exempt from the California Environmental Quality Act (“CEQA”) as a Class 3 Categorical Exemption (Section 15303 of the California Environmental Quality Act). The Planning Commission has reviewed and concurs with said determination. The categorical exemption and all pertinent documents may be found in the files of the Planning Department (hereinafter “Department”), as the custodian of records, at 1650 Mission Street, Suite 400, San Francisco.

On January 8, 2015, the San Francisco Planning Commission (hereinafter “Commission”) conducted a duly noticed public hearing at a regularly scheduled meeting on the Application for a Conditional Use Authorization.

The Commission has heard and considered the testimony presented to it at the public hearing and has further considered written materials and oral testimony presented on behalf of the Applicant, Department Staff, and other interested parties.

**MOVED**, that the Commission hereby authorizes the Conditional Use in Application No. 2014.0560C, subject to the conditions contained in “EXHIBIT A” of this motion, based on the following findings:

#### **FINDINGS**

Having reviewed the materials identified in the preamble above, and having heard all testimony and arguments, this Commission finds, concludes, and determines as follows:

1. The above recitals are accurate and constitute findings of this Commission.
2. **Site Description and Present Use.** The Project Site is located on Assessor’s Block 6013, Lot 033 at the southeast corner of Mission Street and Avalon Avenue. The Subject Building is an approximately 35-foot tall, three-story tall mixed-use building, with eight (8) dwellings, above a ground floor commercial space. The Project Site features an existing Sprint macro WTS facility with three (3) panel antennas in a single radome, and equipment in a ground floor room (Case No. 1996.383C).
3. **Surrounding Properties and Neighborhood.** The Project Site is situated in the Excelsior neighborhood, and borders the Outer Mission neighborhood, which is to the west across Mission Street. The surrounding neighborhood features a single-family neighborhood to the east, and mixed-use buildings (two residential stories above ground floor commercial space) to the south. The area to the west across Mission Street includes a mix of two-story single-family residences, single-story commercial buildings (auto repair and optometrist), and a mixed-use building (two residential stories above ground floor commercial space), at the corner of Mission Street and Theresa Street (which becomes Avalon Avenue east of Mission Street). The Jewish Home, a convalescent center, is located to the north across Avalon Avenue.

4. **Project Description.** The proposal is to allow the modification of an existing Sprint macro wireless telecommunication services (“WTS”) facility. The macro WTS facility would consist of six (6) screened rooftop-mounted panel antennas, and electronic equipment necessary to run the facility on the roof and within a portion of the ground floor area.

The proposed faux stairwell penthouse would replace an existing radome, which currently houses three (3) Sprint panel antennas and rises approximately twelve (12) feet above the roof. The proposed faux stairwell penthouse would rise ten (10) feet above the roof, which is 35’ 3” above ground level. The faux penthouse would measure four (4) feet wide by four (4) feet and seven (7) inches deep, and be setback at least five (5) feet from the nearest roof edge, along the Mission Street frontage.

The screening material used to simulate a stairwell penthouse would be composed of a fiberglass like material known as fibre-reinforced plastic (FRP), which would be painted and textured to mimic a penthouse structure. The FRP material allows for the screening of panel antennas and related electronic equipment, while still allowing radio waves to pass through.

Electronic equipment necessary to run the facility would be located in two locations. A portion of the equipment would be located on the roof, but at locations (height and setback from roof edges) that would not be visible from adjacent public rights-of-way. An existing global positioning system (GPS) antenna, used for network synchronization, would be relocated from the roof edge along Mission Street frontage, and attached to a cable tray, so as to reduce visibility from adjacent surrounding streets. The relatively larger, equipment cabinets would remain located within an approximately 280 square-foot area of the first floor, and would include a battery back-up cabinet to provide backup power in the event of a power outage or disaster.

5. **Past History and Actions.** The Planning Commission adopted the *Wireless Telecommunications Services (WTS) Facilities Siting Guidelines* (“Guidelines”) for the installation of wireless telecommunications facilities in 1996. These Guidelines set forth the land use policies and practices that guide the installation and approval of wireless facilities throughout San Francisco. A large portion of the Guidelines was dedicated to establishing location preferences for these installations. The Board of Supervisors, in Resolution No. 635-96, provided input as to where wireless facilities should be located within San Francisco. The Guidelines were updated by the Commission in 2003 and again in 2012, requiring community outreach, notification, and detailed information about the facilities to be installed.

Section 8.1 of the Guidelines outlines Location Preferences for wireless facilities. There are five primary areas where the installation of wireless facilities should be located:

1. Publicly-used Structures: such facilities as fire stations, utility structures, community facilities, and other public structures;

2. Co-Location Site: encourages installation of facilities on buildings that already have wireless installations;
3. Industrial or Commercial Structures: buildings such as warehouses, factories, garages, service stations;
4. Industrial or Commercial Structures: buildings such as supermarkets, retail stores, banks; and
5. Mixed-Use Buildings in High Density Districts: buildings such as housing above commercial or other non-residential space.

Section 8.1 of the WTS Siting Guidelines further stipulates that the Planning Commission will not approve WTS applications for Preference 5 or below Location Sites unless the application describes (a) what publicly-used building, co-location site or other Preferred Location Sites are located within the geographic service area; (b) what good faith efforts and measures were taken to secure these more Preferred Locations, (c) explains why such efforts were unsuccessful; and (d) demonstrates that the location for the site is essential to meet demands in the geographic service area and the Applicant's citywide networks.

Before the Planning Commission can review an application to install a wireless facility, the Project Sponsor must submit a five-year facilities plan, which must be updated biannually, an emissions report and approval by the Department of Public Health, Section 106 Declaration of Intent, an independent evaluation verifying coverage and capacity, a submittal checklist and details about the facilities to be installed.

Under Section 704(B)(iv) of the 1996 Federal Telecommunications Act, local jurisdictions cannot deny wireless facilities based on Radio Frequency (RF) radiation emissions so long as such facilities comply with the FCC's regulations concerning such emissions.

6. **Location Preference.** The *WTS Facilities Siting Guidelines* identify different types of zoning districts and building uses for the siting of wireless telecommunications facilities. Under the *Guidelines*, and based on the zoning and land use, the modified macro WTS facility is on a Location Preference 6 Site (Limited Preference Location, Individual Neighborhood Commercial District) according to the *WTS Facilities Siting Guidelines*. As the Project Site features an existing Sprint macro WTS facility, which was approved pursuant to the 1996 WTS Guidelines, no alternative site analysis is required.
7. **Radio Waves Range.** The Project Sponsor has stated that the proposed wireless network is designed to address coverage and capacity needs in the area. The network will operate in the 850 – 2,500 Megahertz (MHZ) bands, which are regulated by the Federal Communications Commission (FCC) and must comply with the FCC-adopted health and safety standards for electromagnetic radiation and radio frequency radiation.
8. **Radiofrequency (RF) Emissions:** The Project Sponsor retained EBI Consulting, a radio engineering consulting firm, to prepare a report describing the expected RF emissions from the proposed facility. Pursuant to the *Guidelines*, the Department of Public Health



reviewed the report and determined that the proposed facility complies with the standards set forth in the Guidelines.

9. **Department of Public Health Review and Approval.** The proposed Project was referred to the Department of Public Health (DPH) for emissions exposure analysis. Existing radio-frequency (RF) levels at ground level were around 4% of the FCC public exposure limit.

Sprint proposes to replace three (3) panel antennas with six (6) panel antennas. The antennas will be mounted at a height of approximately 48 feet above the ground. The estimated ambient RF field from the proposed Sprint transmitters at ground level is calculated to be 0.03307 mW/sq. cm., which is 6.2% of the FCC public exposure limit. The three dimensional perimeter of RF levels equal to the public exposure limit extends 19 feet and does not reach any publicly accessible areas. Warning signs must be posted at the antennas and roof access points in English, Spanish, and Chinese. Workers should not have access to the area (8 feet) directly in front of the antenna while it is in operation.

10. **Coverage and Capacity Verification.** The maps, data, and conclusion provided by Sprint to demonstrate need for outdoor and indoor coverage and capacity have been determined by EBI Consulting, and engineering consultant and independent third party to accurately represent the carrier's present and post-installation conclusions.
11. **Maintenance Schedule.** The proposed facility would operate without on-site staff but with a two-person maintenance crew visiting the property approximately once a month and on an as-needed basis to service and monitor the facility.
12. **Community Outreach.** Per the *Guidelines*, the Project Sponsor held a community meeting at the Excelsior Branch of the San Francisco Public Library, at 4400 Mission Street, to discuss the Project at 6:00 p.m. on November 5, 2014. Two (2) community members attended the meeting and indicated their support for the proposed Project.
13. **Five-year plan:** Per the Guidelines, the Project Sponsor submitted an updated five-year plan, as required, in October 2014.
14. **Public Comment.** As of January 2, 2015, the Department has received no public comment regarding the proposed Project.
15. **Planning Code Compliance.** The Commission finds that the Project is consistent with the relevant provisions of the Planning Code in the following manner:
  - A. **Use.** Per Planning Code Section 745.83, a Conditional Use Authorization is required for the installation or modification of a wireless telecommunication services facility (Public Use).

16. **Planning Code Section 303** establishes criteria for the Planning Commission to consider when reviewing applications for Conditional Use approval. On balance, the Project complies with said criteria in that:

A. The proposed new uses and building, at the size and intensity contemplated and at the proposed location, will provide a development that is necessary or desirable, and compatible with, the neighborhood or the community.

- i. *Desirable: San Francisco is a leader of the technological economy; it is important and desirable to the vitality of the City to have and maintain adequate telecommunications coverage and data capacity. This includes the installation and upgrading of systems to keep up with changing technology and increases in usage. It is desirable for the City to allow wireless facilities to be installed.*

*The proposed Project at 4377 Mission Street is generally desirable and compatible with the surrounding neighborhood because the Project will not conflict with the existing uses of the property and will be designed to be compatible with the surrounding neighborhood. The placement of antennas and related support and protection features are so located, designed, and treated architecturally to minimize their visibility from public places, to avoid intrusion into public vistas, to avoid disruption of the architectural design integrity of buildings, and to insure harmony with the existing neighborhood character and promote public safety. The Project has been reviewed and determined to not cause the removal or alteration of any significant architectural features of the subject building.*

- ii. *Necessary: In the case of wireless installations, there are two criteria that the Commission reviews: coverage and capacity.*

*Coverage: San Francisco does have sufficient overall wireless coverage (note that this is separate from carrier capacity). San Francisco's unique coverage issues are due to topography and building heights. The hills and buildings disrupt lines of site between WTS base stations. Thus, telecommunication carriers continue to install additional installations to make sure coverage is sufficient.*

*Capacity: While a carrier may have adequate coverage in a certain area, the capacity may not be sufficient. With the continuous innovations in wireless data technology and demand placed on existing infrastructure, individual telecommunications carriers must upgrade and in some instances expand their facilities network to provide proper data and voice capacity. It is necessary for San Francisco, as a leader in technology, to have adequate capacity.*

*The proposed Project at 4377 Mission Street is necessary in order to achieve sufficient street and in-building mobile phone coverage and data capacity. Recent drive tests in the subject area conducted by the Sprint Radio Frequency Engineering Team provide that the Project Site is a preferable location, based on factors including quality of coverage and aesthetics.*

B. The proposed project will not be detrimental to the health, safety, convenience or general welfare of persons residing or working in the vicinity. There are no features of the project that could be detrimental to the health, safety or convenience of those residing or working the area, in that:

- i. Nature of proposed site, including its size and shape, and the proposed size, shape and arrangement of structures;

*The Project must comply with all applicable Federal and State regulations to safeguard the health, safety and to ensure that persons residing or working in the vicinity will not be affected, and prevent harm to other personal property.*

*The Department of Public Health conducted an evaluation of potential health effects from Radio Frequency radiation, and has concluded that the proposed wireless transmission facilities will have no adverse health effects if operated in compliance with the FCC-adopted health and safety standards.*

- ii. The accessibility and traffic patterns for persons and vehicles, the type and volume of such traffic, and the adequacy of proposed off-street parking and loading;

*No increase in traffic volume is anticipated with the facilities operating unmanned, with a maintenance crew visiting the Site once a month or on an as-needed basis.*

- iii. The safeguards afforded to prevent noxious or offensive emissions such as noise, glare, dust and odor;

*While some noise and dust may result from the installation of the antennas and transceiver equipment, noise or noxious emissions from continued use are not likely to be significantly greater than ambient conditions due to the operation of the wireless communication network.*

- iv. Treatment given, as appropriate, to such aspects as landscaping, screening, open spaces, parking and loading areas, service areas, lighting and signs;

*All of the antennas are either fully screened so as to approximate an elevator penthouse. Related electronic equipment would be placed in a first floor p area, and on the roof at a height, and setback from roof edge, so as to not be visible from adjacent public rights-of-way, such as Mission Street. The proposed antennas and equipment will not affect landscaping, open space, parking, lighting or signage at the Project Site or surrounding area.*

C. That the use as proposed will comply with the applicable provisions of the Planning Code and will not adversely affect the General Plan.

*The Project complies with all relevant requirements and standards of the Planning Code and is consistent with Objectives and Policies of the General Plan, as detailed below.*

- D. That the use as proposed would provide development that is in conformity with the purpose of the applicable Neighborhood Commercial District.

*The Project is consistent with the purpose of this Neighborhood Commercial District in that the intended use is located on an existing building and would not alter the character of the building or surrounding area. Furthermore, the facility would not impact the primary residential use of the building.*

17. **General Plan Compliance.** The Project is, on balance, consistent with the following Objectives and Policies of the General Plan:

**HOUSING ELEMENT**  
Objectives and Policies

**BALANCE HOUSING CONSTRUCTION AND COMMUNITY INFRASTRUCTURE**

**OBJECTIVE 12:**

**BALANCE HOUSING GROWTH WITH ADEQUATE INFRASTRUCTURE THAT SERVES THE CITY'S GROWING POPULATION.**

**Policy 12.3:**

Ensure new housing is sustainably supported by the City's public infrastructure systems.

*The Project will improve Sprint's coverage and capacity along Mission Street and portions of the Excelsior and Outer Mission.*

**URBAN DESIGN ELEMENT**  
Objectives and Policies

**HUMAN NEEDS**

**OBJECTIVE 4:**

**IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.**

**Policy 4.14:**

Remove and obscure distracting and cluttering elements.

*The proposed antennas and rooftop equipment, where visible from adjacent public rights-of-way, would be located in such a manner as to approximate an elevator penthouse expansion and*

*mechanical appurtenances associated with similar building rooftops. The height, setback from roof edge, and use of stealthing, would ensure the facility does not appear cluttered or distracting.*

**COMMERCE AND INDUSTRY ELEMENT**  
**Objectives and Policies**

**OBJECTIVE 1:**

MANAGE ECONOMIC GROWTH AND CHANGE TO ENSURE ENHANCEMENT OF THE TOTAL CITY LIVING AND WORKING ENVIRONMENT.

**Policy 1.1:**

Encourage development, which provides substantial net benefits and minimizes undesirable consequences. Discourage development, which has substantial undesirable consequences that cannot be mitigated.

**Policy 1.2:**

Assure that all commercial and industrial uses meet minimum, reasonable performance standards.

*The Project would enhance the total city living and working environment by providing communication services for residents and workers within the City. Additionally, the Project would comply with Federal, State and Local performance standards.*

**OBJECTIVE 2:**

MAINTAIN AND ENHANCE A SOUND AND DIVERSE ECONOMIC BASE AND FISCAL STRUCTURE FOR THE CITY.

**Policy 2.1:**

Seek to retain existing commercial and industrial activity and to attract new such activity to the city.

**Policy 2.3:**

Maintain a favorable social and cultural climate in the city in order to enhance its attractiveness as a firm location.

*The Site would be an integral part of a new wireless communications network that would enhance the City's diverse economic base.*

**OBJECTIVE 4:**

IMPROVE THE VIABILITY OF EXISTING INDUSTRY IN THE CITY AND THE ATTRACTIVENESS OF THE CITY AS A LOCATION FOR NEW INDUSTRY.

**Policy 4.1:**

Maintain and enhance a favorable business climate in the City.

**Policy 4.2:**

Promote and attract those economic activities with potential benefit to the City.

*The Project would benefit the City by enhancing the business climate through improved communication services for residents and workers.*

**VISITOR TRADE**

**OBJECTIVE 8:**

ENHANCE SAN FRANCISCO'S POSITION AS A NATIONAL CENTER FOR CONVENTIONS AND VISITOR TRADE.

**Policy 8.3:**

Assure that areas of particular visitor attraction are provided with adequate public services for both residents and visitors.

*The Project would ensure that residents and visitors have adequate public service in the form of Sprint telecommunications.*

**COMMUNITY SAFETY ELEMENT**  
Objectives and Policies

**OBJECTIVE 3:**

ESTABLISH STRATEGIES TO ADDRESS THE IMMEDIATE EFFECTS OF A DISASTER.

**Policy 1.20**

Increase communication capabilities in preparation for all phases of a disaster and ensure communication abilities extend to hard-to-reach areas and special populations.

**Policy 2.4**

Bolster the Department of Emergency Management's role as the City's provider of emergency planning and communication, and prioritize its actions to meet the needs of San Francisco.

**Policy 2.15**

Utilize advancing technology to enhance communication capabilities in preparation for all phases of a disaster, particularly in the high-contact period immediately following a disaster.

**Policy 3.7:**

Develop a system to convey personalized information during and immediately after a disaster.

*The Project would enhance the ability of the City to protect both life and property from the effects of a fire or natural disaster by providing communication services.*

18. **Planning Code Section 101.1(b)** establishes eight priority-planning policies and requires review of permits for consistency with said policies. On balance, the Project does comply with said policies in that:

- A. That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses be enhanced.

*The wireless communications network would enhance personal communication services for businesses and customers in the surrounding area.*

- B. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods.

*No residential uses would be displaced or altered in any way by the granting of this Authorization. The facility consists of roof-mounted equipment and equipment within a non-residential area within the Subject Building. The roof-mounted equipment would be screened or minimally visible, and would therefore not adversely affect the neighborhood character.*

- C. That the City's supply of affordable housing be preserved and enhanced.

*The Project would have no adverse effect on housing in the vicinity.*

- D. That commuter traffic not impede MUNI transit service or overburden our streets or neighborhood parking.

*Due to the nature of the Project and minimal maintenance or repair, municipal transit service would not be significantly impeded and neighborhood parking would not be overburdened.*

- E. That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for resident employment and ownership in these sectors be enhanced.

*The Project would cause no displacement of industrial and service sector activity.*

- F. That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.

*Compliance with applicable structural safety and seismic safety requirements would be considered during the building permit application review process.*

- G. That landmarks and historic buildings be preserved.

*The Project Site was developed in 1979, and is not considered a Historic Resource. Furthermore, the proposed facility would not detract from views of other buildings considered to be potential historic resources in the surrounding area.*

- H. That our parks and open space and their access to sunlight and vistas be protected from development.

*The Project would have no adverse effect on parks or open space, or their access to sunlight or public vistas.*

19. The Project is consistent with and would promote the general and specific purposes of the Code provided under Section 101.1(b) in that, as designed, the Project would contribute to the character and stability of the neighborhood and would constitute a beneficial development.
20. The Commission hereby finds that approval of the Conditional Use Authorization would promote the health, safety and welfare of the City.



**DECISION**

The Commission, after carefully balancing the competing public and private interests, and based upon the Recitals and Findings set forth above, in accordance with the standards specified in the Code, hereby approves the Conditional Use Authorization under Planning Code Sections 745.83 and 303 to install up to six (6) screened panel antennas and associated equipment on the roof and first floor room of the Project Site and as part of a wireless transmission network operated by Sprint on a Location Preference 6 (Limited Preference Location, Individual Neighborhood Commercial District) according to the Wireless Telecommunications Services (WTS) Facilities Siting Guidelines, within the Excelsior Outer Mission Street Neighborhood Commercial District, Excelsior Outer Mission Street Alcohol Restricted Use District, and a 40-X Height and Bulk District, and subject to the conditions of approval attached hereto as **Exhibit A**; in general conformance with the plans, dated June 3, 2014, and stamped "Exhibit B."

**APPEAL AND EFFECTIVE DATE OF MOTION:** Any aggrieved person may appeal this Conditional Use Authorization to the Board of Supervisors within thirty (30) days after the date of this Motion No. XXXXX. The effective date of this Motion shall be the date of this Motion if not appealed (after the 30-day period has expired) OR the date of the decision of the Board of Supervisors if appealed to the Board of Supervisors. For further information, please contact the Board of Supervisors at (415) 554-5184, City Hall, Room 244, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102.

**Protest of Fee or Exaction:** You may protest any fee or exaction subject to Government Code Section 66000 that is imposed as a condition of approval by following the procedures set forth in Government Code Section 66020. The protest must satisfy the requirements of Government Code Section 66020(a) and must be filed within 90 days of the date of the first approval or conditional approval of the development referencing the challenged fee or exaction. For purposes of Government Code Section 66020, the date of imposition of the fee shall be the date of the earliest discretionary approval by the City of the subject development.

If the City has not previously given Notice of an earlier discretionary approval of the project, the Planning Commission's adoption of this Motion, Resolution, Discretionary Review Action or the Zoning Administrator's Variance Decision Letter constitutes the approval or conditional approval of the development and the City hereby gives **NOTICE** that the 90-day protest period under Government Code Section 66020 has begun. If the City has already given Notice that the 90-day approval period has begun for the subject development, then this document does not recommence the 90-day approval period.

**Motion No. XXXXX**  
**Hearing Date: January 8, 2015**

**CASE NO. 2014.0560C**  
**4377 Mission Street**

I hereby certify that the foregoing Motion was adopted by the Planning Commission on **January 8, 2015**.

Jonas P. Ionin  
Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED: January 8, 2015

## **EXHIBIT A**

### **AUTHORIZATION**

This authorization is for a Conditional Use Authorization under Planning Code Sections 745.83 and 303 to install up to six (6) screened panel antennas and associated equipment on the roof and first floor room of the Project Site and as part of a wireless transmission network operated by Sprint on a Location Preference 6 (Limited Preference Location, Individual Neighborhood Commercial District) according to the Wireless Telecommunications Services (WTS) Facilities Siting Guidelines, within the Excelsior Outer Mission Street Neighborhood Commercial District, Excelsior Outer Mission Street Alcohol Restricted Use District, and a 40-X Height and Bulk District, and subject to the conditions of approval attached hereto as **Exhibit A**; in general conformance with the plans, dated June 3, 2014, and stamped "Exhibit B."

### **RECORDATION OF CONDITIONS OF APPROVAL**

Prior to the issuance of the building permit or commencement of use for the Project the Zoning Administrator shall approve and order the recordation of a Notice in the Official Records of the Recorder of the City and County of San Francisco for the subject property. This Notice shall state that the Project is subject to the conditions of approval contained herein and reviewed and approved by the Planning Commission on **January 8, 2015** under Motion No. XXXXX.

### **PRINTING OF CONDITIONS OF APPROVAL ON PLANS**

The conditions of approval under the 'Exhibit A' of this Planning Commission Motion No. XXXXX shall be reproduced on the Index Sheet of construction plans submitted with the Site or Building permit application for the Project. The Index Sheet of the construction plans shall reference to the Conditional Use Authorization and any subsequent amendments or modifications.

### **SEVERABILITY**

The Project shall comply with all applicable City codes and requirements. If any clause, sentence, section or any part of these conditions of approval is for any reason held to be invalid, such invalidity shall not affect or impair other remaining clauses, sentences, or sections of these conditions. This decision conveys no right to construct, or to receive a building permit. "Project Sponsor" shall include any subsequent responsible party.

### **CHANGES AND MODIFICATIONS**

Changes to the approved plans may be approved administratively by the Zoning Administrator. Significant changes and modifications of conditions shall require Planning Commission approval of a new Conditional Use Authorization.

## **Conditions of Approval, Compliance, Monitoring, and Reporting**

### PERFORMANCE

1. **Validity and Expiration.** The authorization and right vested by virtue of this action is valid for thirty-six (36) months from the effective date of the Motion. A building permit from the Department of Building Inspection to construct the project and/or commence the approved use must be issued as this Conditional Use Authorization is only an approval of the proposed project and conveys no independent right to construct the Project or to commence the approved use. The Planning Commission may, in a public hearing, consider the revocation of the approvals granted if a site or building permit has not been obtained within thirty-six (36) months of the date of the Motion approving the Project. Once a site or building permit has been issued, construction must commence within the timeframe required by the Department of Building Inspection and be continued diligently to completion. The Commission may also consider revoking the approvals if a permit for the Project has been issued but is allowed to expire and more than thirty-six (36) months have passed since the Motion was approved.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org).*

2. **Extension.** This authorization may be extended at the discretion of the Zoning Administrator only where failure to issue a permit by the Department of Building Inspection to perform said tenant improvements is caused by a delay by a local, State or Federal agency or by any appeal of the issuance of such permit(s).

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org).*

### DESIGN – COMPLIANCE AT PLAN STAGE

3. **Plan Drawings - WTS.** Prior to the issuance of any building or electrical permits for the installation of the facilities, the Project Sponsor shall submit final scaled drawings for review and approval by the Planning Department ("Plan Drawings"). The Plan Drawings shall describe:
  - a. **Structure and Siting.** Identify all facility related support and protection measures to be installed. This includes, but is not limited to, the location(s) and method(s) of placement, support, protection, screening, paint and/or other treatments of the antennas and other appurtenances to insure public safety, insure compatibility with urban design, architectural and historic preservation principles, and harmony with neighborhood character.
  - b. For the Project Site, regardless of the ownership of the existing facilities. Identify the location of all existing antennas and facilities; and identify the location of all approved (but not installed) antennas and facilities.
  - c. **Emissions.** Provide a report, subject to approval of the Zoning Administrator, that operation of the facilities in addition to ambient RF emission levels will not exceed adopted FCC standards with regard to human exposure in uncontrolled areas.

*For information about compliance, contact the Case Planner, Planning Department at 415-575-9078, [www.sf-planning.org](http://www.sf-planning.org).*

4. **Screening - WTS.** To the extent necessary to ensure compliance with adopted FCC regulations regarding human exposure to RF emissions, and upon the recommendation of the Zoning Administrator, the Project Sponsor shall:
  - a. Modify the placement of the facilities;
  - b. Install fencing, barriers or other appropriate structures or devices to restrict access to the facilities;
  - c. Install multi-lingual signage, including the RF radiation hazard warning symbol identified in ANSI C95.2 1982, to notify persons that the facility could cause exposure to RF emissions;
  - d. Implement any other practice reasonably necessary to ensure that the facility is operated in compliance with adopted FCC RF emission standards.
  - e. To the extent necessary to minimize visual obtrusion and clutter, installations shall conform to the following standards:
    - a. Antennas and back up equipment shall be painted, fenced, landscaped or otherwise treated architecturally so as to minimize visual effects;
    - b. Rooftop installations shall be setback such that back up facilities are not viewed from the street;
    - c. Antennas attached to building facades shall be so placed, screened or otherwise treated to minimize any negative visual impact; and
    - d. Although co location of various companies' facilities may be desirable, a maximum number of antennas and back up facilities on the Project Site shall be established, on a case by case basis, such that "antennae farms" or similar visual intrusions for the site and area is not created.

*For information about compliance, contact the Case Planner, Planning Department at 415-575-9078, [www.sf-planning.org](http://www.sf-planning.org).*

#### **MONITORING - AFTER ENTITLEMENT**

5. **Enforcement.** Violation of any of the Planning Department conditions of approval contained in this Motion or of any other provisions of Planning Code applicable to this Project shall be subject to the enforcement procedures and administrative penalties set forth under Planning Code Section 176 or Section 176.1. The Planning Department may also refer the violation complaints to other city departments and agencies for appropriate enforcement action under their jurisdiction.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org).*

6. **Monitoring.** The Project requires monitoring of the conditions of approval in this Motion. The Project Sponsor or the subsequent responsible parties for the Project shall pay fees as established under Planning Code Section 351(e) (1) and work with the Planning Department for information about compliance.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org)*

7. **Revocation due to Violation of Conditions.** Should implementation of this Project result in complaints from interested property owners, residents, or commercial lessees which are not resolved by the Project Sponsor and found to be in violation of the Planning Code and/or the specific Conditions of Approval for the Project as set forth in Exhibit A of this Motion, the Zoning Administrator shall refer such complaints to the Commission, after which it may hold a public hearing on the matter to consider revocation of this authorization.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org).*

8. **Implementation Costs - WTS.**

- a. The Project Sponsor, on an equitable basis with other WTS providers, shall pay the cost of preparing and adopting appropriate General Plan policies related to the placement of WTS facilities. Should future legislation be enacted to provide for cost recovery for planning, the Project Sponsor shall be bound by such legislation.
- b. The Project Sponsor or its successors shall be responsible for the payment of all reasonable costs associated with implementation of the conditions of approval contained in this authorization, including costs incurred by this Department, the Department of Public Health, the Department of Technology, Office of the City Attorney, or any other appropriate City Department or agency. The Planning Department shall collect such costs on behalf of the City.
- c. The Project Sponsor shall be responsible for the payment of all fees associated with the installation of the subject facility, which are assessed by the City pursuant to all applicable law.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org)*

9. **Implementation and Monitoring - WTS.** In the event that the Project implementation report includes a finding that RF emissions for the site exceed FCC Standards in any uncontrolled location, the Zoning Administrator may require the Applicant to immediately cease and desist operation of the facility until such time that the violation is corrected to the satisfaction of the Zoning Administrator.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org)*

10. **Project Implementation Report - WTS.** The Project Sponsor shall prepare and submit to the Zoning Administrator a Project Implementation Report. The Project Implementation Report shall:

- a. Identify the three dimensional perimeter closest to the facility at which adopted FCC standards for human exposure to RF emissions in uncontrolled areas are satisfied;
- b. Document testing that demonstrates that the facility will not cause any potential exposure to RF emissions that exceed adopted FCC emission standards for human exposure in uncontrolled areas.

- c. The Project Implementation Report shall compare test results for each test point with applicable FCC standards. Testing shall be conducted in compliance with FCC regulations governing the measurement of RF emissions and shall be conducted during normal business hours on a non-holiday weekday with the subject equipment measured while operating at maximum power.
- d. Testing, Monitoring, and Preparation. The Project Implementation Report shall be prepared by a certified professional engineer or other technical expert approved by the Department. At the sole option of the Department, the Department (or its agents) may monitor the performance of testing required for preparation of the Project Implementation Report. The cost of such monitoring shall be borne by the Project Sponsor pursuant to the condition related to the payment of the City's reasonable costs.
  - i. Notification and Testing. The Project Implementation Report shall set forth the testing and measurements undertaken pursuant to Conditions 2 and 4.
  - ii. Approval. The Zoning Administrator shall request that the Certification of Final Completion for operation of the facility not be issued by the Department of Building Inspection until such time that the Project Implementation Report is approved by the Department for compliance with these conditions.

*For information about compliance, contact the Environmental Health Section, Department of Public Health at (415) 252-3800, [www.sfdph.org](http://www.sfdph.org).*

11. **Notification prior to Project Implementation Report - WTS.** The Project Sponsor shall undertake to inform and perform appropriate tests for residents of any dwelling units located within 25 feet of the transmitting antenna at the time of testing for the Project Implementation Report.
- a. At least twenty calendar days prior to conducting the testing required for preparation of the Project Implementation Report, the Project Sponsor shall mail notice to the Department, as well as to the resident of any legal dwelling unit within 25 feet of a transmitting antenna of the date on which testing will be conducted. The Applicant will submit a written affidavit attesting to this mail notice along with the mailing list.
  - b. When requested in advance by a resident notified of testing pursuant to subsection (a), the Project Sponsor shall conduct testing of total power density of RF emissions within the residence of that resident on the date on which the testing is conducted for the Project Implementation Report.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org)*

12. **Installation - WTS.** Within 10 days of the installation and operation of the facilities, the Project Sponsor shall confirm in writing to the Zoning Administrator that the facilities are being maintained and operated in compliance with applicable Building, Electrical and other Code requirements, as well as applicable FCC emissions standards.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org)*

13. **Periodic Safety Monitoring - WTS.** The Project Sponsor shall submit to the Zoning Administrator 10 days after installation of the facilities, and every two years thereafter, a

certification attested to by a licensed engineer expert in the field of EMR/RF emissions, that the facilities are and have been operated within the then current applicable FCC standards for RF/EMF emissions.

*For information about compliance, contact the Environmental Health Section, Department of Public Health at (415) 252-3800, [www.sfdph.org](http://www.sfdph.org).*

#### OPERATION

14. **Community Liaison.** Prior to issuance of a building permit application to construct the project and implement the approved use, the Project Sponsor shall appoint a community liaison officer to deal with the issues of concern to owners and occupants of nearby properties. The Project Sponsor shall provide the Zoning Administrator written notice of the name, business address, and telephone number of the community liaison. Should the contact information change, the Zoning Administrator shall be made aware of such change. The community liaison shall report to the Zoning Administrator what issues, if any, are of concern to the community and what issues have not been resolved by the Project Sponsor.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org)*

15. **Out of Service – WTS.** The Project Sponsor or Property Owner shall remove antennas and equipment that has been out of service or otherwise abandoned for a continuous period of six months.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org)*

16. **Emissions Conditions – WTS.** It is a continuing condition of this authorization that the facilities be operated in such a manner so as not to contribute to ambient RF/EMF emissions in excess of then current FCC adopted RF/EMF emission standards; violation of this condition shall be grounds for revocation.

*For information about compliance, contact the Environmental Health Section, Department of Public Health at (415) 252-3800, [www.sfdph.org](http://www.sfdph.org).*

17. **Noise and Heat – WTS.** The WTS facility, including power source and cooling facility, shall be operated at all times within the limits of the San Francisco Noise Control Ordinance. The WTS facility, including power source and any heating/cooling facility, shall not be operated so as to cause the generation of heat that adversely affects a building occupant.

*For information about compliance, contact the Environmental Health Section, Department of Public Health at (415) 252-3800, [www.sfdph.org](http://www.sfdph.org).*

18. **Transfer of Operation – WTS.** Any carrier/provider authorized by the Zoning Administrator or by the Planning Commission to operate a specific WTS installation may assign the operation of the facility to another carrier licensed by the FCC for that radio frequency provided that such transfer is made known to the Zoning Administrator in advance of such operation, and all conditions of approval for the subject installation are carried out by the new carrier/provider.

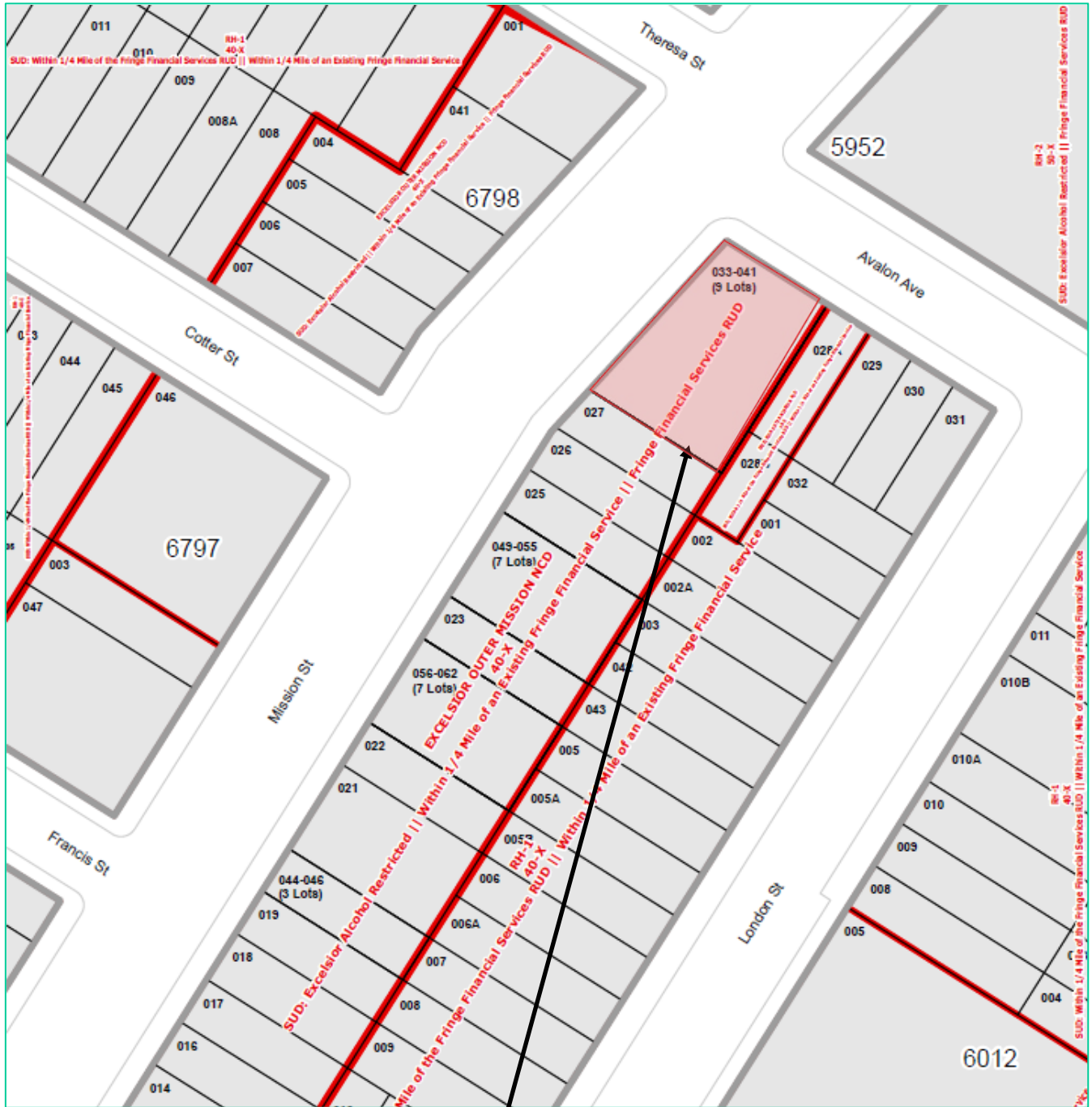


*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sf-planning.org](http://www.sf-planning.org)*

19. **Compatibility with City Emergency Services – WTS.** The facility shall not be operated or caused to transmit on or adjacent to any radio frequencies licensed to the City for emergency telecommunication services such that the City's emergency telecommunications system experiences interference, unless prior approval for such has been granted in writing by the City.

*For information about compliance, contact the Department of Technology, 415-581-4000, <http://sfgov3.org/index.aspx?page=1421>*

# Parcel Map

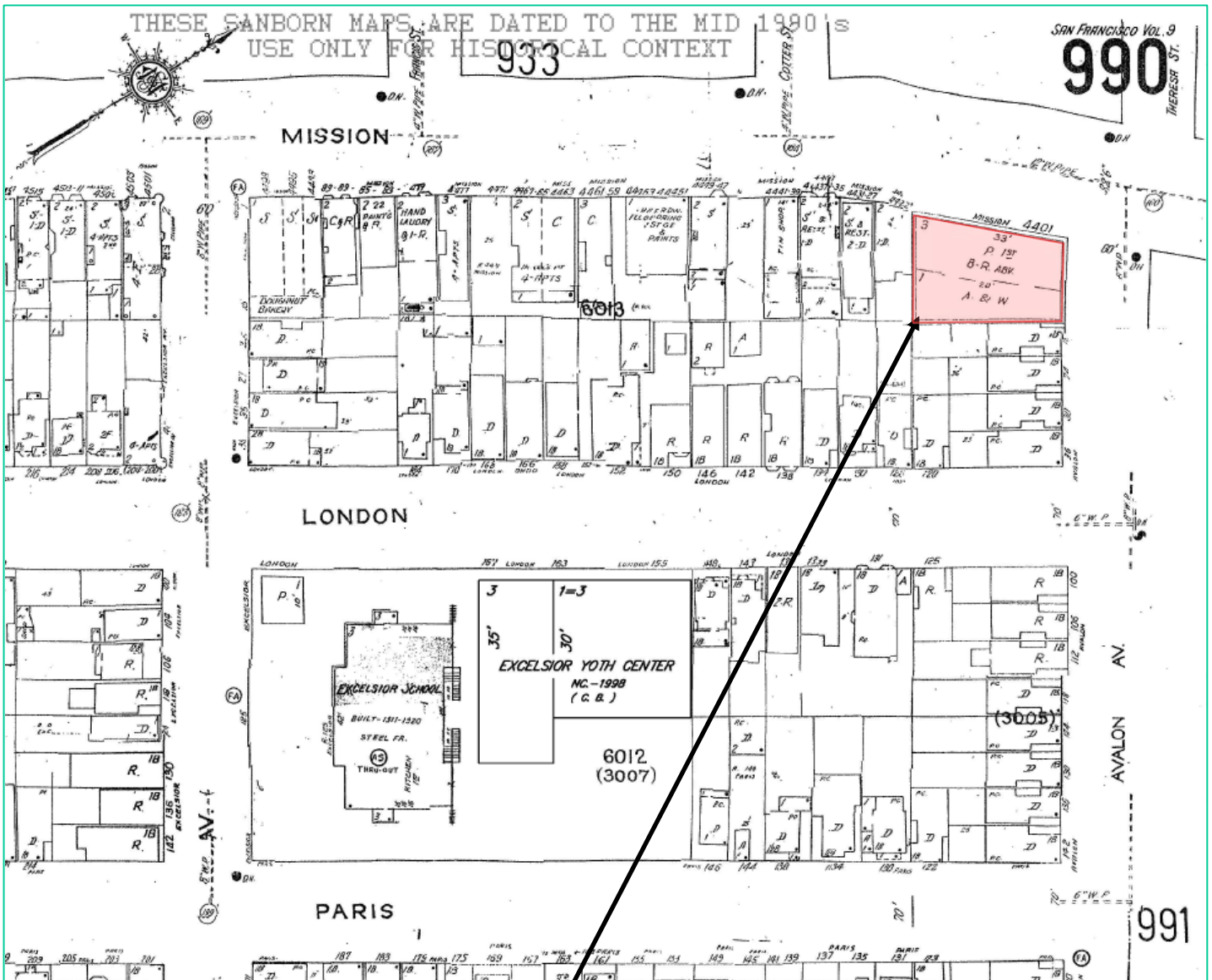


**SUBJECT PROPERTY**



Case Number 2014.0560C  
Sprint Macro WTS Facility  
4377 Mission Street

# Sanborn Map\*

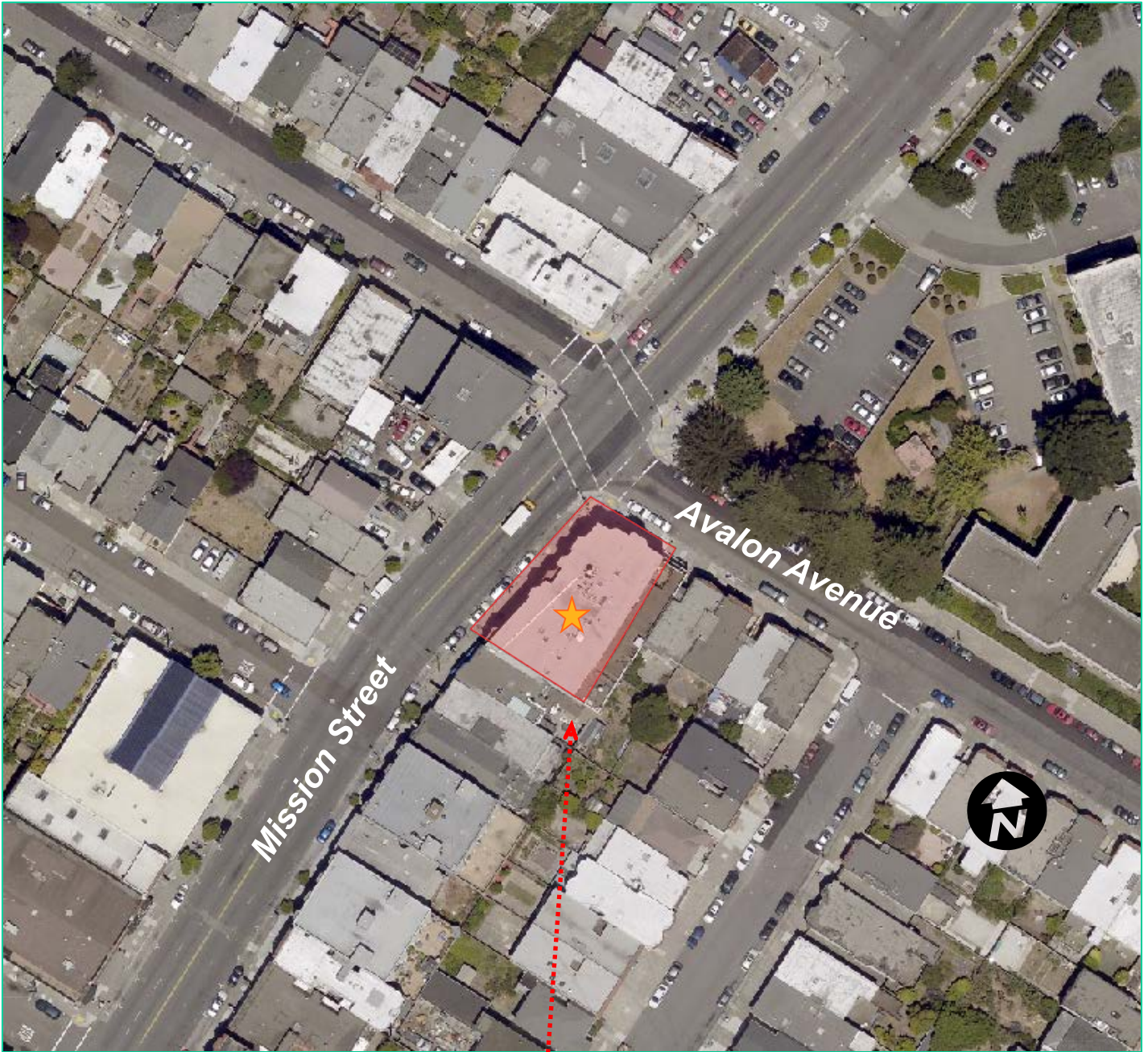


\*The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.



Case Number 2011.0919C  
Sprint Macro WTS Facility  
4377 Mission Street

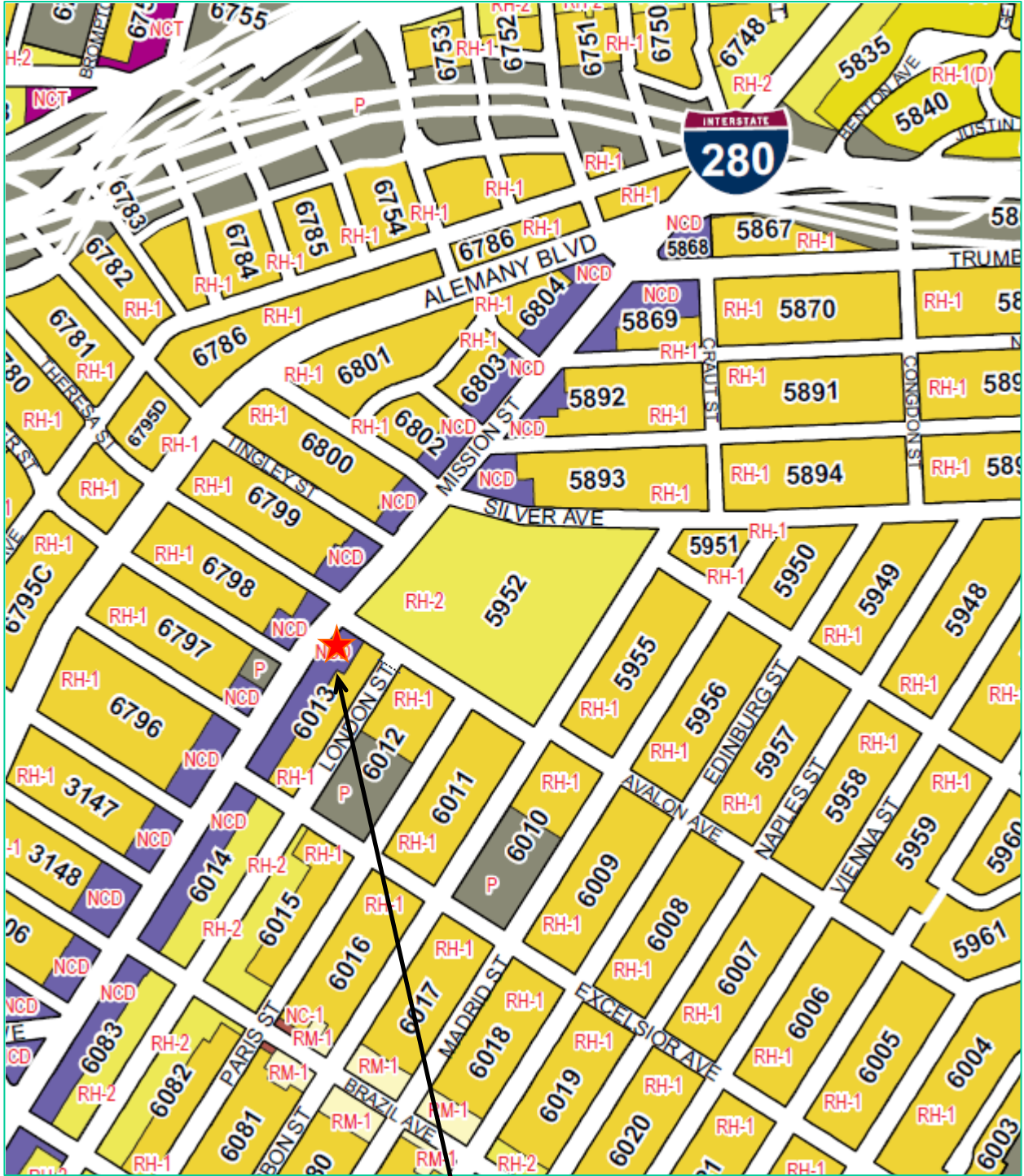
# Aerial Photo



**SUBJECT PROPERTY**

Case Number 2011.0919C  
Sprint Macro WTS Facility  
4377 Mission Street

# Zoning Map



SUBJECT PROPERTY



Case Number 2011.0919C  
Sprint Macro WTS Facility  
4377 Mission Street

4277 Mission Street  
6013/028  
2014.0560C

Site Photos and Context Photos

**Contextual Photographs**

↓ Social Security Building  
4377-4379 Mission Street  
San Francisco, CA. 94112

View of site looking south along Market St.



View of site looking north along Market St.



4277 Mission Street  
6013/028  
2014.0560C

Site Photos and Context Photos

View of site looking west along Avalon Ave.



View of site looking east along Avalon Ave.



*Existing*



*Proposed*



view from Mission Street looking south at site

**Sprint**

FS04XC017 Social Security Building  
4377 Mission Street, San Francisco, CA  
Photosims Produced on 11-20-2014





view from Mission Street looking northeast at site

**Sprint**

FS04XC017 Social Security Building  
 4377 Mission Street, San Francisco, CA  
 Photosims Produced on 11-20-2014

*Existing*



*Proposed*



*view from Avalon Avenue looking west at site*

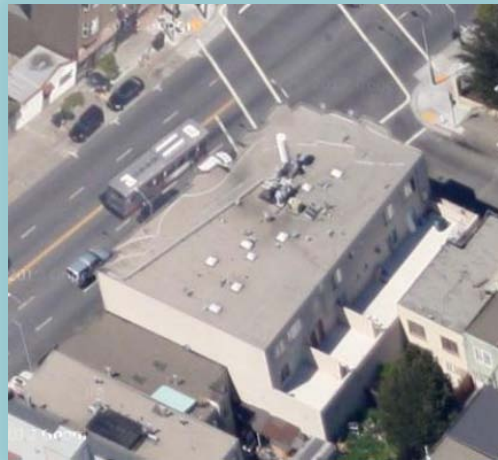
**Sprint**

FS04XC017 Social Security Building  
4377 Mission Street, San Francisco, CA  
Photosims Produced on 11-20-2014

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

Site No. FS04XC017  
Social Security Building  
4377-4379 Mission Street  
San Francisco, California 94112  
San Francisco County  
37.727372; -122.432439 NAD83  
Rooftop

EBI Project No. 62141638  
April 21, 2014



Prepared for:  
Sprint Nextel  
6391 Sprint Parkway  
Mailstop: KSOPHT0101-Z2650  
Overland Park, KS 66251-2650

Prepared by:



## 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 FS04XC017 located at 4377-4379 Mission Street in San Francisco, California to determine RF-EME exposure levels from 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 at the site.

### MPE Summary

At the nearest walking/working surfaces to the proposed Sprint antennas, the maximum power density is 5.1616 mW/cm<sup>2</sup>, which is 967.8 percent of the FCC's general public limit (193.56 percent of the FCC's occupational limit).

At ground level, the maximum power density generated by the proposed Sprint antennas on-site is 0.03307 mW/cm<sup>2</sup>, which is 6.2 percent of the FCC's general public limit (1.24 percent of the FCC's occupational limit).

### Statement of Compliance

Based on worst-case predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 10 feet of Sprint's 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 2 feet of Sprint's proposed 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.

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

This project involves the addition of three (3) proposed antennas to the three (3) existing Sprint wireless telecommunication antennas on a rooftop located at 4377-4379 Mission Street in San Francisco, California. There are three sectors (A, B, and C) proposed to be modified at the site, with one (1) antenna to 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 WIRELESS TELECOMMUNICATION SITES (WTS) WITHIN 100 FEET OF 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 STRUCTURE AND NUMBER AND LOCATION OF OTHER TELECOMMUNICATION FACILITIES ON THE PROPERTY**

Sprint proposes the addition of three (3) proposed antennas to the three (3) existing Sprint wireless telecommunication antennas on a rooftop located at 4377-4379 Mission Street in San Francisco, California. There are three sectors (A, B, and C) proposed to be modified 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 2500 MHz frequency range, and one antenna transmitting in the 800 and 1900 MHz frequency range. The Sector A antennas will be oriented 0° from true north. The Sector B antennas will be oriented 120° from true north. The Sector C antennas will be oriented 240° from true north. The bottoms of the Sector A, B, and C antennas will be 4 feet above a rooftop.

There were no collocated carriers on the rooftop.

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

For modeling purposes, the operating power was assumed to be 20 Watts per sector for the 2500 MHz antennas and there will be two (2) transmitters operating at this frequency per sector. The transmitter information used in the modeling of existing Sprint antennas that are to remain on-site is summarized in the RoofView® export file presented in Appendix B.

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

The effective radiated power (ERP) for the 2500 MHz transmitters combined on-site is 1,564 Watts. The ERP for the existing Sprint transmitters combined on-site is 11,656 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 proposed antennas are to be pipe-mounted to a proposed tripod atop the rooftop and operating in the directions, frequencies, and heights mentioned in section 4.0 above. The rooftop is 40 feet above the street level with no notable issues on the roof.

## **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 10 feet of Sprint's 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 2 feet of Sprint's proposed antennas at the main roof level.

At the nearest walking/working surfaces to the proposed Sprint antennas, the maximum power density is 5.1616 mW/cm<sup>2</sup>, which is 967.8 percent of the FCC's general public limit (193.56 percent of the FCC's occupational limit).

At ground level, the maximum power density generated by the proposed Sprint antennas on-site is 0.03307 mW/cm<sup>2</sup>, which is 6.2 percent of the FCC's general public limit (1.24 percent of the FCC's occupational limit).

The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix B.

Additionally, based on worst-case modeling at antenna face level there are modeled exceedances of the general public and occupational limits. It is predicted that there will be an occupational exceedance in front of the proposed Sprint antennas within 8 feet and a general public exceedance within 19 feet of the antenna face.

## **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 Notice signs 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.

Workers that are elevated above the rooftop may be exposed to power densities greater than the occupational limit. Workers should be informed about the presence of antennas and their associated fields and practice RF Safety Procedures.

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

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

Please see the certifications attached in Appendix A below.

## 11.0 FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS

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

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

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

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

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

The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm<sup>2</sup>). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm<sup>2</sup>) and an uncontrolled MPE of 1 mW/cm<sup>2</sup> for equipment operating in the 1900 MHz and 2500 MHz frequency ranges. For the Sprint equipment operating at 800 MHz, the FCC's occupational MPE is 2.66 mW/cm<sup>2</sup> and an uncontrolled MPE of 0.53 mW/cm<sup>2</sup>. These limits are considered protective of these populations.

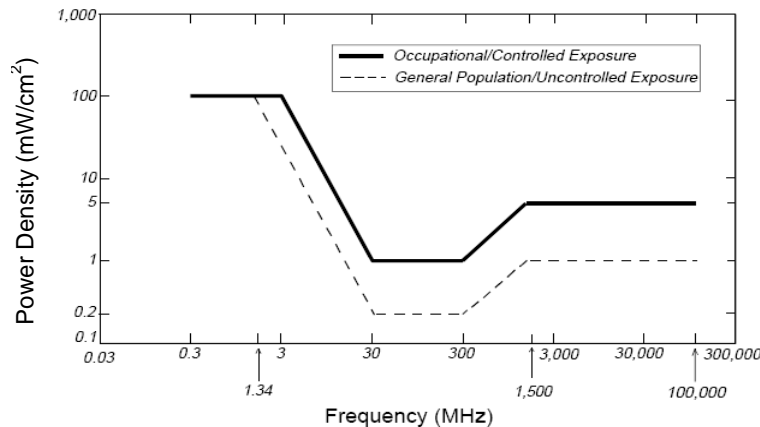
Table I: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)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

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

f = Frequency in (MHz)

\* Plane-wave equivalent power density

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



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

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

MPE limits are designed to provide a substantial margin of safety. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.



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

Advanced Wireless Services (AWS) facilities used by Sprint in this area operate within a frequency range of 2496 - 2690 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets); and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units. Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS/AWS 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.

### **FCC Compliance Requirement**

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 4377-4379 Mission Street in San Francisco, California.

EBI has conducted theoretical modeling to estimate the worst-case power density from proposed 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 10 feet of Sprint's 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 2 feet of Sprint's proposed 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.

## **Appendix A**

### **Certifications**

4277 Mission Street

6013/028

2014.0560C

RF-EMF Compliance Report  
EBI Project No. 62141638

EMF Report

Site No. FS04XC017

4377-4379 Mission Street, San Francisco, California

Reviewed and Approved by:



*H. Stockinger*

---

Herbert J. Stockinger, PE  
Senior Engineer

Note that EBI's scope of work is limited to an evaluation of the Radio Frequency – Electromagnetic Energy (RF-EME) field generated by the antennas and broadcast equipment noted in this report. The engineering and design of the building and related structures, as well as the impact of the antennas and broadcast equipment on the structural integrity of the building, are specifically excluded from EBI's scope of work.

---

E B I Consulting

## Preparer Certification

I, Jonathan Biederer 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.



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## **Appendix B**

### **Roofview**

StartMapDefinition

Roof Max X Map Max Y Map Max X Y Offset X Offset Number of envelope  
170 160 180 170 10 10 1 \$U\$41:\$FX \$U\$41:\$FX\$210

List Of Area  
\$U\$41:\$FX

StartSettingsData

Standard Method Uptime Scale Factor 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 4 5000 2 3 1.5 1

StartAntennaData

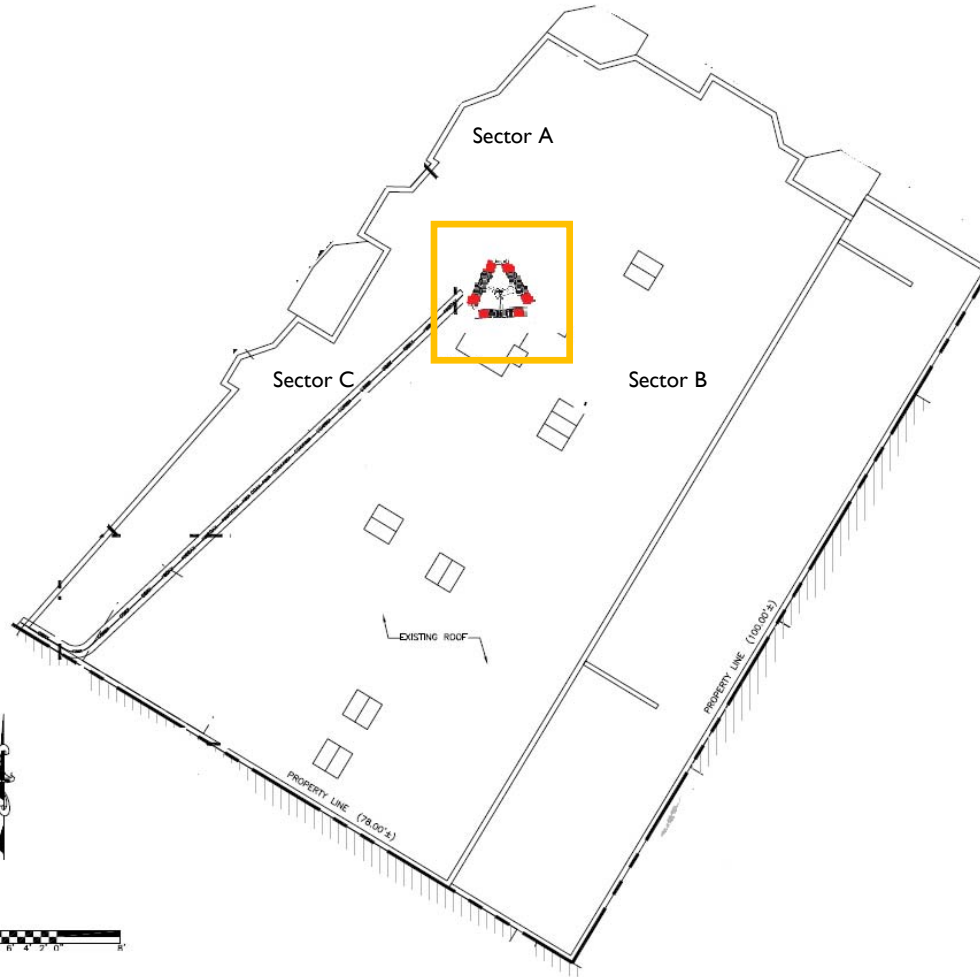
It is advisable to provide an ID (ant 1) for all antennas

ID	Name	Freq (MHz)	Trans Power	Trans Count	Coax Len	Coax Type	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
SPT A1	Sprint	2500	20	2	10	1/2 LDF	0.5	16.8667	16.8667	Andrew	DHHTT65B	54	51	4	4	6	14.9	60;0		ON•
SPT B1	Sprint	2500	20	2	10	1/2 LDF	0.5	16.8667	16.8667	Andrew	DHHTT65B	60	45	4	4	6	14.9	60;120		ON•
SPT C1	Sprint	2500	20	2	10	1/2 LDF	0.5	16.8667	16.8667	Andrew	DHHTT65B	52	43	4	4	6	14.9	60;240		ON•
SPT A2	Sprint	800	20	1	10	1/2 LDF	0.5	16.8667	16.8667	KMW	65 Type 1	56	51	3.935		6.13	13.2	70;0		ON•
SPT A2	Sprint	1900	20	7	10	1/2 LDF	0.5	118.0669	118.0669	KMW	65 Type 1	56	51	3.935		6.13	15.9	60;0		ON•
SPT B2	Sprint	800	20	1	10	1/2 LDF	0.5	16.8667	16.8667	Powerwave	P90-16-XLF	58	43	4	4	6	11.7	86;120		ON•
SPT B2	Sprint	1900	20	7	10	1/2 LDF	0.5	118.0669	118.0669	Powerwave	P90-16-XLF	58	43	4	4	6	14.2	80;120		ON•
SPT C2	Sprint	800	20	1	10	1/2 LDF	0.5	16.8667	16.8667	Powerwave	P90-16-XLF	51	45	4	4	6	11.7	86;240		ON•
SPT C2	Sprint	1900	20	7	10	1/2 LDF	0.5	118.0669	118.0669	Powerwave	P90-16-XLF	51	45	4	4	6	14.2	80;240		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	

 Sprint Antennas



 Recommended  
Hard Barrier

**Compliance Plan**

**Facility Operator:** Sprint

**Site Name:** Social Security Building

**Sprint Site Number:** FS04XC017

**Report Date:** April 21, 2014





**Review of Cellular Antenna Site Proposals**

**Project Sponsor :** Sprint **Planner:** Omar Masry  
**RF Engineer Consultant:** EBI Consulting **Phone Number:** (800) 786-2346  
**Project Address/Location:** 4377 Mission St  
**Site ID:** 729 **SiteNo.:** FS04XC017

The following information is required to be provided before approval of this project can be made. These information requirements are established in the San Francisco Planning Department Wireless Telecommunications Services Facility Siting Guidelines dated August 1996. In order to facilitate quicker approval of this project, it is recommended that the project sponsor review this document before submitting the proposal to ensure that all requirements are included.

- X 1. The location of all existing antennas and facilities. Existing RF levels. (WTS-FSG, Section 11, 2b)  
 Existing Antennas    No Existing Antennas: 3
- X 2. The location of all approved (but not installed) antennas and facilities. Expected RF levels from the approved antennas. (WTS-FSG Section 11, 2b)  
 Yes     No
- X 3. The number and types of WTS within 100 feet of the proposed site and provide estimates of cumulative EMR emissions at the proposed site. (WTS-FSG, Section 10.5.2)  
 Yes     No
- X 4. Location (and number) of the Applicant's antennas and back-up facilities per building and number and location of other telecommunication facilities on the property (WTS-FSG, Section 10.4.1a)
- X 5. Power rating (maximum and expected operating power) for all existing and proposed backup equipment subject to the application (WTS-FSG, Section 10.4.1c)  
 Maximum Power Rating: 200 watts.
- X 6. The total number of watts per installation and the total number of watts for all installations on the building (roof or side) (WTS-FSG, Section 10.5.1).  
 Maximum Effective Radiant: 4406 watts.
- X 7. Preferred method of attachment of proposed antenna (roof, wall mounted, monopole) with plot or roof plan. Show directionality of antennas. Indicate height above roof level. Discuss nearby inhabited buildings (particularly in direction of antennas) (WTS-FSG, Section 10.41d)
- X 8. Report estimated ambient radio frequency fields for the proposed site (identify the three-dimensional perimeter where the FCC standards are exceeded.) (WTS-FSG, Section 10.5) State FCC standard utilized and power density exposure level (i.e. 1986 NCRP, 200  $\mu\text{w}/\text{cm}^2$ )  
 Maximum RF Exposure: 0.03307  $\text{mW}/\text{cm}^2$     Maximum RF Exposure Percent: 6.2
- X 9. Signage at the facility identifying all WTS equipment and safety precautions for people nearing the equipment as may be required by any applicable FCC-adopted standards. (WTS-FSG, Section 10.9.2). Discuss signage for those who speak languages other than English.  
 Public\_Exclusion\_Area    Public Exclusion In Feet: 19  
 Occupational\_Exclusion\_Area    Occupational Exclusion In Feet: 8

X 10. Statement on who produced this report and qualifications.

X **Approved.** Based on the information provided the following staff believes that the project proposal will comply with the current Federal Communication Commission safety standards for radiofrequency radiation exposure. FCC standard 1986-NCRP **Approval of the subsequent Project Implementation Report is based on project sponsor completing recommendations by project consultant and DPH.**

*Comments:*

There are 3 antennas existing operated by Sprint installed on the roof top of the building at 4377 Mission Street. Existing RF levels at ground level were around 4% of the FCC public exposure limit. There were observed no other antennas within 100 feet of this site. Sprint proposes to install 3 new antennas. The antennas will be mounted at a height of about 48 feet above the ground. The estimated ambient RF field from the proposed Sprint transmitters at ground level is calculated to be 0.03307 mW/sq cm., which is 6.2% of the FCC public exposure limit. The three dimensional perimeter of RF levels equal to the public exposure limit extends a maximum of 19 feet and includes 10 feet of the rooftop areas. Barricades should be installed to prevent access to these areas. Warning signs must be posted at the antennas, barricades, and roof access points in English, Spanish and Chinese. Workers should not have access to within 8 feet of the front of the antennas while they are in operation.

       **Not Approved**, additional information required.

       **Not Approved**, does not comply with Federal Communication Commission safety standards for radiofrequency radiation exposure.

  1   Hours spent reviewing

Charges to Project Sponsor (in addition to previous charges, to be received at time of receipt by Sponsor)

Signed:



Dated: 12/11/2014

---

Patrick Fosdahl  
Environmental Health Management Section  
San Francisco Dept. of Public Health  
1390 Market St., Suite 210,  
San Francisco, CA. 94102  
(415) 252-3904

## COVERAGE DISCUSSION

### **Service Area Definition**

#### **Necessity of Proposed Site for Network Operations**

The proposed facility is a necessary component of Sprint Wireless Network. Sprint has recently enhanced its network by acquiring additional 2500 MHz spectrum. This larger amount of spectrum supports faster and more reliable data streaming. Three additional antennas need to be installed at this site to connect the site to the 2500 MHz spectrum. Without upgrading this site, there will be a coverage gap in Sprint's network.

#### **Description of Service Area**

The proposed facility is a necessary component of Sprint Wireless Network. The modernization of antennas at this site will provide improved voice and data service to the area surrounding the site roughly bounded by Mission Street, Avalon Avenue, London Street, and Excelsior Avenue

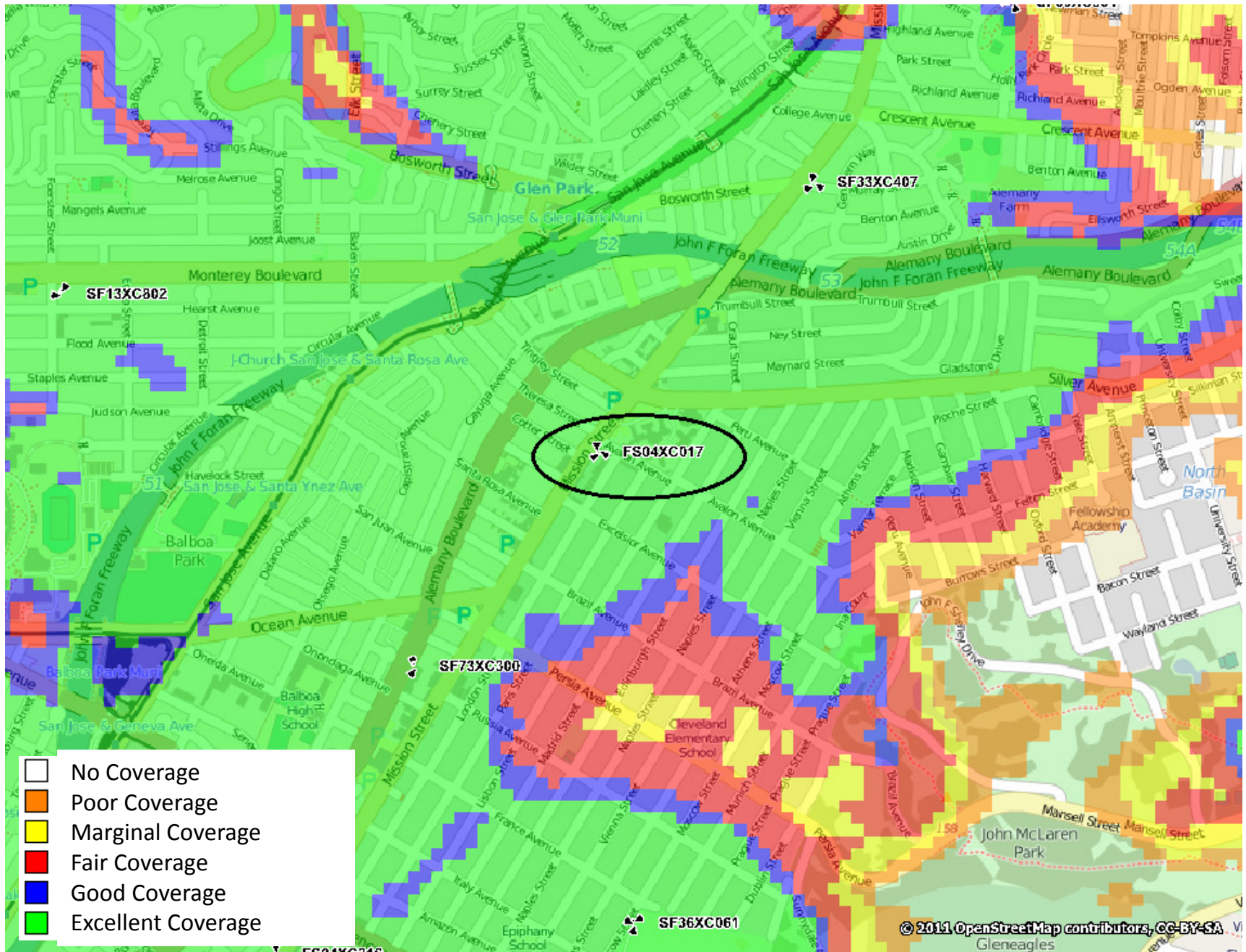
#### **Distance between Sites**

SF33XC407	3999 Mission Street	-0.6 mi
SF13XC802	597 Monterey Blvd	-1.1 mi
FS04XC018	1015 Ocean Avenue	-1.3 mi

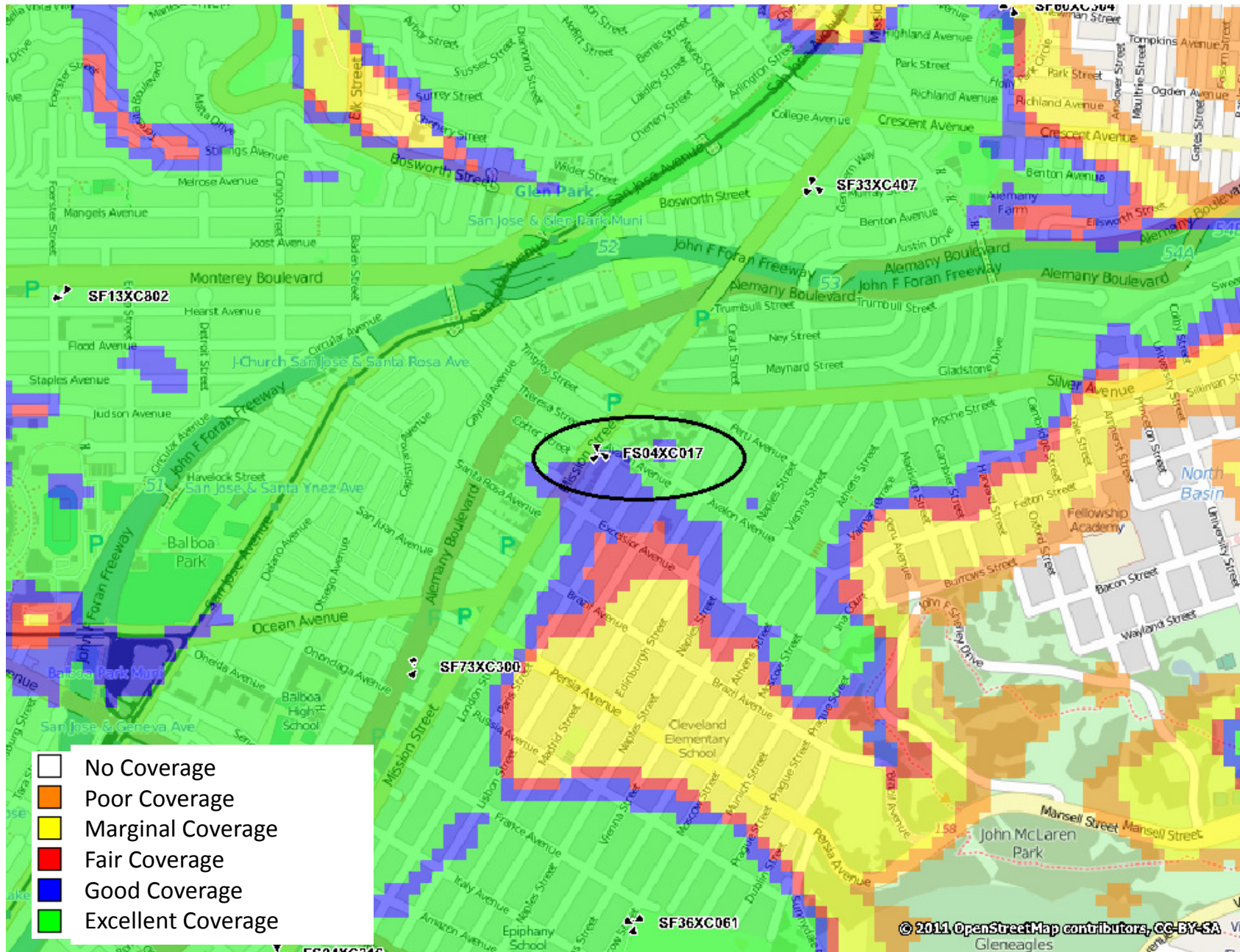
#### **Potential Site Consolidation Opportunities**

No consolidation opportunities exist at this time that would be made possible due to this site upgrade.

# Expected Coverage With FS04XC017 And Surrounding Sites On Air



# Expected Coverage Without FS04XC017 On Air



4377 Mission Street  
6013/028  
2014.0560C

Community Outreach Meeting

**Community Outreach Meeting Summary**  
**4377 Mission Street (Sprint ID# FS04XC017)**  
**November 5<sup>th</sup>, 2014**  
**6:00 p.m.**  
**Excelsior Branch Library**

**Present at the Meeting**

**Representing Sprint:**

Michelle Yonemoto, Land Use Planner, Modus, Inc.  
Skip Edmunds, Site Acquisition Associate, Modus, Inc.  
David Oliver, Independent RF Engineer, EBI Consulting

**Meeting Attendees:**

Angeles Gomez

Two (2) neighborhood residents attended, Angeles Gomez and her husband. They had seen the flyer and came in to learn more about it. The Gomez's asked about the coverage area, and how this would benefit the community.

After we explained the coverage maps, they were satisfied and generally in support of upgrading the site for improved coverage.

COMMUNITY OUTREACH MEETING SIGN-IN SHEET

RE: Sprint Wireless Facility Modification at 4377-4379 MISSION ST. (Sprint Site ID# FS04XC017)

	NAME	ADDRESS	PHONE
1	<i>Angela Jones</i>		
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

**COMMUNITY OUTREACH MEETING ON A WIRELESS COMMUNICATION FACILITY  
PROPOSED IN YOUR NEIGHBORHOOD**

**To: Neighbors within 500 feet of 4377-4370 Mission St., San Francisco, CA**

**Meeting Information**

Date: Wednesday, November 5th, 2014  
Time: 6:00 p.m.  
Where: Excelsior Branch Library  
4400 Mission Street  
San Francisco, CA 94112

**Applicant**

Sprint  
c/o Modus Inc.  
149 Natoma St., 3<sup>rd</sup> floor  
San Francisco, CA 94105

**Sprint Site Information**

Address: 4377-4370 Mission St  
San Francisco, CA 94112  
APN: 6013/041  
Zoning: Excelsior Outer Mission NCD

**Contact Information**

Maria Miller  
149 Natoma St., 3<sup>rd</sup> floor  
San Francisco, CA 94105  
(415)450-5533  
mmiller@modus-corp.com

*\*This is not a Library Sponsored Program*

Sprint has applied for zoning approval to upgrade an existing cell site at 4377-4370 Mission St. This cell site is a necessary component of Sprint wireless network. Sprint has recently enhanced its network by acquiring additional 2500 MHz spectrum. This larger amount of spectrum supports faster and more reliable data streaming. Three additional antennas need to be installed at this site to connect the site to the 2500 MHz spectrum.

You are invited to attend an informational community meeting on Wednesday, November 5th at 6:00 p.m. at Excelsior Branch Library. This project will be scheduled for a Planning Commission public hearing after the neighborhood meeting. Architectural plans and photo simulations will be available for your review at the meeting.

If you are unable to attend the meeting and would like to request information, please contact Maria Miller at (415) 450-5533 or at mmiller@modus-corp.com.

If you have any questions about the zoning process, you may contact Omar Masry, the project planner with the San Francisco Planning Department at (415) 575-9116 or omar.masry@sfgov.org.

**NOTE: If you require an interpreter to be present at the meeting, please contact our office at (415) 450-5533 or mmiller@modus-corp.com no later than November 3, 2014 and we will make every effort to provide you with an interpreter.**



**NOTIFICACIÓN DE REUNIÓN DE ALCANCE COMUNITARIO SOBRE UNA INSTALACIÓN DE COMUNICACIONES INALÁMBRICAS PROPUESTA PARA SU VECINDARIO**

**A: Vecinos A Menos De 500 Pies De 4377-4370 Mission St., San Francisco, CA**

**Información de la reunión**

Fecha: Miércoles, 05 de noviembre  
 Hora: 6:00 p.m.  
 Dónde: Excelsior Biblioteca Pública  
 4400 Mission Street  
 San Francisco, CA 94112

**Solicitante**

Sprint  
 c/o Modus Inc.  
 149 Natoma St., 3<sup>rd</sup> floor  
 San Francisco, CA 94105

**Sprint Información del lugar**

Dirección: 4377-4370 Mission St  
 San Francisco, CA 94112  
 APN: 6013/041  
 Zonificación: Excelsior Outer Mission  
 NCD

**Información de contacto**

Maria Miller  
 149 Natoma St., 3<sup>rd</sup> floor  
 San Francisco, CA 94105  
 (415)450-5533  
 mmiller@modus-corp.com

*\*Este programa no es patrocinado por la Biblioteca*

Sprint ha solicitado la aprobación de zonificación para actualizar un sitio de celda existente en 4377-4370 Mission St. Este sitio celular es un componente necesario de la red inalámbrica de Sprint. Sprint ha mejorado recientemente su red mediante la adquisición de espectro adicional 2500 MHz. Esta mayor cantidad de espectro soporta streaming de datos más rápida y más confiable. Tres antenas adicionales necesitan ser instalados en este lugar para conectarse al sitio con el espectro de 2500 MHz.

Usted está invitado a asistir a una reunión de la comunidad informativa el miércoles 5 de noviembre a las 6:00 pm en el Excelsior Branch Library. Este proyecto será programado para una audiencia pública de la Comisión de Planificación después de la reunión de vecinos. Planos arquitectónicos y simulaciones fotográficas estarán disponibles para su revisión en la reunión.

Si usted no puede asistir a la reunión y desea solicitar información, por favor póngase en contacto con Maria Miller al (415) 450-5533 o al mmiller@modus-corp.com.

Si usted tiene alguna pregunta sobre el proceso de zonificación, puede comunicarse con Omar Masry, el planificador de proyecto con el Departamento de Planificación de San Francisco al (415) 575-9116 o omar.masry@sfgov.org.

\*\*\*

**NOTA: Si necesita un intérprete esté presente en la reunión, por favor póngase en contacto con nuestra oficina al (415) 450-5533 o mmiller@modus-corp.com antes 3 de noviembre de 2014. Haremos todo lo posible para proporcionar un intérprete.**

**關於計畫在您所在街區安裝一座無線通信設施的社區資訊通報會通知**

**為了：在500英尺4377-4370 Mission St (猶大街)的鄰居，三藩市**

**会议信息**

日期：周三，2014年11月5日

时间：下午6点00分

其中：怡东分馆

4400 Mission Street  
San Francisco, CA 94112

**申请人**

Sprint  
c/o Modus Inc.  
149 Natoma St., 3rd floor  
San Francisco, CA 94105

**Sprint的网站信息**

地址：4377-4370 Mission St  
San Francisco, CA 94112  
评审员的包裹数量: 6013/041  
分区：Excelsior Outer Mission NCD

**联系信息**

Maria Miller  
149 Natoma St., 3rd floor  
San Francisco, CA 94105  
(415)450-5533  
mmiller@modus-corp.com

\*这是不是一个图书馆赞助计划

Sprint计划升级现有的天线对4377-4370 Mission St。此更新的屋顶将提高Sprint的电话服务和上传和下载显著更快的数据传输速率。

你被邀请参加会议，详细了解项目在周三，11月5日下午6:00，在怡东分馆位于1899年4400团街，旧金山。该项目将计划于计划委员会公开听证会在稍后的日期。计划和照片将用于您的评论了会议。

如果你不能出席会议，并想请求信息，请联系申请人 - Maria Miller - (415)450-5533或mmiller@modus-corp.com。

如果您对分区过程中有任何疑问，您可以联系 Omar Masry，市规划师在旧金山规划署(415)575-9116或omar.masry@sfgov.org。

\*\*\*

**注意：如果你需要一名翻译陪你到会，你应该11月3日之前，致电我们的办公室，2014年请致电(415)450-5533或mmiller@modus-corp.com，我们会尽力为您提供翻译。**



COMMUNITY OUTREACH MEETING AFFIDAVIT

I, Skip Edmunds, do hereby declare as follows:

1. I have conducted community outreach meeting for the proposed modification of a wireless telecommunications facility at 4377-4370 Mission St.
2. The meeting was conducted at the Excelsior Branch Library located at 4400 Mission St., San Francisco, CA 94112 on November 5th, from 6:00 pm to 6:45 pm.
3. I have included the mailing list, meeting notice, and sign-in sheet.

Executed November 25, 2014 in San Francisco, CA.

Signature

Name

Skip Edmunds

Title

Site Acquisition Associate

## Wireless Application Review

**Sprint FS04XC017**  
**Social Security Building**  
**4377 – 4379 Mission Street**  
**San Francisco, CA 94118**

November 20, 2014



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Prepared By:  
**EBI Consulting**  
21 B Street  
Burlington, MA 01803  
(781) 418-2322  
Engineer: Scott Heffernan



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<b>1.0</b>	<b>Executive Summary</b> .....	<b>1</b>
<b>2.0</b>	<b>Site Description</b> .....	<b>1</b>
<b>3.0</b>	<b>Project Overview</b> .....	<b>1</b>
<b>4.0</b>	<b>Coverage</b> .....	<b>2</b>
<b>5.0</b>	<b>Emissions</b> .....	<b>6</b>
<b>6.0</b>	<b>Conclusion</b> .....	<b>7</b>

## 1.0 Executive Summary

EBI Consulting has been hired to review an application by Sprint for a modification to an existing site located on a rooftop at **4377-4379 Mission Street** in **San Francisco, California**. The scope of this analysis is to review material submitted to the San Francisco Planning Department. This material includes site plans, coverage maps and an emissions report prepared by EBI Consulting. An alternate site analysis was not a part of this analysis as this is an upgrade to an existing site.

## 2.0 Site Description

**Site Name:** FS04XC017 – Social Security Building  
**Owner:** Tony & Christine Sheehan  
**Site Description:** Rooftop Facility  
**Address:** 4377-4379 Mission Street, San Francisco, CA 94118  
**Ground Elevation:** 212 feet AMSL  
**Latitude:** 37.727372 N  
**Longitude:** -122.432439 W

## 3.0 Project Overview

Sprint is applying to modify an existing rooftop wireless facility located at **4377-4379 Mission Street** in **San Francisco, California**. The modifications will include the installation of three additional antennas to allow for the addition of new 2500 MHz frequencies as well as the installation of three additional Remote Radio Heads (RRH) for this new frequency band overlay. The proposed modifications will allow for Sprint to expand their LTE rollout for higher data rates for their customers. The upgrades will also allow for Sprint to install equipment that will improve the performance of their existing wireless facility and provide better efficiencies for capacity as well. The modernization of antennas at this site will provide improved voice and data service to the area surrounding the site roughly bounded by Mission Street, Avalon Avenue, London Street, and Excelsior Avenue.

Sprint is proposing to add three RFS APXVTM14-ALU-120 Antennas, 1 per sector, to the existing three RFS APXVSP18-C-A20 Antennas. The three antennas, which have a length of 61 inches, will be installed as follows. All 6 antennas are proposed to be enclosed in a faux penthouse structure which will replace the existing 32 inch radome that currently houses the existing 3 antennas. The faux enclosure will be constructed of RF permeable material which introduces minimal attenuation to the signal broadcast from the facility. The antennas will be mounted with an antenna centerline of 44 feet above the ground level. The existing rooftop is 35 feet 4 inches in

height above ground level. The overall height of the proposed faux penthouse enclosure is 47 feet 8 inches. The complete antenna installation area will be shielded from public view as it will be entirely enclosed within the proposed faux penthouse enclosure. Additionally, Sprint has located its radio and control cabinets in an interior equipment room located on the 3<sup>rd</sup> floor of this building. There will continue to be no public view to this equipment.

Sprint is looking to install 3 additional Remote Radio Heads (RRH), 1 per sector. The RRH is a small remote radio device typically located at or near the antenna location at a given site. This reduces cable loss incurred in bring the transmitted signal from radios located many feet from an antenna location and improves overall performance due to a typically reduced noise environment with the transmitters and receivers located immediately adjacent to the antennas. The RRH is typically fed by fiber optics for the transfer of data traffic from a control cabinet usually located with the remainder of a carrier's equipment. This will bring the total RRH count for the site to 9, 3 per sector.

#### **4.0 Coverage**

Coverage plots were submitted as part of the application from Sprint to the San Francisco Planning Board. The plots show existing 2500 MHz coverage in varying shades of reliability ranging from "No Coverage" shown in white to "Excellent Coverage" shown in Green exhibit 1. In the next plot, Exhibit 2, they are showing the resulting coverage once the 2500 MHz overlay is added to the coverage footprint in the immediate area. Sprint is proposing to install 2500 MHz Remote Radio Heads (RRH) to the existing 1900 MHz and 800 MHz Remote Radio Heads at this site to provide service in all three frequency bands. As is typical, the coverage plots presented are shown at the 2500 MHz frequency band as this will be the weaker coverage footprint under similar power settings. While 1900 and 800 MHz may have the ability to provide a slightly more robust footprint all things equal, the carrier can optimize the output and contain coverage as need be for uniformity between the three frequency bands or provide extended reach with the 800 MHz footprint.

### Expected Coverage Without FS04XC017 On Air

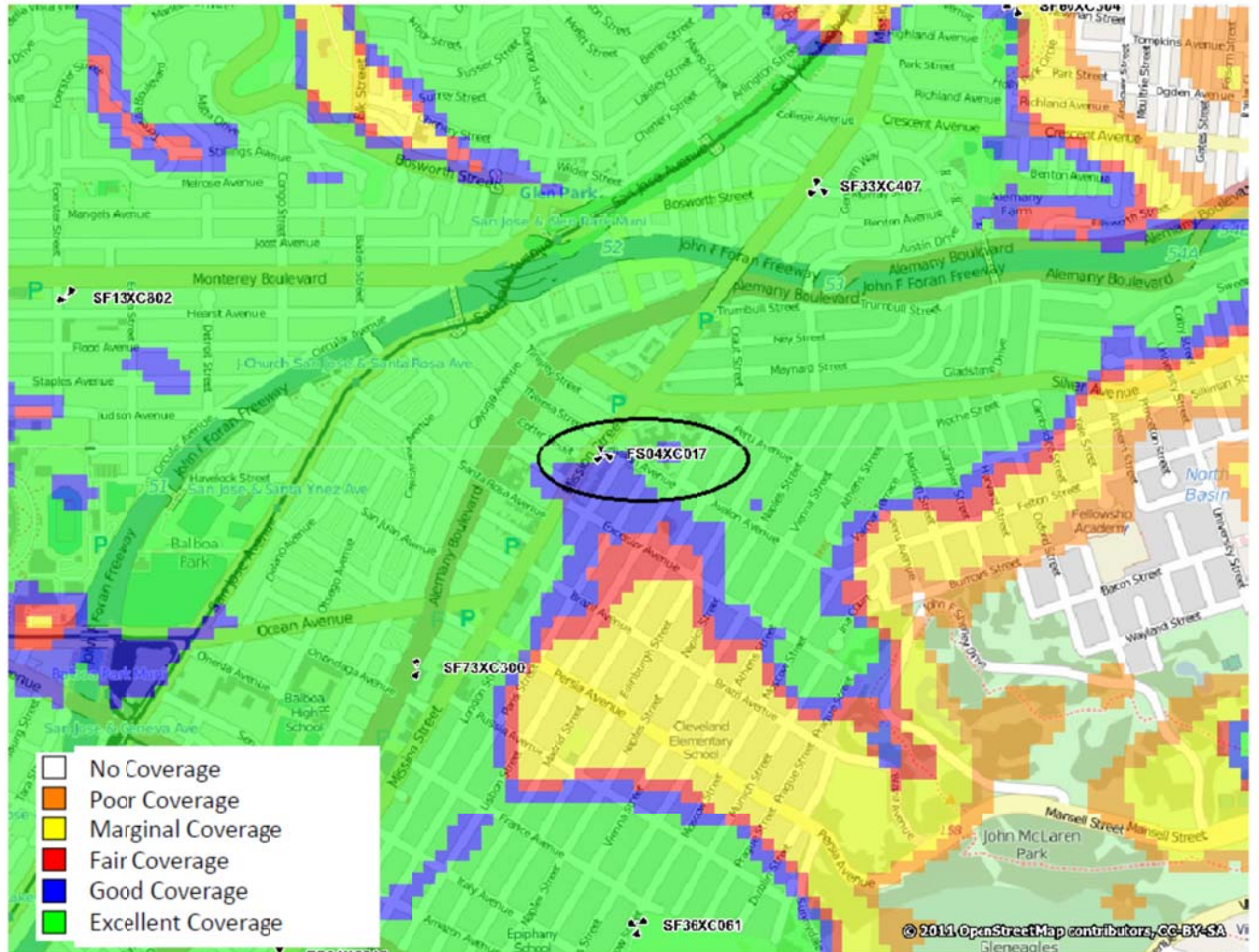


Exhibit 1: Existing Sprint 2500 MHz LTE coverage



### Expected Coverage With FS04XC017 And Surrounding Sites On Air

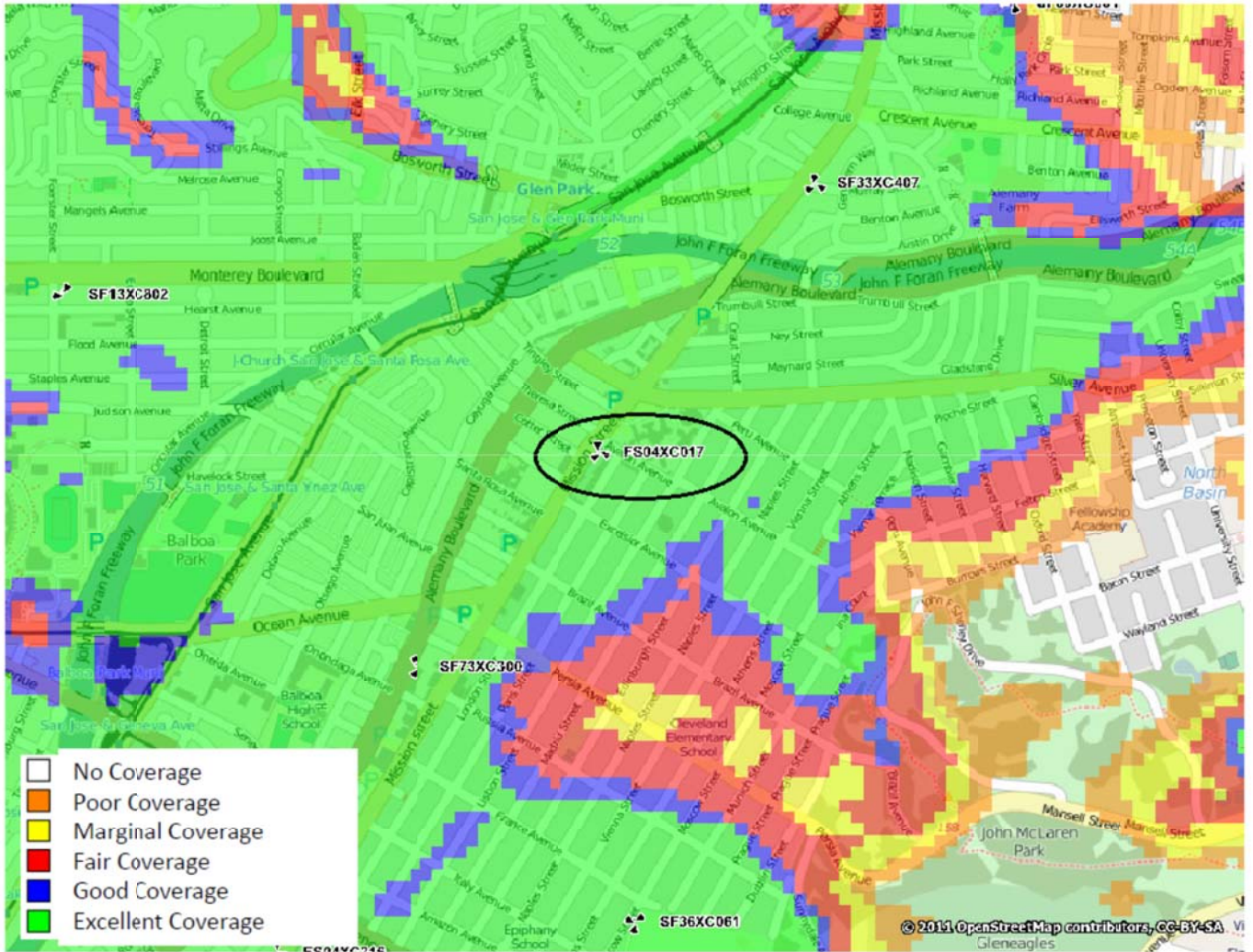


Exhibit 2: Proposed Sprint 2500 MHz LTE coverage

Anticipated coverage from the proposed upgraded installation is what would be expected from a rooftop facility of this height and configuration in this geographic area. Based upon the 2500 MHz shown in coverage in Exhibit 1, there is fairly robust / reliable coverage in areas northeast, northwest and southwest of the subject Sprint facility at 4377-4379 Mission Street in San Francisco (site ID: FS04XC017). This coverage is provided by existing Sprint locations at the following locations and represented in the above coverage maps:

Sprint Site ID	Address	Distance from FS04XC017
SF33XC407	3999 Mission Street	0.6 miles
SF13XC802	597 Monterey Boulevard	1.1 miles
FS04XC018	1015 Ocean Avenue	1.3 miles
SF36XC061	720 Moscow Avenue	1.1 miles

The coverage shown in Exhibit 2 shows that the upgrades to the Sprint existing subject site would enhance service in all directions including extending reliable coverage approximately 0.20 miles to the southeast in the direction of Excelsior and Brazil Avenues. There would still remain a gap in reliable 2500 MHz service further down Excelsior and Brazil Avenues as you approach McLaren Park, however, in this type of very dense residential and business dwellings coverage at this distance would be expected from the introduction of a new site closer to McLaren to handle the added coverage and capacity needs in this area of the city.

The provided plots represent coverage areas that fall in line with what we would expect from a site of this configuration and size. Additionally considering the location of the adjacent sites it appears that adequate overlap is possible in all directions to the neighboring sites for proper handoffs to adjacent cells.

The area surrounding the site is comprised of very densely spaced residential and business dwellings as well as heavily traveled thoroughways. In a design scenario such as this a low antenna height facility is a great solution. It allows the carrier to handle a fairly large volume of traffic in a small area. The low antenna height also allows the carrier to contain the footprint very effectively for spectrum reuse considerations on surrounding sites and to reduce interference upon adjacent cells. Additionally, by utilizing existing structures such as rooftops the carrier is able to provide the desired service without the introduction of a new structure.

## 5.0 Emissions Compliance

An emissions study was completed on the existing Sprint site located at 4377-4379 Mission Street in San Francisco, California by EBI Consulting on May 16, 2013. The study analyzed emissions compliance for this site based upon FCC standards set forth in Bulletin OET65. This report was for the initial upgrade to LTE at 1900 MHz and 850 MHz

The report concluded that the post upgrade emissions levels on the rooftop were well within compliance per the FCC's allowable limits for exposure.

As a part of this study, EBI Consulting did perform worst case theoretical calculations for all Sprint existing and proposed emissions at this facility. With the introduction of the additional 2500 MHz channels to the site, the maximum value found on this rooftop is 299.7 % of the general public limit for exposure under the Federal Communications Commission (FCC) regulations. This equals 59.8% of the occupational limits for exposure under the FCC's regulations.

EBI did verify that the rooftop is a controlled area in that the access hatch to the rooftop is locked and access is controlled through the property manager. Under these conditions, it is recommended that a notice sign be posted at the access hatch which would inform persons about to access the rooftop through this hatch of the existence of the radio frequency emissions. Furthermore, since the antennas are proposed to be housed inside a faux penthouse for stealthing purposes it is recommended that signage be placed on the outside of the faux penthouse structure informing persons on the rooftop that there are antennas present and that there may be emissions that exceed the FCC's general public limit for exposure to radio frequency (RF) energy.

Radio frequency (RF) emissions levels at the surrounding street level are expected to be well below the FCC's allowable limit for general public exposure.

With these recommendations the site appears to be in full compliance with all FCC and OSHA standards with regards to emissions and notification.

## 6.0 Conclusion

EBI Consulting was tasked with reviewing the Sprint application for proposed site upgrades to their existing facility at 4377-4379 Mission Street in San Francisco, California. The project includes the removal of the existing 32 inch radome that currently houses the 3 existing Sprint antennas and replace with a faux penthouse structure that would house the 6 proposed Sprint antennas (3 existing antennas and 3 proposed 2500 MHz antennas). These upgrades will ultimately allow Sprint to provide greater service levels and capacity to its customers without having to introduce a new facility. All upgrades proposed to be made to this site are fairly minor in nature and since the antennas and Remote Radio Heads (RRH) will be installed inside of a faux penthouse structure with all additional radio equipment housed in the existing internal equipment room, the change in aesthetics will be minimal.

Sprint has provided coverage plots showing existing and proposed coverage from this facility. Both scenarios depicted coverage footprints that would be expected from a facility of this height and configuration. It appears that the coverage data provided is accurate and appropriate for this site.

Sprint has supplied an emissions study for this existing facility prepared by EBI Consulting. The report demonstrates that the facility is in full compliance with all applicable federal requirements regarding emissions and signage with the recommendations made in section 5. The facility does have a locked access hatch to the rooftop and is considered a controlled environment.

Based upon our analysis of the Sprint proposed upgrades to their facility at 4377-4379 Mission Street in San Francisco, California, we feel this is a very acceptable proposal. Sprint is proposing to upgrade a site that already exists. The upgrades will benefit existing and future customers in this coverage area. Sprint has proposed a design solution that allows for their upgrades to be fulfilled and keep the aesthetics concerns of the community in mind



Scott Heffernan  
RF Engineering Director

**EBI Consulting**  
21 B Street  
Burlington, MA 01803

Exhibit B | Conditional Use Authorization 2014.0560C



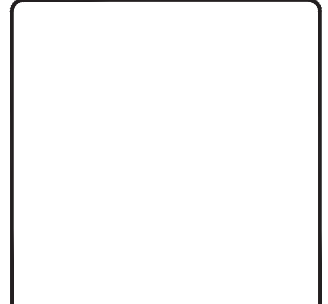
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 SITE NAME: SOCIAL SECURITY BUILDING  
 CASCADE #: FS04XC017-B  
 SITE ADDRESS: 4377-4379 MISSION STREET,  
 SAN FRANCISCO, CA 94112  
 SITE TYPE: ROOFTOP



EXHIBIT B- CONDITIONAL USE AUTHORIZATION 2014.0560C

PROJECT NO: FS04XC017-B  
 DRAWN BY: JS  
 CHECKED BY: RS

REV	DATE	DESCRIPTION
5	06/03/14	ISSUED FOR 100% CONSTRUCTION
4	03/19/14	ISSUED FOR 100% CONSTRUCTION
3	03/03/14	ISSUED FOR 90% CONSTRUCTION
2	01/27/14	ISSUED FOR 90% CONSTRUCTION
1	12/29/13	ISSUED FOR 90% CONSTRUCTION



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SOCIAL SECURITY BUILDING  
 FS04XC017-B  
 4377-4379 MISSION STREET,  
 SAN FRANCISCO, CA 94112  
 SAN FRANCISCO COUNTY

SHEET TITLE  
 TITLE SHEET

SHEET NUMBER  
**T-1**

**SITE INFORMATION**

**SITE ADDRESS:**  
 4377-4379 MISSION STREET,  
 SAN FRANCISCO, CA 94112

**OWNER APPLICANT**  
 SPRINT  
 12657 ALCOSTA BLVD.  
 SUITE 300  
 SAN RAMON, CA 94583  
 CONTACT: LINH NGUYEN  
 PH: (714) 425-0333  
 EMAIL: linh.nguyen@sprint.com

**PROPERTY OWNER:**  
 TONY AND CHRISTINE SHEEHAN  
 25 VLA CANON  
 MILLBRAE, CA 94030

**CONSTRUCTION MANAGER:**  
 SPRINT  
 12657 ALCOSTA BLVD, STE. 300  
 BISHOP RANCH 15  
 SAN RAMON, CA 94583  
 CONTACT: TONY PINO  
 MOBILE NUMBER: (415) 760-4921  
 EMAIL: nelson.pino@sprint.com

**CONSULTANT:**  
 MODUS, INC.  
 149 NATOMA ST. 3RD FLOOR  
 SAN FRANCISCO, CA 94105  
 CONTACT: MARIA MILLER  
 PH: (415) 778-6471  
 FAX NUMBER: (415) 994-3805

**POWER COMPANY:**  
 PACIFIC GAS AND ELECTRIC  
 CONTACT #: (800) 743-5000

**TELCO COMPANY:**  
 AT&T  
 CONTACT NUMBER: T.B.D.

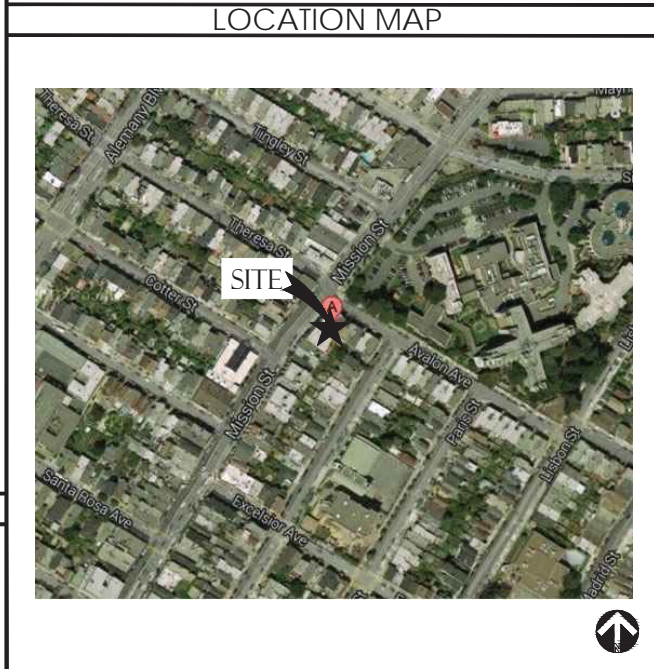
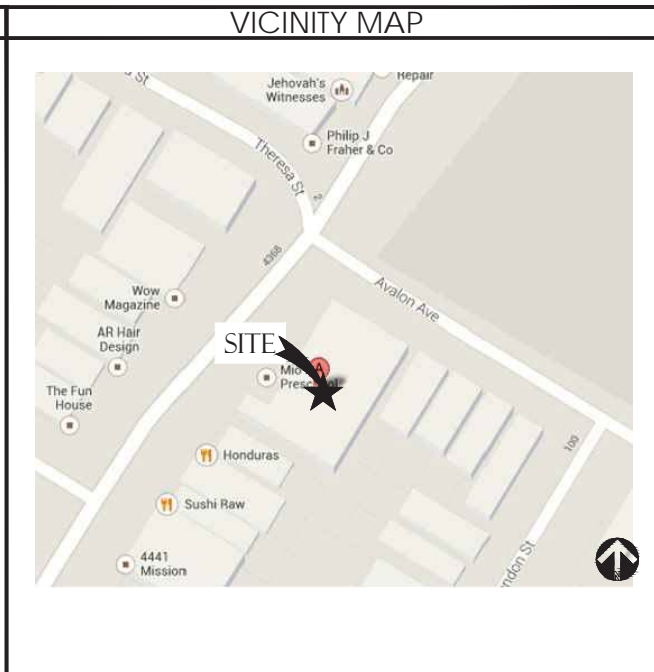
**LATITUDE (NAD 83):**  
 37° 43' 38.539" N  
 (37.72737222)

**LONGITUDE (NAD 83):**  
 122° 25' 56.780" W  
 (-122.43243890)

**ACCESSIBILITY REQUIREMENTS**  
 FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION AND REQUIREMENTS ARE NOT REQUIRED. IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE PART 2 TITLE 24, SECTION 1103B.1, EXCEPTION 1 & SECTION 11348.2.1, EXCEPTION 4

**SPECIAL INSPECTIONS**

NO SPECIAL INSPECTIONS REQUIRED



**APPLICABLE CODES**

ALL WORK AND MATERIALS SHALL BE PERFORMED AND 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 PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

- 2013 CALIFORNIA BUILDING CODE (CBC) WITH CALIFORNIA AMENDMENTS, BASED ON THE 2012 IBC
- 2013 CALIFORNIA RESIDENTIAL CODE (CRC) WITH APPENDIX H, PATIO COVERS, BASED ON THE 2012 IRC
- 2013 CALIFORNIA HISTORICAL BUILDING CODE (CHBC)
- 2013 CALIFORNIA EXISTING BUILDING CODE (CEBC), BASED ON THE 2012 IEBC
- 2013 CALIFORNIA GREEN BUILDING STANDARDS (CGBSC)
- 2013 CALIFORNIA ADMINISTRATIVE CODE, TITLE 24 PART 1
- 2013 CALIFORNIA FIRE CODE (CFC), BASED ON THE 2012 IFC, WITH CALIFORNIA AMENDMENTS
- 2013 CALIFORNIA MECHANICAL CODE (CMC) BASED ON THE 2012 UMC
- 2013 CALIFORNIA PLUMBING CODE (CPC), BASED ON THE 2012 UPC
- 2013 CALIFORNIA ELECTRICAL CODE (E E), WITH CALIFORNIA AMENDMENTS, BASED ON THE 2008 NEC
- 2013 CALIFORNIA ENERGY CODE (CEC)
- ANSI / EIA-TIA-222-G
- 2012 NFPA 101, LIFE SAFETY CODE
- 2012 NFPA 72, NATIONAL FIRE ALARM CODE
- 2012 NFPA 13, FIRE SPRINKLER CODE
- LOCAL BUILDING CODE
- CITY/ COUNTY ORDINANCES
- ANY APPLICABLE LOCAL AND STATE LAWS AND REGULATIONS

**PROJECT DESCRIPTION**

MODIFICATION TO EXISTING UNMANNED TELECOMMUNICATIONS FACILITY.

- 1) Remove 3 existing panel antennas within existing roof-mounted radome. Replace with 6 panel antennas inside new faux rooftop penthouse element. Add 3 radio relay units inside penthouse.
- 2) Add new 2.5 GHz equipment inside the existing cabinets located in the ground-floor equipment room inside the building
- 3) Relocate existing GPS antenna onto the roof top to reduce visibility
- 4) Cable tray running along the front facade will be cleaned up and painted as needed

**DRIVING DIRECTIONS FROM SPRINT HQ**

FROM 12657 ALCOSTA BLVD, SAN RAMON, CA

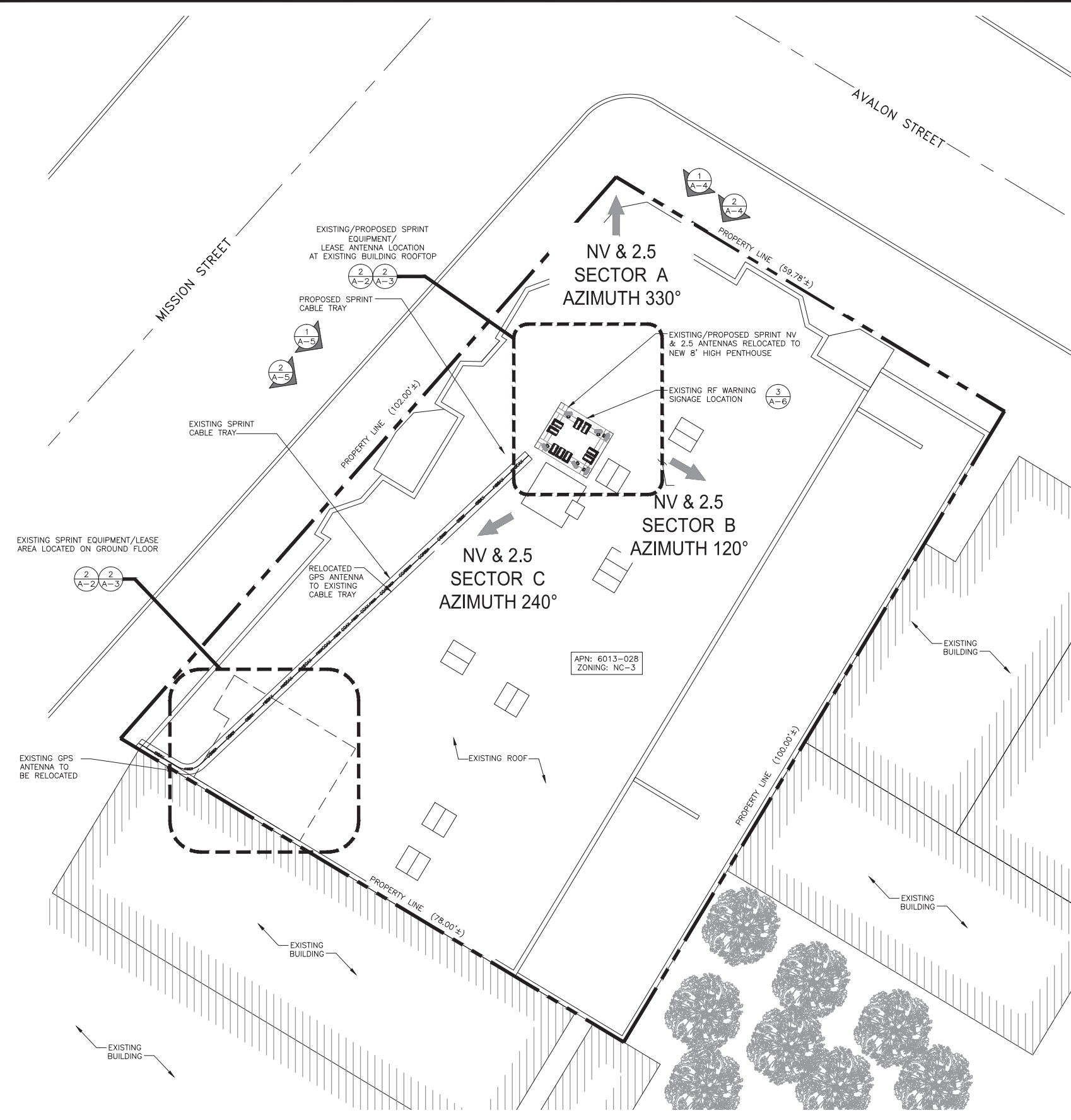
1. HEAD SOUTH-EAST ON ALCOSTA BLVD TOWARDS HOSPITAL PL
2. MAKE A U-TURN AT HOSPITAL PL
3. TURN LEFT ONTO CROW CANYON RD
4. MERGE ONTO I-680 N VIA THE SLIP ROAD TOSACRAMENTO
5. TAKE THE STATE ROUTE 24 EXIT TOWARDS OAKLAND/LAFAYETTE
6. MERGE ONTO CA-24 W
7. TAKE THE INTERSTATE 580 W EXIT
8. MERGE ONTO I-580 W
9. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-80 W/SAN FRANCISCO AND MERGE ONTO I-80W PARTIAL TOLL ROAD
10. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR SAN JOSE/U.S. 101 S/AIRPORT AND MERGE ONTO US-101 S11. CONTINUE ONTO CENTRAL FWY
11. TAKE THE INTERSTATE 280 S EXIT TOWARDS DALY CITY
12. MERGE ONTO I-280 S13. TURN LEFT ONTO FELL ST
13. EXIT ONTO ALEMANY BLVD TOWARDS MISSION ST15.
14. TURN LEFT ONTO COTTER ST
15. TURN LEFT ONTO MISSION ST

DESTINATION WILL BE ON THE RIGHT

**DRAWING INDEX**

SHEET	DESCRIPTION
T-1	TITLE SHEET
T-2	FIRE DEPARTMENT CHECKLIST
T-3	EMF REPORT
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
A-1	EXISTING/PROPOSED OVERALL SITE PLAN
A-2	EXISTING/PROPOSED EQUIPMENT PLAN
A-3	EXISTING/PROPOSED ANTENNA PLAN
A-4	EXISTING/PROPOSED NORTHEAST ELEVATIONS
A-5	EXISTING/PROPOSED NORTHWEST ELEVATIONS
A-6	EQUIPMENT DETAILS, SIGNAGE
E-1	SINGLE LINE DIAGRAM, PANEL SCHEDULE, ELECT. NOTES
G-1	ANTENNA GROUNDING PLAN GROUNDING NOTES
G-2	GROUNDING DETAILS

	APPROVALS	DATE
SITE ACQUISITION PLANNER-	_____	
SITE ACQUISITION MANAGER-	_____	
SPRINT CONSTRUCTION-	_____	
SPRINT ACQUISITION ACQUISITION-	_____	
RF ENGINEER	_____	
LANDLORD-	_____	



APN: 6013-028  
ZONING: NC-3



149 NATOMA ST. 3RD FLOOR  
SAN FRANCISCO, CA 94105



V-ONE DESIGN GROUP, INC.  
5100 CLAYTON RD. B-1, STE. 354  
CONCORD, CA 94521

PROJECT NO: FS04XC017-B  
DRAWN BY: JS  
CHECKED BY: RS

REV	DATE	DESCRIPTION
5	06/03/14	ISSUED FOR 100% CONSTRUCTION
4	03/19/14	ISSUED FOR 100% CONSTRUCTION
3	03/03/14	ISSUED FOR 90% CONSTRUCTION
2	01/27/14	ISSUED FOR 90% CONSTRUCTION
1	12/29/13	ISSUED FOR 90% CONSTRUCTION

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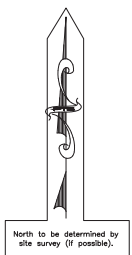
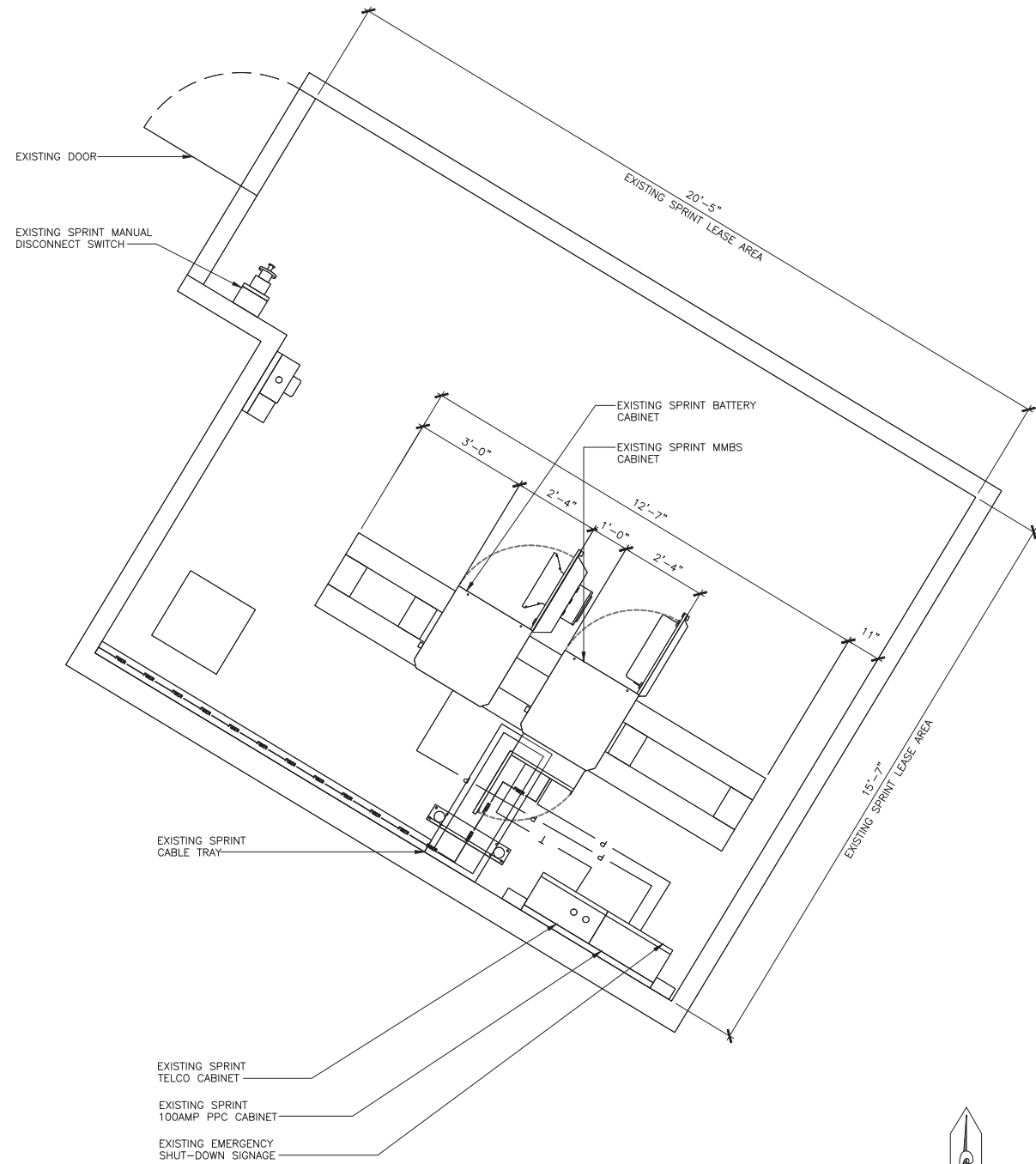
SOCIAL SECURITY BUILDING  
FS04XC017-B  
4377-4379 MISSION STREET,  
SAN FRANCISCO, CA 94112  
SAN FRANCISCO COUNTY

SHEET TITLE  
EXISTING / PROPOSED  
OVERALL SITE PLAN

SHEET NUMBER  
**A-1**

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11"x17" SCALE: 1/16" = 1'-0"  
8' 6' 4' 2' 0' 8'

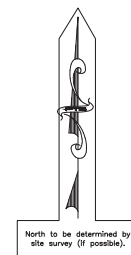
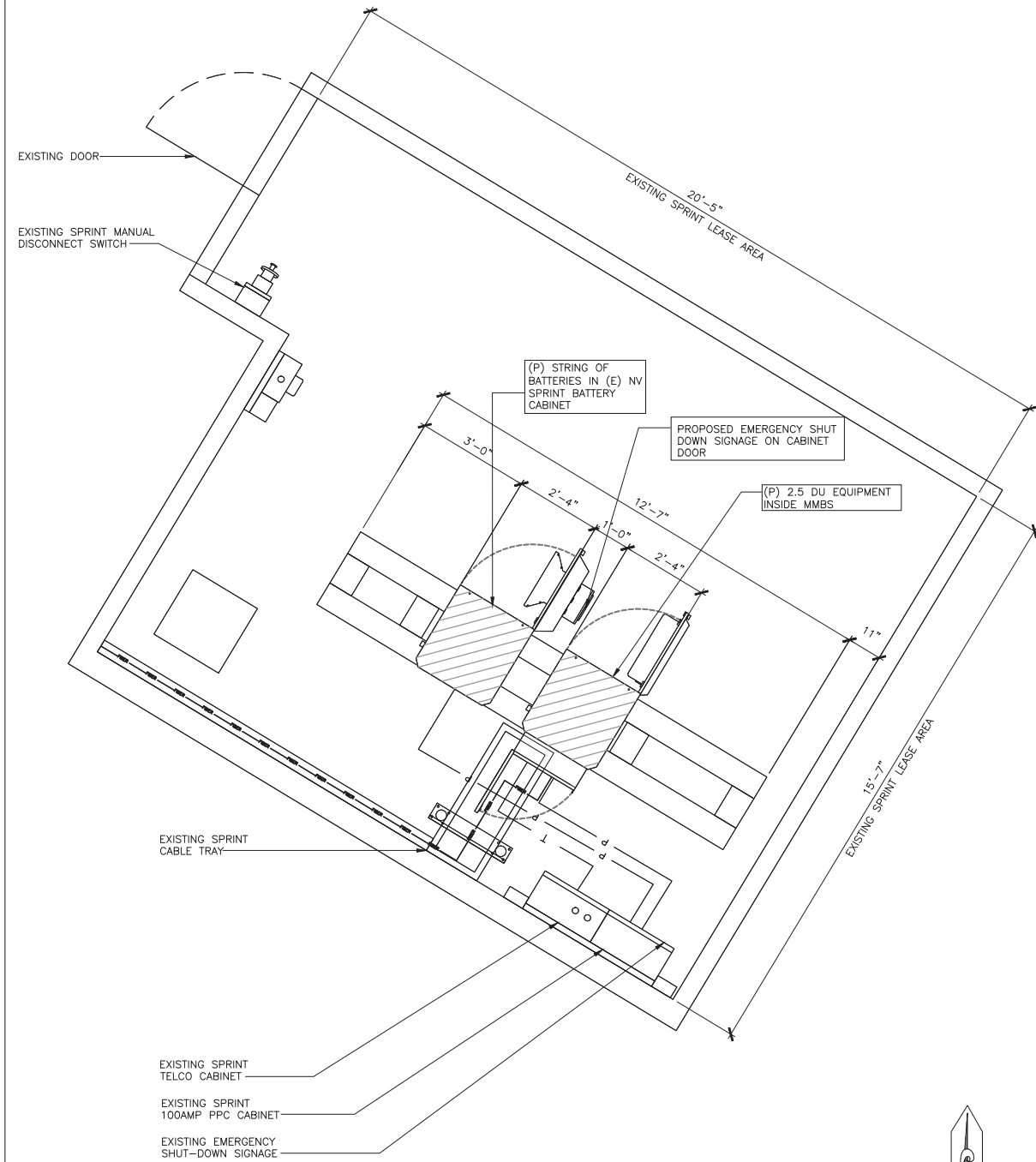
Equipment room is located on the ground floor



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

EXISTING EQUIPMENT/LEASE AREA PLAN | 1

Equipment room is located on the ground floor



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

PROPOSED EQUIPMENT/LEASE AREA PLAN | 2

**Sprint**  
6580 SPRINT PARKWAY  
OVERLAND PARK, KANSAS 66251



149 NATOMA ST. 3RD FLOOR  
SAN FRANCISCO, CA 94105



V-ONE DESIGN GROUP, INC.  
5100 CLAYTON RD. B-1, STE. 354  
CONCORD, CA 94521

PROJECT NO: FS04XC017-B

DRAWN BY: JS

CHECKED BY: RS

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FS04XC017-B  
4377-4379 MISSION STREET,  
SAN FRANCISCO, CA 94112  
SAN FRANCISCO COUNTY

SHEET TITLE  
EXISTING/PROPOSED  
EQUIPMENT PLAN

SHEET NUMBER  
**A-2**



149 NATOMA ST. 3RD FLOOR  
SAN FRANCISCO, CA 94105



V-ONE DESIGN GROUP, INC.  
5100 CLAYTON RD. B-1, STE. 354  
CONCORD, CA 94521

PROJECT NO: FS04XC017-B

DRAWN BY: JS

CHECKED BY: RS

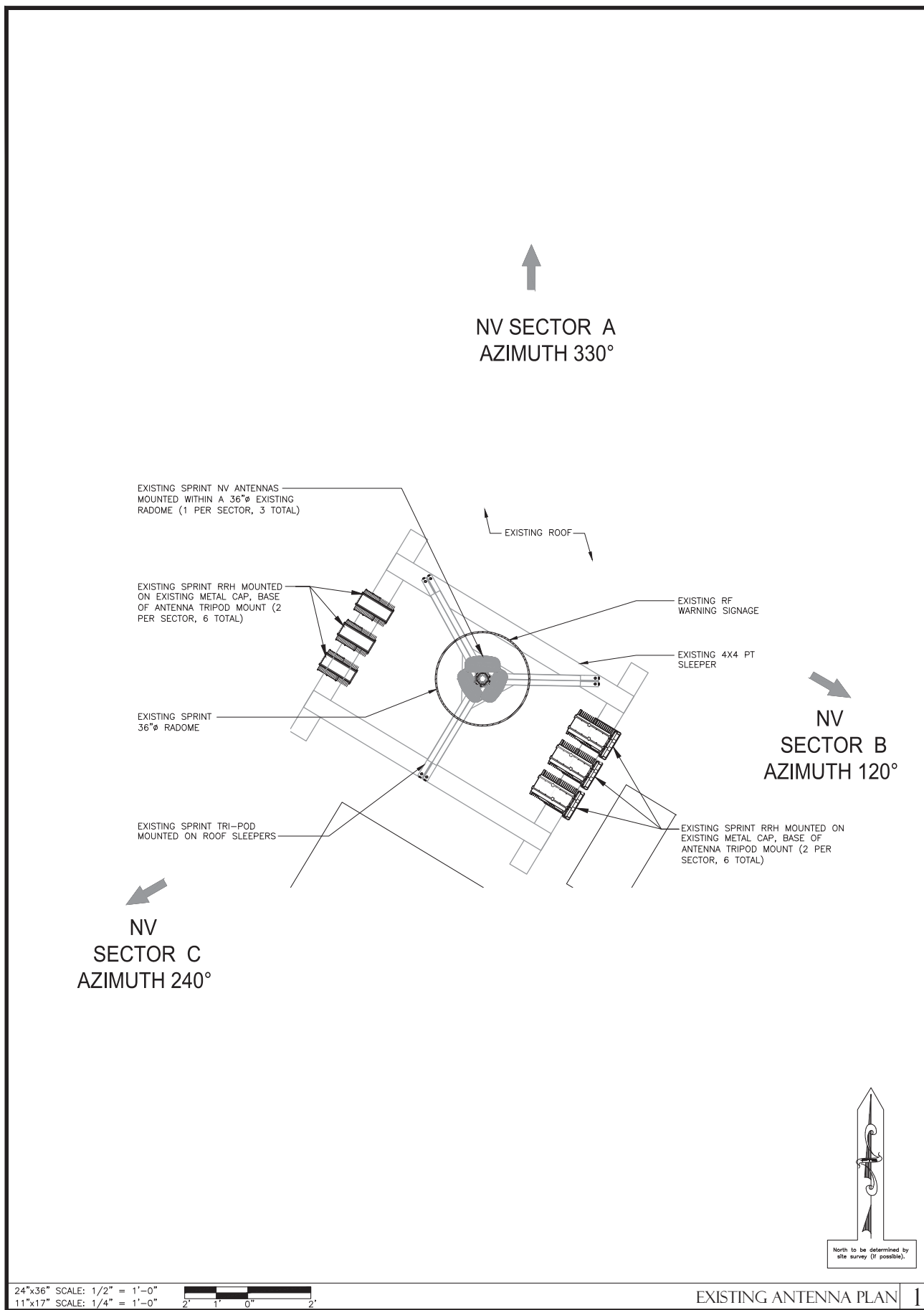
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SAN FRANCISCO, CA 94112  
SAN FRANCISCO COUNTY

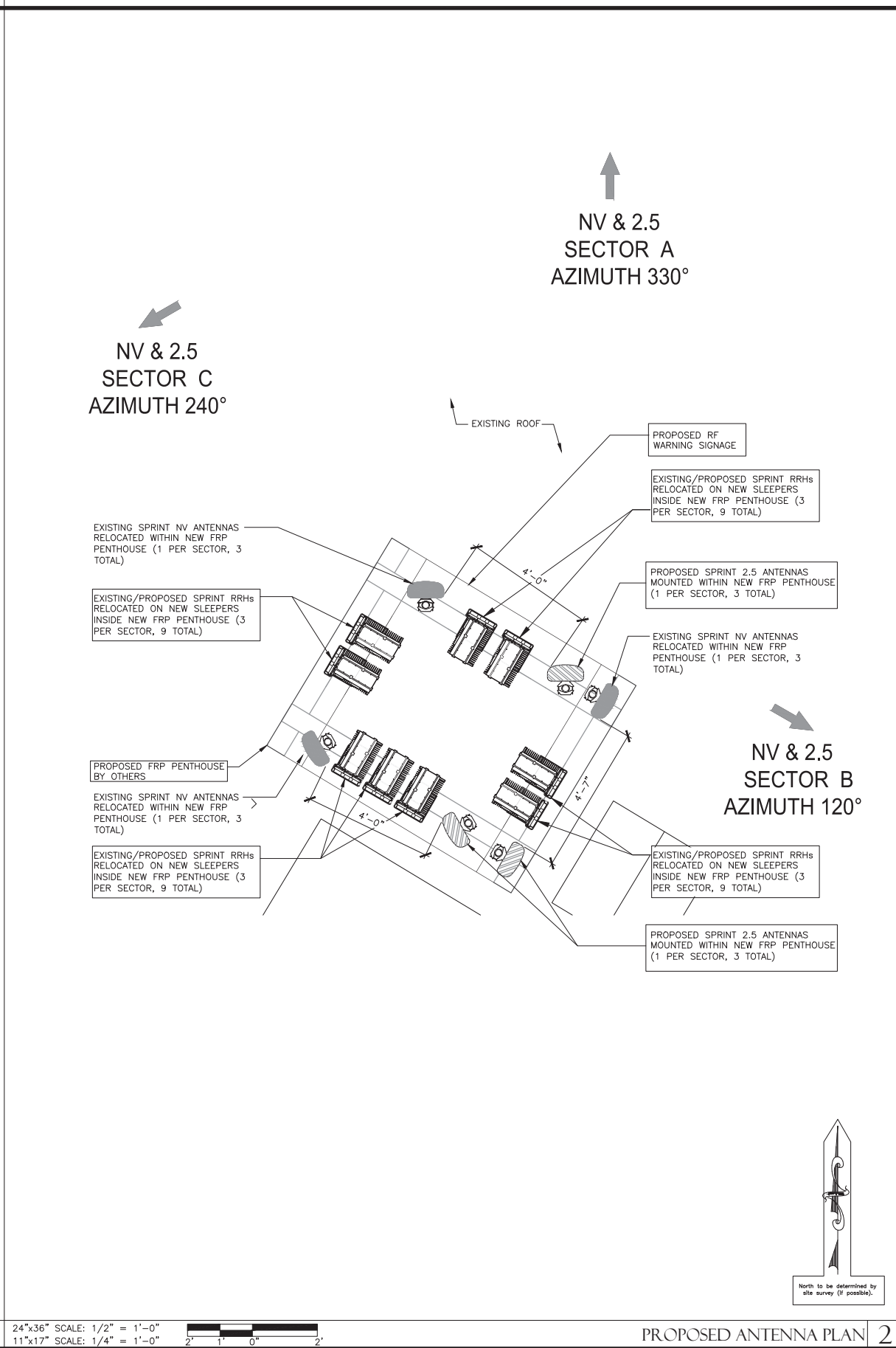
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EXISTING/PROPOSED  
ANTENNA PLAN

SHEET NUMBER  
**A-3**



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11"x17" SCALE: 1/4" = 1'-0"

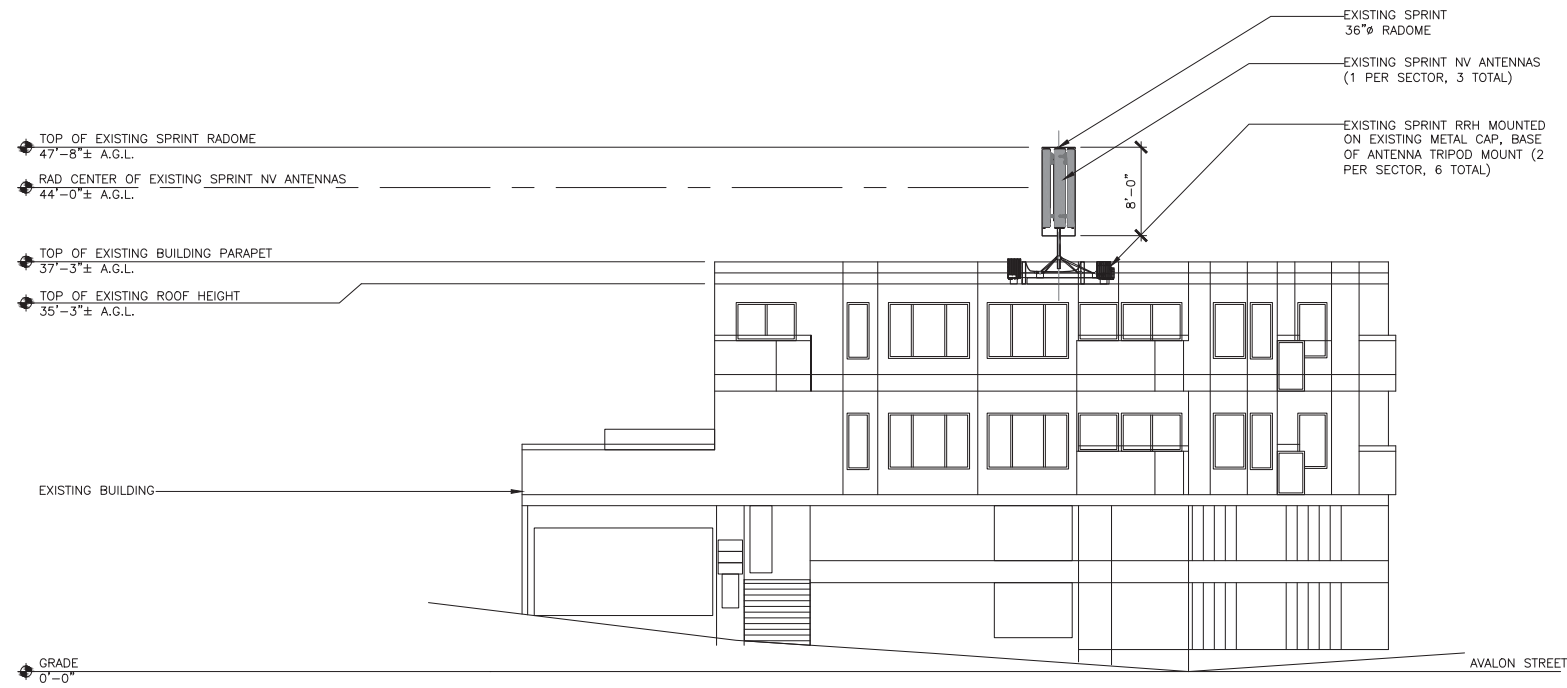
EXISTING ANTENNA PLAN | 1



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11"x17" SCALE: 1/4" = 1'-0"

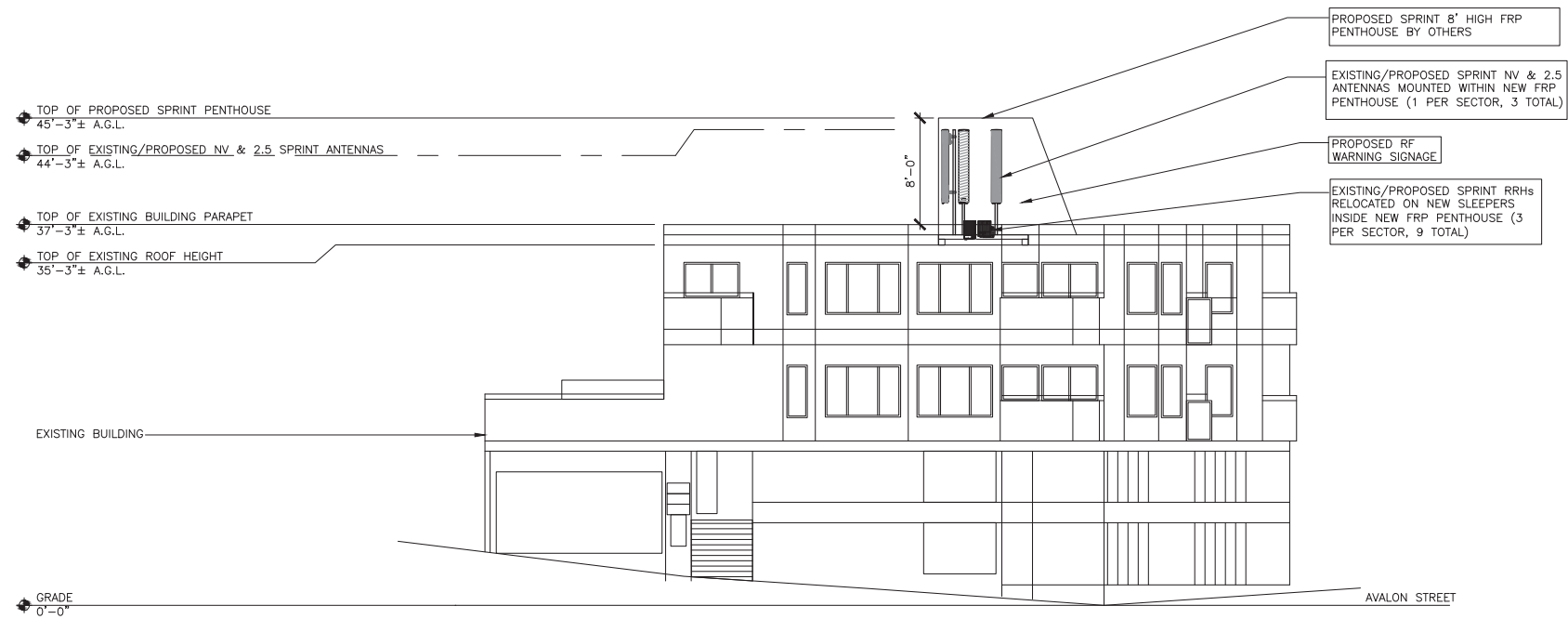
PROPOSED ANTENNA PLAN | 2





24"x36" SCALE: 1/8" = 1'-0"  
 11"x17" SCALE: 1/16" = 1'-0"  
 8' 6" 4' 2' 0" 8'

EXISTING NORTHEAST ELEVATION 1



24"x36" SCALE: 1/8" = 1'-0"  
 11"x17" SCALE: 1/16" = 1'-0"  
 8' 6" 4' 2' 0" 8'

PROPOSED NORTHEAST ELEVATION 2

**Sprint**  
 6580 SPRINT PARKWAY  
 OVERLAND PARK, KANSAS 66251

**MODUS**  
 149 NATOMA ST. 3RD FLOOR  
 SAN FRANCISCO, CA 94105

**V-ONE Design Group Inc.**  
 V-ONE DESIGN GROUP, INC.  
 5100 CLAYTON RD. B-1, STE. 354  
 CONCORD, CA 94521

PROJECT NO:	FS04XC017-B
DRAWN BY:	JS
CHECKED BY:	RS

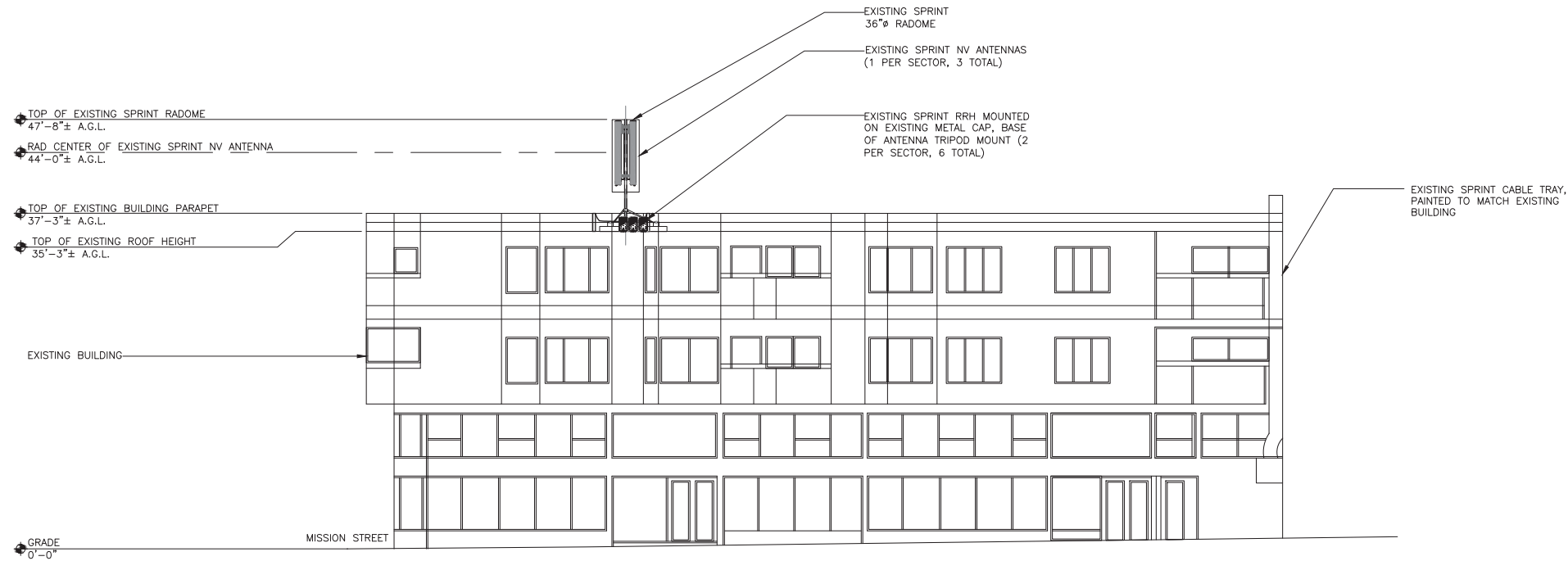
REV	DATE	DESCRIPTION
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4	03/19/14	ISSUED FOR 100% CONSTRUCTION
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SOCIAL SECURITY BUILDING  
 FS04XC017-B  
 4377-4379 MISSION STREET,  
 SAN FRANCISCO, CA 94112  
 SAN FRANCISCO COUNTY

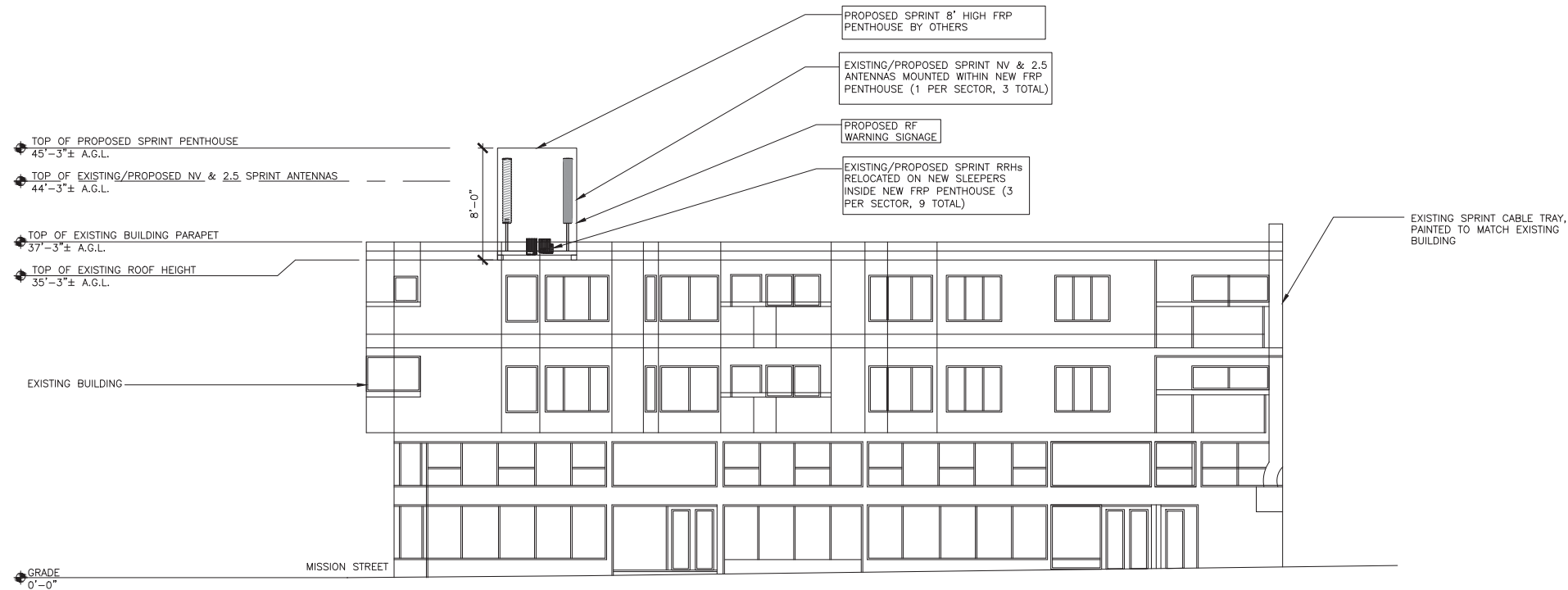
SHEET TITLE  
 EXISTING/PROPOSED  
 NORTHEAST ELEVATION

SHEET NUMBER  
**A-4**



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

EXISTING NORTHWEST ELEVATION 1



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

PROPOSED NORTHWEST ELEVATION 2

**Sprint**  
 6580 SPRINT PARKWAY  
 OVERLAND PARK, KANSAS 66251

**MODUS**  
 149 NATOMA ST. 3RD FLOOR  
 SAN FRANCISCO, CA 94105

**V-ONE Design Group Inc.**  
 V-ONE DESIGN GROUP, INC.  
 5100 CLAYTON RD. B-1, STE. 354  
 CONCORD, CA 94521

PROJECT NO:	FS04XC017-B
DRAWN BY:	JS
CHECKED BY:	RS

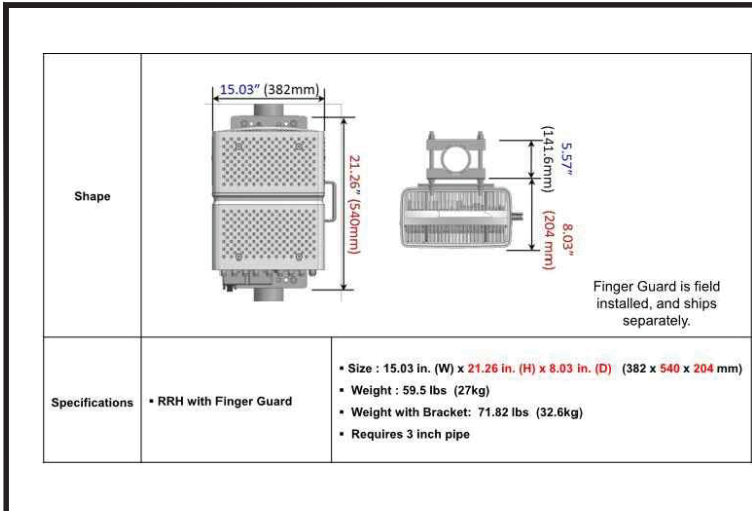
REV	DATE	DESCRIPTION
5	06/03/14	ISSUED FOR 100% CONSTRUCTION
4	03/19/14	ISSUED FOR 100% CONSTRUCTION
3	03/03/14	ISSUED FOR 90% CONSTRUCTION
2	01/27/14	ISSUED FOR 90% CONSTRUCTION
1	12/29/13	ISSUED FOR 90% CONSTRUCTION

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

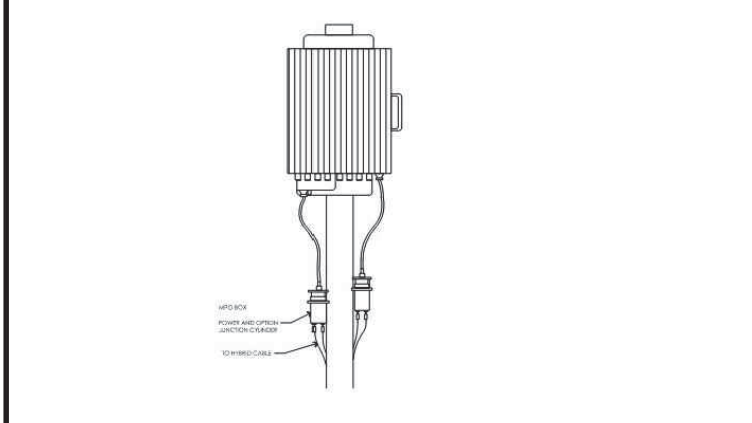
SOCIAL SECURITY BUILDING  
 FS04XC017-B  
 4377-4379 MISSION STREET,  
 SAN FRANCISCO, CA 94112  
 SAN FRANCISCO COUNTY

SHEET TITLE  
 EXISTING/PROPOSED  
 NORTHWEST ELEVATION

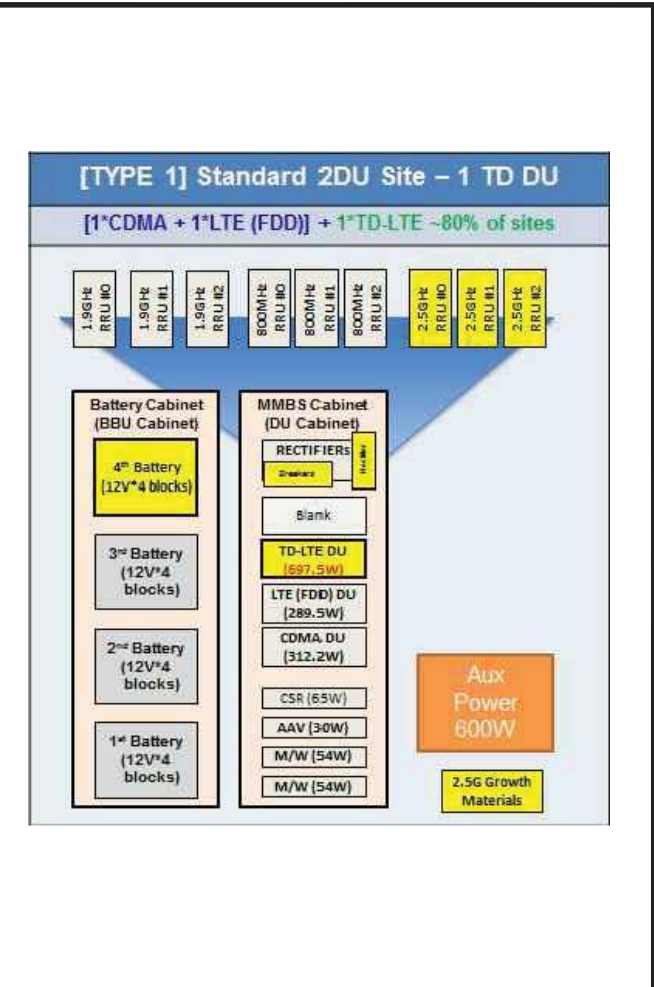
SHEET NUMBER  
**A-5**



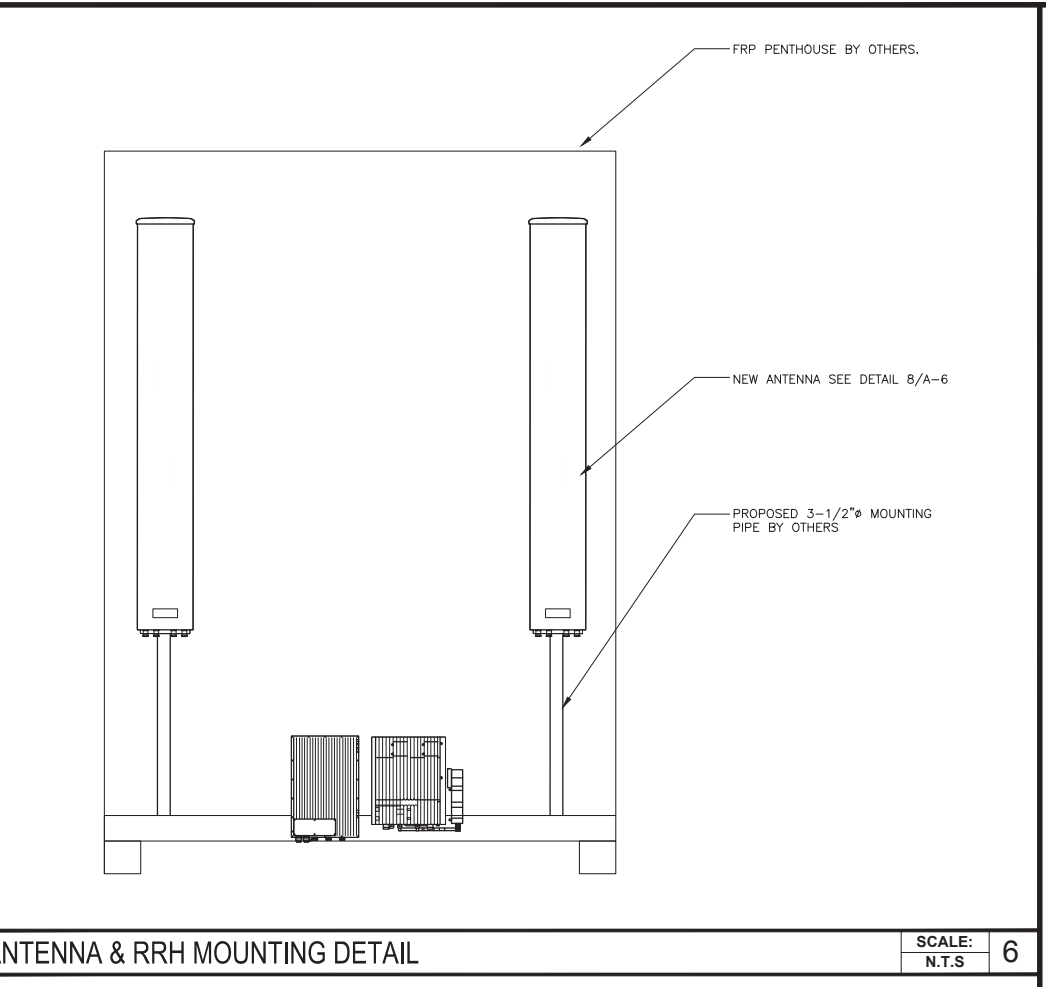
RRH DETAIL SCALE: 1 N.T.S



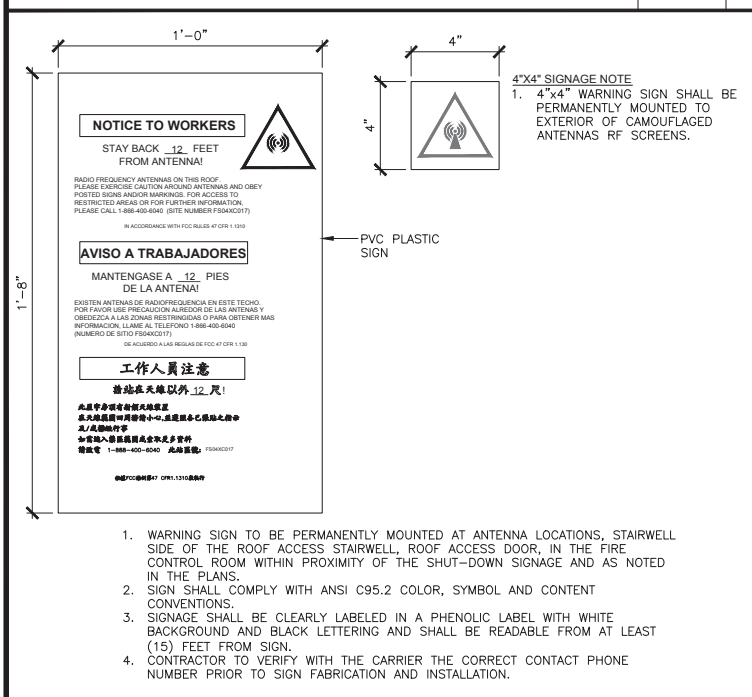
JUNCTION CYLINDER DETAIL SCALE: 2 N.T.S



HW DIMENSIONING-TYPICAL 3 SECTOR-NV 2DU: TYPE 1 SCALE: 4 N.T.S



ANTENNA & RRH MOUNTING DETAIL SCALE: 6 N.T.S



RF WARNING SIGNAGE SCALE: 3 N.T.S

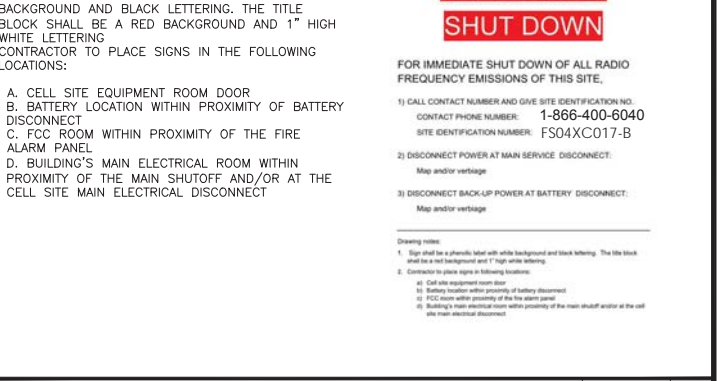
CFC CHAPTER 6 COMPLIANCE

ELECTROLYTE = 16 BATTERIES X 2.49 GAL/BATTERY = 39.84 GAL (SINCE <50 GAL OF ELECTROLYTE, CFC CHAPTER 6, SECTION 608 NOT APPLICABLE)

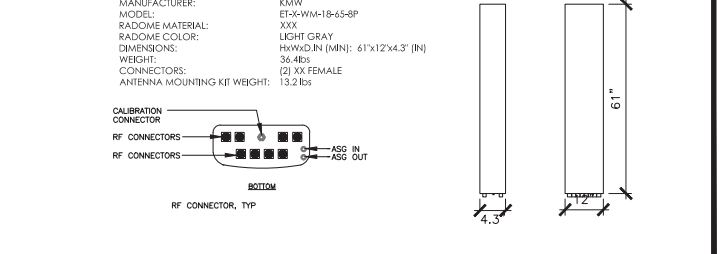
BATTERY INFORMATION (BATTERY ELECTROLYTE DATA - 12V MONOBLOCKS)

BATTERY MODEL	TOTAL # OF BATTERY UNITS INSTALLED	TOTAL ELECTROLYTE VOLUME (GAL) PER UNIT	TOTAL ELECTROLYTE WEIGHT (LBS) PER UNIT	% SULFURIC ACID BY VOL = ACID VOLUME / UNIT ELECTROLYTE VOLUME/UNIT
12DT190	16	2.49 GAL	27.35 LBS	58% = 1.45 GAL / 2.49 GAL
		% SULFURIC ACID BY WEIGHT = TOTAL ACID WEIGHT / TOTAL ELECTROLYTE WEIGHT	TOTAL SULFURIC VOL (GAL)	TOTAL UNITS X SULFURIC VOL/UNIT
		40.8% = 11.2 LBS/27.25 LBS	23.2 GAL = 16 UNITS X 1.45 / UNIT	177.98 LBS = 16 UNITS X 11.12 LBS

BATTERY DATA CHART SCALE: 5 N.T.S



EMERGENCY SHUT DOWN SIGN SCALE: 7 N.T.S



2.5 ANTENNA SCALE: 8 N.T.S

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4377-4379 MISSION STREET,  
SAN FRANCISCO, CA 94112  
SAN FRANCISCO COUNTY

SHEET TITLE  
EQUIPMENT DETAILS  
SIGNAGE

SHEET NUMBER  
**A-6**