SAN FRANCISCO
PLANNING DEPARTMENT

Executive Summary
Conditional Use Authorization
HEARING DATE: FEBRUARY 26, 2015

1650 Mission St.
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San Francisco,
CA 94103-2479

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Date:	February 19, 2015
Case No.:	**2014.1393C**
Project Address:	**1135 Evans Avenue**
Current Zoning:	NC-2 (Neighborhood Commercial, Small-Scale) India Basin Industrial Park Special Use District 40-X Height and Bulk District
Block/Lot:	4602A/014
Project Sponsor:	Sprint represented by Jeff Bister, Sitecom 25 Cadillac Drive, Suite 208 Sacramento, CA 95825
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) unscreened panel antennas, and electronic equipment necessary to run the facility on the lattice transmission towers, and at an existing ground level equipment area. Based on the zoning and land use, the existing WTS facility is at a Location Preference 2 Site (Preferred Location, Co-Location) according to the WTS Facilities Siting Guidelines.

The Project Site currently features three (3) Sprint panel antennas affixed, midway up, on one (1) of three (3) 70-foot tall lattice transmission towers used by Pacific Gas and Electric (PG&E) for electricity distribution. In addition, an unenclosed equipment area located at ground level approximately 45 feet from the transmission towers, houses larger equipment cabinets used to run the facility. The proposed modification would relocate two (2) of the three (3) existing panel antennas to the middle transmission tower, and add a total of three (3) panel antennas to two (2) of the transmission towers for a total of six (6) Sprint panel antennas.

In addition, a total of six radio relay head (RRH) units would be added or relocated next to the panel antennas. The RRH units are each approximately the size of a suitcase (22" tall, by 15" wide, by 8" deep), and are used to provide improved signal strength and clarity, which is needed for mobile high speed data coverage. Generally, the RRH (also known as radio relay units) need to be placed close to the panel antennas, as opposed to a less visible location, further away such as the main equipment area.

The 276 square-foot main equipment area is surrounded by an approximately eight-foot tall chain link fence and includes equipment necessary to run the facility within two (2) large equipment cabinets. The cabinets contain computer servers, as well as batteries used to provide backup power in the event of a power outage.

SITE DESCRIPTION AND PRESENT USE

The Project Site is located on Assessor's Block 4602A, Lot 014 at the southwest corner of Evans Avenue and Middle Point Road. The Project Site is a PG&E electricity distribution station which features three (3) lattice transmission towers, an additional transmission tower (lattice support bridge) near the center of the subject lot, and smaller buildings used as equipment shelters by wireless carriers and PG&E. The Project Site features additional panel antennas, affixed to the transmission towers, and ground level equipment areas for the following macro WTS facilities:

- Sprint with three (3) panel antennas. Case No. 2004.0182C.
- T-Mobile with two (2) existing panel antennas. Case No. 2003.0762C (acquired from Cingular).
- Verizon Wireless with six (6) existing panel antennas. Case No. 2009.0877C (three additional panel antennas) & Case No. 2005.0838C (three initial panel antennas).

SURROUNDING PROPERTIES AND NEIGHBORHOOD

The Project Site is situated in the Bayview neighborhood. The surrounding neighborhood is characterized by light industrial land uses on all sides, with the exception of a recently re-developed residential neighborhood (RM-1 Zoned) to the south of the Project Site. The residential neighborhood features three-story tall dwellings owned by the San Francisco Housing Authority and is located upslope of the Project Site.

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

TYPE	REQUIRED PERIOD	REQUIRED NOTICE DATE	ACTUAL NOTICE DATE	ACTUAL PERIOD
Classified News Ad	20 days	January 2, 2015	December 17, 2014	35 days
Posted Notice	20 days	January 2, 2015	January 2, 2015	20 days
Mailed Notice	10 days	January 12, 2015	December 19, 2014	33 days

PUBLIC COMMENT

As of February 19, 2015, the Department has received no comments regarding the proposed Project.

In addition, the Project Sponsor held a community meeting at the Bayview YMCA, at 1601 Lane Street, to discuss the Project at 6:00 p.m. on October 27, 2014. No community members attended the meeting.

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 711.83 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 an NC-2 Zoning 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 2 (Preferred Location, Co-Location) site. As the Project Site features existing Sprint, T-Mobile, and Verizon Wireless macro WTS facilities, which were all 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 (4th 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 panel antennas and radio relay head (RRH) units would not be screened, however the antennas, RRH units, and cabling will be painted to match the transmission towers. As the antennas and RRH units are affixed directly to the towers, the overall addition would not substantially detract from views of the surrounding area or significant vistas (Bay Bridge and Yerba Buena Island) from the perspective of the adjacent residential neighborhood. The existing

ground level equipment area is minimally visible from off-site as it is located near the center of the Project Site which is itself surrounded by a perimeter fence and mature trees and brush.

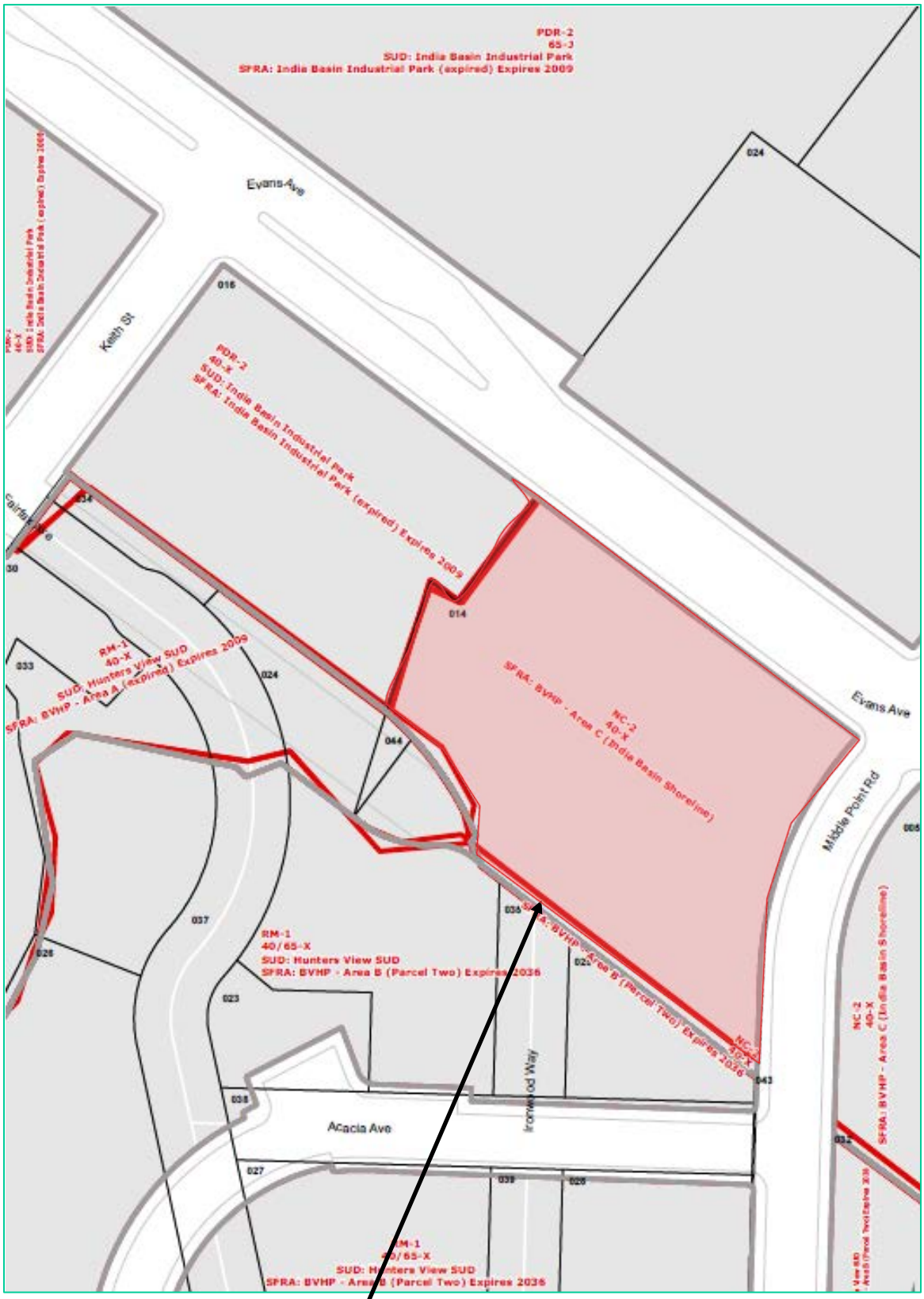
- The Project has been reviewed by staff and found to be categorically exempt from further environmental review, as a Class 3 exemption of the California Environmental Quality Act.

RECOMMENDATION:	**Approval with Conditions**

☒	Executive Summary	☒	Project sponsor submittal
☒	Draft Motion		Drawings: Proposed Project
☒	Zoning District Map	☒	Check for legibility
☐	Height & Bulk Map	☒	Photo Simulations
☒	Parcel Map	☒	Coverage Maps
☒	Sanborn Map	☒	RF Report
☒	Aerial Photo	☒	DPH Approval
☒	Context Photos	☒	Community Outreach Report
☒	Site Photos	☒	Independent Evaluation

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

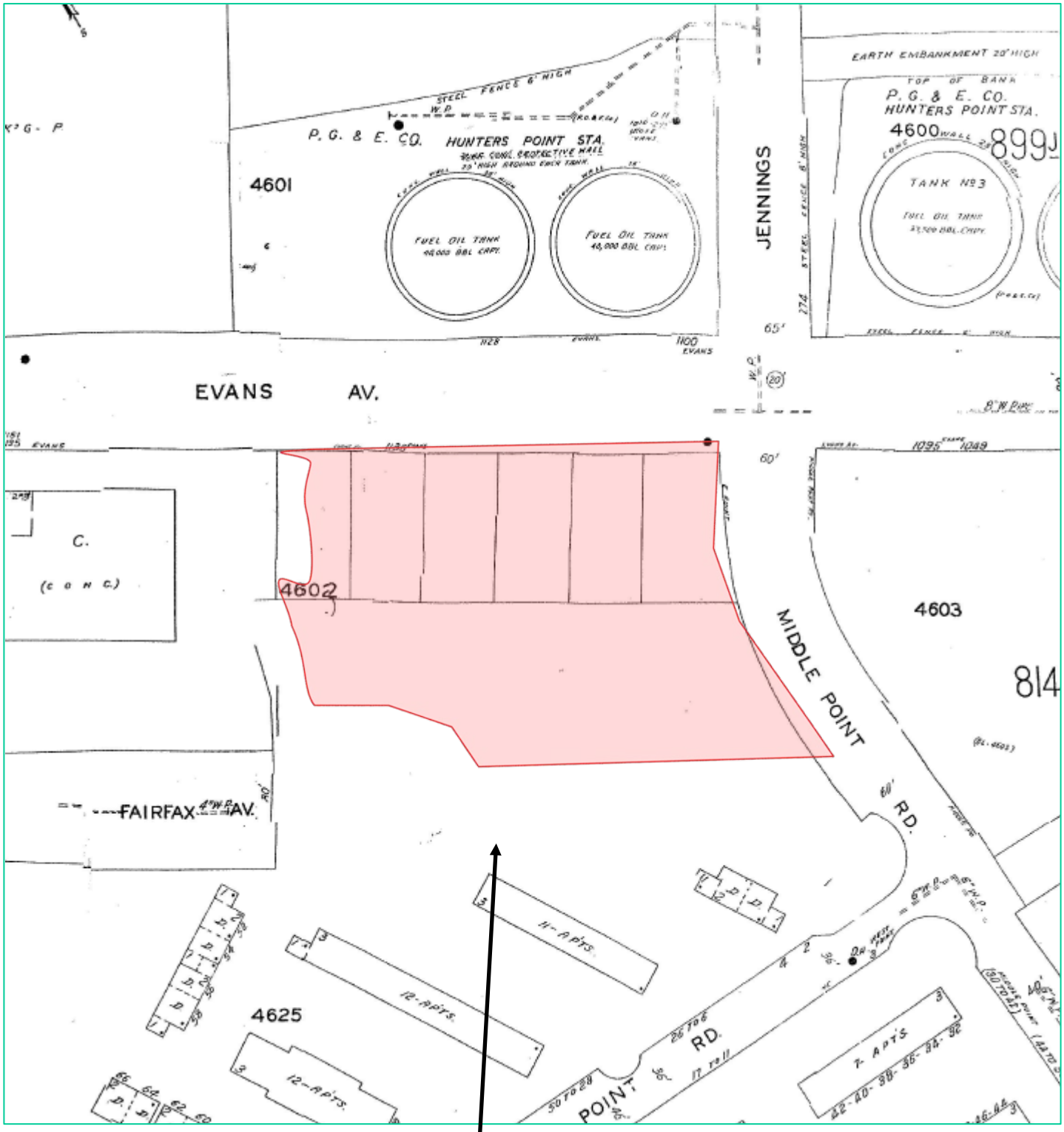
Parcel Map



Case Number 2014.1393C
Sprint Macro WTS Facility
1135 Evans Avenue

SAN FRANCISCO
PLANNING DEPARTMENT

Sanborn Map*



SUBJECT PROPERTY

Case Number 2014.1393C
Sprint Macro WTS Facility
1135 Evans Avenue

SAN FRANCISCO
PLANNING DEPARTMENT

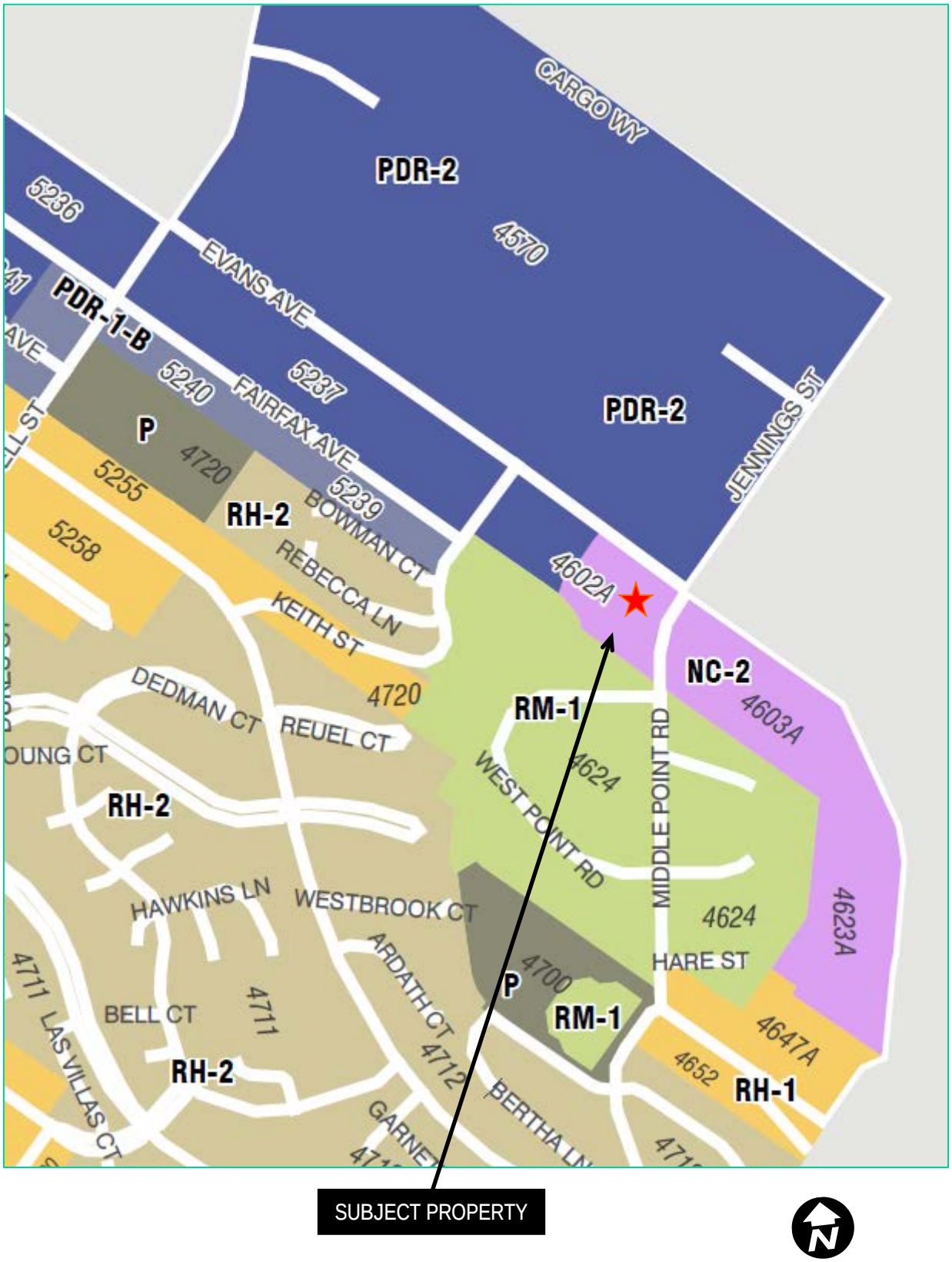
**The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.*

Aerial Photo

Case Number 2014.1393C
Sprint Macro WTS Facility
1135 Evans Avenue

SAN FRANCISCO
PLANNING DEPARTMENT

Zoning Map



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Planning Commission Motion No. XXXXX

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Staff Contact:	Omar Masry – (415) 575-9116 Omar.Masry@sfgov.org

ADOPTING FINDINGS RELATING TO THE APPROVAL OF A CONDITIONAL USE AUTHORIZATION UNDER PLANNING CODE SECTIONS 303(c) AND 711.83 TO MODIFY AN EXISTING MACRO WIRELESS TELECOMMUNICATIONS SERVICES FACILITY CONSISTING OF SIX UNSCREENED PANEL ANTENNAS AND ASSOCIATED GROUND LEVEL EQUIPMENT AREA AS PART OF SPRINT'S WIRELESS TELECOMMUNICATIONS NETWORK WITHIN AN NC-2 (NEIGHBORHOOD COMMERCIAL, SMALL-SCALE) ZONING DISTRICT, INDIA BASIN INDUSTRIAL PARK SPECIAL USE DISTRICT, AND A 40-X HEIGHT AND BULK DISTRICT.

PREAMBLE

On September 10, 2014, Sprint (hereinafter "Project Sponsor"), submitted an application (hereinafter "Application"), for a Conditional Use Authorization on the property at 1135 Evans Avenue, Lot 014, in Assessor's Block 4602A, (hereinafter "Project Site") to modify a wireless telecommunications service facility (hereinafter "WTS") consisting of up to six (6) unscreened panel antennas and a ground level equipment area, as part of Sprint's telecommunications network, within an NC-2 (Neighborhood Commercial, Small-Scale), India Basin Industrial Park Special 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 February 26, 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. 2014.1393C, 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 4602A, Lot 014 at the southwest corner of Evans Avenue and Middle Point Road. The Project Site is a PG&E electricity distribution station which features three (3) lattice transmission towers, an additional transmission tower (lattice support bridge) near the center of the subject lot, and smaller buildings used as equipment shelters by wireless carriers and PG&E. The Project Site features additional panel antennas, affixed to the transmission towers, and ground level equipment areas for the following macro WTS facilities:

   • Sprint with three (3) panel antennas. Case No. 2004.0182C.

   •T-Mobile with two (2) existing panel antennas. Case No. 2003.0762C (acquired from Cingular).

   •Verizon Wireless with six (6) existing panel antennas. Case No. 2009.0877C (three additional panel antennas) & Case No. 2005.0838C (three initial panel antennas).

3. **Surrounding Properties and Neighborhood**. The Project Site is situated in the Bayview neighborhood. The surrounding neighborhood is characterized by light industrial land uses on all sides, with the exception of a recently re-developed residential neighborhood (RM-1 Zoned) to the south of the Project Site. The residential neighborhood features three-story tall dwellings owned by the San Francisco Housing Authority and is located upslope of the Project Site.

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) unscreened panel antennas, and electronic equipment necessary to run the facility on the lattice transmission towers, and at an existing ground level equipment area.

   The Project Site currently features three (3) Sprint panel antennas affixed, midway up, on one (1) of three (3) 70-foot tall lattice transmission towers used by Pacific Gas and Electric (PG&E) for electricity distribution. In addition, an unenclosed equipment area located at ground level approximately 45 feet from the transmission towers, houses larger equipment cabinets used to run the facility. The proposed modification would relocate two (2) of the three (3) existing panel antennas to the middle transmission tower, and add a total of three (3) panel antennas to two (2) of the transmission towers for a total of six (6) Sprint panel antennas.

   In addition, a total of six radio relay head (RRH) units would be added or relocated next to the panel antennas. The RRH units are each approximately the size of a suitcase (22" tall, by 15" wide, by 8" deep), and are used to provide improved signal strength and clarity, which is needed for mobile high speed data coverage. Generally, the RRH (also known as radio relay units) need to be placed close to the panel antennas, as opposed to a less visible location, further away such as the main equipment area.

   The 276 square-foot main equipment area is surrounded by an approximately eight-foot tall chain link fence and includes equipment necessary to run the facility within two (2) large equipment cabinets. The cabinets contain computer servers, as well as batteries used to provide backup power in the event of a power outage. 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.

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 were 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 2 Site (Preferred Location, Co-Location) according to the WTS Facilities Siting Guidelines. As the Project Site features existing Sprint, T-Mobile, and Verizon Wireless macro WTS facilities, which were all 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 1% of the FCC public exposure limit.

   Sprint proposes to relocate two (2) of three (3) existing panel antennas and add three (3) 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 0.22 mW/sq. cm., which is 22% of the FCC public exposure limit. The three dimensional perimeter of RF levels equal to the public exposure limit extends 33 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 (15 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 Bayview YMCA, at 1601 Lane Street, to discuss the Project at 6:00 p.m. on October 27, 2014. No community members attended the meeting.

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 February 19, 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 711.83, 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 1135 Evans Avenue 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, to minimize their visibility from public places, to avoid intrusion into public vistas, and to insure harmony with the existing neighborhood character and promote public safety.

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 1135 Evans Avenue 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;

The antennas and equipment are not screened, but would be painted to match the existing transmission tower and affixed adjacent to the tower. The proposed antennas, equipment and existing ground level equipment area 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 consisted with the purpose of this Neighborhood Commercial District in that the intended use is located on an existing structure and would not alter the character of the Project Site or surrounding area. Furthermore, the facility would not impact the primary infrastructure use of the Project Site.

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 sustainable supported by the City's public infrastructure systems.

The Project will improve Sprint's coverage and capacity along Evans Avenue and portions of the Bayview.

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 equipment would be mounted on existing transmission towers which are necessary infrastructure uses. The minimal offset of the panel antennas from each transmission tower would not result in a significant increase in visibility of the antennas or equipment, and thereby avoid introducing substantial visual increases in noticeability of the existing transmission towers.

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 tower-mounted antennas and equipment and equipment within a ground level equipment area. Therefore, the proposed modification would 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 does not feature buildings which may be considered historic resources or landmarks.

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 711.83 and 303 to install up to six (6) unscreened panel antennas and associated equipment on transmission towers, and a ground level equipment area at the Project Site and as part of a wireless transmission network operated by Sprint on a Location Preference 2 (Preferred Location, Co-Location) according to the Wireless Telecommunications Services (WTS) Facilities Siting Guidelines, within an NC-2 (Neighborhood Commercial, Small-Scale) Zoning District, India Basin Industrial Park Special 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 November 18, 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 re-commence the 90-day approval period.

I hereby certify that the foregoing Motion was adopted by the Planning Commission on **February 26, 2015**.

Jonas P. Ionin
Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED: February 26, 2015

EXHIBIT A

AUTHORIZATION

This authorization is for a Conditional Use Authorization under Planning Code Sections 711.83 and 303 to install up to six (6) unscreened panel antennas and associated equipment on transmission towers, and a ground level equipment area at the Project Site and as part of a wireless transmission network operated by Sprint on a Location Preference 2 (Preferred Location, Co-Location) according to the Wireless Telecommunications Services (WTS) Facilities Siting Guidelines, within an NC-2 (Neighborhood Commercial, Small-Scale) Zoning District, India Basin Industrial Park Special 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 November 18, 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 **February 26, 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.

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 .

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.

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 .

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

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

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.

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

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

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.

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

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

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.

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

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

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.

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.

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

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

Version Date: May 6, 2014

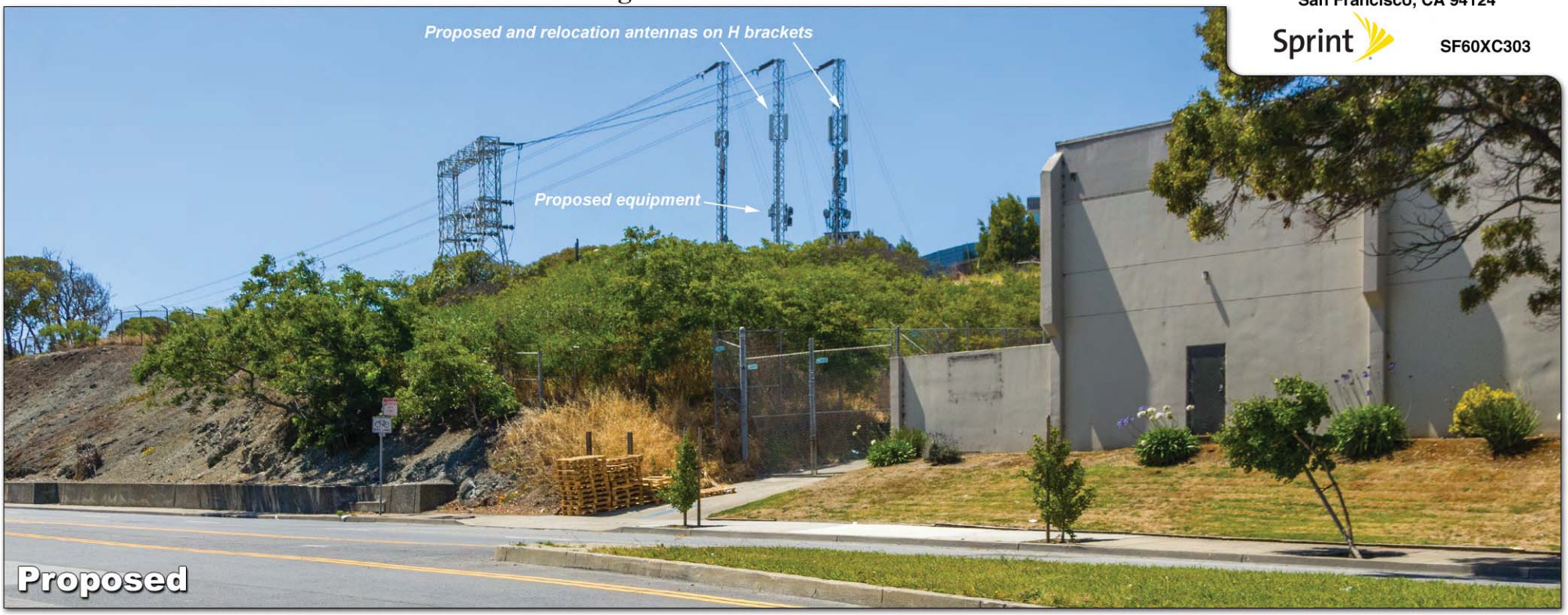
Photosimulation of the view looking due south from Evans Avenue.

PG&E Hunters Point

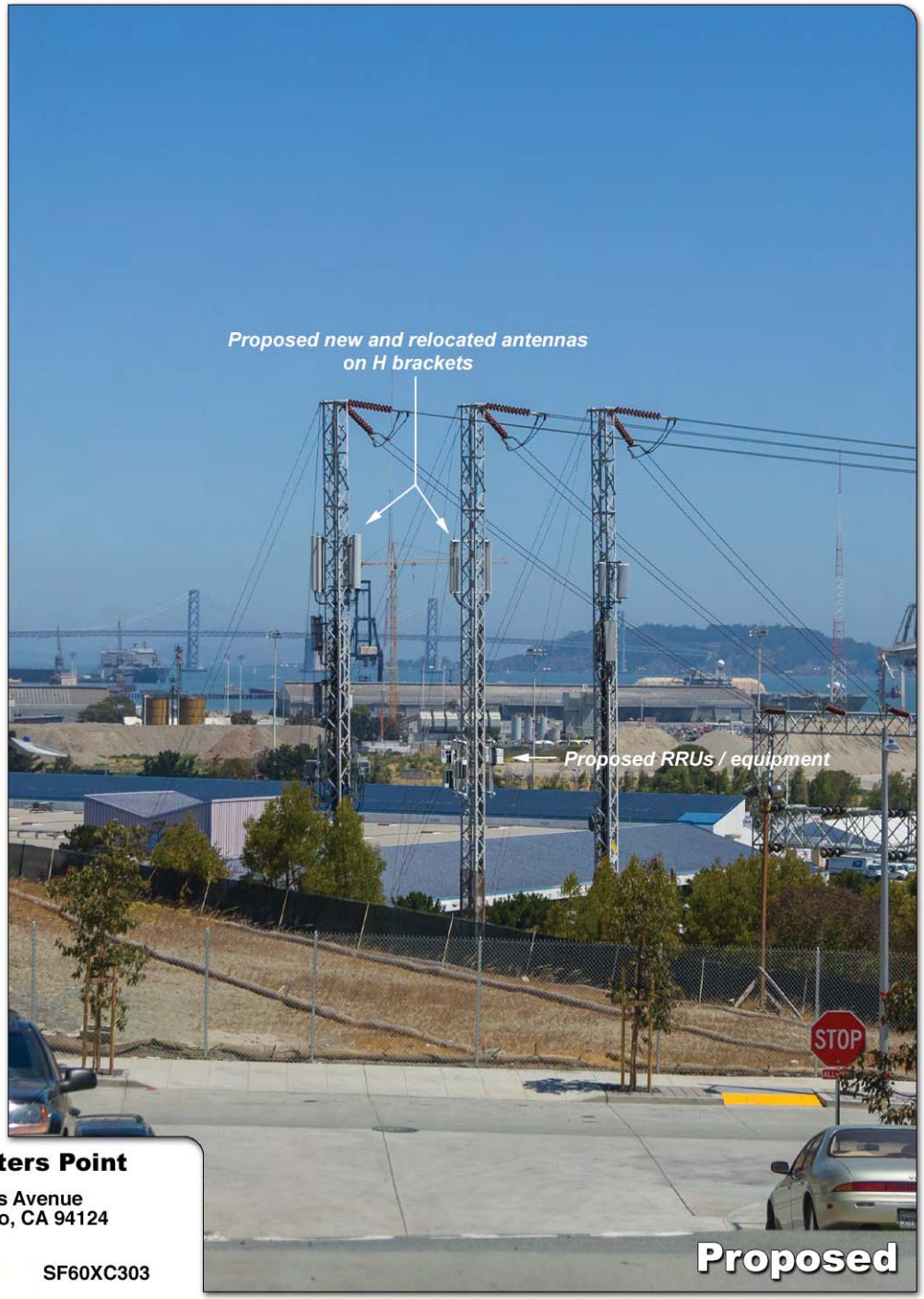
1135 Evans Avenue
San Francisco, CA 94124

Sprint

SF60XC303



Photosimulation of the view looking north from Wills Avenue.



PG&E Hunters Point

1135 Evans Avenue
San Francisco, CA 94124

Sprint

SF60XC303

sitesafe
rf compliance experts

200 North Glebe Road, Suite 1000, Arlington, VA 22203-3728
703.276.1100 • 703.276.1169 fax
info@sitesafe.com • www.sitesafe.com

SiteCom, Inc. on behalf of Sprint
Site ID – SF60XC303
Site Name – PG&E Hunters Point
Site Compliance Report

1135 Evan Avenue
San Francisco, CA 94124

Latitude: N37-44-14.15
Longitude: W122-22-48.09
Structure Type: Guyed

Report generated date: January 28, 2015
Report by: Kevin Smith
Customer Contact: Elke Reimer-Truscott

Sprint Will Be Compliant based on FCC Rules and Regulations.

SiteCom, Inc. on behalf of Sprint
PG&E Hunters Point - SF60XC303
Radio Frequency (RF) Site Compliance Report

1135 Evan Avenue, San Francisco, CA 94124

200 N. Glebe Road • Suite 1000 • Arlington, VA 22203-3728
703.276.1100 • info@sitesafe.com

Table of Contents

1 Executive Summary

SiteCom, Inc. on behalf of Sprint has contracted with Sitesafe, Inc. (Sitesafe), an independent Radio Frequency (RF) regulatory and engineering consulting firm, to determine whether the proposed communications site, SF60XC303 - PG&E Hunters Point, located at 1135 Evan Avenue, San Francisco, CA, is in compliance with Federal Communication Commission (FCC) Rules and Regulations for RF emissions.

This report contains a detailed summary of the RF environment at the site including:

- diagram of the site;
- inventory of the make / model of all antennas
- RF Exposure levels based on modeling.

This report addresses exposure to radio frequency electromagnetic fields in accordance with the FCC Rules and Regulations for all individuals, classified in two groups, "Occupational or Controlled" and "General Public or Uncontrolled." This **site will be compliant** with the FCC rules and regulations, as described in OET Bulletin 65.

This document and the conclusions herein are based on the information provided by Sprint and Sitesafe experience.

If you have any questions regarding RF safety and regulatory compliance, please do not hesitate to contact Sitesafe's Customer Support Department at (703) 276-1100.

2 San Francisco Planning Department Wireless Telecommunications Services Facility Siting Guidelines Review

1. The location of all existing antennas and facilities. Existing RF levels.
Sprint has 3 antennas mounted at 52 feet above ground level on a transmission line support tower. Verizon and T-Mobile have antennas mounted on this set of three towers. From the drawings provided, all antennas are mounted 30 feet above ground level. The exact location of the T-Mobile antennas could not be ascertained but worst case assumptions, i.e. highest RF levels, were made based on drawings and photographs of the site.

The base of the towers are at approximately 73 feet above mean sea level (AMSL). The towers are mounted on a slope that rises to the southwest (approximately 240 degrees). The top of the hill is approximately 120 feet AMSL. This is 275 feet distant from the antenna support.

At the substation fence, 34 feet from the support, the elevation is approximately 80 feet AMSL, or 7 feet above the level of the base of the support towers,

RF Exposure levels were predicted based on current Sprint operations, Verizon, and T-Mobile. In all locations (base of tower, substation fence line, hillside to the southwest), is 22% of the General Public exposure limit or 0.22 mW/cm^2.

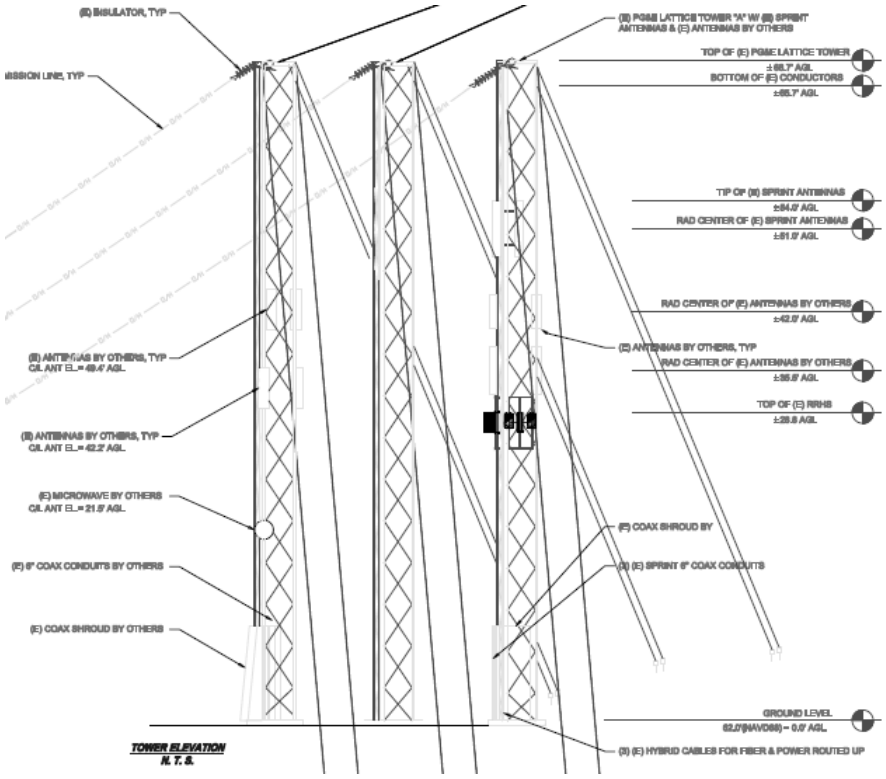


Figure 1 Existing Tower Configuration

2. The location of all approved (but not installed) antennas and facilities. Expected RF levels from the approved antennas.
We have been informed that Verizon is adding AWS frequencies to this facility. This report predicts levels from all existing and proposed antennas / installations.

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.
It is our understanding that there are no other wireless facilities within 100 feet of this site. Expectations are that ground levels will be below 10% of the General Public MPE limit.

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.
See Antenna Inventory and RF Emissions Diagrams below for locations and quantities of antennas on site. The diagram below shows existing and proposed antenna configuration.

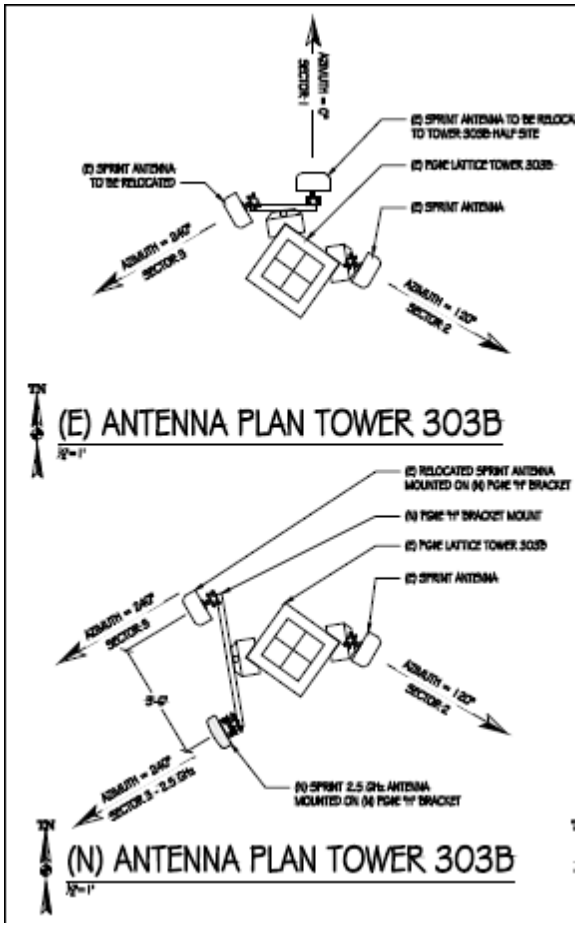


Figure 2 Sprint West Tower Antenna Configuration (existing / new)

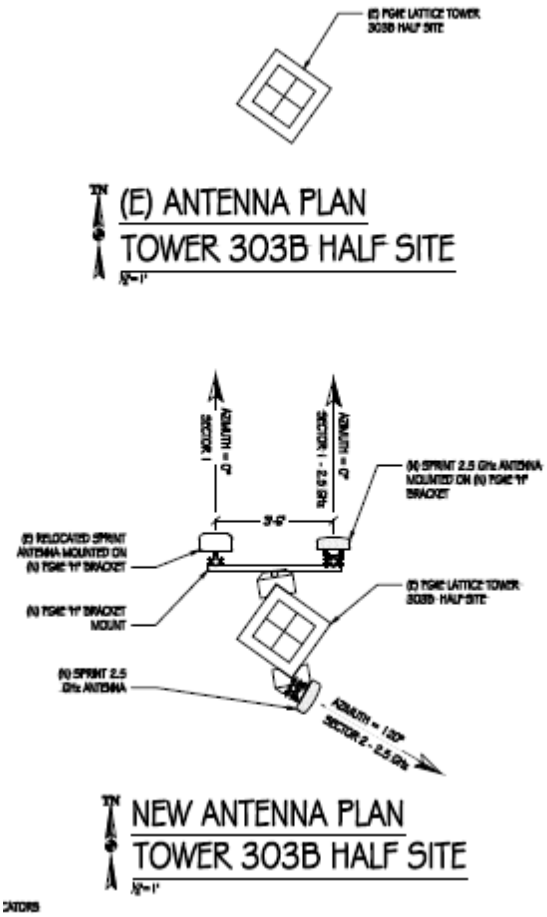


Figure 3 Sprint Center Tower Antenna Configuration (existing / new)

5. Power rating (maximum and expected operating power) for all existing and proposed backup equipment subject to the application.
Sprint is proposing to operate 305 Watts ERP at 2500 MHz per sector on the three (3) proposed antennas, and 628 Watts ERP at 862 MHz and 1092 Watts ERP at 1900 MHz per sector on the three (3) existing antennas.

6. The total number of watts per installation and the total number of watts for all installations on the building.
See Antenna Inventory below for ERP watts for all antennas on site.

7. Preferred method of attachment of proposed antenna with plot or roof plan. Show directionality of antennas. Indicate height above roof level. Discuss nearby inhabited buildings.
Sprint proposes to add three (3) antennas for the 2500 MHz band to their three (3) existing at this site. Existing antennas will be reconfigured and new antennas

mounted to the west and center of three electrical transmission line support tower at a height of 52 feet above ground level with azimuths of 0, 120, and 240 degrees. The 0 degree antennas will be on the center tower. The 240 degree antennas will be on the west tower. The 120 degree antennas will be split between the two towers. See Figure 2 and Figure 3 above.

8. Report estimated ambient radio frequency fields for the proposed site. State FCC standard utilized and power density exposure level.
RF levels are predicted to be 22.1% of the FCC's General Public MPE limit or 0.22 mW/cm^2 on the ground at the base of the towers. Worst case RF exposure levels are predicted to be at the base of the towers. Section 5.1 has further information on the predicted exposure levels heading up the hill from this tower. From the Sprint 0 and 240 degree sectors the distance to the General Public and Occupational exposure limits are 33 feet and 15 feet respectively. The 120 sector will be less because the antennas are on different towers.

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. Discuss signage for those who speak languages other than English.
RF Caution alerting signs should be mounted to the base of the existing towers indicating that personnel climbing the structure could be exposed to levels that exceed the Occupational RF Exposure limits. Signage should be provided in English, Spanish, and Chinese.

10. Statement on who produced this report and qualifications.
See Engineer Certification and stamp on the cover of this report.

3 Regulatory Basis

3.1 FCC Rules and Regulations

In 1996, the Federal Communication Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

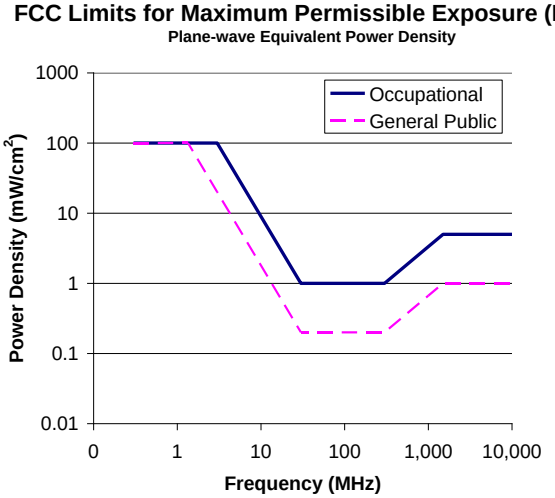
Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:

FCC Limits for Maximum Permissible Exposure (MPE)



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

3.2 OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards

that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

4 Site Compliance

4.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, Sitesafe has determined that:

This **site will be compliant** with the FCC rules and regulations, as described in OET Bulletin 65.

The compliance determination is based on theoretical modeling, RF signage placement recommendations, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the Sprint's proposed deployment plan could result in the site being rendered non-compliant.

4.2 Actions for Site Compliance

Based on common industry practice and our understanding of FCC and OSHA requirements, this section provides a statement of recommendations for site compliance. RF alert signage recommendations have been proposed based on theoretical analysis of MPE levels. Barriers can consist of locked doors, fencing, railing, rope, chain, paint striping or tape, combined with RF alert signage.

This site will be compliant with the FCC rules and regulations. The following is recommended for compliance.

Site Access Location

Yellow caution sign required at base of tower supporting antennas.

5 Analysis

5.1 RF Emissions Diagram

The RF diagram(s) below display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix B.

The key at the bottom of each diagram indicates the predicted RF Exposure levels in power density units.

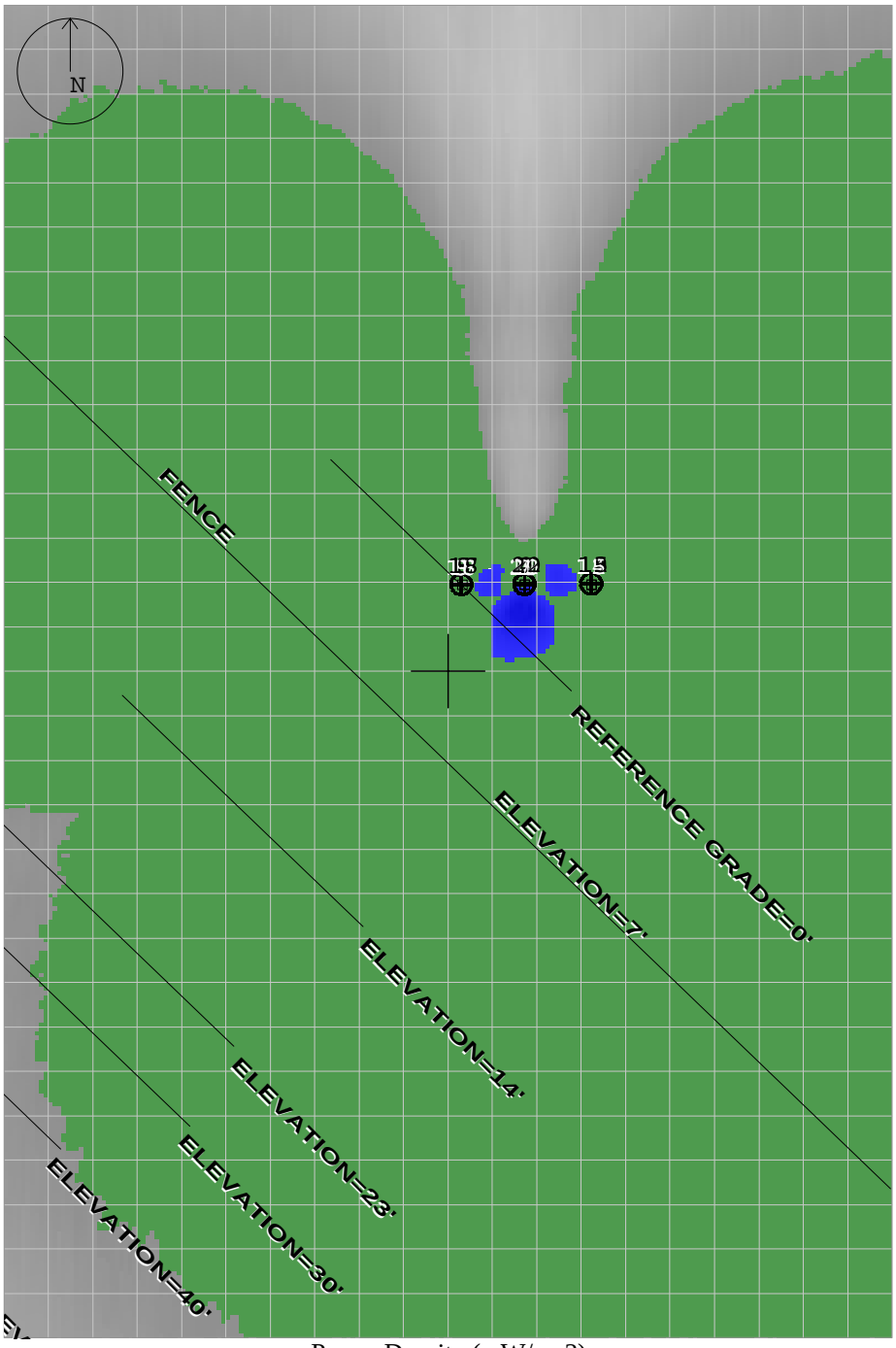
Two diagrams are below, the first is a ground level taken at the tower base in power density units. The second is an elevation view going to the southwest from the tower, in the direction of one sector for each operator, presented in percent of the FCC's General Public exposure limit. Table 1 shows the peak predicted levels along the southwest sector with the elevation change along the way.

The worst case predicted level is 22% of the General Public exposure limit. Our experience is actual measured levels will be 1/10th of this or less.

Distance (to SW)	*Elevation*		*Exposure (Spatial Average)*	
	AMSL	**Relative**	**%GP**	**mW/cm^2**
0'	73'	0'	22.1%	0.22
30'	80'	7'	7.8%	0.07
70'	87'	14'	4.8%	0.04
110'	96'	23'	10.4%	0.10
130'	103'	30'	18.6%	0.17
155'	113'	40'	11.9%	0.09
185'	123'	50'	7.1%	0.06

Table 1 Peak Predicted Levels

RF Emissions Diagram for: PG&E Hunters Point
Main Level



Power Density (mW/cm2)
Average from 10 feet above to 16 feet above origin

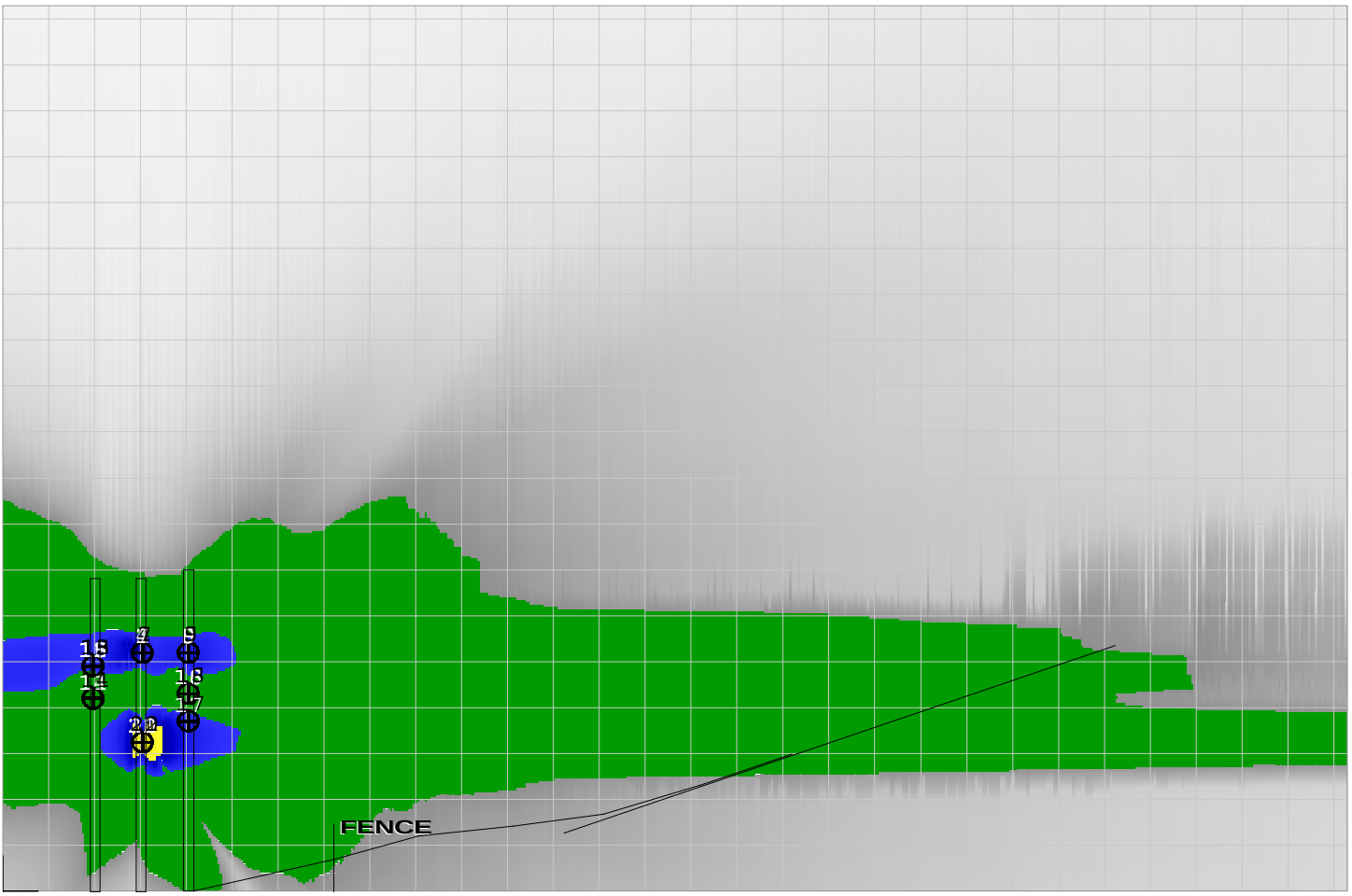
	10 <= X
	2 <= X < 10
	0.4 <= X < 2
	0.1 <= X < 0.4
	0.02 <= X < 0.1
	X <= 0.02

sitesafe
www.sitesafe.com
Sitesafe ID# 142848
Site Name: PG&E Hunters Point

SitesafeTC Version 2.81.00
0/28/2015

Feet
20 0 20 40
Grid Size is 10.0

RF Emissions Diagram for: PG&E Hunters Point
Elevation View



% of FCC Public Exposure Limit
Individual Points

- 5000 <= X
- 500 <= X < 5000
- 100 <= X < 500
- 5 <= X < 100
- X <= 5

sitesafe
www.sitesafe.com
Sitesafe ID# 142848
Site Name: PG&E Hunters Point

SitesafeTC Version 2.81.00
0/28/2015

Feet
20 0 20 40
Grid Size is 10.0

6 Antenna Inventory

The Antenna Inventory shows all transmitting antennas at the site. This inventory was provided by the customer, and was utilized by Sitesafe to perform theoretical modeling of RF emissions. The inventory coincides with the site diagrams in this report, identifying each antenna's location at SF60XC303 - PG&E Hunters Point. The antenna information collected includes the following information:

- Licensee or wireless operator name
- Frequency or frequency band
- Transmitter power – Effective Radiated Power ("ERP"), or Equivalent Isotropic Radiated Power ("EIRP") in Watts
- Antenna manufacturer make, model, and gain

For other carriers at this site, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information with regard to carrier, their FCC license and/or antenna information was not available nor could it be secured while on site. Equipment, antenna models and nominal transmit power were used for modeling, based on past experience with radio service providers.

The following antenna inventory, on this and the following page, were provided by the customer and were utilized to create the site model diagrams:

Table 3: Antenna Inventory												
Ant #	Operated By	TX Freq (MHz)	ERP (Watts)	Antenna Gain (dBd)	Az (Deg)	Antenna Model	Ant Type	Len (ft)	Horizontal Half Power Beamwidth (Deg)	Location		
										X	Y	Z (AGL)
1	Sprint (Proposed)	2496	305	15.85	0	KMW ET-X-WM-18-65-8P-000T	Panel	5	65	17'	20'	52'
2	Sprint (Proposed)	2496	305	15.85	120	KMW ET-X-WM-18-65-8P-000T	Panel	5	65	17'	20'	52'
3	Sprint (Proposed)	2496	305	15.85	240	KMW ET-X-WM-18-65-8P-000T	Panel	5	65	3'	20'	52'
4	Sprint	862	628	11.96	0	EMS MB48RR650200	Panel	4	65	17'	20'	52'
		1900	1092	14.36	0	EMS MB48RR650200	Panel	4	65	17'	20'	52'
5	Sprint	862	628	11.96	120	EMS MB48RR650200	Panel	4	65	3'	20'	52'
		1900	1092	14.36	120	EMS MB48RR650200	Panel	4	65	3'	20'	52'
6	Sprint	862	628	11.96	240	EMS MB48RR650200	Panel	4	65	3'	20'	52'
		1900	1092	14.36	240	EMS MB48RR650200	Panel	4	65	3'	20'	52'
7	Verizon Wireless	850	1005	14.00	0	Antel BXA-80090-8CF	Panel	8	90	32'	20'	43'
8	Verizon Wireless	751	2129	15.50	0	Antel BXA-70063-8CF	Panel	8	63	32'	20'	37'
9	Verizon Wireless	1900	2680	16.50	0	Antel BXA-171063-12CF	Panel	6	63	32'	20'	43'
		2100	2939	16.90	0	Antel BXA-171063-12CF	Panel	6	63	32'	20'	43'
10	Verizon Wireless	850	1005	14.00	120	Antel BXA-80090-8CF	Panel	8	90	32'	20'	43'
11	Verizon Wireless	751	2129	15.50	120	Antel BXA-70063-8CF	Panel	8	63	32'	20'	37'
12		1900	2680	16.50	120	Antel BXA-171063-12CF	Panel	6	63	32'	20'	43'
	Verizon Wireless	2100	2939	16.90	120	Antel BXA-171063-12CF	Panel	6	63	32'	20'	43'
13	Verizon Wireless	850	1005	14.00	240	Antel BXA-80090-8CF	Panel	8	90	3'	20'	43'
14	Verizon Wireless	751	2129	15.50	240	Antel BXA-70063-8CF	Panel	8	63	3'	20'	37'
15	Verizon Wireless	1900	2680	16.50	240	Antel BXA-171063-12CF	Panel	6	63	3'	20'	43'
		2100	2939	16.90	240	Antel BXA-171063-12CF	Panel	6	63	3'	20'	43'

Table 3: Antenna Inventory												
Ant #	Operated By	TX Freq (MHz)	ERP (Watts)	Antenna Gain (dBd)	Az (Deg)	Antenna Model	Ant Type	Len (ft)	Horizontal Half Power Beamwidth (Deg)	Location		
										X	Y	Z (AGL)
16	T-Mobile	1900	3786	18.00	120	Generic Panel	Panel	4	100	17'	20'	33'
		2100	3786	18.00	120	Generic Panel	Panel	4	100	17'	20'	33'
17	T-Mobile	1900	3786	18.00	240	Generic Panel	Panel	4	100	17'	20'	33'
		2100	3786	18.00	240	Generic Panel	Panel	4	100	17'	20'	33'
18	Unknown	18000	104	35.02	330	Generic Microwave	Aperture	2	2	32'	20'	18'

NOTE: X, Y and Z indicate relative position of the antenna to the origin location on the site, displayed in the model results diagram. **Specifically, the Z reference indicates antenna height above the main site level unless otherwise indicated.** ERP values provided by the client and used in the modeling may be greater than are currently deployed. For other carriers at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to carrier, their FCC license and/or antenna information was not available nor could it be secured while on site. Equipment, antenna models and nominal transmit power were used for modeling, based on past experience with radio service providers.

7 Engineer Certification

The professional engineer whose seal appears on the cover of this document hereby certifies and affirms that:

I am registered as a Professional Engineer in the jurisdiction indicated in the professional engineering stamp on the cover of this document; and

That I am an employee of Sitesafe, Inc., in Arlington, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Kevin Smith.

January 28, 2015

Appendix A – Statement of Limiting Conditions

Sitesafe will not be responsible for matters of a legal nature that affect the site or property.

Due to the complexity of some wireless sites, Sitesafe performed this analysis and created this report utilizing best industry practices and due diligence. Sitesafe cannot be held accountable or responsible for anomalies or discrepancies due to actual site conditions (i.e., mislabeling of antennas or equipment, inaccessible cable runs, inaccessible antennas or equipment, etc.) or information or data supplied by Sprint, the site manager, or their affiliates, subcontractors or assigns.

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, observed during the survey of the subject property or that Sitesafe became aware of during the normal research involved in performing this survey. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data provided by a second party and physical data collected by Sitesafe, the physical data will be used.

City and County of San Francisco
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

Edwin M. Lee, Mayor
Barbara A. Garcia, MPA, Director of Health
Rajiv Bhatia, MD, MPH, Director of EH

Review of Cellular Antenna Site Proposals

Project Sponsor : *Sprint* **Planner:** *Omar Masry*

RF Engineer Consultant: *Site Safe* **Phone Number:** *(703) 276-1100*

Project Address/Location: *1135 Evans Av*

Site ID: *715* **SiteNo.:** *SF60xc303C*

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: **14**

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: **2025** 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: **2025** 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 $\mu w/cm^2$)

Maximum RF Exposure: **0.22** mW/cm^2 Maximum RF Exposure Percent: **22**

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: **33**

☑ Occupational_Exclusion_Area Occupational Exclusion In Feet: **15**

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 operated by Sprint installed on the transmission line support tower located at 1135 Evans Avenue. Existing RF energy levels at this site are less than 1% of the FCC standard. Also located at this site are antennas used by Verizon and T-Mobile. Sprint proposes to install 3 new antennas. The antennas will be mounted at a height of 52 feet above the ground. The estimated ambient RF field from the proposed Sprint transmitters at ground level is calculated to be a maximum of 0.22 mW/sq cm., which is 22% of the FCC public exposure limit at the southwest fence line. The three dimensional perimeter of RF levels equal to the public exposure limit extends 33 feet and does not reach any publicly accessible areas. Warning signs must be posted at the antennas and tower access points in English, Spanish and Chinese. Workers should not have access to within 15 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.

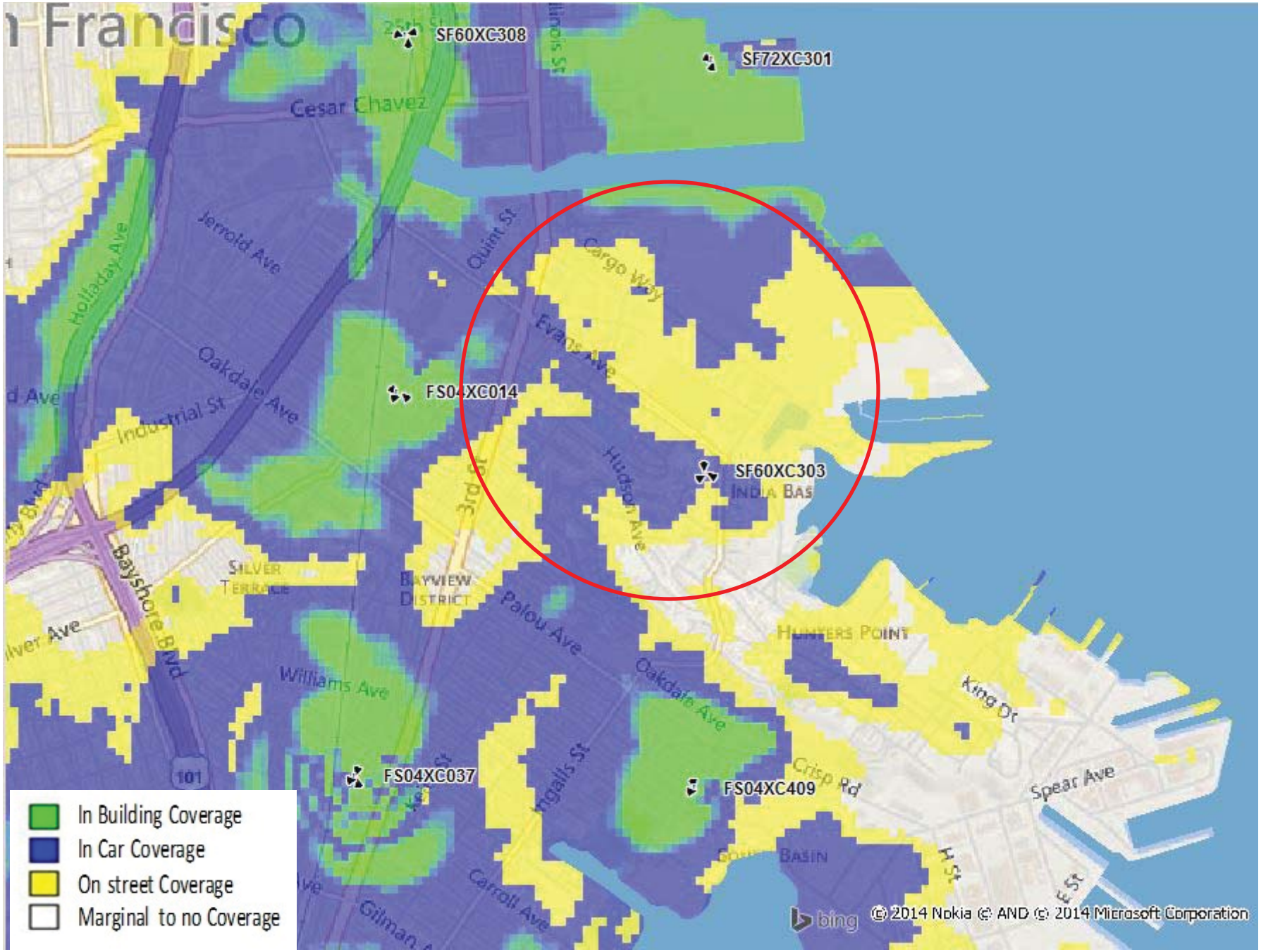
1 Hours spent reviewing

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

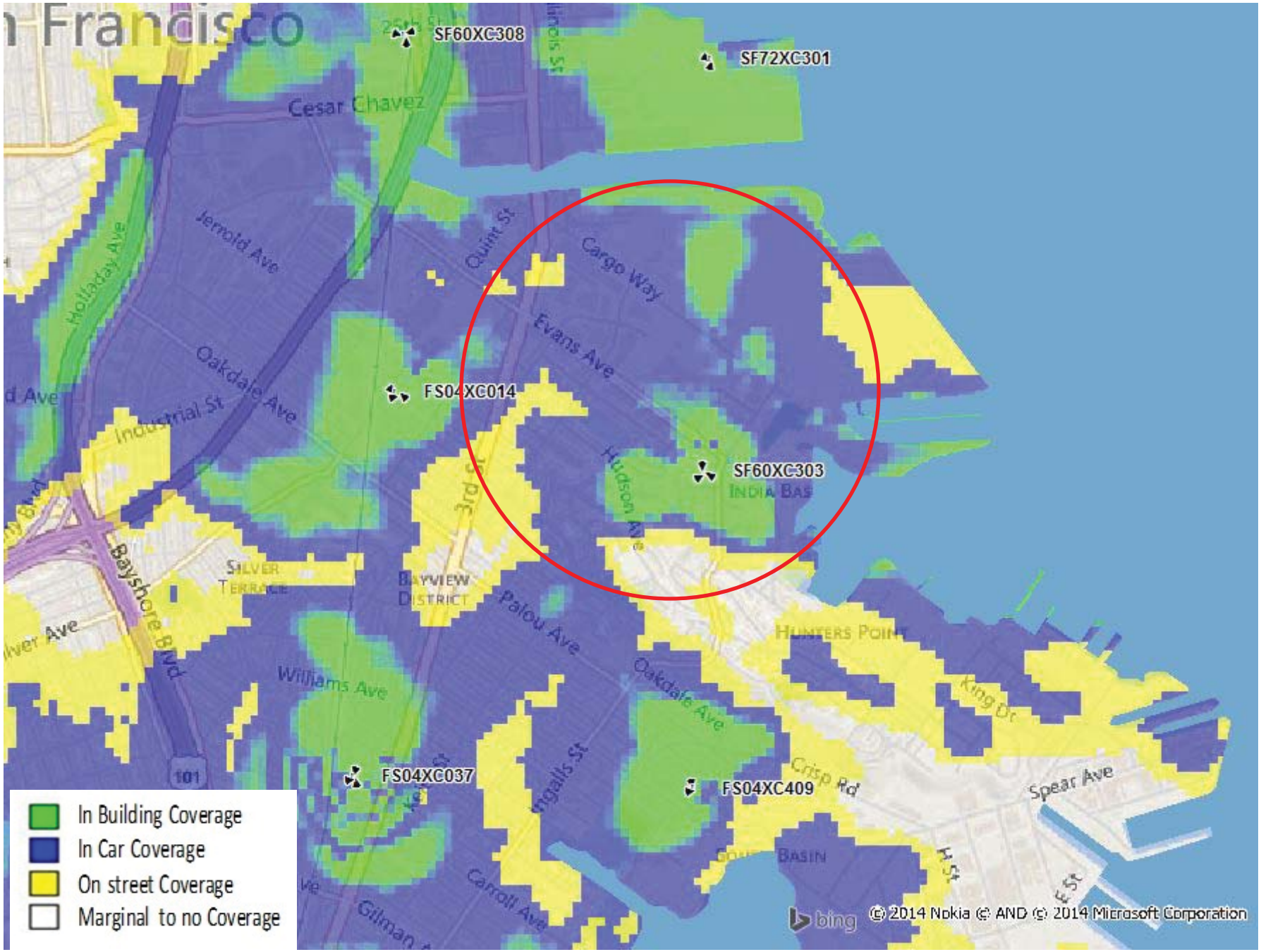
Signed:  Dated: 1/29/2015

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

Expected Coverage Without SF60XC303 On Air –Surrounding Sites On Air



Expected Coverage With SF60XC303 And Surrounding Sites On Air



Community Meeting Confirmation

SiteCom, Inc.

Address: 1135 Evans Avenue

Block & Lot: 4602A/014

Case No: 2014.1393C

In order of accommodation to meet the guidelines stated in the NOPDR and noted on the Conditional Use Application Submittal Checklist, we have met all the requirements stated for hosting a community meeting. We mailed notification letters in English, Spanish and Chinese (**see attachment**) to all tenants within a 500' radius of the site as well as the Bayview Citizens Committee with a follow up email and phone call. We ensured that an 11" x 17" poster was placed on each site frontage, at least, 10 days before the meeting was to take place. The meeting was held at the Bayview YMCA located at 1601 Lane Street San Francisco, CA 94124 on Monday, October 27th between the hours on 6pm and 7:30pm. Not one single citizen showed up for the meeting. Since we had no one show for the meeting we will not be attaching a sign-in sheet along with the notification letter.

Jeff Bister

SiteCom, Inc.

25 Cadillac Dr. #208

Sacramento, CA 95825

916-648-1676

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

To: Neighborhood Groups and Neighbors & Owners within a 500' radius of 1135 Evans Avenue

Meeting Information
Date: October 27, 2014
Time: 6:00 PM-7:30 PM
Where: Bayview Hunters Point YMCA
1601 Lane Street
San Francisco, CA 94124

Site Information
Address: 1135 Evans Avenue
Zoning: NC-2 Neighborhood Commercial, Small Scale
Block/Lot: 4602A-014

Applicant
Sprint

Contact Information
Matt Veazey
SiteCom Inc. – Auth Sprint Agency
(916) 648-1676

Sprint is proposing to modify an existing wireless communication facility at 1135 Evans Avenue needed by Sprint as part of its San Francisco wireless network. The proposed site is an unmanned PG&E tower facility consisting of the installation of three (3) additional panel antennas and required equipment. The antennas will be mounted with existing panels on PG&E towers. The equipment will be located in the existing equipment area at the base of the towers. Plans and photo simulations will be available for your review at the meeting. You are invited to attend an informational community meeting located at (TBD) to learn more about the project.

If you have any questions regarding the proposal and are unable to attend the meeting, please contact the Sprint Agent at (916) 648-1676. Please contact Omar Masry with the San Francisco Planning Department at (415) 575-9116, omar.masry@sfgov.org if you have any questions regarding the planning process.

NOTE: If you require an interpreter to be present at the meeting, please contact our office at (916) 648-1676 no later than 5:00pm October, 22 2014 and we will make every effort to provide you with an interpreter.

EBI Consulting
environmental | engineering | due diligence

Wireless Application Review

Sprint SF60XC303
Hunters Point
1135 Evans Drive
San Francisco, CA 94124

November 24, 2014

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

Table of Contents

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 **1135 Evans Drive** 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: **SF60XC303 – Hunters Point**
Owner: PG&E
Site Description: Utility Transmission Line
Address: 1135 Evans Drive, San Francisco, CA 94124
Ground Elevation: 51 feet AMSL
Latitude: 37.737264 N
Longitude: -122.380035 W

3.0 Project Overview

Sprint is applying to modify an existing utility transmission line tower facility located at **1135 Evans Drive** in **San Francisco, California**. The site modifications include the installation of three additional antennas to the three existing Sprint antennas currently installed on the existing utility transmission line towers. The proposed modifications will allow for Sprint to upgrade their technology offerings to include additional LTE rollout at 2500 MHz for higher data rates and enhanced services for their customers. The upgrades will allow for Sprint to install equipment that will improve the performance of their existing wireless facility and provide better efficiencies for capacity as well.

Sprint is proposing to install three additional antennas to the existing facility for the deployment of a 2500 MHz overlay to their existing 800 MHz and 1900 MHz coverage. Sprint will be installing three (3) KWM-ET-X-MW-18-65-8P antennas at a centerline height of 51 feet above ground level. This matches the install height of the existing Sprint antennas. The proposed antennas are 61 inches in length and 12 inches in width. The proposed Sprint installation will have antennas Located on two of the three existing utility transmission line towers at this location. These antennas will be broken down as follows: Two (2) antennas (1 existing and 1 proposed) on the first tower pointing at 0 degrees from true north. These are the two (2) Sector 1 antennas. One (1) antenna (proposed) on this same tower pointing at 120 degrees from true north. This will be the

proposed 2500 MHz antenna for Sector 2. On the second tower will be one (1) existing 800 MHz / 1900 MHz antenna pointing at 120 degrees from true north (existing). This will be the second Sector 2 antenna. Additionally on the same second tower as the Sector 2 800 MHz / 1900 MHz antenna will be the Sector 3 antennas. This will include the one (1) existing 800 MHz / 1900 MHz antenna pointing at 240 degrees from true north as well as the one (1) proposed 2500 MHz antenna for Sector 3 pointing also pointing at 240 degrees from true north.

Additionally, Sprint is looking to install three (3) additional Remote Radio Heads (RRH), one (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. The RRH is attached to the antenna typically by a short "jumper" coax cable. This will bring the total RRH count for the site to nine (9), three (3) per sector. The RRH's will be divided between the two tower locations and will be installed at a height of 28.8 feet above ground level.

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 "Marginal to No Coverage" shown in white to "In Building" shown in Green exhibit 1. In the next plot, Exhibit 2, they are showing the resulting coverage once the new 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 existing1900 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.

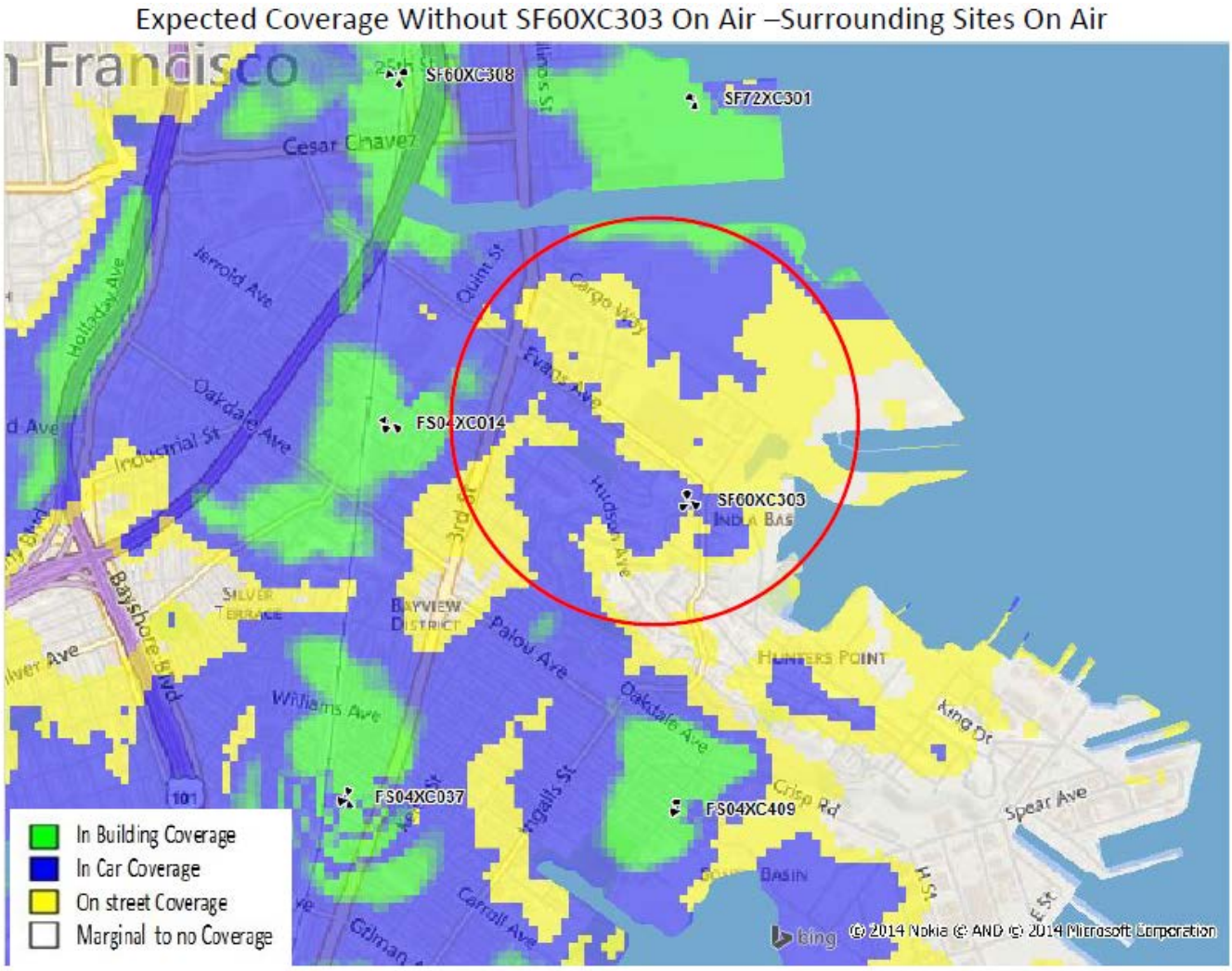


Exhibit 1: Existing Sprint 2500 MHz LTE coverage

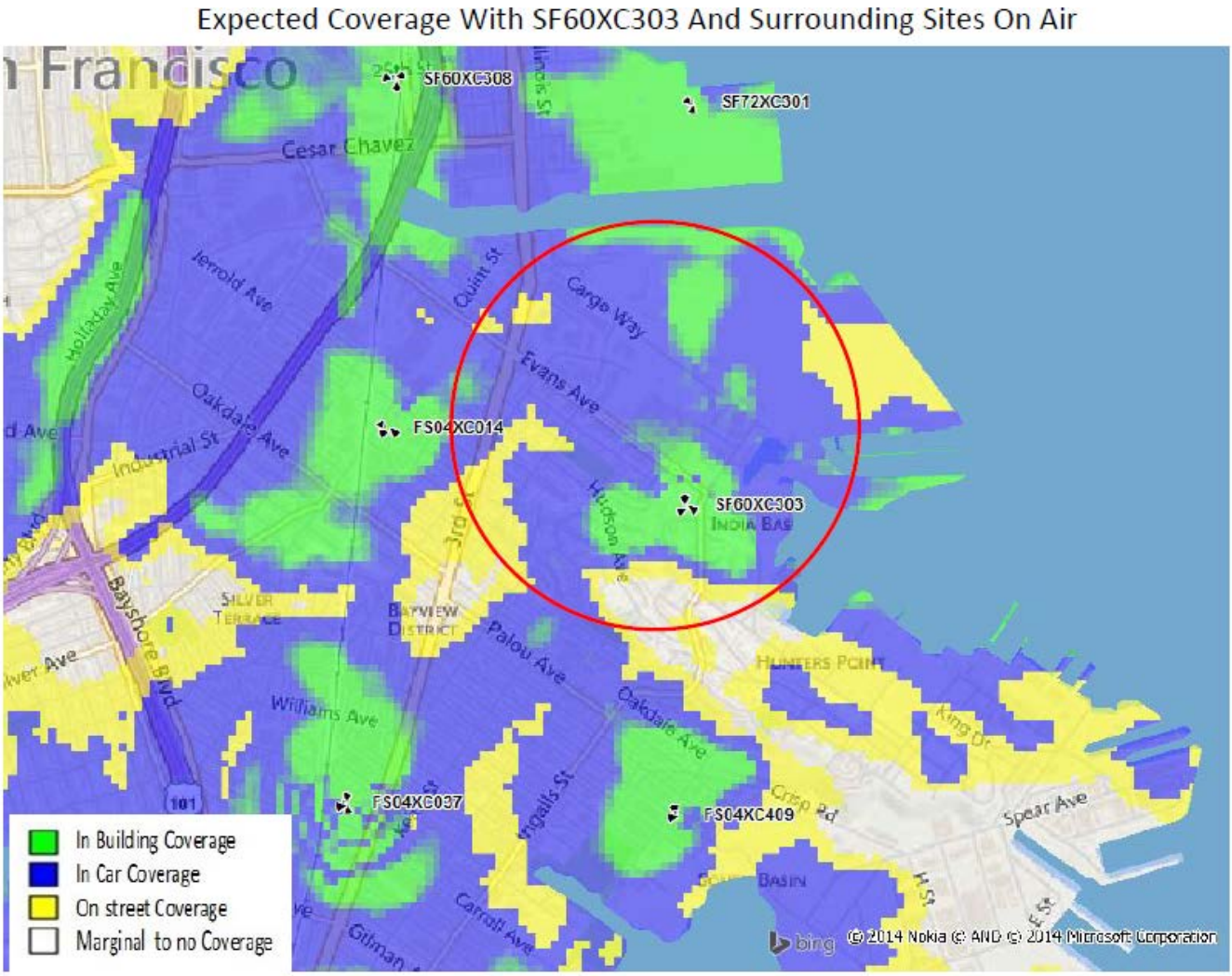


Exhibit 2: Proposed Sprint 2500 MHz LTE coverage

Anticipated coverage from the proposed upgraded installation is in line with what would be expected from a tower based facility of this height (51 feet above ground level) 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 1135 Evans Drive in San Francisco (site ID: SF60XC303). This coverage is provided by existing Sprint locations at the following locations and represented in the above coverage maps:

Sprint Site ID	Distance from FS04XC017	Direction from FS04XC017
SF72XC301	0.95 miles	North
SF60XC308	1.22 miles	Northwest
FS04XC014	0.75 miles	West
FS04XC037	1.12 miles	Southwest
FS04XC409	0.78 miles	South

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 in building and in vehicle coverage approximately 0.5 miles to the north in the area of Cargo way. Coverage would also be enhanced approximately 0.25 miles to the southeast in the area of Kiska Road and southwest approximately 0.35 miles to the area around Whitney Young Circle. Coverage to the southeast and southwest is limited mostly due to elevated terrain in these directions.

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 with the exception of the area to the southeast in the South Basin area around Spear Street.

The area surrounding the site is comprised of very densely spaced residential and business dwellings as well as heavily traveled throughways. 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 1135 Evans Drive in San Francisco, California by EBI Consulting on February 19, 2014. The study analyzed emissions compliance for this site based upon Federal Communications Commission (FCC) standards set forth in Bulletin OET65.

The report states that the emissions on the ground level surrounding the site had a maximum power density value of 0.382% of the FCC allowable limit for general public exposure. This equates to 0.076% of the FCC allowable limit for occupational exposure. This is well within the allowable limits.

Additionally, as part of this analysis, EBI Consulting did perform worst case modeling on the site with the addition of the Sprint 2500 MHz upgrades. The worst case composite modeling for the entire site showed that at worst case, the maximum power density value would be 3.8% of the FCC allowable limit for general public exposure, still well below the specified limits.

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 **1135 Evans Drive** in **San Francisco, California**. The project includes the installation of three (3) additional antennas to handle their 2500 MHz frequencies in addition to the three existing antennas on site that currently transmit channels in the 800 MHz and 1900 MHz frequency bands. Sprint is also proposing to install three (3) additional Remote Radio Heads (RRH) to the facility. This will increase the total RRH count to 9 (3 per sector).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 should introduce minimal new aesthetic concerns.

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.

EBI had on record and emissions study for this existing facility prepared by EBI Consulting on February19, 2014. Additionally, EBI did calculations to add Sprint's new proposed 2500 MHz channels into the emissions calculations to yield a new worst case scenario value for this site.The report demonstrates that the facility is in full compliance with all applicable federal requirements regarding emissions and signage. There were signs found to be installed on the Sprint equipment area as well as on the towers where the Sprint and AT&T antennas are installed and are proposed to be installed.

Based upon our analysis of the Sprint proposed upgrades to their facility at **1135 Evans Drive** 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

PROJECT: 2.5 EQUIPMENT DEPLOYMENT

MARKET: SAN FRANCISCO BAY

SF60XC303 - HUNTERS POINT

1135 EVANS DRIVE
SAN FRANCISCO, CA 94124

PROJECT DESCRIPTION

MODIFICATION TO AN (E) UNMANNED COMMUNICATIONS FACILITY CONSISTING OF RELOCATING (2) (E) ANTENNAS & (2) (E) RRHS, ADDING (3) (N) 2.5 GHz ANTENNAS, (3) (N) RRH-V3, (3) (N) JUNCTION CYLINDERS, (3) (N) MEDUSAS, (1) (N) STRING OF BATTERIES IN (E) BBU CABINET, (1) (N) TD-LTE DU W/ ASSOCIATED BREAKERS & RECTIFIERS IN (E) MMBS CABINET, & RELOCATING (2) (E) ANTENNA & (2) (E) RRHS. ALL ANTENNAS & RRHS TO BE PAINTED TO MATCH OTHER (E) ANTENNAS & EQUIPMENT.

PROJECT INFORMATION

SITE NAME:	HUNTERS POINT	SITE #:	SF60XC303
PROJECT TYPE:	2.5 DEPLOYMENT	PG&E SITE #:	5NX-5F-60XC-303B
COUNTY:	SAN FRANCISCO	JURISDICTION:	CITY OF SAN FRANCISCO
APN:	4602A-014	POWER:	PG&E
SITE ADDRESS:	1135 EVANS DRIVE SAN FRANCISCO, CA 94124	TELEPHONE:	AT&T
CURRENT ZONING:	NC-2		
CONSTRUCTION TYPE:	II		
OCCUPANCY TYPE:	U, (UNMANNED COMMUNICATIONS FACILITY)		
PROPERTY OWNER:	PG&E 245 MARKET ST MAIL CODE N10D SAN FRANCISCO, CA 94105		
APPLICANT:	SPRINT 12657 ALCOSTA BLVD, SUITE 300 SAN RAMON, CA 94583		
LEASING CONTACT:	ATTN: MATT VEAZEY 25 CADILLAC DR, SUITE 208 SACRAMENTO, CA 95825 (916) 648-1676		
ZONING CONTACT:	ATTN: MATT VEAZEY 25 CADILLAC DR, SUITE 208 SACRAMENTO, CA 95825 (916) 648-1676		
CONSTRUCTION CONTACT:	ATTN: AARON AKBARI 12657 ALCOSTA BLVD, SUITE 300 SAN RAMON, CA 94583 (415) 684-7353		
LATITUDE: LONGITUDE:	N 37° 44' 14.15" (N 37.737264°) NAD 83 W 122° 22' 48.09" (W 122.380025°) NAD 83		
AMSL:	±51'		

VICINITY MAP

CODE COMPLIANCE

ALL WORK & MATERIALS SHALL BE PERFORMED & INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

1. 2013 CALIFORNIA ADMINISTRATIVE CODE (INCL. TITLES 24 & 25)
2. 2013 CALIFORNIA BUILDING CODE
3. 2013 CALIFORNIA ELECTRICAL CODE
4. 2013 CALIFORNIA MECHANICAL CODE
5. 2013 CALIFORNIA PLUMBING CODE
6. 2013 CALIFORNIA FIRE CODE
7. LOCAL BUILDING CODES
8. CITY/COUNTY ORDINANCES
9. ANSI/EIA-TIA-222-G
10. EXHIBIT B | CONDITIONAL USE AUTHORIZATION 2014.1393C

ALONG WITH ANY OTHER APPLICABLE LOCAL & STATE LAWS AND REGULATIONS

HANDICAP REQUIREMENTS

THIS FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS & REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE, TITLE 24 PART 2, SECTION 1105B.3.4.2, EXCEPTION 1

PG&E INFORMATION

TOWER INFORMATION:

TOWER SAP #:	41184229
TOWER #:	0/3C
LINE NAME:	P-X #2, 115kV
PROJECT #:	2013-12 MOD (2.5 GHz)
SBE #:	135-38-26A-1

PG&E CONTACT INFORMATION:

LAND AGENT CONTACT:	MATT RANGE (415) 973-3353 M3RH@PGE.COM MAYA HERR-ANDERSON (415) 973-5736 M4HA@PGE.COM
PROJECT MANAGER:	JIM TILLISCH (916) 281-6951 J4TO@PGE.COM
ADDRESS:	5555 FLORIN-PERKINS ROAD, #112 SACRAMENTO, CA 95826

DRIVING DIRECTIONS

FROM: 12657 ALCOSTA BLVD, SUITE 300, SAN RAMON, CA 94583
TO: 1135 EVANS DRIVE, SAN FRANCISCO, CA 94124

1.	HEAD SOUTHEAST ON ALCOSTA BLVD TOWARD HOSPITAL PL	354 FT
2.	MAKE A U-TURN AT HOSPITAL PL	0.7 MI
3.	TURN LEFT ONTO CROW CANYON RD	0.5 MI
4.	MERGE ONTO I-680 N VIA THE RAMP TO SACRAMENTO	9.6 MI
5.	TAKE THE STATE ROUTE 24 EXIT TOWARD OAKLAND/LAFAYETTE	1.1 MI
6.	MERGE ONTO CA-24 W	12.3 MI
7.	TAKE THE INTERSTATE 580 W EXIT	1.0 MI
8.	MERGE ONTO I-580 W	0.5 MI
9.	TAKE THE EXIT ON THE LEFT ONTO I-80 W TOWARD SAN FRANCISCO	8.3 MI
10.	KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR SAN JOSE/US-101 S/AIRPORT AND MERGE ONTO US-101 S	1.3 MI
11.	TAKE THE CESAR CHAVEZ ST/POTRERO AVENUE EXIT	0.1 MI
12.	KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR C CHAVEZ ST E/BAYSHORE BLVD	223 FT
13.	KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR C CHAVEZ STREET E AND MERGE ONTO CESAR CHAVEZ ST	0.5 MI
14.	TURN RIGHT ONTO EVANS AVE	1.3 MI
15.	TURN RIGHT ONTO JENNINGS ST DESTINATION WILL BE ON THE RIGHT	200 FT

END AT: 1135 EVANS AVE, SAN FRANCISCO, CA 94124

ESTIMATED TIME: 47 MIN ESTIMATED DISTANCE: 37.4 MI

SHEET INDEX

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET	-
LS-1	SURVEY	-
A-1	OVERALL SITE PLAN	-
A-2	SITE PLAN	-
A-3	EQUIPMENT PLANS	-
A-4	ANTENNA PLANS	-
A-5	ELEVATIONS	-
A-6	ELEVATIONS	-
A-7	ELEVATIONS	-
A-8	ELEVATIONS	-
A-9	DETAILS	-
E-1	GROUNDING DETAILS	-

APPROVAL

RF

LEASING

ZONING

CONSTRUCTION

SPRINT

PG&E

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

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25 CADILLAC DR, SUITE 208
SACRAMENTO, CA 95825

PRECISION DESIGN & Drafting, INC.
Phone: (530) 823-6546
11768 Atwood Rd, Suite 20 Auburn, CA 95603

REGISTERED PROFESSIONAL ENGINEER
BRET A. McCOMB
C 69891
EXP. 9/30/14
CIVIL
STATE OF CALIFORNIA

HUNTERS POINT
SF60XC303
1135 EVAN DRIVE
SAN FRANCISCO, CA 94124

ISSUE STATUS

△	DATE	DESCRIPTION	
	02/21/14	CD 90%	-
	06/17/14	CD 100%	-
A	11/18/14	CD 100%	PC
	-	-	-
	-	-	-
	-	-	-

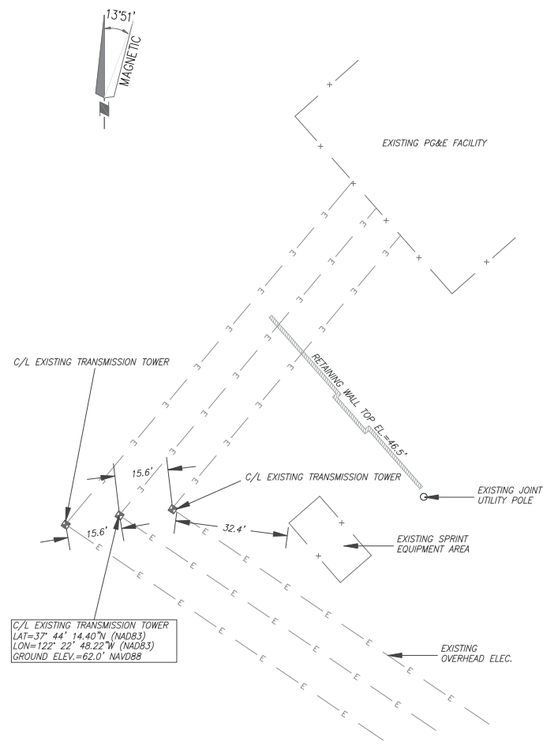
DRAWN BY:	K. DELONGCHAMP
CHECKED BY:	M. WEISS
APPROVED BY:	B.McCOMB
DATE:	11/18/14

SHEET TITLE:

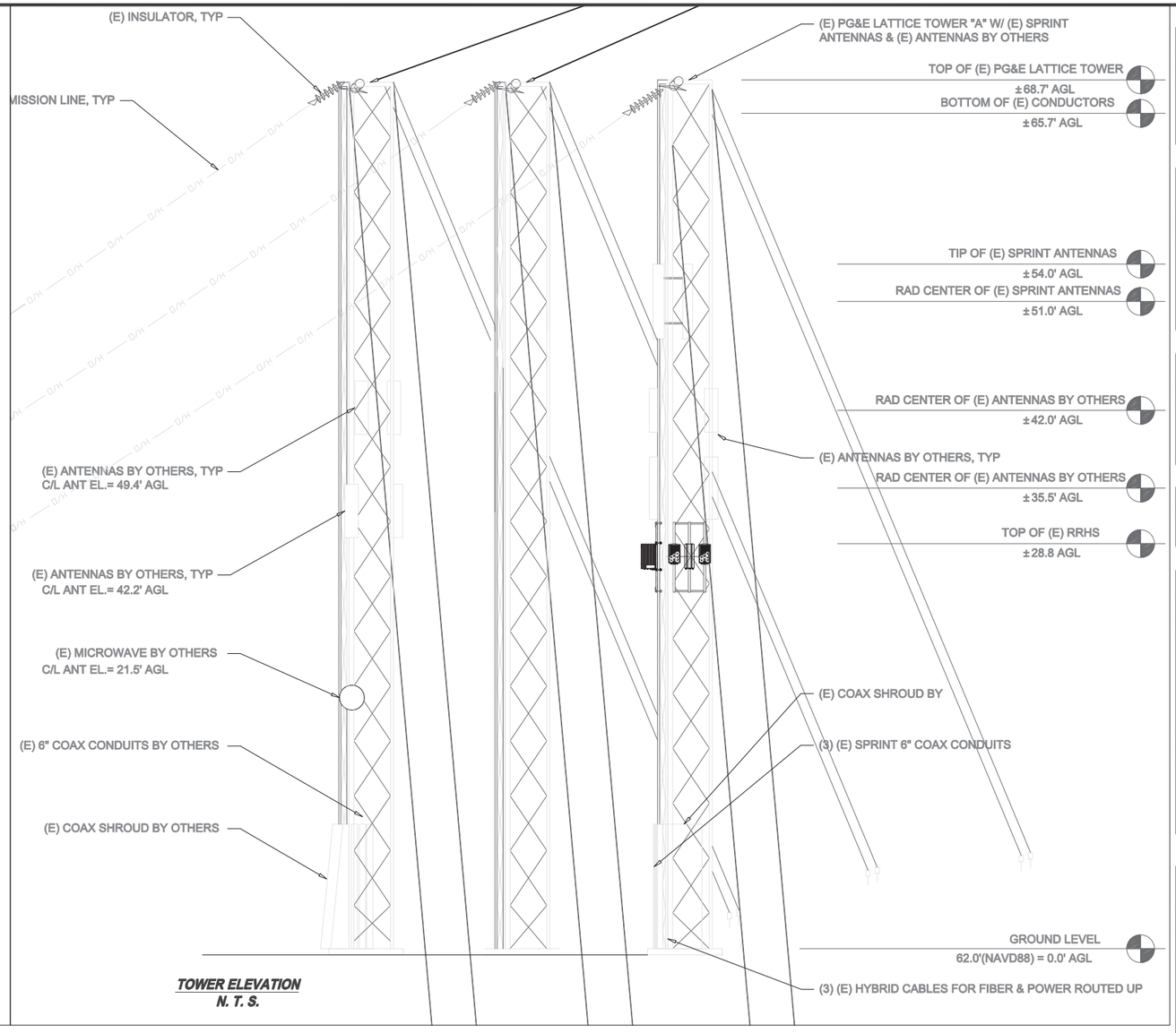
TITLE SHEET

SHEET NUMBER:

T-1



EXISTING TOWER LOCATION EXHIBIT
1"=20'



TOWER ELEVATION
N. T. S.

SURVEY NOTES

1. ALL LATITUDES AND LONGITUDES ARE NAD 83, ALL ELEVATIONS ARE NAVD 88 (UNLESS NOTED OTHERWISE).

2. ALL BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM RECORD DATA. THIS IS NOT A BOUNDARY SURVEY.

3. DATE OF FIELD SURVEY APRIL 18, 2014.

4. NO PRELIMINARY TITLE REPORT HAS BEEN PROVIDED, ANY EASEMENTS OR OTHER TITLE RELATED ISSUES NOT INCLUDED IN SAID REPORT WHICH ARE PART OF THE TITLE PROCESS MAY OR MAY NOT HAVE BEEN ADDRESSED, TIMOTHY F. SCHAD, L.S. ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR BOUNDARY OR TITLE ITEMS ADDRESSED HEREON. THIS IS NOT A BOUNDARY SURVEY.

GEODETIC LOCATION

DATE OF SURVEY: MAY 28, 2014
SITE NUMBER / NAME: "SF60XC303 - HUNTERS POINT"
TYPE: EXISTING ELEC. TRANSMISSION TOWERS
SITE ADDRESS: 1135 EVANS AVE.
SAN FRANCISCO, CA., 94124

I, TIMOTHY SCHAD, HEREBY CERTIFY THE GEODETIC COORDINATES AT THE CENTER OF THE EXISTING ELECTRIC TRANSMISSION TOWER TO BE:

LATITUDE= 37° 44' 14.40"N (NAD83)
LONGITUDE= 122° 22' 48.22"W (NAD83)

GROUND ELEVATION= 62.0' NAVD88
TOP TOWER ELEVATION=130.7' NAVD88

THE ACCURACY STANDARDS FOR THIS CERTIFICATION ARE AS FOLLOWS:

GEODETIC COORDINATES: +/- FIFTEEN (15) FEET (NAD-83)
ELEVATIONS: +/- THREE (3) FEET (NAVD-88)

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TIMOTHY SCHAD, L.S.
10699 ROUND VALLEY RD.
GRASS VALLEY, CA. 95949
PHONE: (530) 271-7477
FAX: (530) 271-7377

PROJECT NO:
DRAWN BY:
CHECKED BY:

REV	DATE	DESCRIPTION

PROFESSIONAL LAND SURVEYOR
TIMOTHY F. SCHAD
LS 6021
Exp. 3/31/15
STATE OF CALIFORNIA

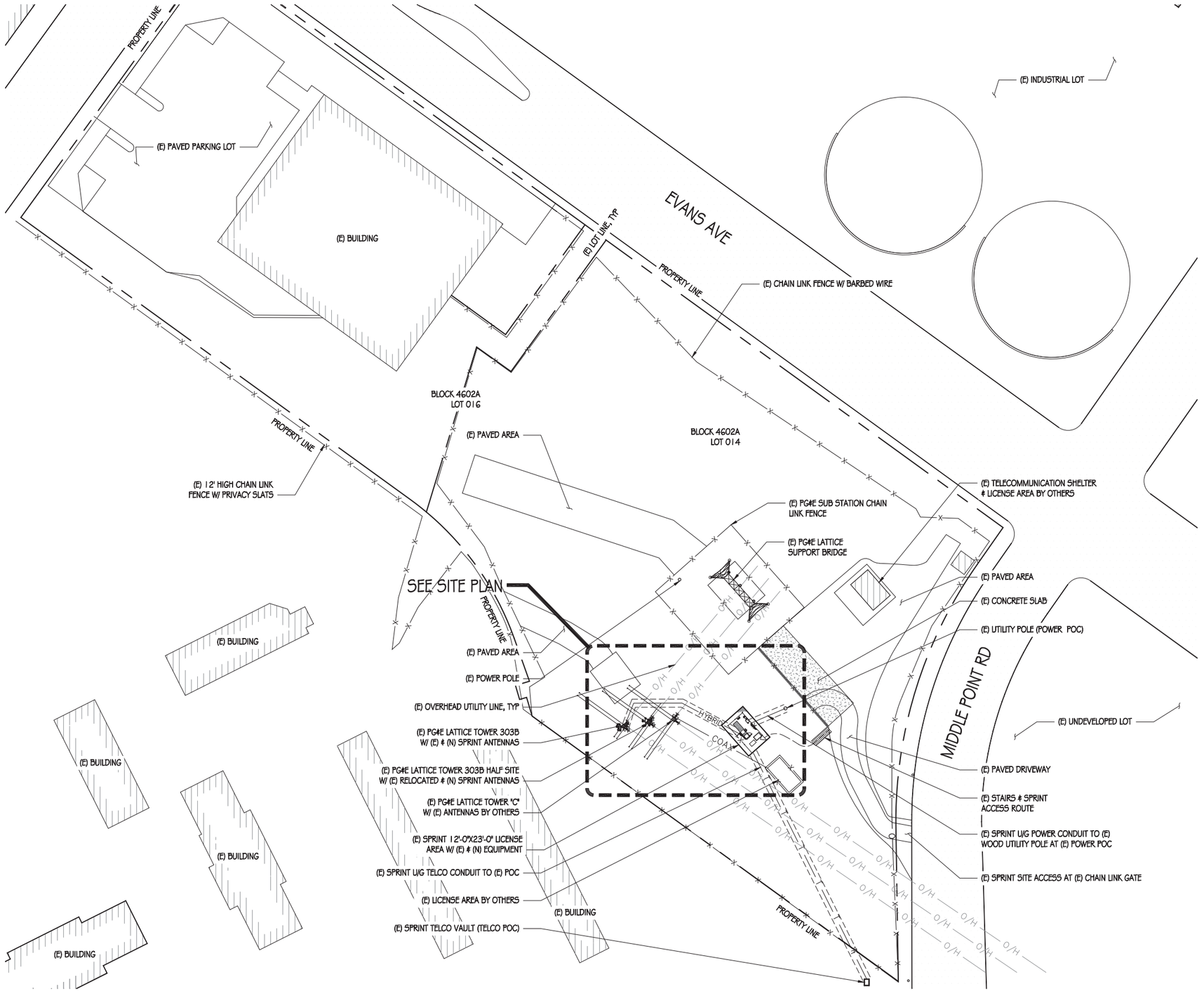
HUNTERS POINT
SF60XC303
1135 EVANS AVE.
SAN FRANCISCO, CA. 94124
APN:4602A-014

SHEET TITLE
TOWER LOCATION SURVEY

SHEET NUMBER
LS-1

PROJECT GENERAL NOTES

1. THIS FACILITY IS AN UNOCCUPIED WIRELESS TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS NOTED OTHERWISE.
3. THE SCOPE OF WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRM THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PAY FOR PERMIT FEES AND TO OBTAIN SAID PERMITS AND TO COORDINATE INSPECTIONS.
6. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
7. CALL BEFORE YOU DIG. CONTRACTOR IS REQUIRED TO CALL 811 (NATIONWIDE "CALL BEFORE YOU DIG" HOTLINE) AT LEAST 72 HOURS BEFORE DIGGING.
8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
9. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. CONTRACTOR SHALL ALSO COORDINATE ALL PORTIONS OF THE WORK UNDER THE CONTRACT; INCLUDING CONTACT AND COORDINATION WITH THE CONSTRUCTION MANAGER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
10. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF THE PROJECT MANAGER.
11. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY, LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED, OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
13. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND ALL OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES.
14. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
15. CONTRACTOR SHALL PROVIDE A TOILET FACILITY DURING ALL PHASES OF CONSTRUCTION.
16. SUFFICIENT MONUMENTATION WAS NOT RECOVERED TO ESTABLISH THE POSITION OF THE BOUNDARY LINES SHOWN HEREON. THE BOUNDARY REPRESENTED ON THIS MAP IS BASED ON COMPILED RECORD DATA AND BEST FIT ONTO EXISTING IMPROVEMENTS. IT IS POSSIBLE FOR THE LOCATION OF THE SUBJECT PROPERTY TO SHIFT FROM THE PLACEMENT SHOWN HEREON WITH ADDITIONAL FIELD WORK AND RESEARCH. THEREFORE ANY SPATIAL REFERENCE MADE OR SHOWN BETWEEN THE RELATIONSHIP OF THE BOUNDARY LINES SHOWN HEREON AND EXISTING GROUND FEATURES, EASEMENTS OR LEASE AREA IS INTENDED TO BE APPROXIMATE AND IS SUBJECT TO VERIFICATION BY RESOLVING THE POSITION OF THE BOUNDARY LINES.
17. CONTRACTOR TO VERIFY THE LATEST/CURRENT RF DESIGN.



TN

OVERALL SITE PLAN

1"=30'

0 15' 30' 60' 90' 150'

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

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EXP. 9/30/14
CIVIL
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HUNTERS POINT

SF60XC303
1135 EVAN DRIVE
SAN FRANCISCO, CA 94124

ISSUE STATUS

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	06/17/14	CD 100%	-
A	11/18/14	CD 100%	PC
	-	-	-
	-	-	-
	-	-	-

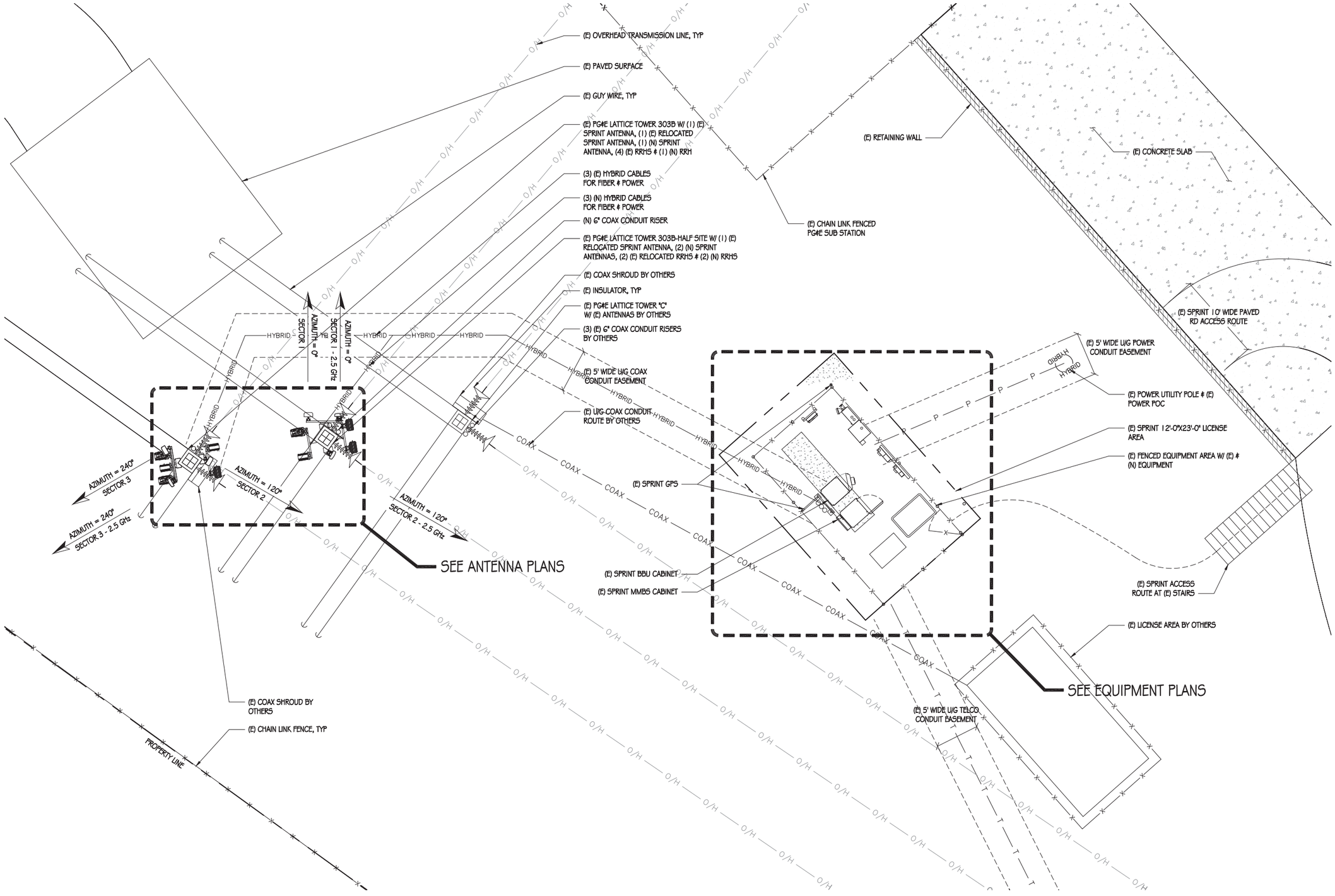
DRAWN BY:	K. DELONGCHAMP
CHECKED BY:	M. WEISS
APPROVED BY:	B.McCOMB
DATE:	11/18/14

SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

A-1



TN

SITE PLAN

1"=5'

0 1' 2' 3' 4' 5' 10' 15' 25'

Sprint
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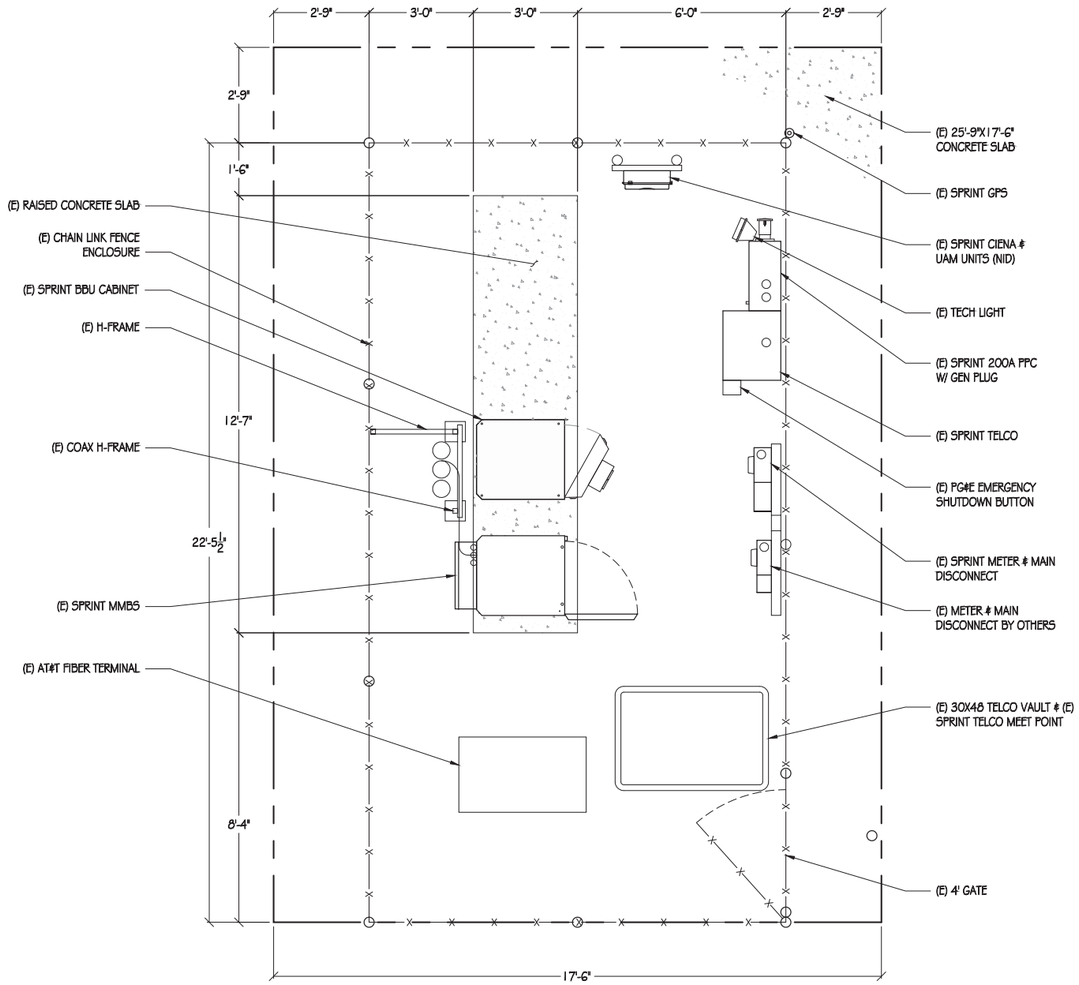
DRAWN BY:	K. DELONGCHAMP
CHECKED BY:	M. WEISS
APPROVED BY:	B.McCOMB
DATE:	11/18/14

SHEET TITLE:

SITE PLAN

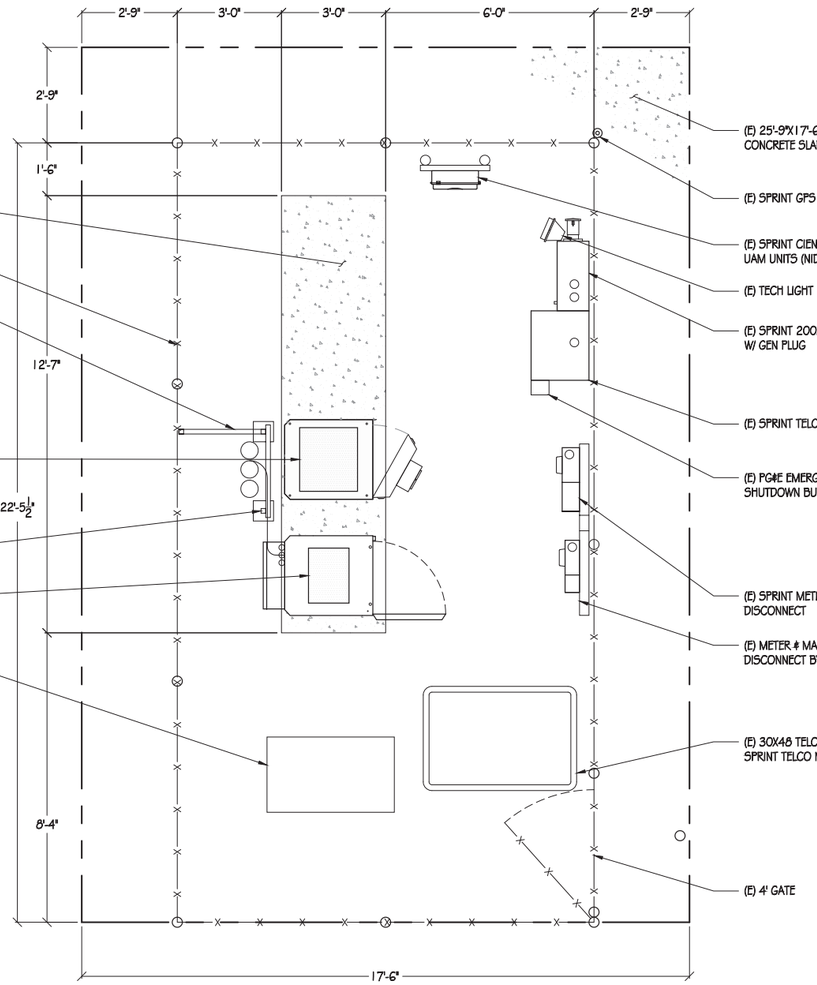
SHEET NUMBER:

A-2



EXISTING EQUIPMENT PLAN

½"=1'



NEW EQUIPMENT PLAN

½"=1'

CFC CHAPTER 6 COMPLIANCE

TOTAL 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
12NDT190	16	2.49 GAL	27.25 LBS	58% = 1.45 GAL / 2.49 GAL
% SULFURIC ACID BY WEIGHT = TOTAL ACID WEIGHT / TOTAL ELECTROLYTE WEIGHT		TOTAL SULFURIC VOLUME (GAL) = TOTAL UNITS X SULFURIC VOLUME / UNITS		TOTAL SULFURIC WEIGHT (LBS) = TOTAL UNITS X ACID WEIGHT / UNIT
40.8% = 11.12 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

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⚠	11/18/14	CD 100%	PC
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	-	-	-
	-	-	-

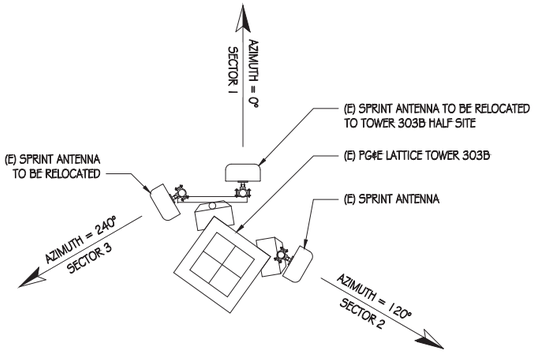
DRAWN BY: K. DELONGCHAMP
CHECKED BY: M. WEISS
APPROVED BY: B.McCOMB
DATE: 11/18/14

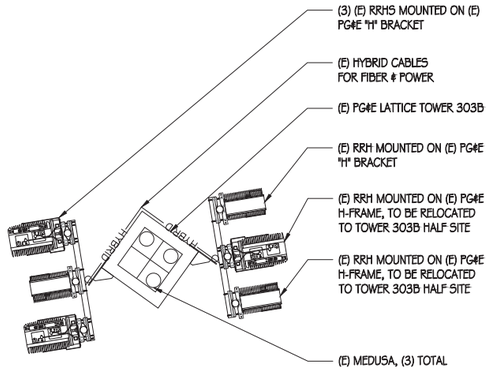
SHEET TITLE:

EQUIPMENT PLANS

SHEET NUMBER:

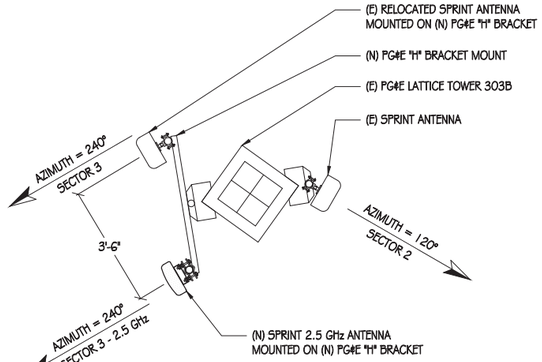
A-3





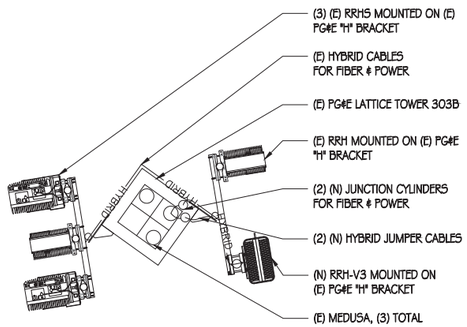
TN (E) ANTENNA PLAN TOWER 303B

½"=1'



TN (E) RRH PLAN TOWER 303B

½"=1'



TN (N) ANTENNA PLAN TOWER 303B

½"=1'

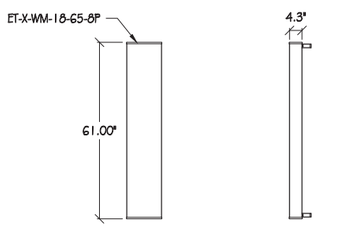
TN (N) RRH PLAN TOWER 303B

½"=1'

KMW ET-X-WM-18-65-8P

WIND AREA:	5.08 SQ FT
WEIGHT:	36.4 LBS
DIMENSIONS:	61.0" TALL X 12.0" WIDE X 4.3" DEEP
CONNECTOR:	(8) MINI DIN FEMALE

TOP VIEW



FRONT VIEW SIDE VIEW

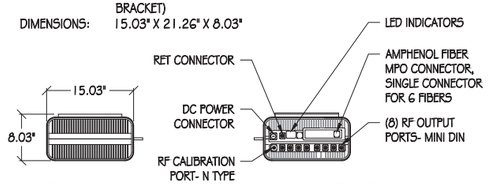
PORT LAYOUT

1 ANTENNA DETAIL

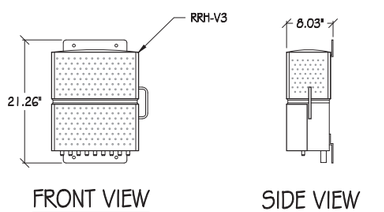
½"=1'

SAMSUNG RRH-V3

TOTAL WEIGHT:	59.5 LBS (71.82 LBS W/ BRACKET)
DIMENSIONS:	15.03" X 21.26" X 8.03"



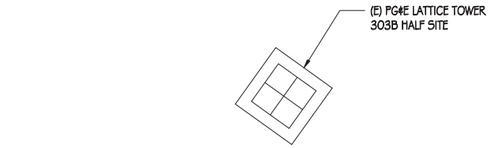
TOP VIEW PORT LAYOUT



FRONT VIEW SIDE VIEW

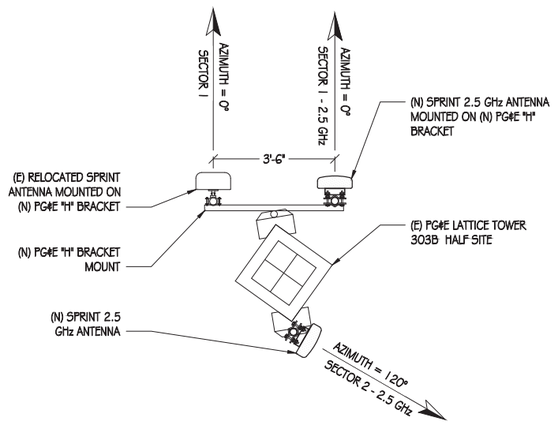
2 RRH-V3 DETAIL

1"=1'



TN (E) ANTENNA PLAN TOWER 303B HALF SITE

½"=1'

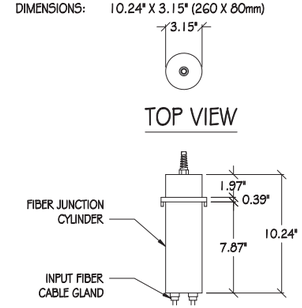


TN NEW ANTENNA PLAN TOWER 303B HALF SITE

½"=1'

SAMSUNG FIBER JUNCTION CYLINDER

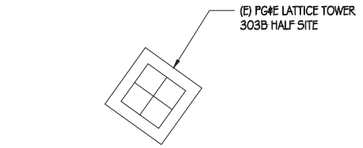
TOTAL WEIGHT:	4.03 LBS
DIMENSIONS:	10.24" X 3.15" (260 X 80mm)



TOP VIEW SIDE VIEW

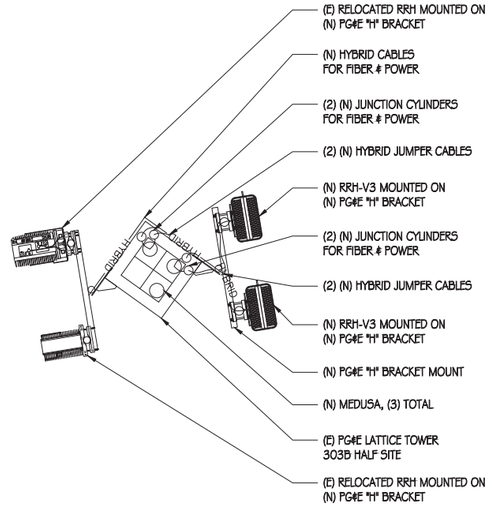
3 FIBER JUNC CYL DETAIL

1"=6"



TN (E) RRH PLAN TOWER 303B HALF SITE

½"=1'

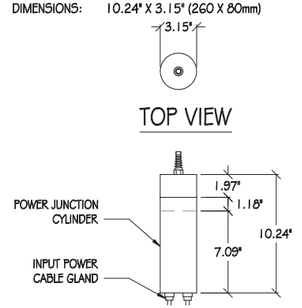


TN NEW RRH PLAN TOWER 303B HALF SITE

½"=1'

SAMSUNG POWER JUNCTION CYLINDER

TOTAL WEIGHT:	5.36 LBS
DIMENSIONS:	10.24" X 3.15" (260 X 80mm)



TOP VIEW SIDE VIEW

4 POWER JUNC CYL DETAIL

1"=6"

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HUNTERS POINT

SF60XC303
1135 EVAN DRIVE
SAN FRANCISCO, CA 94124

ISSUE STATUS

△	DATE	DESCRIPTION	
	02/21/14	CD 90%	-
	06/17/14	CD 100%	-
A	11/18/14	CD 100%	PC
	-	-	-
	-	-	-
	-	-	-

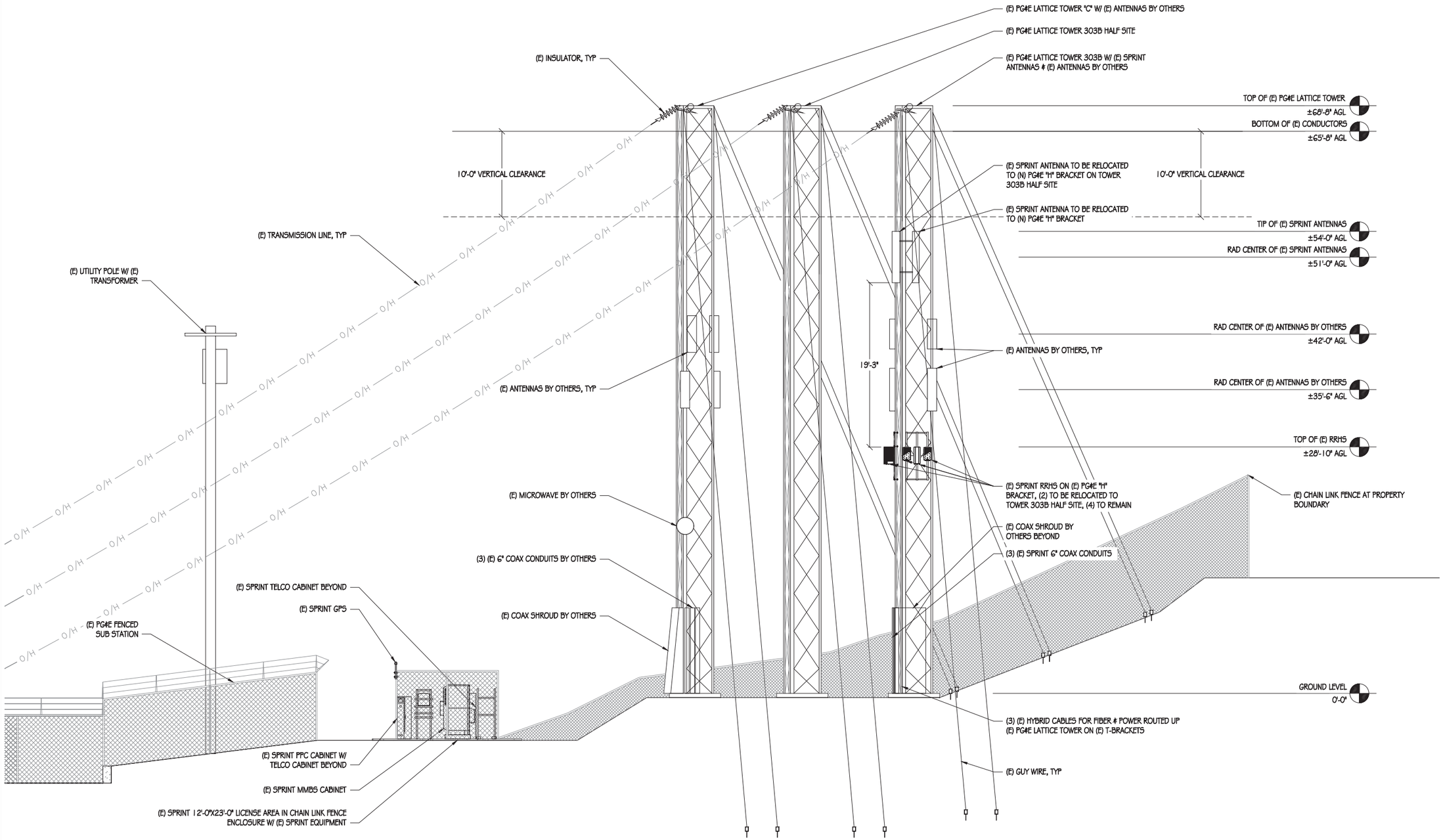
DRAWN BY:	K. DELONGCHAMP
CHECKED BY:	M. WEISS
APPROVED BY:	B.McCOMB
DATE:	11/18/14

SHEET TITLE:

ANTENNA PLANS

SHEET NUMBER:

A-4



EXISTING NORTHWEST ELEVATION

3/16"=1'

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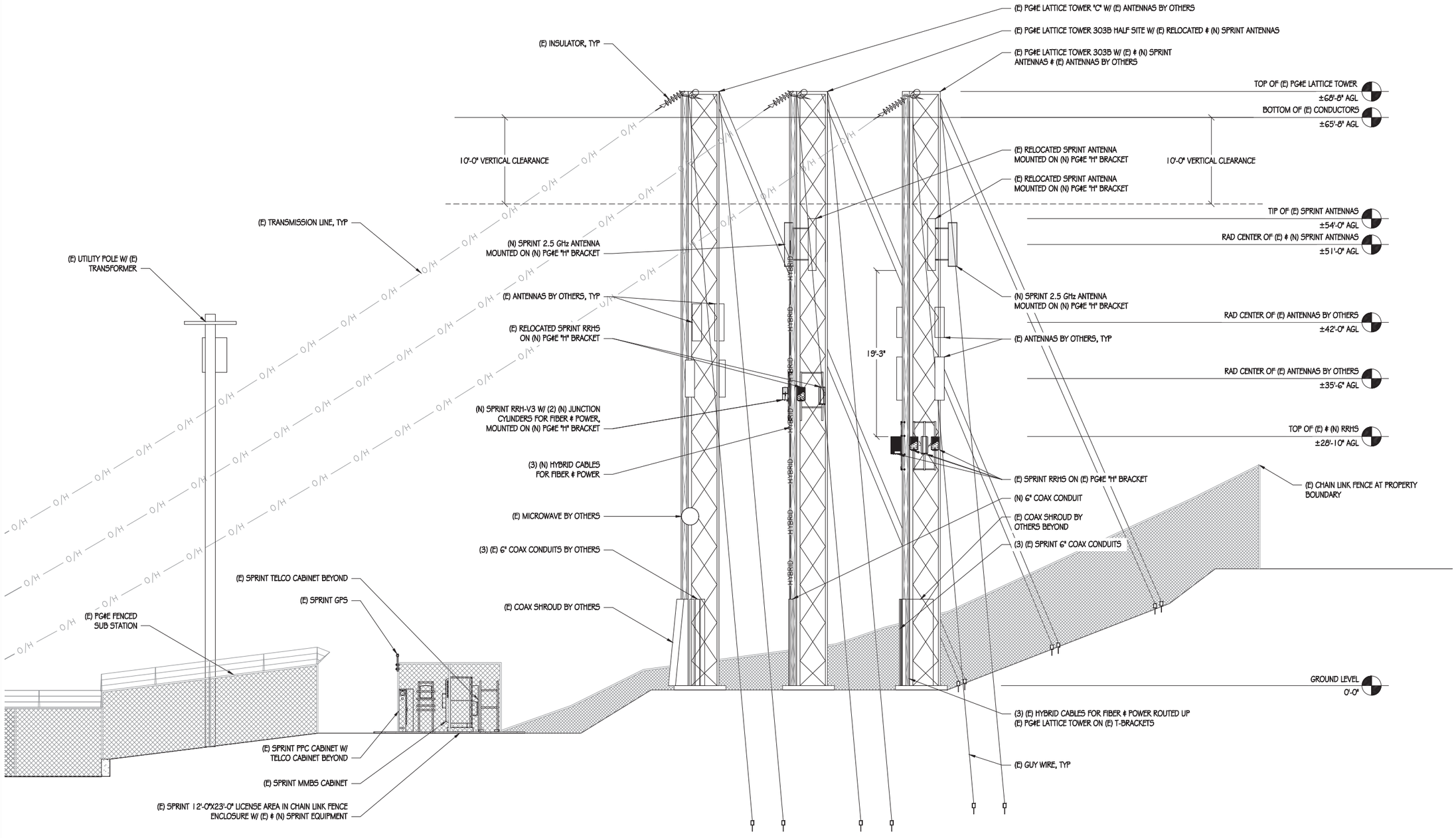
DRAWN BY:	K. DELONGCHAMP
CHECKED BY:	M. WEISS
APPROVED BY:	B.McCOMB
DATE:	11/18/14

SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-5



NEW NORTHWEST ELEVATION

3/16"=1'

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	-	-	-

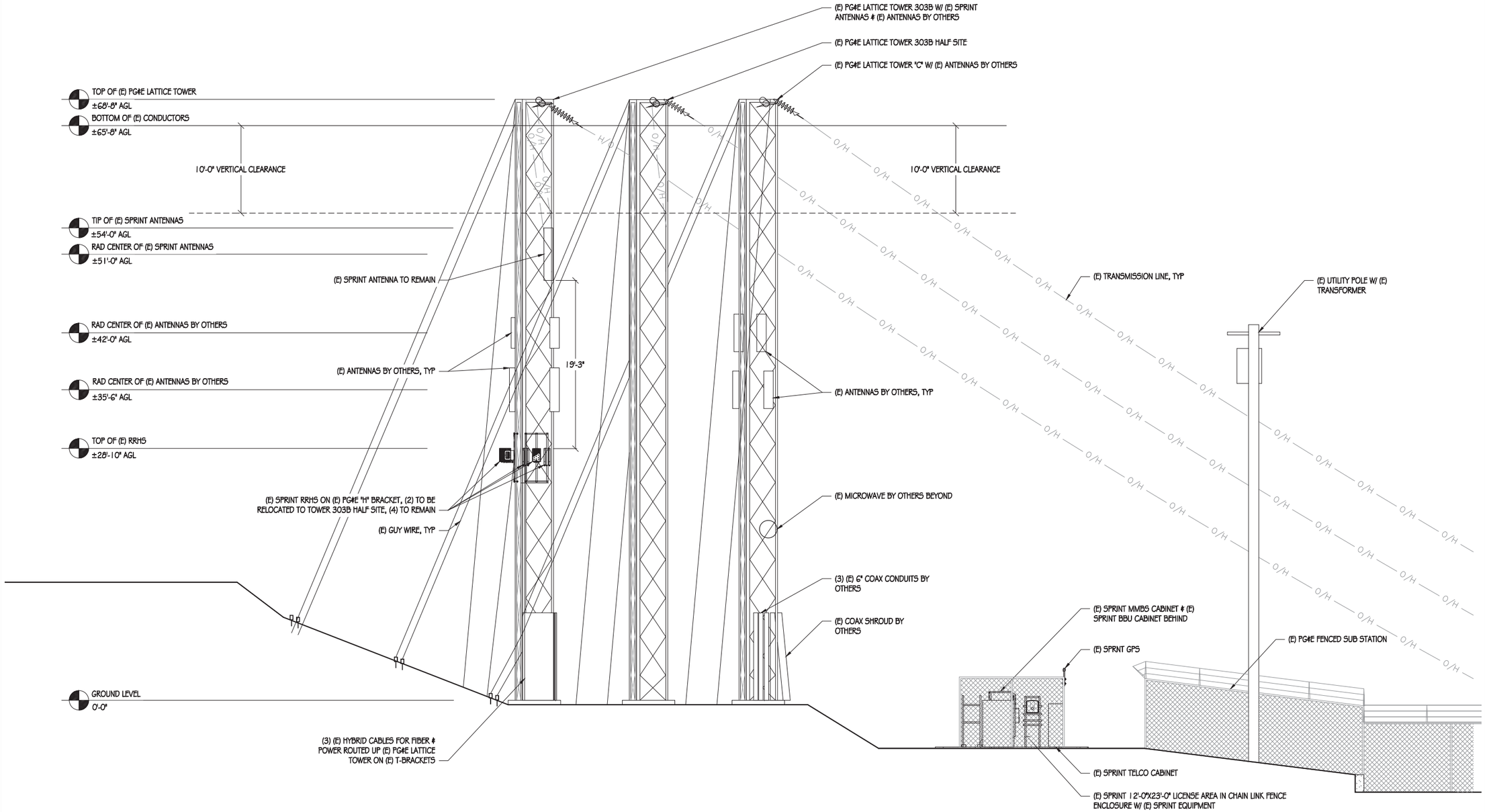
DRAWN BY:	K. DELONGCHAMP
CHECKED BY:	M. WEISS
APPROVED BY:	B.McCOMB
DATE:	11/18/14

SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-6



EXISTING SOUTHEAST ELEVATION

3/16"=1'

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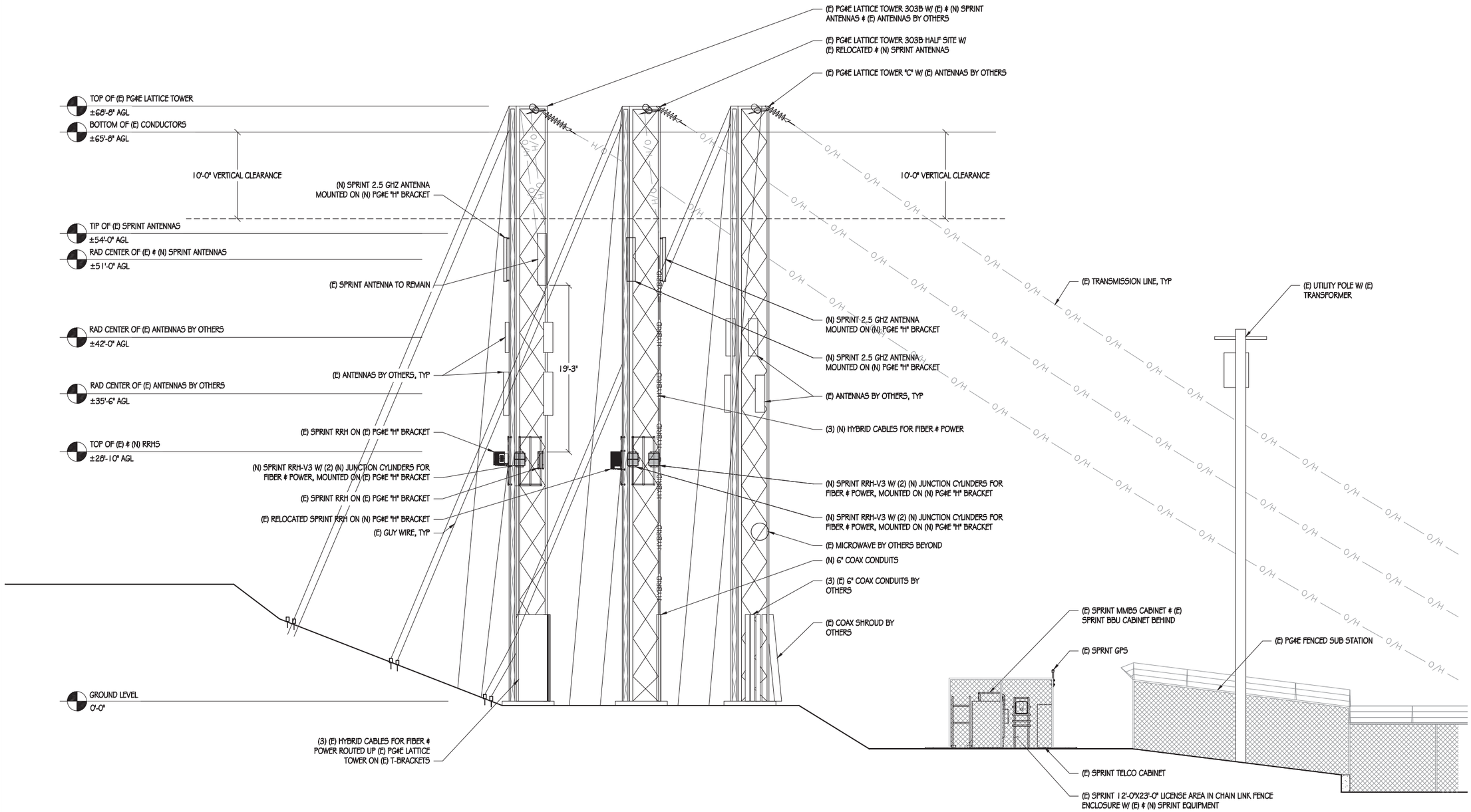
DRAWN BY:	K. DELONGCHAMP
CHECKED BY:	M. WEISS
APPROVED BY:	B.McCOMB
DATE:	11/18/14

SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

A-7



NEW SOUTHEAST ELEVATION

3/16"=1'

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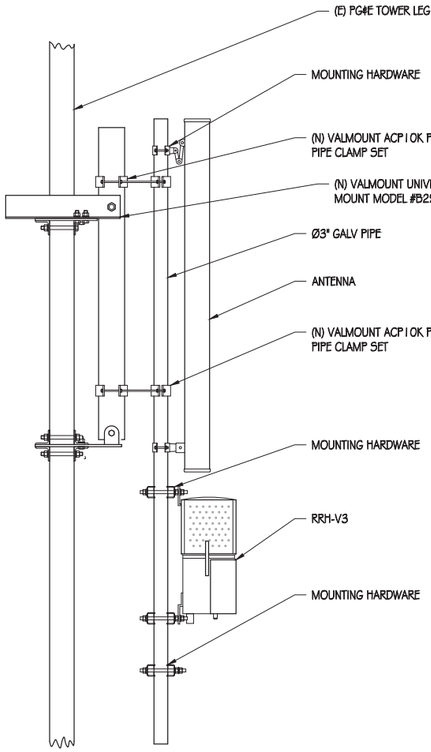
DRAWN BY:	K. DELONGCHAMP
CHECKED BY:	M. WEISS
APPROVED BY:	B.McCOMB
DATE:	11/18/14

SHEET TITLE:

ELEVATIONS

SHEET NUMBER:

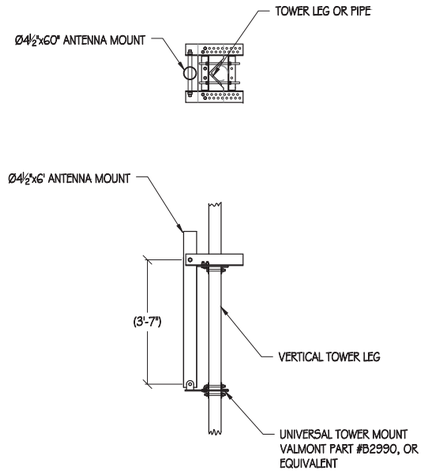
A-8



SECTION VIEW

1 ANTENNA MOUNT DETAIL

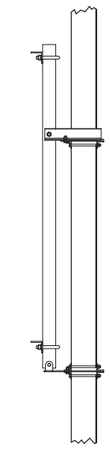
1"=1'



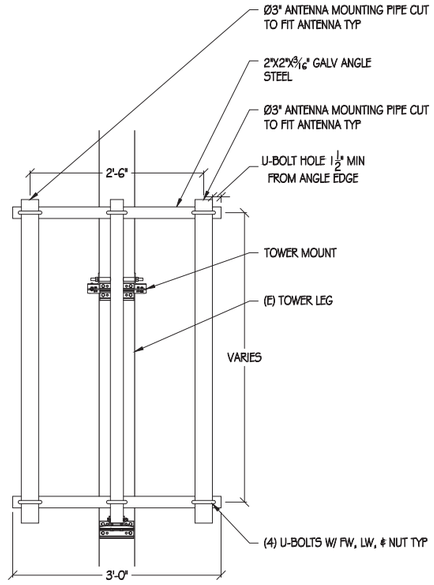
SIDE VIEW

2 TOWER MOUNTING BRACKET

½"=1'



SIDE VIEW



FRONT VIEW

3 PG&E "H" BRACKET TO TOWER MOUNT DETAIL

1"=1'

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DRAWN BY:	K. DELONGCHAMP
CHECKED BY:	M. WEISS
APPROVED BY:	B.McCOMB
DATE:	11/18/14

SHEET TITLE:

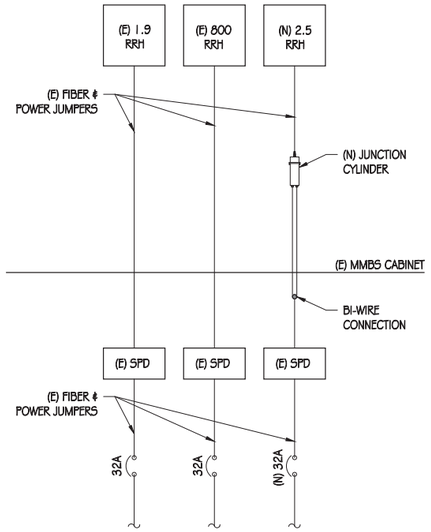
DETAILS

SHEET NUMBER:

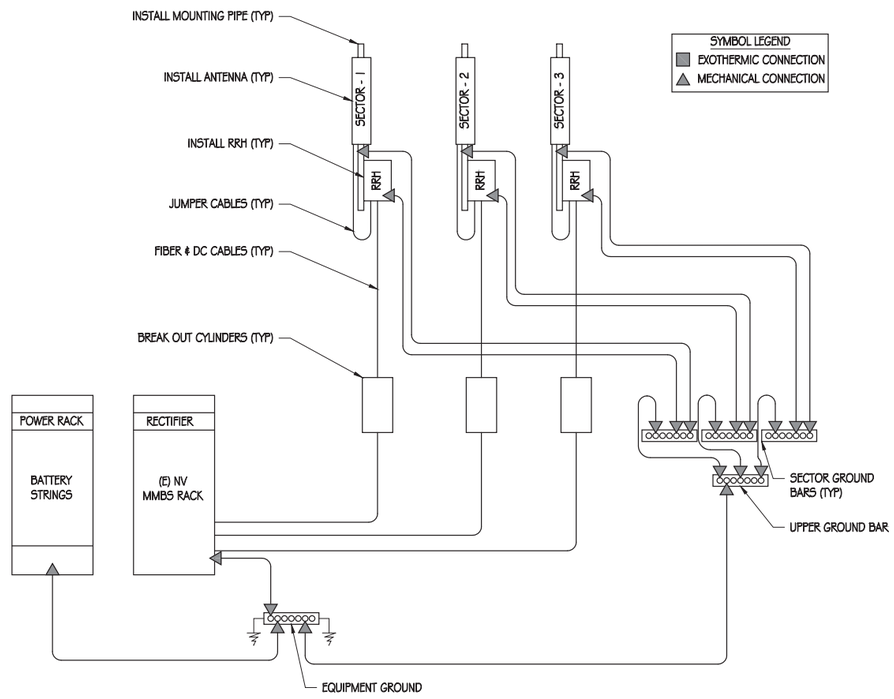
A-9

GROUNDING NOTES

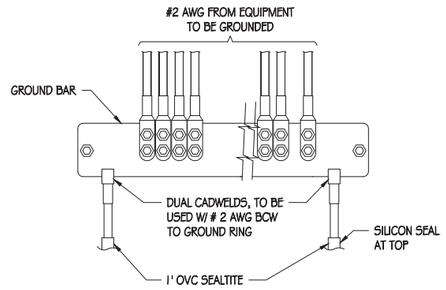
1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
2. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING #2 GROUND WIRES AND CONNECT TO SURFACE MOUNTED GROUND BUS BARS AS SHOWN. FOLLOW ANTENNA AND BTS MANUFACTURER'S PRACTICES FOR GROUNDING REQUIREMENTS. GROUND COAX SHIELD AT BOTH ENDS USING MANUFACTURERS PRACTICES. ALL UNDERGROUND WATER PIPES, METAL CONDUITS AND GROUNDS THAT ARE A PART OF THIS SYSTEM SHALL BE BONDED TOGETHER.
3. ALL GROUND CONNECTIONS SHALL BE #2 AWG U.N.O. ALL WIRES SHALL BE COPPER THHN/THWN. ALL GROUND WIRE SHALL BE SOLID TIN COATED OR STRANDED GREEN INSULATED WIRE.
4. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE, 5 OHMS MAXIMUM. PROVIDE SUPPLEMENT GROUNDING RODS AS REQUIRED TO ACHIEVE SPECIFIED OHMS READING. GROUNDING AND OTHER OPTIONAL TESTING WILL BE WITNESSED BY THE T-MOBILE REPRESENTATIVE.
5. NOTIFY ARCHITECT/ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
6. BARE GROUNDING CONDUCTOR SHALL BE HARD DRAWN TINNED COPPER SIZES AS NOTED ON PLAN.
7. ALL HORIZONTALLY RUN GROUNDING CONDUCTORS SHALL BE INSTALLED MINIMUM 30" BELOW GRADE/FROST-LINE IN TRENCH, U.N.O., AND BACK FILL SHALL BE COMPACTED AS REQUIRED BY ARCHITECT.
8. ALL GROUND CONDUCTORS SHALL BE RUN AS STRAIGHT AND SHORT AS POSSIBLE, WITH A MINIMUM 12" BENDING RADIUS NOT LESS THAN 90 DEGREES.
9. ALL SUPPORT STRUCTURES, CABLE CHANNEL WAYS OR WIRE GUIDES SHALL BE BONDED TO GROUND SYSTEM AT A POINT NEAREST THE MAIN GROUNDING BUS "MGB" (OR DIRECTLY TO GROUND-RING).
10. ACCEPTABLE CONNECTIONS FOR GROUNDING SYSTEM SHALL BE:
    a. BURNDY, HY-GRADE U.L. LISTED CONNECTORS FOR INDOOR USE OR AS APPROVED BY SPRINT PROJECT MANAGER.
    b. CADWELD, EXOTHERMIC WELDS (WELDED CONNECTIONS).
    c. TWO -(2) HOLE TINNED COPPER COMPRESSION (LONG BARREL) FITTINGS (BUS BAR CONNECTIONS).
11. ALL CRIMPED CONNECTIONS SHALL HAVE EMBOSSED MANUFACTURER'S DIEMARK VISIBLE AT THE CRIMP (RESULTING FROM USE OF PROPER CRIMPING DEVICES).
12. PRIOR TO ANY LUG-BUSBAR CONNECTIONS, THE BUSBAR SHALL BE CLEANED BY USE OF "SCOTCH-BRITE" OR PLAIN STEEL WOOL AS TO REMOVE ALL SURFACE OXIDATION AND CONTAMINANTS. A COATING OF "NO-OX-ID" SHALL BE APPLIED TO THE CONNECTION SURFACES.
13. ALL CONNECTION HARDWARE SHALL BE TYPE 316 SS (NOT ATTRACTED TO MAGNETS).
14. THE GROUND RING SHALL BE INSTALLED 24" MINIMUM BEYOND ANY BUILDING DRIP LINE.
15. ELECTRICAL SERVICE EQUIPMENT GROUNDING SHALL COMPLY WITH NEC, ARTICLE 250-62 AND SHALL BOND ALL EXISTING AND NEW GROUNDING ELECTRODES. NEW GROUNDING ELECTRODE SHALL INCLUDE BUT NOT LIMITED TO GROUND RODS, GROUND RING IF SERVICE IS WITHIN THE RADIO EQUIPMENT LOCATION, BUILDING STEEL IF APPLICABLE, COLD WATER CONNECTIONS MUST BE MADE ON THE STREET SIDE OF MAIN SHUT-OFF VALVE.



1 DC ONE LINE DIAGRAM
NTS

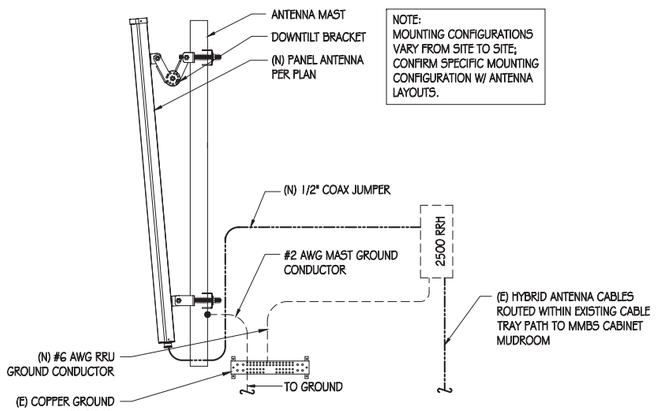


2 GROUNDING DIAGRAM
NTS

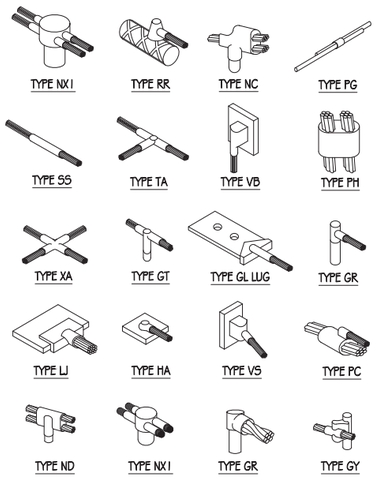


NOTE:
1. CONTRACTOR TO UTILIZE KOPR-SHIELD (THANS # BETTS) ON ALL LUG CONNECTIONS OR APPROVED EQUAL
2. ALL LUGS TO BE DUAL HOLE LONG BARREL AND CRIMPED TWICE WITH MFR'S RECOMMENDED TOOL

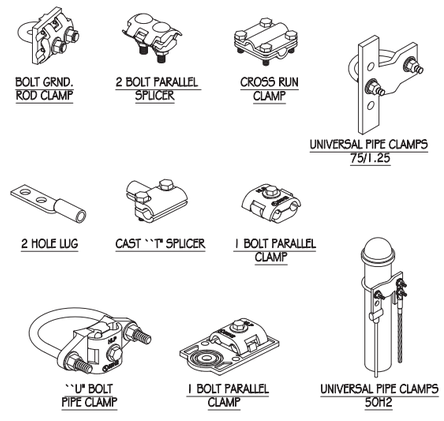
3 GROUNDING BAR CONNECTION DETAIL
NTS



4 ANTENNA GROUNDING
NTS



5 CADWELD CONNECTIONS
NTS



6 MECHANICAL CONNECTIONS
NTS

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DRAWN BY: K. DELONGCHAMP
CHECKED BY: M. WEISS
APPROVED BY: B.McCOMB
DATE: 11/18/14

SHEET TITLE:
GROUNDING DETAILS

SHEET NUMBER:
E-1