



SAN FRANCISCO PLANNING DEPARTMENT

Executive Summary Conditional Use Authorization

HEARING DATE: AUGUST 1, 2013

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

Reception:
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Planning
Information:
415.558.6377

Date: July 25, 2013
Case No.: **2013.0659C**
Project Address: **310 Arballo Drive**
Current Zoning: PM-R (Parkmerced-Residential)
130-PM Height and Bulk District
Block/Lot: 7308/001
Project Sponsor: Verizon, represented by Peter Hilliard
On Air, LLC
465 First Street West, Suite 101
Sonoma, CA 95476
Staff Contact: Omar Masry – (415) 575-9116
Omar.Masry@sfgov.org

PROJECT DESCRIPTION

The proposal is to allow the development of a Verizon wireless telecommunication services (“WTS”) facility. The macro wireless facility would consist of nine panel antennas affixed to the wall of the elevator penthouse at a high-rise residential building, and electronic equipment necessary to run the facility located in a basement storage room.

The proposed antennas would measure approximately of 55” high by 12” wide by 8” thick, and would be placed in clusters of three antennas at each of the southwest, southeast, and northeast facing walls of the penthouse. The top of each antenna would be flush with the top of the penthouse wall at approximately height of 143 feet above grade.

The Location Preferences found in the WTS Guidelines do not refer to the PM-R Zoning District. However, based on the location, a high-rise residential structure (Parkmerced Apartments), which features development equivalent to that found in RM-4 Districts (High Density, Residential Mixed), the antennas are proposed on a Location Preference 6 Site (Limited Preference Site).

SITE DESCRIPTION AND PRESENT USE

The Project Site is located on Assessor’s Block 7308, Lot 001 at the Parkmerced residential apartment tower in the Lakeshore neighborhood. The 13-story, 120-foot high tower is a part of the Parkmerced master planned development. There are no other WTS facilities at the project site or neighboring apartment building.

SURROUNDING PROPERTIES AND NEIGHBORHOOD

The subject building lies within an approximately 4.49-acre lot which features a second, similarly designed high-rise apartment building and is surrounded by public streets on all four sides. The surrounding area features a golf course to the west, across Lake Merced Boulevard. Two and three-story Parkmerced apartments are located to the south and east, and a cluster of homes owned by San Francisco State University are located to the north.

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	July 11, 2013	July 11, 2013	20 days
Posted Notice	20 days	July 11, 2013	July 11, 2013	20 days
Mailed Notice	20 days	July 11, 2013	July 11, 2013	20 days

PUBLIC COMMENT

As of July 25, 2013, the Department has received five comments, including a petition signed by approximately 60 residents, opposed to the project based on health concern due to RF emissions from the proposed facility. In addition, the Project Sponsor held a community meeting at San Francisco State University, Tower Conference Room, at 800 Font Boulevard, to discuss the project on June 27, 2013. There were 12 attendees, some of whom voiced similar concerns regarding health effects.

ISSUES AND OTHER CONSIDERATIONS

- Health and safety aspects of all wireless projects are reviewed under the Department of Public Health and the Department of Building Inspections.
- An updated Five Year Plan with approximate longitudinal and latitudinal coordinates of proposed locations, including the subject site is on file with the Planning Department.
- All required public notifications were conducted in compliance with the City’s code and policies.

REQUIRED COMMISSION ACTION

Pursuant to Sections 249.64 of the Planning Code, Conditional Use authorization is required for a WTS facility in a PM-R 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 and Resolutions No. 16539 and No. 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 FCC.
- The project site is considered a Location Preference 6 (Limited Preference Site), according to the Wireless Telecommunications Services (WTS) Siting Guidelines.
- Based on propagation maps provided by Verizon, the project would provide enhanced 700 - 850 Megahertz CDMA (voice and data) coverage in an area that currently experiences gaps in coverage and capacity.
- Based on the analysis provided by Verizon, 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 Verizon are accurate.
- The nine proposed antennas and will be un-screened and painted to match the building facade. The installation of the proposed antennas will occur in such a manner as to minimize their visibility by flush mounting them to the elevator penthouse, which lies well above the surrounding neighborhood and public rights-of-way. Furthermore, the cable trays below each antenna cluster will minimize the cluttered visual impact normally associated with co-axial cabling running below the antennas.
- The antenna placement at 143 feet above ground would comply with the building height provisions (130-PM Height and Bulk District) of the Planning Code, as the antennas would be eligible for an exception from height limitations (Planning Code Section 260). Furthermore, the proposed antennas would not create additional vertical massing, as they would not exceed the existing penthouse height.
- The facility would continue to avoid intrusion into public vistas, avoid disruption of the architectural integrity of building and insure harmony with neighborhood character.
- The proposed project has been reviewed by staff and found to be categorically exempt from further environmental review. The proposed changes to the subject building do not result in a significant impact on the resource. The proposed antenna project is categorically exempt from further environmental review pursuant to the Class 3 exemptions of California Environmental Quality Act.
- A Five Year Plan with approximate longitudinal and latitudinal coordinates of proposed locations, including the subject site, was submitted.
- All required public notifications were conducted in compliance with the City's code and policies.

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

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



SAN FRANCISCO PLANNING DEPARTMENT

Subject to: (Select only if applicable)

- Affordable Housing (Sec. 415)
- Jobs Housing Linkage Program (Sec. 413)
- Downtown Park Fee (Sec. 412)
- First Source Hiring (Admin. Code)
- Child Care Requirement (Sec. 414)
- Other

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Planning Commission Motion No. XXXX

HEARING DATE: AUGUST 1, 2013

Date: July 25, 2013
Case No.: **2013.0659C**
Project Address: **310 Arballo Drive**
Current Zoning: PM-R (Parkmerced Residential) District
 130-PM Height and Bulk District
Block/Lot: 7308/001
Project Sponsor: Verizon, represented by Peter Hilliard
 On Air, LLC
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 Sonoma, CA 95476
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 249.64 TO INSTALL A WIRELESS TELECOMMUNICATIONS SERVICES FACILITY CONSISTING OF NINE FAÇADE-MOUNTED PANEL ANTENNAS ON THE WALL OF AN ELEVATOR PENTHOUSE OF AN EXISTING THIRTEEN-STORY APARTMENT BUILDING AS PART OF VERIZON’S WIRELESS TELECOMMUNICATIONS NETWORK WITHIN A PM-R (PARKMERCED RESIDENTIAL) ZONING DISTRICT, AND 130-PM HEIGHT AND BULK DISTRICT.

PREAMBLE

On May 24, 2013, Verizon (hereinafter "Project Sponsor"), submitted an application (hereinafter "Application"), for Conditional Use Authorization on the property at 310 Arballo Drive, Lot 001 in Assessor's Block 7308, (hereinafter "Project Site") to install a wireless telecommunications services facility consisting of nine panel antennas mounted at three locations on the wall of the elevator penthouse, along with associated electronic equipment located in a basement room, at an existing thirteen-story apartment building. The Project would provide mobile coverage (voice and data), as part of Verizon’s wireless telecommunications network within a PM-R (Parkmerced Residential) Zoning District, and a 130-PM 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, San Francisco.

On August 1, 2013, 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. 2013.0659C, 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 7308, Lot 001 at the Parkmerced residential apartment tower in the Lakeshore neighborhood. The 13-story, 120-foot high tower is a part of the Parkmerced master planned development. There are no other WTS facilities at the project site or neighboring apartment building.
3. **Surrounding Properties and Neighborhood.** The subject building lies within an approximately 4.49-acre lot which features a second, similarly designed high-rise apartment building and is surrounded by public streets on all four sides. The surrounding area features a golf course to the west, across Lake Merced Boulevard. Two and three-story Parkmerced apartments are located to the south and east, and a cluster of homes owned by San Francisco State University are located to the north.
4. **Project Description.** The proposal is to allow the development of a Verizon wireless telecommunication services ("WTS") facility. The macro wireless facility would consist of nine panel antennas affixed to the wall of the elevator penthouse at a high-rise residential building.

The proposed antennas would measure approximately 55" high by 12" wide by 8" thick, and would be placed in clusters of three antennas at each of the southwest, southeast, and northeast facing facades of the penthouse. The top of each antenna would be flush with the top of the penthouse wall at approximately height of 143 feet above grade.

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

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

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

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

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

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

On August 1, 2013, the Commission conducted a duly noticed public hearing at a regularly scheduled meeting on the application for a Conditional Use authorization pursuant to Planning Code Section 249.64 to install a wireless telecommunications facility consisting of nine wall-mounted antennas and related electronic equipment located on elevator penthouse of the subject building.

6. **Location Preference.** The *WTS Facilities Siting Guidelines* identify different types of zoning districts and building uses for the siting of wireless telecommunications facilities. The Location Preferences found in the WTS Guidelines do not refer to the PM-R Zoning District. However, based on the location, a high-rise residential structure (Parkmerced Apartments), which features development equivalent to that found in RM-4 Districts (High Density, Residential Mixed), the antennas are proposed on a Location Preference 6 Site (Limited Preference Site).

The applicant prepared an alternative site analysis (exhibits), which complies with Section 8.1 of the WTS Guidelines, and demonstrates that alternative sites, including buildings at San Francisco State University and the neighboring golf course, are not feasible.

7. **Radio Waves Range.** The Project Sponsor has stated that the proposed wireless network will transmit calls by radio waves operating in the 700 - 850 Megahertz (MHZ) bands, which is 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 Hammett & Edison, Inc., 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 RF levels at ground level were around 1% of the FCC public exposure limit. There are no other documented antennas within 100 feet of the site. Verizon proposes to install nine panel antennas for mobile wireless coverage. The antennas will be mounted at a height of approximately 144 feet above the ground. The estimated ambient RF field from the proposed Verizon transmitters at ground level is calculated to be 0.0012 mW/sq. cm., which is 0.22% of the FCC public exposure limit. The three dimensional perimeter of RF levels equal to the public exposure limit extends 35 inches 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 within 11 feet in front of the antenna while it is in operation.

10. **Coverage and Capacity Verification.** The maps, data, and conclusion provided by Verizon demonstrate need for coverage and capacity have been determined by Hammett & Edison, 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 San Francisco State University, Tower Conference Room, at 800 Font Boulevard, to discuss the project on June 27, 2013. There were 12 attendees, some of whom concerns regarding health effects. In addition, the Department has received three comments from the public opposed to the project based on health concern due to RF emissions from the proposed facility
13. **Five-year plan:** Per the *Guidelines*, the Project Sponsor submitted an updated five-year plan, as required, in April 2013.
14. **Public Comment.** As of July 25, 2013, the Department has received three comments from the public opposed to the project based on health concern due to RF emissions from the proposed facility. In addition, the Project Sponsor held a community meeting at San Francisco State University, Tower Conference Room, at 800 Font Boulevard, to discuss the project on June 27, 2013. There were 12 attendees, some of whom voiced similar concerns regarding health effects.
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 249.64, a Conditional Use authorization is required for the installation of Commercial Wireless Transmitting, Receiving or Relay Facility.
16. **Planning Code Section 303** establishes criteria for the Planning Commission to consider when reviewing applications for Conditional Use approval. On balance, the project does comply 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 310 Arballo Drive 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 nature of the vicinity. The placement of antennas and related support and protection features are so located, designed, and treated architecturally to minimize their visibility from public places, to avoid intrusion into public vistas, avoid disruption of the architectural design integrity of buildings, insure harmony with the existing neighborhood character and public safety. The Project has been reviewed and determined to not cause the removal or alteration of any significant architectural features of the subject building.

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

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

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

The proposed project at 310 Arballo Drive 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 Verizon Radio Frequency Engineering Team provide conclusive evidence that the subject property is the most viable 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 nine proposed antennas and will be un-screened and painted to match the building facade. The installation of the proposed antennas will occur in such a manner as to minimize their visibility by flush mounting them to the elevator penthouse, which lies well above the surrounding neighborhood and public rights-of-way. The project will not affect existing landscaping.

- 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.

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

HOUSING ELEMENT

BALANCE HOUSING CONSTRUCTION AND COMMUNITY INFRASTRUCTURE

OBJECTIVE 12 – BALANCE HOUSING GROWTH WITH ADEQUATE INFRASTRUCTURE THAT SERVES THE CITY'S GROWING POPULATION.

POLICY 12.2 – Consider the proximity of quality of life elements, such as open space, child care, and neighborhood services, when developing new housing units.

POLICY 12.3 – Ensure new housing is sustainable supported by the City’s public infrastructure systems.

The Project will improve Verizon’s coverage and within the Lakeshore Neighborhood and residences at the San Francisco State University campus.

URBAN DESIGN

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 nine proposed antennas and will be un-screened and painted to match the building façade and penthouse walls. The installation of the proposed antennas will occur in such a manner as to minimize their visibility by flush mounting them to the elevator penthouse, which lies well above the surrounding neighborhood and public rights-of-way.

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:

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

Policy 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 1:

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

Policy 3:

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

The site is an integral part of a new wireless communications network that will 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 1:

Maintain and enhance a favorable business climate in the City.

Policy 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 will ensure that residents and visitors have adequate public service in the form of Verizon telecommunications.

COMMUNITY SAFETY ELEMENT

Objectives and Policies

OBJECTIVE 3:

ENSURE THE PROTECTION OF LIFE AND PROPERTY FROM THE EFFECTS OF FIRE OR NATURAL DISASTER THROUGH ADEQUATE EMERGENCY OPERATIONS PREPARATION.

Policy 1:

Maintain a local agency for the provision of emergency services to meet the needs of San Francisco.

Policy 2:

Develop and maintain viable, up-to-date in-house emergency operations plans, with necessary equipment, for operational capability of all emergency service agencies and departments.

Policy 3:

Maintain and expand agreements for emergency assistance from other jurisdictions to ensure adequate aid in time of need.

Policy 4:

Establish and maintain an adequate Emergency Operations Center.

Policy 5:

Maintain and expand the city's fire prevention and fire-fighting capability.

Policy 6:

Establish a system of emergency access routes for both emergency operations and evacuation.

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.

No neighborhood-serving retail use would be displaced and the wireless communications network will enhance personal communication services.

- 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.

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

The Project would have no adverse impact 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 subject site is not a landmark building and is not considered a potential historic Resource.

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

The Project will have no adverse impact on parks or open space, or their access to sunlight or 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 Determination of Compliance 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 249.64 and 303 to install up nine panel antenna and associated equipment cabinets at the Project Site and as part of a wireless transmission network operated by Verizon on a Location Preference 6 (Limited Preference Site) according to the Wireless Telecommunications Services (WTS) Siting Guidelines, within a PM-R (Parkmerced Residential) and a 130-PM Height and Bulk District and subject to the conditions of approval attached hereto as **Exhibit A**.

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.

I hereby certify that the foregoing Motion was adopted by the Planning Commission on **August 1, 2013**.

JONAS P. IONIN
Acting Commission Secretary

AYES
NAYS:

ABSENT:

ADOPTED: August 1, 2013

EXHIBIT A

AUTHORIZATION

This authorization is for a Conditional Use Authorization under Planning Code Sections 249.64 and 303 to install a wireless telecommunications services facility consisting of up to nine panel antennas on a rooftop penthouse wall, with related electronic equipment in a basement storage room, at a Location Preference 6 (Limited Preference Site) according to the Wireless Telecommunications Services (WTS) Siting Guidelines, as part of Verizon's wireless telecommunications network within a PM-R (Parkmerced Residential) Zoning District and a 130-PM Height and Bulk District.

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 **August 1, 2013** 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 three years 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 three (3) years 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 three (3) years 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 415-558-6378, 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:
 - f. Antennas and back up equipment shall be painted, fenced, landscaped or otherwise treated architecturally so as to minimize visual effects;
 - g. Rooftop installations shall be setback such that back up facilities are not viewed from the street;
 - h. Antennas attached to building facades shall be so placed, screened or otherwise treated to minimize any negative visual impact; and
 - i. 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 415-558-6378, 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.

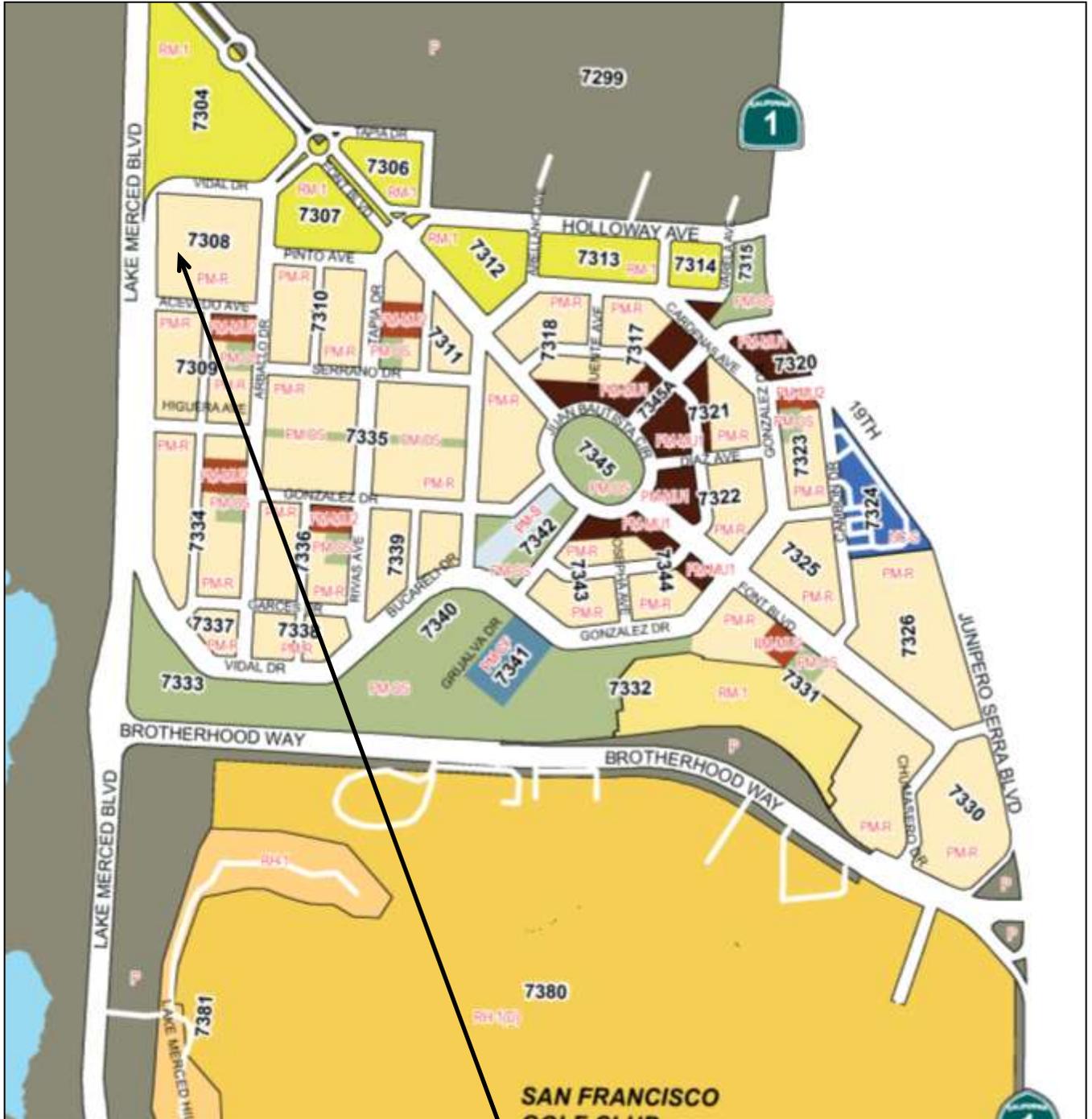
18. **Transfer of Operation – WTS.** Any carrier/provider authorized by the Zoning Administrator or by the Planning Commission to operate a specific WTS installation may assign the operation of the facility to another carrier licensed by the FCC for that radio frequency provided that such transfer is 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>

Zoning Map

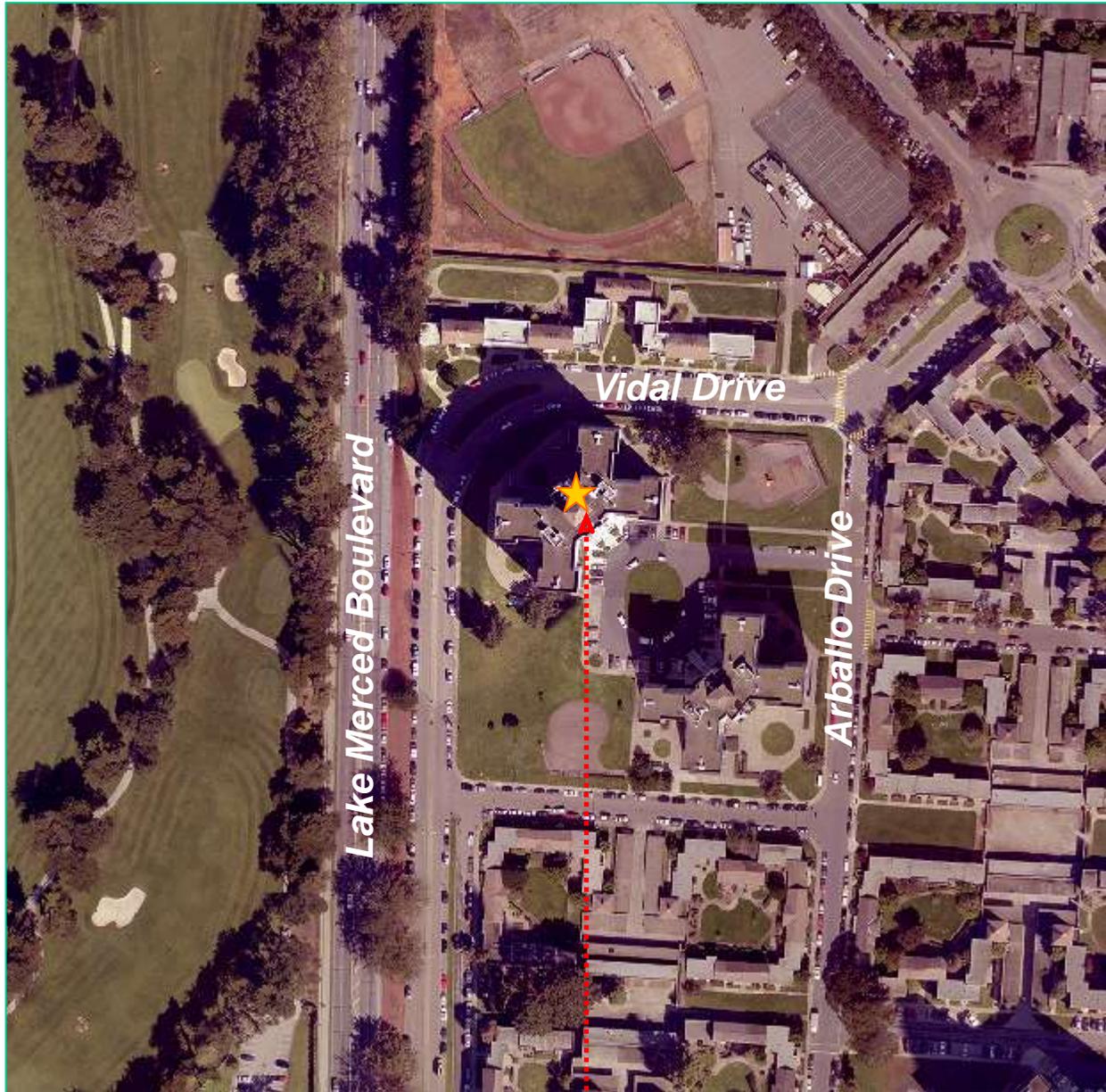


SUBJECT PROPERTY



Case Number 2013.0659C
Verizon Wireless WTS Facility
310 Arballo Drive

Aerial Photo

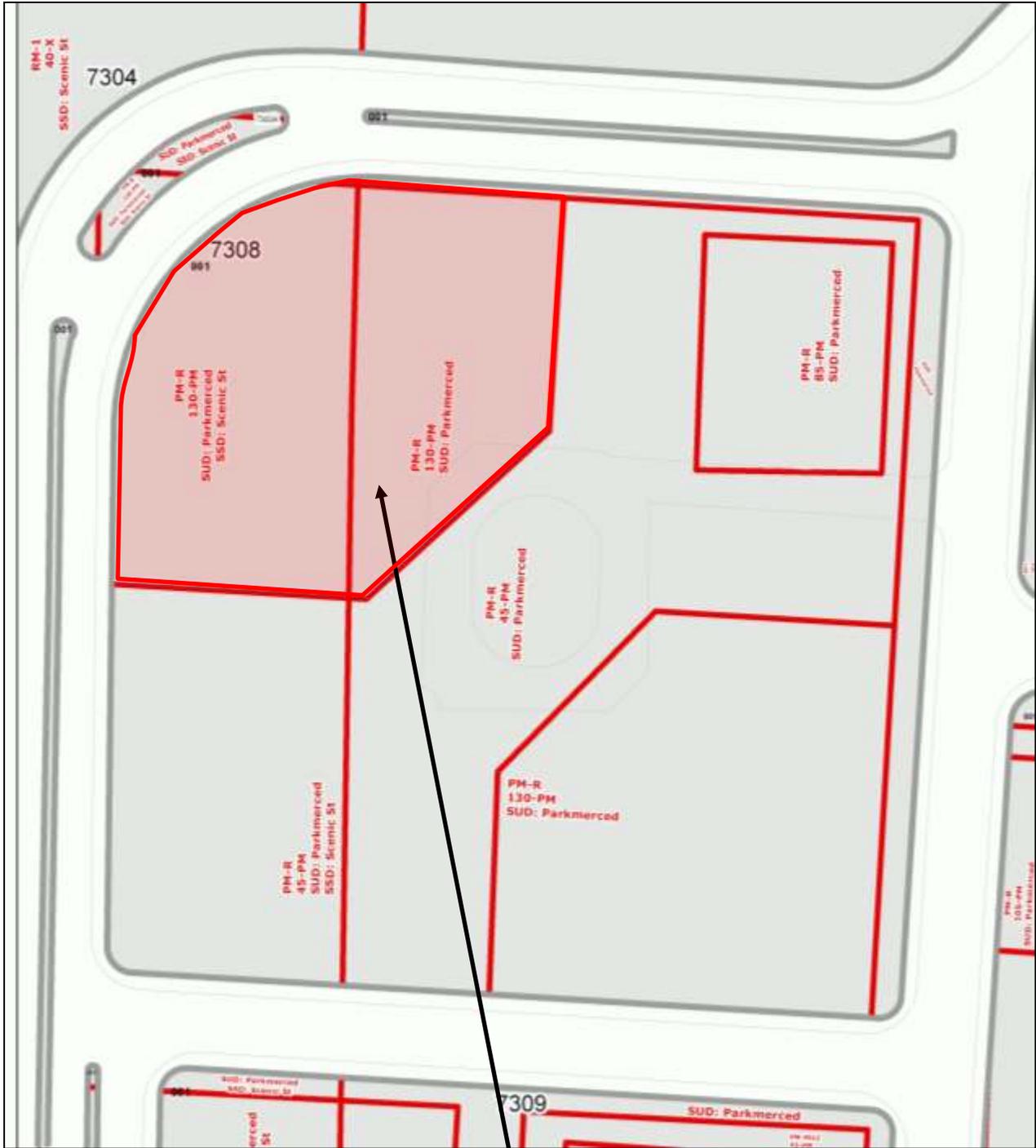


SUBJECT PROPERTY



Case Number 2013.0659C
Verizon Wireless WTS Facility
310 Arballo Drive

Parcel Map



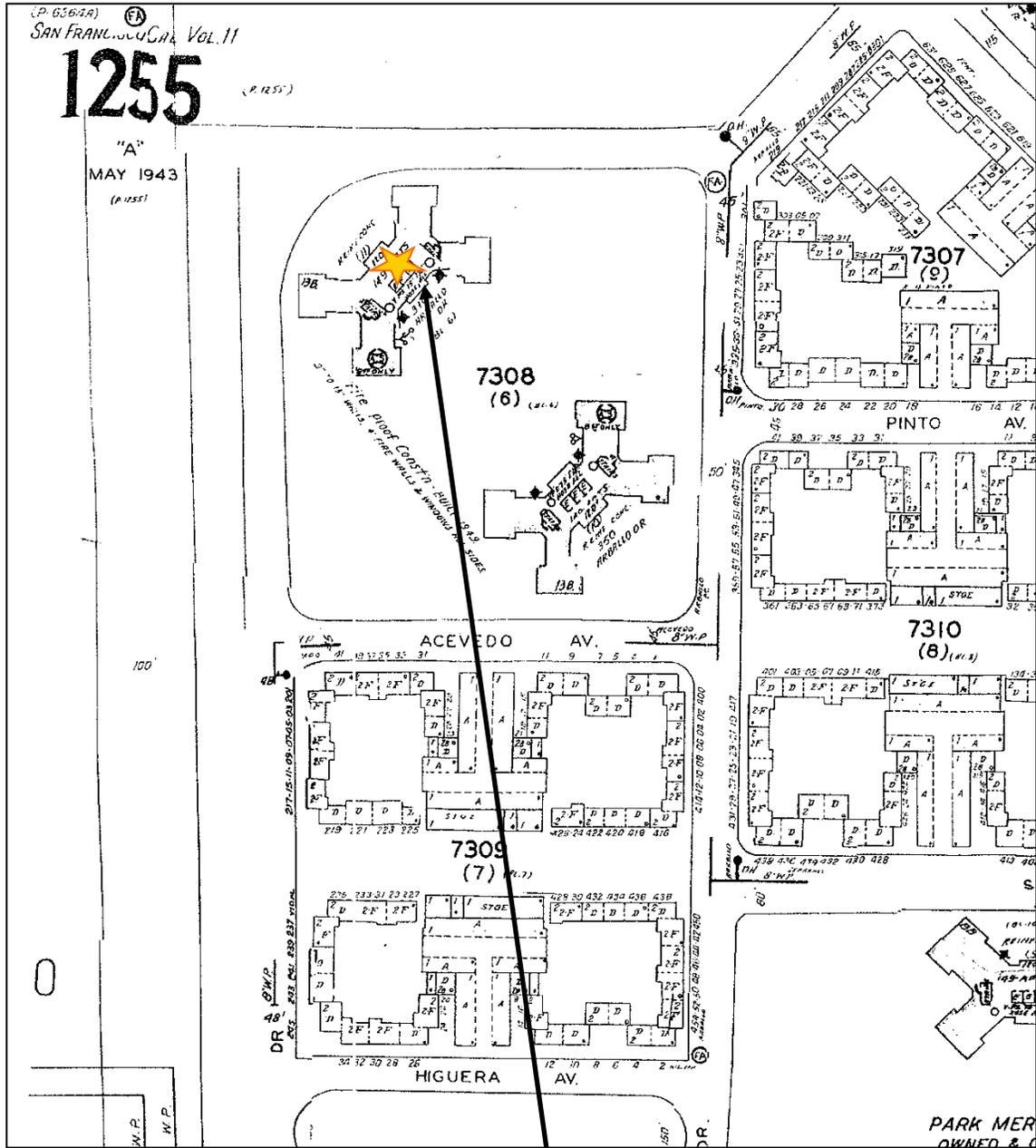
SUBJECT PROPERTY



Case Number 2013.0659C

Verizon Wireless WTS Facility
310 Arballo Drive

Sanborn Map*



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

Case Number 2013.0659C
 Verizon Wireless WTS Facility
 310 Arballo Drive

Contextual Photographs

View of neighboring buildings as seen from the roof of 310 Arballo Dr.



View of neighboring buildings as seen from Vidal Dr.



View of Tower 39 in foreground across from Tower 40

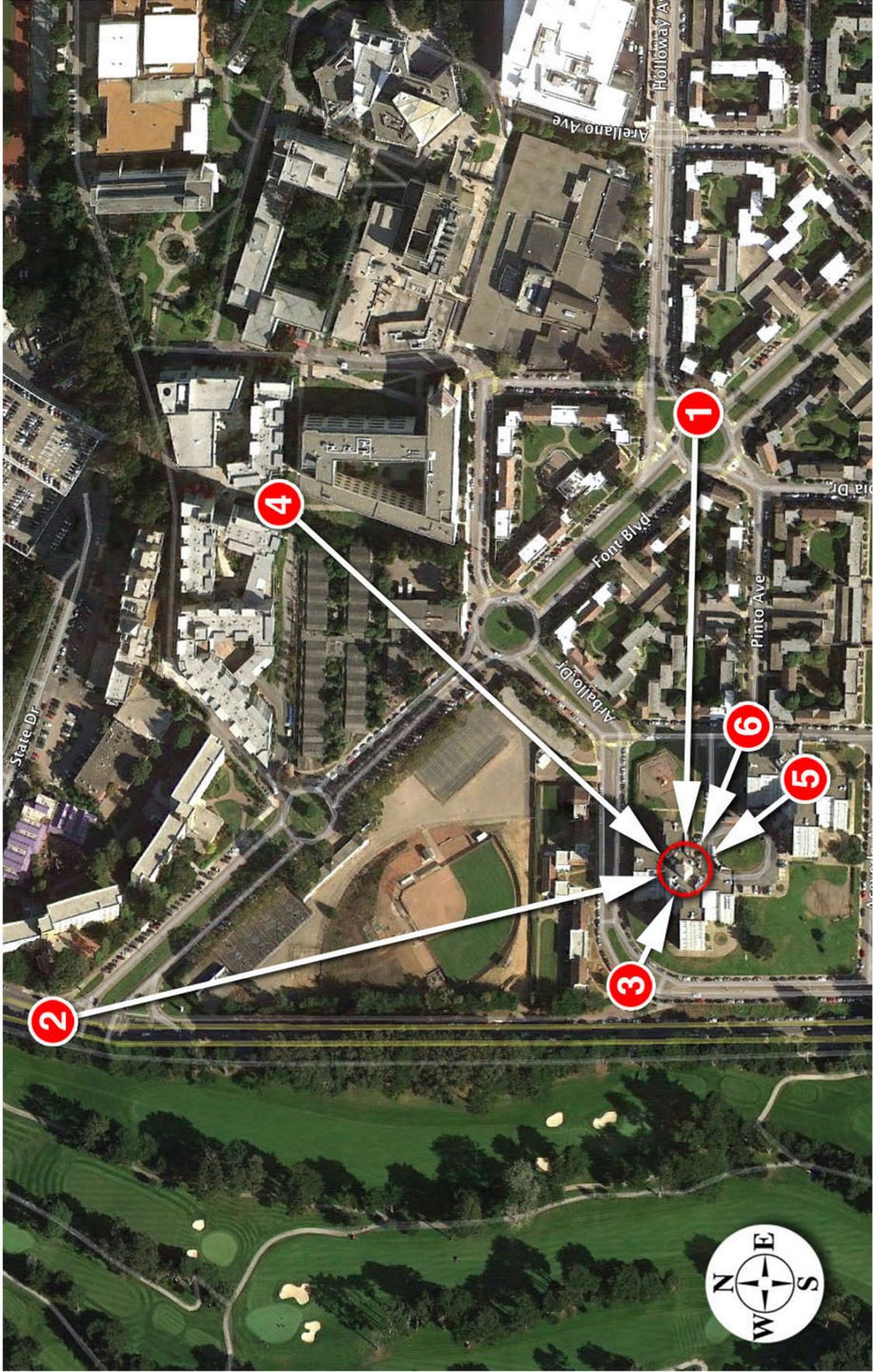


View of neighboring buildings and Tower 39 and 40 from Pinto Ave. at Arballo Dr.



Slight view of neighboring buildings from parking lot of Tower 40





Parkmerced Site # 249531

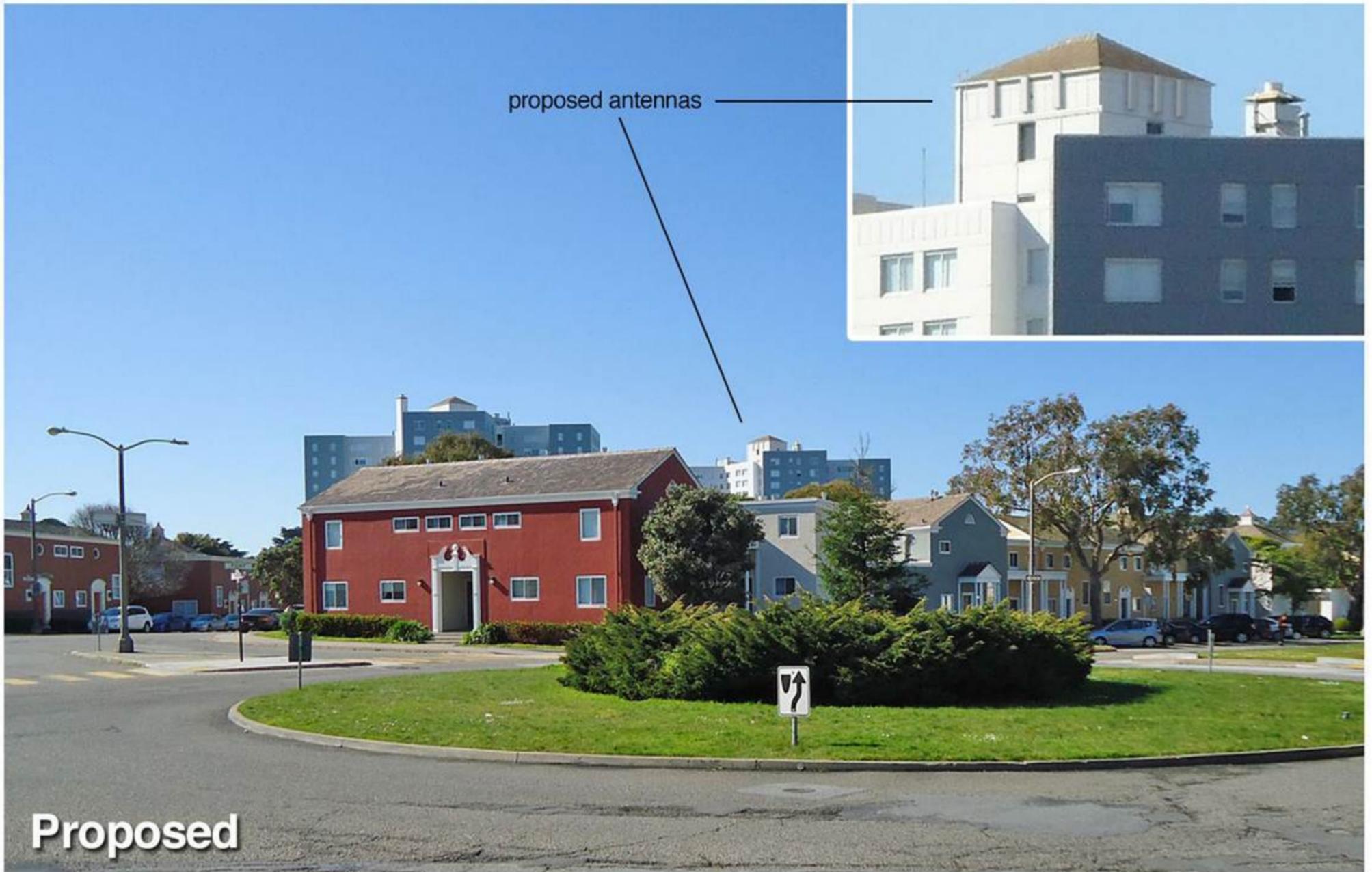
310 Arballo Drive (Tower 40)
San Francisco, CA 94132

3/14/13

Shot Point Map

Applied Imagination 510 914-0500







Existing



proposed antennas

Proposed





Existing



proposed antennas

Proposed



Existing



proposed antennas

Proposed



**Verizon Wireless • Proposed Base Station (Site No. 249531 “SFSU”)
310 Arballo Drive • San Francisco, California**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 249531 “SFSU”) proposed to be located at 310 Arballo Drive in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted a 10-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable limits set by the FCC for exposures of unlimited duration are:

<u>Wireless Service</u>	<u>Frequency Band</u>	<u>Occupational Limit</u>	<u>Public Limit</u>
Microwave (Point-to-Point)	5,000–80,000 MHz	5.00 mW/cm ²	1.00 mW/cm ²
BRS (Broadband Radio)	2,600	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

The site was visited by Rajat Mathur, P.E., a qualified engineer employed by Hammett & Edison, Inc., during normal business hours on May 2, 2012, a non-holiday weekday, and reference has been made to information provided by Verizon, including zoning drawings by L.D. Strobel Co., Inc., dated March 7, 2012.

Checklist

1. The location of all existing antennas and facilities at site. Existing RF levels.

Observed above the roof of the building were low power directional panel Wi-Fi antennas for use by the building owner. Existing RF levels for a person at ground near the site were less than 1.0% of the most restrictive public exposure limit. The measurement equipment used was a Wandel & Goltermann Type EMR-300 Radiation Meter with Type 8 Isotropic Electric Field Probe (Serial No. P-0036). The meter and probe were under current calibration by the manufacturer.

2. The location of all approved (but not installed) antennas and facilities. Expected RF levels from approved antennas.

No other WTS facilities are reported to be approved for this site but not installed.



**Verizon Wireless • Proposed Base Station (Site No. 249531 “SFSU”)
310 Arballo Drive • San Francisco, California**

3. The number and types of WTS within 100 feet of proposed site and estimates of additive EMR emissions at proposed site.

There were no other WTS facilities observed within 100 feet of the site.

4. Location (and number) of Applicant's antennas and back-up facilities per building and location (and number) of other WTS at site.

Verizon proposes to install nine Andrew directional panel antennas – three Model DBXNH-6565A-R2M, three Model HBX-6516DS-VTM, and three Model LNX-6513DS-VTM – on the sides of the stairwell penthouse above the roof of the tall apartment building located at 310 Arballo Drive. The antennas would be mounted with up to 6° downtilt at an effective height of about 144 feet above ground, 21½ feet above the roof, and would be oriented in identical groups of three toward 40°T, 180°T, and 260°T.

5. Power rating (maximum and expected operating power) for all existing and proposed backup equipment subject to application.

The expected operating power of the Verizon transmitters is reflected in the resulting effective radiated power given in Item 6 below; the transmitters may operate at a power below their maximum rating.

6. Total number of watts per installation and total number of watts for all installations at site.

The maximum effective radiated power proposed by Verizon in any direction is 2,960 watts, representing simultaneous operation at 960 watts for PCS, 1,600 watts for cellular, and 400 watts for 700 MHz service.

7. Plot or roof plan showing method of attachment of antennas, directionality of antennas, and height above roof level. Discuss nearby inhabited buildings.

The drawings show the proposed antennas to be installed as described in Item 4 above. There were noted no buildings of similar height within 100 feet of the site.

8. Estimated ambient RF levels for proposed site and identify three-dimensional perimeter where exposure standards are exceeded.

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.0012 mW/cm², which is 0.22% of the applicable public exposure limit. Ambient RF levels at the site are therefore estimated to be below 1.2% of the limit. The three-dimensional perimeter of RF levels equal to the public exposure limit is calculated to extend up to 35 feet out from the antenna faces and to much lesser distances above, below, and to the sides; this does not reach the roof of the building or any publicly accessible areas.



**Verizon Wireless • Proposed Base Station (Site No. 249531 “SFSU”)
310 Arballo Drive • San Francisco, California**

9. Describe proposed signage at site.

Due to their mounting locations, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access within 11 feet directly in front of the antennas themselves, such as might occur during maintenance work above the roof, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Posting explanatory warning signs* at the roof access door and at the antennas, such that the signs would be readily visible from any angle of approach to persons who might need to work within that distance, would be sufficient to meet FCC-adopted guidelines.

10. Statement of authorship.

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2013. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

Conclusion

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the base station proposed by Verizon Wireless at 310 Arballo Drive in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations. Posting explanatory signs is recommended to establish compliance with occupational exposure limitations.



A handwritten signature in blue ink that reads "William F. Hammett".

William F. Hammett, P.E.
707/996-5200

May 11, 2012

* Warning signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (e.g., a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter; the San Francisco Department of Public Health recommends that all signs be written in English, Spanish, and Chinese.





Review of Cellular Antenna Site Proposals

Project Sponsor : Verizon **Planner:** Michelle Stahlhut
RF Engineer Consultant: Hammett and Edison **Phone Number:** (707) 996-5200
Project Address/Location: 310 Arballo Dr
Site ID: 1770 **SiteNo.:** 249531

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: 0
- 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: 2960 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: 2960 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 μw/cm²)
 Maximum RF Exposure: 0.0012 mW/cm² Maximum RF Exposure Percent: 0.22
- 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: 35
 Occupational_Exclusion_Area Occupational Exclusion In Feet: 11

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 currently no antennas operated by Verizon installed on the roof top of the building at 310 Arballo Drive. Existing RF levels at ground level were around 1% of the FCC public exposure limit. There were observed no other similar antennas within 100 feet of this site. Verizon proposes to install 9 new antennas. The antennas are mounted at a height of about 144 feet above the ground. The estimated ambient RF field from the proposed Verizon transmitters at ground level is calculated to be 0.0012 mW/sq cm., which is 0.22 % of the FCC public exposure limit. The three dimensional perimeter of RF levels equal to the public exposure limit extends 35 feet and does not reach the rooftop or 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 within 11 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. FCC Standard

 1 Hours spent reviewing

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

Signed:

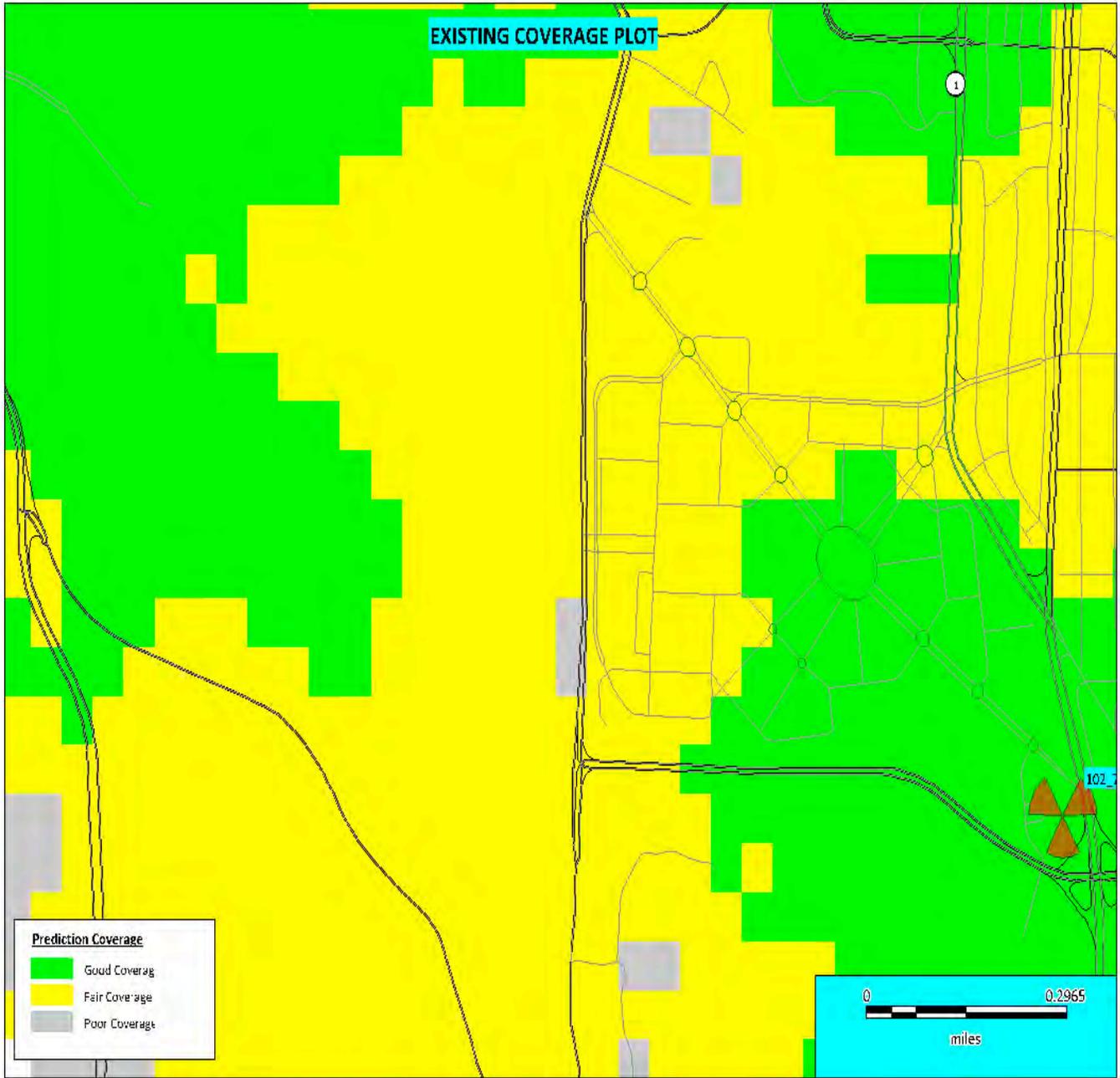


Dated: 1/15/2013

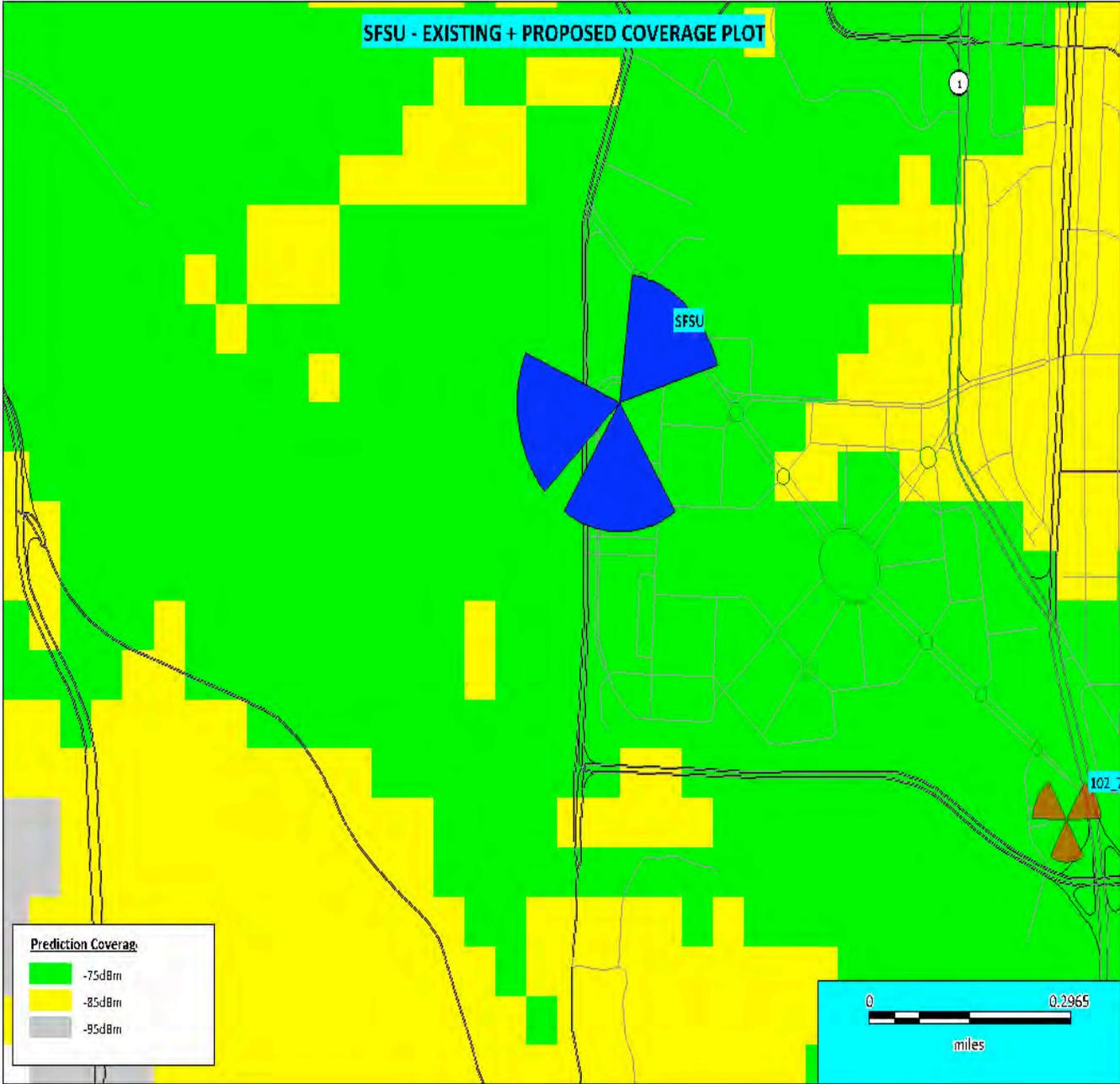
Patrick Fosdahl

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

Existing Coverage



Existing & Proposed Coverage





HAMMETT & EDISON, INC.
 CONSULTING ENGINEERS
 BROADCAST & WIRELESS

WILLIAM F. HAMMETT, P.E.
 DANE E. ERICKSEN, P.E.
 STANLEY SALEK, P.E.
 ROBERT P. SMITH, JR.
 RAJAT MATHUR, P.E.
 ANDREA L. BRIGHT, P.E.
 KENT A. SWISHER
 NEIL J. OLIJ

ROBERT L. HAMMETT, P.E.
 1920-2002
 EDWARD EDISON, P.E.
 1920-2009

BY E-MAIL PHILLIARD@ONAIRLLC.COM

May 17, 2013

Mr. Peter Hilliard
 On Air, LLC
 465 First Street West, Suite 101
 Sonoma, California 95476-6600

Dear Peter:

As you requested, we have conducted the review required by the City of San Francisco of the coverage maps that Verizon Wireless will submit as part of its application package for its base station proposed to be located at 310 Arballo Drive (Site No. 249531 “SFSU”). This is to fulfill the submittal requirements for Planning Department review.

Executive Summary

We concur with the maps, data, and conclusions provided by Verizon. The maps provided to show the before and after conditions accurately represent the carrier’s present and post-installation service.

Verizon proposes to install nine Andrew directional panel antennas – three Model DBXNH-6565A-R2M, three Model HBX-6516DS-VTM, and three Model LNX-6513DS-VTM – on the sides of the stairwell penthouse above the roof of the tall apartment building located at 310 Arballo Drive. The antennas would be mounted with up to 6° downtilt at an effective height of about 144 feet above ground, 21½ feet above the roof, and would be oriented in identical groups of three toward 40°T, 180°T, and 260°T. The maximum effective radiated power proposed by Verizon in any direction is 2,960 watts, representing simultaneous operation at 960 watts for PCS, 1,600 watts for cellular, and 400 watts for 700 MHz service.

Verizon provided for review two coverage maps showing Verizon’s cellular CDMA (850 MHz) coverage in the area before and after the site is operational. Both the before and after CDMA maps show three levels of coverage, which Verizon colors and defines as follows:

- | | |
|--------|---------------|
| Green | Good Coverage |
| Yellow | Fair Coverage |
| Grey | Poor Coverage |

We undertook a two-step process in our review. As a first step, we obtained information from Verizon on the software and the service thresholds that were used to generate its coverage maps. This carrier uses propriety software to develop the maps. The thresholds that Verizon uses to

Mr. Peter Hilliard, page 2
May 17, 2013

determine acceptable coverage are in line with industry standards, similar to the thresholds used by other wireless service providers.

As a second step, we conducted our own drive test to measure the actual Verizon CDMA signal strength in the vicinity of the proposed site. Our fieldwork was conducted on April 24, 2013, between 1:00 PM and 4:00 PM. The field measurements were conducted using an Ascom TEMS Pocket network diagnostic tool with built-in GPS along a measurement route selected to cover all the streets within the map area that Verizon had indicated would receive improved service.

Based on the measurement data, we conclude that the Verizon CDMA coverage map showing the service area without the proposed installation accurately represents the carrier's present coverage. The map submitted to show the after coverage with the proposed new base station in operation was prepared on the same basis as the map of existing conditions and so is expected to accurately illustrate the improvements in coverage.

We appreciate the opportunity to be of service. Please let us know if any questions arise on this matter.

Sincerely yours,



William F. Hammett, P.E.

bb



Alternative Location Discussion

Limited Preference Sites

6. Limited Preference Sites: Although now zoned PM-R, the Applicant is viewing the WTS Facilities Siting Guidelines as if the parcel was still RM-4. Buildings located in the following zoning districts are Limited Preference Sites: Individual Neighborhood Commercial Districts (NCDs) subject to Sections 714.1 through 729.1 and 781.1 through 781.7 of the Planning Code, NC-1 Districts, and **RM-4** Districts. The Planning Commission will not approve applications for such 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 location (i.e. Paragraphs 1 through 5 above); **(c)** why such efforts were unsuccessful; and **(d)** how and why the proposed site is essential to meet service demands for the geographic service area and the Applicant's citywide network.

Discussion: **(a) Publicly-used buildings** – *The only Publicly-used buildings and or Public (P) zoned parcels in the geographic service area are buildings on the Campus of San Francisco State University and those at Harding Park. Back in late 2010 and early 2011, Verizon investigated rooftop sites on the SFSU Campus. The SFSU Housing Department was approached but was not interested in entertaining a lease on its rooftop facilities. The search then narrowed down to the rooftops of the Psychology Building, Student Services Building and Thornton Hall. Feasibility studies were presented to Verizon for consideration. Representatives of the SFSU Facilities Department, Simon Lam, Director of Operations and Facilities, and Barry Jodatian advised VZW that a facility on the Student Services Building and Thornton Hall would likely be met with opposition and they suggested that Verizon focus on the Psychology Building as the primary candidate. A Request For Proposal was submitted and terms were being negotiated with Simon Lam. Subsequent meetings with the SFSU Facilities Department revealed that the University was planning to install solar panels on the buildings of interest and that they would not be able to host a another communications facility after all. Subsequently, the target moved off campus to 310 Arballo Drive - Parkmerced Tower 40. The following picture is a view of Tower 40 from Lake Merced Blvd. adjacent to Harding Park.*



Harding Park – Although zoned P, Harding Park would be a difficult choice to consider from all standpoints. The 163 acre golf course offers two courses that are open to the public – Harding Park and Fleming 9. The combined 18 hole Harding Park and Fleming 9 hole courses create not only a challenging experience for each golfer, but also a scenic one, while amidst lush vegetation, towering, unique Monterey Cypress trees, and tranquil Lake Merced. Upon review of Harding Park, it was determined that a structure of the height necessary to serve the intended service area would not be viable in the Park and in fact be detrimental to views from the course, Parkmerced, SFSU and surrounding parks and neighborhoods. etc. The following picture is a view from 310 Arballo Dr., Tower 40 looking west to Harding Park.



It is the Applicant's firm conviction that building a wireless telecommunications facility in Harding Park is not an option nor an acceptable alternative to mounting antennas to an existing 150' building such as Tower 40 in Parkmerced. The only co-location sites in the service area are the buildings at SFSU that have antennas already installed, like Thornton Hall. SFSU was not interested in leasing to Verizon as discussed above.

Discussion: (b) *what good faith efforts and measures were taken to secure these*

more preferred location (i.e. Paragraphs 1 through 5 below);

1. Publicly Used Structures – SFSU Campus was investigated but eventually Verizon was not successful in leasing rooftop space due to the University’s installation of solar systems. In addition, Verizon’s RF Engineering believes that there is no better location to serve the coverage objective of both Parkmerced, SFSU and Harding Park than Tower 40.

2. Co-location – The only co-location sites in the service area are located on the SFSU campus, Thornton Hall.

3. Industrial or Commercial Structures – There are no wholly industrial or commercial structures within RC-3, RC-4, NC-2, NC-3 and NC-S Districts, or other districts not otherwise noted below (such as C-2, CM, M-1 or M-2 Districts), within the service area such as warehouses, factories, retail outlets, supermarkets, banks, garages service stations where existing visual obstructions/clutter on the roof or along the roofline can and will, in a commercially practicable manner, be removed as part of the installation. There is a Neighborhood Commercial Shopping Center (NC-S) located between Cambon Drive and 19th Avenue on the eastside of Parkmerced. This zone is limited to two commercial stories in height and very near to the existing Verizon facility at 55 Chumaseo in Parkmerced. The Stonestown Shopping Center area located north of SFSU is zoned Community Business C-2, however, Verizon currently operates a facility at 599 Buckingham Way that serves that area.

4. Industrial or Commercial Structures – There are no wholly industrial or commercial structures within RC-3, RC-4, NC-2, NC-3 and NC-S Districts, or other districts not otherwise noted below, within the service area such as retail stores, supermarkets, banks and garages. There is a Neighborhood Commercial Shopping Center (NC-S) located between Cambon Drive and 19th Avenue on the eastside of Parkmerced. This zone is limited to two commercial stories in height and very near to the existing Verizon facility at 55 Chumaseo in Parkmerced. The Stonestown Shopping Center area located north of SFSU is zoned Community Business C-2, however, Verizon currently operates a facility at 599 Buckingham Way that serves that area.

5. Mixed Use Buildings in High Density Districts – The Parkmerced Mixed Use Development Program calls for the future development of Mixed Use zones in the Social Heart of the project and various interspersed Neighborhood Commons. The buildings that will occupy those zones have yet to be constructed.

In addition, when determining the propriety of the placement of WTS facilities on Limited Preference Sites located immediately adjacent to RH-1, RH-1 (D), RH-2, RH-3, **RM-1**, RM-2, RM-3, RC-1 and RC-2 zoning districts, the Planning Commission shall make findings about the effect the facilities will have on any adjacent residential areas, including but not limited to the land use, aesthetic and visual impacts.

Discussion: *310 Arballo Drive is adjacent to RM-1(Residential Low Density) zoned*

parcels and therefore qualifies for the above need for findings. The antennas will be of such small scale to the 150' tall building and set back from the parapet so that they will be hardly visible from anywhere at ground level. In addition they will be, along with the coaxial cable trays, painted to match the building, thus reducing their visual impact even further. The Applicant is confident that this non-residential use will not pose a nuisance nor have any negative land use, aesthetic or visual impact on surrounding residential uses. See drawings and Photosimulations provided with this application package



465 First Street West, Suite 101
Sonoma, CA 95476

MEMO

Date: June 27, 2013

To: Omar Masry, San Francisco Planning Department

From: Jay Gruendle; Peter Hilliard

Re: Summary of Community Outreach Meeting
(Case No. 2013.0659 – Verizon Wireless)

Mr. Masry:

On Air LLC held a community outreach meeting on behalf of Verizon Wireless on Wednesday, June 26th to hear public comment and answer questions about the proposed wireless telecommunications facility at 310 Arballo Drive (Parkmerced).

Over 1,300 notices were mailed out to owners/occupants within a 500' radius, with approximately 90 of those notices being returned as "vacant".

The meeting was held at the SFSU Tower Conference Center (approximately 1/4 mile from the project site). Conference Center staff remained outside the building to direct community members to the meeting room location.

The meeting began at 6:04 PM with 12 people in attendance. We began with a detailed project description including a summary of the justification for the site and alternative locations considered. Copies of the zoning drawings, photo simulations, EMF study and project description were made available to everyone in attendance.

At around 6:15 PM, we opened the floor for comment and questions. The majority of the comments and questions were based on health concerns from RF emissions. Community members presented us with printed materials (attached) citing several international studies claiming evidence of harmful health effects from living near cell phone towers.



465 First Street West, Suite 101
Sonoma, CA 95476

MEMO

Two people in attendance requested electronic copies of the zoning drawings because they could not read the printed version. We sent the PDF version of the file to them via email. We also advised them to visit the planning department to review the full-sized set of the drawings on file.

One gentleman questioned the need for the site and wondered why AT&T can have good coverage in the area but not VZW. We discussed the third party review that was conducted by Hammett & Edison supporting our demonstrated need for the facility.

All community members in attendance were encouraged to attend the Planning Commission hearing on August 1st.

Please let me know if you have any questions regarding this community outreach meeting.

Sincerely,

Jay Gruendle
On Air LLC
(707) 477-2782
jgruendle@gmail.com

Enclosures:

1. Community Meeting Sign-In Sheet
2. Print materials provided by meeting attendees
3. Meeting Notice

COMMUNITY OUTREACH MEETING

Name	Address	Email	Phone
B POWELL	405 SERRANO ST	bipbpi@yahoo	
L Smolyak	310 ARBALLO DR #7A	Smolyak-liliya@yahoo.com	
J. Gorodetsky	310 Arballo Dr #7A		
M. Yavarskaya	310 Arballo #105		
V. Doss	350 Arballo SE		
✓ VAYL, ERNEST	310 ARBALLO DR. #8E	ernest.vayl@gmail.com	(415)333-7738
✓ Eloise McQuinn	355 Serrano Dr. #11A		415-584-5171
Edith Dan	750 Gonzales Dr	edith3848@yahoo.com	
C. H. TYLDSLEY	810 Gonzales	CANNES 253@msn.com	
X WANG	350 ARBALLO DR.	ICE129@GMAIL.COM	
David Pappant	405 SERRANO DR		415-585-5312
Lawrence Joms	2 Vidal Drive		415-585-3114

NOTICE OF NEIGHBORHOOD MEETING

To: All Neighbors and Owners within a 500-foot radius of 310 Arballo Drive (Tower 40), San Francisco CA 94132

Meeting Information

Date: Wednesday, June 26, 2013
Time: 6:00 PM
Where: SFSU Towers Conference Center
Presidio Room
800 Font Blvd.
San Francisco, CA 94132

Site Information

Address: 310 Arballo Drive (Tower 40)
Block/Lot: 7308-001
Zoning: PM-R

Applicant

Verizon Wireless

Contact Information

Peter Hilliard
On Air, LLC
(707) 933-9633

Verizon Wireless is proposing to install a new wireless telecommunications facility located on the rooftop penthouse of 310 Arballo Drive (Parkmerced-Tower 40). Verizon's proposal includes the installation of nine (9) panel antennas, flush-mounted to the exterior of the penthouse. Indoor equipment cabinets will be located in the basement level lease area. This project will be scheduled for a Planning Commission hearing subsequent to this neighborhood meeting.

You are invited and encouraged to attend our Community Outreach Meeting, to be held at the SFSU Towers Conference Center (Presidio Room) at 800 Font Blvd., San Francisco CA 94132 on Wednesday, June 26th at 6:00 PM to learn more about the project.

If you have any questions regarding the proposal and are unable to attend the meeting, please contact Peter Hilliard at (707) 933-9633. Please contact Omar Masry, City of San Francisco Planning Department, at (415) 575-9116 or omar.masry@sfgov.org, should you have questions regarding the City of San Francisco Planning permit process.

NOTE: If you require an interpreter to be present at the meeting, please contact our office at (707) 933-9633 at your earliest convenience and we will make every effort to provide you with an interpreter.

AVISO DE REUNIÓN DE VECINDARIO

A: Todos los vecinos y propietarios dentro de un radio de 500 pies del 310 Arballo Drive (Torre 40), San Francisco CA 94132

Información sobre la reunión

Fecha: Miércoles, 26 de junio de 2013
Hora: 6:00 PM
Dónde: SFSU Towers Conference Center
Presidio Room
800 Font Blvd.
San Francisco, CA 94132

Información sobre el sitio

Dirección: 310 Arballo Drive (Tower 40)
Manzana/Lote: 7308-001
Zonificación: PM-R

Solicitante

Verizon Wireless

Información de la persona de contacto

Peter Hilliard
On Air, LLC
(707) 933-9633

Verizon Wireless propone instalar una nueva instalación de telecomunicaciones inalámbricas ubicada en el *penthouse* del techo de 310 Arballo Drive (Parkmerced-Torre 40). La propuesta de Verizon incluye la instalación de nueve (9) antenas de panel, empotradas al ras con el exterior del *penthouse*. Los gabinetes de los equipos interiores estarán en el área de arrendamiento al nivel del sótano. Se ha programado para este proyecto una audiencia de la Comisión de Planificación que tendrá lugar posteriormente a esta reunión de vecindario.

Los invitamos y alentamos a que asistan a nuestra Reunión de Enlace Comunitario, que se va a celebrar en el SFSU Towers Conference Center (Presidio Room) en el 800 Font Blvd., San Francisco CA 94132 el miércoles 26 de junio a las 6:00 PM para enterarse más acerca del proyecto.

Si tiene alguna pregunta acerca de la propuesta y no puede asistir a la reunión, por favor comuníquese con Peter Hilliard llamando al (707) 933-9633. Póngase en contacto con Omar Masry, del Departamento de Planificación de la Ciudad de San Francisco, llamando al (415) 575-9116 o enviando un correo electrónico a omar.masry@sfgov.org, si tiene alguna pregunta acerca del proceso para la emisión de permisos que expide el Departamento de Planificación de la Ciudad de San Francisco.

NOTA: Si necesita que un intérprete esté presente en la reunión, por favor comuníquese con nuestra oficina cuanto antes llamando al (707) 933-9633 y haremos todo lo posible por proporcionarle un intérprete.

社區會議通知

致：加州 94132 三藩市 Arballo 街 310 號 (第 40 座) 周圍五百英尺內的居民和業主

會議詳情

日期：2013 年 6 月 26 日 (星期三)
時間：下午 6:00
地點：三藩市州立大學 Towers 會議中心
(SFSU Towers Conference Center)
Presidio Room
800 Font Blvd.
San Francisco, CA 94132

設施地點資料

地址：310 Arballo Drive (Tower 40)
街段/地段：7308-001
劃區：PM-R

申請公司

Verizon Wireless

聯絡人

Peter Hilliard
On Air, LLC
(707) 933-9633

Verizon Wireless 建議在 Arballo 街 310 號 (Parkmerced 第 40 座) 屋頂閣樓安裝新的無線電通訊設施。Verizon 的建議包括在閣樓外牆對齊安裝九 (9) 條天線，室內設備櫃將設置於地下層租賃區。此社區會議後，將就本計劃排期召開規劃委員會 (Planning Commission) 公聽會。

我們誠意邀請您出席將於 2013 年 6 月 26 日星期三下午 6:00 在三藩市州立大學 Towers 會議中心 (SFSU Towers Conference Center) (Presidio Room) (地址：800 Font Blvd., San Francisco CA 94132) 舉行的社區諮詢會議，進一步了解本計劃。

若對上述建議有任何疑問，但無法出席社區會議，請致電 (707) 933-9633 與 Peter Hilliard 聯絡；若對三藩市規劃許可程序有任何疑問，請致電 (415) 575-9116 或寄電郵致 omar.masry@sfgov.org 與三藩市規劃部 (City of San Francisco Planning Department) Omar Masry 聯絡。

註：如需翻譯人員在會上提供協助，請及早致電 (707) 933-9633 與本辦事處聯絡，我們會儘力為您安排翻譯服務。

verizonwireless

PARKMERCED



1022 SHARY CIRCLE, SUITE 9, CONCORD, CA 94518
PHONE: 925-686-3241 FAX: 925-686-3350

VERIZON WIRELESS TRANSPORT:		SIGNATURE _____ DATE _____	
VERIZON WIRELESS EQUIPMENT ENGINEER:		SIGNATURE _____ DATE _____	
VERIZON WIRELESS REAL ESTATE:		SIGNATURE _____ DATE _____	
VERIZON WIRELESS CONSTRUCTION:		SIGNATURE _____ DATE _____	
VERIZON WIRELESS RF ENGINEER:		SIGNATURE _____ DATE _____	
PROPERTY OWNER:		ON AIR, LLC - LEASING	
SIGNATURE _____ DATE _____		SIGNATURE _____ DATE _____	
ON AIR, LLC - CONSTRUCTION		ON AIR, LLC - ZONING	
SIGNATURE _____ DATE _____		SIGNATURE _____ DATE _____	

REVISIONS

NO.	DATE	DESCRIPTION
1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
5	8/21/12	100% ZD
6	6/12/13	100% ZD Rev A

Verizon Wireless Site: SFSU
310 Arballo Drive (Tower 40)
San Francisco, CA 94132 PS Site No. 249531

2013.0659C

<p>LOCATION MAP</p>	<p>VICINITY MAP</p>	<p>CODE COMPLIANCE</p>	<p>PROJECT DATA</p>
	<p>DRIVING DIRECTIONS</p> <p>FROM: 2785 MITCHELL DRIVE WALNUT CREEK, CA TO: 310 ARBALLO DRIVE SAN FRANCISCO, CA DISTANCE: 35.2 MILES</p> <ol style="list-style-type: none"> 0.3 mi/410 m Head toward N Wiget Ln on Mitchell Dr. 0.3 mi/503 m Turn left onto N Wiget Ln. 3.0 mi/4.9 km Turn right onto Ygnacio Valley Rd. 416 ft/127 m Continue on Hillside Ave. 9.2 mi/14.8 km Turn right and take ramp onto Grove Shafter Fwy (CA-24 W) toward Oakland. 4.3 mi/6.9 km Keep right onto Caldecott Tunn, Grove Shafter Fwy (CA-24 W). 1.5 mi/2.4 km Take the I-580/San Francisco/Hayward exit onto MacArthur Fwy (I-580 W) toward San Francisco/Sacramento. 8.5 mi/13.6 km Take the I-80 W/San Francisco exit to the left onto I-80 W (partial toll road). 1.9 mi/3.0 km Continue on James Lick Fwy (US-101 S). 3.5 mi/5.6 km Take the I-280 S/Daly City exit onto John F Foran Fwy, Southern Embarcadero (I-280 S) toward Daly City. 0.3 mi/453 m Take exit #50/CA-82 N/Mission Street/CA-1 N/San Jose Ave onto San Jose Ave. 0.4 mi/615 m Bear right onto Sagamore St. 1.3 mi/2.0 km Bear right onto Brotherhood Way. 0.3 mi/412 m Turn right onto Lake Merced Blvd. 0.1 mi/172 m Turn right onto Higuero Ave. 0.2 mi/297 m Turn left onto Arballo Dr. Your destination on Arballo Dr is on the left. The trip takes 35.0 mi/56.4 km and 45 mins. <p>B310 Arballo Dr, San Francisco, CA 94132-2134</p>	<p>ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE 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.</p> <ol style="list-style-type: none"> CALIFORNIA ADMINISTRATIVE CODE (INCLUDING TITLES 24 & 25) 2010 CALIFORNIA BUILDING CODE 2010 CALIFORNIA MECHANICAL CODE 2010 CALIFORNIA PLUMBING CODE 2010 CALIFORNIA ELECTRIC CODE 2010 COUNTY ORDINANCES SHELTER IS STATE OF CALIFORNIA INSPECTED/APPROVED. NOT SUBJECT TO LOCAL INSPECTION. <p>ACCESSIBILITY REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2010 CALIFORNIA BUILDING CODE, TITLE 24, PART 2, VOLUME 1, CHAPTER 11, SECTION 1103.1.1, EXCEPTION 1.</p> <p>CALL BEFORE YOU DIG Under ground Service Alert of Central/Northern California CALL: TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG</p>	<p>APPLICANT: VERIZON WIRELESS WALNUT CREEK EXECUTIVE PARK 2785 MITCHELL DRIVE SUITE 9 WALNUT CREEK, CA 94598</p> <p>OWNER: PARKMERCED INVESTORS PROPERTIES, LLC 3711 19TH AVE SAN FRANCISCO, CA 94132 CONTACT: SETH MALLEN (415) 584-4561</p> <p>CONSTRUCTION MANAGER: ON AIR, LLC 465 FIRST ST. WEST, SUITE 101 SONOMA, CA 95476 CONTACT: OLIVIER FONTANA (925) 250-5945</p> <p>SURVEYOR: FORESIGHT CONTACT: JIM SCHURICHT (925) 389-8180</p> <p>CIVIL ENGINEER: L.D. STROBEL CO. INC. 1022 SHARY CIR. SUITE 9 CONCORD, CA 94518 CONTACT: LARRY STROBEL (925) 686-3241</p> <p>PROJECT MANAGER: ON AIR, LLC 465 FIRST ST. WEST, SUITE 101 SONOMA, CA 95476 CONTACT: PETER HILLIARD (707) 933-9633</p> <p>ELECTRICAL ENGINEER: RANDALL LAMB 208 UTAH ST. STE. 201 SAN FRANCISCO, CA 94103 CONTACT: RUDY ZEPEDA (415) 512-9771</p> <p>STRUCTURAL ENGINEER: C.L. ALFARO ASSOCIATES 338 SUMMERWOOD DRIVE FREMONT, CA 94536 CONTACT: CONRAD ALFARO (510) 406-5138</p>
		<p>BUILDING/SITE DATA LEGEND</p>	<p>SHEET INDEX</p>
		<p>APN: 7308-001</p> <p>SITE No. PS SITE No. 249531</p> <p>ZONING: PM-R (PARKMERCED RESIDENTIAL)</p> <p>JURISDICTION: CITY OF SAN FRANCISCO</p> <p>LATITUDE: N37° 43' 15.01"</p> <p>LONGITUDE: W122° 29' 03.06" (NAD 83)</p>	<p>T-1 COVER SHEET: PROJECT TITLE, MAPS, AND INFORMATION</p> <p>T-2 SAN FRANCISCO FIRE DEPARTMENT 2.06 CHECKLIST</p> <p>T-3 RF REPORT</p> <p>T-4 ANTENNA CUT SHEETS</p> <p>T-5 SIGNAGE DETAILS</p> <p>C-1 SURVEY (BY OTHERS FOR REFERENCE)</p> <p>C-2 SURVEY (BY OTHERS FOR REFERENCE)</p> <p>G-1 SYMBOLS, MATERIALS AND ABBREVIATIONS</p> <p>A-1 OVERALL SITE PLAN</p> <p>A-1.1 SITE PLAN</p> <p>A-2 EQUIPMENT ROOM</p> <p>A-3 ELEVATION</p> <p>A-4 DETAILS / PHOTOS</p>
		<p>PROJECT DESCRIPTION</p>	
		<p>INSTALLATION OF A WIRELESS COMMUNICATIONS FACILITY, INCLUDING (17'-7"x26'-10") TI BASEMENT LEVEL LEASE AREA & ROOFTOP PENTHOUSE ANTENNA LOCATION (FLUSH MOUNTED). THE INSTALLATION OF PROPOSED INDOOR EQUIPMENT CABINETS W/ APPLETON PLUG. THE INSTALLATION OF (9) PANEL ANTENNAS (3) EACH PER SECTOR. NO PERMANENT GENERATOR IS PROPOSED.</p>	

SITE ADDRESS:
310 Arballo Drive
San Francisco,
CA 94132
San Francisco County

VERIZON WIRELESS
2785 MITCHELL DRIVE SUITE 9
WALNUT CREEK, CA 94598

PROPOSED EQUIPMENT INSTALLATION
PARKMERCED
PS SITE No. 249531 (SFSU)



DRAWN: MRB DATE: 3/29/13
FILE: 4782-T1

T-1

MADE IN U.S.A.

SHEET LOCATION
T-1
A-1,A-2 A-3
T-4
T-3
A-1.1
N/A
T-5
N/A
N/A
N/A
T-2 A-1.1 A-2 A-3

2.06 Submittal Requirements for Cellular Antenna Sites

REFERENCE: 2010 SFBC, 2010 SFFC, 2010 SFMC and FCC OET Bulletin 65 (97-01)

1. Provide a description of work on the plans.
2. Plans shall include plan views and elevations showing all equipment locations and cable runs.
3. Plans shall include antenna cut-sheets and equipment list on a drawing sheet.
4. Include a copy of the signed and stamped RF report on a drawing sheet as a reference to identify the exclusion area required to prevent occupational exposures in excess of the FCC guidelines (47CFR1.1310 and FCC OET Bulletin 65 edition 97-01).
5. The RF report shall indicate whether or not the site under review is a part of a multiple transmitter site and shall show compliance with FCC 47CFR1.1307(b)(3), as amended - all transmitters shall not exceed 5% of the power density exposure limit.
6. Drawings shall reflect the striped/exclusion areas for workers per the above RF Report with a minimum radius of 1 foot.
7. Plans shall include a quantitative three-dimensional image of the RF levels from each antenna located near an egress point (e.g. penthouse stair; fire escape, roof walking paths; skylights, etc.).
8. "Notice to Workers" warning signage, as applicable per the above RF Report, shall be permanently mounted at the stairwell side of the roof-access door (ANSI C95.2-1982 (Reference [3]) – yellow or more durable color for outdoor longevity)
9. Camouflaged antennas shall have 4inch x 4inch signage permanently mounted to the exterior of the RF screen as provided below. The sign shall be weatherproof with contrasting background color and shall contain the yellow triangle around the antenna symbol (ANSI C95.2-1982 (Reference [3]) – yellow or more durable color for outdoor longevity). Signage location(s) and detail of the sign shall be included on the plans.
10. Cables/wiring shall not be allowed in exit enclosures, smoke-proof towers, elevator shafts, or in front of dry standpipes. 2010 CFC 1022.4 and 509.2
11. Antennas shall not be mounted closer than the exclusion zone plus 4 feet for installations near fire escapes, stair penthouse doors, exterior standpipe outlets, skylights, or other fire department operations consideration.
12. There is no guarantee that the fire department will not shut down the power to the site in an emergency situation although in order to reduce the site operator's possible loss of service the following information may be provided at the equipment room entrance:
 - Provide emergency shutdown procedure signage. The sign shall include the following:
 1. Emergency 24 hour/7 day a week NOC / field technician telephone number for RF shut-down
 2. Cell site identification number
 3. Map to location of electrical main – electrical main shall be clearly identified with a permanent red label and white lettering.
 4. Map to location of battery cabinets and breakers – cabinets and breakers shall be clearly identified with a permanent red label and white lettering.
 5. Any other relevant information or procedures as required for the individual cellular site.
 - The sign shall be clearly labeled in a phenolic label with a white background and black lettering. The title block shall be a red background and 1" high white lettering. Multiple signs may need to be installed based upon the cellular site configuration.
 - A copy of the signage shall be included on a drawing sheet. See attached sample.

For further information see the FCC website: <http://www.fcc.gov/oet/rfsafety>

**EMERGENCY
SHUT DOWN**

FOR IMMEDIATE SHUT DOWN OF ALL RADIO FREQUENCY EMISSIONS OF THIS SITE,

- 1) CALL CONTACT NUMBER AND GIVE SITE IDENTIFICATION NO.
CONTACT PHONE NUMBER: **1-800-244-6620**
SITE IDENTIFICATION NUMBER: **15-1-CELL NUMBER ON FRP (TBD)**
- 2) DISCONNECT POWER AT MAIN SERVICE DISCONNECT:
Map and/or verbiage
- 3) DISCONNECT BACK-UP POWER AT BATTERY DISCONNECT:
Map and/or verbiage

Drawing notes:

1. Sign shall be a phenolic label with white background and black lettering. The title block shall be a red background and 1" high white lettering.
2. Contractor to place signs in following locations:
 - a) Cell site equipment room door
 - b) Battery location within proximity of battery disconnect
 - c) FCC room within proximity of the fire alarm panel
 - d) Building's main electrical room within proximity of the main shutoff and/or at the cell site main electrical disconnect

LEGEND:
NON- APPLICABLE: (N/A) (NOT PART OF SCOPE OF WORK)

**SAN FRANCISCO FIRE DEPARTMENT – 2.06 PERMIT APPLICATION
CHECKLIST FOR CELLULAR ANTENNA SITES**

L. D. STROBEL Co. INC.
DESIGN / CONSTRUCTION



1022 SHARY CIRCLE, SUITE 9, CONCORD, CA 94518
PHONE: 925-686-3241 FAX: 925-686-3350

REVISIONS		
NO.	DATE	DESCRIPTION
1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
5	8/21/12	100% ZD
6	6/12/13	100% ZD Rev A

SITE ADDRESS:
310 Arballo Drive
San Francisco,
CA 94132
San Francisco County

VERIZON WIRELESS
2785 MITCHELL DRIVE SUITE 9
WALNUT CREEK, CA 94598

PROPOSED EQUIPMENT INSTALLATION
PARKMERCED
PS SITE No. 249531 (SFSU)



DRAWN: MRB | DATE: 8/20/12
FILE: 4782-T2
SHEET NO.

T-2

MADE IN U.S.A.

**Verizon Wireless • Proposed Base Station (Site No. 249531 "SFSU")
310 Arballo Drive • San Francisco, California**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 249531 "SFSU") proposed to be located at 310 Arballo Drive in San Francisco, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted a 10-point checklist for determining compliance of proposed WTS facilities or proposed modifications to such facilities with prevailing safety standards. The acceptable limits set by the FCC for exposures of unlimited duration are:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5,000 80,000 MHz	5.00 mW/cm ²	1.00 mW/cm ²
BRS (Broadband Radio)	2,600	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30 300	1.00	0.20

The site was visited by Rajat Mathur, P.E., a qualified engineer employed by Hammett & Edison, Inc., during normal business hours on May 2, 2012, a non-holiday weekday, and reference has been made to information provided by Verizon, including zoning drawings by L.D. Strobel Co., Inc., dated March 7, 2012.

Checklist

- The location of all existing antennas and facilities at site. Existing RF levels.
Observed above the roof of the building were low power directional panel Wi-Fi antennas for use by the building owner. Existing RF levels for a person at ground near the site were less than 1.0% of the most restrictive public exposure limit. The measurement equipment used was a Wandel & Goltermann Type EMR-300 Radiation Meter with Type 8 Isotropic Electric Field Probe (Serial No. P-0036). The meter and probe were under current calibration by the manufacturer.
- The location of all approved (but not installed) antennas and facilities. Expected RF levels from approved antennas.
No other WTS facilities are reported to be approved for this site but not installed.

**Verizon Wireless • Proposed Base Station (Site No. 249531 "SFSU")
310 Arballo Drive • San Francisco, California**

3. The number and types of WTS within 100 feet of proposed site and estimates of additive EMR emissions at proposed site.

There were no other WTS facilities observed within 100 feet of the site.

4. Location (and number) of Applicant's antennas and back-up facilities per building and location (and number) of other WTS at site.

Verizon proposes to install nine Andrew directional panel antennas three Model DBXNH-6565A-R2M, three Model HBX-6516DS-VTM, and three Model LNX-6513DS-VTM on the sides of the stairwell penthouse above the roof of the tall apartment building located at 310 Arballo Drive. The antennas would be mounted with up to 6° downtilt at an effective height of about 144 feet above ground, 21½ feet above the roof, and would be oriented in identical groups of three toward 40°T, 180°T, and 260°T.

5. Power rating (maximum and expected operating power) for all existing and proposed backup equipment subject to application.

The expected operating power of the Verizon transmitters is reflected in the resulting effective radiated power given in Item 6 below; the transmitters may operate at a power below their maximum rating.

6. Total number of watts per installation and total number of watts for all installations at site.

The maximum effective radiated power proposed by Verizon in any direction is 2,960 watts, representing simultaneous operation at 960 watts for PCS, 1,600 watts for cellular, and 400 watts for 700 MHz service.

7. Plot or roof plan showing method of attachment of antennas, directionality of antennas, and height above roof level. Discuss nearby inhabited buildings.

The drawings show the proposed antennas to be installed as described in Item 4 above. There were noted no buildings of similar height within 100 feet of the site.

8. Estimated ambient RF levels for proposed site and identify three-dimensional perimeter where exposure standards are exceeded.

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.0012 mW/cm², which is 0.22% of the applicable public exposure limit. Ambient RF levels at the site are therefore estimated to be below 1.2% of the limit. The three-dimensional perimeter of RF levels equal to the public exposure limit is calculated to extend up to 35 feet out from the antenna faces and to much lesser distances above, below, and to the sides; this does not reach the roof of the building or any publicly accessible areas.

**Verizon Wireless • Proposed Base Station (Site No. 249531 "SFSU")
310 Arballo Drive • San Francisco, California**

9. Describe proposed signage at site.

Due to their mounting locations, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access within 11 feet directly in front of the antennas themselves, such as might occur during maintenance work above the roof, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Posting explanatory warning signs at the roof access door and at the antennas, such that the signs would be readily visible from any angle of approach to persons who might need to work within that distance, would be sufficient to meet FCC-adopted guidelines.

10. Statement of authorship.

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2013. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by Verizon Wireless at 310 Arballo Drive in San Francisco, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations. Posting explanatory signs is recommended to establish compliance with occupational exposure limitations.



William F. Hammett
William F. Hammett, P.E.
707/996-5200

May 11, 2012

* Warning signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (e.g., a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter; the San Francisco Department of Public Health recommends that all signs be written in English, Spanish, and Chinese.

REVISIONS

NO.	DATE	DESCRIPTION
1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
5	8/21/12	100% ZD
6	6/12/13	100% ZD Rev A

SITE ADDRESS:
310 Arballo Drive
San Francisco,
CA 94132
San Francisco County

VERIZON WIRELESS
2785 MITCHELL DRIVE SUITE 9
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PROPOSED EQUIPMENT INSTALLATION
PARKMERCE
PS SITE No. 249531 (SFSU)



DRAWN: MRB | DATE: 6/20/12
FILE: 4782-T3
SHEET NO.

T-3

RF REPORT
SCALE: NONE

MADE IN U.S.A.



1022 SHARY CIRCLE, SUITE 9, CONCORD, CA 94518
PHONE: 925-686-3241 FAX: 925-686-3350

Product Specifications



DBXNH-6565A-VM

DualPol® Dual Band Antenna, 698-896 MHz and 1710-2180 MHz, 65° horizontal beamwidth, RET compatible variable electrical tilt



- Ultra wideband capability for LTE 700 MHz and 850 MHz cellular technology
- Two DualPol® antennas under one radome
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Each antenna is independently capable of field adjustable electrical tilt
- Fully compatible with Andrew Teletilt® remote control system
- The RF connectors are IP67 rated and the radome is IP56 rated

CHARACTERISTICS

General Specifications

Antenna Type DualPol® dual band
 Brand DualPol® | Teletilt®
 Operating Frequency Band 1710 - 2180 MHz | 698 - 896 MHz

Electrical Specifications

Frequency Band, MHz	698-806	806-896	1710-1880	1850-1990	1920-2170
Beamwidth, Horizontal, degrees	68	65	65	60	60
Beamwidth, Horizontal Tolerance, degrees	±7	±9	±6.5	±6.5	±6.5
Gain, dBi	11.3	12.5	14.5	15.5	15.0
Gain, dBi	13.4	14.6	16.6	17.6	17.1
Beamwidth, Vertical, degrees	19.0	17.0	7.5	7.0	6.6
Beam Tilt, degrees	0-15	0-15	0-8	0-8	0-8
Upper Sidelobe Suppression (USLS), typical, dB	16	16	15	16	15
Front-to-Back Ratio at 180°, dB	25	27	30	32	30
Front-to-Back Total Power at 180° ± 23°, dB	18	21	28	29	27
Cross Polarization Ratio (CPR) at Boresight, dB	15	14	22	22	24
Cross Polarization Ratio (CPR) at Sector, dB	9	6	10	9	8
Isolation, dB	30	30	30	30	30
Isolation, Intersystem, dB	35	33	40	40	40
VSWR Return Loss, db	1.5:1 14.0	1.5:1 14.0	1.5:1 14.0	1.5:1 14.0	1.5:1 14.0
Intermodulation Products, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150
Input Power, maximum, watts	400	400	300	300	300
Polarization	±45°	±45°	±45°	±45°	±45°
Impedance, ohms	50	50	50	50	50
Lightning Protection	dc Ground				

www.commscope.com/andrew

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Mechanical Specifications

Color Light gray
 Connector Interface 7-16 DIN Female
 Connector Location Bottom
 Connector Quantity 4
 Radome Material Fiberglass, UV resistant
 Wind Loading, maximum 402.7 N @ 150 km/h
 90.5 lbf @ 150 km/h
 Wind Speed, maximum 241.0 km/h | 149.8 mph

Dimensions

Depth 181.0 mm | 7.1 in
 Length 1293.0 mm | 50.9 in
 Width 301.0 mm | 11.9 in
 Net Weight 15.5 kg | 34.2 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 1.1 Actuator DBXNH-6565A-R2M
 Model with Factory Installed AISG 2.0 Actuator DBXNH-6565A-A2M
 RET System Teletilt®

Product Specifications



HBX-6516DS-VM

DualPol® Teletilt® Antenna, 1710-2170 MHz, 65° horizontal beamwidth, RET compatible



- Superior azimuth tracking and pattern symmetry to minimize any sector overlap
- Field adjustable electrical tilt
- Rugged, reliable design with excellent passive intermodulation suppression
- Fully compatible with Andrew Teletilt® remote control system

Electrical Specifications

Frequency Band, MHz	1710-1880	1850-1990	1920-2170
Beamwidth, Horizontal, degrees	65	65	65
Gain, dBi	17.7	18.0	18.0
Beamwidth, Vertical, degrees	7.5	7.0	6.5
Beam Tilt, degrees	0-10	0-10	0-10
USLS, typical, dB	18	18	18
Front-to-Back Ratio at 180°, dB	30	30	30
Isolation, dB	30	30	30
VSWR Return Loss, db	1.4:1 15.6	1.4:1 15.6	1.4:1 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350
Polarization	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm
Lightning Protection	dc Ground	dc Ground	dc Ground

Mechanical Specifications

Color | Radome Material Light gray | PVC, UV resistant
 Connector Interface | Location | Quantity 7-16 DIN Female | Bottom | 2
 Wind Loading, maximum 256.8 N @ 150 km/h
 57.7 lbf @ 150 km/h
 Wind Speed, maximum 241.0 km/h | 149.8 mph

Dimensions

Depth 83.0 mm | 3.3 in
 Length 1306.00 mm | 51.42 in
 Width 156.00 mm | 6.54 in
 Net Weight 4.70 kg | 10.36 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 1.1 Actuator HBX-6516DS-R2M
 Model with Factory Installed AISG 2.0 Actuator HBX-6516DS-A1M

Regulatory Compliance/Certifications

Agency RoHS 2002/95/EC
 China RoHS SJ/T 11364-2006
 ISO 9001:2008
Classification Compliant by Exemption
 Above Maximum Concentration Value (MCV)
 Designed, manufactured and/or distributed under this quality management system

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Product Specifications



LNX-6513DS-VM

DualPol® Antenna, 698-896 MHz, 65° horizontal beamwidth, RET compatible variable electrical tilt



- Fully compatible with Andrew Teletilt® remote control system
- Extended tilt range offers better coverage
- Great solution to maximize network coverage and capacity
- Excellent gain, VSWR, front-to-back ratio, and PIM specifications for robust network performance
- Fully compatible with Andrew remote electrical tilt system for greater OpEx savings
- The RF connectors are IP67 rated and the radome is IP56 rated

Electrical Specifications

Frequency Band, MHz	698-806	806-896
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Horizontal Tolerance, degrees	±3	±3
Gain, dBi	14.6	15.1
Beamwidth, Vertical, degrees	16.0	14.5
Beam Tilt, degrees	0-10	0-10
USLS, typical, dB	20	20
Front-to-Back Ratio at 180°, dB	30	30
CPR at Boresight, dB	12	12
CPR at Sector, dB	10	10
Isolation, dB	30	30
VSWR Return Loss, db	1.4:1 15.6	1.4:1 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150
Input Power per Port, maximum, watts	400	400
Polarization	±45°	±45°
Impedance	50 ohm	50 ohm
Lightning Protection	dc Ground	dc Ground

Mechanical Specifications

Color | Radome Material Light gray | Fiberglass, UV resistant
 Connector Interface | Location | Quantity 7-16 DIN Female | Bottom | 2
 Wind Loading, maximum 437.9 N @ 150 km/h
 98.4 lbf @ 150 km/h
 Wind Speed, maximum 241.0 km/h | 149.8 mph

Dimensions

Depth 181.0 mm | 7.1 in
 Length 1390.00 mm | 54.72 in
 Width 301.00 mm | 11.85 in
 Net Weight 14.10 kg | 31.09 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 1.1 Actuator LNX-6513DS-R2M
 Model with Factory Installed AISG 2.0 Actuator LNX-6513DS-A1M

Regulatory Compliance/Certifications

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REVISIONS

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1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
5	8/21/12	100% ZD
6	6/12/13	100% ZD Rev A

SITE ADDRESS:
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 CA 94132
 San Francisco County

VERIZON WIRELESS
 2785 MITCHELL DRIVE SUITE 9
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PROPOSED EQUIPMENT INSTALLATION

PARKMERCE
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FILE: 4782-T4

SHEET NO.

T-4

ANTENNA CUT SHEETS

MADE IN U.S.A.

SIGNAGE AND STRIPING INFORMATION

THE FOLLOWING INFORMATION IS A GUIDE LINE WITH RESPECT TO PREVAILING STANDARDS LIMITING HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY AND SHOULD BE USED AS SUCH. IF THE SITE'S EMF REPORT OR ANY LOCAL, STATE OR FEDERAL GUIDELINES OR REGULATION SHOULD BE IN CONFLICT WITH ANY PART OF THESE NOTES OR PLANS THE MORE RESTRICTIVE GUIDE LINE OR REGULATION SHALL BE FOLLOWED AND OVER RIDE THE LESSER.

THE PUBLIC LIMIT OF RF EXPOSURE ALLOWED BY VERIZON WIRELESS IS 1mWcm² AND THE OCCUPATIONAL LIMIT OF RF EXPOSURE ALLOWED BY VERIZON WIRELESS IS 5mWcm²

IF THE BOTTOM OF THE ANTENNA IS MOUNTED (8) EIGHT FEET ABOVE THE GROUND OR ROOF LINE OF THE PERSONAL COMMUNICATION SYSTEM (PCS) AND DOSE NOT EXCEED THE PUBLIC LIMIT OF RF EXPOSURE LIMIT THEN NO STRIPING OR BARRICADES SHOULD BE NEEDED.

IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND THE AREA IS PUBLICLY ACCESSIBLE (e.g. ROOF ACCESS DOOR THAT CANNOT BE LOCKED OR HAVING A FIRE EGRESS) THEN BOTH BARRICADES AND STRIPING WILL BE NEEDED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES AND STRIPING WILL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER THE CONSTRUCTION OF THE SITE. USE THE PLANS AS A GUIDE LINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING.

IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS NOT EXCEEDED AND THE AREA IS NOT PUBLICLY ACCESSIBLE (e.g. ROOF ACCESS DOOR IS LOCKED), THEN JUST STRIPING OUT TO THE PUBLIC LIMIT WILL BE NEEDED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE STRIPING WILL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER THE CONSTRUCTION OF THE SITE. USE THE PLANS AS A GUIDE LINE FOR PLACEMENT OF SUCH STRIPING.

ALL TRANSMIT ANTENNAS REQUIRE A THREE LANGUAGE WARNING SIGN WRITTEN IN ENGLISH, SPANISH AND CHINESE. THIS SIGN WILL BE PROVIDED TO THE CONTRACTOR BY THE VERIZON WIRELESS CONSTRUCTION MANAGER AT THE TIME OF CONSTRUCTION. THE LARGER SIGN SHALL BE PLACED AT ALL ROOF ACCESS LOCATIONS AND ON ALL BARRICADES IN PLANE SITE AND THE SMALLER SIGN SHALL BE PLACED ON THE ANTENNAS THEMSELVES OR ON THE OUT SIDE OF THE ANTENNA ENCLOSURES IN A MANNER THAT IS EASILY SEEN BY ANY PERSON ON THE ROOF. WARNING SIGNS SHALL COMPLY WITH ANSI C95.2 COLOR, SYMBOL, AND CONTENT CONVENTIONS. ALL SIGN WILL HAVE VERIZON WIRELESS'S NAME AND THE COMPANY CONTACT INFORMATION (e.g., TELEPHONE NUMBER) TO ARRANGE FOR ACCESS TO THE RESTRICTED AREAS. THIS TELEPHONE NUMBER WILL BE PROVIDED TO THE CONTRACTOR BY THE VERIZON WIRELESS CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION.

PHOTOS OF ALL STRIPING, BARRICADES AND SIGNAGE WILL BE PART OF THE CONTRACTORS CLOSE OUT PACKAGE AND WILL BE TURNED INTO THE VERIZON WIRELESS CONSTRUCTION PROJECT MANAGER AT THE END OF CONSTRUCTION. STRIPING SHALL BE DONE WITH FADE RESTRAINT YELLOW SAFETY PAINT IN A CROSS HATCH PATTERN AS SHOW BY THE DETAIL. ALL BARRICADES SHALL BE MADE OF AN RF FRIENDLY MATERIAL SO THAT NOT TO BLOCK OR INTERFERE WITH THE OPERATION OF THE SITE SHALL BE PAINTED WITH FADE RESTRAINT YELLOW SAFETY PAINT. THE CONTRACTOR SHALL PROVIDE ALL RF FRIENDLY BARRICADES NEED AND SHALL PROVIDE THE VERIZON WIRELESS CONSTRUCTION PROJECT MANAGER WITH A THE DETAILED SHOP DRAWING OF EACH BARRICADE.



WARNING
HIGH RADIO FREQUENCY
EXPOSURE AREA

KEEP BACK * FEET FROM
THIS ANTENNA. IF ACCESS IS
REQUIRED WITHIN THIS
DISTANCE, PLEASE CONTACT
ANTENNA OWNER BEFORE
APPROACHING.

ADVERTENCIA
AREA DE EXPOSICION DE ALTAS
FRECUENCIAS DE RADIO

MANTENERSE A * PIES DE
DISTANCIA DE ESTA ANTENA. SI
ES NECESARIO ACERCARSE
MAS, COMUNIQUESE CON EL
PROPIETARIO DE LA ANTENA
ANTES DE HACERLO.

警告
高廣無線電能量地區

請保持在此天線 * 呎以外，
如需要進入此範圍內，請在進入之
前，先聯絡天線的持有人

PHONE NUMBER/ NÚMERO DE
TELÉFONO/ 電話號碼

VERIZON WIRELESS

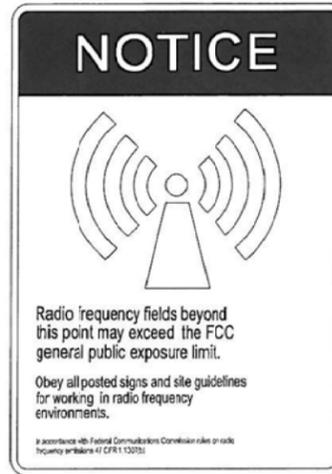
OWNER/ PROPIETARIO/ 持有人

15-1-CELL NUMBER ON FRP (TBD)

SITE NUMBER/ NÚMERO DEL SITIO/
此站編號

Hammet & Edison, Inc.

* REFER TO RF REPORT FOR
DISTANCE



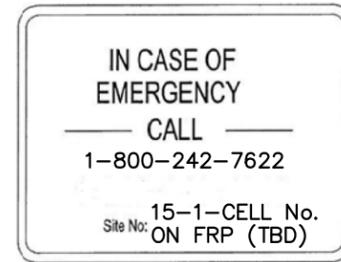
TYPICAL NOTICE SIGN SCALE: N.T.S. 4



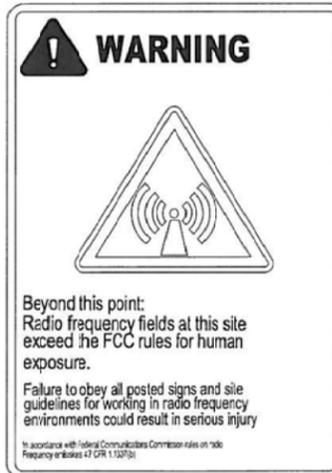
TYPICAL CAUTION SIGN SCALE: N.T.S. 1



TYPICAL CAUTION SIGN SCALE: N.T.S. 5



EMERGENCY CONTACT SIGN SCALE: N.T.S. 2



TYPICAL WARNING SIGN SCALE: N.T.S. 7



RF GUIDELINES SIGN SCALE: N.T.S. 3

GENERAL NOTES SCALE: N.T.S. 8

MULTI-LANGUAGE SIGN SCALE: N.T.S. 7

TYPICAL WARNING SIGN SCALE: N.T.S. 7

RF GUIDELINES SIGN SCALE: N.T.S. 3

RF EXPOSURE NOTES / SIGNAGE DETAILS
SCALE: NONE

NOTE: SEE SHEETS A-1 & A-2 FOR WARNING SIGNAGE LOCATIONS AND SHEET A-4 FOR PHOTOS SHOWING SIGNAGE. ALL REQUIRED SIGNAGE MUST BE INSTALLED AND FIELD VERIFIED.

L. D. STROBEL Co. INC.
DESIGN / CONSTRUCTION

1022 SHARY CIRCLE, SUITE 9, CONCORD, CA 94518
PHONE: 925-686-3241 FAX: 925-686-3350

REVISIONS

NO.	DATE	DESCRIPTION
1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
5	8/21/12	100% ZD
6	6/12/13	100% ZD Rev A

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OVERALL SITE MAP

SCALE: 1"=60'

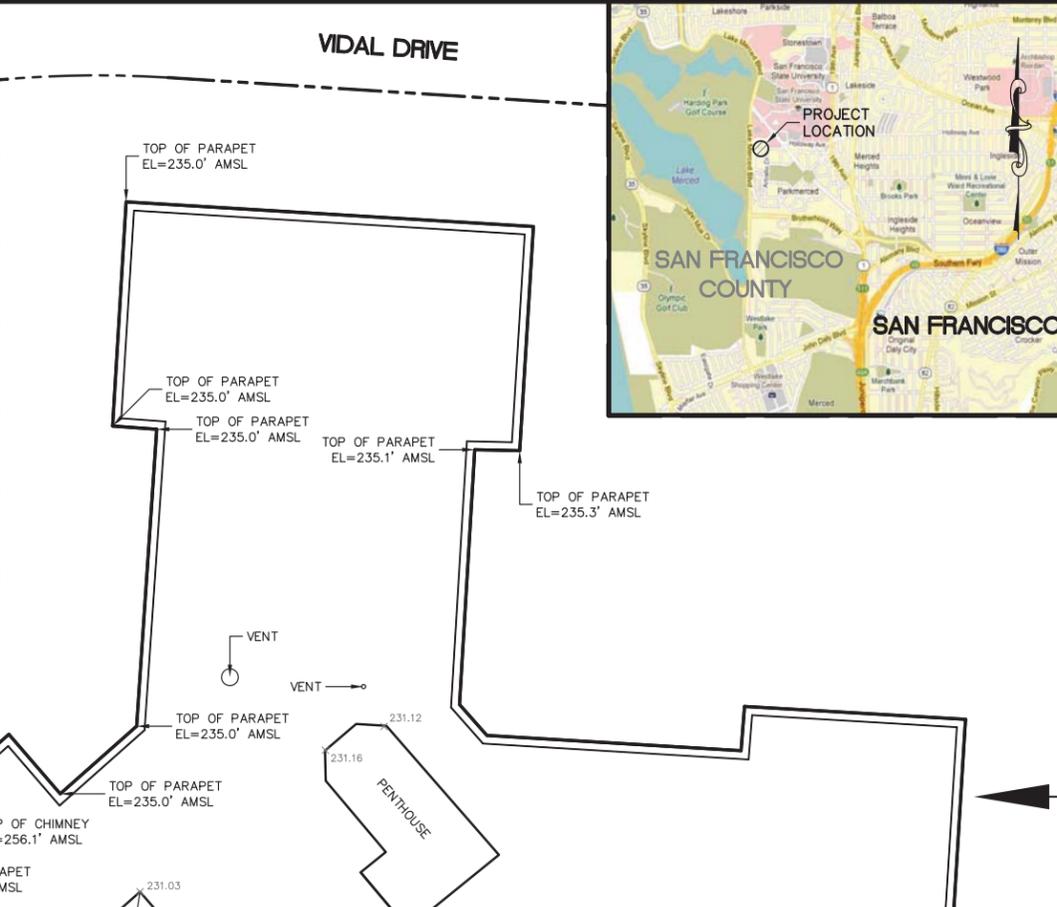
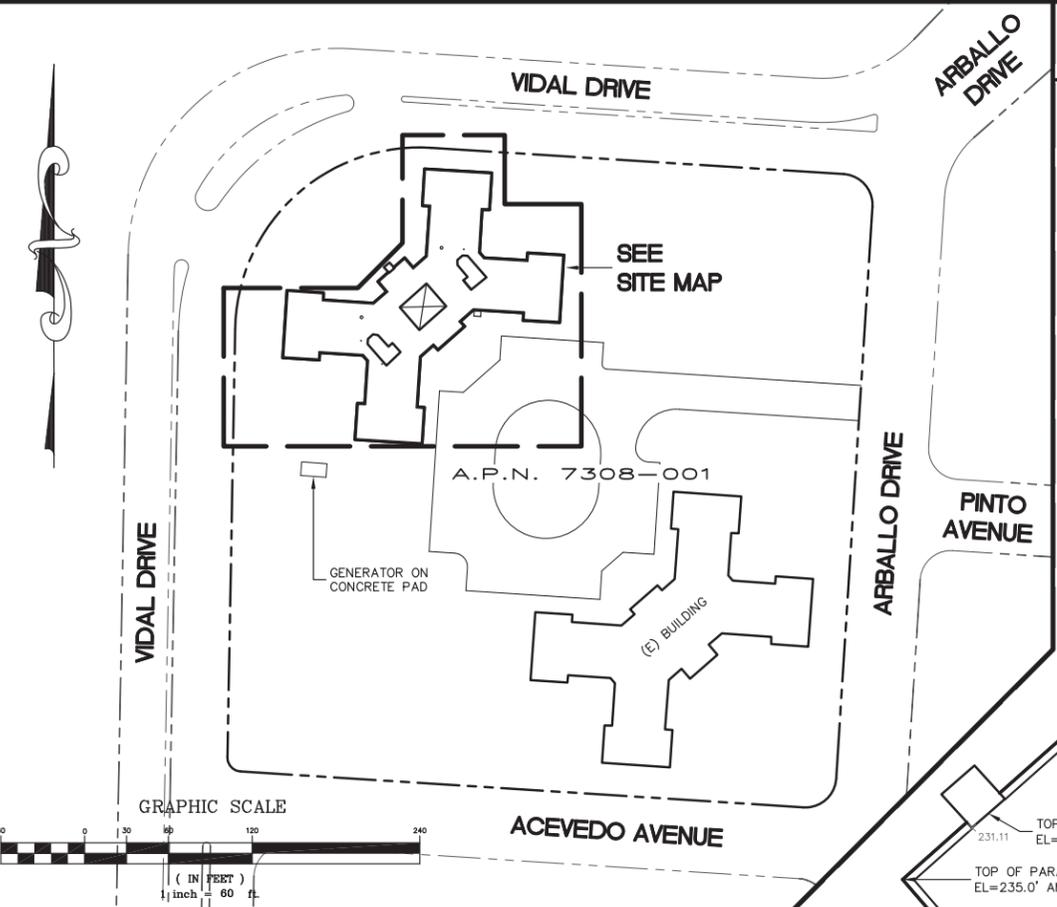
SITE MAP

SCALE: 1"=10'

VICINITY MAP

NOT TO SCALE

GENERAL NOTES



PROPERTY INFORMATION
 OWNER: PARKMERCED INVESTORS PROPERTIES, LLC
 ADDRESS: 1345 AVE. OF THE AMERICAS, #4
 NEW YORK, NY 10105
 SITE: SFSU
 310 ARBALLO DRIVE
 SAN FRANCISCO, CA 94132
 ASSESSOR'S PARCEL NUMBER: LOT 001, BLOCK 7308
 EXISTING GROUND ELEVATION: ELEV=110.2'±AMSL

LESSOR'S LEGAL DESCRIPTION
 THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE OF SAN FRANCISCO, COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:
 PARCEL ONE:
 ALL OF BLOCK 7308, AS SHOWN ON THE MAP ENTITLED "RECORD OF SURVEY MAP OF PARKMERCED, SAN FRANCISCO, CALIF.", FILED AUGUST 21, 1951, IN BOOK "R" OF MAPS, PAGES 15 THROUGH 19, INCLUSIVE, IN THE OFFICE OF THE RECORDER OF THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA.
 TOGETHER WITH ALL THE RIGHT, TITLE AND INTEREST, IF ANY, IN THE STREETS WITHIN SAID AREA DESCRIBED HEREWITH.
 PARCEL TWO:
 A RIGHT OF WAY EASEMENT FOR WATER, TELEPHONE, GAS AND ELECTRIC SYSTEMS, AS RESERVED IN THE CONVEYANCE FOR STREET PURPOSES IN THE DEED FROM METROPOLITAN LIFE INSURANCE COMPANY, A NEW YORK CORPORATION, TO CITY AND COUNTY OF SAN FRANCISCO, A MUNICIPAL CORPORATION, DATED MAY 17, 1945, RECORDED JULY 13, 1945, IN BOOK 4252 OF OFFICIAL RECORDS, PAGE 85, IN THE OFFICE OF THE RECORDER OF THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA, AND AS MODIFIED AND RESERVED IN THE EXCHANGE DEED, BY AND BETWEEN SAID PARTIES DATED OCTOBER 07, 1949, RECORDED NOVEMBER 04, 1949, IN BOOK 5298 OF OFFICIAL RECORDS, PAGE 129, IN SAID RECORDER'S OFFICE.
 EXCEPTING FROM SAID EASEMENT ANY PORTIONS THEREOF LYING WITHIN THE BOUNDS OF THE FOLLOWING:
 (A) THAT CERTAIN 10.095 ACRE PARCEL DESCRIBED IN THE INTERLOCUTORY DECREE IN CONDEMNATION, DATED APRIL 10, 1950, ENTERED IN THE ACTION IN SUPERIOR COURT ENTITLED "THE STATE OF CALIFORNIA VS. METROPOLITAN LIFE INSURANCE COMPANY, A NEW YORK CORPORATION, ET AL", A CERTIFIED COPY OF WHICH DECREE WAS RECORDED APRIL 10, 1950, IN BOOK 5418 OF OFFICIAL RECORDS, PAGE 320, IN SAID RECORDER'S OFFICE, SAN FRANCISCO SUPERIOR COURT CASE NO. 381649.
 (B) THAT CERTAIN PARCEL (PORTION OF FELIX STREET, VACATED) DESCRIBED IN THE DEED FROM CITY AND COUNTY OF SAN FRANCISCO, A MUNICIPAL CORPORATION, TO METROPOLITAN LIFE INSURANCE COMPANY, A NEW YORK CORPORATION, DATED JULY 31, 1950, RECORDED AUGUST 14, 1950, IN BOOK 5514 OF OFFICIAL RECORDS, PAGE 249, IN SAID RECORDER'S OFFICE.
 (C) THAT CERTAIN PARCEL (PORTION OF GONZALEZ DRIVE, VACATED) DESCRIBED IN THE DEED FROM CITY AND COUNTY OF SAN FRANCISCO, A MUNICIPAL CORPORATION, TO METROPOLITAN LIFE INSURANCE COMPANY, A NEW YORK CORPORATION, DATED SEPTEMBER 19, 1963, RECORDED OCTOBER 02, 1963, IN BOOK A656 OF OFFICIAL RECORDS, PAGE 425, IN SAID RECORDERS OFFICE.

TITLE REPORT
 TITLE REPORT WAS AVAILABLE AT THE TIME OF FIELD SURVEY. TITLE REPORT PROVIDED BY FIDELITY NATIONAL TITLE COMPANY TITLE REPORT FILE NUMBER 11-462235-A, DATED AUGUST 16, 2011.

BASIS OF BEARING
 BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM STATE PLANE COORDINATE ZONE 3, DETERMINED BY GPS OBSERVATIONS.

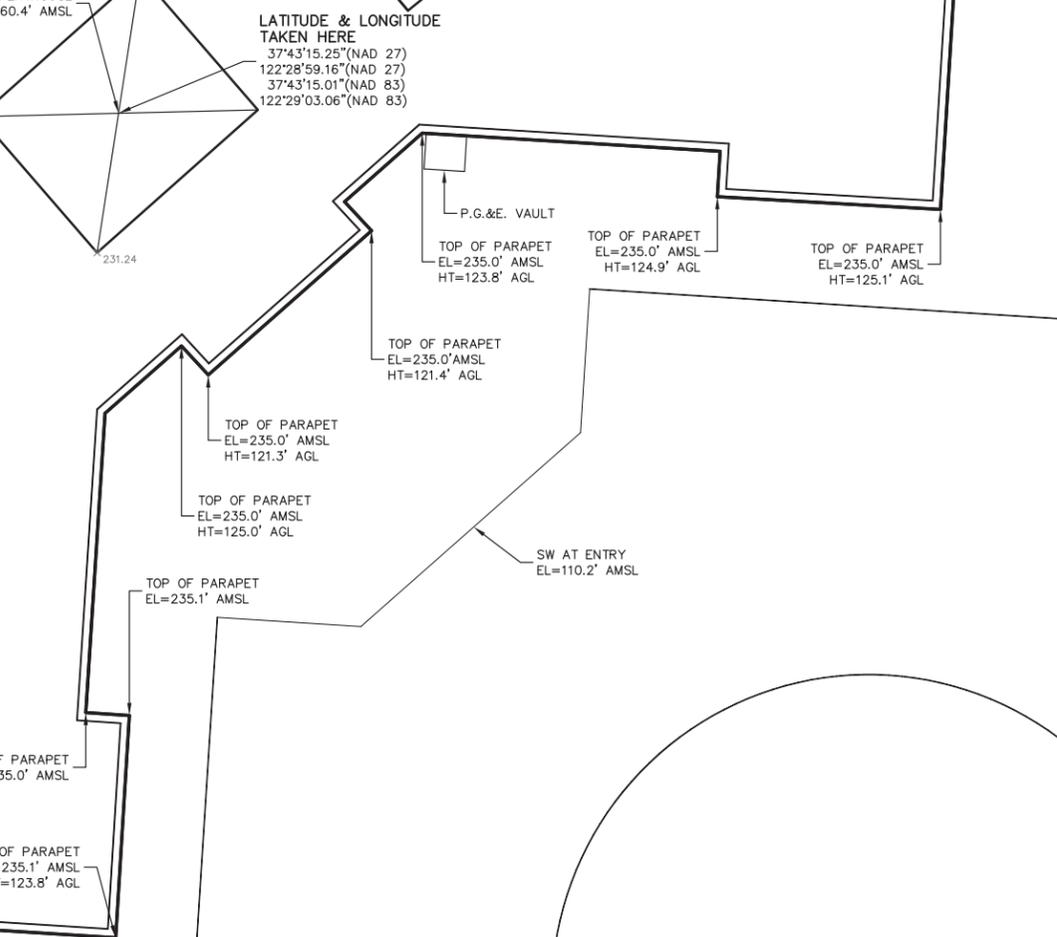
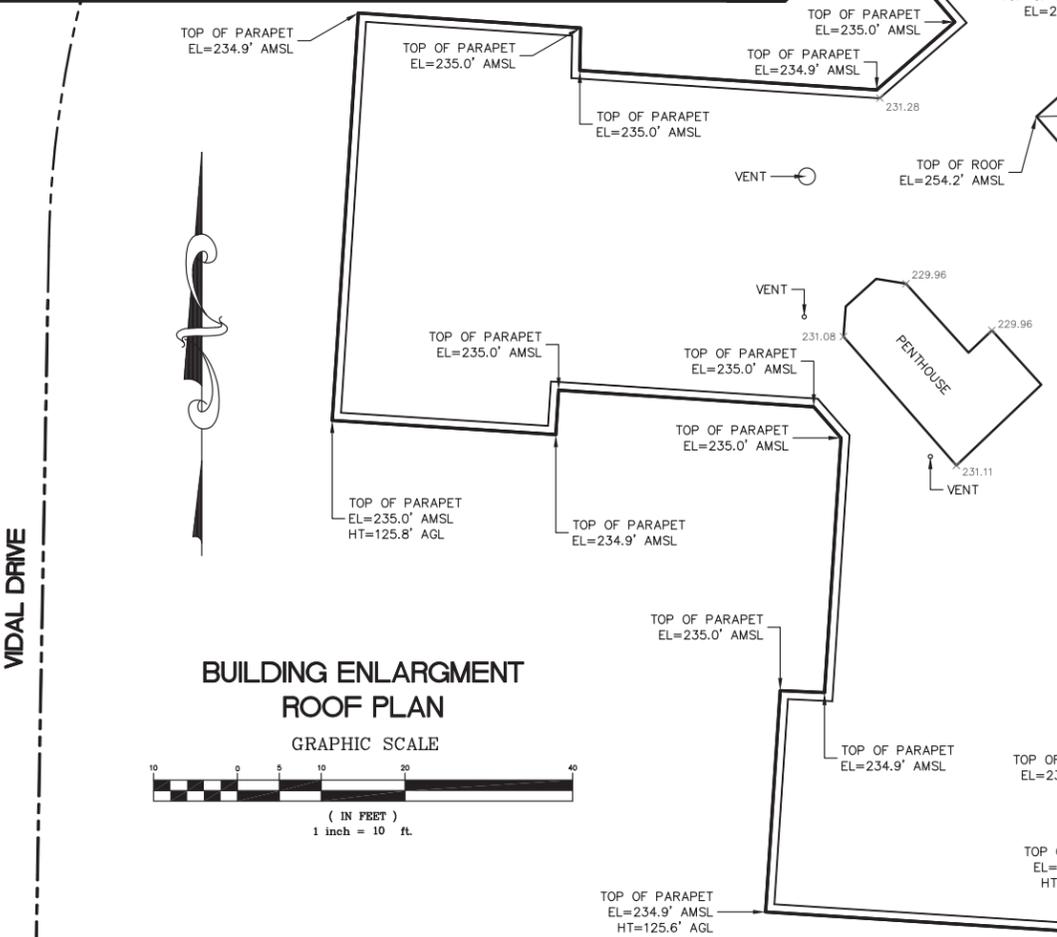
BENCHMARK
 ELEVATIONS BASED UPON GPS DERIVED ORTHOMETRIC HEIGHTS, APPLYING GEOID 99 SEPARATIONS (NAVD88).

SURVEY DATE
 02/15/12

SURVEYOR'S NOTES
 ALL EASEMENTS CONTAINED WITHIN SAID TITLE REPORT AFFECTING THE IMMEDIATE AREA SURROUNDING THE LEASE HAVE BEEN PLOTTED. SURVEYOR HAS NOT PERFORMED A SEARCH OF PUBLIC RECORDS TO DETERMINE ANY DEFECT IN TITLE ISSUED. THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.

UTILITY NOTES
 SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS ARE ACCURATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT U.S.A. AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

LEGEND
 - - - - - PROPERTY LINE
 AGL ABOVE GROUND LEVEL
 AMSL ABOVE MEAN SEA LEVEL



REVISIONS

NO.	DATE	DESCRIPTION
1	05/25/12	ISSUED FOR REVIEW

Foresight
 Land Surveying & Civil Engineering
 Jim Schuricht
 ph 925-389-8180
 email: foresight@comcast.net

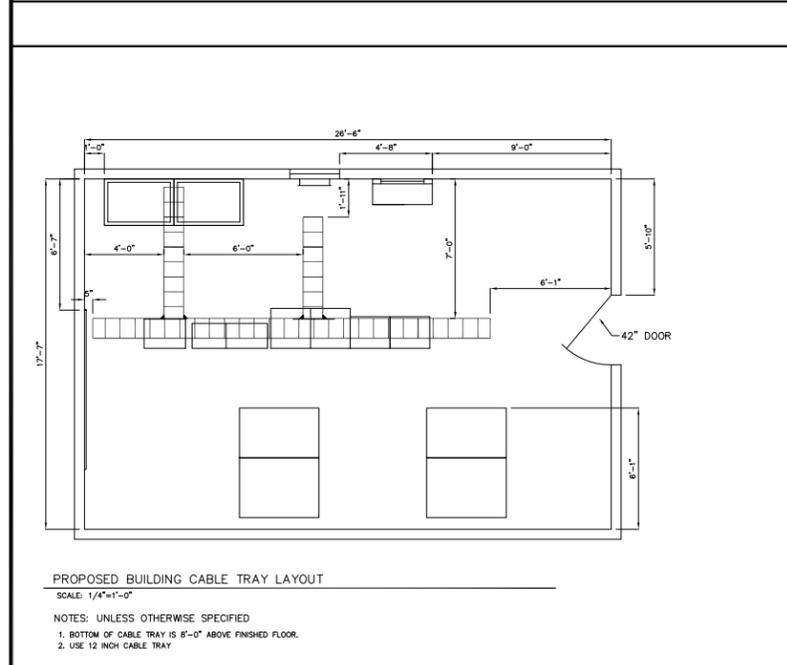
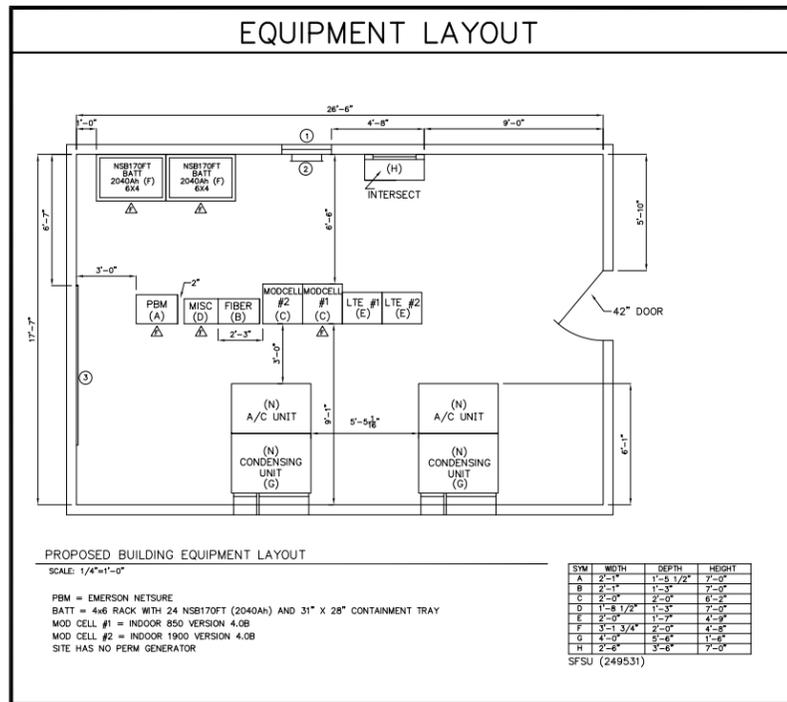
NO.	DATE	DESCRIPTION
1	05/25/12	ISSUED FOR REVIEW

PSL# 249531
 SFSU
 310 ARBALLO DRIVE
 SAN FRANCISCO, CA 94132

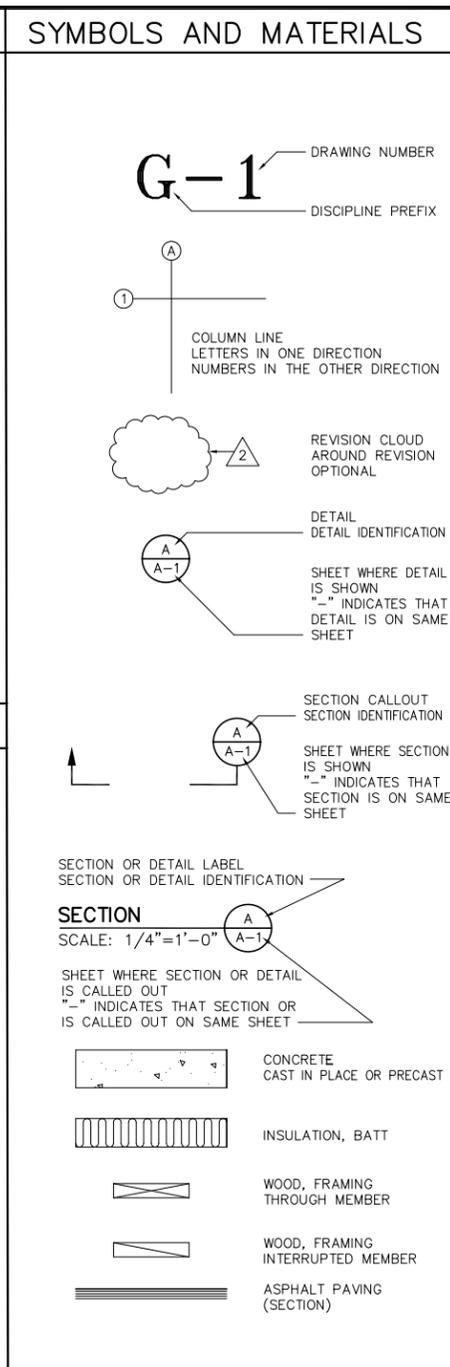
DRAWN: DATE: 05/25/12
 JOB NO. 1201
 SHEET NO. C-1

C:\Users\Public\PROJECTS\SFSU\dwg\SFSU_2012-05-25.dwg 5/25/2012 12:34:40 PM PDT

BOUNDARY SHOWN IS BASED ON RECORD INFORMATION AND FOUND MONUMENTATION. THIS IS NOT A BOUNDARY SURVEY. PROPERTY LINES SHOWN ARE APPROXIMATE.



- #### LEGEND:
- WAVE GUIDE ENTRY PORT
 - MASTER GROUND BAR
 - TELCO ENTRANCE PANEL (4' X 8' X 3/4")
 - a)GNB 3-75A27 BATTERY MODULES (6V - 1015 AH)
 - b)GNB 3-90A27 BATTERY MODULES (6V - 1140 AH)
 - c)GNB 3-85A29 BATTERY MODULES (6V-1210 AH), MUST BE STACKED
 - d)POWERSAFE VH-34 BATTERY MODULES (2V - 1040 AH)
 - e)C&D HD1100 BATTERY MODULES (6V - 1100 AH)
 - AIR CONDITIONING UNIT
 - SECONDARY AC POWER DISTRIBUTION PANEL
 - TRANSFER SWITCH (MANUAL OR AUTOMATIC)
 - MAIN AC POWER DISTRIBUTION PANEL
 - COMMERCIAL POWER DISCONNECT SWITCH
 - FENWAL FIRE ALARM PANEL
 - ALARM TERMINAL CABINET
 - IRRIGATION CONTROLLER
 - HALON GAS STORAGE TANK/FM200 TANK
 - +24V POWER BUSBAR
 - 48V POWER BUSBAR
 - LIGHTNING ARRESTOR
 - ELECTROSTATIC DISCHARGE MAT (ESD MAT)
 - SNAP CONNECTOR FOR ESD MAT
 - TIME CLOCK PANEL
 - AIR CONDITIONING CONTROL PANEL
 - THERMOSTAT
 - EXHAUST FAN CONTROL PANEL
 - SURGE ARRESTOR
 - DEHYDRATOR
 - TRANSFORMER
 - FIRE EXTINGUISHER
 - EXHAUST FAN
 - AIR INTAKE
 - APPLETON PLUG



- #### NOTES:
- EFP = EQUIPMENT FLOOR PLAN
PPD = POWER PLANT DETAILS
EOR = EQUIPMENT RACK PROFILES
SID = SITE INTERCONNECT DETAILS
— = FUTURE
— = EQUIPPED
- PBM +24V MODULAR POWER BAY (LORAIN OR AT&I)
PB +24V STANDARD POWER DISTRIBUTION BAYS, (E/W LORAIN RL200F25 RECTIFIERS)
- PBR LORAIN RL200F25 RECTIFIER BAY
MISC MISCELLANEOUS BAY
AIF AT&I ANTENNA INTERFACE FRAME
RCF AT&I RADIO CHANNEL FRAME
LAF AT&I LINEAR AMPLIFIER FRAME
MW MICROWAVE BAY
CDPD CELLULAR DIGITAL PACKET DATA DENOTES FRONT OF BAY LINEUP

ABBREVIATIONS

<p>& AND @ CENTERLINE C PLATE</p> <p>AB ANCHOR BOLT AC AIR CONDITIONING ACOUS ACoustical ADJ ADJUSTABLE AFF ABOVE FINISHED FLOOR AGL ABOVE GRADE LEVEL ALT ALTERNATE ALUM ALUMINUM ANOD ANODIZED ATS ATOMATIC TRANSFER SWITCH</p> <p>BD BOARD BGL BELOW GRADE LEVEL BLDG BUILDING BLK BLOCK BLKG BLOCKING BM BEAM</p> <p>CAB CABINET CAT CATALOG CLG CEILING CLKG CAULKING CLO CLOSET CLR CLEAR CMU CONCRETE MASONRY UNIT</p> <p>CNTR COUNTER CO CONDUIT ONLY (INCLUDE PULL ROPE)</p> <p>COL COLUMN COMM COMMUNICATIONS CONC CONCRETE CONN CONNECTION CONT CONTINUOUS CENTER</p> <p>DET DETAIL DIA DIAMETER DIM DIMENSION DR DOOR DWR DRAWER</p> <p>E EAST (E) EXISTING EA EACH EGB EXTERNAL GROUND BAR ELEC ELECTRICAL ELEV ELEVATOR/ELEVATION EQ EQUAL EQUIP EQUIPMENT ES EACH SIDE E.W. EACH WAY EXT EXTERIOR</p> <p>FDN FOUNDATION FF FINISH FACE FIN FINISH FIXT FIXTURE FLR FLOOR FOF FACE OF FINISH FRP FIBERGLASS FT FOOT OR FEET F.T. FUEL TANK</p> <p>GA GAUGE GALV GALVANIZED GC GENERAL CONTRACTOR GL GLASS GR GRADE GYP GYPSUM GEN GENERATOR</p> <p>HC HOLLOW CORE HD GALV HOT DIPPED ZINC PLATED HDWD HARDWOOD HDWE HARDWARE HM HOLLOW METAL HORIZ HORIZONTAL HT HEIGHT HVAC HEATING, VENTILATING & AIR CONDITIONING</p> <p>INC INCANDESCENT INT INTERIOR</p> <p>J BOX JUNCTION BOX JT JOINT</p> <p>LAM LAMINATE LT LIGHT</p> <p>MAT MATERIAL MAX MAXIMUM MECH MECHANICAL MET METAL MFR MANUFACTURER</p>	<p>MGB MASTER GROUND BAR MIN MINIMUM MISC MISCELLANEOUS MO MASONRY OPENING MTD MOUNTED MUL MULLION</p> <p>(N) NEW N NORTH (NA) NOT APPLICABLE NIC NOT IN CONTRACT NOM NOMINAL NTS NOT TO SCALE</p> <p>OC ON CENTER OD OUTSIDE DIAMETER OF-CI OWNER FURNISHED-CONTRACTOR INSTALLED</p> <p>OFNIC OWNER FURNISHED-NOT IN CONTRACT</p> <p>OPNG OPENING OPP OPPOSITE</p> <p>(P) PROPOSED P PAINT PART PARTITION PBX TELEPHONE SWITCH BOARD PD PRODUCT OF COMBUSTION DETECTOR</p> <p>PL PLATE PL LAM PLASTIC LAMINATE PLYWD PLYWOOD PR PAIR PRE-FAB PREFABRICATED PSI POUNDS PER SQUARE INCH</p> <p>PT POINT PTD PAINTED</p> <p>QTY QUANTITY</p> <p>(R) RELOCATED RAD RADIUS REFR REFRIGERATOR REQ REQUIRED RESIL RESILIENT RM ROOM RO ROUGH OPENING RUB RUBBER</p> <p>S SOUTH SC SOLID CORE SED SEE ELECTRICAL DRAWING SHT SHEET SIM SIMILAR SPEC SPECIFICATION SQ SQUARE SSD SEE STRUCTURAL DRAWING SST STAINLESS STEEL STD STANDARD STL STEEL STOR STORAGE STRL STRUCTURAL SUSP SUSPENDED</p> <p>T&B TOP AND BOTTOM TEL TELEPHONE THK THRESHOLD THK THICK, THICKNESS TOC TOP OF CONCRETE TUBE STEEL TS TUBE STEEL TSB TOP SET BASE TW TOP OF WALL TYP TYPICAL</p> <p>UNF UNFINISHED UNON UNLESS OTHERWISE NOTED</p> <p>VB VAPOR BARRIER VENT VENTILATION VERT VERTICAL VIF VERIFY IN FIELD</p> <p>W WEST W/ WITH WD WOOD W/O WITHOUT WT WEIGHT</p>
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STANDARD NOTES AND SPECIFICATIONS

DIVISION 1 - GENERAL REQUIREMENTS

A. GENERAL CONDITIONS: THE REQUIREMENTS OF THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION (AIA DOCUMENT A201-1987) APPLY TO THE EXECUTION OF THIS PROJECT IN ITS ENTIRETY.

B. OFCI REFERS TO ITEMS THAT ARE OWNER FURNISHED AND CONTRACTOR INSTALLED.

C. NIC REFERS TO ITEMS THAT ARE NOT IN CONTRACT.

D. DRAWINGS ARE NOT TO BE SCALED. WRITTEN DIMENSIONS TAKE PRECEDENCE. THIS SET OF PLANS ARE INTENDED TO BE USED FOR DIAGRAMMATIC PURPOSES ONLY, UNLESS NOTED OTHERWISE. THE CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ANYTHING ELSE DEEMED NECESSARY TO COMPLETE INSTALLATIONS AS DESCRIBED HEREIN.

E. 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. MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

F. THE ENGINEER HAS MADE EVERY EFFORT TO DETAIL THE COMPLETE SCOPE OF WORK IN THE CONSTRUCTION AND CONTRACT DOCUMENTS. CONTRACTORS ARE NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THE DOCUMENTS. THE CONTRACTOR SHALL BEAR THE RESPONSIBILITY OF NOTIFYING THE ENGINEER IN WRITING OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE CONTRACTOR'S PROPOSAL. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE EXPENSIVE OR EXTENSIVE WORK UNLESS DIRECTED OTHERWISE.

G. ALL DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION IS THE RESPONSIBILITY OF THE CONTRACTOR.

H. DETAILS INCLUDED HEREIN ARE INTENDED TO SHOW THE END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS OR SITUATIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE SCOPE OF WORK.

I. THE CONTRACTOR INVOLVED SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT, WITH THE CONSTRUCTION AND CONTRACT DOCUMENTS, AND CONFIRM THAT THE PROJECT MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY ERRORS, OMISSIONS OR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER.

J. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. SUBMIT ANY DISCREPANCY IN DIMENSIONS TO THE CONSTRUCTION MANAGER FOR CONSIDERATION BEFORE PROCEEDING WITH WORK IN THE AFFECTED AREA.

K. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST OR OF THE DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED OR ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF THE REQUIREMENTS GOVERNING THE WORK.

L. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM THAT IS NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS DOCUMENTS.

M. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, SUBJECT TO APPROVAL OF CONSTRUCTION MANAGER AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

N. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH AND INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES AND ORDINANCES TAKE PRECEDENCE.

O. THE CONTRACTOR SHALL PROVIDE AT THE PROJECT SITE A FULL SET OF CONSTRUCTION DOCUMENTS UPDATED WITH THE LATEST REVISIONS AND ADDENDUM OR CLARIFICATION AND THE BUILDING PERMIT FOR USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.

P. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING CONSTRUCTION.

Q. THE EXISTING STRUCTURAL COMPONENTS OF THIS PROJECT SITE ARE NOT TO BE ALTERED BY THIS CONSTRUCTION PROJECT UNLESS NOTED OTHERWISE.

R. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC., DURING CONSTRUCTION. UPON COMPLETION OF WORK, CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.

S. CONTRACTOR SHALL KEEP THE GENERAL AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM DUST, PAINT SPOTS OR SMUDGES OF ANY NATURE.

T. FINAL CLEANING: CLEAN EACH SURFACE OR UNIT TO THE CONDITION EXPECTED IN A NORMAL BUILDING CLEANING AND MAINTENANCE PROGRAM. COMPLY WITH MANUFACTURER'S INSTRUCTIONS.

U. SUBSTITUTIONS: CONTRACTOR SHALL OBTAIN VERIZON APPROVAL PRIOR TO MAKING ANY MODIFICATIONS OR SUBSTITUTIONS TO ITEMS SPECIFIED HEREIN.

V. SUBMITTALS: ALL SUBMITTALS (TO VERIZON) SHALL BE IN THREE (3) COPIES. WHERE SUBMITTALS ARE REQUIRED, AND WORK IS DONE WITHOUT VERIZON SUBMITTAL APPROVAL, CONTRACTOR MAY BE RESPONSIBLE FOR REWORK AT NO EXPENSE TO VERIZON.

W. ALL VISIBLE ELEMENTS SHALL BE PAINTED TO MATCH AND BLEND IN WITH THE EXISTING STRUCTURE.

L. D. STROBEL Co. Inc.
DESIGN / CONSTRUCTION

1022 SHARY CIRCLE, SUITE 9, CONCORD, CA 94518
PHONE: 925-686-3241 FAX: 925-686-3350

REVISIONS

NO.	DATE	DESCRIPTION
1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
5	8/21/12	100% ZD
6	6/12/13	100% ZD Rev A

PROPOSED EQUIPMENT INSTALLATION

PARKMERCEDES

PS SITE No. 249531 (SFSU)

SITE ADDRESS:

310 Arballo Drive
San Francisco,
CA 94132
San Francisco County

VERIZON WIRELESS
2785 MITCHELL DRIVE SUITE 9
WALNUT CREEK, CA 94598

MADE IN U.S.A.

DRAWN: MRB | DATE: 7/16/12
FILE: 4782-G1
SHEET NO. **G-1**



1022 SHARY CIRCLE, SUITE 9, CONCORD, CA. 94518
 PHONE: 925-686-3241 FAX: 925-686-3350

REVISIONS		
NO.	DATE	DESCRIPTION
1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
5	8/21/12	100% ZD
6	6/12/13	100% ZD Rev A

SITE ADDRESS:
 310 Arballo Drive
 San Francisco,
 CA 94132
 San Francisco County

VERIZON WIRELESS
 2785 MITCHELL DRIVE SUITE 9
 WALNUT CREEK, CA 94598

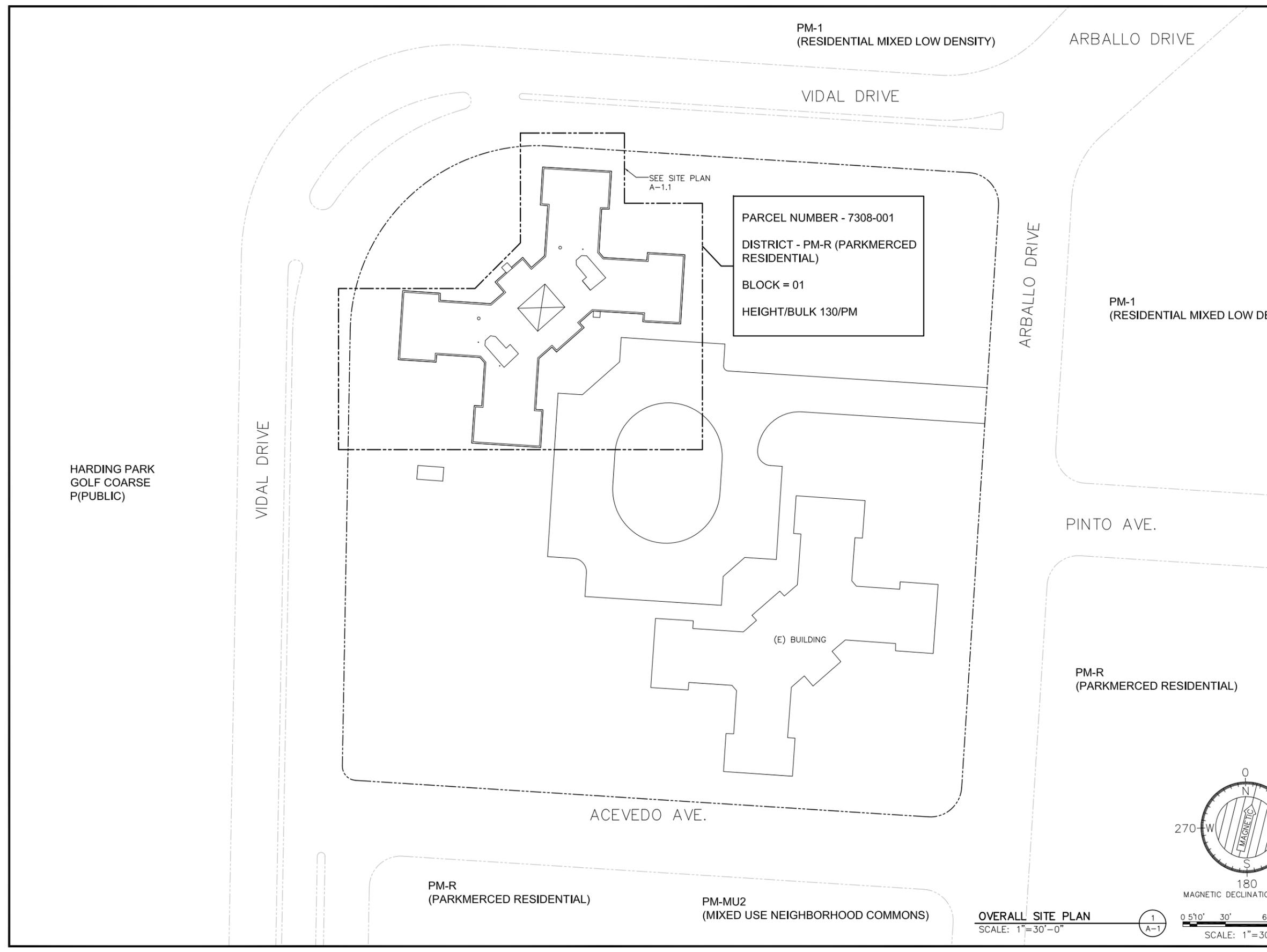
PROPOSED EQUIPMENT INSTALLATION
PARKMERCED
 PS SITE No. 249531 (SFSU)



DRAWN: MRB | DATE: 3/29/13
 FILE: 4782-A1
 SHEET NO.

A-1

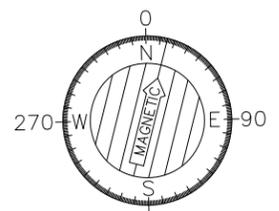
MADE IN U.S.A.



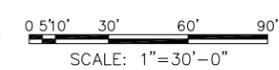
PARCEL NUMBER - 7308-001
 DISTRICT - PM-R (PARKMERCED RESIDENTIAL)
 BLOCK = 01
 HEIGHT/BULK 130/PM

SEE SITE PLAN
 A-1.1

(E) BUILDING



OVERALL SITE PLAN
 SCALE: 1"=30'-0"



REVISIONS		
NO.	DATE	DESCRIPTION
1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
5	8/21/12	100% ZD
6	6/12/13	100% ZD Rev A

SITE ADDRESS:
310 Arballo Drive
San Francisco,
CA 94132
San Francisco County

VERIZON WIRELESS
2785 MITCHELL DRIVE SUITE 9
WALNUT CREEK, CA 94598

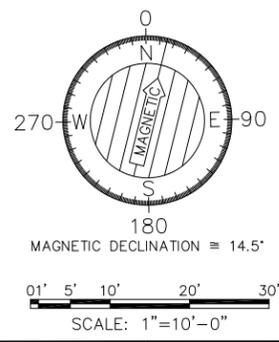
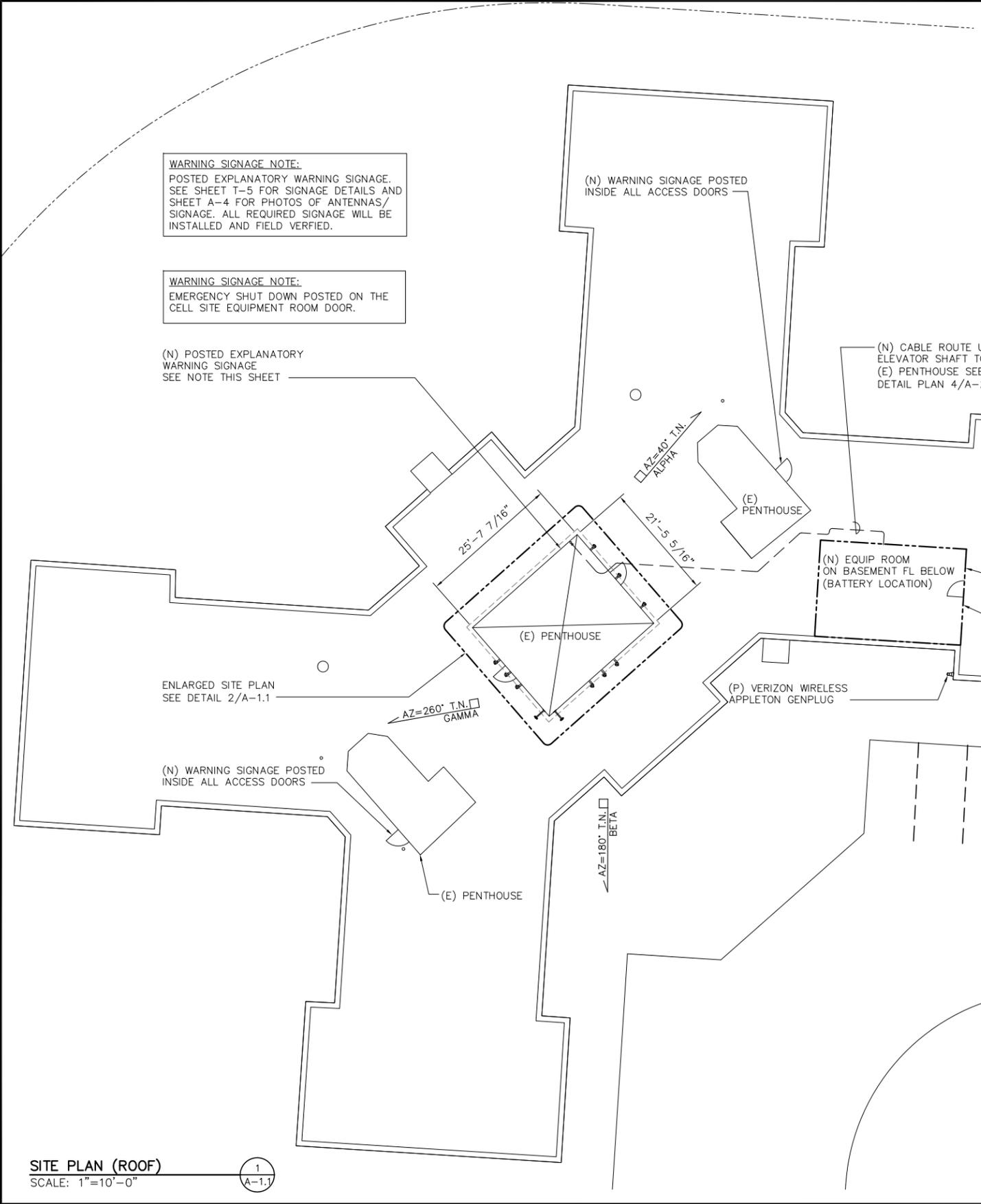
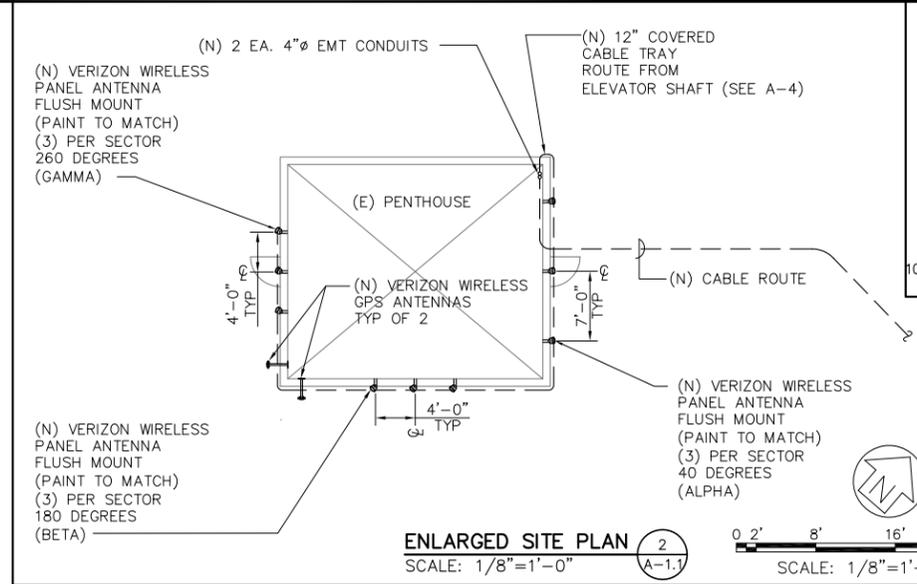
PROPOSED EQUIPMENT INSTALLATION
PARKMERCE
PS SITE No. 249531 (SFSU)



DRAWN: MRB | DATE: 8/20/12
FILE: 4782-A1.1
SHEET NO.

A-1.1

MADE IN U.S.A.



SITE PLAN (ROOF)
SCALE: 1"=10'-0"
1
A-1.1

WARNING SIGNAGE NOTE:
POSTED EXPLANATORY WARNING SIGNAGE. SEE SHEET T-5 FOR SIGNAGE DETAILS AND SHEET A-4 FOR PHOTOS OF ANTENNAS/SIGNAGE. ALL REQUIRED SIGNAGE WILL BE INSTALLED AND FIELD VERIFIED.

WARNING SIGNAGE NOTE:
EMERGENCY SHUT DOWN POSTED ON THE CELL SITE EQUIPMENT ROOM DOOR.

(N) POSTED EXPLANATORY WARNING SIGNAGE SEE NOTE THIS SHEET

(N) CABLE ROUTE UP ELEVATOR SHAFT TO (E) PENTHOUSE SEE DETAIL PLAN 4/A-2

ENLARGED SITE PLAN SEE DETAIL 2/A-1.1

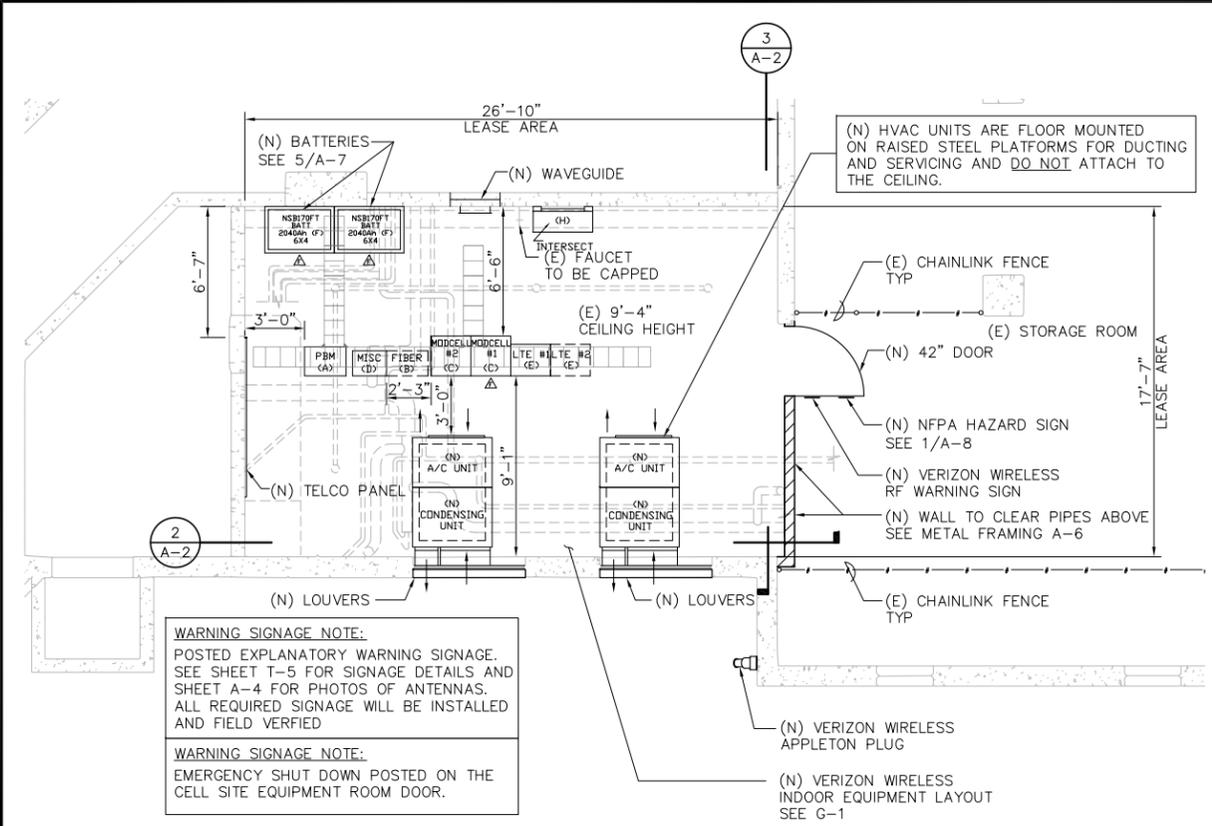
(N) DOOR TO EQUIP RM WITH (E) POSTED EXPLANATORY WARNING SIGNAGE SEE NOTE THIS SHEET

LOCATION OF SFFD APPROVED KEY LOCK BOX FOR EQUIPMENT ROOM FOR BATTERY/EQUIPMENT SHUTDOWN

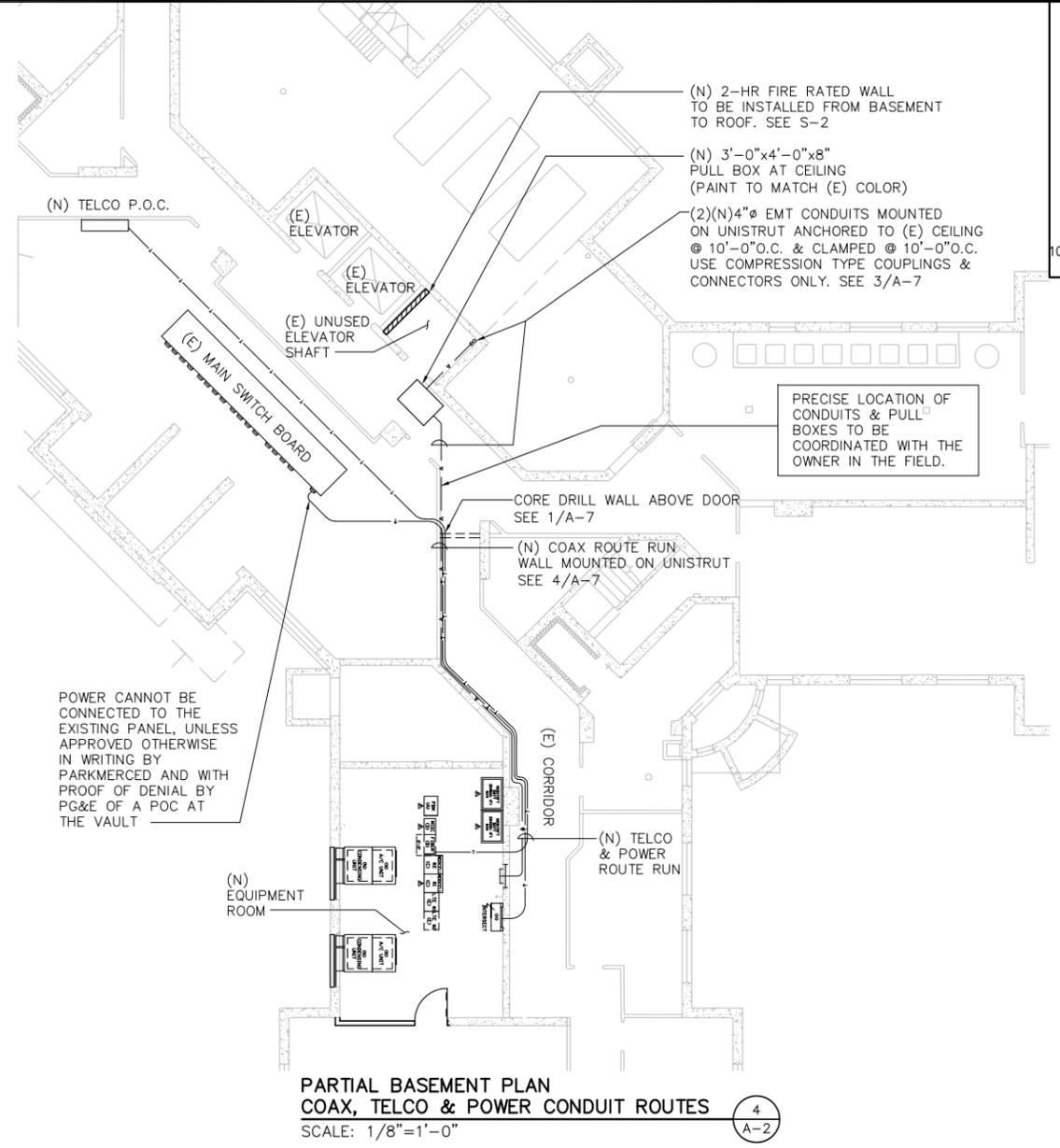
(P) VERIZON WIRELESS NON-EXCLUSIVE GENERATOR PARKING TOW AWAY ZONE (TEMPORARY/EMERGENCY ONLY)



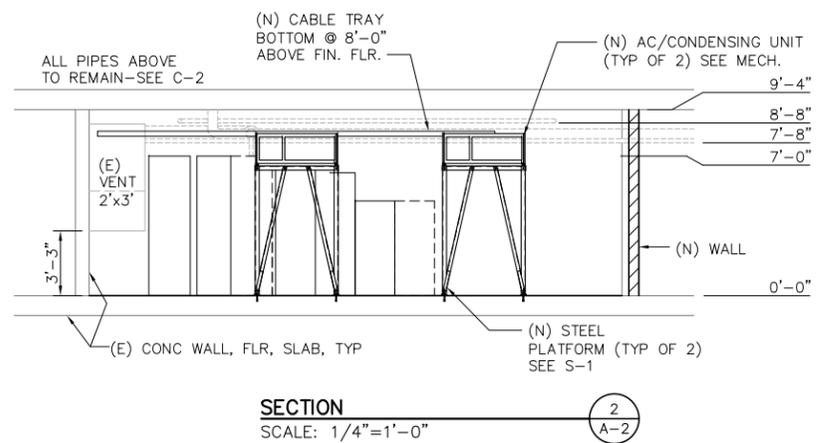
1022 SHARY CIRCLE, SUITE 9, CONCORD, CA 94518
 PHONE: 925-686-3241 FAX: 925-686-3350



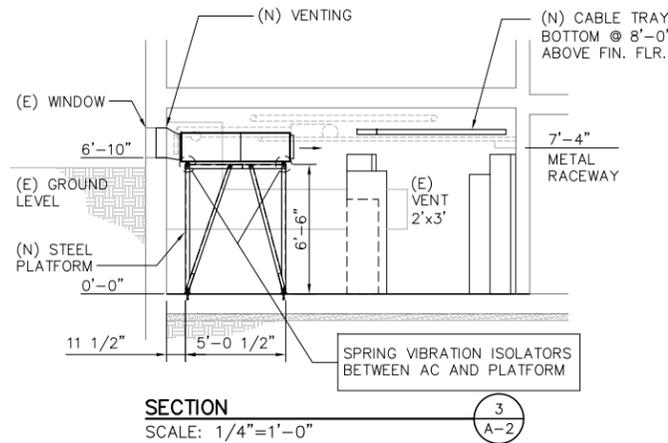
EQUIPMENT PLAN @ BASEMENT 1
 SCALE: 1/4"=1'-0"
 A-2



PARTIAL BASEMENT PLAN COAX, TELCO & POWER CONDUIT ROUTES 4
 SCALE: 1/8"=1'-0"
 A-2



SECTION 2
 SCALE: 1/4"=1'-0"
 A-2



SECTION 3
 SCALE: 1/4"=1'-0"
 A-2

REVISIONS		
NO.	DATE	DESCRIPTION
1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
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6	6/12/13	100% ZD Rev A

SITE ADDRESS:
 310 Arballo Drive
 San Francisco, CA 94132
 San Francisco County

VERIZON WIRELESS
 2785 MITCHELL DRIVE SUITE 9
 WALNUT CREEK, CA 94598

PROPOSED EQUIPMENT INSTALLATION
PARKMERCED
 PS SITE No. 249531 (SFSU)



DRAWN: MRB DATE: 8/2/12
 FILE: 4782-A2
 SHEET NO.

A-2

MADE IN U.S.A.

(N) VERIZON WIRELESS
GPS ANTENNAS
TYP OF 2
(PAINT HARDWARE TO
MATCH)

(N) VERIZON WIRELESS
PANEL ANTENNA
FLUSH MOUNTED
(PAINT TO MATCH)
BETA

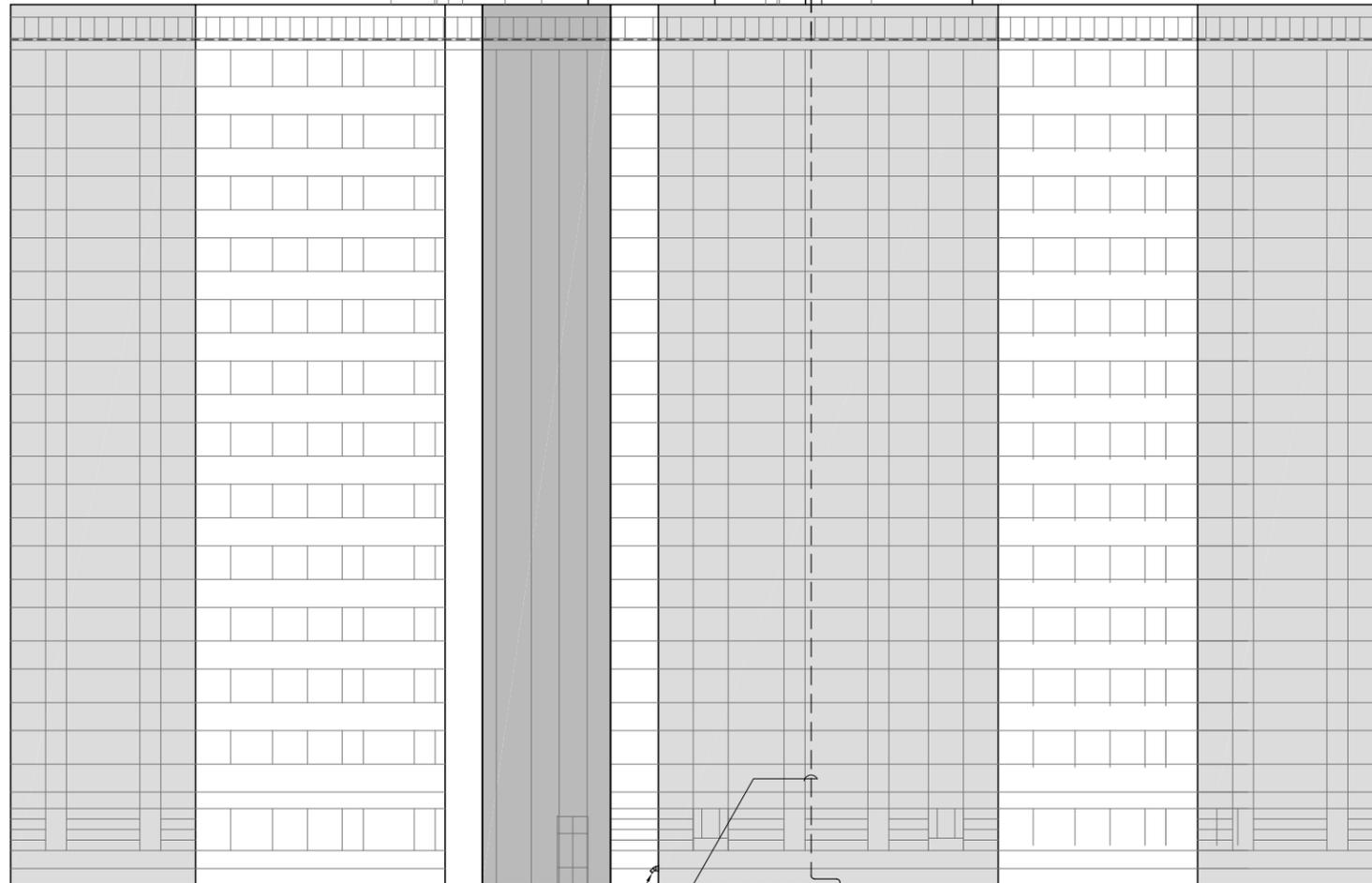
(N) VERIZON WIRELESS
PANEL ANTENNA
FLUSH MOUNTED
(PAINT TO MATCH)
ALPHA

TOP OF PENTHOUSE
±150.2' HT

TOP OF GPS ANTENNA
±146.1' HT
TOP OF PANEL ANTENNA
±143.04' HT

BOT OF ROOF
±143' HT
CENTERLINE OF PANEL ANTENNAS
±140.9' HT.

TOP OF PARAPET
±125.8' HT
ROOF ±120.8' HT



(N) VERIZON WIRELESS
APPLETON PLUG

(N) COAX ROUTE UP
ABANDONED
ELEVATOR SHAFT TO
(E) PENTHOUSE SEE
ENLARGED SITE PLAN
2/A-1.1

LOCATION OF SFFD
APPROVED
KEY LOCK BOX FOR
EQUIPMENT ROOM
FOR BATTERY/EQUIPMENT
SHUTDOWN

WARNING SIGNAGE NOTE:
EMERGENCY SHUT DOWN
POSTED ON THE
EQUIPMENT ROOM DOOR.

(N) EQUIP ROOM
ON BASEMENT FLOOR
(BATTERY LOCATION)



1022 SHARY CIRCLE, SUITE 9, CONCORD, CA. 94518
PHONE: 925-686-3241 FAX: 925-686-3350

REVISIONS

NO.	DATE	DESCRIPTION
1	3/7/12	90% ZD
2	4/19/12	95% ZD
3	7/12/12	95% ZD Rev 1
4	7/30/12	95% ZD Rev 2
5	8/21/12	100% ZD
6	6/12/13	100% ZD Rev A

SITE ADDRESS:
310 Arballo Drive
San Francisco,
CA 94132
San Francisco County

VERIZON WIRELESS
2785 MITCHELL DRIVE SUITE 9
WALNUT CREEK, CA 94598

PROPOSED EQUIPMENT INSTALLATION

PARKMERCED
PS SITE No. 249531 (SFSU)



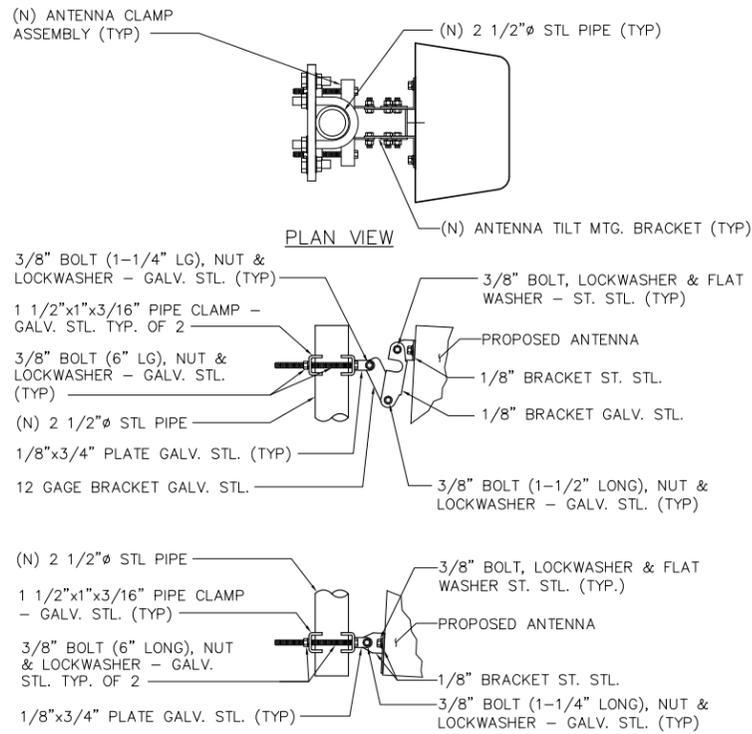
DRAWN: MRB | DATE: 6/11/13
FILE: 4782-A3
SHEET NO.

A-3

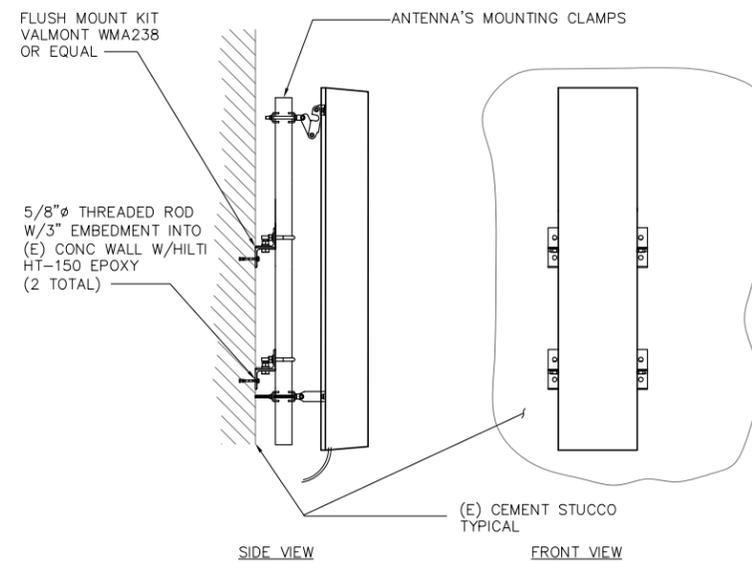
MADE IN U.S.A.

(E) BUILDING SOUTHEAST ELEVATION 1
SCALE: 3/32"=1'-0" A-3

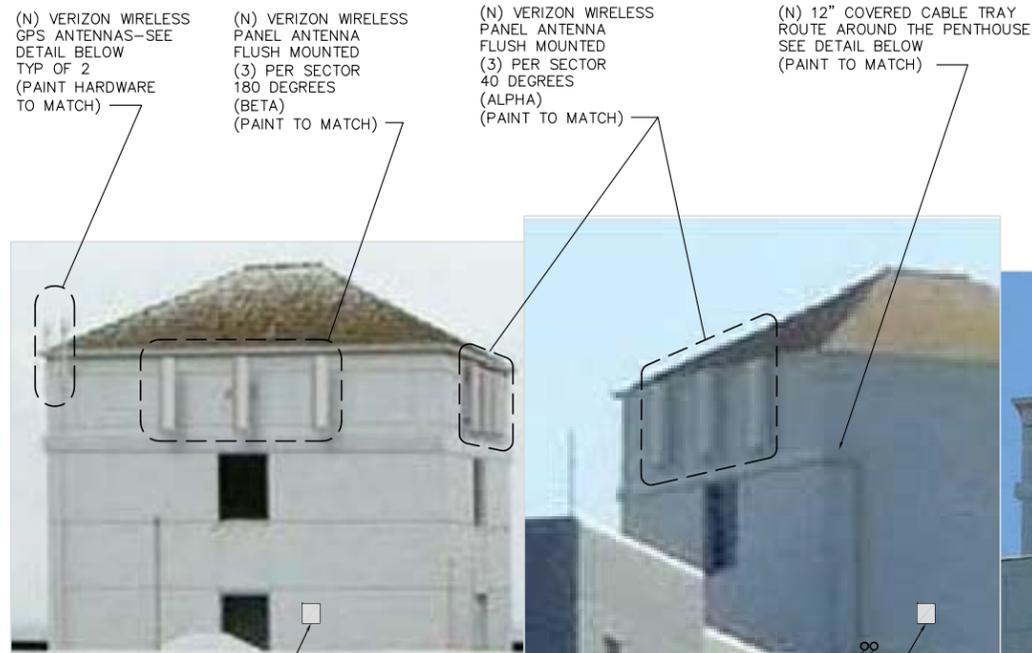
0 3' 16' 32'
SCALE: 3/32"=1'-0"



ANTENNA MOUNTING DETAILS (SIMILAR)
SCALE: N.T.S.



FLUSH MOUNTED ANTENNAS
SCALE: 1"=1'-0"



(N) WARNING SIGNAGE INSTALL ON ALL FACES BELOW ANTENNAS. AS WELL AS DOOR TO ROOF.

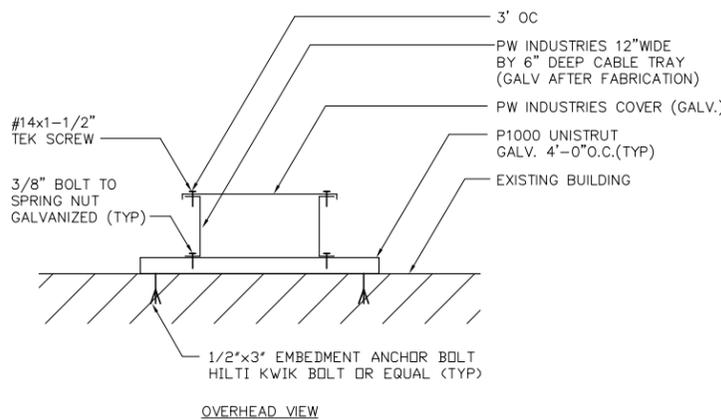
PHOTO - (N) WARNING SIGNAGE & (N) CABLE ROUTE (BETA)
SCALE: NONE

(N) CABLE ROUTE FROM ABANDONED ELEVATOR SHAFT STUB-UPS

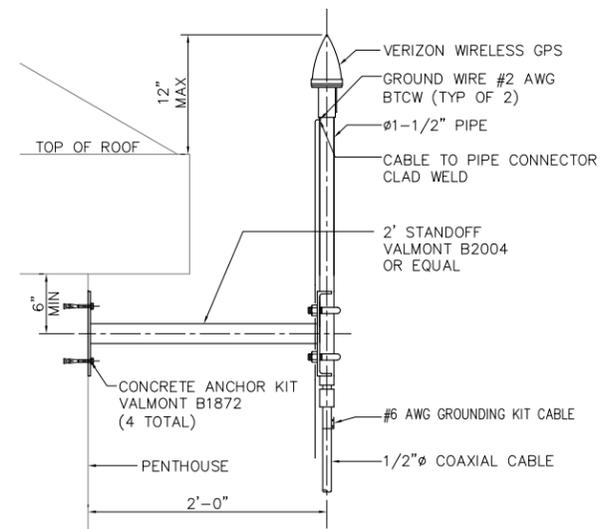
PHOTO - (N) WARNING SIGNAGE & (N) CABLE ROUTE (ALPHA)
SCALE: NONE

(N) VERIZON WIRELESS PANEL ANTENNA FLUSH MOUNTED (3) PER SECTOR 260 DEGREES (GAMMA) (PAINT TO MATCH)

PHOTO - (N) WARNING SIGNAGE & (N) CABLE ROUTE (GAMMA)
SCALE: NONE



CABLE TRAY TO VERTICAL WALL MOUNTING DETAIL
SCALE: 1-1/2"=1'-0"



GPS ANTENNA DETAIL @ PENTHOUSE WALL
SCALE: 1-1/2"=1'-0"

L. D. STROBEL Co. INC.
DESIGN / CONSTRUCTION

WIRELESS COMMUNICATIONS

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PROPOSED EQUIPMENT INSTALLATION
PARKMERCE
PS SITE No. 249531 (SFSU)



DRAWN: MRB | DATE: 6/11/13
FILE: 4782-A4
SHEET NO.

A-4

MADE IN U.S.A.