



# SAN FRANCISCO PLANNING DEPARTMENT

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## Executive Summary Conditional Use Authorization

HEARING DATE: JULY 1, 2010

*Date:* June 24, 2010  
*Case No.:* **2010.0288C**  
*Project Address:* **2500 24<sup>th</sup> Street**  
*Current Zoning:* P (Public) District  
40-X Height and Bulk District  
*Block/Lot:* 4213 / 001  
*Project Sponsor:* Joyce Chu  
Modus Consulting  
833 Market Street, Suite 805  
San Francisco, CA 94103  
[jchu@moduscon.com](mailto:jchu@moduscon.com)  
(909) 992-2212  
for Clearwire  
*Staff Contact:* Erika S. Jackson – (415) 558-6363  
[erika.jackson@sfgov.org](mailto:erika.jackson@sfgov.org)  
*Recommendation:* **Approval with Conditions**

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### PROJECT DESCRIPTION

The proposal is to install up to 6 hybrid dual panel antennas, 2 internet exchange antennas, and associated equipment racks as part of a wireless transmission network operated by Clearwire. Each panel antenna measures 24" (length) by 8" (width) by 2.7" (depth) and each internet exchange antenna is 12" in diameter. The antennas would be installed inside the existing fiberglass reinforced plastic enclosure painted and textured to match the existing structure at a height of approximately 51 feet above grade. Equipment cabinets would be placed within an existing equipment room on the third floor of the public parking garage structure. The project site is a Location Preference 1, a preferred location, according to the Wireless Telecommunications Services (WTS) Siting Guidelines.

### SITE DESCRIPTION AND PRESENT USE

The project site is owned and operated by the San Francisco General Hospital and contains a four story public parking garage structure. There are two existing antennas operated by Sprint Nextel and eight approved antennas operated by T-Mobile located on the same garage structure.

### SURROUNDING PROPERTIES AND NEIGHBORHOOD

The Project Site is located within the Mission District, near the Potrero Hill Neighborhood. Land uses in the immediate project vicinity are primarily residential, but also include a mixture of industrial, commercial, public utility, retail, and industrial uses. There is one affordable housing development in

close proximity to the project site. Additionally, the Project site is located one block west of Highway 101 and directly south of the main San Francisco General Hospital campus.

## ENVIRONMENTAL REVIEW

The proposed project was determined by the San Francisco Planning Department to be categorically exempt from the environmental review process (CEQA) pursuant to exemption Classes 1, 3 and 11 of Title 14 of the California Administrative Code.

## HEARING NOTIFICATION

TYPE	REQUIRED PERIOD	REQUIRED NOTICE DATE	ACTUAL NOTICE DATE	ACTUAL PERIOD
Classified News Ad	20 days	June 11, 2010	June 11, 2010	20 days
Posted Notice	20 days	June 11, 2010	June 11, 2010	20 days
Mailed Notice	10 days	June 21, 2010	June 16, 2010	15 days

## PUBLIC COMMENT

- The Department has received one phone call with questions regarding the FCC public exposure limit for RF levels.

## PROJECT ANALYSIS

The Proposed Project is a request for Conditional Use authorization under Planning Code Sections 209.6(b) and 234.2 to install a wireless telecommunications facility consisting of 6 hybrid dual panel antennas and 2 internet exchange round dish antennas, on an existing 4 story public parking garage structure at San Francisco General Hospital as part of Clearwire's wireless telecommunications network. The project also includes the installation of associated equipment racks within an existing equipment room. The project site is within a P (Public) Zoning District and a 40-X Height and Bulk District.

The 4 story public parking garage structure occupies the entire Assessor's Block 4213. The block is bounded by 23<sup>rd</sup> Street to the north, 24<sup>th</sup> Street to the south, Utah Street to the west, and San Bruno Avenue to the east. The project is located at the northeast corner of the block along the intersection of 23<sup>rd</sup> Street and San Bruno Avenue.

## ISSUES AND OTHER CONSIDERATIONS

- The Project will provide wireless coverage to an area that previously received no coverage.
- The Project will have a minimal visual impact on the built environment.

## **REQUIRED COMMISSION ACTION**

In order for the project to proceed, the Commission may grant the Conditional Use authorization pursuant to Planning Code Sections 209.6(b) and 234.2 to allow the installation of wireless facilities.

## **BASIS FOR RECOMMENDATION**

The Department believes 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.
- The project site is a Location Preference 1, a preferred location, according to the Wireless Telecommunications Services (WTS) Siting Guidelines.

<b>RECOMMENDATION:</b> <b>Approval with Conditions</b>
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**ATTACHMENTS**

- |   |  |
|---|--|
| <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 checked="" type="checkbox"/> Height & Bulk Map   | <input checked="" type="checkbox"/> Community Outreach Meeting Documents |
| <input checked="" type="checkbox"/> Parcel Map          | <input type="checkbox"/> Public Comment Letter                           |
| <input checked="" type="checkbox"/> Sanborn Map         | <input checked="" type="checkbox"/> Coverage Maps                        |
| <input checked="" type="checkbox"/> Aerial Photo        | <input checked="" type="checkbox"/> RF Report / DPH Approval             |
| <input checked="" type="checkbox"/> Context Photos      | <input checked="" type="checkbox"/> General Plan Referral Letter         |
| <input checked="" type="checkbox"/> Site Photos         |  |
| <input checked="" type="checkbox"/> Photo Simulations   |  |

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

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# SAN FRANCISCO PLANNING DEPARTMENT

Subject to: (Select only if applicable)

- Inclusionary Housing (Sec. 315)
- Jobs Housing Linkage Program (Sec. 313)
- Downtown Park Fee (Sec. 139)
- First Source Hiring (Admin. Code)
- Child Care Requirement (Sec. 314)
- Other

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## Planning Commission Motion No. XXXXX

HEARING DATE: JULY 1, 2010

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 for Clearwire  
*Staff Contact:* Erika S. Jackson – (415) 558-6363  
[erika.jackson@sfgov.org](mailto:erika.jackson@sfgov.org)

**ADOPTING FINDINGS RELATING TO THE APPROVAL OF A CONDITIONAL USE AUTHORIZATION UNDER PLANNING CODE SECTIONS 209.6(b) AND 234.2 TO INSTALL A WIRELESS TELECOMMUNICATIONS FACILITY CONSISTING OF SIX HYBRID DUAL PANEL ANTENNAS, TWO INTERNET EXCHANGE ROUND DISH ANTENNAS AND ASSOCIATED EQUIPMENT CABINETS ON AN EXISTING FOUR STORY PUBLIC PARKING GARAGE STRUCTURE AT SAN FRANCISCO GENERAL HOSPITAL WITHIN A P (PUBLIC) ZONING DISTRICT AND A 40-X HEIGHT AND BULK DISTRICT.**

### PREAMBLE

On April 22, 2010, Joyce Chu (hereinafter "project sponsor"), made an application (hereinafter "application"), for Conditional Use authorization on the property at 2500 24<sup>th</sup> Street, Lot 001 in Assessor's Block 4213, (hereinafter "project site") to install a wireless telecommunications facility consisting of 6 hybrid dual panel antennas and 2 internet exchange round dish antennas, on an existing 4 story public parking garage structure at San Francisco General Hospital as part of Clearwire's wireless telecommunications network. The project also includes the installation of associated equipment racks within an existing equipment room. The project site is within a P (Public) Zoning District and a 40-X Height and Bulk District.

The San Francisco Planning Department (hereinafter "Department") determined the application to be categorically exempt from the environmental review process (CEQA) pursuant to exemption Classes 1, 3 and 11 of Title 14 of the California Administrative Code.

The proposed project as approved herein is consistent with the project description contained in the categorical exemption and would not result in significant impacts not identified in the categorical exemption or cause significant effects already identified in the categorically exemption to be substantially more severe.

On July 1, 2010, the Commission conducted a duly noticed public hearing at a regularly scheduled meeting on the application for a Conditional Use.

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. 2010.0288C, 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 owned and operated by the San Francisco General Hospital and contains a four story public parking garage structure. There are two existing antennas operated by Sprint Nextel and eight approved antennas operated by T-Mobile located on the same garage structure.
3. **Surrounding Properties and Neighborhood.** The Project Site is located within the Mission District, near the Potrero Hill Neighborhood. Land uses in the immediate project vicinity are primarily residential, but also include a mixture of industrial, commercial, public utility, retail, and industrial uses. There is one affordable housing development in close proximity to the project site. Additionally, the Project site is located one block west of Highway 101 and directly south of the main San Francisco General Hospital campus.
4. **Proposal.** The proposal is to install up to 6 hybrid dual panel antennas, 2 internet exchange antennas, and associated equipment racks as part of a wireless transmission network operated by Clearwire. Each panel antenna measures 24" (length) by 8" (width) by 2.7" (depth) and each internet exchange antenna is 12" in diameter. The antennas would be installed inside the existing fiberglass reinforced plastic enclosure painted and textured to match the existing structure at a height of approximately 51 feet above grade. Equipment cabinets would be placed within an existing equipment room on the third floor of the public parking garage structure.

5. **Past History and Actions.** The Planning Commission held a duly advertised public hearing on August 15, 1996 to consider adoption of guidelines for the siting of WTS facilities in the City which would include standard conditions of approval for wireless communications facilities which are regulated by the FCC and required to meet the health and safety standards.

The Planning Commission, by Resolution No. 14182, adopted the proposed WTS Facilities Siting Guidelines on August 15, 1996. The sample conditions of approval presented in the Guidelines form the basis for the development of conditions of approval for this Application and Motion.

On June 15, 2000, the Commission conducted a duly noticed public hearing at a regularly scheduled meeting on the application for a Conditional Use pursuant to Planning Code Section 234.2 to allow the installation of a wireless telecommunications facility at the subject location as part of Nextel Communications' wireless telecommunications network.

On April 22, 2010, the Commission conducted a duly noticed public hearing at a regularly scheduled meeting on the application for a Conditional Use pursuant to Planning Code Section 234.2 to allow the installation of a wireless telecommunications facility at the subject location as part of T-Mobile's wireless telecommunications network.

6. **Location Preference.** The WTS Facilities Siting Guidelines identify different types of buildings for the siting of wireless telecommunications facilities, with Location Preference 1 being the most desirable location and Location Preference 7 being the least desirable location. Under the Guidelines, the Project is a Location Preference Number 1, as it is a preferred location for a publicly used structure.
7. **Radio Waves Range.** The Project Sponsor has stated that the proposed wireless network will transmit calls by radio waves operating in the 2496-2690 Megahertz (MHZ) bands and receive calls in the 870 MHZ band, which are regulated by the Federal Communications Commission (FCC) and which 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. 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.** There are several existing antennas operated by Sprint Nextel installed on the roof top of the building at 2548 24th St. Existing RF levels at ground level were around 2% of the FCC public exposure limit. There were observed no other antennas within 100 feet of this site. Clearwire proposes to install 6 new antennas. The antennas are mounted at a height of 50 feet above the ground. The estimated ambient RF field from the proposed Clearwire transmitters at ground level is calculated to be 0.00093 mW/sq cm., which is 0.093 % of the FCC public exposure limit. The three dimensional perimeter of RF levels equal to the public exposure limit extends 37 feet and does not reach any publicly accessible

areas. Warning signs must be posted at the antennas and roof access points in English, Spanish and Chinese. Workers should not have access to within 11 feet of the front of the antennas while they are in operation.

10. **Maintenance Schedule.** The proposed facility would operate without on-site staff but with a one- or two-person maintenance crew visiting the property approximately once or twice a month and on an as-needed basis to service and monitor the facility.
11. **Community Outreach.** A Community Outreach Meeting was conducted for the proposed project. The meeting was held at 6:30 P.M. on Tuesday, June 15, 2010 at the Potrero Hill Neighborhood House, 953 De Haro Street, San Francisco, CA. One neighbor attended the meeting and asked several questions regarding the project.
12. **Five-year plan:** Clearwire submitted its latest five-year plan, as required, in April 2010.
13. **Public Comment.** The Department has received one phone call with questions regarding the FCC public exposure limit for RF levels.
14. **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 Sections 209.6(b) and 234.2, a Conditional Use is required for all public uses such as wireless transmission facilities.
15. **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.

*The proposed project will be generally desirable and compatible with the surrounding neighborhood because the project will not conflict with the existing uses of the property and will be of such size and nature to be compatible with the surrounding industrial nature of the vicinity. The approval of this authorization has been found, first and foremost, to insure public safety, and insure that 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 building and insure harmony with neighborhood character. The proposed project will also provide necessary facilities for emergency transmission and improved communication for the neighborhood, community and the region.*

- 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 proposed 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.*

*An evaluation of potential health effects from RF radiation, conducted by the Department of Public Health, 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. The Department has received information that the proposed wireless system must be operated so as not to interfere with radio or television reception in order to comply with the provisions of its license under the FCC.*

*The Department is developing a database of all such wireless communications facilities operating or proposed for operation in the City and County of San Francisco. All applicants are now required to submit information on the location and nature of all existing and approved wireless transmission facilities operated by the Project Sponsor. The goal of this effort is to foster public information as to the location of these facilities.*

- 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 single 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 erection 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 subject site has no landscaping or open space. The installation of antennas on the existing lattice tower will not affect existing parking areas.*

- 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.*

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

## 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.*

**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.*

17. **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 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.

*No landmarks or historic buildings would be affected by the project.*

- 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.*

18. 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.



19. 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 209.6(b) and 234.2 to install a wireless telecommunications facility consisting of six hybrid dual panel antennas, two internet exchange round dish antennas and associated equipment cabinets on an existing four story public parking garage structure at San Francisco General Hospital as part of Clearwire's wireless telecommunications network within a P (Public) Zoning District and a 40-X 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. 18076. 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 July 1, 2010.

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Linda Avery  
Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED: July 1, 2010

# Exhibit A

## Conditions of Approval

Whenever "Project Sponsor" is used in the following conditions, the conditions shall also bind any successor to the Project or other persons having an interest in the Project or underlying property.

### General Conditions

1. This approval is for Conditional Use authorization under Planning Code Sections 209.6(b) and 234.2 to install a wireless telecommunications facility consisting of six hybrid dual panel antennas, two internet exchange round dish antennas and associated equipment cabinets on an existing four story public parking garage structure at San Francisco General Hospital as part of Clearwire's wireless telecommunications network within a P (Public) Zoning District and a 40-X Height and Bulk District.
2. The Project approved by this Motion is in general conformity with the plans dated April 20, 2010, on file with the Department in the docket for Case No. 2010.0288C (labeled EXHIBIT B), reviewed and approved by the Commission on July 1, 2010.

### Design

3. The final plans shall meet the standards of the Planning Code and be in general conformity with the plans approved by the Commission on July 1, 2010 as Exhibit B found in the Case docket.
4. 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:
  - 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.

### Performance

5. Project Implementation Report. 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. 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 week day with the subject equipment measured while operating at maximum power.
  - d. 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.
6. Notification and Testing. The Project Implementation Report shall set forth the testing and measurements undertaken pursuant to Conditions 4 and 13.
7. 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.
8. Notification prior to Project Implementation Report. The Project Sponsor shall undertake to inform and perform appropriate tests for residents of any dwelling units located within 25 feet of the transmitting antennae 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.
9. Community Liaison. Within 10 days of the effective date of this authorization, the Project

Sponsor shall appoint a community liaison officer to resolve issues of concern to neighbors and residents relating to the construction and operation of the facilities. Upon appointment, the Project Sponsor shall report in writing the name, address and telephone number of this officer to the Zoning Administrator. The Community Liaison Officer 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.

10. Installation. 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.
11. Screening.
  - a. 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:
    - i. Modify the placement of the facilities;
    - ii. Install fencing, barriers or other appropriate structures or devices to restrict access to the facilities;
    - iii. 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; or
    - iv. Implement any other practice reasonably necessary to ensure that the facility is operated in compliance with adopted FCC RF emission standards.
  - b. To the extent necessary to minimize visual obtrusion and clutter, installations shall conform to the following standards:
    - i. Antennas and back-up equipment shall be painted, fenced, landscaped or otherwise treated architecturally so as to minimize visual impacts;
    - ii. Rooftop installations shall be setback such that back-up facilities are not viewed from the street;
    - iii. Antennae attached to building facades shall be so placed, screened or otherwise treated to minimize any negative visual impact; and
    - iv. 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.

12. The Project Sponsor or Property Owner shall remove antennae and equipment that has been out of service for a continuous period of six months.
13. Periodic Safety Monitoring. 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.
14. Emissions Conditions. 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.
15. Noise and Heat. The WTS facility, including power source and cooling facility, shall be operated at all times within the limits of the San Francisco Noise Ordinance. The WTS facility, including power source and cooling facility, shall not be operated so as to cause the generation of heat that adversely affects a building occupant.
16. Implementation and Monitoring Costs.
  - 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 the monitoring of the conditions of approval contained in this authorization, including costs incurred by this Department, the Department of Public Health, the Department of Electricity and Telecommunications, Office of the City Attorney, or any other appropriate City Department or agency pursuant to Planning Code Section 351(f)(2). 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.
17. All Conditions Basis for Revocation. The Project Sponsor or its successors shall comply fully with all conditions specified in this authorization. Failure to comply with any condition shall constitute grounds for revocation under the provisions of Planning Code Sections 174, 176 and 303(d). The Zoning Administrator shall schedule a public hearing before the Planning Commission to receive testimony and other evidence to demonstrate a finding of a violation of a condition of the authorization of the use of the facility and, finding that violation, the Commission shall revoke the Conditional Use authorization. Such revocation by the Planning Commission is appealable to the Board of Supervisors.

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.

18. Complaints and Proceedings. Should any party complain to the Project Sponsor about the installation or operation of the facilities, which complaints are not resolved by the Project Sponsor, the Project Sponsor (or its appointed agent) shall advise the Zoning Administrator of the complaint and the failure to satisfactorily resolve such complaint. If the Zoning Administrator thereafter finds a violation of any provision of the Planning Code and/or any condition of approval herein, the Zoning Administrator shall attempt to resolve such violation on an expedited basis with the Project Sponsor. If such efforts fail, the Zoning Administrator shall refer such complaints to the Commission for consideration at the next regularly scheduled public meeting.
19. Severability. 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 of the remaining provisions, clauses, sentences, or sections of these conditions. It is hereby declared to be the intent of the Commission that these conditions of approval would have been adopted had such invalid sentence, clause, or section or part thereof not been included herein.
20. Transfer of Operation. 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, and the authorizing Motion is recorded on the deed of the property stating the new carrier/provider and authorizing conditions of approval.
21. Compatibility with City Emergency Services. The facility shall not be operated, nor 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.

**Motion No. XXXXX**  
**Hearing Date: July 1, 2010**

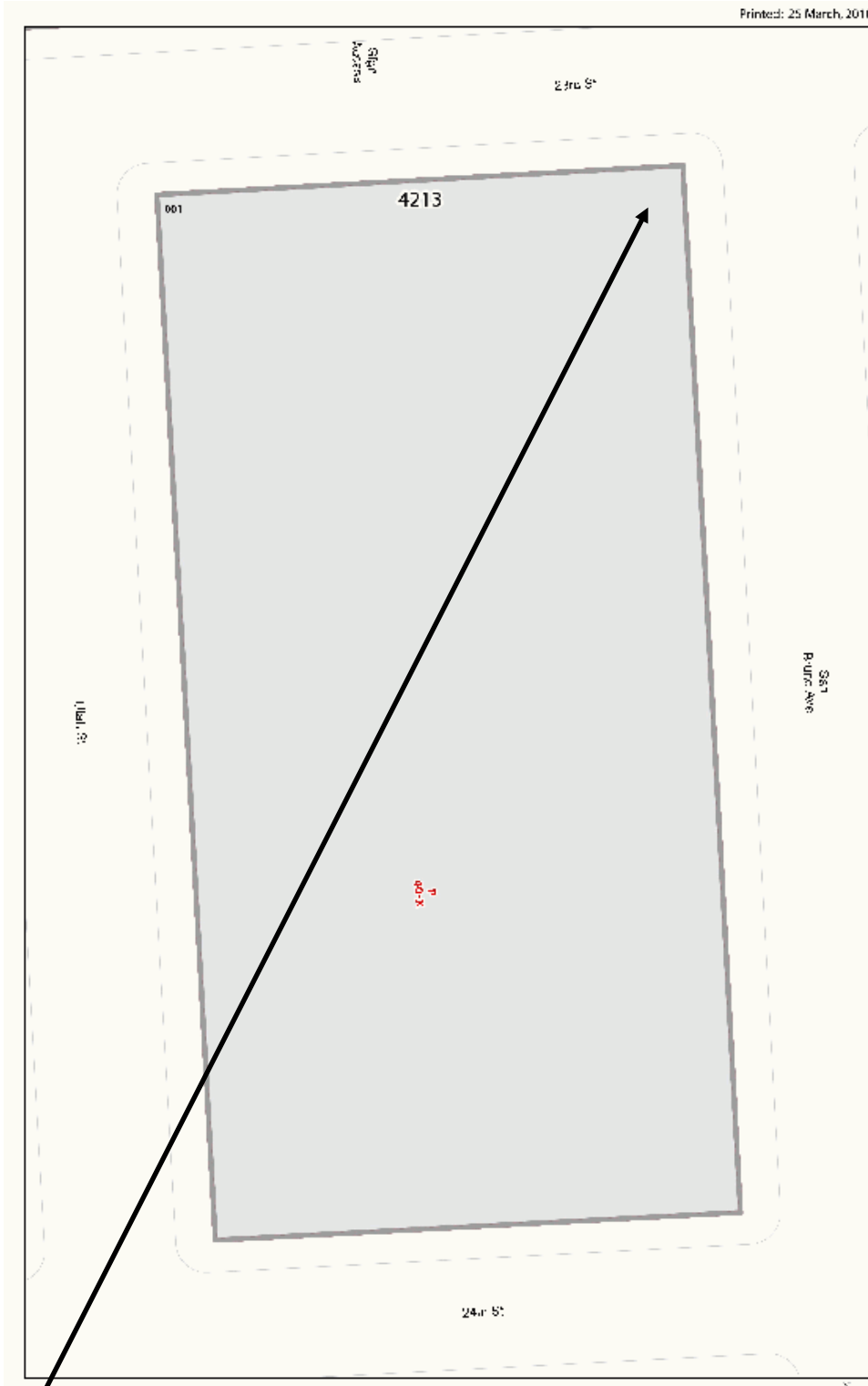
**CASE NO. 2010.0288C**  
**2500 24<sup>th</sup> Street**

ESJ: G:\DOCUMENTS\Projects\CU\24th Street 2500\Clearwire\Motion (Conditional Use Authorization - Wireless).DOC



# Parcel Map

Printed: 25 March, 2010

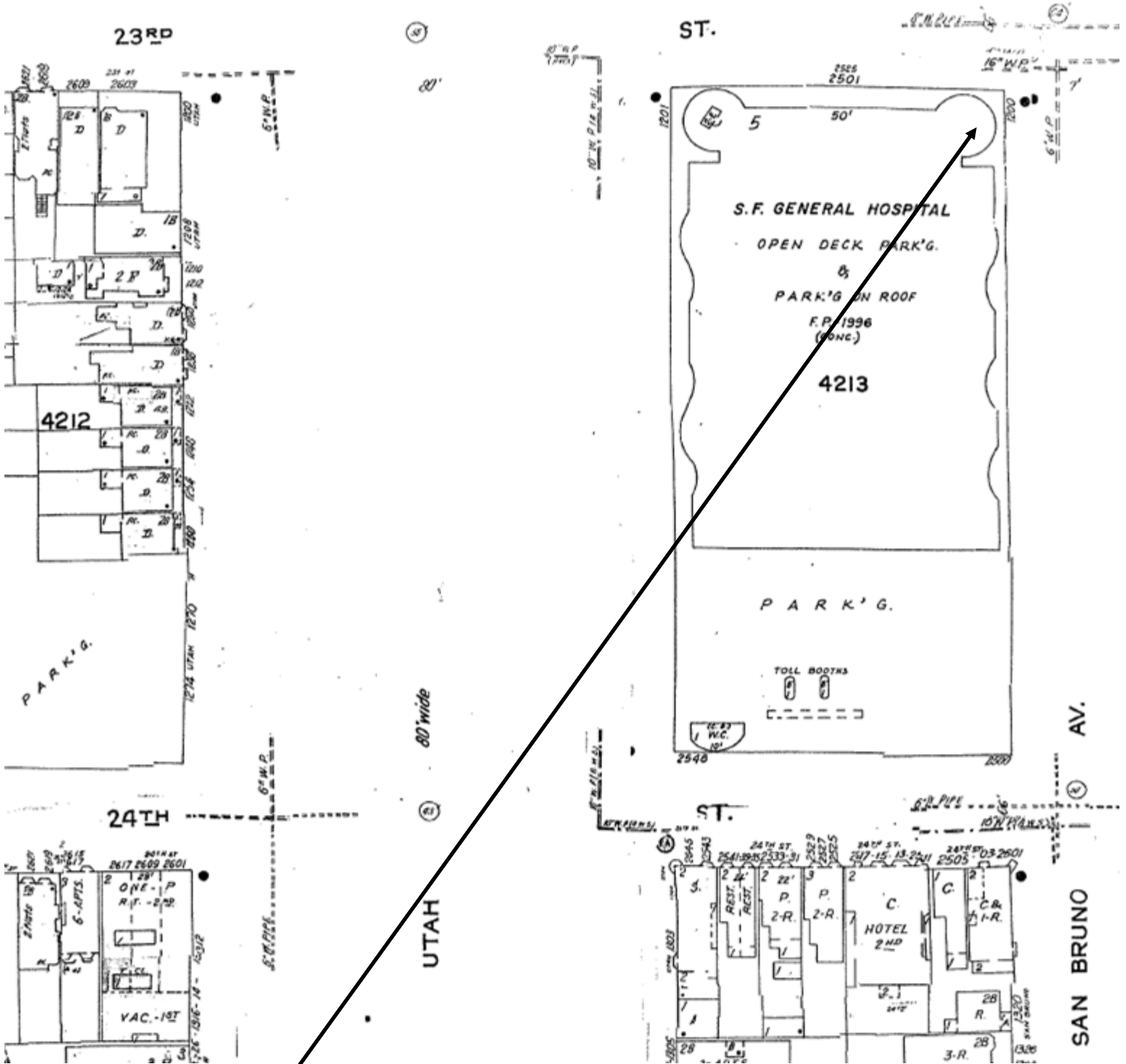


**SUBJECT PROPERTY**



Conditional Use Hearing  
Case Number 2010.0288C  
2500 24th Street  
4213 / 001

# Sanborn Map



**SUBJECT PROPERTY**



Conditional Use Hearing  
 Case Number 2010.0288C  
 2500 24th Street  
 4213 / 001

# Zoning Map



SUBJECT PROPERTY



Conditional Use Hearing  
Case Number 2010.0288C  
2500 24th Street  
4213 / 001

# Height & Bulk Map



**SUBJECT PROPERTY**



Conditional Use Hearing  
 Case Number 2010.0288C  
 2500 24th Street  
 4213 / 001



# Aerial Photograph



**SUBJECT PROPERTY**



Conditional Use Hearing  
Case Number 2010.0288C  
2500 24th Street  
4213 / 001

## 2500 24<sup>th</sup> Street - Site & Context Photographs



Figure 1 - Facing South & West facades of Project Site from Utah & 24th Street



Figure 3 - Facing South Facade of Project Site from San Bruno & 24th Street



Figure 2 Facing South and East Facade of Project Site from San Bruno & 24th Street



Figure 4 - Facing Northeast corner of Project Site from San Bruno & 23rd Street



## 2500 24<sup>th</sup> Street - Site & Context Photographs



Figure 5 - Facing Northwest corner of project site from Utah & 23rd Street



Figure 7 - Facing East from Utah & 24th Street



Figure 6 - Facing Northeast from Utah & 24th Street



Figure 8 - Facing Southeast from Utah & 24th Street

## 2500 24<sup>th</sup> Street - Site & Context Photographs



Figure 9 - Facing Southwest from Utah & 24th Street



Figure 11 - Facing Northwest from Utah & 24th Street



Figure 10 - Facing West from Utah & 24th Street



Figure 12 - Facing North from Utah & 24th Street



## 2500 24<sup>th</sup> Street - Site & Context Photographs



Figure 13 - Facing North from San Bruno & 24th Street



Figure 15 - Facing Southeast from San Bruno & 24th Street



Figure 14 - Facing East from San Bruno & 24th Street



Figure 16 - Facing South from San Bruno & 24th Street

## 2500 24<sup>th</sup> Street - Site & Context Photographs



Figure 17 - Facing West from San Bruno & 24th Street



Figure 19 - Facing East from San Bruno & 23rd Street



Figure 18 - Facing South from San Bruno & 23rd Street



Figure 20 - Facing Northeast from San Bruno & 23rd Street



## 2500 24<sup>th</sup> Street - Site & Context Photographs



Figure 21 - Facing North from San Bruno & 23rd Street



Figure 23 - Facing South from Utah & 23rd Street



Figure 22 - Facing Northwest from San Bruno & 23rd Street



Figure 24 - Facing West from Utah & 23rd Street

## Notice of Neighborhood Meeting

To: All Neighbors and Owners within a 500 foot radius of 2548 24<sup>th</sup> Street, San Francisco, California

### Meeting Information:

Date: Tuesday, June 15, 2010

Time: 6:30 PM – 8:00 PM

Where: Potrero Hill

Neighborhood House  
953 De Haro Street  
San Francisco, CA

### Site Information:

Address: 2548 24<sup>th</sup> Street  
San Francisco, CA

Block/Lot: 4213 / 001

Zoning: P

### Applicant:

Clear Wireless, LLC

### Contact Information:

Joyce Chu  
Modus Consulting, LLC  
(909) 992-2212

**PROJECT DESCRIPTION:** Clearwire is proposing a wireless communication facility at 2548 24<sup>th</sup> Street, San Francisco. The proposed Clearwire facility would be an unmanned facility, adding 6 panel antennas and 2 internet services exchange antennas mounted on the top of the cylinder-shaped elevator tower located at the northwest corner of the 4-story public parking structure serving San Francisco General Hospital. All 8 antennas will be mounted on existing, vacant Nextel mounts, placed inside an existing Nextel fiberglass enclosure. All antennas will be enclosed within this structure. One associated equipment rack will be placed inside the existing Nextel room on the third floor of the parking garage. This project will be scheduled for a Planning Commission Hearing at a later date.

You are invited and encouraged to attend the Community Outreach Meeting. If you have any questions regarding the proposal and are unable to attend the meeting, please contact Joyce Chu at (909) 992-2212 or email [jchu@moduscon.com](mailto:jchu@moduscon.com). Please contact Ericka Jackson, City of San Francisco Planning Department at (415) 558-6363, should you have any questions about the City of San Francisco Planning permit process.

**NOTE: If you need an interpreter to be present at the meeting, please contact our office: (909) 992-2212 at your earliest convenience and we will make every effort to provide you with an interpreter.**

## Convocatoria a reunión de vecinos

Para: Todos los vecinos y propietarios en un radio de 500 pies (150 metros) a la redonda de la siguiente dirección: 2548 24<sup>th</sup> Street, San Francisco, California.

### Información sobre la reunión:

Fecha: Martes, 15 de junio de 2010

Hora: 6:30 PM – 8:00 PM

Lugar: Potrero Hill

Neighborhood House  
953 De Haro Street  
San Francisco, CA

### Información del sitio donde se instalarán los equipos:

Dirección: 2548 24<sup>th</sup> Street  
San Francisco, CA

Bloque/Lote: 4213 / 001

Zonificación: P

### Solicitante:

Clear Wireless, LLC

### Información de contacto:

Joyce Chu  
Modus Consulting, LLC  
(909) 992-2212

**DESCRIPCIÓN DEL PROYECTO:** Clearwire está proponiendo instalar equipos de comunicación inalámbrica en la siguiente dirección: 2548 24<sup>th</sup> Street, San Francisco. La propuesta consiste en instalar un equipo automatizado (sin operadores humanos) formado por seis (6) antenas tipo panel y dos (2) antenas para el intercambio de tráfico por Internet montadas en la parte superior de una torre elevadora con forma de cilindro ubicada en la esquina noroeste de la edificación de cuatro pisos que sirve de estacionamiento público del San Francisco General Hospital. Las ocho (8) antenas se montarán en bases de la compañía Nextel que actualmente se encuentran vacías, las cuales están ubicadas dentro de unos tabiques de fibra de vidrio de la misma compañía. Tanto las bases como los tabiques están en la edificación, y las antenas estarán encerradas dentro de la estructura antes descrita. Dentro de una oficina que Nextel tiene actualmente en el tercer piso del estacionamiento se instalará un estante para equipos relacionados. El proyecto se presentará en una Audiencia de la Comisión de Planificación en una fecha futura.

Lo invitamos a asistir a la Reunión de Acercamiento con la Comunidad; esperamos contar con su presencia. Si tiene alguna duda sobre la proposición y no puede asistir a la reunión, comuníquese con Joyce Chu por el teléfono (909) 992-2212 o por el correo electrónico [jchu@moduscon.com](mailto:jchu@moduscon.com). Si tiene dudas sobre el proceso de otorgamiento de permisos del Departamento de Planificación de la Ciudad de San Francisco, comuníquese con Ericka Jackson, del Departamento de Planificación de la Ciudad de San Francisco, por el teléfono (415) 558-6363.

**OBSERVACIÓN:** Si necesita que un intérprete esté presente en la reunión, llame a nuestra oficina por el teléfono (909) 992-2212 tan pronto como le sea posible. Haremos todo lo posible por conseguirle un intérprete.

## 邻里会议通知

致：2548 24<sup>th</sup> Street, San Francisco, California（加州旧金山 24 街 2548 号）500 英尺半径内的所有居民和业主

### 会议信息：

日期：2010 年 6 月 15 日

（周二）

时间：晚上 6:30 - 8:00

地点：Potrero Hill  
Neighborhood House  
953 De Haro Street  
San Francisco, CA

### 场地信息：

地址：2548 24<sup>th</sup> Street  
San Francisco, CA

楼号/地块：4213 / 001

分区：P

### 申请人：

Clear Wireless, LLC

### 联系信息：

Joyce Chu  
Modus Consulting, LLC  
(909) 992-2212

**项目说明：**Clearwire 提议在 2548 24<sup>th</sup> Street, San Francisco（旧金山 24 街 2548 号）安装一套无线通讯设施。所建议的 Clearwire 设施是一套无人职守设施，旨在一座柱状升降机塔的顶部添加 6 个平板天线和 2 个互联网服务交换天线。该升降机塔位于服务于旧金山综合医院(San Francisco General Hospital)的 4 层公共停车建筑的西北角处。所有 8 个天线将安装在已有的空闲 Nextel 安装座上，该安装座置于现有的 Nextel 纤维玻璃罩内。所有天线将被罩在这个结构中。一个相关设备机架将被置于停车库第三层的现有 Nextel 室内。此项目将安排在日后某个时间进行一次规划委员会听证(Planning Commission Hearing)。

现邀请并鼓励您参加社区外联会议(Community Outreach Meeting)。如果您对这项提议有任何问题，或者无法参加会议，请联系 Joyce Chu（电话：(909) 992-2212；电子邮件：[jchu@moduscon.com](mailto:jchu@moduscon.com)）。如果您就旧金山市规划许可程序有任何问题，请联系旧金山市规划局(City of San Francisco Planning Department)的 Ericka Jackson（电话：(415) 558-6363）。

注：如果您在会议现场需要一位口译员，请尽快联系我们的办公室（电话：(909) 992-2212）。我们将尽可能为您提供一位口译员。



15 June 2010

RE: AFFIDAVIT FOR COMMUNITY OUTREACH MEETING

To Whom It May Concern:

Clear Wireless LLC ("Clearwire") conducted a community outreach meeting and notified all owners and tenants within a 500' radius of the subject property, 2500 24th Street on Tuesday, June 15, 2010. Please see the attached sign-in sheet and minutes for the meeting.

Location: Potrero Hill Neighborhood House @ 953 DeHaro, San Francisco, CA

Date & Time: 15 June 2010 @ 6:30 PM – 8:00 PM

Clearwire Representatives:

William Stephens, Project Manager, Clearwire  
Kevin Vuong, RF Engineer, Clearwire  
Noel Cuenco & Kris Powell, Backhaul Engineer, Clearwire  
Joyce Chu, Land Use Manager, Modus Consulting

Hammett & Edison Representative: Rajat Mathur, P.E.

Public Attendance: 1 person

Please contact me if there are any questions or concerns

Sincerely,

A handwritten signature in black ink, appearing to read "j. chu".

Joyce Chu

Land Use Manager, Modus Consulting

On behalf of Clearwire

June 15, 2010 @ 6:30 PM – 8:00 PM | Potrero Hill Neighborhood House @ 953 DeHaro Street

## Community Outreach Meeting Minutes

Re: WTS Facility @ 2500 24<sup>th</sup> Street, San Francisco, California

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### Attendance:

Clearwire Representatives: William Stephens, Kevin Vuong, Kris Powell & Noel Cuenco

Modus Consulting Representatives: Joyce Chu, Sam Judd & Chad Abbott

Hammett & Edison Representative: Rajat Mathur, P.E.

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**Public Attendance:** 1 Person (Ted Nace)

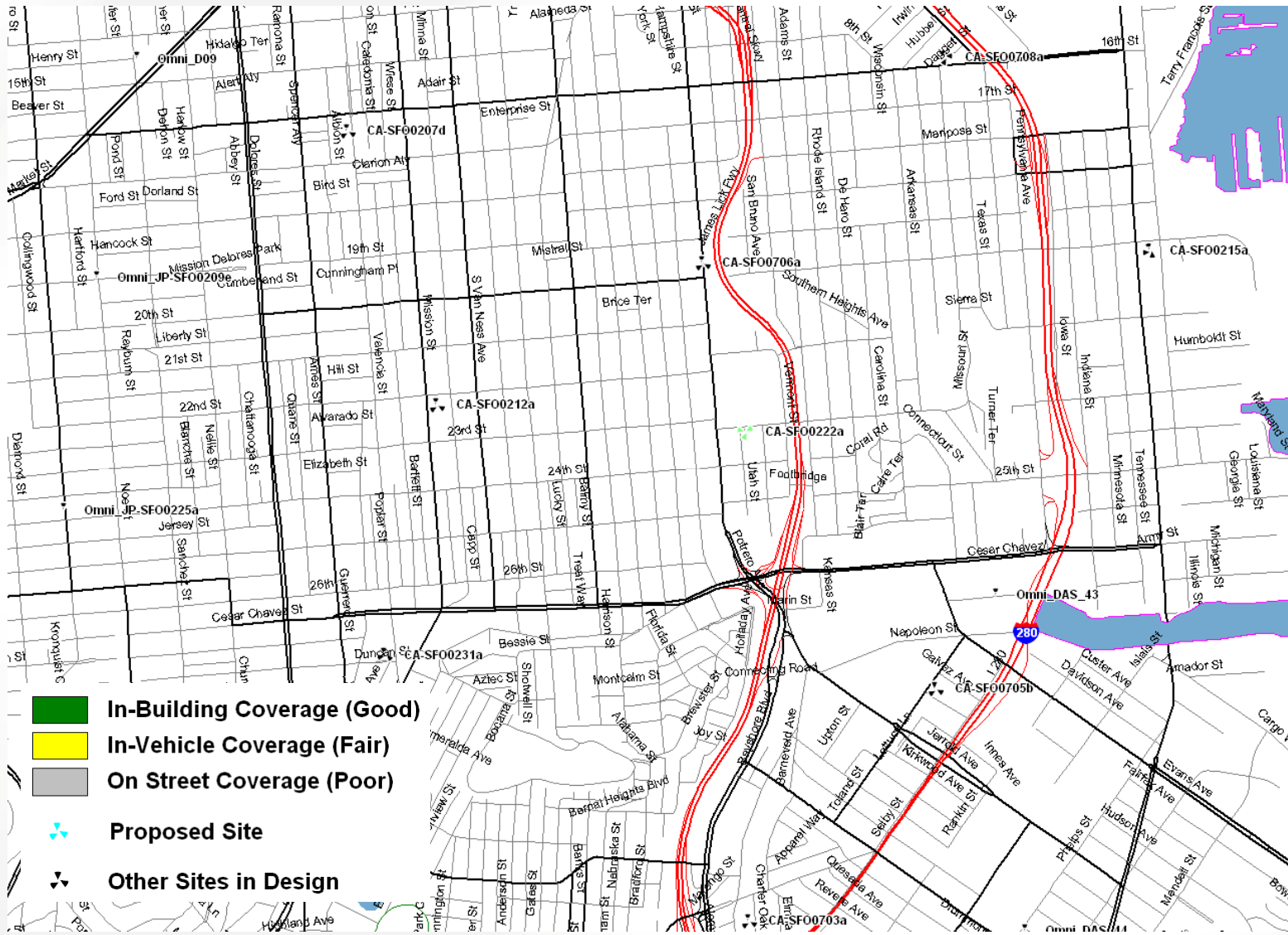
### MEETING MINUTES

- Presentation to give an overview of the project proposal – 6:40 PM – 6:50 PM
  - By Joyce Chu, Modus Consulting
- Ted Nace
  - Mainly had health and safety concerns about the site. Wondering if he was safe from the antennas because he lives about 370' away from the site. Asked about the beams and how far away the measurements are taken, etc.
    - Raj answered – 1% maximum on the top floor 20 yards from the antennas.
  - The U.S. standards are different from other countries (vs Australia and new Zealand – different microwatts) other countries have higher standard
    - Raj corrected his measurements because it's at a different frequency. We use broadband radio frequency (2600)
  - Asking for measurements before and after the installation.
  - Asked how measurements were done – should've tried to get it within the strongest part of the beam (the middle)
    - KVuong pointed out that people would not actually be in that beam because it's almost always above where you are. Take measurements from where people are
  - Questions on calculations
  - Asked for measurement from home – took down his info and will contact him when the site is built to measure the level of exposure at his home.
- Meeting end time: 7:30 PM
  - (stayed until 8 PM for anyone else that may trickle in. no one else showed)

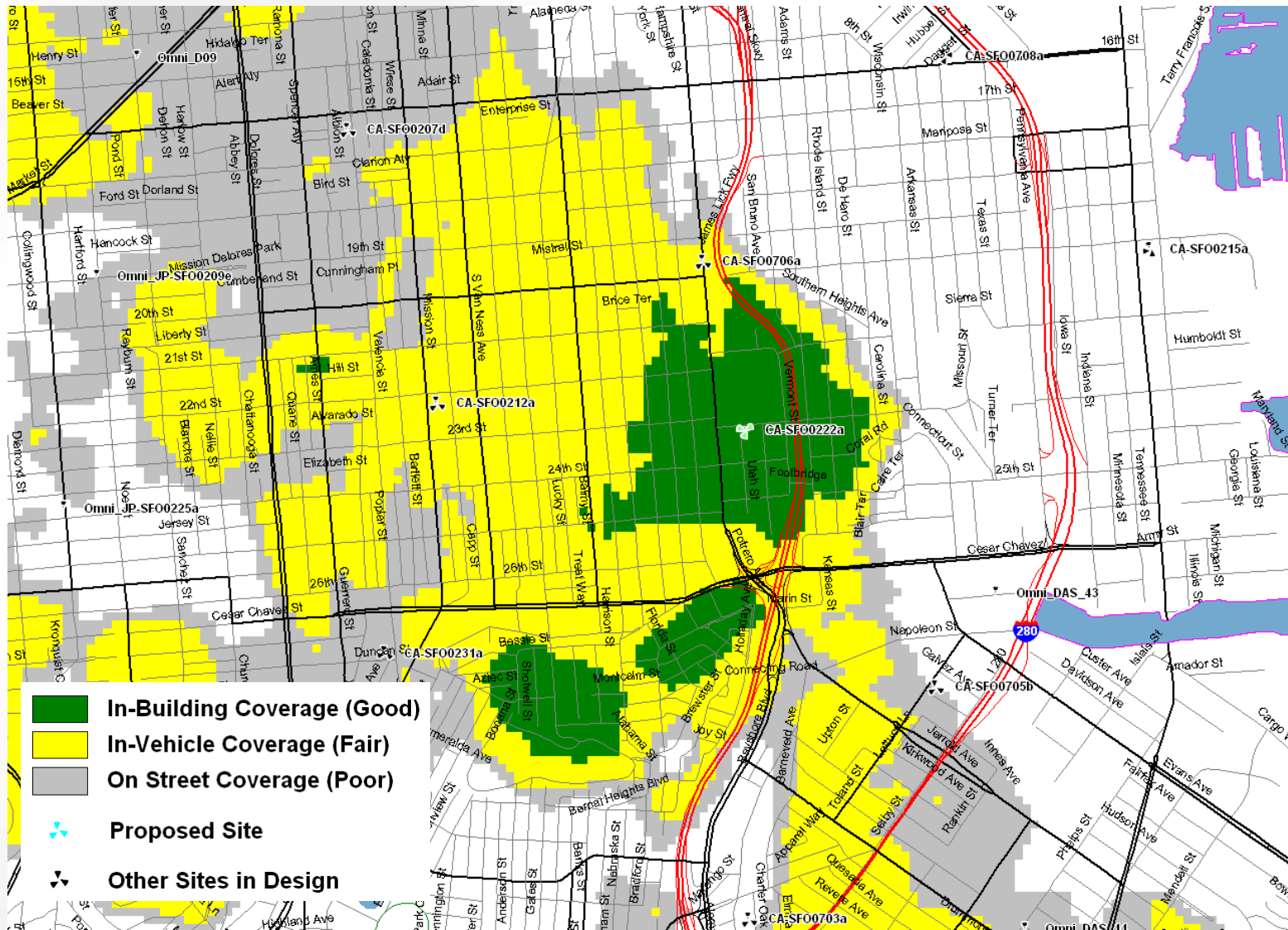
# CA-SF0222 Coverage



# Existing Coverage



# Coverage with CA-SFO0222



**Clearwire, LLC • Proposed Base Station (Site No. CA-SFO0222A)  
2548 24th Street • San Francisco, California**

**Statement of Hammett & Edison, Inc., Consulting Engineers**

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Clearwire, LLC, a wireless service provider, to evaluate its proposed base station (Site No. CA-SFO0222A) to be located at 2548 24th Street 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 WTS 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)	5–23,000 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
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	2.35	0.47
[most restrictive frequency range]	30–300	1.00	0.20

The site was visited by Mr. Robert H. Taylor, a qualified field technician employed by Hammett & Edison, Inc., during normal business hours on June 16, 2010, a non-holiday weekday, and reference has been made to information provided by Clearwire, including construction drawings by Michael Wilk Architecture, dated April 20, 2010.

**Checklist**

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

There were observed several directional panel antennas for use by Sprint Nextel mounted inside a shroud above the elevator penthouse on the five-story parking structure located at 2548 24th Street, near the San Francisco Hospital. Existing RF levels at the top floor of the parking structure and at ground level near the site were both less than 1% of the most restrictive public exposure limit.

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

The installation of eight Andrew Model HBXX-6513DS-VTM directional panel antennas, for use by T-Mobile, was approved by the Planning Commission. The antennas would be mounted behind a view screen to be installed above the northeast stairwell of the parking structure at an effective height of about 49½ feet above ground, 15 feet above the top floor of the garage, with up to 3° downtilt, and

**Clearwire, LLC • Proposed Base Station (Site No. CA-SFO0222A)  
2548 24th Street • San Francisco, California**

would be oriented in pairs towards 70°T, 130°T, 210°T, and 330°T, to provide service in all directions. The maximum effective radiated power proposed by T-Mobile in any direction is 500 watts. For a person anywhere at ground, the maximum ambient RF exposure level due to the proposed T-Mobile operation by itself is calculated to be 0.0015 mW/cm<sup>2</sup>, which is 0.15% of the applicable public exposure level.

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

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

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

Clearwire proposes to install six KMW Model HB-X-WM-14-65 directional panel BRS antennas with 2° downtilt within the shroud housing the existing Sprint Nextel antennas, at an effective height of about 49½ feet above ground, 15 feet above the top floor of the parking garage, and oriented towards 60°T, 205°T, and 295°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 Clearwire 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 by Clearwire in any direction would be 310 watts. The power rating of the existing Sprint Nextel operation is not known.

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

The Clearwire antennas would be installed as described in Item 4 above. There were observed no taller buildings located nearby.

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 ambient RF exposure level due to the proposed Clearwire operation by itself is calculated to be 0.00093 mW/cm<sup>2</sup>, which is 0.093% of the applicable public exposure limit. The cumulative RF level at ground is therefore expected to be less than 2% of the limit. The three-dimensional perimeter of RF levels equal to the public exposure limit is calculated to extend up to 37 feet out from the shroud housing the Clearwire and Sprint Nextel

**Clearwire, LLC • Proposed Base Station (Site No. CA-SFO0222A)  
2548 24th Street • San Francisco, California**

antennas and to much lesser distances above and below the shroud; this does not reach any other buildings nearby.

*9. Describe proposed signage at site.*

Due to their mounting locations, the new Clearwire 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 shroud housing the Clearwire and Sprint Nextel antennas, such as might occur during maintenance work on the parking structure, 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\* on the shroud in front of 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. Similar measures should already be in place at the site.

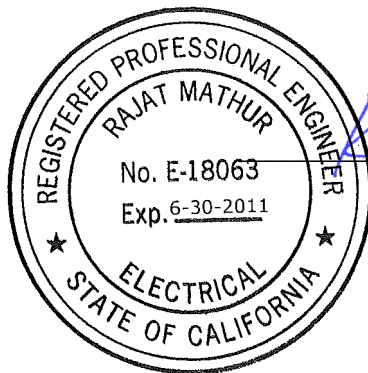
*10. Statement of authorship.*

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-18063, which expires on June 30, 2011. 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 my professional opinion that the proposed Clearwire base station at 2548 24th Street in San Francisco can comply with the prevailing standards for limiting human exposure to radio frequency energy and, therefore, need not for this reason cause a significant impact on the environment.

June 16, 2010



*Rajat Mathur*  
Rajat Mathur, P.E.  
(707) 996-5200

\* 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, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required.



**Review of Cellular Antenna Site Proposals**

**Project Sponsor :** Clearwire **Planner:** Ionin  
**RF Engineer Consultant:** Hammett and Edison **Phone Number:** (707) 996-5200  
**Project Address/Location:** 2548 24TH St  
**Site ID:** 1311 **SiteNo.:** SFO0222A

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: 310 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: 310 watts.
- X 7. Preferred method of attachment of proposed antenna (roof, wall mounted, monopole) with plot or roof plan. Show directionality of antennas. Indicate height above roof level. Discuss nearby inhabited buildings (particularly in direction of antennas) (WTS-FSG, Section 10.41d)
- X 8. Report estimated ambient radio frequency fields for the proposed site (identify the three-dimensional perimeter where the FCC standards are exceeded.) (WTS-FSG, Section 10.5) State FCC standard utilized and power density exposure level (i.e. 1986 NCRP, 200  $\mu\text{w}/\text{cm}^2$ )  
 Maximum RF Exposure: 0.00093 mW/cm<sup>2</sup>    Maximum RF Exposure Percent: 0.093
- 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: 37  
 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 several existing antennas operated by Sprint Nextel installed on the roof top of the building at 2548 24TH St. Existing RF levels at ground level were around 2% of the FCC public exposure limit. There were observed no other antennas within 100 feet of this site. Clearwire proposes to install 6 new antenna. The antennas are mounted at a height of 50 feet above the ground. The estimated ambient RF field from the proposed Clearwire transmitters at ground level is calculated to be 0.00093 mW/sq cm., which is 0.093 % of the FCC public exposure limit. The three dimensional perimeter of RF levels equal to the public exposure limit extends 37 feet and does not reach any publicly accessible areas. Warnings signs must be posted at the antennas and roof access points in English, Spanish and Chinese. Worker 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: 6/16/2010

Patrick Fosdahl

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





# SAN FRANCISCO PLANNING DEPARTMENT

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June 17, 2010

Joyce Chu  
833 Market Street, Suite 805  
San Francisco, California 94103

**Re: Case No. 2010.0288R  
Assessor's Block 4213, Lot 001  
2500 24<sup>th</sup> Street  
Installation of a wireless telecommunications facility on a public structure**

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

Reception:  
**415.558.6378**

Fax:  
**415.558.6409**

Planning  
Information:  
**415.558.6377**

Dear Ms. Chu,

The Department received a request for a General Plan Referral to install a new wireless telecommunications facility at 2500 24<sup>th</sup> Street, as required by Section 4.105 of the Charter and Section 2A.53 of the Administrative Code. The Department has determined that construction of a new wireless telecommunications facility at this location is, on balance, **in conformity** with the General Plan, as described in Attachment 1.

The proposal is to install a wireless telecommunications facility consisting of 6 hybrid dual panel antennas and 2 internet exchange round dish antennas, on an existing 4 story public parking garage structure at San Francisco General Hospital. The project site is within a P (Public) Zoning District and a 40-X Height and Bulk District.

The Project will serve as part of a wireless transmission network operated by Clearwire on a Location Preference 1 (Preferred Location – Publicly-used structures) according to the Wireless Telecommunications Services (WTS) Siting Guidelines. Each panel antenna measures 24" (length) by 8" (width) by 2.7" (depth) and each internet exchange antenna is 12" in diameter. The antennas would be installed inside the existing fiberglass reinforced plastic enclosure painted and textured to match the existing structure at a height of approximately 51 feet above grade. Equipment cabinets would be placed within an existing equipment room on the third floor of the public parking garage structure.

## **Environmental Review**

The proposed project was determined by the San Francisco Public Utilities Commission's Bureau of Environmental and Regulatory Management to be categorically exempt from the environmental review process pursuant to Class 3 exemptions of Title 14 of the California Administrative Code.



**Re: Case No. 2010.0288R  
2500 24<sup>th</sup> Street –  
Installation of a wireless telecommunications facility on a public structure**

The Planning Department has determined that the project is consistent with Planning Code Section 101.1(b) Eight Priority Policies, as described in Attachment 2.

In summary, the installation of a new wireless telecommunications facility at 2500 24<sup>th</sup> Street is **in conformity** with the General Plan.

Sincerely,

John Rahaim  
Director of Planning

Attachments:

1. General Plan Case Report
2. Planning Code Section 101.1 Priority Policies

**Re: Case No. 2010.0288R  
2500 24<sup>th</sup> Street –  
Installation of a wireless telecommunications facility on a public structure**

## **GENERAL PLAN CASE REPORT**

## **ATTACHMENT 1**

General Plan Objectives are capitalized. General Plan Policies are in regular font. Staff comments are in *italics*.

### **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.

**Re: Case No. 2010.0288R**  
**2500 24<sup>th</sup> Street –**  
**Installation of a wireless telecommunications facility on a public structure**

**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.*

**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.*

Re: Case No. 2010.0288R  
2500 24<sup>th</sup> Street –  
Installation of a wireless telecommunications facility on a public structure

## PLANNING CODE SECTION 101.1 FINDINGS

## ATTACHMENT 2

### Proposition M Findings

Planning Code Section 101.1 establishes Eight Priority Policies and requires review of permits for consistency with said policies. The project is found to be consistent with the policies as set forth in Planning Code for the following reasons:

- 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 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.*

**Re: Case No. 2010.0288R  
2500 24<sup>th</sup> Street –  
Installation of a wireless telecommunications facility on a public structure**

G. That landmarks and historic buildings be preserved.

*No landmarks or historic buildings would be affected by the project.*

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.*

*ESJ: G:\DOCUMENTS\Projects\GP Referral\24th Street 2500\T-Mobile\GP Referral Letter.doc*



# SOUTH POTRERO DISTRICT CA-SFO0222

2548 24TH ST.  
SAN FRANCISCO, CA 94110



182 2ND ST., SUITE 210  
SAN FRANCISCO, CA 94105

PROJECT INFORMATION:

**SOUTH POTRERO DISTRICT  
CA-SFO0222**  
2548 24TH ST.  
SAN FRANCISCO, CA 94110  
CITY OF SAN FRANCISCO

CURRENT ISSUE DATE:

04/20/10

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100% ZONING DRAWINGS

REV.: DATE: DESCRIPTION: BY:

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0	04/20/10	100% ZONING DRAWINGS	FL

PROJECT ARCHITECT/ENGINEER:

**MICHAEL WILK ARCHITECTURE**  
833 Market Street, #805  
San Francisco, CA 94103  
T: 415-839-9594  
F: 415-904-8388  
www.wilkarch.com

DRAWN BY: CHK.: APV.:

FL MWA MW

CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:

**TITLE SHEET**

SHEET NUMBER: REVISION:

**T-1**

### VICINITY MAP - N.T.S.



SAN FRANCISCO

### CODE COMPLIANCE

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

- CALIFORNIA ADMINISTRATIVE CODE (INCL TITLE 24 & 25)
- 2007 CALIFORNIA BUILDING CODE
- CITY/COUNTY ORDINANCES
- BUILDING OFFICIALS AND CODE ADMINISTRATORS (BOCA)
- MECHANICAL 2007 CALIFORNIA CODE
- ANSI/EIA-222-F LIFE SAFETY CODE NFPA-101
- 2007 CALIFORNIA PLUMBING CODE
- 2007 CALIFORNIA ELECTRICAL CODE
- LOCAL BUILDING CODE

NOTE: A SEPARATE FIRE DEPARTMENT PERMIT WILL BE OBTAINED FROM SFFD HEADQUARTERS AT 698 2ND STREET.

### CONSULTANT CONTACT

#### PROPERTY OWNER:

MUNICIPAL TRANSPORTATION AUTHORITY  
1 SOUTH VAN NESS, SUITE 3022  
SAN FRANCISCO, CA 94103  
CONTACT: AMIT KOTHARI  
PHONE: (415)701-4462

#### ARCHITECT:

MICHAEL WILK ARCHITECTURE  
833 MARKET ST., SUITE 805  
SAN FRANCISCO, CA 94103  
CONTACT: FRANCES LESHER  
PHONE: (415) 839-9594  
FAX: (415) 904-8388  
EMAIL: flesher@wilkarch.com

#### APPLICANT:

CLEARWIRE  
182 2ND ST., SUITE 210  
SAN FRANCISCO, CA 94105  
CONTACT: BILL STEPHENS  
PHONE: (510) 612-2511  
EMAIL: william.stephens@clearwire.com

#### CONSTRUCTION MANAGER:

CLEARWIRE  
182 2ND ST., SUITE 210  
SAN FRANCISCO, CA 94105  
CONTACT: RON MAX  
PHONE: (707) 363-6379  
EMAIL: ron@siteservicesllc.net

#### LEASING MANAGER:

MODUS CONSULTING, LLC  
833 MARKET ST., SUITE 805  
SAN FRANCISCO, CA 94103  
CONTACT: SAM JUDD  
PHONE: (415)533-9298  
FAX: (415)651-9219  
EMAIL: sjudd@moduscon.com

#### ZONING MANAGER:

MODUS CONSULTING, LLC  
833 MARKET ST., SUITE 805  
SAN FRANCISCO, CA 94103  
CONTACT: JOYCE CHU  
PHONE: (909)992-2212  
FAX: (415)651-9219  
EMAIL: jchu@moduscon.com,

### BUILDING/ SITE DATA LEGEND

LATITUDE: 37° 45' 13.96" N (NAD83)  
LONGITUDE: 122° 24' 16.49" W (NAD83)  
ELEVATION: 55.96' AMSL (NGVD 29)  
A.P.N.: 4213-001  
ZONING: P  
OCCUPANCY: S-1  
TYPE OF CONSTRUCTION: TYPE I  
AREA OF CONST.: 20 SQ. FT.  
HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.  
TITLE 24 REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. TITLE 24 IS EXEMPT.

### DRIVING DIRECTIONS

FROM: CLEARWIRE REGIONAL OFFICE  
182 2ND STREET, SUITE 210  
SAN FRANCISCO, CA 94105

TO: 2548 24TH ST  
SAN FRANCISCO, CA 94110

DISTANCE: 3.4 MILES

- HEAD SOUTHEAST ON 2ND ST TOWARD HOWARD ST - 0.3MI
- TURN RIGHT AT HARRISON ST - 0.3MI
- SLIGHT LEFT ONTO THE RAMP TO US-101S/SAN JOSE - 0.2MI
- MERGE ONTO I-80W - 1.0MI
- MERGE ONTO US-101 S - 1.0MI
- TAKE THE C CHAVEZ ST EXIT 0.1MI
- KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR POTRERO AVE AND MERGE ONTO POTRERO AVE - 0.4MI
- TURN RIGHT AT 24TH ST - DESTINATION WILL BE ON THE LEFT - 413FT

### PROJECT DESCRIPTION

- INSTALLATION OF A WIRELESS COMMUNICATIONS FACILITY, INCLUDING THE INSTALLATION OF (1) NEW EQUIPMENT RACK, (1) GPS ANTENNA, (2) INTERNET SERVICES EXCHANGE SWITCH ANTENNAS, AND A TOTAL OF (6) PANEL ANTENNAS CONCEALED WITHIN (E) FRP STRUCTURE.
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (HANDICAPPED ACCESS NOT REQUIRED).
  - FACILITY HAS NO PLUMBING.
  - FACILITY WILL BE INDEPENDENTLY POWERED.
  - ANTENNA INSTALLATION SHALL BE CONDUCTED BY FIELD CREWS EXPERIENCED IN THE ASSEMBLY AND ERECTION OF RADIO ANTENNAS, TRANSMISSION LINES, AND SUPPORT STRUCTURES.
  - CONTRACTOR COMPANIES AND THEIR EMPLOYEES SHALL OBSERVE AND PRACTICE ALL O.S.H.A. SAFETY GUIDELINES WHILE PERFORMING SERVICE FOR SPRINT.
  - CONTRACTOR SHALL PERFORM A SAFETY INSPECTION PRIOR TO COMMENCING ALL WORK ACTIVITIES AT A SPRINT LEASED OR OWNED SITE. SPRINT SHOULD BE IMMEDIATELY NOTIFIED OF SAFETY HAZARD(S) FOUND DURING THE INSPECTION THAT COULD CAUSE DAMAGE TO PROPERTY. ALL WORK SHALL BE HALTED UNTIL SUCH TIME THE REPORTED SAFETY HAZARD IS CORRECTED. THE SAFETY HAZARD, IF POSSIBLE, SHOULD BE CORRECTED BY THE CONTRACTOR WHILE ON SITE. AFTER THE CONTRACTOR HAS NOTIFIED SPRINT TO PERFORM THE CORRECTION.
  - TOWER MODIFICATIONS, IF REQUIRED, ARE TO BE COMPLETED BEFORE THE INSTALLATION OF ANY EQUIPMENT.

### SHEET INDEX

- |     |   |
|-----|---|
| T-1 | TITLE SHEET   |
| T-2 | EQUIPMENT SPECIFICATIONS                              |
| A-1 | OVERALL SITE/ROOF PLAN                                |
| A-2 | ENLARGED ANTENNA LAYOUT PLAN/EQUIPMENT LAYOUT/DETAILS |
| A-3 | ELEVATIONS  |





Preliminary

**840 10084**  
65° XX-pol Panel Antenna  
2496–2690 MHz

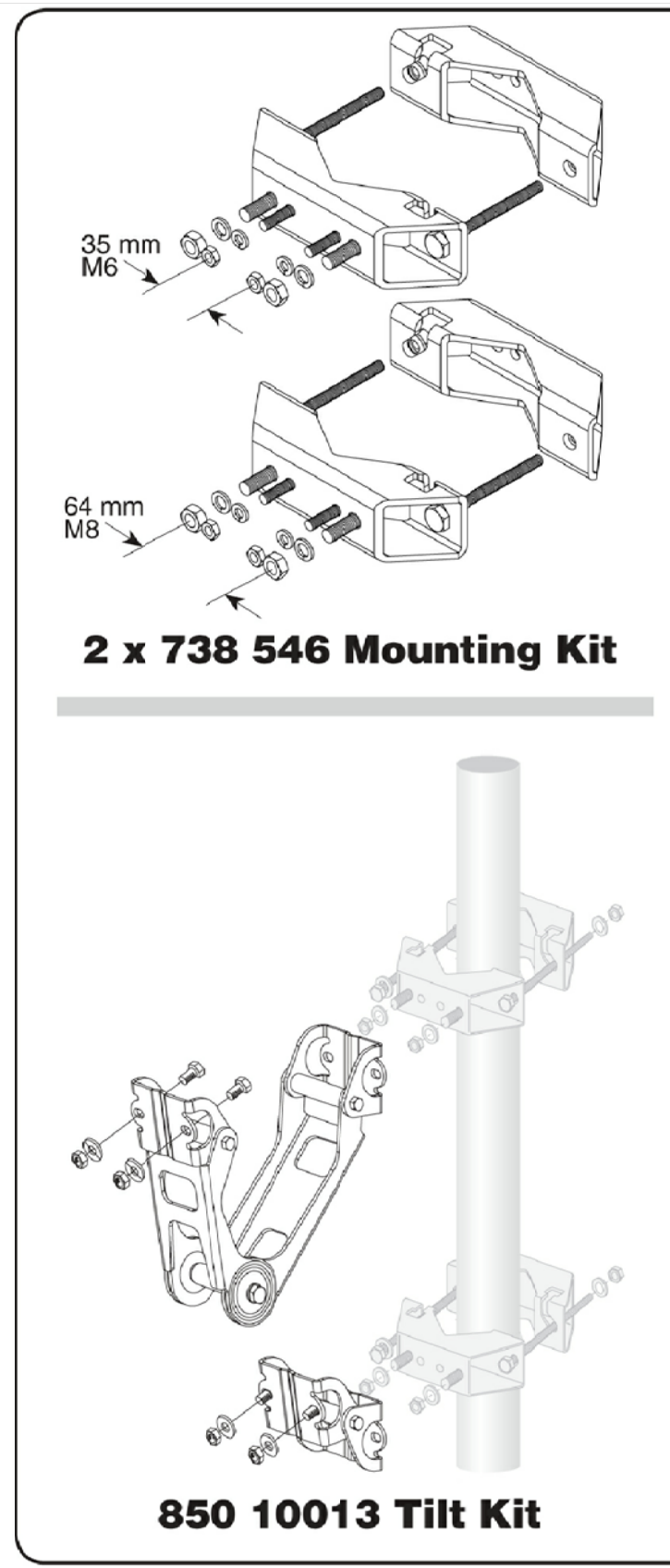
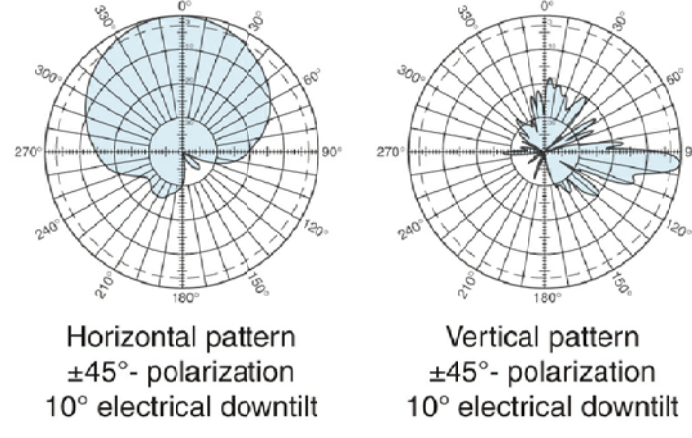
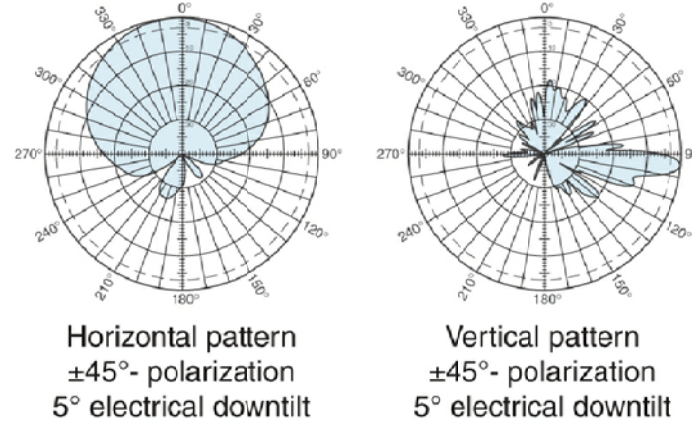
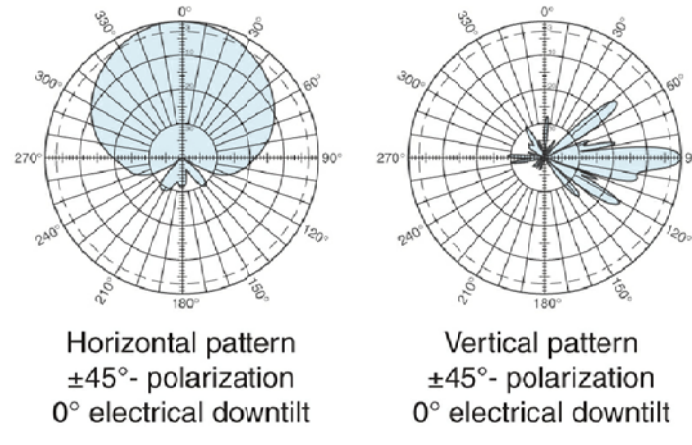
Kathrein Scala's XX-polarized adjustable electrical downtilt antennas offer the carrier the ability to tailor sites for optimum performance. Using variable downtilt, only a few models need be procured to accommodate the needs of widely varying conditions. Remotely controlled downtilt is available as a retrofitable option.

- 0-10° electrical downtilt range.
- DC Grounded metallic parts for impulse suppression.
- No moving electrical connections.
- Optional remote downtilt control.

**Specifications:**

Frequency range	2496–2690 MHz
Gain	2 x 17 dBi
Impedance	50 ohms
VSWR	< 1.5:1
Intermodulation (2x20w)	IM3: < -150 dBc
Polarization	+45° and -45°
Front-to-back ratio	>25 dB typical
Maximum input power	300 watts (at 50°C)
+45° and -45° polarization horizontal beamwidth	65 degrees at midband (half power)
+45° and -45° polarization vertical beamwidth	7 degrees at midband (half power)
Electrical downtilt continuously adjustable	0–10 degrees
Connector	4 x 7-16 DIN female
Sidelobe suppression for first sidelobe above horizon	0° 4° 8° 10° 15 15 15 15 dB (typical)
Null fill	> -1 cBi to 12° below horizon (typical) (18 dB below 17 dBi main beam)
Isolation	>30 dB
Weight	35 lb (15.9 kg)
Dimensions	42 x 12.7 x 2.8 inches (1067 x 323 x 71 mm)
Equivalent flat plate area	4.8 ff (0.45 m <sup>2</sup> )
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	48 x 13.3 x 5.1 inches (1220 x 337 x 130 mm)
Shipping weight	39 lb (17.7 kg)
Mounting	Fixed and tilt-mount options are available for 2 to 5.7 inch (50 to 145 mm) OD masts.

See reverse for order information.  
\*Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

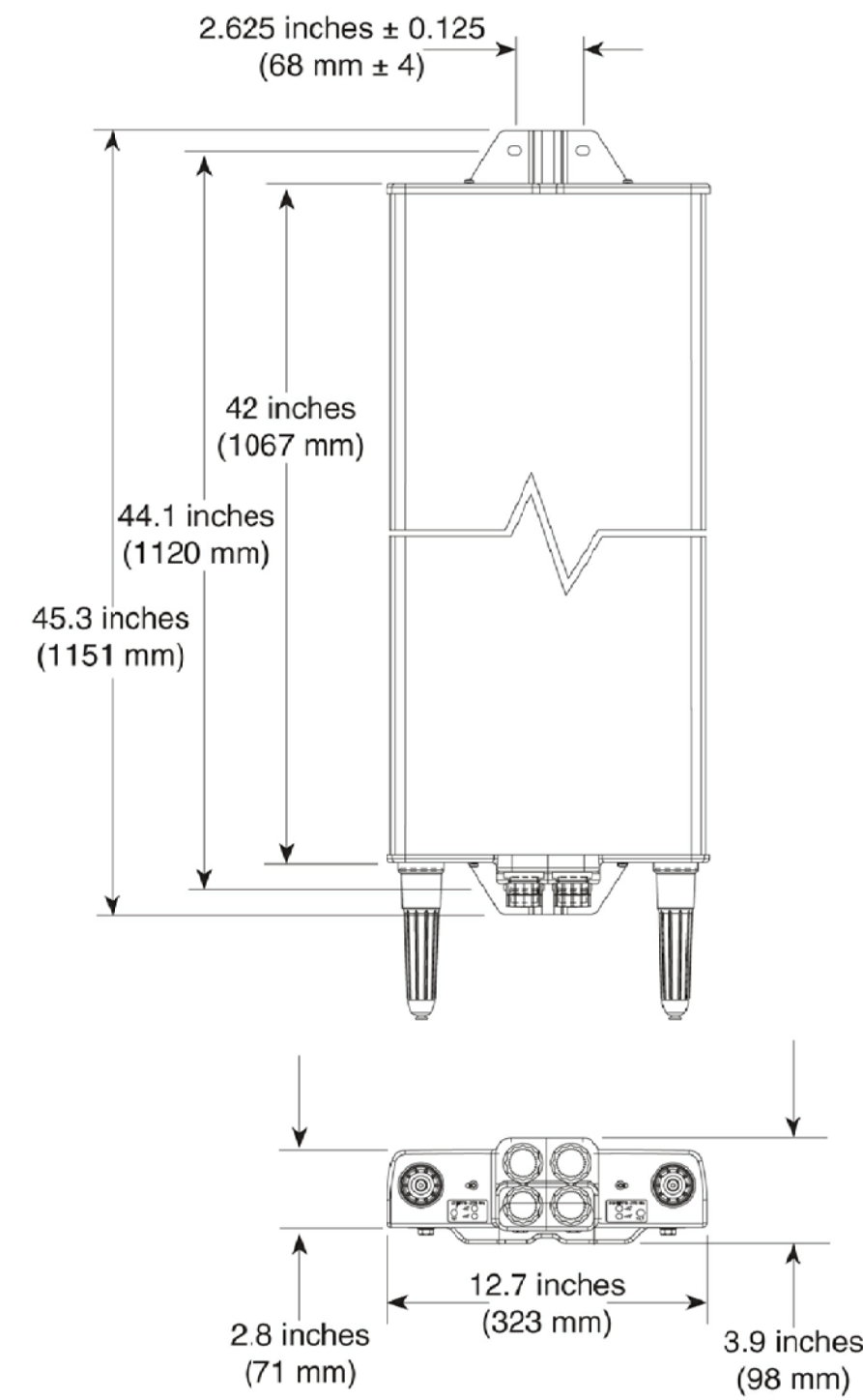


**Mounting Options:**

Model	Description
2 x 738 546	Mounting Kit for 2 to 4.6 inch (50 to 115 mm) OD mast.
850 10013	Tilt Kit for use with the 2 x 738 546 mounting kit 0–15 degrees downtilt angle.

**Order Information:**

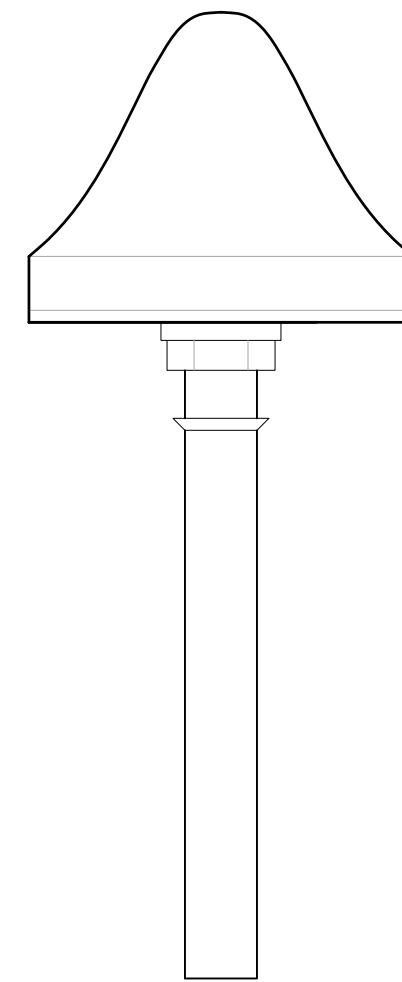
Model	Description
840 10084	Antenna with 7-16 DIN connectors



All specifications are subject to change without notice. The latest specifications are available at [www.kathrein-scala.com](http://www.kathrein-scala.com).  
Kathrein Inc., Scala Division Post Office Box 4580 Medford, OR 97501 (USA) Phone: (541) 779-6500 Fax: (541) 779-3991  
Email: [communications@kathrein.com](mailto:communications@kathrein.com) Internet: [www.kathrein-scala.com](http://www.kathrein-scala.com)

**ANTENNA SPECIFICATIONS**

SCALE: 2  
N.T.S.



MANUFACTURER: MOTOROLA  
MODEL #: MNT62312B1  
HEIGHT: 3.23"  
WIDTH: 4"  
WEIGHT: 312 GRAMS

**GPS SPECIFICATION**

SCALE: 3 NOT USED  
N.T.S.



182 2ND ST., SUITE 210  
SAN FRANCISCO, CA 94105

PROJECT INFORMATION:

**SOUTH PORTRERO DISTRICT  
CA-SFO0222**

2548 24TH ST.  
SAN FRANCISCO, CA 94110  
CITY OF SAN FRANCISCO

CURRENT ISSUE DATE:

04/20/10

ISSUED FOR:

100% ZONING DRAWINGS

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0	04/20/10	100% ZONING DRAWINGS	FL

PROJECT ARCHITECT/ENGINEER:

**MICHAEL WILK ARCHITECTURE**

833 Market Street, #805  
San Francisco, CA 94103  
T: 415-839-9594  
F: 415-904-8388  
[www.wilkarch.com](http://www.wilkarch.com)

DRAWN BY: CHK.: APV.:

FL	MWA	MW
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CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:

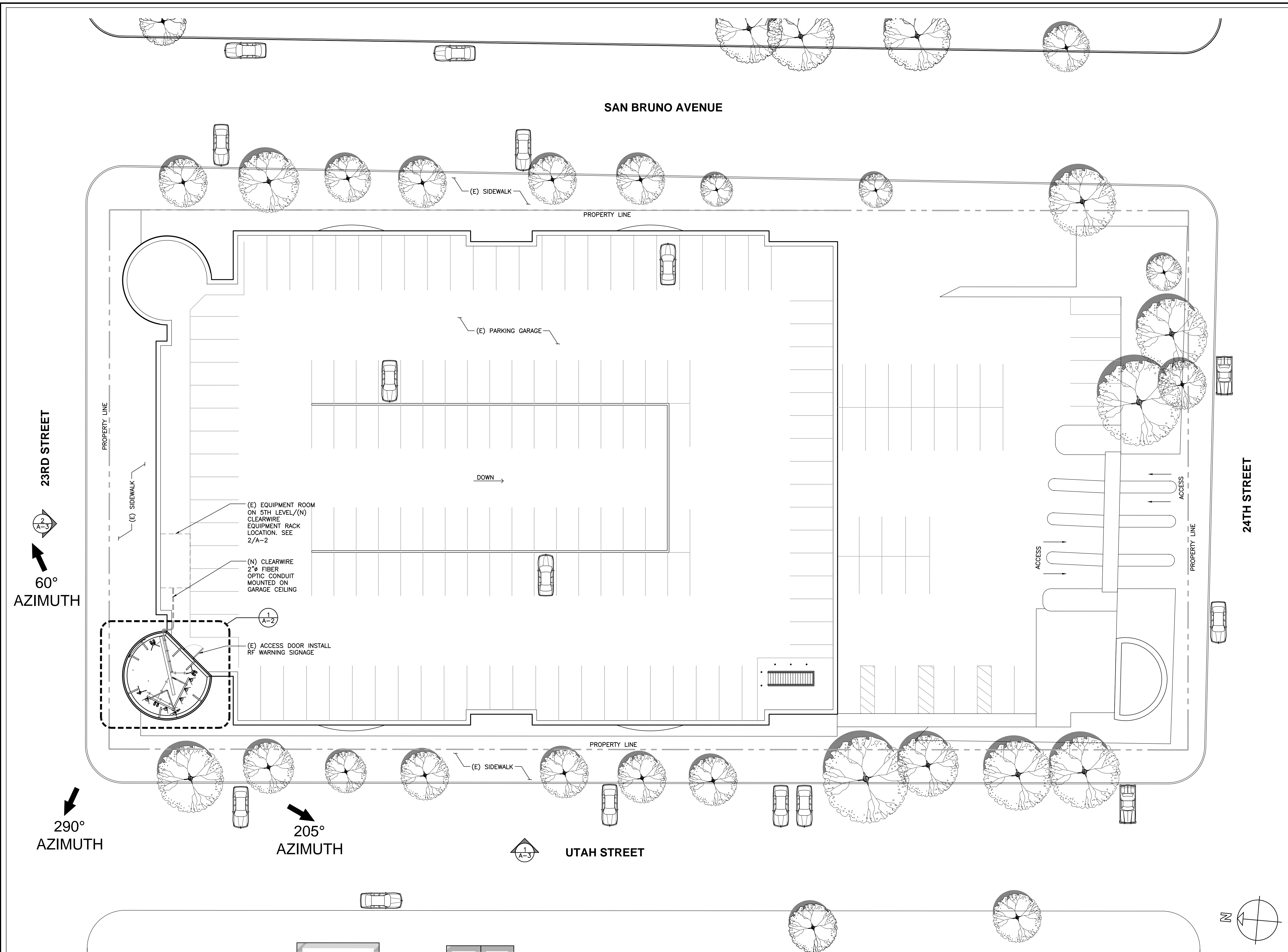
**EQUIPMENT SPECIFICATIONS**

SHEET NUMBER: REVISION:

**T-2**

1





PROJECT INFORMATION:

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CA-SFO0222**  
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FL	MWA	MW
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CONSULTANT:

SEAL OF APPROVAL:

SHEET TITLE:

**OVERALL SITE/ROOF PLAN**

SHEET NUMBER: REVISION:

**A-1**



PROJECT INFORMATION:

**SOUTH PORTRERO DISTRICT  
CA-SFO0222**  
2548 24TH ST.  
SAN FRANCISCO, CA 94110  
CITY OF SAN FRANCISCO

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FL	MWA	MW
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CONSULTANT:

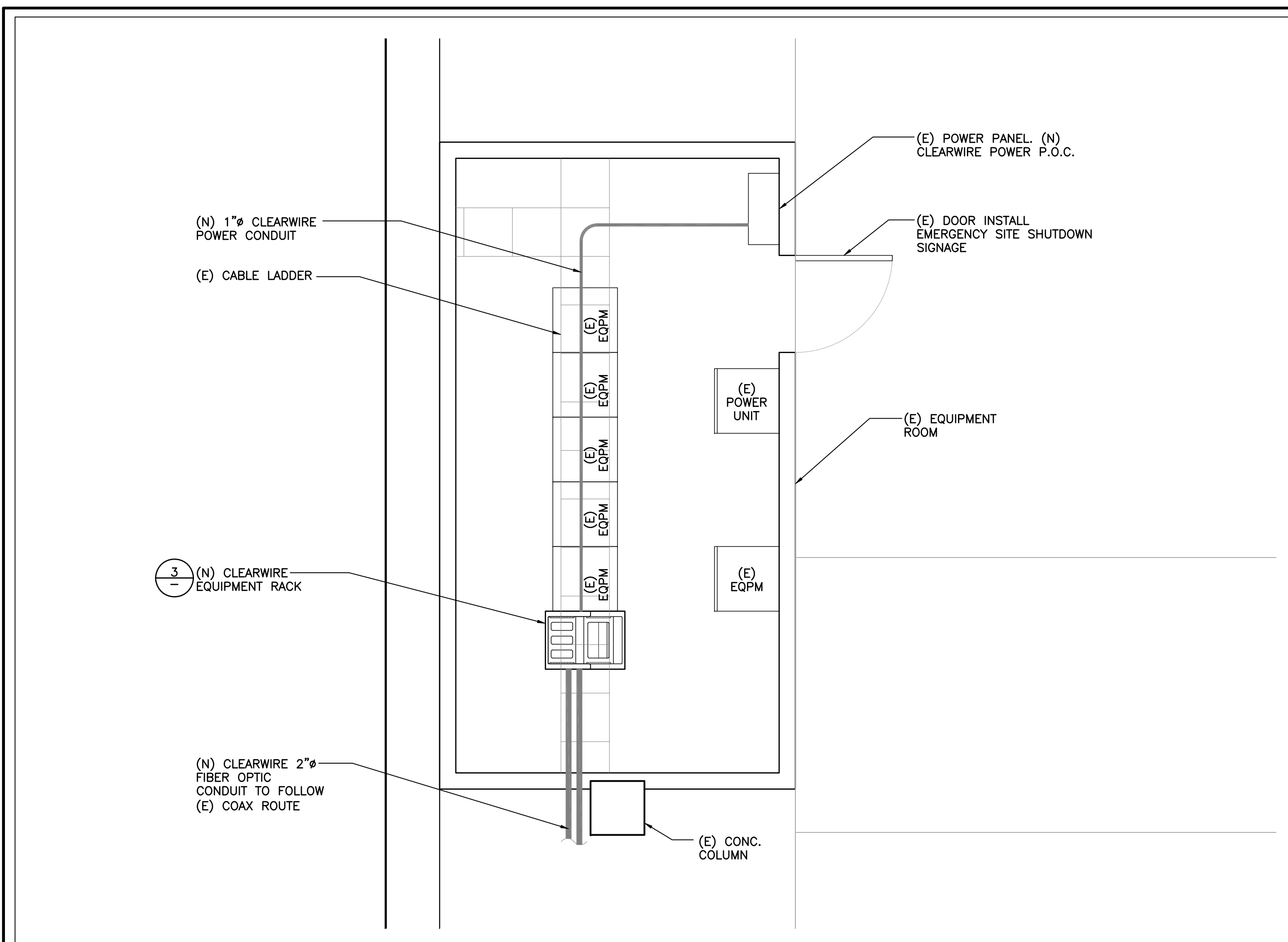
SEAL OF APPROVAL:

SHEET TITLE:

**ENLARGED ANTENNA LAYOUT PLAN/ EQUIPMENT LAYOUT/ DETAILS**

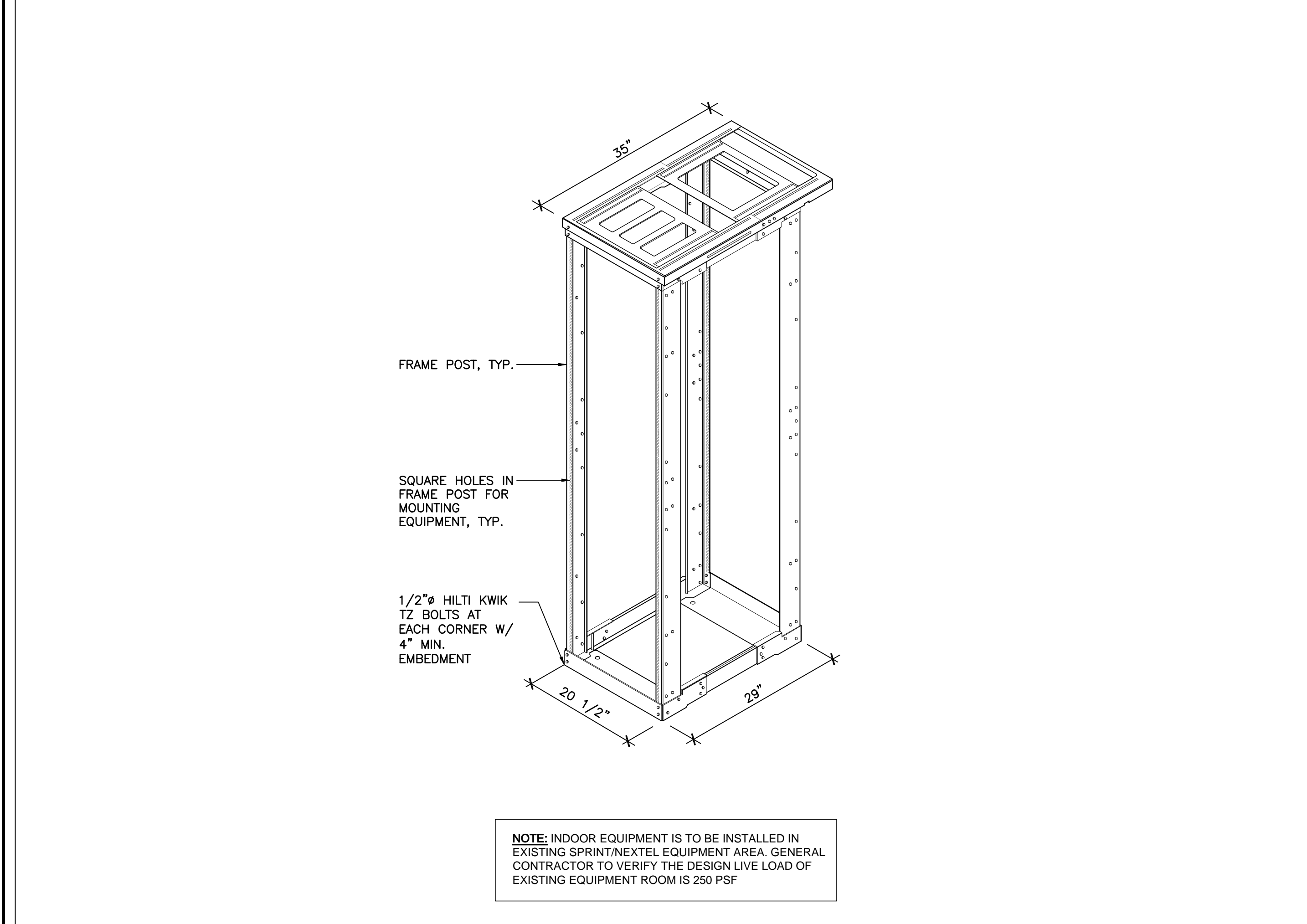
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**A-2**



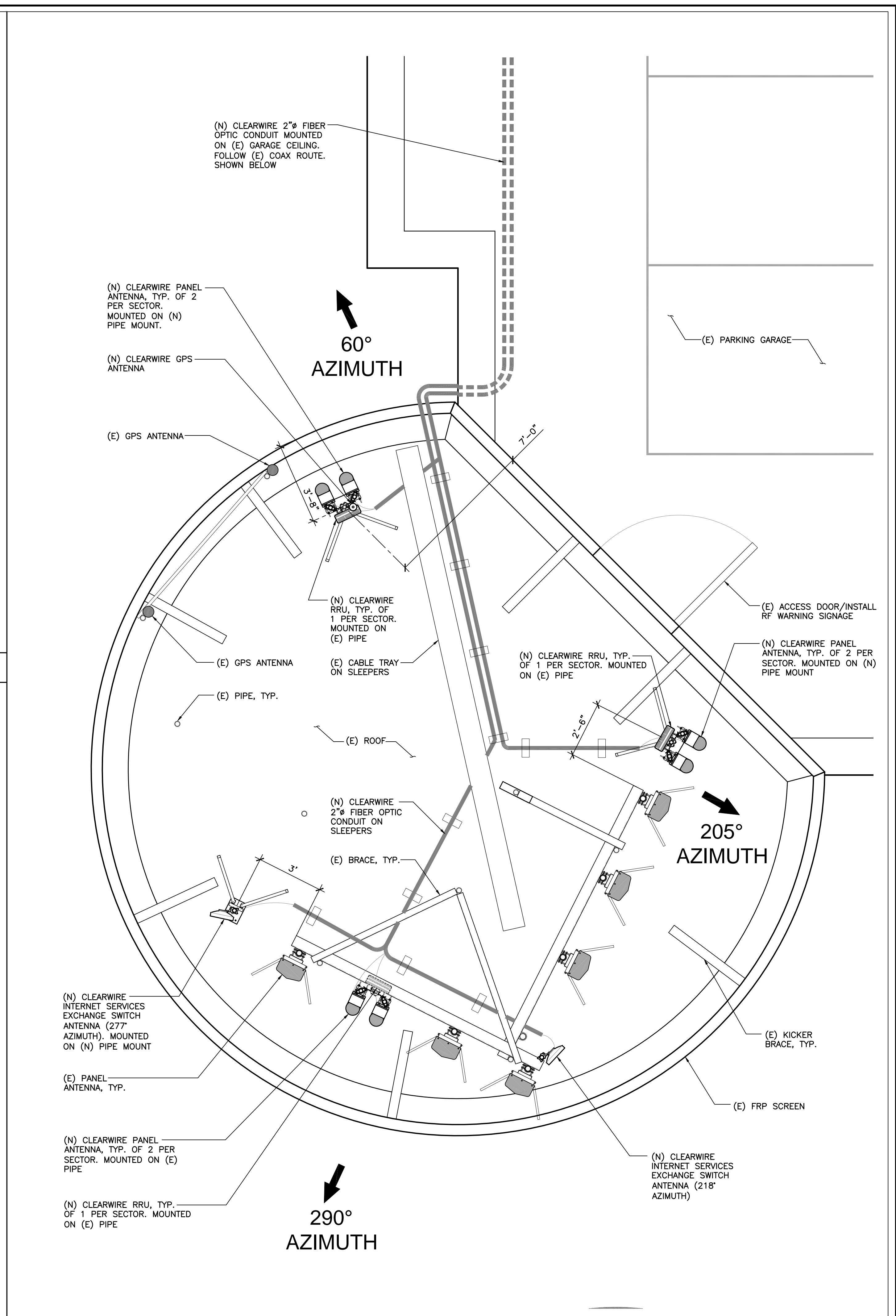
**EQUIPMENT LAYOUT PLAN AT 5TH LEVEL**

SCALE: 3/8"=1'-0" 0 1' 3' 5'



**INDOOR EQUIPMENT RACK DETAIL**

SCALE: N.T.S. 3



**ANTENNA LAYOUT PLAN**

SCALE: 3/8"=1'-0" 0 1' 3' 5'

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CA-SFO0222**  
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SAN FRANCISCO, CA 94110  
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FL	MWA	MW
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CONSULTANT:

SEAL OF APPROVAL:

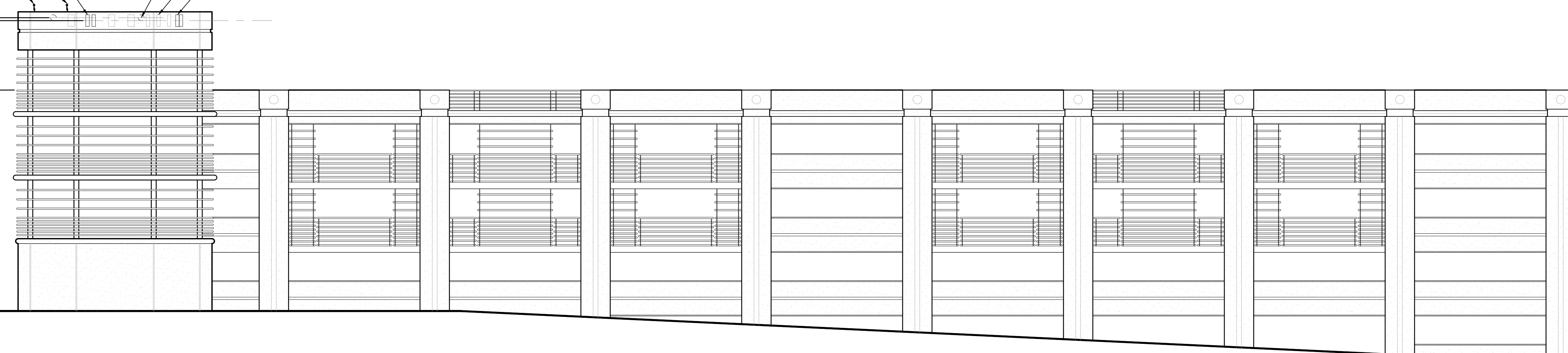
SHEET TITLE:

**ELEVATIONS**

SHEET NUMBER: REVISION:

**A-3**

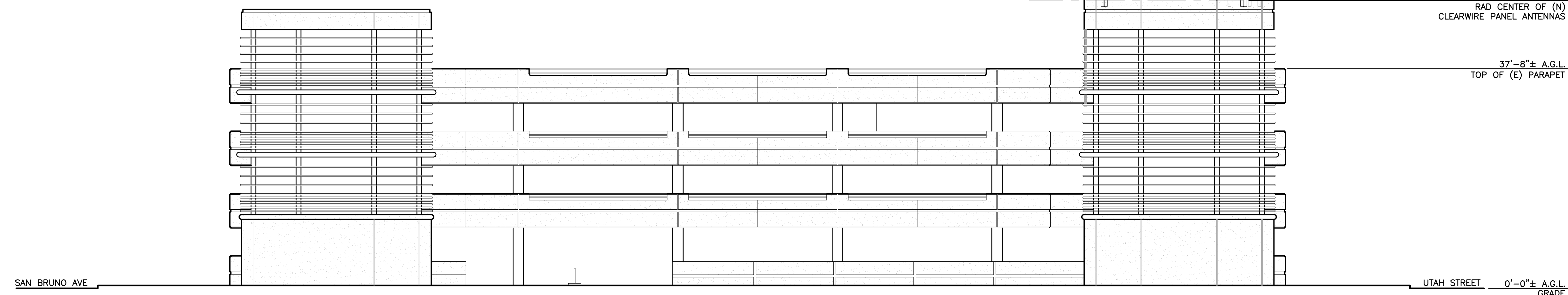
- (N) CLEARWIRE ANTENNAS MOUNTED BEHIND (E) FRP SCREEN
- (E) GPS ANTENNAS
- 50'-0"± A.G.L. RAD CENTER OF (N) CLEARWIRE INTERNET SERVICES EXCHANGE SWITCH ANTENNAS
- 49'-6"± A.G.L. RAD CENTER OF (N) CLEARWIRE PANEL ANTENNAS
- 37'-8"± A.G.L. TOP OF (E) PARAPET
- 0'-0"± A.G.L. 23RD STREET GRADE
- (N) CLEARWIRE INTERNET SERVICES EXCHANGE SWITCH ANTENNA (218° AZIMUTH)
- (E) PANEL ANTENNA, TYP.
- (N) CLEARWIRE ANTENNA MOUNTED BEHIND (E) FRP SCREEN



**SOUTH ELEVATION**

SCALE: 3/32"=1' 1

- (N) CLEARWIRE INTERNET SERVICES EXCHANGE SWITCH ANTENNA (277° AZIMUTH)
- (E) PANEL ANTENNA, TYP.
- (N) CLEARWIRE ANTENNAS MOUNTED BEHIND (E) FRP SCREEN
- 50'-0"± A.G.L. RAD CENTER OF (N) CLEARWIRE INTERNET SERVICES EXCHANGE SWITCH ANTENNA
- 49'-6"± A.G.L. RAD CENTER OF (N) CLEARWIRE PANEL ANTENNAS
- 37'-8"± A.G.L. TOP OF (E) PARAPET
- (E) GPS ANTENNAS
- (N) CLEARWIRE ANTENNAS MOUNTED BEHIND (E) FRP SCREEN



**WEST ELEVATION**

SCALE: 3/32"=1' 2