



# SAN FRANCISCO PLANNING DEPARTMENT

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## Certificate of Appropriateness Case Report Regular Calendar

HEARING DATE: NOVEMBER 17, 2010

*Filing Date:* February 23, 2010  
*Case No.:* **2009.1101**  
*Project Address:* **333 Baker Street**  
*Historic Landmark:* No. 192 – Southern Pacific Company Hospital Complex  
*Zoning:* RM-1 (Residential, Mixed, Low Density)  
80-E Height and Bulk District  
*Block/Lot:* 1206/003 and 002  
*Applicant:* Rick Hirsch  
Representing T-Mobile West Corporation  
2001 McAllister Street, #238  
San Francisco, CA 94118  
*Staff Contact* Aaron Starr - (415) 558-6362  
aaron.starr@sfgov.org  
*Reviewed By* Tim Frye – (415) 558-6822  
Tim.frye@sfgov.org

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

Reception:  
**415.558.6378**

Fax:  
**415.558.6409**

Planning  
Information:  
**415.558.6377**

### PROPERTY DESCRIPTION

**333 BAKER STREET**, west side between Hayes and Fell Streets. Assessor's Block 1206, Lots 003 and 002. The 6-story, Beaux Arts hospital complex was built in 1906 by Daniel Patterson. The complex is comprised of 5 free-standing masonry buildings. It is located in a RM-1 (Residential, Mixed, Low Density) Zoning District and a 80-E Height and Bulk District.

### PROJECT DESCRIPTION

The proposed project involves installing three (3) panel antennas on the walls of two existing rooftop penthouses, one (1) panel antenna on the roof within a false vent, four (4) RBS equipment cabinets and one (1) back-up battery unit within a new roof-top enclosure, and antenna coaxial cable transmission lines. The antennas will be hidden from view by a fiberglass reinforced panel screens.

### OTHER ACTIONS REQUIRED

The proposed antennas and equipment require Conditional Use Authorization from the Planning Commission.

### COMPLIANCE WITH THE PLANNING CODE PROVISIONS

Provided the project receives Conditional Use Authorization from the Planning Commission, the proposed project is in compliance with all other provisions of the Planning Code.

## APPLICABLE PRESERVATION STANDARDS

### ARTICLE 10

A Certificate of Appropriateness is required for any construction, alteration, removal, or demolition of a designated Landmark for which a City permit is required. In appraising a proposal for a Certificate of Appropriateness, the Historic Preservation Commission should consider the factors of architectural style, design, arrangement, texture, materials, color, and other pertinent factors. Section 1006.7 of the Planning Code provides in relevant part as follows:

The proposed work shall be appropriate for and consistent with the effectuation of the purposes of Article 10.

The proposed work shall be compatible with the historic structure in terms of design, materials, form, scale, and location. The proposed project will not detract from the site's architectural character as described in the designating ordinance. For all of the exterior and interior work proposed, reasonable efforts have been made to preserve, enhance or restore, and not to damage or destroy, the exterior architectural features of the subject property which contribute to its significance.

### THE SECRETARY OF THE INTERIOR'S STANDARDS

Rehabilitation is the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. The Rehabilitation Standards provide, in relevant part(s):

#### Standard 2.

The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

*The proposal will not change the use or the overall character of the existing building. The proposed antennas will be located on a stair penthouse, which is not a distinctive characteristic of the subject building and not visible from the primary elevations.*

#### Standard 9.

New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

*The proposed antennas will be located on stair penthouses, which are not distinctive characteristics of the subject building and not visible from the primary elevations. The screening panels will be constructed out of reinforced fiberglass that will be finished and painted to look like stucco, a compatible material for the historic property at this location. The proposed screen will add some bulk to the existing stair penthouse; however the increase in bulk is minimal and the screen will mitigate the cumulative impact of adding ten (10) additional antennas to the existing building and aid in cleaning up the clutter caused by the existing antennas already located on the penthouse.*

**Standard 10.**

New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

*The proposed work is easily reversible.*

**PUBLIC/NEIGHBORHOOD INPUT**

The Department has received no public input on the project at the date of this report.

**ISSUES & OTHER CONSIDERATIONS**

On December 1, 2009, the Project Sponsor applied for Conditional Use Authorization to install four (4) panel antennas on the subject building. On November 11, 2009 a representative for Verizon Wireless also applied for Conditional Use Authorization to install six (6) antennas on the subject building. Both proposals are being considered at the same Historic Preservation Commission hearing so that their cumulative impacts can be evaluated by the Historic Preservation Commission.

**STAFF ANALYSIS**

Based on the requirements of Article 10 and the Secretary of Interior's Standards, staff determined that the proposed work will not adversely affect the subject landmark site and is conformance with the Secretary of the Interior's Standards for Rehabilitation.

Staff finds that the historic character of the property will be retained and preserved.

Staff finds that the proposed project would not impact any of the character defining features of the Landmark building and the proposal is reversible. The proposed antennas will be located on stair penthouses, which are not distinctive characteristics of the subject building and not visible from the primary elevations. One antenna would be located within a false vent, which will have a limited visual impact from the public right-of-way.

Staff finds that the proposed antennas as well as the existing antennas already installed on the site will be screened from view by fiberglass reinforced panels finished and painted to look like stucco. The proposed screen will add some bulk to the existing stair penthouses; however the increase in bulk is minimal and the screen will mitigate the cumulative impact of adding ten (10) additional antennas to the existing building and aid in cleaning up the clutter caused by the existing antennas already located on the penthouse.

Staff finds that the proposed equipment cabinets for T-Mobile will be located on the roof and screened from view by the addition of a new equipment enclosure on the roof. The proposed equipment enclosure is setback from the main façade, is minimally visible and will not adversely impact any character defining features on the subject building.

## ENVIRONMENTAL REVIEW STATUS

The Planning Department has determined that the proposed project is exempt/excluded from environmental review, pursuant to CEQA Guideline Section 15303 (Class Three-Conversion of Small Structures) because the project proposes to convert the use of an existing structure and meets the *Secretary of the Interior's Standards*.

## PLANNING DEPARTMENT RECOMMENDATION

Planning Department staff recommends APPROVAL of the proposed project as it appears to meet the Secretary of the Interior Standards for Rehabilitation.

## ATTACHMENTS

Draft Motion  
Photographs/Photo Simulations  
Plans/Specifications

AS: G:\DOCUMENTS\CofA\333 Baker St\333 Baker.CoACaseReport.T-Mobile.doc



# SAN FRANCISCO PLANNING DEPARTMENT

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## Historic Preservation Commission Draft Motion

HEARING DATE: NOVEMBER 17, 2010

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**ADOPTING FINDINGS FOR A CERTIFICATE OF APPROPRIATENESS FOR PROPOSED WORK DETERMINED TO BE APPROPRIATE FOR AND CONSISTENT WITH THE PURPOSES OF ARTICLE 10, TO MEET THE STANDARDS OF ARTICLE 10 AND TO MEET THE SECRETARY OF INTERIOR'S STANDARDS FOR REHABILITATION, FOR THE PROPERTY LOCATED ON LOTS 002-003 IN ASSESSOR'S BLOCK 1206, WITHIN AN RM-1 (RESIDENTIAL, MIXED, LOW-DENSITY) ZONING DISTRICT AND A 40-X HEIGHT AND BULK DISTRICT.**

### PREAMBLE

WHEREAS, on February 23, 2010, Rick Hirsch (Project Sponsor) representing T-Mobile West Corporation filed an application with the San Francisco Planning Department (hereinafter "Department") for a Certificate of Appropriateness to install four (4) panel antennas and associated equipment on the subject property located on lots 002-003 in Assessor's Block 1206. The work includes installing three (3) panel antennas on the walls of existing rooftop penthouses, one (1) panel antenna on the roof within a false vent, four (4) RBS equipment cabinets and one (1) back-up battery unit within a new roof-top enclosure, and antenna coaxial cable transmission lines. The antennas mounted on the stair penthouses will be screened from public view by a fiberglass reinforced panel.

WHEREAS, the Project was determined by the Department to be categorically exempt from environmental review. The Historic Preservation Commission (hereinafter "Commission") has reviewed and concurs with said determination.

WHEREAS, on November 17, 2010, the Commission conducted a duly noticed public hearing on the current project, Case No. 2009.1101A ("Project") for its appropriateness.

WHEREAS, in reviewing the Application, the Commission has had available for its review and consideration case reports, plans, and other materials pertaining to the Project contained in the Department's case files, has reviewed and heard testimony and received materials from interested parties during the public hearing on the Project.

**MOVED**, that the Commission hereby grants the Certificate of Appropriateness, in conformance with the architectural plans dated received October 20, 2010 and labeled Exhibit A on file in the docket for Case No. 2009.1101A based on the following findings:

## **FINDINGS**

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

1. The above recitals are accurate and also constitute findings of the Commission.
2. Findings pursuant to Article 10:

The Historical Preservation Commission has determined that the proposed work is compatible with the character of the landmark as described in the designation report dated February 8, 1989.

- The proposed project would not impact any of the character defining features of the Landmark building and the proposal is reversible.
- The historic character of the property will be retained and preserved. The proposed antennas will be located on stair penthouses, which are not a distinctive character of the subject building and not visible from the primary elevations. One antenna would be located within a false vent, which will have a limited visual impact from the public right-of-way.
- The propose antennas as well as the existing antennas already installed on the site will be screened from view by fiberglass reinforced panels finished and painted to look like stucco. The proposed screen will add some bulk to the existing stair penthouses; however the increase in bulk is minimal and the screen will mitigate the cumulative impact of adding ten (10) additional antennas to the existing building and aid in cleaning up the clutter caused by the existing antennas already located on the penthouse.
- The proposed equipment cabinets for T-Mobile will be located on the roof and screened from view by the addition of a new equipment enclosure on the roof. The proposed equipment enclosure is setback from the main façade, is minimally visible and will not adversely impact any character defining features on the subject building.
- The proposed project meets the following Secretary of the Interior's Standards for Rehabilitation:

**Standard 2.**

*The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.*

**Standard 9.**

*New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.*

**Standard 10.**

*New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

3. **General Plan Compliance.** The proposed Certificate of Appropriateness is, on balance, consistent with the following Objectives and Policies of the General Plan:

I. URBAN DESIGN ELEMENT

THE URBAN DESIGN ELEMENT CONCERNS THE PHYSICAL CHARACTER AND ORDER OF THE CITY, AND THE RELATIONSHIP BETWEEN PEOPLE AND THEIR ENVIRONMENT.

GOALS

*The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes, and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.*

OBJECTIVE 1

EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

POLICY 1.3

*Recognize that buildings, when seen together, produce a total effect that characterizes the city and its districts.*

OBJECTIVE 2

CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

POLICY 2.4

*Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.*

*POLICY 2.5*

*Use care in remodeling of older buildings, in order to enhance rather than weaken the original character of such buildings.*

*POLICY 2.7*

*Recognize and protect outstanding and unique areas that contribute in an extraordinary degree to San Francisco's visual form and character.*

*The goal of a Certificate of Appropriateness is to provide additional oversight for buildings and districts that are architecturally or culturally significant to the City in order to protect the qualities that are associated with that significance.*

*The proposed project qualifies for a Certificate of Appropriateness and therefore furthers these policies and objectives by maintaining and preserving the character-defining features of the 333 Baker Street for the future enjoyment and education of San Francisco residents and visitors.*

4. The proposed project is generally consistent with the eight General Plan priority policies set forth in Section 101.1 in that:

- A) The existing neighborhood-serving retail uses will be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses will be enhanced:

*The proposed project is for the installation of cellular antennas and will not have any impact on neighborhood serving retail uses.*

- B) The existing housing and neighborhood character will be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods:

*The proposed project will strengthen neighborhood character by respecting the character-defining features of the landmark in conformance with the Secretary of the Interior's Standards.*

- C) The City's supply of affordable housing will be preserved and enhanced:

*The project will have no impact on the City's affordable housing supply.*

- D) The commuter traffic will not impede MUNI transit service or overburden our streets or neighborhood parking:

*The proposed project will not result in commuter traffic impeding MUNI transit service or overburdening the streets or neighborhood parking.*



- E) A diverse economic base will be maintained by protecting our industrial and service sectors from displacement due to commercial office development. And future opportunities for resident employment and ownership in these sectors will be enhanced:

*The proposed will not have any impact on industrial and service sector jobs.*

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

*The Project is designed and will be constructed to conform to the structural and seismic safety requirements of the City Building Code. This proposal will not impact the property's ability to withstand an earthquake.*

- G) That landmark and historic buildings will be preserved:

*The proposed project is in conformance with Article 10 of the Planning Code and the Secretary of the Interior's Standards.*

- H) Parks and open space and their access to sunlight and vistas will be protected from development:

*The proposed project will not impact the access to sunlight or vistas for the parks and open space.*

5. For these reasons, the proposal overall, is appropriate for and consistent with the purposes of Article 10, meets the standards of Article 10, and the Secretary of Interior's Standards for Rehabilitation, General Plan and Prop M findings of the Planning Code.

DECISION

That based upon the Record, the submissions by the Applicant, the staff of the Department and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **GRANTS a Certificate of Appropriateness** for the property located at Lots 002 and 003 in Assessor's Block 1206 for proposed work in conformance with the renderings and architectural sketches dated October 20, 2010 and labeled Exhibit A on file in the docket for Case No. 2009.1101A.

**APPEAL AND EFFECTIVE DATE OF MOTION:** The Commission's decision on a Certificate of Appropriateness shall be final unless appealed within thirty (30) days. Any appeal shall be made to the Board of Appeals, unless the proposed project requires Board of Supervisors approval or is appealed to the Board of Supervisors as a conditional use, in which case any appeal shall be made to the Board of Supervisors (see Charter Section 4.135).

**Duration of this Certificate of Appropriateness:** This Certificate of Appropriateness is issued pursuant to Article 10 of the Planning Code and is valid for a period of three (3) years from the effective date of approval by the Historic Preservation Commission. The authorization and right vested by virtue of this action shall be deemed void and canceled if, within 3 years of the date of this Motion, a site permit or building permit for the Project has not been secured by Project Sponsor.

**THIS IS NOT A PERMIT TO COMMENCE ANY WORK OR CHANGE OF OCCUPANCY UNLESS NO BUILDING PERMIT IS REQUIRED. PERMITS FROM THE DEPARTMENT OF BUILDING INSPECTION (and any other appropriate agencies) MUST BE SECURED BEFORE WORK IS STARTED OR OCCUPANCY IS CHANGED.**

I hereby certify that the Historical Preservation Commission ADOPTED the foregoing Motion on November 17, 2010.

Linda D. Avery  
Commission Secretary

AYES: X

NAYS: X

ABSENT: X

ADOPTED: November 17, 2010



# SAN FRANCISCO PLANNING DEPARTMENT

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## Certificate of Appropriateness Case Report Regular Calendar

HEARING DATE: NOVEMBER 17, 2010

*Filing Date:* February 23, 2010  
*Case No.:* **2010.0133A**  
*Project Address:* **333 Baker Street**  
*Historic Landmark:* No. 192 – Southern Pacific Company Hospital Complex  
*Zoning:* RM-1 (Residential, Mixed, Low Density)  
80-E Height and Bulk District  
*Block/Lot:* 1206/003  
*Applicant:* Christopher Fowler  
On Air LLC, Representing Verizon Wireless  
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### PROPERTY DESCRIPTION

**333 BAKER STREET**, west side between Hayes and Fell Streets. Assessor's Block 1206, Lots 003 and 002. The 6-story, Beaux Arts hospital complex was built in 1906 by Daniel Patterson. The complex is comprised of 5 free-standing masonry buildings. It is located in a RM-1 (Residential, Mixed, Low Density) Zoning District and a 80-E Height and Bulk District.

### PROJECT DESCRIPTION

The proposed project involves installing equipment cabinets in the basement, a generator in the rear courtyard, and six (6) antennas on the roof penthouse. Coaxial cables will be run from the equipment in the basement to the antennas on the penthouse via an interior chase. The antennas will be the only visible equipment seen from the street and will be hidden by a fiberglass reinforced panel screen.

### OTHER ACTIONS REQUIRED

The proposed antennas and equipment require Conditional Use Authorization from the Planning Commission.

### COMPLIANCE WITH THE PLANNING CODE PROVISIONS

Provided the project receives Conditional Use Authorization from the Planning Commission, the proposed project is in compliance with all other provisions of the Planning Code.

## APPLICABLE PRESERVATION STANDARDS

### ARTICLE 10

A Certificate of Appropriateness is required for any construction, alteration, removal, or demolition of a designated Landmark for which a City permit is required. In appraising a proposal for a Certificate of Appropriateness, the Historic Preservation Commission should consider the factors of architectural style, design, arrangement, texture, materials, color, and other pertinent factors. Section 1006.7 of the Planning Code provides in relevant part as follows:

The proposed work shall be appropriate for and consistent with the effectuation of the purposes of Article 10.

The proposed work shall be compatible with the historic structure in terms of design, materials, form, scale, and location. The proposed project will not detract from the site's architectural character as described in the designating ordinance. For all of the exterior and interior work proposed, reasonable efforts have been made to preserve, enhance or restore, and not to damage or destroy, the exterior architectural features of the subject property which contribute to its significance.

### THE SECRETARY OF THE INTERIOR'S STANDARDS

Rehabilitation is the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. The Rehabilitation Standards provide, in relevant part(s):

#### Standard 2.

The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

*The proposal will not change the use or the overall character of the existing building. The proposed antennas will be located on a stair penthouse, which is not a distinctive character of the subject building and not visible from the primary elevations.*

#### Standard 9.

New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

*The proposed antennas will be located on a stair penthouse, which is not a distinctive characteristic of the subject building and not visible from the primary elevations. The screening panels will be constructed out of reinforced fiberglass that will be finished and painted to look like stucco, a compatible material for the historic property at this location. The proposed screen will add some bulk to the existing stair penthouse; however the increase in bulk is minimal and the screen will mitigate the cumulative impact of adding ten (10) additional antennas to the existing building and aid in cleaning up the clutter caused by the existing antennas already located on the penthouse.*

**Standard 10.**

New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

*The proposed work is easily reversible*

**PUBLIC/NEIGHBORHOOD INPUT**

The Department has received no public input on the project at the date of this report.

**ISSUES & OTHER CONSIDERATIONS**

On November 11, 2009, the Project Sponsor applied for Conditional Use Authorization to install six (6) panel antennas on the penthouse of the existing building. On December 1, 2009 a representative for T-Mobile also applied for Conditional Use Authorization to install four (4) antennas on the subject building. Both proposals are being considered at the same Historic Preservation Commission hearing so that their cumulative impacts can be evaluated by the Historic Preservation Commission.

**STAFF ANALYSIS**

Based on the requirements of Article 10 and the Secretary of Interior's Standards, staff determined that the proposed work will not adversely affect the subject landmark site.

Staff finds that the historic character of the property will be retained and preserved.

Staff finds that the proposed project would not impact any of the character defining features of the Landmark building and the proposal is reversible. The proposed antennas will be located on a stair penthouse, which is not a distinctive character of the subject building and not visible from the primary elevations.

Staff finds that the proposed antennas as well as the existing antennas already installed on the site will be screened from view by fiberglass reinforced panels finished and painted to look like stucco. The proposed screen will add some bulk to the existing stair penthouse; however the increase in bulk is minimal and the screen will mitigate the cumulative impact of adding ten (10) additional antennas to the existing building and aid in cleaning up the clutter caused by the existing antennas already located on the penthouse.

Staff finds that the other proposed equipment will not be visible from the exterior of the building and will not have an impact on any of the subject building's character defining features.

**ENVIRONMENTAL REVIEW STATUS**

The Planning Department has determined that the proposed project is exempt/excluded from environmental review, pursuant to CEQA Guideline Section 15303 (Class Three-Conversion of Small

Structures) because the project proposes to convert the use of an existing structure and meets the *Secretary of the Interior's Standards*.

## PLANNING DEPARTMENT RECOMMENDATION

Planning Department staff recommends APPROVAL of the proposed project as it appears to meet the Secretary of the Interior Standards for Rehabilitation.

## ATTACHMENTS

Draft Motion  
Photographs/Photo Simulations  
Plans/Specifications

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## Historic Preservation Commission Draft Motion

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**ADOPTING FINDINGS FOR A CERTIFICATE OF APPROPRIATENESS FOR PROPOSED WORK DETERMINED TO BE APPROPRIATE FOR AND CONSISTENT WITH THE PURPOSES OF ARTICLE 10, TO MEET THE STANDARDS OF ARTICLE 10 AND TO MEET THE SECRETARY OF INTERIOR'S STANDARDS FOR REHABILITATION, FOR THE PROPERTY LOCATED ON LOTS 002-003 IN ASSESSOR'S BLOCK 1206, WITHIN AN RM-1 (RESIDENTIAL, MIXED, LOW-DENSITY) ZONING DISTRICT AND A 40-X HEIGHT AND BULK DISTRICT.**

### PREAMBLE

WHEREAS, on March 2, 2010, Christopher Fowler of On Air LLC (Project Sponsor) representing Verizon Wireless filed an application with the San Francisco Planning Department (hereinafter "Department") for a Certificate of Appropriateness to install six (6) cellular antennas and associated equipment on the subject property located on lots 002-003 in Assessor's Block 1206. The work includes installing equipment cabinets in the basement, a generator in the rear courtyard, and six (6) antennas on the roof penthouse. Coaxial cables will be run from the equipment in the basement to the antennas on the penthouse via an interior chase. The antennas will be the only visible equipment seen from the street and will be hidden by a fiberglass reinforced panel screen.

WHEREAS, the Project was determined by the Department to be categorically exempt from environmental review. The Historic Preservation Commission (hereinafter "Commission") has reviewed and concurs with said determination.

WHEREAS, on November 17, 2010, the Commission conducted a duly noticed public hearing on the current project, Case No. 2010.0133A ("Project") for its appropriateness.

WHEREAS, in reviewing the Application, the Commission has had available for its review and consideration case reports, plans, and other materials pertaining to the Project contained in the Department's case files, has reviewed and heard testimony and received materials from interested parties during the public hearing on the Project.

**MOVED**, that the Commission hereby grants the Certificate of Appropriateness, in conformance with the architectural plans dated received October 20, 2010 and labeled Exhibit A on file in the docket for Case No. 2010.0133A based on the following findings:

## **FINDINGS**

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

1. The above recitals are accurate and also constitute findings of the Commission.
2. Findings pursuant to Article 10:

The Historical Preservation Commission has determined that the proposed work is compatible with the character of the landmark as described in the designation report dated February 8, 1989.

- The proposed project would not impact any of the character defining features of the Landmark building and the proposal is reversible.
- The historic character of the property will be retained and preserved. The proposed antennas will be located on a stair penthouse, which is not a distinctive characteristic of the subject building and not visible from the primary elevations.
- The propose antennas as well as the existing antennas already installed on the site will be screened from view by fiberglass reinforced panels finished and painted to look like stucco. The proposed screen will add some bulk to the existing stair penthouse; however the increase in bulk is minimal and the screen will mitigate the cumulative impact of adding ten (10) additional antennas to the existing building and aid in cleaning up the clutter caused by the existing antennas already located on the penthouse.
- The proposed project meets the following Secretary of the Interior's Standards for Rehabilitation:

***Standard 2.***

*The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.*

***Standard 9.***

*New additions, exterior alterations, or related new construction will not destroy historic materials,*



*features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.*

**Standard 10.**

*New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

3. **General Plan Compliance.** The proposed Certificate of Appropriateness is, on balance, consistent with the following Objectives and Policies of the General Plan:

I. URBAN DESIGN ELEMENT

THE URBAN DESIGN ELEMENT CONCERNS THE PHYSICAL CHARACTER AND ORDER OF THE CITY, AND THE RELATIONSHIP BETWEEN PEOPLE AND THEIR ENVIRONMENT.

GOALS

*The Urban Design Element is concerned both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes, and to improve the living environment where it is less than satisfactory. The Plan is a definition of quality, a definition based upon human needs.*

OBJECTIVE 1

EMPHASIS OF THE CHARACTERISTIC PATTERN WHICH GIVES TO THE CITY AND ITS NEIGHBORHOODS AN IMAGE, A SENSE OF PURPOSE, AND A MEANS OF ORIENTATION.

POLICY 1.3

*Recognize that buildings, when seen together, produce a total effect that characterizes the city and its districts.*

OBJECTIVE 2

CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

POLICY 2.4

*Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.*

POLICY 2.5

*Use care in remodeling of older buildings, in order to enhance rather than weaken the original character of such buildings.*

*POLICY 2.7*

*Recognize and protect outstanding and unique areas that contribute in an extraordinary degree to San Francisco's visual form and character.*

*The goal of a Certificate of Appropriateness is to provide additional oversight for buildings and districts that are architecturally or culturally significant to the City in order to protect the qualities that are associated with that significance.*

*The proposed project qualifies for a Certificate of Appropriateness and therefore furthers these policies and objectives by maintaining and preserving the character-defining features of the 333 Baker Street for the future enjoyment and education of San Francisco residents and visitors.*

4. The proposed project is generally consistent with the eight General Plan priority policies set forth in Section 101.1 in that:
  - A) The existing neighborhood-serving retail uses will be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses will be enhanced:

*The proposed project is for the installation of cellular antennas and will not have any impact on neighborhood serving retail uses.*

- B) The existing housing and neighborhood character will be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods:

*The proposed project will strengthen neighborhood character by respecting the character-defining features of the landmark in conformance with the Secretary of the Interior's Standards.*

- C) The City's supply of affordable housing will be preserved and enhanced:

*The project will have no impact on the City's affordable housing supply.*

- D) The commuter traffic will not impede MUNI transit service or overburden our streets or neighborhood parking:

*The proposed project will not result in commuter traffic impeding MUNI transit service or overburdening the streets or neighborhood parking.*

- E) A diverse economic base will be maintained by protecting our industrial and service sectors from displacement due to commercial office development. And future opportunities for resident employment and ownership in these sectors will be enhanced:

*The proposed will not have any impact on industrial and service sector jobs.*

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

*The Project is designed and will be constructed to conform to the structural and seismic safety requirements of the City Building Code. This proposal will not impact the property's ability to withstand an earthquake.*

- G) That landmark and historic buildings will be preserved:

*The proposed project is in conformance with Article 10 of the Planning Code and the Secretary of the Interior's Standards.*

- H) Parks and open space and their access to sunlight and vistas will be protected from development:

*The proposed project will not impact the access to sunlight or vistas for the parks and open space.*

5. For these reasons, the proposal overall, is appropriate for and consistent with the purposes of Article 10, meets the standards of Article 10, and the Secretary of Interior's Standards for Rehabilitation, General Plan and Prop M findings of the Planning Code.

**DECISION**

That based upon the Record, the submissions by the Applicant, the staff of the Department and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **GRANTS a Certificate of Appropriateness** for the property located at Lots 002 and 003 in Assessor's Block 1206 for proposed work in conformance with the renderings and architectural sketches dated October 20, 2010 and labeled Exhibit A on file in the docket for Case No. 2010.0133A.

**APPEAL AND EFFECTIVE DATE OF MOTION:** The Commission's decision on a Certificate of Appropriateness shall be final unless appealed within thirty (30) days. Any appeal shall be made to the Board of Appeals, unless the proposed project requires Board of Supervisors approval or is appealed to the Board of Supervisors as a conditional use, in which case any appeal shall be made to the Board of Supervisors (see Charter Section 4.135).

**Duration of this Certificate of Appropriateness:** This Certificate of Appropriateness is issued pursuant to Article 10 of the Planning Code and is valid for a period of three (3) years from the effective date of approval by the Historic Preservation Commission. The authorization and right vested by virtue of this action shall be deemed void and canceled if, within 3 years of the date of this Motion, a site permit or building permit for the Project has not been secured by Project Sponsor.

**THIS IS NOT A PERMIT TO COMMENCE ANY WORK OR CHANGE OF OCCUPANCY UNLESS NO BUILDING PERMIT IS REQUIRED. PERMITS FROM THE DEPARTMENT OF BUILDING INSPECTION (and any other appropriate agencies) MUST BE SECURED BEFORE WORK IS STARTED OR OCCUPANCY IS CHANGED.**

I hereby certify that the Historical Preservation Commission ADOPTED the foregoing Motion on November 17, 2010.

Linda D. Avery  
Commission Secretary

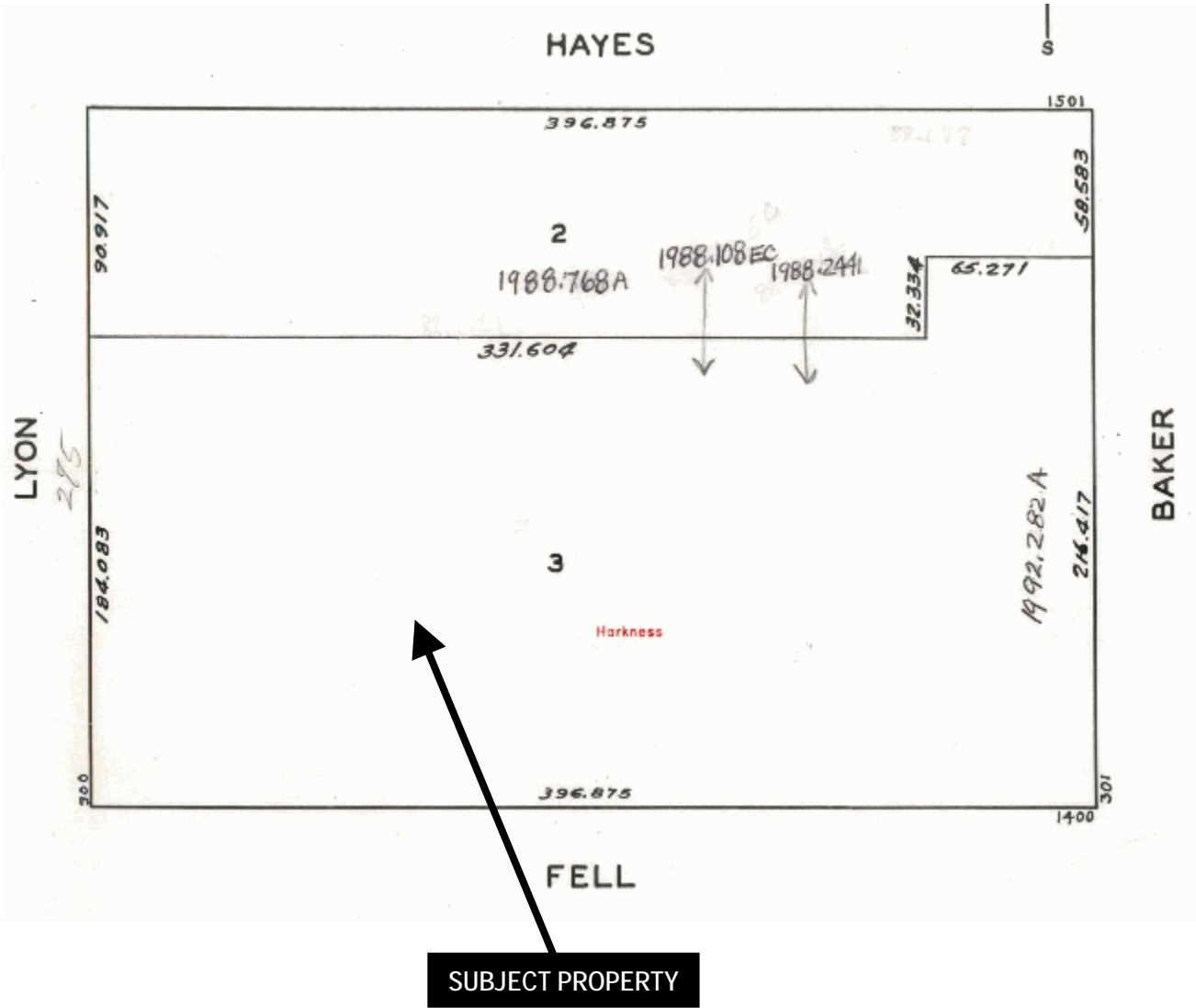
AYES: X

NAYS: X

ABSENT: X

ADOPTED: November 17, 2010

# Parcel Map



Certificates of Appropriateness  
Case Numbers 2009.1101A and 2010.0133A  
333 Baker Street





# Aerial Photo

Area of proposed work

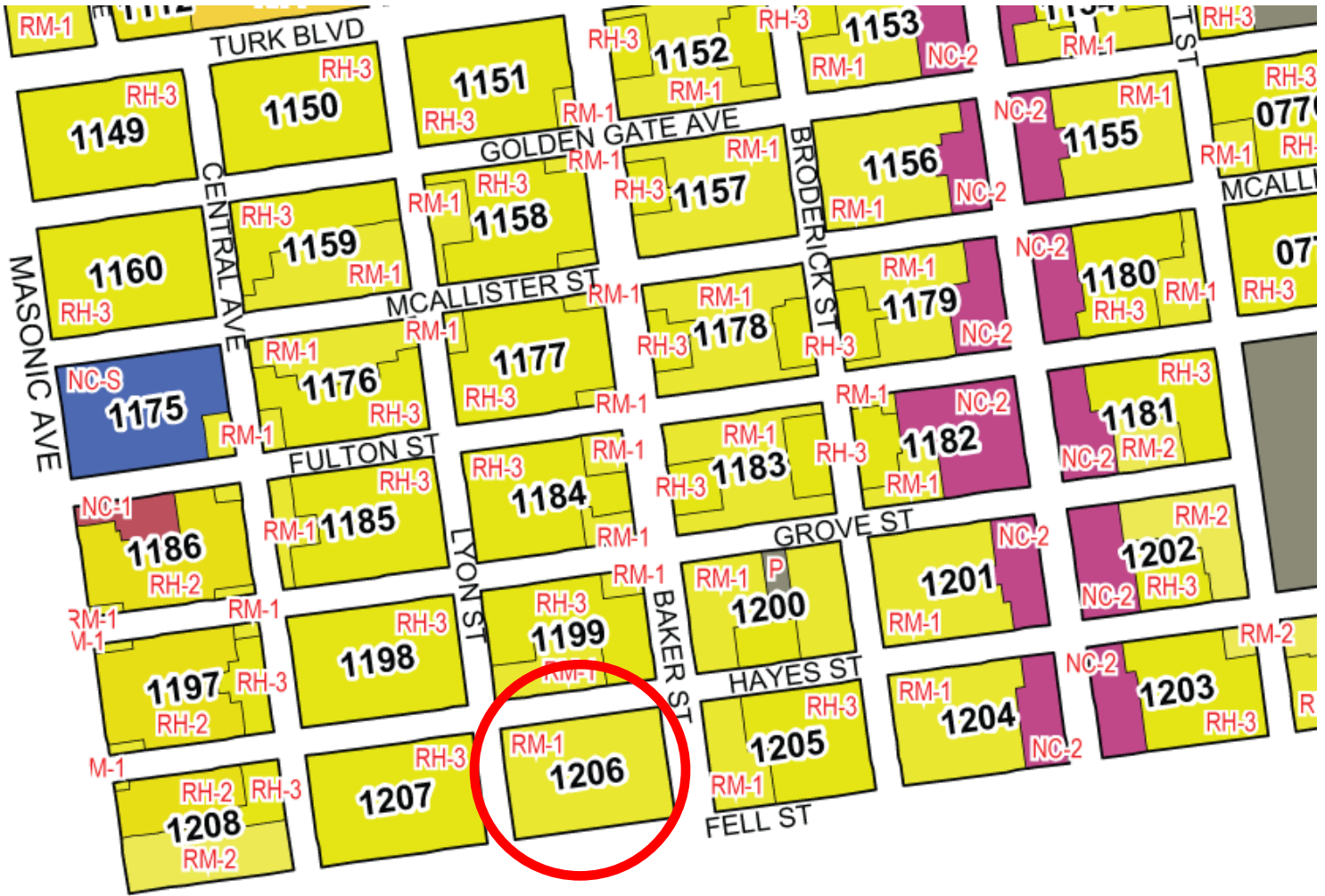


SUBJECT PROPERTY



Certificates of Appropriateness  
Case Numbers 2009.1101A and 2010.0133A  
333 Baker Street

# Zoning Map



Certificates of Appropriateness  
Case Numbers 2009.1101A and 2010.0133A  
333 Baker Street



1 (Landmarks)  
2 DESIGNATING THE SOUTHERN PACIFIC COMPANY HOSPITAL COMPLEX AT 1400 FELL AND 1509,  
3 1555 and 1599 HAYES STREETS AS A LANDMARK PURSUANT TO ARTICLE 10 OF THE CITY  
4 PLANNING CODE.

5  
6 Be it ordained by the People of the City and County of San Francisco:

7 Section 1. The Board of Supervisors hereby finds that Southern Pacific  
8 Company Hospital Complex located at 1400 Fell and 1509, 1555 and 1599 Hayes  
9 Streets, Lots 2 and 3 in Assessor's Block 1206, has a special character and special  
10 historical, architectural and aesthetic interest and value, and that its  
11 designation as a landmark will further the purposes of, and conform to the  
12 standards set forth in Article 10 of the City Planning Code.

13 (a) Designation: Pursuant to Section 1004 of the City Planning Code, Chapter  
14 II, Part II of the San Francisco Municipal Code, the Southern Pacific Company  
15 Hospital Complex is hereby designated as a Landmark, this designation having been  
16 fully approved by Resolution No. 11515 of the City Planning Commission, which  
17 Resolution is on file with the Clerk of the Board of Supervisors under File No. ....

18 (b) Required Data: The description of the location and boundaries of the  
19 Landmark site, of the characteristics of the Landmark which justify its  
20 designation, and of the particular features that should be preserved as included in  
21 the said Resolution, and incorporated in this designating ordinance as though fully  
22 set forth.

25 APPROVED AS TO FORM:  
26 LOUISE H. RENNE  
CITY ATTORNEY

27 By Judith A. Barajian  
28 Deputy City Attorney  
29  
30

RECOMMENDED:  
CITY PLANNING COMMISSION

By Dean L. Macris  
Director of Planning

Board of Supervisors, San Francisco

Passed for Second Reading

January 30, 1989

Ayes: Supervisors Alioto Britt  
Gonzalez Hallinan Hongisto  
Kennedy Maher Nelder Walker Ward

Absent: Supervisor Hsieh

§ Finally Passed  
§  
§ February 6, 1989  
§  
§

§ Ayes: Supervisors Alioto Britt  
§ Gonzalez Hallinan Hongisto Hsieh  
§ Kennedy Maher Walker Ward  
§

§ Absent: Supervisor Nelder

I hereby certify that the foregoing ordinance  
was finally passed by the Board of Supervisors  
of the City and County of San Francisco

FEB 8 1989

File No.  
90-88-3

Date Approved

John Taylor  
Clerk  
John S. Fogarty  
Mayor

Case No. 88.244L  
Southern Pacific Company  
Hospital Complex  
1400 Fell and 1509, 1555 and  
1599 Hayes Streets

SAN FRANCISCO  
CITY PLANNING COMMISSION  
RESOLUTION NO. 11515

WHEREAS, A proposal to designate the Southern Pacific Company Hospital Complex at 1400 Fell and 1509, 1555 and 1599 Hayes Streets as a Landmark pursuant to the provisions of Article 10 of the City Planning Code was initiated by the Landmarks Preservation Advisory Board on July 6, 1988, and said Board, after due consideration, has recommended approval of this proposal; and

WHEREAS, The City Planning Commission, after due notice given, held a public hearing on November 10, 1988 to consider the proposed designation and the report of said Board; and

WHEREAS, The Commission believes that the proposed Landmark has a special character and special historical, architectural and aesthetic interest and value; and that the proposed designation would be in furtherance of and in conformance with the purposes and standards of the said Article 10;

THEREFORE BE IT RESOLVED, FIRST, The proposal to designate the aforementioned structures as the Southern Pacific Company Hospital Complex, at 1400 Fell and 1509, 1555 and 1599 Hayes Streets as a Landmark pursuant to Article 10 of the City Planning Code is hereby APPROVED, the precise location and boundaries of the Landmark site being those of Lots 2 and 3 in Assessor's Block 1206.

Second, That the special character and special historical, architectural and aesthetic interest and value of the said Landmarks Preservation Advisory Board Resolution 402 as adopted on July 6, 1988 which Resolution is incorporated herein and made a part thereof as though fully set forth;

Third, That the said Landmark should be preserved generally in all of its particular exterior features as existing on the date hereof and described and depicted in the photographs, case report and other material on file in the Department of City Planning Docket No. 88.244L.

AND BE IT FURTHER RESOLVED, That the Commission hereby directs its Secretary to transit the proposal for designation, with a copy of this Resolution, to the Board of Supervisors for appropriate action.

I certify that the foregoing Resolution was ADOPTED by THE City Planning Commission on November 10, 1988.

Lori Yamauchi  
Secretary

AYES: Commissioners Bierman, Dick, Engmann, Hu, Johnson and Morales

NOES: None

ABSENT: Commissioner Boldridge

ADOPTED: November 10, 1988

VFM:atm/403

**BUILDING NAME:** Southern Pacific  
Company Hospital Complex      **OWNER:** Mercy Services Corporation

**BUILDING ADDRESS:** 1400 Fell and  
1509, 1555 and 1599  
Hayes Streets      **BLOCK & LOT:** 1206/2-3      **ZONING:** RM-1

**ORIGINAL USE:** Medical Facility      **NO. OF STORIES:** 1-5      **LPAB VOTE:** 6-0

**CURRENT USE:** Portion Vacant;  
Residential      **EXTERIOR MATERIALS:** Brick with  
stucco and concrete trim, the site  
is enclosed by a wrought iron fence.

**STATEMENT OF SIGNIFICANCE:**

The Southern Pacific Company Hospital Complex is significant in architecture, history and environmental qualities as described in the Evaluation Criteria/Findings section of this case report. Constructed in 1908, this is the oldest, intact hospital complex in the city. Covering a full block, the complex is comprised of five free-standing buildings, (over)

**EVALUATION CRITERIA/FINDINGS**

**A. ARCHITECTURE**

- (E) 1. Style: Beaux Arts Classical
- (VG) 2. Construction Type: Masonry
- (VG) 3. Construction Date: 1908 (See No. 13 for record of additions.)
- (E) 4. Design Quality: All structures - Excellent
- (VG) 5. Architect: Daniel J. Patterson (b. 1857 Jefferson Co., New York)  
prolific architect associated with Southern Pacific Company (over)
- (N/A) 6. Interior Quality: Privately held property

**B. HISTORY**

- (VG) 7. Persons: See #9, Patterns of History.
- (VG) 8. Events: Construction of this complex was part of Southern Pacific Company's rebuilding program after the devastation of the 1906 earthquake and fire.
- (E) 9. Patterns of History: Medicine: The Southern Pacific Company (then Central Pacific) provided employee hospital care as early as 1868. In 1869, the Company opened the nation's first hospital exclusively for rail employees in Sacramento, California relates to the surrounding residential neighborhood.

**C. ENVIRONMENT**

- (VG) 10. Continuity: The complex, though built for institutional use, relates to the surrounding residential neighborhood.
- (E) 11. Setting: The design of the complex, with the main hospital building most southerly on the site overlooking the park and administrative/support functions inside the lot, also (over)
- (VG) 12. Importance as a Visual Landmark: The complex is a conspicuous structure in the context of the neighborhood. For the (over)

**D. INTEGRITY**

- (E) 13. Powerhouse: Intact; window openings boarded-over  
Paint Shop: Intact; windows boarded-over  
Annex: Lintels on third floor windows removed, new exterior stairs on east and west elevations with windows filled-in. (over)

**RATINGS**

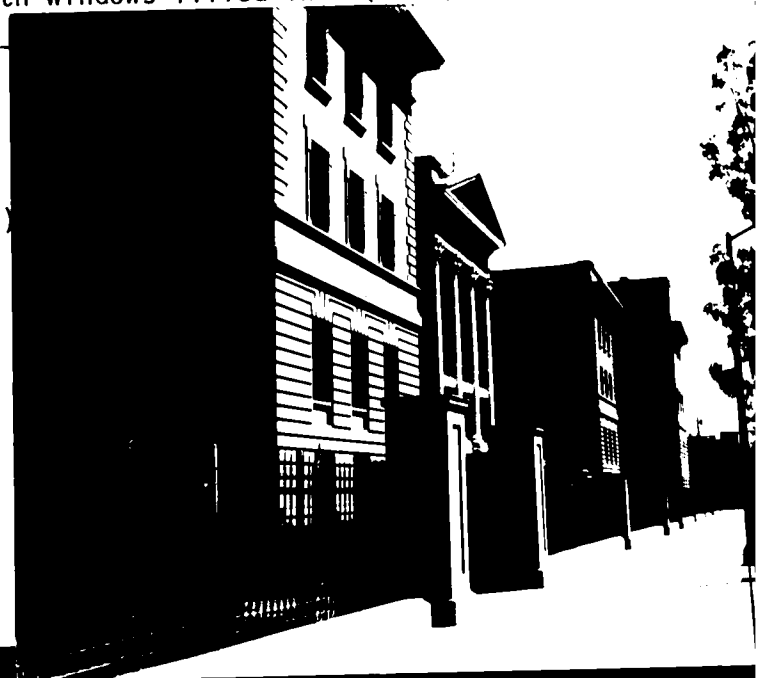
DCP: 3  
HERE TODAY: -  
SPLENDID SURVIVORS: N/A  
NATIONAL REGISTER: Probably eligible  
(J. Malone 5/25/88)  
NATIONAL LANDMARK: -  
STATE LANDMARK: -

**PREPARED BY:** Jonathan Malone,  
Vincent Marsh and  
Jean Kortum

**ADDRESS:** 450 McAllister Street  
San Francisco, CA 94102

**PHONE:** 558-6345

**DATE:** 5/26/88, 6/10/88, 7/15/88  
8/3/88, 11/2/88



STATEMENT OF SIGNIFICANCE: (Cont)

Hospital, Nurses' Annex, Huntington Social Hall, Powerhouse and Paintshop. All structures exhibit high quality; a stylistically-unified design. A decorative metal fence supported by brick piers which match the "Golden Gate Sandstone" brick of the buildings encloses the site. Three structures (c. 1907-1911) stretch across the rear of the site from Baker to Lyon Streets. The importance of the Powerhouse (1908), The Annex (c. 1907) and the Huntington Social Hall (c. 1911) as parts of Patterson's original scheme and as virtually unaltered structures give the site architectural and historic coherence. Even the enclosed foot-bridge connecting the hospital to the Annex is part of the scheme designed by Patterson in 1907. The four structures are all related architecturally, being of monumental, neo-classical style and scale, executed in brick with stucco and concrete trim.

The complex as a whole architecturally achieves a value greater than the sum of its parts. Historically, this significance is matched by the association of the complex with the Southern Pacific Railroad, a patent force in the development of California, the West, and the nation. Further, the significance of the complex is underscored in the unique opportunity it presents to visually experience early medical views as translated into hospital design. No other complex in San Francisco presents as complete a view of early hospitals.

EVALUATION CRITERIA/FINDINGS (Cont)

A. ARCHITECTURE (Cont)

5. Architect: (Cont)

designed numerous public buildings in the Northwest before affiliating with Southern Pacific in 1899. With Southern Pacific, Patterson designed numerous railway depots and two other hospitals (El Paso & Houston, Texas). Healey and Tibbitts were the original construction company. Alfred I. Coffey and Martin Rist designed the Edward Harkness Wing (facing Baker), built in 1930.

B. HISTORY (Cont)

Patterns of History: Medicine (Cont.) The company opened a San Francisco hospital at 14th and Mission Streets in 1898 -- destroyed in the 1906 earthquake and fire. The subject complex opened for service in 1909.

The Southern Pacific Hospital Department was organized as a non-profit institution supported by dues of the employees. Before March 1920, the monthly rate was 50 cents per month. The rate increased in 1922 and 1927 to 75 cents, then \$1.00 monthly. Hofsoner writes that the company contributed a "small monthly supplement". Additional charitable contributions rounded out the budget to one of self-sufficiency for purposes of medical and nursing care, drugs and supplies. The medical plan, though modified and improved from time to time, remained in existence for 107 years.

The plan made great contributions to medical history as well as to the health and well-being of thousands of railroad workers over the years of its existence. It was the forerunner of a number of today's medical plans. These plans were first used by the railroads and later were successfully adopted by the Kaiser Industries as well as other group hospital and medical plans in the United States. The entire hospital department of Southern Pacific was reorganized in 1963, shifting to contract paid insurers. This facility on Fell Street closed in 1974.

Frank Kenley Ainsworth was born in Woodstock, Vermont, in 1856 and became chief surgeon of Southern Pacific Railroad Hospital in 1903. Dr. Ainsworth, following the earthquake and fire of April 1906, drew plans for the new hospital which would be built by Southern Pacific at Fell and Baker Streets adjacent to the panhandle of the 1,000 acre Golden Gate Park. In the 23 years

B. HISTORY (Cont)

9. Patterns of History: Transportation (Cont)

the battle of Mussel Slough (1880) when SP evicted San Joaquin settlers from their farms, and Josiah Royce's novel, The Feud of Oakfield Creek (1887) dealing with the same affair. The decline of Southern Pacific's power began in 1910 when the reform Republican candidate Hiram Johnson was elected governor of California (1911-17) on the basis of his platform attacking the political power of Southern Pacific and his pledge to remove railway supporters from state office. By the turn of the century, the United States in general began to re-evaluate commonly accepted nineteenth-century beliefs that private property was supreme and entrepreneurs should be little if at all regulated. After the completion of the Central Pacific Railway, Collis P. Huntington, for whom the social hall is named, became the dominant member of the Big Four. He died in 1900.

Patterns of History: Labor. The significance of this hospital grouping does not rest with its architecture alone. The Southern Pacific Company Hospital closed in 1967 and the buildings continued to be used as the Harkness Hospital until 1974. The history of the buildings must be seen as part of the era in which they were conceived and initially constructed. "The last quarter of the nineteenth-century was a period when labor organized into trade unions, a time when work hours and working conditions were often unregulated, and a period when welfare was virtually non-existent. The Progressive Era, as the early twentieth-century is popularly termed, became one of Humanitarian reform, during which politicians and business leaders often took the lead in alleviating the severe social injustices that brute capitalism often encouraged. "(Norris) The construction of the Huntington Social Hall, for example, was the joint gift of Mrs. C. P. Huntington and her nephew, H. E. Huntington, as a memorial to Collis P. Huntington, who had been president of the railroad for many years. In addition, The Bulletin, a company newspaper, reported in 1914 that Mrs. E. H. Harriman "takes a great interest in the hospital. Only a short time ago she supplemented her donation of \$50,000 for laboratory research work with \$10,000 more. These community interests, tied to the corporate giant and notion of contemporary noblesse oblige were a part of the spirit that built the hospital. The fact that the Southern Pacific Company provided medical care for its employees is, therefore, central to understanding the importance of the hospital on the Panhandle." p.11.

Patterns of History: Architecture. Page Anderson and Turnbull, Inc., in a 1983 report, cite the Royal Infirmary of Edinburgh, Scotland, (c. 1738) and The Hospital of the University of Pennsylvania, Philadelphia, (c. 1750-1804) as precedents for Patterson's design. The three share a central-block-with-wings approach. Selection of Beaux Arts Classical, the style that was not simply a design trend but also a (perceived) force for social betterment, approximately reflects Southern Pacific's "progressive yet paternalistic" (Hofsomer) approach to employee benefits. Selection of the site reflects their current concern for hospital locations distant from urban noise and dust. Quality residential neighborhoods were choice sites, and adjacent Golden Gate Park further enhanced the location. Inclusion of sunrooms was a requirement based on medical views of the time that considered sun exposure a deterrent to microorganisms. The current sunroom location on the main hospital block was probably added as late as 1920 and marked by elaborate cast iron balconies.

C. ENVIRONMENT (Cont)

11. Setting: (Cont)

demonstrates prevailing views in hospital planning. The site itself contains two large date palms in the northwesterly corner of the site. The entire block is ringed by a sectional metal fence supported by brick piers contemporary with the buildings.

12. Importance as a Visual Landmark: (Cont)

generations of Southern Pacific employees and families regionally served by the complex; these structures reflect part of the regional imagery of the city.

Dr. Ainsworth was chief surgeon and manager, there were many improvements in the hospital and in medical services. The new hospital consisted of three main wings and was four stories in height. It had a capacity of 300 beds.

In 1926, when Dr. Ainsworth retired from active service, he was succeeded by Dr. Walter Bernard Coffey who was born in San Francisco on April 26, 1868. In 1889, Dr. Coffey graduated from the Cooper Medical College (which preceded Stanford University Medical School). He arrived at one of the several mountain peaks of his career when, in 1924, he was invited to Vienna to demonstrate his surgical technique in the performance of operations for the relief of angina pectoris. He was one of the originators and the first medical director of the Municipal Health System of San Francisco. He was founder and president of the St. Francis Hospital, San Francisco, and chief surgeon of the Market Street Railway Company. He served as chief surgeon and manager of the Southern Pacific Railroad Hospital.

During the time he was chief surgeon, the hospital in San Francisco was enlarged to 450 beds through the generous donation of Edward Stephen Harkness. Mr. Harkness (1874-1940) was born in Cleveland, Ohio, and educated at Yale University. He was a member of the Board Directors and Executive Committee of Southern Pacific Company. Edward Harkness contributed \$612,000 for a six-story addition on Baker Street which was added in 1930. He inherited a fortune from his father, a partner of Rockefeller. His extensive philanthropies, many of them anonymous, were extended especially to colleges, hospitals and museums. He served as president of the Commonwealth Fund, established in 1918 by his mother, Mrs. Stephen V. Harkness, "for the welfare of mankind". Headquarters are in New York City. Contributing in its first 20 years to the early development of child guidance clinics and the strengthening of rural hospital and health departments, the Fund later emphasized the broadening and integration of medical education, experimental health services and medical research.

9. Patterns of History: Transportation (Cont)

Charles Crocker, Mark Hopkins, Collis Potter Huntington and Leland Stanford--Sacramento shopkeepers who became the so-called "Big Four"--founded the Central Pacific Railroad Company, on June 28, 1861, along with engineer Theodore Judah, who first proposed and then laid out the west coast railway link, and who first secured Congressional financing (the Pacific Railway Act of 1862). Judah died in 1863. The transcontinental railway (with Union Pacific from the east) was completed on May 10, 1869. Although construction was difficult and hazardous, generous Congressional land grants and subsidies to Central Pacific (subsidies per mile ranged from \$16,000 to \$48,000 as well as state and some local funding, plus the fact that actual construction was by Central Pacific's Contract and Finance Co., added up to immense profits to the Big Four. The completion of the railway, however, did not bring the immediate economic benefits expected by the west in the form of a great new flow of immigrants, but brought rather a flood of cheap goods from the east and economic recession in California.

In 1868, Central Pacific and the "Big Four" gained control of the Southern Pacific Railroad, founded in 1865, to build a railway from San Francisco to San Diego (Central Pacific was absorbed by Southern Pacific in 1884). Southern Pacific extended its railway system to Arizona, New Mexico, New Orleans, Portland and built more lines to Southern California. Southern Pacific was condemned not only for its railway monopoly but for its attempts to control ocean, bay, and river navigation, local transit systems, its policy of rate charges, and its role in state and federal government and politics. Reaction against Southern Pacific was fanned by press coverage (one cartoon depicted the railway as a great octopus, ensnaring citizen, politician, judge and farmer alike); by such works as Frank Norris' Octopus (1901), a fictionalized account of

D. INTEGRITY (Cont)

13. Annex: (Cont)

Huntington Social Hall: Intact; first floor windows boarded-over, second floor sash intact; brickwork deteriorated in some areas of the west and south elevations.

Main Hospital Building: The West Wing was constructed in 1910 and the Edward Harkness Wing was added in 1930; it fronts on Baker Street. It is compatible with the original hospital, although it breaks the original symmetrical composition of the Fell Street elevation. It should be noted that the entire Main Building was sandblasted and rehabilitated in 1983 for senior housing.

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Notes:

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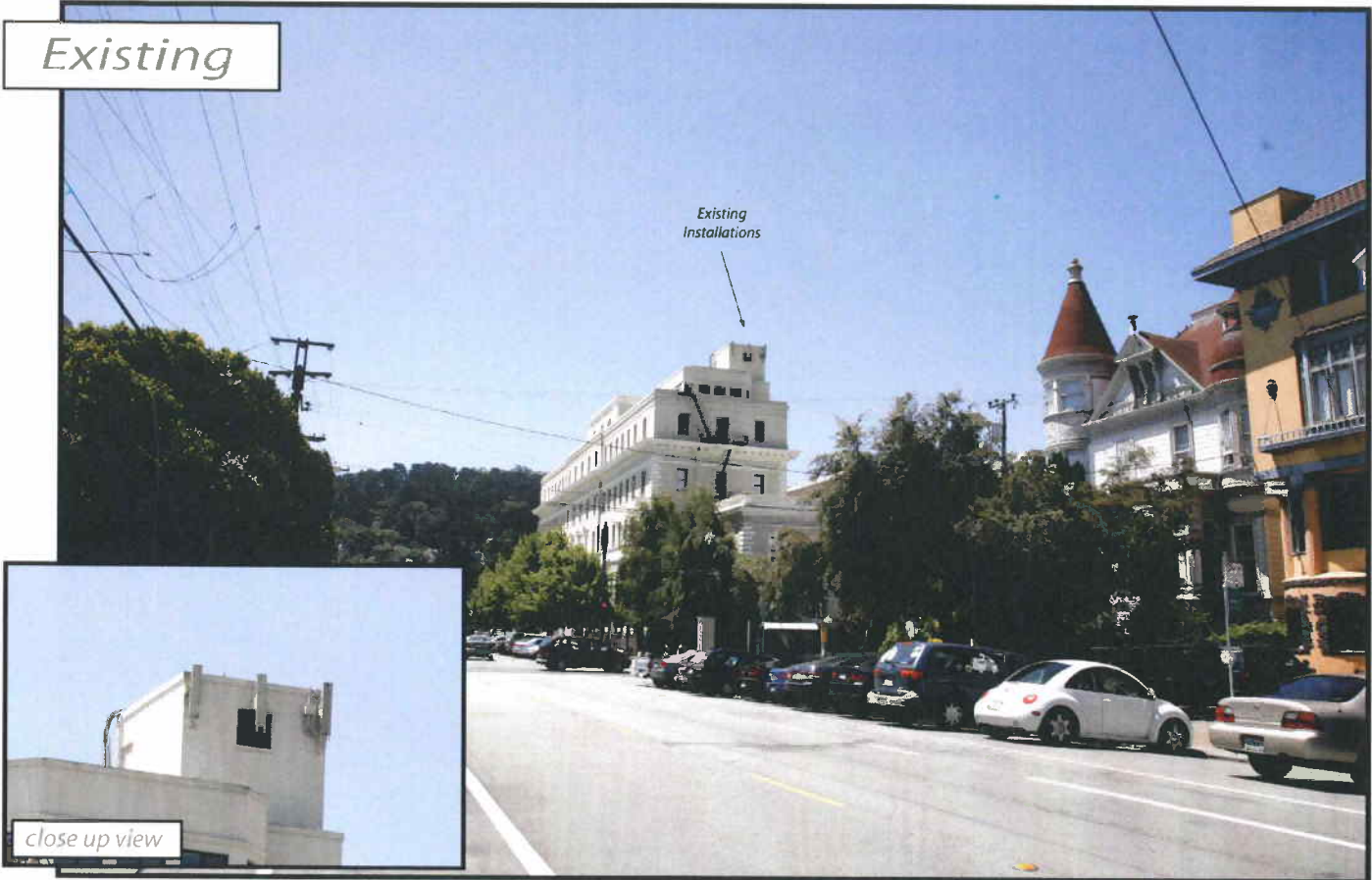
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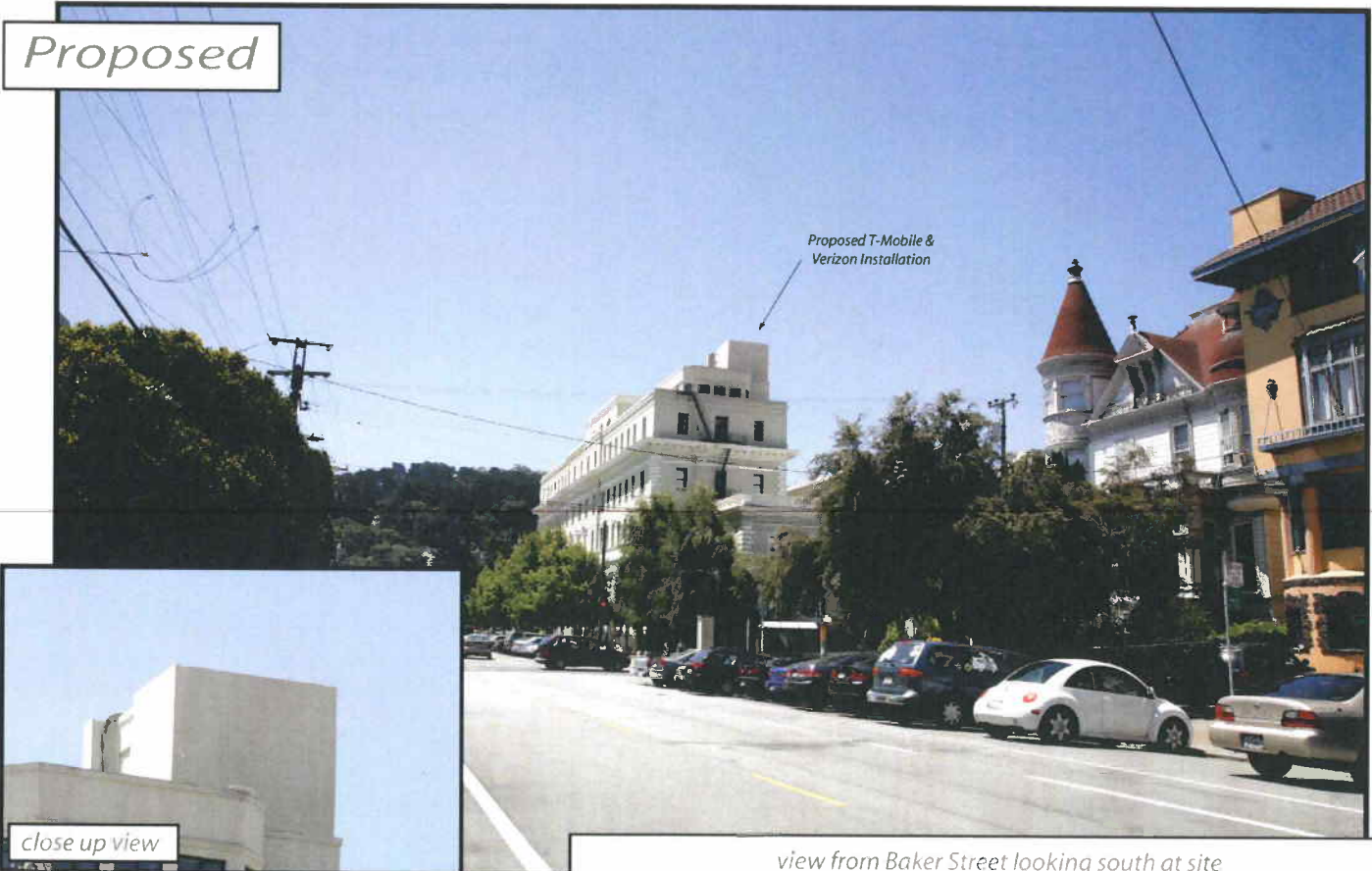
Page, Anderson and Turnbull, Inc., Southern Pacific Hospital, San Francisco, California: 1983.

The Bulletin. (Southern Pacific Publication) "The Southern Pacific Family and its Benefits": 1914, p.11.

*Existing*



*Proposed*



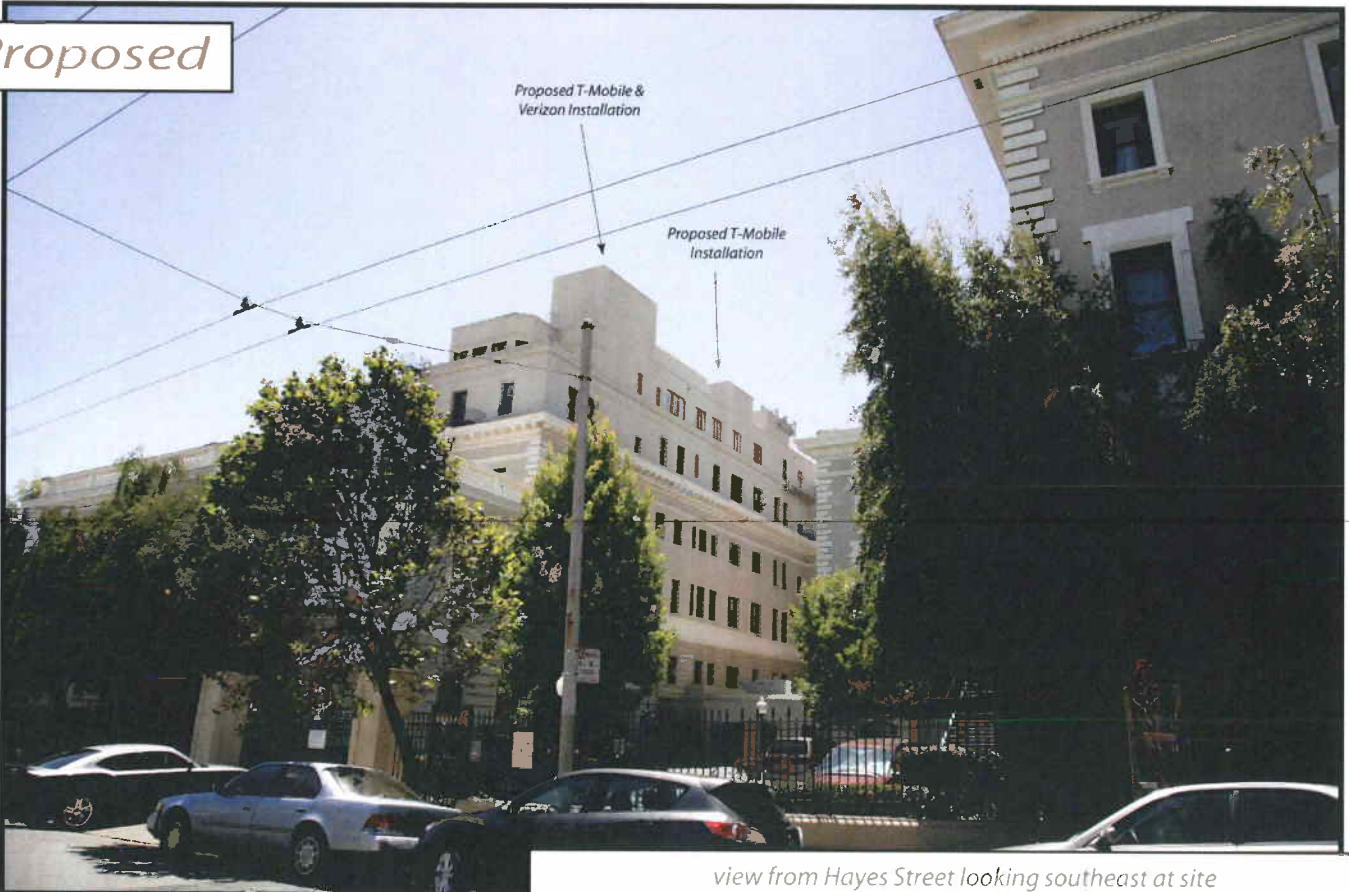
view from Baker Street looking south at site



Existing



Proposed



view from Hayes Street looking southeast at site

*Existing*



*Proposed*



Proposed T-Mobile  
Installation

view from Baker Street looking northwest at site



T-MOBILE WEST CORPORATION

a DELAWARE CORPORATION

1855 GATEWAY BLVD., 9TH FLOOR, CONCORD, CA 94520

SF23233B

MERCY TERRACE

333 BAKER ST., SAN FRANCISCO, CA 94117  
CITY & COUNTY OF SAN FRANCISCO



T-MOBILE WEST CORPORATION,  
a DELAWARE CORPORATION  
1855 GATEWAY BLVD., 9TH FLOOR  
CONCORD, CA 94520

PROJECT INFORMATION:

SF23233

MERCY TERRACE

333 BAKER ST.  
SAN FRANCISCO, CA 94117

CURRENT ISSUE DATE:

10/06/10

ISSUED FOR:

100% ZONING DRAWINGS

REV.: DATE: DESCRIPTION: BY:

0	09/21/10	90% ZONING DRAWINGS	SH
1	10/06/10	100% ZONING DRAWINGS	SH

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

CONSULTANT:

DRAWN BY: \_\_\_\_\_ CHK.: \_\_\_\_\_ APV.: \_\_\_\_\_

SH MWA MW

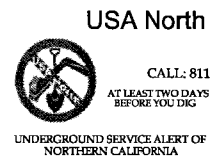
LICENSER:

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1



USA North

CALL: 811

AT LEAST TWO DAYS  
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF  
NORTHERN CALIFORNIA

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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- CALIFORNIA CODE OF REGULATIONS
- 2007 CALIFORNIA BUILDING CODE
- 2007 CALIFORNIA MECHANICAL CODE
- 2007 CALIFORNIA PLUMBING CODE
- 2007 CALIFORNIA ELECTRIC CODE
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY/COUNTY ORDINANCES

ADA REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA ADMINISTRATIVE STATE CODE PART 2, TITLE 24, CHAPTER 11B, SECTION 1103B.

PROJECT DESCRIPTION

THE PROJECT INVOLVES THE INSTALLATION OF:

- (N) T-MOBILE (4) ANTENNAS
  - PANEL ANTENNA MOUNTED ON (E) ROOF
  - PANEL ANTENNAS MOUNTED ON (E) PENTHOUSE
  - PANEL ANTENNA CONCEALED WITHIN (N) FRP FAUX "T" VENT
  - DUAL GPS ANTENNA
- FOUR (4) T-MOBILE EQUIPMENT CABINETS WILL BE MOUNTED ON (N) 29'-8" x 7'-1" STEEL PLATFORM ON (E) ROOF

DRIVING DIRECTIONS

FROM T-MOBILE OFFICE: CONCORD, CA

- START OUT GOING SOUTHEAST ON GATEWAY BLVD.-0.0 MI.
- TURN SLIGHT RIGHT ONTO CLAYTON RD.-0.3 MI.
- MERGE ONTO CA-242 S.-1.0 MI.
- MERGE ONTO I-680 S VIA THE EXIT ON THE LEFT TOWARD OAKLAND/SAN JOSE.-3.5 MI.
- MERGE ONTO CA-24 W TOWARD OAKLAND/LAFAYETTE.-13.6 MI.
- MERGE ONTO I-580 W TOWARD SAN FRANCISCO.-1.5 MI.
- MERGE ONTO I-80 W VIA THE EXIT ON THE LEFT TOWARD SAN FRANCISCO.-8.2 MI.
- MERGE ONTO US-101 N/CENTRAL FWY TOWARD GOLDEN GATE BRIDGE.-1.1 MI.
- US-101 N/CENTRAL FWY BECOMES OCTAVIA BLVD.-0.3 MI.
- TURN LEFT ONTO FELL ST.-0.9 MI.
- TURN RIGHT ONTO BAKER ST.-0.0 MI.
- END AT 333 BAKER ST. SAN FRANCISCO, CA 94117-2147

GENERAL CONTRACTOR NOTES

DO NOT SCALE DRAWING:

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SHEET INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
T-2	ANTENNA SPECIFICATIONS
T-3	EMF REPORT
A-1	OVERALL SITE / ROOF PLAN
A-2	ENLARGED PROJECT AREA/ ANTENNA PLAN
A-3	ENLARGED EQUIPMENT / ANTENNA PLAN
A-4	ELEVATIONS

APPROVALS

LANDLORD: \_\_\_\_\_  
CONSTRUCTION MANAGER: \_\_\_\_\_  
RF ENGINEER: \_\_\_\_\_  
SITE ACQUISITION MANAGER: \_\_\_\_\_  
ZONING MANAGER: \_\_\_\_\_  
UTILITY COORDINATOR: \_\_\_\_\_  
NETWORK OPERATIONS MANAGER: \_\_\_\_\_  
PROGRAM REGIONAL MANAGER: \_\_\_\_\_

PROJECT TEAM

ARCHITECT / ENGINEER:

MICHAEL WILK ARCHITECTURE  
833 MARKET STREET, SUITE 805  
SAN FRANCISCO, CA 94103  
CONTACT: STELLA HE  
PHONE: (415) 839-9594  
FAX: (415) 904-8388  
EMAIL: she@wilkarch.com

APPLICANT/LESSEE:

T-MOBILE  
1855 GATEWAY BLVD., 9TH FL.  
CONCORD, CA 94520  
CONTACT: BRAD CHAPMAN  
PHONE: (925) 260-9275  
EMAIL: brad.chapman@t-mobile.com

SITE ACQUISITION:

PERMIT ME  
3850 23RD STREET  
SAN FRANCISCO, CA 94114  
CONTACT: JULIE HO  
PHONE: (415) 706-4191  
EMAIL: juliecl\_ho@yahoo.com

ZONING MANAGER:

PERMIT ME  
3850 23RD STREET  
SAN FRANCISCO, CA 94114  
CONTACT: RICK HIRSCH  
PHONE: (415) 377-7826  
EMAIL: rickaicp@gmail.com

RF ENGINEER:

T-MOBILE  
1855 GATEWAY BLVD., 9TH FL.  
CONCORD, CA 94520  
CONTACT: TAI NGUYEN  
PHONE: (510) 396-9160  
EMAIL: tai.nguyen115@t-mobile.com

CONSTRUCTION MANAGER:

T-MOBILE  
1855 GATEWAY BLVD., 9TH FL.  
CONCORD, CA 94520  
CONTACT: TIMOTHY FEHR  
PHONE: (925) 339-4965  
EMAIL: timothy.fehr1@t-mobile.com

PROJECT INFORMATION

SITE ADDRESS: 333 BAKER ST.  
SAN FRANCISCO, CA 94117

APN: 1206-003

LANDLORD: 1360 MISSION ST., SUITE 300  
SAN FRANCISCO, CA 94103

LATITUDE: 37° 46' 26.45"N

LONGITUDE: 122° 26' 27.74"W

ZONING: NC-2

HEIGHT & BULK DISTRICT: 40-X

TYPE OF CONSTRUCTION: C

OCCUPANCY: R-2

JURISDICTION: CITY OF SAN FRANCISCO

TELEPHONE: AT&T

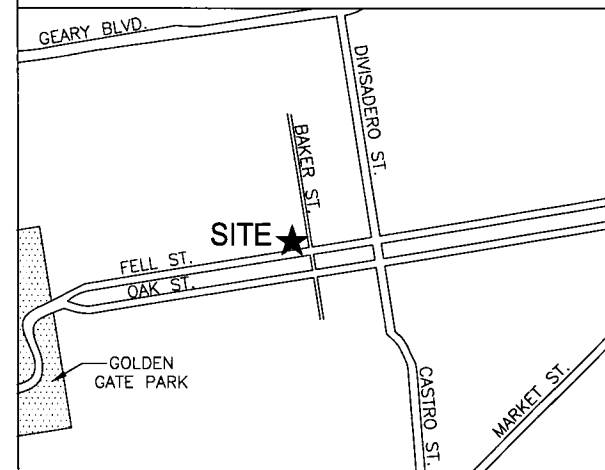
POWER: PGE

POWER ORDER

POWER APPLICATION DATE: \_\_\_\_\_

POWER APPLICATION NUMBER: \_\_\_\_\_

VICINITY MAP



SAN FRANCISCO



PROJECT INFORMATION:

**SF23233**  
**MERCY TERRACE**  
 333 BAKER ST.  
 SAN FRANCISCO, CA 94117

CURRENT ISSUE DATE:

10/06/10

ISSUED FOR:

100% ZONING DRAWINGS

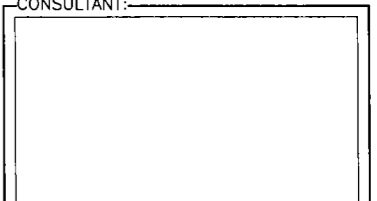
REV. DATE DESCRIPTION BY:

0	09/21/10	90% ZONING DRAWINGS	SH
1	10/06/10	100% ZONING DRAWINGS	SH

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

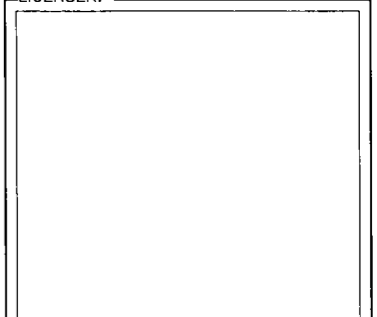
CONSULTANT:



DRAWN BY: CHK.: APV.:

SH MWA MW

LICENSER:



SHEET TITLE:

**ANTENNA SPECIFICATIONS**

SHEET NUMBER:

**T-2**

**Product Data Sheet APX16DWV-16DWV-S-E-A20** **RFS**

Optimizer® Panel Dual Polarized Antenna equipped with (2) AISG 2.0 ACU motors

**Product Description**  
 A combination of two X-Polarized antennas in a single radome, this pair of variable tilt antennas provides exceptional suppression of all upper sidelobes at all downtilt angles. It also features a wide downtilt range. This antenna is optimized for performance across the entire AWS frequency band (2110-2155 MHz). The antenna comes pre-connected with two antenna control units (ACU).

**Features/Benefits**

- Variable electrical downtilt - provides enhanced precision in controlling intercell interference. The tilt is in-field adjustable 0-10 deg.
- High Suppression of all Upper Sidelobes (Typically <20dB).
- Gain tracking - difference between AWS UL (1710-1755 MHz) and DL (2110-2155 MHz) <1dB.
- Two X-Polarised panels in a single radome.
- Azimuth horizontal beamwidth difference <4deg between AWS UL (1710-1755 MHz) and DL (2110-2155 MHz)
- Low profile for low visual impact.
- Dual polarization; Broadband design.
- Includes (2) AISG 2.0 Compatible ACU-A20-N antenna control units

**Technical Specifications**

**Electrical Specifications**

Frequency Range (MHz)	1710-2155
Antenna Gain (dBi)	16.5 (DL) / 16.5 (UL)
Electrical Down Tilt (deg)	0-10
Gain (dB)	16.5 (DL) / 16.5 (UL)
Frequency Bandwidth (MHz)	445
Return Loss (dB)	>15
VSWR	<1.5
Antenna Weight (kg)	1.5
Dimensions (H x W x D) (mm)	165 x 165 x 165
Wind Resistance (mmHg)	2.75 at 10deg tilt
Wind Speed (m/s)	34.0
Front To Back Ratio (dB)	>20
Mounting Bracket (kg)	0.5
Mounting Bracket (mm)	165 x 165 x 165
Lighting (lm)	0
Lighting (lm)	0
Lighting (lm)	0
Lighting (lm)	0

**Mechanical Specifications**

Radial Wind Speed (m/s)	16.3 (100)
Radial Wind Speed (mph)	36.4 (60)
Max Wind Speed (m/s)	25.0 (50)
Max Wind Speed (mph)	56.2 (90)
Maximum Horizontal Wind Speed (m/s)	16.3 (100)
Max Horizontal Wind Speed (mph)	36.4 (60)
Front To Back Ratio (dB)	>20
Return Loss (dB)	>15
VSWR	<1.5
Antenna Weight (kg)	1.5
Dimensions (H x W x D) (mm)	165 x 165 x 165
Wind Resistance (mmHg)	2.75 at 10deg tilt
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Lighting (lm)	0
Lighting (lm)	0

**Vertical Pattern**

**Horizontal Pattern**

**RFS The Clear Choice™** **APX16DWV-16DWV-S-E-A20** **Print Date: 21.2.2007**  
 Please visit us on the internet at <http://www.rfworld.com> **Radio Frequency Systems**

**ANTENNA SPECIFICATIONS**

1

ANTENNA SECTOR	ANTENNA						CABLE			ANTENNA RAD CENTER
	AZIMUTH	MAKE/MODEL	QTY.	TMA	ELECTRICAL DOWNTILT	MECHANICAL DOWNTILT	LENGTH	SIZE	QTY.	
A	60°	APX16DWV-16DWV-S-E-A20	2	2	5°	0°	77'-8"±	7/8"Ø AVA	8	86'-3"± A.G.L.
B	180°	APX16DWV-16DWV-S-E-A20	1	1	3°	0°	65'-6"±	7/8"Ø AVA	4	73'-5"± A.G.L.
C	300°	APX16DWV-16DWV-S-E-A20	1	1	3°	0°	19'-10"±	7/8"Ø AVA	4	86'-3"± A.G.L.
GPS	N/A	HUBER & SUHNER	1	N/A	N/A	N/A	5'-0"±	1/2"Ø AVA	N/A	N/A

**NOTE:**  
 THE INFORMATION PROVIDED ABOVE MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING ANY EQUIPMENT.

NOT USED

3

**ANTENNA CONFIGURATION CHART**

2

**T-Mobile West Corp. - Proposed Base Station (Site No. SF23233)  
333 Baker Street - San Francisco, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by T-Mobile West Corp., a personal wireless telecommunications carrier, to evaluate the base station (Site No. SF23233) proposed to be located at 333 Baker 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 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)	5-80,000 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 Communications)	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. David Kelly, a qualified field technician contracted by Hammett & Edison, Inc., during normal business hours on February 9, 2010, a non-holiday weekday, and reference has been made to information provided by T-Mobile, including zoning drawings by Michael Wilk Architecture, dated September 21, 2010.

**Checklist**

- The location of all existing antennas and facilities at site. Existing RF levels.  
AT&T had installed nine directional panel antennas in groups of three on the face of the roof parapet and on two faces of rooftop penthouses above the multi-story senior residential center located at 333 Baker Street. Existing RF levels at ground level near the site were less than 1% of the most restrictive public exposure limit.
- 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, although it is noted that Verizon Wireless has applied to install a similar facility at this site and AT&T has applied to make modifications to its antennas and facilities.

**T-Mobile West Corp. - Proposed Base Station (Site No. SF23233)  
333 Baker Street - 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 (see building and location (and number) of other WTS at site).**

T-Mobile proposes to install four RFS Model APX16DWV-16DWV-S-E-A20 directional panel antennas above the roof of the six-story senior residential center located at 333 Baker Street in San Francisco. One pair of antennas would be mounted with 5° down tilt on the side of an elevator penthouse at an effective height of about 86 ft above ground, oriented toward 60° T. The other antennas would be mounted with 3° down tilt on the penthouse roof at an effective height of 86 feet above ground, oriented toward 360° T, and on the main roof at an effective height of 73 feet above ground, oriented toward 180° 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 T-Mobile and the other carriers' 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 T-Mobile in any direction is 2,425 watts, representing simultaneous operation at 1,285 watts for AWS and 1,140 watts for PCS. AT&T has most recently proposed to operate at 4,370 watts maximum effective radiated power, representing simultaneous operation at 3,030 watts for PCS and 1,350 watts for cellular, and Verizon has proposed to operate at 2,560 watts, representing simultaneous operation at 960 watts for PCS, 1,260 watts for cellular, and 400 watts for 700 MHz.

**7. Plot on 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 observed no buildings of similar height 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 T-Mobile operation is calculated to be 0.0013 mW/cm<sup>2</sup>, which is 0.13% of the applicable public exposure limit. Ambient RF levels at the site, including operation of the proposed Verizon and AT&T facilities, are therefore estimated to remain below 1% of the limit. The maximum calculated

**T-Mobile West Corp. - Proposed Base Station (Site No. SF23233)  
333 Baker Street - San Francisco, California**

level at the top floor of the subject building for the proposed T-Mobile operation by itself is 0.093% of the public limit, the maximum calculated level at any nearby building for the proposed T-Mobile operation by itself is 0.51% of the public limit. The three-dimensional perimeter of RF levels equal to the public exposure limit is calculated to extend up to 12 feet out from the T-Mobile antenna faces. Areas on the upper roof of the subject building in front of the north-facing Verizon antennas and east-facing T-Mobile antenna may exceed the public limit, and areas on the main roof in front of the south-facing T-Mobile antenna may exceed the public limit.

**9. Describe proposed signage at site.**

It is recommended that a barricade be installed to preclude public access to the area in front of the south-facing T-Mobile antenna. To prevent occupational exposures in excess of the FCC guidelines, no access within 3 feet directly in front of the antennas themselves, such as might occur during maintenance work on the building, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Marking an "exclusion area" on the roof in front of the antenna to be installed on the main roof and posting explanatory warning signs\* at the roof access doors, on the roof access ladder, 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. Similar measures should already be in place for the other carriers at the site; applicable keep-back distances for these carriers have not been determined as part of this study.

**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, 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.

\* 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 is not an engineering matter; the San Francisco Department of Public Health recommends that all signs be written in English, Spanish, and Chinese.

**T-Mobile West Corp. - Proposed Base Station (Site No. SF23233)  
333 Baker Street - San Francisco, California**

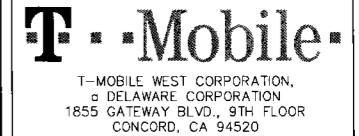
**Conclusion**

Based on the information and analysis above, it is my professional opinion that the operation of the base station proposed by T-Mobile West Corp. at 333 Baker Street in San Francisco, California, 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. 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 of explanatory signs is recommended to establish compliance with occupational exposure limitations.



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

September 27, 2010



PROJECT INFORMATION:  
**SF23233**  
**MERCY TERRACE**  
333 BAKER ST.  
SAN FRANCISCO, CA 94117

CURRENT ISSUE DATE:  
**10/06/10**

ISSUED FOR:  
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0	09/21/10	90% ZONING DRAWINGS	SH
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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

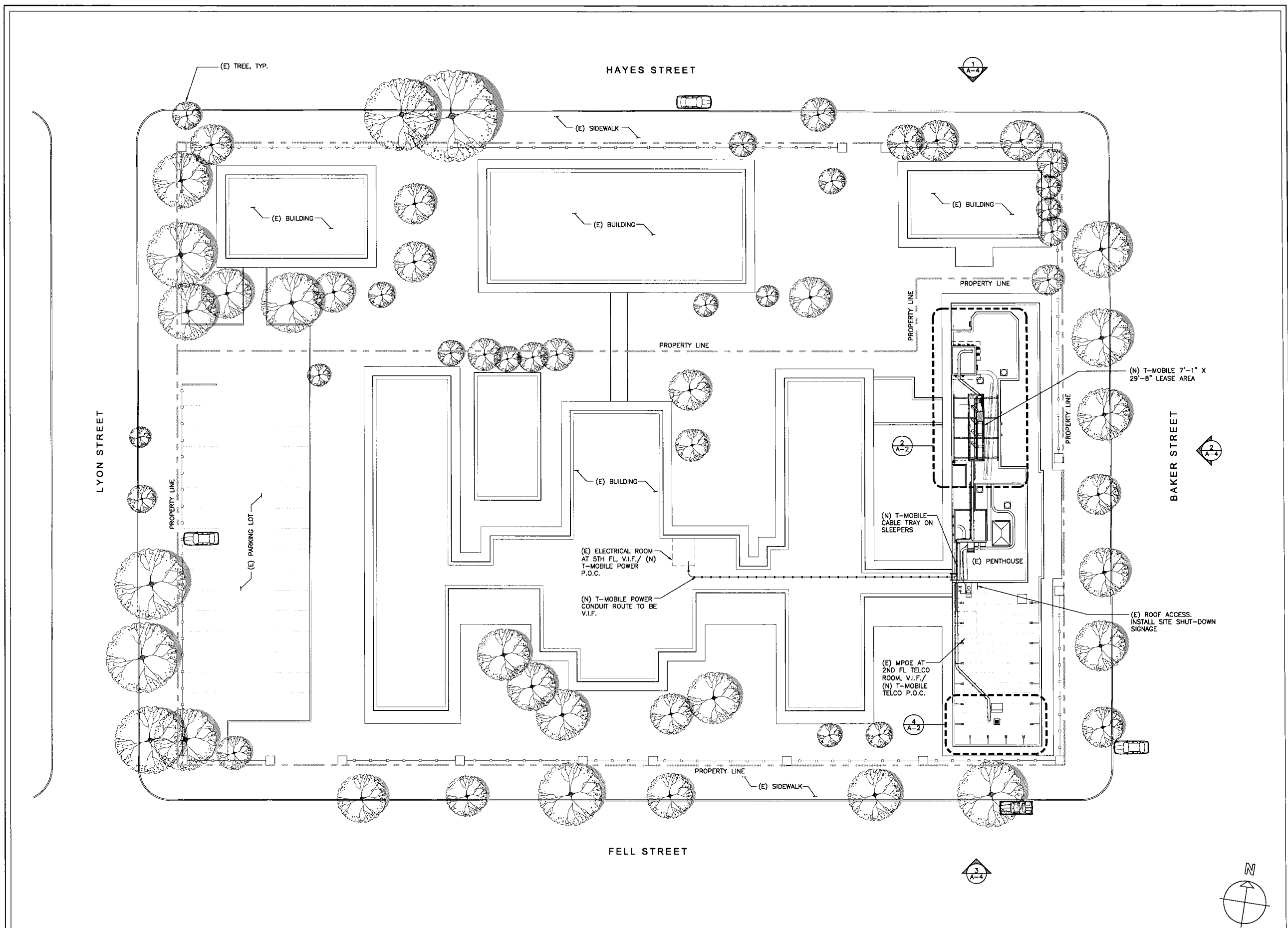
CONSULTANT:

DRAWN BY: SH CHK.: MWA APV.: MW

LICENSER:

SHEET TITLE:  
**EMF REPORT**

SHEET NUMBER:  
**T-3**



**T-Mobile**  
 T-MOBILE WEST CORPORATION,  
 A DELAWARE CORPORATION  
 1855 GATEWAY BLVD., 9TH FLOOR  
 CONCORD, CA 94520

PROJECT INFORMATION:  
**SF23233**  
**MERCY TERRACE**  
 333 BAKER ST.  
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PROJECT ARCHITECT/ENGINEER:  
**MICHAEL WILK ARCHITECTURE**  
 833 Market Street, #805  
 San Francisco, CA 94103  
 T: 415-839-9594  
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CONSULTANT:  
 \_\_\_\_\_

DRAWN BY:	CHK.:	APV.:
SH	MWA	MW

LICENSER:  
 \_\_\_\_\_

SHEET TITLE:  
**OVERALL SITE / ROOF PLAN**

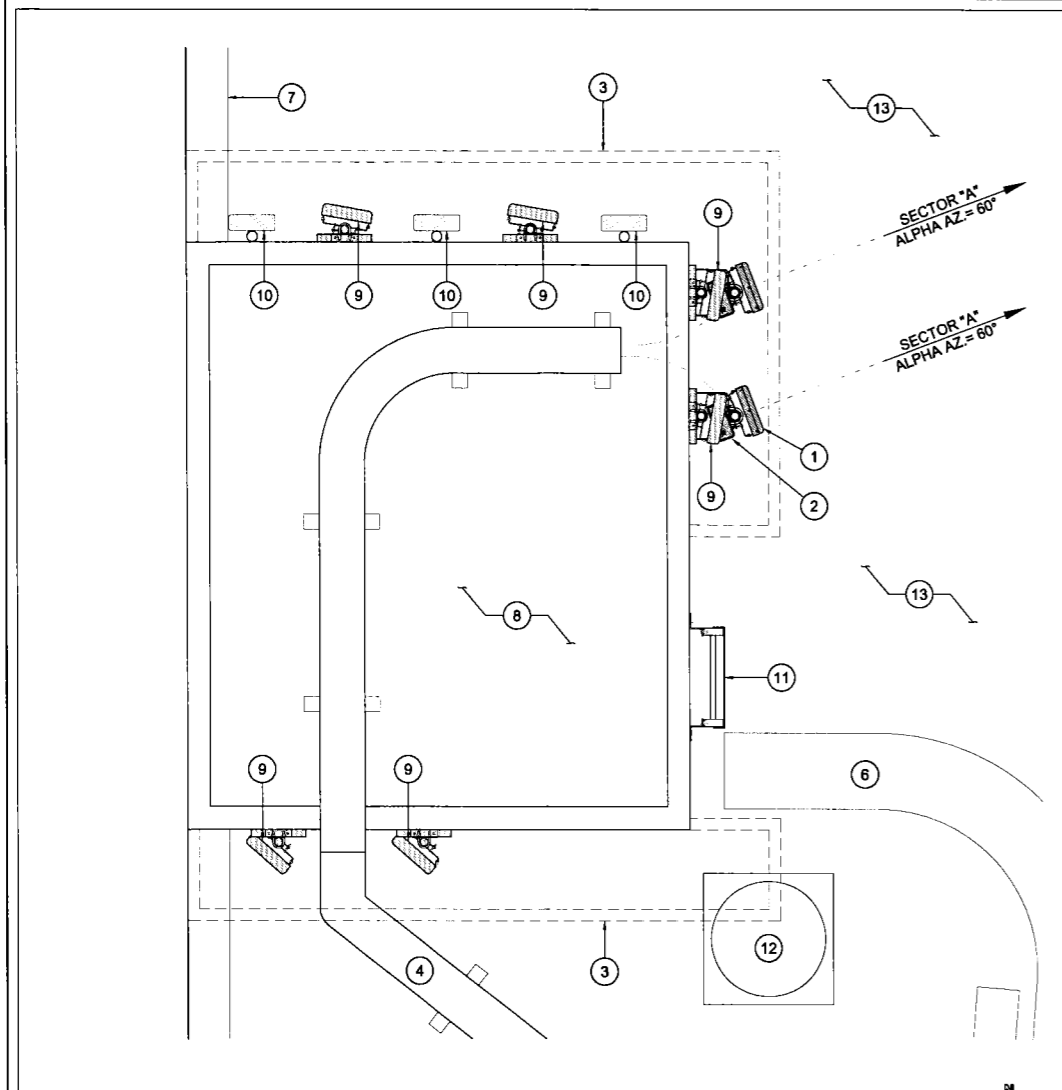
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**A-1**

OVERALL SITE / ROOF PLAN

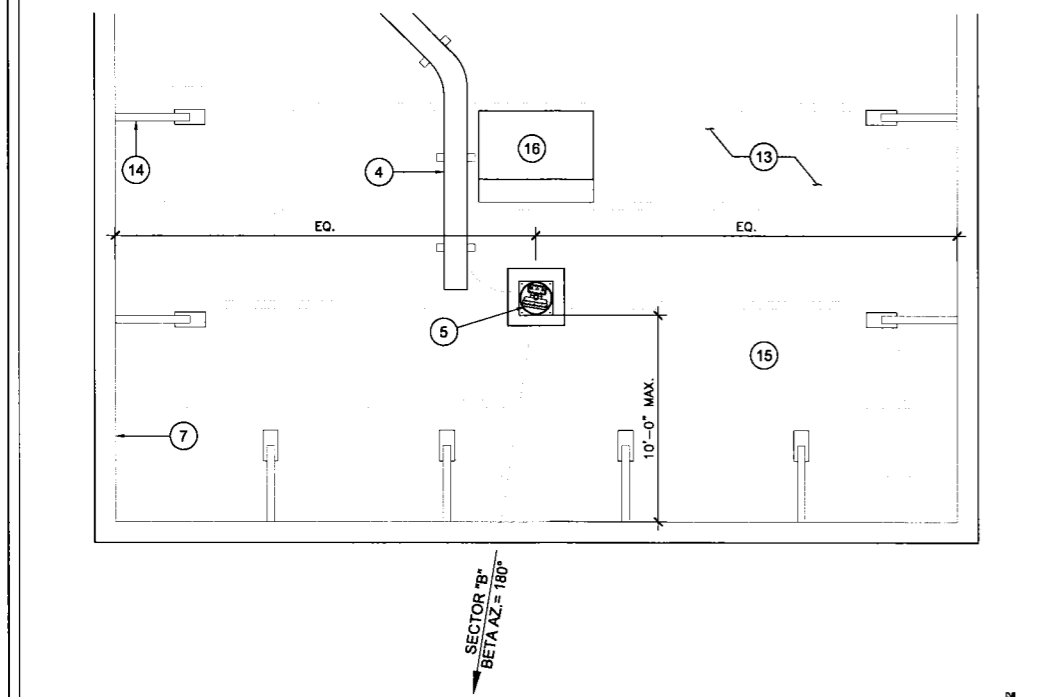
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 0 10' 20' 40'

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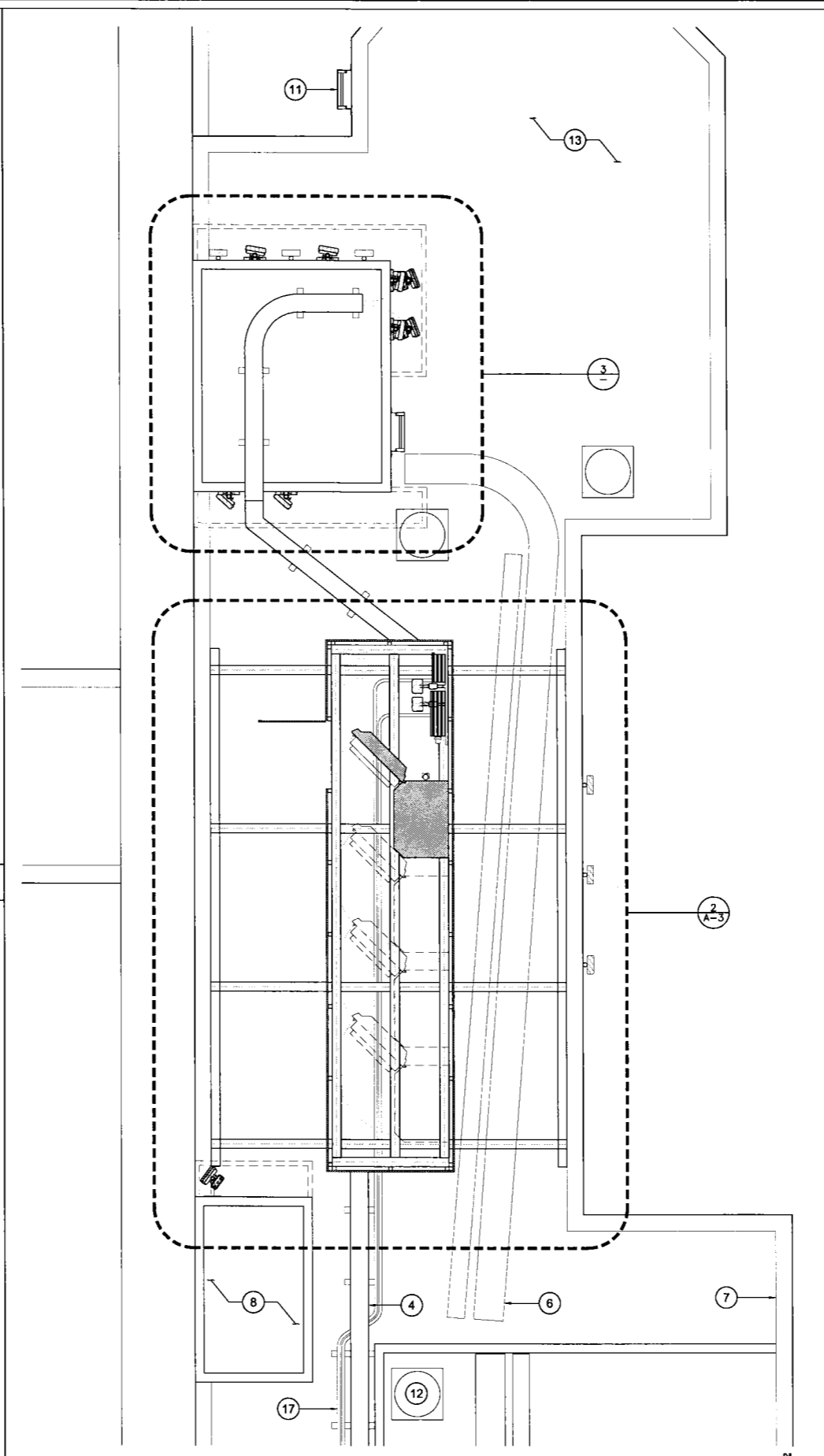
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ENLARGED ANTENNA PLAN    SCALE: 1/2"=1'-0"    3



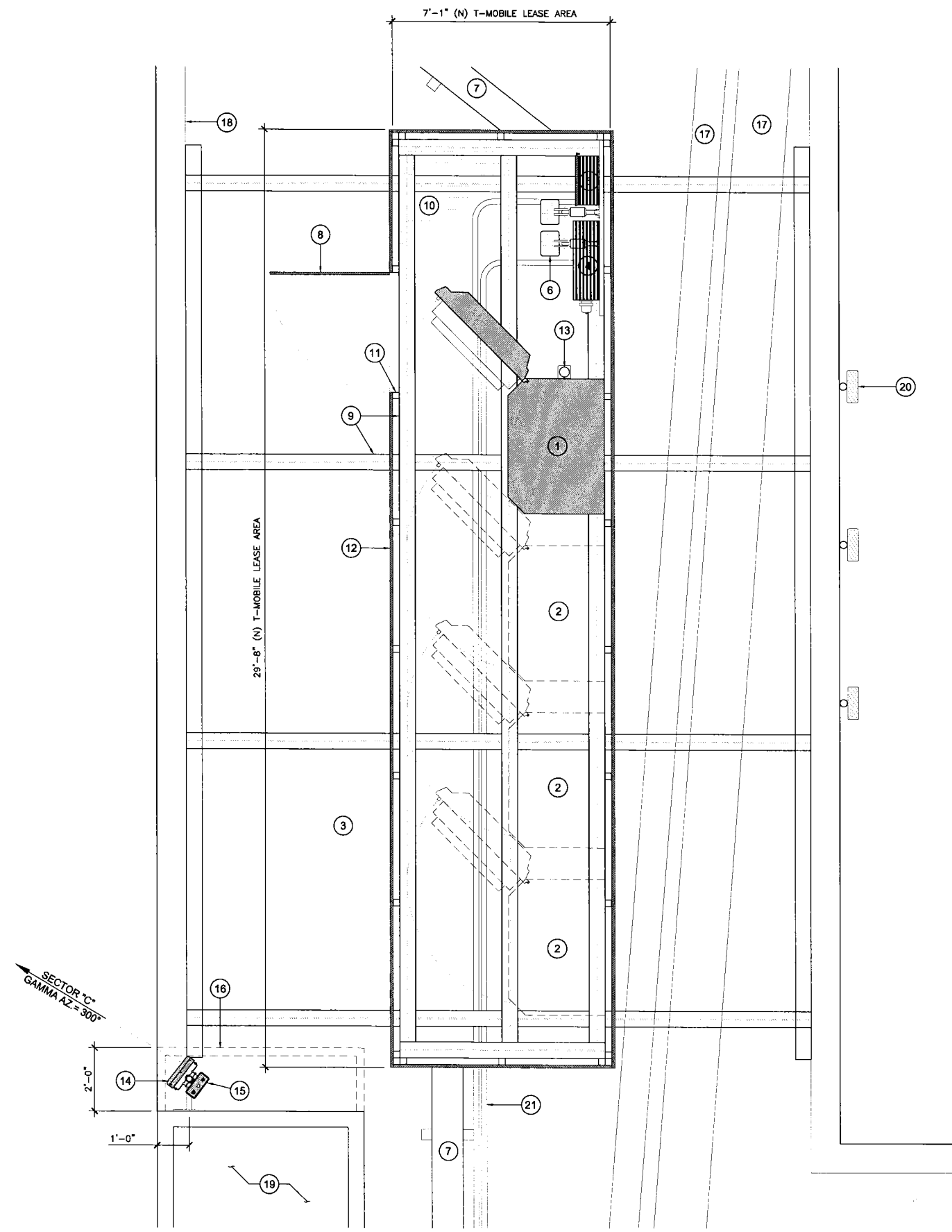
ENLARGED ANTENNA PLAN    SCALE: 1/4"=1'-0"    4



ENLARGED PROJECT AREA PLAN    SCALE: 1/4"=1'-0"    2

- 1 (N) T-MOBILE PANEL ANTENNA, TYP. OF (2) MOUNT TO (E) PENTHOUSE. INSTALL RF WARNING SIGNAGE
- 2 (N) T-MOBILE TMA UNIT, TYP. OF (2)
- 3 PROPOSED VERIZON WIRELESS CONCEALMENT SCREEN
- 4 (N) T-MOBILE CABLE TRAY ON SLEEPERS
- 5 (N) T-MOBILE PANEL ANTENNA MOUNT INSIDE (N) FRP FAUX "T" VENT. INSTALL RF WARNING SIGNAGE
- 6 (E) CABLE TRAY
- 7 (E) PARAPET
- 8 (E) PENTHOUSE
- 9 FUTURE VERIZON WIRELESS PANEL ANTENNA (CO-LOCATION WITH T-MOBILE)
- 10 (E) AT&T PANEL ANTENNA
- 11 (E) LADDER/ (N) T-MOBILE PARAPET ACCESS. INSTALL RF WARNING & SITE SHUT-DOWN SIGNAGE
- 12 (E) VENT
- 13 (E) ROOF
- 14 (E) PARAPET BRACE, TYP.
- 15 (E) ROOF TILES
- 16 (E) ROOFTOP EQUIPMENT
- 17 (N) T-MOBILE POWER & TELCO (2"Ø) ON SLEEPERS

KEYED NOTES    1



- ① (N) T-MOBILE RBS 3106 CABINET MOUNT ON (N) STEEL PLATFORM
- ② (N) T-MOBILE RBS FUTURE CABINET ON (N) STEEL PLATFORM
- ③ (E) ROOF
- ④ (N) PPC CABINET W/ GEN PLUG MOUNT TO UNISTRUT
- ⑤ (N) TELCO CABINET MOUNT TO UNISTRUT
- ⑥ (N) SERVICE LIGHT MOUNT TO UNISTRUT, TYP. OF 2
- ⑦ (N) T-MOBILE CABLE TRAY ON SLEEPERS
- ⑧ 3'-0" ACCESS TO (N) T-MOBILE EQUIPMENT AREA. INSTALL SITE SHUT-DOWN SIGNAGE
- ⑨ (N) STEEL PLATFORM
- ⑩ (N) STEEL GRATING
- ⑪ (N) ENCLOSURE SUPPORT COLUMN, TYP
- ⑫ (N) EQUIPMENT ENCLOSURE SCREEN
- ⑬ (N) T-MOBILE DUAL GPS ANTENNA MOUNT TO EQUIPMENT CABINET
- ⑭ (N) T-MOBILE PANEL ANTENNA MOUNT TO (E) PENTHOUSE. INSTALL RF WARNING SIGNAGE
- ⑮ (N) T-MOBILE TMA UNIT
- ⑯ (N) FRP CONCEALMENT SCREEN
- ⑰ (E) CABLE TRAY TO BE RELOCATED AS NECESSARY
- ⑱ (E) PARAPET
- ⑲ (E) PENTHOUSE
- ⑳ (E) PANEL ANTENNA, TYP.
- ㉑ (N) T-MOBILE POWER & TELCO (2"Ø) CONDUIT ON SLEEPERS

**T-Mobile**  
 T-MOBILE WEST CORPORATION,  
 a DELAWARE CORPORATION  
 1855 GATEWAY BLVD., 9TH FLOOR  
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**MERCY TERRACE**  
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 SAN FRANCISCO, CA 94117

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

CONSULTANT:

DRAWN BY: SH    CHK.: MWA    APV.: MW

LICENSER:

SHEET TITLE:  
**ENLARGED EQUIPMENT / ANTENNA PLAN**

SHEET NUMBER:  
**A-3**



PROJECT INFORMATION:  
**SF23233**  
**MERCY TERRACE**  
 333 BAKER ST.  
 SAN FRANCISCO, CA 94117

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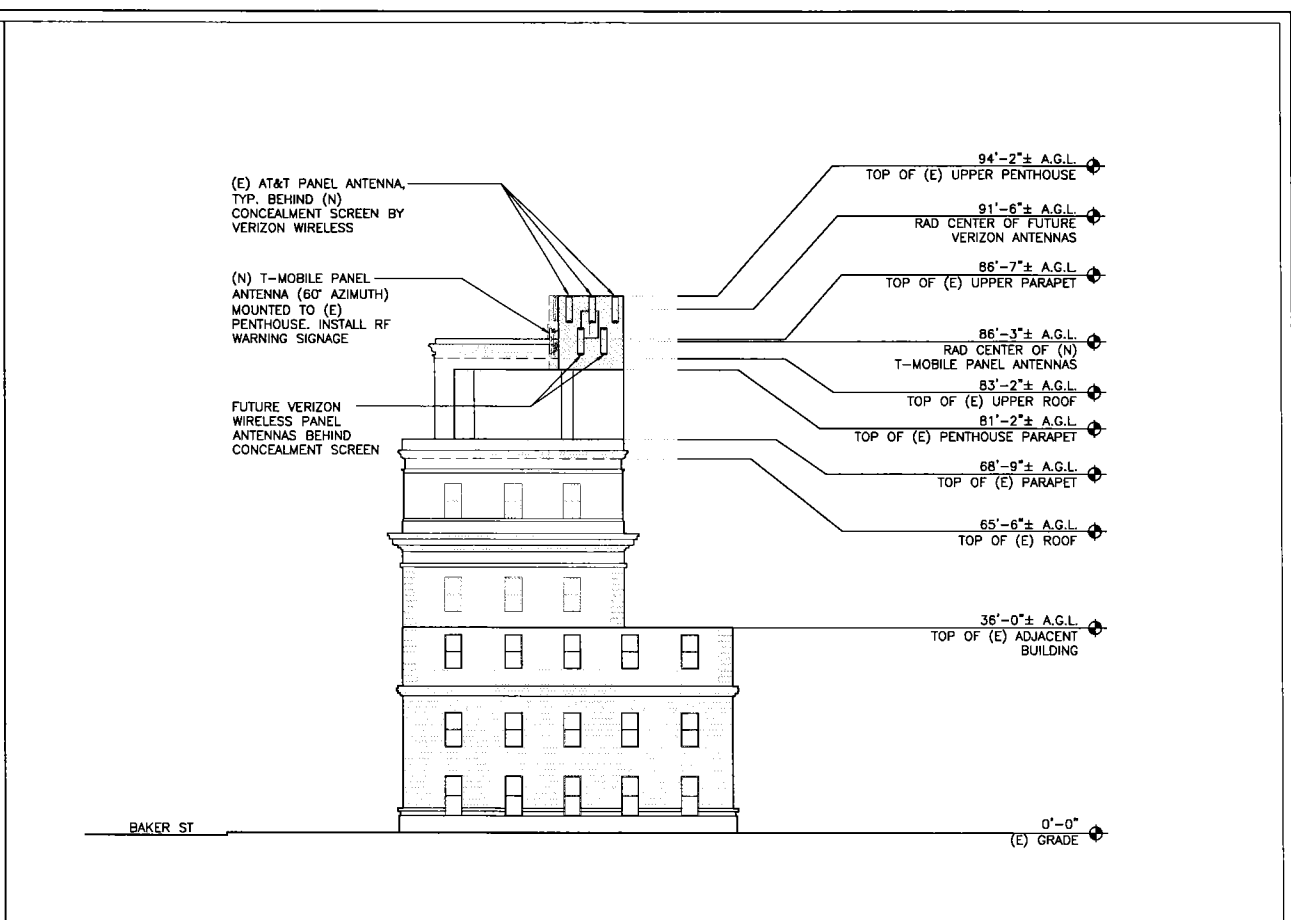
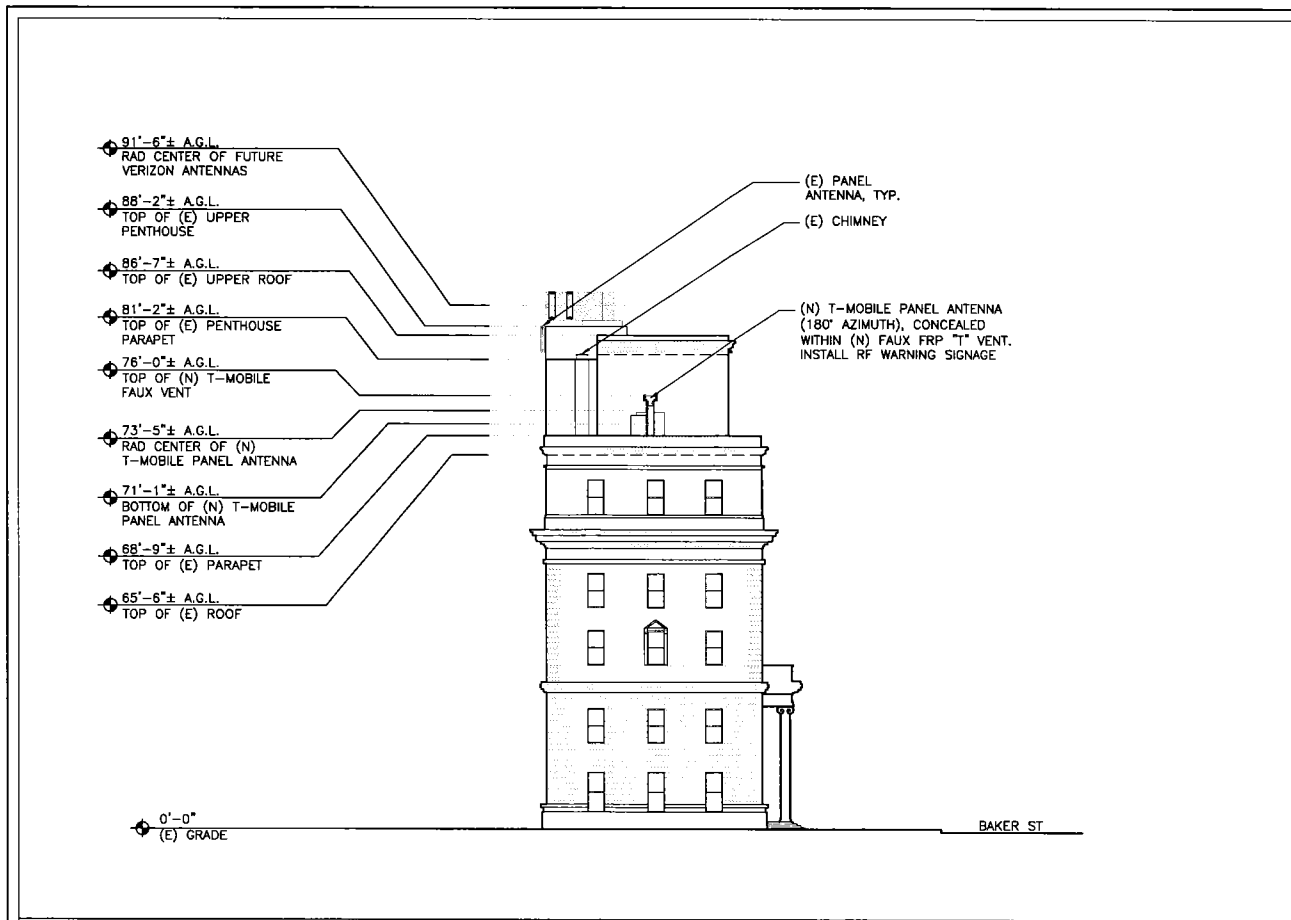
CONSULTANT:  
 \_\_\_\_\_

DRAWN BY: \_\_\_\_\_ CHK.: \_\_\_\_\_ APV.: \_\_\_\_\_  
 SH MWA MW

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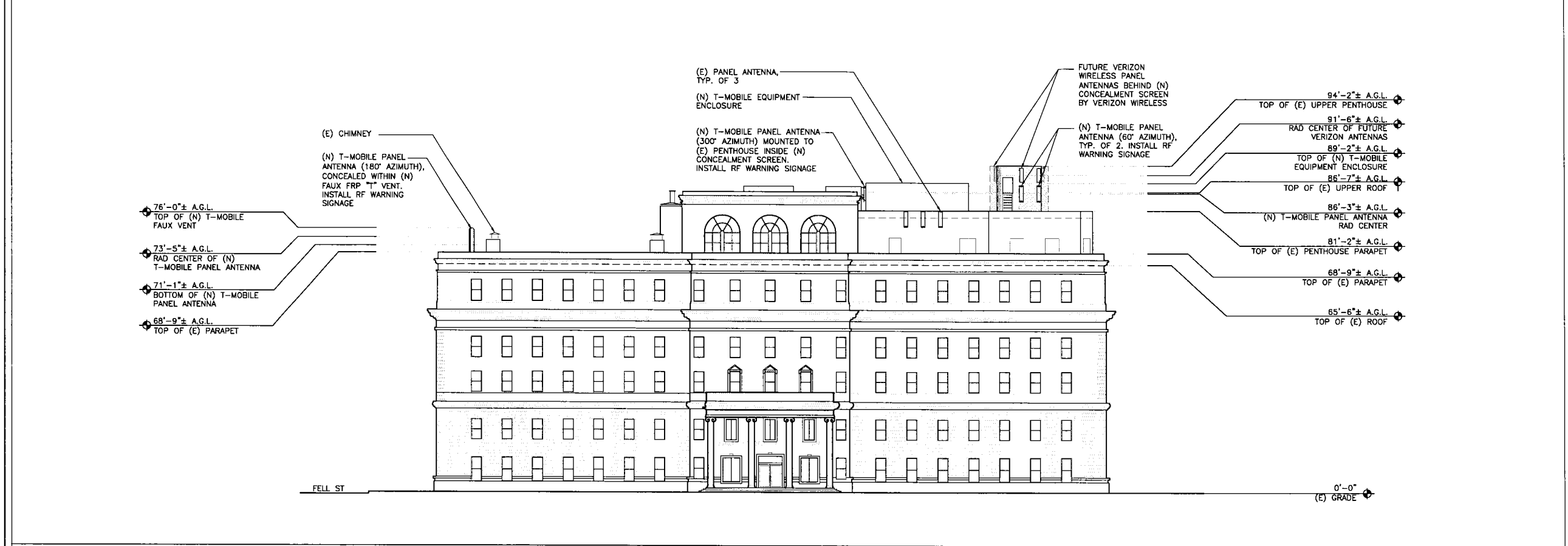
SHEET TITLE:  
**ELEVATIONS**

SHEET NUMBER:  
**A-4**



**SOUTH ELEVATION** SCALE: 1/16"=1'-0" **3**

**NORTH ELEVATION** SCALE: 1/16"=1'-0" **1**



**EAST ELEVATION** SCALE: 1/16"=1'-0" **2**

**EAST ELEVATION** SCALE: 1/16"=1'-0" **2**



# SITE NAME: FELL AND DIVISADERO

## SITE NUMBER: 123326

333 BAKER ST.  
SAN FRANCISCO, CA 94117



**MSA**  
Architecture & Planning, Inc.  
4425 17th Street  
San Francisco, CA 94114  
415.503.1363 fax 949.251.1177  
Santa Ana San Diego San Francisco  
www.msa-ap.com

THESE PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ISSUANCE OF A BUILDING PERMIT AND ALL SHEETS HAVE BEEN ISSUED "FOR CONSTRUCTION".

ABV	ABOVE	RET	RETURN
ADJ	ADJUSTABLE	REV	REVISION
ALT	ALTERNATE	SCH	SCHEDULE
APPROX	APPROXIMATE	SECT	SECTION
APP	APPROXIMATE	SF	SQUARE FOOT
AUTO	AUTOMATIC	SHT	SHEET
BEL	BELOW	SIM	SIMILAR
BLK	BLOCK	SPEC	SPECIFICATION
BOT	BOTTOM	SPECS	SPECIFICATIONS
CHAM	CHAMFER	SPL	SPECIAL
CIR	CIRCLE	SQ	SQUARE
CIRC	CIRCUMFERENCE	STD	STANDARD
CLR	CLEAR	SYM	SYMMETRICAL
COL	COLUMN	SYS	SYSTEM
COMB	COMBINATION	TEMP	TEMPORARY
CONT	CONTINUOUS	THK	THICK(NESS)
CTR	COUNTER	TOL	TOLERANCE
DEP	DEPRESSED	TYP	TYPICAL
DET	DETAIL	VERT	VERTICAL
DIAG	DIAGONAL	W/	WITH
DIAM	DIAMETER	W/O	WITHOUT
DIM	DIMENSION	PAR	PARALLEL
DIV	DIVISION	PERI	PERIMETER
DN	DOWN	PT	POINT
DWG	DRAWING	RAD	RADIUS
EA	EACH	REF	REFERENCE
EQ	EQUAL	REM	REMOVE
EQPT	EQUIPMENT		
EXG	EXISTING		
FUT	FUTURE		
HD	HEAVY DUTY		
HDWR	HARDWARE		
HORZ	HORIZONTAL		
HR	HOUR		
HT	HEIGHT		
ID	INSIDE DIAMETER		
L	LENGTH		
LBL	LABEL		
MAX	MAXIMUM		
MECH	MECHANICAL		
MED	MEDIUM		
MFR	MANUFACTURER		
MIN	MINIMUM		
MIR	MIRROR		
MISC	MISCELLANEOUS		
MM	MILLIMETER(S)		
MTL	MATERIAL		
NOM	NOMINAL		
NTS	NOT TO SCALE		
OD	OUTSIDE DIAMETER		

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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- CALIFORNIA ADMINISTRATIVE CODE (INCL. TITLES 24 & 25) 2007
- CALIFORNIA BUILDING CODE 2007
- CALIFORNIA ELECTRICAL CODE 2007
- CALIFORNIA MECHANICAL CODE 2007
- CALIFORNIA PLUMBING CODE 2007
- ANSI / EIA-222 G
- LOCAL BUILDING CODES
- CITY / COUNTY ORDINANCES
- CALIFORNIA FIRE CODE 2007 EDITION

### CODE COMPLIANCE

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS IS NOT REQUIRED IN ACCORDANCE WITH 2007 CALIFORNIA BUILDING CODE, TITLE 24, PART 24, VOL. 1, CHAPTER 11B, SECTION 1123B.2 EXCEPTION 1

### ACCESSIBILITY REQUIREMENTS

**ARCHITECT:**  
CONSULTANT'S NAME: MSA ARCHITECTURE AND PLANNING, INC.  
ADDRESS: 4425 17th STREET  
CITY, STATE, ZIP: SAN FRANCISCO, CA 94114  
CONTACT: ROBERT ZEHR  
PHONE: (415) 503-1363

**SURVEYOR:**  
CONSULTANT'S NAME: EVANS SURVEY & ENGINEERING  
ADDRESS: 1355 WILLOW WAY STE 105  
CITY, STATE, ZIP: CONCORD, CA 94520  
PHONE: (707) 426-4709  
FAX: (707) 426-5348

**CONSTRUCTION MANAGER:**  
CONSULTANT'S NAME: ON AIR, LLC.  
ADDRESS: 465 FIRST ST. WEST, STE 101  
CITY, STATE, ZIP: SONOMA, CA 95476  
CONTACT: OLIVIER FONTANA  
PHONE: (925) 250-5945

### PROJECT TEAM

**PROJECT SUMMARY:**  
THE PROJECT CONSISTS OF VERIZON WIRELESS EQUIPMENT CABINETS MOUNTED ON RAISED PLATFORM ON CONCRETE SLAB AT BASEMENT LEVEL WITHIN A CHAINLINK FENCE ENCLOSURE

INSTALLATION OF (6) PANEL ANTENNAS MOUNTED ON UPPER PENTHOUSE BEHIND PROPOSED CONCEALMENT SCREEN

STAND-BY GENERATOR MOUNTED ON A CONC. SLAB @ GRADE WITHIN CMU OUTDOOR ENCLOSURE LOCATION

COAX CABLE RUNS FROM EQUIPMENT TO PANEL ANTENNAS

TELEPHONE AND ELECTRICAL SERVICE FROM ADJACENT EXISTING SOURCES.

### PROJECT DESCRIPTION

#### APPLICANT/LESSEE

NAME: VERIZON WIRELESS  
ADDRESS: 2785 MITCHELL DRIVE  
WALNUT CREEK, CA 94598  
CONTACT: JIM GRAHAM  
PHONE: (925) 279-6333

#### AGENT

NAME: ON AIR, LLC.  
ADDRESS: 247 O'CONNOR ST.  
MENLO PARK, CA 94025  
CONTACT: CHRISTOPHER FOWLER, PROJ. MGR  
PHONE: (650) 888-0809  
FAX: (650) 325-4512

#### PROPERTY INFORMATION

OWNER: MERCY PROPERTIES CA ET AL  
ADDRESS: 333 BAKER ST.  
SAN FRANCISCO, CA 94117

CONTACT: MS. LYNNE ARMSTRONG  
PHONE: (415) 931-2325 EXT: 206

CURRENT ZONING: RM-1 RESIDENTIAL MIXED, LOWER DENSITY (40-X)

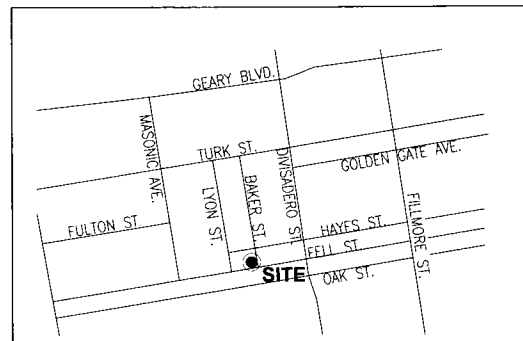
A.P.N.: 1206-003

NAD: 27  
LAT: 36°52'24.06"  
LONG: 122°25'01.12"

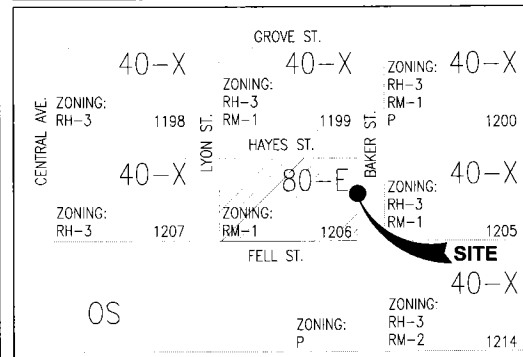
NAD: 83  
LAT: 36° 52' 23.90"  
LONG: 122° 25' 05.04"

NOTE: NORTH SHOWN HAS BEEN ESTABLISHED USING COMPASS AND IS APPROXIMATE. ALL ANTENNA AZIMUTHS ARE TRUE NORTH. MAGNETIC DEVIATION HAS NOT BEEN ACCOUNTED FOR. VERIFY TRUE NORTH PRIOR TO INSTALLATION OF ANTENNAS

### PROJECT SUMMARY



### VICINITY MAP



### HEIGHT & BULK DISTRICT/ ZONING

SITE DIRECTIONS FROM VERIZON WIRELESS WALNUT CREEK OFFICE:

- START AT 2785 MITCHELL DR, WALNUT CREEK - GO 0.2
- TURN LEFT ON N. WIGET LN - GO 0.3 MI
- YONACIO VALLEY RD becomes HILLSIDE AVE. - GO <0.10 MI
- MERGE ONTO CA-24 W toward OAKLAND - GO 13.50 MI
- MERGE ONTO I-580 W TOWARDS SAN FRANCISCO
- MERGE ONTO I-80 W TOWARD SAN FRANCISCO
- CROSS THE SAN FRANCISCO/OAKLAND BAY BRIDGE
- MERGE ONTO US-101 N/CENTRAL FWY TOWARD MISSION ST.-GO 1.1 MI.
- STAY STRAIGHT TO GO ONTO OCTAVIA - GO 0.2 MI.
- TURN LEFT ONTO FELL ST. - GO 0.9 MI.
- TURN RIGHT ONTO BAKER ST. - GO <0.1 MI.
- SITE IS ON LEFT SIDE, PARKING AVAILABLE ON STREET

### DRIVING DIRECTIONS

SHEET	DESCRIPTION	REV.
T-1	TITLE SHEET	9
T-2	PERMIT APPLICATION FOR GENERATOR	9
T-3	PERMIT APPLICATION FOR GENERATOR	9
T-4	PERMIT APPLICATION FOR CELLULAR ANTENNA SITES	9
T-5	EMF REPORT	9
T-6	BATTERY DATA	9
T-6.1	BATTERY DATA	9
T-7	GENERATOR SPECS.	9
C-1	SITE SURVEY	2
A-1	OVERALL SITE PLAN	9
A-1.1	INGRESS / EGRESS PLAN	9
A-2	ANTENNA & EQUIPMENT LAYOUT	9
A-3	PROJECT AREA PLAN @ GENERATOR	9
A-4	ELEVATIONS	9
A-6	ELEVATIONS	9
A-6	PARTIAL ELEVATIONS @ ANTENNA LOCATION	9
A-7	ELEVATION AT GENERATOR	9
A-8	DETAILS	9

### SHEET INDEX

TITLE	SIGNATURE	DATE
VERIZON WIRELESS CE		
VERIZON WIRELESS RF		
VERIZON WIRELESS PA		
VERIZON WIRELESS EE		
PROPERTY OWNER		
ON AIR ZONING		
ON AIR RE		
ON AIR CM		

### APPROVAL LIST

PROJECT NO: 123326  
DRAWN BY: MSA  
CHECKED BY: RZ  
CAD FILE: 123326

PROJECT NO: 123326

DRAWN BY: MSA

CHECKED BY: RZ

CAD FILE: 123326

SUBMITTALS		
9	10/14/10	100% ZONING REV.
8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
6	05/12/10	100% ZONING REV.
5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED.

SITE  
123326  
FELL &  
DIVISADERO  
333 BAKER STREET  
SAN FRANCISCO, CA, 94117

SHEET TITLE  
TITLE SHEET

SHEET NUMBER  
T-1

2.07 Permit Application Checklist for Diesel Generators, Diesel Fire Pumps, and Fuel Tanks Serving Generators and Fire Pumps  
(To be printed on the title page (s) of every plan submitted with building permit applications for diesel generators, diesel fire pumps, tanks, and piping, and to be completed by the design engineer for the submittal.)

This checklist has been developed primarily for fuel installations in buildings. Outdoor fuel installations will require further information. This checklist is designed to assist designers, installers, plan reviewers, and field inspectors. This checklist shall be prepared by the design professional and shall be stamped and wet-signed.

This document is not all-inclusive of all requirements for fuel installations, and it is the responsibility of the designer to research the applicable codes. In addition to these requirements, the applicant is advised to contact the San Francisco Department of Public Health at (415) 252-3900 for their requirements as the Hazardous Materials Unified Program Agency. Documents referenced for this bulletin are as follows:

- 2007 San Francisco Fire Code
2007 California Fire Code
2007 California Building Code
2007 California Mechanical Code
NFPA 13, 2002 edition, Installation of Sprinkler Systems
NFPA 37, 2002 edition, Stationary Combustion Engines and Gas Turbines
NFPA 30, 2003 edition, Flammable and Combustible Liquids Code
NFPA 70, 2002 edition, National Electrical Code (NEC)
NFPA 110, 2005 edition, Emergency and Standby Power Systems
NFPA 704, 2001 edition, Standard System for the Identification of the Hazard of Materials for Emergency response

Definitions

EPSS - Emergency Power Supply System - A complete functioning EPS system coupled to a system of conductors, disconnecting means and over-current protective devices, transfer switches, and all control, supervisory, and, and support devices up to and including the load terminals of the transfer equipment needed for the system to operate as a safe and reliable source of electric power.
Level 1 - Includes the following: emergency lighting, exit signs, fire alarm, sprinkler alarm, and detection systems, fire pumps where backup power is required, controls for smoke control equipment required by the Building Code, elevator car lighting. Includes all loads classified as "Emergency Systems" by the NEC.
Level 2 - Includes elevators requiring emergency power, and could include heating and refrigeration systems, communications systems, ventilation and smoke removal systems (except controls), sewerage disposal, lighting, and industrial processes that, when stopped due to any interruption of the primary electrical supply, could create hazards or hamper rescue or fire-fighting operations. Includes all loads classified as "Legally Required Standby" by the NEC.
Tank - A vessel containing more than 60 gallons.

(B) The stationary emergency and standby generator systems are required to be listed in accordance with UL 2200. Reference CFC 604.1.1.

STREET ADDRESS OF BUILDING: 333 BAKER ST. SAN FRANCISCO, CA 94117

- 1. Number of diesel generators under this permit application: 1
2. Number of diesel fire pumps under this application: 0
3. Number of diesel fuel storage tanks under this application: 1
4. Location(s) of generators or fire pumps under this application:
- In building, floor:
- On roof:
- Detached structure:
- Outdoors: Minimum distance from adjacent buildings:
- Minimum distance to adjacent property lines:
5. Type of diesel fuel tank:
- Aboveground (Atmospheric)
- Underground (Atmospheric)
- Fire Resistant Aboveground Tank (Tank, not building components)(Atmospheric)
- Underground Vault
- Secondary Containment Aboveground Tank Indoors: Outdoors:
- UL Listed UL 2085 Protected Aboveground Tank
- Other Specialty Tank, please specify: UL-142 LISTED
6. Location(s) of diesel fuel storage tanks (include day tanks) under this application:
- In building, floor: Number of gallons:
- On roof, Number of gallons:
- Outdoors, Number of gallons: 132
- Aboveground:
- Underground:
7. Generator or fire pump will be located in a combustible-free room or enclosure:
- Yes
- No
8. Air filter is of the type that will not burn freely when exposed to fire:
- Yes
- No
9. Explain how sufficient air for combustion, proper cooling, and adequate ventilation is provided for generator or fire pump?

For fuel tank(s)? OUTDOOR EXPOSURE

10. Generator or fire pump make, model number, rated capacity, listing agency: UL 142, 132 GAL TANK WBASIN, GENERAC POWER SYSTEMS.

11. Separate Fire Department permit is required (amount of diesel in building exceeds 25 gallons, or 60 gallons outside.) (Reference: 2007 CFC Section 105.6.16, number 3)
- Yes
- No

12. The aggregate total volume of diesel in the building after this installation will be 0 gallons. (Aggregate total in building affects room design for fire rating. 2002 NFPA 37, 6.3.2.2, 6.3.2.3)

13. Liquid storage room is properly placarded in accordance with NFPA 704 and when located in a high-rise building, hazardous material inventory and locations are prominently posted on a permanent placard in the fire control room, 2007 CFC, Sections 2703.5, 3403.5, 3404.2.3.

14. Generator serves which type of loads as defined by NFPA 110 (See definitions above) Check all applicable boxes:
- Level 1 or Emergency Systems
- Level 2 or Legally Required Standby
- Optional-Base Building loads
- Optional-Tenant Loads

15. If installation serves optional loads, is the intent of the installation to keep the business up and running during a power failure (building occupied)?
- Yes
- No
- n/a

16. Generator/fire pump (circle one) #1 consumes 4.8 gallons of diesel per hour under full load.
Generator/fire pump # 2 consumes N/A gallons of diesel per hr.
Generator/fire pump # 3 consumes N/A gallons of diesel per hr. (Attach additional sheets if necessary.)

17. Starting kVA of the generator is 30KW. If more than one generator, attach info.

18. Running kVA of the generator is 30KW. If more than one generator, attach info.

19. Provide a list of all equipment served by the generator and demand calculations
\* Attached (minimum 11 x 17 sheet)
\* On plans

ENGINES LOCATED IN STRUCTURES (answer 20-21) if installing an engine inside a structure.)

20. What is the fire rating of the walls and opening protection in the room where the engine is located? Note, minimum one-hour fire barrier separation shall be provided for engines installed in a building. The system shall be designed in such a way that required opening protection is provided without choking off vital combustion air and ventilation.) Reference: 2007 CBC Section 432.

- 1-hour
2-hour
3-hour
Other:

21. Fully sprinklered building, per NFPA 13?
- Yes
- No

If no, interior openings are not permitted between the Engine Room and other portions of the building, except 1 occupancies. Reference 2007 CBC, Section 432.2.2.1

ENGINES LOCATED ON ROOFS (answer 22-23 if you are installing an engine on a roof.)

22-23 Not applicable
22. Engines, and their weatherproof housings, if provided, that are installed on roof structures shall be located at least (5ft) for structures having combustible walls and wall openings, 2002 NFPA 37, 4.1.3.1. A minimum separation shall not be required where the following conditions exist:

- (1) The adjacent wall has a rating of at least 1 hour.
(2) The weatherproof enclosure is constructed on noncombustible material, and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure.

Note: Corrosion protection is required for fuel tanks by 2007 CFC, Section 3404.2.7.9

23. Where engine or skid mounted assembly containing an engine is mounted on a roof, the surface beneath the engine and beyond the engine, and any containment dike is noncombustible to a minimum distance of 12 inches Reference: 2002 NFPA 37, Section 4.1.3.2.

ENGINES LOCATED OUTDOORS (answer 24 if you are installing an engine outdoors)

24 Not applicable
24. Engines and their weatherproof housings are located at least 5 ft from openings in walls and at least 5 ft from structures having combustible walls. Reference: 2002 NFPA 37, Section 4.1.4.

The adjacent wall has a rating of at least 1 hour.
The weatherproof enclosure is constructed on noncombustible material, and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure.

Note: Corrosion protection is required for fuel tanks by 2007 CFC, Section 3404.2.7.9

ENGINES HANDLING HAZARDOUS MATERIALS (Other than their own fuel supply)

[Answer 25-28 when applicable]

25-28 Not applicable
25. Engine is suitably isolated from areas not having a similar hazard. Reference: 2002 NFPA 37, Section 4.4.1

26. Provisions for the venting of an explosion with minimal structural damage is provided. Reference: 2002 NFPA 37, Section 4.4.2.

27. Rooms containing engines located within structures have interior walls, floors, and ceilings of at least 2-hour fire resistance rating. Reference: 2002 NFPA 37, Section 4.4.2

28. Rooms containing engines are adequately ventilated from a non-hazardous area. Reference: 2002 NFPA 37, Section 4.4.2

ENGINE WIRING (Answer 29-31 for all engine installations.)

29. Wiring is in accordance with the 2002 NFPA 70 and the 2002 NFPA 37, Section 4.5
30. Are the Electrical circuits are designed to be "fail-safe", i.e. Engine shuts down automatically in case of control wire break, disconnect, or cutting. Reference: 2002 NFPA 37, Section 4.5.3.4.

Yes, circuits are fail safe
No

31. Batteries, wiring, and electrical protective devices are protected against arcing and accidental shorting. Reference: 2002 NFPA 37, Section 4.5.4

ENGINE EXHAUST (Answer 32-33 for all engine installations)

32. Engine exhaust termination location is SEE A-SHEETS
(Required to terminate outside structure at a point where hot gases, sparks, or products of combustion will be discharged harmlessly and guarded to prevent personnel burns where necessary.) Reference: 2002 NFPA 37, Section 8.2.3.

33. Anticipated engine exhaust temperature: 875 Reference: 2002 NFPA 37, Section 8.3 and 8.4 for clearance requirements

ENGINE REQUIREMENTS (Answer 34-39 for all engine installations.)

34. Is Engine provided with an automatic engine speed control, as required? Reference: 2002 NFPA 37, Section 9.1

Yes
No

35. Reciprocating engines that are 10 Horsepower or more are provided with:
\* Device for high jacket water temperature or, high cylinder temperature
\* Device for low lubricating oil pressure or, in the case of a splash lubricated engine, for low oil level
\* Provisions for shutting down the engine at the engine and a remote location
\* An automatic engine shutdown device for engine over-speed
\* An automatic engine shutdown device for high-exhaust temperatures
\* Provisions for shutting down, from a remote location, lubricating oil pumps not driven by the engine. Reference: 2002 NFPA 37, Section 9.2.1

36. Blank
37. Combustion gas turbine engines are equipped with the item in 34 above, and at least the following additional features:

- \* An automatic main speed control and overspeed shutdown control
\* A backup overspeed shutdown control that is independent from the main control specified above
\* An automatic engine shutdown device for low lubricating oil pressure
\* An automatic engine shutdown device for high exhaust temperatures
\* Provisions for shutting down the engine from a remote location
\* Provisions for shutting down, from a remote location, lubricating oil pumps not directly driven by the engine
\* An automatic shutdown device for high exhaust temperatures
\* A means of automatically shutting off the fuel supply in the event of a flameout
\* n/a. Reference: 2002 NFPA 37, Section 9.3

38. One set of operating and maintenance procedures will be located where readily accessible to personnel operating or maintaining equipment. Reference: 2002 NFPA 37, Section 10.1

39. Emergency shutdown procedures will be conspicuously posted near the engine indicating the location of the fuel shutoff valve(s). Reference: 2002 NFPA 37, Section 10.2

FUEL SUPPLY
FUEL TANKS (Answer 40-78 for all fuel tank installations.)

40. Fuel Tank is listed. Make, model, listing agency: GENERAC POWER SYSTEMS ENGINE U.L. 142, 132 GAL TANK WBASIN, VERIZON WIRELESS

41. Tank is constructed of:
- Combustible Materials, as allowed by 2003 NFPA 30, 4.2.2 (2) (a-b)
- Noncombustible Materials
42. Engine-mounted tanks securely mounted on the engine assembly and protected against vibration, physical damage, engine heat, and the heat of exhaust piping. Reference: 2002 NFPA 37, Section 6.3.1

43. Indoor and roof fuel tanks are securely mounted on substantial noncombustible supports. Reference: 2002 NFPA 37, Section 6.3.2.1, and Section 6.3.4.1
44. Fully Sprinklered Building per NFPA 13 (affects exempt amounts). Reference: 2007 CBC, Table 307.1(1), and 2007 CFC Section 2703.1.1 and Table 2703.1.1(1)

45. Tank is located in an exhausted enclosure (affects exempt amounts). Reference: 2007 CBC, Table 307.1(1), and 2007 CFC Section 2703.1.1 and Table 2703.1.1(1)

46. Room where tank is stored is sprinklered to Extra Hazard Group II hazard classification. Reference: 2002 NFPA 13, Section 5.4.2

47. Yes
No

48. Yes
No

49. Yes
No

verizon wireless
2785 MITCHELL DRIVE
WALNUT CREEK, CA 94598
MSA
Architecture & Planning, Inc.
4425 17th Street
San Francisco, CA 94114
415.503.1363 fax 949.251.1177
www.msa-ap.com

PROJECT NO: 123326
DRAWN BY: MSA
CHECKED BY: RZ
CAD FILE: 123326

Table with 2 columns: Date, Revision. Includes rows for 100% ZONING REV. dates from 10/14/10 to 11/26/07.

THE INFORMATION CONTAINED ON THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED.

SITE 123326
FELL & DIVISADERO
333 BAKER STREET
SAN FRANCISCO, CA, 94117

SHEET TITLE
PERMIT APPLICATION
FOR GENERATOR
(1 OF 2)

SHEET NUMBER
--2

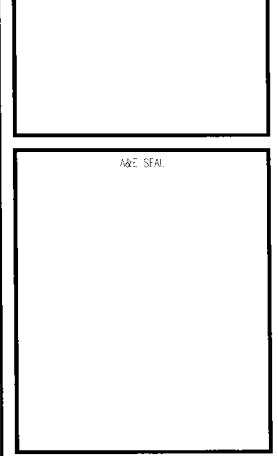
Oct 14, 2010 - 1:08pm jhussey P:\Verizon-SF\123326.FELL & DIVISADERO\1-ZD\123326-T2.dwg

47. Tank has a nominal capacity of 480 gallons or less, building is fully sprinklered in accordance with NFPA 13, and tank is located in an exhausted enclosure. Reference: 2007 CBC, Table 307.1(1), and 2007 CFC Section 2703.1.1 and Table 2703.1.1(1)  
 Yes If yes, do not answer questions 48-53.  
 No
48. Tank has a nominal capacity of more than 480 gallons and is located in a room with the proper occupancy separation for H-3 occupancies (2007 CBC, Table 508.3.3). Fire rating provided is \_\_\_\_\_ for separation from a \_\_\_\_\_ occupancy. Building is fully sprinklered per NFPA 13, and tank is located in an exhausted enclosure. Interior wall and ceiling finish per 2007 CFC, Table 803.3. Shelving, racks, and wainscoting in such rooms shall be non-combustible material compatible with the hazardous material stored. Reference: 2007 CFC 2703.8.5.1 and 2703.9.9  
 Yes  
 No
- You must also answer questions 49-53, most restrictive section applies.
49. Room where diesel tank is located is less than 1000 sq. ft. in area, not required to have an exterior wall. Reference: 2007 CBC, Section 415.3, exception 2  
 Yes  
 No
50. Room where diesel tank is located is minimum 2-hour enclosure, 2003 NFPA 30 43.4.3.4, but not less than that required by 2007 CBC, Table 508.3.3  
 Yes  
 No
51. Room where diesel tank is located is greater than 1000 sq. ft. in area, 25% of the perimeter wall shall be an exterior wall. Two exits are required; with one door directly to the exterior, that also serves as Fire Department access. Reference: 2007 CBC, Section 1015.1 and Table 1015.1  
 Yes  
 No
52. Fuel tank exceeds 660 gallons; the tank must be in a room by itself. Reference: 2002 NFPA 37, Section 6.3.2.2  
 Yes  
 No
53. Amount of fuel connected to any one engine exceeds 660 gallons, or the aggregate capacities of all fuel tanks in a structure exceed 1320 gallons. Provide a technical report, justifying design in regard to: recognized engineering practices, with suitable fire detection, fire suppression, and containment means, to prevent the spread of fire beyond the room of origin. Report shall be prepared without charge to the City- Approval of storage amounts in this category requires specific approval of the Fire Marshal. Reference: 2002 NFPA 37, Section 6.3.2.2 and 6.3.2.3, 2007 CFC, 3404.2.10  
 Yes  
 No
54. Spill control / Leakage control in accordance with 2007 CFC, Section 2704.2 is provided. Reference: 2007 CFC, Sections 3404.2.10; and 2007 CBC, Section 415.6.2.5  
 Yes  
 No  
 Method used: FUEL RUPTURE BASIN 184 GALLON CAPACITY ATTACHED TO GENERATOR
55. Indoor secondary containment in accordance with Section 2704.2.2 of the 2007 CFC is provided. Volume of largest vessel + 20 minutes sprinkler flow for room or minimum sprinkler design area, whichever is smallest. A monitoring method to detect hazardous materials in the secondary containment system is required (leak detection), and shall be equipped with a distinct visual or audible alarm to an approved area and signage per 2007 CBC, Section 415.6.2. Reference: 2007 CFC Sections 2704.2.2.1, 2704.2.2.3, 2704.2.2.4, and 2704.2.2.5; and 2007 CBC Section 415.6.2  
 Yes  
 No  
 Method used; Include volume of secondary containment and justification (attach calculations).
56. Fuel Tank is filled via a closed piping system with remote fill. Required for all new installations of aboveground storage tanks in buildings, unless specifically approved by the Fire Marshal. Reference: 2007 SFFC, Section 7901.1.1.1  
 Yes  
 No
57. Remote fill inlet is located outside of building, free from sources of ignition and a minimum of 5 ft. away from building openings or of lines of property that can be built on. Opening is provided with a tamper-proof, liquid-tight cap which is closed when not in use and is properly identified. 2007 CFC, Sections 3404.2.7.5.2 and 3404.2.7.5.6  
 Yes  
 No
- ✓ 58. Remote fill inlet is provided with a permanent spill containment basin to prevent the inflow of hazardous substances into the environment. Reference: 2007 CFC, Section 3404.2.9.6.8
- ✓ 59. Overfill protection is provided in accordance with the 2007 CFC, Section 3404.2.7.5.8, 3404.2.9.6.6, 3404.2.9.6.6.1, and 3404.2.9.6.6.2
60. All tank openings are in accordance with 2007 CBC, Section 415.6.2.10; 2007 CFC, Section 3403.6.7; and 2003 NFPA 30, Section 4.3.4.7  
 Yes  
 No
61. Metallic fill pipes are designed to minimize the generation of static electricity by terminating the pipe within 6 inches of the bottom of the tank, and will be installed to avoid excessive vibration. 2007 CFC, Section 3404.2.7.5.5  
 Yes  
 No
62. Piping systems are supported and protected against physical damage and excessive stresses in accordance with MSS SP-69, Pipe Hangers & Supports- Selection and Application. Flexible connectors are provided to protect the piping system against damage caused by settlement, vibration, expansion, contraction, or corrosion. Reference: 2002 NFPA 37, Section 6.8.2  
 Yes  
 No
- Flexible connector details and specifications are included with this submittal. Make and model number: \_\_\_\_\_
63. Fuel piping supports are protected against exposure to fire by:  
 Draining liquid away from piping system at a minimum slope of not less than 1 percent  
 Providing protection with a fire-resistant rating of not less than 2 hours, or  
 Other approved methods. Please specify: \_\_\_\_\_
- Reference: 2003 NFPA 30, Sections 5.5.2; 2002 NFPA 37, 6.8; and 2007 CFC, Sections 3403.6.2 and 3403.6.8
64. All equipment, tanks, piping, pumps, etc. listed for their respective application and complete equipment list with submittal data submitted with the building permit plans.  
 Yes  
 No
65. Tank is provided with vents for normal venting in accordance with 2007 CFC Section 3404.2.7.3 (If tank is double walled, interstitial space shall be vented also).  
 Yes  
 No
66. Size of tank normal vent piping is \_\_\_\_\_ 3", determined by (circle one) 2007 NFPA 30, or 4.2.5 API Standard 2000. Size of emergency vent piping is \_\_\_\_\_, determined by 2003 NFPA 30, 4.2.5.2. Provide manufactures UL listing for tank vent sizes. Attach all calculations to verify vent calculations.
67. Location of vent pipe outlet(s) for tank \_\_\_\_\_  
 Vents shall be vented not less than 12 ft. above the adjacent ground level, shall be vented upward or horizontally away from closely adjacent walls, so that vapors will not be trapped by eaves or other obstructions, and shall be at least 5 ft. from building openings or property lines of properties that can be built on. Reference: 2001 CFC, 3404.2.7.3.3
68. Tank is provided with emergency venting in accordance with 2007 CFC Section 3404.2.7.3 and 2003 NFPA 30, 4.2.5.2  
 Yes  
 No
- N/A 69. Room where tank is located is ventilated in accordance with 2007 CFC, Section 2704.3 and 2704.3.1  
 Yes  
 No
70. Tank supports and connections are designed to resist damage as a result of seismic activity Reference: Section 2007 CFC, Section 2703.2.8, 3404.2.9.2; and 2003 NFPA 30, 4.2.4  
 Yes  
 No

71. Piping, valves, tanks, or fittings are subject to vehicular damage. (Guard posts or other approved means of protection shall be installed) Reference: 2007 CFC, Section 2703.9.3 and 3404.2.9.6.5  
 Yes  
 No
72. Fuel supply system is provided with adequate alarms, float-controlled valves, or mechanical or remote-reading-level gauges or protected sight glass gauges to aid personnel in properly operating the fuel system. Reference: 2002 NFPA 37, Section 6.5.2 (Note: all openings are restricted to the top of the tank).  
 Yes  
 No
- ✓ 73. All piping is double-walled, meets the requirements of 2007 CFC Section 2703.2.2, 2704.2.2.5, 3403.6 and 7902.1.10.8 and is provided with a leak-detection system. Provide leak detection alarm per CBC Section 415.6.2, 414.7 and CFC 2704.2.5.5, with supervision as required by CBC Section 414.7.3, transmitting a trouble signal to a central station. The leak detection shall also provide Emergency Alarm per CBC 414.7.1 and CFC 2704.9.
74. Stationary-powered fuel pumps supplying fuel tanks have "stop" controls sensitive to a tank's high liquid level. Reference: 2002 NFPA 37, 6.5.3  
 Yes  
 No
75. Fuel tanks supplied by pumps are provided with an overflow line, a high-level alarm, and a high-level automatic shut-off. Overflow piping complies with section. Reference: 2002 NFPA 37, 6.5.4  
 Yes  
 No  
 n/a
76. Clearance provided around tank is a minimum of 15 inches. Reference 2002 NFPA 37, Sections 6.3.5.1.2  
 Yes  
 No
77. Pressure relief valves and relief piping are provided where the potential exists for over-pressurizing fuel system piping, and is routed without valves or traps to the source tank or collection system. Reference: 2002 NFPA 37, Section 6.5  
 Yes  
 No  
 n/a
78. Hydrostatic test will be performed in the presence of the Fire Inspector for all piping and underground tanks. Reference: 2007 CFC, Section 3403.6.3 and 3404.2.12  
 Yes **TANK IS ABOVE GROUND**  
 No
- ADDITIONAL REQUIREMENTS FOR INSTALLATIONS SERVING REQUIRED EMERGENCY POWER SUPPLY SYSTEMS (EPSS) (THIS CATEGORY INCLUDES AEMERGENCY SYSTEMS® AND ALEGALLY REQUIRED STANDBY® AS DEFINED BY THE NEC. SEE DEFINITIONS SECTION.(COMPLETE QUESTIONS 79-92 WHEN INSTALLATION SERVES THIS TYPE OF EQUIPMENT)
79. Locations housing required EPSS and Standby equipment will be provided with battery-powered emergency lighting. The charging system and the normal service room lighting shall be supplied from the load side of the transfer switch. Reference: 2005 NFPA 110, Section 7.3  
 Yes  
 No
- N/A 80. Generators serving EPSS systems will have a remote panel, powered by the storage battery, that complies with 2005 NFPA 110, Section 5.6.5.2 of the. Such panel will be located immediately outside of the EPSS service room and will include all status indicators as required by 2005 NFPA 110 Table 5.6.5.2  
 Yes  
 No
- N/A 81. EPS equipment is provided with a minimum of 36 inches clearance on all sides. Required when generator is used for required emergency loads. Reference: 2005 NFPA 110, Section 7.2.5  
 Yes  
 No
82. Installation is serving high-rise building emergency power systems.  
 Yes  
 No  
 Emergency and standby power status indicators are required in the fire control room per 2007 CBC, Section 911. Status indicators shall include but not be limited to: running, failure to start, controller off "automatic", trouble (e.g., low oil, high temperature, overspeed), fuel leak detection alarms (piping, tank, room), low fuel level alarms. Generator supervision devices, manual start and transfer features.
- N/A 83. Power Distribution/Riser Diagram has been reviewed and approved by the Electrical Inspection Division.  
 Name of approving inspector: \_\_\_\_\_
- N/A 84. For generators serving EPSS, prime movers are provided with instruments and accessories as required by 2005 NFPA 110, Section 5.6.3  
 Yes  
 No
- N/A 85. Engines for EPSS are located in a separate room of minimum 2-hour fire-rated construction. Only EPSS equipment is permitted in room. Reference: 2005 NFPA 110, Section 7.2.1.  
 Yes  
 No
- N/A 86. Electrical rooms for normal building power will be free of EPSS equipment.  
 Yes  
 No  
 Reference: 2005 NFPA 110, Section 7.2.2
- N/A 87. Engines serving EPSS are provided with a remote manual stop station of a type to prevent inadvertent or unintentional operation station located immediately outside the generator room. Reference: 2005 NFPA 110, Section 5.6.5.6  
 Yes  
 No
- N/A 88. At least two sets of instruction manuals in accordance with Section 8.2.1 of the 2005 NFPA 110 will be provided to the building. One set will be located in a secure, convenient location near the equipment. The other set will be kept in a different secure location. Reference: 2005 NFPA 110, Sections 8.2.1 and 8.2.2  
 Yes  
 No
- N/A 89. For EPSS systems, a routine and operational testing program has been designed and a written record in accordance with 2005 NFPA 110, Section 8.3.4 and 8.3.4.1 is in place to begin immediately after acceptance, including transfer switch and battery requirements. Reference: 2005 NFPA 110, Section 8.3.5 and 8.3.7  
 Yes  
 No
- N/A 90. Generators serving EPSS shall employ a program-timing device to exercise the EPSS as described in Chapter 8 of NFPA 110, 2005 edition. The transfer switches for Level 1 and Level 2 EPSS shall transfer the connected load to the EPS per the 2005 NFPA 110, Section 6.2.11 and 6.2.11.1  
 Yes  
 No
- N/A 91. All elements of the fuel delivery systems serving emergency generators and fire pumps for required emergency power are provided with a means of secondary power. Reference: 2005 NFPA 110, Section 7.9.9 and SFFD Interpretation  
 Yes  
 No
92. Fuel Tank is sized so that fuel is consumed within storage life (1-1/2 years), or provisions will be made to replace stale fuel with fresh fuel. Reference: 2005 NFPA 110, Section 7.9.1, 7.9.1.3  
 Yes  
 No
- N/A 93. Fuel tanks for EPSS are placed as close as practicable to the prime mover. Reference: 2005 NFPA 110, Section 7.9.2  
 Yes  
 No
- Final approval of fire pumps requires completion of a field acceptance test conducted in accordance with 2003 NFPA 20, Section 14.2.1. Pump test shall be attended by pump manufacturer, engine manufacturer, transfer switch manufacturer (when supplied), installing contractor, and should be attended by the owner. The SFFD District Fire Inspector shall be notified in advance of the time and place of the test, and shall be provided with the pump acceptance test data.
- Final approval of required emergency generators requires completion of Installation Acceptance Testing in accordance with 2005 NFPA 110, Section 7.13. Person(s) responsible for testing generator shall exhibit competence, or may be retested at the time of the test. The SFFD District Fire Inspector and the DBI Electrical Inspector shall be notified in advance of the time and place of acceptance testing, and shall be provided with written testing data.  
 Prepared by: \_\_\_\_\_
- MSA ARCHITECTURE AND PLANNING  
 4425 17TH STREET  
 SAN FRANCISCO, CA 94132



**MSA**  
 Architecture & Planning, Inc.  
 4425 17th Street  
 San Francisco, CA 94114  
 415.582.1363 fax 949.251.1177  
 Santa Ana San Diego San Francisco  
 www.msa-ap.com



PROJECT NO: 123326  
 DRAWN BY: MSA  
 CHECKED BY: RZ  
 CAD FILE: 123326

SUBMITTALS		
9	10/14/10	100% ZONING REV.
8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
6	05/12/10	100% ZONING REV.
5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

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SHEET  
 123326  
 FUEL &  
 DIVISADERO  
 333 BAKER STREET  
 SAN FRANCISCO, CA, 94117

SHEET TITLE  
 PERMIT APPLICATION  
 FOR GENERATOR  
 (2 OF 2)

SHEET NUMBER  
 -3

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2.06 Permit Application Checklist for Cellular Antenna Sites and all Equipment Serving the Cellular Antenna Site

This checklist shall be printed on a drawing sheet and submitted as part of the plans submitted with any building permit application creating or modifying cellular antenna sites regardless of RF emission quantities. This checklist is designed to assist designers, installers, plan reviewers, and field inspectors. This checklist shall be prepared by the design professional and shall be stamped and wet-signed.

This document is not all-inclusive of all requirements for cellular antenna sites and it is the responsibility of the designer to research the applicable codes. Documents referenced for this bulletin are as follows:

FCC OET Bulletin 56 - Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields (August 1999)  
 FCC OET Bulletin 65 - Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (Ed. 97-01 August 1997)  
 FCC - A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance (June 2, 2000)  
 2007 California Building Code (2001 CBC)  
 2007 California Fire Code (2001 CFC)  
 2007 California Mechanical Code (2001 CMC)  
 2007 San Francisco Fire Code (2001 SFFC)  
 2002 NFPA 13 Automatic Sprinkler Systems  
 2002 NFPA 72 National Fire Alarm Code

- ✓ 1. Description of scope of work (both on the application and plans) shall match the actual work being done.
- ✓ 2. Plans shall include plan views and elevations showing all equipment locations and cable runs.
- ✓ 3. Submit on a drawing sheet the San Francisco Health Department Cellular Antenna Site (WTS) Checklist/Proposal/Engineer's RF Report. The FCC requires carriers to inform and prevent occupational exposure (i.e. building maintenance workers, fire fighters, etc.) The RF report shall not specify locking the roof access door to keep the general public off of the roof per 2001 SFFC 1207.7.1. The RF report shall be wet stamped and signed by an engineer.
- ✓ 4. Drawings shall reflect the striped/exclusion areas per the above RF Report with a minimum radius being 1 foot.
- ✓ 5. Notice to Workers warning signage as applicable per the above RF Report:  
 Signage shall be in English, Chinese and Spanish; The signage shall be permanently mounted at the stairwell side of the roof-access stairwell, door, in the Fire Control Room within proximity of the cell-site shutdown signage and any other space necessary to warn workers (i.e. parapets, street side of fire escapes); The signage shall be clearly labeled and visible from any direction of approach; The sign shall be weatherproof with contrasting background and lettering colors and shall be readable from at least fifteen (15) feet from the sign; There is a yellow triangle around the antenna symbol (see ANSI C95.2-1999); and Location and signage detail with site specific information shall be included on a drawing sheet.
6. Provide a quantitative three-dimensional perimeter of the RF levels if the antennas appear to encroach on any means of exiting.  
 The signage shall be clearly labeled and visible from any direction of approach even if access is achieved from the building face (i.e. ladders, cherry picker, etc.); The sign shall be weatherproof with contrasting background color and shall be recognizable from at least fifteen (15) feet from the sign; The sign shall contain the yellow triangle around the antenna symbol (see ANSI C95.2-1999); and Location and signage detail shall be included on a drawing sheet.
8. Plans shall show whether a new electrical service is installed for the cell site. In general, buildings should only have one electrical service. However, with the prior approval of the San Francisco Fire Department and the Electrical Inspection Division, buildings may have one additional service to serve rooftop antenna equipment, provided a permanent placard is provided at the location of each service disconnect stating the location of the other and identifying the equipment served by each service.
- ✓ 9. Provide route of all cables from their origin to the equipment (plan, elevation and section views). Cables/wiring shall not be allowed in exit enclosures or in front of dry standpipes (2007 CBC 1020.1.1).
10. EITHER:  
 Provide a manual battery disconnect:  
 \* Instructional signage shall be provided on the Procedure To Disconnect or De-Energize Radio Frequency (RF) Signal for the above manual disconnect for the batteries.  
 \* Signage shall be permanently mounted next to the battery's electrical panel and 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.  
 \* The actual breaker(s) shall be a phenolic label (red background and white lettering) with lettering not less than 1/8" high.  
 \* The signage shall also be like posted in the FCC Room within proximity of the Fire Alarm Panel and building's main electrical room within proximity of the main shutoff.  
 \* A copy of the signage shall be included on a drawing sheet.  
 \* Provide SFFD approved key lock box for equipment/electrical room for battery/equipment shutdown.  
 \* The permanently mounted label above the lock box shall read "SFFD BATTERY DISCONNECT ACCESS KEY" and shall be a phenolic label with a red background and white lettering.  
 \* Location and label of the key lock box shall be included on a drawing sheet.  
 OR:  
 ✓ Provide 24 hour/7 days a week telephone service center shut-down:  
 \* Provide instructional signage for emergency shutdown of the cell site including telephone number and cell site identification number.  
 \* The sign shall state that there is no manual shut down for the cell site and to call the contact number (the number shall be printed on the sign) with the site identification number (the number shall be printed on the sign) for immediate shut-down of the site 24hr/7days a week.  
 \* The sign shall also state whether or not the back-up battery power to the antennas is also shut-down.  
 \* The signage shall be permanently mounted next to the main electrical shut-off, in the FCC room within close proximity to the Fire Alarm Panel, at the battery cabinet and at the equipment room.  
 \* 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.  
 \* A copy of the signage shall be included on a drawing sheet.
- N/A 11. Is a new HVAC system being installed?  
 \_\_\_ Yes  
 \* What is the volume of refrigerant used by the cooling unit(s)? \_\_\_\_\_  
 \* What is the type of refrigerant per 2007 CMC? \_\_\_\_\_  
 \* Assure compliance with 2007 CFC Section 606.  
 ✓ No
- N/A 12. Plans state sequence of operations for any new detection, dampers, or fans.
- ✓ 13. Plans shall clearly show locations of batteries and battery cabinets.
14. Plans shall state whether the building is fully sprinklered or not.
15. In fully sprinklered buildings, equipment rooms shall be provided with sprinklers in accordance with NFPA 13.
- ✓ 16. Provide a table on a drawing sheet showing the manufacturer, model, type, amount (gallons or pounds) of electrolyte, flooded lead acid, Ni-Cd, VRLA or Li-ion. Please show detailed compliance with 2007 CFC Section 608 on the drawing sheets. When compliance with Section 608 of the 2007 California Fire Code is required, the following additional information shall be provided:  
 \* Rooftop battery rooms exceeding the above requirements shall be separated from the building and any openings as specified by the 2007 CBC and CMC.  
 \* Plans state that a separate fire department permit will be obtained from SFFD Headquarters at 698 2nd St.  
 Prepared by:

MSA ARCHITECTURE AND PLANNING  
 4425 17TH STREET  
 SAN FRANCISCO, CA 94114

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



**MSA**  
 Architecture & Planning, Inc.  
 4425 17th Street  
 San Francisco, CA 94114  
 415.503.1363 fax 949.251.1177  
 Santa Ana San Diego San Francisco  
[www.msa-ap.com](http://www.msa-ap.com)

AKE SEAL

PROJECT NO: 123326

DRAWN BY: MSA

CHECKED BY: RZ

CAD FILE: 123326

SUBMITTALS		
9	10/14/10	100% ZONING REV.
8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
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5	02/18/10	100% ZONING REV.
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3	11/26/07	100% ZONING REV.

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SITE  
 123326  
 FELL &  
 DIVISADERO  
 333 BAKER STREET  
 SAN FRANCISCO, CA, 94117

SHEET TITLE  
 PERMIT APPLICATION  
 FOR CELLULAR  
 ANTENNA SITES

SHEET NUMBER  
 - 4

BY E-MAIL CSFOWLER@WORLDNET.ATT.NET

November 9, 2009

Mr. Christopher Fowler  
On Air, LLC  
247 O'Connor Street  
Menlo Park, California 94025

Dear Chris:

As you requested, we have updated our study of the RF exposure conditions near the Verizon Wireless base station (Site No. 123326 "Fell & Divisadero") proposed to be located at 333 Baker Street in San Francisco, California. Our revised report is enclosed, reflecting a change in the proposed antennas. Fields in publicly accessible areas at the site are still calculated to be below the applicable limits. Also attached is a sketch showing a change to the striping shown in the drawings - more in one direction and less in another.

We appreciate the opportunity to be of service and would welcome any questions on this material. Please let me know if we may be of additional assistance.

Sincerely yours,



William F. Hammett  
jp

Enclosure

cc: Mr. Peter Hilliard (w/encl) - BY E-MAIL ONAIR@VOM.COM

e-mail: [bhammett@h-e.com](mailto:bhammett@h-e.com)  
US Mail: Box 280068 • San Francisco, California 94128  
Delivery: 478 Third Street West • San Francisco, California 94103  
Telephone: 707/996-5200 San Francisco • 707/996-5280 Facsimile • 202/396-5200 D.C.

**Verizon Wireless • Proposed Base Station (Site No. 123326 "Fell and Divisadero")  
333 Baker 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 Verizon Wireless, a wireless telecommunications carrier, to evaluate the base station (Site No. 123326 "Fell and Divisadero") proposed to be constructed at 333 Baker Street with respect to prevailing standards limiting human exposure to radio frequency energy.

**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 for exposures of unlimited duration are those adopted by the FCC:

Personal Wireless Service	Approx. Frequency	Occupational Limit	Public Limit
Broadband Radio ("BRS")	2,600 MHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
Advanced Wireless ("AWS")	2,100	5.00	1.00
Personal Communication ("PCS")	1,950	5.00	1.00
Cellular Telephone	870	2.90	0.58
Specialized Mobile Radio ("SMR")	855	2.85	0.57
Long Term Evolution ("LTE")	700	2.33	0.47
[most restrictive frequency range]	30-300	1.00	0.20

This site was visited during normal business hours by Ms. Natalie Sablan, a qualified employee of Hammett & Edison, Inc., on April 8, 2009, and by the undersigned engineer on April 13, 2009, both non-holiday weekdays. Reference has been made to information provided by Verizon, including zoning drawings by MSA Architecture and Planning, Inc., dated November 26, 2007.

**Checklist**

- The location of all existing antennas and facilities at site. Existing RF levels.  
AT&T had installed nine directional panel antennas in groups of three on the face of the roof parapet and on two faces of rooftop penthouses above the multi-story senior residential center located at 333 Baker Street. Existing RF levels for a person at ground near the site measured less than 1% of the most restrictive public exposure limit.
- 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 yet installed.
- 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.

**Verizon Wireless • Proposed Base Station (Site No. 123326 "Fell and Divisadero")  
333 Baker Street • San Francisco, California**

in front of the Verizon antennas and to much lesser distances behind, below, and above the antennas. Areas on the main roof of the subject building may exceed the public limit in front of the east-facing AT&T antennas.

**9. Describe proposed signage at site.**

Verizon has proposed to install a security panel on the access ladder to the upper roof, so the proposed antennas would not be accessible to the general public. To prevent occupational exposures in excess of the FCC guidelines, no access within 9 feet in front of the antennas themselves, such as might occur during building maintenance activities, should be allowed while the site is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Marking the upper roof with yellow paint stripes out to the roof edge in front of the 10' T antennas and posting explanatory warning signs\* at the several roof access locations 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 not be sufficient to meet FCC-adopted guidelines. Similar measures should already be in place for the other carrier at the site; applicable keep-back distances have not been determined as part of this study, although it is anticipated that a barricade will be needed in front of the AT&T antennas facing east.

**10. Statement of authorship.**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registrations Nos. E-13026 and M-20676, which expire 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.

\* 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.

**Verizon Wireless • Proposed Base Station (Site No. 123326 "Fell and Divisadero")  
333 Baker Street • San Francisco, California**

**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 mount six Powerwave directional panel antennas - three dualband Model P65-15-XLH-MM for PCS and cellular service and three Model P65-15-XL-2 for LTE service - on the elevator penthouse above the roof. The antennas would be oriented in pairs (one of each) toward 10°T, 100°T, and 220°T, and would be mounted at effective heights of about 86 feet above ground, 5 feet above the upper roof, for the 10°T antennas, and at about 92 feet above ground, 23 feet above the main roof and 11 feet above the upper roof, for the other antennas.

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

The maximum power rating of the transmitters to be installed are reported to be 16 watts (PCS), 20 watts (cellular), and 40 watts (LTE). The power rating of the existing AT&T transmitters is not known. The actual operating power of the transmitters will depend upon the system losses encountered after the physical cabling runs have been installed; the transmitters may operate at a power less than their maximum rating, such that the total power radiated from the antennas does not exceed the level given in Item 6 below.

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

The maximum effective radiated power in any direction for Verizon would be 2,560 watts, representing simultaneous operation at 960 watts for PCS, 1,200 watts for cellular service, and 400 watts for LTE service. AT&T had proposed to increase its maximum effective radiated power at the site to 11,800 watts.

**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 mounted above the roof of the building, as described in Item 4 above. There were no observed taller buildings 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 level from the proposed Verizon operation by itself is calculated to be 0.0081 mW/cm<sup>2</sup>, which is 0.14% of the applicable public exposure limit. Therefore, ambient levels at the site are expected to remain below 1% of the public limit. The maximum calculated level at the top floor of the subject building for the proposed Verizon operation by itself is 0.89% of the public limit; the maximum calculated level at any nearby building for the proposed Verizon operation by itself is 0.53% of the public limit. The three-dimensional perimeter of RF levels equal to the public exposure limit is calculated to extend about 36 feet directly

**Verizon Wireless • Proposed Base Station (Site No. 123326 "Fell and Divisadero")  
333 Baker Street • San Francisco, California**

**Conclusion**

Based on the information and analysis above, it is my professional opinion that the proposed Verizon Wireless base station will comply with the prevailing standards limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. Posting of explanatory signs is recommended to establish compliance with occupational exposure limitations.



*William F. Hammett*  
William F. Hammett, P.E.

November 9, 2009



**MSA**  
Architecture & Planning, Inc.  
4425 17th Street  
San Francisco, CA 94114  
415.503.1363 fax 949.251.1177  
Santa Ana San Diego San Francisco  
[www.msa-ap.com](http://www.msa-ap.com)

ARE SEA

PROJECT NO: 123326

DRAWN BY: MSA

CHECKED BY: RZ

CAD FILE: 123326

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4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

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123326  
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333 BAKER STREET  
SAN FRANCISCO, CA, 94117

SHEET TITLE  
EMF REPORT

SHEET NUMBER  
T-5

**MATERIAL SAFETY DATA SHEET**  
**LEAD ACID BATTERY**



**I. PRODUCT IDENTIFICATION:**  
**A. Chemical/Trade Name (per on label):** Lead Acid Battery  
**B. Chemical Family/Classification:** Electrical Storage Battery  
**C. Manufacturer's Name & Address:** NorthStar Battery Co. LLC  
 4000 Continental Way  
 Springfield, MO 65803  
**D. Contact:** U.S. - NSB Safety and Health Department  
 Phone: (417) 575-8219  
 Fax: (417) 575-8250  
 Ausl. NorthStar Battery Pty Ltd  
 Phone: 02 9888 1998  
**E. Emergency Information:** Chemtrac (US, Canada & Mexico)  
 Phone: (800) 424-9300  
 Chemtrac (Outside US, Canada & Mexico)  
 Phone: +1 (703) 527-3887 (call collect)  
**F. Non-Hazardous Classification**  
 Per US DOT, Northstar Battery Company products, submitted and tested by Wyle Labs, have been deemed to meet all requirements as specified in 49CFR§ 173.159 (d) for exception as hazardous material classification.

**II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION:**

**NORTH AMERICAN INFORMATION:**

Materials	Approx % by Wt.	CAS Number	OSHA	AGGH (TLV)	NIOSH
Lead	50	7439-92-1	30	150	100
Lead Oxide	20	1309-60-0	50	150	100
Electrolyte (Sulfuric Acid) 1400 sg	17	7664-93-9	1	1	1

\*Please reference Appendix 1 (SES-544-16) for detailed product data.

**AUSTRALIAN INFORMATION:**

Chemical or Material	Australian Dangerous Goods Classification	Hazardous Substance Classification as per HCS/Australia	Australian Poison Schedule Classification
Non-Spillable Lead Acid Battery	Exempt under A87 (MHA Identification Guide) and Clause 238 of the Australian Dangerous Goods Code, Appendix 3	ICARSI	Schedule 4 Agricultural, Domestic and Industrial Substances

Note: Product contains toxic chemicals that are subject to the reporting requirements of Section 302 and 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

**MATERIAL SAFETY DATA SHEET**  
**LEAD ACID BATTERY**



**C. Emergency and First Aid Procedures:**  
 1. **Inhalation:** Remove from exposure, move to fresh air, and apply oxygen if breathing is difficult. Consult physician immediately.  
 2. **Skin:** Wash with plenty of soap and water for at least 15 minutes. Remove any contaminated clothing. Consult physician if skin irritation appears.  
 3. **Eyes:** Flush with plenty of water immediately for at least 15 minutes, lifting lower and upper eyelids occasionally. Consult a physician immediately.  
 4. **Ingestion:** Do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Consult a physician immediately.  
**D. HANDLING AND STORAGE**  
 1. **Safe Storage:** Store in a cool, dry place in closed containers. Keep away from ignition sources and high temperatures.  
 1. **Contact NorthStar Battery Company (417-575-8200) for shelf life information.**  
 2. **Handling:** Avoid skin or eye contact. Avoid breathing vapors. Do not use near sources of ignition  
**V. CARCINOGENICITY:** See section IV, Part B "Signs and Symptoms of Over Exposure"  
**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** See section IV, Part B "Signs and Symptoms of Over Exposure"

**VI. FIRE AND EXPLOSION HAZARD DATA:**  
**A. Flash Point:** Hydrogen = 259°C  
**B. Auto Ignition Temperature:** Hydrogen = 580°C  
**C. Extinguishing Media:** Dry chemical, foam, CO<sub>2</sub>  
**D. Unusual Fire and Explosion Hazards:** Hydrogen and oxygen gases are produced in the cells during normal battery operation (hydrogen is flammable and oxygen supports combustion). These gases enter the air through the vent caps. To avoid the chance of a fire or explosion, keep sparks and other sources of ignition away from the battery.  
**E. Firefighting PPE:** Full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece

**VII. REACTIVITY DATA:**  
**A. Stability:** Stable  
**B. Conditions to Avoid:** Sparks and other sources of ignition.  
**C. Incompatibility: (materials to avoid)**  
 1. Lead/lead compounds: Potassium, carbides, sulfides, peroxides, phosphorus, sulfur.

**MATERIAL SAFETY DATA SHEET**  
**LEAD ACID BATTERY**



**X. PRECAUTIONS FOR SAFE HANDLING AND USE:**  
**A. Hygiene Practices:** Following contact with internal battery components, wash hands thoroughly before eating, drinking, or smoking.  
**B. Respiratory Protection:** Wear safety glasses. Do not permit flames or sparks in the vicinity of battery(s). If battery electrolyte (acid) comes in contact with clothing, discard clothing.  
**C. Protective Measures:**  
 1. Remove combustible materials and all sources of ignition. Cover spills with soda ash (sodium carbonate) or quicklime (calcium oxide), mix well. Make certain mixture is neutral, then collect residue and place in a drum or other suitable container. Dispose of as hazardous waste.  
 2. Wear acid-resistant boots, chemical face shield, chemical splash goggles, and acid-resistant gloves. Do not release unneutralized acid.  
**D. Waste Disposal Method (\*):**  
 1. Battery electrolyte (acid): Neutralize as above for a spill, collect residue, and place in a drum or suitable container. Dispose of as hazardous waste.  
 2. Do not flush lead contaminated acid to sewer.  
 3. In case of accidental spill, utilize personal protective equipment, i.e., face shield, rubber apron, rubber safety shoes.  
 4. Batteries: Send to lead smelter for reclamation following applicable Federal, State and local regulations. Product can be recycled along with automotive (SLI) lead acid batteries.  
 5. Battery may be returned, shipping pre-paid, to the manufacturer or any distributor for recycling. See 1.C for manufacturer's address or visit our web site @ www.northstarbattery.com.  
 \*In accordance to Local, State and Federal regulations and laws.  
**E. Other Handling and Storage Precautions:** None Required.

**XI. ECOLOGICAL INFORMATION:**  
 Lead and its compounds can pose a threat if released to the environment. See Waste Disposal Method in Section X, Part D.

**MATERIAL SAFETY DATA SHEET**  
**LEAD ACID BATTERY**



**III. PHYSICAL DATA:**  
 Material is solid at normal temperatures.  
**A. Electrolyte:**  
 1. Specific Gravity: 1.250 - 1.350 kg/dm<sup>3</sup>  
 2. Boiling Point: 110°C (230°F)  
 3. % Volatiles By Weight: Not Applicable  
 4. Solubility in Water: 100%  
 5. Melting Point: Lead: 327°C (621°F)  
 6. Vapor Density: Not Determined  
**B. Appearance and Odor**  
 1. Electrolyte is a clear liquid with an acidic odor.

**IV. HEALTH HAZARD INFORMATION:**  
 Under normal operating conditions, because the battery is "non-spillable", the internal material will not be hazardous to your health. Only internally exposed material during production or case breakage or extreme heat (fire) may be hazardous to your health.

**A. Routes of Entry:**  
 1. **Inhalation:** Acid mist from formation process may cause respiratory irritation.  
 2. **Skin Contact:** Acid may cause irritation, burns and/or ulceration.  
 3. **Skin Absorption:** Not a significant route of entry.  
 4. **Eye Contact:** Acid may cause severe irritation, burns, cornea damage and/or blindness.  
 5. **Ingestion:** Acid may cause irritation of mouth, throat, esophagus and stomach.  
**B. Signs and Symptoms of Over Exposure:**  
 1. **Acute Effects:** Over exposure to lead may lead to loss of appetite, constipation, sleeplessness and fatigue. Over exposure to acid may lead to skin irritation, corneal damage of the eyes and upper respiratory system.  
 2. **Chronic Effects:** Lead and its components may cause damage to kidneys and nervous system. Acid and its components may cause lung damage and pulmonary conditions.  
 3. **Potential to Cause Cancer:** The International Agency for Research on Cancer has classified "strong inorganic acid mist containing sulfuric acid" as a Category 1 carcinogen, a substance that is carcinogenic to humans. This classification does not apply to liquid forms of sulfuric acid or sulfuric acid solutions contained within a battery. Inorganic acid mist is not generated under normal use of this product. Misuse of the product, such as overcharging, may however result in the generation of sulfuric acid mist.

**MATERIAL SAFETY DATA SHEET**  
**LEAD ACID BATTERY**



**D. Hazardous Decomposition Products:**  
 1. Lead/lead compounds: Oxides of lead and sulfur.  
 2. Battery electrolyte (acid): Hydrogen, sulfur dioxide, and sulfur trioxide.  
**E. Conditions to Avoid:**  
 High temperature. Battery electrolyte (acid) will react with water to produce heat. Can react with oxidizing or reducing agents.

**VIII. CONTROL MEASURES:**  
**A. Engineering Controls:**  
 Store lead/acid batteries with adequate ventilation. Room ventilation is required for batteries utilized for standby power generation. Never recharge batteries in an unventilated, enclosed space.  
**B. Work Practices:**  
 Do not remove vent covers. Follow shipping and handling instructions which are applicable to the battery type. To avoid damage to terminals and seals, do not double-stack industrial batteries.  
**C. Personal Protective Equipment:**  
 1. **Respiratory Protection:** None required under normal handling conditions. During battery formation (high-rate charge condition), acid mist can be generated which may cause respiratory irritation. Also, if acid spillage occurs in a confined space, exposure may occur. If irritation occurs, wear a respirator suitable for protection against acid mist.  
 2. **Eye and Face:** Chemical splash goggles are preferred. Also acceptable are "visor-gogs" or a chemical face shield worn over safety glasses.  
 3. **Hands, Arms, Body:** Vinyl coated, VC, gauntlet type gloves with rough finish are preferred.  
 4. **Other Special Clothing and Equipment:** Safety shoes are recommended when handling batteries. All footwear must meet requirements of ANSI Z41.1 -Rev. 1972.

**IX. ACCIDENTAL RELEASE MEASURES:**  
**A.** Not applicable under normal conditions.  
**B.** In case of damage resulting in breakage of the battery container, see VIII, Sec. C Personal Protective Equipment.

**MATERIAL SAFETY DATA SHEET**  
**LEAD ACID BATTERY**



**XII. NFPA HAZARD RATING: SULFURIC ACID:**

Flammability (Red)	=	0
Health (Blue)	=	3
Reactivity (Yellow)	=	1

**XIII. DEPARTMENT OF TRANSPORTATION AND INTERNATIONAL SHIPPING REGULATIONS:**

Proper Shipping Name	UN2800 - Battery, wet, non-spillable (electric storage)
ATA	Batteries must be packed to protect against short circuits and firmly secured to skids or pallets. Packaging instruction 806 Not restricted per special provision A67.
US DOT	Northstar Battery Company products, submitted and tested by Wyle Labs, have been deemed to meet all requirements as specified in 49CFR§ 173.159 (d) for exception as hazardous material classification.
IMDG	Northstar Battery Company products, submitted and tested by Wyle Labs, have been deemed to meet all requirements as specified in special provision 238 for determination of "Non-Spillable" and are not subject to the provision of this Code.

**XIV. SPECIAL REQUIREMENTS:**  
 TLV  
 • Sulfuric Acid - Occupation Exposure Limit - AUSTRALIA TWA 1mg/m<sup>3</sup> JAN1993  
 • Lead - Occupation Exposure Limit - AUSTRALIA TWA 0.15 mg/m<sup>3</sup>, 2002



**MSA**  
**Architecture & Planning, Inc.**  
 4425 17th Street  
 San Francisco, CA 94114  
 415.503.1353 fax 949.251.1177  
 Santa Ana San Diego San Francisco  
 www.msa-ap.com

PROJECT NO: 123326  
 DRAWN BY: MSA  
 CHECKED BY: RZ  
 CAD FILE: 123326

**SUBMITTALS**

9	10/14/10	100% ZONING REV.
8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
6	05/12/10	100% ZONING REV.
5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
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 SAN FRANCISCO, CA, 94117

SHEET TITLE  
 BATTERY DATA  
 SPECS.

SHEET NUMBER  
 T-6

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**Northstar Battery Lead and Acid weights per 12 Volt Battery**

Battery Type	Electrolyte				Acid				Lead		Lead Oxide Weigh	
	Weight /kg	Weight /lbs	Volume /litres	Volume /gallons	Weight /kg	Weight /lbs	Volume /litres	Volume /gallons	Weight /kg	Weight /lbs	Weight /kg	Weight /lbs
NSB40/NSB12-180	2.6	5.7	2.0	0.5	1.1	2.4	0.8	0.2	9.1	20.2	3.4	7.6
NSB70/NSB12-330	4.3	9.4	3.2	0.9	1.8	4.0	1.4	0.4	15.3	33.8	5.2	11.5
NSB75/NSB12-270	4.3	9.5	3.3	0.9	1.8	4.0	1.4	0.4	16.0	35.0	5.9	12.9
NSB80/NSB12-370	6.2	13.6	4.7	1.2	2.6	5.7	2.0	0.6	20.1	44.2	8.0	17.6
NSB125/NSB12-476	8.1	17.9	6.2	1.6	3.4	7.5	2.6	0.7	26.8	59.1	11.0	24.3
NSB40FT	2.4	5.3	1.8	0.5	1.0	2.2	0.8	0.2	7.2	15.9	3.3	7.2
NSB80FT	3.7	8.1	2.8	0.7	1.6	3.4	1.2	0.3	10.9	24.1	4.7	10.4
NSB90FT	5.3	11.6	4.0	1.1	2.2	4.9	1.7	0.4	16.0	35.3	7.4	16.4
NSB100FT	6.2	13.6	4.7	1.2	2.6	5.7	2.0	0.6	18.1	39.8	8.0	17.7
NSB110FT	6.8	15.0	5.2	1.4	2.9	6.3	2.2	0.6	19.9	43.8	9.1	20.1
NSB140FT	9.0	19.8	6.8	1.8	3.8	8.3	2.9	0.8	26.7	58.6	12.0	26.5
NSB170FT	10.4	22.9	7.8	2.08	4.4	9.7	3.3	0.9	28.7	63.3	14.4	31.8

All weights and volumes are for 12V-monobloc

Date: 02-08-06	DCR: 892-306	DCN: SES-544-16-02
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Battery Information							
Battery Electrolyte Data - 12V Monoblocs							
Battery Model	Total # of Battery Units Installed	Total Electrolyte Volume GAL/Unit	Total Electrolyte Weight LBS/Unit	% Sulphuric Acid By Volume = Acid Volume/Unit Electrolyte Volume Per Unit	% Sulphuric Acid By Weight = Total Acid Weight Total Electrolyte Weight	Total Electrolyte Volume/Units (GAL) = Total Units X Electrolyte Volume/Units	Total Sulphuric Weight (LBS) = Total Units X Acid Weight/Unit
NSB-170-FT Northstar Battery Co. 417-575-8219	22	2.08 GAL	22.9 LBS	43.2% = 0.9 GAL/2.08 GAL	42.3% = 388 LBS/916 LBS	45.76 GAL = 22 Units x 2.08 GAL/Unit	213.4 LBS = 22 Units x 9.7 LBS

**KEY FEATURES**

- Specifically designed for mission-critical applications. Excels at high-rate discharge and recharge, extreme temperature range, deep or shallow cyclic applications.
- High cyclic life capability +500 C/D @ 50% DOD
- 10 year float life at 25°C (77°F) — 15 year float life at 20°C (68°F)
- Flame retardant (UL 94 VO) PPO plastic case and cover
- 3 step terminal seal design to ensure leak-free operation. Female M6 brass terminals provide maximum high rate performance and no annual ret-geriting
- Integral handles ensure ease of handling.
- Approved as non-hazardous cargo for ground, sea and air transportation.

**ELECTRICAL CHARACTERISTICS**

Under the following conditions: 25°C (77°F) unless otherwise specified.

Parameter	Infra Standards @ 20°C	NA Standards @ 77°F
8 hour capacity to 1.75 VPC	188 amp-hours	170 amp-hours
10 hour capacity to 1.80 VPC	170 amp-hours	122 amp-hours
Float voltage	2.28 +/- .02 volts per cell	2.27 +/- .02 volts per cell
Cyclic Recharge	2.45 VPC — no current limit	
Shelf life	2 years	
Impedance (1KHz)	15 mΩ	
Short Circuit Current	5000 Amps	
Voltage	12 Volts	

**MECHANICAL CHARACTERISTICS**

Parameter	SI Units	English Units
Height	320 mm	12.60 inches
Width	125 mm	4.92 inches
Length	560 mm	22.05 inches
Weight	59.1 kilograms	131.2 pounds
Terminal Torque	5.0 Newton-meters	71 inch-pounds

ALL NORTHSTAR PRODUCTS ARE COMPLIANT WITH:

- Telcordia SR4228
- Bellcore GR-63-Core, Issue 1
- DOT 49CFR 173.159(d) (i) and (ii)
- UL Approval
- British and German telecom standards

Northstar Battery Company is proud to be registered to ISO 9001 and ISO 14001 standards.



**MSA**  
Architecture & Planning, Inc.  
4425 17th Street  
San Francisco, CA 94114  
415.593.1363 fax 415.251.1177  
Santa Ana San Diego San Francisco  
www.msa-ap.com

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SHEET TITLE: BATTERY DATA

SHEET NUMBER: T-6.1

**NOTES:**  
UPON FURTHER REVIEW OF THE CFC 2007 608.1, WHICH STATES "STATIONARY STORAGE BATTERY SYSTEMS HAVING AN ELECTROLYTE CAPACITY OF MORE THAN 50 GALLONS (189 L) FOR FLOODED LEAD ACID, NICKEL CADMIUM (NI-CD) AND VALVE-REGULATED LEAD ACID (VRLA), OR 1,000 POUNDS (454 KG) FOR LITHIUM-ION, USED FOR FACILITY STANDBY POWER, EMERGENCY POWER OR UNINTERRUPTED POWER SUPPLIES, SHALL COMPLY WITH THIS SECTION AND TABLE 608.1." IT WAS DETERMINED THAT THE PROPOSED VERIZON EQUIPMENT SITE IS EXEMPT DUE TO THE TOTAL ELECTROLYTE VOLUME WHICH IS SPECIFIED IN THE BATTERY INFORMATION TABLE IS LESS THAN 50 GALLONS.

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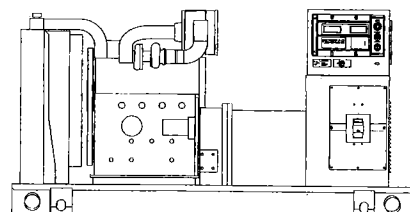


# SD030

Liquid Cooled Diesel Engine Generator Sets

**Standby Power Rating**  
30kW 60 Hz

**Prime Power Rating**  
24kW 60 Hz



**Power Matched**  
DEERE 2.4 DTA ENGINE  
Turbocharged  
Interim Tier IV Compliant

**VERIZON WIRELESS**  
30 kW Diesel Models:  
04870 120/240 1 phase Open Unit  
04871 120/240 3 phase Level II Enclosure  
04872 120/208 3 phase Open Unit  
04873 120/208 3 phase Level II Enclosure

## FEATURES

- INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC's success in IMPROVING POWER BY DESIGN. But doesn't stop there. Total component/component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allow you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- TEST CRITERIA:**
  - PROTOTYPE TESTED
  - SYSTEM TORSIONAL TESTED
  - ELECTROMAGNETIC INTERFERENCE
  - NEMA MDS122 EVALUATION
  - MOTOR STARTING ABILITY
  - SHORT CIRCUIT TESTING
  - UL 2200
- SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own a GENERAC POWER SYSTEM.
- ECONOMICAL DIESEL POWER.** Low cost operation due to modern diesel engine technology. Better fuel utilization plus lower cost per gallon provide real savings.
- LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.
- GENERAC TRANSFER SWITCHES, SWITCHGEAR AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. Our research for the confidence that the GENERAC product line includes its own transfer systems, accessories, switchgear and controls for total system compatibility.
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# GENERAC®

## APPLICATION & ENGINEERING DATA

### GENERATOR SPECIFICATIONS

**TYPE:** Four-pole, revolving field  
**INSULATION:** Class F  
**STATOR INSULATION:** Class F  
**TOTAL HARMONIC DISTORTION:** <5%  
**TELEPHONE INTERFERENCE FACTOR (TIF):** <5%  
**ALTERNATOR:** Self-ventilated and drip-proof  
**BEARINGS (PRE-LUBED & SEALED):** Grease, Flange Disc  
**COUPLING:** 1  
**LOAD CAPACITY (STANDBY):** 100%  
**LOAD CAPACITY (PRIME):** 110%

### EXCITATION SYSTEM

**DC EXCITATION SYSTEM:**  
 DIRECT  
 LOW-VOLTAGE BRUSHES AND SLIP RINGS  
 BRUSHLESS - Magnetically coupled DC current  
**Excitation:** Eight-pole exciter w/ battery-driven field boost  
**Excitation:** Mounted outward of main bearing  
**REGULATION:** Solid-state  
 1% regulation

### GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets the temperature rise standards for class "F" insulation as defined by NEMA MG1-32.5, while the insulation system meets the requirements for the higher class "F" rating.
- All prototype models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- All prototype models are tested for motor starting ability by measuring the instantaneous voltage dip with a waveform data acquisition system.
- All models utilize an advanced wire harness design for reliable interconnection within the enclosure.
- Magnetic circuit, including amortisseur windings, tooth and skewed stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and TIF (Telephone Interference Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-32.
- Alternator is self-ventilated and drip-proof constructed.
- Fully life tested protective systems, including field circuit and thermal overload protection and optional main-line circuit breakers capable of handling full output capacity.
- System torsional acceptability confirmed during Prototype Testing.

### ENGINE SPECIFICATIONS

**MAKE:** DEERE  
**MODEL:** 481427200  
**ENGINE FAMILY:** First digit is Cert. Yr. (i.e. 7, 8, 9) , \_J\_02L02 4074  
**CYLINDERS:** 4  
**DISPLACEMENT:** 2.4 Liter (149 cu. in.)  
**BORE:** 86 mm (3.39 in.)  
**STROKE:** 105 mm (4.13 in.)  
**COMPRESSION RATIO:** 18:1  
**INTAKE AIR:** Turbocharged  
**NUMBER OF MAIN BEARINGS:** 5  
**CONNECTING RODS:** 4 Drop forged steel  
**CYLINDER HEAD:** Cast iron w/ overhead valve  
**PISTONS:** 4 Aluminum alloy  
**CRANKSHAFT:** Forged steel

### VALVE TRAIN

**LETTER TYPE:** Solid  
**INTAKE VALVE MATERIAL:** High Temp  
**EXHAUST VALVE MATERIAL:** High Temp

### ENGINE COUPLER

**DC ELECTRIC:** Standard  
**FREQUENCY REGULATION, NO-LOAD TO FULL LOAD:** ±0.5%  
**STEADY STATE REGULATION:** ±0.25%

### LUBRICATION SYSTEM

**TYPE OF OIL PUMP:** Gear  
**OIL FILTER:** Full flow, cartridge  
**CRANKCASE CAPACITY:** 7.5 cu. in.

### COOLING SYSTEM

**TYPE OF SYSTEM:** Pressurized, closed recirculating  
**WATER PUMP:** Full flow, belt-driven  
**TYPE OF FAN:** Pusher  
**NUMBER OF FAN BLADES:** 6  
**DIAMETER OF FAN:** 467.2 mm (18.36 in.)  
**COOLANT HEATER:** 120V, 1000 W

### FUEL SYSTEM

**FUEL:** #2D Fuel (Min Cetane #40)  
**FUEL FILTER:** (Fuel should conform to ASTM Spec.)  
**FUEL INJECTION PUMP:** Bosch (DE)  
**FUEL PUMP:** Engine Driven Gear Type  
**INJECTION:** Panted Type, 2100 PSI  
**FUEL LINE (Supply):** PH-combination, steel diameter  
**FUEL RETURN LINE:** 8.25 mm (0.325 in.)  
**FUEL RETURN LINE:** 3.17 mm (0.125 in.)

### ELECTRICAL SYSTEM

**BATTERY CHARGE ALTERNATOR:** 42 Amps at 12 V  
**STARTER MOTOR:** 12 V 290A @ 0 ° C  
**RECOMMENDED BATTERY:** (1) - 12 V 90 A.H., 27F  
**GROUND POLARITY:** Negative

Rating definition: Prime: Available for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All power is based on a 1000-hour life, 100% duty cycle, and 100% utilization.) Standby: Available for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All power is based on a 1000-hour life, 100% duty cycle, and 100% utilization.)

# GENERAC®

SD030

## OPERATING DATA

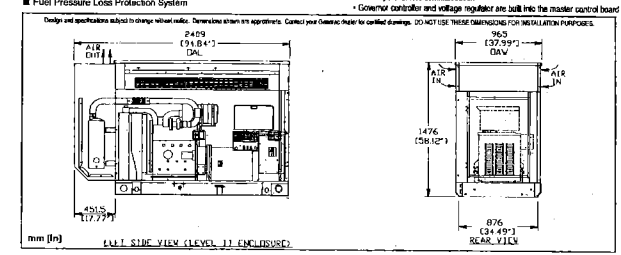
	STANDBY SD030		PRIME SD030	
	Rated AMP	Rated KW	Rated AMP	Rated KW
GENERATOR OUTPUT VOLTAGE/KV-60Hz	208/120V	30	208/120V	24
120/240V, 1-phase, 1.0 pf	104	24	104	24
120/208V, 3-phase, 0.8 pf	104	18	104	18
NOTE: Current per phase must not exceed 100A for 120/208V and 100A for 120/240V.				
<b>MOTOR STARTING KVA</b> Maximum at 35% instantaneous voltage dip with optional alternator, 60 Hz				
	120/208/240V		120/208/240V	
	68	16	68	16
FUEL				
Fuel consumption-60 Hz	Load	100%	80%	100%
gal./hr.	2.5	2.1	2.1	1.8
liter/hr.	9.5	7.9	7.9	6.8
Fuel pump lift:				
	30'		30'	
COOLING				
Coolant capacity	System - M (US gal.)	11.2 (3.0)	11.2 (3.0)	
	Engine - B (US gal.)	2.6 (0.7)	2.6 (0.7)	
Coolant flow/min.	60 Hz - L (US gal.)	6.6 (2.3)	6.6 (2.3)	
	BTU/hr.	120,000	96,000	
Heat rejection to coolant 60 Hz full load				
Inlet air to radiator	60 Hz - m³/min (cfm)	130 (4,600)	130 (4,600)	
Max. air temperature to radiator	°C (°F)	60 (140)	60 (140)	
Max. ambient temperature	°C (°F)	48.4 (120)	48.4 (120)	
COMBUSTION AIR REQUIREMENTS				
Flow at rated power	60 Hz - cfm	109	89	
EXHAUST				
Exhaust flow at rated output 60 Hz	m³/min (cfm)	8.9 (316)	7.2 (253)	
Max recommended back pressure	"wg	1.2	1.2	
Exhaust temperature 60 Hz full load	°C (°F)	548 (1030)	519 (1010)	
Exhaust outlet size		3.0" O.D.	3.0" O.D.	
ENGINE				
Rated RPM	60 Hz	1800	1800	
HP at rated kW	60 Hz	48	39	
Piston speed	60 Hz - m/min (ft/min)	379 (1256)	379 (1256)	
BMEP	60 Hz - psi	144	118	
DERATION FACTORS				
Temperature	5% for every 10°C above -10 ° C	25	25	
	2.7% for every 10°F above -10 ° F	77	77	
Altitude	1.1% for every 100 m above -1000 m	1067	1067	
	3.6% for every 1000 ft. above -1000 ft.	3500	3500	

## STANDARD ENGINE & SAFETY FEATURES

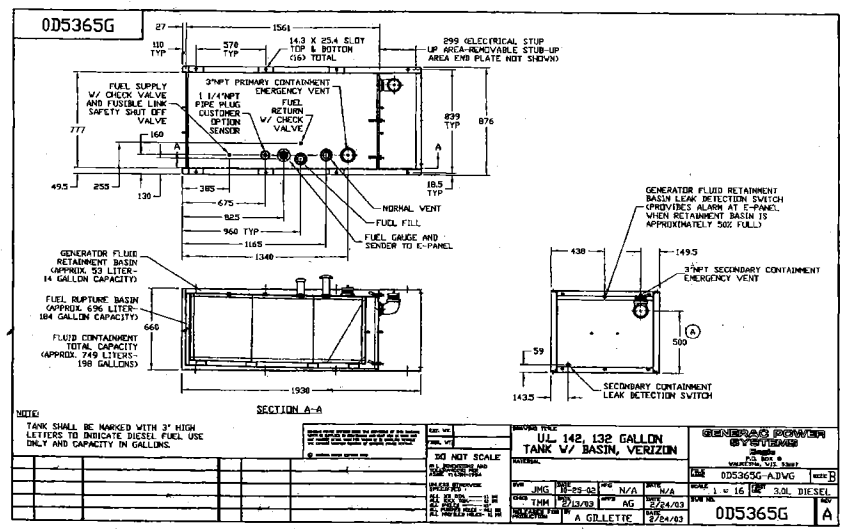
- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overload Protection (Solid-state)
- Crack Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain Extension
- Factory-installed Cool Flow Radiator
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Rubber-Isolated Engine Electrical Connections
- Secondary Fuel Filter
- Fuel Shutdown Solenoid
- Batteries 2 - 12 Volt 90 AH
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Composite Battery Box
- Vibration Isolation of Unit to Mounting Base
- 24 Volt, Solenoid-Actuated Starter Motor
- Air Cleaner
- Air Cleaner Service Indicator
- Fan Guard (CSA Compliant)
- CSA Guarding
- Critical Grade Muffler (Shipped Loose With Open Unit)
- High Temperature Exhaust Wrap
- Alternative Tropicalization
  - Resistant Mold, Fungus and Mildew
  - In Addition to Standard Class H Epoxy Impregnation Coating
- Upgraded Alternator For Increased Motor Starting
- Phosphorus Glycol SD50 Mix Antifreeze
- Oil Fill Guard
- Coolant Expansion and Recovery Tank
  - Extended Factory Test (2.5 hr.)
  - Stepped Loads
  - Frame Temperature Test
- Specification Sheet Does Not Reflect Any Verizon Wireless Corporate Authorized Variations.
- 21 Light Annunciator Generator Alarms
- 8 Form C Dry Contact Output Relays
- 120 Volt Coolant Heater 1500 Watt with 3 Wire Connection Cord
- Maximum Circuit Breaker
  - 200 Amp & 100 Amp - 120/240 Single Phase
  - 300 Amp & 50 Amp - 120/208 Three Phase
- Flexible Fuel Lines
- Fuel Pressure Loss Protection System
- UL2200 Listed
- BasinTank
  - 48 Hr. Runtime at 100% Load
  - Double Wall
  - 125% Engine Fluid Containment and Alarms of all Generator Liquids
  - Fuel Level Sender and Visible Level Gauge
  - Rupture Basin Alarm
  - Emergency Alerts
  - Check Valve (Inlet and Return)
  - Fuel Fusible Link (165°F) Shutoff
  - UL 142 Listed
  - Washington State maximum of 114 gallons
  - Southern California limitation of 82 gallons
  - Constat State and Local Codes for Specific Requirements in your area
- Five Year Extended Warranty
- Enclosure Options
  - Open Generator Set w/ Dust Adaptor
  - Weather Protective Sound Attenuated Enclosure w/ Enclosed Critical Grade Muffler and Flue Exhaust
  - 24V Dual-Fuse 10 AMP Battery Charger With 120V 3 Wire Connection Cord

## H-CONTROL PANEL FEATURES

- TWO FOUR LINE LCD DISPLAYS READ:
  - Voltage (all phases)
  - Power factor
  - kW
  - kVAR
  - Engine speed
  - Run hours
  - Fuel history
  - Coolant temperature
  - Overload
  - Low coolant level
  - Not in safe position (beeping light)
  - Current (all phases)
  - kW
  - Leading/lagging status
  - Battery status
  - Oil pressure
  - Fuel and fuel
  - High coolant temperature shutdown
  - Overload
  - Low coolant level
  - Excitation speed
- INTERNAL FUNCTIONS:
  - PT Load on alternator protection line to monitor and trip the short circuit
  - Emergency stop
  - Programmable auto crank function
  - 2 wire start for any transfer switch
  - Communicates with the Generac HTS transfer switch
  - Built in 7 day timer
  - RS232 port for GenLink system
  - RS485 port remote communication
  - Control panel and voltage regulator are built into the master control board



**GENERAC®** Generac Power Systems, Inc. • 515 W23290 HWY 59, Waukesha, WI 53188 • generac.com  
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**verizon wireless**  
2785 MITCHELL DRIVE  
WALNUT CREEK, CA 94598

**MSA**  
Architecture & Planning, Inc.  
4425 17th Street  
San Francisco, CA 94114  
415.503.1363 fax 415.251.1177  
www.msa-ap.com

PROJECT NO: 123326

DRAWN BY: MSA

CHECKED BY: RZ

CAD FILE: 123326

SUBMITTALS		
9	10/14/10	100% ZONING REV.
8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
6	05/12/10	100% ZONING REV.
5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

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SITE  
123326  
FELL &  
DIVISADERO  
333 BAKER STREET  
SAN FRANCISCO, CA, 94117

SHEET TITLE  
GENERATOR SPECS.

SHEET NUMBER  
T-7

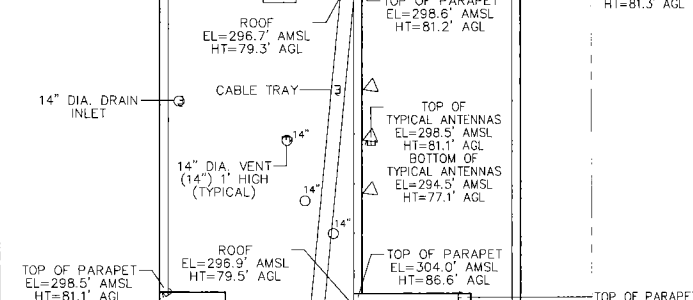
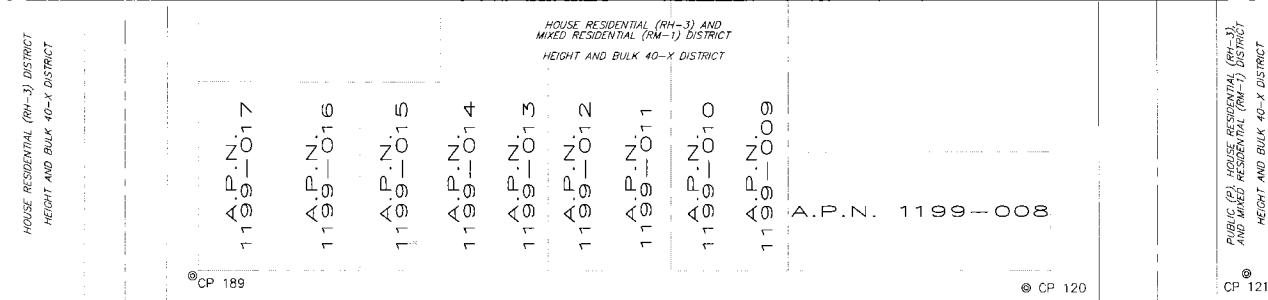
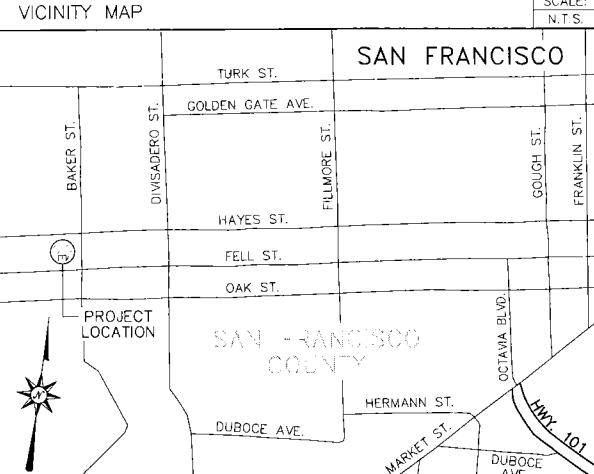
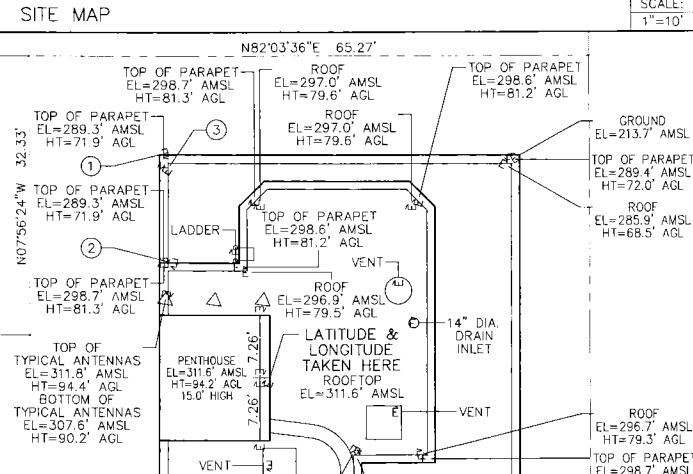
SCALE  
NOT TO SCALE 1

### LEGEND

	MANHOLE		EDGE OF PAVEMENT
	FIRE HYDRANT		EDGE OF GRAVEL ROAD
	LIGHT POLE		OVERHEAD ELECTRIC LINE
	MONUMENT		OVERHEAD TELEPHONE LINE
	TREE		OVERHEAD POWER & TELEPHONE LINE
	PP=POWER POLE		FENCE LINE
	JP=JOINT POLE		PROPERTY LINE
	TP=TELEPHONE POLE		
	HANDICAPPED PARKING		
	LOCATION TIC MARK		AMS L.....ABOVE MEAN SEA LEVEL
	SPOT ELEVATION		AGL.....ABOVE GROUND LEVEL
	CP #.....ESE FIELD CONTROL POINT		

### LEASE AREA DETAIL

LEASE AREA WAS NOT SET IN FIELD AT THE TIME OF SURVEY. LOCATION TO BE DETERMINED BY PM/A&E AT A LATER DATE.



### SURVEY GENERAL NOTES

DATE OF SURVEY: 04/18/07

SURVEYED BY OR UNDER THE DIRECTION OF: Glen K. Lewis, RCE 33249, EXPIRES 06/30/08

TITLE REPORT WAS AVAILABLE AT THE TIME OF THE FIELD SURVEY. BOUNDARY SHOWN IS BASED ON RECORD INFORMATION AND FOUND MONUMENTATION. THIS IS NOT A BOUNDARY SURVEY. THIS IS A SPECIALIZED TOPOGRAPHIC MAP WITH PROPERTY LINES AND EASEMENTS BEING A GRAPHIC DEPICTION BASED ON INFORMATION GATHERED FROM VARIOUS SOURCES OF RECORD AND AVAILABLE MONUMENTATION FOUND DURING THE FIELD SURVEY. NO EASEMENTS WERE RESEARCHED OR PLOTTED EXCEPT AS SHOWN ON THIS PLAN. PROPERTY LINES AND LINES OF TITLE WERE NOT INVESTIGATED NOR SURVEYED EXCEPT AS SHOWN ON THIS PLAN. NO PROPERTY MONUMENTS WERE SET.

DESCRIPTION OF PARCEL:  
IN THE STATE OF CALIFORNIA, COUNTY AND CITY OF SAN FRANCISCO, BEING THE PROPERTIES GRANTED TO MERCY PROPERTIES CALIFORNIA, A CALIFORNIA NONPROFIT PUBLIC BENEFIT CORPORATION, AND MERCY TERRACE LLC, A CALIFORNIA LIMITED LIABILITY COMPANY, PER THOSE CERTAIN GRANT DEEDS RECORDED MAY 26, 2005 AS DOCUMENTS NO. 2005-H961287-00 AND 2005-H961288-00 RESPECTIVELY, SAN FRANCISCO COUNTY RECORDS.

DESCRIPTION OF LEASE AREA (PARCEL A):  
LEASE AREA WAS NOT SET IN FIELD AT THE TIME OF SURVEY. LOCATION TO BE DETERMINED BY PM/A&E AT A LATER DATE.  
TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS FROM THE LEASE AREA TO THE PUBLIC ROAD. LOCATION TO BE DETERMINED AT A LATER DATE.  
TOGETHER WITH UTILITY AND POWER EASEMENTS NECESSARY TO SERVE THE LEASE AREA. LOCATION TO BE DETERMINED AT A LATER DATE.

SITE NAME & NUMBER: FELL/DIVISADERO 123326  
SITE ADDRESS: 333 BAKER STREET, SAN FRANCISCO, CA 94117  
ASSESSOR'S PARCEL NUMBER: 1206-003  
APPLICANT: VERIZON WIRELESS, 2785 MITCHELL DRIVE, WALNUT CREEK, CA 94596  
OWNER: MERCY PROPERTIES CALIFORNIA, ET AL, OWNERS ADDRESS (NOT PROVIDED), OWNERS CITY, STATE & ZIP (NOT PROVIDED)  
ELEVATIONS SHOWN ARE BASED ON NAVD 88 DATUM.  
BEARINGS SHOWN ARE BASED UPON THE CALIFORNIA STATE, ZONE 3, NAD 83, COORDINATE SYSTEM.  
FLOOD PLAIN ELEVATION OF PROJECT AREA IS NOT MAPPED, AS SHOWN ON FEMA FIRM MAP COMMUNITY-PANEL NUMBER UNMAPPED\_060298, NOT DATED.  
THE LOCATION OF EXISTING UTILITY FACILITIES HAS NOT BEEN RESEARCHED. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES TO OBTAIN INFORMATION REGARDING EXACT DEPTH OF BURIAL AND HORIZONTAL LOCATION OF UTILITY LINES PRIOR TO CONSTRUCTION. EVANS SURVEY & ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF BURIED OBJECTS WHICH ARE NOT SHOWN ON THIS PLAN.  
FAA 1A CERTIFICATION:  
LATITUDE AND LONGITUDE WAS OBTAINED FROM INFORMATION PROVIDED BY A GPS SURVEY. THE GEODETIC POSITION SHOWN WAS DETERMINED UTILIZING FAST-STATIC GPS OBSERVATIONS FROM USGS MONUMENTS USING EITHER TRIMBLE 4600LS OR SOKKIA GPS RECEIVERS. THIS DATA WAS DIFFERENTIALLY CORRECTED WITH EITHER TRIMBLE GPS SURVEY OR SOKKIA LOCUS PROCESSOR SOFTWARE.  
LATITUDE AND LONGITUDE DENOTED ON THIS PLAN ARE ACCURATE TO WITHIN 15± FEET HORIZONTALLY AND THE ELEVATIONS SHOWN ON THIS PLAN ARE ACCURATE TO WITHIN 3± FEET VERTICALLY.  
LATITUDE: 37°46'27.29"      LONGITUDE: 122°26'24.89" (NAD 27)  
LATITUDE: 37°46'27.03"      LONGITUDE: 122°26'28.78" (NAD 83)

### Evans Survey & Engineering

420 UNION AVENUE  
FAIRFIELD, CALIFORNIA 94538  
Tel: (707) 428-4700  
Fax: (707) 428-0840

### Verizon Wireless

VERIZON WIRELESS  
2785 MITCHELL DRIVE  
WALNUT CREEK, CA 94598

FELL/DIVISADERO  
123326  
333 BAKER STREET  
SAN FRANCISCO, CA 94117  
SAN FRANCISCO COUNTY

### APPROVALS

LEASING: DATE: \_\_\_\_\_  
ZONING: DATE: \_\_\_\_\_  
RF ENGINEER: DATE: \_\_\_\_\_  
CONSTRUCTION: DATE: \_\_\_\_\_  
EQUIP. ENGR: DATE: \_\_\_\_\_  
OWNER: DATE: \_\_\_\_\_

SITE NO: 123326  
APPROVED BY: G.L.  
DRAWN BY: ESE CADD DEPT.  
CHECKED BY: ESE CADD DEPT.

NO	DATE	ISSUE
1	04/27/07	ISSUED FOR 90%
2	11/15/07	REV PER EMAIL

SHEET TITLE  
**SITE SURVEY**

SURVEYED BY/ OR UNDER THE DIRECTION OF:

SHEET NUMBER  
**C-1**

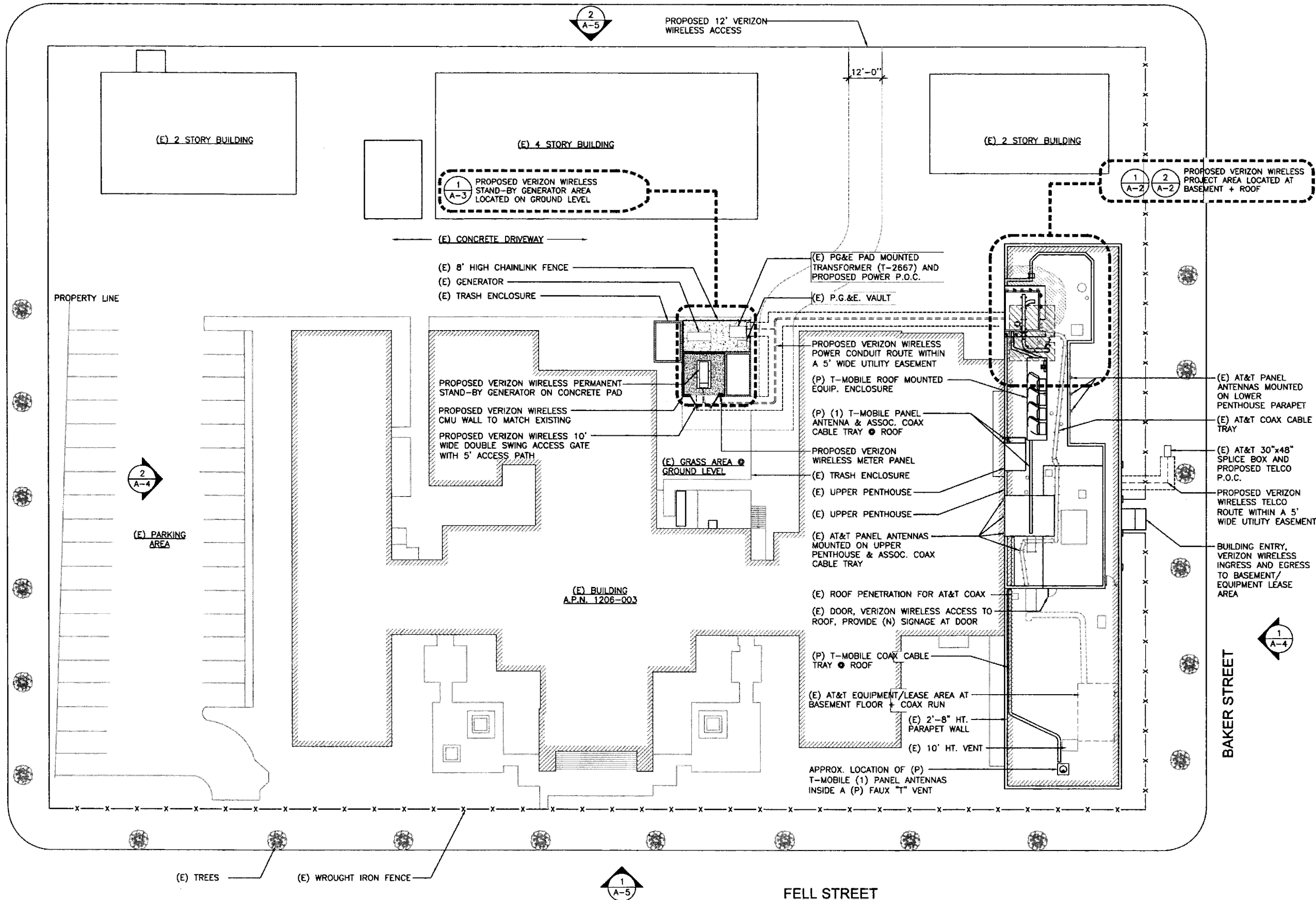
COMPANY JOB NO. 07-590

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Oct 15, 2010 - 12:20pm jhussey P:\Verizon-SF\123326 FELL & DIVISADERO\1-ZD\2010-10-14 REV9\123326-A1.dwg

LYON STREET

HAYES STREET (R.O.W.)



**MSA**  
 Architecture & Planning, Inc.  
 4425 17th Street  
 San Francisco, Ca 94114  
 415,502,1383 fax 415,251,1177  
 Santa Ana San Diego San Francisco  
 sanjo\_msa@aol.com

ABE SEAL

PROJECT NO: 123326  
 DRAWN BY: MSA  
 CHECKED BY: RZ  
 CAD FILE: 123326

SUBMITTALS	
9	10/14/10 100% ZONING REV.
8	07/21/10 100% ZONING REV.
7	07/06/10 100% ZONING REV.
6	06/12/10 100% ZONING REV.
5	02/18/10 100% ZONING REV.
4	11/13/09 100% ZONING REV.
3	11/26/07 100% ZONING REV.

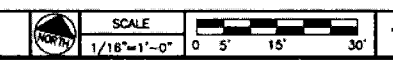
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SITE  
 123326  
 FELL &  
 DIVISADERO  
 333 BAKER STREET  
 SAN FRANCISCO, CA, 94117

SHEET TITLE  
 OVERALL  
 SITE PLAN

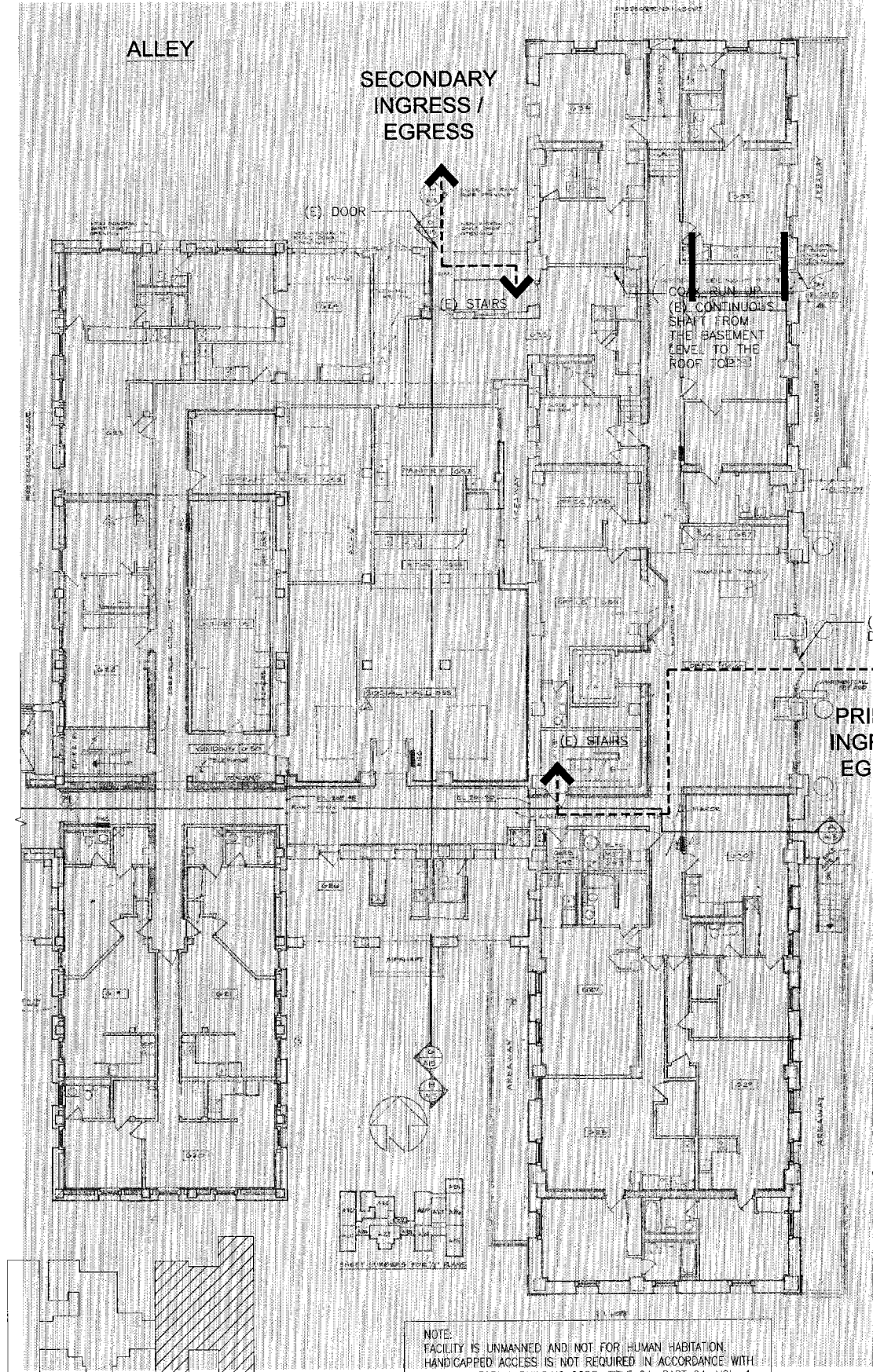
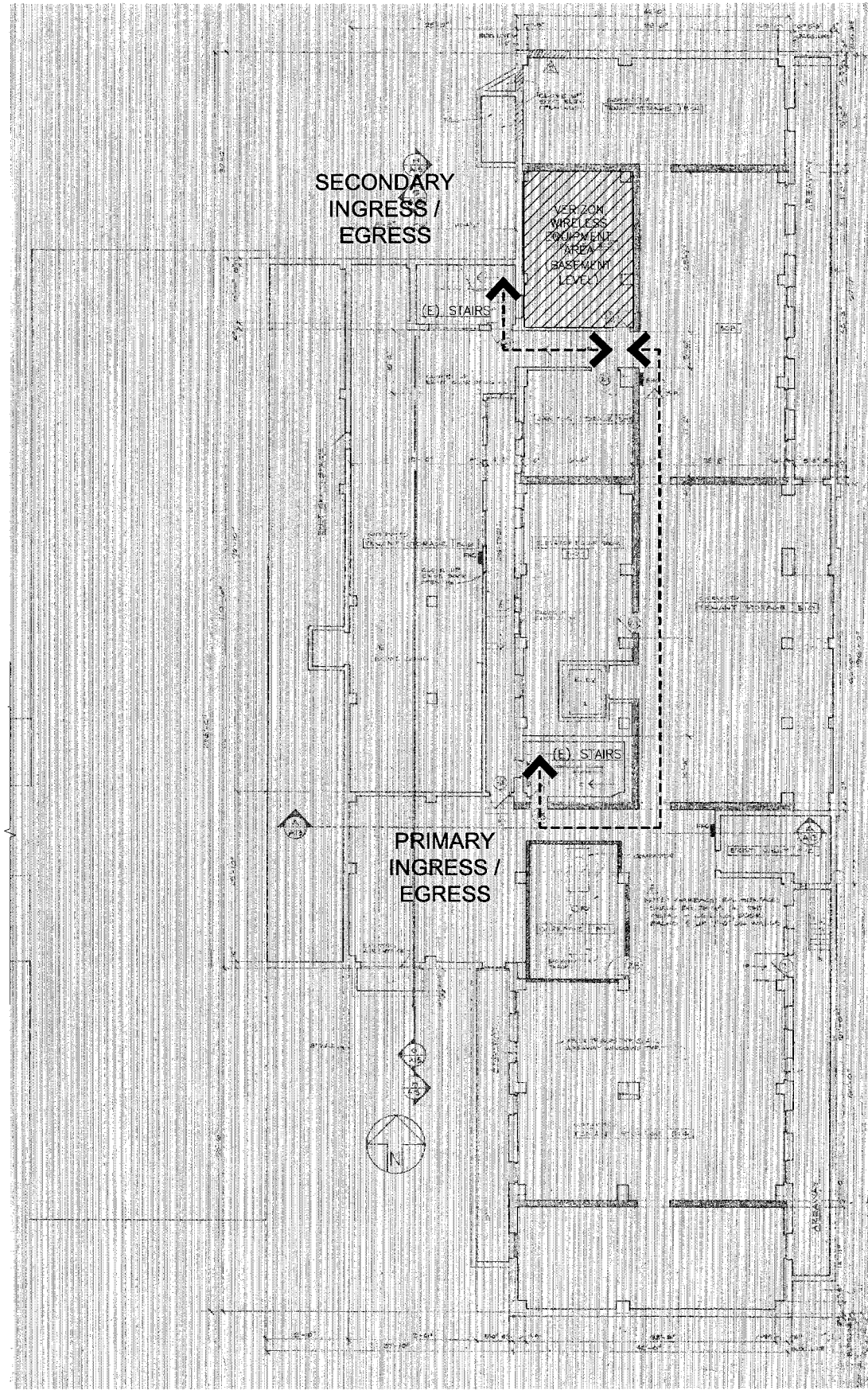
SHEET NUMBER  
 A-1

OVERALL SITE PLAN



1

Jul 21, 2010 - 3:43pm joleandrra\_VERIZON\VERIZON ACTIVE\VERIZON\_SF\ON AIR Verizon\Project Sites\123326\_FELL & DIVISADERO\1-ZD\123326-A1-1.dwg



KEY PLAN

NOTE:  
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.  
HANDICAPPED ACCESS IS NOT REQUIRED IN ACCORDANCE WITH  
2007 CALIFORNIA BUILDING CODE, TITLE 24, PART 24, VOL. 1,  
CHAPTER 11B, SECTION 1123B.2 EXCEPTION 1



**MSA**  
Architecture & Planning, Inc.  
4425 17th Street  
San Francisco, Ca 94114  
415.503.1363 fax 949.251.1177  
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PROJECT NO: 123326

DRAWN BY: MSA

CHECKED BY: RZ

CAD FILE: 123326

SUBMITTALS		
8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
6	05/12/10	100% ZONING REV.
5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.
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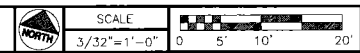
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SHEET TITLE  
INGRESS/EGRESS  
PLAN

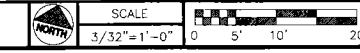
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PARTIAL BASEMENT PLAN



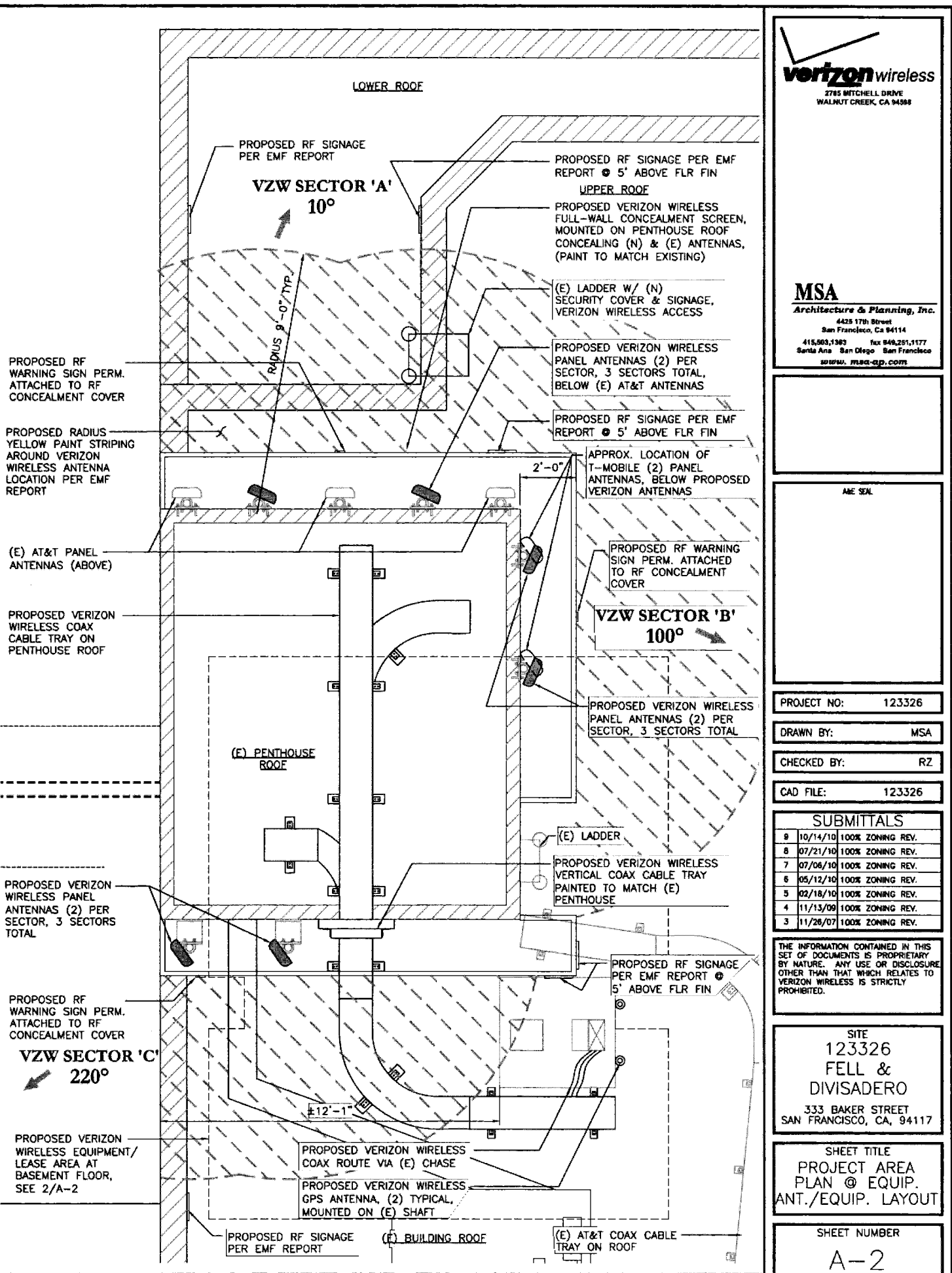
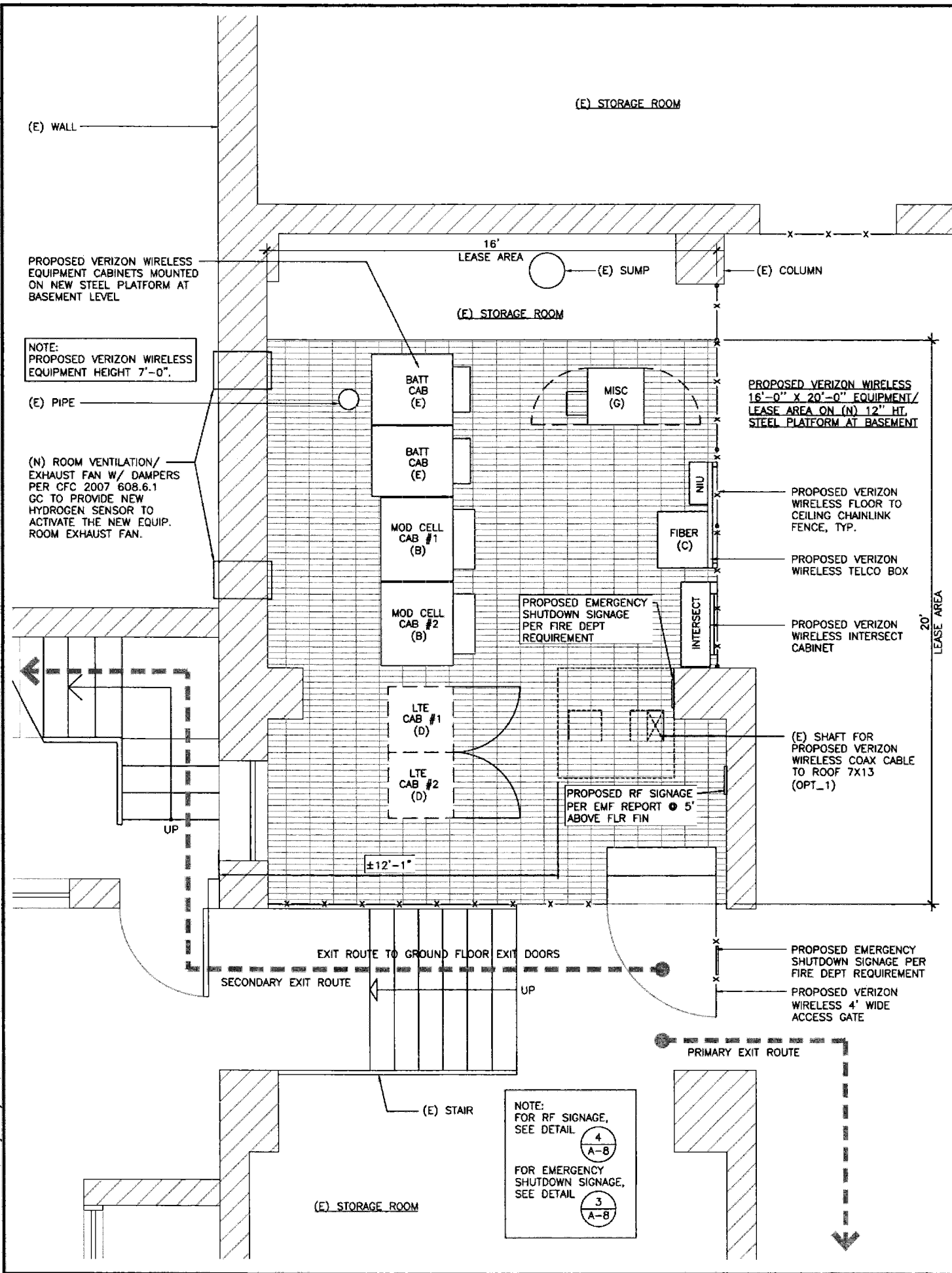
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PARTIAL GROUND FLOOR PLAN



1

Oct 14, 2010 - 1:31pm jhussey P:\Verizon-SF\123326 FELL & DIVISADERO\1-ZD\123326-A2.dwg



PROJECT AREA @ EQUIPMENT

SCALE 1/2"=1'-0" 0 1' 4'

2 PROJECT AREA @ ANTENNAS

SCALE 1/2"=1'-0" 0 1' 4'



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DRAWN BY:	MSA
CHECKED BY:	RZ
CAD FILE:	123326

SUBMITTALS	
9	10/14/10 100% ZONING REV.
8	07/21/10 100% ZONING REV.
7	07/06/10 100% ZONING REV.
6	05/12/10 100% ZONING REV.
5	02/18/10 100% ZONING REV.
4	11/13/09 100% ZONING REV.
3	11/28/07 100% ZONING REV.

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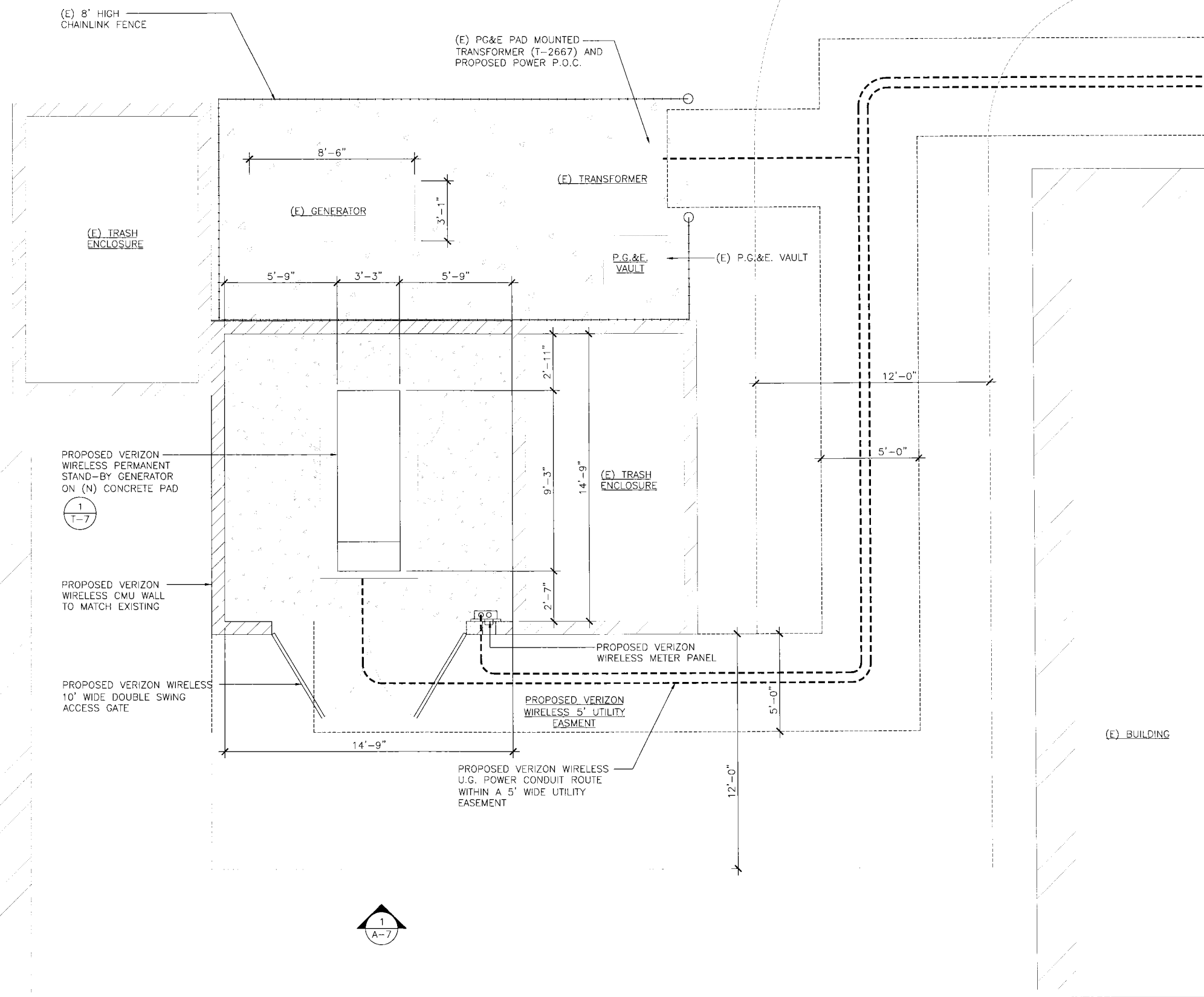
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PROJECT AREA  
PLAN @ EQUIP.  
ANT./EQUIP. LAYOUT

SHEET NUMBER  
A-2

NOTE:  
UTILITY BORE OR TRENCH  
TO BE CONFIRMED.

**verizon**wireless  
2785 MITCHELL DRIVE  
WALNUT CREEK, CA 94598

**MSA**  
Architecture & Planning, Inc.  
4425 17th Street  
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Oct. 14, 2010 - 1:28pm jrussey P:\Verizon-SF\123326-FELL & DIVISADERO\1-ZD\123326-A3.dwg

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DRAWN BY: MSA  
CHECKED BY: RZ  
CAD FILE: 123326

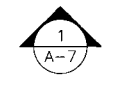
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5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

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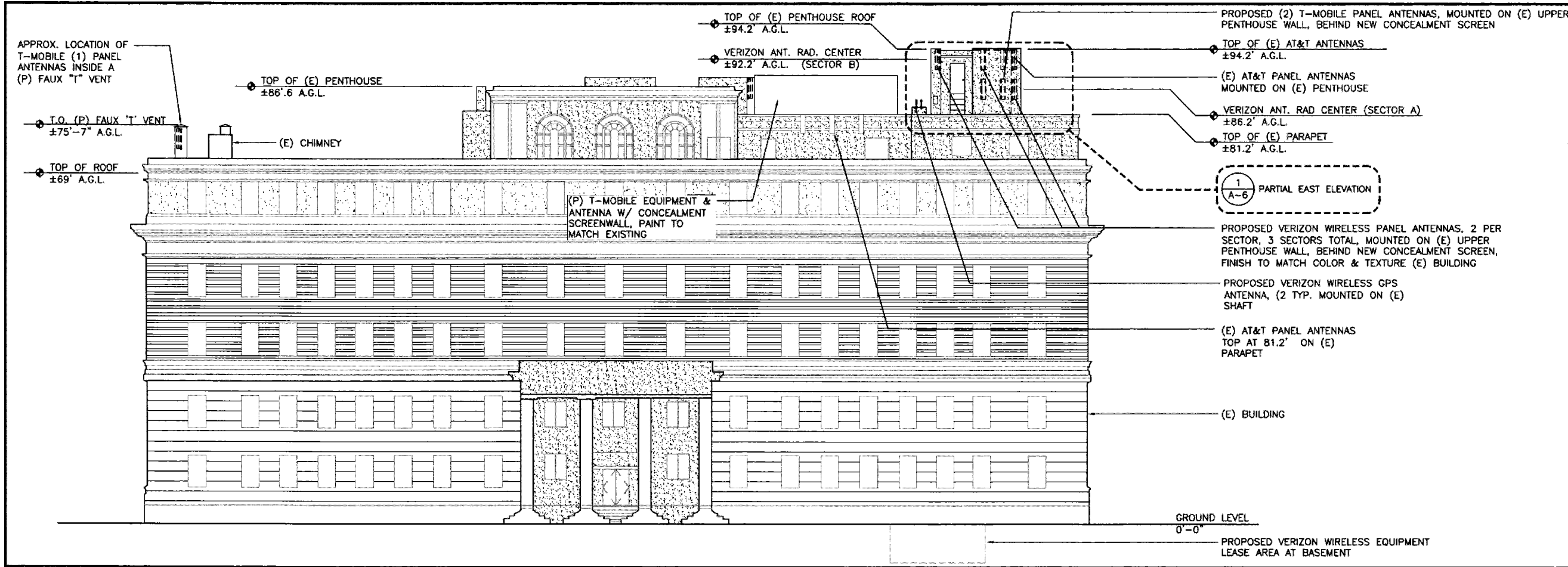
SITE  
123326  
FELL &  
DIVISADERO  
333 BAKER STREET  
SAN FRANCISCO, CA, 94117

SHEET TITLE  
PROJECT AREA  
AT GENERATOR

SHEET NUMBER  
A 3

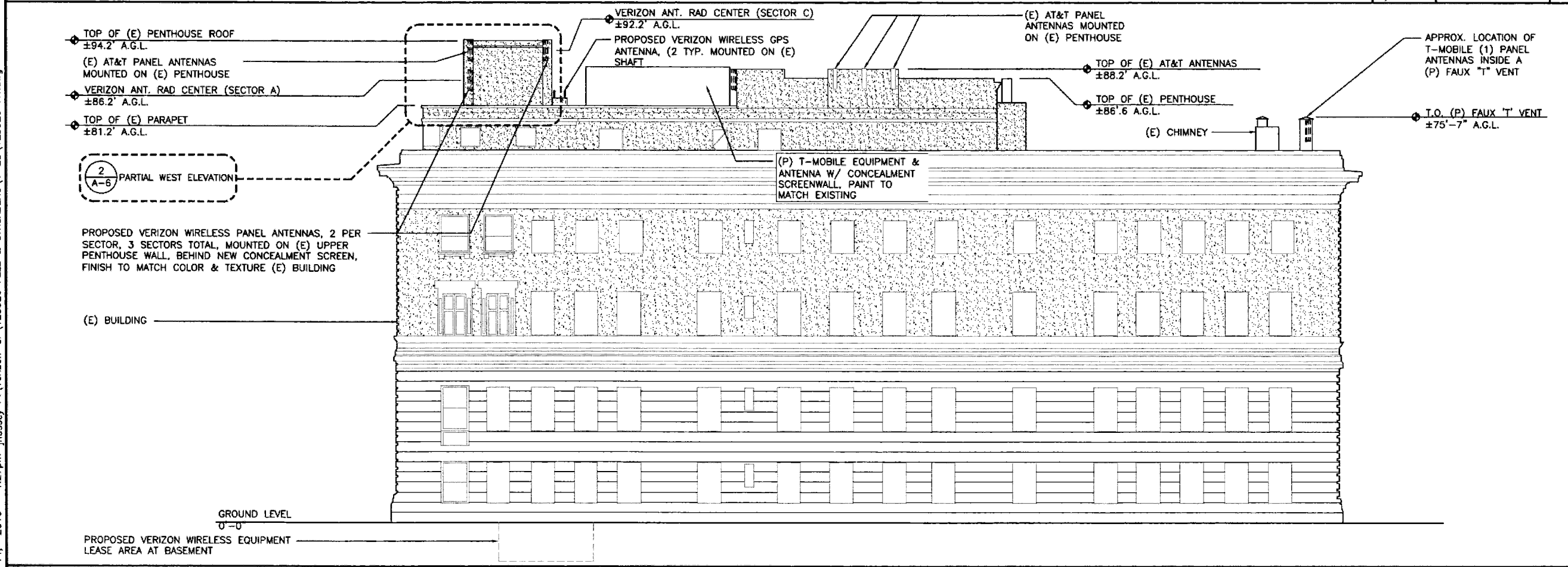


SCALE  
3/8" = 1'-0"  
0 1' 3' 5'



EAST / BAKER STREET ELEVATION

SCALE 3/32"=1'-0" 0 5' 10' 20' 1



WEST / LYON STREET ELEVATION

SCALE 3/32"=1'-0" 0 5' 10' 20' 2



PROJECT NO: 123326

DRAWN BY: MSA

CHECKED BY: RZ

CAD FILE: 123326

SUBMITTALS		
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8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
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5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

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DIVISADERO  
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SAN FRANCISCO, CA, 94117

SHEET TITLE  
ELEVATIONS

SHEET NUMBER  
A-4

Oct 14, 2010 - 1:27pm jhussey P:\Verizon-SF\123326 FELL & DIVISADERO\1-ZD\123326-A4.dwg

PROPOSED VERIZON WIRELESS PANEL ANTENNAS, 2 PER SECTOR, 3 SECTORS TOTAL, MOUNTED ON (E) UPPER PENTHOUSE WALL, BEHIND NEW CONCEALMENT SCREEN, FINISH TO MATCH COLOR & TEXTURE (E) BUILDING

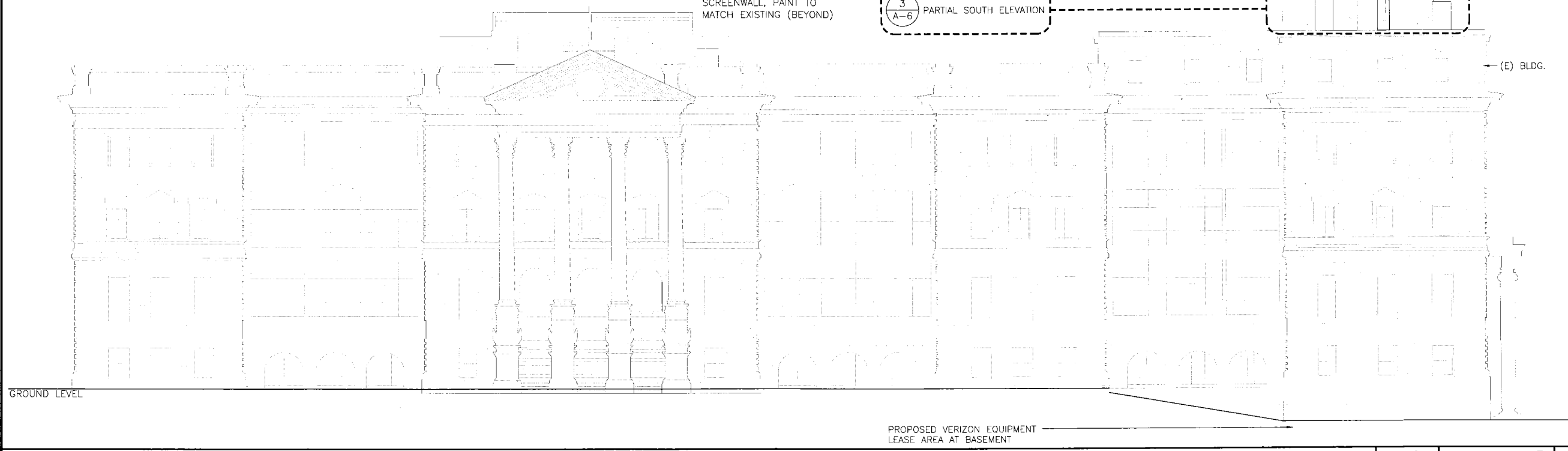
VERIZON ANT. RAD CENTER (SECTOR C) ±92.2' A.G.L.

TOP OF (E) PENTHOUSE ROOF ±94.2' A.G.L.

APPROX. LOCATION OF T-MOBILE (1) PANEL ANTENNAS INSIDE A (P) FAUX "T" VENT (E) PENTHOUSE

(P) T-MOBILE EQUIPMENT & ANTENNA W/ CONCEALMENT SCREENWALL, PAINT TO MATCH EXISTING (BEYOND)

3  
A-6 PARTIAL SOUTH ELEVATION



**SOUTH / FELL STREET ELEVATION**

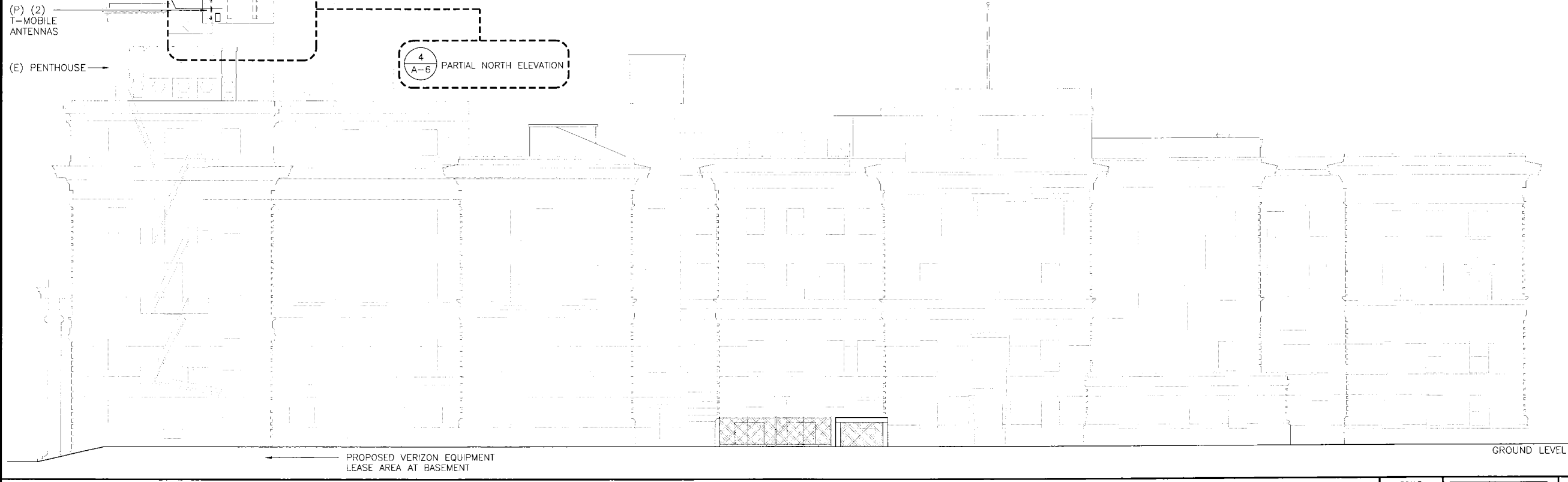
SCALE 3/32"=1'-0" 0 5' 10' 20' 1

VERIZON ANT. RAD CENTER ±92.2' A.G.L.  
 VERIZON ANT. RAD CENTER ±86.2' A.G.L.  
 (P) (2) T-MOBILE ANTENNAS  
 (E) PENTHOUSE

PROPOSED VERIZON WIRELESS PANEL ANTENNAS, 2 PER SECTOR, 3 SECTORS TOTAL, MOUNTED ON (E) UPPER PENTHOUSE WALL, BEHIND NEW CONCEALMENT SCREEN, FINISH TO MATCH COLOR & TEXTURE (E) BUILDING

TOP OF (E) PENTHOUSE ROOF ±94.2' A.G.L.

4  
A-6 PARTIAL NORTH ELEVATION



**NORTH / HAYES STREET ELEVATION**

SCALE 3/32"=1'-0" 0 5' 10' 20' 2



**MSA**  
 Architecture & Planning, Inc.  
 4425 17th Street  
 San Francisco, Ca 94114  
 415.503.1383 fax 949.251.1177  
 Santa Ana San Diego San Francisco  
 www.msa-ap.com

ABE SEAL

PROJECT NO: 123326  
 DRAWN BY: MSA  
 CHECKED BY: RZ  
 CAD FILE: 123326

SUBMITTALS		
9	10/14/10	100% ZONING REV.
8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
6	05/12/10	100% ZONING REV.
5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

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SITE  
 123326  
 FFI &  
 DIVISADERO  
 333 BAKER STREET  
 SAN FRANCISCO, CA, 94117

SHEET TITLE  
 ELEVATIONS

SHEET NUMBER  
 A-5

Oct. 14, 2010 - 1:26pm jhussey P:\Verizon-SF\123326 FELL & DIVISADERO\1-ZD\123326-A5.dwg



SCALE

PROJECT NO:	123326
DRAWN BY:	MSA
CHECKED BY:	RZ
CAD FILE:	123326

SUBMITALS

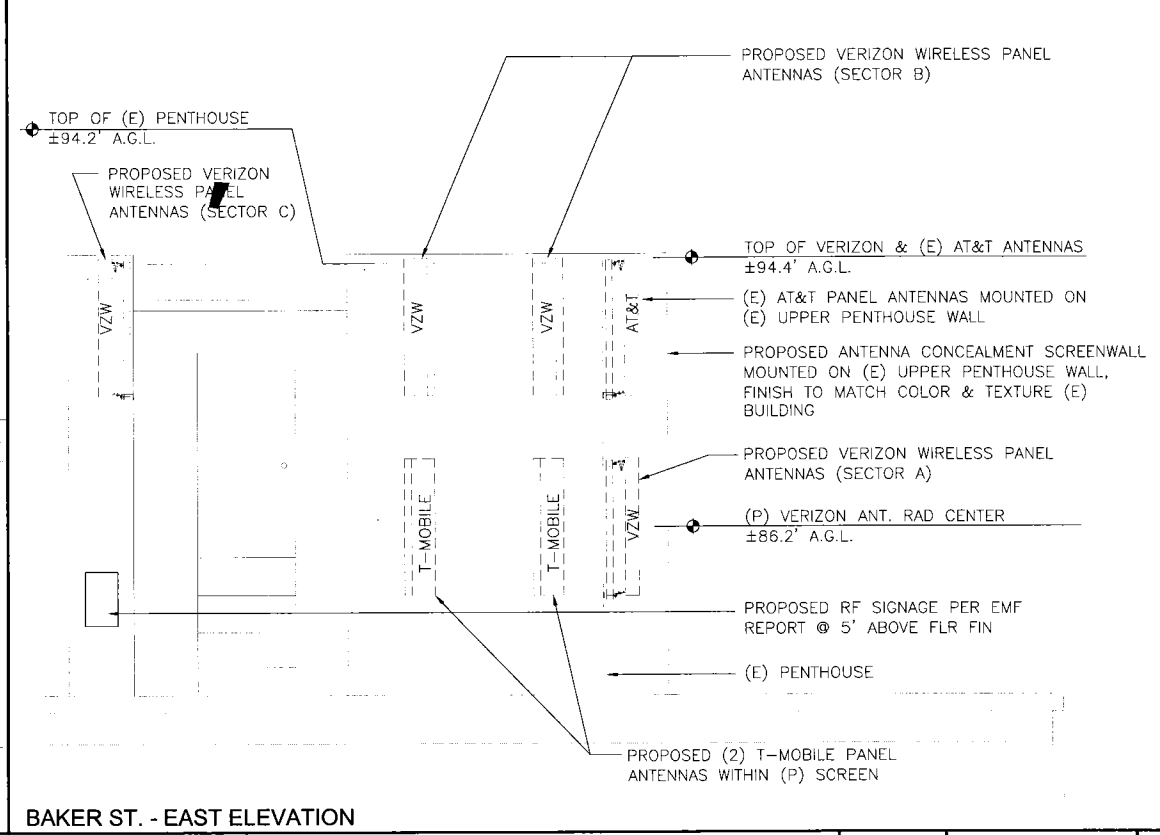
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8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
6	05/12/10	100% ZONING REV.
5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

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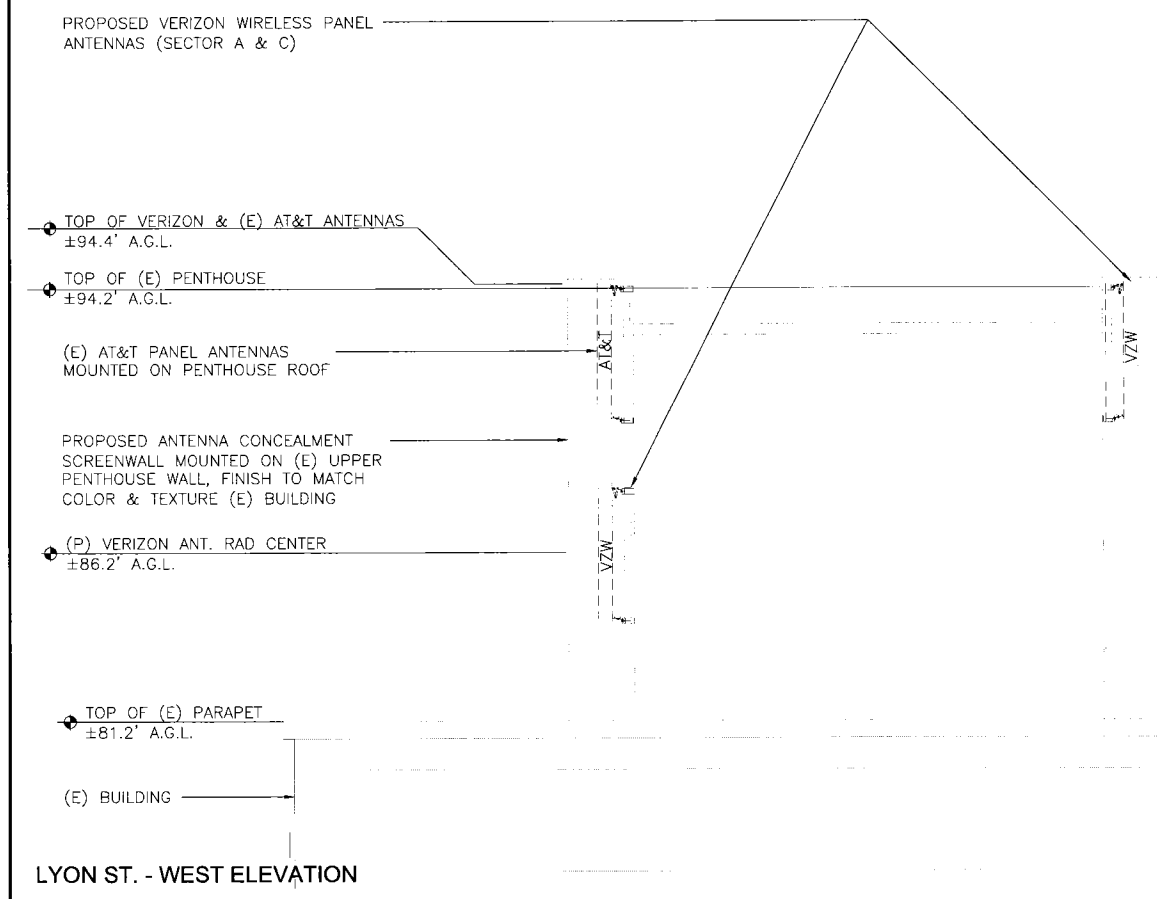
SITE  
 123326  
 FELL &  
 DIVISADERO  
 333 BAKER STREET  
 SAN FRANCISCO, CA, 94117

SHEET TITLE  
 ELEVATIONS  
 AT ANT. LOCATION

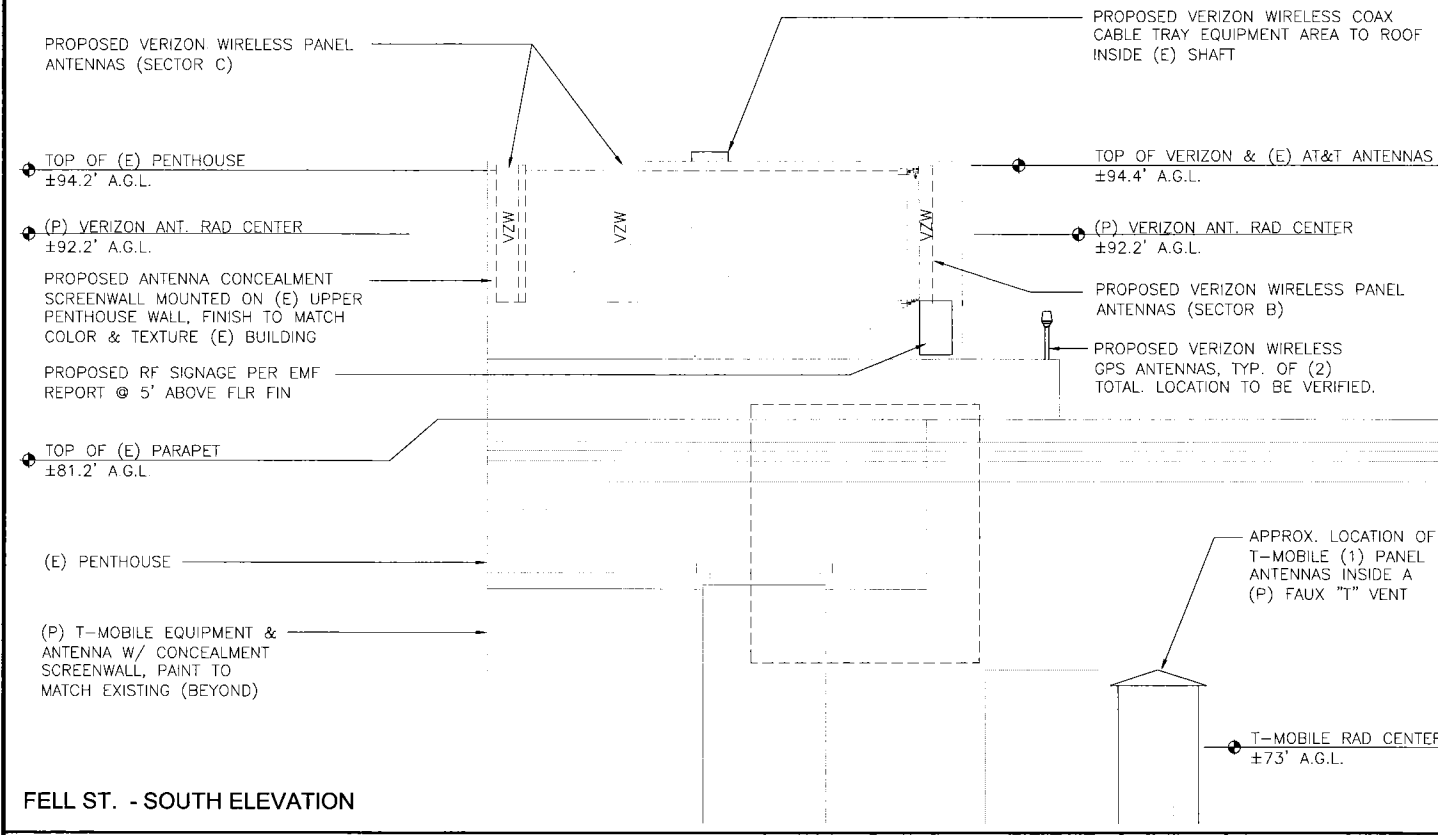
SHEET NUMBER  
 A-6



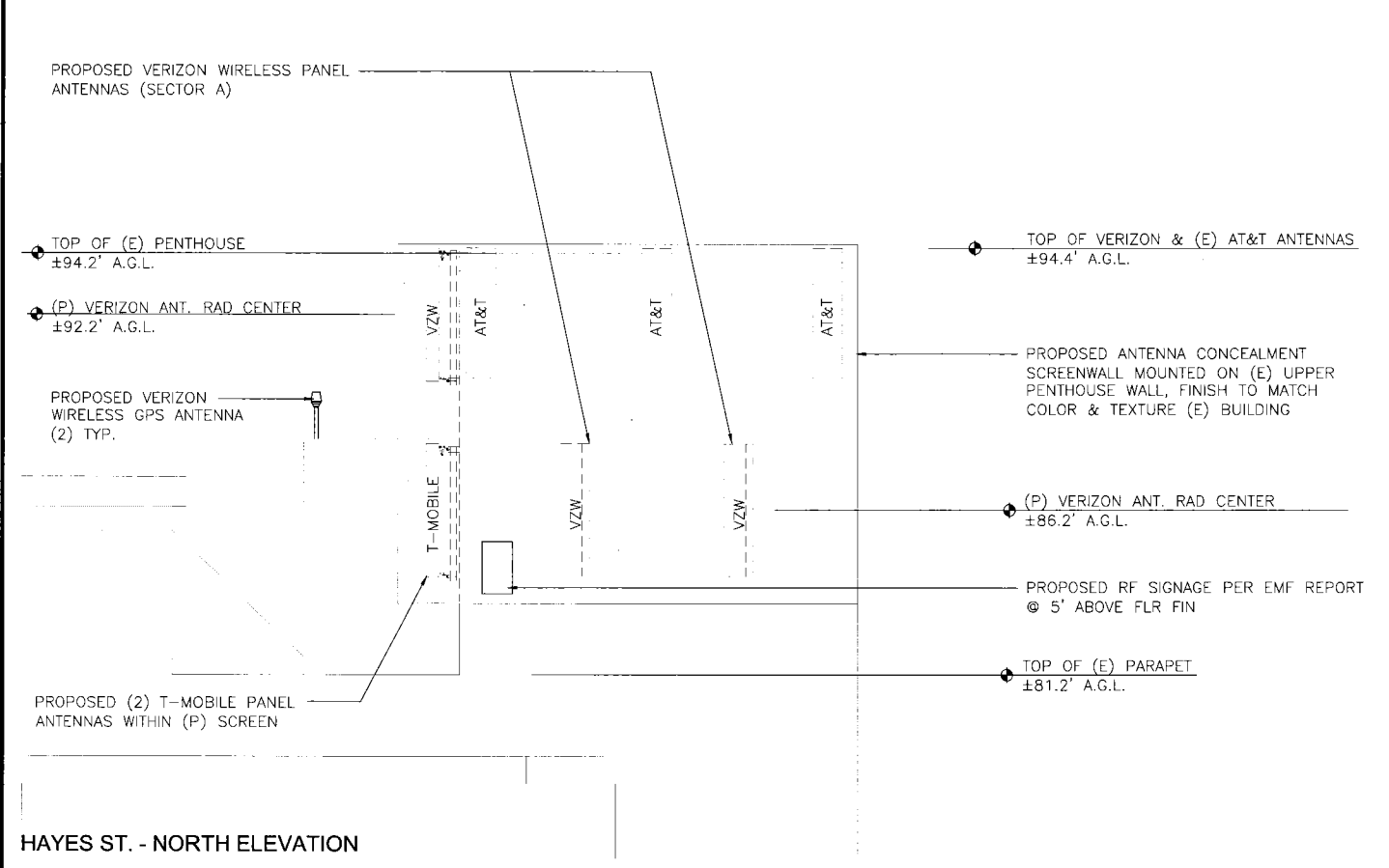
BAKER ST. - EAST ELEVATION  
 PARTIAL ELEVATION @ ANT. LOCATION SECTORS ('A', 'B' & 'C') SCALE 3/8"=1'-0" 0 1' 3' 5' 1



LYON ST. - WEST ELEVATION  
 PARTIAL ELEVATION @ ANT. LOCATION SECTORS 'A' & 'C' SCALE 3/8"=1'-0" 0 1' 3' 5' 2



FELL ST. - SOUTH ELEVATION  
 PARTIAL ELEVATION @ ANTENNA LOCATION SECTORS ('B' & 'C') SCALE 3/8"=1'-0" 0 1' 3' 5' 3



HAYES ST. - NORTH ELEVATION  
 PARTIAL ELEVATION @ ANTENNA LOCATION SECTOR 'A', 'B' & 'C' SCALE 3/8"=1'-0" 0 1' 3' 5' 4

Oct. 14, 2010 - 1:26pm jhussey P:\Verizon-SF\123326-FELL & DIVISADERO\1-ZD\123326-A6.dwg

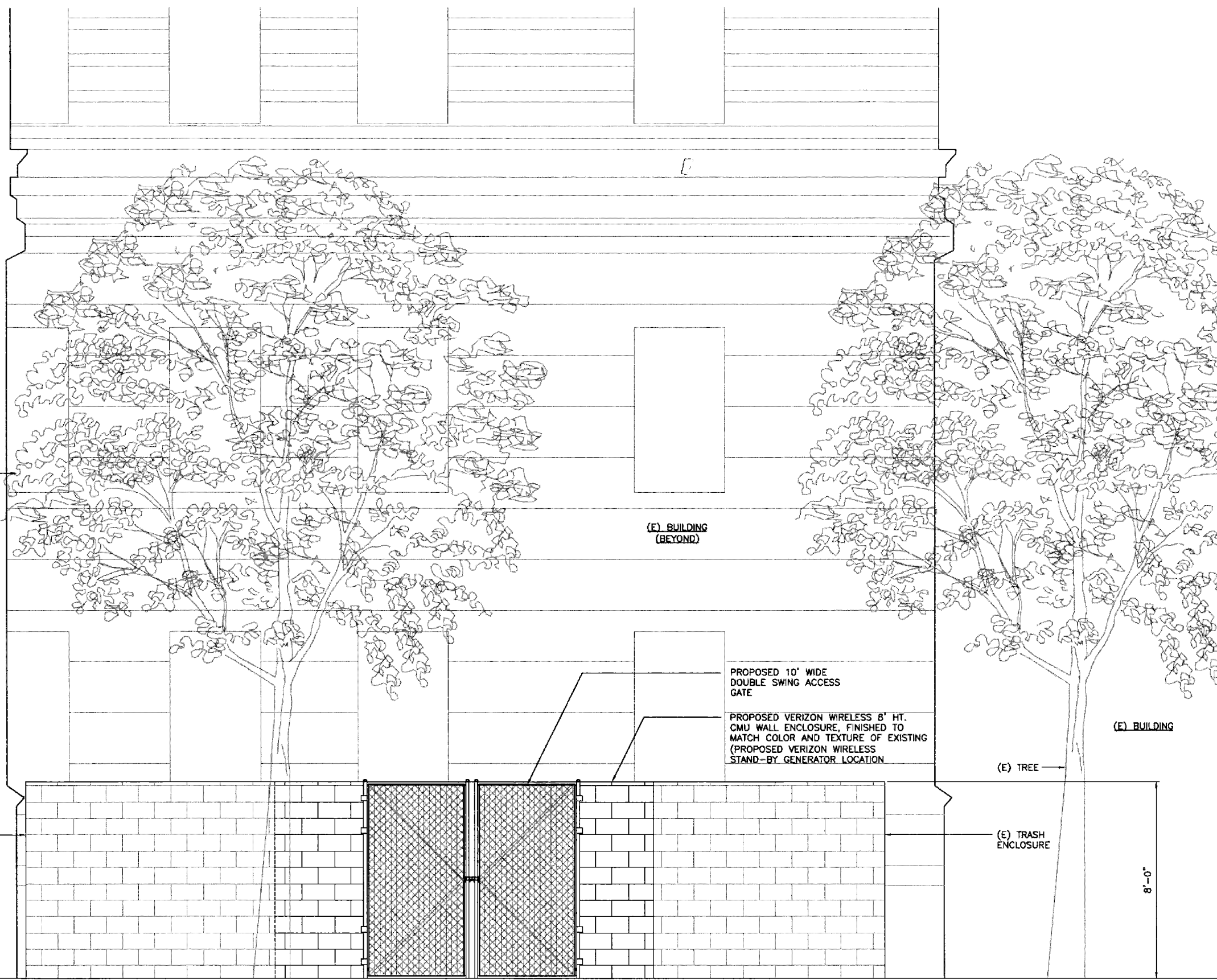
Oct 14, 2010 - 1:22pm jhussey P:\Verizon-SF\123326 FELL & DIVISADERO\1-ZD\123326-A7.dwg

(E) TREE

(E) BUILDING

(E) TRASH ENCLOSURE

FINISHED GRADE



(E) BUILDING (BEYOND)

PROPOSED 10' WIDE DOUBLE SWING ACCESS GATE

PROPOSED VERIZON WIRELESS 8' HT. CMU WALL ENCLOSURE, FINISHED TO MATCH COLOR AND TEXTURE OF EXISTING (PROPOSED VERIZON WIRELESS STAND-BY GENERATOR LOCATION)

(E) BUILDING

(E) TREE

(E) TRASH ENCLOSURE

8'-0"

**verizon wireless**  
 2785 MITCHELL DRIVE  
 WALNUT CREEK, CA 94598

**MSA**  
 Architecture & Planning, Inc.  
 4425 17th Street  
 San Francisco, Ca 94114  
 415,863,1383 fax 415,201,1177  
 Santa Ana San Diego San Francisco  
 www.msa-ap.com

AME SEAL

PROJECT NO: 123326

DRAWN BY: MSA

CHECKED BY: RZ

CAD FILE: 123326

SUBMITTALS		
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7	07/06/10	100% ZONING REV.
6	05/12/10	100% ZONING REV.
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4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

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SITE  
 123326  
 FELL &  
 DIVISADERO  
 333 BAKER STREET  
 SAN FRANCISCO, CA, 94117

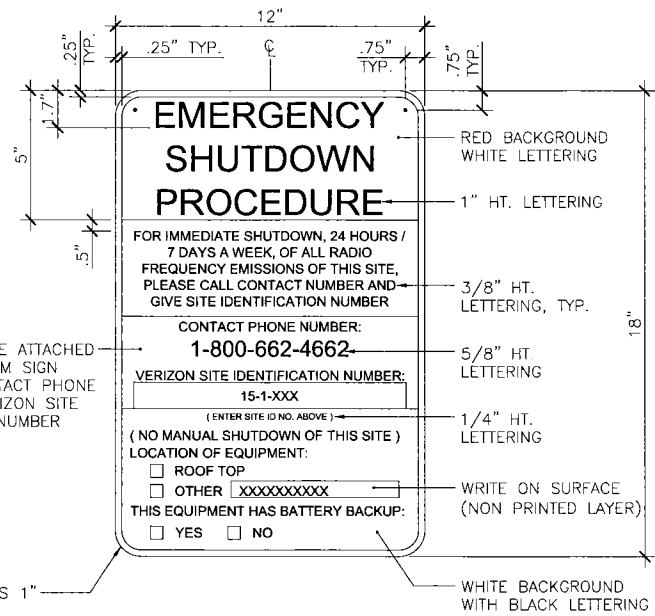
SHEET TITLE  
 PARTIAL  
 ELEVATIONS

SHEET NUMBER  
 A-7

ELEVATION @ GENERATOR

SCALE  
 1/2" = 1'-0" 0 1' 4'

1



NOTE:  
 \* THIS SIGNAGE SHALL BE PERMANENTLY MOUNTED NEXT TO THE MAIN ELECTRICAL SHUT-OFF, IN THE FCC ROOM WITHIN CLOSE PROXIMITY TO THE FIRE ALARM PANEL AT THE EQUIPMENT ROOM.  
 \* THE SIGN SHALL BE LABELED IN A PHENOLIC LABEL WITH A WHITE BACKGROUND AND BLACK LETTERING. TITLE BLOCK SHALL BE A RED BACKGROUND AND 1" HIGH WHITE LETTERING.

EMERGENCY SHUTDOWN SIGNAGE

SCALE  
NOT TO SCALE 3

NOTICE TO WORKERS



RADIO FREQUENCY ANTENNAS ON THIS ROOF. PLEASE EXERCISE CAUTION AROUND ANTENNAS AND OBEY POSTED SIGNS AND/OR MARKINGS. FOR ACCESS TO RESTRICTED AREAS OR FOR FURTHER INFORMATION, PLEASE CALL 1-888-662-4662

IN ACCORDANCE WITH FCC RULES 47 CFR 1.1310

AVISO A TRABAJADORES

EXISTEN ANTENAS DE RADIOFRECUENCIA EN ESTE TECHO. POR FAVOR USE PRECAUCION ALREDEDOR DE LAS ANTENAS Y OBEDEZCA A LAS ZONAS RESTRINGIDAS O PARA OBTENER MAS INFORMACION, LLAME AL TELEFONO 1-888-662-4662

DE ACUERDO A LAS REGLAS DE FCC 47 CFR 1.1310

工作人員注意

此屋宇房頂有射頻天線裝置  
 在天線範圍四周請請小心,並遵照各已張貼之指示  
 及/或標識行事  
 如需進入禁區範圍定索取更多資料  
 請致電1-888-662-4662

依據 FCC 條例第 47 CFR 1.1310 號執行

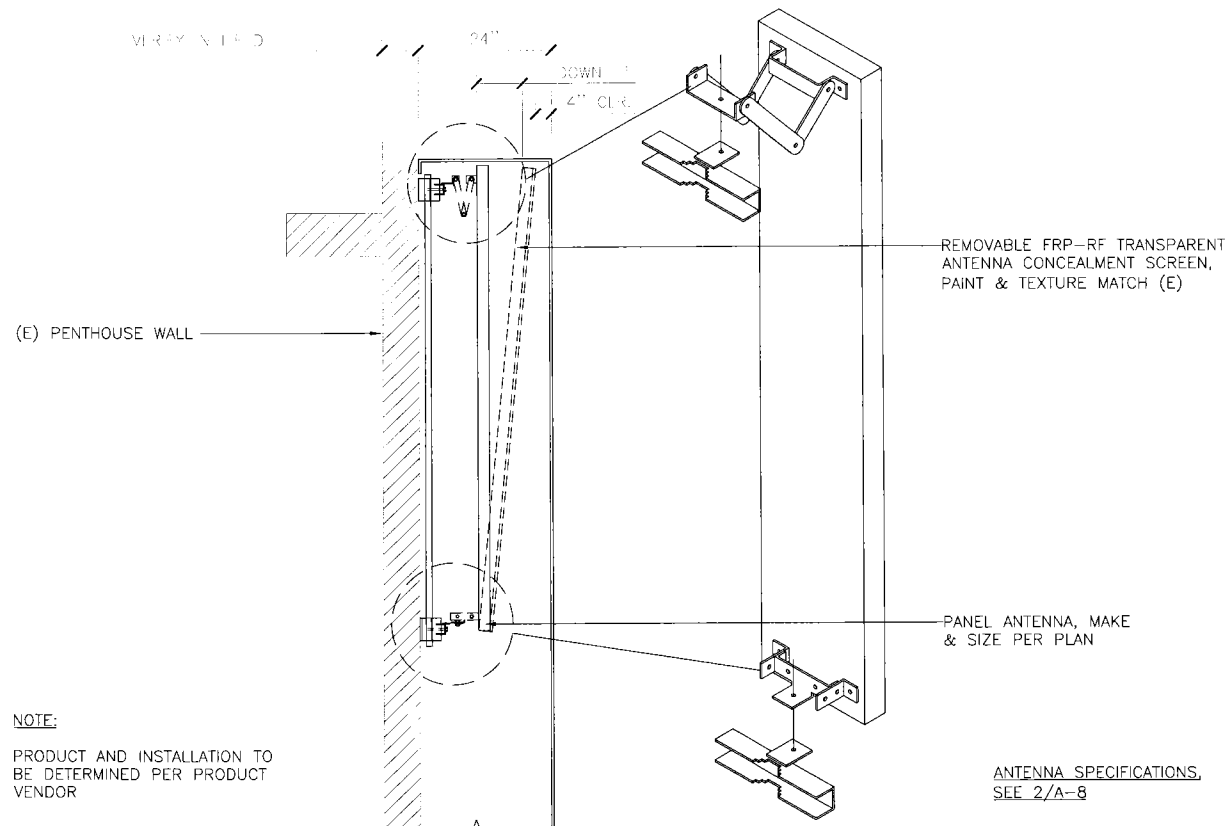
- NOTE
- WARNING SIGN TO BE MOUNTED AT ANTENNAS & EQUIPMENT LOCATIONS
  - SIGN SHALL COMPLY WITH ANSI C95.2-1999 COLOR, SYMBOL, AND CONTENT CONVENTIONS.

NOTES:  
 -SIGNAGE SHALL BE CLEARLY LABELED IN A PHENOLIC LABEL WITH A WHITE BACKGROUND AND BLACK LETTERING, AND SHALL BE READABLE FROM AT LEAST (15) FEET FROM THE SIGN

PROPOSED 12"x20" PLASTIC SIGN

RF WARNING SIGNAGE

SCALE  
NOT TO SCALE 4



NOTE:  
 PRODUCT AND INSTALLATION TO BE DETERMINED PER PRODUCT VENDOR

ANTENNA SPECIFICATIONS, SEE 2/A-8

DETAIL

SCALE  
NOT TO SCALE 1

P65-15-XL-R Very Low Broadband Antennas

ELECTRICAL SPECIFICATIONS*	PRELIMINARY	
	688-804	805-894
Frequency range (MHz)	688-804	805-894
Frequency band (MHz)	14.911.8	14.911.4
Gain (dBd)	Dual Linear +/- 4.5	Dual Linear +/- 4.5
Nominal Impedance (Ω)	50	50
VSWR	< 1.4:1	< 1.4:1
Horizontal beam width, -3 dB (°)	68	68
Vertical beam width, -3 dB (°)	16.5	16.5
Side lobe suppression, vertical 1st upper (dB)	> 18	> 18
Isolation between inputs (dB)	> 30	> 30
Tracking, horizontal plane ±50° (dB)	< 2	< 2
Electrical Down tilt Range	2 - 15	2 - 15
Vertical beam squint (°)	< 0.5	< 0.5
Front to back ratio (dB)	> 30	> 30
Front to back ratio, total power (dB)	> 25	> 25
Cross polar discrimination (XPDP) 0° (dB)	> 15	> 15
Cross polar discrimination (XPDP) ±50° (dB)	> 10	> 10
IM3, 2xTxs@30dBm (dBc)	-183	-183
Power handling, average per input (W)	500	500
Power handling, average total (W)	1000	1000

MECHANICAL SPECIFICATIONS*	
Connector	2 X 7/16 DIN Female
Connector position	Bottom
Dimensions, HxWxD, in (mm)	51" x 12" x 6" (1295 x 305 x 152)
Mounting	Pre-mounted tilt brackets
Weight, with brackets, lbs (kg)	35 (16)
Weight, without brackets, lbs (kg)	28 (11)
Wind load, transverse/wind speed 42 mph (67.5 mph)	520
Maximum operational wind speed, mph (m/s)	100 (45)
Survival wind speed, mph (m/s)	150 (67)
Lighting protection	DC Ground
Radome material	PVC
Radome size, HxWxD, in (mm)	58" x 18" x 10" (1475 x 457 x 255)
Radome colour	Light Grey
Shipping weight, lbs (kg)	44 (20)
RET	RET ASSV1.1, MET and AISGv2.0 Available
Brackete	7255.00, 7454.00, 2210.00

\*All specifications subject to change without notice. Please contact your Powerwave representative for complete performance data.

ANTENNA PATTERNS\*  
 For detailed patterns visit <http://www.powerwave.com/gpa/>.

P65-15-XLH-RR Dual Broadband Antennas

ELECTRICAL SPECIFICATIONS*	PRELIMINARY			
	688-804	805-894	1710-2170	1850-2170
Frequency range (MHz)	688-804	805-894	1710-2170	1850-2170
Frequency band (MHz)	13.918.0	13.911.4	16.913.4	16.913.2
Gain (dBd)	Dual Linear +/- 4.5	Dual Linear +/- 4.5	Dual Linear +/- 4.5	Dual Linear +/- 4.5
Nominal Impedance (Ω)	50	50	50	50
VSWR	< 1.4:1	< 1.4:1	< 1.4:1	< 1.4:1
Horizontal beam width, -3 dB (°)	73	63	65	66
Vertical beam width, -3 dB (°)	17	17	17	17
Electrical down tilt (°)	2-15	2-15	2-15	2-15
Side lobe suppression, vertical 1st upper (dB)	> 14	> 14	> 20	> 20
Isolation between inputs (dB)	> 30	> 30	> 30	> 30
Inter band isolation (dB)	> 40	> 40	> 40	> 40
Tracking, horizontal plane ±50° (dB)	< 2	< 2	< 2	< 2
Vertical beam squint (°)	< 1.25	< 1.25	< 0.5	< 0.5
Front to back ratio (dB)	> 25	> 25	> 25	> 25
Front to back ratio, total power (dB)	> 25	> 25	> 25	> 25
Cross polar discrimination (XPDP) 0° (dB)	> 15	> 15	> 15	> 15
Cross polar discrimination (XPDP) ±50° (dB)	> 10	> 10	> 10	> 10
IM3, 2xTxs@30dBm (dBc)	-153	-153	-153	-153
Power handling, average per input (W)	500	500	500	500
Power handling, average total (W)	1000	1000	1000	1000

MECHANICAL SPECIFICATIONS*	
Connector	4 X 7/16 DIN Female
Connector position	Bottom
Dimensions, HxWxD, in (mm)	51" x 12" x 6" (1295 x 305 x 152)
Mounting	Pre-mounted Tilt Brackets
Weight, with brackets, lbs (kg)	41 (19)
Weight, without brackets, lbs (kg)	30 (14)
Wind load, transverse/wind speed 42 mph (67.5 mph)	520
Maximum operational wind speed, mph (m/s)	100 (45)
Survival wind speed, mph (m/s)	150 (67)
Lighting protection	DC Ground
Radome material	PVC
Radome size, HxWxD, in (mm)	60" x 18" x 10" (1524 x 457 x 255)
Radome colour	Light Grey
Shipping weight, lbs (kg)	52 (24)
RET	RET ASSV1.1, MET and AISGv2.0
Brackete	7255.00, 7454.00, 2210.00

\*All specifications subject to change without notice. Please contact your Powerwave representative for complete performance data.

ANTENNA PATTERNS\*  
 For detailed patterns visit <http://www.powerwave.com/gpa/>.

ANTENNA SPECIFICATIONS

SCALE  
NOT TO SCALE 2



PROJECT NO.: 123326

DRAWN BY: MSA

CHECKED BY: RZ

CAD FILE: 123326

SUBMITTALS		
9	10/14/10	100% ZONING REV.
8	07/21/10	100% ZONING REV.
7	07/06/10	100% ZONING REV.
6	05/12/10	100% ZONING REV.
5	02/18/10	100% ZONING REV.
4	11/13/09	100% ZONING REV.
3	11/26/07	100% ZONING REV.

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SEE  
 123326  
 F-1 &  
 DIVISADPRO  
 333 BAKER STREET  
 SAN FRANCISCO, CA, 94117

SHEET TITLE

DETAILS

SHEET NUMBER

A-8

Oct. 14, 2010 1:46pm jhussey P:\Verizon-SF\123326\_FEL & DIVISADPRO\1-ZD\123326-AB.dwg