



Staff Report to the Zoning Administrator

Application Number: **141286**

Applicant: Gary Gochberg, Nexius/Beacon
Development LLC (for Verizon)

Agenda Date: March 20, 2015

Owner: County of Santa Cruz

Agenda Item #: 4

APN: N/A (in County Right-of-Way near 17th
and Rodriguez)

Time: After 9:00 a.m.

Project Description: Proposal to construct a Verizon microcell WCF on an existing 43-foot tall utility pole, including a small cylindrical antenna enclosure mounted horizontal arm about halfway up the pole and other pole mounted equipment.

Location: Located in County right-of-way west of the northwest corner of 17th Ave. and Rodriguez St. adjacent to and directly south of APN 026-071-56.

Supervisory District: 1st District (District Supervisor: John Leopold)

Permits Required: Requires a Level 5 Commercial Development Permit.

Technical Reviews: N/A

Staff Recommendation:

- Determine that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 141286, based on the attached findings and conditions.

Exhibits

- | | |
|---|---|
| A. Categorical Exemption (CEQA determination) | E. Assessor's, Location, Zoning and General Plan Maps |
| B. Findings | F. RF Radiation Emissions Report |
| C. Conditions | G. Photo Simulations |
| D. Project plans | |

Parcel Information

Parcel Size: N/A (in County right-of-way)
Existing Land Use - Parcel: N/A (in County right-of-way)
Existing Land Use - Surrounding: Church, Convalescent Home, Urban Residential (both medium and low density)
Project Access: North side of Rodriguez St. west of 17th Ave.
Planning Area: Live Oak Planning Area
Land Use Designation: P (Public Facility)
Zone District: PF (Public and Community Facilities)
Coastal Zone: ☐ Inside ☒ Outside
Appealable to Calif. Coastal Comm. ☐ Yes ☒ No

Environmental Information

Geologic Hazards: Not mapped/no physical evidence on site
Soils: N/A
Fire Hazard: Not a mapped constraint
Slopes: N/A
Env. Sen. Habitat: Not mapped/no physical evidence on site
Grading: No grading proposed
Tree Removal: No trees proposed to be removed
Scenic: Not a mapped resource
Drainage: Existing drainage adequate
Archeology: Not mapped/no physical evidence on site

Services Information

Urban/Rural Services Line: ☒ Inside ☐ Outside
Water Supply: N/A
Sewage Disposal: N/A
Fire District: Central Fire Protection District
Drainage District: Zone 5

History

No applications have been previously filed for this portion of County right-of-way.

Project Setting

The proposed subject utility pole is located in County right-of-way next to the sidewalk along Rodriguez St. (north side), just west of its intersection with 17th Ave. in Live Oak. The utility pole is adjacent to (immediately south of) a 54,050 sq. ft. parcel that contains a church and parking lot and is zoned PF (Public and Community Facilities). It is across Rodriguez St. (approx. 60-feet away) from a convalescent home on a 32,865 sq. ft. parcel zoned R-1-6 (Single-Family Residential). The closest residence is approx. 130 ft. away (across 17th Ave.).

Zoning & General Plan Consistency

The subject utility pole is located on a portion of County right-of-way located in the PF (Public and Community Facilities) zone district, a designation which allows WCF uses. The proposed microcell WCF is a conditionally permitted use within the zone district and the zoning is consistent with the site's (P) Public Facility General Plan designation.

Design Review

The proposed microcell WCF complies with the requirements of the County Design Review Ordinance, in that the proposed project will be part of an existing utility pole, increasing its bulk slightly, but still being relatively visually inconspicuous, and thus will have minimal visual impact on surrounding land uses and the natural landscape.

Radio Frequency Emissions

The County is prohibited by federal law from denying WCF applications, such as this one, on the basis of the health and/or environmental effects of radio frequency (RF) radiation so long as the WCF complies with the FCC's RF radiation emission limits. A RF radiation emissions calculation report has been prepared for this project by a qualified consulting engineer. The proposed facility is calculated to result in a maximum ambient RF level of no more than 33.8% of the applicable FCC public exposure limit at ground level, and no more than 1.6% of that limit at the second floor level of the nearest potential 2-story structure (i.e., at 60-ft. away from pole).

Environmental Review

Staff has determined that the proposed project is Categorically Exempt from the requirements of the California Environmental Quality Act (CEQA) because it qualifies as "New Construction or Conversion of a Small Structure" (Class 3, Section 15303). The CEQA Categorical Exemption form is attached as Exhibit A.

Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- Determine that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- **APPROVAL** of Application Number 141286, based on the attached findings and conditions.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of

the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

Report Prepared By: Frank Barron, AICP
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CALIFORNIA ENVIRONMENTAL QUALITY ACT

NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 141286

Assessor Parcel Number: N/A (in County right-of-way)

Project Location: On north side of Rodriguez St. near NW corner of Rodriguez St. and 17th Ave. in Live Oak

Project Description: Proposal to construct a Verizon microcell WCF on an existing utility pole, including a small cylindrical antenna enclosure mounted horizontal arm about halfway up the pole and other pole mounted equipment.

Person or Agency Proposing Project: Gary Gochberg, Nexius/Beacon Development LLC (for Verizon)

Contact Phone Number: (707) 364-5164

- A. ☐ The proposed activity is not a project under CEQA Guidelines Section 15378.
- B. ☐ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).
- C. ☐ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.
- D. ☐ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).
- E. ☒ **Categorical Exemption**

Specify type: Type 3 - New Construction or Conversion of Small Structure (Section 15303)

F. Reasons why the project is exempt:

Construction of a microcell wireless communication facility on an existing utility pole is not anticipated to generate any environmental impacts.

In addition, none of the conditions described in Section 15300.2 apply to this project.

Frank Barron, Project Planner

Date: _____

Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made in that the project is located in an area designated for wireless communication facility (WCF) uses and is not encumbered by physical constraints to development. Construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources. The proposed microcell WCF will not deprive adjacent properties or the neighborhood of light, air, or open space, in that the structure meets all current setbacks that ensure access to these amenities.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made in that the proposed location of the microcell WCF and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the PF (Public & Community Facilities) zone district as one of the uses of the County right-of-way will be one microcell WCF that meets all current site standards for the zone district.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made in that the proposed WCF use is consistent with the use and density requirements specified for the Public Facility (P) land use designation in the County General Plan. The proposed microcell WCF will not adversely impact the light, solar opportunities, air, and/or open space available to other structures or properties, and meets all current site and development standards for the zone district, in that the microcell WCF will not adversely shade adjacent properties, and will meet current height limits for WCFs in the zone district.

A specific plan has not been adopted for this portion of the County.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made in that the proposed microcell WCF is to be constructed on an existing utility pole in County right-of-way. There will be no additional traffic generated by the proposed project, and it will not adversely impact existing roads or intersections in the surrounding area.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made in that the proposed microcell structure is located in a mixed neighborhood containing a variety of structures of various architectural styles, and the proposed microcell WCF mounted upon an existing utility pole is not inconsistent with the land use intensity and density of the neighborhood.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made in that the proposed microcell WCF will be of an appropriate scale and type of design that will not detract from the aesthetic qualities of the surrounding properties and will not reduce or visually impact available open space in the surrounding area.

Wireless Communication Facility Use Permit Findings

1. The development of the proposed wireless communications facility as conditioned will not significantly affect any designated visual resources, environmentally sensitive habitat resources (as defined in the Santa Cruz County General Plan/LCP Sections 5.1, 5.10, and 8.6.6.), and/or other significant County resources, including agricultural, open space, and community character resources; or there are no other environmentally equivalent and/or superior and technically feasible alternatives to the proposed wireless communications facility as conditioned (including alternative locations and/or designs) with less visual and/or other resource impacts and the proposed facility has been modified by condition and/or project design to minimize and mitigate its visual and other resource impacts.

This finding can be made in that the proposed WCF is of the microcell type which, due to its small size and co-location onto an existing utility pole, is one of the least visually obtrusive types of WCF. Moreover, its installation and use in a road right-of-way will not impact any sensitive habitat resources or other significant County resources, including agricultural, open space, and community character resources. Finally, there are no other environmentally equivalent and/or superior and technically feasible alternatives to the proposed microcell designs that have less visual and/or other resource impacts.

2. The site is adequate for the development of the proposed wireless communications facility and, for sites located in one of the prohibited and/or restricted areas set forth in Sections 13.10.661(b) and 13.10.661 (c), that the applicant has demonstrated that there are not environmentally equivalent or superior and technically feasible: (1) alternative sites outside the prohibited and restricted areas; and/or (2) alternative designs for the proposed facility as conditioned.

This finding can be made in that the proposed microcell WCF is to consist of antennas mounted upon an existing utility pole in the County right-of-way, an area where numerous utility poles are already located. Microcell WCF installations co-located on existing utility poles, such as these, are encouraged in the WCF Ordinance as the preferred WCF design, due to their relatively inconspicuous nature.

3. The subject property upon which the wireless communications facility is to be built is in compliance with all rules and regulations pertaining to zoning uses, subdivisions and any other applicable provisions of this title (County Code 13.10.660) and that all zoning violation abatement costs, if any, have been paid.

This finding can be made in that the existing infrastructure uses of the subject right-of-way are in compliance with the requirements of the zone districts and General Plan designations, in which they are located, and that there are no outstanding or unpaid zoning violation abatement costs.

4. The proposed wireless communication facility as conditioned will not create a hazard for aircraft in flight.

This finding can be made, in that the proposed microcell WCF will be located on an existing

approximately 43-foot tall existing utility pole, the top of which is at a height too low to interfere with the observed height of aircraft from nearby airports.

5. The proposed wireless communication facility as conditioned is in compliance with all FCC and California PUC standards and requirements.

This finding can be made in that the maximum ambient RF levels at ground level due to the existing wireless communications facilities and the proposed operation are calculated to be 33.8 percent of the most restrictive applicable limit.

6. For wireless communication facilities in the coastal zone, the proposed wireless communication facility as conditioned is consistent with the all applicable requirements of the Local Coastal Program.

This finding can be made in that the proposed project site is not located within the coastal zone.

Conditions of Approval

Exhibit D: Project Plans, 12 sheets, prepared by V-One Designs, Inc., dated 12/12/14

- I. This permit authorizes the construction of a microcell wireless communications facility (WCF) on an existing utility pole. This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
 - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
 - B. Obtain a Building Permit from the Santa Cruz County Building Official.
 1. Any outstanding balance due to the Planning Department must be paid prior to making a Building Permit application. Applications for Building Permits will not be accepted or processed while there is an outstanding balance due.
 - C. Obtain an Encroachment Permit from the Department of Public Works for all work performed in the County road right-of-way.
 - D. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder) within 30 days from the effective date of this permit.
- II. Prior to issuance of a Building Permit the applicant/owner shall:
 - A. Submit final architectural plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "D" on file with the Planning Department. Any changes from the approved Exhibit "D" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:
 1. One elevation shall indicate materials and colors as they were approved by this Discretionary Application. If specific materials and colors have not been approved with this Discretionary Application, in addition to showing the materials and colors on the elevation, the applicant shall supply a color and material board in 8 1/2" x 11" format for Planning Department review and approval.

2. Details showing compliance with fire department requirements. If the proposed structure(s) are located within the State Responsibility Area (SRA) the requirements of the Wildland-Urban Interface code (WUI), California Building Code Chapter 7A, shall apply.
 - B. Submit four copies of the approved Discretionary Permit with the Conditions of Approval attached. The Conditions of Approval shall be recorded prior to submittal, if applicable.
 - C. Meet all requirements and pay any applicable plan check fee of the Central Fire Protection District.
- III. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:
- A. All site improvements shown on the final approved Building Permit plans shall be installed.
 - B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.
 - C. The project must comply with all recommendations of the approved soils reports.
 - D. Pursuant to Sections 16.40.040 and 16.42.080 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.080, shall be observed.
- IV. Operational Conditions
- A. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.
- V. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, its officers, employees, and agents to attack, set

aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.

- A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.
- B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
 - 1. COUNTY bears its own attorney's fees and costs; and
 - 2. COUNTY defends the action in good faith.
- C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.
- D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

Please note: This permit expires three years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.

Application #: 141286
APN: No APN Spec. (in Co. Right-of-Way near 17th & Rodriguez)
Owner: County of Santa Cruz

Approval Date: _____

Effective Date: _____

Expiration Date: _____

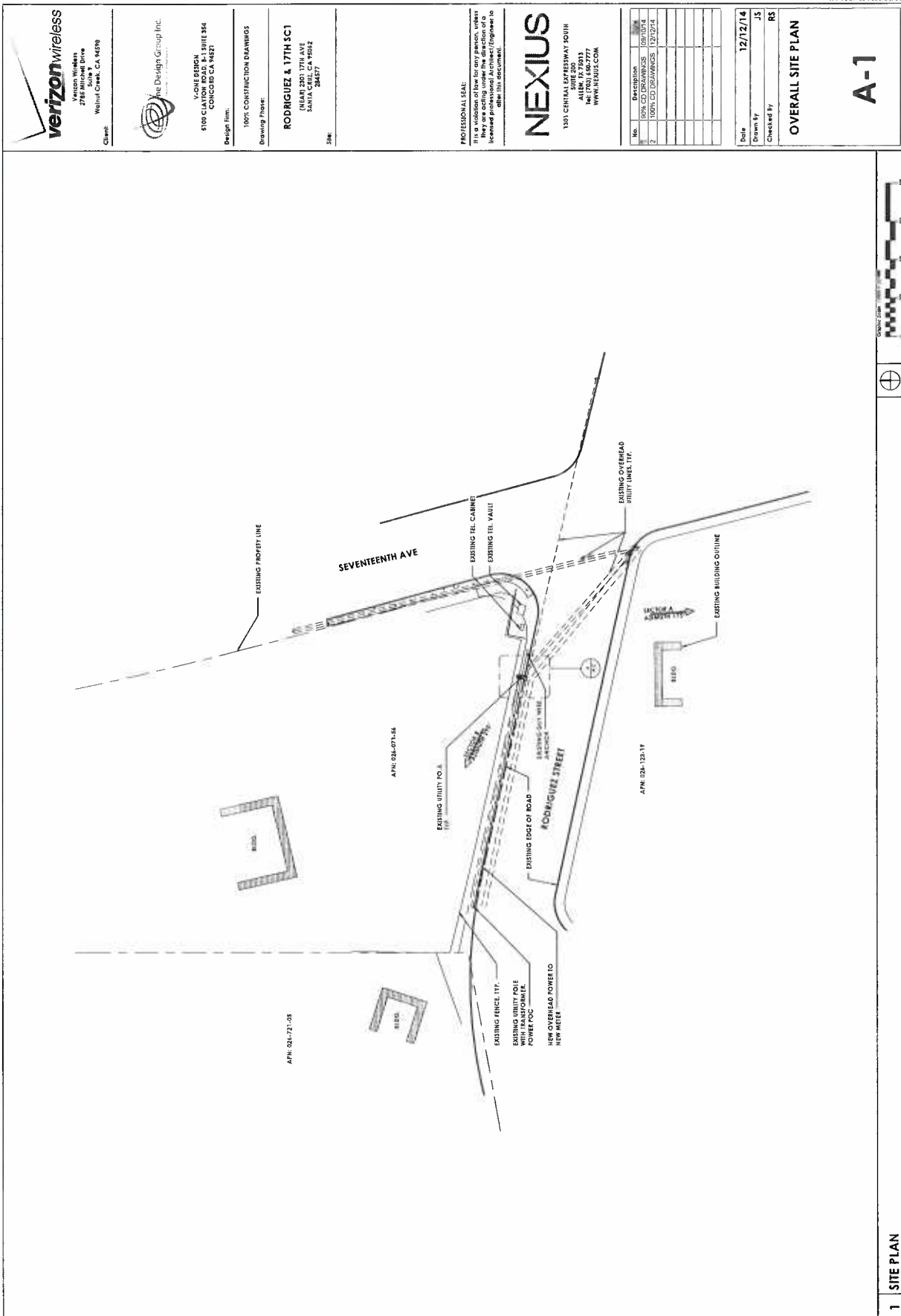
Wanda Williams
Deputy Zoning Administrator

Frank Barron, AICP
Project Planner

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

[illegible]

[illegible]



verizon wireless
Verizon Wireless
2700 West 10th Ave
Suite 7
Walnut Creek, CA 94598

YONE DESIGN
YONE DESIGN GROUP INC.
5100 CLAYTON ROAD, SUITE 354
CONCORD, CA 94521

Design Firm:
YONE DESIGN
5100 CLAYTON ROAD, SUITE 354
CONCORD, CA 94521

Drawing Phase:
100% CONSTRUCTION DRAWINGS

RODRIGUEZ & 17TH SC1
(NEAR 2801 17TH AVE
SANTA RITA, CA 95052
284577

Site:

PROFESSIONAL SEAL:
It is a violation of law for any person, unless
they are acting under the direction of a
licensed professional Architect/Engineer, to
prepare these drawings.

NEXIUS
1301 CENTRAL EXPRESSWAY SOUTH
SUITE 200
ALLEN, TX 75013
Tel: (754) 486-7777
WWW.NEXIUS.COM

No.	Description	Date
1	100% CONSTRUCTION DRAWINGS	12/27/14
2	100% CONSTRUCTION DRAWINGS	12/27/14
3	100% CONSTRUCTION DRAWINGS	12/27/14
4	100% CONSTRUCTION DRAWINGS	12/27/14
5	100% CONSTRUCTION DRAWINGS	12/27/14
6	100% CONSTRUCTION DRAWINGS	12/27/14
7	100% CONSTRUCTION DRAWINGS	12/27/14
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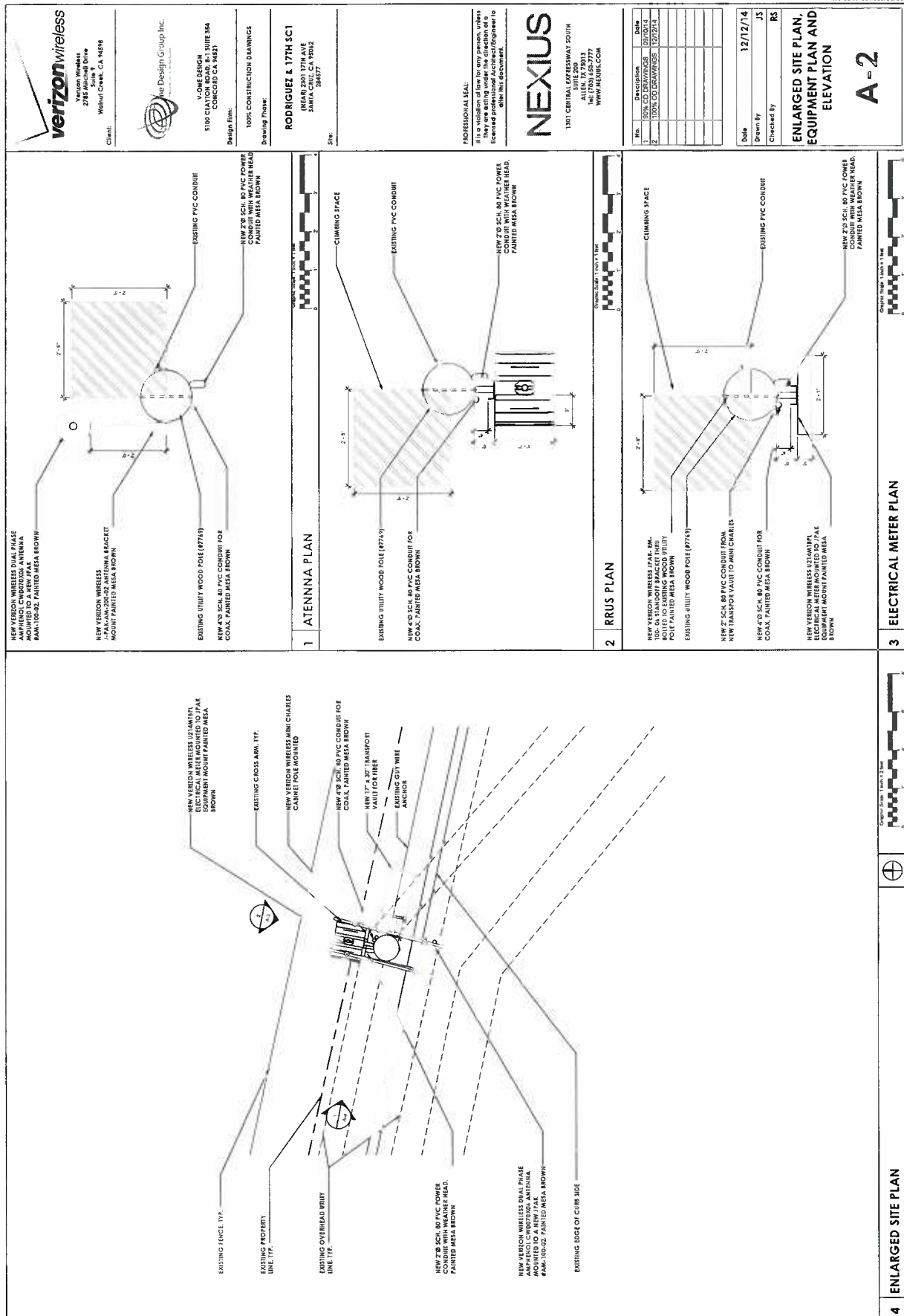
Date: 12/12/14
Drawn by: JS
Checked by: RS

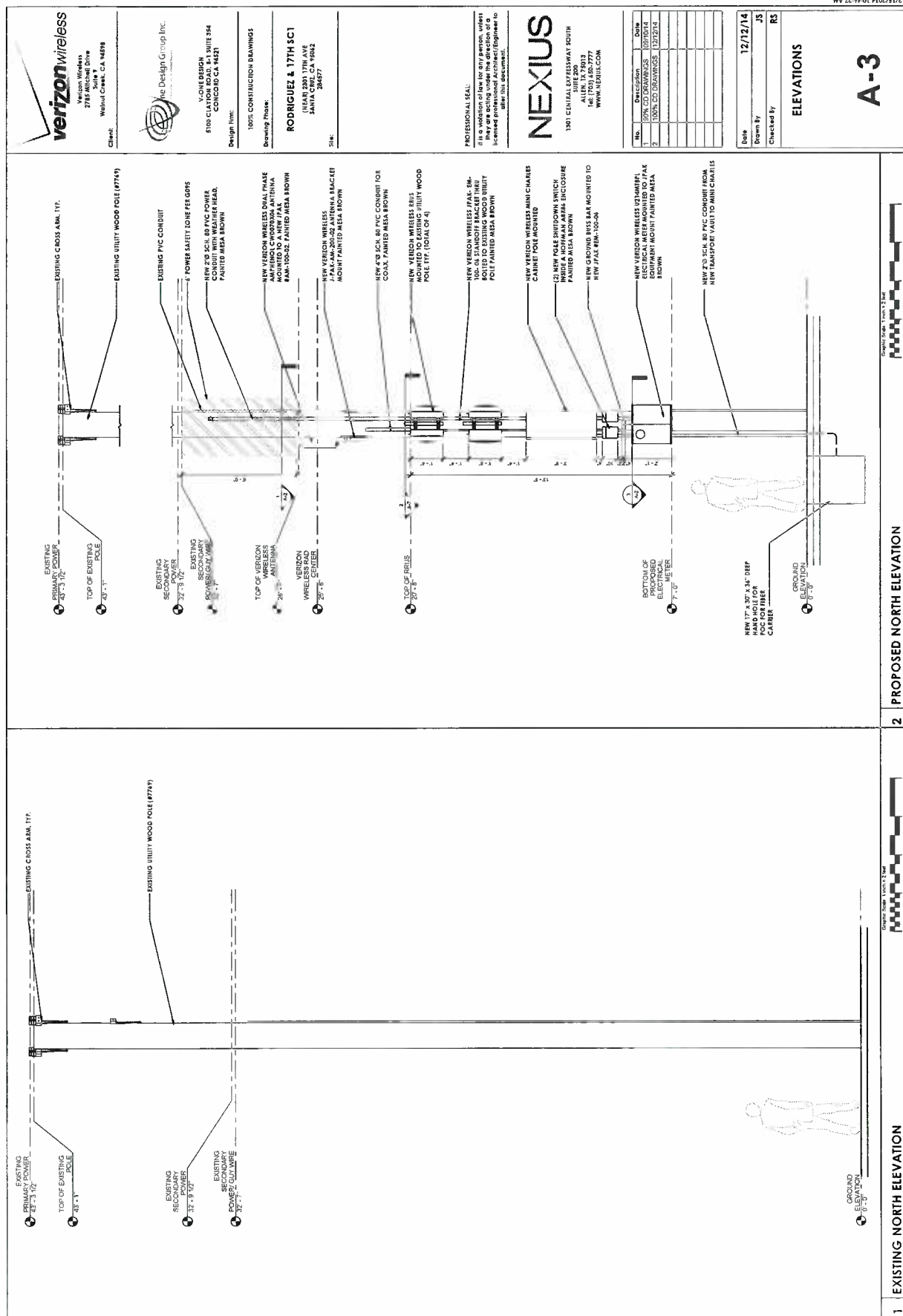
OVERALL SITE PLAN

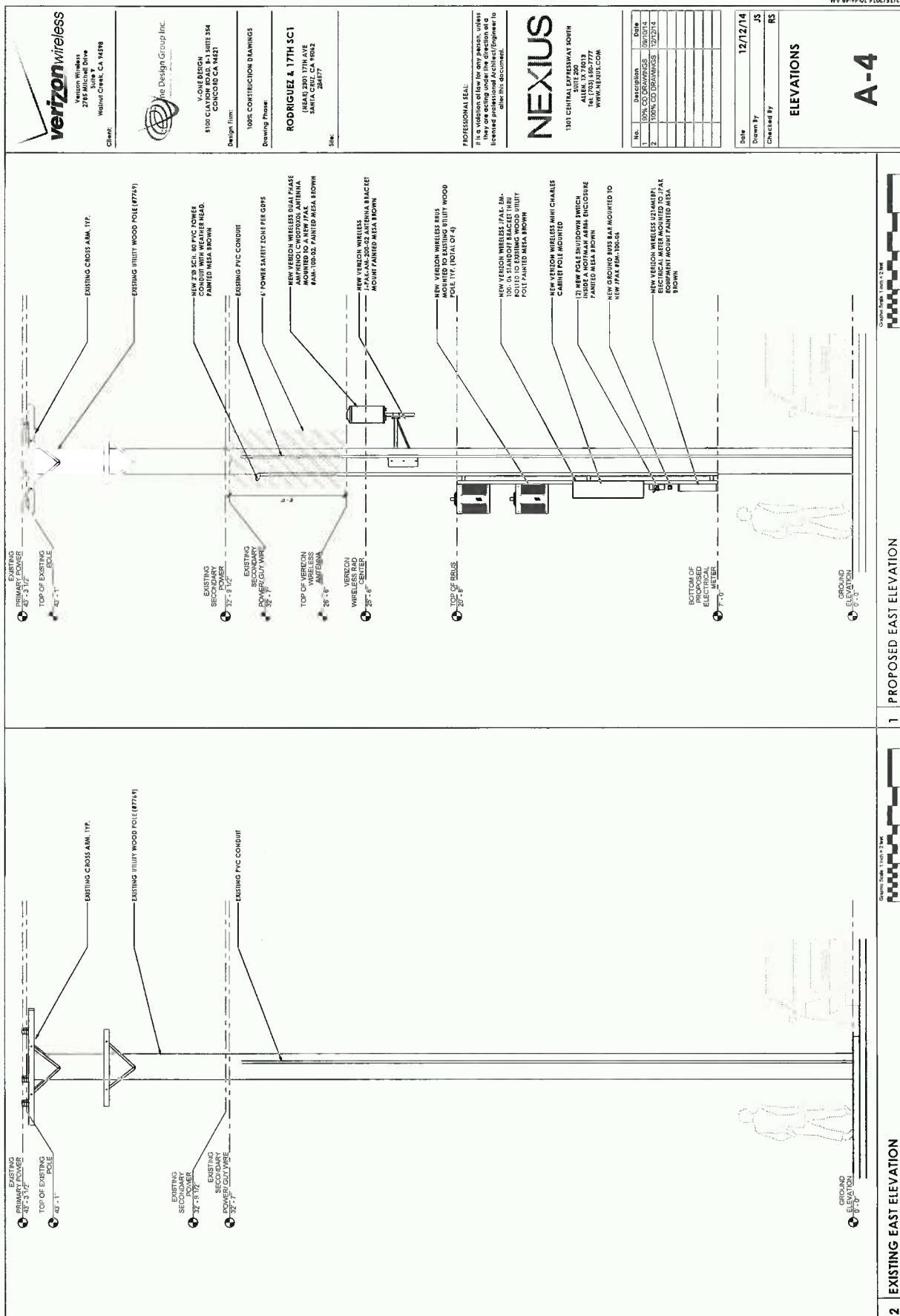
A-1

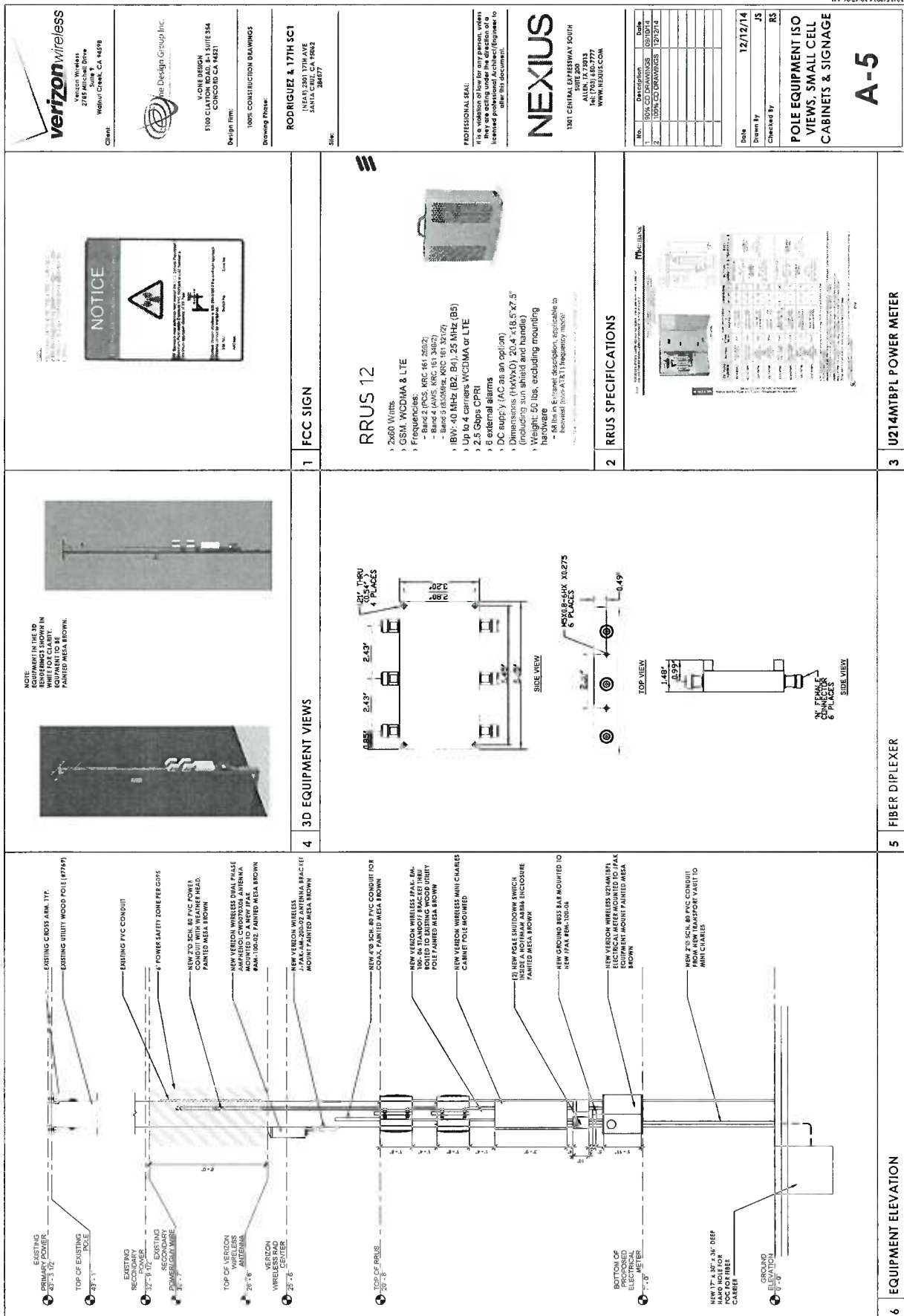
1 SITE PLAN

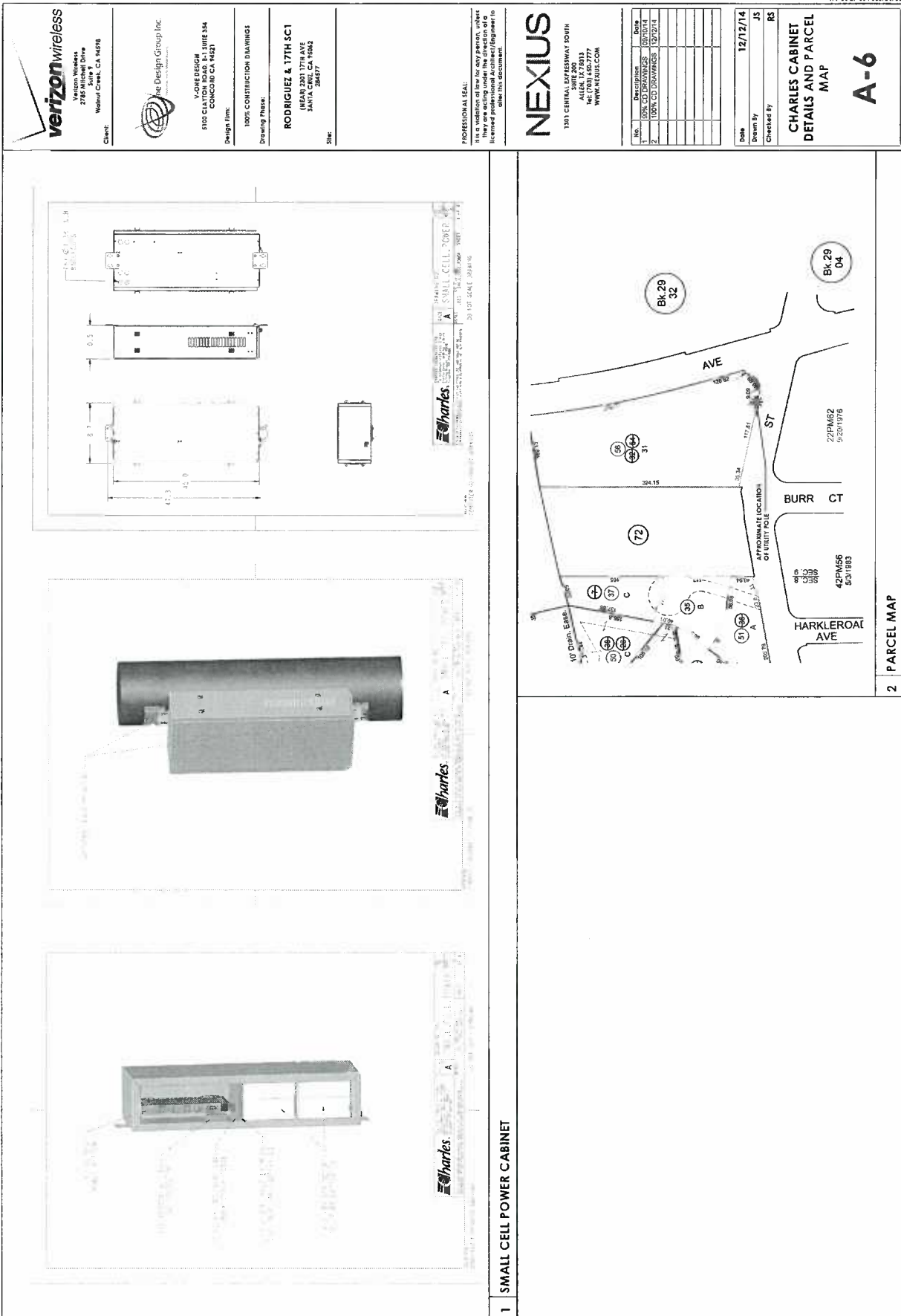
EXHIBIT D

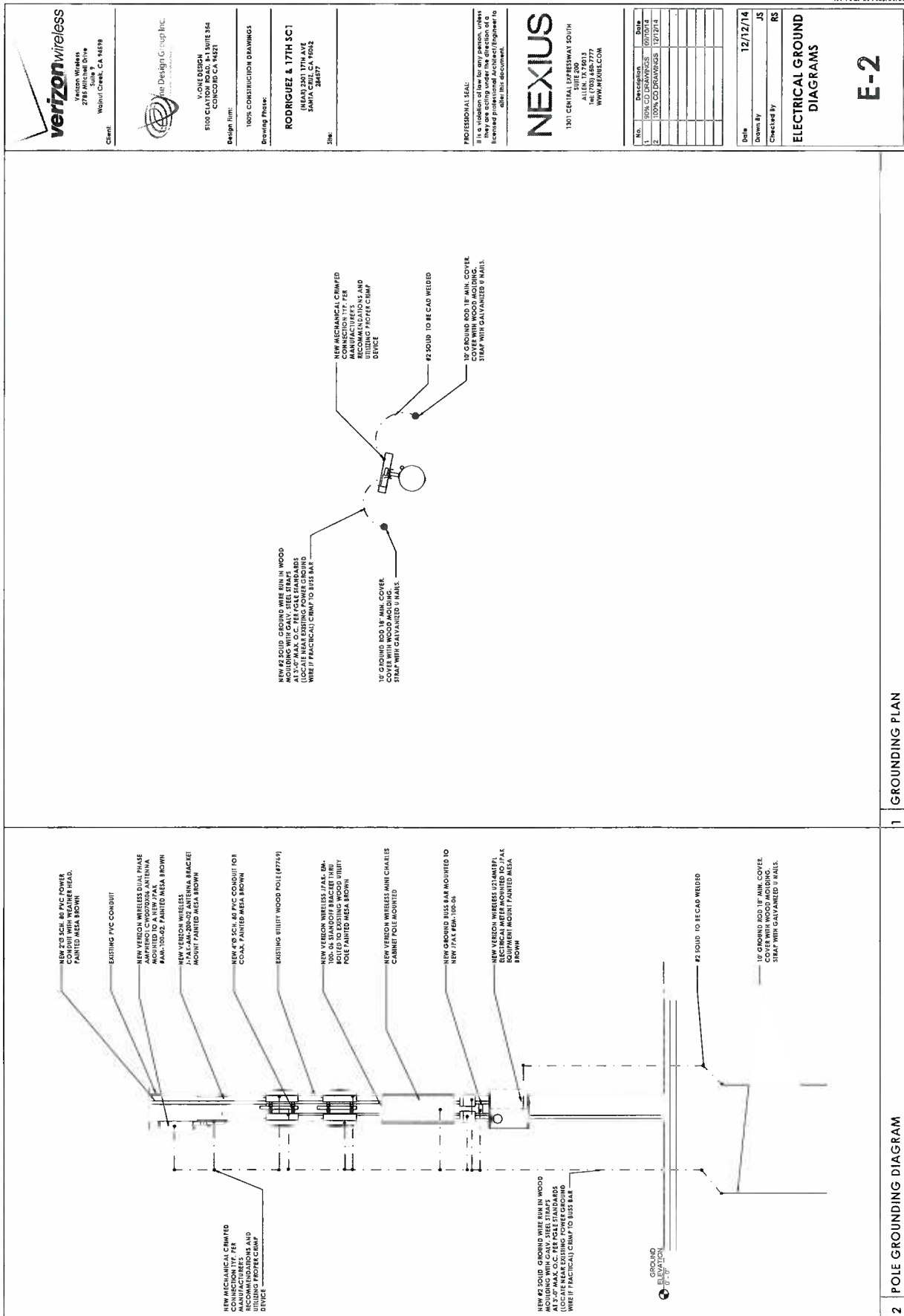












Verizon Wireless
2780 ARCADE DRIVE
SANTA ANA, CA 92704
Client:

YONE DESIGN GROUP INC.
5105 GLENVIEW AVENUE SUITE 344
CONCORD CA 94027
Design Firm:

100% CONSTRUCTION DRAWINGS
Drawing Phase:

RODRIGUEZ & 17TH SC1
1701 CENTRAL EXPRESSWAY SOUTH
SANTA ANA, CA 92704
324877
Site:

PROFESSIONAL SEAL:
It is a violation of law for any person, unless they are acting under the direction of a licensed professional Architect/Engineer to seal this document.

NEXIUS
1301 CENTRAL EXPRESSWAY SOUTH
SANTA ANA, CA 92704
Tel: (714) 488-7777
WWW.NEXIUS.COM

No.	Description	Date
1	100% CONSTRUCTION	09/20/14
2	100% CONSTRUCTION	12/12/14

Date: 12/12/14
Drawn By: JS
Checked By: RS

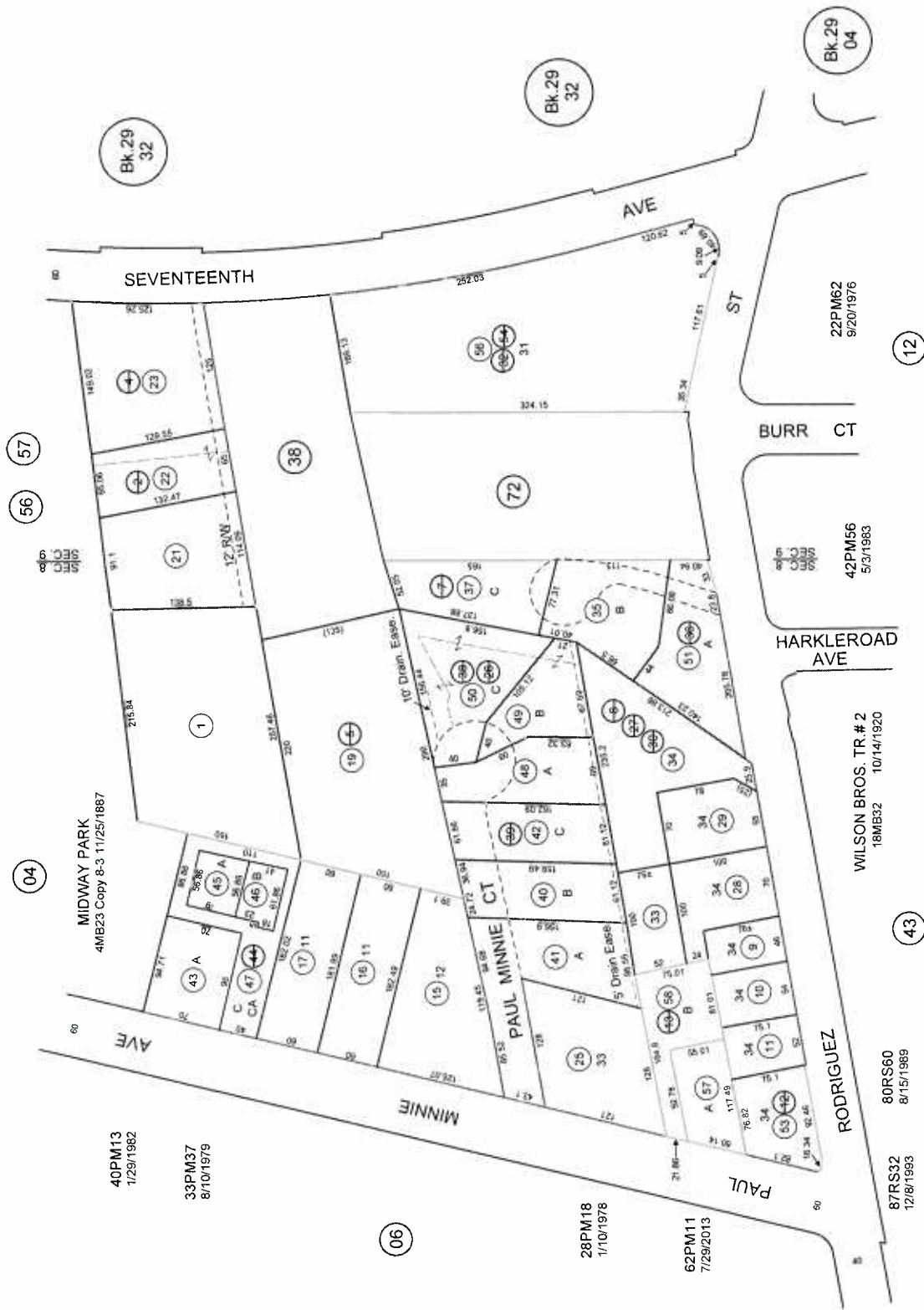
ELECTRICAL GROUND DIAGRAMS

E-2

EXHIBIT D

25

THE ASSESSOR MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY LIABILITY FOR OTHER USES. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.
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Tax Area Code
82-040

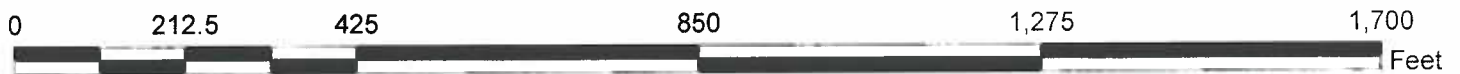
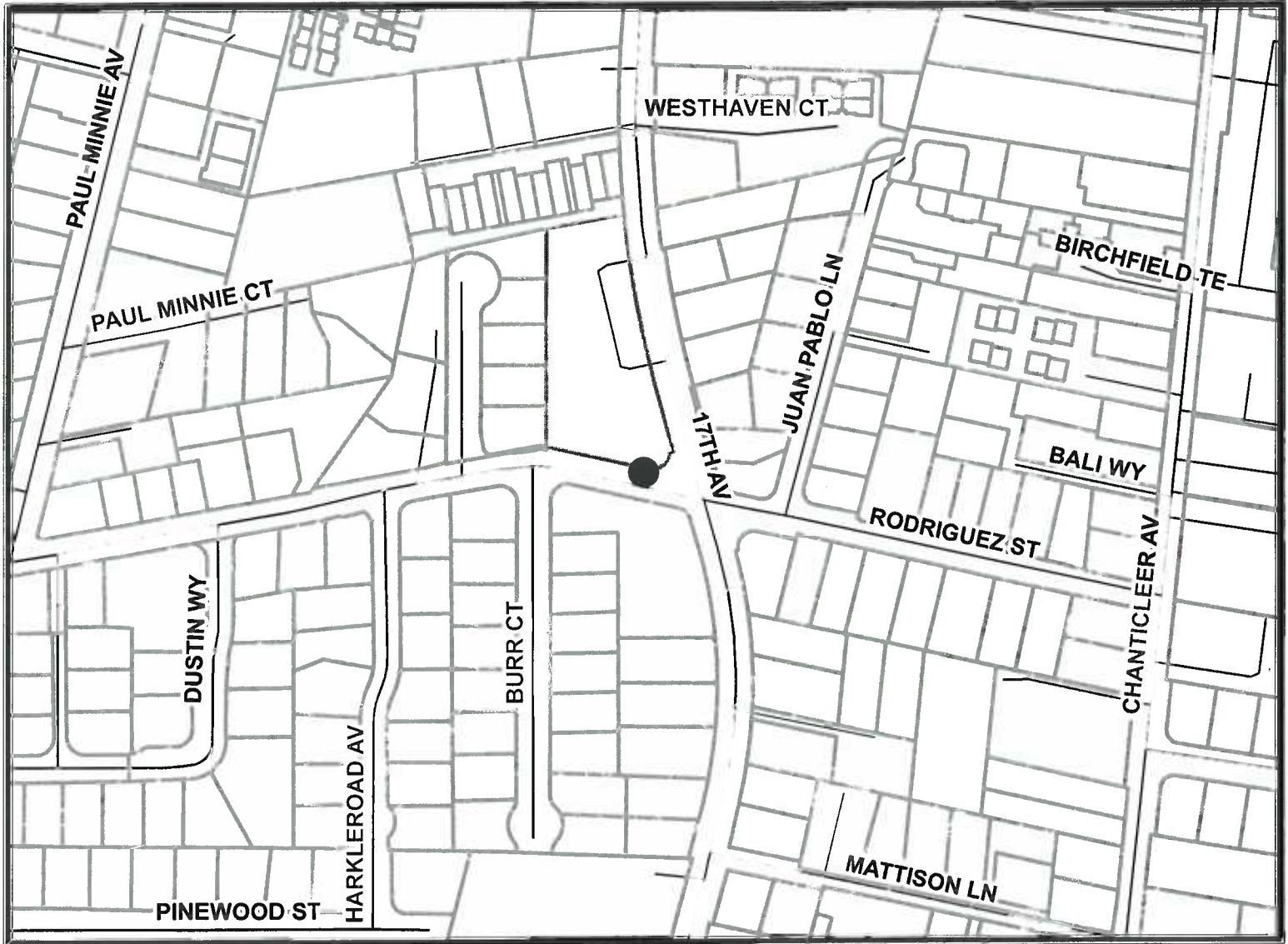
Assessor's Map No. 26-07
County of Santa Cruz, Calif.
July, 1998

Note - Assessor's Parcel & Block Numbers Shown in Circles.

REV. 6/7/00 mwm (Cor. page ref.)
REV. 3/27/01 mwm (changed page refs.)
REV. 8/17/05 MD (el name)
REV. 8/17/05 MD (Spatial Adjustment)
REV. 10/26/05 CB (5-0066493, LBA 1A-1-55 & 56)
REV. 2/6/06 CB (For to pg 26-72)
REV. 8/7/13 (62PM11, Sp 1-57 & 58)

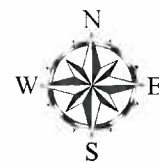


Location Map



LEGEND

- Cell Site Location
- Assessors Parcels
- Street

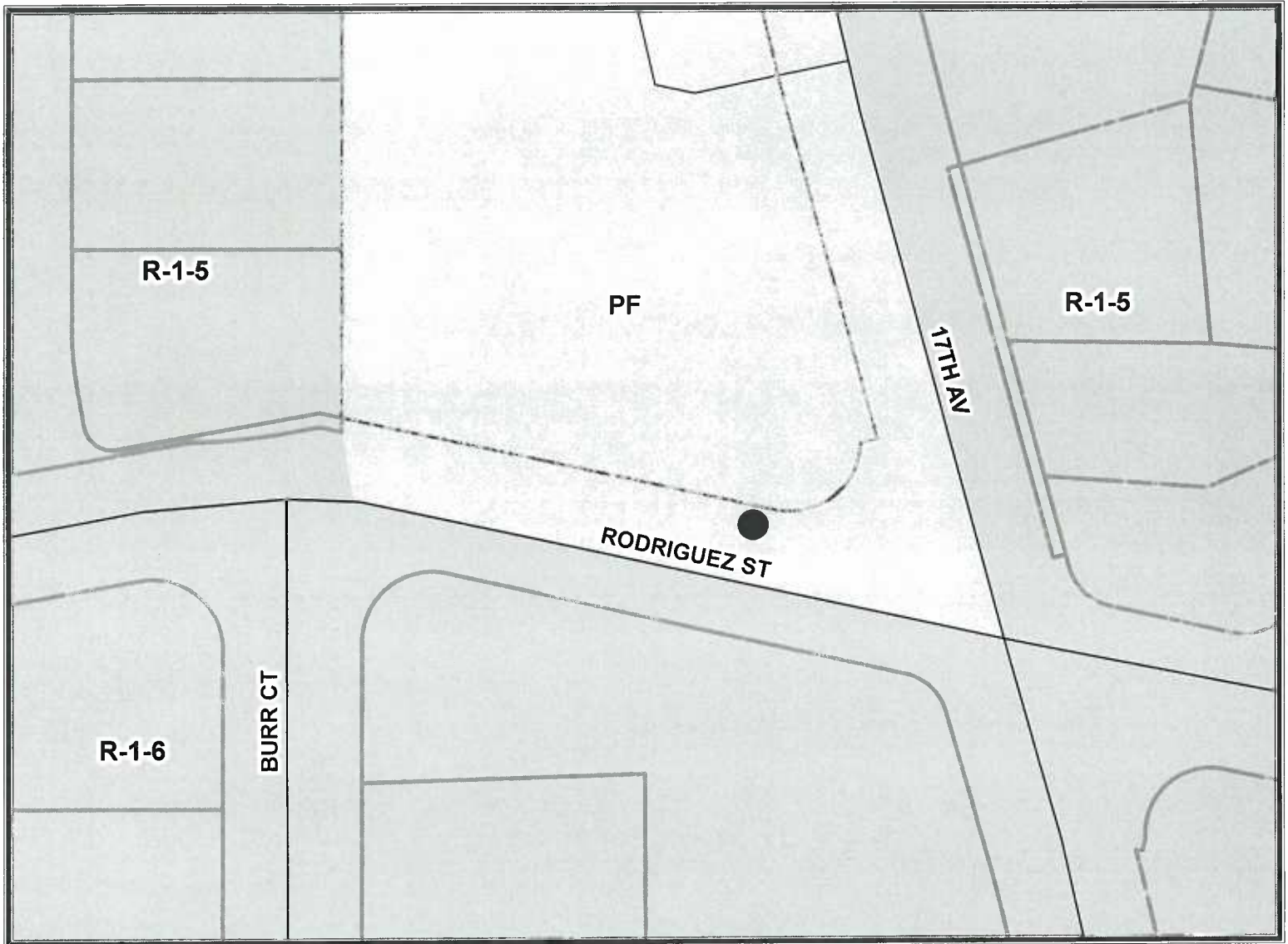


Map Created by
County of Santa Cruz
Planning Department
January 2015

EXHIBIT E

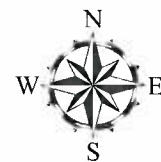


Zoning Map



LEGEND

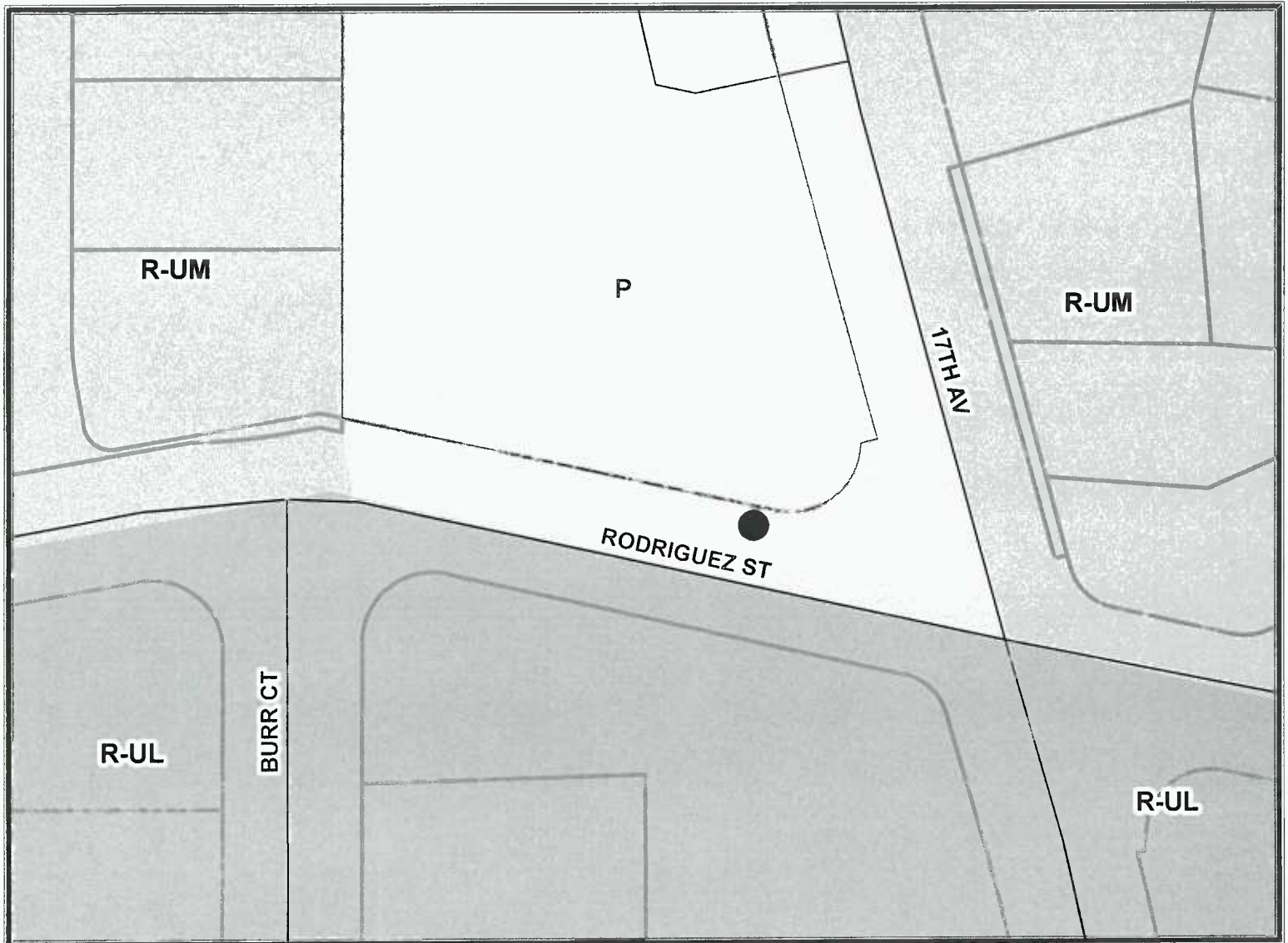
-  Cell Site Location
-  Assessors Parcels
-  Street
-  PUBLIC FACILITY
-  RESIDENTIAL-SINGLE FAMILY



Map Created by
County of Santa Cruz
Planning Department
January 2015



General Plan Designation Map



LEGEND

- Cell Site Location
- Assessors Parcels
- Street
- Public Facilities
- Residential - Urban Medium Density
- Residential - Urban Low Density



Map Created by
County of Santa Cruz
Planning Department
January 2015

EXHIBIT E

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

Site No. 284577
Nexus
2301 17th Avenue
Santa Cruz, California 95062
Santa Cruz County
36.982392; -121.981892 NAD83

EBI Project No. 62146828
January 30, 2015



Prepared for:
Verizon Wireless
c/o Nexus
1301 Central Expressway South
Suite 200
Allen, TX 75013
Prepared by:



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APPENDICES

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APPENDIX C	ROOFVIEW® EXPORT FILES

EXECUTIVE SUMMARY

Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by Verizon Wireless to conduct radio frequency electromagnetic (RF-EME) modeling for Verizon Site 284577 located at 2301 17th Avenue in Santa Cruz, California to determine RF-EME exposure levels from proposed Verizon wireless communications equipment at this site. As described in greater detail in Section 2.0 of this report, the Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures. This report summarizes the results of RF-EME modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

Statement of Compliance

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

As presented in the sections below, based on worst-case predictive modeling, the worst-case emitted power density will not exceed the FCC's general public limit within in front of Verizon's proposed antennas at the ground level. Modeling also indicates that the worst-case emitted power density does not exceed the FCC's occupational limit in front of Verizon's proposed antennas at the ground. There are areas where workers who may be elevated above the ground may be exposed to power densities greater than the occupational limits. Therefore, workers should be informed about the presence and locations of antennas and their associated fields.

Recommended control measures are outlined in Section 5.0 and within a Site Safety Plan (attached); this plan includes instructions to shut down and lockout/tagout this wireless equipment in accordance with Verizon's standard operating protocol.

1.0 INTRODUCTION

Radio frequency waves are electromagnetic waves from the portion of the electromagnetic spectrum at frequencies lower than visible light and microwaves. The wavelengths of radio waves range from thousands of meters to around 30 centimeters. These wavelengths correspond to frequencies as low as 3 cycles per seconds (or hertz [Hz]) to as high as one gigahertz (one billion cycles per second).

Personal Communication (PCS) facilities used by Verizon in this area operate within a frequency range of 700-2100 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed a distance above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of in areas in the immediate vicinity of the antennas.

MPE limits do not represent levels where a health risk exists, since they are designed to provide a substantial margin of safety. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size or health.

2.0 SITE DESCRIPTION

This project site includes one (1) wireless telecommunication antenna (at two sector locations) on a pole located at 2301 17th Avenue in Santa Cruz, California.

Verizon Antenna Information (proposed Configuration)									
Antenna# and Model	Frequency (MHz)	# of Transmitters	Transmit Power (Watts)	Azimuth	Gain (dBd)	Feet above Ground (CL)	X	Y	Z
A1 AMPHENOL CWT070X06F0Y	700	2	20	175°	6.9/11.9	24 ft AGL	23	12	24
	2100	2	20						
B1 AMPHENOL CWT070X06F0Y	700	2	20	295°	6.9/11.9	24 ft AGL	23	13	24
	2100	2	20						

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general population/uncontrolled exposure limits for members of the general public that may be exposed to antenna fields. While access to this site is considered uncontrolled, the analysis has considered exposures with respect to both controlled and uncontrolled limits as an untrained worker may access adjacent rooftop locations. Additional information regarding controlled/uncontrolled exposure limits is provided in Section 3.0. Appendix B presents a site safety plan that provides a plan view of the pole with antenna locations.

3.0 FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS

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

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

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

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

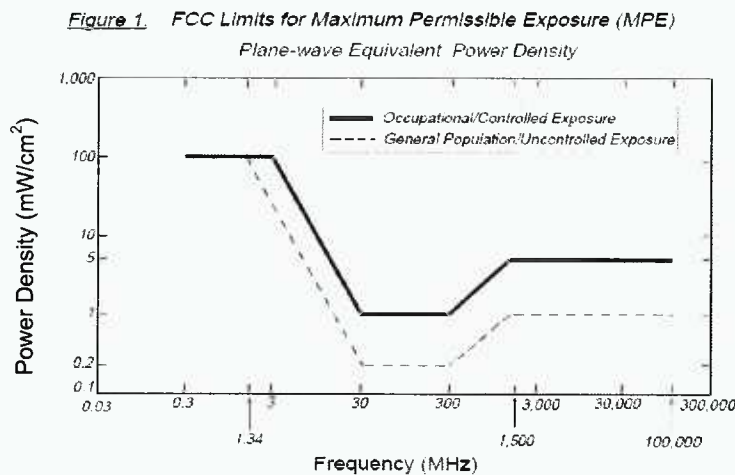
Table I and Figure I (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a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

The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm²). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm²) and an uncontrolled MPE of 1 mW/cm² for equipment operating in the 1900 MHz frequency range. For the Verizon equipment operating at 700 MHz or 850 MHz, the FCC's occupational MPE is 2.83 mW/cm² and an uncontrolled MPE of 0.57 mW/cm². These limits are considered protective of these populations.

Table 1: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time [E] ² , [H] ² , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time [E] ² , [H] ² , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)

* Plane-wave equivalent power density



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

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

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

Personal Communication (PCS) facilities used by Verizon in this area operate within a frequency range of 700-2100 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of areas directly in front of the antennas.

4.0 WORST-CASE PREDICTIVE MODELING

EBI has performed theoretical modeling using RoofView® software to estimate the worst-case power density at the site ground-level resulting from operation of the antennas. RoofView® is a widely-used predictive modeling program that has been developed by Richard Tell Associates to predict both near field and far field RF power density values for roof-top and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

The modeling is based on worst-case assumptions for the number of antennas and transmitter power. The modeling assumes a maximum 4-4 radio configuration for Sectors A and B, with a power level of 43 dBm (20 watts) per transmitter for the 700 and 2100 frequencies in order to provide a worst-case evaluation of predicted MPE levels. The assumptions used in the modeling are based upon information provided by Verizon, and information gathered from other sources. The parameters used for the modeling are summarized in the RoofView® export files presented in Appendix C.

There are no other wireless carriers with equipment installed at this site.

Based on worst-case predictive modeling, the worst-case emitted power density will not exceed the FCC's general public limit in front of the Verizon antennas on the ground level. Modeling also indicates that the worst-case emitted power density does not exceed the FCC's occupational limit in front of the Verizon antenna on the ground level. At the nearest walking/working surfaces to the Verizon antennas, the maximum power density generated by the Verizon antennas is approximately 33.80 percent of the FCC's general public limit (6.76 percent of the FCC's occupational limit). This area is predicted to occur below the antennas at ground level.

Modeling was also completed at antenna face and it was determined that at antenna face there may be areas within 8 feet that exceed the FCC's general public limit and areas within 4 feet that may exceed the FCC's occupational limit. These areas are into open space and therefore these areas are not on any walking/working surface. Additionally, modeling was completed to account for nearby buildings. The nearest building appears to be approximately 60 feet to the south and it was assumed that the building was the same height as the antennas for a worst-case calculation. At the antenna face level at a distance

of 60 feet from the antennas the worst-case modeled power density is predicted to be 1.60 percent of the FCC's general public limit (0.32 percent of the FCC's occupational limit).

The Site Safety Plan also presents areas where Verizon Wireless antennas contribute greater than 5% of the applicable MPE limit for a site. A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix C. A graphical representation of the RoofView® modeling results is presented in Appendix B. It should be noted that RoofView is not suitable for modeling microwave dish antennas; however, these units are designed for point-to-point operations at the elevations of the installed equipment rather than ground level coverage.

5.0 MITIGATION/SITE CONTROL OPTIONS

EBI's modeling indicates that there are no areas in front of the Verizon antennas that exceed the FCC standards for general public or occupational exposure at ground level. Because there are no exceedances at ground level there are no signs required on site and no barriers are required.

Individuals and workers accessing the antennas should be provided with a copy of the attached Site Safety Plan, and made aware of the antennas locations, and signify their understanding of the Site Safety Plan.

6.0 SUMMARY AND CONCLUSIONS

EBI has prepared a Radiofrequency – Electromagnetic Energy (RF-EME) Compliance Report for telecommunications equipment installed by Verizon Site Number 284577 located at 2301 17th Avenue in Santa Cruz, California to determine worst-case predicted RF-EME exposure levels from wireless communications equipment installed at this site. This report summarizes the results of RF-EME modeling in relation to relevant Federal Communications Commission (FCC) RF-EME compliance standards for limiting human exposure to RF-EME fields.

As presented in the sections above, based on the FCC criteria, the worst-case emitted power density will not exceed the FCC's general public limit or occupational limit in front of Verizon's proposed antennas at the ground level. Workers should be informed about the presence and locations of antennas and their associated fields. Recommended control measures are outlined in Section 5.0 and within a Site Safety Plan (attached); this plan includes procedures to shut down and lockout/tagout this wireless equipment in accordance with Verizon's standard operating protocol.

7.0 LIMITATIONS

This report was prepared for the use of Verizon Wireless. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information provided by the client. The observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to EBI so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.

Appendix A

Certifications

Reviewed and Approved by:



A handwritten signature in blue ink, appearing to read "H. Stockinger", written over the right side of the professional seal.

Herbert J. Stockinger, PE
Senior Engineer

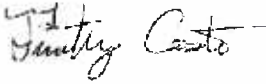
Note that EBI's scope of work is limited to an evaluation of the Radio Frequency – Electromagnetic Energy (RF-EME) field generated by the antennas and broadcast equipment noted in this report. The engineering and design of the building and related structures, as well as the impact of the antennas and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

EBI Consulting

Preparer Certification

I, Timothy Costa, state that:

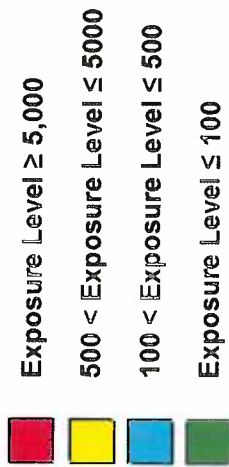
- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified "occupational" under the FCC regulations.
- I am familiar with the FCC rules and regulations as well as OSHA regulations both in general and as they apply to RF-EME exposure.
- I have reviewed the data provided by the client and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.



Appendix B

Radio Frequency Electromagnetic Energy Safety/ Signage Plans

% of FCC Public Exposure Limit



Verizon Sector A and
B Antennas

Verizon Antennas



Roofview: Composite Exposure Levels

Facility Operator: Verizon Wireless

Site Name: Nexus

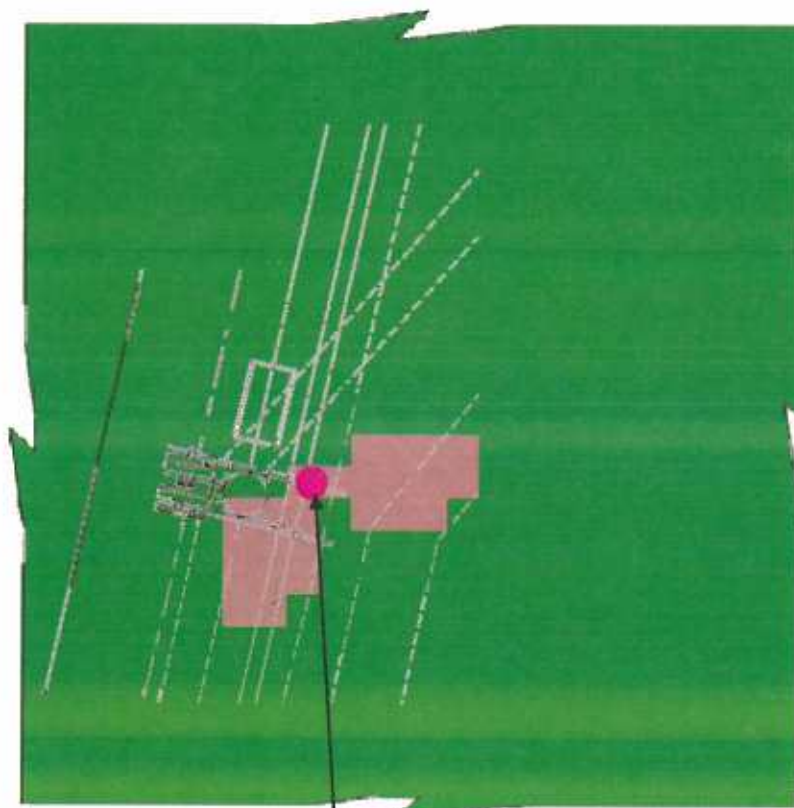
Verizon Site Number: 284577

Report Date: 01-30-15



% of FCC Public Exposure Limit

- Exposure Level > 5
- Exposure Level ≤ 5



Verizon Sector A and
B Antennas

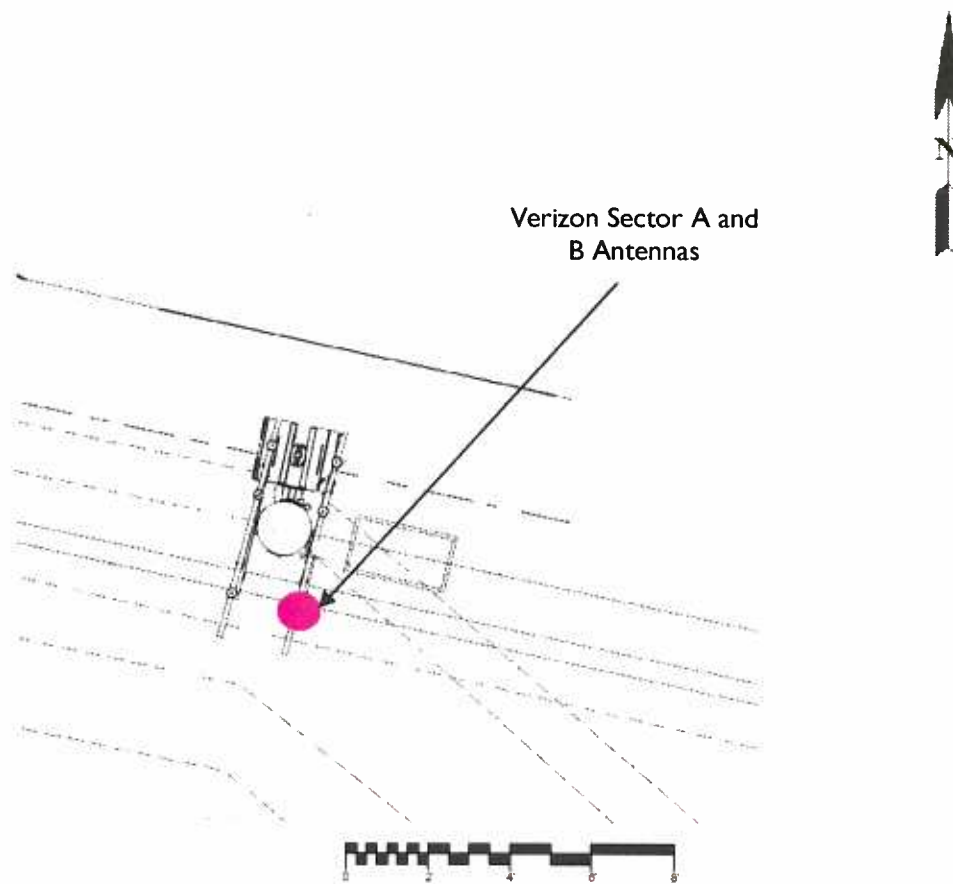
Verizon Antennas



Roofview: Verizon Exposure Levels
Facility Operator: Verizon Wireless
Site Name: Nexius
Verizon Site Number: 284577
Report Date: 01-30-15



Verizon Signage Plan



No signage is recommended per Verizon guidance, since there are no exceedances at ground level.

Signage Plan

Facility Operator: Verizon Wireless

Site Name: Nexus

Verizon Site Number: 284577

Report Date: 01-30-15



Appendix C

Roofview® Export File

StartMapDefinition															List Of Areas						
Roof Max 1 Roof Max 2 Map Max Y Map Max X Y Offset X Offset Number of envelope															\$US41:\$FX\$210						
170	160	180	170	10	10	1	\$US41:\$FX	\$US41:\$FX\$210													
StartSettingsData																					
Standard	Method	Uptime	Scale	Facto	Low Thr	Low Color	Mid Thr	Mid Color	Hi Thr	Hi Color	Over Color	Ap Ht	Mult	Ap Ht Method							
4		2	3	1	100	1	500	1	5000	2	2	1.5	3	1							
StartAntennaData																					
It is advisable to provide an ID (ant 1) for all antennas																					
ID	Name	Freq (MHz)	Trans Power	Trans Count	Coax Len	Coax Type	Other Loss	Input Power	Calc Power	Mfg	Model	X	Y	Z	(ft)	Type	Aper (ft)	dBd Gain	BWdth Pt Dir	Uptime Profile	ON flag
VZN A1	LTE	700	20	2			0.35	36.90286	AMPHENOL	CWT070X06F0Y	CWT070X06F0Y	23	12	24	24	2	2	6.9	67.2,175	ON•	
VZN A1	LTE	2100	20	2			0.55	35.24195	AMPHENOL	CWT070X06F0Y	CWT070X06F0Y	23	12	24	24	2	2	11.9	61,175	ON•	
VZN B1	LTE	700	20	2			0.35	36.90286	AMPHENOL	CWT070X06F0Y	CWT070X06F0Y	23	13	24	24	2	2	6.9	67.2,295	ON•	
VZN B1	LTE	2100	20	2			0.55	35.24195	AMPHENOL	CWT070X06F0Y	CWT070X06F0Y	23	13	24	24	2	2	11.9	61,295	ON•	
StartSymbolData																					
Sym	Map Mark	Roof X	Roof Y	Map Label Description (notes for this table only)																	
Sym		5	35	AC Unit	Sample symbols																
Sym		14	5	Roof Access																	
Sym		45	5	AC Unit																	
Sym		45	20	Ladder																	

List Of Areas
\$US41:\$FX\$210

EXHIBIT F

RODRIGUEZ & 17th SC1
JPA Pole #7769
Peoplesoft Project #N/A
Peoplesoft Location #284577



VICINITY MAP



(NEAR) 2301 17TH AVE, SANTA CRUZ, CA 95062



LOOKING NE AT PROPOSED ANTENNA LOCATION

SITE BEFORE INSTALLATION



SITE AFTER INSTALLATION



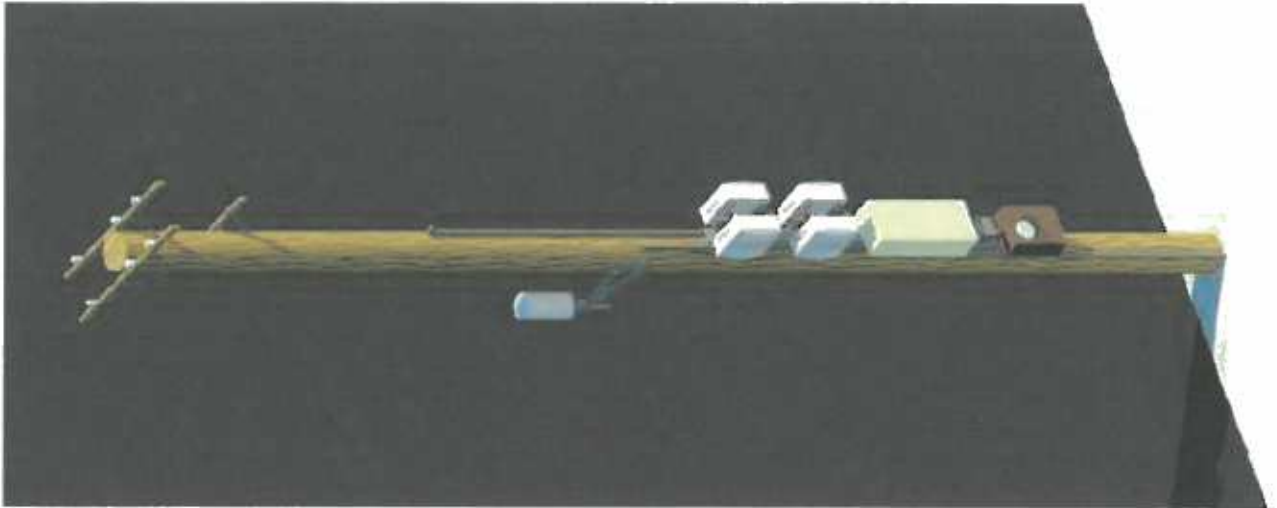
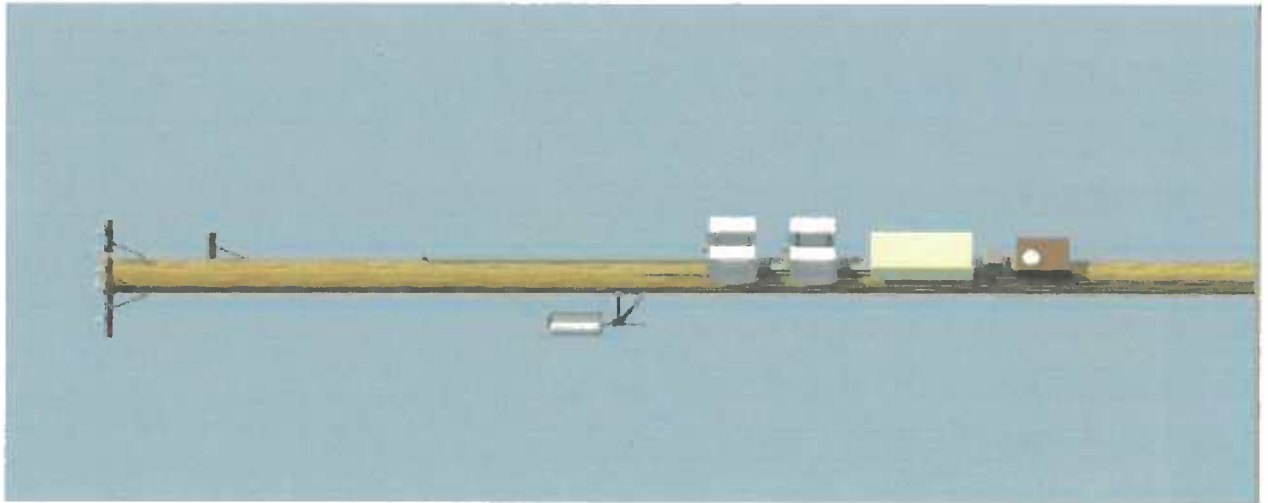
NEW VERIZON WIRELESS DUAL PHASE ANTENNA.

NEW VERIZON WIRELESS RRU (TOTAL OF 4).

NEW VERIZON WIRELESS MINI CHARLES CABINET.

3D RENDERINGS

Equipment shown in white for clarity. Equipment to be painted Mesa Brown.



Elizabeth Hayward

From: Frank Barron
Sent: Monday, March 09, 2015 9:11 AM
To: Elizabeth Hayward
Cc: Wanda Williams; 'Gary Gochberg'
Subject: FW: Notice of Public Hearing for Item #4. 141286 (Verizon cell phone tower proposed at corner of 17th Ave. and Rodriguez St.)

FYI

From: jeff gross [mailto:watda88@yahoo.com]
Sent: Sunday, March 08, 2015 12:03 PM
To: Frank Barron
Subject: Notice of Public Hearing for Item #4. 141286 (Verizon cell phone tower proposed at corner of 17th Ave. and Rodriguez St.)

Dear Mr. Barron,

I am unable to attend the public hearing on 3/20 @0900, so I am emailing a request that a cell tower NOT BE INSTALLED at the corner of 17th Ave. and Rodriguez St. in Live Oak, due to safety concerns. I live within 100 yards of the proposed site. The safe level of cell tower microwave energy (specific absorption rate - SAR) has yet to be determined, and I do not want to be a guinea pig. I have lived at my current location for 25 years and plan to live there another 25 years. Live Oak tends to be a dumping ground for certain at risk social/commercial services. I realize that cell towers have become a necessity, but they can be installed away from residential areas for the good of the people.

Thank you for your consideration,

Sincerely,

Jeff Gross
2272 Juan Pablo Lane
Santa Cruz, CA 95062
831-435-4918