



## Staff Report to the Zoning Administrator

Application Number: **191331**

**Applicant:** Jeremy Stroup, Vinculums for Verizon  
**Owner:** Public Right of Way  
**APN:** No APN Spec  
**Site Address:** No Address Spec

**Agenda Date:** May 15, 2020  
**Agenda Item #:** 3  
**Time:** After 9:00 a.m.

**Project Description:** Proposal to install a new wireless small cell communications facility (Node 95), co-located on a new (replacement) power pole comprising of one two-foot-tall by 14.6 inch diameter cantenna, two 27 inch by 12 inch remote radio units (RRUs), one seven inch by ten inch diplexer shroud, a PG&E smart meter and associated minor equipment. The existing utility pole measures approximately 47 feet 11 inches above ground, and the new pole would measure approximately 56 feet 6 inches above ground. Requires a Commercial Development Permit.

**Location:** Project located in the County right-of-way on 7th Avenue, west side, approximately 90 feet south of the intersection with Capitola Road and adjacent to APN 026-501-15 (650 Capitola Road).

**Permits Required:** Commercial Development Permit

**Supervisory District:** First District (District Supervisor: John Leopold)

**Staff Recommendation:**

- Determine that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 191331, based on the attached findings and conditions.

**Project Description & Setting**

The utility pole is located on the west side of 7<sup>th</sup> Avenue, adjacent to APN 026-501-15. The adjacent parcels contain a liquor store (d.b.a. Harbor Liquor) and a single-family dwelling. The immediate neighborhood includes a mix of residential uses to the east, and small-scale commercial uses that serve both residents and visitors to the west and north. Across 7<sup>th</sup> Avenue to the east is a non-conforming single family residence. The project site is located approximately 27 feet from the nearest structure (commercial).

Pursuant to County Code Section 13.10.661(A), all new wireless communication facilities are required to obtain a Commercial Development Permit.

## **History**

There have not been other development applications for this utility pole.

## **Zoning & General Plan Consistency**

The subject utility pole is located in the County right-of-way and the C-1 Zone District. A portion of the proposed facility would also be located in the RM-4 Zone District. Nearby parcels are zoned CT, C-1, and RM-4. Wireless communication facilities are conditionally permitted in the C-1 zone district. Multi-Family Residential (RM) zone districts prohibit wireless communication facilities. Wireless Communication Facilities are prohibited in the RM-4 zone district pursuant to SCCC section 13.10.661(B); however, in accordance with Administrative Bulletin WCF-06 the project qualifies as a "small cell", and to the extent required by Public Utilities Code Section 7901, is exempt from obtaining a Telecommunications Act exception pursuant to SCCC Section 13.10.668. Notwithstanding, an alternatives analysis is required for any wireless communication facility located in a Prohibited District. The applicant submitted an alternatives analysis (Exhibit I). As part of that analysis, in total, eight alternative power poles were analyzed along the frontages of 7<sup>th</sup> Avenue, Capitola Road, and Taylor Lane and all eight alternative sites were found to be non-viable.

At approximately 36 feet above ground, the side-mounted cantenna would meet the height standards for the C-1 and RM-4 zone districts as interpreted by Administrative Guideline WCF-01-Rev.

## **Local Coastal Program Consistency**

The proposed wireless facility is located in the Coastal Zone. The project meets qualifications for a Commercial Exclusion per SCCC Section 13.20.072, thus a Coastal Permit is not required for the project.

## **Design Review**

The proposed wireless facility is a small cell site consisting of one two-foot-tall by 14.6 inch diameter cantenna, two 27 inch by 12 inch remote radio units (RRUs), one seven inch by ten inch diplexer shroud, a PG&E smart meter and associated minor equipment. The existing utility pole measures approximately 47 feet 11 inches above ground, and the new pole would measure approximately 56 feet 6 inches above ground. The cantenna would be affixed to the side of the utility pole, at approximately 36 feet above ground. Small cell facilities are inconspicuous wireless facilities co-located on poles in the public right-of-way that pose minimal visual impact. Although these facilities, because they are in the public road rights-of way cannot feasibly be sited and designed to be invisible from public vantage points, all shall be designed to blend into the existing public view as seamlessly as possible. The proposed wireless communication facility will pose minimal visual impact due to its limited size and placement on utility infrastructure.

In addition, the project includes camouflaging the facility by painting equipment to match the color of the utility pole, reducing the bulk and size of the equipment to the extent feasible, and orienting the equipment on the pole in an aligned and organized manner. All equipment will be located on the utility pole, and no ground mounted equipment is proposed, thus reducing

pedestrian-level clutter. Together, these efforts will reduce the visual impact of the wireless facility on surrounding land uses.

### **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 (Exhibit H) has been prepared for this project by a qualified consulting engineer. With appropriate signage, the proposed facilities are calculated to result in RF levels that are compliant with exposure limit standards.

### **Public Outreach/Public Comment**

On December 21st, 2018, Verizon Wireless withdrew Application No. 181104 for a small cell facility proposed on a power pole on Capitola Road adjacent to APN 026-681-01, approximately 300 feet from the currently proposed site. Application 181104 was withdrawn by Verizon Wireless at the request of residents in the nearby neighborhood located along Grey Seal Road. The proposed site on 7th Avenue was selected by Verizon Wireless as a location that would both meet network requirements and accommodate neighborhood input.

### **Final Action Required**

Final action on the proposed project is subject to a Federal Shot Clock Extension deadline of June 3, 2020. See attached Shot Clock Tolling Agreement (Exhibit J) between the County of Santa Cruz and Verizon Wireless. The Federal Telecommunications Act requires local jurisdictions to act on this deadline unless otherwise authorized by an additional extension.

### **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 191331, 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.sccoplanning.com](http://www.sccoplanning.com)**

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### **Exhibits**

- A. Categorical Exemption (CEQA determination)
- B. Findings
- C. Conditions
- D. Project plans
- E. Assessor's, Location, Zoning and General Plan Maps
- F. Parcel information
- G. Visual Simulations
- H. Radio Frequency Report, prepared by Hammett and Edison, dated November 19, 2019
- I. Alternatives Analysis
- J. FCC Shot Clock Tolling Agreement

# 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: 191331

Assessor Parcel Number: No APN Spec

Project Location: County Public Right-of-Way

**Project Description:** Proposal to install a new wireless small cell communications facility (Node 95), co-located on a new (replacement) power pole comprising of one two-foot-tall by 14.6 inch diameter cantenna, two 27 inch by 12 inch remote radio units (RRUs), one seven inch by ten inch diplexer shroud, a PG&E smart meter and associated minor equipment. The existing utility pole measures approximately 47 feet 11 inches above ground, and the new pole would measure approximately 56 feet 6 inches above ground.

**Person or Agency Proposing Project:** Jeremy Stroup, Vinculums for Verizon

**Contact Phone Number:** 925-202-8654

- 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.  X  Categorical Exemption

Specify type: Class 3 - New Construction or Conversion of Small Structures (Section 15303)

**F. Reasons why the project is exempt:**

Class 3 includes construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures. The exemption applies to the installation of water main, sewage, electrical, gas, and other utility extensions. The construction of the proposed wireless communication facility is within the purview of this exemption and is not anticipated to generate any significant environmental impacts.

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

\_\_\_\_\_  
Jonathan DiSalvo, Project Planner

Date: \_\_\_\_\_

**EXHIBIT A**

## **Commercial 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 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 wireless communication facility use will not deprive adjacent properties or the neighborhood of light, air, or open space. In addition, the project will not be materially injurious to properties or improvements in the vicinity.

The radio frequency (RF) exposure levels were evaluated by Hammett and Edison Consulting Engineers per their report dated November 19, 2019, attached as Exhibit H, based on the calculated operation of the proposed wireless communication facility. The report evaluated projected RF emissions levels and concluded the proposed RF levels are within the FCC prescribed limits.

The Telecommunication Act of 1996 as amended preempts local governments from regulating the "placement, construction and modification of wireless communication facilities on the basis of the environmental effects of Radio Frequency (RF) emissions to the extent that such facilities comply with the Federal Communication Commission's (FCC) standard for such emissions." The proposed project would be consistent with the FCC's regulations for wireless facilities.

The location of the proposed wireless facility has been evaluated by the Department of Public Works. Given the project's location mounted on a utility pole, it will not obstruct drivers' line of sight or adversely impact vehicles. An Encroachment Permit must be issued by the Department of Public Works and is required as a Condition of Approval.

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 wireless communication facility and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the C-1 (Neighborhood Commercial) and RM-4 (Multi-Family Residential) zone districts, as the proposed small cell will meet all the applicable current standards for the zone district. Furthermore, the project is consistent with all of the visual impact criteria and protection contained in the County's Wireless Communications Facility Ordinance (County Code Section 13.10.660 – 668 inclusive). Findings for wireless communication facilities are attached.

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 wireless communication facility use is consistent

**EXHIBIT B**

with the use and density requirements specified for the C-N (Neighborhood Commercial) and, R-UM (Urban Medium Density Residential) land use designations in the County General Plan.

The proposed wireless communication facility is compatible with adjacent uses in that the wireless communications facility is subject to Design Review and its design is consistent with the design review standards, as specified in Policy 8.5.2 (Commercial Compatibility With Other Uses). The proposed wireless communication facility meets small cell criteria and will pose minimal visual impact due to its limited size and placement on utility infrastructure. In addition, the project includes camouflaging the facility by painting equipment to match the color of the utility pole, reducing the bulk and side of the equipment to the extent feasible, and orienting the equipment on the pole in an aligned and organized manner. All equipment will be located on the utility pole, and no ground mounted equipment is proposed, thus reducing pedestrian-level clutter. Together, these efforts will reduce the visual impact of the wireless facility on surrounding land uses.

The proposed WCF will be consistent with the character of the neighborhood as specified in the General Plan Policy 8.1.2 (Design Review Ordinance), in that the proposed wireless facility will comply with the design criteria and has been sited and designed to be visually compatible with the neighborhood the project has been conditioned to ensure the facility is maintained in good condition and will continue to blend with the existing utilities infrastructure.

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 wireless communication facility would be constructed on a utility pole located within a public right of way. The project will not result in adverse impacts to existing utilities, and electric service is readily available at the proposed location. Upon installation of the proposed wireless facility, the site may require periodic maintenance; the occasional maintenance is not expected to adversely impact existing roads or intersections in the surrounding area. Given the small size of the facility, its utility demand (electricity) will not overload utilities.

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 project has been designed to complement surrounding land uses in the vicinity and will result in a project which is compatible with the physical design aspects of the neighborhood. Both 7<sup>th</sup> Avenue and Capitola Road are lined with electrical and telephone infrastructure. The project is designed to appear to be part of that existing infrastructure. The proposed utility pole-mounted small cell wireless facility is considered to be a co-location facility, which is preferred to that of the installation of other types of wireless facilities per County Code Section 13.10.663(A)(2). The project does not propose to construct any dwelling units.

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 small cell wireless communication facility mounted on an existing utility pole will be of an appropriate scale and type of design that will not visually impact any designated visual resources. The installation is designed to appear to be part of existing utility infrastructure. The project will be camouflaged so that the side-mounted antenna and equipment on the side of the pole will be painted to match the utility pole. These efforts will minimize the visual impact of the project.



## Wireless Communication Facility Use Permit Findings

1. That either: (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 (2) 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 location and design of the proposed wireless facility would not result in a significant visual impact to the character of the area. The proposed facility is to be co-located on a utility pole within a public right-of-way. County Code Section 13.10.660(D) expands the notion of "co-location" to mean "placing new wireless communication facilities/antennas upon existing or new P.G.&E or other utility towers or poles." The co-location of wireless facilities on utility poles, such as is proposed with this application, is encouraged under SCCC 13.10.661(G).

The proposed wireless communication facility is not mapped within any designated scenic corridor and will not be visible from Highway 1, the closest mapped scenic corridor from the site. As a co-located microcell wireless facility, due to its small size and location on a utility pole, is the least visually intrusive type of WCF. Moreover, its installation and use in a roadway right-of-way will not impact any sensitive habitat resources or other significant County resources, including agricultural, open space, and community character resources. Although the wireless communication facility and equipment will not significantly affect any designated visual or significant resources, the project is conditioned to be painted to match the color of the utility pole and minimize the size and bulk of associated equipment as is feasible. These measures minimize visual impacts.

2. That 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 SCCC 13.10.661(B) and (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 although the RM-4 (Multi-Family Residential) zone district is a Prohibited Zoning District for wireless communication facilities per SCCC section 13.10.661(B), as per Administrative Bulletin WCF-06 the project qualifies as a "small cell", and to the extent required by Public Utilities Code Section 7901, is exempt from obtaining a Telecommunications Act exception pursuant to SCCC Section 13.10.668. The applicant submitted analysis of eight alternative sites (Exhibit I). The alternative sites were found to be technically infeasible.

Further, the location of the proposed co-located facility and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the directive of Public Utilities Code Section 7901.

3. That 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 and that all zoning violation abatement costs, if any, have been paid.

This finding can be made, in that the proposed wireless facility is in compliance with the requirements of the County Code and General Plan designation, in which it is located. The wireless facility is proposed to be installed on a utility pole located in the right-of-way where the zoning is both C-1 and RM-4. Though the RM-4 zone district is a Prohibited Zoning District for wireless communication facilities per SCCC section 13.10.661(B), as per Administrative Bulletin WCF-06 the project qualifies as a "small cell", and to the extent required by Public Utilities Code Section 7901, is exempt from obtaining a Telecommunications Act exception pursuant to SCCC Section 13.10.668. The location of the proposed co-located facility and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the directive of Public Utilities Code Section 7901.

No zoning violation abatement fees are applicable to the subject site.

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 wireless communications facility will not be located within the Watsonville Municipal Airport approach Zone; therefore, the project is not subject to the adopted airport safety regulations for the Watsonville Municipal Airport. Additionally, the maximum height of the project (approximately 39 feet to top of side-mounted cantenna and 56 feet 6 inches to top of new (replacement) utility pole) will be located well below the aircraft travel path.

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 RF report prepared by Hammett and Edison Consulting Engineers dated November 19, 2019 indicates the project would result in an exposure limit of approximately 1.50% of the applicable public exposure limit at ground level and 2.7% at the second-floor elevation of any nearby building. Consequently, sufficient evidence has been submitted to indicate the current proposal would be in compliance with FCC regulations with respect to RF exposure levels.

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 though the proposed project site is located within the Coastal Zone, the project meets qualifications for a Commercial Exclusion per SCCC Section 13.20.072,

Application #: 191331

APN: No APN Spec

Owner: Public Right of Way

thus a Coastal Permit is not required for the project.

## Conditions of Approval

Exhibit D: Project plans, prepared by Allstates Engineering and Surveying, dated November 15, 2019.

- I. This permit authorizes the construction of a utility pole-mounted small cell wireless communication facility as indicated on the approved Exhibit "D" for this permit. 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 off-site work performed in the County road right-of-way.
  - D. Obtain any other Federal, State, JPA or other approvals as required.
- 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. A copy of the text of these conditions of approval incorporated into the full size sheets of the architectural plan set.
    2. 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 sheet in 8 1/2" x 11" format for Planning Department review and approval.

**EXHIBIT C**

- a. Equipment shall be shown as painted to match the utility pole.
      - b. A safety plan, including signage shall be submitted.
    - 3. 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. 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.
  - B. The use of temporary generators to power the wireless communication facility is not allowed.
  - C. The exterior finish and materials of the wireless communication facility must be maintained on an annual basis to continue to blend with the existing utilities infrastructure. Additional paint and/or replacement materials shall be installed as necessary to blend the wireless communication facility with the existing utilities

infrastructure.

- D. Graffiti or other vandalism of the site shall be removed or repaired immediately upon becoming aware of it but no longer than 30 days.
- E. Unless otherwise approved by an encroachment permit, during installation and maintenance of the wireless facility and associated equipment, the right-of-way shall be kept clear of all construction materials and vehicles.
- F. In the event the overhead utility wires are to be removed and undergrounded along this section of Capitola Road, the applicant (Verizon) shall, at their own expense, remove all of their wireless communication equipment from the subject pole, within 12-months of notification.
- G. The operator of the wireless communication facility must submit within 90 days of commencement of normal operations (or within 90 days of any major modification of power output of the facility) a written report to the Santa Cruz County Planning Department documenting the measurements and findings with respect to compliance with the established Federal Communications Commission (FCC) Non-Ionizing Electromagnetic Radiation (NEIR) exposure standard. The wireless communication facility must remain in continued compliance with the NEIR standard established by the FCC will be a violation of the terms of this permit.
- H. If, as a result of future scientific studies and alterations of industry-wide FCC standards resulting from those studies, substantial evidence is presented to Santa Cruz County that radio frequency transmissions may pose a hazard to human health and/or safety, the Santa Cruz County Planning Department shall set a public hearing and in its sole discretion, may revoke or modify the conditions of this permit.
- I. If future technological advances would allow for reduced visual impacts resulting from the proposed telecommunication facility, the operator of the wireless communication facility must make those modifications which would allow for reduced visual impact of the proposed facility as part of the normal replacement schedule. If, in the future, the facility is no longer needed, the operator of the wireless communication facility must abandon the facility and be responsible for the removal of all permanent structures and the restoration of the site as needed to re-establish the area consistent with the character of the surrounding natural landscape.
- J. Any modification in the type of equipment shall be reviewed and acted on by the Planning Department staff. The County may deny the modification or amend the approved conditions at that time, or the Planning Director may refer it for public hearing before the Zoning Administrator.
- K. Transfer of Ownership: In the event that the original permittee sells its interest in the permitted wireless communications facility, the succeeding carrier shall

assume all responsibilities concerning the project and shall be held responsible to the County for maintaining consistency with all project conditions of approval, including proof of liability insurance. Within 30-days of a transfer of ownership, the succeeding carrier shall provide a new contact name to the Planning Department.

V. 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.
- B. The use of temporary generators to power the wireless communication facility is not allowed.
- C. The exterior finish and materials of the wireless communication facility must be maintained on an annual basis to continue to blend with the existing utilities infrastructure. Additional paint and/or replacement materials shall be installed as necessary to blend the wireless communication facility with the existing utilities infrastructure.
- D. Graffiti or other vandalism of the site shall be removed or repaired immediately upon becoming aware of it but no longer than 30 days.
- E. Unless otherwise approved by an encroachment permit, during installation and maintenance of the wireless facility and associated equipment, the right-of-way shall be kept clear of all construction materials and vehicles.
- F. In the event the overhead utility wires are to be removed and undergrounded along this section of 7<sup>th</sup> Avenue, the applicant (Verizon Wireless) shall, at their own expense, remove all of their wireless communication equipment from the subject pole, within 12-months of notification.
- G. The operator of the wireless communication facility must submit within 90 days of commencement of normal operations (or within 90 days of any major modification of power output of the facility) a written report to the Santa Cruz County Planning Department documenting the measurements and findings with respect to compliance with the established Federal Communications Commission (FCC) Non-Ionizing Electromagnetic Radiation (NEIR) exposure standard. The wireless communication facility must remain in continued compliance with the NEIR standard established by the FCC will be a violation of the terms of this permit.
- H. If, as a result of future scientific studies and alterations of industry-wide FCC standards resulting from those studies, substantial evidence is presented to Santa Cruz County that radio frequency transmissions may pose a hazard to human

health and/or safety, the Santa Cruz County Planning Department shall set a public hearing and in its sole discretion, may revoke or modify the conditions of this permit.

- I. If future technological advances would allow for reduced visual impacts resulting from the proposed telecommunication facility, the operator of the wireless communication facility must make those modifications which would allow for reduced visual impact of the proposed facility as part of the normal replacement schedule. If, in the future, the facility is no longer needed, the operator of the wireless communication facility must abandon the facility and be responsible for the removal of all permanent structures and the restoration of the site as needed to re-establish the area consistent with the character of the surrounding natural landscape.
- J. Any modification in the type of equipment shall be reviewed and acted on by the Planning Department staff. The County may deny the modification or amend the approved conditions at that time, or the Planning Director may refer it for public hearing before the Zoning Administrator.
- K. Transfer of Ownership: In the event that the original permittee sells its interest in the permitted wireless communications facility, the succeeding carrier shall assume all responsibilities concerning the project and shall be held responsible to the County for maintaining consistency with all project conditions of approval, including proof of liability insurance. Within 30-days of a transfer of ownership, the succeeding carrier shall provide a new contact name to the Planning Department.

#### VI. Indemnification

The applicant/owner shall indemnify, defend with counsel approved by the COUNTY, and hold harmless the COUNTY, its officers, employees, and agents from and against any claim (including reasonable attorney's fees, expert fees, and all other costs and fees of litigation), against the COUNTY, its officers, employees, and agents arising out of or in connection to this development approval or any subsequent amendment of this development approval which is requested by the applicant/owner, regardless of the COUNTY's passive negligence, but excepting such loss or damage which is caused by the sole active negligence or willful misconduct of the COUNTY. Should the COUNTY in its sole discretion find the applicant's/owner's legal counsel unacceptable, then the applicant/owner shall reimburse the COUNTY its costs of defense, including without limitation reasonable attorney's fees, expert fees, and all other costs and fees of litigation. The applicant/owner shall promptly pay any final judgment rendered against the COUNTY (and its officers, employees, and agents) covered by this indemnity obligation. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this development approval.



- A. The COUNTY shall promptly notify the applicant/owner of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. The COUNTY shall cooperate fully in such defense.
- 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 applicant/owner shall not be required to pay or perform any settlement unless such applicant/owner has approved the settlement. When representing the COUNTY, the applicant/owner 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. The "applicant/owner" shall include the applicant and/or the owner and the successor'(s) in interest, transferee(s), and assign(s) of the applicant and/or the owner.

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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.**

Approval Date: \_\_\_\_\_

Effective Date: \_\_\_\_\_

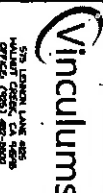
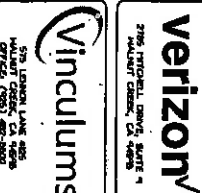
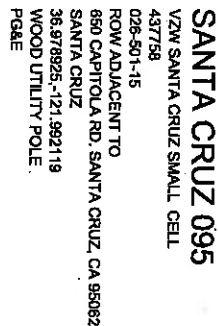
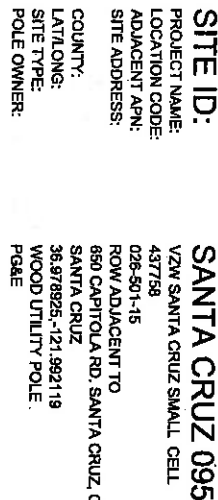
Expiration Date: \_\_\_\_\_

\_\_\_\_\_  
Annette Olson  
Deputy Zoning Administrator

Application #: 191331  
APN: No APN Spec  
Owner: Public Right of Way

---

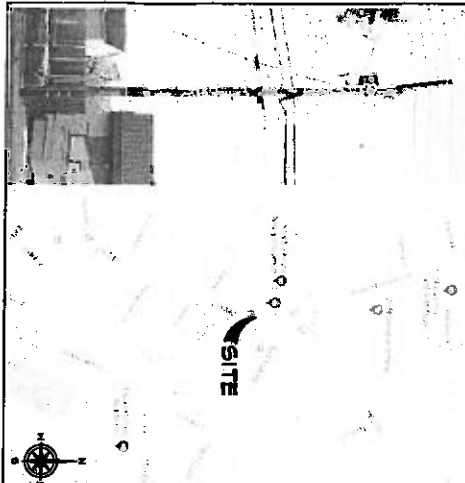
**Appeals:** Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

[illegible]

## SYMBOLS/ABBREVIATIONS LEGEND

[illegible]

### SITE IMAGE & VICINITY MAP



## SITE COMPLETION CHECKLIST

- ☐ DRINKS, SMOKES, EATING, READING, AND RADIO REPLY UNITS TO BE PLANTED TO MATCH EXISTING POLE COLOR (USE A DRINKING MATH, E.G., "LOS CHOS BROWN BY TILLY ROSE, PLANT COLOR: BROWN).
- ☐ SPEAK OF SUPPORT (SUPPORT ADAPTATION (POW)) TO BE CLUSTERED (VERTICALLY) AS CLOSE AS IS TECHNICALLY POSSIBLE ON POLE.
- ☐ SHIMMERS (FC) PROTECTED TILLY BY MONITORING SIGNALS SHALL TAKE OUT TO STREET.

## PROJECT TEAM

[illegible]

## SITE INFORMATION

[illegible]

## CODE COMPLIANCE

CONSTRUCTION WORKS AND MATERIALS FIRST CERTY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES AS ADOPTED BY LOCAL AGENCIES. CERTY OF RESISTANCE TO:

- 30% CALIFORNIA BUILDING CODE
- 30% CALIFORNIA FIRE CODE
- 30% CALIFORNIA PLUMBING CODE
- 30% CALIFORNIA ELECTRICAL CODE
- CALIFORNIA FIREWORK BUILDING CODE
- CALIFORNIA FIREWORK PLUMBING CODE
- CALIFORNIA FIREWORK ELECTRICAL CODE
- CALIFORNIA GREEN BUILDING CODE
- CALIFORNIA GREEN PLUMBING CODE
- ANY LOCAL BUILDING CODE JURISDICTIONS TO THE ABOVE CITY / COUNTY ORDINANCES

**DIRECTIONS OR CODE**



## ADMINISTRATIVE REQUIREMENTS

CONTRACTOR SHALL VERIFY ALL PLANS & (5) DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME. IF USING GRID PLOT, DRAWINGS MUST BE HALF SCALE.

**DO NOT SCALE DRAWINGS**

SUBCONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR ANY



## DRAWING INDEX

[illegible]

SANTA CRUZ 095  
PUBLIC R.O.W. ADJACENT TO  
850 CAPITOLA RD.  
SANTA CRUZ, CA 95062  
LOCATION CODE: 437758

SHEET TITLE	TITLE SHEET
-------------	-------------

SHEET NUMBER  
T-1

23675 BIRKCHER DRIVE  
LAKE FOREST, CA 92630  
PHONE: (949) 273-0996 FAX: (949) 606-7222

## IA ACCURACY CERTIFICATION

SURVEY DATE: 02/22/2019

SITE NAME: SF SANTA CRUZ 095 - POLE #1575

SITE ADDRESS: 650 CAPITOLA ROAD

GEOGRAPHIC COORDINATES (NAD 83)

LATITUDE: 36° 58' 44.13" N (36.978925)

LONGITUDE: 121° 59' 31.63" W (-121.992119)

**ELEVATIONS (NAV D 88)**

GRADE ELEVATION AT CTR. OF ARRAY: 69.60 FEET (A.M.S.L.)

ROOF LEVEL AT CTR. OF ARRAY: 116.66 FEET (A.M.S.L.)

ROOF LEVEL AT CTR. OF ARRAY: 47.06 FEET (A.G.L.)

HEREBY CERTIFY THAT THE LATITUDE AND LONGITUDE SHOWN BELOW ARE ACCURATE TO WITHIN +/- 15 FEET HORIZONTALLY AND THAT THE ELEVATION SHOWN BELOW ARE ACCURATE TO WITHIN +/- 3 FEET VERTICALLY. THE HORIZONTAL DATUM (GEOCENTRIC COORDINATES) IS, IN TERMS OF THE NORTH AMERICAN DATUM OF 1983 AND IS EXPRESSED IN DEGREES (°), MINUTES ('), AND SECONDS (") TO THE NEAREST HUNDRETH (1/100) OF A SECOND. THE VERTICAL DATUM (ELEVATIONS) IS, IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND IS DETERMINED TO THE NEAREST TENTH OF A FOOT.



## 1A LETTER

## 2 | GENERAL NOTES

# GENERAL INFORMATION

- [illegible]

## APPLICABLE CODES, REGULATIONS AND STANDARDS

- [illegible]

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- [illegible]

**Abstract**

- [illegible]

**THEORY OF POLYMERIZATION**

- [illegible]



IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THAT AACTA ASSURE THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

850 CAPITOLA RD.  
SANTA CRUZ, CA 95062  
LOCATION CODE: 437758

1A LETTER

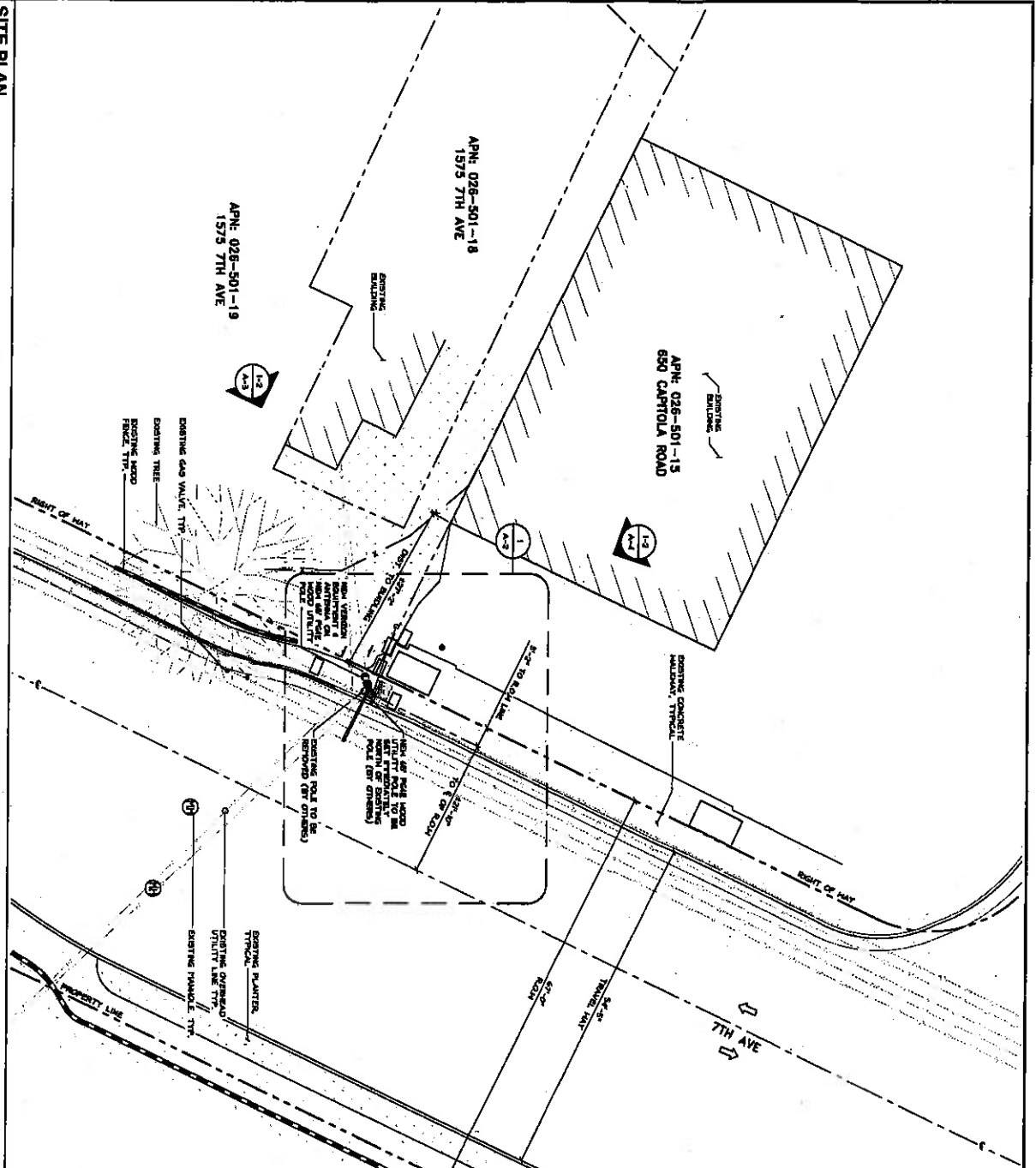
**SHEET NUMBER**  
**T-2**



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D												URGENT	NEW PRINTER						
C												URGENT	THE PLANT ANTENNA						
B												URGENT	SEE CDS FOR APPROVAL						
A												URGENT	SEE CDS FOR HOLDING						
NOV												DATE	DESCRIPTION						



**SITE PLAN**



- NOTES**
1. REQUIRED SIGHT TRIANGLE FROM POLE TO INTERSECTION OF 1575 7TH AVE AND 650 CAPITOLA ROAD SHALL BE MAINTAINED AT ALL TIMES. ANY OBSTRUCTIONS TO THE TRIANGLE SHALL BE REMOVED OR REDUCED TO THE MINIMUM REQUIRED. THE TRIANGLE SHALL BE MAINTAINED AT ALL TIMES.
  2. ANY OBSTRUCTIONS TO THE TRIANGLE SHALL BE REMOVED OR REDUCED TO THE MINIMUM REQUIRED. THE TRIANGLE SHALL BE MAINTAINED AT ALL TIMES.
  3. ANY OBSTRUCTIONS TO THE TRIANGLE SHALL BE REMOVED OR REDUCED TO THE MINIMUM REQUIRED. THE TRIANGLE SHALL BE MAINTAINED AT ALL TIMES.
  4. ANY OBSTRUCTIONS TO THE TRIANGLE SHALL BE REMOVED OR REDUCED TO THE MINIMUM REQUIRED. THE TRIANGLE SHALL BE MAINTAINED AT ALL TIMES.

20'x30' SCALE: 1" = 1'-0"  
 1" = 1'-0"

**verizon**

2700 MITCHELL DRIVE, SUITE 200  
 SAN JOSE, CA 95128

**Vinculum**

50 LAMAR LANE 095  
 SAN JOSE, CA 95128

**ALISTATES**

2005 BARTON DRIVE  
 SAN JOSE, CA 95128

**SANTA CRUZ 095**  
 PUBLIC R.O.W. ADJACENT TO:  
 650 CAPITOLA RD.  
 SANTA CRUZ, CA 95062  
 LOCATION CODE: 437758

**7/15/20**

7/15/20

**PROJECT NO:** P-15445  
**DRAWN BY:** JN  
**CHECKED BY:** JN

**SHEET TITLE:**  
 SITE PLAN

**SHEET NUMBER:**  
 A-1

**DATE:** 7/15/20  
**DESCRIPTION:**



- (N) VERSION EQUIPMENT TO BE INSTALLED IN THE LOAD GUARDRAIL.
- STEPS SHOULD BE USABLE WHEN INSTALLED WITH CLIMBING SPACE.
- ALL GROUND WORK MUST BE BY PROUD PASSING USE UTILITIES

**EQUIPMENT LISTED:**

ALL AIRSWEPS, BRACKETTS, CONDUITS, TETHER, J-SHORES, ETC. ASSOCIATED WITH THE PROPOSED WORK SHALL BE PAINTED A COLOR TO BLEND IN AND MATCH WITH THE EXISTING POWER POLE.

**NEW CONTACT FOR POWER/TELECO**

THE LOCATIONS AND POSITIONS OF ANY UNDERGROUND PIPES, STRUCTURES, OR CONDUITS SHOWN ON THIS PLAN WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THERE MAY BE ADDITIONAL UTILITIES OTHER THAN THOSE SHOWN ON THIS PLAN. THE CONTRACTOR IS REQUESTED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES LINES SHOWN AND ANY OTHER LINES NOT SHOWN ON THIS PLAN.

1717' SCALE: 3/8" = 1'-0"



**verizon**  
2785 MITCHELL DRIVE, SUITE 9  
WALNUT CREEK, CA 94606

**Vinculums**

**ALLSTATES**  
ENGINEERING & SURVEYING  
28475 BIRTCHEA DRIVE  
LAKE FOREST, CA 92650

PRODUCT ID:	P-25440
DRAWN BY:	RD
CHECKED BY:	PL

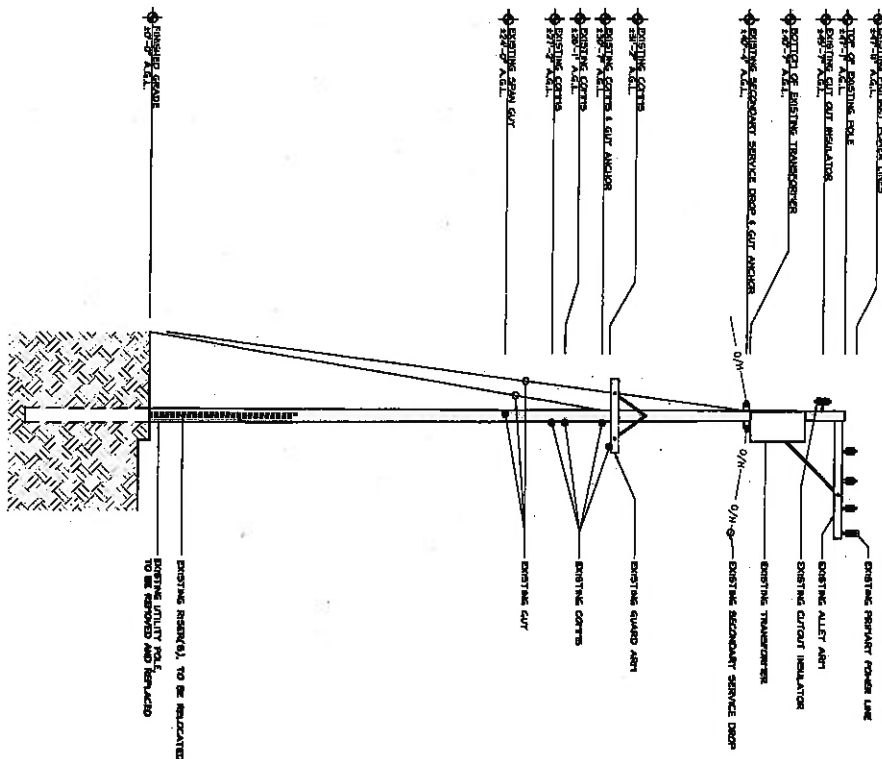
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12/15/2018	PAYROLL	50.00		0.00
12/20/2018	RECEIVED FROM CUSTOMER		25.00	25.00

IT IS A VIOLATION OF LAW FOR ANY PERSON TO  
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DIVISION OR A LICENSED PROFESSIONAL  
DESCENDER, TO ALTER THIS DOCUMENT.

74655  
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JAN 14 1965  
NATIONAL ARCHIVES  
COLLIER COUNTY  
FLA

**SANTA CRUZ 095**  
PUBLIC R.O.W. ADJACENT TO  
650 CAPITOLA RD.  
SANTA CRUZ, CA 95062  
LOCATION CODE: 437758

SHEET TITLE	POLE PLAN ENLARGEMENT
SHEET NUMBER	A-2



**EXISTING SOUTHWEST ELEVATION**

24" x 36" SCALE, 1/4" = 1'-0"  
11/21/78 SCALE, 1/8" = 1'-0"

**N**

## PROPOSED SOUTHWEST ELEVATION

24" x 36" SCALE, 1/4" = 1'-0"  
115717 SCALE, 1/8" = 1'-0"

—

[illegible]

NOTES

- \* METALL POWER HEATERS/BOILER
- \* FOL STEPS SHOULD BE LOCATED WITHIN CLIMBING SPACE (NOT SHOWN IN THIS ELEVATION FOR CLARITY)

**verizon**<sup>®</sup>  
2785 MITCHELL DRIVE, SUITE 4  
MOUNT CREEK, CA 94068

**Vinculum**  
575 LEMON LANE #205  
WALNUT CREEK, CA 94598  
OFFICE (925) 462-8500

**ALISTATES**  
ENGINEERING & SURVEYING  
25475 BURCHARD DRIVE  
LAKE FOREST, CA 94033

PROJECT ID:	P-12144
DRAWN BY:	RS
CHECKED BY:	FT

REV	DATE	DESCRIPTION	
D	8/6/70	NEL PETER	F1
C	8/9/70	MID POINT AIRPOLNA	F1
B	8/9/70	US CDS FOR APPROVAL	F1
A	8/9/70	US CDS FOR ISSUANCE	F1
REV	DATE	DESCRIPTION	

IT IS A VIOLATION OF LAW FOR ANY PERSON  
HOLDING THIS PASS TO ENTER ANY FEDERAL  
BUILDING OR ANY OTHER GOVERNMENTAL  
BUILDING TO ALTER THIS PASS OR IT.

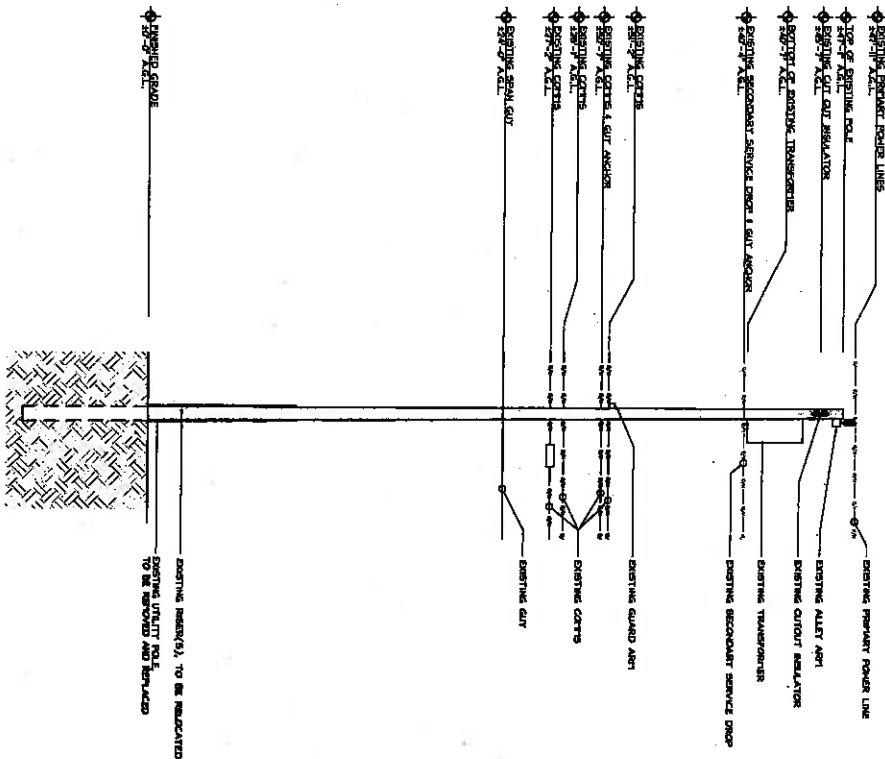
**SANTA CRUZ 095**  
PUBLIC R.O.W. ADJACENT TO  
650 CAPITOLA RD.  
SANTA CRUZ, CA 95082  
LOCATION CODE: 437758

**SHEET TITLE**  
**ELEVATIONS**

SHEET NUMBER  
**A-3**



NOTES:  
 POLE STRIPS ARE NOT SHOWN IN THIS ELEVATION FOR CLARITY.



EXISTING NORTHWEST ELEVATION

SHEET SCALE: 1/4" = 1'-0"



2

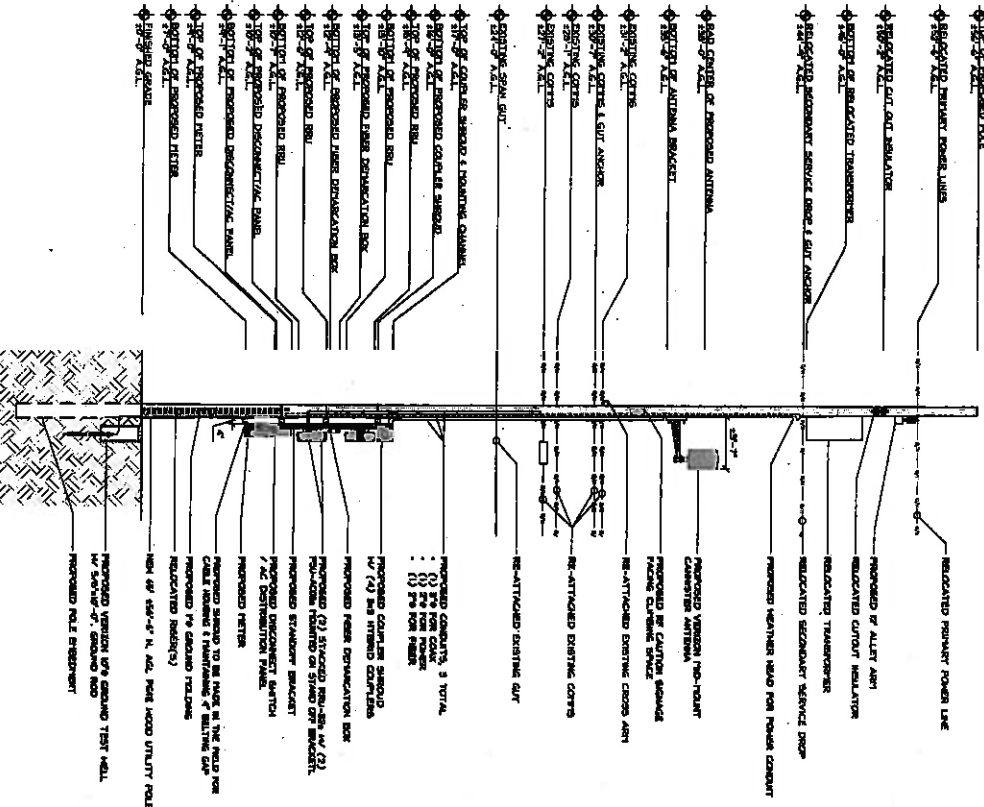
PROPOSED NORTHWEST ELEVATION

SHEET SCALE: 1/4" = 1'-0"



1

NOTES:  
 POLE STRIPS ARE NOT SHOWN IN THIS ELEVATION FOR CLARITY.



**verizon**  
 THE MITCHELL DRIVE, SUITE 4  
 PLACENTIA, CA 92669

**Vinculum**  
 1000 LINDEN AVE  
 SUITE 100  
 PLACENTIA, CA 92669  
 OFFICE: (951) 862-8800

**ALISTATES**  
 LARRY WILSON, P.E.  
 LARRY WILSON, P.E.  
 LARRY WILSON, P.E.

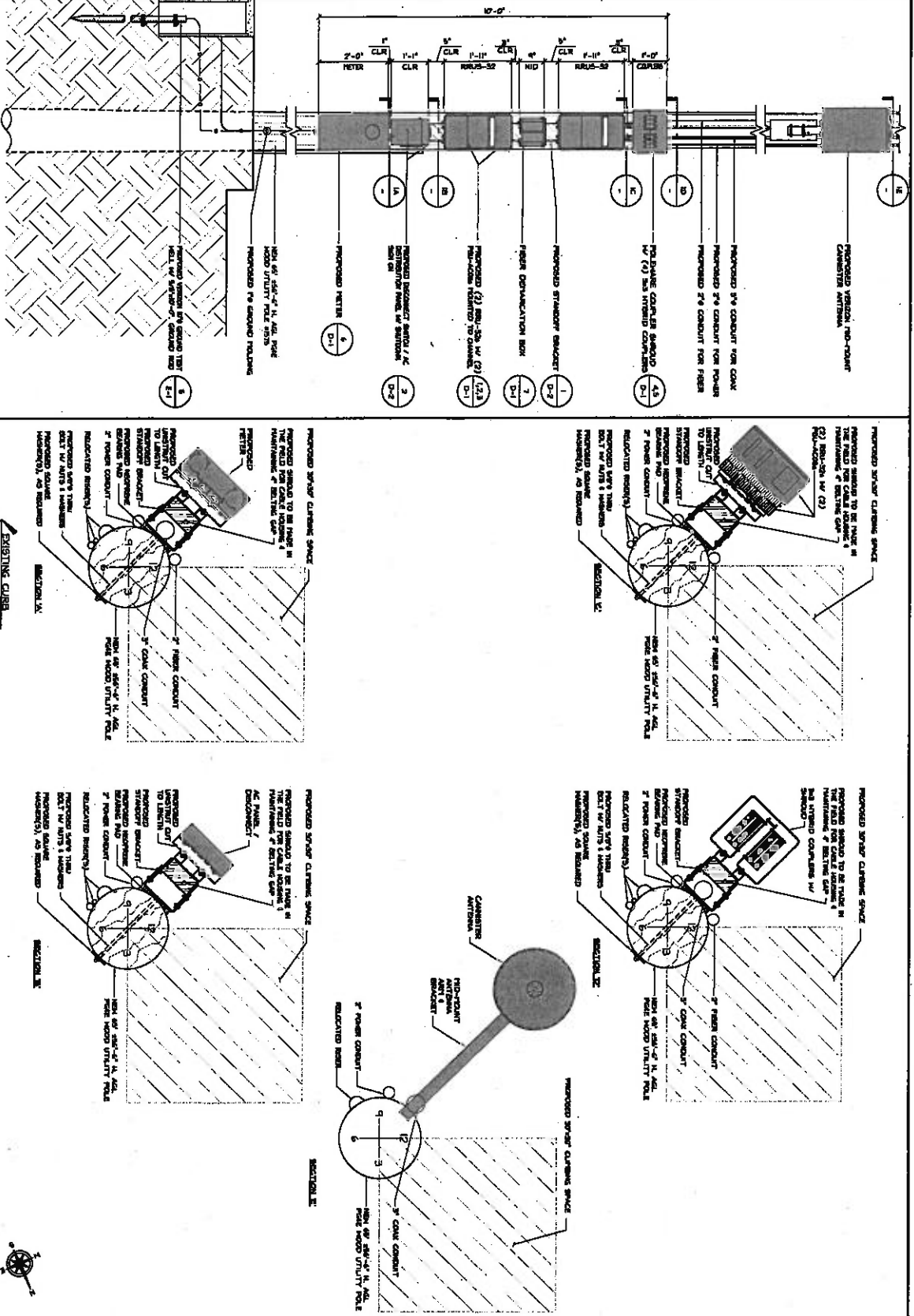
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9	10/1/14	ISSUED FOR PERMIT
10	10/1/14	ISSUED FOR PERMIT

**SANTA CRUZ 095**  
 PUBLIC ROW ADJACENT TO:  
 650 CARROLLA RD.  
 SANTA CRUZ, CA 95062  
 LOCATION CODE: 43778

SHEET TITLE  
 ELEVATIONS

SHEET NUMBER  
 A-4





**verizon**<sup>®</sup>  
2705 MITCHELL DRIVE, SUITE 9  
HAUNT CREEK, CA 94555

**Vinculum**

**ALISTATES**  
ENGINEERING & SURVEYING  
25675 BIRCHDALE DRIVE  
LAKE FOREST, CA 92650

PROJECT ID:	P-23445
DRIVEN BY:	RO
CHECKED BY:	MA

REV	DATE	DESCRIPTION	PL
D	8/6/2001	NEW PETER	PL
C	8/6/2001	720 POINT ANTIDBAK	PL
B	8/6/2001	USE CDS FOR APPROVAL	PL
A	8/6/2001	USE CDS FOR REWORK	PL



IT IS A VIOLATION OF LAW FOR ANY PERSON  
UNLESS THEY ARE ACTING UNDER THE  
DIRECTION OF A LICENSED PROFESSIONAL  
ENGINEER, TO ALTER THIS DOCUMENT.

**SANIA CRUZ 095**  
PUBLIC R.O.W. ADJACENT TO  
650 CAPITOLA RD.  
SANTA CRUZ, CA 95062  
LOCATION CODE: 437758

**SHEET TITLE**  
**DETAILS**

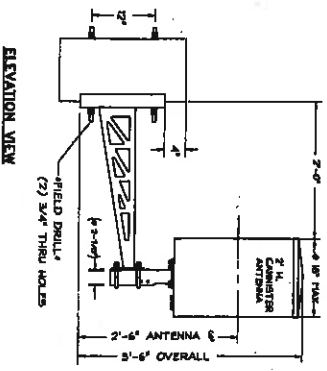
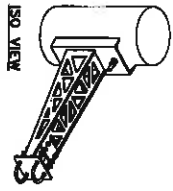
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**D-2**

[illegible]

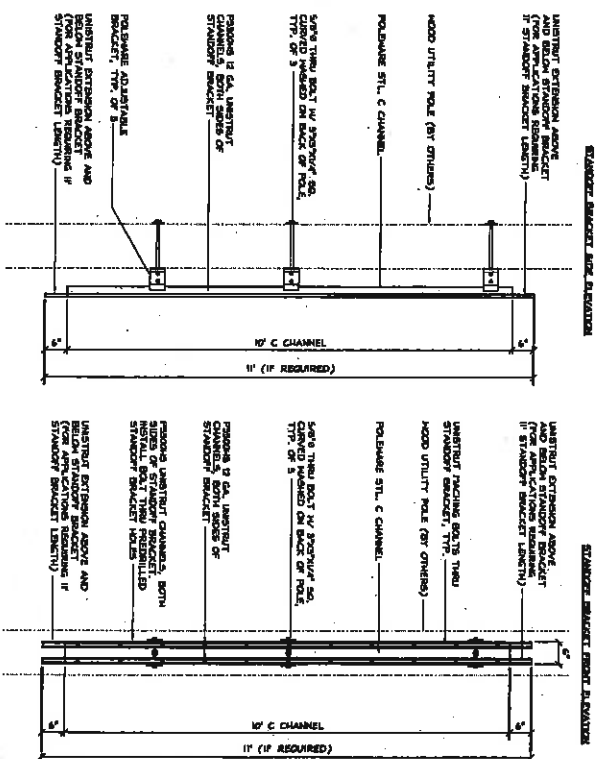
**NOT USED**

**WESTERN**  
SHEET METAL FABRICATORS, INC.  
SALES OFFICE  
P.O. BOX 10000 • 17000 S. 10TH AVE.  
DENVER, CO 80202 • 733-1000

24" 5G WOOD POLE ALUMINUM STAND-OFF ARM  
TRI-SECTION PIPE MOUNT  
FOR 3 1/2" OD WOOD POLES  
(OR APPROVED EQUIVALENT)  
WEIGHT: 29.6 lbs

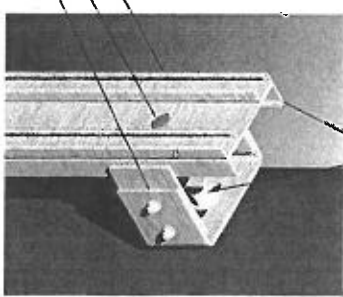


**DISCONNECT SWITCH / DISTRIBUTION PANEL W/ SHUT DOWN SIGNAGE**



**NOTES**

1. STANCOFF BRACKET MODEL, 874-508-104, 87-8P, AS TRG.
2. POLYMER, LTD. (P) THE LAY, OR APPROVED EQUIVALENT.
3. LAMINATE CARPENTERS TO BE PER BY LAMINATE CORPORATION,
4. 80 THORNDIKE AVE., TUCKER, N. 6043, (708) 446-4810.
5. HORIZONTAL LAMINATE (PUSHING) FOR BRACKET INSTALLATION NOT INCLUDED.
6. ADJUSTABLE BRACKETS FOR SLANTED POLES AVAILABLE BY SPECIAL ORDER.

24-236 SCALE, WITH  
SILICA SCALE, 1000  
2

### **MID-MOUNT ANTENNA BRACKET**

**POLE WARE STANDOFF BRACKET OR APPROVED EQUAL**

246256 SCALE, NTS  
15477 SCALF, NTS  
1

**verizon**  
3700 UNIVERSITY DRIVE, SUITE 4  
PALM BEACH, FL 33409

**Vinculum**  
575 LINDEN LANE, SUITE 200  
PALM BEACH, FL 33409  
OFFICE: (561) 882-5600

**ALISTATES**  
ELECTRICAL SERVICE  
1000 UNIVERSITY DRIVE, SUITE 200  
PALM BEACH, FL 33409

PROJECT ID: P-0944  
DRAWN BY: [Signature]  
CHECKED BY: [Signature]

SHEET TITLE:  
ELECTRICAL & GROUNDING  
DIAGRAMS, NOTES,  
& PANEL SCHEDULE

SHEET NUMBER:  
E-1

**GENERAL ELECTRICAL NOTES:**

1. PROVIDE ALL ELECTRICAL WORK & MATERIALS AS SHOWN ON THE DRAWING. INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.
2. THE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE CONTRACT AND THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND GOOD CONDITION OF ALL UTILITIES & EQUIPMENT NOT TO BE MOVED, REMOVED, OR DAMAGED BY THE INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND GOOD CONDITION OF ALL UTILITIES & EQUIPMENT NOT TO BE MOVED, REMOVED, OR DAMAGED BY THE INSTALLATION.
4. CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.
5. ALL WIRING SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.
6. PROVIDE CONDUIT FOR ALL CONDUITS. PROVIDE CONDUIT FOR ALL CONDUITS. PROVIDE CONDUIT FOR ALL CONDUITS.
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10. PROVIDE CONDUIT FOR ALL CONDUITS. PROVIDE CONDUIT FOR ALL CONDUITS. PROVIDE CONDUIT FOR ALL CONDUITS.

**GROUNDING AND BONDING:**

1. PROVIDE ALL GROUNDING AND BONDING WORK AS SHOWN ON THE DRAWING. INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.
2. THE GROUNDING AND BONDING SHALL CONFORM TO THE REQUIREMENTS OF THE CONTRACT AND THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND GOOD CONDITION OF ALL UTILITIES & EQUIPMENT NOT TO BE MOVED, REMOVED, OR DAMAGED BY THE INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND GOOD CONDITION OF ALL UTILITIES & EQUIPMENT NOT TO BE MOVED, REMOVED, OR DAMAGED BY THE INSTALLATION.
4. CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.
5. ALL WIRING SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.
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**GROUND Riser DIAGRAM** 3/4" SCALE NTS

**GROUND WELL ROD** 3/4" SCALE NTS

**TYPICAL CADWELD TYPES** 3/4" SCALE NTS

**MECHANICAL CONNECTIONS** 3/4" SCALE NTS

**SINGLE LINE DIAGRAM** 3/4" SCALE NTS

**PANEL SCHEDULE - PANEL 'PP'** 3/4" SCALE NTS

NO.	DESCRIPTION	AMPS	VOLTS	PHASES	WIRING	TERMINALS	NOTES
1	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	
2	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	
3	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	
4	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	
5	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	
6	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	
7	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	
8	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	
9	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	
10	100 AMP 240V 3PH 4W 3W	100	240	3	4	3	

29

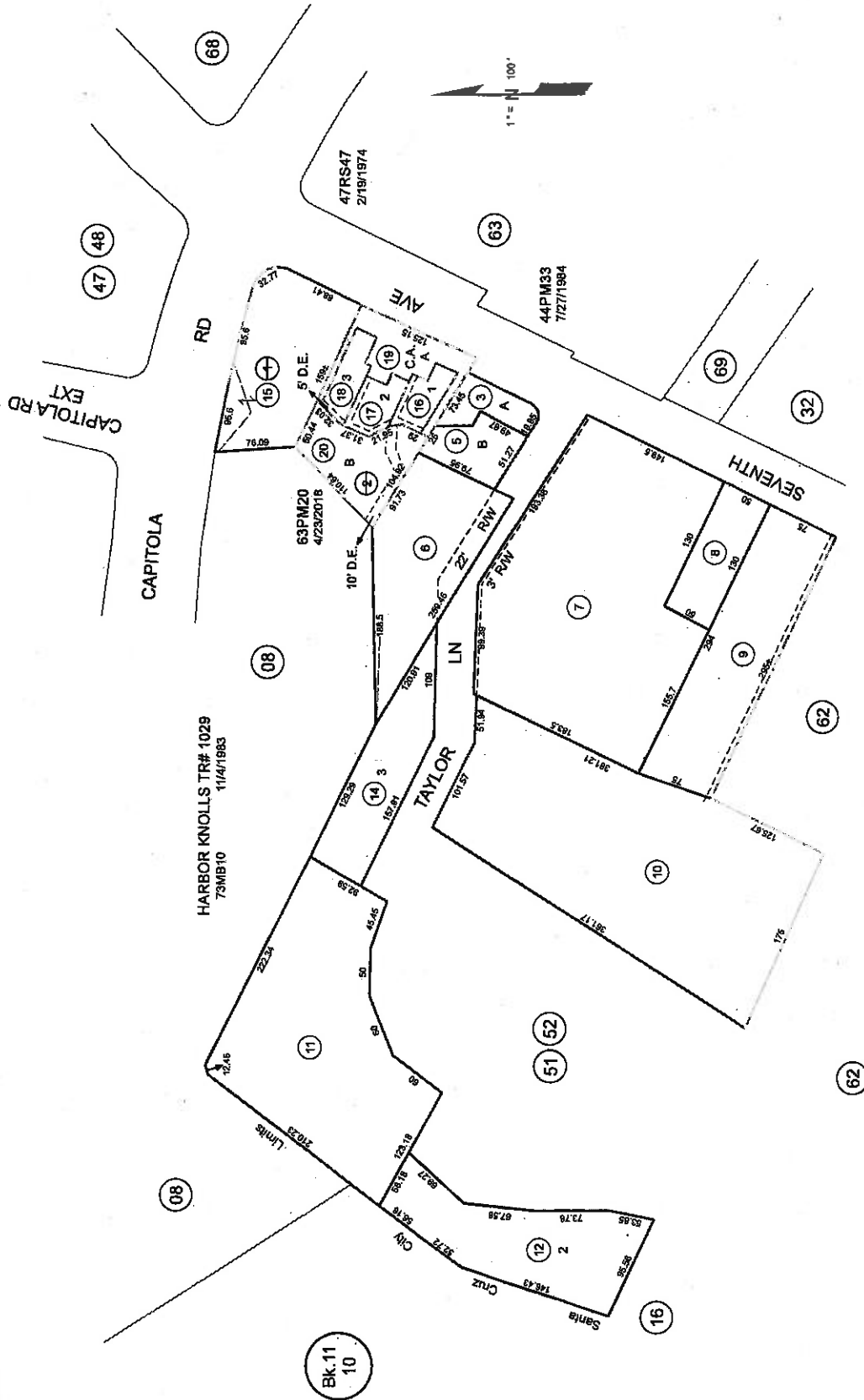
**FOR TAX PURPOSES ONLY**

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© COPYRIGHT SANTA CRUZ COUNTY ASSESSOR 2001

**POR. SEC. 17,  
T.11S., R.1W., M.D.B. & M.**

**Tax Area Code  
82-040**

**26-50**



Assessor's Map No. 26-50  
County of Santa Cruz, Calif.  
Dec 2001

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

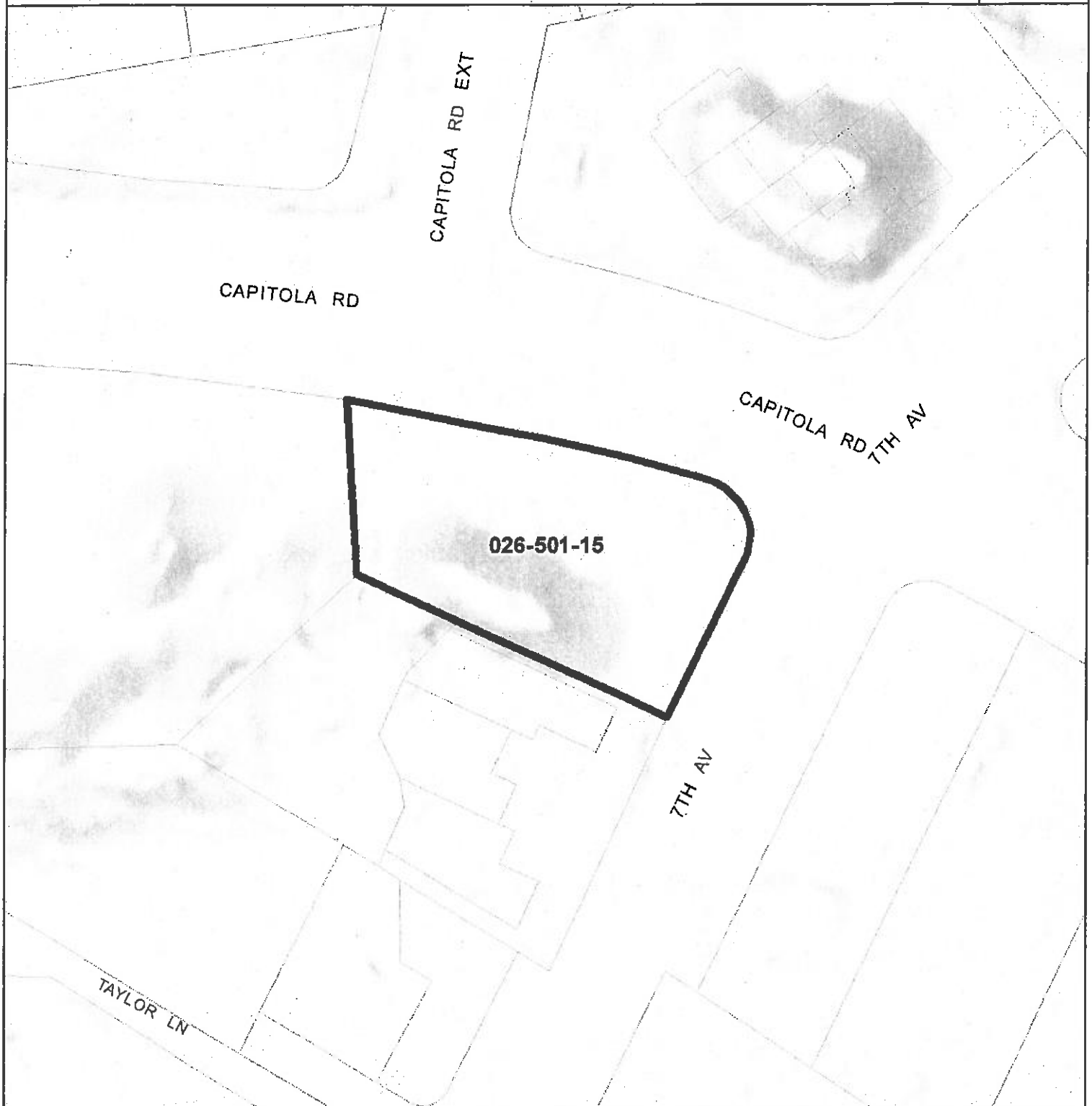
Electronically drawn 12/28/01 KSA  
Rev 12/28/01 KSA Santa Cruz City Realignment  
Rev 8/7/04 CB (rd accpt 4-0008717, 1-04)  
Rev 4/21/08 CB (rd accpt 4-011-09)  
Rev 8/8/18 CB (03PM17, 1-16 to 20)



SANTA CRUZ COUNTY PLANNING DEPARTMENT

Parcel Location Map

Mapped  
Area



Parcel: 02650115

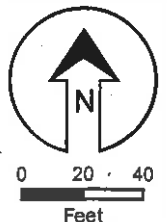


Study Parcel



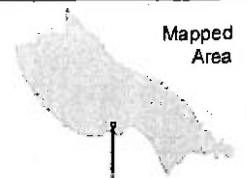
Assessor Parcel Boundary

Map printed: 4 May, 2020

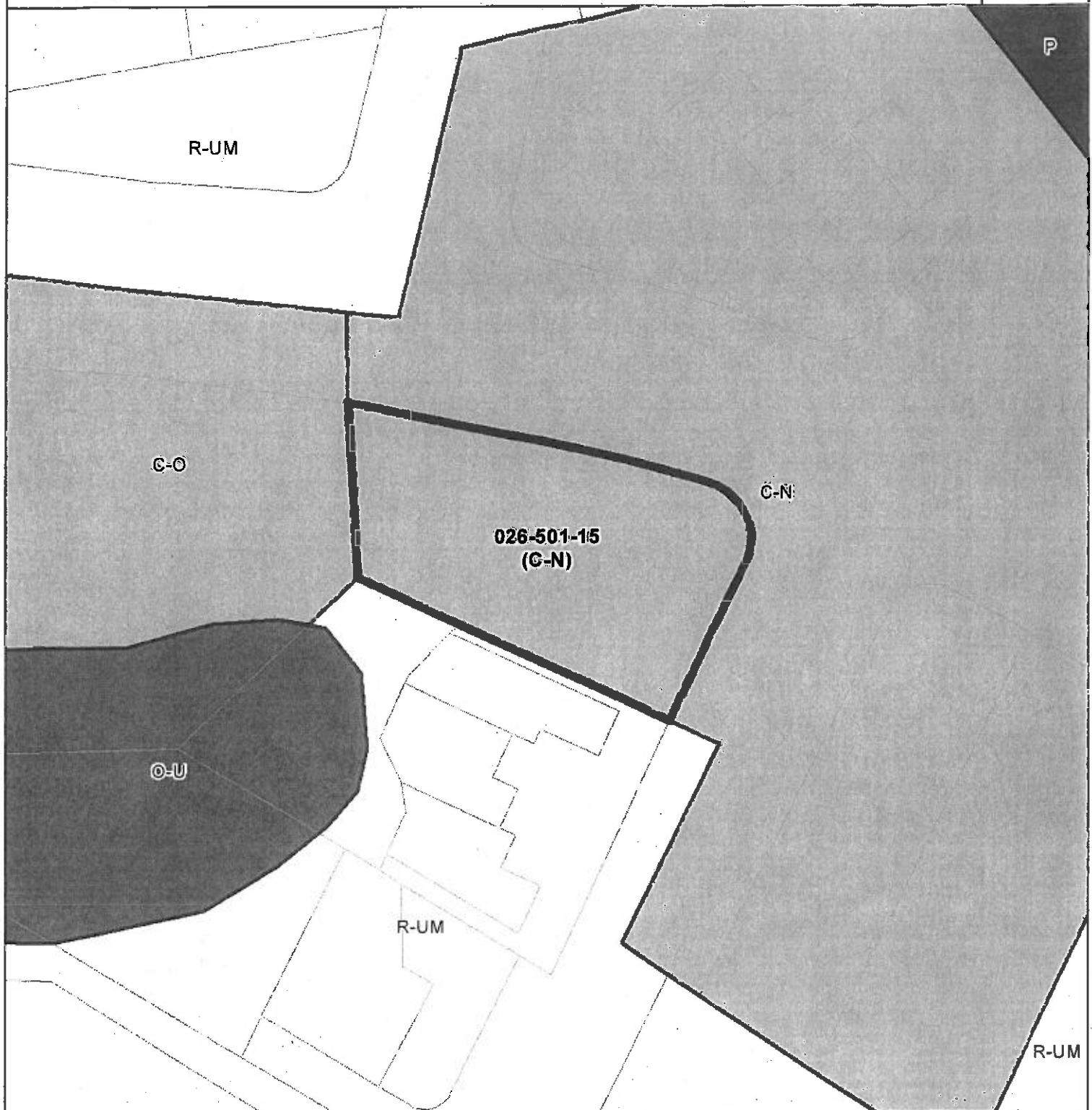




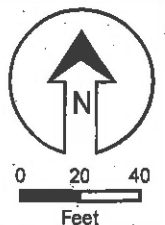
SANTA CRUZ COUNTY PLANNING DEPARTMENT  
**Parcel General Plan Map**



Mapped  
Area



-  C-N *Commercial Neighborhood*
-  C-O *Commercial Office*
-  O-U *Urban Open Space*
-  P *Public Facilities*
-  R-UM *Res. Urban Medium Density*

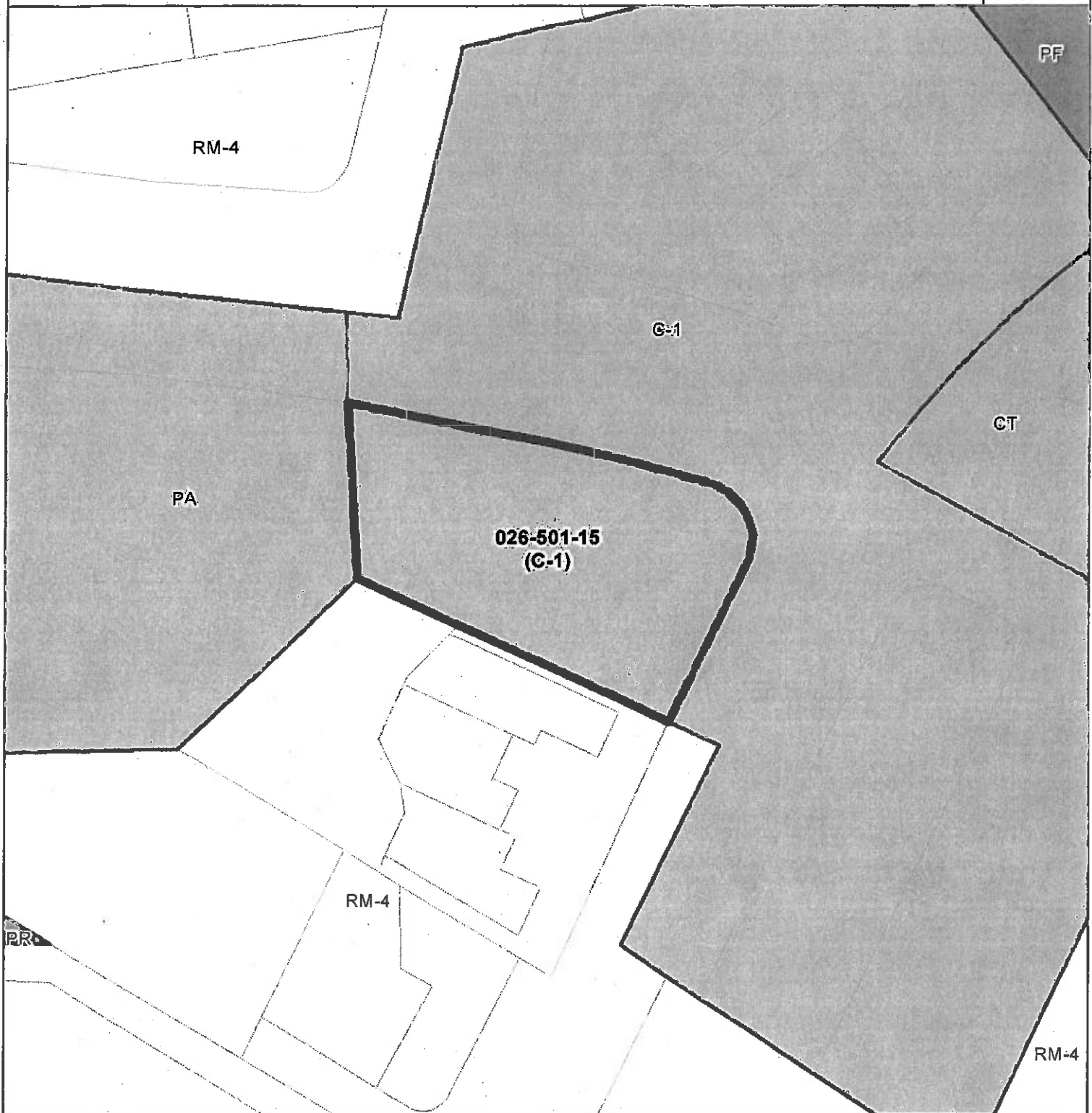


**EXHIBIT E**





# Parcel Zoning Map



- C-1 Neighborhood Commercial
- CT Tourist Commercial
- PA Professional/Admin Office
- PF Public/Community Facilities
- PR Parks, Recreation, & Open Space

RM Residential Multi-Family

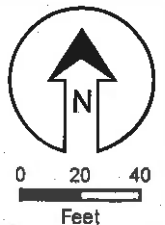


EXHIBIT E

## Parcel Information

### Services Information

Urban/Rural Services Line:   X   Inside      Outside  
Water Supply: Santa Cruz Water District  
Sewage Disposal: Santa Cruz Sanitation District  
Fire District: Central Fire District  
Drainage District: Zone 5

### Parcel Information

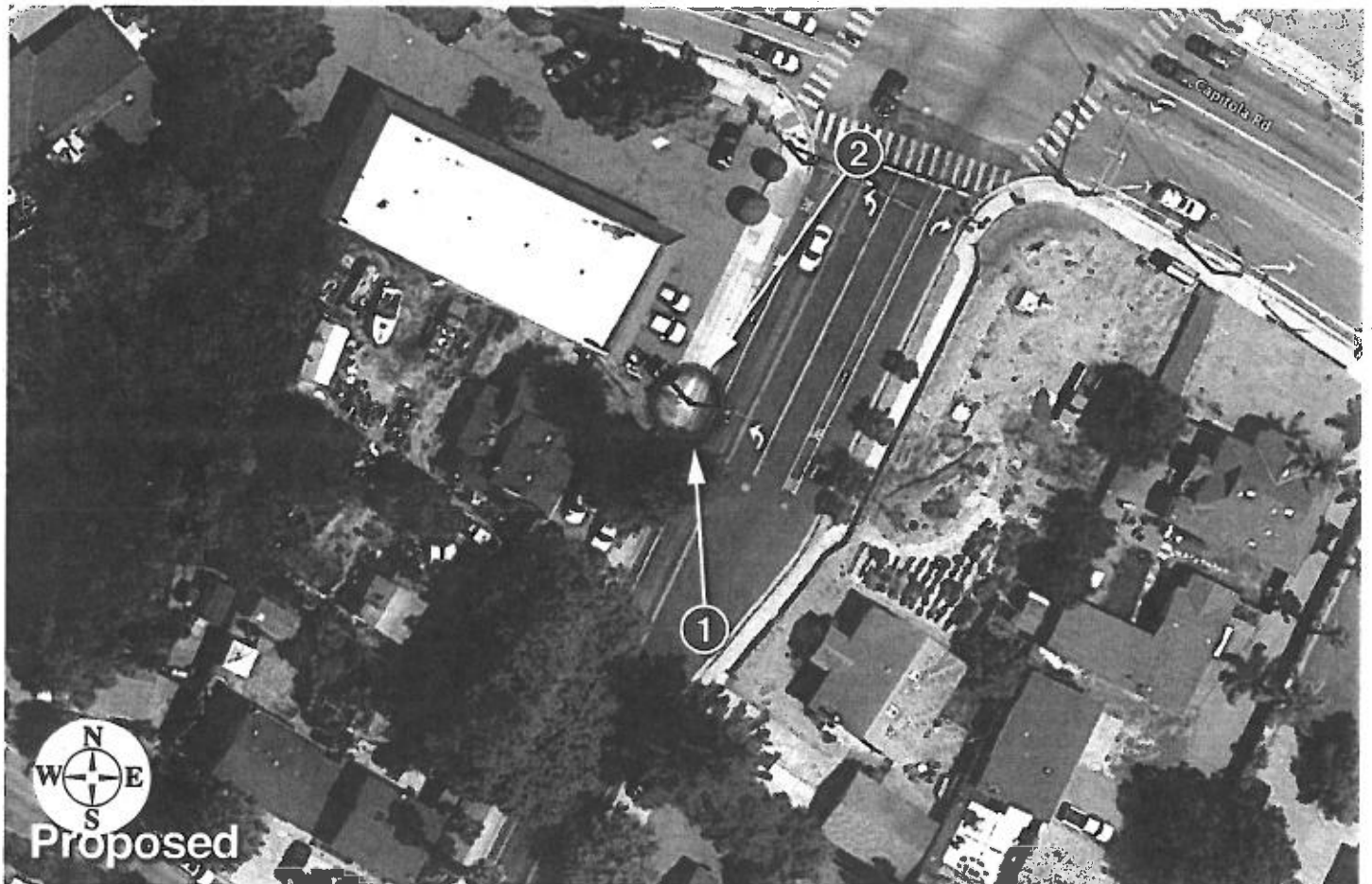
Right of Way Width: Approximately 67 feet  
Existing Land Use: Public Right-of-Way  
Existing Land Use - Surrounding: Commercial (retail) and residential  
Project Access: 7<sup>th</sup> Avenue  
Planning Area: Live Oak  
Land Use Designation: C-N (Neighborhood Commercial), R-UM (Urban Medium Density Residential)  
Zone District: C-1 (Neighborhood Commercial), RM-4 (Multi-Family Residential)  
Coastal Zone:   X   Inside      Outside  
Appealable to Calif. Coastal Comm.      Yes   X   No

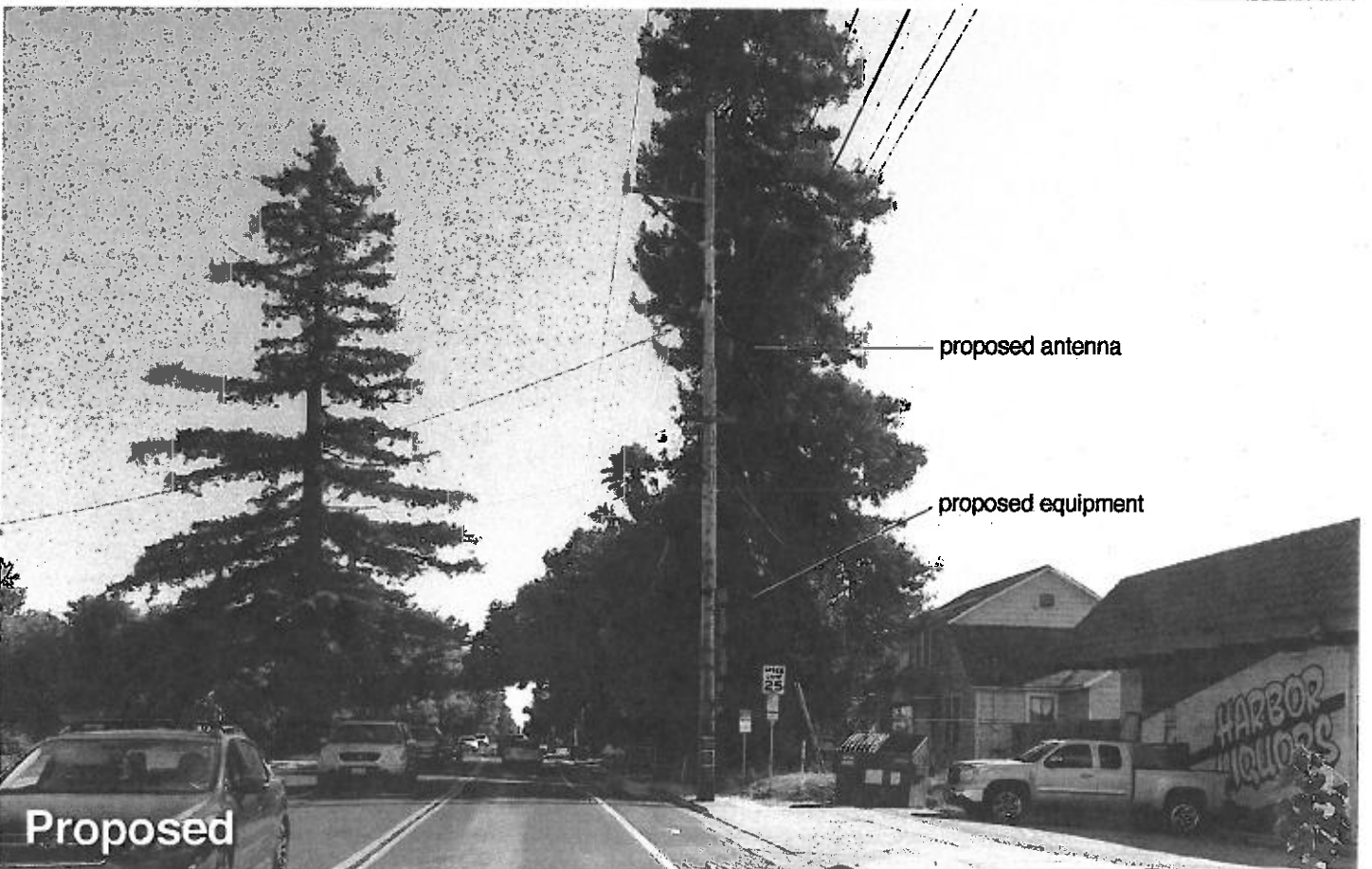
### Environmental Information

Geologic Hazards: Not mapped/no physical evidence on site  
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  
Archeology: Not mapped/no physical evidence on site



Existing









**Verizon Wireless • Proposed Small Cell (No. 437758 "Santa Cruz 095")  
650 Capitola Road • Santa Cruz, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 437758 "Santa Cruz 095") proposed to be sited in Santa Cruz, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

**Executive Summary**

Verizon proposes to install a cylindrical antenna on the utility pole sited in the public right-of-way at 650 Capitola Road in Santa Cruz. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

**Prevailing Exposure Standards**

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. 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. The most restrictive limit for exposures of unlimited duration at several wireless service bands are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm <sup>2</sup>	5.0 mW/cm <sup>2</sup>
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

Power line frequencies (60 Hz) are well below the applicable range of these standards, and there is considered to be no compounding effect from simultaneous exposure to power line and radio frequency fields.

**Verizon Wireless • Proposed Small Cell (No. 437758 "Santa Cruz 095")  
650 Capitola Road • Santa Cruz, California**

**General Facility Requirements**

Small cells typically consist of two distinct parts: the electronic transceivers (also called "radios" or "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The radios are typically mounted on the support pole or placed in a cabinet at ground level, and they are connected to the antennas by coaxial cables. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

**Computer Modeling Method**

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

**Site and Facility Description**

Based upon information provided by Verizon, including drawings by All States Engineering & Surveying, dated October 8, 2019, it is proposed to install one Amphenol Model CUUT360X06F, 2-foot tall, omnidirectional\* cylindrical antenna on a sidearm to be added to a new utility pole to replace the existing pole sited in the public right-of-way on the northwest side of Seventh Avenue, next to the single-story commercial building at 650 Capitola Road in Santa Cruz. The antenna would employ up to 6° downtilt and would be mounted at an effective height of about 38 feet above ground. The maximum effective radiated power proposed in any direction is 1,510 watts, representing simultaneous operation at 770 watts for AWS and 740 watts for PCS service. There are reported no other wireless telecommunications base stations at the site or nearby.

\* Assumed to be omnidirectional, although manufacturer's patterns show reduced power in certain directions.

**Verizon Wireless • Proposed Small Cell (No. 437758 "Santa Cruz 095")  
650 Capitola Road • Santa Cruz, California**

**Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.015 mW/cm<sup>2</sup>, which is 1.5% of the applicable public exposure limit. The maximum calculated level at the second-story elevation of any nearby building<sup>†</sup> is 2.7% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

**Recommended Compliance Measures**

Due to its mounting location and height, the antenna would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training be provided to all workers who have access within 21 feet outward from the antenna. No access within 4 feet directly in front of the antenna, such as might occur during certain maintenance activities high on the pole, should be allowed while the antenna is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs<sup>‡</sup> be posted at the antenna and/or on the pole below the antenna, readily visible from any angle of approach.

**Conclusion**

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless at 650 Capitola Road in Santa Cruz, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells. Training authorized personnel and posting explanatory signs are recommended to establish compliance with occupational exposure limits.

---

<sup>†</sup> Located at least 25 feet away, based on photographs from Google Maps.

<sup>‡</sup> Signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (e.g., a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidelines from the landlord, local zoning or health authority, or appropriate professionals may be required. Signage may also need to comply with the requirements of California Public Utilities Commission General Order No. 95.



**Verizon Wireless • Proposed Small Cell (No. 437758 "Santa Cruz 095")  
650 Capitola Road • Santa Cruz, California**

**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. 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.



*Neil J. Olij*  
\_\_\_\_\_  
Neil J. Olij, P.E.  
707/996-5200

November 19, 2019



**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

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P85-Z9OU.1  
Page 4 of 4

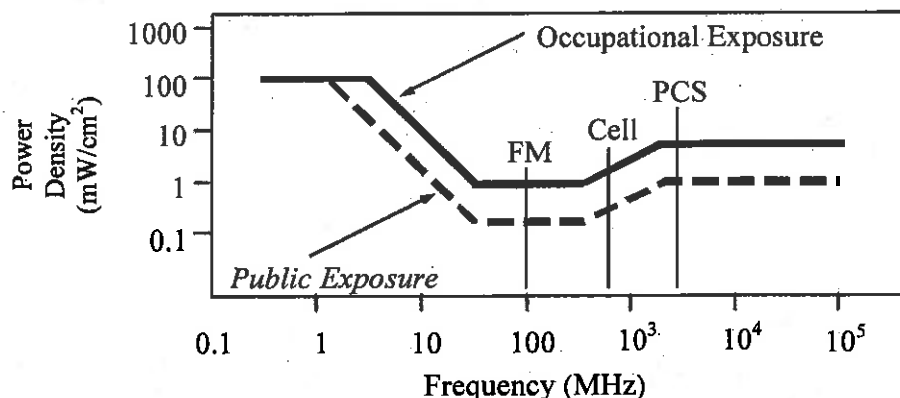
**EXHIBIT H**

## FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency Applicable Range (MHz)	Electromagnetic Fields (f is frequency of emission in MHz)					
	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm <sup>2</sup> )	
0.3 – 1.34	614	<i>614</i>	1.63	<i>1.63</i>	100	<i>100</i>
1.34 – 3.0	614	<i>823.8/f</i>	1.63	<i>2.19/f</i>	100	<i>180/f<sup>2</sup></i>
3.0 – 30	1842/f	<i>823.8/f</i>	4.89/f	<i>2.19/f</i>	900/f <sup>2</sup>	<i>180/f<sup>2</sup></i>
30 – 300	61.4	<i>27.5</i>	0.163	<i>0.0729</i>	1.0	<i>0.2</i>
300 – 1,500	3.54√f	<i>1.59√f</i>	√f/106	<i>√f/238</i>	f/300	<i>f/1500</i>
1,500 – 100,000	137	<i>61.4</i>	0.364	<i>0.163</i>	5.0	<i>1.0</i>



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.



**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

©2019

FCC Guidelines  
Figure 1

**EXHIBIT H**

## RFR.CALC™ Calculation Methodology

### Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

#### Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density  $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$ , in mW/cm<sup>2</sup>,

and for an aperture antenna, maximum power density  $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$ , in mW/cm<sup>2</sup>,

where  $\theta_{BW}$  = half-power beamwidth of antenna, in degrees,

$P_{net}$  = net power input to antenna, in watts,

$D$  = distance from antenna, in meters,

$h$  = aperture height of antenna, in meters, and

$\eta$  = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

#### Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density  $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$ , in mW/cm<sup>2</sup>,

where  $ERP$  = total ERP (all polarizations), in kilowatts,

$RFF$  = three-dimensional relative field factor toward point of calculation, and

$D$  = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 ( $1.6 \times 1.6 = 2.56$ ). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings, to obtain more accurate projections.

January 2<sup>nd</sup>, 2020

County of Santa Cruz Planning Department  
701 Ocean Street, 4<sup>th</sup> Floor  
Santa Cruz, CA 95060  
ATTN: Jonathan DiSalvo

RE: Additional Information Required for Application #'s: 191331 (Node 095)  
No Assessor's Parcel #, project is located within the public right-of-way.

Mr. Jonathan DiSalvo:

Below, is the annotated information requested in your Incomplete Application letter dated 11/27/19. In an effort to assist staff in further understanding the opportunities and constraints that Verizon Wireless encounters when locating and designing a Small Wireless Facility in the public right of way, I've addressed your comments.

1.i.

**A map indicating at a minimum two viable, technically feasible, and potentially environmentally equivalent or superior alternative locations outside the prohibited and restricted areas which could eliminate or substantially reduce the significant gap(s) in the applicant carrier's network intended to be eliminated or substantially reduced by the proposed facility.**

We have provided eight alternative site locations with a map and a detailed explanation identifying each alternative pole as **not viable**; see "Attachment B".

**If there are fewer than two such alternative locations, the applicant must provide evidence establishing that fact.**

We have provided eight alternative site locations with a map and a detailed explanation identifying each alternative pole as **not viable**; see "Attachment B".

**The map shall also identify all locations where an unimpaired signal can be received to eliminate or substantially reduce the significant gap(s).**

Verizon Wireless does not provide propagation maps for small wireless facility application submittals because they're limited to depicting network "coverage" only. Because our small wireless facility project is based on "capacity" and not "coverage" our propagation maps do not capture our project goals and would not be useful to your review. Furthermore, according to California Public Utilities Code (CPUC) §7901, jurisdictional review is limited to the usage which incommodes the public use of a road or highway and not a need for service or to reduce a significant gap(s).

California Public Utilities Code §7901 – Grants a statewide franchise to telephone corporations such as Verizon Wireless to place telephone equipment in the public rights-of-way, and the use of the rights-of-way by telephone corporations is a matter of statewide concern that is not subject to local regulation except where such use incommodes the public use of a road or highway.

EXHIBIT I

**For each alternative location so identified, the applicant shall describe the type of facility and design measures that could be used at that location so as to minimize negative resource impacts (e.g., the use of stealth camouflaging techniques).**

All antenna equipment proposed will be shrouded in a cantenna cylinder and painted to match the color of the wood utility pole in order to camouflage and blend into the existing wood utility pole. All additional equipment attached will be painted to match in order to camouflage and blend into the existing wood utility pole.

On September 26, 2018, the FCC adopted Wireless Infrastructure Order 18-133 that became fully effective on April 15, 2019. It defines a small wireless facility and details design requirements a local municipality may request:

**Design Requirements – must be:**

- Reasonable
- No more burdensome than those applied to other types of infrastructure deployments
- Objective and published in advance

**Small Wireless Facility – must not be more restrictive than:**

- Each antenna is no more than 3 cubic feet in volume
- All other equipment is cumulatively no more than 28 cubic feet in volume
- The structure is:
  - (i) 50 feet or less in height OR
  - (ii) No more than 10% taller than adjacent structures OR
  - (iii) Does not extended to a height of more than 10% above its preexisting height

Because we meet both Santa Cruz County Administrative Design Guideline No.: WCF-06 and the FCC's design requirements and definition of a small wireless facility, Staff cannot require additional information beyond these requirements in order to deem the application complete/incomplete nor use the absence of such information as a basis to deny the application.

**1.ii. Compare, across the same set of evaluation criteria and to similar levels of description and detail, the relative merits of the proposed site with those of each of the identified technically feasible alternative locations and facility designs.**

The proposed wood utility pole chosen by Verizon Wireless is in the public right-of-way, has existing transmission lines, has G.O. 95 required climbing space, has available height needed to meet network engineering requirements, does not have existing equipment attached such as transformers, primary cutouts, other carrier and/or cable tv equipment cabinets already attached, and does not have primary risers running down the pole. For these reasons, we are able to utilize the proposed pole for our project. The eight alternative site locations exhibit at least one or more of these non-viable wood utility pole attributes; see "Attachment B".

California Public Utilities Code §7901 – Grants a statewide franchise to telephone corporations such as Verizon Wireless to place telephone equipment in the public rights-of-way, and the use of the rights-of-way by telephone corporations is a matter of statewide concern that is not subject to local regulation except where such use incommodes the public use of a road or highway.

**Such comparison analysis shall rank each of the alternatives (i.e., the proposed location/facility and each of the technically feasible location/design alternatives) in terms of impacts (i.e., from least to most environmentally damaging), and shall support such ranking with clear analysis and evidence.**

We have provided eight alternative site locations with a map and a detailed explanation identifying each alternative pole as not viable; see "Attachment B".

**EXHIBIT 1**

**1.iii. Include photo-simulations of each of the alternatives (i.e., the proposed location/facility and each of the technically feasible location/design alternatives).**

We have provided eight alternative site locations with a map and a detailed explanation identifying each alternative pole as not viable; see "Attachment B".

**1.iv. Document good faith and diligent attempts to rent, lease, purchase or otherwise obtain the use of at least two of the viable, technically feasible alternative sites which may be environmentally equivalent or superior to the proposed project site. The decision-making body may determine that an alternative site is not viable if good faith attempts to rent, lease, purchase or otherwise obtain the site have been unsuccessful.**

We have provided eight alternative site locations with a map and a detailed explanation identifying each alternative pole as not viable; see "Attachment B".

**2. Please review the attached comments from all agencies.**

- **Public Works Encroachment (Kristine Conley - (831) 454-2054): Complete.**
- **Routing No: 1 | Review Date: 11/27/2019 Kristine Conley (KCONLEY): Complete**

Per Kristine Conley: The plans dated November 2019 have been received and are **approved** for the planning application stage.

No additional comments from other agencies.

We believe this will complete our application, which will reset the application approval Shot Clock to 90 days from time of resubmittal. I am available to assist with any other clarification for a timely issuance of the permit. Thank you for your time and attention to this matter. You can contact me at 925-202-8654 or email me at [jstroup@vinculums.com](mailto:jstroup@vinculums.com).

Sincerely,

Jeremy Stroup  
Vinculums Services  
Agent for Verizon Wireless

## **Small Cell Siting Guidelines**

Small Cells differ from traditional “macro” cells in that their miniature quality dictates that they only provide capacity to a very limited area. Therefore, any potential alternative sites can only move a short distance (measured in feet) within an identified capacity requirement by the Verizon Engineering Department. In selecting a specific pole to serve an area, Verizon Wireless performs a thorough analysis of the existing infrastructure utilizing the Small Cell Siting Guidelines to determine the most appropriate location; See Attachment A – *Small Cell Siting Guidelines*

The standards contained within the Small Cell Siting Guidelines working document were developed by compiling the criteria and constraints of various regulating agencies. As a member of JPA with a CPCN, Verizon Wireless relies on CPUC §7901 and G.O. 95 in locating suitable public right-of-way (PROW) candidates in siting small cell locations. Verizon Wireless is required to adhere to these guidelines in addition to the safety requirements established by PG&E.

### **Pole Selection / Alternative Site Analysis**

Based on the need to provide network capacity, Verizon Wireless Radio Frequency engineers identify locations or nodes throughout the County to improve and optimize network performance. Each proposed node is visited to identify existing PG&E wood utility poles available for colocation within the proposed area. During this fielding walk, criteria and design constraints required by City of Santa Cruz as well as Verizon Wireless Engineering, Real Estate and Construction teams are confirmed to determine the most suitable pole, subsequently identified as the “primary” location. Additional poles within the coverage area are either designated as viable alternatives or eliminated for the various reasons outlined in the guidelines. These criteria have been compiled into the Small Cell Siting Guidelines previously mentioned and contained in *Attachment A – Small Cell Siting Guidelines*.

Because small cells have less flexibility in where they can be located, they can only be moved a short distance while maintaining the required performance. In *Attachment B – Alternative Siting Analysis*, Verizon Wireless has prepared examples that demonstrate the limitations in determining which pole has been selected for a small cell location. A map of alternative poles considered has been provided, along with detailed reasons why the alternate poles were not viable.

As our alternative site analysis demonstrates, many seemingly suitable poles are eliminated for attaching our equipment. Quite often, there are limited opportunities siting poles available for a small wireless facility within the targeted area.

## **Attachment A – Small Cell Siting Guidelines**

By nature, small cells differ from traditional “macro” cells in that their miniature quality dictates that they can only move a very small distance (measured in feet) and still serve their intended purpose. Below is a compilation of established criteria of various regulating agencies in order to attach communication equipment to wood utility poles in the State of California and in Santa Cruz County. Verizon Wireless is required to adhere to the standards of the California Public Utilities Commission General Order 95 guidelines (G.O. 95), Pacific Gas and Electric engineering guidelines, in addition to meeting Santa Cruz County and Verizon Wireless’s requirements.

### **Pacific Gas and Electric Pole Attachment Guidelines**

Pacific Gas and Electric prioritizes the provision of service to its customers. The siting of attachments on poles is secondary and therefore:

Poles with primary power risers (high power) are precluded from attaching communications equipment

As 12/01/19 PG&E wood utility poles with existing transformers not already approved by PG&E, are prohibited from installing communication equipment. This includes the top of the pole and the communication zone; see #5 in “Attachment C”.

Poles with primary voltage lines already built with the current standard triangular construction, at pole top, must not be rebuilt to flat crossarm construction; see #6 in “Attachment C”.

Class 1, 2, & 6 wood utility poles are precluded from attaching communications equipment

Poles with cutout fuses located on transmission lines are precluded from attaching communication equipment

Equipment attachments must utilize specific PG&E approved bayonets, antennas, support equipment, brackets and bolting. We are unable to shroud or screen bayonets extensions per PG&E

Poles with existing PG&E antennas and/or equipment are precluded from attaching communications equipment

Poles with power disconnect switches are precluded from attaching communications equipment

PG&E guy poles without transmission lines are precluded from attaching communications equipment

PG&E prohibits bayonet and antenna attachment and brackets from covering the top of wood utility poles

### **CPUC G.O. 95 Attachment Guidelines**

Antennas must be a minimum of 6’ from top of power transmission lines.

Only PG&E approved pole-top bayonet mounts can be used

Communications equipment may not be attached lower than 9’ above ground level (AGL)

Service meter may not be attached lower 7’ AGL and no higher than 8’ AGL

Climbing space quadrant must be available after proposed equipment is attached to pole ensuring that utility workers have safe and reliable access to pole



Communications equipment exceeding 18" in height must maintain a 4" clearance from the surface of the pole. Radios and associated equipment are attached to a sled mount maintaining this clearance

### **Santa Cruz County Development Criteria**

Santa Cruz County Administrative Guideline No.: WCF-06

One canister or omni-directional antenna up to 48 inches in height and 15 inches in diameter with an antenna mount no more than one foot in height attached to the top of a utility pole; or, one canister or omni-directional antenna measuring up to 24 inches tall and 15 inches in diameter with an antenna mount no more than one foot in height attached to the top of a street light pole or to the side of a utility pole, with antenna separation from transmission lines and pole standoff limited to the minimum allowed under state law safety requirements

Equipment cabinets with a cumulative volume not exceeding four cubic feet mounted to the side of the pole, stacked vertically or placed back-to-back

One very small wireless electric meter, one small disconnect switch, and very small diplexor boxes mounted to the side of a utility pole (meter and disconnect generally not required for street light poles)

All such facilities shall be screened and/or camouflaged so that they are inconspicuous and designed to blend into the existing public view as seamlessly as possible. In addition, to the extent reasonably technically feasible and with deference to the foregoing requirement to screen and/or camouflage facilities to reduce their aesthetic impacts, preference shall be given to public road corridors in which existing wireless telecommunication facilities are located.

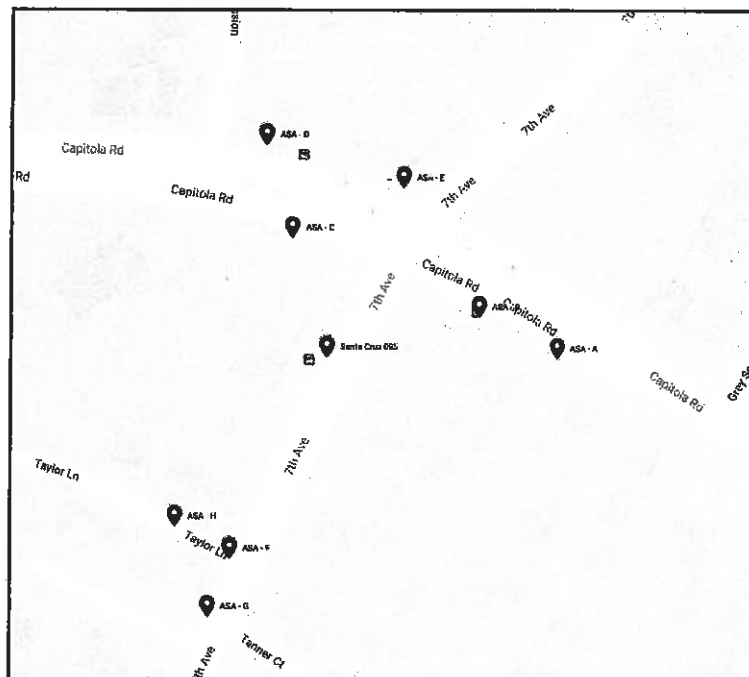
Only poles located in the public right-of-way (PROW) are selected. Poles on private property are not selected for attachment.

## Attachment B – Alternative Site Analysis

Below is a brief description of each candidate's selection criteria as well as Alternative Site Analysis.

### Santa Cruz 095 Primary Candidate

On December 21<sup>st</sup>, 2018, Verizon Wireless withdrew application #181104/Santa Cruz 095 on Capitola Rd. located adjacent to APN 026-681-01 due to the request of residents in the nearby neighborhood of Grey Seal Rd. Verizon Wireless was able to accommodate this request because a viable PG&E wood utility pole that was within Verizon Engineering network requirements was located on 7<sup>th</sup> Ave. Nine poles were analyzed for viability and eight were found to be non-viable; see below.

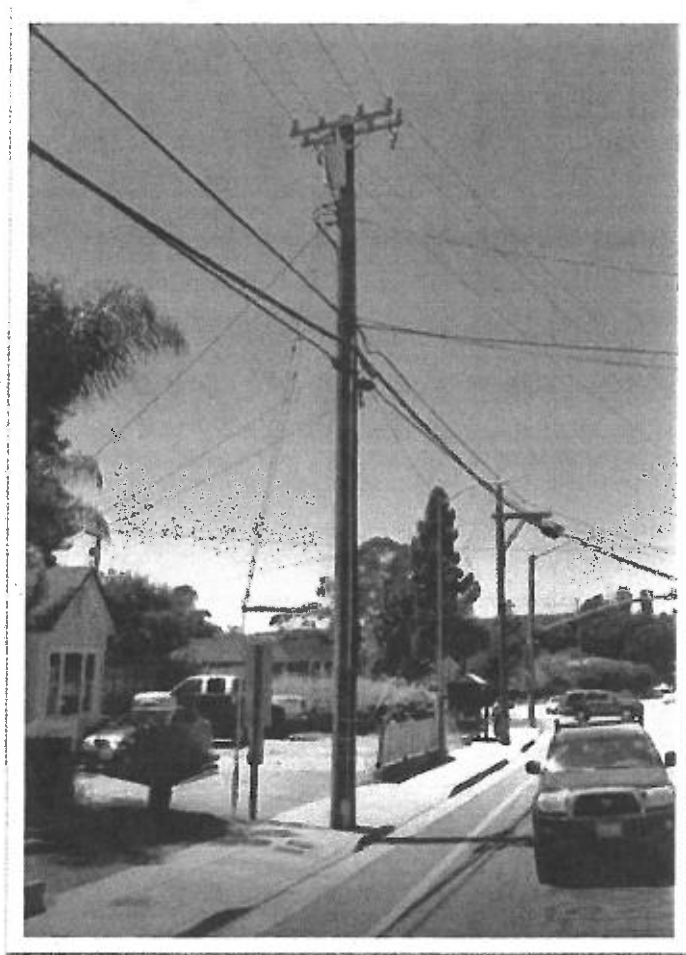


Node	Candidate	Viable Alt. Candidate	Latitude	Longitude	Pole #	Pole Owner	Reason Alt. Selected
Santa Cruz 095	Primary	Yes	36.978925	-121.992119	103823757	PGE	Primary Pole
Alternative Pole	A	No	36.978945	-121.991323	103823785	PGE	Transformer on pole precludes our equipment attachment per PG&E. Primary cutouts on pole preclude our equipment attachment.
Alternative Pole	B	No	36.979053	-121.991553	N/A	AT&T	No climbing space available due to secondary fiber risers, down guy lines, and line and buck side arm. Due to its close proximity to the original proposed pole and at the request of residents near Grey Seal Dr., this pole is not viable.
Alternative Pole	C	No	36.979254	-121.992224	103825834	PG&E	Pole is not in public right-of-way. Guy stub only pole with no power.
Alternative Pole	D	No	36.979515	-121.992315	101680937	PG&E	No climbing space per CPUC G.O. 95. Pole is not in the public right-of-way.
Alternative Pole	E	No	36.979395	-121.991839	101680869	PG&E	No climbing space per CPUC G.O. 95.
Alternative Pole	F	No	36.978361	-121.992458	101797072	PG&E	Cable box installed on pole precludes our equipment attachment per PG&E. Primary cutouts on pole precludes our equipment attachment per PG&E.
Alternative Pole	G	No	36.978204	-121.992553	101800346	PG&E	Primary Riser on pole precludes our equipment attachment per PG&E.
Alternative Pole	H	No	36.978411	-121.992567	101680062	PG&E	Transformer on pole precludes our equipment attachment per PG&E. Cutouts on pole preclude our equipment attachment per PG&E.

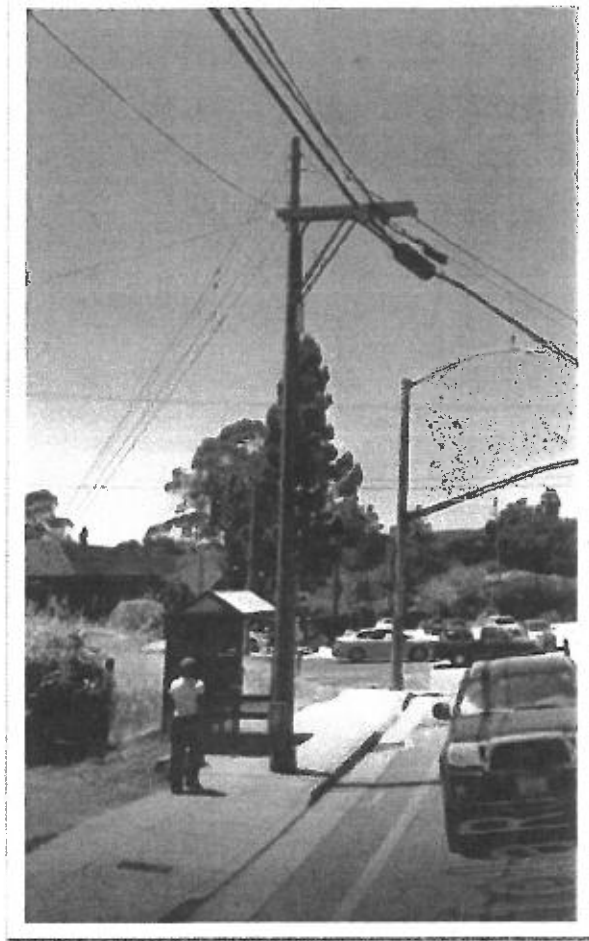
### Santa Cruz 095 Primary Pole



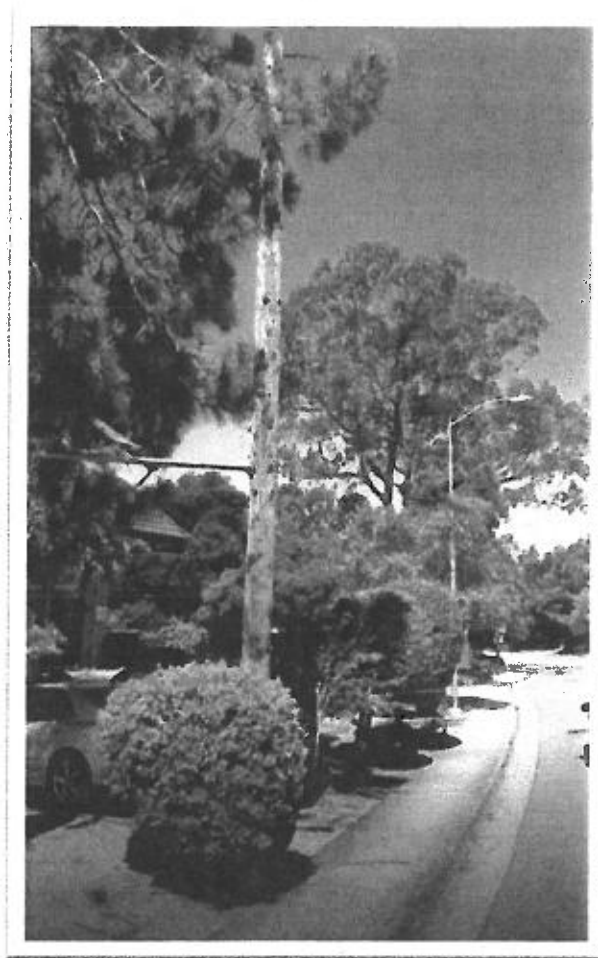
## Santa Cruz 095 Alternative A



## Santa Cruz 095 Alternative B



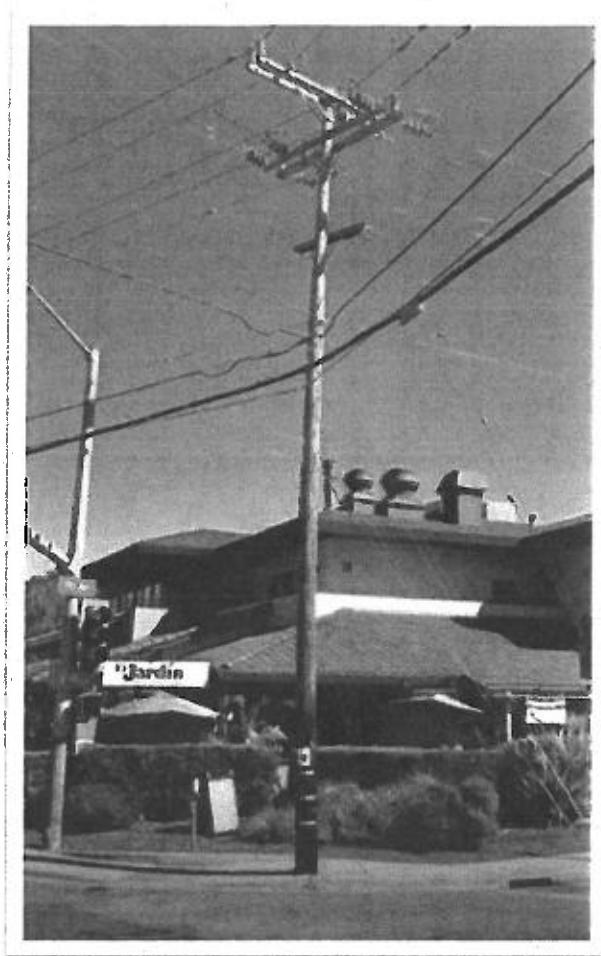
## Santa Cruz 095 Alternative C



## Santa Cruz 095 Alternative D



**Santa Cruz 095 Alternative E**





## Santa Cruz 095 Alternative F



## Santa Cruz 095 Alternative G



## Santa Cruz 095 Alternative H



**MACKENZIE & ALBRITTON LLP**

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SAN FRANCISCO, CALIFORNIA 94104

TELEPHONE 415/ 288-4000  
FACSIMILE 415/ 288-4010

April 24, 2020

**VIA EMAIL**

Jason M. Heath, Esq.  
County Counsel  
County of Santa Cruz  
701 Ocean Street, Room 505  
Santa Cruz, California 95060

Re: Verizon Wireless Application 191331  
Small Cell Wireless Facility, Right-of-Way at 650 Capitola Road  
Shot Clock Tolling Agreement to June 3, 2020

Dear Jason,

We write on behalf of our client GTE Mobilnet of California Limited Partnership dba Verizon Wireless ("Verizon Wireless") with respect to the above-referenced application to permit a small cell facility on a new utility pole in the right-of-way. Federal and state law require the County of Santa Cruz (the "County") to take final action on the Application within a specified time period unless the deadline for final action is extended by mutual consent. Verizon Wireless believes additional time is required to accommodate a May 15, 2020 Zoning Administrator hearing and subsequent appeal period. When countersigned, this letter will confirm an agreement between Verizon Wireless and the County to extend the applicable time period for the County to act on the Application under the federal Telecommunications Act to June 3, 2020 (the "Extension Date").

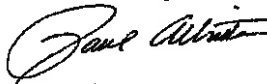
The federal Telecommunications Act requires that local governments act on wireless siting applications "within a reasonable period of time." *See* 47 U.S.C. § 332(c)(7)(B)(ii). The Federal Communications Commission interprets "presumptively reasonable periods of time" to be 60 days for review of an application to collocate a small cell on an existing structure and 90 days for a small cell on a new or replacement structure. 47 C.F.R. § 1.6003(c)(1). The time period for review of an application may be extended by written agreement. 47 C.F.R. § 1.6003(d).

In order to allow the County to act on the Application, without either party risking the loss of important rights, the parties agree that the time period within which the County may act on the Application shall be extended through the Extension Date, and that no limitations period for any claim of unreasonable or unlawful delay in processing the Application shall commence to run before said date.

Jason M. Heath, Esq.  
County of Santa Cruz  
April 24, 2020  
Page 2 of 2

If you agree, this letter agreement may be executed in counterparts, and scanned or facsimile signatures shall be deemed equivalent to original signatures. I will appreciate your returning a countersigned copy to our office at your earliest convenience.

Sincerely,

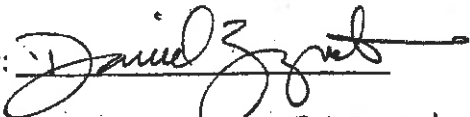


Paul B. Albritton

cc: Daniel Zazueta, Esq.  
Jonathan DiSalvo

**ACCEPTED AND AGREED TO:**

County of Santa Cruz

By: 

Printed name: DANIEL ZAZUETA

Title: ASST. COUNTY COUNSEL

**EXHIBIT**