County of Santa Cruz

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131
KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR
www.sccoplanning.com

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD

Pursuant to the California Environmental Quality Act, the following project has been reviewed by the County Environmental Coordinator to determine if it has a potential to create significant impacts to the environment and, if so, how such impacts could be solved. A Negative Declaration is prepared in cases where the project is determined not to have any significant environmental impacts. Either a Mitigated Negative Declaration or Environmental Impact Report (EIR) is prepared for projects that may result in a significant impact to the environment.

Public review periods are provided for these Environmental Determinations according to the requirements of the County Environmental Review Guidelines. The environmental document is available for review at the County Planning Department located at 701 Ocean Street, in Santa Cruz. You may also view the environmental document on the web at www.sccoplanning.com under the Planning Department menu. If you have questions or comments about this Notice of Intent, please contact Todd Sexauer of the Environmental Review staff at (831) 454-3511.

The County of Santa Cruz does not discriminate on the basis of disability, and no person shall, by reason of a disability, be denied the benefits of its services, programs or activities. If you require special assistance in order to review this information, please contact Bernice Shawver at (831) 454-3137 to make arrangements.

PROJECT: Granite Creek Wireless Communication Facility

APP #: 141207

APN(S): 101-172-14

PROJECT DESCRIPTION: The project proposes to construct a 68' 6" tall faux eucalyptus tree wireless communication facility on a 2.77 acre agriculturally zoned parcel, including a 25' by 40' leased ground mounted fenced equipment area, with a proposed 10' wide site access road requiring approximately 226 cubic yards cut and 180 cubic yard fill, located off a private driveway extending from Granite Creek Road, north of Branciforte Drive. Requires a Commercial Development Permit, Preliminary Grading Approval, and Environmental Review.

PROJECT LOCATION: The proposed project is located approximately ¼ mile east from Granite Creek Road, approximately ¼ mile north of the intersection of Granite Creek and Branciforte Drive within the community of Santa Cruz in the unincorporated County of Santa Cruz. Santa Cruz County is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

EXISTING ZONE DISTRICT: A (Agriculture)
APPLICANT: Verizon Wireless, c/o Michelle Ellis
OWNER: Freddie and Gwendola Taylor
PROJECT PLANNER: Sheila McDaniel
EMAIL: Sheila.McDaniel@santacruzcounty.us
ACTION: Negative Declaration with Mitigations
REVIEW PERIOD: March 9, 2018 through March 28, 2018

This project will be considered at a public hearing before the Planning Commission. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

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MITIGATED NEGATIVE DECLARATION

Project: Granite Creek Wireless Communication Facility **APN(S): 101-172-14**

Project Description: The project proposes to construct a 68' 6" tall faux eucalyptus tree wireless communication facility on a 2.77 acre agriculturally zoned parcel, including a 25' by 40' leased ground mounted fenced equipment area, with a proposed 10' wide site access road requiring approximately 226 cubic yards cut and 180 cubic yards fill, located off a private driveway extending from Granite Creek Road, north of Branciforte Drive. Requires a Commercial Development Permit, Preliminary Grading Approval, and Environmental Review.

Project Location: The proposed project is located approximately 1.4 mile east from Granite Creek Road, approximately ¼ mile north of the intersection of Granite Creek and Branciforte Drive within the community of Santa Cruz in the unincorporated County of Santa Cruz. The County of Santa Cruz is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

Owner: Freddie and Gwndola Taylor

Applicant: Verizon Wireless, c/o Michelle Ellis

Staff Planner: Sheila McDaniel, (831) 454-2255

Email: Sheila.McDaniel@santacruzcounty.us

This project will be considered at a public hearing before the Planning Commission. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

California Environmental Quality Act Mitigated Negative Declaration Findings:

Find, that this Mitigated Negative Declaration reflects the decision-making body's independent judgment and analysis, and; that the decision-making body has reviewed and considered the information contained in this Mitigated Negative Declaration and the comments received during the public review period; and, that revisions in the project plans or proposals made by or agreed to by the project applicant would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and, on the basis of the whole record before the decision-making body (including this Mitigated Negative Declaration) that there is no substantial evidence that the project as revised will have a significant effect on the environment. The expected environmental impacts of the project are documented in the attached Initial Study on file with the County of Santa Cruz Clerk of the Board located at 701 Ocean Street, 5th Floor, Santa Cruz, California.

Review Period Ends: March 28, 2018

Date: 3-9-18

TODD SEXAUER, Environmental Coordinator
(831) 454-3511

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CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)
INITIAL STUDY/ENVIRONMENTAL CHECKLIST

Date: 3/2/2018 **Application Number:** 141207

Project Name: Granite Creek Wireless Communication Facility **Staff Planner:** Sheila McDaniel

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Verizon Wireless, C/O Michelle Ellis **APN(s):** 101-172-14

OWNER: Freddie and Gwendola Taylor **SUPERVISORAL DISTRICT:** 1st District

PROJECT LOCATION: The proposed project is located approximately ¼ mile east from Granite Creek Road, approximately ¼ mile north of the intersection of Granite Creek and Branciforte Drive within the community of Santa Cruz in the unincorporated County of Santa Cruz. See location map (FIGURE 1). The County of Santa Cruz is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

SUMMARY PROJECT DESCRIPTION:

Proposal to construct a 68'6" tall faux eucalyptus tree wireless communication facility on a 2.77 acre agriculturally zoned parcel, including a 25' by 40' leased ground mounted fenced equipment area, with a proposed 10' wide site access road requiring approximately 226 cubic yards cut and 180 cubic yards fill, located off a private driveway extending from Granite Creek Road, north of Branciforte Drive. Requires a Commercial Development Permit, Preliminary Grading Approval, and Environmental Review. (See attached site plan. (FIGURE 2)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

- ☒ Aesthetics and Visual Resources
- ☐ Agriculture and Forestry Resources
- ☐ Air Quality
- ☒ Biological Resources
- ☒ Cultural Resources
- ☒ Land Use and Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population and Housing
- ☐ Public Services

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

- ☐ Geology and Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards and Hazardous Materials
- ☐ Hydrology/Water Supply/Water Quality
- ☐ Recreation
- ☐ Transportation/Traffic
- ☐ Utilities and Service Systems
- ☐ Mandatory Findings of Significance

DISCRETIONARY APPROVAL(S) BEING CONSIDERED:

- ☐ General Plan Amendment
- ☐ Land Division
- ☐ Rezoning
- ☒ Development Permit
- ☐ Sewer Connection Permit
- ☐ Coastal Development Permit
- ☐ Grading Permit
- ☐ Riparian Exception
- ☐ LAFCO Annexation
- ☐ Other:

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., permits, financing approval, or participation agreement):

Permit Type/Action	Agency
None required	

DETERMINATION:

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

TODD SEXAUER, Environmental Coordinator _____ Date

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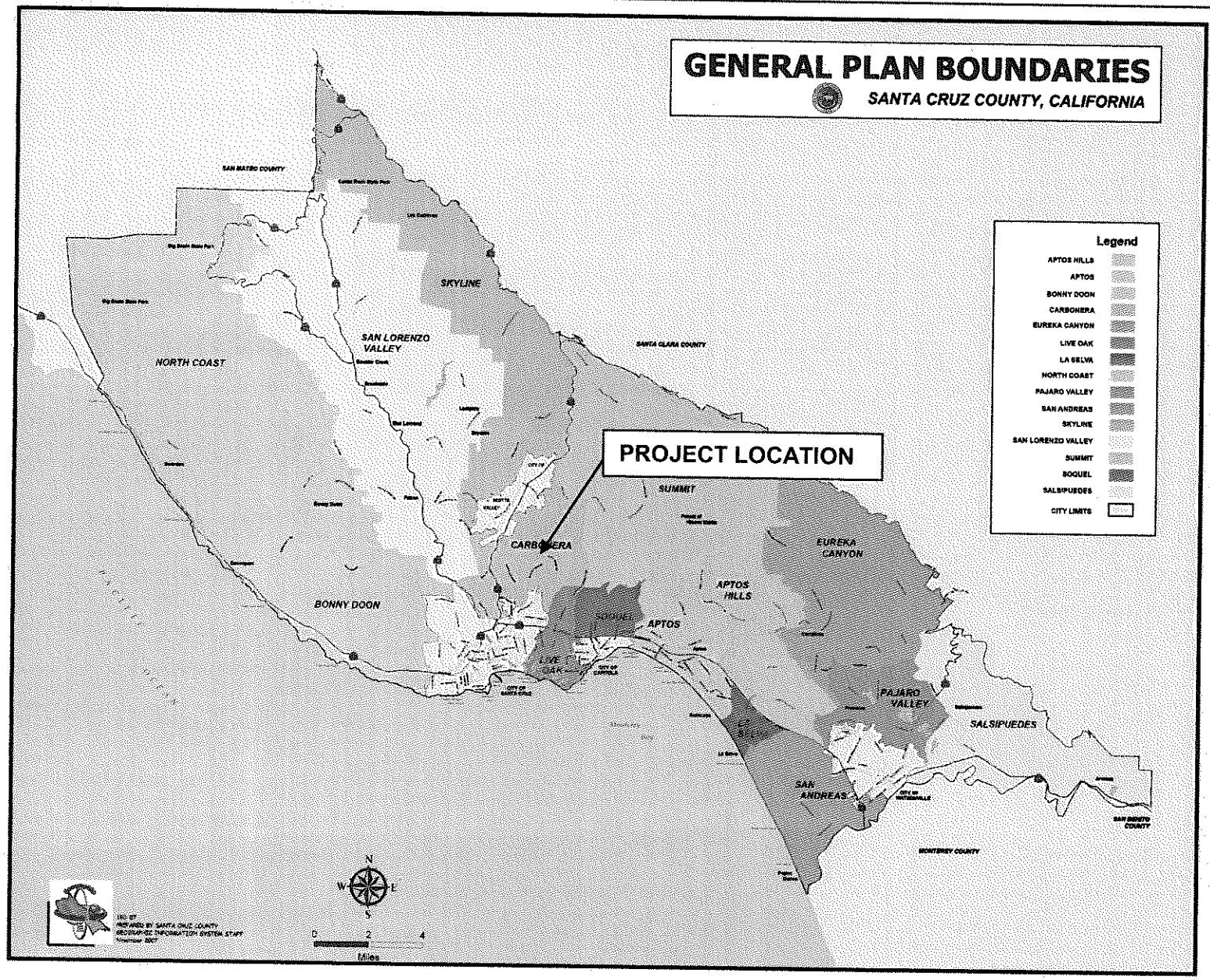
GENERAL PLAN BOUNDARIES
SANTA CRUZ COUNTY, CALIFORNIA
PROJECT LOCATION
Legend
APTOS HILLS
APTOS
BONNY DOON
CARBONERA
EUREKA CANYON
LIVE OAK
LA SELVA
NORTH COAST
PAJARO VALLEY
SAN ANDREAS
SKYLINE
SAN LORENZO VALLEY
SUMMIT
SOQUEL
CITY LIMITS
SAN MATEO COUNTY
SANTA CLARA COUNTY
MONTEREY COUNTY
SAN BENITO COUNTY
SKYLINE
SAN LORENZO VALLEY
NORTH COAST
BONNY DOON
CARBONERA
SUMMIT
EUREKA CANYON
APTOS HILLS
APTOS
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Figure 1

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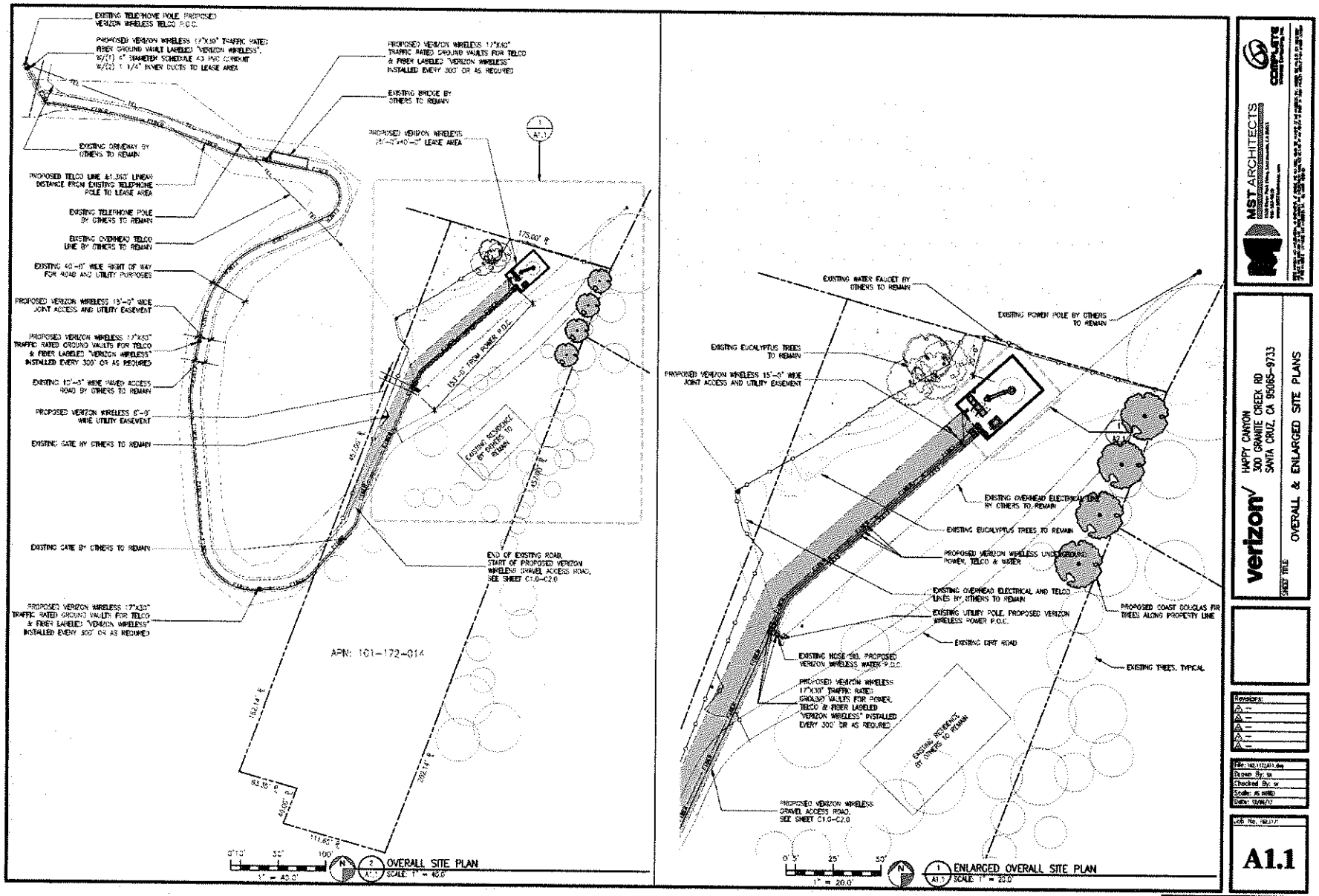

Project Site Plan

Figure 2

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II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS:

Parcel Size (acres):	2.8 acres (GIS estimate)
Existing Land Use:	Existing single family dwelling
Vegetation:	Eucalyptus trees to west, grasses in project area, a few mixed trees to east of project area
Slope in area affected by project:	☒ 0 - 30% ☐ 31 – 100% ☐ N/A
Nearby Watercourse:	Granite Creek, Branciforte Creek
Distance To:	Approximately 160 feet east of Granite Creek, approximately 600 feet west of Branciforte Creek

ENVIRONMENTAL RESOURCES AND CONSTRAINTS:

Water Supply Watershed:	N/A	Fault Zone:	N/A
Groundwater Recharge:	N/A	Scenic Corridor:	N/A
Timber or Mineral:	N/A	Historic:	N/A
Agricultural Resource:	N/A	Archaeology:	Yes
Biologically Sensitive Habitat:	N/A	Noise Constraint:	No
Fire Hazard:	N/A	Electric Power Lines:	100 feet north
Floodplain:	N/A	Solar Access:	N/A
Erosion:	N/A	Solar Orientation:	N/A
Landslide:	N/A	Hazardous Materials:	Diesel Fuel
Liquefaction:	N/A	Other:	N/A

SERVICES:

Fire Protection:	Branciforte Fire Protection District	Drainage District:	Outside
School District:	Happy Valley	Project Access:	Granite Creek Drive
Sewage Disposal:	Septic	Water Supply:	Well

PLANNING POLICIES:

Zone District: A (Agriculture)
Special Designation: N/A
General Plan: RR (Rural Residential)

Urban Services Line:	☐ Inside	☒ Outside
Coastal Zone:	☐ Inside	☒ Outside

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:

Natural Environment

Santa Cruz County is uniquely situated along the northern end of Monterey Bay approximately 55 miles south of the City of San Francisco along the Central Coast. The Pacific Ocean and Monterey Bay to the west and south, the mountains inland, and the prime agricultural lands along both the northern and southern coast of the county create limitations on the style and amount of building that can take place. Simultaneously, these natural features create an environment that attracts both visitors and new residents every year. The natural landscape provides the basic features that set Santa Cruz apart from the surrounding counties and require specific accommodations to ensure building is done in a safe, responsible and environmentally respectful manner.

SETTING:

The subject property is a parcel of approximately 2.8 acres in size and is located on a private 10 foot wide paved roadway extending from Granite Creek Road, approximately ¼ mile north of the intersection of Granite Creek Road and Branciforte Drive within Carbonera Planning area. The property contains an existing residence located in the central eastern portion of the subject property. The property is located on a ridge situated between Granite Creek Road and Branciforte Drive, with topography sloping from the northeast to southwest. The building site is located approximately 900 feet west of Branciforte Drive and approximately 500 feet east of Granite Creek Road. The building site is located immediately east of a large wooded area along the ridge straddling the subject property and adjacent property to the west, largely screening views from Granite Creek. Trees are comprised of mature eucalyptus trees. Branciforte Creek is situated to the west of Branciforte Drive and is heavily wooded with mature trees. Granite Creek is situated east of Granite Creek Road and and west of the subject property and is also heavily wooded.

The property is zoned Agriculture (A) and designated Rural Residential (RR) by the General Plan Land Use Plan. The property is surrounded by properties mostly zoned Agricultural and also designated as Rural Residential.

PROJECT BACKGROUND:

On October 16, 2014 Application 141207 for a Commercial Development Permit was filed to construct a 90 foot tall mono-eucalyptus wireless communication facility. On February 5, 2016 the Zoning Administrator considered the project and determined that the California Environmental Quality Act (CEQA) provides exemptions for classes of projects which do not have a significant effect on the environment. Commercial structures, such as the proposed

wireless communication facility, not exceeding 10,000 square feet and not involving the use of significant amounts of hazardous substances and not located in a sensitive habitat are exempt per Section 15303.2 (c), a Class 3 categorical exemption.

Pursuant to CEQA Section 15300.2 (c), a project is categorically exempt from the requirements of CEQA unless there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances. The CEQA guidelines state that "Unusual circumstances" require showing that the project has some specific feature that distinguishes it from others in the exempt class, such as its size or location, and is not satisfied by a mere reasonable possibility that an activity will have a significant effect on the environment. (Berkeley Hillside Preservation v. City of Berkeley (2015) 60 Cal.4th 1086.)

A preliminary determination was made by the Zoning Administrator that the project is exempt from the California Environmental Quality Act and a preliminary notice of exemption was provided for the project. No unusual circumstances were determined to apply to the subject property. This supported the Zoning Administrator's determination that the project is categorically exempt from CEQA under section 15303 (Class 3) exemption.

The project was approved by the Zoning Administrator and subsequently appealed to the Planning Commission. The Commission determined that the proposed 90 foot wireless communication facility faux eucalyptus tree height was not in keeping with the wireless communication facility height policy interpretation. Further, the Commission determined that potential visual impacts were an unusual circumstance associated with the site that warranted environmental review. The Planning Commission directed the applicant to revise the project from a 90 foot maximum height to a maximum height of 65 feet and directed the Planning Department to complete Environmental Review for the revised project design.

The applicant initially provided revised drawings to reflect a 65 foot maximum height split trunk (three trunks) eucalyptus tree facility as directed by the Planning Commission. This facility was proposed as a flat top faux eucalyptus tree to allow the wireless carrier to achieve the coverage objective. During Environmental Review, the applicant was directed by the Environmental Coordinator to revise the shape of the canopy to create a more natural, rounded design mimicking the shape of eucalyptus trees surrounding the site. The applicant subsequently submitted revised plans for a mono-eucalyptus tree (single trunk) with a maximum height of 68'6", increasing the height of the proposed facility by 3 feet 6 inches to for additional tree foliage above antennas. Revised plans are attached. (Attachment 2 – Revised Project Plans)

DETAILED PROJECT DESCRIPTION:

The wireless facility is proposed to be located on the northern most portion of the subject property, situated approximately 150 feet north of the existing dwelling. The facility is located approximately 150 feet northwest of an existing residence located on an adjacent property to the east of the subject property and approximately 220 feet northeast from an existing residence located on an adjacent property to the west of the subject property.

The original project improvements included 9 antennas (3 per sector and 3 sectors) proposed at the 78 foot elevation on a 90 foot tall mono-eucalyptus tree. The revised project provides a 68'6" tall mono-eucalyptus tree, with same antennas proposed at a maximum height of 65 feet in height with eucalyptus foliage that extends above the antennas to approximately 68'6" feet in height to create a natural tree canopy shape. Project plans, including elevation drawings, are attached (Attachment 2).

Equipment associated with the wireless facility is proposed within a 25 foot by 40 foot chain-link fenced enclosure with landscaping along perimeter and includes a 15 kw diesel generator with a 54 gallon fuel tank for emergency operations only, and four equipment cabinets with cooling fans. The generator is proposed with a level two acoustic enclosure per the project specifications. Generator testing is proposed twice per month during daytime hours for a 15 minute duration. All utilities to the building site are proposed to be underground from an existing utility pole on the subject property.

A 10 foot wide gravel access road to the wireless facility building site is proposed to extend from the driveway providing access to the dwelling. Grading associated with the facility access road includes approximately 225.93 cut and approximately 180.87 fill and off haul of approximately 45.06 cubic yards. A maximum grade of approximately 16 percent is proposed.

Plans include four Douglas fir trees proposed along the northeastern property line for additional screening from residential properties located directly below the property as well as potential future screening from Branciforte Drive, once mature enough to extend above existing tree line between Branciforte Drive and the subject property.

Aerial and street views from Granite Creek Road and Branciforte Drive, visual simulations of the original project (90 feet maximum) and visual simulations of the revised project design (68'6"), as well as images of actual similar facility are attached (Attachment 3). Project materials include samples of the proposed bark color and foliage of the proposed facility.

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	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

III. ENVIRONMENTAL REVIEW CHECKLIST

A. AESTHETICS AND VISUAL RESOURCES

Would the project:

1.	*Have a substantial adverse effect on a scenic vista?*	☐	☐	☒	☐

Discussion: The project would not directly impact any public scenic vistas, as designated in the County's General Plan (1994) and mapped in the County Geographic Information System (GIS), or obstruct any public views of these visual resources. Although Granite Creek Road and Branciforte Drive are public roadways, they are not specifically identified as scenic vistas, as designated in the County's General Plan (1994).

Although Granite Creek Road and Branciforte Drive are not afforded the highest level of visual resource protection of the General Plan because they are not mapped as scenic roadways, General Plan policy 5.10.2 recognizes that visual resources possess diverse characteristics and that the resources worthy of protection may include, but are not limited to, ocean views, agricultural fields, wooded forests, open meadows, and mountain hillside views. This policy requires that the project be evaluated against the context of its unique environment and to regulate the structure height, setbacks, and design to protect visual resources. Hence, the project has been evaluated with regard to potential views from each public roadway.

Granite Creek Road

The proposed faux mono-eucalyptus tree is approximately 500 feet back from Granite Creek Road, a public road, and is separated from this roadway by mature, tall eucalyptus trees located at the top of the ridge above Granite Creek that are approximately 130 feet in height. No clear views of the area are visible from Granite Creek Road with exception of a single location adjacent to the site entry driveway on Granite Creek Road. From a person standing on Granite Creek Road adjacent to the driveway entry, the original 90 foot tower and proposed 68'6" tower is blocked from view by mature eucalyptus trees approximately 130 feet in height.

In the context of the natural vegetation, visual impacts from Granite Creek road would not be perceptible from Granite Creek Road. A google view photo from Granite Creek Road, showing the single glimpse of the rear of the site and a photo from above the site are provided (Attachment 3). As a result of existing substantial vegetation located between Granite Creek road and the subject property, the project would result in no visual impacts from Granite Creek Road.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Branciforte Drive

The proposed faux mono-eucalyptus tree is proposed approximately 900 feet west from Branciforte Drive, a public road and approximately 1,100 feet north of Branciforte Drive. Branciforte Creek is situated between Branciforte Drive and the subject property. Mature riparian vegetation associated with Branciforte Creek, private properties, and roadside vegetation substantially screen public view of the proposed facility from the roadway. However, there are a few locations on the roadway where glimpses of the proposed improvements are possible.

The proposed faux eucalyptus tree is proposed in the foreground of a grove of 130 foot tall eucalyptus trees to the west and nearby trees on the property located to the north, and adjacent to a few trees, approximately 100 feet tall, to the northwest of the property line, as well as substantial trees below the property and between Branciforte Drive. Visual simulations are attached as Attachment 3.

Potential public views of the facility were carefully evaluated along the entire extent of Branciforte Drive and were determined to be visible from two locations. One public view location is directly east of the facility. The view corridor is approximately 250 feet in length.

For comparison purposes, a vehicular occupant traveling between 25 to 35 miles an hour, the speed limited permitted on this collector street, would have approximately 5 to 7 (4.87 to 6.8 seconds rounded up) seconds to view the proposed facility if the occupant were looking directly toward that location, at an approximately 45 degree to 90 degree angle from the roadway. Average cyclists would have a range between 7 to 17 seconds, assuming an average of 12 to 25 miles speed limit. It would be less common for a cyclist to turn their head to the view the distance unless they were traveling more slowing given roadway safety considerations. Pedestrians would have approximately 31 seconds to view the proposed facility based on an Institute of Traffic Engineers (ITE) established pedestrian walking pace of 8 feet per second unless, of course, they stopped to stare.

The second public view location is a private driveway located approximately 1,100 feet south of the facility, and approximately 500 feet east of Granite Creek Road. This location is significantly more difficult to see because the view shed is only approximately 35 feet wide and at a direct 90 degree angle view from the roadway. Thus, there is approximately 1 second or less to view the proposed facility while a vehicle passes the driveway. Pedestrians would have approximately 5 seconds of potential project view and cyclists would have limited time as well.

As result of the significant distance between Branciforte Drive and the proposed facility, limited view opportunities, short duration of view opportunities of the proposed facility from Branciforte Drive, existing vegetation along Branciforte Drive and vegetation located

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

between Branciforte Drive and the subject property, tall eucalyptus trees surrounding the proposed facility, the proposed faux eucalyptus tree would be camouflaged from view. Thus, it is anticipated that the proposed project would result in less than significant impacts to public views from Branciforte Drive.

Proposed project design includes bark color and foliage color similar to existing eucalyptus trees surrounding the proposed facility. Thus, the proposed mono-eucalyptus tree would be camouflaged within the natural setting and would result in less than significant visual impacts.

Notwithstanding this determination, at staff's direction, the applicant provided revised landscape plans providing four Douglas fir trees located along the northern most segment of the eastern property line adjacent to the proposed facility to provide additional visual screening from residences located directly below the property. Although private views are not protected by the General Plan, the proposed screening trees will reduce private views further.

2. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*	☐	☐	☒	☐

Discussion: The project site is located on a ridge situated between Granite Creek Road and Branciforte Drive. The ridge extends from the northeast to the southwest direction. Project improvements are proposed in the foreground of existing mature eucalyptus trees that are approximately 130 feet in height and south from existing trees on adjacent property, as well as approximately 40 feet from a 104 foot tall eucalyptus tree located adjacent to the northeastern property corner. Nonetheless, partial views of the faux eucalyptus tree would occur from Branciforte Drive at a few locations shown in the visual simulations. Proposed as a mono-eucalyptus tree, the project would be camouflaged within the natural setting and would result in less than significant impacts.

3. *Substantially degrade the existing visual character or quality of the site and its surroundings?*	☐	☐	☒	☐

Discussion: The existing visual setting is comprised of rural residentially developed property located with an agriculturally zoned area, located within the foothills of Santa Cruz. Properties are developed with residential uses as well as horses, small orchards, and out buildings.

The subject property is a parcel of approximately 2.8 acres in size and is located on a private 10 foot wide paved roadway extending from Granite Creek Road, approximately ¼ mile north of the intersection of Granite Creek Road and Branciforte Drive within Carbonera

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Planning area. The property is located on a ridge situated between Granite Creek Road and Branciforte Drive, with topography sloping from the project area east toward Branciforte Drive and west toward Granite Creek.

The subject property contains an existing residence located in the central eastern portion of the subject property. The project area is located approximately 900 feet west of Branciforte Drive and approximately 500 feet east of Granite Creek Road. The project area is located immediately east of a large wooded area along the ridge straddling the subject property and adjacent property to the west, screening views from Granite Creek. Trees are comprised of mature eucalyptus trees. A grove of eucalyptus trees are located to the west of project area, on the adjacent site, and a few eucalyptus trees are located to the north and east of the project area. The entire area of Branciforte Drive and Granite Creek Road is heavily wooded throughout.

Branciforte Creek, situated to the west of Branciforte Drive is heavily wooded with mature trees, largely camouflaging readily apparent views from Branciforte Drive. Granite Creek Road, situated to the east of Granite Creek and west of the subject property, is also heavily wooded, blocking views from the roadway.

Nonetheless, partial views of the faux eucalyptus tree on the ridge would occur from Branciforte Drive at a few locations shown in the visual simulations. Proposed as a mono-eucalyptus tree, the project would be camouflaged within the natural setting and would result in less than significant impacts to the visual character of the area.

4.	*Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*	☐	☐	☒	☐

Discussion: The project includes two lights proposed at the equipment area. They are work lights for Verizon operations personnel if they visit the facility after dark. The lights have a timer switch. When turned on, they stay lit for 30 minutes or however long the technician selects, then turn off automatically when the time runs out. This lighting would create an incremental increase in night lighting during potential nighttime maintenance. However, both lights are hooded and down tilted. These design features would concentrate lighting to the enclosure area and reduce this potential impact on surrounding properties to a less than significant level.

B. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

1. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?* ☐ ☐ ☐ ☒

Discussion: The project site does not contain any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. In addition, the project does not contain Farmland of Local Importance. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide or Farmland of Local Importance would be converted to a non-agricultural use. No impact would occur from project implementation.

2. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?* ☐ ☐ ☐ ☒

Discussion: The project site is zoned Agriculture (A), which is considered to be a non-commercial agricultural zone and the site is not mapped as agriculture resource land. The project site's land is not under a Williamson Act Contract. The proposed wireless facility is a permitted use within the Agriculture zone district with Zoning Administrator approval. Therefore, the project does not conflict with agricultural zoning, or a Williamson Act Contract. No impact is anticipated.

3. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?* ☐ ☐ ☐ ☒

Discussion: The project is not located near land designated as Timber Resource. Therefore, the project would not affect the resource or access to harvest the resource in the future. The timber resource may only be harvested in accordance with California Department of Forestry timber harvest rules and regulations.

4. *Result in the loss of forest land or* ☐ ☐ ☐ ☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

conversion of forest land to non-forest use?

Discussion: No forest land occurs on the project site or in the immediate vicinity. See discussion under B-3 above. No impact is anticipated.

5.	*Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*	☐	☐	☐	☒

Discussion: Although the site and surrounding area is located within agriculture zoned property, the site and area does not contain any lands designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance or Farmland of Local Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide, or Farmland of Local Importance would be converted to a non-agricultural use. In addition, the project site contains no forest land, and no forest land occurs within 1,500 feet of the proposed project site. Therefore, no impacts are anticipated.

C. AIR QUALITY

The significance criteria established by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) has been relied upon to make the following determinations. Would the project:

1.	*Conflict with or obstruct implementation of the applicable air quality plan?*	☐	☐	☒	☐

Discussion: The North Central Coast Air Basin does not meet state standards for ozone and particulate matter (PM_{10}). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors (Volatile Organic Compounds [VOCs] and nitrogen oxides [NO_x]), and dust.

Given the modest amount of new traffic, if any at all, that would be generated by the project there is no indication that new emissions of VOCs or NO_x would exceed MBUAPCD thresholds for these pollutants and therefore there would not be a significant contribution to an existing air quality violation.

Project construction may result in a short-term, localized decrease in air quality due to generation of dust. However, standard dust control best management practices, such as periodic watering, would be implemented during construction to reduce impacts to a less than significant level.

The project would not conflict with or obstruct any long-range air quality plans of the

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Monterey Bay Unified Air Pollution Control District (MBUAPCD). Because general construction activity related emissions (i.e., temporary sources) are accounted for in the emission inventories included in the plans, impacts to air quality plan objectives are less than significant. See C-2 below.

General estimated basin-wide construction-related emissions are included in the MBUAPCD emission inventory (which, in part, form the basis for the air quality plans cited below) and are not expected to prevent long-term attainment or maintenance of the ozone and particulate matter standards within the North Central Coast Air Basin (NCCAB). Therefore, temporary construction impacts related to air quality plans for these pollutants from the proposed project would be less than significant, and no mitigation would be required, since they are presently estimated and accounted for in the District's emission inventory, as described below. No stationary sources would be constructed that would be long-term permanent sources of emissions.

2. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*	☐	☐	☒	☐

Discussion: Santa Cruz County is located within the North Central Coast Air Basin (NCCAB). The NCCAB does not meet state standards for ozone (reactive organic gases [ROGs] and nitrogen oxides [NOx]) and fine particulate matter (PM_{10}). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors and PM_{10}.

Ozone is the main pollutant of concern for the NCCAB. The primary sources of ROG within the air basin are on- and off-road motor vehicles, petroleum production and marketing, solvent evaporation, and prescribed burning. The primary sources of NOx are on- and off-road motor vehicles, stationary source fuel combustion, and industrial processes. In 2010, daily emissions of ROGs were estimated at 63 tons per day. Of this, area-wide sources represented 49 percent, mobile sources represented 36 percent, and stationary sources represented 15 percent. Daily emissions of NOx were estimated at 54 tons per day with 69 percent from mobile sources, 22 percent from stationary sources, and 9 percent from area-wide sources. In addition, the region is "NOx sensitive," meaning that ozone formation due to local emissions is more limited by the availability of NOx as opposed to the availability of ROGs (MBUAPCD, 2013b).

PM_{10} is the other major pollutant of concern for the NCCAB. In the NCCAB, highest particulate levels and most frequent violations occur in the coastal corridor. In this area, fugitive dust from various geological and man-made sources combines to exceed the standard. Nearly three quarters of all NCCAB exceedances occur at these coastal sites where sea salt is often the main factor causing exceedance (MBUAPCD, 2005). In 2005 daily

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

emissions of PM_{10} were estimated at 102 tons per day. Of this, entrained road dust represented 35 percent of all PM_{10} emission, windblown dust 20 percent, agricultural tilling operations 15 percent, waste burning 17 percent, construction 4 percent, and mobile sources, industrial processes, and other sources made up 9 percent (MBUAPCD, 2008).

Given the modest amount of new traffic that would be generated by the project there is no indication that new emissions of ROGs or NOx would exceed MBUAPCD thresholds for these pollutants; and therefore, there would not be a significant contribution to an existing air quality violation.

Project construction may result in a short term, localized decrease in air quality due to generation of PM_{10}. However, standard dust control best management practices, such as periodic watering, would be implemented during construction to avoid significant air quality impacts from the generation of PM_{10}.

The following Best Management Practices (BMPs) and Best Available Control Technology (BACT) will be implemented during all site excavation and grading.

Mitigation Measures

The project impacts would be reduced to a less than significant level with implementation of the required MBUAPCD emission control measures, i.e., diesel engine and fugitive dust controls.

AQ-1 Contracted Diesel Control Measures: In addition to the use of Tiered engines and California ultralow sulfur diesel fuel, the following requirements will be incorporated into contract specifications:

- To minimize potential diesel odor impacts on nearby receptors (pursuant to MBUAPCD Rule 402, Nuisances), construction equipment will be properly tuned. A schedule of tune-ups will be developed and performed for all equipment operating within the project area. A written log of required tune-ups will be maintained and a copy of the log will be submitted to the County of Santa Cruz Department of Public Works (DPW) Planning Director for review every 2,000 service hours.
- Fixed temporary sources of air emissions (such as portable pumps, compressors, generators, etc.) will be electrically powered unless the contractor submits documentation and receives written approval from the County of Santa Cruz DPW that the use of such equipment is not practical, feasible, or available (generally contingent upon power line proximity, capacity, and accessibility). California ultralow sulfur diesel fuel with maximum sulfur content of 15 ppm by weight (ppmw S), or an approved alternative fuel, will be used for on-site fixed equipment not using line power.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

- To minimize diesel emission impacts, construction contracts will require off-road compression ignition equipment operators to reduce unnecessary idling with a 2-minute time limit, subject to monitoring and written documentation.
- On-road material hauling vehicles will shut off engines while queuing for loading and unloading for time periods longer than 2 minutes, subject to monitoring and written documentation.
- Off-road diesel equipment will be fitted with verified diesel emission control systems (e.g., diesel oxidation catalysts) to the extent reasonably and economically feasible.
- Utilize alternative fuel equipment (i.e., compressed or liquefied natural gas, biodiesel, electric) to the extent reasonably and economically feasible.

Feasibility will be determined consistent with Best Available Control Technology (BACT) general criteria: 1) achieved in practice; 2) contained in adopted control measures; 3) technologically feasible; and 4) cost-effective.

AQ-2 Diesel Particulate Matter Emissions Control Measures: In addition, the project will implement the following measures to reduce particulate matter emissions from diesel exhaust:

- Grid power will be used instead of diesel generators where it is feasible to connect to grid power (generally contingent upon power line proximity, capacity, and accessibility).
- The project specifications will include 13 CCR Sections 2480 and 2485, which limit the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds, both California- or non-California-based trucks) to 30 seconds at a school or 5 minutes at any location. In addition, the use of diesel auxiliary power systems and main engines will be limited to 5 minutes when within 100 feet of homes or schools while the driver is resting.
- The project specifications will include 17 CCR Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition Engines, which specifies fuel and fuel additive requirements; emission standards for operation of any stationary, diesel-fueled, compression-ignition engines; and operation restrictions within 500 feet of school grounds when school is in session.
- A schedule of low-emissions tune-ups will be developed and such tune-ups will be performed on all equipment, particularly for haul and delivery trucks.
- Low-sulfur (≤ 15 ppmw S) fuels will be used in all stationary and mobile equipment.

AQ-3 Dust Control Measures: The following controls will be implemented at the

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

construction and staging sites as applicable:

- Water all active construction areas at least twice daily as necessary and indicated by soil and air conditions.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard.
- Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, will be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads will be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities will be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off site, all material will be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container will be maintained.
- All operations will limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles will be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
- Within urban areas, trackout will be immediately removed when it extends 50 or more feet from the site and at the end of each workday.
- Any site with 150 or more vehicle trips per day will prevent carryout and trackout.
- Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

(previously graded areas inactive for 10 days or more).

- Enclose, cover, water twice daily, or apply (nontoxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.
- Replant vegetation in disturbed areas as quickly as possible.
- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
- Install wind breaks at windward side(s) of construction areas.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 20 miles per hour.
- Limit the area subject to excavation, grading, and other construction activity at any one time.

Implementation of the above BMPs and BACT would ensure that emissions of diesel particulate matter (DPM) and fugitive dust from project excavation and grading would be consistent with the MBUAPCD emissions inventories. Impacts would be less than significant.

3. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?* ☐ ☐ ☒ ☐

Discussion: Project construction would have a limited and temporary potential to contribute to existing violations of California air quality standards for ozone and PM_{10} primarily through diesel engine exhaust and fugitive dust. However, the Santa Cruz monitoring station has not had any recent violations of federal or state air quality standards mainly through dispersion of construction-related emission sources. BMPs and BACT described above under C-2 would ensure emissions remain below a level of significance. Therefore, the proposed project would not result in a cumulatively considerable net increase in criteria pollutants. The impact on ambient air quality would be less than significant.

4. *Expose sensitive receptors to substantial pollutant concentrations?* ☐ ☐ ☒ ☐

Discussion: The proposed wireless facility project includes only minor construction

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

associated with a short driveway segment and would not generate substantial pollutant concentrations. Emissions from construction activities represent temporary impacts that are typically short in duration. Impacts to sensitive receptors would be less than significant.

5. *Create objectionable odors affecting a substantial number of people?*	☐	☐	☒	☐

Discussion: California ultralow sulfur diesel fuel with a maximum sulfur content of 15 ppm by weight would be used in all diesel-powered equipment, which minimizes emissions of sulfurous gases (sulfur dioxide, hydrogen sulfide, carbon disulfide, and carbonyl sulfide). Therefore, no objectionable odors are anticipated from construction activities associated with the proposed project, and no mitigation measures would be required. The proposed project would not create objectionable odors affecting a substantial number of people; therefore, impacts are expected to be less than significant.

D. BIOLOGICAL RESOURCES

Would the project:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, or U.S. Fish and Wildlife Service?*	☐	☒	☐	☐

Discussion: According to the California Natural Diversity Data Base (CNDDB), maintained by the California Department of Fish and Wildlife, there are no known special status plant or animal species in the site vicinity, and there were no special status species observed in the project area.

Migratory Bird Treaty Act

Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All migratory bird species are protected by the MBTA. Any disturbance that causes direct injury, death, nest abandonment, or forced fledging of migratory birds, is restricted under the MBTA. Any removal of active nests during the breeding season or any disturbance that results in the abandonment of nestlings is considered a 'take' of the species under federal law.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Impacts

The project area provides potential nesting habitat for birds of prey and birds listed by the Migratory Bird Treaty Act (MBTA). No nests or evidence of past nests were observed in the project area during the general biological survey by Environmental Planning staff on conducted on November 7, 2014. No removal of vegetation is proposed. However, potential nesting could occur within the eucalyptus trees located immediately to the west of the project development area and could be disturbed during project construction. As a result, implementation of the following mitigation would reduce impacts to below a level of significance.

Mitigation Measures

BIO-1: Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. The nesting season for migratory birds and birds of prey is generally 1 February through 31 August. Implementation of the following measures will avoid potential impacts.

- If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests.
- If construction is scheduled to begin between 1 February and 31 August then a qualified biologist shall conduct a preconstruction survey for active nests. The survey will include a 250 foot radius from the work area for nesting birds of prey and a 50 foot radius from the work area for other nesting MBTA protected birds. The survey will be conducted from publicly accessible areas within one two weeks prior to construction. If no active nest of a bird of prey or MBTA bird is found, then no further mitigation measures are necessary.
- If an active nest of a bird of prey or MBTA bird is found, then the biologist shall determine a buffer suitable to protect the nest until fledging. The size of suitable buffers depends on the species of bird, the location of the nest relative to the Project, Project activities during the time the nest is active, and other Project specific conditions.
- No construction activity shall be allowed in the buffer until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller buffer will protect the active nest. The buffer may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring.
- If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
2. *Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*	☐	☐	☒	☐

Discussion: Although the site is mapped as potentially containing the white-rayed pentachaeta and Zayante band- winged grasshopper, Robert Loveland, Environmental Planning staff, confirmed the absence of biotic habitat associated with these species and absence of these species.

The project area is located approximately 350 feet east of Granite Creek and would not affect the riparian vegetation associated with the creek.

3. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*	☐	☐	☐	☒

Discussion: There are no mapped or designated federally protected wetlands on or adjacent to the project site. Therefore, no impacts would occur from project implementation.

4 *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*	☐	☐	☐	☒

Discussion: The proposed project does not involve any activities that would interfere with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site.

5. *Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)?*	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The project would not conflict with any local policies or ordinances.

6. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?* ☐ ☐ ☐ ☒

Discussion: The proposed project would not conflict with the provisions of any adopted Habitat Conservation Plan Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

7. *Produce nighttime lighting that would substantially illuminate wildlife habitats?* ☐ ☐ ☒ ☐

Discussion: There are two lights proposed at the equipment area. Both are hooded and down-tilted. They are work lights for Verizon operations personnel if they visit the facility after dark for maintenance. The lights have a timer switch. When turned on, they stay lit for 30 minutes or however long the technician selects, then turn off automatically when the time runs out.

The development area is located approximately 350 feet east of a riparian corridor associated with Granite Creek. Existing eucalyptus trees flank the western edge of the project area, screening the proposed project from the riparian corridor and deflecting any light from the proposed project from affecting the riparian corridor. Thus, impacts to the riparian corridor are less than significant and no mitigation measures would be required.

E. CULTURAL RESOURCES

Would the project:

1. *Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?* ☐ ☐ ☐ ☒

Discussion: The existing structure(s) on the property is/are not designated as a historic resource on any federal, state or local inventory. As a result, no impacts to historical resources would occur from project implementation.

2. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?* ☐ ☐ ☒ ☐

Discussion: The parcel is located within a mapped archaeological resources area. An archaeological review performed on APN 101-172-20 (formerly 15) as part of Application 02-0530 did not identify archeological resources in the project area. Impacts are expected to be

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

less than significant. Pursuant to County Code Section 16.40.040, if at any time in the preparation for or process of excavating or otherwise disturbing the ground, any human remains of any age, or any artifact or other evidence of a Native American cultural site which reasonably appears to exceed 100 years of age are discovered, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.

3.	*Disturb any human remains, including those interred outside of formal cemeteries?*	☐	☐	☒	☐

Discussion: Impacts are expected to be less than significant. However, pursuant to Section 16.40.040 of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

4.	*Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?*	☐	☐	☒	☐

Discussion: See discussion under E-2. Impacts would be less than significant.

5.	*Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*	☐	☐	☐	☒

Discussion: No unique paleontological resources or unique geologic features are known to occur in the vicinity of the proposed project. No impacts are anticipated.

F. GEOLOGY AND SOILS

Would the project:

1.	*Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*				
	A. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on*	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
B. *Strong seismic ground shaking?*	☐	☐	☒	☐
C. *Seismic-related ground failure, including liquefaction?*	☐	☐	☒	☐
D. *Landslides?*	☐	☐	☒	☐

Discussion (A through D): The project site is located outside of the limits of the State Alquist-Priolo Special Studies Zone (County of Santa Cruz GIS Mapping, California Division of Mines and Geology, 2001). However, the project site is located approximately 7 ½ miles southwest of the San Andreas fault zone, and approximately 4.3 miles mile(s) southwest of the Zayante Fault zone. While the San Andreas fault is larger and considered more active, each fault is capable of generating moderate to severe ground shaking from a major earthquake. Consequently, large earthquakes can be expected in the future. The October 17, 1989 Loma Prieta earthquake (magnitude 7.1) was the second largest earthquake in central California history.

All of Santa Cruz County is subject to some hazard from earthquakes. However, the project site is not located within or adjacent to a County or state mapped fault zone, therefore the potential for ground surface rupture is low. The project site is likely to be subject to strong seismic shaking during the life of the improvements. The improvements would be designed in accordance with the Uniform Building Code, including a geotechnical report for foundation design which should reduce the hazards of seismic shaking and liquefaction to a less than significant level. There is no indication that landsliding is a significant hazard at this site.

2. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*	☐	☐	☒	☐

Discussion: Following a review of mapped information and a field visit to the site, there is no indication that the development site is subject to a significant potential for damage caused by any of these hazards.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. *Develop land with a slope exceeding 30%?*	☐	☐	☒	☐

Discussion: There are slopes that exceed 30% on the property. However, no improvements are proposed on slopes in excess of 30%.

4. *Result in substantial soil erosion or the loss of topsoil?*	☐	☐	☒	☐

Discussion: Some potential for erosion exists during the construction phase of the project, however, this potential is minimal because a grading and erosion control plan is included in the project plans. This plan specifies detailed erosion and sedimentation control measures. The plan would include provisions for disturbed areas to be planted with ground cover and to be maintained to minimize surface erosion. Impacts from soil erosion or loss of topsoil would be considered less than significant.

5. *Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?*	☐	☐	☒	☐

Discussion: There is no indication that the development site is subject to substantial risk caused by expansive soils. Therefore, no impact is anticipated.

6. *Have soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*	☐	☐	☒	☐

Discussion: No septic systems are proposed. The project would connect to the Santa Cruz County Sanitation District, and the applicant would be required to pay standard sewer connection and service fees that fund sanitation improvements within the district as a Condition of Approval for the project.

7. *Result in coastal cliff erosion?*	☐	☐	☐	☒

Discussion: The proposed project is not located in the vicinity of a coastal cliff or bluff; and therefore, would not contribute to coastal cliff erosion. No impact is anticipated.

G. GREENHOUSE GAS EMISSIONS

Would the project:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The proposed project, like all development, would be responsible for an incremental increase in green house gas emissions by usage of fossil fuels during the site grading and construction. Santa Cruz County has recently adopted a Climate Action Strategy (CAS) intended to establish specific emission reduction goals and necessary actions to reduce greenhouse gas levels to pre-1990 levels as required under AB 32 legislation. The strategy intends to reduce greenhouse gas emissions and energy consumption by implementing measures such as reducing vehicle miles traveled through the County and regional long range planning efforts and increasing energy efficiency in new and existing buildings and facilities. All project construction equipment would be required to comply with the Regional Air Quality Control Board emissions requirements for construction equipment. As a result, impacts associated with the temporary increase in green house gas emissions are expected to be less than significant.

2. *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*	☐	☐	☒	☐

Discussion: See the discussion under G-1 above. No significant impacts are anticipated.

H. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

1. *Create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials?*	☐	☐	☒	☐

Discussion: The proposed project would not create a significant hazard to the public or the environment. No routine transport or disposal of hazardous materials is proposed. The project does include a generator for emergency operation of the wireless communication facility that requires the use of diesel fuel, which is regulated by the Environmental Health Agency and subject to a hazardous materials plan prior to issuance of the building permit. However, during construction, fuel would be used at the project site for equipment related work. Best management practices would be used to ensure that no impacts would occur. Impacts are expected to be less than significant.

2. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*	☐	☐	☒	☐

Discussion: Please see discussion under H-1 above. Project impacts would be considered less than significant.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
3. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*	☐	☐	☐	☒

Discussion: The proposed project is not located within one quarter mile of an existing or proposed school. Although fueling of equipment is likely to occur on site, best management practices would be implemented. No impacts are anticipated.

4. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*	☐	☐	☐	☒

Discussion: The project site is not included on the December 19, 2016 list of hazardous sites in Santa Cruz County compiled pursuant to Government Code Section 65962.5. No impacts are anticipated from project implementation.

5. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*	☐	☐	☐	☒

Discussion: The proposed project is not located within two miles of a public airport or public use airport. No impact is anticipated.

6. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*	☐	☐	☐	☒

Discussion: The proposed project is not located in the vicinity of a private airstrip. No impact is anticipated.

7. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*	☐	☐	☐	☒

Discussion: The proposed project would not conflict with implementation of the County of Santa Cruz Local Hazard Mitigation Plan 2010-2015 (County of Santa Cruz, 2010). Therefore, no impacts to an adopted emergency response plan or evacuation Plan would occur from project implementation.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
8. *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*	☐	☐	☒	☐

Discussion: The proposed project is not located in a Fire Hazard Area. However, the project design incorporates all applicable fire safety code requirements and includes fire protection devices as required by the local fire agency. Impacts would be less than significant.

I. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY

Would the project:

1. *Violate any water quality standards or waste discharge requirements?*	☐	☐	☒	☐

Discussion: The project would not discharge runoff either directly or indirectly into a public or private water supply. No commercial or industrial activities are proposed that would contribute contaminants. Potential siltation during construction of the proposed project would be addressed through implementation of erosion control best management practices (BMPs). No water quality standards or waste discharge requirements would be violated. Impacts would be less than significant.

2. *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*	☐	☐	☐	☒

Discussion: The project would not rely on private well water and is not located in a mapped groundwater recharge area.

3. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*	☐	☐	☒	☐

Discussion: The proposed project is located approximately 350 feet east of Granite Creek and has the potential to generate water quality impacts during construction if erosion

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

control is uncontrolled. However, the proposed project would be consistent with County Code Section 7.79.070, which states, "No person shall make any unpermitted alterations to drainage patterns or modifications to the storm drain system or any channel that is part of receiving waters of the county. No person shall deposit fill, debris, or other material in the storm drain system, a drainage channel, or on the banks of a drainage channel where it might enter the storm drain system or receiving waters and divert or impede flow." An erosion control plan would also be required per Section 16.22.060 of the County Code. The Department of Public Works Drainage Section staff has reviewed and approved the proposed drainage plan. Impacts would be less than significant.

The following water quality protection and erosion and sediment control best management practices (BMPs) would be implemented, based on standard County requirements, to minimize construction-related contaminants and mobilization of sediment to Granite Creek in the project area.

The BMPs will be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable and are subject to review and approval by the County. The County will perform routine inspections of the construction area to verify the BMPs are properly implemented and maintained. The County will notify contractors immediately if there is a noncompliance issue and will require compliance.

The BMPs will include, but are not limited to, the following.

- All earthwork or foundation activities involving rivers, ephemeral drainages, and culverts, will occur in the dry season (generally between June 1 and October 15).
- Equipment used in and around drainages and wetlands will be in good working order and free of dripping or leaking engine fluids. All vehicle maintenance will be performed at least 300 feet from all drainages and wetlands. Any necessary equipment washing will be carried out where the water cannot flow into drainages or wetlands.
- Develop a hazardous material spill prevention control and countermeasure plan before construction begins that will minimize the potential for and the effects of hazardous or toxic substances spills during construction. The plan will include storage and containment procedures to prevent and respond to spills and will identify the parties responsible for monitoring the spill response. During construction, any spills will be cleaned up immediately according to the spill prevention and countermeasure plan. The County will review and approve the contractors' toxic materials spill prevention control and countermeasure plan before allowing construction to begin. Prohibit the following types of materials from being rinsed or washed into the streets, shoulder areas, or gutters: concrete; solvents and adhesives; thinners; paints; fuels; sawdust; dirt; gasoline; asphalt and concrete saw

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

slurry; heavily chlorinated water.

- Any surplus concrete rubble, asphalt, or other rubble from construction will be taken to a local landfill.
- An erosion and sediment control plan will be prepared and implemented for the proposed project. It will include the following provisions and protocols. The Storm Water Pollution Prevention Plan (SWPPP) for the project will detail the applications and type of measures and the allowable exposure of unprotected soils.
  - Discharge from dewatering operations, if needed, and runoff from disturbed areas will be made to conform to the water quality requirements of the waste discharge permit issued by the RWQCB.
  - Temporary erosion control measures, such as sandbagged silt fences, will be applied throughout construction of the proposed project and will be removed after the working area is stabilized or as directed by the engineer. Soil exposure will be minimized through use of temporary BMPs, groundcover, and stabilization measures. Exposed dust-producing surfaces will be sprinkled daily, if necessary, until wet; this measure will be controlled to avoid producing runoff. Paved streets will be swept daily following construction activities.
  - The contractor will conduct periodic maintenance of erosion and sediment control measures.
  - An appropriate seed mix of native species will be planted on disturbed areas upon completion of construction.
  - Cover or apply nontoxic soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterways.
  - Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways. Material stockpiles will be located in non-traffic areas only. Side slopes will not be steeper than 2:1. All stockpile areas will be surrounded by a filter fabric fence and interceptor dike.
  - Contain soil and filter runoff from disturbed areas by berms, vegetated filters, silt fencing, straw wattle, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from the disturbed area.
  - Use other temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary re-vegetation or other ground cover) to control erosion from disturbed areas as necessary.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

- Avoid earth or organic material from being deposited or placed where it may be directly carried into the channel.

Implementation of the above BMPs would ensure that water quality impacts to Granite Creek and its tributaries are less than significant.

4. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding, on- or off-site?*	☐	☐	☒	☐

Discussion: Although the project area is located approximately 350 feet east of Granite Creek, the proposed project would not alter the existing overall drainage pattern of the site. Environmental Planning staff has reviewed and approved the proposed project. Standard conditions of approval include a grading and erosion control plan prior to issuance of a building permit. Impacts from project construction would be less than significant.

5. *Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff?*	☐	☐	☒	☐

Discussion: Project area improvements are located in a rural area and are limited to a small footprint of approximately 25 foot by 40 foot landscaped, chain link, fenced enclosure and a gravel access road to the wireless facility building site, extending from the existing driveway. Environmental Planning staff has reviewed the project and has conditioned the project to require a grading and erosion control plan to ensure that the site can handle the runoff associated with the project. Given the small development area, Public Works review has been deferred to the building permit stage of the project. Refer to response I-1 for discussion of urban contaminants and/or other polluting runoff. Impacts would be considered less than significant.

6. *Otherwise substantially degrade water quality?*	☐	☐	☒	☐

Discussion: Please see discussion under I-1 above. Impacts would be considered less than significant with the implementation of BMPs.

7. *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*	☐	☐	☒	☐

Discussion: According to the Federal Emergency Management Agency (FEMA) National

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Flood Insurance Rate Map, dated May 16, 2012, no housing or any other development lies within a 100-year flood hazard area. Impacts from project implementation are expected to be less than significant.

8.	*Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*	☐	☐	☐	☒

Discussion: According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated May 16, 2012, no portion of the project site lies within a 100-year flood hazard area. Therefore, the proposed project would not impede or redirect flood flows. No impact would occur.

9.	*Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*	☐	☐	☐	☒

Discussion: The proposed project would not increase the risk of flooding and would not lead to the failure of a levee or dam. No impact would occur.

10.	*Inundation by seiche, tsunami, or mudflow?*	☐	☐	☐	☒

Discussion: There are two primary types of tsunami vulnerability in Santa Cruz County. The first is a teletsunami or distant source tsunami from elsewhere in the Pacific Ocean. This type of tsunami is capable of causing significant destruction in Santa Cruz County. However, this type of tsunami would usually allow time for the Tsunami Warning System for the Pacific Ocean to warn threatened coastal areas in time for evacuation (County of Santa Cruz 2010).

The more vulnerable risk to the County of Santa Cruz is a tsunami generated as the result of an earthquake along one of the many earthquake faults in the region. Even a moderate earthquake could cause a local source tsunami from submarine landsliding in Monterey Bay. A local source tsunami generated by an earthquake on any of the faults affecting Santa Cruz County would arrive just minutes after the initial shock. The lack of warning time from such a nearby event would result in higher causalities than if it were a distant tsunami (County of Santa Cruz 2010).

The project site is located approximately 4 miles inland and beyond the effects of a tsunami. In addition, no impact from a seiche or mudflow is anticipated. No impact would occur.

J. LAND USE AND PLANNING

Would the project:

1.	*Physically divide an established community?*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The proposed project does not include any element that would physically divide an established community. No impact would occur.

2.	*Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*	☐	☐	☐	☒

Discussion: The Planning Commission directed that the project height to be reduced from 90 feet to 65 feet. The applicant has since provided a revised height project height be reduced from 90 feet to 68'6" in height with antennas at 65 feet and foliage to 68'6" in height to create a rounded canopy. The proposed project does not conflict with any regulations or policies adopted for the purpose of avoiding or mitigating an environmental effect. No impacts are anticipated.

3.	*Conflict with any applicable habitat conservation plan or natural community conservation plan?*	☐	☐	☐	☒

Discussion: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. No impact would occur.

K. MINERAL RESOURCES

Would the project:

1.	*Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*	☐	☐	☐	☒

Discussion: The site does not contain any known mineral resources that would be of value to the region and the residents of the state. Therefore, no impact is anticipated from project implementation.

2.	*Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*	☐	☐	☐	☒

Discussion: The project site is zoned A (Agriculture), which is not considered to be an Extractive Use Zone (M-3) nor does it have a Land Use Designation with a Quarry Designation Overlay (Q) (County of Santa Cruz 1994). Therefore, no potentially significant loss of availability of a known mineral resource of locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

plan would occur as a result of this project.

L. NOISE

Would the project result in:

1. *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*	☐	☒	☐	☐

Discussion: Per County policy, average hourly noise levels shall not exceed the General Plan threshold of 50 Leq during the day and 45 Leq during the nighttime. Impulsive noise levels shall not exceed 65 db during the day or 60 db at night.

A noise study was submitted to evaluate the noise levels associated with the proposed four equipment cabinets (internal cooling fans) and generator relative to the General Plan permissible noise thresholds. The cabinets are proposed to be operated 24 hours a day and the proposed generator operated during the daytime for testing and maintenance and operated only at night during emergency events.

Daytime Noise

Predicted noise levels from equipment cabinets range from 41 dBA Leq to 42 dBA Leq and therefore are in compliance the General Plan daytime noise standard of 50 dBA Leq (average noise at the property line). The predicted noise levels from the generator would range from 52 dBA Leq to 59 dBA Leq at various property lines and exceed the daytime noise standard of 50 dBA Leq (average noise) unless mitigated. With the recommended 8 foot tall concrete masonry wall around the project site, noise levels would be reduced below the 50 dBA Leq daytime noise standard and be in compliance.

Nighttime Noise

Predicted outdoor noise from proposed cabinet noise levels of 41-42 dBA Leq at the property line would exceed the adjusted Santa Cruz County 40 dBA Leq nighttime noise standard, which requires a reduction in the standard 45 decibel noise level downward by 5 decibels to 40 decibels if the ambient noise level is 10 decibels lower than the standard 45 decibels. Rural areas typically require the reduced level and thus the reduced level has been applied to this project. Mitigation measures recommended by the noise study to reduce noise level below the 40 decibel standard (to 32 dBA Leq to 35 dBA Leq at all property lines) would require an 8 foot tall concrete masonry wall noise barrier. This is included as a condition of project approval.

Predicted outdoor noise from the proposed generator, with the recommended 8 foot tall noise barrier and recommended lining the noise barrier with acoustic blankets (identified in Appendix E of the noise study) would reduce levels to 40 dBA Leq at all property lines

except the northern property line. However, the northern property does not contain a noise sensitive land use and is developed with a PG& E lattice utility power line structure, precluding development of a sensitive residence land use here. Therefore the General Plan does not require application of noise sensitive noise standard at this location. Notwithstanding, the recommended acoustic blanket lining would reduce the noise levels at this northern property line to the unadjusted General Plan level of 45 dBA Leq.

County of Santa Cruz General Plan

The Santa Cruz County General Plan (County of Santa Cruz 1994) contains the following table, which specifies the maximum allowable noise exposure for stationary noise sources (Table 2). The County of Santa Cruz has not adopted noise thresholds for construction noise.

The following applicable noise related policy is found in the Public Safety and Noise Element of the Santa Cruz County General Plan (Santa Cruz County 1994).

- Policy 6.9.7 Construction Noise. Require mitigation of construction noise as a condition of future project approvals.

Table 2: Maximum Allowable Noise Exposure for Stationary Noise Sources[1]

	Daytime[5] (7:00 am to 10:00 pm)	Nighttime[2, 5] (10:00 pm to 7:00 am)
Hourly Leq average hourly noise level, dB[3]	50	45
Maximum Level, dB[3]	70	65
Maximum Level, dB – Impulsive Noise[4]	65	60

Notes:
1 As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied to the receptor side of noise barriers or other property line noise mitigation measures.
2 Applies only where the receiving land use operates or is occupied during nighttime hours
3 Sound level measurements shall be made with "slow" meter response.
4 Sound level measurements shall be made with "fast" meter response
5 Allowable levels shall be raised to the ambient noise levels where the ambient levels exceed the allowable levels. Allowable levels shall be reduced to 5 dB if the ambient hourly Leq is at least 10 dB lower than the allowable level.
Source: County of Santa Cruz 1994

County of Santa Cruz Code

There are no County of Santa Cruz ordinances that specifically regulate construction noise levels; however, the following code regulates offensive noise.

Section 8.30.010 (Curfew—Offensive noise) of the Santa Cruz County Code contains the following language regarding noise impacts:

A. No persons shall, between the hours of ten p.m. and eight a.m., make, cause, suffer, or permit to be made any offensive noise:

   1. Which is made within one hundred feet of any building or place regularly used for sleeping purposes; or

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

2. Which disturbs any person of ordinary sensitivities within his or her place of residence.

B. "Offensive noise" means any noise which is loud, boisterous, irritating, penetrating, or unusual, or that is unreasonably distracting in any other manner such that it is likely to disturb people of ordinary sensitivities in the vicinity of such noise, and includes, but is not limited to, noise made by an individual alone or by a group of people engaged in any business, meeting, gathering, game, dance, or amusement, or by any appliance, contrivance, device, structure, construction, ride, machine, implement, instrument or vehicle. (Ord. 4001 § 1 (part), 1989).

Sensitive Receptors

Some land uses are generally regarded as being more sensitive to noise than others due to the type of population groups or activities involved. Sensitive population groups generally include children and the elderly. Noise sensitive land uses typically include all residential uses (single- and multi-family, mobile homes, dormitories, and similar uses), hospitals, nursing homes, schools, and parks.

Table 3: Typical Noise Levels for Common Construction Equipment (at 50 feet)

Equipment	L_{max} (dBA)
Air Compressor	81
Backhoe	80
Cement Mixer Truck	85
Cement Pump Truck	82
Chain Saw	85
Compactor	82
Crane	83
Concrete Saw	90
Dozer	85
Excavator	85
Dump Truck	84
Flat Bed Truck	84
Front End Loader	80
Fork Lift	75
Generator	81
Grader	85
Hoe-rams	90
jackhammers	88
Paver	85
Pick-up Truck	55
Pneumatic Tools	85
Rollers	74
Tree Chipper	87

Source: Federal Transit Authority, 2006.

The use of construction equipment to accomplish the proposed project would result in noise in the project area, i.e., construction zone. Table 3 shows typical noise levels for common construction equipment. The sources noise that levels are normally measured at 50 feet, are used to determine the noise levels at nearby sensitive receptors by attenuating 6 dB for each doubling of distance for point sources of noise such as operating construction equipment. Noise levels at the nearest sensitive receptors for each site were analyzed on a worst-case basis, using the equipment with the highest noise level expected to be used.

Impacts

Although construction activities would likely occur during daytime hours, noise may be audible to nearby residents. However, periods of noise exposure would be temporary. Noise from construction activity may vary substantially on a day-to-day basis.

Potential Temporary Construction Noise Impacts

Construction activity would be expected to use equipment listed in Table 3. Based on the activities proposed for the proposed project, the equipment with the loudest operating noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

level that would be used often during activity would be an excavator, which would produce noise levels of 85 dBA at a distance of 50 feet. The nearest sensitive receptor is located adjacent to the subject property containing a residence is approximately 80 feet east from the proposed project area. A second property containing a residence is approximately 270 feet south from the proposed project area.

At these distances, respectively, the decibel level is reduced by approximately 85 decibels to 80 decibels and 70 decibels. However, these impacts would also be temporary.

The County of Santa Cruz has not adopted significance thresholds for construction noise. However, ·Policy 6.9.7 of the General Plan requires mitigation of construction noise as a condition of future project approvals.

The following mitigation measures will be required to assist in the reduction of temporary construction noise impacts. With the implementation of those measures, no adverse noise impacts are expected occur during construction activities.

Mitigation Measures

NOI-1 Limit construction activity to between the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, 9:00 a.m. to 5:00 p.m. Saturday in order to avoid noise during more sensitive nighttime hours. Prohibit construction activity on Sundays.

NOI-2 Require that all construction and maintenance equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.

NOI-3 Prohibit gasoline or diesel engines from having unmuffled exhaust.

NOI-4 Use noise-reducing enclosures around stationary noise-generating equipment capable of 6 dB attenuation.

2. *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*	☐	☐	☒	☐

Discussion: The use of construction equipment would potentially generate vibration in the project area. The nearest residential property is located at approximately 160 feet east of the project site. Due to this distance, none of the area residences would experience significant groundborne vibration or groundborne noise levels during construction activities associated with the proposed project. Therefore, Impacts would be considered less than significant

3. *A substantial permanent increase in ambient noise levels in the project vicinity*	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

above levels existing without the project?

Discussion: The proposed project would not result in a permanent increase in the ambient noise level. The main source of ambient noise in the project area is traffic noise along Brancifore Drive and Granite Creek Road. However, no substantial increase in traffic trips is anticipated as a result of the proposed project. Impacts are expected to be less than significant.

4. *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*	☐	☐	☒	☐

Discussion: See discussion under L-1 above. Noise generated during project construction would increase the ambient noise levels in adjacent areas. Construction would be temporary, however, and given the limited duration of this impact it is considered to be less than significant with the incorporation of mitigation measures.

5. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*	☐	☐	☐	☒

Discussion: The proposed project is not within two miles of a public airport. Therefore, the proposed project would not expose people residing or working in the project area. No impact is anticipated.

6. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*	☐	☐	☐	☒

Discussion: The proposed project is not within two miles of a private airstrip. Therefore, the proposed project would not expose people residing or working in the project area. No impact is anticipated.

M. POPULATION AND HOUSING

Would the project:

1. *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*	☐	☐	☐	☒

Discussion: The proposed project would not induce substantial population growth in an

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

area because the project does not propose any physical or regulatory change that would remove a restriction to or encourage population growth in an area including, but limited to the following: new or extended infrastructure or public facilities; new commercial or industrial facilities; large-scale residential development; accelerated conversion of homes to commercial or multi-family use; or regulatory changes including General Plan amendments, specific plan amendments, zone reclassifications, sewer or water annexations; or LAFCO annexation actions. No impact would occur.

2.	*Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*	☐	☐	☐	☒

Discussion: The proposed project would not displace any existing housing. No impact would occur.

3.	*Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*	☐	☐	☐	☒

Discussion: The proposed project would not displace a substantial number of people since the project is intended to provide wireless service. No impact would occur.

N. PUBLIC SERVICES

Would the project:

1.	*Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*				
	a. *Fire protection?*	☐	☐	☒	☐
	b. *Police protection?*	☐	☐	☒	☐
	c. *Schools?*	☐	☐	☒	☐
	d. *Parks?*	☐	☐	☒	☐
	e. *Other public facilities; including the maintenance of roads?*	☐	☐	☒	☐

Discussion (a through e): While the project represents an incremental contribution to

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

the need for services, the increase would be minimal. Moreover, the project meets all of the standards and requirements identified by the local fire agency or California Department of Forestry, as applicable, and school, park, and transportation fees to be paid by the applicant would be used to offset the incremental increase in demand for school and recreational facilities and public roads. Impacts would be considered less than significant.

O. RECREATION

Would the project:

1. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*	☐	☐	☒	☐

Discussion: The proposed project would not substantially increase the use of existing neighborhood and regional parks or other recreational facilities. Impacts would be considered less than significant.

2. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*	☐	☐	☐	☒

Discussion: The proposed project does not propose the expansion or construction of additional recreational facilities. No impact would occur.

P. TRANSPORTATION/TRAFFIC

Would the project:

1. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*	☐	☐	☒	☐

Discussion: The project would create a small incremental increase in traffic on nearby roads and intersections. However, given that the small number of new trips created by the project would be limited to a service personnel vehicle required to test the facility, this increase would be less than significant. Further, the increase would not cause the Level of

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Service at any nearby intersection to drop below Level of Service D, consistent with General Plan Policy 3.12.1.

2. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?* ☐ ☐ ☐ ☒

Discussion: In 2000, at the request of the Santa Cruz County Regional Transportation Commission (SCCRTC), the County of Santa Cruz and other local jurisdictions exercised the option to be exempt from preparation and implementation of a Congestion Management Plan (CMP) per Assembly Bill 2419. As a result, the County of Santa Cruz no longer has a Congestion Management Agency or CMP. The CMP statutes were initially established to create a tool for managing and reducing congestion; however, revisions to those statutes progressively eroded the effectiveness of the CMP. There is also duplication between the CMP and other transportation documents such as the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP). In addition, the goals of the CMP may be carried out through the Regional Transportation Improvement Program and the Regional Transportation Plan. Any functions of the CMP which are useful, desirable and do not already exist in other documents may be incorporated into those documents.

The proposed project would not conflict with either the goals and/or policies of the RTP or with monitoring the delivery of state and federally-funded projects outlined in the RTIP. No impact would occur.

3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?* ☐ ☐ ☐ ☒

Discussion: No change in air traffic patterns would result from project implementation. Therefore, no impact is anticipated.

4. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?* ☐ ☐ ☐ ☒

Discussion: The proposed project consists of a wireless communication facility and does not include dangerous roadway features. No increase in hazards would occur from project design or from incompatible uses. No impact would occur from project implementation.

5. *Result in inadequate emergency access?* ☐ ☐ ☒ ☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

Discussion: The project's road access meets County standards and has been approved by the local fire agency or California Department of Forestry, as appropriate.

6.	*Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*	☐	☐	☒	☐

Discussion: The proposed project design would comply with current road requirements to prevent potential hazards to motorists, bicyclists, and/or pedestrians. No impact would occur.

Q. UTILITIES AND SERVICE SYSTEMS

Would the project:

1.	*Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*	☐	☐	☐	☒

Discussion: The proposed project would not generate wastewater. Therefore, wastewater treatment requirements would not be exceeded. No impacts would occur.

2.	*Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*	☐	☐	☐	☒

Discussion: The proposed wireless communication facility project would not require water or wastewater treatment. No impacts are expected to occur.

3.	*Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*	☐	☐	☐	☒

Discussion: The proposed project includes a small building pad and extended driveway and does not require additional drainage facilities to handle drainage. Environmental Planning staff has required grading and erosion control plans to ensure that drainage does not cause runoff of silt from the site. Therefore, no additional drainage facilities would be required for the proposed project. No impacts are expected to occur from the proposed project.

4.	*Have sufficient water supplies available to serve the project from existing*	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

entitlements and resources, or are new or expanded entitlements needed?

Discussion: The proposed project would only use small amounts of water during construction for dust control and road preparation work. No water use would be required during the operational phase of the project. No impacts are expected to occur from project implementation.

5. *Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*	☐	☐	☐	☒

Discussion: The proposed project would only use small amounts of water during construction for dust control and concrete work. No wastewater would be generated. No water use would be required during the operational phase of the project. No impacts are expected to occur from project implementation.

6. *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*	☐	☐	☐	☒

Discussion:

The proposed would not generate solid waste during the operational phase of the project. However, construction debris would be generated during demolition and construction, much of which would be recycled. No impact is anticipated.

7. *Comply with federal, state, and local statutes and regulations related to solid waste?*	☐	☐	☐	☒

Discussion: The project would comply with all federal, state, and local statutes and regulations related to solid waste disposal. No impact would occur.

R. MANDATORY FINDINGS OF SIGNIFICANCE

1. *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal community, reduce the number or restrict the range of a rare or*	☐	☒	☐	☐

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Discussion: The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in Section III (A through Q) of this Initial Study. Resources that have been evaluated as significant would be potentially impacted by the project, particularly potential nesting birds adjacent to the project area. However, mitigation has been included that clearly reduces these effects to a level below significance. These mitigations include:

Air Quality

AQ-1 Contracted Diesel Control Measures: In addition to the use of Tiered engines and California ultralow sulfur diesel fuel, the following requirements will be incorporated into contract specifications:

- To minimize potential diesel odor impacts on nearby receptors (pursuant to MBUAPCD Rule 402, Nuisances), construction equipment will be properly tuned. A schedule of tune-ups will be developed and performed for all equipment operating within the project area. A written log of required tune-ups will be maintained and a copy of the log will be submitted to the County of Santa Cruz Department of Public Works (DPW) Planning Director for review every 2,000 service hours.
- Fixed temporary sources of air emissions (such as portable pumps, compressors, generators, etc.) will be electrically powered unless the contractor submits documentation and receives written approval from the County of Santa Cruz DPW that the use of such equipment is not practical, feasible, or available (generally contingent upon power line proximity, capacity, and accessibility). California ultralow sulfur diesel fuel with maximum sulfur content of 15 ppm by weight (ppmw S), or an approved alternative fuel, will be used for on-site fixed equipment not using line power.
- To minimize diesel emission impacts, construction contracts will require off-road compression ignition equipment operators to reduce unnecessary idling with a 2-minute time limit, subject to monitoring and written documentation.
- On-road material hauling vehicles will shut off engines while queuing for loading and unloading for time periods longer than 2 minutes, subject to

monitoring and written documentation.

- Off-road diesel equipment will be fitted with verified diesel emission control systems (e.g., diesel oxidation catalysts) to the extent reasonably and economically feasible.
- Utilize alternative fuel equipment (i.e., compressed or liquefied natural gas, biodiesel, electric) to the extent reasonably and economically feasible.

Feasibility will be determined consistent with Best Available Control Technology (BACT) general criteria: 1) achieved in practice; 2) contained in adopted control measures; 3) technologically feasible; and 4) cost-effective.

AQ-2 Diesel Particulate Matter Emissions Control Measures: In addition, the project will implement the following measures to reduce particulate matter emissions from diesel exhaust:

- Grid power will be used instead of diesel generators where it is feasible to connect to grid power (generally contingent upon power line proximity, capacity, and accessibility).
- The project specifications will include 13 CCR Sections 2480 and 2485, which limit the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds, both California- or non-California-based trucks) to 30 seconds at a school or 5 minutes at any location. In addition, the use of diesel auxiliary power systems and main engines will be limited to 5 minutes when within 100 feet of homes or schools while the driver is resting.
- The project specifications will include 17 CCR Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition Engines, which specifies fuel and fuel additive requirements; emission standards for operation of any stationary, diesel-fueled, compression-ignition engines; and operation restrictions within 500 feet of school grounds when school is in session.
- A schedule of low-emissions tune-ups will be developed and such tune-ups will be performed on all equipment, particularly for haul and delivery trucks.
- Low-sulfur (≤ 15 ppmw S) fuels will be used in all stationary and mobile equipment.

AQ-3 Dust Control Measures: The following controls will be implemented at the construction and staging sites as applicable:

- Water all active construction areas at least twice daily as necessary and indicated by soil and air conditions.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

- Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, will be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads will be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities will be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off site, all material will be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container will be maintained.
- All operations will limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles will be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
- Within urban areas, trackout will be immediately removed when it extends 50 or more feet from the site and at the end of each workday.
- Any site with 150 or more vehicle trips per day will prevent carryout and trackout.
- Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more).
- Enclose, cover, water twice daily, or apply (nontoxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install sandbags or other erosion control measures to prevent silt runoff to public

roadways from sites with a slope greater than 1 percent.

- Replant vegetation in disturbed areas as quickly as possible.
- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
- Install wind breaks at windward side(s) of construction areas.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 20 miles per hour.
- Limit the area subject to excavation, grading, and other construction activity at any one time.

Implementation of the above BMPs and BACT would ensure that emissions of diesel particulate matter (DPM) and fugitive dust from project excavation and grading would be consistent with the MBUAPCD emissions inventories. Impacts would be less than significant.

Migratory Birds

BIO-1: Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. The nesting season for migratory birds and birds of prey is generally 1 February through 31 August. Implementation of the following measures will avoid potential impacts.

- If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests.
- If construction is scheduled to begin between 1 February and 31 August then a qualified biologist shall conduct a preconstruction survey for active nests. The survey will include a 250 foot radius from the work area for nesting birds of prey and a 50 foot radius from the work area for other nesting MBTA protected birds. The survey will be conducted from publicly accessible areas within one two weeks prior to construction. If no active nest of a bird of prey or MBTA bird is found, then no further mitigation measures are necessary.
- If an active nest of a bird of prey or MBTA bird is found, then the biologist shall determine a buffer suitable to protect the nest until fledging. The size of suitable buffers depends on the species of bird, the location of the nest relative to the Project, Project activities during the time the nest is active, and other Project specific conditions.
- No construction activity shall be allowed in the buffer until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller buffer will protect the active nest. The buffer may be reduced if the biologist monitors the construction activities and determines that no

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

disturbance to the active nest is occurring.

If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.

As a result of this evaluation, there is no substantial evidence that, after mitigation, significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

2. *Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*	☐	☐	☒	☐

Discussion: In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. As a result of this evaluation, there is no substantial evidence that there are cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

3. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*	☐	☐	☒	☐

Discussion: In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in Section III (A through Q). As a result of this evaluation, there were determined to be potentially significant effects to human beings related to the following: Noise. However, mitigation has been included that clearly reduces these effects to a level below significance. Mitigation includes:

Noise

NOI-1 Limit construction activity to between the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, 9:00 a.m. to 5:00 p.m. Saturday in order to avoid noise during more sensitive nighttime hours. Prohibit construction activity on Sundays.

NOI-2 Require that all construction and maintenance equipment powered by gasoline or

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.

NOI-3 Prohibit gasoline or diesel engines from having unmuffled exhaust.

NOI-4 Use noise-reducing enclosures around stationary noise-generating equipment capable of 6 dB attenuation.

As a result of this evaluation, there is no substantial evidence that, after mitigation, there are adverse effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

IV. REFERENCES USED IN THE COMPLETION OF THIS INITIAL STUDY

California Department of Conservation. 1980

Farmland Mapping and Monitoring Program Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance Santa Cruz County U.S. Department of Agriculture, Natural Resources Conservation Service, soil surveys for Santa Cruz County, California, August 1980.

County of Santa Cruz, 2013

County of Santa Cruz Climate Action Strategy. Approved by the Board of Supervisors on February 26, 2013.

County of Santa Cruz, 2010

County of Santa Cruz Local Hazard Mitigation Plan 2010-2015. Prepared by the County of Santa Cruz Office of Emergency Services.

County of Santa Cruz, 1994

1994 General Plan and Local Coastal Program for the County of Santa Cruz, California. Adopted by the Board of Supervisors on May 24, 1994, and certified by the California Coastal Commission on December 15, 1994.

MBUAPCD, 2008

Monterey Bay Unified Air Pollution Control District (MBUAPCD), CEQA Air Quality Guidelines. Prepared by the MBUAPCD, Adopted October 1995, Revised: February 1997, August 1998, December 1999, September 2000, September 2002, June 2004 and February 2008.

MBUAPCD, 2013a

Monterey Bay Unified Air Pollution Control District, NCCAB (NCCAB) Area Designations and Attainment Status – January 2013. Available online at http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment_Status_January_2013_2.pdf

MBUAPCD, 2013b

Triennial Plan Revision 2009-2011. Monterey Bay Air Pollution Control District. Adopted April 17, 2013.

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Attachment 1

Mitigation Monitoring and Reporting Program

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Attachment 2

Revised Project Plans – 68'6" Facility Height

ZD DRAWING SIGN-OFF

DATE: TIME: % CWC-PLEASE RETURN BY:

	SIGNATURE	DATE
SITE ACQUISITION:		
PLANNING:		
CONSTRUCTION:		
MANAGEMENT:		

	SIGNATURE	DATE
CONSTRUCTION:		
REAL ESTATE:		
RF ENGINEER:		
EQUIPMENT ENGINEER:		
MW ENG./TRANSPORT:		

OTHER (IF APPLICABLE)

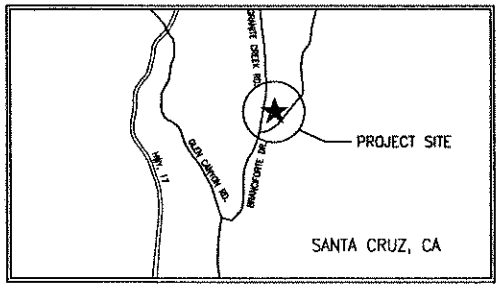
SIGNATURE	DATE

verizon

2785 Mitchell Drive, Walnut Creek, CA 94598

HAPPY CANYON

300 GRANITE CREEK RD
SANTA CRUZ, CA 95065-9733
APN: 101-172-14
LOCATION #: 283182



SANTA CRUZ, CA — LOCATION PLAN

DIRECTIONS

FROM VERIZON OFFICE @ 2785 MITCHELL DRIVE, WALNUT CREEK, CA 94598:

1. HEAD NORTHEAST ON MITCHELL DR TOWARD OAK GROVE RD.
2. TURN RIGHT ONTO OAK GROVE RD.
3. TAKE THE 2ND RIGHT ONTO IGNACIO VALLEY RD.
4. CONTINUE ONTO HILLSIDE AVE.
5. TURN LEFT ONTO THE INTERSTATE 680 S RAMP TO SAN JOSE.
6. MERGE ONTO I-680 S.
7. TAKE THE MISSION BLVD/STATE ROUTE 262 EXIT TOWARD I-880.
8. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR MISSION BLVD W AND MERGE ONTO MISSION BLVD.
9. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR INTERSTATE 880 S/SAN JOSE AND MERGE ONTO I-880 S.
10. CONTINUE ONTO CA-17 S.
11. TAKE THE SCOTTS VALLEY DR EXIT TOWARD GRANITE CREEK RD.
12. TURN LEFT ONTO SCOTTS VALLEY DR.
13. TAKE THE 1ST LEFT ONTO GRANITE CREEK RD.
14. TAKE THE 1ST RIGHT TO STAY ON GRANITE CREEK RD.
15. DESTINATION WILL BE ON THE LEFT.

INDEX OF DRAWINGS

PROJECT DIRECTORY

APPLICANT:
VERIZON WIRELESS
2785 MITCHELL DRIVE
WALNUT CREEK, CA 94598

PROPERTY OWNER:
FREDDIE & GWENDOLA TAYLOR
300 GRANITE CREEK RD
SANTA CRUZ, CA 95065-9733

ARCHITECT:
MANUEL S. TSIHLAS
MST ARCHITECTS, INC.
1520 RIVER PARK DRIVE
SACRAMENTO, CA 95815
916-567-9630
manuel@mstarchitects.com

CONSTRUCTION MANAGER:
SERJIO CABRERA
COMPLETE WIRELESS CONSULTING, INC.
2009 V STREET
SACRAMENTO, CA 95818
916-217-9219
scabrera@completewireless.net

PROJECT SUMMARY

ASSESSOR'S PARCEL NUMBER:	101-172-14
JURISDICTION:	COUNTY OF SANTA CRUZ
OCCUPANCY:	U (UNMANNED TELECOMMUNICATIONS FACILITY)
TYPE OF CONSTRUCTION:	V-B
ZONING:	A (AGRICULTURE)

CODE COMPLIANCE

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

2016 CALIFORNIA BUILDING STANDARDS CODE, TITLE 24, CALIFORNIA CODE OF REGULATIONS EFFECTIVE JANUARY 1, 2017

PART 1	CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE
PART 2	CALIFORNIA BUILDING CODE
PART 2.5	CALIFORNIA RESIDENTIAL BUILDING CODE
PART 3	CALIFORNIA ELECTRICAL CODE
PART 4	CALIFORNIA MECHANICAL CODE
PART 5	CALIFORNIA PLUMBING CODE
PART 6	CALIFORNIA ENERGY CODE
PART 8	CALIFORNIA HISTORICAL BUILDING CODE
PART 9	CALIFORNIA FIRE CODE
PART 10	CALIFORNIA EXISTING BUILDING CODE
PART 11	CALIFORNIA GREEN BUILDING STANDARDS CODE
PART 12	CALIFORNIA REFERENCE STANDARDS CODE

LOCAL COUNTY OR CITY ORDINANCES

ACCESSIBILITY REQUIREMENTS: THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ACCESSIBILITY NOT REQUIRED IN ACCORDANCE WITH THE 2016 CBC 11B-203.5, AND 11B-202.4 EXCEPTION 7.

PROJECT DESCRIPTION

PROPOSED VERIZON WIRELESS UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING:

- A 26'-0"x40'-0" LEASE AREA.
- A 8'-0" TALL CMU WALL @ LEASE AREA PERIMETER.
- OUTDOOR EQUIPMENT CABINETS.
- POWER & TELCO UTILITIES BROUGHT TO FACILITY.
- A STANDBY GENERATOR
- ANTENNAS WITH ASSOCIATED EQUIPMENT ON A PROPOSED MONO-EUCALYPTUS.

PROJECT MILESTONES

06/06/2014	90% ZONING DOCUMENTS
08/24/2014	100% ZONING DOCUMENTS
03/04/2015	100% ZONING DOCUMENTS REVISION 1
04/16/2015	100% ZONING DOCUMENTS REVISION 2
09/10/2015	90% ZONING DOCUMENTS ODE
09/24/2015	100% ZONING DOCUMENTS ODE
12/14/2015	100% ZONING DOCUMENTS ODE REVISION 1
01/19/2016	100% ZONING DOCUMENTS ODE REVISION 2
06/09/2016	100% ZONING DOCUMENTS ODE REVISION 3
06/21/2016	100% ZONING DOCUMENTS ODE REVISION 4
03/09/2017	100% ZONING DOCUMENTS ODE REVISION 5
07/26/2017	100% ZONING DOCUMENTS ODE REVISION 6
10/18/2017	100% ZONING DOCUMENTS ODE REVISION 7
12/06/2017	100% ZONING DOCUMENTS ODE REVISION 8
XX/XX/XXXX	90% CONSTRUCTION DOCUMENTS
XX/XX/XXXX	100% CONSTRUCTION DOCUMENTS

MST ARCHITECTS — COMPLETE WIRELESS CONSULTING, INC.

verizon
HAPPY CANYON
300 GRANITE CREEK RD
SANTA CRUZ, CA 95065-9733

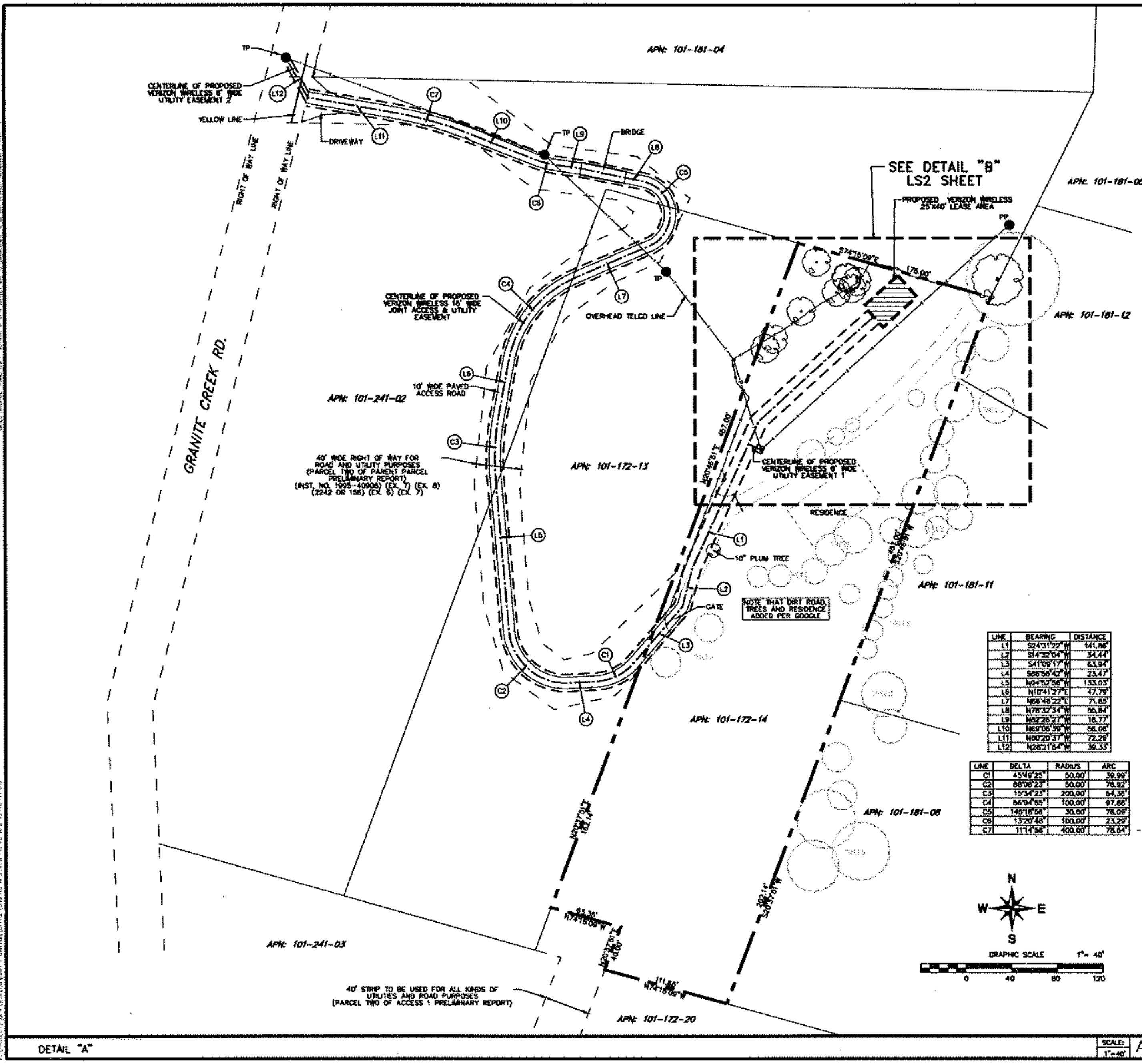
SHEET TITLE: TITLE SHEET, LOCATION PLAN, PROJECT DATA

Revisions:
1 —
2 —
3 —
4 —
5 —

File: 1821171_T1.dwg
Drawn By: MT
Checked By: M
Scale: AS NOTED
Date: 12/06/17

Job No. 1821171

T1.1



LINE	BEARING	DISTANCE
L1	S24°31'22"W	141.86'
L2	S14°32'04"W	34.44'
L3	S41°09'17"W	63.94'
L4	S86°56'42"W	23.47'
L5	N04°52'56"W	133.03'
L6	N10°41'27"E	47.79'
L7	N66°48'22"E	71.85'
L8	N78°37'34"W	50.84'
L9	N82°26'27"W	16.77'
L10	N69°06'39"W	56.06'
L11	N80°20'37"W	72.28'
L12	N28°21'04"W	39.33'

LINE	DELTA	RADIUS	ARC
C1	45°49'23"	50.00'	39.99'
C2	88°08'23"	50.00'	76.92'
C3	15°34'23"	200.00'	54.36'
C4	56°04'55"	100.00'	97.86'
C5	146°16'56"	30.00'	76.09'
C6	13°20'46"	100.00'	23.29'
C7	11°14'58"	400.00'	78.54'

LEGEND

MANHOLE	FIRE HYDRANT	EDGE OF PAVEMENT
LIGHT POLE	MONUMENT	OVERHEAD ELECTRIC LINE
20" EUCALYPTUS UNLESS MARKED OTHER	HANDICAPPED PARKING	FENCE LINE
JP JOINT POLE	TP TELEPHONE POLE	PROPERTY LINE
PP POWER POLE	Ω=1245' SPOT ELEVATION	AMSL....ABOVE MEAN SEA LEVEL
		AGL....ABOVE GROUND LEVEL
		CP #....FIELD CONTROL POINT

DATE OF SURVEY: 05/27/14

SURVEYED BY/ OR UNDER THE DIRECTION OF: Oliver Philip Auer L.S. 5075

NOTES:

THIS IS NOT A BOUNDARY SURVEY. THIS IS A CELLULAR TELECOMMUNICATIONS TOPOGRAPHIC SURVEY MAP WITH EXISTING PARENT PARCEL LINES AND EASEMENTS BEING A GRAPHIC DEPICTION OF VARIOUS INFORMATION GATHERED FROM PRELIMINARY REPORTS, RECORD INFORMATION AND AVAILABLE MONUMENTS FOUND DURING THE FIELD SURVEY. UNLESS OTHERWISE NOTED, NO UNDERGROUND UTILITY LOCATING SERVICE COMPANY WAS CONTACTED PRIOR TO THIS MAP BEING PREPARED; THEREFORE, THERE MAY BE NON-VISIBLE OR OBSCURE UTILITIES EXISTING ON THE PROPERTY NOT SHOWN ON THIS MAP.

PARENT PARCEL DESCRIPTION:

SEE PRELIMINARY REPORT DESCRIPTION EXTRACT, LS3 SHEET.

LEASE AREA DESCRIPTION:

SEE LS3 SHEET.

JOINT ACCESS AND UTILITY EASEMENT DESCRIPTION:

TBD - DESCRIPTION TO BE INSERTED WITH 100% SURVEY.

UTILITY EASEMENT DESCRIPTIONS:

TBD - DESCRIPTION TO BE INSERTED WITH 100% SURVEY.

BASIS OF ELEVATIONS: NAVD 88.

BASIS OF BEARINGS: CALIFORNIA STATE PLANE COORDINATE SYSTEM, ZONE 3, NAD 83.

PROJECT BENCH: AS SHOWN ON LS2 SHEET.

LANDLORD INFORMATION: FREDDIE & GEWNDOLYN TAYLOR
300 GRANITE CREEK RD.
SANTA CRUZ, CAD 95065-9733

NET AREA OF:
UNDERLYING PARCEL(S): 2.58± AC.

FLOOD ZONE IS NOT DESIGNATED FOR THE LOCATION THE PROPOSE SITE IS IN, PER FEMA FIRM COMMUNITY PANEL NUMBER 06087C0236E, MAP REVISED MAY 16, 2012.

FAA 1A CERTIFICATION:

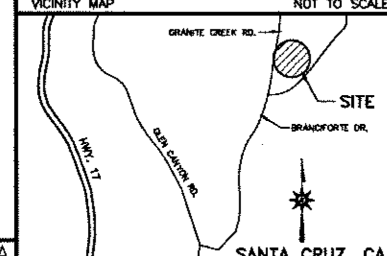
LATITUDE AND LONGITUDE WAS OBTAINED FROM INFORMATION PROVIDED BY A GPS SURVEY. THE GEODETIC POSITION SHOWN WAS DETERMINED UTILIZING FAST-STATIC GPS OBSERVATIONS FROM NGS CORS STATION(S) USING TRIMBLE 4600LS RECEIVERS. THE DATA WAS DIFFERENTIALLY CORRECTED WITH TRIMBLE GPS SURVEY SOFTWARE.

LATITUDE, LONGITUDE AND ELEVATIONS DENOTED ON THIS SURVEY MEET OR EXCEED THE FEDERAL AVIATION ADMINISTRATION 1-A STANDARD.

ELEVATION OF GROUND AT GPS POINT: 243.4' AMSL

LATITUDE: N37°01'16.94"
LONGITUDE: W121°59'41.99" (NAD 83)

VICINITY MAP — NOT TO SCALE



Phil Auer Surveying
14407 Corte Lejos
Bakersfield, CA 93314
Phone: (661) 587-6189
Mobile: (661) 714-7284
E-mail: ...@earthlink.net

verizon wireless

HAPPY CANYON
300 GRANITE CREEK RD.
SANTA CRUZ, CA 95065-9733

SHEET TITLE:
SURVEY SHEET

Revisions:
1 REDLINES
2 GOOGLE ITEMS ADDED

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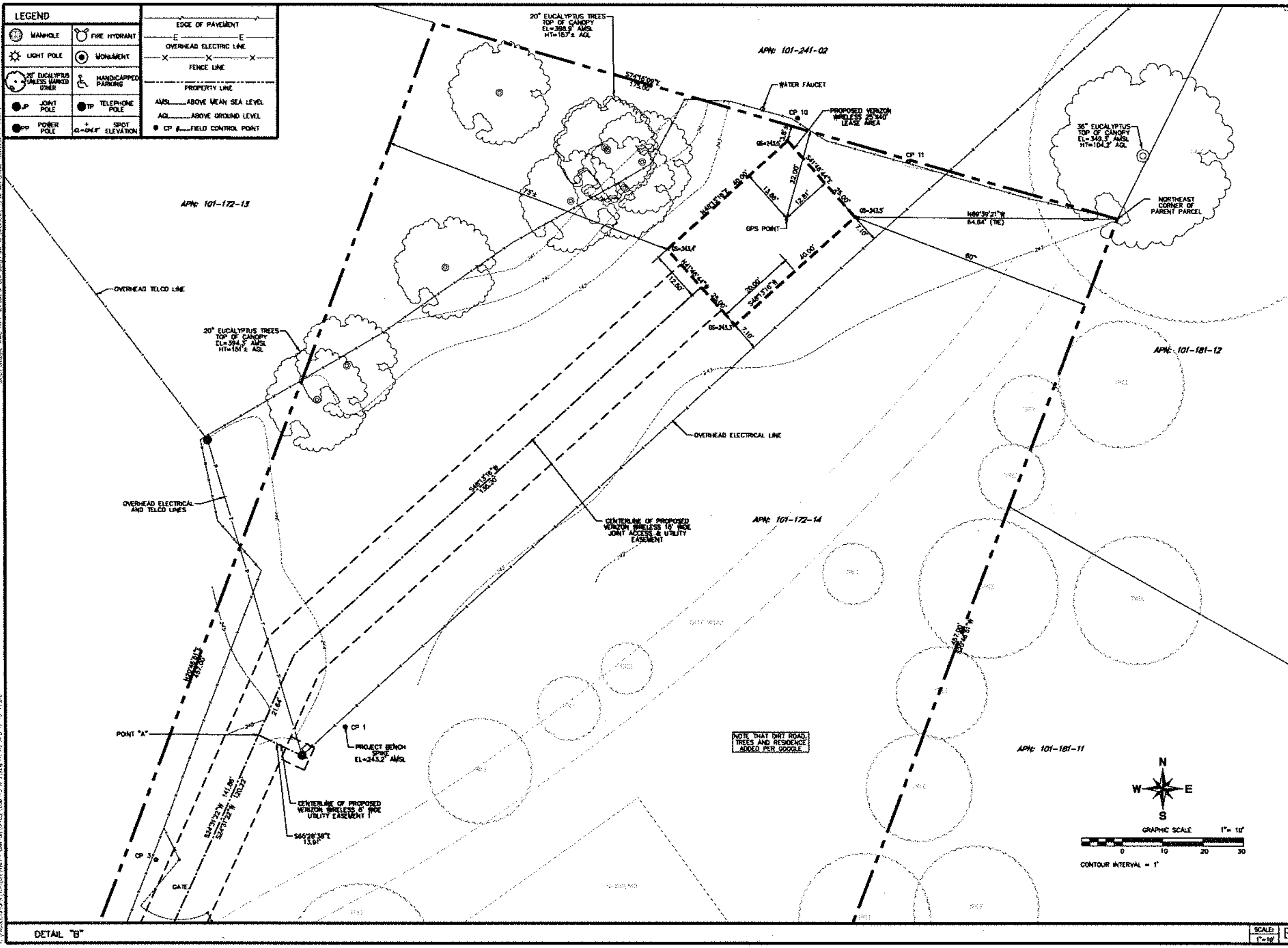
Drawn By: PAU
Checked By: DPA
Scale: AS NOTED
Date: 10/16/17

Job No. N/A

LS1



Phil Auer Surveying
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Bakersfield, CA 93314
Phone: (661) 687-6189
Mobile: (610) 714-7884

HAPPY CANYON
300 GRANITE CREEK RD.
SANTA CRUZ, CA 95065-9733

verizon WIRELESS

SHEET TITLE:
SURVEY SHEET

Revisions:
1 REDLINES
2 GOOGLE ITEMS ADDED

Name: HAPPY CANYON
Drawn By: PAD
Checked By: GPA
Scale: AS NOTED
Date: 10/18/17

Job No. N/A

LS2

PRELIMINARY REPORT DESCRIPTION EXTRACT

Order Number: 3430-4005531
Page Number: 5

PARENT PARCEL
LEGAL DESCRIPTION

Real property in the unincorporated area of the County of Santa Cruz, State of California, described as follows:

PARCEL ONE:

BEING A PART OF THE NORTHWEST QUARTER OF SECTION 32, IN TOWN-SHIP 10, SOUTH, RANGE 1, WEST, MOUNT DIABLO BASE AND MERIDIAN AND BEING A PART OF THE LANDS CONVEYED TO BLUE WATERS PROPERTIES, INC., A CORPORATION, BY DEED RECORDED SEPTEMBER 8, 1969 IN VOLUME 1973, PAGE 668, OFFICIAL RECORDS OF SANTA CRUZ COUNTY, DESCRIBED AS FOLLOWS, TO WIT:

BEGINNING AT A 3/4 INCH PIPE AT THE SOUTHWEST CORNER OF THE LANDS, DESCRIBED IN THE DEED TO WALDO ELWIN ROBERTS, ET UX., RECORDED SEPTEMBER 8, 1930 IN VOLUME 176, PAGE 452, OFFICIAL RECORDS OF SANTA CRUZ COUNTY; THENCE ALONG THE NORTHWESTERN BOUNDARY OF SAID LANDS OF ROBERTS, NORTH 18° 21' EAST 202.14 FEET TO AN IRON PIPE AT THE SOUTHWEST CORNER OF THE LANDS DESCRIBED IN THE DEED TO WALDO ELWIN ROBERTS, ET UX., RECORDED JUNE 14, 1930 IN VOLUME 177, PAGE 58, OFFICIAL RECORDS OF SANTA CRUZ COUNTY; THENCE ALONG THE NORTHWESTERN BOUNDARY OF SAID LAST MENTIONED LANDS, NORTH 18° 30' EAST 457.00 FEET; THENCE LEAVING SAID BOUNDARY, NORTH 76° 32' WEST 175.00 FEET; THENCE SOUTH 18° 30' WEST 457.00 FEET; THENCE SOUTH 18° 21' WEST 162.14 FEET; THENCE SOUTH 76° 32' EAST 63.35 FEET; THENCE SOUTH 18° 21' WEST 40.00 FEET; THENCE SOUTH 76° 32' EAST 111.65 FEET TO THE POINT OF BEGINNING.

PARCEL TWO:

A RIGHT OF WAY, APPURTENANT TO PARCEL ONE, 40 FEET IN WIDTH FOR ROAD AND UTILITY PURPOSES, THE CENTERLINE OF WHICH IS DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EASTERLY LINE OF THE LANDS DESCRIBED AS PARCEL ONE IN THE DEED TO LEONARD H. SMITH, RECORDED JULY 20, 1970 IN VOLUME 2030, PAGE 422, OFFICIAL RECORDS OF SANTA CRUZ COUNTY, FROM WHICH THE NORTHEASTERLY CORNER THEREOF BEARS NORTH 18° 30' EAST 354 FEET DISTANT, THENCE FROM SAID POINT OF BEGINNING THE FOLLOWING COURSES AND DISTANCES; SOUTH 43° 47' WEST 65.0 FEET, SOUTH 75° WEST 40.0 FEET, NORTH 56° WEST 40.0 FEET, NORTH 19° WEST 30.0 FEET, NORTH 6° 36' WEST 103.8 FEET, NORTH 4° EAST 96.1 FEET, NORTH 27° EAST 70.0 FEET, NORTH 51° EAST 60.0 FEET, NORTH 64° EAST 40 FEET, NORTH 23° 02' EAST 38.7 FEET, NORTH 53° 56' WEST 37.7 FEET, NORTH 84° 58' WEST 75.3 FEET, NORTH 55° 17' WEST 92.1 FEET TO A POINT DISTANT 20 FEET SOUTHERLY OF THE NORTH LINE OF THE LANDS DESCRIBED AS PARCEL ONE IN THE DEED TO LEONARD SMITH, ET AL., RECORDED JULY 14, 1970 IN VOLUME 2029, PAGE 373, OFFICIAL RECORDS OF SANTA CRUZ COUNTY, THENCE ALONG A LINE PARALLEL TO AND DISTANT 20 FEET SOUTHERLY OF SAID NORTH LINE, SOUTH 68° 47' WEST 155 FEET, MORE OR LESS, TO THE CENTER OF GRANITE CREEK ROAD.

APN: 101-172-14

First American Title
Page 5 of 13

LEASE AREA DESCRIPTION:

BEGINNING AT A POINT LYING NORTH 89°39'21" WEST 84.64 FEET FROM THE NORTHEAST CORNER OF THE HEREON MENTINOED PARENT PARCEL; THENCE FROM SAID POINT OF BEGINNING SOUTH 48°13'16" WEST 40.00 FEET; THENCE NORTH 41°46'44" WEST 25.00 FEET; THENCE NORTH 48°13'16" EAST 40.00 FEET; THENCE SOUTH 41°46'44" EAST 25.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 1000 SQUARE FEET MORE OR LESS.

JOINT ACCESS AND UTILITY EASEMENT DESCRIPTION:

BEING A PORTION OF THE HEREON MENTIONED PARENT PARCEL, ALSO BEING A PORTION OF ASSESSOR'S PARCEL NUMBERS 101-241-02 AND 101-172-13, DESCRIBED AS FOLLOWS:

A STRIP OF LAND 15.00 FEET IN WIDTH LYING 7.50 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT A POINT ON THE SOUTHWEST LINE OF THE HEREIN DESCRIBED LEASE AREA, LYING 12.50 FEET FROM THE MOST WESTERLY CORNER THEREOF; THENCE FROM SAID POINT OF BEGINNING SOUTH 48°13'16" WEST 135.20 FEET; THENCE SOUTH 24°31'22" WEST 21.64 FEET TO A POINT HENCEFORTH KNOWN AS POINT "A"; THENCE LEAVING SAID POINT "A" SOUTH 24°31'22" WEST 120.22 FEET; THENCE SOUTH 14°32'04" WEST 34.44 FEET; THENCE SOUTH 41°09'17" WEST 63.94 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 45°49'26", A RADIUS OF 50.00 FEET, AN ARC LENGTH OF 39.99 FEET; THENCE SOUTH 86°58'42" WEST 23.47 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 88°08'23", A RADIUS OF 50.00 FEET, AN ARC LENGTH OF 76.92 FEET; THENCE NORTH 04°52'56" WEST 133.03 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 15°34'23", A RADIUS OF 200.00 FEET, AN ARC LENGTH OF 54.36 FEET; THENCE NORTH 10°41'27" EAST 47.79 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 56°04'55", A RADIUS OF 100.00 FEET, AN ARC LENGTH OF 97.88 FEET; THENCE NORTH 66°46'22" EAST 71.85 FEET; THENCE ALONG A CURVE TO THE LEFT HAVING A CENTRAL ANGLE OF 145°18'56", A RADIUS OF 30.00 FEET, AN ARC LENGTH OF 76.09 FEET; THENCE NORTH 78°32'34" WEST 66.64 FEET; THENCE NORTH 82°26'37" WEST 16.77 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 13°20'48", A RADIUS OF 100.00 FEET, AN ARC LENGTH OF 23.29 FEET; THENCE NORTH 69°05'39" WEST 56.06 FEET; THENCE ALONG A CURVE TO THE LEFT HAVING A CENTRAL ANGLE OF 11°14'56", A RADIUS OF 400.00 FEET, AN ARC LENGTH OF 78.54 FEET; THENCE NORTH 80°20'37" WEST 72.26 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF GRANITE CREEK ROAD, SAID POINT BEING THE END OF THE HEREIN DESCRIBED CENTERLINE.

CONTAINING 1950 SQUARE FEET MORE OR LESS.

UTILITY EASEMENT 1 DESCRIPTION:

A STRIP OF LAND 6.00 FEET IN WIDTH LYING 3.00 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT POINT "A" AS DENOTED IN THE HEREIN DESCRIBED JOINT ACCESS AND UTILITY EASEMENT; THENCE LEAVING SAID POINT "A" SOUTH 65°28'38" EAST 13.91 FEET TO A POINT, SAID POINT BEING THE END OF THE HEREIN DESCRIBED CENTERLINE, EXCEPTING THEREFROM THAT PORTION THEREOF LYING WITHIN SAID JOINT ACCESS & UTILITY EASEMENT.

CONTAINING 38 SQUARE FEET MORE OR LESS.

UTILITY EASEMENT 2 DESCRIPTION:

BEING A PORTION OF GRANITE CREEK ROAD, DESCRIBED AS FOLLOWS:

A STRIP OF LAND 6.00 FEET IN WIDTH LYING 3.00 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT THE TERMINOUS OF THE HEREIN DESCRIBED JOINT ACCESS AND UTILITY EASEMENT; THENCE FROM SAID POINT OF BEGINNING NORTH 28°21'54" WEST 39.33 FEET TO A POINT, SAID POINT BEING THE END OF THE HEREIN DESCRIBED CENTERLINE.

CONTAINING 240 SQUARE FEET MORE OR LESS.

Phil Auer Surveying
14407 Corte Lejos
Bakersfield, CA 93314
Phone: (661) 587-0189
Mobile: (610) 714-7884
E-mail: ipa0705@earthlink.net

HAPPY CANYON
300 GRANITE CREEK RD.
SANTA CRUZ, CA 95065-9733

verizon WIRELESS

SHEET TITLE:
SURVEY SHEET

Revisions:
1 REDLINES
2 GOOGLE ITEMS ADDED

Name: HAPPY CANYON
Drawn By: PAO
Checked By: OPA
Scale: AS NOTED
Date: 10/18/17

Job No. N/A

LS3

0'10' 50' 100'
1" = 40.0'

1 / A1.0 SITE PLAN WITH AERIAL
SCALE: 1" = 40.0'

MST ARCHITECTS

COMPLETE Wireless Consulting, Inc.

verizon✓

HAPPY CANYON
300 GRANITE CREEK RD
SANTA CRUZ, CA 95065-9733

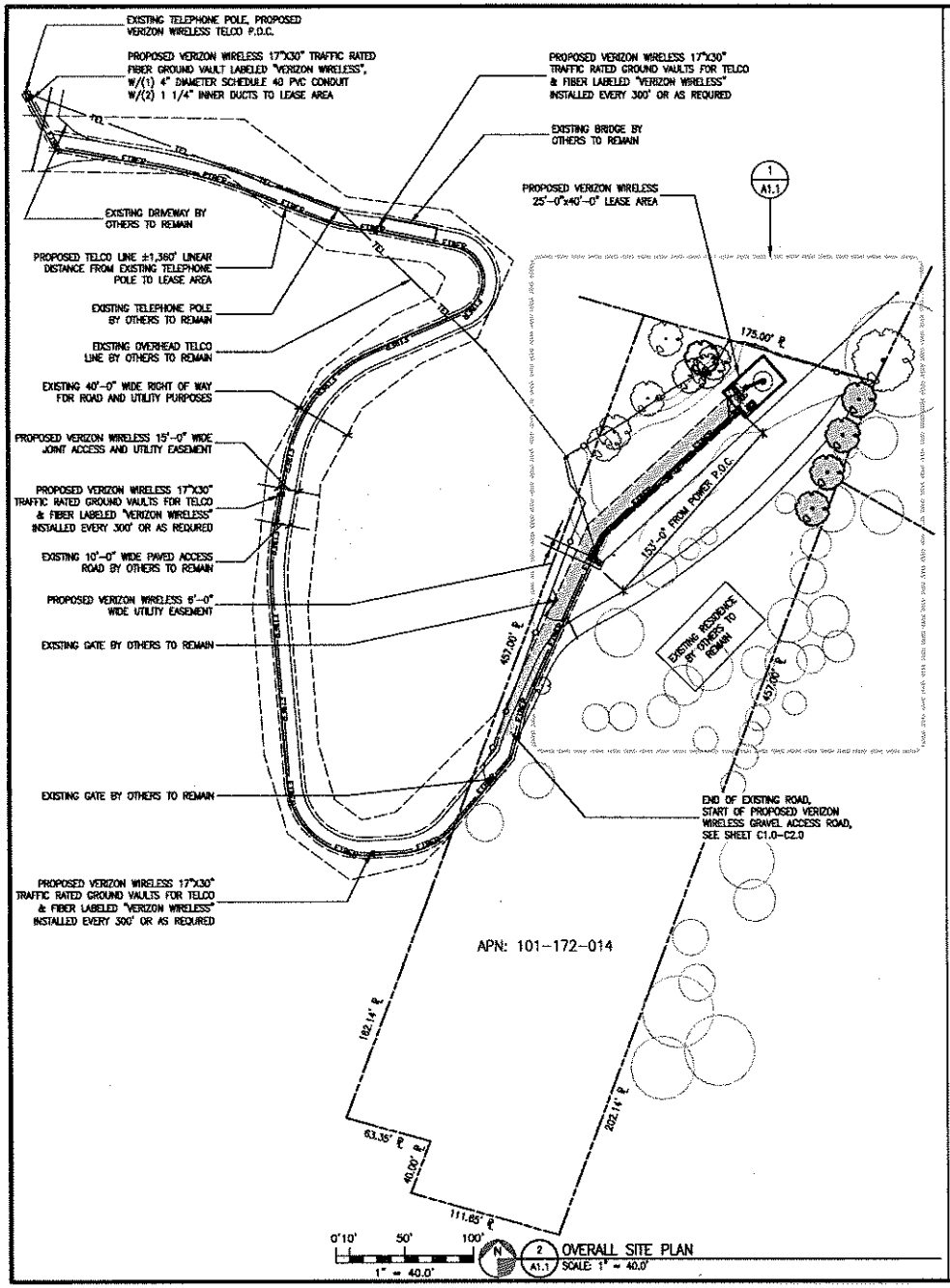
SHEET TITLE:
SITE PLAN WITH AERIAL

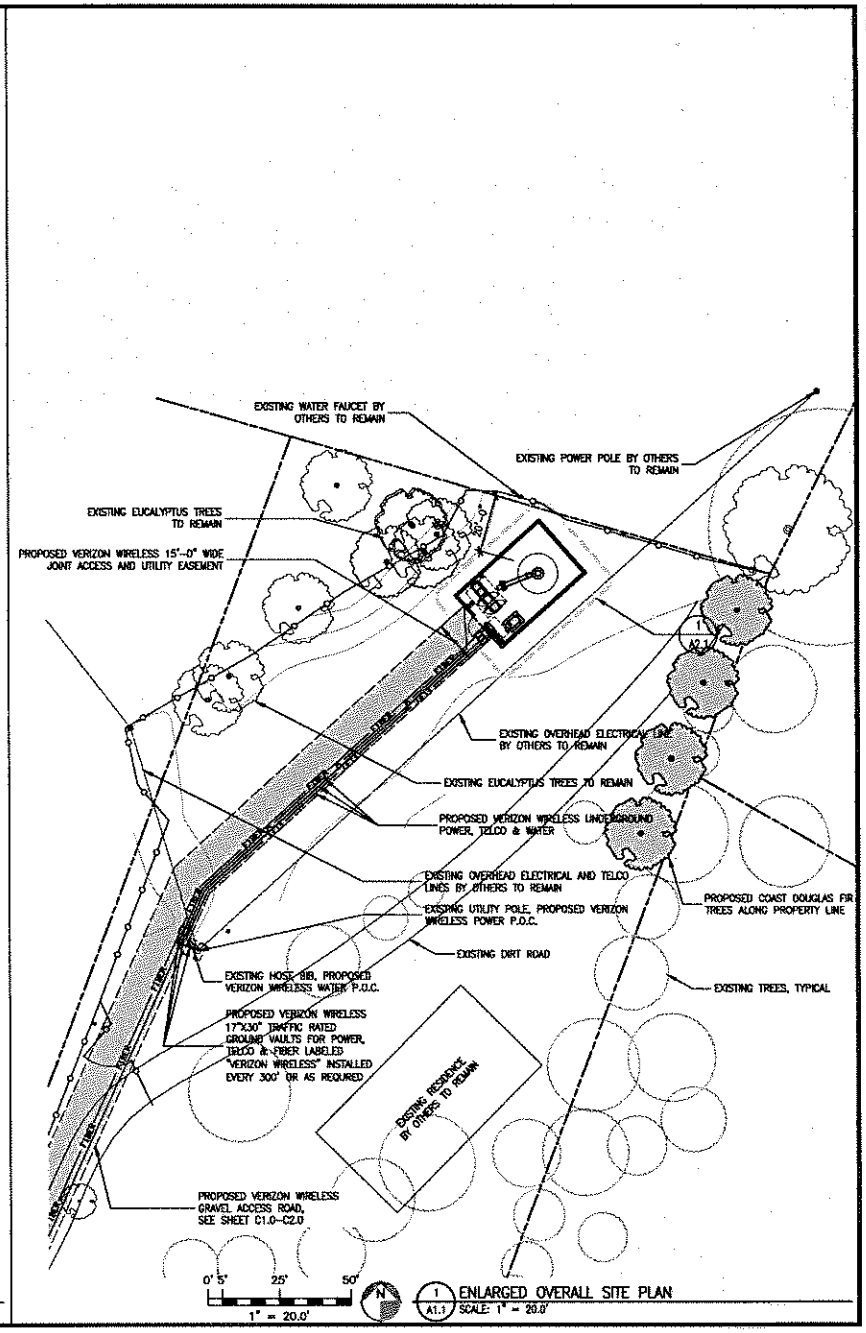
Revisions:
△ --
△ --
△ --
△ --
△ --

File: 162.1171A10.dwg
Drawn By: LX
Checked By: SM
Scale: AS NOTED
Date: 12/06/17

Job No. 162.1171

A1.0





MST ARCHITECTS
COMPLETE Wireless Consulting, Inc.

verizon

HAPPY CANYON
300 GRANITE CREEK RD
SANTA CRUZ, CA 95065-9733

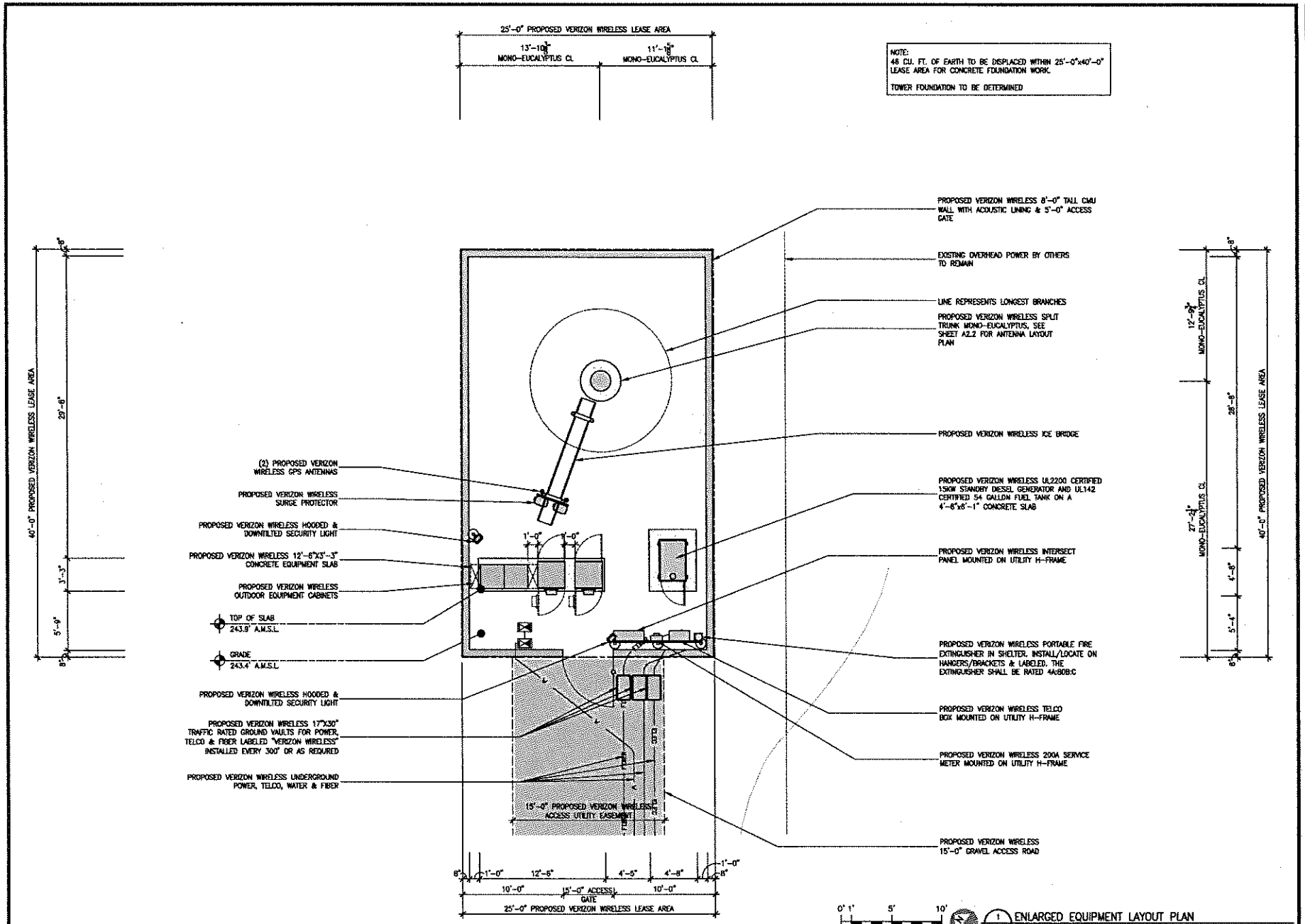
SHEET TITLE: OVERALL & ENLARGED SITE PLANS

Revisions:
1 —
2 —
3 —
4 —
5 —

File: 182.1171_A11.dwg
Drawn By: LK
Checked By: SH
Scale: AS NOTED
Date: 12/09/17

Job No. 182.1171

A1.1



MST ARCHITECTS

COMPLETE WIRELESS CONSULTING, INC.

verizon

HAPPY CANYON
300 GRANITE CREEK RD
SANTA CRUZ, CA 95065-9733

SHEET TITLE: ENLARGED EQUIPMENT LAYOUT PLAN

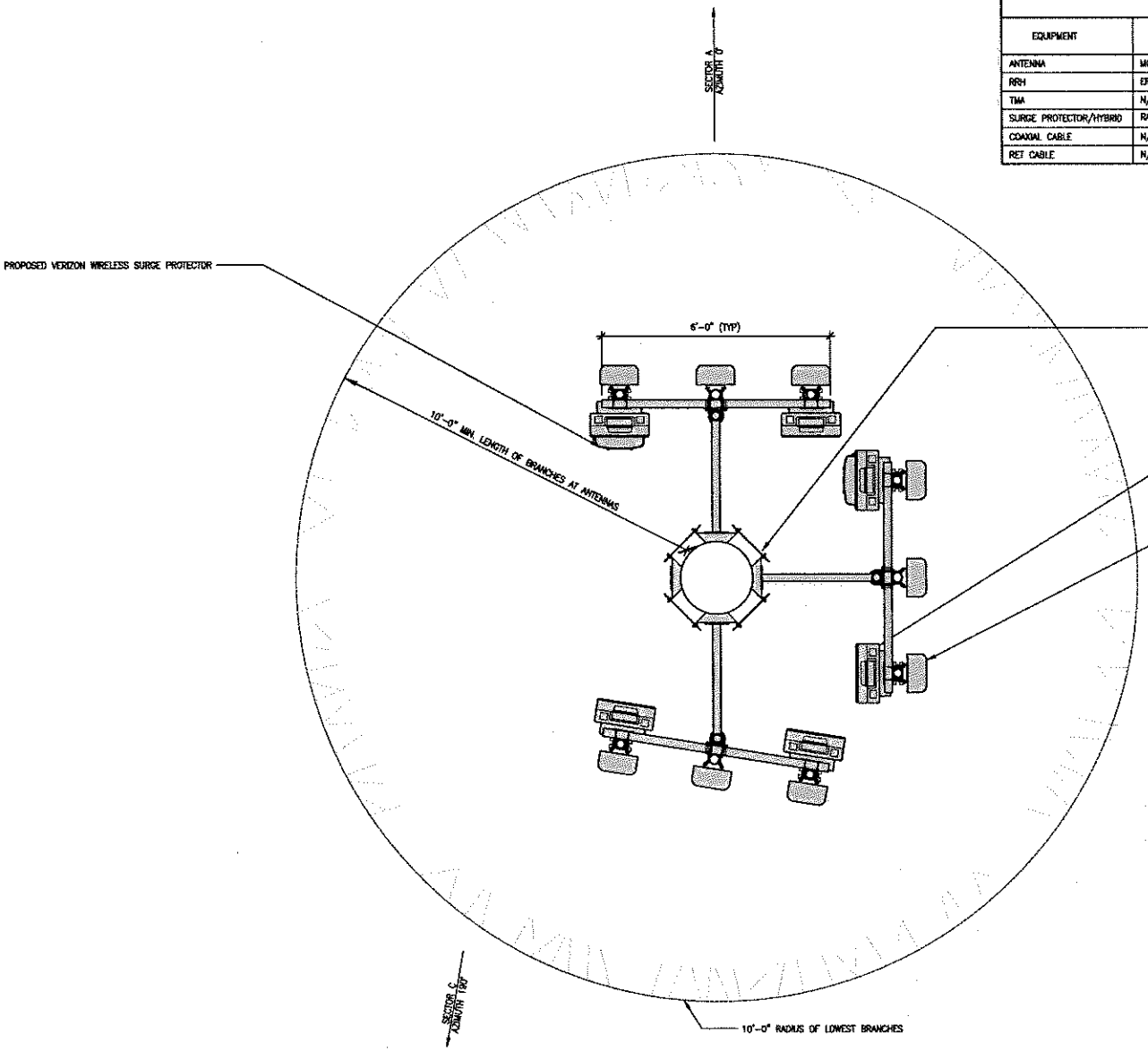
Revisions:
1 —
2 —
3 —
4 —
5 —

File: 162.1171_A01.dwg
Drawn By: MBS
Checked By: JH
Scale: AS NOTED
Date: 12/06/17

Job No. 162.1171

A2.1

EQUIPMENT SCHEDULE					
EQUIPMENT	DESCRIPTION	QUANTITY			TOTAL
		SECTOR A	SECTOR B	SECTOR C	
ANTENNA	MODEL TO BE DETERMINED	3	3	3	9
RRH	ERICSSON RRUS12 W/ A2 BACKPACK OR EQUIVALENT	3	3	3	9
TMA	N/A				
SURGE PROTECTOR/HYBRID	RAYCAP DC3315 W/HYBRID TRUNK CABLE	2			2
COAXIAL CABLE	N/A				
RET CABLE	N/A				



NOTE: VERIZON WIRELESS TO INSTALL "LEAF SOCKS" ON ALL PROPOSED PANEL ANTENNAS & RRH UNITS. ALL ANTENNAS & EQUIPMENT TO BE PAINTED FLAT GREEN

0' 1' 5' 10'
3/4" = 1'-0"

1 A2.2 ENLARGED ANTENNA LAYOUT PLAN
SCALE: 3/4" = 1'-0"

COMPLETE Wireless Consulting, Inc.
MST ARCHITECTS

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HAPPY CANYON
300 GRANITE CREEK RD
SANTA CRUZ, CA 95065-9733

SHEET TITLE: ENLARGED ANTENNA LAYOUT PLAN

Revisions:
1 —
2 —
3 —
4 —
5 —

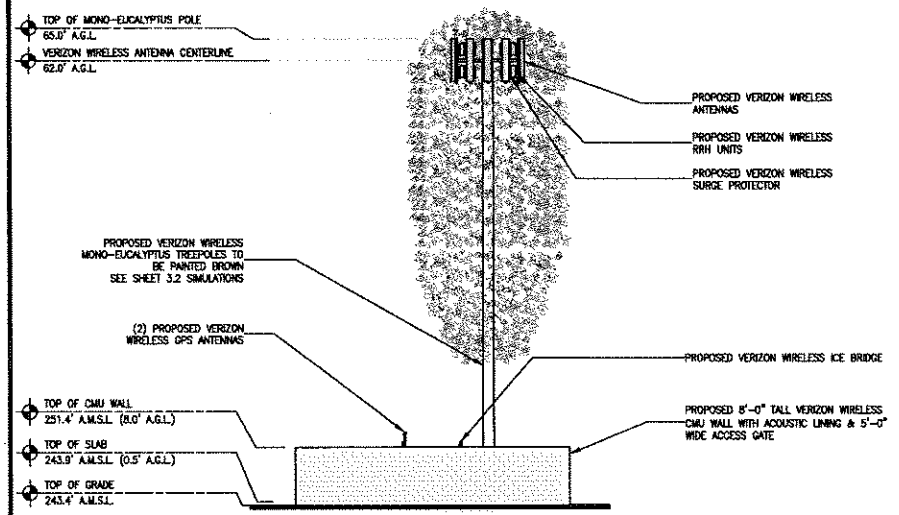
File: 182.1171_A22.dwg
Drawn By: MMS
Checked By: MST
Scale: AS NOTED
Date: 12/08/17

Job No. 182.1171

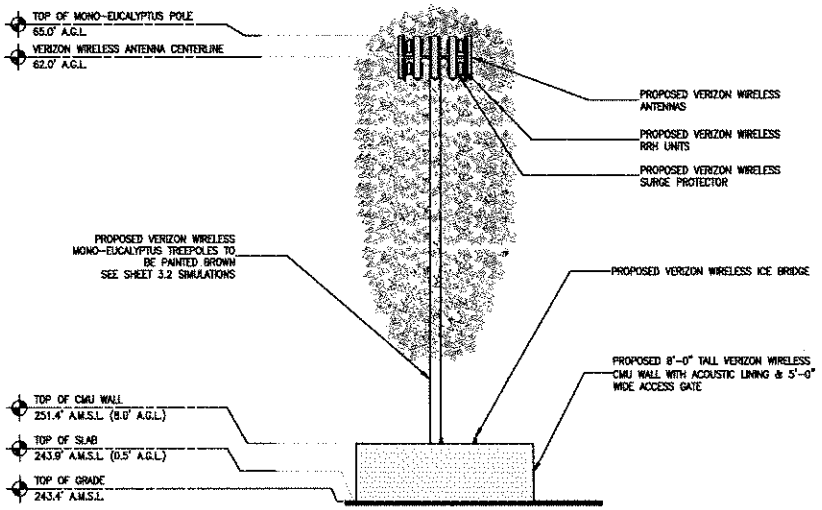
A2.2

NOTE: VERIZON WIRELESS TO INSTALL "LEAF SOCKS" ON ALL PROPOSED PANEL ANTENNAS & RRH UNITS. ALL ANTENNAS & EQUIPMENT TO BE PAINTED FLAT GREEN

NOTE: BRANCHES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. NOT TO SCALE SEE SHEET 3.2 SIMULATIONS



2 A3.1 EAST ELEVATION
SCALE: 1/8" = 1'-0"



1 A3.1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

MST ARCHITECTS
COMPLETE Wireless Consulting, Inc.

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HAPPY CANYON
300 GRANITE CREEK RD
SANTA CRUZ, CA 95065-9733

SHEET TITLE: PROJECT ELEVATIONS

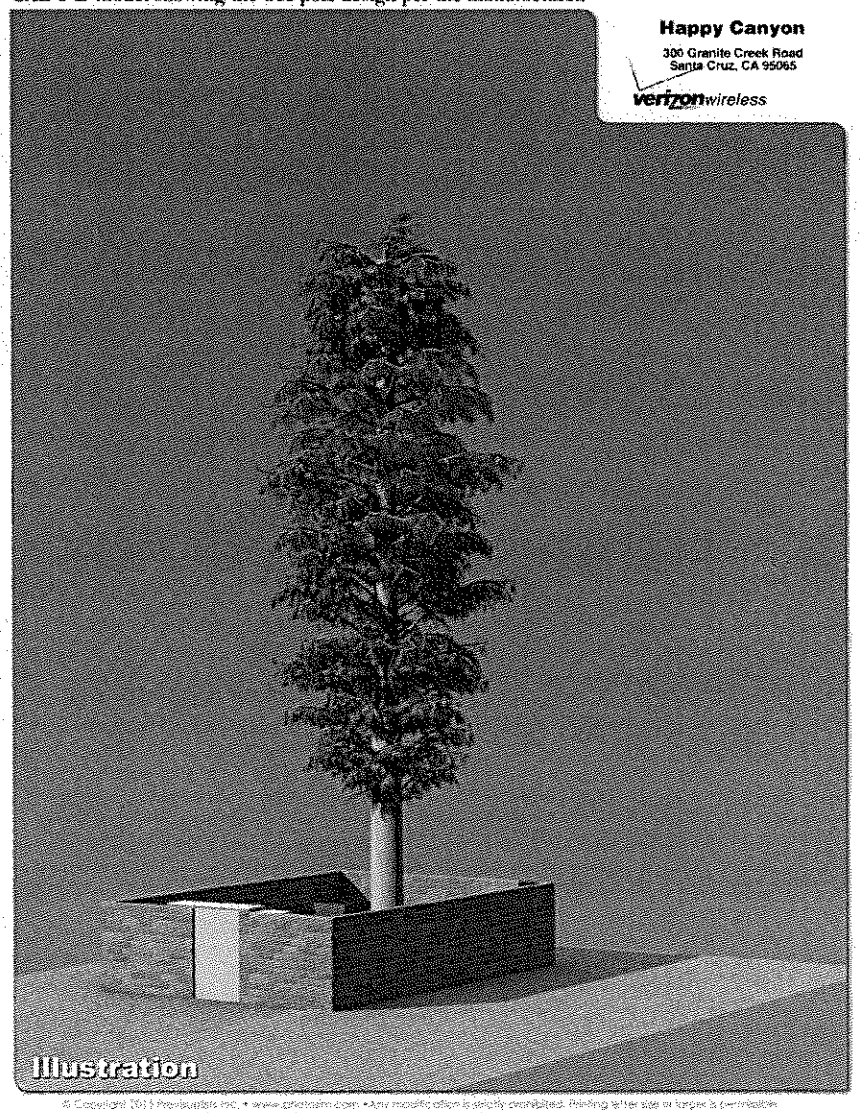
Revisions:
1 –
2 –
3 –
4 –
5 –

File: 162.1171_A31.dwg
Drawn By: MS
Checked By: IN
Scale: as noted
Date: 10/06/17

Job No. 162.1171

A3.1

CAD 3-D model showing the tree pole design per the manufacturer.



1 A3.2 MONO-EUCALYPTUS SIMULATION
SCALE: NO SCALE

MST ARCHITECTS
COMPLETE Wireless Consulting, Inc.

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HAPPY CANYON
300 GRANITE CREEK RD
SANTA CRUZ, CA 95065-9733

SHEET TITLE: MONO-EUCALYPTUS SIMULATION

Revisions:
1 —
2 —
3 —
4 —
5 —

File: 162.1171.A32.dwg
Drawn By: MST
Checked By: MST
Scale: AS NOTED
Date: 12/08/17

Job No. 162.1171

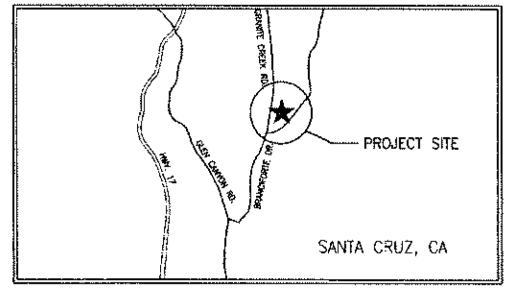
A3.2

GENERAL CONSTRUCTION NOTES:

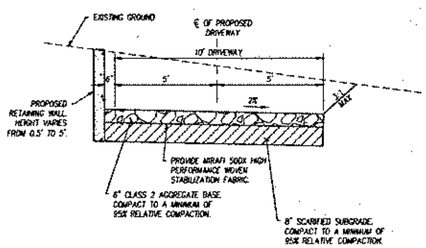
1. ALL GRADING SHALL CONFORM TO THE COUNTY OF SANTA CRUZ GRADING REGULATIONS FROM CHAPTER 16.20 OF THE COUNTY CODE.

EARTHWORK SUMMARY (CY)				
	CUT	FILL	NET (CUT-FILL)	
RAW SURFACE GRADING	225.93	180.87	45.06	
SECTION GRADING ADJUSTMENTS				
LEASE AREA (3" GRAVEL)	9.26		9.26	
ACCESS ROUTE/TURNAROUND (6" AGG BASE)	55.56		55.56	
TOTAL	290.74	180.87	109.87	(CUT/EXPORT)

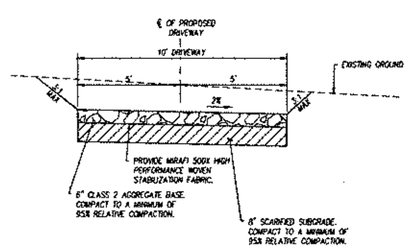
DISTURBED AREA = 0.159 AC
MAX CUT DEPTH = 4.69
MAX FILL HEIGHT = 2.78



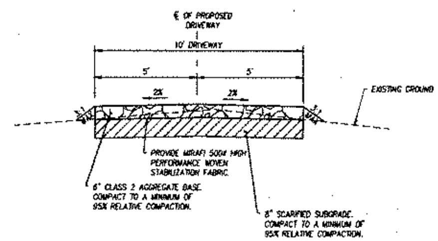
VICINITY MAP
NOT TO SCALE



TYPICAL DRIVEWAY SECTION
STA 0+25.00-0+60.00
NOT TO SCALE



TYPICAL DRIVEWAY SECTION
STA 0+60.00-0+80.00
NOT TO SCALE



TYPICAL DRIVEWAY SECTION
STA 0+80.00-13+13.13
NOT TO SCALE

CARTWRIGHT
ENGINEERS
4180 Douglas Blvd. Suite 200
Granite Bay, California 95746
T (916) 978-6001
www.cartwrightengineers.com

REVISIONS

MARK	DATE	DESCRIPTION
1		
2		
3		
4		
5		

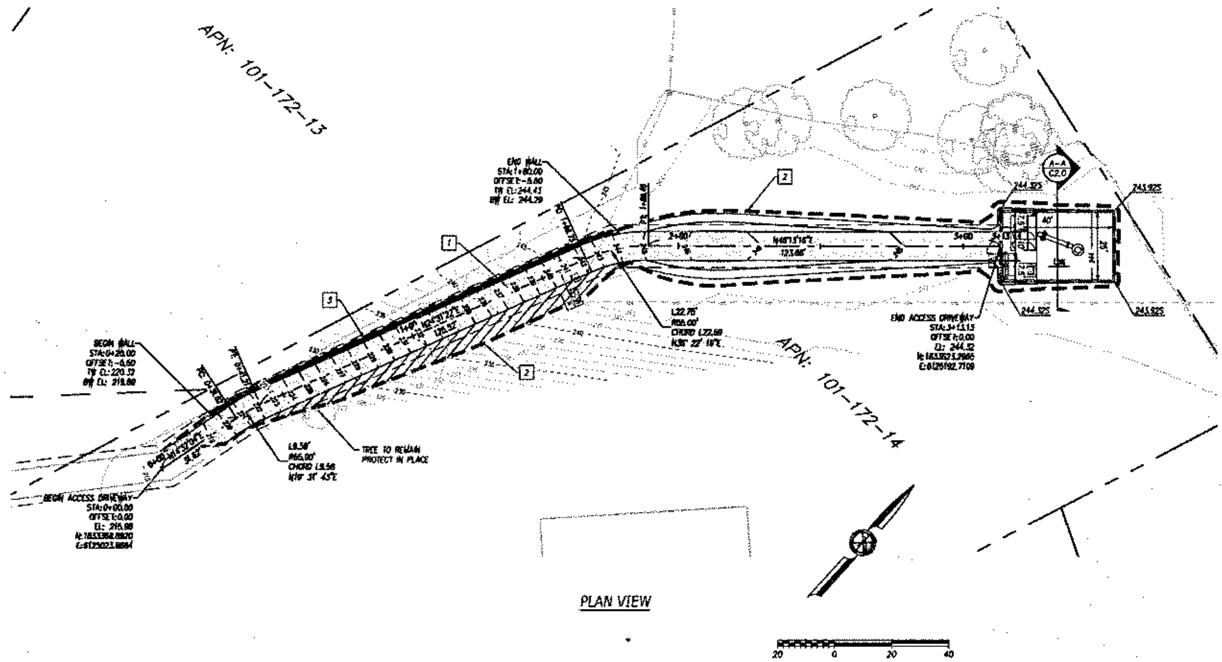
HAPPY CANYON
300 GRANITE CREEK RD.
SANTA CRUZ, CA 95065
APN: 101-172-14

PROJECT #: 217086
SCALE: NONE
DATE: 09/13/2017

APPROVALS
DESIGNED BY: JDC
DRAWN BY: TD
CHECKED BY: JDC/SL

SHEET TITLE
GENERAL NOTES AND ACCESS ROAD TYPICAL SECTIONS

SHEET NUMBER
C1.0



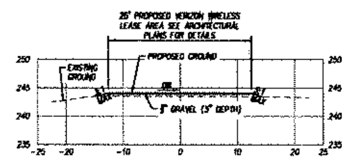
PLAN VIEW

LEGEND

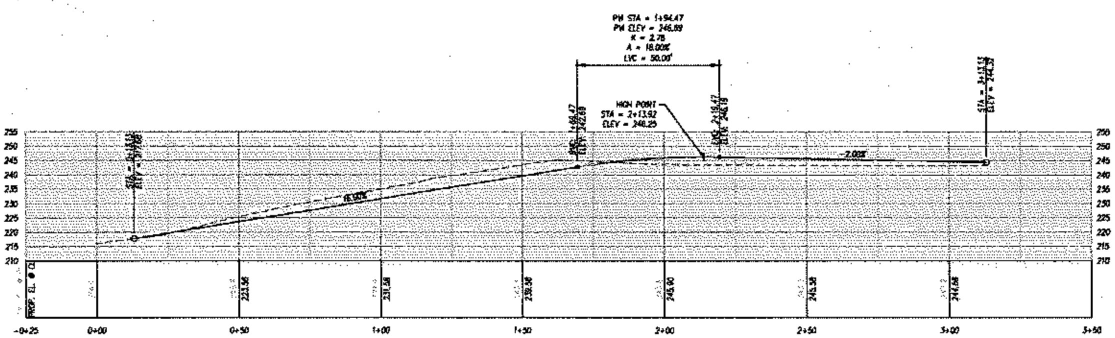
- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPOSED 1-FT CONTOUR
- PROPOSED 5-FT CONTOUR
- PROPOSED EASEMENT
- CENTERLINE
- LIMITS OF DISTURBANCE
- DITCH FLOWLINE
- PROPOSED GRAVEL ACCESS DRIVE/TURNAROUND
- GRAVEL (3" ROCK)

SITE CONSTRUCTION NOTES:

1. CONSTRUCT 10' WIDE GRAVEL ROAD.
2. LIMITS OF DISTURBANCE. DAYLIGHT MAX 3:1 SLOPE.
3. PROPOSED RETAINING WALL.



SECTION A-A
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=10'



ACCESS ROAD PROFILE
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=20'

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www.cartwrightengineers.com
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REVISIONS

MARK	DATE	DESCRIPTION

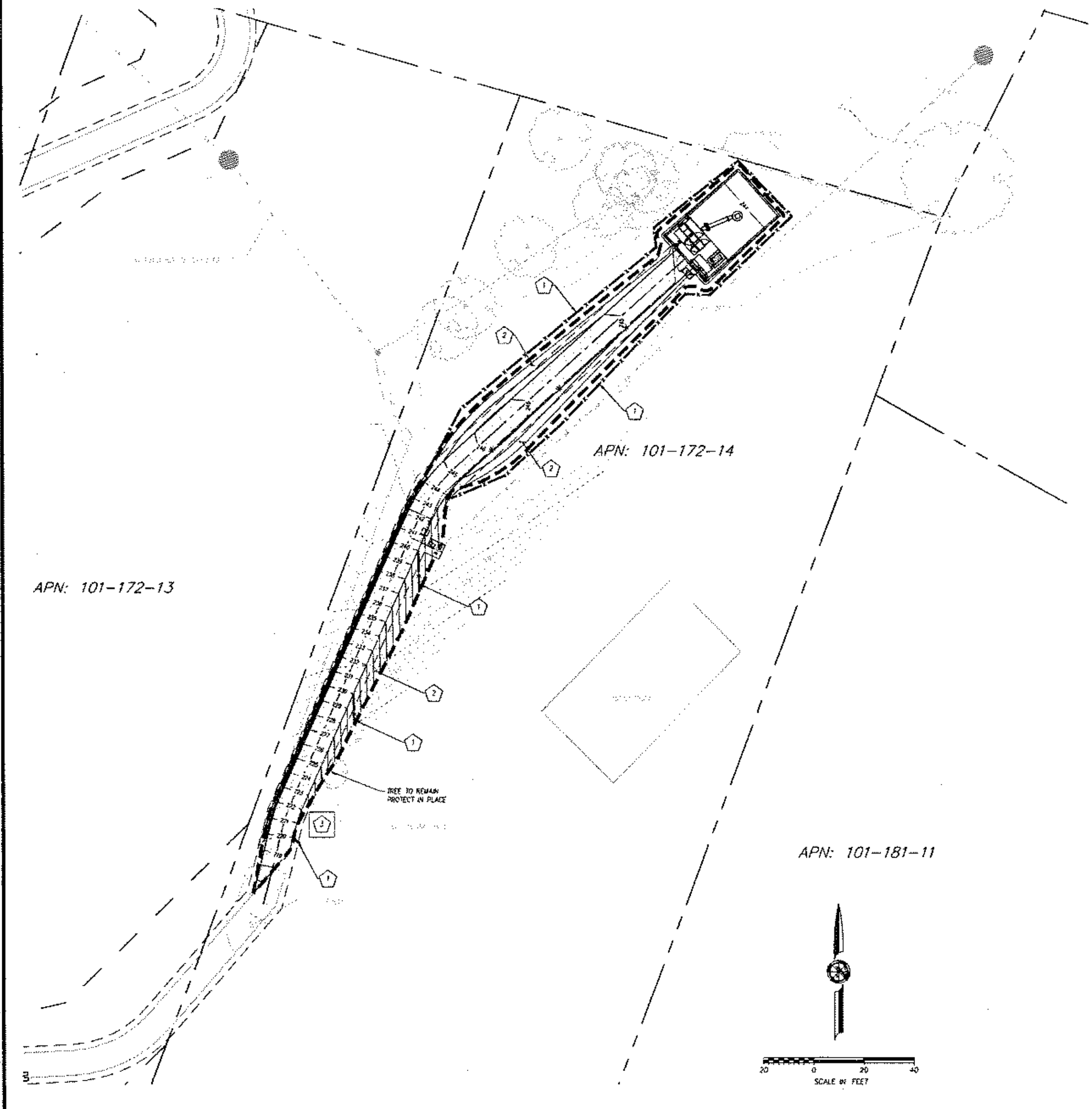
HAPPY CANYON
300 GRANITE CREEK RD.
SANTA CRUZ, CA 95065
APN: 101-172-14

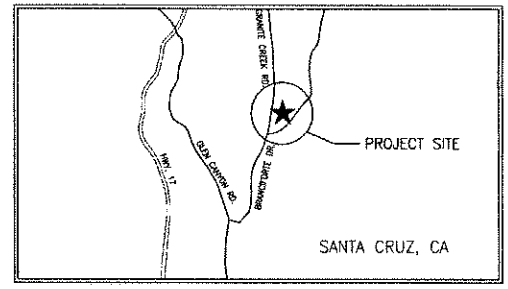
PROJECT #: 217068
SCALE:
DATE: 09/13/2017

APPROVALS
DESIGNED BY: JDC
DRAWN BY: SD
CHECKED BY: JDC/SL

SHEET TITLE
ACCESS ROAD PLAN AND PROFILE

SHEET NUMBER
C2.0





VICINITY MAP

NOT TO SCALE

LEGEND

	EXISTING 1-FT CONTOUR
	EXISTING 5-FT CONTOUR
——171——	PROPOSED 1-FT CONTOUR
——170——	PROPOSED 5-FT CONTOUR
—x—x—	FIBER ROLLS PER FIGURE SC-1, SEE SHEET C3.1
— — — —	LIMITS OF DISTURBANCE/GRADING CATCH

EROSION AND SEDIMENT CONTROL NOTES:

1. CONSTRUCT PERIMETER EROSION CONTROL – UTILIZE FIBER ROLLS PER SANTA CRUZ CONSTRUCTION SITE STORMWATER POLLUTION CONTROL BMP MANUAL BMP FIGURE SC-1. SEE DETAIL ON SHEET C3.1.
2. CONSTRUCT TEMPORARY EROSION CONTROL – APPLY SEED AND STRAW MULCH OR EROSION CONTROL BLANKETS PER FIGURE EC-1 (SEE SHEET C3.1) TO COVER BARE SOILS PER THE COUNTY OF SANTA CRUZ CONSTRUCTION SITE STORMWATER POLLUTION CONTROL BMP MANUAL.
3. PROPOSED SITE CONCRETE WASHOUT PER CASQA STD. DWG. WM-8. SEE DETAIL ON SHEET C3.1.

NOTE: ALL AREAS THAT ARE DISTURBED SHALL BE STABILIZED WITH PERMANENT EROSION CONTROL MEASURES PRIOR TO CONTRACT CLOSEOUT. ALL SLOPES SHALL BE TRACK WALKED PER CASQA STD. DWG. EC-15 AND HYDROSEEDED PER CASQA STD. DWG. EC-4.

NOTES:

1. AREA OF DISTURBANCE = 0.159 AC
2. ALL CONSTRUCTION SHALL CONFORM TO PART 1, SECTION C, "EROSION CONTROL REQUIREMENTS," OF THE COUNTY DESIGN CRITERIA. NO CLEARING, GRADING, OR EXCAVATION SHALL TAKE PLACE BETWEEN OCTOBER 15 AND APRIL 15 UNLESS THERE IS AN APPROVED WINTER EROSION CONTROL PLAN. ALL DISTURBED SOIL SHALL BE SEEDED, MULCHED, OR OTHERWISE PROTECTED BY OCTOBER 15.

COUNTY OF SANTA CRUZ SITE HOUSEKEEPING NOTES

CONSTRUCTION MATERIALS

- ALL LOOSE STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED (I.E. SOIL, SPOILS, AGGREGATE, FLY-ASH, STUCCO, HYDRATED LIME, ETC.) SHALL BE COVERED AND BERMED.
- ALL CHEMICALS SHALL BE STORED IN WATERTIGHT CONTAINERS (WITH APPROPRIATE SECONDARY CONTAINMENT TO PREVENT ANY SPILLAGE OR LEAKAGE) OR IN A STORAGE SHED (COMPLETELY ENCLOSED).
- EXPOSURE OF CONSTRUCTION MATERIALS TO PRECIPITATION SHALL BE MINIMIZED. THIS DOES NOT INCLUDE MATERIALS AND EQUIPMENT THAT ARE DESIGNED TO BE OUTDOORS AND EXPOSED TO ENVIRONMENTAL CONDITIONS (I.E. POLES, EQUIPMENT PADS, CABINETS, CONDUCTORS, INSULATORS, BRICKS, ETC.)
- BEST MANAGEMENT PRACTICES TO PREVENT THE OFF-SITE TRACKING OF LOOSE CONSTRUCTION AND LANDSCAPE MATERIALS SHALL BE IMPLEMENTED.

WASTE MANAGEMENT

- DISPOSAL OF ANY RINSE OR WASH WATERS OR MATERIALS ON IMPERVIOUS OR PERVIOUS SITE SURFACES OR INTO THE STORM DRAIN SYSTEM SHALL BE PREVENTED.
- SANITATION FACILITIES SHALL BE CONTAINED (E.G., PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER, AND SHALL BE LOCATED A MINIMUM OF 20 FEET AWAY FROM AN INLET, STREET OR DRIVEWAY, STREAM, RIPARIAN AREA OR OTHER DRAINAGE FACILITY.
- SANITATION FACILITIES SHALL BE INSPECTED REGULARLY FOR LEAKS AND SPILLS AND CLEANED OR REPLACED AS NECESSARY.
- COVER WASTE DISPOSAL CONTAINERS AT THE END OF EVERY BUSINESS DAY AND DURING A RAIN EVENT. DISCHARGES FROM WASTE DISPOSAL CONTAINERS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER SHALL BE PREVENTED.
- STOCKPILED WASTE MATERIAL SHALL BE CONTAINED AND SECURELY PROTECTED FROM WIND AND RAIN AT ALL TIMES UNLESS ACTIVELY BEING USED.
- PROCEDURES THAT EFFECTIVELY ADDRESS HAZARDOUS AND NON-HAZARDOUS SPILLS SHALL BE IMPLEMENTED.
- EQUIPMENT AND MATERIALS FOR CLEANUP OF SPILLS SHALL BE AVAILABLE ON SITE AND THAT SPILLS AND LEAKS SHALL BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY; AND
- CONCRETE WASHOUT AREAS AND OTHER WASHOUT AREAS THAT MAY CONTAIN ADDITIONAL POLLUTANTS SHALL BE CONTAINED SO THERE IS NO DISCHARGE INTO THE UNDERLYING SOIL AND ONTO THE SURROUNDING AREAS.

VEHICLE STORAGE AND MAINTENANCE

- MEASURES SHALL BE TAKEN TO PREVENT OIL, GREASE, OR FUEL TO LEAK IN TO THE GROUND, STORM DRAINS OR SURFACE WATERS.
- ALL EQUIPMENT OR VEHICLES, WHICH ARE TO BE FUELED, MAINTAINED AND STORED ONSITE SHALL BE IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPS.
- LEAKS SHALL BE IMMEDIATELY CLEANED AND LEAKED MATERIALS SHALL BE DISPOSED OF PROPERLY.

LANDSCAPE MATERIALS

- CONTAIN STOCKPILED MATERIALS SUCH AS MULCHES AND TOPSOIL WHEN THEY ARE NOT ACTIVELY BEING USED.
- CONTAIN FERTILIZERS AND OTHER LANDSCAPE MATERIALS WHEN THEY ARE NOT ACTIVELY BEING USED. DISCONTINUE THE APPLICATION OF ANY ERODIBLE LANDSCAPE MATERIAL WITHIN 2 DAYS BEFORE A FORECASTED RAIN EVENT OR DURING PERIODS OF PRECIPITATION.
- APPLY ERODIBLE LANDSCAPE MATERIAL AT QUANTITIES AND APPLICATION RATES ACCORDING TO MANUFACTURE RECOMMENDATIONS OR BASED ON WRITTEN SPECIFICATIONS BY KNOWLEDGEABLE AND EXPERIENCED FIELD PERSONNEL.
- STACK ERODIBLE LANDSCAPE MATERIAL ON PALLETS AND COVERING OR STORING SUCH MATERIALS WHEN NOT BEING USED OR APPLIED.

CARTWRIGHT ENGINEERS
4180 Douglas Blvd, Suite 200
Granite Bay, California 95746
T (916) 978-4002
www.cartwrightengineers.com

REVISIONS

MARK	DATE	DESCRIPTION
△		
△		
△		
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△		

HAPPY CANYON
300 GRANITE CREEK RD.
SANTA CRUZ, CA 95065
APN: 101-172-14

PROJECT #:	217086
SCALE:	1"=20'
DATE:	09/13/2017

APPROVALS

DESIGNED BY:	JCC
DRAWN BY:	SD
CHECKED BY:	JCC/SL

SHEET TITLE

EROSION AND SEDIMENT CONTROL

SHEET NUMBER

C3.0

Figure EC-1 — Erosion Control Blankets

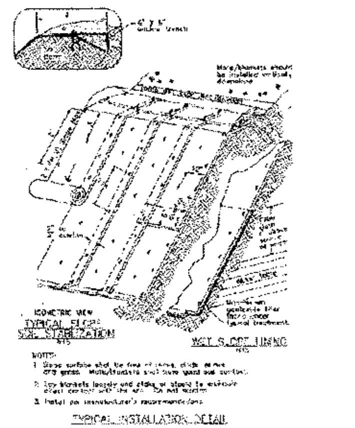
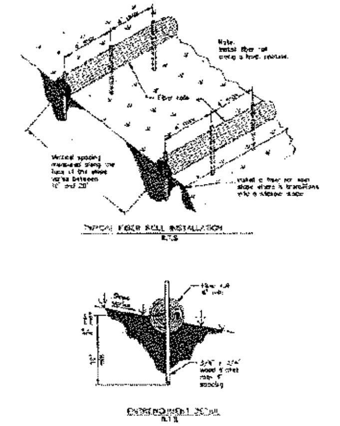
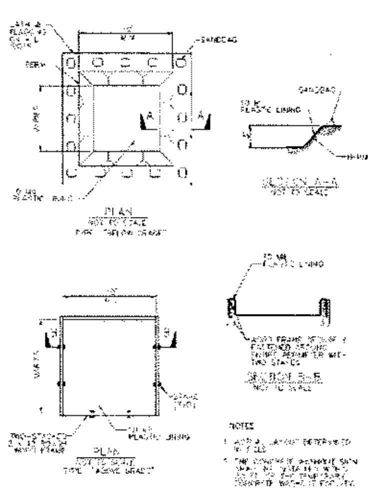


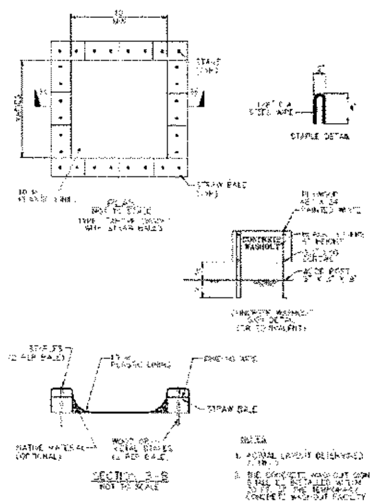
Figure SC-1 — Fiber Rolls



Concrete Waste Management — WM-8



Concrete Waste Management — WM-8



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REVISIONS		
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HAPPY CANYON
300 GRANITE CREEK RD.
SANTA CRUZ, CA 95065
APN: 101-172-14

PROJECT #	217086
SCALE	N/A
DATE	09/13/2017

APPROVALS	
DESIGNED BY	IOC
DRAWN BY	SD
CHECKED BY	IOC/SL

SHEET TITLE: EROSION AND SEDIMENT CONTROL DETAILS

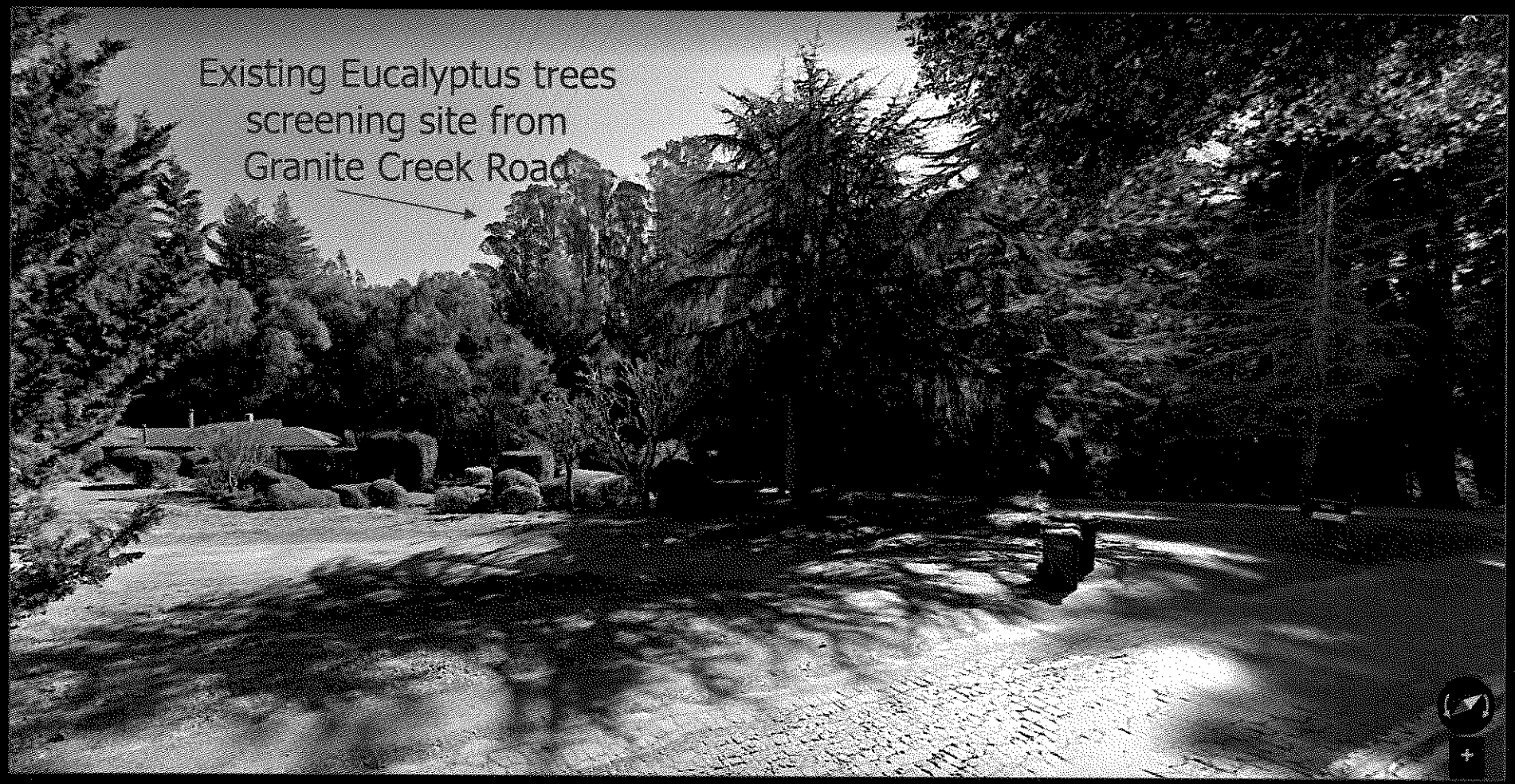
SHEET NUMBER: C3.1

Attachment 3

Visual Resources Simulation

View from Granite Creek Road

View from Granite Creek Road



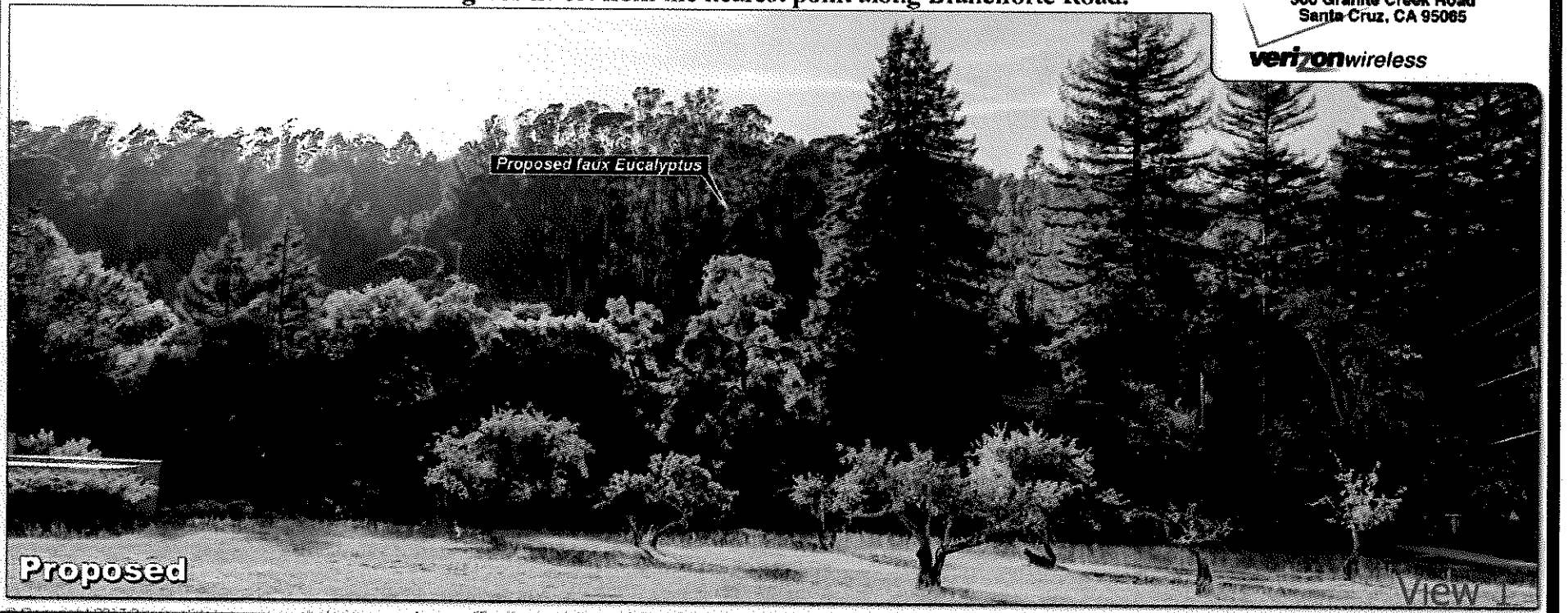

Sign in
Branciforte
Fire Protection
Branciforte Dr
VIEW 2
Granite Creek Rd
Branciforte Dr
View Granite Creek Rd
300 Granite Creek Road
2D
Google
Imagery ©2017 Google, Map data ©2017 Google
United States
Terms
Send feedback
200 ft

Photosimulation of the view looking northwest from the nearest point along Branciforte Road.

Happy Canyon

300 Granite Creek Road
Santa Cruz, CA 95065

verizonwireless



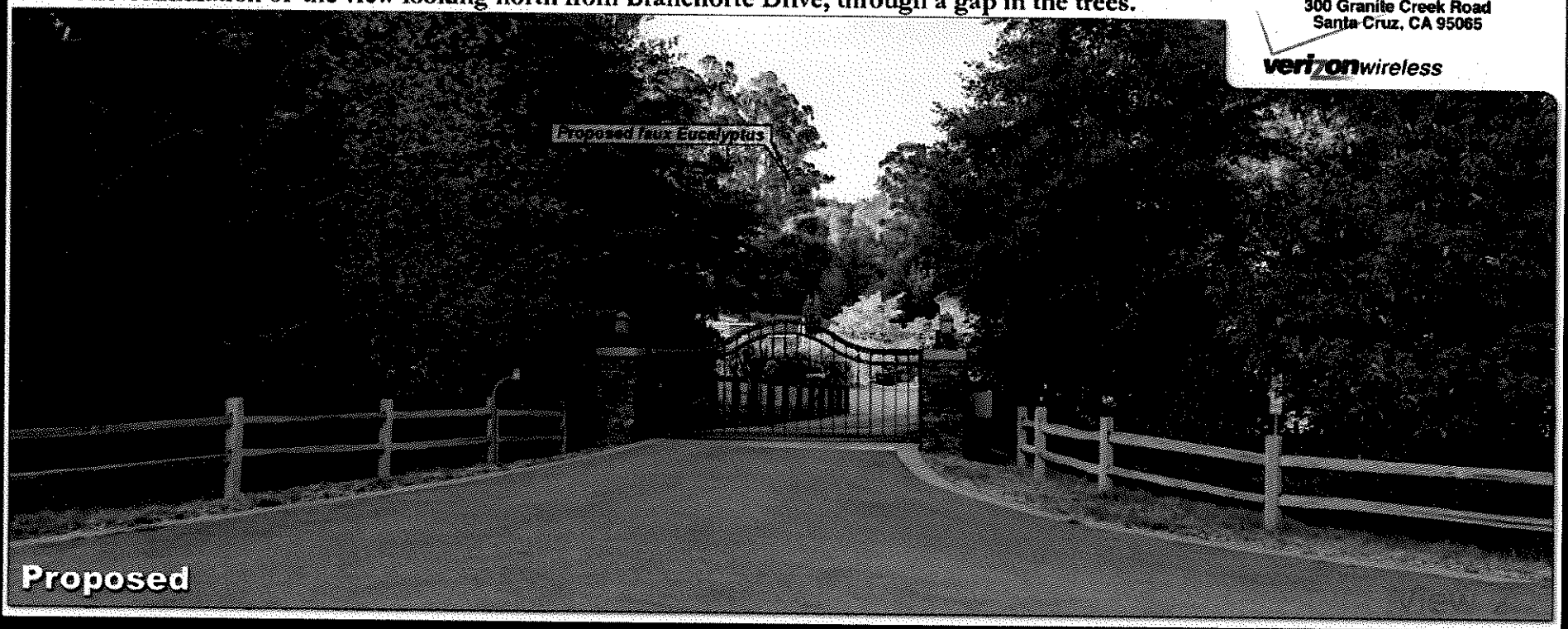
View 1

Photosimulation of the view looking north from Branciforte Drive, through a gap in the trees.

Happy Canyon

300 Granite Creek Road
Santa Cruz, CA 95065

verizonwireless



Attachment 4

Radio Frequency Report

Verizon Wireless • Proposed Base Station (Site No. 283182 "Happy Canyon")
300 Granite Creek 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 the base station (Site No. 283182 "Happy Canyon") proposed to be located at 300 Granite Creek Road in Santa Cruz, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

Verizon proposes to install directional panel antennas on a tall pole, configured to resemble a eucalyptus tree, to be sited at 300 Granite Creek 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 FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5–80 GHz	5.00 mW/cm^2	1.00 mW/cm^2
WiFi (and unlicensed uses)	2–6	5.00	1.00
BRS (Broadband Radio)	2,600 MHz	5.00	1.00
WCS (Wireless Communication)	2,300	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations 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 transceivers are often located at ground level and are connected to the antennas by coaxial cables. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky.

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 zoning drawings by MST Architects, Inc., dated June 21, 2016, it is proposed to install nine Andrew directional panel antennas – three Model SBNHH-1D65B and six Model SBNHH-1D45B – on a new 65-foot steel pole, configured to resemble a eucalyptus tree, to be sited on the edge of the tree cluster north of the two-story residence located at 300 Granite Creek Road in Santa Cruz. The antennas would be mounted at an effective height of about 62 feet above ground and would be oriented in groups of three toward 100°T, 210°T, and 350°T. The maximum effective radiated power in any direction would be 26,220 watts, representing simultaneous operation at 9,220 watts for AWS, 8,460 watts for PCS, 2,000 watts for cellular, and 6,540 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at the site or nearby.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.024 mW/cm^2, which is 2.9% of the applicable public exposure limit. The maximum calculated level at any nearby building* is 0.83% of the public exposure limit. The maximum calculated level at the residence located at 2799 Branciforte Drive, approximately 900 feet to the southeast of the site, is 0.31% of the public limit. The maximum calculated level at Happy Valley Elementary School, located about 1,600 feet to the northeast, is 0.21% of the public limit. It

* Including the residences located at least 130 feet away, based on photographs from Google Maps.

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.

No Recommended Mitigation Measures

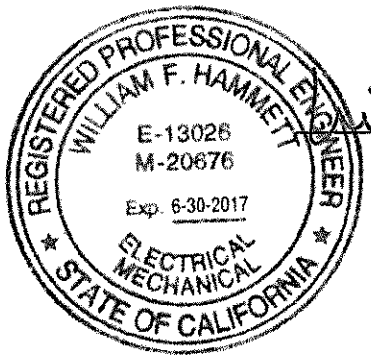
Due to their mounting location and height, the Verizon antennas would not be accessible to unauthorized persons, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by Verizon Wireless at 300 Granite Creek 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 base stations.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2017. 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.



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

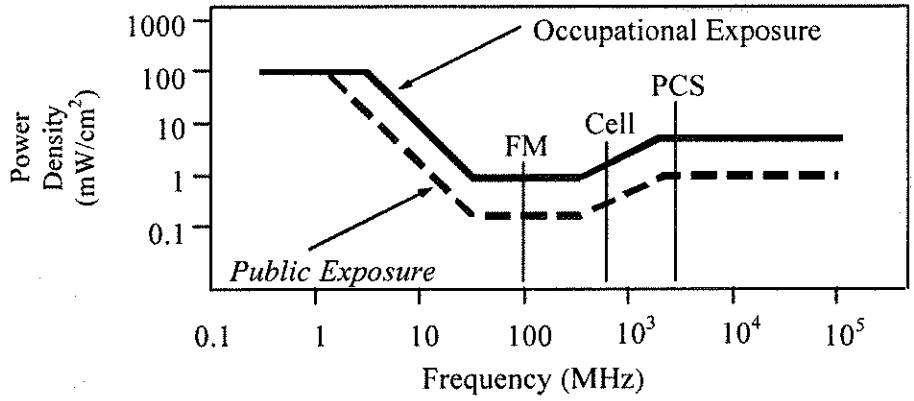
January 19, 2017

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



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.

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^2,

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^2,

where θ_{BW} = half-power beamwidth of the antenna, in degrees, and
P_{net} = net power input to the antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of the antenna, in meters, and
η = 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:

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

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the 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 x 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 has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.