Tillamook County

DEPARTMENT OF COMMUNITY DEVELOPMENT
BUILDING, PLANNING & ON-SITE SANITATION SECTIONS

1510 – B Third Street
Tillamook, Oregon 97141
www.tillamookcounty.gov
(503) 842-3408
Toll Free 1(800) 488-8280

Land of Cheese, Trees and Ocean Breeze

CONDITIONAL USE REQUEST #851-24-000176-PLNG: COMMUNICATIONS FACILITY

NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER:
ORS 215 REQUIRES THAT IF YOU RECEIVE THIS NOTICE,
IT MUST BE PROMPTLY FORWARDED TO THE PURCHASER

NOTICE OF ADMINISTRATIVE REVIEW
Date of Notice: May 16, 2024

Notice is hereby given that the Tillamook County Department of Community Development is considering the following:

#851-24-000176-PLNG: A Conditional Use request for the installation of a new wireless communications facility on property located off Wilson River Highway (6), a State highway, addressed as 26476 Wilson River Highway and designated as Tax Lot 800 in Section 7 of Township 1 South, Range 7 West of the Willamette Meridian, Tillamook County, Oregon. The property is zoned Forest (F). Applicant is Tessie Murakami. Property owner is Tillamook County.

Written comments received by the Department of Community Development prior to 4:00p.m. on May 30, 2024, will be considered in rendering a decision. Comments should address the criteria upon which the Department must base its decision. A decision will be rendered no sooner than the next business day, May 31, 2024.

Notice of the application, a map of the subject area, and the applicable criteria are being mailed to all property owners within 750 feet of the exterior boundaries of the subject parcel for which an application has been made and other appropriate agencies at least 14 days prior to this Department rendering a decision on the request.

A copy of the application, along with a map of the request area and the applicable criteria for review are available for inspection on the Tillamook County Department of Community Development website: https://www.tillamookcounty.gov/commdev/landuseapps and is also available for inspection at the Department of Community Development office located at 1510-B Third Street, Tillamook, Oregon 97141.

If you have any questions about this application, please call the Department of Community Development at 503-842-3408 or email sarah.absher@tillamookcounty.gov.

Sincerely,

Sarah Absher

Sarah Absher, Director, CFM

Enc. Applicable Ordinance Criteria, Maps

REVIEW CRITERIA

TCLUO ARTICLE VI:

SECTION 6.040: REVIEW CRITERIA

Any CONDITIONAL USE authorized according to this Article shall be subject to the following criteria, where applicable:

(1) The use is listed as a CONDITIONAL USE in the underlying zone, or in an applicable overlying zone.

(2) The use is consistent with the applicable goals and policies of the Comprehensive Plan.

(3) The parcel is suitable for the proposed use considering its size, shape, location, topography, existence of improvements and natural features.

(4) The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs or prevents the use of surrounding properties for the permitted uses listed in the underlying zone.

(5) The proposed use will not have detrimental effect on existing solar energy systems, wind energy conversion systems or wind mills.

(6) The proposed use is timely, considering the adequacy of public facilities and services existing or planned for the area affected by the use.

TCLUO ARTICLE III:

SECTION 3.004 FOREST ZONE (F)

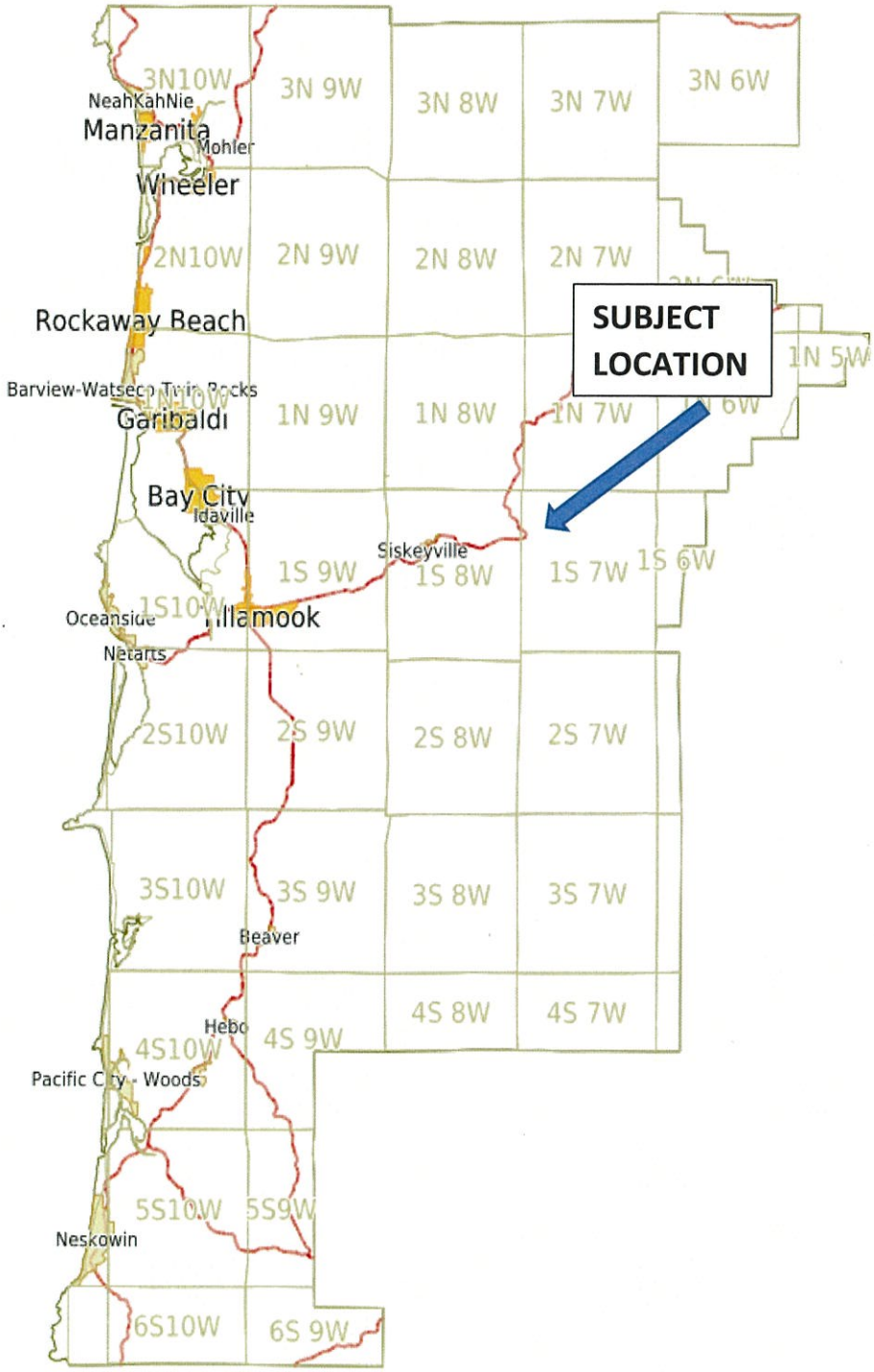
(8) CONDITIONAL USE REVIEW CRITERIA: A use authorized as a conditional use under this zone may be allowed provided the following requirements or their equivalent are met. These requirements are designed to make the use compatible with forest operations and agriculture and to conserve values found on forest lands. Conditional uses are also subject to Article 6, Section 040.

1. The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands.

2. The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

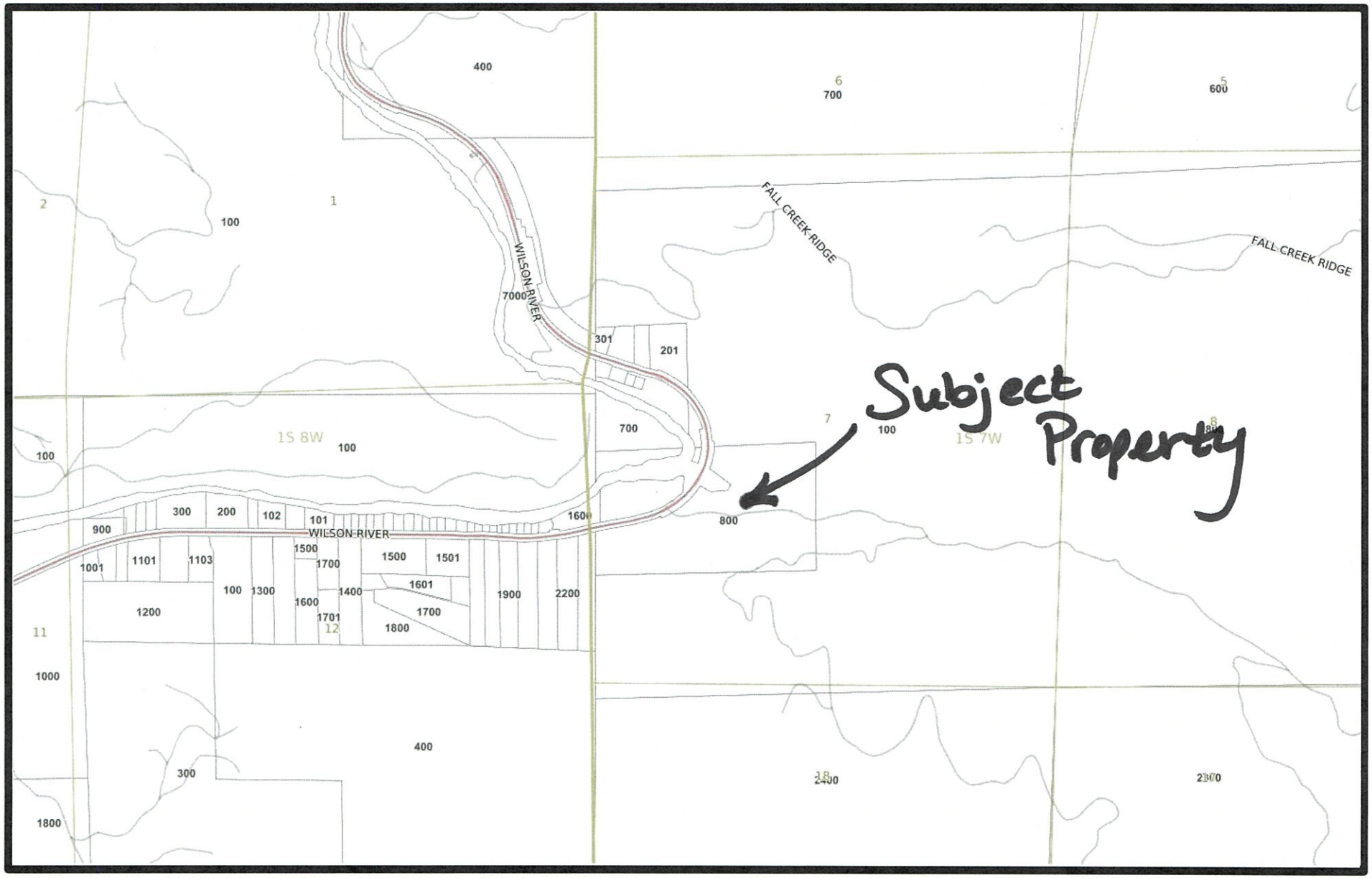
3. A written statement recorded with the deed or written contract with the county or its equivalent is obtained from the land owner that recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Forest Practices Act and Rules for uses authorized in OAR 660-006-0025(5)(c).

VICINITY MAP



#851-24-000176-PLNG: TILLAMOOK COUNTY

Map



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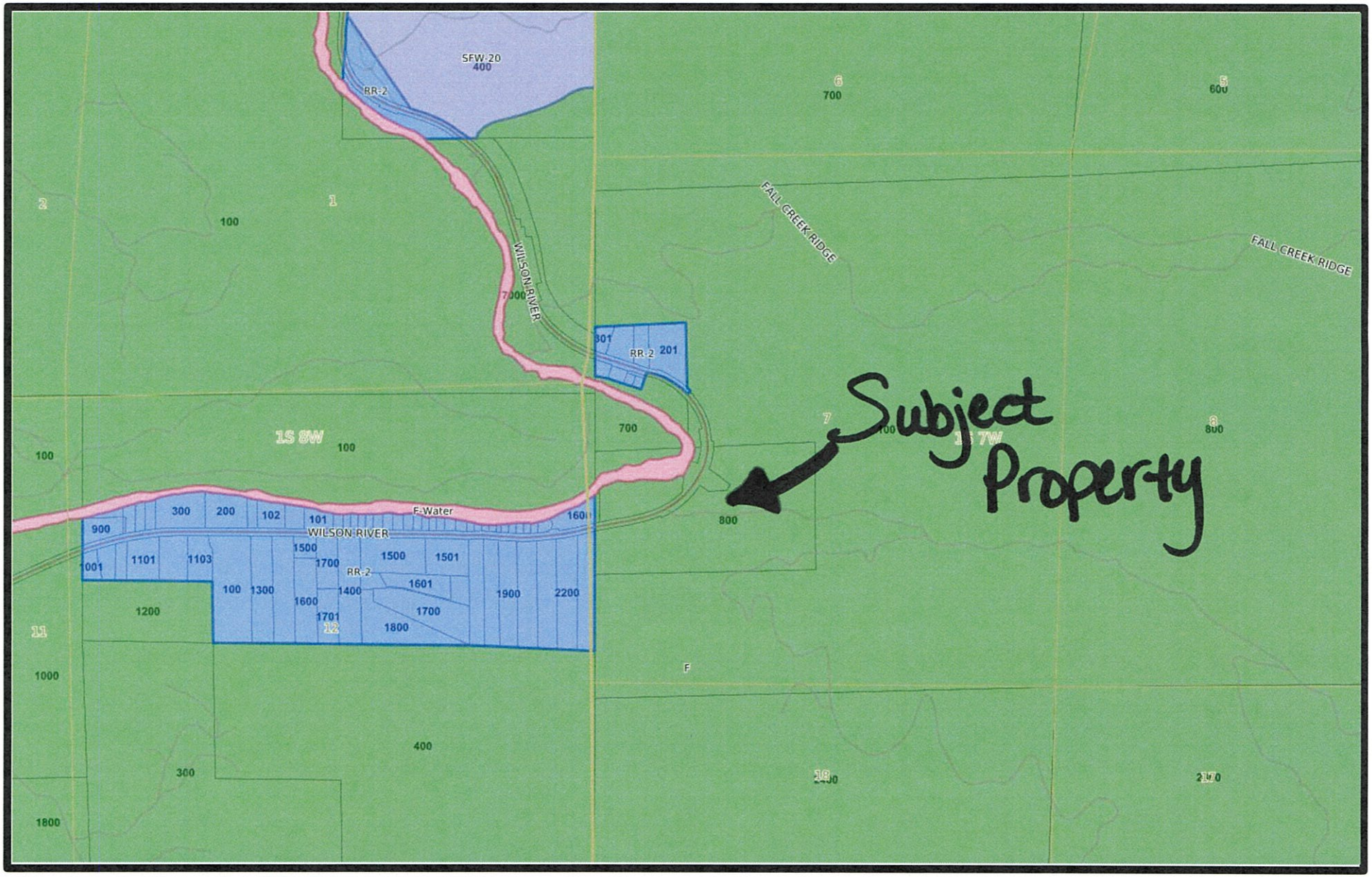
Map



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Tillamook County Department of Community Development
1510-B Third Street. Tillamook, OR 97141 | Tel: 503-842-3408 Fax: 503-842-1819
www.co.tillamook.or.us

PLANNING APPLICATION

OFFICE USE ONLY
Date Stamp: RECEIVED APR 01 2024
☐Approved ☐Denied
Received by:
Receipt #:
Fees: 2425.-
Permit No: 851-24-000176-PLNG

Applicant ☐ *(Check Box if Same as Property Owner)*
Name: Tessie Murakami Phone: 310.483.5343
Address: 5200 SW Meadows Rd., Suite 150
City: Lake Oswego State: OR Zip: 97035
Email: tessie.murakami@acomconsultinginc.com

Property Owner
Name: Tillamook County (Rachel Hagerty) Phone: 503-842-3404
Address: 201 Laurel Ave
City: Tillamook State: OR Zip: 97141
Email: rachel.hagerty@tillamookcounty.gov

Request: Type II Conditional Use Review for a new wireless communications facility (with Verizon Wireless antennas colocated on light pole) along Highway 6

Type II	Type III	Type IV
☐ Farm/Forest Review	☐ Detailed Hazard Report	☐ Ordinance Amendment
☑ Conditional Use Review	☐ Conditional Use (As deemed by Director)	☐ Large-Scale Zoning Map Amendment
☐ Variance	☐ Ordinance Amendment	☐ Plan and/or Code Text Amendment
☐ Exception to Resource or Riparian Setback	☐ Map Amendment	
☐ Nonconforming Review (Major or Minor)	☐ Goal Exception	
☐ Development Permit Review for Estuary Development	☐ Nonconforming Review (As deemed by Director)	
☐ Non-farm dwelling in Farm Zone	☐ Variance (As deemed by Director)	
☐ Foredune Grading Permit Review		
☐ Neskowin Coastal Hazards Area		

Location:
Site Address: 26476 Wilson River Hwy., Tillamook, OR 97141 (299288/1S07070000800)

Map Number:	Township	Range	Section	Tax Lot(s)
1S	07	70	800	

Clerk's Instrument #: _____

Authorization

This permit application does not assure permit approval. The applicant and/or property owner shall be responsible for obtaining any other necessary federal, state, and local permits. The applicant verifies that the information submitted is complete, accurate, and consistent with other information submitted with this application.

Rachel Hagerty — Property Owner Signature (Required) — Date: 3/29/2024

Rachel Hagerty — Applicant Signature — Date: 3/29/2024

Tessie Murakami 3/29/24

Acom
CONSULTING, INC

March 29, 2024

Tillamook County Department of Community Development
1510-B Third Street
Tillamook, OR 97141

RE: **Wireless Facility Application**
Site location: **26476 Wilson River Hwy, Tillamook, OR 97141**
Site Name: **POR HWY 6 - 04**

Dear Tillamook County Planning Dept,

On behalf of Verizon Wireless, I am submitting the following information to seek approval for a new Wireless Communications Facility.

Please find enclosed the following land use information:

- Conditional Use Permit Application - Type II
- 3 copies of narrative, site plans, and other submittal items.

A separate check will be mailed out in the amount of $2,625 for the zoning fees.

Please contact me for any questions at (310) 483-5343 or at tessie.murakami@acomconsultinginc.com

Sincerely,

Tessie Murakami

Tessie Murakami
Real Estate Contractor for Verizon Wireless

LAND USE APPLICATION -
NARRATIVE & STATEMENT
OF CODE COMPLIANCE

VERIZON WIRELESS TELECOMMUNICATIONS FACILITY AT

26476 Wilson River Hwy
Tillamook, OR 97141

Prepared By

Acom
CONSULTING, INC

Date
March 29, 2024

Project Name
POR HWY 6 - 04

Acom
CONSULTING, INC

I. GENERAL INFORMATION

Applicant:	Verizon Wireless 5430 NE 122nd Avenue Portland, OR 97230
Representative:	Acom Consulting, Inc. Tessie Murakami 5200 SW Meadows Rd., Suite 150 Lake Oswego, OR 97035
Property Owner:	Tillamook County Board of Commissioners c/o Rachel Hagerty (Chief of Staff) 201 Laurel Ave. Tillamook, OR 97141

Project Information:

Site Address:	26476 Wilson River Hwy, Tillamook, OR 97141
Parcel:	1S07070000800
Account Number:	299288
Parcel Area:	55.21 acres
Zone Designation:	F (Forest)
Existing Use:	Forest
Project Area:	100 Square Feet (10' x 10') accessed by a short 10' wide access and utility easement.

II. PROJECT OVERVIEW

Acom Consulting is applying on behalf of Verizon Wireless, who will own and operate the tower and ground space; Cellco Partnership dba Verizon Wireless, who will be located on this facility and the property owner, Tillamook County. The site proposed herein is designed to improve the voice and data capacity for its customers in Tillamook County and along Highway 6. This is part of the initiative to provide better coverage of 911 calls on the highway since it is known as the deadly stretches in Oregon. The state is mandating all carriers to address the coverage gap at HWY OR-6.

The applicant proposes to construct a new wireless communications facility ("WCF") within a 10' x 10' ground lease area. This proposal includes a 50-foot monopole tower with up to 3 antennas at an antenna tip-height of 50' and associated RRU's, equipment cabinets, backup generator, and high security fence with 3 strands barbed wire. The site will be accessed via an existing driveway off HWY OR-6.

The monopole tower would be a metal pole and can be painted a non-reflective color to blend with the adjacent mature trees and sky. The proposed monopole (small cell) is only 50' and is a part of Verizon's small cells project in Tillamook County which is requiring additional poles to be installed along HWY OR-6 for the proposal to provide adequate service coverage in the area. The County requested for the additional pole height of 50' to allow for future colocation by County antennas after application/structural review by Verizon.

This site was chosen because HWY OR-6 is currently significantly underserved by wireless coverage, even though there is a substantial amount of traffic every day. The lack of existing wireless facilities in the area contributes to lack of coverage. The newly proposed small cells will provide much needed coverage in areas that would be difficult to serve using conventional tower-based transmitters. These sites will not only help improve customer experience but also help public safety and emergency services by allowing communication in an otherwise cut-off area.

On August 8, 1996, the Federal Communications Commission adopted the first collocation rules designed to implement section 251(c)(6) of the Communications Act of 1934, as amended, ("the Act"), 47 U.S.C. § 251(c)(6). Section 251(c)(6) of the Act obligates carriers to provide, "on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, for physical collocation of equipment necessary for interconnection or access to unbundled network elements." As such, Verizon will allow timely collocation by other users provided all structural, technological, and monetary requirements are satisfactory. Note any future collocation will require pole replacement for structural and RF purposes.

Additionally, this facility is passive use and will produce no odors, glare, vibration, or fumes. The applicant has mitigated the potential visual impact of the facility by proposing the minimum height necessary to meet coverage objectives and utilizing a design that is fitting of the surrounding environment. Public utilities are sufficient for this use. The site proposed herein is an unmanned facility that requires only power and telephone services. It does not require sewer or surface water drainage. Exterior lighting is not proposed.

The proposed facility would not interfere with surrounding properties or their uses, nor create any significant risk to public health and safety, flood hazard or emergency response, and will not cause interference with any electronic equipment, such as telephones, televisions, or radios. Non-interference is ensured by the Federal Communications Commission (FCC) regulation of radio transmissions. The proposed project may improve emergency response because it would improve wireless communication for citizens making emergency calls.

The site will meet or exceed all FCC requirements for non-ionizing electromagnetic radiation (NIER) emissions and will comply with all standards as required for Wireless Telecommunications Sites as regulated by Federal, State and the local jurisdiction.

At the termination of the Land Lease Agreement with the property owner, the facility will be removed within 120-days of termination of the lease and restored to its original condition, reasonable wear and tear and casualty excepted.

This facility has been located and designed to minimize the visual impact on the immediate surroundings and throughout the community and minimize public inconvenience and disruption while providing a desirable feature—reliable wireless service. Wireless service is critical today, with many people relying on their wireless devices for everything from information gathering, financial transactions to primary home phone service.

This site can meet the Tillamook County criteria for sitting of new wireless telecommunication facilities, including height, setbacks and design as demonstrated herein. As shown throughout this application, Verizon's proposal is the least intrusive means of meeting coverage objectives. The applicants respectfully request that Tillamook County approve the facility as proposed.

III. PROPOSED PLAN

This request is for review of the Land Use Development of a new proposed wireless communications facility. The subject property consists of approximately 55 acres of forested landscape and rugged terrain with existing primary access over an unnamed road off HWY OR-6. The subject property is surrounded by Forest and highway traffic.

IV. SITE SELECTION

Verizon seeks to improve a significant deficiency in their coverage in Tillamook County. The proposed site location was chosen to improve the wireless service to the public while traveling along HWY OR-6.

The Applicants site wireless communication facilities at carefully selected locations. The need for service in this specific geographic area was determined by market demand, coverage requirements for a specific geographic area, and the need to provide continuous coverage from one site to another. Once the need for additional coverage was established, Verizon's RF engineers performed a study to determine the approximate site location and antenna height required to provide service in the desired coverage area. Using a computer modeling program that accounts for the terrain within the service area and other variables, such as proposed antenna height, available radio frequencies and wireless equipment characteristics, the engineers identified a "search ring," wherein a site could be located to fill the coverage gap.

For this project, a significant deficiency in coverage was determined to exist in the proposed area along HWY OR-6.

This determination was a result of a combination of customer complaints and service and preliminary design analysis. Terrain data within the service area is entered into a modeling program along with a series of variables, such as proposed antenna height, available radio frequencies and wireless equipment characteristics. Using this information, Verizon's RF engineers identified an area of optimum location for and height of a new wireless communication facility antenna to maximize the coverage objective.

When this technical analysis was completed, a search area map and a description of other requirements were provided to Verizon's site development specialists. To provide coverage in this area, it was necessary to locate a facility that would provide coverage to the necessary areas in need.

With this information in hand, Verizon ranked potential sites. When designing an existing or new area for coverage or capacity, Verizon will first attempt to utilize an existing tower or structure for collocation at the desired antenna height. If an existing tower or structure is not available or not attainable because of space constraints or unreliable structural design, Verizon will propose a new tower. In this instance, our real estate group, with the help of outside consultants, did several searches and concluded there are no existing cell towers nearby for collocation that meet the communication site objectives.

Coverage maps and the RF Engineering and Design justification are attached herein for reference.

Federal, state, and local laws will apply to this application.

In Tillamook County, a new telecommunications facility at this Forest (F) location may be permitted via a conditional use and subject to the criteria per a Type II Conditional Use Permit application with the Planning Commission Review.

Federal law, primarily found in the Telecommunications Act, acknowledges a local jurisdiction's zoning authority over proposed wireless facilities but limits the exercise of that authority in several important ways. First, a local government must approve an application for a wireless communications site if three conditions are met: (1) there is a significant gap in service (coverage and or capacity); (2) the carrier has shown that the manner in which it proposes to provide service in the significant gap is the least intrusive on the values that the community seeks to protect as allowed by applicable law; and (3) there are no potentially available and technologically feasible alternatives that are less intrusive on the goals that the community seeks to protect as allowed by applicable law. 47 U.S.C Section 332(c)(7)(A) and (B)(i)(II); and T-Mobile USA, Inc. v. City of Anacortes, 572 P.3d 987 (9th Cir. 2009).
In addition, under the Telecommunications Act, the local jurisdiction is prohibited from considering the environmental effects (including health effects) of the proposed site if the site operates in compliance with federal regulations. 47 U.S.C. Section 332(c)(7)(B)(iv). Verizon has included with this application a statement from Hatfield & Dawson Consulting Electrical Engineers demonstrating that the proposed facility will operate in accordance with the Federal Communications Commission's RF emissions regulations - a NIER report (Attachment 9). Therefore, this issue is preempted under federal law and any testimony, or documents introduced relating to the environmental or health effects of the proposed site should be disregarded in this proceeding.

Furthermore, the Telecommunications Act requires jurisdictions not to discriminate amongst carriers (applicants) in the placement of Wireless facilities. The Telecommunications Act provides wireless carriers with important procedural due process protections, including the requirement that "the regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government shall not prohibit or have the effect of prohibiting the provision of personal wireless services. 47 U.S.C. § 332(c)(7)(B)(i)(II). That is if a significant gap in service is demonstrated (capacity and or coverage), a local jurisdiction cannot deny the new service facility.

Verizon, in this application via extensive evidence has demonstrated that there is a significant gap in coverage and capacity for customers in Tillamook County, Oregon, and that the proposed facility is designed to fill this service gap in

this area. The County is required to defer to Verizon's coverage objectives. There are other similar style and height of wireless towers that have been approved and installed in Tillamook County, including one on the same parcel as the proposed development. To deny or substantially condition this application would be a clear discrimination between carriers per the Telecom Act and Federal Law and deny Verizon's ability to provide similar service compared to other carriers.

The proposed facility will comply fully with all Federal Communications Commission (FCC) safety standards. The FCC developed those standards in consultation with numerous other agencies, including the Institute of Electrical and Electronics Engineers (IEEE), Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. The standards were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects over decades of wireless usage. The FCC explains that its standards "incorporate prudent margins of safety." It explains further that "radio frequency emissions from antennas used for cellular and PCS transmissions result in exposure levels on the ground that are typically thousands of times below safety limits." The FCC provides information about the safety of RF emissions from cellular base stations on its website at: http://www.fcc.gov/oet/rfsafety/rf- faqs.html. Included in the is application is Evaluation of Compliance with FCC Guidelines for Human Exposure to Radiofrequency Radiation report (Attachment 9) prepared by Hatfield & Dawson, Consulting Electrical Engineers that are qualified to prepare the exposure report in compliance with FCC guidelines. This report demonstrates that Verizon's proposed facility will be no risk to human health for RF exposure and is in compliance with FCC requirements.

Once Verizon develops a new facility, they follow a comprehensive program to ensure that they remain in compliance with the FCC limits while in service, which will include actual tests to confirm these limits following the sites going into service.

Wireless Communication facilities have been designated by Homeland Security as critical infrastructure of the United States. During events such as natural disasters or acts of terrorism, cell reception has been critical for first responders and emergency personnel to have effective communications.

V. APPLICABLE ORDINANCE AND COMPREHENSIVE PLAN PROVISIONS

A. TCLUO Section 3.004: Forest (F) Zone
B. TCLUO Article VI: Conditional Use Procedures and Criteria

VI. ANALYSIS

TCLUO Section 3.004: Forest (F) Zone
(1) PURPOSE
(a) The purpose of the Forest (F) Zone is to protect and maintain forest lands for grazing, and rangeland use and forest use, consistent with existing and future needs for agricultural and forest products. The F zone is also intended to allow other uses that are compatible with agricultural and forest activities, to protect scenic resources and fish and wildlife habitat, and to maintain and improve the quality of air, water and land

resources of the county.

(b) The F zone has been applied to lands designated as Forest in the Comprehensive Plan. The provisions of the F zone reflect the forest land policies of the Comprehensive Plan as well as the requirements of ORS Chapter 215 and OAR 660-006. The minimum parcel size and other standards established by this zone are intended to promote commercial forest operations.

Applicant's response: The proposed WCF is located in the Forest (F) zone.

(2) DEFINITIONS
Words used in the present tense include the future; the singular number includes the plural; and the word "shall" is mandatory and not directory. Whenever the term "this ordinance" is used herewith, it shall be deemed to include all amendments thereto as may hereafter from time to time be adopted.

For the purpose of this zone, the following definitions apply:

(dd) UTILITY FACILITIES NECESSARY FOR PUBLIC SERVICE: Unless otherwise specified in this Article, any facility owned or operated by a public, private or cooperative company for the transmission, distribution or processing of its products or for the disposal of cooling water, waste or by-products, and including, major trunk, pipelines, dams & and other hydroelectric facilities, water towers, sewage lagoons, cell towers, electrical transmission facilities (except transmission towers over 200' in height) including substations not associated with a commercial power generating facilities and other similar facilities.

Applicant's response: The proposed WCF qualifies as a utility facility necessary for public service. The County requested Verizon to increase the height of pole to 50' to allow for future colocation of County antennas if needed.

TCLUO Article VI: Conditional Use Procedures and Criteria

(8) CONDITIONAL USE REVIEW CRITERIA:

A use authorized as a conditional use under this zone may be allowed provided the following requirements or their equivalent are met. These requirements are designed to make the use compatible with forest operations and agriculture and to conserve values found on forest lands. Conditional uses are also subject to Article 6, Section 040.

1. The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands.

Applicant's response: The proposed WCF has been designed to be consistent with all applicable provisions of this section, including the development and design standards under Section 3.004 and Article 6. Please see Drawings included as an attachment.

2. The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

Applicant's response: This is an unmanned Wireless Communication Facility that will be run on primary electric power provided by the existing infrastructure at this location. Please see Drawings included as an attachment.

3. A written statement recorded with the deed or written contract with the county or its equivalent is obtained from the land owner that recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Forest Practices Act and Rules for uses authorized in OAR 660-006-0025(5)(c).

Applicant's response: The applicant acknowledges and intends to comply with these provisions and is agreeable to this being included as a condition of approval.

(9) SITING STANDARDS FOR DWELLINGS AND STRUCTURES IN FOREST ZONES

The following siting criteria or their equivalent shall apply to all new dwellings and structures in forest zones. These criteria are designed to make such uses compatible with forest operations, to minimize wildfire hazards and risks and to conserve values found on forest lands. The County shall consider the criteria in this section together with the requirements of Section (10) to identify the building site:

(a) The minimum lot width and minimum lot depth shall be 100 feet.

(b) The minimum front, rear, and side yards shall all be 30 feet.

(c) The height of residential structures shall not exceed 35 feet.

(d) Dwellings and structures shall be sited on the parcel so that:

1. They have the least impact on nearby or adjoining forest or agricultural lands;

Applicant's response: The proposed WCF has been designed to be consistent with all applicable provisions of this section, including the development and design standards under Section 3.004 and Article 6. Please see Drawings included as an attachment.

2. The siting ensures that adverse impacts on forest operations and accepted farming practices on the tract will be minimized;

Applicant's response: The proposed WCF has been designed to be consistent with all applicable provisions of this section, including the development and design standards under Section 3.004 and Article 6. The proposed location will not force a significant change in the forest practices on the property. Additionally, the proposed location is accessible by an existing road which minimizes possible adverse impacts.

3. The amount of forest lands used to site access roads, service corridors, the dwelling and structures is minimized; and

Applicant's response: The proposed new WCF will only use a 10 ft. x 10 ft. lease area of forest land on 70 acres parcel. Additionally, the proposed location is accessible by an existing road so no additional forest land will be utilized to construct an access road. The proposed WCF has been designed to be consistent with all applicable provisions of this section, including the development and design standards under Section 3.004 and Article 6. Please see Drawings included as an attachment.

4. The risks associated with wildfire are minimized.

Applicant's response: The proposed WCF has been designed to be consistent with all applicable provisions of this section, including the development and design standards under Section 3.004 and Article VI. The proposed location will not force a significant change in the forest practices on the property. Please see Drawings included as an attachment.

(e) Siting criteria satisfying Subsection (d) may include setbacks from adjoining properties, clustering near or among existing structures, siting close to existing roads and siting on that portion of the parcel least suited for growing trees.

Applicant's response: The proposed WCF is sited close to an existing road as there are no existing wireless structures in the proximity of the parcel.

(f) The applicant shall provide evidence to the governing body that the domestic water supply is from a source authorized in accordance with the Water Resources Department's administrative rules for the appropriation of ground water or surface water and not from a Class II stream as defined in the Forest Practices rules (OAR chapter 629). For purposes of this section, evidence of a domestic water supply means:

1. Verification from a water purveyor that the use described in the application will be served by the purveyor under the purveyor's rights to appropriate water;

2. A water use permit issued by the Water Resources Department for the use described in the application; or

3. Verification from the Water Resources Department that a water use permit is not required for the use described in the application. If the proposed water supply is from a well and is exempt from permitting requirements under ORS 537.545, the applicant shall submit the well constructor's report to the county upon completion of the well.

Applicant's response: Not applicable. The proposed WCF is an unmanned facility that will not be connected to a water source.

(g) As a condition of approval, if road access to the dwelling is by a road owned and maintained by a private party or by the Oregon Department of Forestry, the U.S. Bureau of Land Management, or the U.S. Forest Service, then the applicant shall provide proof of a long-term road access use permit or agreement. The road use permit may require the applicant to agree to accept responsibility for road maintenance.

Applicant's response: The applicant has negotiated and signed a lease agreement with the property owner for access to and use of the proposed lease area. The applicant respectfully asks that the County approve this WCF application with the understanding that the formal lease and easement agreements will be secured prior to commencement of construction. The applicant will apply for any road use permits required for the WCF. Finally, the applicant agrees to this being a condition of approval.

(h) Approval of a dwelling shall be subject to the following requirements:

1. Approval of a dwelling requires the owner of the tract to plant a sufficient number of trees on the tract to demonstrate that the tract is reasonably expected to meet Department of Forestry stocking requirements at the time specified in Department of Forestry administrative rules;

2. The planning department shall notify the county assessor of the above condition at the time the dwelling is approved;

3. If the lot or parcel is more than 10 acres the property owner shall submit a stocking survey report to the county assessor and the assessor will verify that the minimum stocking requirements have been met by the time required by Department of Forestry rules;

4. Upon notification by the assessor the Department of Forestry will determine whether the tract meets minimum stocking requirements of the Forest Practices Act. If that department determines that the tract does not meet those requirements, that department will notify the owner and the assessor that the land is not being managed as forest land. The assessor will then remove the forest land designation pursuant to ORS 321.359 and impose the additional tax; and

5. The county governing body or its designate shall require as a condition of approval of a single-family dwelling under ORS 215.213, 215.383 or 215.284 or otherwise in a farm or forest zone, that the landowner for the dwelling sign and record in the deed records for the county a document binding the landowner, and the landowner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forest practices for which no action or claim is allowed under ORS 30.936 or 30.937.

Applicant's response: Not applicable.

(10) FIRE-SITING STANDARDS FOR DWELLINGS AND STRUCTURES:

The following fire-siting standards or their equivalent shall apply to all new dwelling or structures in a forest zone:

(a) The dwelling shall be located upon a parcel within a fire protection district or shall be provided with residential fire protection by contract. If the dwelling is not within a fire protection district, the applicant shall provide evidence that the applicant has asked to be included within the nearest such district. If the governing body determines that inclusion within a fire protection district or contracting for residential fire protection is impracticable, the governing body may provide an alternative means for protecting the dwelling from fire hazards that shall comply with the following:

1. The means selected may include a fire sprinkling system, onsite equipment and water storage or other methods that are reasonable, given the site conditions;

2. If a water supply is required for fire protection, it shall be a swimming pool, pond, lake, or similar body of water that at all times contains at least 4,000 gallons or a stream that has a continuous year round flow of at least one cubic foot per second;

3. The applicant shall provide verification from the Water Resources Department that any permits or registrations required for water diversion or storage have been obtained or that permits or registrations are not required for the use; and

4. Road access shall be provided to within 15 feet of the water's edge for firefighting pumping units. The road access shall accommodate the turnaround of firefighting equipment during the fire season. Permanent signs shall be posted along the access route to indicate the location of the emergency water source.

Applicant's response: The proposed new structure is an unmanned wireless facility. The applicant will comply with all required applicable fire code requirements. Also, the applicant requests the County to determine that inclusion in a fire protection district or contracting for residential fire protection is impracticable and provide an alternative means for protecting the structure from fire hazards if such means are deemed necessary.

(b) Road access to the dwelling shall meet road design standards described in OAR 660-006-0040.

Applicant's response: The proposed WCF has been designed to be consistent with all applicable provisions of this section, including the development and design standards under Section 3.004 and Article VI.

(c) The owners of the dwellings and structures shall maintain a primary fuel-free break area surrounding all structures and clear and maintain a secondary fuel-free break area on land surrounding the dwelling that is owned or controlled by the owner in accordance with the provisions in "Recommended Fire Siting Standards for Dwellings and Structures and Fire Safety Design Standards for Roads" dated March 1, 1991, and published by the Oregon Department of Forestry and shall demonstrate compliance with Table (10)(c)1

Applicant's response: The proposed WCF has been designed to be consistent with all applicable provisions of this section and Article VI, including the fuel break requirements noted in this Code section. Please see Final Zoning Drawings included as an attachment.

ARTICLE VI

CONDITIONAL USE PROCEDURES AND CRITERIA

SECTION 6.010: PURPOSE

The purpose of a CONDITIONAL USE is to provide for uses that are not allowed by right in a certain zone because of potentially adverse impacts on uses permitted by right in that zone. Such uses may be made or deemed compatible through the review process contained in this Article, which subjects the proposed CONDITIONAL USE activity to specific requirements, criteria, and conditions. The location and operation of any CONDITIONAL USE listed in this Ordinance shall only be permitted according to the provisions of this Article.

SECTION 6.020: PROCEDURE

The following procedure shall be observed in submitting and acting on a CONDITIONAL USE request:

(1) A request may be initiated for a CONDITIONAL USE, or the modification of an approved CONDITIONAL USE, by filing an application with the Department. The Department may require any information necessary for a complete understanding of the proposed use and its relationship to surrounding properties.

Applicant's response: The Applicant has submitted a Conditional Use application with supporting documents including a narrative and statement of Compliance for the proposed WCF.

(2) The Director shall act administratively according to the procedure set forth in Article 10, or shall refer the application to the Commission for a public hearing and decision. The application shall be referred to the Commission if the director determines that the proposed use would have significant impacts that extend beyond the abutting properties, and that those impacts are not likely to be adequately addressed by response to public notice required by Section 10.070. If the Director elects to refer the application to the Commission, it shall be heard at the next available Commission hearing, unless the applicant requests otherwise.

(3) No CONDITIONAL USE permit shall be invalidated because of failure to receive the notice provided for in Section 10.070.

SECTION 6.030: GENERAL REQUIREMENTS

A CONDITIONAL USE shall be authorized, pursuant to the procedures set forth in Section 6.020, if the applicant adequately demonstrates that the proposed use satisfies all relevant requirements of this Ordinance, including the review criteria contained in Section 6.040 or the Health Hardship provisions contained in Section 6.050, and the following general requirements:

(1) A CONDITIONAL USE shall be subject to the standards of the zone in which it is located, except as those standards have been modified in authorizing the CONDITIONAL USE. The size of a lot to be used for a public utility facility may be reduced below the minimum required, provided that it will have no adverse effect upon adjacent uses.

Applicant's response: The proposed WCF is located in and subject to the Forest (F) standards zone. The zone standards are addressed in the narrative and the Statement of Code Compliance.

(2) A CONDITIONAL USE may be enlarged or altered pursuant to the following:

(a) Major alterations of a CONDITIONAL USE, including changes to or deletion of any imposed conditions, shall be processed as a new CONDITIONAL USE application.

(b) Minor alterations of a CONDITIONAL USE may be approved by the Director according to the procedures used for authorizing a building permit, if such alterations are requested prior to the issuance of a building permit for the CONDITIONAL USE. Minor alterations are those which may affect the siting and dimensions of structural and other improvements relating to the CONDITIONAL USE, and may include small changes in the use itself. Any change which would affect the basic type, character, arrangement, or intent of the approved CONDITIONAL USE shall be considered a major alteration.

(c) The enlargement or alteration of a one-or two-family dwelling, mobile home, manufactured home, or recreational vehicle that is authorized as a CONDITIONAL USE under the provisions of this Ordinance shall not require further authorization, if all applicable standards and criteria are met.

(3) Where the approval of a CONDITIONAL USE request is contingent upon an amendment to this Ordinance, and an application for such amendment has been recommended for approval by the Commission, the CONDITIONAL USE request may be approved upon the condition that the Board approves the Ordinance Amendment.

SECTION 6.040: REVIEW CRITERIA

Any CONDITIONAL USE authorized according to this Article shall be subject to the following criteria, where applicable:

(1) The use is listed as a CONDITIONAL USE in the underlying zone, or in an applicable overlying zone.

Applicant's response: Per 3.004 (13) Use Table, television, microwave and radio communication facilities and transmission towers are permitted by a Type 2 CUP in the underlying Forest (F) zone (subject to 3.004(8) above). There is no applicable overlay zone for this location.

(2) The use is consistent with the applicable goals and policies of the Comprehensive Plan.

Applicant's response: This is an unmanned cellular site that will provide essential 911 emergency response wireless capabilities to first responders. The site is located near an existing access road and will not directly impact the productivity of the ongoing forest operations on this land. Please see Drawings and RF Justification included as attachments.

(3) The parcel is suitable for the proposed use considering its size, shape, location, topography, existence of improvements and natural features.

Applicant's response: As noted, the proposed WCF will be sited in close proximity of an existing access road. Also, the property owners participated in selecting the site location that will not directly impact the productivity of the ongoing operations on this parcel. Please see Drawings included as an attachment.

(4) The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs or prevents the use of surrounding properties for the permitted uses listed in the underlying zone.

Applicant's response: As noted, the proposed WCF will be sited in close proximity of an existing access road. Also, the property owners participated in selecting the site location that will not directly impact the productivity of the ongoing forest operations on this parcel. Please see Drawings included as an attachment.

(5) The proposed use will not have detrimental effect on existing solar energy systems, wind energy conversion systems or wind mills.

Applicant's response: Not applicable. There are no solar energy systems, wind energy conversion systems, or wind mills in this area.

(6) The proposed use is timely, considering the adequacy of public facilities and services existing or planned for the area affected by the use.

Applicant's response: This proposed WCF is intended to fill a significant gap in coverage as shown in the attached RF Justification and maps. Verizon Wireless has built a communication network to provide wireless services, which include voice, data, and enhanced 911 emergency services in the area experiencing a significant gap in coverage along HWY OR-6(Tillamook County). Verizon's objective for this site is to improve these wireless services, offload a nearby capacity site that is currently providing coverage in this area and fill in new areas that do not have a strong enough signal strength to hold a call or access their network. This proposed site is an essential WCF for public service as part of Verizon Wireless; communication network providing enhanced 911 services as well as serving many governmental agencies and emergency responders. HWY OR-6 is currently significantly underserved by wireless coverage, even though there is a substantial amount of traffic every day. To get the quality service experience for their customers and others that count on their network along HWY OR-6 (Tillamook County), Verizon will need this new 50 ft. tower to provide adequate coverage in this area.

Antenna Structure Registration

TOWAIR Determination Results

HELP

New Search Printable Page

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

Your Specifications

NAD83 Coordinates	
Latitude	45-29-43.2 north
Longitude	123-36-06.6 west
Measurements (Meters)	
Overall Structure Height (AGL)	15.2
Support Structure Height (AGL)	0
Site Elevation (AMSL)	88.4
Structure Type	
MTOWER - Monopole	

Tower Construction Notifications
Notify Tribes and Historic Preservation Officers of your plans to build a tower.

Federal Communications Commission
45 L Street NE
Washington, DC 20554

Phone: 1-877-480-3201
TTY: 1-717-338-2824
Submit Help Request

HWY OR-6 wireless nodes

RF Design: John Gilbert

verizon

Introduction

Coverage is the need to expand wireless service into an area that either has no service or bad service. The request for service often comes from customers or emergency personnel. Expansion of service could mean improving the signal levels in a large apartment complex or new residential community. It could also mean providing new service along a newly built highway or a small community in a coverage hole.

Capacity is the need for more wireless resources. Cell sites have a limited amount of resources to handle voice calls, data connections, and data volume. When these limits are reached, user experience quickly degrades. This could mean customers may no longer be able to make/receive calls nor be able to browse the internet. It could also mean that webpages will be very slow to download. Capacity is the amount of resources a cell site has to handle customer demand. We utilize sophisticated programs that use current usage trends to forecast future capacity needs. Since it takes an average of (1-3) years to complete a cell site project, we have to start the acquisition process several years in advance to ensure the new cell site is in place before the existing cell site hits capacity limits.

Location, Location, Location. In hilly, forested terrain, wireless signals will not propagate as far as they would when compared to a flat, bare area – especially if the antennas are not installed substantially above the obstacles in the landscape. So when trying to cover a winding highway in timber country, many transmitter locations are needed close to the lane of travel to ensure a good level of wireless service to the public.

Propagation Maps:

There are several methods for determining where coverage gaps exist within a given network of wireless sites. One of these is through the use of propagation maps. The propagation map is a computer simulation of the strength of Verizon Wireless signals at a given height and location in the context of the network. Propagation maps are one tool for determining whether a proposed site will meet the coverage objective and what antenna height is needed to provide robust service for Verizon Wireless customers. The radio propagation tool is designed to take factors such as terrain, tree coverage, and existing buildings into account, so that it depicts a reliable estimate of coverage that would be provided by a proposed site. The propagation maps that follow show three levels of service, designated as the following colors:

- Green -a level of service adequate for providing good indoor coverage and outdoor coverage.
- Yellow - a level of service adequate for providing good coverage outdoors but moderate indoor coverage/inside a car
- Red - a level of service adequate for providing moderate outdoor coverage but unreliable indoor coverage/inside a car.
- No color: unreliable signal strength, may not be not capable of reliably making and holding a call depending on environment

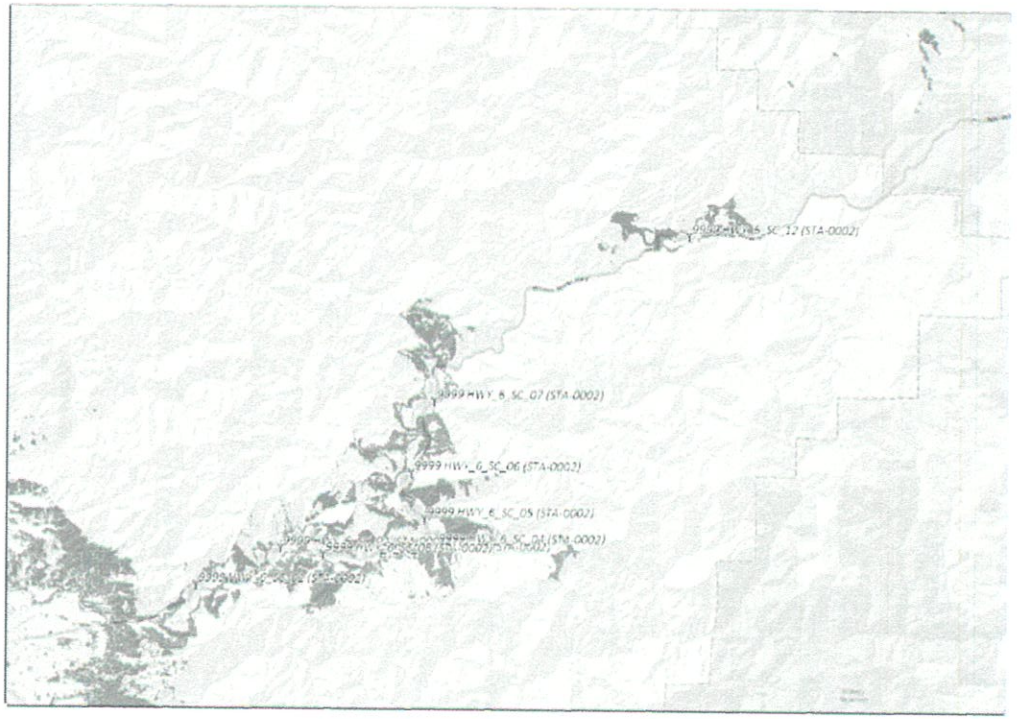
Propagation Maps:

In order to provide excellent service, the antenna heights and site locations should provide a line of sight along the highway. Two multi-frequency antennas are being proposed at each location in order to provide wireless voice and data services in a high-traffic corridor that is otherwise unserved. The proposed antenna heights are the minimum predicted to be required for continuous service when combined with other future improvements.

Overview map of wireless coverage along OR-6

Current service levels along Highway OR-6

Predicted service levels after constructing 9 small cells



INDOOR
IN VEHICLE
OUTDOOR

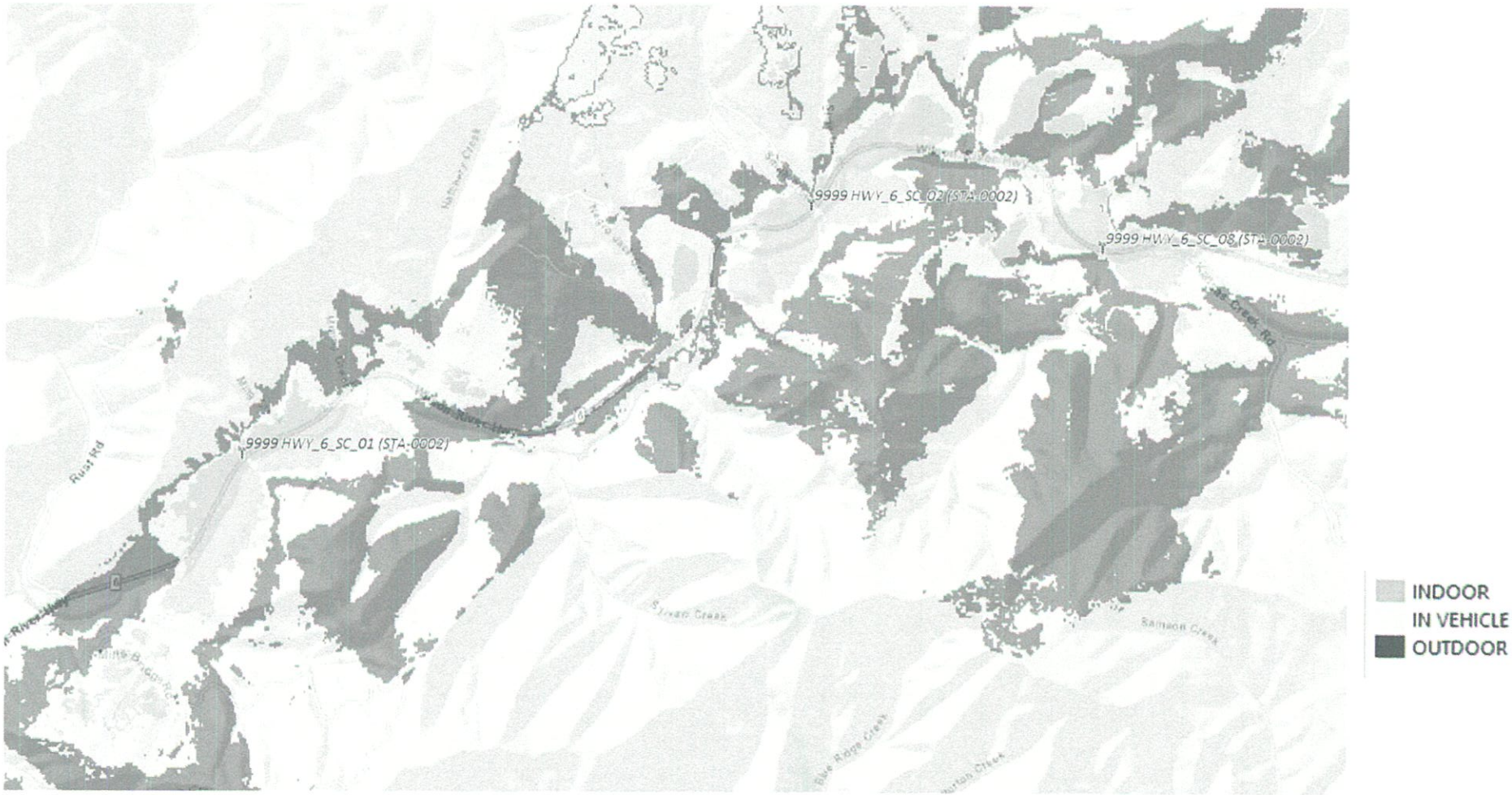
verizon

Summary

- HWY OR-6 is currently significantly underserved by wireless coverage, even though there is a substantial amount of traffic every day.
- The lack of existing wireless facilities in the area contributes to lack of coverage. The new small cells will provide much needed coverage in areas that would be difficult to serve using conventional tower-based transmitters.
- These sites will not only help improve customer experience but also help public safety and emergency services by allowing communication in an otherwise cut-off area.

verizon

Nodes 1, 2, and 8



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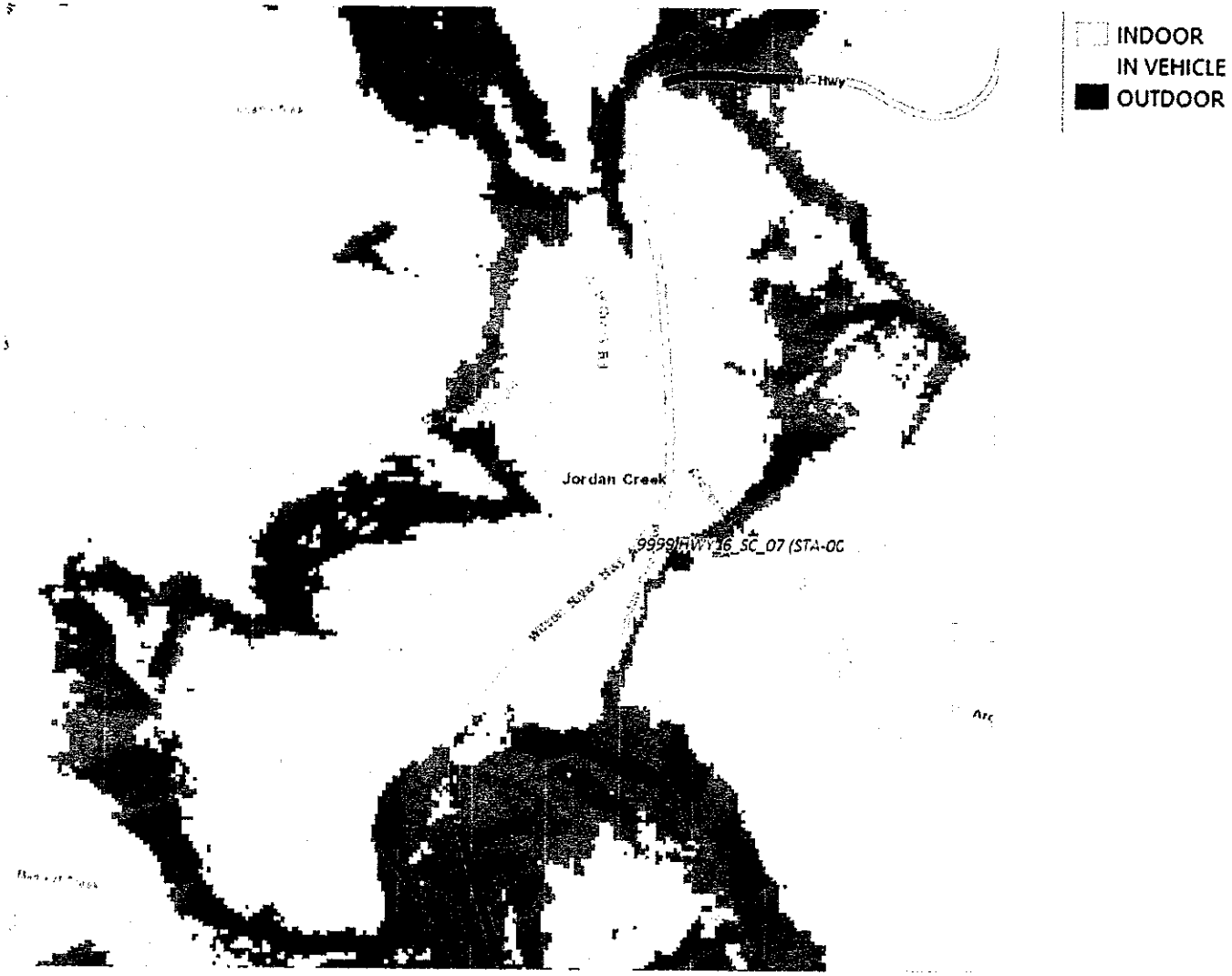
Nodes 3, 4, 5, and 6

verizon

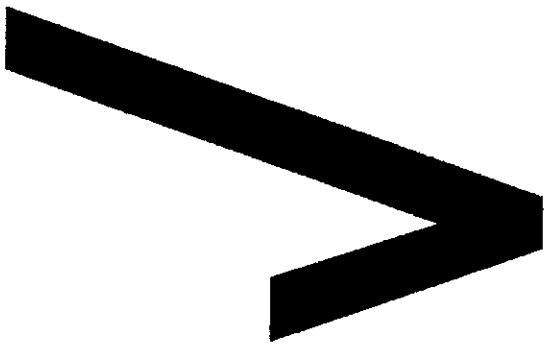
Node 7



verizon

Node 12

verizon



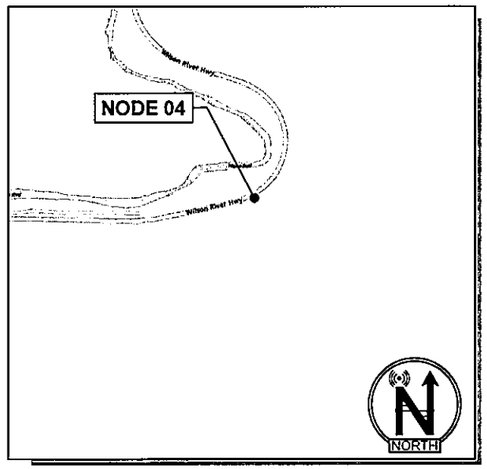
verizon

HWY 6

MDG LC: TBD

SITE NAME:	POR HWY 6 - 04
ADDRESS:	26476 WILSON RIVER HWY TILLAMOOK, OR 97141
COUNTY:	TILLAMOOK
JURISDICTION:	TILLAMOOK COUNTY
POLE TYPE:	NEW METAL POLE
POLE #:	NA
ANTENNA LOCATION:	POLE MOUNTED

VICINITY MAP



TOWER PHOTO

PROJECT CONTACT LIST

PROPERTY OWNER:
OREGON DEPARTMENT OF FORESTRY

UTILITY TOWER OWNER:
N/A

IMPLEMENTATION CONTACT:
CHRISTOPHER LEWIS
VERIZON WIRELESS (VAW) LLC
(d/b/a VERIZON WIRELESS)
5430 NE 122ND AVENUE
PORTLAND, OR 97230
PHONE: (951) 796-5523
christopher.lewis2@verizonwireless.com

A&E CONSULTANT:
RICK MATTESON
ACOM CONSULTING, INC
5200 SW MEADOWS RD
SUITE 150
LAKE OSWEGO, OR 97035
PHONE: (425) 209-6723
rick.matteson@acomconsultinginc.com

REAL ESTATE:
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ACOM CONSULTING, INC
5200 SW MEADOWS RD, SUITE 150
LAKE OSWEGO, OR 97035
PHONE : (503) 310-5538
sarah.blanchard@acomconsultinginc.com

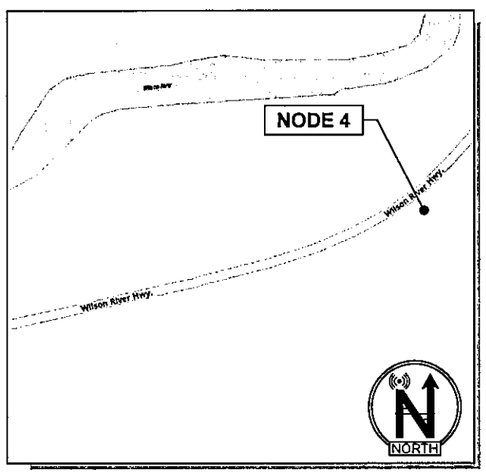
ZONING / PERMITTING:
TESSIE MURAKAMI
ACOM CONSULTING, INC
5200 SW MEADOWS RD, SUITE 150
LAKE OSWEGO, OR 97035
PHONE : (310) 483-5343
tessie.murakami@acomconsultinginc.com

ENGINEER OF RECORD:
WELLS L. HOLMES, S.E.
VECTOR STRUCTURAL ENGINEERING
651 W GALENA PARK BLVD, SUITE 101
DRAPER, UT 84020
PHONE: (801) 990-1775

ELECTRICAL ENGINEER:
DEAN P. LEVORSEN, P.E.
VECTOR STRUCTURAL ENGINEERING
651 W GALENA PARK BLVD, SUITE 101
DRAPER, UT 84020
PHONE: (801) 990-1775

DRAWING INDEX

LOCATION MAP



DRIVING DIRECTIONS

FROM VERIZON WIRELESS OFFICE - PORTLAND, OR:

TBD .....

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT CONDITIONS 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:

OREGON STATE AND LOCAL BUILDING CODES WITH THE FOLLOWING REFERENCE CODE:
- 2021 IBC, STANDARDS AND AMENDMENTS - 2022 OSSC
- 2022 OREGON MECHANICAL SPECIALTY CODE (OMSC)
- 2021 IFC, STANDARDS AND AMENDMENTS - 2022 OFC
- 2021 UPC, STANDARDS AND AMENDMENTS - 2021 OPSC
- 2020 NEC, STANDARDS AND AMENDMENTS - 2021 OESC

PROJECT INFORMATION

JURISDICTION:	TILLAMOOK COUNTY
ZONING CLASSIFICATION:	F - FOREST
ADJACENT ZONE:	R-6
CONSTRUCTION TYPE:	UTILITY
PROPOSED BUILDING USE:	TELECOM
PROPOSED STRUCTURE HEIGHT:	50.0' (TOP OF NEW POLE)
LATITUDE:	45.495346° 45° 29' 43.2456" N
LONGITUDE:	-123.601829° 123° 36' 6.5844" W
GROUND ELEVATION:	±290.0 AMSL

SCOPE OF WORK

VERIZON WIRELESS PROPOSES TO:
- PROPOSES TO INSTALL WIRELESS EQUIPMENT IN FENCED COMPOUND LOCATED OUTSIDE R-O-W
- PROPOSES TO INSTALL (3) NEW ANTENNAS & (1) NEW MOUNT ON NEW POLE
- PROPOSES TO INSTALL (1) NEW SMALL CELL CABINET ON CONCRETE PAD
- PROPOSES TO INSTALL (1) NEW HYBRID AND APPROVED CABLE STRAP MOUNTED ON NEW POLE

NO.	DATE	DRAWN	REVISION
A	05/23/23	KM	90% PCD REVIEW
B	07/25/23	KM	SURVEY UPDATE

CLIENT: verizon

A&E CONSULTANT, SITE ACQUISITION AND PERMITTING: Acom CONSULTING, INC

VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

COVER SHEET

T-1

GENERAL NOTES

1. WORK SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS. ALL NECESSARY LICENSES, CERTIFICATES, ETC., REQUIRED BY AUTHORITY HAVING JURISDICTION SHALL BE PROCURED AND PAID FOR BY THE CONTRACTOR.
2. ACOM HAS NOT CONDUCTED, NOR DOES IT INTEND TO CONDUCT ANY INVESTIGATION AS TO THE PRESENCE OF HAZARDOUS MATERIAL, INCLUDING, BUT NOT LIMITED TO, ASBESTOS WITHIN THE CONFINES OF THIS PROJECT. ACOM DOES NOT ACCEPT RESPONSIBILITY FOR THE INDEMNIFICATION, THE REMOVAL, OR ANY EFFECTS FROM THE PRESENCE OF THESE MATERIALS. IF EVIDENCE OF HAZARDOUS MATERIALS IS FOUND, WORK IS TO BE SUSPENDED AND THE OWNER NOTIFIED. THE CONTRACTOR IS NOT TO PROCEED WITH FURTHER WORK UNTIL INSTRUCTED BY THE OWNER IN WRITING.
3. ALL MATERIAL FURNISHED UNDER THIS CONTRACT SHALL BE PROPOSED, UNLESS OTHERWISE NOTED. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP. THE CONTRACTOR SHALL REPAIR OR REPLACE AT HIS EXPENSE ALL WORK THAT MAY DEVELOP DEFECTS IN MATERIALS OR WORKMANSHIP WITHIN SAID PERIOD OF TIME OR FOR ONE YEAR AFTER THE FINAL ACCEPTANCE OF THE ENTIRE PROJECT, WHICHEVER IS GREATER.
4. THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS AND UTILITIES AT THE JOB SITE BEFORE WORK IS STARTED. NO CLAIMS FOR EXTRA COMPENSATION FOR WORK WHICH COULD HAVE BEEN FORESEEN BY AN INSPECTION, WHETHER SHOWN ON THE CONTRACT DOCUMENTS OR NOT, WILL BE ACCEPTED OR PAID.
5. THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING DIMENSIONS AND CONDITIONS AT THE JOB SITE WHICH COULD AFFECT THE WORK UNDER THIS CONTRACT. ALL MANUFACTURERS RECOMMENDED SPECIFICATIONS, EXCEPT THOSE SPECIFICATIONS HEREIN, WHERE MOST STRINGENT SHALL BE COMPLIED WITH.
6. THE CONTRACTOR SHALL VERIFY AND COORDINATE SIZE AND LOCATION OF ALL OPENINGS FOR STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL, OR ARCHITECTURAL WORK.
7. THE CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST BETWEEN THE LOCATIONS OF ANY AND ALL MECHANICAL, ELECTRICAL, PLUMBING, OR STRUCTURAL ELEMENTS, AND THAT ALL REQUIRED CLEARANCES FOR INSTALLATION AND MAINTENANCE ARE MET. NOTIFY THE CONSULTANT OF ANY CONFLICTS. THE CONSULTANT HAS THE RIGHT TO MAKE MINOR MODIFICATIONS IN THE DESIGN OF THE CONTRACT WITHOUT THE CONTRACTOR GETTING ADDITIONAL COMPENSATION.
8. DO NOT SCALE THE DRAWINGS. DIMENSIONS ARE EITHER TO THE FACE OF FINISHED ELEMENTS OR TO THE CENTER LINE OF ELEMENTS, UNLESS NOTED OTHERWISE. CRITICAL DIMENSIONS SHALL BE VERIFIED AND NOTIFY THE CONSULTANT OF ANY DISCREPANCIES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY CLEAN UP OF ALL TRADES AND REMOVE ALL DEBRIS FROM THE CONSTRUCTION SITE. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE BUILDING, SITE, AND ANY OTHER SURROUNDING AREAS TO A BETTER THAN EXISTING CONDITION.
10. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, ETC. ACCORDING TO APPLICABLE CODES, STANDARDS, AND GOOD CONSTRUCTION PRACTICES.
11. THE CONTRACTOR SHALL MEET ALL OSHA REQUIREMENTS FOR ALL INSTALLATIONS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO THE EXISTING CONSTRUCTION AND REPAIR ALL DAMAGES TO BETTER THAN PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY AVISTA OF ANY DAMAGE TO THE SITE OR ANY ADJACENT STRUCTURES AROUND THE PROJECT. THE CONSULTANT SHALL BE SOLE AND FINAL JUDGE AS TO THE QUALITY OF THE REPAIRED CONSTRUCTION. ANY ADDITIONAL MODIFICATIONS WHICH MUST BE MADE SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.
13. WHERE ONE DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS, EVEN THOUGH NOT SPECIFICALLY MARKED ON THE DRAWINGS OR REFERRED TO IN THE SPECIFICATIONS, UNLESS NOTED OTHERWISE.
14. WHERE PROPOSED PAVING, CONCRETE SIDEWALKS OR PATHS MEET EXISTING CONSTRUCTION, THE CONTRACTOR SHALL MATCH THE EXISTING PITCH, GRADE, AND ELEVATION SO THE ENTIRE STRUCTURE SHALL HAVE A SMOOTH TRANSITION.
15. THE CONTRACTOR SHALL MODIFY THE EXISTING STRUCTURE AS REQUIRED. WHERE THE EXISTING STRUCTURE MUST BE MODIFIED, GENERAL CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION. ALL WORK SHALL BE COVERED UNDER THE GENERAL CONTRACT.
16. VERIFY ALL EXISTING DIMENSIONS PRIOR TO PERFORMING WORK.
17. VERIFY LOCATION OF ALL BURIED UTILITIES PRIOR TO ANY EXCAVATION.
18. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING FOR COMMERCIAL POWER IMMEDIATELY UPON AWARD OF CONTRACT. THE GENERAL CONTRACTOR IS REQUIRED TO KEEP ALL DOCUMENTATION RECEIVED FROM THE POWER COMPANY, ACKNOWLEDGING APPLICATION FOR POWER, WRITTEN AND VERBAL DISCUSSIONS WITH THE POWER COMPANY, ETC.
19. THE GENERAL CONTRACTOR SHALL OBTAIN WRITTEN CONFIRMATION OF THE EXPECTED DATE OF COMPLETION OF THE POWER CONNECTION FROM THE POWER COMPANY.
20. IF THE POWER COMPANY IS UNABLE TO PROVIDE THE POWER CONNECTION BY OWNER'S REQUIRED DATE, THE GENERAL CONTRACTOR SHALL PROVIDE AND MAINTAIN A TEMPORARY GENERATOR UNTIL THE POWER COMPANY CONNECTION IS COMPLETED. COSTS ASSOCIATED WITH THE TEMPORARY GENERATOR TO BE APPROVED BY THE OWNER.
21. IF THE GENERAL CONTRACTOR FAILS TO TAKE NECESSARY MEASURES AS DESCRIBED IN NOTES 19, 20 AND 21 ABOVE, THE GENERAL CONTRACTOR SHALL PROVIDE A TEMPORARY GENERATOR AT NO COST TO THE OWNER.
22. PLANS PART OF THIS SET ARE COMPLEMENTARY. INFORMATION IS NOT LIMITED TO ONE PLAN. DRAWINGS AND SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT, WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THEY ARE NOT TO BE USED BY THE OWNER ON OTHER PROJECTS OR EXTENSION TO THIS PROJECT EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ARCHITECT. THESE PLANS WERE PREPARED TO BE SUBMITTED TO GOVERNMENTAL BUILDING AUTHORITIES FOR REVIEW FOR COMPLIANCE WITH APPLICABLE CODES AND IT IS THE SOLE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO BUILD ACCORDING TO APPLICABLE BUILDING CODES.
23. IF CONTRACTOR OR SUB-CONTRACTOR FIND IT NECESSARY TO DEVIATE FROM ORIGINAL APPROVED PLANS, THEN IT IS THE CONTRACTOR'S AND THE SUB-CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE ARCHITECT WITH 4 COPIES OF THE PROPOSED CHANGES FOR HIS APPROVAL BEFORE PROCEEDING WITH THE WORK. IN ADDITION THE CONTRACTOR AND SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR PROCURING ALL NECESSARY APPROVALS FROM THE BUILDING AUTHORITIES FOR THE PROPOSED CHANGES BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR AND SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR PROCURING ALL NECESSARY INSPECTIONS AND APPROVALS FROM BUILDING AUTHORITIES DURING THE EXECUTION OF THE WORK.
24. IN EVERY EVENT, THESE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS SHALL BE INTERPRETED TO BE A MINIMUM ACCEPTABLE MEANS OF CONSTRUCTION BUT THIS SHALL NOT RELIEVE THE CONTRACTOR, SUB-CONTRACTOR, AND/OR SUPPLIER/MANUFACTURER FROM PROVIDING A COMPLETE AND CORRECT JOB WHEN ADDITIONAL ITEMS ARE REQUIRED TO THE MINIMUM SPECIFICATION. IF ANY ITEMS NEED TO EXCEED THESE MINIMUM SPECIFICATIONS TO PROVIDE A COMPLETE, ADEQUATE AND SAFE WORKING CONDITION, THEN IT SHALL BE THE DEEMED AND UNDERSTOOD TO BE INCLUDED IN THE DRAWINGS. FOR EXAMPLE, IF AN ITEM AND/OR PIECE OF EQUIPMENT REQUIRES A LARGER WIRE SIZE (I.E. ELECTRICAL WIRE), STRONGER OR LARGER PIPING, INCREASED QUANTITY (I.E. STRUCTURAL ELEMENTS), REDUCED SPACING, AND/OR INCREASED LENGTH (I.E. BOLT LENGTHS, BAR LENGTHS) THEN IT SHALL BE DEEMED AND UNDERSTOOD TO BE INCLUDED IN THE BID/PROPOSAL. THESE DOCUMENTS ARE MEANT AS A GUIDE AND ALL ITEMS REASONABLY INFERRED SHALL BE DEEMED TO BE INCLUDED.
25. THESE CONTRACT DOCUMENTS AND SPECIFICATIONS SHALL NOT BE CONSTRUED TO CREATE A CONTRACTUAL RELATIONSHIP OF ANY KIND BETWEEN THE ARCHITECT AND THE CONTRACTOR.

LINE/ANTENNA NOTES

1. ALL THREADED STRUCTURAL FASTENERS FOR ANTENNA SUPPORT ASSEMBLES SHALL CONFORM TO ASTM A307 OR ASTM A36. ALL STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. FASTENERS SHALL BE 5/8" MIN. DIA. BEARING TYPE CONNECTIONS WITH THREADS EXCLUDED FROM THE PLANE. ALL EXPOSED FASTENERS, NUTS, AND WASHERS SHALL BE GALVANIZED OTHERWISE NOTED. CONCRETE EXPANSION ANCHORS SHALL BE HILTI KWIK BOLTS UNLESS OTHERWISE NOTED. ALL ANCHORS INTO CONCRETE SHALL BE STAINLESS STEEL.
2. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY MAGNETIC NORTH AND NOTIFY CONSULTANT OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.
3. PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
4. THOROUGHLY REMOVE ALL PAINT AND CLEAN ALL DIRT FROM SURFACES REQUIRING GROUND CONNECTIONS.
5. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS TO BE A MIN. OF 8" RADIUS.
6. FOR GROUNDING TO GROUND BARS USE A TWO-BOLT HOLE NEMA DRILLED CONNECTOR SUCH AS T&B 32007 OR APPROVED EQUAL.
7. FOR ALL EXTERNAL GROUND CONNECTIONS, CLAMPS AND CADWELDS, APPLY A LIBERAL PROTECTIVE COATING OR AN ANTI-OXIDE COMPOUND.
8. REPAIR ALL GALVANIZED SURFACES THAT HAVE BEEN DAMAGED BY THERMO-WELDING. USE ERICO T-319 GALVANIZING BAR/COLD GALVANIZING PAINT.

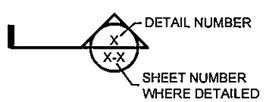
PROJECT INFORMATION

1. THIS IS AN UNMANNED FACILITY AND RESTRICTED ACCESS EQUIPMENT AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
2. VERIZON WIRELESS CERTIFIES THAT THIS TELEPHONE EQUIPMENT FACILITY WILL BE SERVICED ONLY BY VERIZON WIRELESS EMPLOYEE SERVICE PERSONNEL FOR REPAIR PURPOSES ONLY. THIS FACILITY IS UNOCCUPIED AND NOT DESIGNED FOR HUMAN OCCUPANCY THUS IT IS NOT OPEN TO THE PUBLIC.
3. THIS FACILITY WILL CONSUME NO UNRECOVERABLE ENERGY.
4. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
5. NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.
6. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.
7. VERIZON WIRELESS MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT.

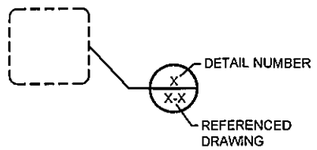
LEGEND

ABBREVIATIONS:
(E) EXISTING
(P) PROPOSED

BUILDING/WALL/DETAIL SECTION:



LARGE SCALE DETAIL:



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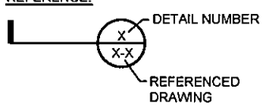
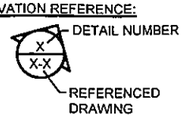


ELEVATION REFERENCE:



IMPORTANT NOTICE

THE EXISTING CONDITIONS REPRESENTED HEREIN ARE BASED ON VISUAL OBSERVATIONS AND INFORMATION PROVIDED BY OTHERS. ACOM CONSULTING CANNOT GUARANTEE THE CORRECTNESS NOR COMPLETENESS OF THE EXISTING CONDITIONS SHOWN AND ASSUMES NO RESPONSIBILITY THEREOF. CONTRACTOR AND HIS SUB-CONTRACTORS SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AS REQUIRED FOR PROPER EXECUTION OF PROJECT. REPORT ANY CONFLICTS OR DISCREPANCIES TO THE CONSULTANT PRIOR TO CONSTRUCTION.

NO.	DATE	DRAWN	REVISION
A	05/23/23	KM	90% PCD REVIEW
B	07/25/23	KM	SURVEY UPDATE

CLIENT:
verizon

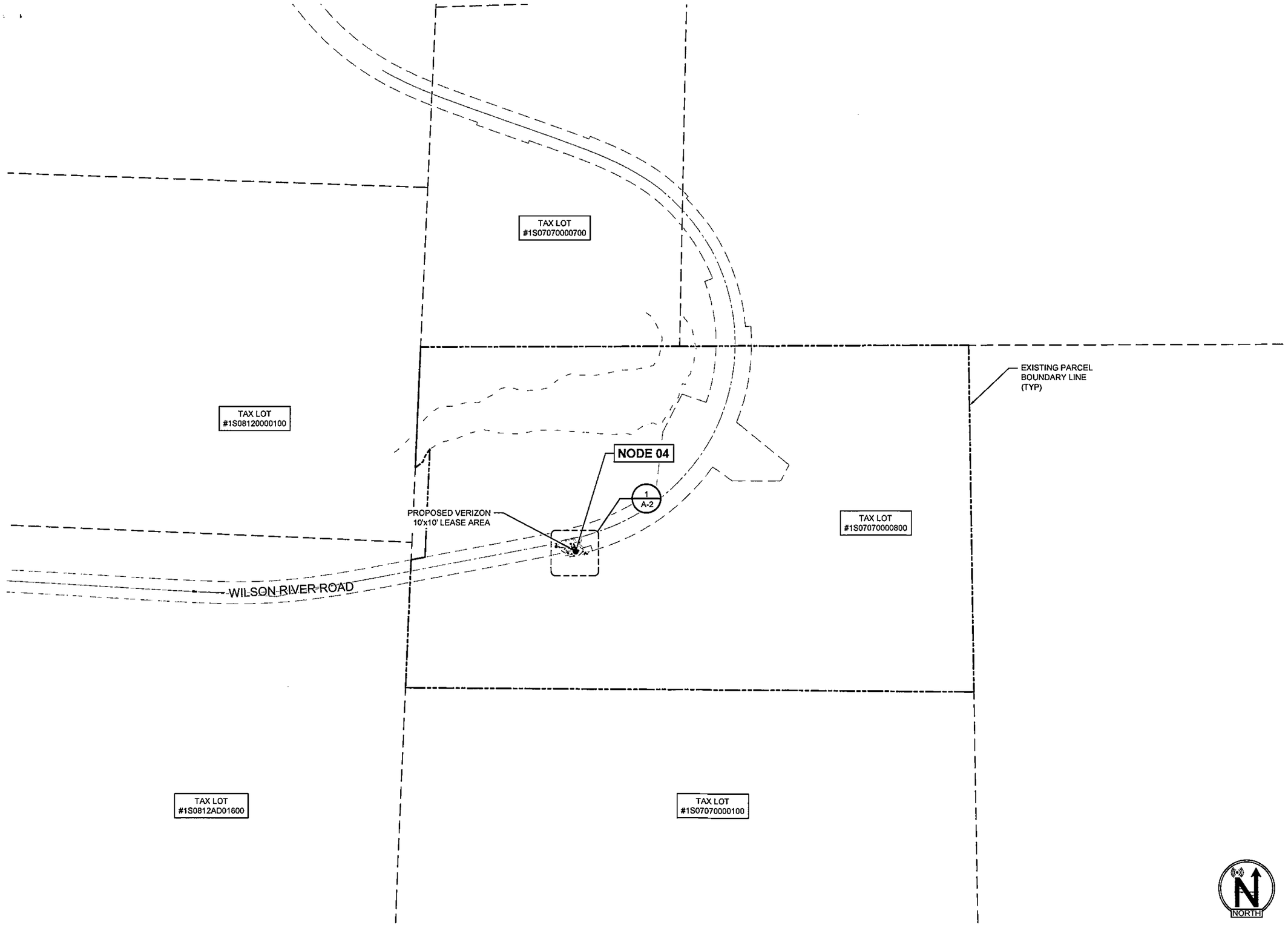
A&E CONSULTANT, SITE ACQUISITION AND PERMITTING:
Acom CONSULTING, INC

VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

GENERAL NOTES AND SYMBOLS

T-2



22"x34" SCALE: 1" = 100'-0"
11"x17" SCALE: 1" = 200'-0"

100' 50' 0' 100'

OVERALL SITE PLAN | 1

NO.	DATE	DRAWN	REVISION
A	05/23/23	KM	90% PCD REVIEW
B	07/25/23	KM	SURVEY UPDATE

CLIENT:
verizon

A&E CONSULTANT, SITE ACQUISITION AND PERMITTING:
Acom CONSULTING, INC

VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

OVERALL SITE PLAN

A-1.0

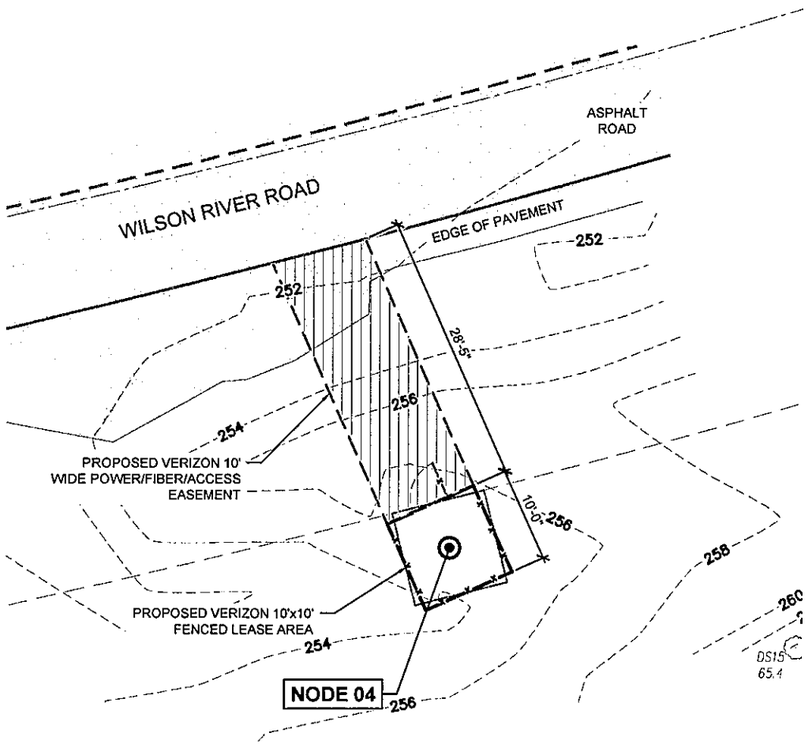
POLE MOUNTED EQUIPMENT SCHEDULE

CATEGORY	MANUFACTURER	MODEL NUMBER	UNIT HEIGHT / LENGTH	UNIT WIDTH	UNIT DEPTH	UNIT WEIGHT	MOUNT HEIGHT (CENTER)	PROPOSED	
								QUANTITY	WEIGHT
MOUNT	SITEPRO1	CWT01	--	--	--	116.50 LBS	48'-0"	3	349.5 LBS
MOUNT	SITEPRO1	UGLM	--	--	--	87.58 LBS	48'-0"	1	87.58 LBS
ANTENNA	COMMSCOPE	NHH-45A-R2B	48.0"	18.0"	7.0"	63.1 LBS	48'-0"	2	66.0 LBS
RRU	ERICSSON	8843	18.0"	13.2"	11.3"	75.0 LBS	48'-0"	1	75.0 LBS
RRU	ERICSSON	4449	18.0"	13.2"	9.5"	71.0 LBS	48'-0"	1	71.0 LBS

PROPOSED ANTENNA CONFIGURATION AND CABLE SCHEDULE

SECTOR	QTY	AZIMUTH	TECH.	TIP HEIGHT	MF'R	MODEL #	ANTENNA SIZE	MECH. TILT	FEEDER CABLE	CABLE LGTH.
D1	1	265°	4G	50'-0"	COMMSCOPE	NHH-45A-R2B	48.0"	0° (2° ELEC)	FIBER	TBD
D2	1	355°	4G	50'-0"	COMMSCOPE	NHH-45A-R2B	48.0"	0° (2° ELEC)	FIBER	TBD

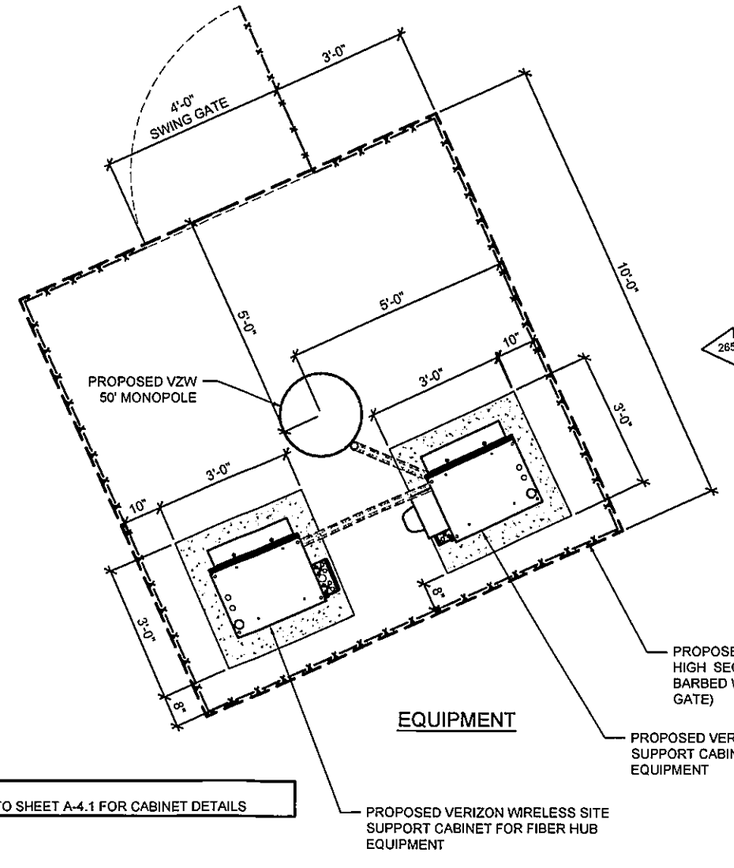
ANTENNA SCHEDULE | 2



22"x34" SCALE: 1/8" = 1'-0"
11"x17" SCALE: 1/16" = 1'-0"
8' 6' 4' 2' 0' 8'

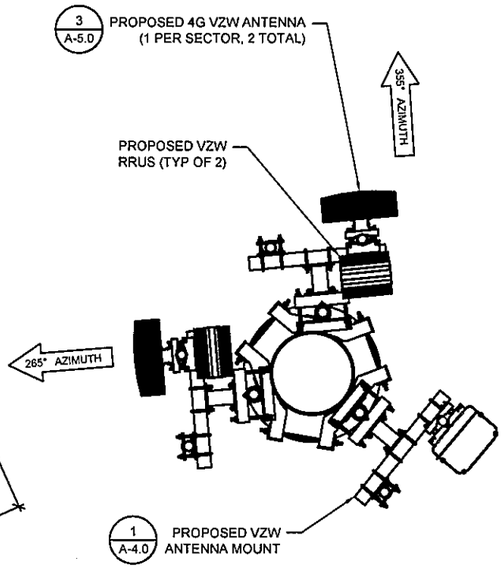
ENLARGED PLAN | 3

NOTE:
ANTENNA/ANCILLARY EQUIPMENT MOUNT DESIGN/ANALYSIS TO BE PERFORMED BY OTHERS



EQUIPMENT

NOTE:
REFER TO SHEET A-4.1 FOR CABINET DETAILS



ANTENNA

NORTH

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

PROPOSED ANTENNA / EQUIPMENT PLAN | 1

NO.	DATE	DRAWN	REVISION
A	05/23/23	KM	90% PCD REVIEW
B	07/25/23	KM	SURVEY UPDATE

CLIENT:
verizon

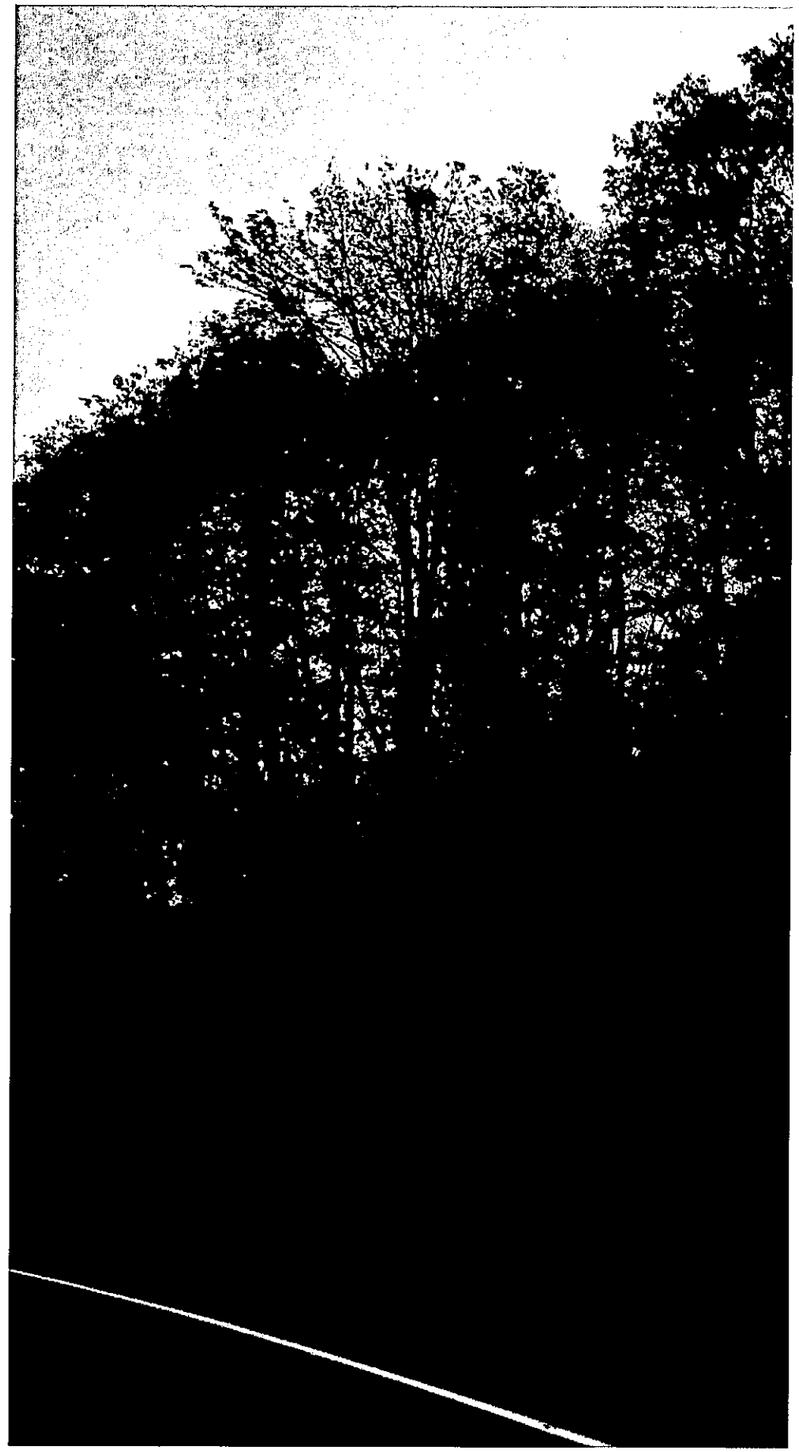
A&E CONSULTANT, SITE ACQUISITION AND PERMITTING:
Acom CONSULTING, INC

VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

ANTENNA & EQUIPMENT PLANS

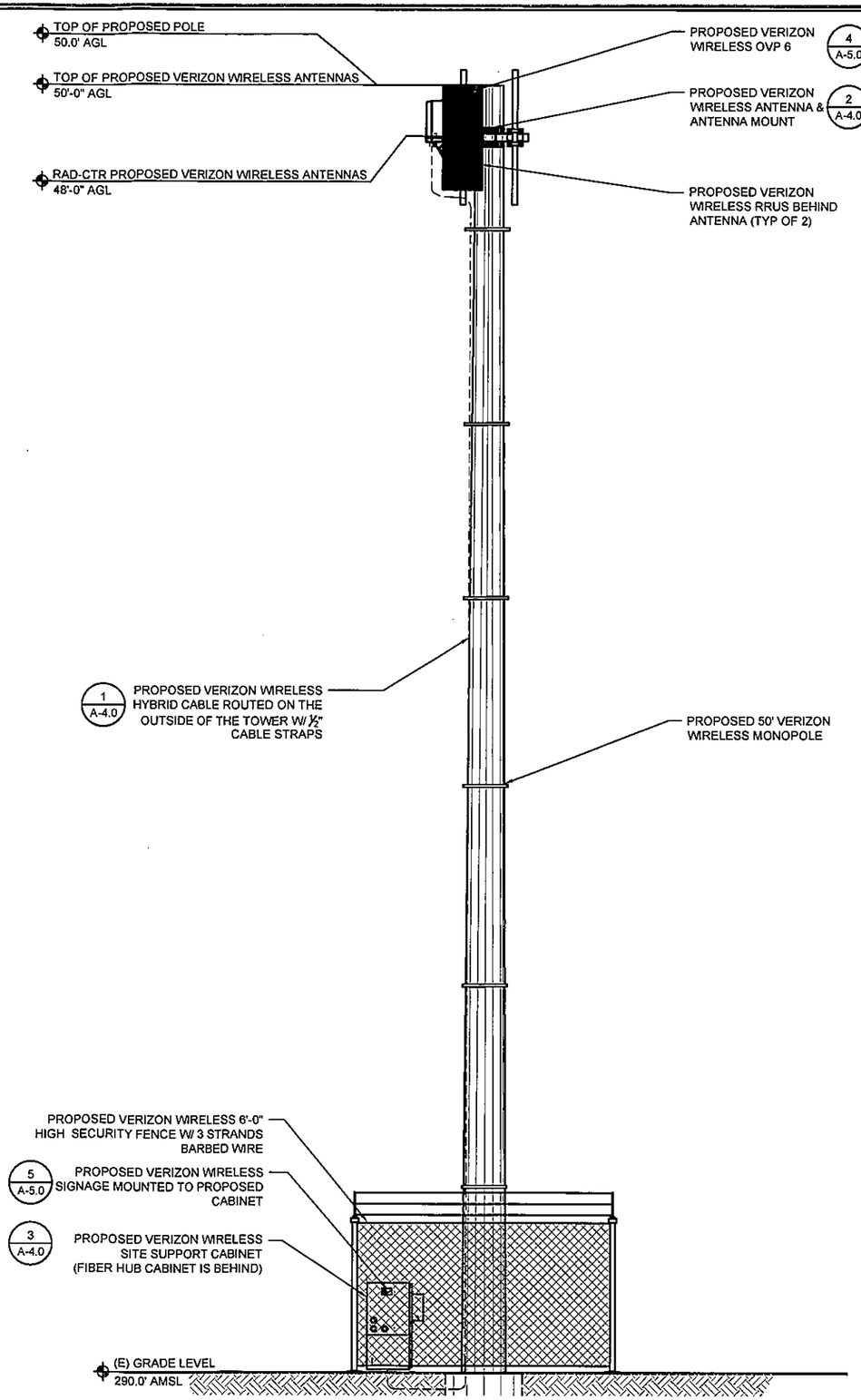
A-2.0



22"x34" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"

2' 1' 0" 2'

EXISTING ELEVATION | 1



22"x34" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"

2' 1' 0" 2'

PROPOSED ELEVATION | 2

NO.	DATE	DRAWN	REVISION
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CLIENT:
verizon

A&E CONSULTANT, SITE ACQUISITION AND PERMITTING:
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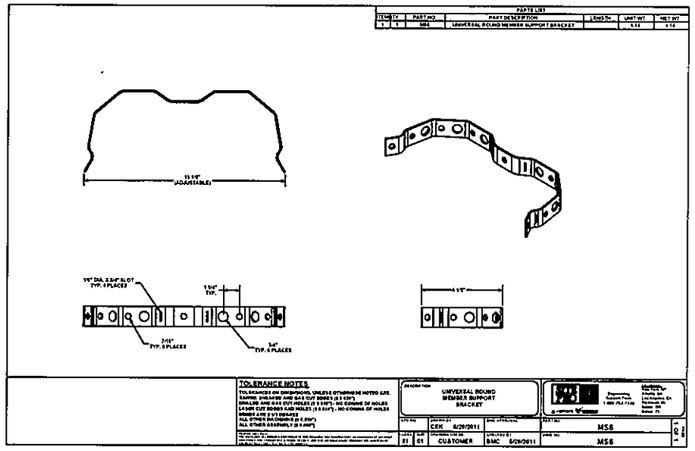
VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

EXISTING & PROPOSED ELEVATIONS

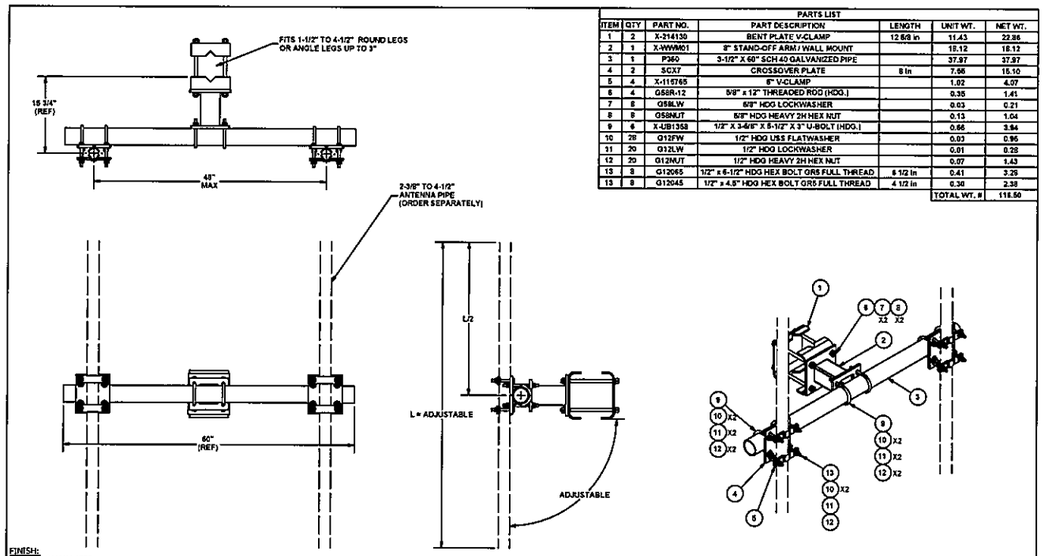
A-3.0



NOTE:
1. ATTACH TO MONOPOLE WITH ½" BANDING PER MANUFACTURER'S RECOMMENDATIONS
2. PROVIDE SNAP-IN HANGERS TO SUPPORT THE HYBRID CABLE(S)

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

TOWER - HYBRID SUPPORT BRACKET | 1



ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-214130	BENT PLATE V-CLAMP	12 5/8 in	11.43	22.86
2	1	X-WWM01	8" STAND-OFF ARM / WALL MOUNT		18.12	18.12
3	1	P3SO	3-1/2" X 60" SCH 40 GALVANIZED PIPE		37.97	37.97
4	2	SCX7	CROSSOVER PLATE	8 in	7.58	15.10
5	4	X-116765	6" V-CLAMP		1.02	4.07
6	4	GS5R-12	5/8" x 12" THREADED ROD (HDG.)		0.35	1.41
7	8	GS5LW	5/8" HDG LOCKWASHER		0.03	0.21
8	8	GS5NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	1.04
9	6	X-UB1358	1/2" X 3-4/6" X 6-1/2" X 3" U-BOLT (HDG.)		0.66	3.94
10	28	G12FW	1/2" HDG USS FLATWASHER		0.03	0.95
11	20	G12LW	1/2" HDG LOCKWASHER		0.01	0.28
12	20	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.43
13	8	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	3.29
13	8	G12045	1/2" x 4.5" HDG HEX BOLT GR5 FULL THREAD	4 1/2 in	0.30	2.38
					TOTAL WT. #	118.50

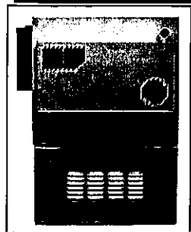
TOLERANCE NOTES
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030")
DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.005")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION: DUAL ANTENNA MOUNT ASSEMBLY FOR ROUND LEGS 1-1/2" TO 4-1/2" 18-3/4" STAND-OFF
SIDE PRO | A valmont company | Engineering Support Team: 1-888-753-7446 | Locations: West Point, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX
CPD NO.
DRAWN BY: KC8 8/10/2012
ENG. APPROVAL
PART NO.: CWT01
CLASS: 81 | SUB: 01 | DRAWING USAGE: CUSTOMER | CHECKED BY: CEK 2/19/2013 | DWG. NO.: CWT01
SHEET 1 OF 1

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

ANTENNA MOUNT DETAIL | 2

Charles Universal Broadband Enclosures (CUBE)
RL212 Series Remote Radio Head / Power Support Cabinets



The CUBE-RL212 Series cabinet provides environmental protection for a wide variety of telecom applications, including wireless, fiber transport for cell site backhaul, and other remote outdoor applications where 48 VDC is required. The most common applications for these cabinets are to house power and battery backup for remote radio heads. Commercial AC power is converted to 48 VDC using a third-party rectifier (supports most major manufacturers). The separate battery chamber is designed for up to 100Ah Ni-Cd or VRLA batteries.

Specifications
- Overall Dimensions: 39"H x 26"W x 20"D
- Equipment Chamber: 24"H x 26"W x 20"D
  - Rack Space / Width: 12RU / 19" EIA Standard
  - Door Lock: Padlockable, 216-Style Lock
  - AC Equipment: 8 Position Load Center
- Battery Chamber: 15"H x 26"W x 20"D
  - Capacity: Supports 1 String 48V (or two 24V) 100Ah Ni-Cd or VRLA
- Bonding & Grounding: 6 Position, 2-Hole Ground Bar
- Cable Entrance: (3) 1.75"/2.5" Knockouts on Right-Hand Side, (1) 1.75"/2.5" and (2) 1.375" Knockouts on Bottom
- Thermal Management: 24VDC/48VDC 560 or 750 Watt Heat Exchangers
- Construction: 1/8" Welded Aluminum, Off-White Finish
- Mounting: Wall or H-Frame, Pole Mount Kit optional (97-CABPMTKIT), 10" Plinth optional (97-002176-A)

MADE IN THE USA

Charles Part #	Standard Mounting	Overall Dimensions (in.)	RU	Equipment Chamber Dimensions (in.)	Battery Chamber Dimensions (in.)	Load Center	Thermal	Integrated Power	Weight Empty (lbs.)	Weight w/Ni-Cd Battery
CUBE-RL21221AB1	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	GE SPS 48V (3) 20A Rectifiers	170	372
CUBE-RL21221AE2	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	6 Pos & Gen	580W 48VDC HX	GE SPS 48V (2) 20A Rectifiers	170	372
CUBE-RL21221AH1	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	Eltek 48V (2) 40A Rectifiers	165	367
CUBE-RL21221AH3	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 24VDC HX	Eltek 24V (2) 60A Rectifiers	165	367
CUBE-RL21221AH4	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	Eltek 48V (1) 40A Rectifier	165	367
CUBE-RL21221AH5	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	None	150	352
CUBE-RL21221AH7	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 24VDC HX	Eltek 24V (2) 40A Rectifiers	165	367
CUBE-RL21221AH8	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	580W 48VDC HX	GE Infinity D 48V, No Rectifiers	180	385
CUBE-RL21221DB1	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	750W 48VDC HX	None	150	352
CUBE-RL21221DB2	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Position	750W 48VDC HX	GE Infinity D 48V, (2) 50A Rectifiers	165	367
CUBE-RL21221DL1	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Pos & Gen	750W 48VDC HX	None	150	385
CUBE-RL21221DL2	Wall/H-Frame	39x26x20	12	24x26x20	15x26x20	8 Pos & Gen	750W 48VDC HX	GE Infinity D 48V	180	385

For additional product information, please visit www.charlesindustries.com

OG-OSP030-K16

INNOVATIVE ENCLOSED SOLUTIONS

EQUIPMENT CABINET SPECIFICATIONS | 3

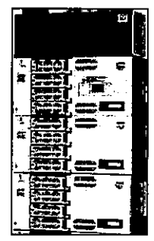
Ordering Information – Infinity D Power System

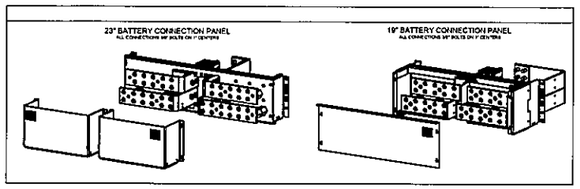
Dual Voltage, Modular Power System

Infinity-D may be configured as a +24V or -48V single voltage power system or as a "dual voltage" power system that supports rectifiers and converters. The primary voltage is supported by +24V or -48V rectifiers and battery reserve, while secondary voltage is supported by DC/DC converters. The primary voltage capacity is 1,600A at both 24V and 48V. Secondary voltage capacity is up to 300A per system expansion module.

Infinity-D systems may be equipped in 19", 23" or 26" wide 7ft frameworks, a half height frame for mounting on battery stands, or supplied frameless for field install applications including outside cabinets.

Features
- Infinity Rectifiers for +24V and -48V applications.
- Modular architecture for easy growth and low cost
- DC/DC converter support for dual voltage systems
- DC distribution in each system module for efficient scalability
- Temperature hardened harsh environments. (-40°C to +75°C)
- Compact size: 8" (203mm) high, 16.9" (429mm) deep.
- Adjustable frame mounting for 19", 23" and 26" applications
- Battery panel for battery connection and LVBD option.
- Plug-N-Play Pulsar Plus controller with Web based interface for local and remote (CO-LAN) access.
- Distribution options include 3A-400A bullet style circuit breakers and GMT fuses





Stand Alone Single Shelf Rectifier Systems (Cannot be expanded)				
Output	Ordering Code	Model	Frame	Picture
		-45V, 200A Infinity D System, 1x48V System Module with integral battery connection, 10 breaker positions and LVBD, 23" width, no frame. Equipped with Pulsar Plus system controller with Ethernet communications. Suitable for frame or cabinet mounting (not included)	No Frame	
200A	CC109151107	H2007001 G003, G021D, G223	System width 23"	
	CC109150100	H2007001 G003, G021F, G223	System width 19"	

GE INFINITY D 49V PDU SPECIFICATIONS | 4

NO.	DATE	DRAWN	REVISION
A	05/23/23	KM	90% PCD REVIEW
B	07/25/23	KM	SURVEY UPDATE

CLIENT: verizon

A&E CONSULTANT, SITE ACQUISITION AND PERMITTING:
Acom CONSULTING, INC

VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

CONSTRUCTION DETAILS

A-4.0

SPECIFICATIONS PENDING

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

FDU | 1

Telect Universal Voltage GMT Fuse Panels

Power :: HPGMTxx Fuse Panel Confi gurations and Options

Overview

Telect GMT fuse panels include a comprehensive range of options and standard confi gurations to fi t most low-current power distribution applications.

Each panel allows up to 100A input connections enabling increased power distribution for equipment. Panels support 20A maximum fuse positions to handle a wide range of equipment. A universal operating voltage (±24 to +48 VDC) means they fi t any network environment—from traditional central offi ces to customer premises and wireless applications.

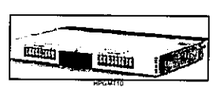
Choose from 10- or 15-position panels. Individual fuses mount adjacent to each other in thermally isolated fuse holders.

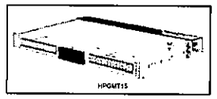
Applications

- Wireless
- Central offi ce
- Co-locate
- Remote sites
- Secondary distribution

Primary Benefi ts

- Universal voltage (±24 to +48 VDC) enables standardization on a single part number for multiple voltages
- Bay alarm as standard feature for either major or minor alarms within the equipment rack
- Up to 20A fuses for distribution to a variety of network elements
- GMT fuse holders mounted for downward trip indication to provide easier identifi cation and detection of blown fuses
- Staggered output terminal blocks facilitate waterfall cable management
- UL and NEBS compliant to ensure industry-standard safety and functional requirements
- Form C relay contacts provide reliable alarm connections
- Integrated designation pin holder for simple power identifi cation
- Fail alarm LEDs indicate fuse and power failures
- Clear, fl ame-retardant polycarbonate cover (94V-0) protects input and output power connections and wiring from damage


HPGMT10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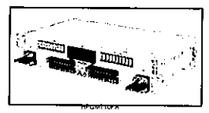

HPGMT10FA


HPGMT10FA-TRIO

TALLEY. The Connect the Brand. We Make it Easy.

Telect.

QUESTIONS? VISIT WWW.TALLEYCOM.COM OR CONTACT TALLEY AT 800.849. 7079 OR SALES@TALLEYCOM.COM TODAY.

MODEL #: HPGMT10FA

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

FUSE PANEL | 2

NOKIA

Nokia 7250 IXR-e series Interconnect Routers

Release 23

Routers in the Nokia 7250 Interconnect Router (IXR)-e series1 are used for access and aggregation and as 5G multi-access edge computing (MEC) leaf nodes. They are ideal for IP anyhaul and fixed-mobile convergence.

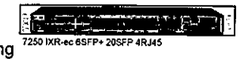
Ready for growth

The 7250 IXR-e series features high system throughput and a variety of interfaces. 100GE ports used for high-speed uplinks enable cost-effective 100GE ring architectures.

5G mobile and telco cloud infrastructures are moving toward 25GE interfaces. On the 7250 IXR-e series, the native 25GE ports are capable of supporting 10GE or 25GE transceivers. Combined with support for GE SFPs in all SFP+ cages, the 7250 IXR-e allows for seamless migrations from 1GE to 10GE to 25GE rates without the need to replace the router.


7250 IXR-e 2QSFP28 8SFP28 24SFP+


7250 IXR-e 14SFP+ 4RJ45


7250 IXR-ec 6SFP+ 20SFP 4RJ45

Compact and power saving

The 7250 IXR-e's compact (1RU) size and extended temperature range make it ideal for outside cabinet applications. It is ETSI 300-mm compliant, with all-up-front access and side-to-side air flow. A fan filter and redundant fans increase system lifetime and reduce maintenance costs.

7250 IXR-e systems consume approximately 20-25 percent less power than equivalent competing systems. Mass deployments for 5G will benefit significantly from this green design.

Differentiated service support

The 7250 IXR-e series supports low-latency applications while providing a large buffer memory for delay-tolerant applications. Very granular per-service and per-forwarding class policing and queuing features support differentiated quality of service (QoS), making the 7250 IXR-e series ideal for any-G aggregation and fixed-mobile network convergence.

1 The 7250 IXR-e series is part of the 7250 IXR product family. Additional data sheets are available for other models in the product family.

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

IXR-E | 3

SPECIFICATIONS PENDING

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

BB6648 | 4

NO.	DATE	DRAWN	REVISION
A	05/23/23	KM	90% PCD REVIEW
B	07/25/23	KM	SURVEY UPDATE

CLIENT:

verizon

A&E CONSULTANT, SITE ACQUISITION AND PERMITTING:

Acom CONSULTING, INC

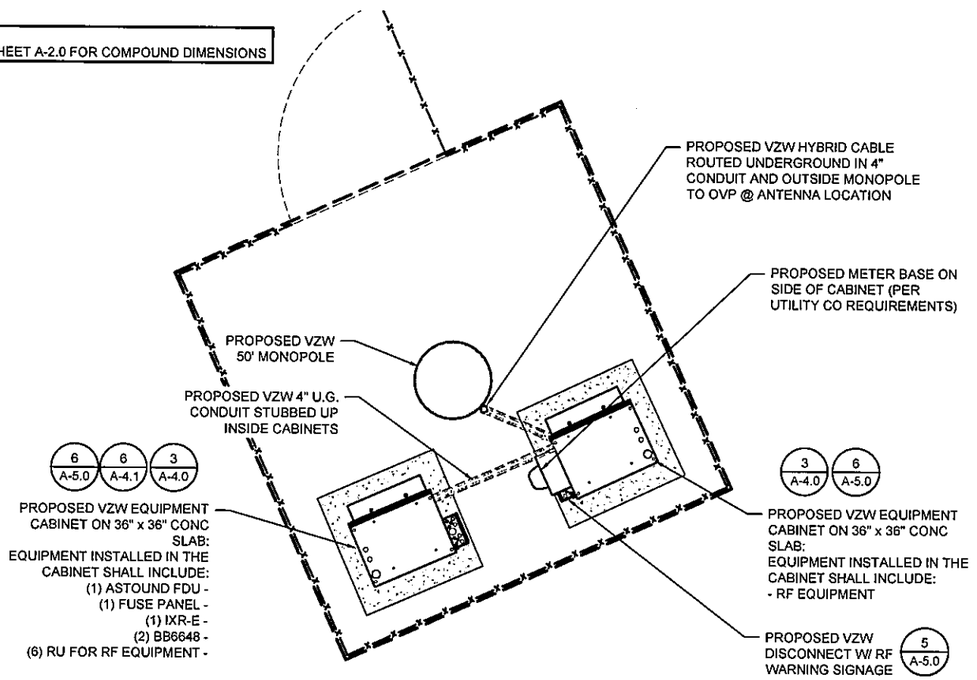
VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

CONSTRUCTION DETAILS

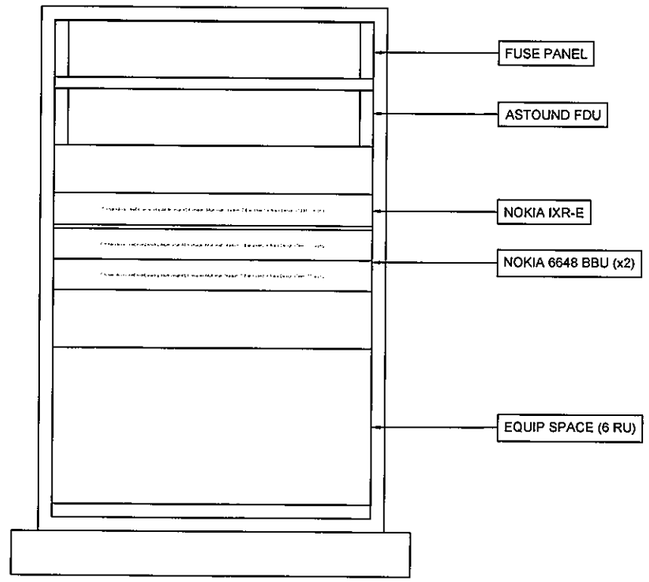
A-4.1

NOTE:
REFER TO SHEET A-2.0 FOR COMPOUND DIMENSIONS



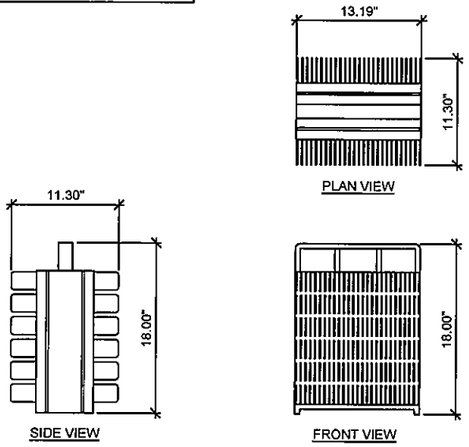
22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

COMPOUND PLAN | 5



INSIDE FIBER HUB CABINET ELEVATION | 6

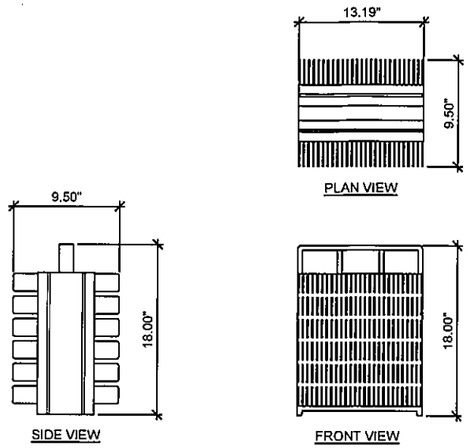
MANUFACTURER: ERICSSON
MODEL: RADIO 8843
HEIGHT: 18.00"
WIDTH: 13.19"
DEPTH: 11.30"
WEIGHT: 75 LBS
COLOR: OFF-WHITE



22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

8843 RADIO | 1

MANUFACTURER: ERICSSON
MODEL: RADIO 4449
HEIGHT: 18.00"
WIDTH: 13.19"
DEPTH: 9.50"
WEIGHT: 71 LBS
COLOR: OFF-WHITE

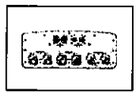


22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

4449 RADIO | 2

Product Specifications

COMMSCOPE



NHH-45A-R2B

4-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 45° HPBW, 2x RETs and 2x SBTs. Both high bands share the same electrical tilt.

- Narrow beamwidth capacity antenna for higher level of densification and enhanced data throughput
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One LB RET and one HB RET. Both high bands are controlled by one RET to ensure same tilt level for 4x Rx or 4x MIMO

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	15.5	16.2	16.3	19.0	19.2	20.0
Beamwidth, Horizontal, degrees	48	44	44	44	43	39
Beamwidth, Vertical, degrees	18.5	16.8	7.9	7.3	6.8	6.0
Beam Tilt, degrees	2–18	2–18	1–9	1–9	1–9	1–9
USLS (First Lobe), dB	16	17	17	16	15	15
Front-to-Back Ratio at 180°, dB	32	33	36	36	36	35
Isolation, dB	25	25	25	25	25	25
Isolation, Intersystem, dB	25	25	25	25	25	25
VSWR | Return Loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350	350	350	350
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

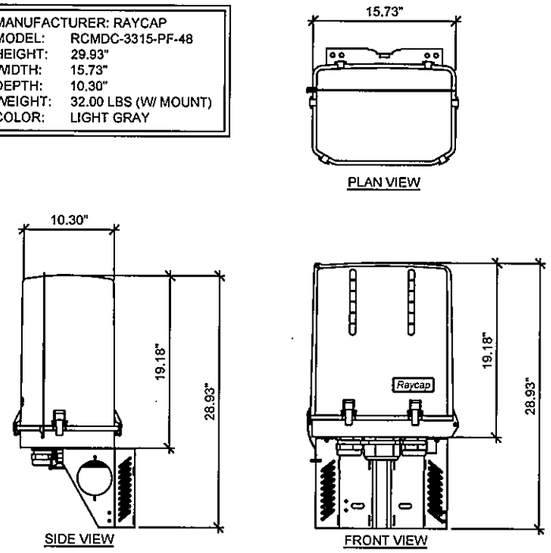
Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	15.1	15.9	17.9	18.7	19.0	19.8
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.4	±0.6	±0.4	±0.3	±0.4
Gain by Beam Tilt, average, dBi	2 ° | 15.2 10 ° | 15.1 18 ° | 14.9	2 ° | 16.1 10 ° | 16.0 18 ° | 15.6	1 ° | 17.9 5 ° | 17.9 9 ° | 17.8	1 ° | 18.8 5 ° | 18.8 9 ° | 18.6	1 ° | 19.1 5 ° | 19.1 9 ° | 18.8	1 ° | 19.9 5 ° | 19.9 9 ° | 19.5
Beamwidth, Horizontal Tolerance, degrees	±1.6	±3	±1.9	±1.3	±2.1	±1.6
Beamwidth, Vertical Tolerance, degrees	±1	±0.9	±0.3	±0.3	±0.5	±0.2
USLS, beampeak to 20° above beampeak, dB	17	22	12	13	14	15
Front-to-Back Total Power at 180° ± 30°, dB	24	24	27	29	30	30
CPR at Boresight, dB	24	25	15	18	19	20
CPR at Sector, dB	18	17	11	13	15	16

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, download the whitepaper Time to Raise the Bar on BSAs.

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

NHH-45A-R2B ANTENNA | 3

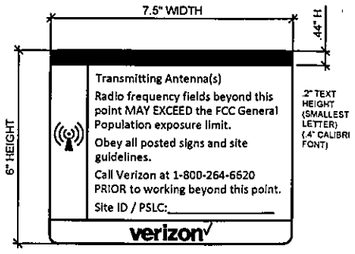
MANUFACTURER: RAYCAP
MODEL: RCMDC-3315-PF-48
HEIGHT: 29.93"
WIDTH: 15.73"
DEPTH: 10.30"
WEIGHT: 32.00 LBS (W/ MOUNT)
COLOR: LIGHT GRAY



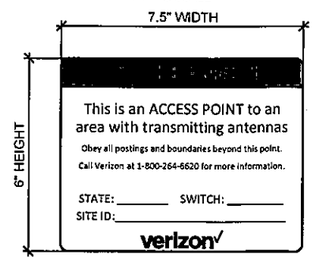
22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

RAYCAP OVP 6 | 4

THE CONTRACTOR WILL ENSURE ALL SIGNAGE AT SITE LOCATION TO MEET WITH FCC STANDARDS AND REQUIREMENTS.



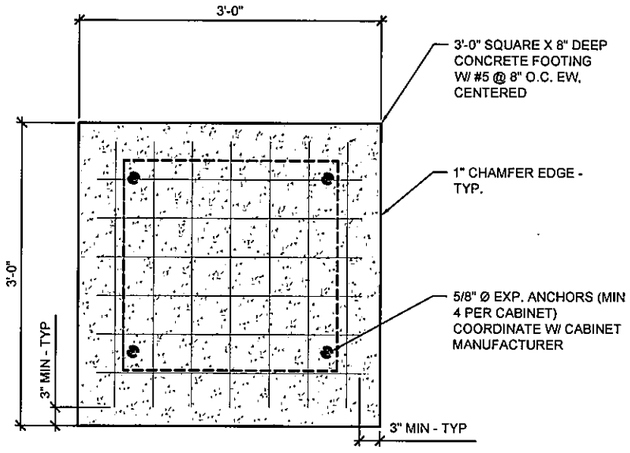
RF NOTICE SIGN
NOT TO SCALE



RF INFORMATION SIGN
NOT TO SCALE

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

RF SIGNAGE DETAILS | 5



CONCRETE PAD DETAIL | 6

NO.	DATE	DRAWN	REVISION
A	05/23/23	KM	90% PCD REVIEW
B	07/25/23	KM	SURVEY UPDATE

CLIENT:
verizon

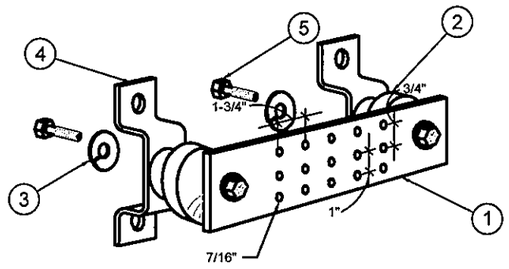
A&E CONSULTANT, SITE ACQUISITION AND PERMITTING:
Acom CONSULTING, INC

VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

CONSTRUCTION DETAILS

A-5.0



1. GALVANIZED STEEL GROUND BUSBAR, 1/4" X 4" X 6".
2. INSULATORS, MEET REQUIREMENTS OF UL 94 VO FOR SELF-EXTINGUISHING MATERIALS.
3. 3/8" LOCKWASHERS.
4. MOUNTING BRACKET.
5. 3/8-11 X 1" HHCS BOLTS.

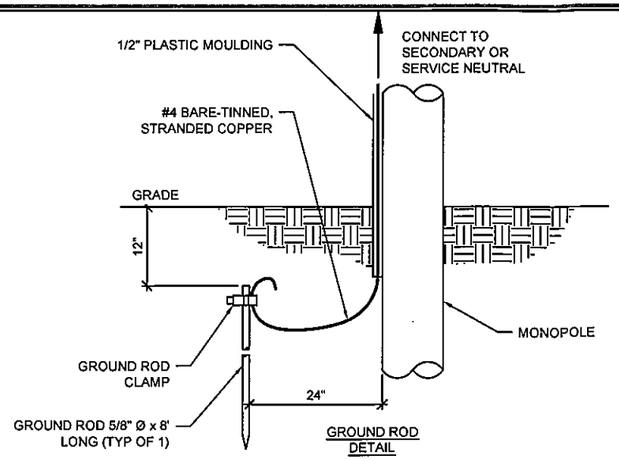
22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

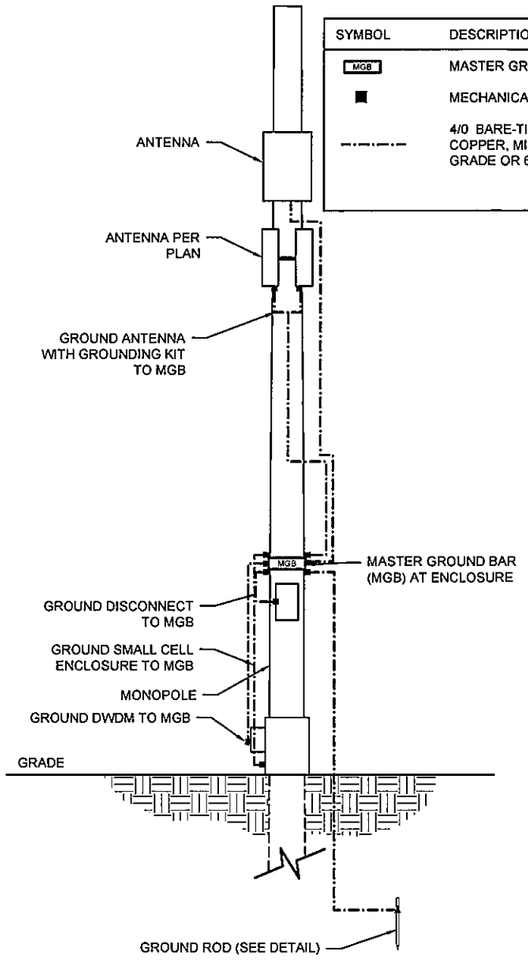
GROUND BAR DETAIL | 1

1. GROUNDING SHALL COMPLY WITH THE APPLICABLE EDITION OF THE NATIONAL ELECTRICAL CODE AS RECOGNIZED BY THE JURISDICTION.
2. ALL GROUNDING METHODS SHALL CONFORM TO THE CURRENT VERIZON STANDARDS.
3. MASTER GROUND BARS (MGB) SHALL BE GALVANIZED STEEL, 4" x 6" MAX.
4. MINIMUM BENDING RADIUS FOR GROUND CONDUCTOR IS 8", WHEN BENDING IS NECESSARY. GROUND CONDUCTORS ARE TO BE AS STRAIGHT AS POSSIBLE.
5. NO SPLICES PERMITTED IN GROUND CONDUCTORS.
6. ALL GROUNDING CONNECTORS TO BE CLEAN AND FREE OF PAINT AT THEIR MATING SURFACES AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. USE PENETROX OR EQUIVALENT ANTIOXIDANT GREASE.
7. ALL GROUND BAR CONNECTIONS ARE TO BE 2 HOLE LUG COMPRESSION TYPE. STACKED CONNECTIONS ARE NOT ACCEPTABLE. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BAR WILL BE PERMITTED.
8. ENSURE ALL MECHANICAL CONNECTORS ARE TORQUED TO THE MANUFACTURER'S SPECIFIED VALUES.
9. IF EXISTING GROUND ROD IS NOT PRESENT, NEW GROUND ROD SHALL MEET AVISTA STANDARDS.
10. MULTIPLE BONDS ON GROUND RODS TO BE SEPARATED BY AT LEAST 6".
11. MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED A RESISTANCE OF 5 OHMS TO EARTH.
12. GROUND WIRES SHALL NOT BE INSTALLED THROUGH HOLES IN ANY METAL OBJECTS OR SUPPORTS TO PRECLUDE ESTABLISHING A "CHOKE" POINT.
13. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUND WIRE SHALL NOT BE USED. METAL CLIPS THAT DO NOT COMPLETELY SURROUND THE GROUND WIRE OR PLASTIC ARE ACCEPTABLE.

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

GROUNDING NOTES | 2





SYMBOL	DESCRIPTION
MGB	MASTER GROUND BAR
■	MECHANICAL CONNECTION
-·-·-·-	4/0 BARE-TINNED, STRANDED COPPER, MIN. 36" BELOW GRADE OR 6" BELOW FROSTLINE

IMAGE IS FOR DIAGRAMMATIC PURPOSES AND MAY NOT REFLECT ACTUAL POLE AND ANTENNAS

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

GROUNDING DIAGRAM | 3

PANEL NAME		VERIZON		MANUFACTURER	SQ-D
VOLTS		120/240		MODEL NUMBER	QO816L100RB
PHASE	1	WIRE	3	ENCLOSURE RATING	NEMA 4X
BUS RATING		60 AMPS (MAX)		MATERIAL	ALUMINUM
MAIN BREAKER		60 AMPS		POSITIONS	8 CIRCUITS

LOAD	POS	BRK	A
4449	1	15	120
8843	2	15	120
RECEPT	3	15	120
HVAC	4	20	120
RACK EQUIP	5	20	120
SPACE	6	–	120
SPACE	7	–	120
SPACE	8	--	120

NOTES:

PANEL IS LOCATED ON EQUIPMENT CABINET

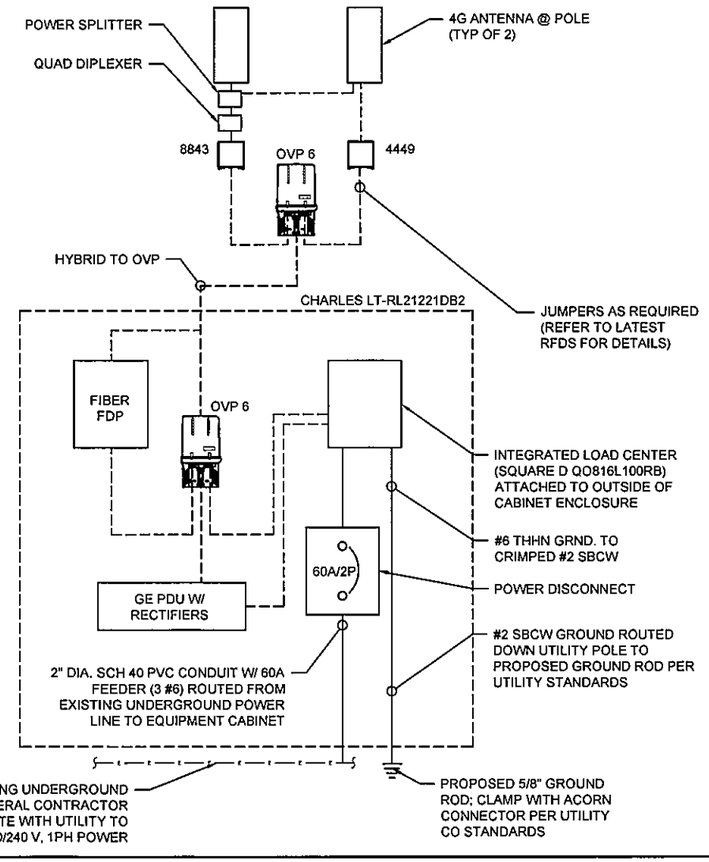
LOAD:

		TELCO EQUIP:		
RECEPT	180	8843		320 W
LIGHTING	-0-	4449		120 W
HVAC EQUIP	1500		TOTAL	440 W
TELCO EQUIP	440			
RACK EQUIP	650	TOTAL		2770W

TOTAL LOAD: 2770VA/240V = 11.54A

22"x34" SCALE: NOT TO SCALE
11"x17" SCALE: NOT TO SCALE

PANEL SCHEDULE | 3



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11"x17" SCALE: NOT TO SCALE

TYPICAL ONE-LINE DIAGRAM | 4

NO.	DATE	DRAWN	REVISION
A	05/23/23	KM	90% PCD REVIEW
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CLIENT:

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Acom CONSULTING, INC

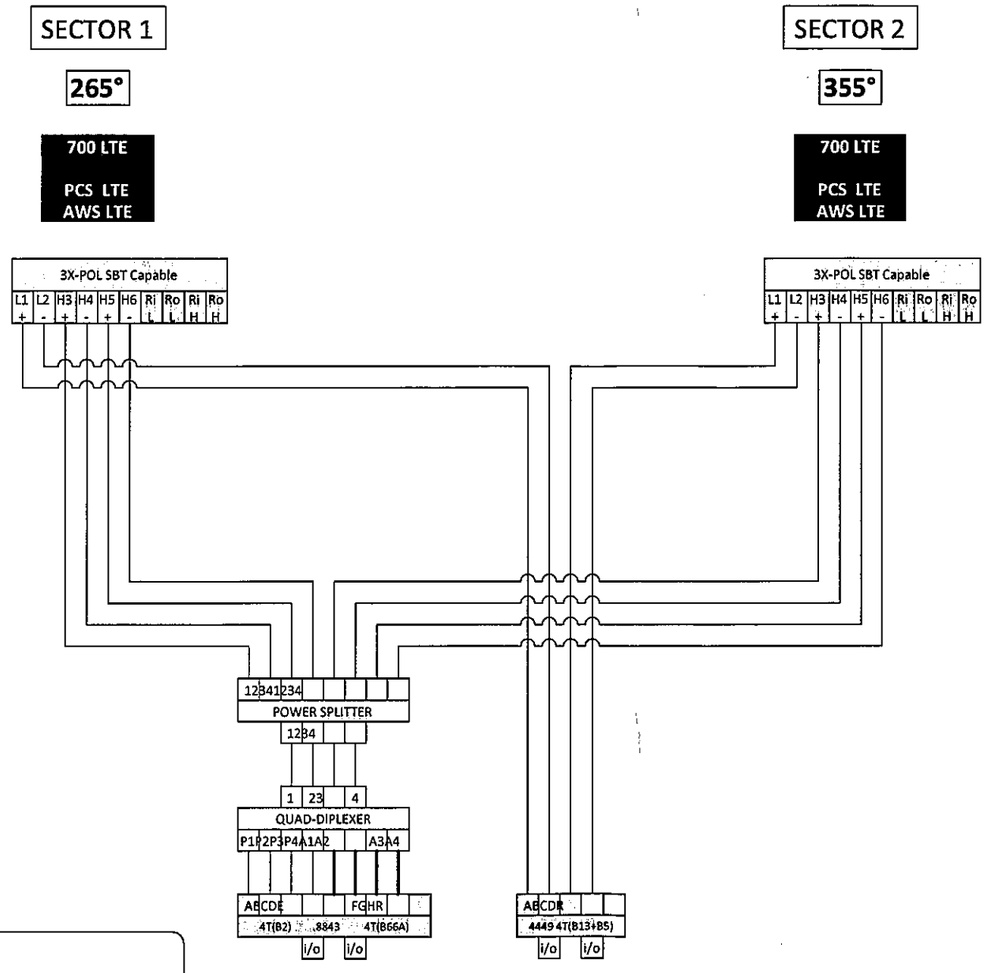
VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

GROUNDING DETAILS

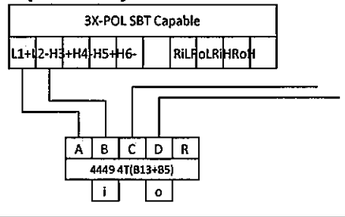
E-1.0

(005xxx) HWY_6_SC_04 [Medium Cell NSB]



RET Control Path Note:
All Smart BiasT's (SBT)/Internal BiasT's, or External AISG RET Controllers are driven by the **BOLD coax/jumper pathways.**

Example:
Antenna port '1' driven by RRH port 'A'



BBU config TBD

NO.	DATE	DRAWN	REVISION
A	05/23/23	KM	90% PCD REVIEW
B	07/25/23	KM	SURVEY UPDATE

CLIENT: verizon

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VECTOR ENGINEERS

HWY 6
SMALL CELL NODE 04
26476 WILSON RIVER HWY
TILLAMOOK, OR 97141

ANTENNA CONFIGURATION

RF-1