

**PROJECT NARRATIVE  
WCF CONDITIONAL USE & DESIGN REVIEW APPLICATION  
US-CA-7281 Widow White Creek**

**Supplement to Existing CUP Application File No. PLN-2023-18298**

Submitted to County of Humboldt, CA  
Planning and Building Department

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**Applicant:** VB BTS II, LLC (“Vertical Bridge”)  
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**Co-Applicant:** T-Mobile West LLC (“T-Mobile”)  
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**Property-Owner:** Evans on Earth Holdings LLC  
Contact: Travis Evans  
1738 Iverson Ave.  
Arcata, CA 95521

**Project Address:** 1710 Norton Dr.  
McKinleyville, CA 95519

**Description & Tax Lot:** GPS Coordinates: 40.960558, -124.096764  
Parcel No. 511-111-063  
Parcel Size: 111.08 acres

**Zoning Classification:** RS

**Combining Zones** X-Q-AP-N-WR

Assurance Development submits this supplemental application on behalf of VB BTS II, LLC ("Vertical Bridge") and T-Mobile USA, Inc. ("T-Mobile"), collectively referred to as the "Applicants," and the underlying property owner."

Vertical Bridge is the largest private owner and operator of communications infrastructure in the United States, with more than 320,000 sites nationwide. Infrastructure providers, like Vertical Bridge, specialize in developing, constructing, leasing, and maintaining the physical components for wireless networks, including cellular towers. Infrastructure providers lay the physical groundwork that supports wireless communication networks. Wireless carriers, such as T-Mobile, lease space on this infrastructure to house their equipment and offer wireless services to end-users. Through strategic partnerships with wireless carriers, Vertical Bridge allows the opportunity for multiple carriers to collocate onto a single infrastructure and reduces the physical footprint of wireless facilities in the community.

## **1. PROJECT OVERVIEW**

Vertical Bridge is proposing to build a new wireless communications facility ("WCF" or "Facility"), US-CA-7281 Widow White Creek at the above noted project address for the collocation of T-Mobile's equipment. This Facility meets T-Mobile's coverage objectives by providing in-building wireless coverage to the residential neighborhoods within the vicinity of Murray Rd to Airport Road in northern McKinleyville including Terminals at Humboldt County Airport which is currently not adequately served by T-Mobile's network.

The Applicants intends for its application for the proposed WCF to include the following documents (collectively, "Applicants' Application"):

- Attachment 1—Project Narrative (this document)
- Attachment 2—Statement of Code Compliance
- Attachment 3— FAA Determination of No Hazard to Air Navigation
- Attachment 4— Zoning Drawings
- Attachment 5— Coverage Objective and Engineering Justification
- Attachment 6— Declaration of T-Mobile RF Engineer Chris Cubanske
- Attachment 7—Supplemental Alternatives Analysis
- Attachment 8—Photo Simulations

- Attachment 9—Vertical Bridge Colocation Letter of Intent
- Attachment 10—CalFire and Arcata Fire Correspondence
- Attachment 11 – Draft Notice of Application Letter
- Attachment 12 – Discretionary Permit Application Checklist
- Attachment 13 – Correspondence with Trevor Estlow.

Please note that Applicants have included a draft copy of the Notice of Application (see **Attachment 11**) and requests that the County review and approve the draft notice before Applicants issue the notice to the required radius list. Please refer to Applicants’ discussion on this topic in **Attachment 2 – Statement of Code Compliance**, in section 91.2.8.3.2 on page 10.

As shown in Applicants’ Application, this proposed project meets all applicable Humboldt County’s Code (“HCC”) criteria for siting new wireless communications facilities and complies with all other applicable state and federal laws and regulations. The proposal is also the least intrusive means of meeting T-Mobile’s coverage objectives for this site. Accordingly, the Applicants respectfully requests Humboldt County to approve this project as proposed, subject only to Humboldt County’s standard conditions of approval.

## **2. PROPOSED PROJECT DETAILS**

### **2.1. Location**

Detailed information regarding the subject property and proposed lease area is included in **Attachment 4, Zoning Drawings**, to Applicants’ application.

**2.1.1. Subject property.** The subject property of this proposal is located at 1710 Norton Dr., McKinleyville in the County of Humboldt (the “Property”). The Property is owned by Evans on Earth Holdings LLC. The Property is zoned as RS – Residential Suburban and is currently used as a commercial golf course.

#### **2.1.2. Lease area.**

- The proposed 50 x 50 ft lease area for the WCF is located approximately 672’feet from the northern property line, 801’ from the western property line, and 558’ from the eastern property line (the “Lease Area”).
- The lease area will be surrounded by a 6 ft. high chain link fence with faux vines to act as a screening element.

**2.1.3. Access and parking.** A new 20 ft. wide graveled access road is proposed from Norton Dr. to the proposed Facility. The new access road will be approximately 1,370 linear ft. The proposed access road includes a new fire turnout. Parking for future maintenance personnel will be within the access road.

## **2.2. Wireless Facilities and Equipment**

Specifications of the facilities outlined below, including a site plan, can be found in **Attachment 4, Zoning Drawings**, to Applicants' Application.

**2.2.1. Support structure design.** Applicants are proposing to build a new 100 ft. tall self-supported monopine (the "Tower") on the Property. This will be an unmanned wireless facility.

### **2.2.2. Antennas and accessory equipment**

- The Tower will contain T-Mobile equipment (up to 12 panel antennas, 6 RRUs, 1 microwave antenna, 1 GPS antenna, with all associated equipment).
- The proposed T-Mobile antenna centerline is 91 ft., and the proposed T-Mobile antenna tip height is 95 ft.
- The antennas, RRHs, and accessory equipment will be painted to match and blend with the monopine design. All paint will have an anti-glare finish.
- Sufficient space will be made available on the Tower as required for future collocations.

### **2.2.3. Ground equipment.**

- The Tower and all ground equipment will be constructed within the Lease Area.
- The ground equipment, including two ground mounted radios cabinets mounted on a 10 x 15 ft. raised concrete pad, a cable ice bridge, a utility backboard and multi-meter utility service mounted on an H-frame within a 50 x 50 ft. fenced lease area.
- The backup generator and associated concrete pad originally proposed with the initial application ([File No. PLN-2023-18298](#)) have been removed from the current proposal and are no longer proposed.

## **2.3. Additional Details**

**2.3.1. Lighting.** The Tower will not be artificially illuminated, and no artificial lighting is required pursuant to state or federal authorities. See **Attachment 3— FAA Determination of No Hazard to Air Navigation**.

**2.3.2. Stealth Design.** The Tower has been designed with a stealth monopine design to blend with the surrounding stand of tall trees and to effectively integrate the proposed WCF into the surrounding environment, and to minimize visual impact to the surrounding community.

## **3. T-MOBILE NETWORK COVERAGE AND SERVICES**

### **3.1. Overview—T-Mobile 4G & 5G Coverage**

T-Mobile is upgrading and expanding its wireless communications network to support the latest 4G LTE and 5G technology. 4G and 5G stand for “4th Generation” and “5th Generation” and LTE stands for “Long Term Evolution.” These acronyms refer to the ongoing process of improving wireless technology standards, now in its 5<sup>th</sup> generation. With each generation comes improvement in speed and functionality – 4G LTE offers speed up to ten times faster than 3G, and 5G can deliver speeds up to 20 Gbps in ideal conditions. That’s nearly 200 times faster than the 4G network.

Most American consumers currently experience wireless connectivity on 4G networks – and are aware of the profound impact on daily life that has occurred from this connectivity. The emerging standard in voice and data telecommunications – 5G – is poised to transform America’s reliance on densely populated wireless infrastructure.

5G is the latest iteration of cellular technology. While 5G technology operates on the same radio signals as current 4G/4G LTE networks, it is engineered to transmit data more efficiently. That means superior speeds and support for more connected devices than ever before. The ultra-low latency of 5G means quick response times during data-demanding activities.

There are several components of 5G wireless technology and separate bands of wavelength spectrum used to build a 5G network – low-band (<1GHz), mid-band (1-6GHz), and high-band millimeter wave (“mmWave”) (24 GHz and higher):

- **Low-Band Extended Range 5G.** Low-band 5G frequencies are also known as the “coverage layer.” Low-band 5G refers to frequencies below 1 GHz used to roll out substantial 5G coverage as quickly as possible. One example is the 600 MHz spectrum deployed by T-Mobile nationwide. A low-band cell site can cover hundreds of square miles and deliver a downlink data rate from 30-75 Mbps download—ideal for uses like streaming HD video. Because low-band signals easily pass through buildings, they offer solid coverage indoors and outdoors and are an effective way to connect parts of rural America where even fixed broadband speeds don’t always meet national benchmarks.
- **Mid-Band 5G.** Mid-range frequencies (spanning 1 GHz and 6 GHz) strike a balance between coverage and capacity. Mid-band 5G base stations can transmit and receive high-capacity signals over fairly large areas, and they can represent an ideal mix of performance for the bulk of 5G traffic in metropolitan areas.
- **High-Band mmWave 5G.** High-band 5G uses millimeter-wave (mmWave) frequency bands. High-band is a very specialized part of the 5G offering. Functioning over a shorter radius, it’s particularly useful in urban areas and busy venues like stadiums and shopping malls. High-band can simultaneously provide many high-speed connections focused on an area of just a block or two, from a small cell site mounted close to street level.

Using these frequencies together can help T-Mobile’s 5G network deliver the increased connectivity, reliability, speeds, and security the public demands. T-Mobile is proposing to deploy low-band frequencies at this Facility for its 5G service in the area. Upon completion, the Facility will become part of T-Mobile’s statewide and nationwide communications network. See **Attachment 5, Coverage Objective and Engineering Justification.**

### **3.2 Coverage Objectives for Proposed Facility**

This proposed Facility meets T-Mobile’s coverage objectives in-building wireless coverage within a geographic area not adequately served by T-Mobile’s network. Specifically, this facility is intended to provide in-building wireless coverage to the residential neighborhoods within the vicinity of Murray Rd to Airport Road in northern McKinleyville including Terminals at Humboldt County Airport which is currently not adequately served by T-Mobile’s network T-Mobile has established a need for service in this geographic area, as determined by market demand, coverage requirements for a specific geographic area, and the need to provide continuous coverage from one site to another in a particular geographic region. The specific coverage objective was determined through a combined analysis of customer complaints, service requests, and radio frequency engineering design. This proposed Facility will allow for uninterrupted wireless service in the targeted coverage area with fewer dropped calls, improved call quality, and improved access to additional wireless services that the public now demands. This includes emergency 911 calls throughout the area (See **Attachment 5—Coverage Objective and Engineering Justification**).

## **4. SEARCH RING**

T-Mobile’s RF engineers performed an RF engineering study, considering multiple objectives, to determine the approximate site location and antenna height required to fulfill the noted network objectives for the targeted service area. From this study, T-Mobile’s RF engineers identified a “search ring” area where a WCF may be located to provide effective service in the target coverage area.

The search ring established for this proposal, and a description of the methodology used to identify the search ring, is provided in **Attachment 5—RF Justification**.

## **5. SITING ANALYSIS**

Pursuant to Humboldt County Code §91.2.8.3.4, Applicants completed an alternative sites analysis including an analysis of existing colocation opportunities, consideration of the County’s tiered permitting scheme, and a comparative analysis of the County’s stated aesthetic, environmental and other expressed community values. **Please refer to Attachment 7 – Supplemental Alternatives Analysis.**

## **6. APPLICABLE LAW**

### **6.1. Local Codes**

Pursuant to HCC § 314-91.2.4.3 new WCF support towers in the Residential Zone Districts are subject to a Conditional Use Permit with Design Review and must comply with the criteria in HCC § 314-91.2 Wireless Telecommunications Facilities. See **Attachment 2—Statement of Code Compliance** for Applicants’ demonstration of compliance with the applicable code.

## 6.2. State Law

Wireless telecommunication facilities that require discretionary review also require environmental review under the California Environmental Quality Act (CEQA). A discretionary project is one that requires the exercise of judgement or deliberation by a public agency in determining whether the project will be approved, or if a permit will be issued.

The proposed project is Categorical Exempt from CEQA under CEQA Guideline Section 15303, New Construction or Conversion of Small Structures. There are no facts or circumstances specific to this project that would support an exception to the categorical exemption.

## 6.3. Federal Law

Federal law, primarily found in the Telecommunications Act of 1996 (“Telecom Act”), acknowledges a local jurisdiction’s zoning authority over proposed wireless facilities but limits the exercise of that authority in several important ways.

**6.3.1. Local jurisdictions may not materially limit or inhibit.** The Telecom Act prohibits a local jurisdiction from taking any action on a wireless siting permit that “prohibit[s] or [has] the effect of prohibiting the provision of personal wireless services.” 47 U.S.C. § 332(c)(7)(B)(i)(II). According to the Federal Communications Commission (“FCC”) Order adopted in September 2018,<sup>1</sup> a local jurisdiction’s action has the effect of prohibiting the provision of wireless services when it “materially limits or inhibits the ability of any competitor or potential competitor to compete in a fair and balanced legal and regulatory environment.”<sup>2</sup> Under the FCC Order, an applicant need not prove it has a significant gap in coverage; it may demonstrate the need for a new wireless facility in terms of adding capacity, updating to new technologies, and/or maintaining high quality service.<sup>3</sup>

While an applicant is no longer required to show a significant gap in service coverage, in the Ninth Circuit, a local jurisdiction clearly violates section 332(c)(7)(B)(i)(II) when it prevents a wireless carrier from using the least intrusive means to fill a significant gap in service coverage. *T-Mobile U.S.A., Inc. v. City of Anacortes*, 572 F.3d 987, 988 (9th Cir. 2009).

- **Significant Gap.** Reliable in-building coverage is now a necessity and every community’s expectation. Consistent with the abandonment of land line

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<sup>1</sup> *Accelerating Wireless and Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling and Third Report and Order, WT Docket No. 17-79, WC Docket No. 17-84, FCC 18-133 (rel. Sept. 27, 2018); 83 Fed. Reg. 51867 (Oct. 15, 2018), *affirmed in part and vacated in part*, *City of Portland v. United States*, 969 F.3d 1020 (9th Cir. 2020), *cert. denied*, 594 U.S. \_\_\_, 141 S.Ct. 2855 (June 28, 2021)(No. 20-1354) (“FCC Order”).

<sup>2</sup> *Id.* at ¶ 35.

<sup>3</sup> *Id.* at ¶¶ 34-42.

telephones and reliance on only wireless communications, federal courts now recognize that a “significant gap” can exist based on inadequate in-building coverage. See, e.g., *T-Mobile Central, LLC v. Unified Government of Wyandotte County/Kansas City*, 528 F. Supp. 2d 1128, 1168-69 (D.Kan. 2007), *affirmed in part*, 546 F.3d 1299 (10<sup>th</sup> Cir. 2008); *MetroPCS, Inc. v. City and County of San Francisco*, 2006 WL 1699580, \*10-11 (N.D. Cal. 2006).

- **Least Intrusive Means.** The least intrusive means standard “requires that the provider ‘show that the manner in which it proposes to fill the significant gap in service is the least intrusive on the values that the denial sought to serve.’” 572 F.3d at 995, *quoting MetroPCS, Inc. v. City of San Francisco*, 400 F.3d 715, 734 (9<sup>th</sup> Cir. 2005). These values are reflected by the local code’s preferences and siting requirements.

**6.3.2. Environmental and health effects prohibited from consideration.** Also under the Telecom Act, a jurisdiction is prohibited from considering the environmental effects of RF emissions (including health effects) of the proposed site if the site will operate in compliance with federal regulations. 47 U.S.C. § 332(c)(7)(B)(iv). The Applicants have included with their original application a Radio Frequency – Electromagnetic Energy (RF-EME) report prepared by a licensed engineer with EBI Consulting, demonstrating that the proposed facility will operate in accordance with the Federal Communications Commission’s RF emissions regulations. ***Please refer to the RF-EME Report on file with the County as part of CUP Application File No. PLN-2023-18298.*** Accordingly, this issue is preempted under federal law and any testimony, or documents introduced relating to the environmental or health effects of the proposed facility should be disregarded in this proceeding.

**6.3.3. No discrimination amongst providers.** Local jurisdiction also may not discriminate amongst providers of functionally equivalent services. 47 U.S.C. § 332(c)(7)(B)(i)(I). A jurisdiction must be able to provide plausible reasons for disparate treatment of different providers’ applications for similarly situated facilities.

**6.3.4. Shot Clock.** Finally, the Telecom Act requires local jurisdictions to act upon applications for wireless communications sites within a “reasonable” period of time. 47 U.S.C. § 332(c)(7)(B)(ii). The FCC has issued a “Shot Clock” rule to establish a deadline for the issuance of land use permits for wireless facilities. 47 C.F.R. § 1.6001, *et seq.* According to the Shot Clock rule for “macro” wireless facilities, a reasonable period of time for local government to act on all relevant applications is 90 days for a collocation, with “collocation”<sup>4</sup> defined to include an attachment to any existing structure regardless of whether it already supports wireless, and 150 days for a new structure.

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<sup>4</sup> 47 C.F.R. § 1.6002(g).

***The Shot Clock applies to all authorizations required for siting a wireless facility, including the building permit, and all application notice and administrative appeal periods.***

***Pursuant to federal law, the reasonable time period for review of this application is 150 days.***