

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Case No. 25-____-PET

Limited Size and Scope Application)
of Bell Atlantic Mobile Systems, LLC d/b/a)
Verizon Wireless and The Towers, LLC d/b/a)
Vertical Bridge, for a Certificate of Public Good,)
pursuant to 30 V.S.A. § 248a, authorizing the construction)
of a telecommunications facility in Marshfield, Vermont)

**LIMITED SIZE AND SCOPE APPLICATION
OF VERTEX TOWERS, LLC AND BELL ATLANTIC MOBILE SYSTEMS, LLC, d/b/a
VERIZON WIRELESS, FOR A CERTIFICATE OF PUBLIC GOOD
PURSUANT TO 30 V.S.A. SECTION 248a**

By this Application, Bell Atlantic Mobile Systems, LLC, d/b/a Verizon Wireless (“Verizon”) and The Towers, LLC, d/b/a Vertical Bridge (“VB”) (together, “Applicants”), represent:

1. Each of the Applicants is a "company" as defined by 30 V.S.A. § 201 and, as such, is subject to the jurisdiction of the Vermont Public Utility Commission ("Commission") pursuant to 30 V.S.A. § 203.

2. The proposed Project involves a “telecommunications facility” as defined by 30 V.S.A. § 248a(b)(6).

3. VB intends to construct a telecommunications facility for use by Verizon and future co-locators, consisting of a 140’ above ground level (“AGL”) monopole tower (“Tower”) on a 78.73 acre parcel located at 2264 U.S. Route 2 in Marshfield, Vermont. Verizon refers to the Project as “Marshfield.” The property owner has given VB and Verizon permission to proceed with this Application. The Project consists of three (3) sectors of antennas (“Antennas”) mounted on the Tower at a centerline of 137’ AGL and an equipment shed (“Shed”) located to the southeast of the Tower, both of which will be located within a 50’ x 50’ fenced compound (“Compound”).

The coordinates for the Tower are: Latitude 44°-20'-51.01"± North and Longitude 72°-21'-55.74"± West. *See* Permit Plans (Exhibit LH-1; "Permit Plans") for a visual depiction of the Project's location.

4. Verizon will place three (3) sectors of three (3) panel Antennas each on the Tower for a total of nine (9) Antennas. Each of the Antennas will be mounted at a centerline height of 137' AGL. Six (6) of the Antennas will measure approximately 72" long and 11.9" wide each. The remaining three (3) Antennas will measure approximately 28.9" long and 15.75" wide each. The topmost height of the Antennas will be approximately 140' AGL. Therefore, none of the Antennas will extend above the top of the Tower.

5. At each sector, Verizon will install two (2) Remote Radio Heads ("RRHs") for a total of six (6) RRHs. All six (6) of the RRHs will each measure approximately 14.96" long and 14.96" wide. The topmost points of the RRHs will not exceed the topmost points of the Antennas.

6. Behind the Alpha sectors, Verizon will install one (1) 12-Port OVP Distribution Box ("OVP"). The topmost point of the OVP will not exceed the topmost points of the Antennas. The OVP measures approximately 29.5" long by 16.5" wide. The Tower, Antennas, RRHs and OVP will be painted brown. Full and accurate specifications of the proposed Antennas, RRHs, MMUs and OVP are detailed in Exhibit ML-1¹.

7. Verizon will place the 12' by 20' Shed on the ground to the southeast of the Tower. The exact location of the Shed is depicted on Sheet C-6 of the Permit Plans. The Shed will have cabinets that will contain the electronics equipment necessary for the operation of the Project.

¹ From time to time, equipment manufacturers may slightly alter their products or Verizon may purchase from different suppliers. Therefore, there is a possibility that the actual antennas may differ slightly from what is described in the attached specifications.

8. Verizon will place an emergency generator (“Generator”) on a 10’ by 12’ concrete pad adjacent to the Shed. The Generator will function if there is a power outage. Verizon will remotely test the Generator once a week at a time to be determined. If diesel is used to power the Generator, its tank will be placed underneath the Generator. If propane is used to power the Generator, Verizon will install a 500 gallon propane tank on an 11’ by 4’ concrete pad to the northeast of the Tower in the Compound.

9. Verizon will gain access to the Project by VB’s upgrade and extension of the existing driveway and woods road leading from U.S. Route 2, following the existing woods road where possible to the Compound (“Access”). Verizon will bring underground Utilities to the Shed from the nearest utility pole as shown on Sheet C-4 and C-5 of the Permit Plans. Coaxial and fiber optic cables from the tower-mounted equipment will descend inside the hollow Monopole. The cables will exit near the base of the Monopole and will connect with the Shed via a proposed cable bridge.

10. The construction of the Project will result in approximately 2,500 square feet of permanent earth disturbance, and approximately 4,120 square feet of tree clearing, which will be limited to the minimum required to improve the Access and construct the Compound.

11. The Applicants will follow the requirements of the Construction shall meet the requirements of the *Vermont Low Risk Site Handbook for Erosion Prevention and Sediment Control* in its work on the Project

Co-Location Analysis

12. As part of the design for this Project, C-Squared Systems, an RF engineering firm retained by the Applicants, evaluated existing telecommunications facilities and existing structures for possible co-location opportunities. The Propagation Plots created for this site illustrate the

difficulties (See Exhibit ML-2). In particular, the intervening terrain along US Route 2 causes a sharp drop off in coverage as illustrated in the propagation plots. *Id.* The existing facilities both within the Town of Marshfield and within a radius of ten (10) miles of the proposed site cannot provide adequate coverage to the area being served by this project. They are too far away to provide coverage to the identified gap. The closest existing facility that is suitable for a wireless installation (See #4 in Exhibit ML-3) is approximately 4.4 miles from the Proposed Facility, and it is a co-location on a silo which would not provide adequate coverage to the targeted area. See *Exhibit* (See *Id.* and Exhibit ML-4). The next closest facility is 5.9 miles from the Proposed Facility (See #5 in Exhibit ML-3) and Verizon is already located on this tower. Accordingly, there are no existing facilities or structures suitable for co-location that would allow Verizon to meet its coverage and capacity needs for the Marshfield search ring.

Analysis of Effects Under Applicable Criteria

13. The proposed Project will not have an adverse impact affecting the applicable criteria under 10 V.S.A. § 6086(a) and will conform to the land conservation measures in the applicable local and regional plans. Below are Applicant's detailed responses.

Criterion 1(B) – Waste Disposal -- Following construction, the proposed Project will not generate any waste. Construction waste generated during construction of the project will be removed from the site and recycled or disposed of at approved waste processing facilities.

The only consumable on site will be fuel for the Generator. It and its fuel tank are designed with secondary containment and engine systems/fueling containment, including a double wall outdoor rated fuel tank with a rupture basin alarm and overflow basins to collect any spills. See Exhibit LH-2 for containment

specifications for the proposed Generator. Verizon has standard operating procedures to limit any potential spill during refueling.

Criterion 1(D) – Floodways – The Project is not located within a floodway or mapped flood plain. Therefore, the Project will not have an undue adverse impact under this Criterion. *See* Exhibit LH-3 for FEMA Firmette.

Criterion 8 – Scenic Beauty, Historic Sites and Natural Areas – A sampling of trees in the vicinity of the proposed Compound average 77' AGL. Therefore, these trees, combined with the hilly topographic features of the area, will screen the majority of the 140' AGL Tower from most vantage points. Furthermore, the Tower is located adjacent to an existing utility corridor with overhead power lines.

Louis Hodgetts of Dubois & King, visited the proposed site and floated a three (3) foot diameter balloon to 140' AGL at the location of the proposed tower. From available mapping and with the balloon in the air, Mr. Hodgetts drove public roads within an approximate one-mile radius of the tower site (the "Area of Analysis"), trying to determine from how many viewpoints the tower would be seen and, if visible, how much of the tower would be seen. Mr. Hodgetts identified seven (7) representative viewpoints. Using several software programs, the photos and photo metadata, Mr. Hodgetts is able to accurately represent a tower with photo simulations to show how much of the proposed tower would be seen. Photos from locations where the balloon is visible within the Area of Analysis are used in the package to show the overall visibility characteristics of the proposed tower location. In completing the photo simulations, Mr. Hodgetts determined that the proposed site would have limited visibility. When visibility occurred, it was obscured by the

topography and natural vegetation. *See* Pre-filed Testimony of Louis Hodgetts and Exhibit LH-4 Photo Simulation Package. The limited visibility, location in proximity to an existing utility corridor, and vegetation and terrain screening led Mr. Hodgetts to conclude the proposed installation will not have an undue adverse effect on the scenic beauty of the area.

With respect to Historic Sites, EBI Consulting conducted a review in accordance with the Federal Communication Commission (FCC) National Environmental Policy Act (NEPA) rules and Section 106 of the National Historic Preservation Act (NHPA). The project was evaluated for its potential effects to districts, sites, buildings, structures, or objects significant in American history, architecture, archeology, engineering, or culture that are listed, or potentially eligible for listing in the National Register of Historic Places (NRHP). The findings of their Section 106 review concluded “No Effect on Historic Properties in the Area of Potential Effects-Direct Effects” and “No Adverse Effect on Historic Properties in the area of Potential Effects-Visual Effects” the Vermont Division for Historic Preservation concurred with these findings on June 3, 2025. *See* NT Submission Packet – FCC Form 620, with SHPO Concurrence (Exhibit LH-5) for a complete copy of the report.

No significant natural areas will be affected by the Project. *See* Pre-Filed Testimony of Louis Hodgetts and Exhibit LH-5 Natural Resources Review Memo. We note that with respect to Wetlands and Water Resources, the site was subsequently re-designed such that the access road for the Tower will be located outside of the applicable wetland buffer and there will be no new impact on wetlands or regulated

wetland buffers, as is shown on the Permit Plans.

Conformance with Local and Regional Plans - According to 30 V.S.A. § 248a(c)(2), during the Commission's review, "substantial deference [will be] given to the land conservation measures" in the local and regional plans of the "affected municipality." We are, therefore, addressing the relevant provisions of the Marshfield Town Plan, adopted August 21, 2018, which incorporates by reference the Telecommunications Facilities Bylaw adopted March 4, 2004 (together "Town Plan"; excerpts in Exhibit LH-6) and of the Central Vermont Regional Planning Commission's 2016 Regional Plan (readopted and effective July 9, 2024)("Regional Plan"; excerpts in Exhibit LH-7) to illustrate that the proposed Project will comply. The Town Plan contains a section on "Wireless Telecommunication Facilities," which begins with an observation about communications facilities:

Telephone service is provided by Fairpoint New England. Cellular access is provided by multiple telecommunications companies. With the increasing demand for cellular capabilities comes an increasing demand for cellular towers. It will be important to balance aesthetics, signal quality, health, business and personal needs when deciding whether, and where, to site additional telecommunication towers. Developers of telecommunications facilities currently have the option of having their projects reviewed by the Marshfield DRB or by the Vermont Public Service Board (PSB). The PSB Section 248 review evaluates the project to see if it merits approval for a Certificate of Public Good. PSB must give substantial deference in making its determination to land conservation measures in the plans of the affected municipalities, as well as the recommendations of the municipal and regional plans. Marshfield currently has a Wireless Telecommunications Facilities Bylaw. The Telecommunication Bylaw includes the purposes for the bylaw. Said purposes are adopted by reference in this Town Plan and are meant as a guideline for any Section 248 review.

Town Plan at 42-43.

Under the section entitled "Issue Specific Strategies" the Town plan includes the following with respect to Telecommunications:

Telecommunications: a. Town policy is to promote and require that proposed commercial satellite dishes, radio towers, antennae, and other transmission and receiving equipment are sited, designed, maintained and operated so as to minimize negative impacts on natural and scenic resources. b. Encourage the expansion of broadband availability to residents.

Id. at 51.

The Applicants have reviewed the Town's Telecom Bylaws dated March 14, 2003, as incorporated by reference into the Town Plan. While this zoning bylaw has not been updated to reflect the jurisdiction of the Public Utility Commission pursuant to 30 V.S.A. 248a or changes in technology and demand, Petitioner highlights the following to demonstrate compliance with the bylaws where feasible. Section 1.6 Permitted and Prohibited Locations limits the siting of telecommunication facilities as conditional uses to the "Village Residential" and "Agricultural and Rural Residential Districts", and provides free standing telecommunications towers may not be located in any of the following:

- A. Within 100' or the height of the tower, which ever is greater, of a State or Federally designated wetland
- B. The habitat of any State listed Rare or Endangered Species.
- C. Within 300' horizontally from any Historic District or property eligible to be listed on the Federal Historic Register.
- D. Closer than 200' horizontally to the boundary of the property on which the tower is located.
- E. Closer than 500' horizontally to any structure existing at the time of the application which is used as either a primary or secondary residence, to the property of any school, or to any other building.
- F. Within 100' or the height of the tower, which ever is greater, horizontally of any river or perennial stream.
- G. Within 500' horizontally of any known archeological site.
- H. Within 1,000' horizontally of a designated scenic road or highway.

Bylaws at 2-3.

Mr. Hodgetts analyzed the Telecomm Bylaws and it is not possible to provide

coverage to the target area while strictly complying with the zoning conditions therein, therefore the project has been designed to comply with the restrictions listed to the extent it is feasible, with due consideration given to the purpose of the restriction. The subject Parcel contains portions designated as both “Agricultural & Rural Residential” and “Forestry & Conservation” while the Compound will be sited within latter zoning district, the location was chosen to minimize the visibility from Route 2 and comply with Sections D, E, and H above. The project will not strictly comply with Sections A or F above, but as discussed above the site design was altered to minimize any adverse impacts on wetlands and perennial streams. The project otherwise complies with the cited zoning regulations. In addition, the Petitioner has demonstrated that existing telecommunications sites or other existing structures within 5 miles of the proposed site cannot reasonably provide adequate coverage (Bylaw at 4 and 6-7; See Pre-filed Testimony of Martin Lavin and Exhibits ML-1 to ML-4). The site has been designed to utilize the existing logging road, taking into consideration the contour of the land and proximity to the existing utility line clear cut (Bylaw at 7). The tower has been designed to not unreasonably interfere with views as it is sited next to an existing utility corridor, not located on a ridgeline, will be colored brown to match blend into the natural landscape and is designed at the minimum height required to meet the coverage goals for this area (Bylaw at 8). The Tower will not be lit and will not emit significant noise (Bylaw at 9-10). The Petitioner has worked since 2010 to identify a site in the Town of Marshfield that respects the Town’s goals of resource preservation while still providing necessary coverage to the Town, its residents and visitors, the present site

achieves a balance of these goals.

More and more Vermonter's rely upon reliable cellular coverage to expand their economic opportunities, currently more than 1 in 10 of Marshfield resident's work from home:

As Table 10 suggests, self-employment plays a significant role in Marshfield's economy. Home employment is important too, and probably growing with the emergence of "telecommuting." As of 2010, 13.5 percent of Marshfield's workforce was based out of the home, down 1.5 percent since 2000.

Town Plan. at 15.

While that figure incorporates more than those it "telecommute" or work remotely, the trend is further noted under the section entitled Economic Development, which provides the following:

Non-traditional economic growth, supported by use of the internet, is taking place in Marshfield. An increasing number of residents, many with home based businesses, are using the internet to sell products, services, or in-lieu of driving to the traditional place of work. Such economic growth is highly desirable because it is "clean" and generally provides a higher wage. The success of these non-traditional businesses is highly dependent upon the use of technology, particularly high speed reasonably priced internet access. Some Marshfield residents have enjoyed high speed internet access through their local phone company, Fairpoint Communications, for a number of years. Others are able to access such service through Cloud Alliance, and other broadband service providers. However, there are still many unserved areas. The Vermont Telecommunications Authority is charged with providing broadband service to all Vermont residents.

Id. at 64-65.

The current proposal would improve the coverage and therefore support this "clean" non-traditional economic growth by improving coverage in currently un-served or underserved parts of the town. The improvements in coverage will be significant, particularly along the Route 2 corridor.

The visual effects of the Monopole will be minimized due to the 77' AGL average

height of nearby trees and its location on the hillside that provides backdrop screening from most vantage points. The location for the project was selected to avoid and minimize negative impacts on the environment and aesthetics, including the selection of a site next to existing high voltage electric transmission lines. Furthermore, the Tower will be painted brown to blend with the surrounding vegetation and will not unreasonably interfere with views.

The Regional Plan contains an observation about the importance of telecommunications services in opening “fairly insular” rural Vermont to the world:

Over the past several decades, Vermont has witnessed dramatic cultural change. Technological advances in the areas of transportation and telecommunications have been the primary agents of this transformation, opening up what was a fairly insular, self-sufficient rural society to the "outside world." With this exposure came new people, new development, and new social, economic, and land use patterns. Some of the changes the State has experienced have been beneficial; some have not. While people may always argue about the pros and cons of technology and land development, they are part of our current reality. The challenge before us now is to guide these forces of change so as to bring about a marriage between our culture and our place that is sustainable, harmonious, and mutually beneficial. In the years to come, nothing will say more about the success of our efforts than the way in which people use the land and its resources.

Id. at Land Use 2-1.

The Regional Plan goes on to discuss the expanding role of wireless in serving the region’s communications needs:

Mobile wireless voice service is becoming more available. Vermonters’ use and reliance on mobile voice technology has increased since the publication of the last telecommunications plan. Twenty-nine percent of Vermont households are wireless-only households. As of 2013, thirteen of Central Vermont’s twenty-three communities have between 90-100% of addresses served by a wireless voice provider according to voice tests that were conducted throughout the state (displayed in Figure 1). Mobile data for smartphones or mobile hotspots is also typically available from these carriers in the same service areas that voice is available.

Id. at Utilities, Facilities & Services 5-26.

Regarding the build-out of wireless networks and the balance between increasing service and promoting aesthetic values, the Regional Plan states:

While Central Vermonters want and expect good cellular service, they also expect the placement and design of new facilities to be guided by a respect for the integrity of the Region's landscape and compliance with microwave emissions standards. As such, it is important to balance aesthetics, signal quality, health, business and personal needs when deciding whether and where to build new towers and other facilities.

Id. at 5-27.

To achieve this balance, the Regional Plan looks to the constituent municipalities to incorporate language in their local plans:

Communities planning for the appropriate siting of wireless facilities have to ask themselves many questions as they proceed. Would they rather have several small-scale, less visible, facilities closer to the population or a few large, highly visible sites in less populated spots? Are there certain locations that are so environmentally or visually sensitive that they should be "off-limits"? What areas are providers most interested in serving? Through careful planning and clear language in the duly adopted municipal plan, cities and towns can ensure good service without compromising their character or the welfare of their residents.

Id. at 5-28.

This Project fulfills the goals of the Town and Regional Plans by preserving and enhancing Verizon's ability to provide service in the affected parts of Marshfield thus enabling the telecommunications infrastructure necessary for businesses and home offices to succeed in the global economy. This service also allows for telecommuting, which has been identified as a source of "clean" economic growth within the Town Plan. The Project will continue to provide for enhanced communications for residents, travelers, educational institutions and emergency responders. The site for the Project has been selected to maximize coverage and minimize potential impacts on wildlife habitats and views. The Project will fulfill

the Regional Plan's vision for improved cellular and wireless broadband service by adding coverage to the Route 2 corridor, an important byway in the region with significant traffic. The enhanced capacity will allow users of the Verizon network to access the internet at higher speeds and in a more reliable fashion. The added capacity will also result in fewer dropped calls than will occur if the Project is not built. This will provide additional support and consistency for emergency services providers and those in need of their services.. As climate change leads to more extreme weather in Vermont, communications systems will become increasingly vital for the safety of residents and visitors alike.

14. Verizon has neither applied for, obtained, nor been denied a permit or permit amendments under applicable provisions of Title 24 or chapter 151 of Title 10 for the proposed improvements covered by the current application or substantially similar improvements.

15. The project is not subject to existing land use and zoning permits.

16. The Project will promote the general good of the State by improving wireless telecommunication infrastructure to increase capacity and support state-of-the-art wireless services in the community; improving high speed data services; providing competitive choices for consumers; and providing the opportunity to improve economic development within the State – all in conformance with the substantive criteria under 30 V.S.A. § 248a.

17. Concurrently with the filing of this Application, Verizon has provided a copy of this Application, with accompanying exhibits and testimony, to the Planning Commission and Select Board of the Town of Marshfield, the Central Vermont Regional Planning Commission, the Agency of Natural Resources, Division of Historic Preservation, Commissioner of the Department of Public Service and its Director for Public Advocacy and the Secretary of the Agency of

Transportation. A notice of the filing of this Application has also been provided to the landowner of record of the property on which the facility is located and the landowners of properties adjoining the Project site.

18. In support of this Application, the Applicants submit the Prefiled Testimony and exhibits sponsored by the following witnesses:

Witness

Subject

Martin J. Lavin, Senior RF Engineer

Description of the installation and the Project's purpose and impact on the existing Verizon network.

Louis Hodgetts, P.E.

Description of proposed Project, impacts on natural resources, historic resources, impacts on scenic beauty and existing permits.

NOTICE TO RECIPIENTS

Pursuant to the Public Utility Commission's ("Commission") *Order Adopting Revised Standards and Procedures Implementing 30 V.S.A. § 248a*, issued by the Commission on January 18, 2023 ("Procedures Order"), any and all recipients of this application will have 30 days to file comments, motions to intervene, or requests for hearing on the project with the Commission. If a recipient would like to request a hearing, the recipient must make a showing that the project raises a significant issue with respect to the applicable criteria under 30 V.S.A. § 248a(c)(1) and pursuant to the Procedures Order.

WHEREFORE, Applicants respectfully request that the Commission:

1. Find that the Application complies with all applicable notice requirements set out in 30 V.S.A. § 248a(e) and (j);
2. Find that the Application meets the requirements set out in 30 V.S.A. § 248a(b)(4)(A), and, therefore, qualifies as one of "limited size and scope";
3. Find that the Project will promote the general good of the State of Vermont and authorize Applicants to undertake the actions as described herein and in its exhibits;
4. Issue an Order and Certificate of Public Good; and
5. Take such other measures as may be required for the expeditious review and approval of this Application.

Dated in Burlington, Vermont this 29th day of July, 2025

Bell Atlantic Mobile Systems, LLC, d/b/a Verizon
Wireless and The Towers, LLC, d/b/a Vertical
Bridge



By: _____

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