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	)

PREFILED DIRECT TESTIMONY OF LOUIS HODGETTS, P.E. ON BEHALF BELL ATLANTIC MOBILE SYSTEMS, LLC, D/B/A VERIZON WIRELESS AND THE TOWERS, LLC, D/B/A VERTICAL BRIDGE

July 28, 2025

Summary:

Mr. Hodgetts' testimony will describe the Project and address the Project's conformance with limited size and scope requirements.

Q1. Please state your name, employer and current position.

A1. My Name is Louis Hodgetts. I am a Professional Engineer and Project Manager employed by DuBois & King, Inc., in South Burlington, Vermont, which has provided engineering and consulting services to Verizon Wireless and its predecessors since the mid 1990's.

Q2. Please briefly state your professional background.

A2. I graduated from University of Vermont, College of Engineering with a Bachelor's Degree in Civil Engineering. I have worked at Dubois & King, Inc. since May 2005. I obtained my Professional Engineering License in June, 2009. I have worked in the area of design and permitting of wireless telecommunications facilities since 2008. During that time, I have provided expert testimony and reports regarding tower siting and site design before numerous bodies administering local zoning bylaws, Act 250 and 30 V.S.A. § 248a. I have experience in many facets of permitting and design of wireless telecommunications facilities, including evaluation of aesthetic and land use impacts.

Q3. Have you ever testified before the Public Service Board or Public Utility Commission?

A3. Yes. I participated in the design of and/or provided prefiled testimony in Docket No. 8103 (Town of Norwich), Docket No. 8221 (Berlin North), Docket No. 8169 (Duxbury), Docket No. 8219 (West Rutland), Docket No. 8220 (Bradford), among others, all involving the issuance of a CPG authorizing the installation or upgrade of a Verizon Wireless telecommunications facility.

Q4. Please identify the location of the Project that is the subject to this § 248a filing.

A4. The Towers, LLC d/b/a Vertical Bridge ("VB") intends to construct a telecommunications facility on a 78.73 acre parcel ("Parcel") located at 2264 U.S. Route 2 in Marshfield, VT, for the initial use of Bell Atlantic Mobile Systems, LLC d/b/a Verizon Wireless ("Verizon") and subsequent use by other communications providers. Verizon refers to the project as "Marshfield." The property owner has given VB and Verizon permission to proceed with this Application. The coordinates for the Project 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.

Q5. Please describe, in detail, the design of the proposed Project.

A5. The Project consists of a 50' by 50' compound ("Compound") enclosed by an 8' high chain link fence, with a locked gate, and topped with barbed wire. VB will construct the Compound and a new 140' above ground level ("AGL") monopole tower ("Tower").

Verizon will place three (3) sectors of three (3) panel antennas ("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' above ground level ("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 140' AGL. Therefore, none of the Antennas will extend above the top of the Tower.

At each sector, Verizon will install two (2) Remote Radio Heads ("RRHs") next to the Antennas, as depicted on Sheet C-11 of the Permit Plans. All six (6) of the RRHs will measure approximately 14.96" long and 14.96" wide. The topmost points of the RRHs will not exceed the topmost points of the Antennas.

At east facing (Alpha) sector, Verizon will install one (1) 12-Port OVP Distribution Box ("OVP"), measuring approximately 29.5" long by 16.5" wide. The topmost point of the OVP will not exceed the topmost points of the Antennas. The Tower, Antennas, RRHs and OVP will be painted brown.

Verizon will place a 12' by 20' equipment shed ("Shed") on the ground inside the Compound, to the southeast of the Tower. The Shed will contain the electronics equipment necessary for the operation of the Project. Verizon will also place an emergency generator ("Generator") on a 10' by 12' concrete pad adjacent to the north of 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.

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.

To provide access ("Access") to the Compound, VB proposes minor upgrades to extend the existing driveway and woods road leading from U.S. Route 2 to the tower site following the existing logging road where possible to the Compound. Approximate clearing limits are shown on the Permit Plans.[1] The contractor will limit tree clearing to the minimum required to construct the Access and Compound, which is estimated to be

[1] Clearing limits may need to be adjusted based on conditions encountered during construction.

approximately 4,120 square feet. At the close of construction, VB will reseed and mulch all disturbed areas along the Access and around the Compound. Culverts, check dams, water bars and silt fencing as shown on the Permit Plans will be placed along the Access and at the Compound as required to control erosion both during and after construction. Construction shall meet the requirements of the *State of Vermont Low Risk Site Handbook for Erosion Prevention and Sediment Control*. After the completion of construction, the project will result in total permanent earth disturbance of approximately 2,500 square feet.

Q6. Based on your evaluation, and in response to the requirements of 10 V.S.A. § 6086(a)(1)(D)(floodways) and (a)(8)(aesthetics, scenic beauty, historic sites, rare and irreplaceable natural areas, endangered species, necessary wildlife habitat), will the proposed Project impact floodways, result in an adverse effect on scenic or natural beauty, aesthetics or historic sites, necessary wildlife habitat or endangered species; and will it be in conformance with local and regional plans?

A6. 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 my detailed responses.

Criterion 1(B) – Waste Disposal – To fuel the Generator, Verizon will install either a 132-gallon diesel fuel tank or a 500-gallon propane tank within the Compound. The proposed Generator and proposed diesel or propane 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 and refueling plans to limit any potential spill during refueling operations.

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

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.

I oversaw the production of the photosimulations for the Project (Exhibit LH-4). We floated balloons on a string at a height approximating the height of the Monopole, then used software to transpose a simulation of the Tower's height and width as viewable in that location. They depict seven (7) viewpoints, most of which are along the Vermont Route 2 Corridor. As the photosimulations demonstrate, the Tower is generally screened by the surrounding vegetation.

For these reasons, I conclude that the Project will fit within its surroundings and while the installation of a 140' tower could be perceived to have an adverse effect, the limited visibility, location in proximity to an existing utility corridor, and vegetation and terrain screening it is my opinion that the proposed installed will not have an undue adverse effect on the scenic beauty of the area.

Grace Glynn, while employed at Dubois and King visited the Project site on August 19, 2022 to assess Wetlands and Water Resources, Rare, Threatened and Endangered

Species, Exemplary Natural Communities and Non-native invasive species. She described her findings in a Natural Resources Review Memo to me dated November 8, 2022 (Exhibit LH-5), which are as follows:

Wetlands and Water Resources

The proposed tower site is located just northwest of an existing powerline cut and on an existing logging road, and is shown on the attached Location Map. It is located in an upland area of Hemlock-Northern Hardwood Forest dominated by yellow birch, hemlock, striped maple, paper birch, and red maple with an understory of hay-scented fern, sensitive fern, interrupted fern, and long beech fern.

Three wetlands were identified within the project area and delineated in accordance with the COE 1987 Wetland Delineation Manual and the COE 2012 Regional Supplement for the Northcentral and Northeast Region. The wetland boundaries were flagged and recorded using a GPS unit with sub-meter accuracy. The wetlands are labeled as Wetland A, B, and C. The wetlands are shown on the attached exhibit, and photos are attached.

Wetland A is palustrine emergent/forested (PEM/PFO) and is located along an existing woods road, adjacent to an intermittent stream. It is dominated by sensitive fern, cinnamon fern, jewelweed, and white meadowsweet. The wetland's principal function is groundwater recharge. This wetland is presumptive Class II because it is hydrologically connected to an alder swamp within the powerline cut to the southeast; presumably the entire wetland complex is over .5 acres in size.

Review by the district wetlands ecologist would be necessary to verify this wetland classification.

Wetland B is palustrine emergent/forested (PEM/PFO) and is located along the woods road. It is dominated by cinnamon fern, tearthumb, woolsedge, dark-green bulrush, and rattlesnake mannagrass. The wetland's principal functions include groundwater recharge and wildlife habitat. This wetland is presumptive Class II. Review by the district wetlands ecologist would be necessary to verify this wetland classification.

Wetland C is palustrine scrub-shrub (PSS) and is dominated by willows, Joe-pye weed, and goldenrods. This wetland is small, isolated, and has seemingly formed in a created ditch. It is therefore presumptive Class III. Review by the district wetlands ecologist would be necessary to verify this wetland classification.

Work in any wetland would require an Army Corps of Engineers Section 404 Wetlands Permit. Work in any Class II wetland or in the 50ft jurisdictional buffer of any Class II wetland would require a VT Wetlands Permit.

Rare, Threatened and Endangered Species and Exemplary Natural Communities

The Natural Resources Atlas Map of the area shows no elements of concern (rare, threatened, or endangered species or significant natural communities) in the immediate project area, as shown on the attached Natural Resources Map. No rare, threatened, or endangered species or significant natural communities were observed during the course of field work. The parcel is located at the edge of a medium-priority habitat block. No deer wintering areas are mapped on the parcel,

and none were observed during the course of field work. No potential bat roost trees or other notable habitat features were observed during the course of field work.

Non-native Invasive Species

Coltsfoot (Tussilago farfara) is common along the woods road. European honeysuckle (Lonicera morrowii) and moneywort (Lysimachia nummularia) are present in the southwest corner of the study area along the intermittent stream shown on the attached exhibit. Common barberry (Berberis vulgaris) was seen scattered throughout the study area. The non-native (but not considered invasive) Sherard's downy rose (Rosa sherardii) was observed at the edge of Wetland B.

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.

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-6) for a complete copy of the report.

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.

I 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 as 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 discusses 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 sitting 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 increasing vital for the safety of residents and visitors alike.

Q7. Please identify all existing permits relating to the facility and any conditions contained in those permits that could impact the proposed improvements.

A7. There are no known permits that would impact the proposed improvements.

Q8. Does this conclude your Prefiled Direct Testimony?

A8. Yes.

Exhibits to Prefiled Testimony of Louis Hodgetts, P.E.

Exhibit LH-1	Marshfield Permit Drawings
Exhibit LH-2	Generator Specifications
Exhibit LH-3	FEMA Firmette
Exhibit LH-4	Photosimulations
Exhibit LH-5	Natural Resource Review Memo
Exhibit LH-6	NT Submission Packet – FCC Form 620, with SHPO Concurrence
Exhibit LH-7	Excerpts from Municipal Plan
Exhibit LH-8	Excerpts from Regional Plan