

# TOWN OF DUMMERSTON

## Wireless Telecommunications Facilities Ordinance

### 1.1 Title

This ordinance shall be known as the Wireless Telecommunications Facilities Ordinance of the Town of Dummerston. Wireless telecommunications facilities shall include all wireless telecommunication providers licensed and/or regulated by the Federal Communications Commission, and associated equipment and buildings.

### 1.2 Purposes

The purpose of this ordinance is to preserve Dummerston's scenic character and protect the public health while insuring the safety and general welfare of the town residents, and accommodating the communication needs of residents, area businesses, and the public. This ordinance shall:

- A. Protect the scenic, historic, environmental, and natural resources of the Town of Dummerston.
- B. Facilitate the provision of wireless telecommunication services to residents and area businesses.
- C. Provide standards and requirements for the siting, design, appearance, construction, operation, monitoring, modification, and removal of wireless telecommunications facilities and towers.
- D. Minimize tower and antenna proliferation by requiring the sharing of existing communications facilities, towers, and sites where possible and appropriate.
- E. Encourage the installation of communications facilities in or on existing structures as long as there is reasonable assurance that no adverse human health or environmental impact shall occur.
- F. Minimize the adverse visual effects of towers and other facilities through careful design and siting standards.
- G. Encourage, through performance standards and incentives, the location of towers and antennas in non-residential areas and away from other sensitive areas such as schools, hospitals, and childcare facilities.

### 1.3 Authority

Pursuant to 24 VSA §§ 1971, 4401 and 4407(5), the Zoning Board of Adjustment and the Planning Commission of the Town of Dummerston (the Boards) are authorized to review, approve, conditionally approve, and deny applications for wireless telecommunication facilities, including sketch, preliminary and final plans, and installation. Pursuant to 24 VSA § 4407(17), the Boards are authorized to hire qualified persons to conduct an independent technical review of applications and to require the applicant to pay for reasonable costs thereof.

#### 1.4 Consistency with Federal Law

In addition to other findings required by this ordinance, the Boards shall find that their decision regarding an application is intended to be consistent with federal law, particularly the Telecommunications Act of 1996. The ordinance does not:

- A. Prohibit or have the effect of prohibiting the provision of personal wireless services;
- B. Unreasonably discriminate among providers of functionally equivalent services; or
- C. Regulate personal wireless services on the basis of the environmental effects of radio frequency emissions to the extent that the regulated services and facilities comply with the Federal Communications Commission (FCC) regulations concerning such emissions.

#### 1.5 Definitions

The following definitions apply throughout this ordinance:

Administrative Officer: The Town's Zoning Administrator as defined in Section 700 of the Zoning Bylaw.

Adequate Capacity: Capacity for wireless telephony is considered to be "adequate" if the grade of service (GOS) is p.05 or better for median teletraffic levels offered during the typical busy hour, as assessed by direct measurement of the facility in question. The GOS shall be determined by the use of standard Erlang B calculations. A call blocking may occur in either the land line or radio portions of a wireless network, Adequate Capacity for this ordinance shall apply only to the capacity of the radio components. Where capacity must be determined prior to the installation of the wireless telecommunications facility in question, Adequate Capacity shall be determined on the basis of a 20% busy hour (20% of all offered traffic occurring within the busiest hour of the day), with total daily traffic based on aggregate estimates of the expected traffic in the coverage area.

Adequate Coverage: Coverage for wireless telephony is "adequate" within that area surrounding a base station where the predicted or measured median field of strength of the transmitted signal is such that most of the time, transceivers properly installed and operated will be able to communicate with the base station without objectionable noise (or excessive bit-error-rate for digital) and without calls being dropped. In the case of cellular communications in a rural environment, this would be signal strength of at least -90 dBm. It is acceptable for there to be holes within the area of adequate coverage as long as the signal regains its strength further away from the base station. The outer boundary of the area of adequate coverage, however, is that location past which the signal does not regain.

Antenna: A device that is attached to a tower or other structure for transmitting and receiving electromagnetic waves.

Antenna Height: The vertical distance measured from the base of the antenna support structure at grade to the highest point of the structure. If the support structure is on a sloped grade, then the average between the highest and lowest grades shall be used in calculating the antenna height.

Applicant: A person who or entity which applies for a telecommunications facility siting. An applicant can be the wireless telecommunications service provider or the owner of the property.

Co-location: Locating wireless communications equipment from more than one provider on a single site.

Frequency: The number of cycles completed each second by an electromagnetic wave measured in Hertz(Htz).

Micro-cell: A low-power mobile radio service wireless telecommunications facility used to provide increased capacity in high call-demand areas or to improve coverage in areas of weak coverage.

Permit: A document which defines the rights and obligations extended by the Town to an applicant to own, construct, maintain, and operate its facility within the boundaries of the Town.

Personal Wireless Services: Commercial mobile services, unlicensed wireless exchange access services. These services include cellular services, personal communications services, specialized mobile radio services, and paging services.

Repeater: A small receiver/relay transmitter and antenna of relatively low power output designed to provide service to areas which are not able to receiver adequate coverage directly from a base or primary station.

Stealth Design: Design intend to blend the facility into the surrounding environment. Examples of stealth design may include architecturally screened roof-mounted antennas, building-mounted antennas painted to match the existing structure, antennas integrated into architectural elements, antenna structures designed to look like light poles or silos, and structures designed to resemble natural features such as trees or rock outcroppings

Tower: A vertical structure for antennas that provide wireless telecommunications services.

Wireless Telecommunications Facility: All equipment (including repeaters) and locations of equipment with which a wireless telecommunications provider transmits and receives the waves which carry their services. This facility may be sited on one or more towers or structure(s) owned and permitted by the provider or another owner or entity.

Wireless Telecommunications Provider: An entity licensed by the FCC to provide telecommunications services to individuals or institutions.

## **1.6 Permitted and Prohibited Locations**

Wireless telecommunications towers or facilities may be permitted as conditional uses upon compliance with the provisions of this ordinance in the following zoning districts:

### Rural Residential, Rural Commercial, Commercial/Light Industrial, and Village

It is Town policy that communications towers should be prohibited from Conservation, Reserve, and Forest Reserve districts. Additionally, freestanding telecommunications towers or antennas over 20 feet in height may not be located in any of the following locations:

- A. Within 100 feet of a State or Federally designated wetland.
- B. The habitat of any State-listed rare or endangered species.

- C. Within 1000 feet horizontally from any historic property on or eligible to be listed on the National Register of Historic Places, or a cultural resource listed in the Dummerston Town Plan.
- D. Closer, horizontally, than five feet plus the height of the tower to the boundary of the property on which the tower is located.
- E. Closer, horizontally, than five feet plus the height of the tower from any building.
- F. Within 100 feet horizontally of any river or perennial stream.
- G. Within 100 feet horizontally of any known archaeological site.
- H. Within sight from a designated scenic road or highway.

### **1.7 Small Scale Facilities**

The placement of wireless telecommunications antennas, repeaters, or micro-cells on existing buildings, structures, roofs, or walls, not extending more than 10 feet from the same, or the installation of ground facilities less than 20 feet in height, may be approved by the Administrative Officer, provided the antennas meet the applicable requirements of this ordinance, upon submission of:

- A. A final site and building plan.
- B. A report prepared by a qualified engineer indicating the structure's suitability for the telecommunications facility, and that the proposed method of affixing the antenna or other device to the structure complies with standard engineering practices. Complete details of all fixtures and couplings and the exact point(s) of attachment shall be indicated.
- C. For a facility to be installed on an existing structure, a copy of the applicant's executed contract with the owner of the existing structure.

However, no such device may be located closer than 50 feet to an existing residence.

### **1.8 Permit Application Requirements for Wireless Telecommunications Facilities not covered under Section 1.7**

An applicant for a permit must be a personal wireless telecommunications provider or FCC licensee, or must provide a copy of its executed contract to provide land or facilities to such an entity to the Administrative Officer at the time that an application is submitted. A permit shall not be granted for a tower or facility to be built on speculation.

No construction, alteration, modification (including the installation of antennas for new uses), or installation of any wireless telecommunications tower or facility shall commence without a conditional use permit first being obtained from the Zoning Board of Adjustment.

In addition to information otherwise required in the Town of Dummerston's Zoning Bylaw, applicants for wireless telecommunications towers or facilities shall include the following information:

- A. The name and address of the applicant, the record landowners, and any agents of the landowners or applicants as well as an applicant's registered agent and registered office.
- B. The name, address, and telephone number of the person to be contacted and authorized to act in the event of an emergency regarding the structure or safety of the facility.

- C. The names and addresses of the record owners of all abutting property.
- D. A report from qualified engineers that:
1. Describes the facility height, design, and elevation. (structural engineer)
  2. Documents the height above grade for all proposed mounting positions for antennas to be co-located on a wireless telecommunications tower or facility, and the minimum separation distances between antennas. (radio frequency engineer)
  3. Describes the tower's proposed capacity, including the number, height, and type(s) of antennas that the applicant expects the tower to accommodate. (structural engineer)
  4. In the case of new tower proposals, demonstrates that existing wireless telecommunications sites and other existing structures or other structures proposed by the applicant within a reasonable distance of the proposed site cannot reasonably be modified to provide adequate coverage and adequate capacity to serve the needs that the proposed facility would satisfy, and that the communications facility could not reasonably be located in or on an existing building or other structure. The documentation shall include, for each facility site or proposed site within such an area, the exact location, ground elevation, height of tower or structure, and sufficient additional data to allow an independent reviewer to verify that other locations will not be suitable.
  5. Demonstrates that the applicant has analyzed the feasibility of using repeaters or micro-cells in conjunction with all facility sites to provide coverage to the intended service area.
  6. Describes potential changes to those existing facilities or sites in their current state that would enable them to provide adequate coverage.
  7. Describes the output frequency, number of channels, sector orientation, and power output per channel as appropriate for each proposed antenna.
  8. Includes a written five-year plan for use of the proposed facility, including reasons for seeking capacity in excess of immediate needs if applicable, as well as plans for additional development and coverage within the Town.
  9. Demonstrates the tower's compliance with the Town's setbacks for towers and support structures.
  10. Provides assurance that at the proposed site, the applicant will establish and maintain compliance with all FCC rules and regulations, particularly with respect to radio frequency exposure. The Boards may hire independent engineers to perform evaluations of compliance with the FCC regulations, standards, and requirements on an annual basis at unannounced times.
  11. Includes other information required by the Boards that is necessary to evaluate the request.
  12. Includes an engineer's stamp and registration number.

13. Includes a letter of intent committing the facility owner and his or her successors to permit shared use of the facility if the additional user agrees to meet reasonable terms and conditions for shared use.
- E. For a facility to be installed on an existing structure, a copy of the applicant's executed contract with the owner of the existing structure (to be provided to the Administrative Officer at the time an application is submitted).
- F. To the extent required by the National Environmental Policy Act (NEPA) as administered by the FCC, a complete Environmental Assessment (EA) draft or final report describing the probable impacts of the proposed facility.
- G. A copy of the application or draft application for an Act 250 permit, if applicable.

The permit application shall be signed and notarized.

**1.9 Site Plan Requirements for Wireless Telecommunications Facilities not covered under Section 1.7**

In addition to site plan requirements found elsewhere in the Town of Dummerston's Zoning Bylaw (Section 726) and Town Plan (Town Policy #10 under Recreation and Scenic resources and Town Policy #7 under Commerce and Industry), site plans for wireless telecommunication facilities shall include the following information:

- A. Location Map: a copy of a portion of the most recent USGS Quadrangle map showing the area within at least a two-mile radius of the proposed facility site;
- B. Vicinity Map showing the entire vicinity within a 2500 foot radius of the facility site, including the facility or tower, topography, public and private roads and driveways, buildings and structures, water bodies, wetlands, landscape features, historic sites, and habitats for endangered species. It shall indicate the property lines of the proposed facility site parcel and all easements or rights of way needed for access from a public way to the facility.
- C. Proposed Site Plan of entire development indicating all improvements including landscaping, utility lines, guy wires, screening, and roads.
- D. Elevations showing all facades and indicating all exterior materials and color of towers, buildings, and associated facilities.
- E. Computer generated simulations of the proposed facility, based on photographs of the existing site, showing the facility from all rights of way and any adjacent property from which it may be visible. Each photo must be labeled with the line of sight and elevation, and with the date taken imprinted on the photograph. The simulations must show the color of the facility and method of screening.
- F. In the case of a proposed site that is forested, the approximate average height of the existing vegetation within 200 feet of the tower base.

G. Construction sequence and time schedule for completion of each phase of the entire project.

Site plans shall be drawn at a minimum at the scale of one (1) inch equals 20 feet.

#### **1.10 Co-Location Requirements**

An application for a new wireless telecommunications facility shall not be approved unless the Boards find that the facilities planned for the proposed structure cannot be accommodated on an existing or approved tower or structure due to one of the following reasons:

- A. The proposed antennas and equipment would exceed the structural or spatial capacity of the existing or approved tower or facility, as documented by a qualified engineer licensed to practice in the State of Vermont. Additionally, the existing or approved tower cannot be reinforced, modified, or replaced, at a reasonable cost, to accommodate planned or equivalent equipment that provides coverage and capacity comparable to that of the proposed facility.
- B. The proposed antennas and equipment would cause interference materially impacting the usefulness of other existing or permitted equipment at the existing or approved tower or facility, as documented by a qualified engineer licensed to practice in the State of Vermont, and such interference cannot be mitigated at a reasonable cost.
- C. The proposed antennas and equipment, either alone or together with existing facilities, equipment, or antennas, would create excessive radio frequency exposure.
- D. Existing or approved towers and structures could not accommodate the planned equipment at a height necessary to function reasonably or are too far from the area of needed coverage to function reasonably, as documented by a qualified engineer.
- E. Aesthetic reasons make it unreasonable to locate the planned telecommunications equipment upon an existing or approved tower or building.
- F. There is no existing or approved tower in the area in which coverage is sought.
- G. Other unforeseen specific reasons would make it unreasonable to locate the planned wireless telecommunications equipment upon an existing or approved tower or building

Towers must be designed to allow for future placement of antennas upon the tower, and to accept antennas mounted at varying heights where overall permitted height allows. Towers shall be designed structurally, and in all other respects, to accommodate both the applicant's antennas and additional antennas where overall permitted height allows.

#### **1.11 Access Roads and Above Ground Facilities**

Where the construction of new wireless telecommunications towers and facilities requires the construction of or improvement to access roads, to the extent practicable, roads shall follow the contour of the land, and be constructed or improved within forest or forest fringe areas, and not in open fields. Utility or service lines shall be designed and located so as to minimize or prevent disruption to the scenic character and beauty of the area. The Town may require closure of access roads to vehicles following facility construction where it is determined that site conditions warrant the same and where maintenance personnel can reasonably access the facility site on foot.

## 1.12 Tower and Antenna Design Requirements

Proposed facilities shall not unreasonably interfere with the view from any public park, private property, natural scenic vista, historic building or district, or major view corridor. Height and mass of facilities shall not exceed that which is essential for their intended use and public safety.

- A. Towers, antennas, and any necessary support structures shall be designed to blend into the surrounding environment through the use of color camouflaging and architectural treatment, except in cases in which the Federal Aviation Authority (FAA), state, or federal authorities have dictated color. Use of stealth design, including that which imitate natural features, may be required in visually sensitive locations.
- B. In order to protect public safety and to preserve the scenic character and appearance of the area, the height limit for towers, antennas and tower-related fixtures shall be not more than 20 feet above the average height of the tree line measured within 100 feet of the highest vertical element of the telecommunications facility. Notwithstanding the above, additional height may be approved upon a finding by the Boards that the additional height is necessary in order to provide adequate coverage in the Town of Dummerston or to accomplish co-location of facilities, and that the additional height will not cause an undue visual impact on the scenic character or appearance of the area.
- C. Towers, antennas, and any necessary support structures shall be designed to avoid having an undue adverse aesthetic impact on prominent ridgelines and hilltops. In determining whether a tower's aesthetic impact would be undue and adverse, the Boards will consider:
  - 1. the period of time during which the proposed tower would be viewed by the traveling public on a public highway;
  - 2. the frequency of the view experienced by the traveling public;
  - 3. the degree to which the tower would be screened by existing vegetation, the topography of the land, and existing structures;
  - 4. background features in the line of sight to the proposed tower that obscure the facility or make it more conspicuous;
  - 5. the distance of the proposed tower from the view point and the proportion of the facility that is visible above the skyline;
  - 6. the sensitivity or unique value of a particular view affected by proposed tower; and
  - 7. significant disruption of a viewshed that provides context to a historic or scenic resource.
- D. All buildings and structures accessory to a tower (except for electric power poles where specifically exempted by the Boards) shall meet the minimum setback requirements of the underlying zoning district or setback requirements specified in this ordinance. If the minimum setbacks of the underlying zoning district are less than the height of the tower, including antennas or other vertical appurtenances, the minimum distance from the tower to any property line shall be no less than the height of the tower, including antennas and other vertical appurtenances.
- E. Ground-mounted equipment or antennas, as well as buildings and structures accessory to a tower, shall be screened from view by suitable vegetation, except where a design of non-vegetative screening better complements the architectural character of the surrounding neighborhood. A planted or vegetative screen shall be a minimum of ten feet in depth with a minimum height of six feet and shall have the potential to grow to a height of at least 15 feet



at maturity. Existing on-site vegetation outside the immediate site for the wireless facility shall be preserved or improved. Disturbance to existing topography shall be minimized unless the disturbance is demonstrated to result in less visual impact on the facility from surrounding properties and other vantage points.

### **1.13 Amendments To Existing Wireless Telecommunications Facility Permit**

An alteration or addition to a previously approved wireless telecommunications facility shall require a permit amendment when any of the following are proposed:

- A. Change in the number of buildings or facilities permitted on the site;
- B. Addition or change of any equipment resulting in greater visibility or structural windloading, or additional height of the tower, including profile of additional antennas, not specified in the original application.

### **1.14 Tower Lighting and Signage; Noise Generated by Facility**

Unless required by the Federal Aviation Administration (FAA), no lighting of towers is permitted. In any case where a tower is determined to need obstruction marking or lighting, the applicant must demonstrate that it has or will request the least visually obtrusive marking and/or lighting scheme in FAA applications. Copies of required FAA applications shall be submitted by the applicant. Heights may be reduced to eliminate the need for lighting or another location selected.

No commercial signs or lettering shall be placed on a tower or facility. Signage shall be limited to that required by State or federal regulation.

The Boards may impose conditions to minimize the effect of noise from the operation of machinery or equipment upon adjacent properties.

### **1.15 Temporary Wireless Communication Facilities**

Any wireless telecommunications facility designed for temporary use is subject to the following:

- A. Use of a temporary facility is permitted only if the owner has received a temporary use permit from the Town of Dummerston.
- B. Temporary facilities are permitted for no longer than five days use during a special event.
- C. The maximum height of a temporary facility is 50 feet from grade.
- D. Temporary facilities must comply with all applicable portions of these regulations.

### **1.16 Continuing Obligations**

Upon receiving a permit, the permittee shall annually demonstrate that he or she is in compliance with all FCC standards and requirements regarding radio frequency exposure and provide the basis for his or her representations.

### **1.17 Facility Removal**

Abandoned, unused, obsolete, or non-compliant towers or facilities governed under this ordinance shall be removed as follows:

- A. The owner of a tower shall annually, on January 15, file a declaration with the Administrative Officer certifying the continuing safe operation of every facility installed subject to these regulations. Failure to file a declaration shall mean that the facility/tower is no longer in use and considered abandoned.
- B. Abandoned or unused towers or facilities shall be removed within 180 days of cessation of operations at the site unless a time extension is approved by the Zoning Board of Adjustment. In the event the tower or facility is not removed within 180 days of the cessation of operations at a site, the Town shall notify the owner and may remove the tower or facilities. Costs of removal and remediation of landscape shall be assessed against the property or tower owner.
- C. Towers and facilities which are constructed in violation of permit conditions or application representations shall be removed within 180 days of notice of violation unless a time extension or negotiated solution is approved by the Zoning Board of Adjustment. In the event the tower or facility is not removed within 180 days of notification of such violation, the Town may remove the tower or facilities. Costs of removal and remediation of landscape shall be assessed against the property or tower owner.
- D. Unused portions of towers shall be removed within 180 days of the time that such portion is no longer used for antennas. The replacement of portions of a tower previously removed requires issuance of a new telecommunications facility permit.
- E. After a tower or facility is removed, the landscape shall be remediated to a condition acceptable to the Boards.

#### **1.18 Maintenance Requirements**

The Applicant shall maintain all facilities. Such maintenance shall include, but not be limited to, painting, structural integrity, and landscaping. In the event the Applicant fails to maintain the facility, the Town may undertake such maintenance at the expense of the applicant or landowner.

#### **1.19 Insurance Requirements**

The facility owner shall maintain adequate insurance on all facilities.

#### **1.20 Fees**

Fees for filing an application to build or alter a wireless telecommunications facility shall be \$40.00. Additional fees may include the reasonable costs of an independent technical assessment of the application that may be incurred during the review and permitting process. The Applicant shall, as a condition of the conditional use permit, provide a financial surety bond payable to the Town of Dummerston and in an amount acceptable to the Boards to cover the cost of removal of the facility and remediation of the landscape, should Section 1.17 of the Ordinance be invoked.

#### **1.21 Enforcing Agent**

The Administrative Officer shall be the agent to enforce the provisions of this ordinance.

#### **1.22 Severability**


If any portion of this ordinance is held unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected.

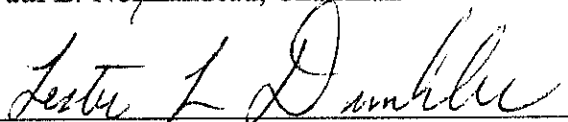
#### **1.23 Effective Date**

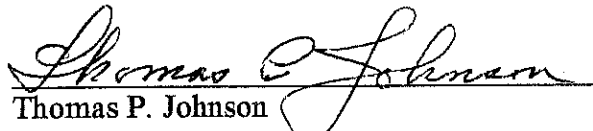
This ordinance shall be effective on January 14, 2002.

1.24 Adoption

Adopted by the Board of Selectmen of the Town of Dummerston on November 14, 2001  
2001.

  
Paul E. Normandeau, Chairman

  
Lester L. Dunklee

  
Thomas P. Johnson

  
Jack W. Manix

  
Sylvio L. Forrett