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RE-WORKED VERSION (NOV. 2001)

Wireless Communication

Tower Ordinance

For The

Town of Etna

November 2001 REWORK

Wireless Communication Tower Ordinance
Town of Etna

Article I - Findings And Purpose

The Town, Board of Selectman and the Planning Board find that location and development of Wireless Communication Towers made by public and private land owners, affect the economic, social and environmental resources of the Town of Etna and that many developments, because of their magnitude and character, may cause significant alterations to the natural and built environments of the Town - that authority is rightfully vested in our Municipal government to regulate the location, character and impact of these Towers which may substantially affect the quality of life in Etna. Therefore, it is the intent of this Ordinance to adequately regulate development within the Town so that such developments will be designed and located in a manner that will have a minimal adverse impact on the natural environment and the Town character and protect the health, safety and general welfare of the people.

Article II - Section A - Definitions

For the purpose of this Section all terms and words shall have their ordinary meaning except as provided herein.

1. **Alternative Tower Structure (ATS)** - Clock towers, bell steeples, light poles, water towers, electrical transmission line towers, smokestacks, and similar mounting structures that camouflage, conceal or support the presence of antennas or towers.
2. **Antenna / Antenna Array** - A system of one or more rods, panels, discs or similar devices used for the transmission or reception of radio frequency (RF) signals through electromagnetic energy. These include, but are not limited to , omnidirectional antennas (whip or rod), directional antennas (panel) and parabolic antennas (dish or disc).
3. **Antenna Support Structures** - Any pole, telescoping mast, tower tripod, or any other structure which attaches to a tower and supports one or more antenna(s).
4. **Co-location** - The placement of more than one party's antenna on the same tower or ATS.
5. **Equipment Facility** - Any structure used to contain ancillary equipment for a WCF which includes cabinets, shelters, a buildout of an existing structure, pedestals and other similar structures.

6. Essential Services - The construction, alteration or maintenance of gas, electrical or non-wireless communication facilities.

7. FAA - Federal Aviation Agency.

8. FCC - Federal Communications Commission.

9. Height, Wireless Communications Facility Tower or Alternative Tower Structure - The vertical distance measured from the lowest point within ten (10) feet of the base of the structure on the ground to the highest point of the tower or ATS, including the base pad, all antennas and other attachments. When towers are mounted upon buildings or other structures, the total vertical height is measured from the lowest point within ten (10) feet of the ground level of the building or structure to the highest point of all appurtenances on the tower.

10. Wireless Communications - Any personal wireless services as defined in the Federal Telecommunications Act of 1996 which includes FCC licensed commercial wireless telecommunications services such as cellular, personal communications services (PCS), specialized mobile radio (SMR), enhanced specialized mobile radio (ESMR), paging and similar services that currently exist or that may in the future be developed.

11. Wireless Communication Facility (WCF) - A facility that transmits, receives, distributes, provides or offers telecommunications services, radio or television signals, or any other spectrum-based transmissions/receptions, together with the facility's associated antennas, microwave dishes, horns, cables, wires, conduits, ducts, lightning rods, electronics and other types of equipment for the transmission, receipt, distribution or offering of such signals; wireless communication towers, antenna support structures, and other structures supporting said equipment and any attachments to those structures including guy wires and anchors, equipment buildings, generators, parking areas, utility services, driveways and roads and other accessory features.

12. Wireless Communication Facility - Co-Located - A wireless telecommunications facility that includes a wireless communication tower that is supporting one or more antennas owned or used by more than one public or private entity.

13. Wireless Communication Tower (Tower) - A structure designed and constructed specifically to support an antenna array. A tower may be a monopole, self-supporting (lattice) tower, guy-wire support tower or other similar structure, and includes all supporting lines, cables, wires, and braces.

Article II - Section B - Performance Standards and Submission Requirements for Wireless Communication Facilities

1. Introduction - This section is designed and intended to balance the interests of the residents of the Town of Etna and wireless communications providers and customers in the siting of wireless communications facilities within the town. These standards are also intended to:

- a. Minimize the adverse impacts of such facilities, including visual impacts, environmental impacts, impacts to historically significant areas, and safety impacts.
- b. Permit the construction of new towers only where all reasonable alternative opportunities have been exhausted.
- c. Encourage the users of towers and antennas to configure and locate them in a way that minimizes the need for additional towers in the Town of Etna.

2. Exemptions - The following wireless communication facilities are exempt from these regulations.

- a. One operated solely by a federally licensed amateur radio facility as part of the Amateur Radio Service (ham radio operator), with a maximum tower height of seventy-five (75) feet, and which is not additionally licensed or used for any commercial purpose, other than by the licensed amateur radio operator.
- b. One used solely for single channel business communications, such as pagers and two-way radios, with a maximum tower height of seventy-five (75) feet, except that no tower for such use is permitted within a radius of 3/4 mile of the town office.
- c. One used solely for municipal, public safety, or public works use, with a maximum tower height of one hundred (100) feet.

3. Height, Space & Bulk Restrictions

- a. **Tower Height** - Towers shall not exceed a height of one hundred (100) feet, except as provided under co-location provisions in II 4.d.
- b. **Antennas Height** - Installing antennas on an existing alternative tower structure shall be permitted provided there results no additional height to the structure.
- c. **Mounting and Dimensions** - The mass and dimensions of antennas on a tower or alternative tower structure shall be governed by the following criteria:

- i. Whip antennas shall not exceed 20' in length for an individual antenna, and shall be limited to two (2) per mount, with no more than three (3) mounts at a given level.
 - ii. Microwave dish antennas- The aggregate diameters of microwave dish antennas mounted within a 20' vertical section of a tower may not exceed 24', with no single dish being more than 8' in diameter and 5' in depth.
 - iii. Panel antennas- The horizontal centerline of all panel antennas of a single carrier must be aligned in the same horizontal plane, with each antenna not to exceed 8' in length nor 2' in width.
- d. Lot Area - A new wireless telecommunications tower shall not be constructed on a lot that is less than one (1) acre.
- e. Setbacks -
 - i. Equipment Facilities Shall Meet The Required Town of Etna Setback Ordinance(s)
 - ii. The base of any telecommunications tower must be setback a minimum of 100% of tower height from any property line & any structure used for residential purposes.
 - iii. If more than one tower is proposed on a single lot or parcel, they shall be clustered as closely together as technically possible.
 - iv. In order to accommodate the co-location of an additional antenna, a tower, existing as of (date of adoption) may be modified or rebuilt to a taller height, not to exceed a total maximum of thirty (30) feet more than the tower's height as of (date of adoption) but only if that additional height will not require any lighting or obstruction painting. The additional tower height shall not require increased lot setbacks.
 - v. There shall be no setback requirements for antennas mounted on existing alternative tower structures.

4. Locating A New Wireless Communication Facility

a. Applicants for a new wireless communication facility must send written notice by pre-paid first class United States mail to all tower and alternative tower structure owners and licensed wireless communication providers in the town utilizing existing towers and alternative tower structures, and to owners of such towers and alternative tower structures within a 1 mile search radius of the proposed facility, (even if extending beyond the Town of Etna). Evidence that this notice requirement has been fulfilled shall be submitted to the Planning Board and shall include a name and address list, copy of the notice which was sent, and a statement, under oath, that the notices were sent as required. If application includes a new tower, application must include evidence that existing or previously approved towers and alternative tower structures within the Town and search area cannot accommodate the communications equipment (antennas, cables, etc.) planned for the proposed facility. Such evidence would be documentation from a qualified and licensed professional engineer that:

- i. Planned necessary equipment would exceed the structural capacity of existing and approved towers and alternative tower structures, considering the existing and planned use of the towers and alternative tower structures, and the existing and approved towers cannot be reinforced to accommodate planned or equivalent equipment at a reasonable cost;
 - ii. Planned equipment will cause electromagnetic frequency interference with other existing or planned equipment for that tower or alternative tower structure, and the interference cannot be prevented at a reasonable cost.
 - iii. Existing or approved towers and alternative tower structures do not have space on which planned equipment can be placed so it can function effectively and at least in parity with other similar equipment in place or approved; or
 - iv. Other documented reasons that make it technically or financially unfeasible to place the equipment planned by the applicant on existing and approved towers and alternative tower structures.
- b. Shared use shall be conditioned on the applicant's agreement to pay a reasonable fee and costs of adapting existing facilities to the proposed use.

- c. Once the Planning Board has determined that telecommunications equipment proposed by the applicant cannot be accommodated on an existing or approved tower or alternative tower structure, each tower or alternative tower structure so found is presumed unable to accommodate similar equipment that may be proposed in the future unless the Board determines, after additional information is provided, that new technology or other considerations enable the existing or approved tower or alternative tower structure to accommodate the equipment.
- d. A proposal to construct a new communication tower taller than the maximum height permitted for a single wireless communication service must include evidence that the tower can structurally support a minimum of three (3) antenna arrays for at least one co-locating entity. (See Section -- Height, above).
- c. Prior to the issuance of any building permits for a co-locating tower in excess of the height of a previously approved tower, the applicant will submit to the Planning Board executed agreements documenting commitments to co-locate from the number of co-locators approved by the planning board.
- f. The Planning Board will maintain a list of existing and approved towers and alternative tower structures, including name and address of owner(s), within the Town of Etna. Towers constructed after passage of this ordinance must be available for co-location if engineering and economic criteria permit.

5. Submissions

- a. In addition to the requirements in 4.a. above, the following submissions shall be required, unless waived by the planning board.
 - i. A proposal to construct or modify a wireless communication tower must include evidence of a commitment from a duly licensed entity to utilize the tower to provide wireless communication services. All wireless communication entities which are contracted to locate on the tower must join as applicants.
 - ii. An application fee of \$500.00 is required. There is no standard permit form.
 - iii. A report from a Registered Professional Engineer in the State of Maine that describes the tower, the technical reasons for the tower design and the capacity of the tower, including the number(s), type(s), and volume(s) of antenna(s) that it can accommodate and the basis for the calculation of capacity.

- iv. Written approval by all applicable state and federal agencies, including a description of any conditions or criteria for the approval, or a statement from the agency that no approval is required.
- v. A letter of intent that commits the tower owner and his or her successors in interest to:
 - aa. Respond in a timely, comprehensive manner to a request for information from a potential co-location applicant;
 - bb. Negotiate in good faith for shared use by third parties that have received an FCC license or permits;
 - cc. Allow shared use if an applicant agrees in writing to pay reasonable charges.
- vi. If the proposed tower cannot be accommodated on an existing or approved tower site, the applicant must assess whether such tower site could be changed to accommodate the proposed tower, and generally describe the means and projected cost of shared use of the existing or approved tower site.
- vii. Proof of financial capacity to build & maintain the proposed tower.
- viii. At the time of approval, the applicant for a new tower shall post a performance guarantee in the form a continuous corporate surety bond, an irrevocable letter of credit, or an escrow account in favor of the Town equal to 125% of the estimated demolition and removal cost of the tower and associated facilities if abandoned at any time by the applicant. Such performance guarantee shall be satisfactory to the Town Manager as to the issuer, form, sufficiency, surety and manner of execution. All performance guarantees shall be on a continuous basis, with any provision for cancellation to include that a minimum 30 day notice of cancellation or non-renewal be sent by certified mail to the Town of Etna.
- ix. An inventory of all of the provider's existing and approved towers, antennas or sites within the town of Etna and locations in surrounding communities where wireless telecommunications are proposed to be utilized in conjunction with the facility proposed in the application.

- x. Photos showing site vegetation, existing and adjacent structures, views of and from the proposed site, topography, and land uses on the proposed parcel and on abutting properties.
- xi. Landscaping plan reflecting location of proposed screening and fencing, planing areas, proposed plantings, existing plant materials to be retained and trees or shrubs to be removed.
- xii. Elevation drawings, cross-sectional area or silhouette, of the facility, drawn to scale, and showing all measurements, both linear and volumetric, showing front, sides and rear of the proposed facility including all fencing, supporting system for transmission cables running between the tower and accessory structures, control panels, antennas, and existing structures and trees. Reference any design characteristics that have the effect of reducing or eliminating visual obtrusiveness.
- xiii. Detail of the tower base or method of attachment to a structure. If the facility will be attached to an existing building or structure, provide measurements and elevations of the structure.
- xiv. A visual analysis, which may include photo montage, field mock up, or other techniques, which identifies the potential visual impacts, at design capacity, of the proposed facility. Consideration shall be given to views from public areas as well as from private residences and from archaeological and historic resources including historic districts, area and structures, specifically those listed in the National Register of Historic Places or those that are eligible for such listing. The analysis of the impact on historical and archaeological resources shall meet the requirements of the Maine State Historic Preservation Officer in his/her review capacity for the FCC. The analysis shall identify and include all feasible mitigation measures consistent with the technological requirements of the proposed communication service, identify any other telecommunication facilities existing or proposed on the site, & show details of all accessory structures including buildings, parking areas, utilities, gates, access roads, etc.

Article II - Section C - Structural & Design Standards

1. Structural Standards For Towers and Antenna Supporting Structures

- a. Telecommunication towers shall be designed and installed in accordance with the most current standards of the Electronic Industries Association (EIA) - Structural Standards for Steel Antenna.

- b. The applicant's engineer shall provide documentation showing that the proposed transmission tower meets or exceeds the most current standards of the American National Standards Institute ANSI/EIA/TIA-222 for Penobscot County relative to wind and 1/2" ice loads when the tower is fully loaded with antennas, transmitters, and other equipment as described in the submitted plan.
- c. For towers or antennas placed on buildings or alternative tower structures, the applicant shall also provide written certification that the building or ATS itself is structurally capable of safely supporting the tower or antennas and their accompanying equipment.

2. Design Standards For Wireless Communication Facilities

- a. Except where dictated by federal or state requirements, the Planning Board may require that a proposed tower be camouflaged or designed to blend with its surroundings. This may include, but is not limited to, having a galvanized finish, being painted "flat blue-gray or in a skytone above the top of surrounding trees and earthtone below treetop level. Wireless telecommunication facilities shall not be sited in areas of high visibility unless the Planning Board finds that no other location is technically feasible. If the facility is to be sited above the ridgeline it must be designed to minimize its profile by blending with the surrounding existing natural and man-made environment. Applicant must show that mitigation measures have been utilized to screen antennas and towers from view from public right of ways & scenic vistas, via landscaping, fencing or other architectural screening. Applicant must show that creative design measures have been employed to camouflage facilities by intergrating them with existing buildings and among other uses.
- b. Equipment facilities shall be adjacent to the tower base unless an alternative location will be less visually obtrusive or topographic considerations require an alternative location.
- c. Equipment facilities shall be no taller than one story in height and shall be treated to look like a building or facility typically found in the area.
- d. No obstruction painting or any lighting shall be permitted on any towers, except where dictated by federal or state requirements.
- e. If lighting is required, the Planning Board may review the available lighting alternatives and approve the design that would cause the least disturbance to the surrounding properties and views.
- f. Manually operated or motion detecting security lighting is permitted.

- g. The Planning Board may require special design of the facilities where findings of particular sensitivity are made (e.g., proximity to historic or aesthetically significant structures, views and/or community features).
- h. Sufficient anti-climbing measures and other security measures preventing access to the site shall be incorporated into the facility, as needed, to reduce the potential for trespass and injury.
- i. Antenna arrays located on an existing structure or alternative tower structure shall be placed in such a manner so as to not be visible from a ground level view adjacent to the structure. If, however, circumstances do not permit such placement, the antenna array shall be placed and colored to blend into the architectural detail and coloring of the host structure.
- j. No facility shall be located so as to create a significant threat to the health or survival of rare, threatened or endangered plant or animal species.
- k. The replacement of all or portions of a WCF previously removed requires a new site plan approval.
- l. Applicant must show that other technically feasible sites have been investigated & if available the proposed facility has been re-located in order to minimize the effect of the location on visually sensitive areas such as residential communities, historical areas & open space areas.

Article II - Section D - Inspections

- 1. Inspection of towers by a Registered Professional Engineer in the State of Maine shall be performed to insure structural integrity. Such inspections shall be performed as follows:
 - a. Monopole towers - at least once every seven years following completion of construction. The inspection shall take place between the sixth and seventh year of the repeat sequence
 - b. Self-supporting towers - at least once every five years following completion of construction. The inspection shall take place between the fourth and fifth year of the repeat sequence.
 - c. Guyed towers - at least once every three years following completion of construction. The inspection shall take place between the second and third year of the repeat sequence.

Article III - Section A - Waiver Provisions

1. The Planning Board, in its sole discretion, may modify or waive any of the submission requirements, application procedures, or standards of this ordinance when it determines that, because of the type or size of the project or circumstances of the site, such requirements would not be applicable or would be unnecessary to determine compliance with the approval standards. The Planning Board must additionally determine that such modification or waiver would not adversely affect properties in the vicinity or the general safety and welfare of the Town. The burden of proof regarding any such modification or waiver rests solely with the applicant and must be shown to be consistent with federal and state law.

2. Notwithstanding the authority of the Planning Board to grant a waiver, in no instance may the height of a new tower exceed 250 ft. nor may the height of an alternative tower structure be increased to more than 250 ft.

Article III - Section B - Amendments

Any change to existing, previously approved or proposed towers requires site plan approval. Changes include, but are not limited to, modifications to approved height and to approved attachments such as antennas and dishes as well as requests for additional attachments.

Article III - Section C - Review & Approval/Denial Process

1. Upon receipt of an application the Planning Board shall provide the applicant with a dated receipt. Within five (5) working days of receipt of an application the Planning Board shall review the application and determine if the application meets the submission requirements. The Planning Board, as appropriate, shall review any requests for a waiver from the submission requirements and shall act on these requests prior to determining the completeness of the application.

2. If the application is complete, the Planning Board shall notify the applicant in writing of this determination and require the applicant to provide a sufficient number of copies of the application to the Planning Board.

3. If the application is incomplete, the Planning Board shall notify the applicant in writing, specifying the additional materials or information required to complete the application.
4. If the application is deemed to be complete, and requires Planning Board review, the Planning Board shall notify all abutters to the site as shown on the Assessor's records, by first-class mail, that an application has been accepted. This notice shall contain a brief description of the proposed activity and the name of the applicant, give the location of a copy of the application available for inspection, and provide the date, time, and place of the Planning Board meeting at which the application will be considered. Failure on the part of any abutter to receive such notice shall not be grounds for delay of any consideration of the application nor denial of the project.
5. Upon receipt of a complete application under this Ordinance, the Planning Board shall select an independent consultant, who shall be a qualified professional with a record of service to municipalities and/or industry in the field of telecommunications engineering. Said consultant shall review the application and provide a report to the Planning Board within thirty (30) days, regarding the accuracy and significance of the information provided in the application. The cost of the consultant's services shall be in addition to the fees set forth in Section II.B.5.a.ii above (see page 6) & applicant shall reimburse the Town of Etna for the consultants' fees prior to the issuance of the final permit.
6. For applications for Planning Board approval, a public hearing shall be held within 60 days of the notice of the complete application.
7. Within thirty (60) days of receiving a complete application, the Planning Board shall approve, approve with conditions, or deny the application in writing, together with the findings on which that decision is based. The Planning Board shall approve the application if the Planning Board finds that the application complies with the provisions of this ordinance. The Planning Board shall notify all abutters of the decision to issue a permit.

Article III - Section D - Removal Of Abandoned Wireless Communication Facility

1. The owner of a wireless communication facility shall notify the Planning Board of the date of cessation of use of the facility or any component(s) thereof a minimum of 30 days prior to the date of such cessation. If the owner fails to give the notice required by this paragraph, the Planning Board shall make a determination of such date, which determination shall be conclusive.
2. Any WCF or component thereof that is not operated for a continuous period of twelve (12) months shall be considered abandoned. The owner of an abandoned WCF or component thereof shall remove it within ninety (90) days of receipt of notice from the Code Enforcement Officer of determination of abandonment.

3. When no WCF or component thereof, has been operated by a tower or ATS owner; or by a co-locating entity, for a period of 12 months, then the tower or ATS shall be considered abandoned. The owner of said tower or ATS shall, within ninety (90) days of receipt of notice from the Code Enforcement Officer, remove all above ground structures, equipment, foundations, guy anchors, utilities and access roads or driveways specifically constructed to service the tower, structures, equipment or utilities and the land shall be returned to a condition as near to the original (pre construction) condition as possible.

4. If there are two or more users of a single tower or WCF, then the WCF shall not be considered abandoned until all users cease using the tower or WCF.

5. If all antennas above a manufactured connection on a tower are removed, the resulting unused portions of the tower shall subsequently be removed within six (6) months.