

TOWN OF STOW STOW, MASSACHUSETTS



ZONING BYLAW

May 6, 2008 ZONING BYLAW AMENDMENTS

Adopted: May 6, 2008

(Approved by Attorney General – Pending)

ANNOTATED COMPARISON

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3.12 Intentionally left blank ~~Wireless Communications Facilities Moratorium~~

(Wireless Communications Facilities Moratorium deleted May 6, 2008)

3.12.1 ~~Purpose~~

~~The purpose of the wireless communications facilities moratorium is to allow the Planning Board and a 5 member Wireless Subcommittee of Town residents, appointed by the Planning Board, sufficient time to undertake a comprehensive study and analysis with respect to regulating the use of land in the Town of Stow for wireless communications facilities and develop a comprehensive proposed zoning bylaw amendment regulating the location, height, size, appearance, screening, site standards, land structure relationships, buffer requirements and all other aspects of wireless communications facilities. Town Meeting believes it prudent and appropriate to have conducted a comprehensive study and analysis prior to adopting a zoning bylaw amendment regulating all aspects of wireless communications facilities.~~

3.12.2 ~~Justification~~

~~There have been significant changes in the past five years in the federal law regulating wireless communications facilities because of the enactment of the Telecommunications Act of 1996 by the United States Congress; and~~

~~The telecommunications field is experiencing rapidly evolving technology that offers alternatives to the erection of wireless communications towers such as the placement of antennas in and on buildings and other structures; and~~

~~The Town of Stow has a limited number of potential sites which would be suitable for the construction of wireless communications facilities, and a comprehensive study of the suitability of such sites was not done prior to the adoption of the existing provisions of the Zoning Bylaw relative to wireless communications facilities; and~~

~~The Town of Stow must take into account probable future development according to the plans and programs established by the Town, as may be amended, so as to prevent inappropriate development and to plan for the protection of the public health, safety and welfare of its present and future inhabitants; and~~

~~Recent federal and state case law has supported a municipality’s ability to ensure the appropriate siting of telecommunication facilities, consistent with a municipality’s obligation under the Telecommunications Act and the municipality’s police power obligations to protect public health, safety and welfare; and~~

~~The existing provisions of the Zoning Bylaws relative to wireless communications facilities need to be studied in order to give complete consideration to the appropriate limits on height of towers, separation between towers, setbacks for towers, facility testing and monitoring, so called stealth technology, testing requirements for visual~~

~~impact, the appropriate types of structures to be permitted, locations of structures and other factors; and~~

~~The Planning Board and the appointed Subcommittee has begun an earnest and comprehensive study of said subjects and factors but needs an additional six (6) months to complete its study and make recommendations to the Planning Board and Town Meeting.~~

~~Now, therefore, and consistent with the rationale provided above and consistent with the Town's police powers and coincident obligations, the Town adopts the following moratorium with respect to Wireless Communication Facilities.~~

~~3.12.3. Moratorium Provisions~~

~~No wireless communications facility or structure appurtenant or accessory to a wireless communication facility shall be constructed, nor shall any building permit, special permit, variance or site plan approval decision for any such facility be issued in the Town of Stow for a period of six (6) months from the effective date of this Zoning Bylaw amendment.~~

~~3.12.4. Moratorium Expiration~~

~~Unless extended, continued or modified by a subsequent action of Town Meeting, the provisions of this Moratorium shall expire six (6) months from its effective date or upon approval by the Attorney General and subsequent posting by the Town Clerk, of the Wireless Service Facility bylaw contained in Article 13 of the February 12, 2001 Special Town Meeting Warrant, whichever is sooner.~~

~~3.12.5. Exemptions~~

~~The following types of wireless communications facilities are exempt from the provisions of Section 3.12.3:~~

~~3.12.5.1 Wireless communications facilities insofar as they qualify for exemptions from zoning regulation as set forth in G.L. c. 40A, Section 3, but only to the extent of the degree exempted by said G.L. c.40A, Section 3; and~~

~~3.12.5.2 Wireless communications facilities constructed by the Town of Stow for public safety communications purposes, if the applicant for said facility is an office, department or agent of the municipal government of the Town of Stow, Massachusetts.~~

ANNOTATED COMPARISON

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4.3 Area, Frontage, YARD, and FLOOR AREA Requirements

4.3.1 No BUILDING shall be ERECTED unless in conformity with the requirements on the Table, following, except:

4.3.1.1 eaves, sills, cornices, belt cornices and window awnings may project up to two feet into the required YARD;

4.3.1.2 on a corner LOT in order to provide unobstructed visibility at intersection, no SIGN, FENCE, WALL, tree, hedge, or other vegetation, and no BUILDING or other STRUCTURE more than three (3) feet above the established STREET grades measured from a plane through the curb grades or the height of the crown of the STREET, shall be ERECTED, placed or maintained within the area formed by intersecting STREET LINES and a straight line joining said STREET LINES at points which are twenty-five (25) feet distant from the point of intersection, measured along said STREET LINES; and

4.3.1.3 further, no YARD, LOT area or OPEN SPACE required for a BUILDING by this Bylaw, shall, during the existence of such BUILDING, be occupied by or counted as OPEN SPACE for another BUILDING. No LOT area shall be so reduced or diminished that the YARDS or other OPEN SPACES shall be smaller than prescribed by this Bylaw.

4.3.1.4 A detached ACCESSORY BUILDING or a swimming pool may be ERECTED in the REAR or SIDE YARD area in conformance with the YARD requirements of the district in which it is located. An ACCESSORY BUILDING attached to its principal BUILDING shall be considered an integral part thereof, and as such shall be subject to the FRONT, SIDE and REAR YARD requirements applicable to the principal BUILDING;

4.3.2 Methods for Calculating Dimensional Requirements - The following shall apply:

4.3.2.1 LOT area - LOT area shall be determined by calculating the area within a LOT including any area within the LOT over which easements have been granted, provided that no area within a STREET shall be included in determining minimum LOT area. Water area beyond ten (10) feet from the shore lines shall not be included in determining the minimum LOT area. Furthermore, in all districts, at least 50% of the minimum required LOT area shall be land which is not in a wetlands or Flood Plain/Wetlands District.

4.3.2.2 Frontage shall be contiguous and measured along the STREET LINE.

- a) For a corner LOT, frontage shall be measured along one STREET only, including one half of the corner arc, or that portion of the corner arc not exceeding twenty-five (25) feet, whichever is less.

- b) If a LOT has frontage on more than one STREET, the frontage on one STREET only may be used to satisfy the minimum LOT frontage.
- 4.3.2.3 Area Suitable for BUILDINGS - Except in the case of hammerhead LOTS as permitted in a Residential District, each LOT in a Residential District shall have sufficient area suitable for BUILDINGS. The area suitable for BUILDINGS shall be considered sufficient if: (a) a circle of 150 feet in diameter, or, (b) a rectangle with an area of 20,000 square feet and a minimum side of 80 feet can be drawn on the LOT plan without overlapping any LOT line or any wetlands or Flood Plain/Wetlands District.
- 4.3.2.4 LOT Width - In the Residence District, each LOT shall have a minimum width of at least 100 feet between the STREET LINE and the area suitable for BUILDINGS. A LOT meets the minimum width requirement if a 100-foot diameter circle can move on the LOT plan from the STREET LINE to the area suitable for BUILDINGS without overlapping any side or rear LOT line or any Flood Plain/Wetlands District line.
- 4.3.2.5 LOT Shape - No LOT shall be laid out which is substantially irregular in shape. For purposes of this provision, substantially irregular is defined as a LOT having an index of regularity lower than four-tenths (0.4) as determined by the following formula.

When the LOT is a hammerhead LOT, the index of regularity shall not be lower than 0.25.

$$r = \frac{16a}{p^2}$$

Where: r = The index of regularity
a = The area of the LOT in square feet.
p = The perimeter of the LOT in linear feet.

Provisions of this section shall not apply to LOTS shown on a plan and part of an application for a special permit or subdivision, the application for which has been duly filed as required by this Zoning Bylaw or the Massachusetts General Laws before the first publication of notice of the public hearing on such amendment required by Massachusetts General Laws Ch. 40A, s. 5.

- 4.3.2.6 Front YARDS - Front YARDS shall be the distance measured in a straight line between the LOT frontage and the nearest point of any BUILDING or STRUCTURE, excluding roof overhangs. Roof overhangs shall not extend further than two feet into the minimum required front YARD.
- a1)** A LOT having frontage on two or more STREETS shall have two or more front YARDS, each of which shall comply with the requirements of the front YARD provisions.
- b2)** In no case shall any BUILDING or STRUCTURE be located closer to the sideline of a STREET than the minimum required front YARD.
- e3)** Driveways are allowed within FRONT YARDS.
- 4) Septic system STRUCTUREs are allowed within the FRONT YARD and shall comply with requirements established by the Board of Health.**

4.3.2.7 Side and Rear YARDS - Side and rear YARDS shall be the distance measured in a straight line from the nearest point of any BUILDING or STRUCTURE to each side or rear LOT line, excluding roof overhangs. Roof overhangs shall not extend further than two feet into the minimum required SIDE or rear YARD.

1) Septic system STRUCTUREs are allowed within the SIDE and REAR YARD and shall comply with requirements established by the Board of Health.

2) Intentionally left blank..

3) Driveways are allowed within the SIDE and REAR YARD setbacks.

4.3.2.8 FLOOR AREA RATIO - The ratio of the sum of the GROSS FLOOR AREA of all BUILDINGs on a LOT to the DEVELOPABLE SITE AREA of the LOT.

5.3 Wireless Service Facility

5.3.1 Objectives

This Section permits the construction and use of Wireless Service Facilities within Stow, regulates their impacts and accommodates their location and use in a manner intended to:

- A. Protect the scenic, historic, natural and man-made resources of the town;
- B. Preserve the general safety, welfare and quality of life in the community;
- C. Protect property values;
- D. Protect the environment;
- E. Guide sound development and encourage the most appropriate use of the land;
- F. Encourage the use of certain existing Towers and structures;
- G. Limit the total number and height of such facilities to what is essential to meet the need;
- H. Promote shared use of facilities where appropriate to reduce the need for new facilities, and
- I. Comply with the Communication Act of 1936 as amended by the Federal Telecommunications Act of 1996.

5.3.2 Applicability

- A. No Wireless Service Facility shall be ERECTED or installed except in compliance with the provisions of this Section.
- B. The requirements of this section shall apply to all Wireless Service Facilities, except where Federal or State Law or Regulations exempt certain users or uses from all or portions of the provisions of this section.
- C. No Wireless Service Facility shall be considered exempt from this section by sharing a MOUNT or FACILITY SITE with such exempt uses.

5.3.3 Definitions

In addition to the terms defined in Section 1.3, Definitions, of this Bylaw, the following words, which are technical terms applying to Wireless Service Facilities, shall have the meaning indicated below. Although set forth here for convenience, the terms shall have the same effect as if set forth in Section 1.3, Definitions.

- A. ACT: The Federal Telecommunications Act of 1996.
- B. ABOVE GROUND LEVEL (AGL): A measurement of height from the natural grade of a site, prior to disturbance, to the highest point of a structure with appurtenances.
- C. ANTENNA: A device by which electromagnetic waves are sent or received (whether a dish, rod, mast, pole, set of wires, plate, panel, line, cable or other arrangement serving such purpose).

- D. **APPLICANT:** The applicant or co-applicant for any special permit or site plan approval for a Wireless Service Facility shall be a provider of WIRELESS SERVICES, as defined herein, or other entity that has authority from the FCC to provide WIRELESS SERVICES for the facility being proposed. The applicant shall submit documentation of the legal right to install and use the proposed facility at the time of the filing of the application for the permit or approval.
- E. **AVAILABLE SPACE:** The space on a Tower or other structure to which ANTENNAS of a Carrier are able to fit structurally and to be technologically feasible.
- F. **CAMOUFLAGED:** A Wireless Service Facility or components that are disguised, painted, colored or hidden by a purpose-built decoy that is made part of an existing or proposed structure or made to resemble an architectural feature of the building or structure on which it is placed.
- G. **CARRIER:** An entity that provides Wireless Services, as defined herein, to individuals, businesses or institutions. Synonymous with Wireless Service Provider.
- H. **CHANNEL:** One of the assigned sub bands of radio frequencies as defined in the ACT, licensed to the CARRIER for wireless service use.
- I. **CO-LOCATION:** The use of a single MOUNT by more than one CARRIER and/or several MOUNTS on a building or structure by more than one CARRIER. Each service co-located at a site is a separate Wireless Service Facility. CARRIERS operating more than one service at a site will be considered to have more than one facility co-located at the site.
- J. **CONCEALED:** A Wireless Service Facility or components are CONCEALED when they are within parts of a building or other structure that was built for another purpose and that is not visible from outside the structure.
- K. **ENVIRONMENTAL ASSESSMENT:** An EA is the document required by the National Environmental Policy Act (NEPA) when a Wireless Service Facility is placed in certain designated areas.
- L. **EQUIPMENT SHELTER:** An enclosed structure, cabinet, shed or box at the base of the Mount within which are housed batteries, generators and electrical equipment.
- M. **FACILITY SITE:** A lot or parcel, or any part thereof, that is owned or leased by one or more CARRIERS and upon which one or more Wireless Service Facility(s) and required landscaping are located.
- N. **MODIFICATION OF AN EXISTING FACILITY:** Any material change or proposed change to a facility including but not limited to power input or output, number of ANTENNAS, change in ANTENNA type or model, repositioning of ANTENNA(s), or change in number of channels per ANTENNA above the maximum number approved under an existing permit or special permit.
- O. **MONITORING:** The measurement, by the use of instruments away from the ANTENNA, including measurements at the lot/leasehold boundary, of the

electromagnetic radiation from a site as a whole, or from individual Wireless Service Facilities, Towers, ANTENNAS, or associated power supplies and generators.

- P. **MONOPOLE:** A single, self-supporting vertical pole with no guy wires, and hollow such that the ANTENNA cables are CONCEALED within the structure.
- Q. **MOUNT:** The structure or surface upon which ANTENNAS are Mounted, including the following four types of Mounts:
1. **Roof-mount.** A mount attached to a building roof to which ANTENNAS are mounted.
 2. **Side-mount.** A mount attached to the side or other non-roof portion of a building to which ANTENNAS are mounted.
 3. **Ground-mount.** A mount anchored into the ground to which ANTENNAS are mounted. Ground mounts include purpose built structures such as poles, bases, posts, MONOPOLES, and towers.
 4. **Structure-mount.** A mount, attached to a structure other than a building, to which ANTENNAS are mounted.

In the absence of a separate structural component to hold an ANTENNA, the ANTENNA shall be considered to be its own ground, roof, side or structure mount.
- R. **RADIO FREQUENCY ENERGY (RFE):** The electromagnetic emissions from 9 kHz to 3,000 GHz.
- S. **SECURITY BARRIER:** A locked fence, a wall or berm that completely seals an area from unauthorized entry or trespass.
- T. **TOWER:** A ground or building MOUNT that is significantly taller than it is wide, built for the purpose of supporting wireless service transmitting, and/or receiving, ANTENNAS and/or related equipment. Components of the Wireless Service Facility used only to attach, contain, or support other elements of that facility are excluded from this definition provided such components are not integrated with, or attached directly to, the tower structure.
- U. **WIRELESS SERVICES:** Commercial mobile radio services, unlicensed Wireless Services, and common Carrier wireless exchange access services, as defined in the ACT. These services include, but are not limited to, cellular services, personal communication services (PCS), specialized mobile radio services, and paging services.
- V. **WIRELESS SERVICE FACILITY:** A complete system operated by one entity on one communications service that is installed at one site, which system contains ANTENNAS, transmission and/or reception equipment, and related equipment for the purpose of supporting wireless communications. A site may contain one or more Wireless Service Facilities.

5.3.4 Location of Facilities, Priorities

5.3.4.1 Wireless Service Facilities shall only be permitted by Special Permit from the Planning Board, acting as the Special Permit Granting Authority, in accordance with MGL Ch. 40A, s.9 on land located in the Wireless Service Facility District.

5.3.4.2 APPLICANTS shall demonstrate that they have investigated locations higher in priority ranking than the one for which they are applying and make a showing that demonstrates that the alternatives are singly or in aggregate insufficient to provide the necessary coverage and/or singly or in aggregate more visible or otherwise have more of a detrimental impact on the community than use of the proposed location. A WIRELESS SERVICE FACILITY, ANTENNAS and MOUNTS shall be permitted according to the following priorities: (a. being the highest priority)

- a. on property occupied by the State Dept. of Fire Services, the State Entomology Lab and the portion of the former Ft. Devens Annex occupied by the Air Force;
- b. within an existing structure, CONCEALED;
- c. CAMOUFLAGED on an existing structure, such as but not limited to an existing electric transmission Tower or an existing radio Antenna, a water Tower or building provided that the installation of the new facility does not increase the height of the existing structure, and of a compatible design;
- d. on an existing structure and not to increase the height of the structure by more than 10 feet. In no case shall the height exceed 100 feet AGL except on land occupied by the State Dept. of Fire Services, the State Entomology Lab and the portion of the former Ft. Devens Annex occupied by the Air Force;
- e. co-located with existing Wireless Service Facilities located within the WIRELESS SERVICE FACILITY District where deemed appropriate by the Special Permit Granting Authority;
- f. co-located on a new MOUNT within the Wireless Service Facility District as deemed appropriate by the Special Permit Granting Authority, and
- g. if adequately demonstrated to the Planning Board in the special permit process that each of the above types of locations is not feasible, erection of a new facility that complies with the requirements of this section and where visual impact can be eliminated or minimized and mitigated to the maximum extent feasible, including height reductions, camouflaging and other means.

5.3.5 Wireless Service Facility District

This district shall be an overlay district and shall include all parcels of land located in the Industrial and Refuse Disposal Districts and on certain parcels of land in the Commercial and Residential Districts, and on land occupied by the State Dept. of Fire Services, the State Entomology Lab and the portion of the former Ft. Devens Annex occupied by the Air Force as depicted on a map dated January 23, 2001 and entitled "Wireless Service Facility District".

5.3.6 Special Permit

Any new WIRELESS SERVICE FACILITY and any proposed modification of a WIRELESS SERVICE FACILITY shall be allowed only by special permit from the

Planning Board as the Special Permit Granting Authority in accordance with MGL Ch. 40A, s.9, subject to the following requirements, conditions and limitations.

5.3.7 Dimensional, Screening and Other Site Development Requirements

5.3.7.1 Height - Notwithstanding the provisions of Section 4.2.1 of the Bylaw with respect to height

- a. Except on land occupied by the State Fire-fighting Academy, the State Entomology lab and the portion of the former Ft. Devens Annex occupied by the Air Force, the maximum height of a new WIRELESS SERVICE FACILITY shall not exceed 100 feet AGL or such lesser height as is established as the maximum height necessary, and shall not exceed a height that requires it to be illuminated at night under Federal Aviation Administration or Massachusetts Aeronautics Commission regulations, whichever is less.
- b. On land occupied by the state fire-fighting academy, the state entomology lab and the portion of the former Ft. Devens Annex occupied by the Air Force, the maximum height of a new WIRELESS SERVICE FACILITY shall not exceed 150 feet AGL.
- c. The height of all wireless mounts and facilities shall be proportional to, compatible with and appropriate to the site and surroundings. Factors to be considered include but are not limited to whether there is existing vegetation sufficient to screen the visual impact of the proposed WIRELESS SERVICES FACILITY, the height and density of existing structures and vegetation on and off-site, the presence of scenic views and vistas on and off-site, visual and economic impacts to residential properties off-site, and proposals to screen the visual impact of the structure(s) with landscaping on site or on other land controlled by the applicant.
- d. On land located outside the Wireless Service Facility District and within a residential district the maximum height shall not exceed 35 feet AGL and shall not result in adverse visual or economic impact.
- e. No waiver from these height limitations shall be granted except by a vote of Town Meeting.

5.3.7.2 Setbacks – No TOWER, MONOPOLE, or WIRELESS SERVICE FACILITY shall be located within:

- a. 1000 feet, measured on a horizontal plane, to all existing residential Buildings and schools or the footprint of a future residential building for which a Building Permit has been issued, except those residential buildings located on the LOT upon which the WIRELESS SERVICE FACILITY is to be constructed, provided, however, that the Special Permit Granting Authority may allow a setback of 900 feet measured on a horizontal plane when it finds that a substantially better design will result from such reduction. In making such a finding, the Special Permit Granting Authority shall consider the visual and safety impacts of the proposed use;
- b. 1000 feet, measured on a horizontal plane, to all existing municipal buildings, except those located on the LOT upon which the WIRELESS SERVICE

FACILITY is to be constructed, provided, however, that the Special Permit Granting Authority may allow a setback of 900 feet measured on a horizontal plane when it finds that a substantially better design will result from such reduction. In making such a finding, the Special Permit Granting Authority shall consider the visual and safety impacts of the proposed use; and

- c. 200 feet from existing non-residential buildings except those located on the LOT upon which the WIRELESS SERVICE FACILITY is to be constructed;
- d. Any WIRELESS SERVICE FACILITY shall comply with front, side, and rear YARD dimensional requirements of Section 4.4, Table of Dimensional Requirements, except that such dimensional requirements may be altered by the Planning Board if it finds that a substantially better design will result. In making such a finding, the Planning Board shall consider both the visual and safety impacts of the proposed WIRELESS SERVICE FACILITY.

5.3.7.3 Shelters and Accessory Buildings - EQUIPMENT SHELTERS for Wireless Service Facilities shall be designed to be consistent with one of the following design standards:

- a. EQUIPMENT SHELTERS shall be located in underground vaults; or
- b. EQUIPMENT SHELTERS shall be designed to be consistent with traditional New England architectural styles and materials. Alternative materials may be used provided that the Special Permit Granting Authority finds the materials to be consistent with character of the neighborhood; or
- c. EQUIPMENT SHELTERS shall be screened behind an effective year-round landscape buffer, equal to the height of the proposed building, and/or wooden fence. The Special Permit Granting Authority shall determine the style of fencing and/or landscape buffer that is compatible with the neighborhood.

5.3.7.4 Security, Signs

- a. All Ground Mounted Wireless Service Facilities shall be surrounded by a SECURITY BARRIER to ensure they are completely secure from trespass or vandalism.
- b. A one square foot sign shall be posted adjacent to the entry gate indicating the name of the facility owner(s) and a 24-hour emergency telephone number(s).
- c. Advertising on any ANTENNA, TOWER, fencing, accessory building or communication EQUIPMENT SHELTER is prohibited.

5.3.7.5 Lighting - No exterior night lighting of TOWERS or the WIRELESS SERVICE FACILITY is permitted except for manually operated low intensity security lights installed at or near ground level for use when operating personnel are on site.

5.3.7.6 Historic Buildings and Structures

- a 1)** Any WIRELESS SERVICE FACILITY located on or within a historic structure shall not alter the character-defining features, distinctive construction methods, or original historic materials of the building, or
- b 2)** Any alteration made to a historic ~~structure~~ **BUILDING or STRUCTURE** to accommodate a WIRELESS SERVICE FACILITY shall be fully reversible.

5.3.7.7 Environmental Standards

- a. Existing vegetation shall be preserved to the maximum extent practicable.
- b. Electric utilities and all network interconnections from the WIRELESS SERVICE FACILITY via land lines shall be via underground lines.
- c. No hazardous waste shall be discharged on the site of any WIRELESS SERVICE FACILITY. If any hazardous materials are to be stored or used on site, there shall be provisions for full containment of such materials. An enclosed containment area shall be provided with a sealed floor, designed to contain at least 110% of the volume of the hazardous materials stored or used on the site.
- d. Storage of any materials other than those customarily used at the site shall be prohibited.

5.3.7.8 Noise - Ground-Mounted, Roof-Mounted or Side-Mounted equipment for WIRELESS SERVICE FACILITY shall not generate acoustic noise in excess of those levels allowed by the Massachusetts Department of Environmental Protection noise regulation, 310 CMR 7.10 or its successor.

5.3.7.9 RADIO FREQUENCY ENERGY (RFE) Standards - All equipment proposed for a WIRELESS SERVICE FACILITY shall be evaluated for safety compliance per the FCC *Guidelines for Evaluating the Environmental Effects of Radio Frequency Radiation* or their successor.

5.3.8 New WIRELESS SERVICE FACILITY - Any new freestanding MOUNT in the Wireless Service Facility District shall be of a MONOPOLE construction with internal ANTENNAS designed to be visually unobtrusive or with surface MOUNT ANTENNAS as determined to be appropriate for the circumstances by the Planning Board or other less obtrusive design as it becomes available.

5.3.9 Justification of Need

5.3.9.1 Coverage Area - The APPLICANT shall provide a map of the geographic area in which the proposed facility will provide Wireless Service. Said map shall be provided as a colored hard copy and in a digital format that is compatible with the Town of Stow Geographic Information System program(s). The APPLICANT shall provide documentation of the criteria and methodology employed to establish coverage area.

5.3.9.2 Adequacy of Other FACILITY SITES and Controlled by the APPLICANT - The APPLICANT shall provide written documentation of any FACILITY SITES in the town and in abutting towns or cities in which it has a legal or equitable interest, whether by ownership, leasehold or otherwise. Said documentation shall demonstrate that these FACILITY SITES do not already provide, or do not have the potential to provide WIRELESS SERVICES by site adjustment.

5.3.9.3 Capacity of Existing FACILITY SITES and Potential FACILITY SITES - The APPLICANT shall provide written documentation that it has examined all FACILITY SITES located in the town and in abutting towns or cities in which the APPLICANT has no legal or equitable interest to determine whether those existing facilities can be used to provide Wireless Service. In addition, the APPLICANT shall provide written documentation that it has examined existing commercial Buildings

and Structures for opportunities to construct roof and side MOUNTS, or otherwise demonstrate that such a facility is not technologically feasible as a potential FACILITY SITE. The APPLICANT shall demonstrate that potential FACILITY SITES will not provide similar coverage to the APPLICANT'S confirmed Co-locators.

5.3.9.4 Wireless Service Through the Least Disruptive Means –The APPLICANT shall provide written documentation that the proposed facility uses the least disruptive technology (through the creative use technology and materials) in which it can provide WIRELESS SERVICES in conjunction with all FACILITY SITES listed above.

5.3.10 Application

5.3.10.1 APPLICANT - The APPLICANT or co-APPLICANT for any special permit or site plan approval for a WIRELESS SERVICE FACILITY shall be a CARRIER that has authority from the FCC to provide WIRELESS SERVICES for the facility being proposed. The APPLICANT shall submit documentation of the legal right to install and use the proposed facility at the time of the filing of the application for the permit or approval.

5.3.10.2 Pre-Application Conference - Prior to the submission of an application for a Special Permit under this bylaw provision, the APPLICANT is strongly encouraged to meet with the Special Permit Granting Authority at a public meeting to discuss the proposed WIRELESS SERVICE FACILITY in general terms and to clarify the filing requirements.

5.3.10.3 Pre-Application Filing Requirements - The purpose of the conference is to inform the Special Permit Granting Authority as to the preliminary nature of the proposed WIRELESS SERVICE FACILITY. As such, no formal filings are required for the pre-application conference. However, the APPLICANT is encouraged to prepare sufficient preliminary architectural and/or engineering drawings to inform the Special Permit Granting Authority of the location of the proposed facility, as well as its scale and overall design.

5.3.10.4 Demonstrated Co-Locators – If proposing CO-LOCATION, the APPLICANT shall submit written proof of commitment.

5.3.11 WIRELESS SERVICE FACILITY Regulations

The Special Permit Granting Authority shall adopt and maintain a set of regulations that contains the necessary policies, procedures, and requirements to implement the provisions of this Section. At a minimum, such regulations shall require the APPLICANT to provide the following materials with the application:

- a. A town-wide map showing all existing Wireless Service Facilities in Stow and those within two miles of its corporate limits, including those recently approved but not constructed.
- b. The proposed locations of all future Wireless Service Facilities known to be under consideration in the Town on a Town-wide map for this CARRIER.
- c. An appraisal, prepared by a state-certified real estate appraiser, of the economic impact on property values within view of the proposed facility, based upon the

impact of substantially similar wireless facilities in substantially similar communities. For the purposes of this paragraph, substantially similar communities shall include communities from the Commonwealth of Massachusetts, with similar market demand, population density and rural character.

- d. The results of a drive test conducted by the APPLICANT and based on the pre-application conference.
- e. Sight lines, photographs and other visual materials as described below:
 - 1) Sight line representation. A sight line representation shall be drawn from any public road within 1500 feet and the closest facade of each residential building (viewpoint) within 1500 feet to the highest point (visible point) of the WIRELESS SERVICE FACILITY. Each sight line shall be depicted in profile, drawn at one-inch equals 40 feet. The profiles shall show all intervening trees and Buildings. In the event there is only one (or more) residential building within 1500 feet there shall be at least two sight lines from the closest habitable structures or public roads, if any.
 - 2) Existing (before condition) photographs. Each sight line shall be illustrated by one four-inch by six-inch color photograph of what can currently be seen from key locations on any roadways determined by the Special Permit Granting Authority to be relevant to the requested special permit.
 - 3) Proposed (after condition). Each of the existing condition photographs shall be based on crane or balloon tests and shall have the proposed WIRELESS SERVICE FACILITY superimposed on it to show what will be seen from key locations on any roadways determined by the Special Permit Granting Authority to be relevant to the requested special permit if the proposed WIRELESS SERVICE FACILITY is built. Original photos of crane or balloon test shall be supplied to verify authenticity of the digital simulations.
 - 4) The APPLICANT shall submit a map of the town that has been annotated with the data collected during the crane or balloon test. The roadways, determined by the Planning Board to be relevant to the requested special permit, shall be highlighted in one color, the points where the crane or balloon was visible at all shall be highlighted in another color, and the points where there is an unscreened view of the crane or balloon shall be highlighted in a third color. The APPLICANT shall designate on the map the location from which the photographs were taken.
 - 5) The APPLICANT shall submit a map showing the broadcast footprints coverage areas created by varying antenna heights at 50, 75, and 100 feet AGL and at 150 feet AGL where the latter height is permitted. The map shall indicate the different signal strengths and the parameters used to arrive at the data. An explanation of the reasons for selecting the signal strength(s) used to characterize coverage shall be provided. As a minimum the following shall be provided with each map: frequency in MHz, transmitter power output per channel, transmit and receive antenna gains, line loss and amplifier gains (if any), effective radiated power per channel in watts, all quality-of-service assumptions used (including factors for attenuation through foliage and/or

structures), signal strength required to meet the stated quality-of-service assumptions. and identification of the computer software used to generate the footprints. The applicant shall also include, on a separate map of the same scale, signal-strength footprints indicating any existing coverage within the Town of Stow from any applicant-owned or -operated sites in Stow and any existing coverage from adjacent towns that meet the stated quality-of-service assumptions.

- f. Within 21 days of filing an application for a Special Permit, the APPLICANT shall arrange for a crane or balloon test, satisfactory to the Planning Board, at the proposed site to illustrate the height of the proposed facility. The date, time and location of such test shall be advertised in two newspapers of general circulation in the Town at least 14 days, but not more than 28 days prior to the test. Notification of the test shall be mailed to all postal patrons in Stow. Notification shall also be sent via certified mail with return receipt requested to all parties in interest. The test shall illustrate the proposed height and each subsequent ten-foot interval downward to the vegetation line, or ground, whichever is earlier.
- g. Noise Filing Requirements: The APPLICANT shall provide a statement demonstrating the impact of the proposed facility on the acoustic noise environment in the vicinity of the facility. The following conditions shall apply:
 - 1) Existing ambient conditions: characterize existing acoustic noise conditions in the area.
 - 2) Existing plus proposed conditions: characterize acoustic noise produced by the proposed WIRELESS SERVICE FACILITY in relation to the existing ambient conditions as it would affect nearby parcels.
 - 3) If the acoustic noise levels produced by the proposed WIRELESS SERVICE FACILITY are expected to approach or exceed the Massachusetts Department of Environmental Protection requirements, the Planning Board may require a more detailed analysis and/or field measurements prior to rendering its decision on an application, or as a condition of the Special Permit, or in other such manner as deemed by the Planning Board to be appropriate.

Such statement shall be certified and signed by an acoustical engineer, stating that noise measurements are accurate.

- h. RADIO FREQUENCY ENERGY (RFE) Filing Requirements: The APPLICANT shall provide a statement listing the existing and maximum future projected levels of RFE from the proposed WIRELESS SERVICE FACILITY, for the following situations:
 - 1) Existing, or ambient: characterize existing RFE sources in the area;
 - 2) Existing plus proposed wireless service facilities: characterize RFE from the proposed WIRELESS SERVICE FACILITY plus the existing RFE environment and estimated cumulative RFE impacts, and
 - 3) Certification, signed by a Radio Frequency (RF) engineer, experienced in the field of evaluating RF standards, stating that RFE characterizations are accurate and meet FCC Guidelines as specified in the RFE Standards sub-section of this Bylaw.

5.3.12 Approval Criteria

- 5.3.12.1 A special permit shall be granted under this section only if the Special Permit Granting Authority finds that the project is in harmony with the general purpose and intent of the Bylaw and the Special Permit Granting Authority's Rules & Regulations. In addition, the Special Permit Granting Authority shall make all of the applicable findings before granting the special permit, as follows:
- a. that the APPLICANT is not already providing coverage or is unable to maintain coverage, to the extent that the town is required to accommodate such coverage under federal law, without the special permit;
 - b. that the APPLICANT is not able to use existing FACILITY SITES within the overlay district to provide coverage to the extent that the town is required to accommodate such coverage under federal law; and that the proposed WIRELESS SERVICE FACILITY minimizes or prohibits, as appropriate, any adverse impact on historic resources, scenic views, residential property values, natural or man-made resources, and the public welfare;
 - c. that the APPLICANT has agreed to implement all reasonable measures to mitigate the potential adverse impacts of the facilities;
 - d. that the facility shall comply with the appropriate FCC regulations regarding emissions of electromagnetic energy and that MONITORING shall be paid for by the APPLICANT;
 - e. that the proposed MOUNT is designed to accommodate the maximum number of users technologically practical but not less than three (3) unless a lesser number is deemed appropriate by the Special Permit Granting Authority;
 - f. that the APPLICANT has agreed to rent or lease AVAILABLE SPACE on any TOWER it controls within Stow or its contiguous towns, under the terms of a fair-market lease, without discrimination to other Wireless Service CARRIERS;
 - g. that the facility is in compliance with applicable Federal Aviation Administration (FAA), Federal Communications Commission (FCC), Massachusetts Aeronautics Commission, and the Massachusetts Department of Public Health regulations, and
 - h. that the proposed WIRELESS SERVICE FACILITY complies with all applicable requirements of this Bylaw.
- 5.3.12.2 If a special permit is granted, the Special Permit Granting Authority may impose such additional conditions and safeguards as public safety, welfare and convenience may require.
- 5.3.12.3 Any decision by the Special Permit Granting Authority to deny a special permit under this section shall be in conformance with the ACT, in that it shall be in writing and supported by substantial evidence contained in a written record.

5.3.13 (Intentionally left blank)

5.3.14 Term of Permit

Any Special Permit issued for any WIRELESS SERVICE FACILITY shall be valid for not more than three (3) years, unless such time is extended by the Planning Board, by a period not to exceed one year, to accommodate the coordinated review of special permits for WIRELESS SERVICE FACILITIES. At the end of that time period, the WIRELESS SERVICE FACILITY shall be removed by the CARRIER or a new Special Permit shall be required.

5.3.15 Removal Requirements

- 5.3.15.1 At such time that a licensed CARRIER plans to abandon or discontinue operation of a WIRELESS SERVICE FACILITY, such CARRIER shall notify the Town by certified mail of the proposed date of abandonment or discontinuation of operations. Such notice shall be given no less than 30 days prior to abandonment or discontinuation of operations. In the event that a licensed CARRIER fails to give such notice, the WIRELESS SERVICE FACILITY shall be considered abandoned upon such discontinuation of operations.
- 5.3.15.2 Upon abandonment or discontinuation of use, the CARRIER shall physically remove the WIRELESS SERVICE FACILITY within 90 days from the date of abandonment or discontinuation of use. "Physically remove" shall include, but not be limited to:
- a. Removal of ANTENNAS, MOUNT, EQUIPMENT SHELTERS and SECURITY BARRIERS from the subject property.
 - b. Proper disposal of the waste materials from the site in accordance with local and state solid waste disposal regulations.
 - c. Restoring the location of the WIRELESS SERVICE FACILITY to its natural condition, except that any landscaping and grading shall remain in the after-condition.
- 5.3.15.3 If a CARRIER fails to remove a WIRELESS SERVICE FACILITY in accordance with this section of this Bylaw, the town shall have the authority to enter the subject property and physically remove the facility.
- 5.3.15.4 The Special Permit Granting Authority may require the APPLICANT to post a bond at the time of construction to cover costs for the removal of the WIRELESS SERVICE FACILITY in the event the Town must remove the facility.

5.3.16 Modifications - Modification of a WIRELESS SERVICE FACILITY may be considered equivalent to an application for a new WIRELESS SERVICE FACILITY and will require a Special Permit when the following events apply:

- 5.3.16.1 The APPLICANT and/or co-APPLICANT wants to alter the terms of the Special Permit by changing the WIRELESS SERVICE FACILITY in one or more of the following ways:
- a. Change in the number of facilities permitted on the site;
 - b. Change in the facilities that materially changes the facilities approved by the Massachusetts Department of Public Health, and
 - c. Change in the operating parameters of a facility, including, but not limited to, ANTENNAS and cables that increases their quantity or size, that changes in a

material way their orientation or other visible characteristics, or that exceeds specifications on the special permit.

5.3.16.2 The APPLICANT and/or co-APPLICANT propose to add any equipment or additional height not specified in the original approval.

5.3.17 Monitoring and Maintenance

5.3.17.1 Upon review of the RFE data submitted by the applicant pursuant to Sections 5.3.7.9 and 5.3.11.h, the Planning Board shall determine if the applicant must provide additional analysis or field monitoring of RFE safety compliance. The Planning Board may require additional information to be submitted prior to rendering its decision on an application, or as a condition of the Special Permit, or in other such manner as deemed by the Planning Board to be appropriate. The Planning Board shall also determine whether the application as proposed would be compliant with the Federal Communications Commission's regulations concerning environmental effects of radio frequency emissions. The Planning Board may engage the services of independent consultants at the expense of the applicant to evaluate the submissions of the applicant and make recommendations to the Planning Board.

5.3.17.2 Upon review of the acoustic noise data submitted by the applicant pursuant to Sections 5.3.7.8 and 5.3.11.g, the Planning Board shall determine if the applicant must provide additional analysis or field monitoring of acoustic noise compliance. The Planning Board may require additional information to be submitted prior to rendering its decision on an application, or as a condition of the Special Permit, or in other such manner as deemed by the Planning Board to be appropriate. The Planning Board may engage the services of independent consultants at the expense of the applicant to evaluate the submissions of the applicant and make recommendations to the Planning Board.

5.3.17.3 The APPLICANT and co-APPLICANT shall maintain the WIRELESS SERVICE FACILITY is safe and in good condition. Such maintenance shall include, but shall not be limited to, painting, structural integrity of the MOUNT and SECURITY BARRIER, and maintenance of the buffer areas and landscaping.

5.3.18 WIRELESS SERVICE FACILITY Operating Permit

Any WIRELESS SERVICE FACILITY installed in compliance with this Bylaw shall require an annual Operating Permit from the BUILDING INSPECTOR. No WIRELESS SERVICE FACILITY shall be constructed, operated, altered, repaired or maintained except in exact conformance with such Permit.

5.3.18.1 Application - All applications shall be made to the BUILDING INSPECTOR in such form as he may require, and such applications shall include at least: 1) the location, by STREET number, of the proposed WIRELESS SERVICE FACILITY; 2) the name and address of the WIRELESS SERVICE FACILITY operator in charge and the owner of the LOT where the facility is to be located; 3) a scale drawing showing the proposed construction, method of installation or support, colors, display, dimensions, location of the WIRELESS SERVICE FACILITY on the site, and illumination, if any; 4) such other pertinent information as the BUILDING INSPECTOR may require to ensure compliance with the Bylaw and any other applicable law; 5) a copy of the Special Permit, as amended, granted by the Special

- Permit Granting Authority under this Bylaw; and 6) the application must be signed by the property owner. The BUILDING INSPECTOR shall have the authority to reject any Permit application that is not complete when submitted.
- 5.3.18.2 Time Limitations - The BUILDING INSPECTOR shall approve or disapprove any application for a Permit within 30 days of receipt of the application. If the BUILDING INSPECTOR should fail to approve or disapprove an application for a Permit within such 30-day period, the application shall be deemed to be approved.
- 5.3.18.3 Fees - The Board of Selectmen of the Town of Stow shall establish and from time to time review the Permit fee for Wireless Service Facilities which shall be published as part of the Permit application form.
- 5.3.18.4 Certifications - The owner or operator in charge of the WIRELESS SERVICE FACILITY shall certify annually to the BUILDING INSPECTOR that he is in compliance with the standards of the Federal Communications Commission, Federal Aviation Administration, the Massachusetts Aeronautics Commission, the Massachusetts Department of Public Health regulations, and the American National Standards Institute and evidence of required maintenance shall be filed with the BUILDING INSPECTOR by the special permit holder.
- 5.3.19 Non-Wireless Facility Structures
- Municipal wireless uses, amateur radio uses, and home viewer and listener uses shall not exceed a maximum height sufficient to reasonably accommodate those uses, as required by Title 47 CFR Part 1 Subpart S Section 1.40000, Title 47 CFR 97.15 (as further defined by FCC PRB-1 101 FCC 2nd 952 (1985) and M.G.L. Chapter 40A, Section 3.

6.4 TRAILERS and MOBILE HOMES

No TRAILER or MOBILE HOME shall be moved onto any LOT within the Town for use as a DWELLING **except as provided in MGL Ch. 40A, s.3.**