

DRAFT Wireless Communication Facility Ordinance for Town of Chapel, North Carolina
By CityScape Consultants, Inc.
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AN ORDINANCE AMENDING THE CHAPEL HILL LAND USE MANAGEMENT ORDINANCE, IN CONJUNCTION WITH THE WIRELESS TELECOMMUNICATIONS INITIATIVE MASTER PLAN, A NEW WIRELESS COMMUNICATION FACILITY ORDINANCE (2017-__-__/O-)

WHEREAS, the Council of the Town of Chapel Hill has considered the proposed text amendments to the Land Use Management Ordinance to change development-related provisions and finds that the amendments are necessary to comply with the enabling legislation and are consistent with the goals of the Chapel Hill 2020 Comprehensive Plan.

NOW, THEREFORE BE IT ORDAINED by the Council of the Town of Chapel Hill as follows:

Section 1. That Article 3, Section 3.7, Use Groups table 3.7-1, the *Use Matrix* - is hereby revised as follows.

~~Radio, television or wireless transmitting and/or receiving antenna~~

Collocation on existing tower or base station

New concealed base station

Concealed dual-purpose tower

Non-concealed base station

Non-concealed tower

Section 2. That Article 3, Section 3.8.3(b)(3) - Exceptions to Setback and Height Regulations as follows.

~~(3) Spires, smokestacks, water tanks, windmills, radio and television transmitting towers, or relay towers, provided such structures do not exceed in height the horizontal distance therefrom to the nearest lot line.~~

Section 3. That Article 3, Section 3.8.3(b)(4) - Exceptions to Setback and Height Regulations as follows.

(4) Utility ~~T~~ransmission poles, towers, and cables.

Section 4. That Article 6, Section 6.11- Radio, television or wireless transmitting and/or receiving facility as follows.

~~(a) The zoning lot on which a radio or television transmitting and/or receiving facility is located shall have a minimum gross lan area of one hundred fifty thoughtsand (150,000) square feet.~~

~~(b) Adequate security of the site, by means of fencing or otherwise, shall be provided.~~

Section 5. That Appendix A, as follows.

~~*Antenna:* Any apparatus, or group of apparatus, designed for the transmitting and/or receiving of electromagnetic waves that includes, but is not limited to, telephonic, radio or television communications. Antennas include omni-directional (whip) antennas, sectorized (panel) antennas, microwave dish antennas, multi or single base (FM and TV), yaggie, or parabolic (dish) antennas, but do not include satellite earth stations.~~

~~*Radio, television, or wireless transmitting and/or receiving facility:*~~

- ~~(1) The use of land, buildings, or structures for the above-ground transmission and/or reception of airborne radio or television signals, including all transmitting and receiving towers, dishes and antennas except accessory radio or television transmitting and/or receiving antennas.~~
- ~~(2) Any staffed or unstaffed facility used for the transmission and/or reception of wireless communications, usually consisting of an antenna or group of antennas, transmission lines, ancillary appurtenances, and equipment enclosures, and may include an antenna-supporting structure. This includes any of the following:

 - ~~(a) Antenna-supporting structure: Any vertical projection, including a foundation, design and primarily used to support one (1) or more antennas or which constitutes an antenna itself. This definition includes replacements and broadcast antenna-supporting structures. This definition does not include stealth wireless communications facilities, as defined below, but does include roof-mounted antenna-supporting structures that extend above the rooflines by more than twenty (20) feet, or that have an overall height of greater than fifty (50) feet. Antenna-supporting structures will not be construed to be utility equipment. For purposes of this subsection, an "antenna supporting structure, broadcast" means an antenna support structure, including replacements, which contains antennas that transmit signals for radio and television communications. For purposes of this subsections, "antenna-supporting structure, replacement" means the construction of an antenna-supporting structure intended to replace an antenna-supporting structure in existence at the time of application.~~
 - ~~(b) Co-located antenna: a situation in which two (2) or more providers place an antenna on a common antenna-supporting structure, or the addition or replacement of antennas on an existing structure. The term co-location includes combined antennas, but does not include roof-mounted or surface-mounted wireless communications facilities, or the placement of any personal wireless service antenna on a amateur radio antenna within a residential district.~~
 - ~~(c) Surface-mounted structures: an antenna that is attached to the surface or façade of a building or structure other than an antenna-supporting structure.~~
 - ~~(d) Roof-mounted antenna: an antenna mounted on the roof of a building that extends above the roofline by twenty (20) feet or less and has an overall height of fifty (50) feet or less. Roofline means, in the case of a flat or pitched roof, the uppermost line of the roof of a building; and, in the case of a parapet, the uppermost height of the parapet.~~~~

Section 5. That Article 5, Section 5.20 - Wireless communication facility as follows.

5.20 - Wireless communication facility.

5.20.1 Authority.

This section is adopted pursuant to the authority vested in the Town of Chapel Hill by the Session Laws and the General Assembly of the State of North Carolina with particular reference to Article 19 of Chapter 160A Chapter 153A of the North Carolina General Statutes, and General Statutes of North Carolina, particularly Session Law 2017-159 (HB 310), and the authority referenced in section 1.2 of this ordinance.

5.20.2 Purpose and Intent.

The purpose of this Ordinance is to establish general guidelines for the locating of Wireless Communication Facilities and their component parts, including but not limited to towers, antenna, ground equipment and related accessory structures. The purposes and intent of this Ordinance are to:

- (a) Promote the health, safety, and general welfare of the public by regulating the locating of telecommunication facilities.
- (b) Minimize the impacts of wireless communication facilities on surrounding land uses by establishing standards for location, structural integrity, and compatibility.
- (c) Encourage the location and collocation of wireless communication facility equipment on existing structures thereby minimizing new visual, aesthetic, and public safety impacts, effects upon the natural environment and wildlife, and to reduce the need for additional towers.
- (d) Accommodate the growing need and demand for WCF services.
- (e) Encourage coordination between suppliers and providers of wireless communication facility services.
- (f) Establish predictable and balanced codes governing the construction and location of WCF within the confines of permissible local regulations.
- (g) Establish review procedures to ensure that applications for WCF are reviewed and acted upon within a reasonable period of time as required by applicable state and federal regulations.
- (h) Respond to the policies embodied in the Telecommunications Act of 1996; The Middle Class Tax Relief and Job Creation Act of 2012, and other applicable federal and state regulations in such a manner as not to unreasonably discriminate between providers of functionally equivalent personal wireless services or to prohibit or have the effect of prohibiting personal wireless services.
- (i) Protect the character of the Town while meeting the needs of its citizens to enjoy the benefits of wireless communication facilities.
- (j) Encourage the use of public lands, buildings, and structures as locations for WCFs demonstrating concealed technologies and revenue generating methodologies.

5.20.3. Definitions.

Amateur radio tower means any tower used for amateur radio transmissions consistent with the Complete FCC U.S. Amateur Part 97 Rules and Regulations” for amateur radio towers.

Ancillary structure means for the purposes of this Ordinance, any form of development associated with a communications facility, including foundations, concrete slabs on grade, guy anchors, generators, and transmission cable supports, but excluding equipment cabinets.

Antenna means any apparatus designed for the transmitting and/or receiving of electromagnetic waves, including telephonic, radio or television communications. Types of elements include omni-directional (whip) antennas, sectionalized (panel) antennas, multi or single bay (FM & TV), yagi, or parabolic (dish) antennas.

Antenna array means a single or group of antenna elements and associated mounting hardware, transmission lines, or other appurtenances which share a common attachment device such as a mounting frame or mounting support structure for the sole purpose of transmitting or receiving electromagnetic waves.

Antenna element means any antenna or antenna array.

Antenna structure registration (ASR) number means the registration number as required by the FAA and FCC.

Application means a request that is submitted by an applicant to the Town for a permit to collocate wireless facilities or to approve the installation, modification, or replacement of a utility pole, Town utility pole, or wireless support structure.

Base station means a structure or equipment at a fixed location that enables Commission-licensed or authorized wireless communications between use equipment and a communications network. The term does not encompass a tower as defined in this subpart or any equipment associated with a tower. Examples include transmission equipment mounted on a rooftop, water tank, silo or other above-ground structure other than a tower. “Base station” includes, but is not limited to:

- (1) Equipment associated with wireless communications services such as private, broadcast and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul; and
- (2) Radio transceivers, antennas, coaxial or fiber optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration (including Distributed Antenna Systems and small-cell networks); and
- (3) Any structure other than a tower that, at the time the application is filed under this section, supports or houses equipment described in this definition that has been reviewed and approved under the applicable zoning or siting process, or under another Town regulatory review process, even if the structure was not built for the sole or primary purpose of providing such support; and
- (4) The term does not include any structure that, at the time the relevant application is filed with the State or local government under this section, that does not support or house any equipment described in these definitions.

Breakpoint technology means the engineering design of a monopole wherein a specified point on the monopole is designed to have stresses concentrated so that the point is at least five percent (5%) more susceptible to failure than any other point along the monopole so that in the event of a structural failure of the monopole, the failure will occur at the breakpoint rather than at the base plate, anchor bolts, or any other point on the monopole.

Broadcast facility means a communications facility licensed by the Federal Communications Commission Media Bureau to transmit information on the AM, FM or Television spectrum to the public.

Cellular on wheels (COW) means a temporary wireless communication facility, typically located on a trailer, that can be erected/extended to provide short term, high volume communications services to a specific location.

Collocation means the placement, installation, maintenance, modification, operation, or replacement of wireless facilities on, under, within, or on the surface of the earth adjacent to existing structures, including utility poles, Town utility poles, water towers, buildings, and other structures capable of structurally supporting the attachment of wireless facilities in compliance with applicable codes. The term "collocation" does not include the installation of new utility poles, Town utility poles, or wireless support structures.

Concealed means a tower, base station, ancillary structure or equipment compound that is not readily identifiable as a wireless communication facility and that is designed to be aesthetically compatible with existing and proposed building(s) and uses on a site or in the neighborhood or area. There are two types of concealed facilities:

- Base stations - including but not limited to faux panels, parapets, windows, dormers or other architectural features that blend with an existing or proposed building or structure; and
- Concealed tower - which looks like something else that is common in the geographic region such light standard or flagpole with a flag that is proportional in size to the height and girth of existing structures in the area.

Distributed antenna system (DAS) means a DAS system consists of: (1) a number of remote communications nodes deployed throughout the desired coverage area, each including at least one antenna for transmission and reception; (2) a high capacity signal transport medium (typically fiber optic cable) connecting each node to a central communications hub site; and (3) radio transceivers located at the hub site (rather than at each individual node as is the case for small cells) to process or control the communications signals transmitted and received through the antennas. DAS systems can be either outdoor or indoor

Distributed antenna system (DAS) hub means ancillary equipment usually contained in a shelter or other enclosure which does not have any wireless transmission or receive equipment contained therein but is utilized in the deployment and operation of wireless DAS receive/transmit infrastructure that is located elsewhere.

Development area means the area occupied by a communications facility including areas inside or under an antenna-support structure's framework, equipment cabinets, ancillary structures, and/or access ways.

Dual purpose facility means a structure that is built or an existing structure that is modified to serve two primary purposes one of which is a wireless communication facility. Examples include but are not limited to church steeples, clock towers and public art.

Discontinued means any tower without any mounted transmitting and/or receiving antennas in continued use for a period of 180 consecutive days.

Eligible facilities request means a request for a modification of an existing wireless tower or base station that involves collocation of new transmission equipment or replacement of transmission equipment but does not include a substantial modification.

Eligible support structure means any tower or base station as defined in this section, provided that it is existing at the time the relevant application is filed under this section.

Equipment compound means the area surrounding the ground-based wireless communication facility including the areas inside or under a tower's framework and ancillary structures such as equipment necessary to operate the antenna on the structure that is above the base flood elevation including cabinets, shelters, pedestals, and other similar structures.

Equipment cabinet means any structure above the base flood elevation including cabinets, pedestals, and other similar structures and used exclusively to contain radio or other equipment necessary for the transmission or reception of wireless communication signals.

Equipment shelter means a self-contained prefabricated building, made of permanent materials such as steel or concrete, which contains all electronic ancillary equipment and normally including a generator.

Existing means a constructed tower or base station is existing for purposes of this section if it has been reviewed and approved under the applicable zoning or siting process, or under another State or local regulatory review process, provided that a tower has not been reviewed and approved because it was not in a zoned areas when it was built, but was lawfully constructed, is existing for purposes of this definition.

Feed lines means cables or fiber optic lines used as the interconnecting media between the transmission/receiving base station and the antenna.

Federal Aviation Administration (FAA) means the division of Department of Transportation of the United States government that inspects and rates civilian aircraft and pilots, enforces the rules and air safety, and installs and maintains air-navigation and air traffic-control facilities.

Federal Communications Commission (FCC) means an independent United States government regulatory agency that oversees all interstate and international communication and maintains standards and consistency among ever-growing types of media and methods of communication while protecting the interests of both consumers and businesses.

Flush mounted means any antenna or antenna array attached directly to the face of the support structure or building such that no portion of the antenna extends above the height of the support structure or building. Where a maximum flush-mounting distance is given, that distance shall be measured from the outside edge of the support structure or building to the inside edge of the antenna.

Guyed tower means a non-concealed style of tower consisting of a single truss assembly composed of sections with bracing incorporated. The sections are attached to each other, and the assembly is attached to a foundation and supported by a series of wires that are connected to anchors placed in the ground or on a building.

Geographic search ring means an area designated by a wireless provider or operator for a new base station, produced in accordance with generally accepted principles of wireless engineering.

Handoff candidate means a wireless communication facility that receives call transference from another wireless facility, usually located in an adjacent first "tier" surrounding the initial wireless facility.

Lattice tower means a non-concealed self supporting tapered style of tower that consists of vertical and horizontal supports with multiple legs and cross bracing, and metal crossed strips or bars to support antennas.

Least visually obtrusive Profile means the design of a wireless communication facility intended to present a visual profile that is the minimum profile necessary for the facility to properly function.

Macrocell means a wireless communications facility that exceeds the defined standards of a small cell facility.

Micro wireless facility means a small wireless facility that is no larger in dimension than twenty-four (24) inches in length, fifteen (15) inches in width and twelve (12) inches in height and that has an exterior antenna, if any, no longer than eleven (11) inches.

Monopole tower means a non-concealed style of freestanding tower consisting of a single shaft usually composed of two (2) or more hollow sections that are in turn attached to a foundation. This type of tower is designed to support itself without the use of guy wires or other stabilization devices. These facilities are mounted to a foundation that rests on or in the ground or on a building's roof. All feed lines shall be installed within the shaft of the structure.

Neutral host antenna means an antenna or an antenna array designed and utilized to provide services for more than one (1) wireless provider, or a single wireless provider utilizing more than one (1) frequency band or spectrum, for the same or similar type of services.

Node means a single location as part of a larger antenna array which can consist of one or multiple antennas, such as part of a DAS network antenna array.

Non-concealed means a wireless communication tower or base station that is readily identifiable as such type of equipment and structure.

Overt the air reception devices (OTARD) means devices which are limited to either a "dish" antenna one meter (39.37 inches) or less in diameter designed to receive direct broadcast satellite service, including direct-to-home satellite service, or to receive or transmit fixed wireless signals via satellite, or an antenna that is one meter or less in diameter and is designed to receive video programming services via broadband radio service (wireless cable), or to receive or transmit fixed wireless signals other than via satellite or an antenna that is designed to receive local television broadcast signals.

Public safety communications equipment means all communications equipment utilized by a public entity for the purpose of ensuring the safety of the citizens of the Town and operating within the frequency range of 145 MHz through 155 MHz, 445 MHz through 475 MHz and 700 MHz through 1,000 MHz and any future spectrum allocations at the direction of the FCC.

Radio frequency emissions means any electromagnetic radiation or other communications signal emitted from an antenna or antenna-related equipment.

Radio frequency interference (RFI) means any electromagnetic radiation or other communications signal that causes reception or transmission interference with another electromagnetic radiation or communications signal.

Radio frequency propagation Analysis means computer modeling to show the level of signal saturation in a given geographical area.

Replacement means a modification of an existing tower to increase the height, or to improve its integrity, by replacing or removing one (1) or several tower(s) located in proximity to a proposed new tower in order to encourage compliance with this section, or improve aesthetics or functionality of the overall wireless network.

Rights-Of-Way means a right-of-way owned, leased, or operated by the Town, including any public street or alley that is not part of the State highway system.

Satellite earth station means a single or group of parabolic or dish antennas mounted to a support device that may be a pole or truss assembly attached to a foundation in the ground, or in some other configuration, including the associated separate equipment cabinets necessary for the transmission or reception of wireless communications signals with satellites.

Search ring means the area within which a base station or tower must be located in order to meet service objectives of the wireless service provider using the base station or tower.

Site means for towers other than towers in the public rights-of-way, the current boundaries of the leased or owned property surrounding the tower and any access or utility easements currently related to the site, and, for other eligible support structures (base stations), further restricted to that area in proximity to the structure and to other transmission equipment already deployed on the ground.

Small cell facility means a wireless communication facility that meets both of the following qualifications:

- (1) Each antenna is located inside an enclosure of no more than six (6) cubic feet in volume, or, in the case of an antenna that has exposed elements, the antenna and all its exposed elements could fit within an enclosure of no more than six (6) cubic feet;
- (2) All other wireless equipment associated with the facility has a cumulative volume of no more than twenty-eight (28) cubic feet. For purposes of this section, the following types of ancillary equipment are not included in the calculation of equipment volume: electric meters, concealment elements, telecommunications demarcation boxes, ground-based enclosures, grounding equipment, power transfer switches, cut-off switches, vertical cable runs for the connection of power and other services, or other support structures;

Small cell network means a collection of interrelated small cell facilities designed to deliver wireless service.

Stanchion means a vertical support structure generally utilized to support exterior lighting elements.

Streamlined processing means expedited review process for collocations required by the federal government (Congress and/or the FCC) for wireless communication facilities.

Structure means anything constructed or erected, the use of which required permanent location on the ground, or attachment to something having a permanent location on the ground, including advertising signs.

Substantial change means a modification or collocation constitutes a “substantial change” under federal law of an eligible support structure if it meets any of the following criteria:

- (1) For towers other than towers in the public rights-of-way (ROW), it increases the height of the tower by more than ten percent (10%) or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty (20) feet, whichever is greater; for other eligible support structures (base stations), it increased the height of the structure by more than ten percent (10%) or ten (10) feet, whichever is greater; or
- (2) Changes in height should be measured from the original support structure in cases where deployments are or will be separated horizontally, such as on buildings’ rooftops; in other circumstances, changes in height should be measured from the dimensions of the tower or base station, inclusive of originally approved appurtenances and any modifications that were approved prior to the passage of the Spectrum Act; or
- (3) For towers other than towers in the public ROW, it involves adding an appurtenance to the body of the tower that would protrude from the edge of the tower more than twenty (20) feet of the width of the tower structure at the elevation of the appurtenance, whichever is greater; for other eligible support structures (base stations) it involves adding an appurtenance to the body of the structure that would protrude from the edge of the structure by more than six (6) feet; or
- (4) For any eligible support structure (tower or base station), it involves installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four (4) cabinets; or for towers in the public rights-of-way and base stations, it involves installation of any new equipment cabinets on the ground if there are no pre-existing ground cabinets associated with the structure, or else involves installation of ground cabinets that are more than ten (10) percent larger in height or overall volume than any other ground cabinets associate with the structure; or
- (5) It entails any excavation or deployment outside the current site;
- (6) It would defeat the concealment elements of the eligible support structure; or

- (7) It does not comply with conditions associated with the siting approval of the construction or modification of the eligible support structure or base station equipment, provide however that this limitation does not apply to any modification that is non-compliant only in a manner that would not exceed the thresholds identified in 1- 6 above.

Substantial modification means a modification or collocation constitutes a “substantial modification” under state law is the mounting of a proposed wireless facility on a wireless support structure that substantially changes the physical dimensions of the support structure. A mounting is presumed to be a substantial modification if it meets any one or more of the criteria listed below. The burden is on the local government to demonstrate that a mounting that does not meet the listed criteria constitutes a substantial change to the physical dimensions of the wireless support structure.

- (1) Increasing the existing vertical height of the structure by the greater of (i) more than ten percent (10%) or (ii) the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty (20) feet.
- (2) Except where necessary to shelter the antenna from inclement weather or to connect the antenna to the tower via cable, adding an appurtenance to the body of a wireless support structure the greater of (i) more than twenty (20) feet or (ii) more than the width of the wireless support structure at the level of the appurtenance.
- (3) Increasing the square footage of the existing equipment compound by more than 2,500 square feet.

Temporary wireless communication facility means a temporary tower or other structure, typically located on a trailer, that provides interim short-term communications when permanent WCF equipment is unavailable or offline. A Temporary wireless communication facility meets an immediate demand for service in the event of emergencies and/or public events where the permanent wireless network is unavailable or insufficient to satisfy demand.

Tower means any structure build for the sole or primary purpose of supporting any Commission-licensed or authorized antennas and their associated facilities, including structures that are constructed for wireless communications services including, but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul, and the associated site. The tower can be concealed or non-concealed.

Tower base means the foundation, usually concrete, on which the tower and other support equipment are situated. For measurement calculations, the tower base is that point on the foundation reached by dropping a perpendicular from the geometric center of the tower.

Tower height means the vertical distance measured from the grade line to the highest point of the tower, including any antenna, lighting or other equipment affixed thereto.

Transmission equipment means equipment that facilitates transmission of any Commission-licensed or authorized wireless communication service including, but not limited to, radio transceivers, coaxial or fiber-optic cable, and regular and backup power supply. The term includes equipment associated with wireless communications services including but not limited to, private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul.

Utility pole, town owned means a pole owned by the Town in the Town right-of-way that provides lighting, traffic control or a similar function.

Utility pole, other owned means a structure that is designed for an used to carry lines, cables, wires, lighting facilities, or small wireless facilities for telephone, cable television, electricity, lighting or wireless services.

Variance means a modification of the terms of this Ordinance where a literal enforcement of this Ordinance would result in an unnecessary site specific hardship and shall be reviewed and may be granted by the Board of Adjustment.

Wireless communication facility (WCF) means equipment at a fixed location that enables wireless communications between user equipment and a communications network, including (i) equipment associated with wireless communications and (ii) radio transceivers, antennas, wires, coaxial or fiber-optic cable, regular and backup power supplies, and comparable equipment, regardless of

technological configuration. The term includes small wireless facilities. The term shall not include any of the following:

- (1) The structure or improvements on, under, within or adjacent to which the equipment is collocated.
- (2) Wireline backhaul facilities.
- (3) Coaxial or fiber-optic cable that is between wireless structures or utility poles or Town utility poles or that is otherwise not immediately adjacent to or directly associated with a particular antenna.

Wireless infrastructure provider means any person with a certificate to provide telecommunications service in the State who builds or installs wireless communication transmission equipment, wireless communication facilities or wireless supports structures for small wireless facilities but that does not provide wireless services.

Wireless services means any services, using licensed or unlicensed wireless spectrum, including the use of Wi-Fi, whether at a fixed location or mobile, provided to the public using wireless facilities.

Wireless services provider means a person who provides wireless services.

Wireless support structure means a new or existing structure, such as a monopole, lattice tower or guyed tower that is designed to support or capable of supporting wireless facilities. A utility pole or a Town utility pole is not a wireless support structure.

5.20.4 Existing Towers and Exemptions.

Telecommunications towers and base station existing prior to the enactment of the WCF Ordinance on _____ or permitted prior to the adoption of this Ordinance shall be allowed to continue to operate provided they met the requirements set forth by the Town at the time of final inspection; not including any towers that are currently in violation of this Ordinance and pre-existing Tower Ordinance of the Town.

(a) Exempt Facilities. The following wireless communication facilities are exempt from the development standards of this Ordinance and only subject to the issuance of a WCF Use Permit and Building Code Requirements; notwithstanding any other provisions:

- (1) A government-owned communications facility, upon the declaration of a state of emergency by federal, state, or local government, and a written determination of public necessity by the Town designee; except that such facility must comply with all federal and state requirements. No communications facility shall be exempt from the provisions of this division beyond the duration of the state of emergency.
- (2) A government-owned communications facility erected for the purposes of installing antenna(s) and ancillary equipment necessary to provide communications for public health and safety.
- (3) A temporary wireless communication facility, upon the declaration of a state of emergency by federal, state, or local government, or determination of public necessity by the Town and approved by the Town; except that such facility must comply with all federal and state requirements. The WCF may be exempt from the provisions of this division up to sixty (60) days after the duration of the state of emergency.
- (4) Over the air reception devices (“OTARD”) as that term is defined by the Federal Communications Commission, including satellite earth stations that are one (1) meter (39.37 inches) or less in diameter in all residential zoning districts and two (2) meters or less in all other zoning districts. OTARD devices are exempt provided that same do NOT require the construction of a tower or other structure, which height exceeds 12 feet above the residential structure of the consumer who desires to receive fixed wireless services, satellite transmissions, or over the air reception of television signals.
- (5) Routine maintenance of small cells.

- (6) Replacement of small wireless facilities with small wireless facilities that are the same size or smaller.
- (7) Installation, placement, maintenance, or replacement of micro wireless facilities that are suspended on cables strung between existing utility poles or Town utility poles in compliance with applicable codes by or for a communications service provider authorized to occupy the Town rights-of-way and who is remitting taxes under G.S. 105-164.4(a)(4c) or G.S. 105-164.4(a)(6).

5.20.5 General Provisions.

- (a) Where applicable. This Ordinance shall apply to the development activities including installation, construction, or modification of all macrocell and small cell antenna and related ancillary equipment on concealed and non-concealed wireless communication facilities on public and private land and in Town's and other rights-of-way including but not limited to:
 - (1) Non-commercial, amateur radio station antennas and towers.
 - (2) Temporary wireless communication facility a/k/a Cell on Wheels (COW).
 - (3) Existing towers and base stations.
 - (4) Collocation on existing towers and base stations.
 - (5) Expansion of existing towers and base stations.
 - (6) Replacement towers and base stations.
 - (7) Proposed new towers and base stations.
 - (8) Broadcast towers and antenna.

- (b) Abandonment (Discontinued Use).
 - (1) Wireless communication facility towers, antennas, and the equipment compound shall be removed, at the owner's expense, within 180 days of cessation of use, unless the abandonment is associated with a replacement as provided in the 'Replacement' section of this Ordinance, in which case the removal shall occur within ninety (90) days of cessation of use.
 - (2) An owner wishing to extend the time for removal or reactivation shall submit an application stating the reason for such extension. The Town may extend the time for removal or reactivation up to sixty (60) additional days upon a showing of good and unique cause. If the tower or antenna is not removed within this time, the Town may give notice that it will contract for removal within thirty (30) days following written notice to the owner. Thereafter, the Town may cause removal of the tower with costs being borne by the owner.
 - (3) Upon removal of the wireless communication facility tower, antenna, and equipment compound, the development area shall be returned to its natural state and topography and vegetated consistent with the natural surroundings or consistent with the current uses of the surrounding or adjacent land at the time of removal, excluding the foundation, which does not have to be removed.

- (c) Interference with Public Safety Communications. In order to facilitate the regulation, placement, and construction of antenna, and to ensure that all parties are complying to the fullest extent possible with the rules, regulations, and/or guidelines of the FCC, each owner of an antenna, antenna array or applicant for a collocation shall agree in a written statement to the following:
 - (1) Compliance with "Good Engineering Practices" as defined by the FCC in its rules and regulations.
 - (2) Compliance with FCC regulations regarding susceptibility to radio frequency interference, frequency coordination requirements, general technical standards for power, antenna, bandwidth limitations, frequency stability, transmitter measurements,

operating requirements, and any and all other federal statutory and regulatory requirements relating to radio frequency interference (RFI).

- (3) In the case of an application for collocated wireless communication facility, the applicant, together with the owner of the subject site, shall use their best efforts to provide a composite analysis of all users of the site to determine that the applicant's proposed facilities will not cause radio frequency interference with the Town's public safety communications equipment and will implement appropriate technical measures, as described in antenna element replacements, to attempt to prevent such interference.
- (4) Whenever the Town has encountered radio frequency interference with its public safety communications equipment, and it believes that such interference has been or is being caused by one or more antenna arrays, the following steps shall be taken:
 - A. The Town shall provide notification to all wireless service providers operating in the Town of possible interference with the public safety communications equipment, and upon such notifications, the owners shall use their best efforts to cooperate and coordinate with the Town and among themselves to investigate and mitigate the interference, if any, utilizing the procedures set forth in the joint wireless industry-public safety "Enhanced Best Practices Guide," released by the FCC in Appendix D of FCC 04-168 (released August 6, 2004), including the "Good Engineering Practices," as may be amended or revised by the FCC from time to time in any successor regulations.
 - B. If any equipment owner fails to cooperate with the Town in complying with the owner's obligations under this section or if there is a determination of radio frequency interference with the Town's public safety communications equipment, the owner who failed to cooperate and/or the owner of the equipment which caused the interference shall be responsible for reimbursing the Town for all costs associated with ascertaining and resolving the interference, including but not limited to any engineering studies obtained by the Town to determine the source of the interference. For the purposes of this subsection, failure to cooperate shall include failure to initiate any response or action as described in the "Enhanced Best Practices Guide" within twenty-four (24) hours of Town's notification.

5.20.6 Building Code Requirements, Permits, Fees, WCF Siting Preferences and Wireless Communication Facility Matrix.

- (a) Building Code Requirements. All wireless communication facility infrastructure(s) shall be constructed and maintained in conformance with all applicable building code requirements.
- (b) Permits and Fees Required. All wireless communication facility infrastructure(s) shall be subject to completion of a WCF application, the development standards described on the WCF application and in this Section and all required permit and review fees.
- (c) Siting Preference of New Wireless Communication Facilities : WCF Siting Preferences. Siting of new wireless communication facilities of any type shall be in accordance with the siting preferences below and the WCF Use Matrix Table 3.7.1 in Section 3.7. The most preferred option is listed first as number one (1) with the least preferred option last as number five (5). Where a lower-ranked alternative is proposed, the applicant must demonstrate through relevant information why the higher ranked options are not technically feasible, practical or justified given the location of the proposed facilities. This includes but not limited to, an affidavit by a radio frequency engineer demonstrating that despite diligent efforts to adhere to the established preferences within the geographic search area, higher ranked options are not technically feasible, practical or justified given the location of the proposed facilities, by clear and convincing evidence. The applicant must provide such evidence in its application in order for the application to be considered complete.

The Town desires to minimize the placement, frequency and density of new wireless communication facilities in the right-of-way for public safety considerations and therefore

strongly encourages the siting of new wireless communication facilities on existing base stations and towers or on new base stations and towers outside the ROW.

Permitted Wireless Communication Facility Use List is as follows:

<u>Wireless Communication Facility Type</u>	<u>Tower Example</u>	<u>Base Station Example</u>	<u>Other Examples</u>	<u>Standards</u>
<p>(1)</p> <p><u>Collocation on existing tower or base station on:</u> A. <u>Town owned land</u> B. <u>Other publicly owned land</u> C. <u>Private property*</u></p>				<p><u>5.20.8</u> <u>5.20.9(c)</u></p>
<p>(2)</p> <p><u>New concealed base station on:</u> A. <u>Town owned land</u> B. <u>Other publicly owned land</u> C. <u>Private property*</u></p>	<p><u>Not applicable</u></p>			<p><u>5.20.8</u> <u>5.20.9(d)</u></p>
<p>(3)</p> <p><u>New concealed dual purpose tower on:</u> A. <u>Town owned land</u> B. <u>Other publicly owned land</u> C. <u>Private property*</u></p>			<p><u>Not applicable</u></p>	<p><u>5.20.8</u> <u>5.20.9(c) for inside rights-of-way</u> <u>5.20.10 for outside rights-of-way</u></p>
<p>(4)</p> <p><u>Non-concealed base station on:</u> A. <u>Town owned land</u> B. <u>Other publicly owned land</u> C. <u>Private property*</u></p>	<p><u>Not applicable</u></p>			<p><u>5.20.8</u> <u>5.20.9(d)</u></p>
<p>(5)</p> <p><u>Non-concealed tower on:</u> A. <u>Town owned land</u> B. <u>Other publicly owned land</u> C. <u>Private property*</u></p>			<p><u>Not applicable</u></p>	<p><u>5.20.8</u> <u>5.20.10</u></p>

*The sub preferences for private property shall be:

1. Non-residential districts,
2. Multi-family districts (where permitted),
3. Single-family residential districts (where permitted) on lots not used for single-family homes including but not limited to parks, open space, schools, religious institutions, and public safety facilities.

See Section 3.7 Table 3.7.1 Use Matrix for complete listing of Wireless Communication Facilities and corresponding zoning districts.

5.20.7 Exempt Wireless Communication Facilities.

- (a) Development Standards. Exempt wireless communication facilities listed in Article III, Section 2.0 are subject only to State Building Code requirements.
- (b) Approval Process. When applicable installation of exempt wireless communication facilities can commence upon approval of the WCF and Building Permit applications.

5.20.8 General Requirements.

All WCFs except those meeting exempt criteria in 5.20.4(a)(1)-(7) are subject to the following:

(a) Development Standards.

(1) Signage. All wireless communication facilities shall be clearly identified with the following information:

- A. Name plate signage shall be provided in an easily visible location to include: FCC Antenna Registration System (ASR) registration number (if applicable); site owner's name, site identification number and/or name, phone number of contact to reach in event of an emergency or equipment malfunction, any additional security and safety signs.
- B. If more than 220 voltage is necessary for the operation of the facility and is present in a ground grid or in the tower, signs located every twenty (20) feet and attached to the fence or wall shall display in large, bold, high contrast letters, minimum height of each letter four (4) inches, the following: "HIGH VOLTAGE - DANGER."
- C. No outdoor advertising signage is permitted at the wireless communication facility.

(2) Lighting. Lighting on Personal wireless service facility (PWSF) towers shall not exceed the Federal Aviation Administration (FAA) minimum standards. All other lighting shall be subject to the following:

- A. Any lighting required by the FAA must be of the minimum intensity and number of flashes per minute (i.e., the longest duration between flashes) allowable by the FAA. Dual lighting standards are required with strobe during daytime and red flashing lights at night unless prohibited by the FAA.
- B. Lights shall be filtered or oriented so as not to project directly onto surrounding property or rights-of-way, consistent with FAA requirements.

(3) Structural integrity: The entire tower or base station and all appurtenances shall be designed pursuant to the design requirements of ASCE 7, including wind speed design requirements, and tower loading/wind design requirements of Electronic Industries Association/Telecommunications Industry Association (EIA/TIA) 222-G, Series II, including any subsequent modification to those specifications.

(4) Grading shall be minimized and limited only to the area necessary for the new tower and equipment.

- (5) Parking. One parking space is required for each tower development area located outside of the rights-of-way. The space shall be provided within the leased area, or equipment compound or the development area as defined on the site plan.
- (b) Application Requirements. All non-exempt wireless communication facilities, subject to approval of a Wireless Communication Facility Permit Application and applicable fees.

5.20.9 Administrative Wireless Communication Facility approvals.

(a) Non-commercial, Amateur Radio Station Antennas and Tower.

(1) Development Standards.

- A. The facility shall be accessory to a legal, principal use on site (such as a residence).
- B. Collocation of any WCF equipment not used for the purposes of either a satellite earth station or an amateur wireless facility is prohibited.
- C. Height. Amateur tower height, location and other technical specifications shall comply with federal and state law. Amateur towers shall not exceed sixty-five (65) feet. Amateur tower permits shall be issued conditioned upon the tower being used solely for non-commercial purposes and no commercial wireless communications facilities may be collocated thereon (notwithstanding the provisions of 47 USC §1455(a)).
- D. Structures, including towers, shall meet the setback requirements for primary structures for the zoning district in which the proposed facility shall be located.
- E. Applicant shall commit in writing that the facility will be erected in accordance with manufacturer's recommendations.
- F. If more than 220 voltage is present in the ground grid or in the tower, a sign shall be attached to the tower and shall display in large bold letters the following: "HIGH VOLTAGE – DANGER."
- G. Applicant shall certify that the proposed facility meets or exceeds FCC guidelines for radio frequency radiation exposure.

(2) Application Requirements.

Applicant's copy of current, valid FCC license for amateur radio operation (not applicable for satellite earth station applicants).

(3) Approval Process. Administrative approval by the Town's Planning and Development Services Department.

(b) Non-Exempt Temporary Wireless Communication Facilities and Cellular on Wheels

(1) Development Standards.

- A. Proof of notification of installation or construction from the FAA, if applicable.
- B. Height shall be less than 120'.
- C. It does not involve any excavation (or excavation where prior disturbance exceeds proposed excavation by at least 2 feet).
- D. Description of proposed location, including type of temporary structure, duration of proposed location not to exceed 60 days, type of electrical service to be utilized, description of temporary necessity requiring Temporary WCF.

(2) Approval Process. Administrative approval by the Town's Planning and Development Services Department.

(c) Collocation on any existing tower or base station.

(1) Development Standards.

- A. On an existing monopole, lattice or guy tower outside the rights-of-way the applicant shall demonstrate the proposed collocation does not exceed the definition of substantial modification under applicable state law.
- B. On any concealed tower, concealed dual-purpose tower, concealed or non-concealed base station inside or outside the City's rights-of-way, the applicant shall demonstrate the proposed collocation does not exceed the definition of a substantial change under applicable federal law.
- C. For any tower or base stations (concealed or non-concealed) inside or outside the City rights-of-way exceeding either the definition of substantial modification or substantial change, the applicants shall minimize the substantial modifications or substantial changes as much as possible.

(2) Approval Process Non-Substantial Modification.

- A. Town planning staff designee shall review the wireless communication facility application and provide comment, approval or denial of the WCF application in writing which shall be postmarked to the applicant thirty (30) days of submission or within some other mutually agreed upon time frame. The notice shall identify the deficiencies in the application which, if cured, would make the application complete. The application shall be deemed complete if the additional materials cure the deficiencies intended.
- B. Application call be deemed approved if the Town fails to approved or deny the application within 45 days from the time the application is deemed complete or a mutually agreed upon time frame between the Town and the applicant.
- C. For denials, The Town shall document the basis for a denial, including the specific code provisions on which the denial was based and send the documentation to the applicant on or before the day the Town denies an applicant.
- D. The applicant may cure the deficiencies identified by the Town and resubmit the application within thirty (30) days of the date on which the application was resubmitted. Any subsequent review shall be limited to the deficiencies list in the prior denial.

(3) Streamlined Approval Process for Non-substantial Change.

- A. A collocation application entitled to streamlined processing shall be deemed complete unless the Town notifies the applicant within thirty (30) days of submission (or within some other mutually agreed upon timeframe) that the submission is incomplete. Notices of application incompleteness shall identify specifically the deficiencies in the application which, if cured, would make the application complete. Upon notice of deficiency, the timeline for a decision shall be tolled until the applicant re-submits to correct such deficiency. The Town shall, within ten (10) days of re-submission, notify the applicant of continuing deficiencies or the application will be deemed complete. The timeline for a decision shall be likewise tolled during the additional re-submission deficiency period until the 2nd resubmission. Approval or denial of a complete application shall be in writing and shall be postmarked to the applicant by the sixtieth (60) day after the initial submission, excluding any tolling period.
- B. A collocation application entitled to streamlined processing other than under Article VII, Section 1.0(F) shall be deemed complete unless the Town notifies the applicant within thirty (30) days of submission (or within some other mutually agreed upon timeframe) that the submission is incomplete. Notices of application incompleteness shall identify specifically the deficiencies in the application which, if cured, would make the application complete. Upon notice of deficiency, the timeline for a decision shall be tolled until the applicant re-submits to correct such deficiency. The Town shall, within ten (10) days of re-submission, notify the applicant of continuing deficiencies or the application will be deemed complete. The timeline for a decision shall be likewise tolled during the additional re-submission deficiency period until the 2nd resubmission. Approval or denial of a

complete application shall be in writing and shall be postmarked to the applicant by the ninetieth (90) day after the initial submission, excluding any tolling period.

- C. Upon resubmission of the revised application the Town shall follow the process identified in this section, above, until all deficiencies identified are deemed cured.
 - D. If the Town does not respond in writing to the applicant for a collocation under subsection (1) above within the specified timeframe in subsection (1) above, then the application shall be deemed approved. If the Town does not respond in writing to the applicant for a collocation under subsection (2) above within the specified timeframe in subsection (2) above, the applicant has available the remedies established by federal or state regulations.
 - E. Application entitled to the streamlined review process shall not be subject to design or placement requirement, or public hearing review. All applications shall be initially submitted to the Planning Department for review and processing.
- (4) Approval process for collocations exceeding the definition of a substantial modification or substantial change. Approval Process. Timing for review of substantial change collocations: A substantial change collocation shall be reviewed and a decision rendered within ninety (90) days of receipt of the application, subject to any applicable tolling for application deficiencies and resubmissions, so long as the applicant demonstrates that the facilities will be used, immediately upon completion of construction, to provide personal wireless services, or within such other mutually agreed upon time. ("Spec" collocations without an associated wireless service provider are not entitled to review and decision within ninety (90) days, or to any of the other protections of the Telecommunications Act.)
- (d) *Collocation Creating A New Base Station Inside or outside the Town's rights-of-way.*
- (1) Development Standards for new small cell base stations inside the Town's rights-of-way.
 - A. Only new concealed small wireless facilities shall be allowed within the Town's rights-of-way.
 - B. No portion of a small wireless facility shall obstruct pedestrians or vehicular or bicycle access, obstructs sight lines or visibility for traffic, traffic signage or signals, or interferes with access by persons with disabilities.
 - C. All cables and surface mounted wires shall be enclosed within conduit or a similar cable cover and shall be painted to match the structure it is mounting.
 - D. The height shall not extend more than ten (10) feet above the existing utility pole, Town's utility pole, or wireless support structure on which it is collocating.
 - E. Neutral host is preferable. All new small cell facilities shall be designed to be capable of accommodating multiple wireless service providers through the use of a single antenna system. Applicants may seek a waiver of this requirement if they can demonstrate that there is no commercially available single antenna system that can accommodate multiple wireless service providers.
 - F. Vaulting underground freestanding equipment cabinets or shelters and/or power meters are required in rights-of-way where sidewalk space is limited and adding additional equipment will cause conflict with pedestrian traffic, vehicular parking, transit stops, or existing infrastructure.
 - G. Equipment shelters or cabinets not vaulted shall be placed on the ground instead of attached to the structure supporting the antenna, and in accordance with the buffering provision in this subsection.
 - H. Equipment shelters or cabinets not vaulted shall be screened from public view by using landscaping, fencing or materials and colors consistent with the surrounding backdrop.
 - I. All buffering, fencing or screening with the use of small cell wireless facilities in the rights-of-way shall be maintained by the owner of such facilities at its own cost.

- J. A photo rendering shall be provided of the proposed antenna that depicts aesthetic features including, but not limited to, the use of colors, concealment, screening and buffering, with a before and after installation exhibit.
 - K. Spacing Requirements. To minimize the adverse visual impacts associated with the proliferation and clustering of antennas and associated above-ground small cell wireless facility, no antenna site in the rights-of-way shall be located within six hundred (600) feet of any other small cell wireless facility in the rights-of-way or WCF that is NOT within a rights-of-way.
 - L. Attestation the small wireless facilities shall be collocated on the tower, base station or utility pole and commence within six (6) months of approval and be activated for use by a wireless services provider to provide service no later than one (1) year from the permit issuance date, unless the Town and the wireless provider agree to extend this period or a delay is caused by a lack of commercial power at the proposed site.
 - M. Abandoned small wireless facilities shall be removed within 180 days of abandonment. Should the wireless services provider fail to remove the facility within this time period, the Town may have facility removed and my recover the actual cost of such removal, including legal fees, if any, from the wireless service provider. A wireless facility shall be deemed abandoned at the earlier of the date that the wireless services provider indicates that is it abandoning such facility or the date that is 180 days after the date that such wireless facility ceases to transmit a signal, unless the wireless services provider give the Town reasonable evidence that it is diligently working to place such wireless facility back in service.
 - N. Right-of-way work/use permit. Small Cell Facilities located in the public right-of-way shall be placed so as not to interfere with vehicular or pedestrian use of the rights-of-way or with traffic safety and in accordance with the requirements of, inter alia, Article IV of the Code of Ordinances. Any/all work in the public right-of-way requires a permit as provided in Article IV. The provider shall comply with all the provisions and terms of Section xx and the right-of-way work permit. As-built construction drawings shall be provided to the Towns for all structures, equipment, cable, pipes and conduit located within the public right-of-way or within a public or Town. Town's-owned utility or multi-purpose easement, which must include, for fiber optic cable, the number of strands of fiber in the conduit. If any Towns utilities or other infrastructure is relocated within the right-of-way as part of the construction, the Town shall have final approval of the design and engineering of such relocated items.
- (2) All Other New Base Stations.
- A. Concealed new base stations are preferred over new non-concealed base stations.
 - B. The top of the attached wireless communication facility antenna shall not be more than ten (10) feet above the existing or proposed building or structure.
 - C. Concealed WCF antennas, feed lines and ground related equipment shelters/cabinets shall be designed to architecturally match the façade, roof, wall, and/or structure on which they are affixed so that they blend with the existing structural design, color, and texture. A photo rendering shall be provided of the WCF that depicts aesthetic features including, but not limited to, the use of colors, concealment, screening and buffering, with a before and after installation exhibit.
 - D. When a new wireless communication facility base station is located on a nonconforming building or structure, the existing permitted nonconforming setback shall prevail.
- (3) Approval Process For New Small Cell Base Stations Inside the Town's Rights-of-way.
- A. All work within the rights-of-way is subject to approval of a work permit for work that involves excavation, affects traffic patterns or obstructs vehicular traffic in the Town's rights-of-way.
 - B. Town's planning staff designee shall review the WCF application and provide comment, approval or denial of the wireless communication facility application in

writing within thirty (30) days of submission or within some other mutually agreed upon time frame. The notice shall identify the deficiencies in the WCF application, which, if cured, would make the application complete. The wireless communication facility shall be deemed complete on resubmission if the resubmitted materials cure the original deficiencies indicated by the Town.

- C. If the Town does not approve or deny the application within thirty (30) days from the time the application is submitted (or within a mutually agreed upon time frame) then the application shall be deemed approved within forty-five (45) days from the time the application is deemed complete or a mutually agreed upon time frame between the Town and the applicant.
- D. Applicant is allowed to file a consolidated application for no more than twenty-five (25) separate facilities and may receive a permit for the collocation.
- E. The Town may remove small wireless facility collocations from a consolidated application and treat separately small wireless facility collocations for which incomplete information has been provided or that are denied. The Town may issue a separate permit for each collocation that is approved.
- F. The Town may deny an application on the basis that it does not meet any of requirements below:
 - 1. The Town's applicable codes;
 - 2. Local code provisions or regulations that concern public safety, objective design standards for decorative utility poles, city utility poles, or reasonable and nondiscriminatory concealment requirements, including screening or landscaping for ground-mounted equipment;
 - 3. Public safety and reasonable spacing requirements concerning the location of ground-mounted equipment in a right-of-way; or
 - 4. The historic preservation requirements.

If Town denies an application, then the Town must:

- 1. Document the basis for a denial, including the specific code provisions on which the denial was based;
- 2. Send the documentation to the applicant on or before the day the Town denies an application.

The applicant may cure the deficiencies identified by the Town and resubmit the application within thirty (30) days of the denial without paying an additional application fee. The Town shall approve or deny the revised application within thirty (30) days of the date on which the application was resubmitted. Any subsequent review shall be limited to the deficiencies cited in the prior denial.

- G. Applicant may file a consolidated application for no more than twenty-five (25) separate facilities and receive a permit for the collocation of all the small wireless facilities meeting the requirements of this section. The Town may remove small wireless facility collocations from a consolidated application and treat separately small wireless facility collocations for which incomplete information as been provide or that are denied. The Town may issue a separate permit for each collocation that is approved.

(4) Approval Process for all other base stations.

- A. Towns planning staff designee shall review the wireless communication facility application and provide comment, approval or denial of the WCF application in writing which shall be postmarked to the applicant within forty-five (45) days of submission or within some other mutually agreed upon time frame. The notice shall identify the deficiencies in the WCF application, which if cured, would make the application complete. The wireless communication facility will be deemed complete on resubmission if the resubmitted materials cure the original deficiencies indicated by Town.

- B. If the Town does not respond in writing to the applicant of an eligible facility collocation request within the specified timeframe, the application shall be deemed complete.
 - C. The Town shall issue a written decision approving an eligible facility request within forty-five (45) days of such application being deemed complete.
- (e) New concealed dual-purpose tower or utility pole replacement inside City Rights-of Way.
- (1) General Development Standards.
 - A. Concealment design is required to minimize the visual impact of wireless communication facilities. For this reason, all new towers, City utility poles or replacement utility poles for small cells shall be a concealed dual-purpose wireless communication facility.
 - B. All new small cell WCFs shall be designed with considerations of height, scale, color, texture and architectural design of the buildings parallel the rights-of-way where the new facility is proposed. All cables, conduits, electronics and wires shall be enclosed within the structure.
 - C. Neutral host. All new small cell facilities shall be designed to be capable of accommodating multiple wireless service providers through the use of a single antenna system. Applicants may seek a waiver of this requirement if they can demonstrate that there is no commercially available single antenna system that can accommodate multiple wireless service providers.
 - D. Small cell facilities shall be no larger in size than what is specified in the definition.
 - E. Height: The total height including antenna shall not exceed thirty (30) feet or extend more than ten (10) feet above the average height of existing utility poles within 500 feet of the proposed WCF whichever is greater up to 50 feet. In no instance shall a new or replacement tower, utility pole or Town's utility pole for a new WCS exceed 50 feet.
 - F. The use of foliage and vegetation around ground equipment may be required by the Town based on conditions of the specific area where the ground equipment is to be located. In order to avoid the clustering of multiple items of ground equipment in a single area, a maximum of two ground equipment boxes may be grouped together in any single location.
 - (2) Approval Process. A new concealed small cell tower or base station shall be reviewed and a decision rendered within one hundred and fifty (150) days of receipt of the application, subject to any applicable tolling for application deficiencies and resubmissions, so long as the applicant demonstrates that the facilities will be used, immediately upon completion of construction, to provide personal wireless services, or within such other mutually agreed upon time. ("Spec" towers without an associated wireless service provider are not entitled to review and decision within one hundred fifty (150) days, or to any of the other protections of the Telecommunications Act.) Construction permits issued for new concealed small cell tower or base station shall be valid for a term of one hundred eighty (180) days and shall lapse and be void if construction of the contemplated concealed small cell tower or base station is not completed within that time.
- (f) Outdoor Distributed Antenna System Hub Development Standards:
- A. Setbacks for outdoor distributed antenna system hub shelters/buildings shall meet the setback standards of the underlying zoning district.
 - B. Equipment shelters/building shall be architecturally compatible with the general character of the neighborhood and historic character if applicable.
 - C. Equipment shelters/buildings/cabinets shall be screened with materials and colors consistent with the surrounding backdrop and/or textured to match the existing structure. The use of foliage and vegetation around ground equipment may be

required based on conditions of the specific area where the ground equipment is to be located.

5.20.10 Special Use Wireless Communication Facility Approvals.

(a) Concealed dual-purpose and non-concealed new and/or replacement towers outside the Town's rights-of-way.

(1) Development Standards.

A. Visibility.

1. Concealed:

- a. New concealed wireless communication facility towers shall be designed to match adjacent structures and landscapes with specific design considerations such as architectural designs, height, scale, color, and texture with existing structures and landscapes on the property.
- b. New antenna mounts shall be concealed and match the concealed WCF tower.
- c. In residential zoning districts, new concealed wireless communication facility towers shall only be permitted on lots whose principal use is not single-family residential, such as schools, churches, synagogues, fire stations, parks, and other public property.

B. Height.

1. Where permitted new towers in single-family districts shall be limited to 70'.
2. Where permitted new towers in non single-family districts shall be limited to 120'.

C. Setbacks. New towers shall be subject to the setbacks described below for breakpoint technology:

1. If the concealed wireless communication facility has been constructed using breakpoint design technology (see 'Definitions'), the minimum setback distance shall be equal to 110 percent (110%) of the distance from the top of the structure to the breakpoint level of the structure, or the minimum side and rear yard requirements, whichever is greater. Certification by a registered professional engineer licensed by the State of North Carolina of the breakpoint design and the design's fall radius must be provided together with the other information required herein from an applicant. (For example, on a 100-foot tall monopole with a breakpoint at eighty (80) feet, the minimum setback distance would be twenty-two (22) feet (110 percent of twenty (20) feet, the distance from the top of the monopole to the breakpoint) in addition to the minimum side or rear yard setback requirements for that zoning district.
2. If the concealed wireless communication facility tower is not constructed using breakpoint design technology, the minimum setback distance shall be equal to the height of the proposed WCF.

D. Equipment cabinets and Equipment Shelters. Electronic equipment shall be contained in either (a) equipment cabinets or (b) equipment shelters. Equipment cabinets shall not be visible from pedestrian and right-of-way views. Equipment cabinets may be provided within the principal building on the lot, behind a screen on a rooftop, or on the ground within the fenced-in and screened equipment compound.

E. Fencing. All equipment compounds shall be enclosed with an opaque fence or masonry wall in residential zoning districts and in any zoning district when the equipment compound adjoins a public right-of-way. Alternative equivalent screening may be approved through the site plan approval process.

- F. Equipment Compound. The fenced-in compounds shall not be used for the storage of any excess equipment or hazardous materials. No outdoor storage yards shall be allowed in a tower equipment compound. The compound shall not be used as habitable space.
2. Non-concealed: New antenna mounts shall be flush-mounted, unless it is demonstrated through RF propagation analysis that flush-mounted antennas will not meet the network objectives of the desired coverage area.
- G. Balloon Test.
1. New concealed wireless communication facility towers shall be configured and located in a manner that shall minimize adverse effects including visual impacts on the landscape and adjacent properties.
2. A balloon test shall be required subsequent to the receipt of the photo simulations in order to demonstrate the proposed height and concealment solution of the WCF. The applicant shall arrange to raise a colored balloon no less than three (3) feet in diameter at the maximum height of the proposed tower, and within twenty-five (25) horizontal feet of the center of the proposed tower. The applicant shall meet the following for the balloon test:
- a. Applicant must inform the Planning Department and abutting property owners in writing of the date and times, including alternative date and times, of the test at least fourteen (14) days in advance.
- b. A 3' by 5' sign with lettering no less than 3 inches high stating the purpose of the balloon test shall be placed at closest major intersection of proposed site.
- c. The date, time, and location, including alternative date, time and location, of the balloon test shall be advertised in a locally distributed paper by the applicant at least seven (7) but no more than fourteen (14) days in advance of the test date.
- d. The balloon shall be flown for at least four (4) consecutive hours during daylight hours on the date chosen. The applicant shall record the weather, including wind speed during the balloon test.
- e. Re-advertisement will not be required if inclement weather occurs.
- H. Wireless communication facility towers shall be engineered and constructed for collocation as follows: 2 tenants between 80 and 100 feet and for 3 tenants between 101 and 120 feet in height.
- I. Grading shall be minimized and limited only to the area necessary for the new WCF and equipment compound.
- J. Simulated photographic evidence of the proposed tower and antenna appearance from any and all residential areas within 1,500 feet and vantage points approved by the [Planning Department] including the facility types the applicant has considered and the impact on adjacent properties including:
1. Overall height.
2. Configuration.
3. Physical location.
4. Mass and scale.
5. Materials and color.
6. Illumination.
7. Architectural design.
- K. Applicant shall provide a written statement of compliance with all applicable FCC rules and regulations.
- L. A map of the same search ring submitted and used by the applicant's site locator with a statement confirming the same.

- M. A map indicating applicant's existing RF signal propagation, a map indicating applicant's proposed new radio frequency (RF) signal propagation, and a map indicating the proposed improvements' coverage area, which provides sufficient justification for the requested support structure height.
- N. A map indicating applicant's existing RF signal propagation and a map indicating applications proposed new RF signal propagation.
- O. A statement from the applicant providing information regarding justification for the proposed new WCF facility.
- P. An affidavit by a radio frequency engineer demonstrating compliance with the Permitted Use List (Section 5.20.6(c)) of this Ordinance and providing the qualifications of affiant. If a lower ranking alternative is proposed the affidavit must address why higher ranked options are not technically feasible, practical, and/or justified given the location of the proposed communications facility.
- Q. Statement as to the potential visual and aesthetic impacts of the proposed tower and equipment on all adjacent residential zoning districts.
- R. Written statement by a registered professional engineer licensed by the State of North Carolina specifying the design structural failure modes of the proposed facility, if applicable.
- S. A radio frequency propagation plot indicating the coverage of existing antenna sites, coverage prediction, and design radius, together with a certification from the applicant's radio frequency engineer that the proposed facility's coverage or capacity potential cannot be achieved by any higher ranked alternative such as a concealed facility, attached facility, replacement facility, collocation, or new tower and reasons why such alternative structures are unacceptable.
- T. All other documentation, evidence, or materials necessary to demonstrate compliance with the applicable approval criteria set forth in this Ordinance.
- U. Prior to issuance of a building permit, proof of FAA compliance with Subpart C of the Federal Aviation Regulations, Part 77, and "Objects Affecting Navigable Airspace," if applicable.
- V. Proof of compliance with National Environmental Policy Act and National Historic Preservation Act.

(b) Broadcast towers.

(1) Development Standards.

- A. Broadcast Facility Determination of Need. No new broadcast facilities shall be permitted unless the applicant demonstrates that no existing broadcast tower can accommodate the applicant's proposed use.
- B. Height. Height for broadcast facilities shall be evaluated on a case-by-case basis; the determination of height contained in the applicant's FCC Form 351/352 construction permit or application for construction permit and an FAA determination of no hazard (FAA Form 7460/2) shall be considered prima facie evidence of the tower height required for such broadcast facilities.
- C. Setbacks. New broadcast facilities and anchors shall be setback a minimum of five hundred (500) feet from any single-family dwelling unit on same zone lot; and a minimum of 1 foot for every 1 foot of tower height from all adjacent lots of record.
- D. Equipment Cabinets. Except for AM broadcast facilities, cabinets shall not be visible from pedestrian views.
- E. Fencing. All broadcast facility towers, AM antenna(s) towers, and guy anchors shall each be surrounded with an anti-climbing fence compliant with applicable FCC regulations.
- F. Equipment Compound. The fenced in compounds shall not be used for the storage of any excess equipment or hazardous materials. No outdoor storage yards shall be allowed in a tower equipment compound. The compound shall not be used as habitable space.

(2) Approval Process.

A new concealed small cell tower or base station shall be reviewed and a decision rendered within one hundred and fifty (150) days of receipt of the application, subject to any applicable tolling for application deficiencies and resubmissions, so long as the applicant demonstrates that the facilities will be used, immediately upon completion of construction, to provide personal wireless services, or within such other mutually agreed upon time. ("Spec" towers without an associated wireless service provider are not entitled to review and decision within one hundred fifty (150) days, or to any of the other protections of the Telecommunications Act.) Construction permits issued for new concealed small cell tower or base station shall be valid for a term of one hundred eighty (180) days and shall lapse and be void if construction of the contemplated concealed small cell tower or base station is not completed within that time.

5.20.11 Fees.

The Town Council shall set fees, payable to the Town Planning Department, to cover the necessary processing cost of all Wireless Communication Facility Permits. The Fee Schedule is posted on the Town's website.

(a) Supplemental Review. The Town reserves the right to require a supplemental review for any Permit subject to the following:

- (1) Where due to the complexity of the methodology or analysis required to review an application for a Special Use Permit, the Town may require the applicant to pay for a technical review by a third party expert, the costs of which shall be borne by the applicant and be in addition to other applicable fees. Schedules of current supplemental review fees consistent with applicable state law are listed in the Town Fee Schedule.
- (2) Based on the results of the supplemental technical review, the approving authority may require changes to the applicant's application or submittals.
- (3) The supplemental technical review may address any or all of the following:
 - A. The accuracy and completeness of the application and any accompanying documentation.
 - B. The applicability of analysis techniques and methodologies.
 - C. The validity of conclusions reached.
 - D. Whether the proposed communications facility complies with the applicable approval criteria set forth in these codes.
 - E. Other items deemed by the Town to be relevant to determining whether a proposed communications facility complies with the provisions of these codes.

Duly adopted this _____ day of _____, _____.

Town Council

Chairman

Attest:

Clerk to the Council