

7. TELECOMMUNICATION

7.1. TELECOMMUNICATION STANDARDS

7.1.1. DEFINITIONS

- A. **Definitions.** Due to the unique nature of telecommunication, for the purpose of administrating the standards of this section, all definitions in N.C. Gen. Stat. § 160D-931, as amended, shall apply.

7.1.2. PURPOSE AND INTENT

- A. **Purpose and Intent.** Consistent with N.C. Gen. Stat. § 160D-930, the purpose of this section is to ensure the safe and efficient integration of facilities necessary for the provision of advanced mobile broadband and wireless telecommunications services throughout the town and to ensure the ready availability of reliable wireless service to the public, government agencies, and first responders, with the intention of furthering the public safety and general welfare.

7.1.3. APPLICABILITY

- A. **Applicability.** The provisions of this section and N.C. Gen. Stat. § 160D Part 3 Wireless Telecommunication Facilities shall apply to all wireless telecommunication facilities, unless specifically exempted in this section. All wireless telecommunication facilities, support structures (i.e. telecommunication tower) and small wireless facilities shall comply with this LDO, applicable Federal Aviation Administration (FAA) regulations, Federal Communications Commission (FCC) regulations, and any other state or federal government regulations.

7.1.4. COLLOCATION

- A. **Consistency.** Consistent with N.C. Gen. Stat. § 160D-934 and 935, the intent of these collocation standards are to provide for proper location, height, and size of antennas so as not to impose unreasonable limitations on or prevent the quality of signals of telecommunications antennas, and to comply with state and federal laws regarding the siting and permitting of telecommunications facilities. A wireless provider, shall, whenever possible, enter into joint use agreements with the town and other parties, for

collocation, provided that the terms of such agreements are satisfactory to the wireless provider.

1. Nothing shall mandate that the wireless provider enter into joint use agreements with parties other than the town or an agency of the town. However, prior to placement of any new or additional wireless facilities in the public rights-of-way, a wireless provider is required to certify in writing to the town that it has made appropriate inquiry to all existing utilities and other entities possessing a right to occupy the public rights-of-way as to the availability of right-of-way that it could reasonably utilize to meet its needs, and that no such facility is available or planned at a reasonable cost by any other entity on the time schedule reasonably needed.
2. The wireless provider shall not be permitted to perform any placement or maintenance of wireless facilities in those segments of the public rights-of-way where there exists vacant or available collocation of facilities.
3. Collocations shall require a completed zoning permit application. Decisions on these applications must be made within forty-five (45) days of receipt of a completed application. Notice of any deficiencies in a collocation application must be provided within forty-five (45) days of submission of an application.

B. Collocation Standards.

1. **General Standards.** A completed Zoning Permit Application, the contents of which shall include the following items in addition to that information requested on the face of the Zoning Permit Application:
 - a. Elevation of the tower or other support structure showing the proposed location and profile of the antennas;
 - b. Explanation as to the location of equipment cabinets, unless not housed in an existing structure, then in such event a plot plan showing the location of the proposed structure to house the equipment cabinet for the collocation and an elevation showing the profile location of the proposed structure to house the equipment cabinet for the collocation;

- c. Evidence that the proposed collocation will comply with federal, state and local safety requirements, including, but not limited to, evidence that the telecommunication tower (or other support structure) is engineered and constructed to, as currently equipped, accommodate the impacts of weight and location of the proposed antennas;
- d. Evidence that the proposed collocation will not interfere with the operation of other antenna existing on the telecommunications tower (or other support structure), nor interfere with radio or television or similar reception for adjoining properties. In certain instances the town may deem it appropriate to have an on-site RF survey done after the construction and activation of the improvement, such to be done under the direction of the town or its designee, and a copy of the survey results provided, along with all calculations, prior to issuance of a Certificate of Compliance.
- e. For Attachments to Buildings: To preserve and protect the nature and character of the area and create the least visually intrusive impact reasonably possible under the facts and circumstances, any attachment to a building or other structure with a façade, the antennas shall be flush-mounted on the façade without increasing the height of the building or other structure, unless it can be proven that such will prohibit or have the effect of prohibiting the provision of service, and all such attachments and exposed cabling shall use camouflage or stealth techniques to match as closely as possible the color and texture of the structure.
- f. For Attachments to Towers: So as to be the least visually intrusive reasonably possible given the facts and circumstances involved, and thereby have the least adverse visual effect, all antennas attached to a tower or other structure shall be flush mounted or as near to flush mounted as is possible so as to create the smallest profile reasonably possible under the facts and circumstances, unless it can be proven that such would prohibit or serve to prohibit the provision of service or be technologically impracticable.

- g. For Attachments to Water Tanks: If attaching to a water tank, in order to maintain the current profile and height, mounting on the top of the tank or the use of a corral shall only be permitted if the Applicant can prove that to locate elsewhere, less visually intrusive on the tank will prohibit or have the effect of prohibiting the provision of service.
- h. Structural Analysis and Report: The Applicant shall provide a certification by a Professional Engineer licensed in the State, along with documentation in the form of a structural analysis, including calculations and a geotechnical sub-surface soils investigation report and foundation design, that prove that the support structure and its foundation as proposed to be utilized are designed and were constructed to meet all local, town, state, federal and TIA ANSI 222 structural requirements for loads, including wind and ice loads, and the placement of any equipment on the roof a building after the addition of the proposed new equipment.
- i. ANSI Inspection: A complete, un-redacted TIA ANSI 222 Report regarding the physical condition of the Facility or Complex and its components done within the previous six months. If such report has not been done within the previous six months, one shall be done and submitted as part of the Application. No Building Permit shall be issued for any Wireless Facility or related equipment where the structure being attached to is in need of remediation to comply with the requirements of this subsection and other adopted standards of the town, unless and until all remediation work that is deemed needed has been completed or a schedule for the remediation work has been approved by the town Planning Department.
- j. Compliance: Other than to remediate non-compliant situations related to matters of safety or the conditions of a permit, no permits for work at a Facility or Complex shall be issued for any work related to an Eligible Facility where the Facility and Complex are not in full compliance with all applicable local, State and federal laws, rules, regulations and orders. A Facility and Complex not in full compliance shall be required to be

brought into full compliance before a Building Permit will be issued for work related to an Eligible Facility request or application.

2. Timing Requirements.

- a. Within thirty (30) days of application submittal, the Land Development Administrator shall either deem the application a Completed Application or notify the applicant in writing of the deficiencies in the application.
- b. Within (45) days from the date the application is deemed a Completed Application, the Land Development Administrator shall take action to approve or deny the request.

- 3. Consultant Fees.** The Applicant may be charged a fee to cover the cost to the town of outside consultants needed to review applications associated with telecommunication tower. These fees shall be subject to the limitations set forth in N.C. Gen. Stat. § 160D-934.

7.1.5. USE OF PUBLIC RIGHT-OF-WAY

- A. **Generally.** Consistent with N.C. Gen. Stat. § 160D-936, the town shall not enter into an exclusive arrangement with any person for use of rights-of-way for the construction, operation, marketing, or maintenance of wireless facilities or wireless support structures or the collocation of small wireless facilities. Additional standards are required for use of public right-of-way for small wireless facilities (See Section 7.1.7: Small Wireless Facilities).

7.1.6. REQUIREMENTS FOR SUPPORT STRUCTURES (TELECOMMUNICATION TOWER)

- A. **Consistency.** The submittal, application, and construction of telecommunication towers shall be consistent with N.C. Gen. Stat. § 160D-933.
- B. **Support Structure Defined.** Any telecommunication structure that is designed and constructed primarily for the purpose of supporting one or more antennas, including self-supporting lattice towers, guy towers or monopole towers that are less than two-hundred and fifty (250) feet in height. Does not include any structure erected solely for a residential, noncommercial individual use, such as television antennas, satellite dishes or amateur radio antennas.

- C. **Permitted Districts.** Telecommunication towers are permitted only through special use permit and are permitted through special use permit per Table 5.1: Permitted Principal use Table.
- D. **Application Requirements.** A completed special use permit application, the contents of which shall include the following items in addition to required information on the application form:
1. Elevation of the tower or other support structure showing the proposed location and profile of the antennas;
 2. Explanation as to the location of equipment cabinets, unless not housed in an existing structure, then in such event a plot plan showing the location of the proposed structure to house the equipment cabinet for the collocation and an elevation showing the profile location of the proposed structure to house the equipment cabinet for the collocation;
 3. Evidence that the proposed collocation will comply with federal, state and local safety requirements, including, but not limited to, evidence that the telecommunications tower (or other support structure) is engineered and constructed to, as currently equipped, accommodate the impacts of weight and location of the proposed antennas;
 4. Evidence that the proposed collocation will not interfere with the operation of other antenna existing on the telecommunications tower (or other support structure), nor interfere with radio or television or similar reception for adjoining properties. In certain instances the town may deem it appropriate to have an on-site RF survey done after the construction and activation of the improvement, such to be done under the direction of the town or its designee, and a copy of the survey results provided, along with all calculations, prior to issuance of a Certificate of Compliance;
 5. So as to be the least visually intrusive reasonably possible given the facts and circumstances involved, and thereby have the least adverse visual effect, all antennas attached to a tower or other structure shall be flush mounted or as near to flush mounted as is possible so as to create the smallest profile

reasonably possible under the facts and circumstances, unless it can be proven that such would prohibit or serve to prohibit the provision of service or be technologically impracticable;

6. Structural Analysis and Report: The Applicant shall provide a certification by a Professional Engineer licensed in the State, along with documentation in the form of a structural analysis, including calculations and a geotechnical sub-surface soils investigation report and foundation design, that prove that the support structure and its foundation as proposed to be utilized are designed and will be constructed to meet all local, town, state, federal and TIA ANSI 222 structural requirements for loads, including wind and ice loads, and the placement of any equipment on the roof a building after the addition of the proposed new equipment; and
7. Such materials as are necessary to address the use standards listed in subsection C below.

E. **Standards.** All support structure shall comply with the following standards:

1. Radio or television or similar reception for adjoining properties will not be disturbed or diminished.
2. The height of the tower cannot exceed two-hundred and fifty (250) feet.
3. The lighting of the tower cannot exceed the minimum standards of the Federal Aviation Administration for red obstruction lighting system.
4. The minimum setback from the outside dimensions of the tower, not from guy anchors, and not located within a residential district, are as follows:
 - a. Two-hundred (200) percent of the tower height, unless the tower is constructed as a monopole in which case the minimum setback shall be one-hundred and fifty (150) percent of the tower height, but no less than seventy-five (75) feet from the property line of an abutting residential zoning district.
 - b. One-hundred (100) percent of the tower height from the property line of an abutting non-residential zoning district.

- c. Fifty (50) feet from any public street.
 - d. If a telecommunication tower is located in a Residential District, the setbacks in Section 7.1.6.E.4.a apply, except that in no case shall a tower be located less than two-hundred (200) percent of the tower height to the property line unless a protective yard is preserved or installed adjacent to the property line. The protective yard shall be of a width equal to the tower height, and shall contain plantings meeting the minimum standards of a Buffer Type 1.
5. The base of the tower and each guy anchor are surrounded by a fence or wall at least eight (8) feet in height unless the tower and all guy anchors are mounted entirely on a building over eight (8) feet in height. Except for fence and wall entrances, all fences and walls shall be screened with plant material so that no more than one-third of the surface of the fence or wall is visible within three years after erection of the structure from a public street or from any adjoining lot which contains a dwelling, or from any adjoining lot zoned a residential district. Any fence or wall constructed shall conform to the standards of Section 6.5: Fences, Walls and Berms.
 6. The area adjoining street rights-of-way shall contain a Buffer Type 1 (see Section 6.2.2: Buffering) installed parallel to the street right-of-way. A Buffer Type 3 (See Section 6.2.2: Buffering) is required along street frontage located a distance from the tower of more than two-hundred (200) percent of the tower height.
 7. A protective yard that contains the same plantings required in a Buffer Type 1 (see Section 6.2.2: Buffering) must be installed within all the yard areas. The installation of any fence, wall, planting or berm shall not reduce or lessen this requirement.
 8. The output power from the tower shall not exceed federally approved levels for exposure to electronic magnetic force (EMF).
 9. If determined by the town that the proposed tower is situated in a location which will benefit the town's telecommunication systems, then the tower shall

- be engineered and constructed to accommodate the additional telecommunication equipment beneficial to the public system.
10. The tower is either less than one-hundred (100) feet in height or located no closer than one-thousand (1,000) feet to a tower greater than one-hundred (100) feet in height (determined by a straight line and not street distance).
 11. If the tower is located within an Overlay that restricts height, the tower cannot exceed the maximum building height allowed by the more restrictive standard.
 12. No tower shall be approved unless evidence is presented that at least one telecommunication user upon installation will occupy the tower. If the tower is between one-hundred (100) feet and one-hundred and fifty (150) feet in height, the tower shall be engineered and constructed to accommodate a minimum of two telecommunication users. If the tower equals or exceeds one-hundred and fifty (150) feet in height but is less than one-hundred and eighty (180) feet in height, the tower shall be engineered and constructed to accommodate a minimum of three telecommunication users. If the tower equals or exceeds one-hundred and eighty (180) feet in height, but is less than two-hundred (200) feet in height, the tower shall be engineered and constructed to accommodate a minimum of four telecommunication users. If the tower equals or exceeds two-hundred (200) feet in height, the tower shall be engineered and constructed to accommodate a minimum of five telecommunication users.
 13. Unless enclosed by a closed fence at least eight (8) feet in height to totally obscure the building from view, the exterior appearance of all buildings located in a Residential District shall look like a residential dwelling, including without limitation, pitched roofs and frame or brick veneer construction. The closed fence shall be the same or compatible in terms of texture and quality with the material and color of the surrounding dwellings. For each potential telecommunication user to occupy the tower, there shall be a minimum of six-hundred (600) square feet reserved on the plans for associated buildings and equipment, unless the applicant provides evidence that less space is necessary.

14. Within six (6) months after approval of a plot plan for the telecommunication tower, the tower must be installed and operational or the plot plan shall be void. No telecommunication tower approved prior to September 1, 2014, which is discontinued, unused or unoccupied by any telecommunication user for a continuous period 365 days or more shall be restarted, resumed, or reoccupied without the prior approval of a new plot plan complying with the then applicable provisions.
15. The applicant must provide evidence that the proposed tower meets Federal Aviation Administration requirements and will be in accordance with all the tower requirements and standards of the Raleigh Durham Airport Authority.
16. For any telecommunication tower approved after September 2, 2014, that is discontinued, unused or unoccupied by the telecommunication user for a continuous period of 365 days or more, the tower shall be removed within thirty (30) days of notification of the property owner by the Land Development Administrator.

F. Substantial Modifications to Tower

1. Substantial modifications shall mean modifications described as such N.C. Gen. Stat. § 160D-933.
2. Applications for substantial modifications to an approved tower shall require an amendment to the special use permit.
3. Outside Consultant Fees. The Applicant may be charged a fee to cover the cost to the town of outside consultants needed to review applications associated with telecommunication towers. These fees shall be subject to the limitations set forth in N.C. Gen. Stat. § 160D-934.

7.1.7. SMALL WIRELESS FACILITIES

A. **Definition.** Consistent with 160D-931(18), a small wireless facility is defined as a wireless facility that meets both of the following qualifications:

1. Each small wireless facility 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 of its exposed elements, if enclosed, 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. 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.

B. Standards. A small wireless facility shall meet all of the standards below:

1. The placement of small wireless facilities in all cases are subject to the standards of this LDO and N.C. Gen. Stat. § 160D-935.
2. The small wireless facility shall not extend more than ten (10) feet above the highest point of a structure;
3. Any antenna shall be capable of fitting in an enclosure a maximum of six (6) cubic feet;
4. Associated equipment for a small wireless facility shall maintain a maximum volume of twenty eight (28) cubic feet;
5. The small wireless facility shall not have any type of lighted signal, lights, or illuminations unless required by an applicable federal, state, or local rule, regulation or law;
6. The small wireless facility shall comply with any applicable FCC emissions standards;
7. The small wireless facility shall comply with any applicable local building codes in terms of design, construction and installation; and
8. The small wireless facility shall not contain any commercial advertising.

C. Town Utility Poles. Consistent with N.C. Gen. Stat. § 160D-937, if small wireless facilities are installed on town utility poles, the town shall not enter into an exclusive agreement or arrangement with any person for the right to attach equipment to town utility poles.

Any rates or fees for collocations on town utility poles must be nondiscriminatory regardless of the services provided.

- D. **Small Wireless Facilities In Public Right-of-Way.** If a small wireless facility is placed within the public right-of-way, in addition to a zoning permit, an additional right-of-way use permit shall be required. Consistent with N.C. Gen. Stat. § 160D-935(d)(5), the town may deny a right-of-way use permit for a small wireless facility if the proposed facility:
1. Fails to meet the standards of town codes;
 2. Fails to comply with applicable standards of this LDO;
 3. Interferes with the safe operation of traffic control equipment;
 4. Interferes with sight visibility lines for transportation or pedestrians; and/or
 5. Interferes with compliance of the Americans with Disabilities Act or similar federal or state mandated provisions regarding pedestrian access of movement.

The town must document the basis for a denial, including specific provisions and 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 listed in the prior denial.

E. **Application Review Criteria**

1. Applications for small wireless facilities shall be processed and reviewed within forty five (45) days from the date an application is considered to be complete. The applicant and town may mutually agree to a longer review period.
2. Construction of any approved small wireless facility shall commence within six months of its approval date. The small wireless facility shall be activated for use within one year from the right-of-way use permit issuance date.

Town approval is not required for routine maintenance, replacement of existing small wireless facilities which are substantially similar, or installation or

replacement of micro wireless facilities that are suspended on cables strung between existing utility poles.

F. Abandonment

1. As authorized by N.C. Gen. Stat. § 160D-935(g), whenever a small wireless facility ceases to be in active operation for more than one-hundred and eighty (180) days, it shall be considered abandoned and removed by the wireless provider.
 - a. For purposes of this subsection, a small wireless facility shall be deemed abandoned at the earlier of the date that the wireless provider indicates that it is abandoning such facility or the date that is one-hundred and eighty (180) days after the date that such facility ceases to transmit a signal, unless the wireless provider gives the town reasonable evidence that it is diligently working to place such facility back in service.
 - b. The Board of Commissioners may grant a one-time extension equal to one-hundred and eighty (180) days whenever it finds that such an extension will not compromise the public health, safety, or welfare and that such extension is not solely for the purpose of delaying the cost of removing the small wireless facilities.
2. The wireless provider shall be responsible for the removal of a small wireless facility.
3. Whenever a small wireless facility is abandoned, the wireless provider shall notify the town within thirty (30) days following abandonment.
4. Should the wireless provider fail to timely remove the abandoned small wireless facility, the town may cause such wireless facility to be removed and may recover the actual cost of such removal, including legal fees, if any, from the wireless provider.