



MEMORANDUM

TO: Members of the Finance Committee

FROM: Rich Olson, City Manager
Matthew Schelly, Community Development

DATE: October 3, 2018

REF: Consideration – Call for a Public Hearing on TA 01-18 - Proposed Changes to the City's Wireless Communication Facilities Ordinance

BACKGROUND:

The State Legislature passed HB 310 in 2017 to allow, among other things, wireless communications facilities to be constructed in public rights-of-way and on existing structures and provided certain requirements and opportunities for both private companies and municipalities. During the August 27, 2018 City Council work session, staff presented an overview on the current ordinance in place for wireless communication and explained the changes that would be forthcoming.

Currently, the City of Elizabeth City regulates communication towers that are above 60 feet in height, plus some minimal regulation for towers less than 60 feet in height; however, these regulations were designed to address “towers” on private or public property, not in the public rights-of-way. The latest technology in wireless communication has led private communications companies, as well as private installation companies, to desire to install new “small cell” facilities of a variety of types and sizes at potentially hundreds of new locations throughout Elizabeth City in the next few years. Many of these would be on existing power or streetlight poles, or on new poles the private companies would install.

ANALYSIS:

Cities across the state have been revising their codes to address the changes in the state statute, and to recognize the needs of the wireless communication industry and the desires of the general public for a larger and better wireless service. Staff has reviewed the new regulations of more than 20 municipalities in NC, attended various workshops, seminars, and webinars, and discussed drafts with the Elizabeth City Public Utilities Department, the Electric Superintendent, the City's Solicitor, the Bi-County Emergency Management Coordinator, NCDOT District representatives, a local wireless provider, and City Administration to develop the attached proposed ordinance.

In addition to the background, some important concepts to understand are:

Towers: The city already has several towers. These have been, and will continue to be, our connection to the wireless world. As more people use wireless devices, and as more people use these for more than phone calls, these towers are not only reaching capacity, but are not as sufficient at providing good quality video communication over the same large area as they have been for phone calls.

Small Cell Facilities: These are kind of like booster locations for the tower. They send and receive signals at short distances to homes and businesses. They are called “small” not because the equipment is small, but because the number of devices and the area it can serve is small. Some are only able to serve 50 to 60 devices. Many homes now have three to five cell phones, tablets, servers, and other devices that use cell signals to connect to the internet; at that rate, each wireless provider needs to provide one small cell facility for every 10 to 20 homes. Businesses would also need these small cell towers. There is a growing demand for these facilities, which is projected to increase over the next few years.

The installment of small cell facilities will lead to numerous impacts to the City by way of visual, operational, and fiscal changes. The fiscal impacts would include costs associated with reviewing these highly technical and often structural facilities and revenues received from attachments to City poles or structures, leasing RW, or on City lands. The proposed fee schedule is as follows:

CITY OF ELIZABETH CITY
Fee Schedule for Application Reviews of Towers and Wireless Facilities

Small Wireless Facilities in any Public ROW within the City Limits or ETJ:

- (\$500 Technical Consulting Fee, plus \$100 Application Fee per facility for the first five small wireless facilities addressed in the application, plus \$50 per each additional small wireless facility addressed in the application. Up to 25 facilities can be submitted per application.) **\$600 to \$2,000**

Eligible Facility (any co-location or Non-Substantial Modification):

- (\$1,000 Technical Consulting Fee, plus \$250 Application Fee. Only one facility can be submitted per application.) **\$1,250.00**

Substantial Modification (as defined):

- (\$7,500 Technical Consulting Fee, plus \$500 Application Fee. Only one facility can be submitted per application.) **\$8,000.00**

New Wireless Support Structure (other than utility poles):

- (\$7,500 Technical Consulting Fee, plus \$500 Application Fee. Only one facility can be submitted per application.) **\$8,000.00**

Operational impacts include the permitting and review process; the installation coordinations with City departments; maintenance of City structures that support

these facilities; payments; enforcement of violations; and complaints from neighbors. The visual impacts would be citywide; the proposed ordinance includes several provisions to minimize these impacts.

STAFF RECOMMENDATION:

By motion, recommend that the City Council call for a public hearing for the purpose of receiving public input on the wireless communications ordinance to be held during the regular session of October 22, 2018, directly following the public comment period.

11-4.25 Wireless Communication Facilities

(A) Purpose

- (1) The purpose of this ordinance is to provide for the installation, modification, operation and maintenance of wireless communication facilities on public and private property consistent with the State and Federal law while ensuring public safety, minimizing the visual effects of communication facilities on public streetscapes, protecting public views, and otherwise avoiding and mitigating the visual impacts of communication facilities on the community.
- (2) Communication facilities shall utilize the least obtrusive available technology in order to reduce or minimize the number of communication facilities in the City and minimize their visual impact on the community.
- (3) The City encourages the location and co-location of communication facilities equipment on existing structures and buildings thereby minimizing new visual, aesthetic, and public safety impacts, and to reduce the need for additional antenna-supporting structures.
- (4) The provisions of this ordinance are not intended and shall not be interpreted to prohibit or to have the effect of prohibiting telecommunication services. This ordinance shall be applied to providers, operators, and maintainers of telecommunication services regardless of whether authorized by or subject to State or Federal regulations. This ordinance shall not be applied in such a manner as to unreasonably discriminate among providers of functionally equivalent telecommunication services.

(B) Definitions

- (1) Antenna: Communications equipment that transmits and receives radio signals used in the provision of all types of wireless communications services.
- (2) Base Station: A station at a specific site authorized to communicate with mobile stations, generally consisting of radio receivers, antennas, coaxial cables, power supplies, and other associated electronics
- (3) City Utility Pole: A pole owned by the City in the City right-of-way that provides lighting, traffic control, or a similar function.
- (4) Co-location: The mounting or installation of an antenna on an existing tower, building, or structure for the purposes of transmitting and/or receiving signals for communication purposes. The term co-location does not include the installation of new wireless support structures including new utility poles, and City utility poles.

- (5) Communication Facilities, Facility: Means a facility consisting of a base station and accessory equipment, and the utility pole, City pole, or wireless support structure, if any, associated with the facility.
 - (a) Short communication facilities shall be those facilities up to 40 feet in height including the antenna.
 - (b) Tall communication facilities are facilities greater than 40 feet in height including the antenna.
- (6) Equipment enclosure, equipment compound: An enclosed structure, cabinet, or shelter used to contain radio or other equipment necessary for towers for the transmission or reception of wireless communication signals.
- (7) Micro wireless facility: A small wireless facility that is no larger in dimension than 24 inches in length, 15 inches in width, and 12 inches in height and that has an exterior antenna no longer than 11 inches.
- (8) Search ring: The area within which a wireless facility must be located in order to meet service objectives of the wireless service provider using the wireless facility or wireless support structure.
- (9) Small Wireless Facility: A wireless facility that meets both of the following qualifications:
 - (a) Each antenna is located inside an enclosure of no more than six cubic feet, 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 cubic feet.
 - (b) All other wireless equipment associated with the facility has a cumulative volume of no more than 28 cubic feet. For purposes of this section, the following types of ancillary equipment are not included in the calculation of the equipment volume: electric meters, concealment elements, grounding equipment, power transformer, telecommunication demarcations boxes, ground-based enclosures, switches, cut-off switches, vertical cable runs for the connection of power and other services, or other support structures.
- (10) Stealth or Stealth Facility: means any communications facility, wireless support structure, or antenna that is integrated as an architectural feature of a structure or that is designed to camouflage or conceal the presence of the communications facility, wireless support structure, or antenna so that the telecommunications facility, wireless support structure, or antenna is less visually obtrusive and not readily apparent to a casual observer.
- (11) Support Structure, Wireless Support Structure, Tower: Any structure, including a tower, utility poles, other than a building, used to receive and transmit a wireless signal. Tower includes one

or more antennas attached to a support structure and related equipment, but does not include an amateur radio antenna, radio or TV tower.

- (12) Utility pole: A structure designed for and used to carry lines, cables, or wires for telephone, cable television, or electricity, or to provide lighting.

(C) Types of Communication Facilities

- (1) Short Communication Facilities - Height of support structure and antenna does not exceed 40 feet.
- (a) New wireless facilities on an existing support structure (co-location)
 - (b) New wireless facilities and new support structure
- (2) Tall Communication Facilities - Height of Structure and antenna that are 40 feet tall and taller
- (a) New wireless facilities on an existing support structure (co-location)
 - (b) New wireless facilities and new support structure
- (3) Exempt Facilities
- (a) Amateur ham radio antennas
 - i. Operator is licensed by FCC
 - ii. Maximum height of 70'
 - iii. Freestanding antenna shall be located to the rear of the principal structure, and 10-foot setback from any property line.
 - iv. An antenna attached to the principal structure shall be located on a side or rear elevation of the structure
 - (b) Micro wireless facilities (a facility with dimensions no more than 24 inches long, 15 inches wide, and 13 inches high, with any exterior antenna limited to 11 inches) suspended on cables between existing utility poles.
 - (c) Satellite dish measuring 40 inches or less
 - (d) Public Safety facilities
 - i. Facilities are to be designed to match the existing structure
 - (e) Temporary commercial communication facility for use during a declared of state of emergency
 - (f) Routine maintenance, or in-kind of facilities replacement of the same, or smaller size, or for micro wireless facilities.
 - (g) A small wireless facility located in an interior structure.

(D) **Where Permitted**

- (1) Communication Facilities less than 40 feet tall – R-15, CB, GB, O&I, HB, NB, CMU, I-1 and I-2.
- (2) Communication Facilities 40 feet tall and taller – R-15, I-1, and I-2
- (3) Exempt Facilities – All zoning districts except for PDR and PDM zoning districts
- (4) New facilities shall be prohibited within 100 feet of residential and local historic districts unless the applicant provides clear and convincing evidence demonstrating that:
 - (a) a new facility as proposed is necessary;
 - (b) that the intended area cannot be served from outside the district;
 - (c) that no existing or previously approved facility can reasonably be used to serve the intended area; and
 - (d) that prohibiting the new facility would result in a significant gap in service.

(E) **Co-location**

The City encourages the co-location of new antennas on existing structures as opposed to constructing new facilities or increasing the height of existing structures. The colocation shall be the least visually intrusive that is not commercially impractical.

(1) **Siting Hierarchy Preferences**

The following list indicates the City's preferences for wireless communication facility locations in descending order of preference:

- (a) Co-location on an existing wireless support structure or other existing structure;
- (b) Stealth (concealed) communication facilities on an existing building/structure;
- (c) Building mounted wireless facilities or wireless support structure;
- (d) New stealth (concealed) support structure;
- (e) Non-stealth communication facility on an existing building/structure;
- (f) New freestanding non-stealth support structure (monopole); and
- (g) New freestanding non-stealth towers (lattice-type)

These preferences are intended as guidance for development of an application for communications facilities. If the proposed site is not for the highest priority listed above, then a detail explanation and justification must be provided to explain why a site of the higher priority designations was not chosen. The applicant must satisfactorily demonstrate the reason(s) why the proposed site should be permitted, and the hardship that would be incurred by the applicant if the location was not approved as proposed. A financial hardship shall not be an acceptable reason.

- (2) The co-location of the communication facility shall commence within six months of approval.
- (3) The communication facility shall be activated for use by the wireless provider within one year from the permit issuance.
- (4) All accessory equipment shall be located either underground or inside the building/structure.
- (5) Once a communication facility has been inactive for more than 180 days, the facility shall be removed entirely at the owner's cost.
- (6) All support structures, except non-exempt, shall be structurally certified by a registered North Carolina structural engineer to be in accordance with all local, state, and federal structural requirements for loads and stresses, including wind and ice loads and stresses and including, but not limited to, the most recently adopted version of all applicable ANSI guidelines. And any such certification shall be accompanied by a detailed structural report, including all calculations.
- (7) Co-location on a previously approved support structure is permitted without an additional special use permit provided that all conditions of the previously approved permit are complied with.
- (8) Co-location on a building or substantial structure, such as a water tower, shall not require the issuance of a special use permit, but all other applicable provisions shall be met and approved by the Zoning Administrator. The Zoning Administrator may require the issuance of a special use permit if there is doubt as to whether a given proposal is in compliance with the intent of this ordinance.
- (9) To encourage shared use of wireless support structures greater than 40 feet in height and proposed to be located within one mile of any other support structure greater than 40 feet in height, shall provide evidence that reasonable efforts have been made to lease or otherwise acquire space on all existing, planned, or constructed wireless support structures. No new freestanding wireless support structure shall be permitted unless the applicant demonstrates that no existing or previously approved wireless support structure can

reasonably be used for the telecommunications facility placement instead of the construction of a new wireless support structure; that residential and historic areas cannot be served from outside the area; or that the proposed height of a new wireless support structure or initial telecommunications facility placement or a proposed height increase of a substantially changed wireless support structure, or replacement wireless support structure, is necessary to provide the applicant's designed service. Collocation on an existing wireless support structure is not reasonably feasible if collocation is technically or commercially impractical or the owner of the wireless support structure is unwilling to enter into a contract for such use at fair market value.

If it is determined that a co-location is not reasonably feasible a co-location report shall be submitted describing the existing towers, or other support structures of significant height, within a three-mile radius, including the height of the structures, the number of existing users, height available for co-locations and if there are any structural deficiencies.

- (10) Documentation by a professional North Carolina registered engineer must be submitted describing the capacity of the proposed communication facility, including the number of users and types of antennas that it can accommodate. The short communication facility shall have sufficient structural integrity to accommodate at least two additional wireless facilities from other providers similar in size, scope, and weight to those the initial carrier is attaching to the structure. Tall communication facilities must be designed to accommodate at least five additional wireless facilities from other providers similar in size, scope, and weight to those the initial carrier is attaching to the tower. Where a new tower is proposed, and sufficient reasons for a new tower exist and the tower will not be designed to accommodate other future users, documentation justifying the proposal shall be required. The owner of the communication facility shall submit a letter of intent to the City committing the owner to allow co-location of other service providers.
- (11) Attachments to Existing Structures Other Than Tall Communication Facilities
 - (a) Attachments to Buildings: To preserve and protect the nature and character of the area and create the least visually intrusive impact reasonably possible, all antennas shall be flush mounted on the surface without increasing the height of the building or structure. Side and rear building elevations are preferred. All attachments and exposed cabling shall use camouflage or stealth techniques to match the color and texture of the building in a manner to make the antennas as visually innocuous and undetectable as possible. If the antenna is not flush mounted, or as near to flush mounted as is possible, it

shall be proven that such mounting would prohibit, or serve to prohibit, the provision of service, or to be technologically impractical.

- (b) 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 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 or that to do so would be technologically impractical.

(F) Standards for Communication Facilities

- (1) Provide a structural analysis prepared by a registered North Carolina structural engineer
- (2) At the discretion of the Planning Director, an application may require the issuance of a special use permit if there is any doubt as to whether a proposal is in compliance with the intent of this section.

(3) Requirements

- (a) The communication facility/support structure must replace a pre-existing utility pole, streetlight, or a site plan approved parking lot light and be located:
 - i. Within two feet of the base of the pre-existing pole and at the same distance from the curb line, or edge of pavement/travel lane, as the pre-existing pole in a public right-of-way;
 - ii. At least 10 feet from an existing building;
 - iii. Outside of the roadway clear zone as determine by the Public Utilities Director;
- (b) A pre-existing streetlight or parking light pole must be removed within 10 days after power is activated to the replacement tower and a pre-existing utility pole must be removed within 180 days after a replacement utility pole is installed.
- (c) The height of the communication facility/support structure, including any attached antennas and equipment must not exceed:
 - i. For streetlights, the height of the existing pole that is being replaced
 - ii. For utility poles and parking lot lights, the height of the pre-existing utility or surrounding poles, or parking light pole plus 10 feet.
 - iii. In single family districts the maximum pole height is 20 feet.

- (d) The communication facility/support structure must be the same color as the nearest existing pole.
- (e) The communication facility/support structure shall have not exposed wiring.
- (f) Any accessory equipment used to support the antennas on a replacement utility or streetlight poles must be installed in the base of the tower or underground.
- (g) Equipment cabinets shall not be permitted above grade within the street rights-of-way.
- (h) The communication facility/support structure must include a replacement streetlight, or parking lot light, if the lights existed on the pre-existing or site plan approved pole.
- (i) The design of a replacement communication facility/support structure located in a public right-of-way, including the footing and replacement streetlight, must be approved by the Public Utilities Director.
- (j) Each owner of an antenna attached to a communication facility/support structure must maintain the antenna and the associated equipment attached to and abutting the structure in a safe condition, remove graffiti, including stickers, and repair damage.
- (k) When the communication facility ceases to be in active operation for communication purposes, for more than 180 days the wireless facility and support structure must be removed at the cost of the owner.
- (l) If the support structure includes a street light, traffic light, or other utility service, the only wireless facilities shall be removed.

(3) **Single Family District Standards**

- (a) Co-location of small wireless communication facilities are prohibited on land used for single family residences or vacant land that is zoned for single family development, unless such co-location is a replacement of an existing streetlight with a streetlight capable of including a co-located, stealth (concealed) small wireless facility.
- (b) The minimum distance of a new support structure/pole from any residential structure shall be at least 150% of the pole height and shall not be located directly in front of any residential structure located in a single-family zoning district. The preferred location would be along the side property lines. The minimum setback distance shall be measured from the facility installation to the nearest point of a single-family dwelling located in a single-family zoning district.
- (c) Along streets and within residential subdivisions where there are no existing utility poles (all underground utilities), stealth

wireless facilities may be attached to streetlights in the public right-of-way. Approval from the owner of the light pole must be submitted with the encroachment agreement.

- (d) Equipment cabinet(s) for systems placed on light poles shall be located underground.
- (e) New streetlight poles may not be erected in a single-family residential area solely for wireless communication equipment attachment unless the applicant has demonstrated it cannot reasonably provide service by:
 - i. Installing poles outside of the residential area;
 - ii. Attaching equipment to existing poles within the rights-of-way;
 - iii. Installing poles in rights-of-way not contiguous to parcels used for single family residential purposes; or
 - iv. Installing poles in rights-of-way contiguous to reverse frontage parcels.
- (f) All requests for new poles within the rights-of-way in single family residential neighborhoods shall be in compliance with City of Elizabeth City Utility Right-of-Way Policy.
- (g) The maximum height, of a new street light including concealed antenna shall be 20 feet tall or the height of nearby existing street lights.
- (h) At least 10 business days prior to submitting an application, the applicant shall complete each of the following pre-submission requirements:
 - i. Notify all property owners within 500 feet of proposed streetlight pole installations, measured along the public right-of-way, via a door hanger or direct mailing; and
 - ii. Host a community meeting not less than 14 days after initial notice to present in reasonable detail of the proposed plan of installation, including facility descriptions, locations, relevant screening, and aesthetic characteristics;
 - iii. Receive and consider for a period of 30 days after the community meeting any comments or proposed alternative locations and designs submitted by the public;
 - iv. A summary of the neighborhood meeting shall be submitted with the application. At a minimum the report should state the method of notification; list of property owners contacted; roster of persons in attendance; a summary of the issues discussed; and a description of any changes made as a result of the meeting.

- (4) **Public Rights-of-Way Excluding Single Family Districts:**
- (a) An encroachment agreement must be issued by the Public Utilities Director before installation of any new pole in rights-of-way.
 - (b) New support structures/poles shall not be constructed of wood. Metal, concrete or fiber materials are appropriate.
 - (c) Any disturbance in street rights-of-way that would require relocation of poles and associated equipment shall be the responsibility of the communications company installing the equipment.
 - (d) The maximum height of the pole including antenna is 35 feet, or the height of existing nearby utility poles, except where in the City's discretion an increased pole height is an acceptable alternative to reduce the total number of new poles. The maximum height of an antenna on top of the pole shall be no more than six feet (6') above the height of the pole.
- (5) **Setbacks**
- (a) The minimum support structure setback from any property line shall be:
 - i. For non-stealth - Equal to the height of the support structure
 - ii. For stealth - Equal to one-half (1/2) the height of support structure; or
 - iii. For a monopole support structure with a base diameter greater than or equal to one foot: equal to one-half of the height of the tower, provided that a professional engineer certifies that the structure has sufficient strength to withstand hurricane-force winds of a velocity that have occurred, or can be expected to occur, in the area, and that should winds of greater velocity occur, the design of the structure is such as to bend rather than fall. This requirement shall not apply to communications equipment co-located on facilities within the public right-of-way (such as streetlights, telephone and utility poles) as long as other requirements of the ordinance are met.
 - (b) The setback requirement may be reduced to one-third of the height of the proposed wireless support structure when a North Carolina registered professional engineer certifies that the structure's fall zone is equal to, or less than, the setback requested and that the structure is designed to collapse within the setback requested.
 - (c) Telecommunications accessory equipment structures, any equipment compounds, and any other structures that are not

communication facilities for the communication facility, shall be set back a minimum of 50 feet from all property lines and rights-of-way. Where visual impact and public safety concerns will not be affected, the Board of Adjustment may reduce the setback to no less than 15 feet.

- (d) Communication facility sites shall be located a minimum of three hundred fifty feet from the property line of a lot in a ~~recorded~~ residential ~~subdivision~~ district.
- (e) No new communication facility over 40 feet in height shall be constructed closer than the support structure's height from any public right-of-way.
- (f) Any communication facility that is to be attached to a building devoted to another use in such a manner that the staff finds that the tower will be effectively concealed, or disguised, shall observe the minimum setback and maximum height of the underlying zoning district.
- (g) Any communication facility that is to be attached to a building devoted to another use in such a manner that the staff finds that the communication facility will be effectively concealed or disguised shall observe the minimum setback and maximum height of the underlying zoning district.
- (h) Only an architecturally compatible communication facility shall be permitted in a locally regulated historic district (downtown or West Main Street) or on property on which a designated historic landmark is located. All accessory equipment shall be located either underground or inside the building/structure. All communication facilities proposed in the locally regulated historic district shall be reviewed on a case by case basis to determine the compatibility of the proposed structure with the surrounding area. Any communication facilities in the locally regulated historic district (downtown or West Main Street) shall be required to obtain a Certificate of Appropriateness as required by UDO Section 12—8.2(B).
- (i) The owners of easements and rights-of-way within communication facility setbacks must provide a letter of acknowledgment of the proposed facility's location.

(6) **Signs**

- (a) No business signs, billboards, or other advertising shall be installed on the communication facility or security fencing with the exception of an identification sign.
- (b) The communication facility and/or equipment compound shall have an identification sign that contains the FCC registration site, the name(s) of the owner(s) of the facility as well as emergency phone numbers and contact information for

all parties responsible for maintenance. The sign shall not be larger than one square foot in size.

- i. Stealth facilities shall locate this signage in an inconspicuous, or nearby location that would still be visible in an emergency.

(7) **Screening**

For communication facilities with security fences, a minimum 10-foot-wide landscaped buffer shall be installed along the exterior side of the security fence and shall always be maintained by the communication facility owner. The vegetative screen shall consist of two staggered rows of evergreen trees such as Leyland Cypress, Tree Holly, Magnolia Grandiflora or Deodar Cedar with a maximum spacing of 25 feet on center, or spacing approved by the Planning Director so as to best provide for opacity after five years. The minimum height at planting for trees shall be six feet and they shall have an expected minimum maturity height of 35 feet under normal growing conditions. There shall also be one row of dense shrubs, spaced not more than eight feet on center. Shrubs shall be a minimum of two feet high at planting and shall have a minimum expected maturity height of eight feet under normal growing conditions. The plants shall be installed and maintained by the communication facility owner. The requirements of this subsection shall be applicable to all proposed towers, unless existing vegetation is determined by the Planning Director to provide a screen which is at least as effective as a planted screen. This requirement shall not apply to communications equipment co-located on facilities within the public right-of-way (such as light standards, telephone and utility poles) as long as other requirements of the ordinance are met.

(8) **Security**

If security fencing is proposed the fencing shall be installed around the base of the tower, including but not limited to equipment and/or storage structures, along with any guyed wires. Such fence shall be opaque and shall be composed of materials such as wood, brick, or metal to a height of not less than eight feet. Chain link is not an acceptable material. This requirement shall not apply to communications equipment co-located on facilities within the public right-of-way (such as light standards, telephone and utility poles) as long as other requirements of the ordinance are met.

(9) **Lighting**

Support structures shall not be artificially lighted unless required by the Federal Aviation Administration (FAA) or other federal or state authority and in no case shall exceed the required minimum. To the extent allowed by the FAA, strobes shall not be used for night time lighting. The lights shall be oriented as not to project directly onto surrounding residential properties, consistent with the

FAA regulations. Prior to the issuance of a building permit, the applicant shall be required to submit documentation from the FAA that the lighting is the minimum lighting required by the FAA.

(10) **Removal and Performance Security**

- (a) Whenever a communication facility ceases to be in active operation for communication purposes, for more than 180 days, the antenna and all support equipment shall be removed in its entirety. Notice shall be provided to the Zoning Administrator within 30 days of any communication facility that is placed out of service.
- (b) The applicant and the owner of record of any proposed wireless facilities site shall, at its sole cost and expense, be jointly required to execute and file with the City a bond or other form of security acceptable to the City Chief Finance Officer, in an amount of at least \$75,000 for each communication facility. The amount for a co-location shall be \$5,000. The full amount of the bond or security shall remain in full force and effect throughout the term of the Special Use Permit and/or in the case of abandonment until any necessary site restoration is completed to restore the site to a condition comparable to that which existed prior to the issuance of the original Special Use Permit.

(11) **Submittal and Site Plan Requirements**

(a) **Site Plan:**

- i. The zoning district in which the property is located.
- ii. Site survey showing all property lines and dimensions, existing structures, required setbacks, and the proposed wireless support structure,
- iii. Proposed and existing easements and rights-of-way.
- iv. Proposed locations of fencing, landscaping, access, and any proposed parking.
- v. A vicinity map indicating the proposed tower and search ring.
- vi. A vicinity map indicating all existing and proposed communication facility sites within a three-mile radius and their search rings.
- vii. Any officially designate floodways, floodplains, or watersheds
- viii. A plan drawing of the proposed equipment compound area showing names and locations of other providers; location of ground equipment; centerline height of all proposed and existing antenna on the supporting structure. Demonstrate that there is adequate ground space for additional users.

- ix. Indicate how many antenna sites the support structure is designed to accommodate and how many of those sites will be available for co-location opportunities.
 - x. No new wireless support structure shall be built, constructed or erected unless the tower is capable of supporting at least three wireless facilities from other providers that are of comparable weight, size, and surface area to the communication facilities to those installed by the applicant on the structure.
 - xi. Identification of the intended user(s) of the tower and an attestation that the communication facility will be activated for use within one year from permit issuance by a wireless service provider.
- (12) Prior to the issuance of building permits, a public land or right-of-way lease agreement shall be established by a separate instrument and recorded for all wireless communication facilities and/or support structures placed on City property or structures and within the City's rights-or-way.
- (13) Copy of FCC license applicable for use of the facility.
- (14) Any proposed communication facility must demonstrate that it is designed and sited to be the least visually intrusive and creates the least visual impact. The City reserves the right to require the use of stealth or camouflage technology or technologies such as a distributive antenna system (DAS) or its functional equivalent to achieve this goal.

(G) Administrative Review

- (1) At the discretion of the Planning Director, an application may require the issuance of a special use permit if there is any doubt as to whether a proposal is in compliance with the intent of this section.

(2) Qualified Applications

- (a) Stealth facilities located in other than single-family residential zoning districts that are sufficiently disguised to minimize visual impact;
- (b) Addition of an antenna to an existing utility pole, City pole
- (c) Stealth support structures up to 40 feet in height that are sufficiently disguised to minimize visual impact;
- (d) Any wireless support structure up to 40 feet in height;
- (e) Any wireless support structure less than 200 feet in height located on City property; and
- (f) Co-location applications meeting the following requirements:

- i. The proposed facility will not increase the overall height or width of the support structure.
- ii. The proposed additional facility does not exceed the applicable weight limits for the support structure.
- iii. The proposed additional facility will comply with applicable regulations, restrictions, or conditions, if any, to the initial support structure.
- iv. The proposed facility complies with all current federal, state, and local requirements.

(G) Full Review for Tall and Non-Stealth Communication Facilities

- (1) All non-stealth support structures and structures 40 feet tall or taller require the issuance of a special use permit.
- (2) No new tall communication facility shall be built, constructed or erected unless the structure is capable of accommodating at least six other providers equipment of comparable weight, size, and surface area to the wireless facilities being initially installed.
- (3) Any proposed tall communication facility must demonstrate that the structure was designed and sited to be the least visually intrusive and creates the least visual impact.
- (4) The holder of a special use permit for a support structure shall secure and always maintain a public liability insurance policy in the amount of \$1,000,000. For a support on City property, the City shall be named as an additional insured. The City shall be notified at least 30 days prior written notice in advance of the cancellation of the insurance policy. Renewal or replacement policies shall be delivered to the City at least 15 days before the expiration date of the policies that are to be renewed or replaced.
- (5) Special use permits for all communication facilities shall expire unless documentation, including but not limited to an FCC license, is submitted each January to the Zoning Administrator indicating that the tower is being utilized. Additional documentation shall be submitted confirming that the insurance policy and the bond for equipment and structure removal are still in effect.
- (6) **Neighborhood Meeting**
At the time of submitting an application for a proposed tower that requires approval for a special use permit, the applicant shall submit written documentation that they have conducted a neighborhood meeting, to which owners of property within 500 feet of the subject property had been invited, to explain the proposed facility and answer questions. The meeting shall not be less than 14 days after the mailed notification. Documentation

should include the time, date, and location of the meeting; a list of meeting attendees; a brief summary of any presentations and/or information discussed; and concerns/questions expressed by neighboring property owners.

(6) Balloon Test Required for New or Expanded Tall Towers

To better inform the public in the case of a new communication tower or an increase in height of an existing tower, the applicant shall hold a “balloon test” prior to the initial public hearing during which the application shall be considered. The applicant shall arrange to fly, or raise upon a temporary mast, a minimum of a 10 foot in length brightly colored balloon, a minimum diameter of 36 inches, at the maximum height of the proposed new tower.

(a) Sign Required

At least 14 days prior to the conduct of the balloon test, a sign containing the times and date(s) of the balloon test and contact information shall be erected to be clearly visible from the road nearest the proposed site and shall be removed no later than 14 days after conducting the balloon test. The sign shall be at least 4 feet by 8 feet in size.

(b) Published Notification

The dates, (including a second date, in case of poor visibility or wind in excess of 15 mph on the initial date) times and location of this balloon test shall be advertised by the applicant 7 and 14 days in advance of the first test date in a newspaper with a general circulation in the City. The applicant shall inform the City in writing, of the dates and times of the test, at least 14 days in advance. The balloon shall be flown for at least four consecutive hours between 10:00 a.m. and 2:00 p.m. on the dates chosen. The primary date shall be on a week-end, but the second date, in case of poor visibility on the initial date, may be on a week day. A report with pictures of the balloon from various locations shall be provided with the application.

(c) Notification to adjacent property owners

The applicant shall notify all property owners by first-class mail located within 1,500 feet of the nearest property line of the proposed site and of the date(s) and time(s) of the balloon test. Such notice shall be provided at least 14 days prior to conducting the balloon test.

(7) Visual Impact Analysis for New or Expanded Tall Towers

- (a) Photo simulations of before and after views from key viewpoints including but not limited to state highways and other major roads, parks, public lands, historic districts, and from any other location where the site is highly visible.
- (b) A visual representation of the visual impact of the proposed facility, including the tower base, fencing, and equipment

compound from abutting properties and streets related to the need or appropriateness of screening.

(c) The applicant must demonstrate and provide in writing and/or by drawings how they will effectively screen from view the base of the structure and the related facilities and structures.

(d) The applicant shall demonstrate that the facility is sited and designed to be the least visually intrusive.

(J) Other Requirements

(1) Communication facility must comply with the requirements of the National Environmental Policy Act (NEPA) which addresses such things as wilderness areas, wildlife preserves, endangered species, historical sites, Indian religious sites, floodplains, wetlands, high intensity white lights in residential neighborhoods, and excess radio frequency emissions. Prior to the issuance of a building permit, the applicant shall be required to submit documentation that all the requirements of the NEPA have been met.

(2) All communication facilities shall be constructed and maintained in accordance with all ordinances, including but not limited to applicable building code requirements as well as FCC and FAA rules and guidelines.

(3) Certification from the applicant that it complies 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 all other federal statutory and regulatory requirements relating to radio frequency interference.

(4) The owner of the communication facility shall provide documentation that the power density levels do not exceed federally approved levels or American National Standards Institute (ANSI) standards, whichever provides for stricter requirements.

(5) All structure-mounted communications facilities shall be designed to meet current N.C. State Building Code standards and wind load requirements.

(6) The communication facility shall have at least one service provider committed for active use within 90 days of completion of construction. Evidence in writing of this commitment shall be submitted with the application.

(7) All utilities serving a new communication site and facility shall be installed underground from the point of the existing service.

(8) Non-stealth communication facilities are not permitted to locate on an existing utility pole or street light.

- (9) Outdoor storage of equipment or related items shall be prohibited at all communication facility sites.
- (13) No new communication facility/support structure taller than 40' shall be permitted in the City, unless the maximum permitted height is shown by verifiable clear and convincing technical evidence satisfactory to the City to be commercially or technically impracticable.
- (14) The City Council shall set a technical consultation fee to offset the actual, direct and reasonable administrative costs incurred for review, processing, and approval of a collocation application. The City may engage a third-party consultant for technical consultation and the review of a collocation application.

[The following text would be removed.]

~~11-4.25 — Communication Tower Over 60 Feet in Height, Radio and Television Tower~~

~~(A) — Where Required~~

~~R-15, I-1, and I-2 districts except that communication towers on government facilities and structures are allowed by right in all zoning districts.~~

~~(B) — Co-location~~

- ~~(1) — Co-location on a previously approved tower is permitted without an additional special use permit provided that all conditions of the previously approved permit are complied with.~~
- ~~(2) — Co-location on a building or substantial structure, such as a water tower, shall not require the issuance of a special use permit, but all other applicable provisions shall be met and approved by the Zoning Administrator. The Zoning Administrator may require the issuance of a special use permit if there is doubt as to whether or not a given proposal is in compliance with the intent of the section.~~
- ~~(3) — No new tower shall be allowed to locate within three miles of an existing or proposed tower unless written documentation is submitted that co-location is not possible due to one or more of the following reasons:
 - ~~(a) — The planned equipment would exceed the structural capacity of the previously approved towers, considering their existing and planned use, and those towers cannot be reinforced to accommodate the planned or equivalent equipment at a reasonable cost; or~~~~

- (b) ~~The planned equipment would cause RF interference with other existing or planned equipment for these towers, and the interference cannot be prevented at a reasonable cost; or~~
 - (c) ~~Previously approved towers do not have space on which the planned equipment can be placed so it can function effectively and reasonably in parity with the existing and/or planned equipment of the present user(s); or~~
 - (d) ~~Other reasons make it impractical to place planned equipment on previously approved towers (the applicant must explain and document in detail such other reasons).~~
- (4) ~~Documentation must be submitted by the proposed tower owner indicating the intent to allow shared use of the tower, the number of shared users allowed, and how other potential users shall be accommodated. Prior to the issuance of a building permit, documentation must be submitted by a professional engineer that the tower has sufficient structural integrity to accommodate more than one user.~~

(C) ~~Setback~~

- (1) ~~The minimum tower setback from any property line shall be:~~
 - (a) ~~Equal to the height of the tower; or~~
 - (b) ~~For a steel monopole tower with a base diameter greater than or equal to one foot, equal to one-half of the height of the tower, provided that a professional engineer certifies that the tower has sufficient strength to withstand hurricane force winds of a velocity that have occurred, or can be expected to occur, in the area, and that should winds of greater velocity occur, the design of the tower is such as to bend rather than fall.~~
- (2) ~~Tower sites shall be located a minimum of three hundred fifty feet from the property line of a lot in a recorded residential subdivision.~~
- (3) ~~No tower shall be constructed closer than the tower's height from any public right-of-way.~~
- (4) ~~No towers shall be constructed in a designated historic district or on property on which a designated historic landmark is located. In addition, towers shall not be constructed within three hundred fifty feet of a designated historic district nor a historic landmark. For the purposes of this subsection, the term 'historic' shall refer to districts or landmarks which have been nominated to the National Register of Historic Places.~~

~~(5) The owners of easements and rights of way within the setback must provide a letter of acknowledgment of the proposed tower location.~~

~~**(D) Signs**~~

~~No business signs, billboards, or other advertising shall be installed on the tower or security fencing with the exception of an identification sign no larger than two square feet in area.~~

~~**(E) Screening**~~

~~A landscaped buffer shall be provided with a minimum of ten feet of land supporting an appropriate vegetative screen, to be installed and maintained by the tower owner, which shall surround the security fence except for one service access. The vegetative screen shall consist of two staggered rows of evergreen trees with a maximum spacing of 25 feet on center. The minimum height at planting for trees shall be six feet and they shall have an expected minimum maturity height of 35 feet under normal growing conditions. There shall also be one row of dense shrubs, spaced not more than eight feet on center. Shrubs shall be a minimum of two feet high at planting and shall have a minimum expected maturity height of eight feet under normal growing conditions. The tower owner shall be responsible for maintaining the buffer at all times. The requirements of this subsection shall be applicable to all proposed towers, unless existing vegetation is determined by the Planning Director to provide a screen which is at least as effective as a planted screen.~~

~~**(F) Security**~~

~~Security fencing shall be installed around the base of the tower, including but not limited to equipment and/or storage structures, along with any guyed wires. Such fence shall be opaque and shall be composed of materials such as wood, brick, or metal to a height of not less than eight feet.~~

~~**(G) Lighting**~~

~~Towers shall not be artificially lighted unless required by the Federal Aviation Administration (FAA) or other federal or state authority and in no case shall exceed the required minimum. Prior to the issuance of a building permit, the applicant shall be required to submit documentation from the FAA that the lighting is the minimum lighting required by the FAA.~~

~~**(H) Abandonment**~~

~~Towers which are not used for transmission or relay for a period of six months or more, shall be dismantled and removed, at the expense of the tower owner, from the site. Notice shall be provided to the Planning Director when any transmission tower is placed out of service.~~

(I) — Site Plan Requirements

~~In addition to the requirements of subsection A 1-2 of Appendix 1, the following information shall be provided on the site plan:~~

- ~~(1) — Required setback lines from property boundaries.~~
- ~~(2) — Proposed easements and rights-of-way.~~
- ~~(3) — Proposed fencing, access, and parking.~~
- ~~(4) — An area map indicating the proposed tower and coverage.~~
- ~~(5) — Any approved tower sites within a five-mile radius and their coverage areas.~~
- ~~(6) — Adequate ground space for additional users.~~
- ~~(7) — Any officially designate floodways, floodplains, or watersheds.~~
- ~~(8) — Identification of the intended user(s) of the tower and a statement indicating the owner's intent to allow shared use of the tower and how many other users can be accommodated.~~
- ~~(9) — Proof of ownership of the proposed site or authorization to utilize it and copies of any easements impacting the area.~~
- ~~(10) — A landscape and lighting plan.~~

(J) — Other Requirements

- ~~(1) — Towers must comply with the requirements of the National Environmental Policy Act (NEPA) which addresses such things as wilderness areas, wildlife preserves, endangered species, historical sites, Indian religious sites, floodplains, wetlands, high intensity white lights in residential neighborhoods, and excess radio frequency emissions. Prior to the issuance of a building permit, the applicant shall be required to submit documentation that all of the requirements of the NEPA have been met.~~
- ~~(2) — Towers shall be constructed and maintained in accordance with all ordinances, including but not limited to applicable building code requirements and FCC and FAA rules and guidelines.~~

~~(3) The tower owner shall provide documentation that the power density levels do not exceed federally approved levels or American National Standards Institute (ANSI) standards, whichever provides for stricter requirements.~~

~~11-4.25 Communication Tower Under 60 Feet in Height~~

~~(A) Where Required~~

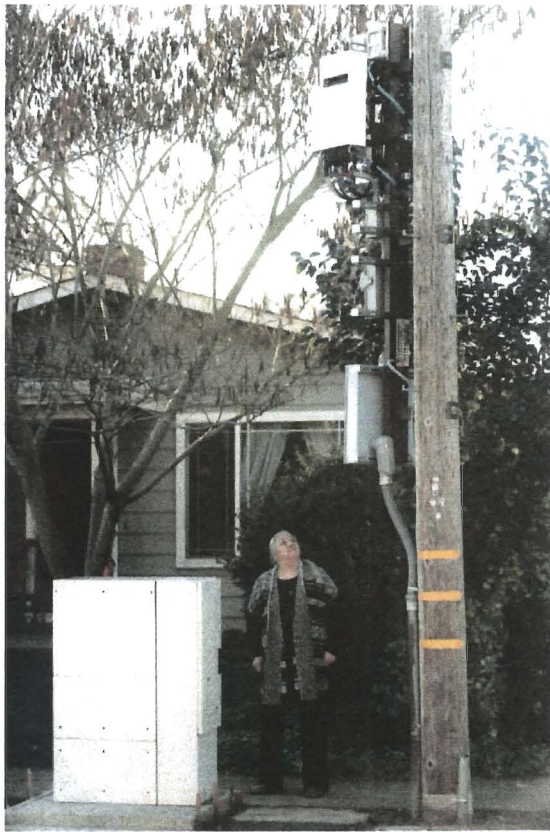
~~R-15, CB, GB, O&I, HB, NB, CMU, I-1, and I-2 districts except that communication towers on government facilities and structures are allowed by right in all zoning districts, provided that applicable lease agreements are obtained and that, when located on water tanks, the applicant submits evidence that substantially proves that the water inside the tank will not be contaminated by the proposed use.~~

~~(B) Location~~

~~In R-15 and O&I districts, towers shall not be placed in any front yard or side yard. All supporting cables shall be contained on the property.~~

Examples of small cell wireless facilities

Some are nice and some are not so nice



The wireless facility above is comprised of both the cabinet and the equipment on the pole



These poles of differing height have antennas toward the top and the rest of the equipment is on or in the green box on the ground.



Wireless facilities installed without design standards (above).

We need to be careful about later additions to an approved wireless facility:

Example Initially approved site



Once site is built, carrier may argue, per the FCC's 6409 rules, that they can modify site in an obtrusive manner, to resemble the examples below; and potentially increase pole height by 10 feet and noisy/bulky equipment

