Section 2-1.16. Radio, Television, Communication Tower

***Anchor Tower*.** An existing permitted non-stealth / camouflage tower which is used to determine a new non-stealth / camouflage tower location.

***Co-Location*.** Placement or installation of wireless facilities on existing structures including electrical transmission towers, water towers, buildings and other existing structures capable of structurally supporting the attachment wireless facilities, increasing the height of the tower to accommodate additional antenna array, or replacement of an existing tower.

***Fall Zone*.** The area in which a wireless antenna support structure may be expected to fall in the event of a structural failure, as measured by engineering standards.

***Non-Stealth Design Tower*.** 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 is not a wireless support structure.

Search Ring. The area within which a wireless support facility or wireless facility must be located in order to meet service objectives of the wireless service provider using the wireless facility or wireless support structure.

Stealth Camouflage Design. Disguising or incorporating antenna, support structure, and ground equipment to minimize visual impacts to the surrounding properties and environment. Examples of stealth camouflage facilities include: antennas within signs, bell towers, silos, light poles, flag poles, roof mounts integrated as an architectural element, artificial trees, and similar concealing design technologies.

Stealth Design. Incorporation of communication antennas to structures normally expected to occur within a given built environment. Examples of stealth design facilities include: antennas attached to water towers, telephone/power poles, power transmission lines, billboards and sign support structures and similar structures or uses which create no additional visual obtrusions.

Wireless Facility. The set of equipment and network components, exclusive of the underlying wireless support structure or tower, including antennas, transmitters, receivers, base stations, power supplies, cabling, and associated equipment necessary to provide wireless data and wireless telecommunications services to a discrete geographic area.

(Case No. 16-08-GCPL-0412, 11-17-16)

6-4.70. Radio, Television, Communication Tower (Principal).

(A) *Where Required:* Non-stealth Design Towers shall be permitted in the following districts: AG, GB, GO-M, GO-H, HB, CP, LI, HI, and PI districts. Stealth/Camouflage Design Towers shall be permitted in all districts.

(B) General:

1) Any existing tower or any tower approved for erection on or before the effective date of this amendment is exempt from Nonconforming Use of Land and Nonconforming Structure provisions in Section 3-14.

2) No structure may receive a building permit until a letter of intent or executed lease has been provided from the cell carrier. Structure must be occupied with a carrier within twenty-four (24) months of permit issuance, otherwise permit is void and tower must be removed.

3) The provisions of Section 4-9 regarding Special Purpose Lots may be applied.

4) The tower lot shall be of sufficient size to accommodate the intended use and the planting yard if required.

5) When adjacent to an existing residence or RM or RS zoned property, ground equipment shall be screened at a Type "A" planting rate.

6) Access drive to any new or co-location site must be a minimum of twenty (20) feet wide constructed of an all-weather surface sufficient to handle intended vehicles accessing the site. Stealth tower site access will be evaluated by Staff and the Guilford County Fire Marshal and approved by Technical Review Committee (TRC) for any waiver of this provision.

(C) Non-Stealth Design:

1) Co-location of new non-stealth is encouraged.

2) New towers shall be permitted only if there is no feasible method to share an existing tower or towers.

3) Any request to locate within one-half (½) mile of an existing non-stealth will require evidence through a co-location analysis that no existing structure or previously approved tower within the search ring can reasonably be used for the wireless facility.

4) Co-location Analysis: The following evidence will be required to determine new non-stealth tower location feasibility:

   a) Detailed description of proposed coverage area;

   b) Site Plan showing tower location, tower height, ground elevation, and type of tower;

   c) Detailed description of all existing towers or other structures of significant height within the search ring of the proposed tower including height of structure, ground elevation, number of existing antenna, height available for co-location, if any, and structural and technical deficiencies, if any;

   d) Written description why any existing towers are unavailable and documentation from any tower owners denying access of a co-location request;

   e) Additional information may be requested after initial review for further analysis. If the Department determines that co-location is feasible, staff may submit information used in the determination to a consultant for an independent analysis.

5) Any request to locate within two hundred fifty (250) feet of an existing non-stealth anchor tower shall be permitted for up to two (2) additional non-stealth design towers provided:

   a) Permitted anchor tower is established;

   b) The anchor tower will be used to determine distances;

   c) A site plan demonstrating the anchor location and new tower location must be approved as part of the application;

6) All non-stealth towers shall have a minimum setback equal to one hundred (100) percent of the tower fall zone or district setback, whichever is greater or for guyed towers, one hundred (100) percent of the tower fall zone plus the area necessary to contain all guy wires and appurtenances on the tower site within the district's required setbacks.

7) Guy wires, anchors, and supporting cables shall be contained on the same zone lot with the tower and shall not encroach more than one-half (1/2) the width of the planting yard.

8) No triangular platforms greater than fifteen (15) feet on any side shall be permitted. Triangular or T-bar platforms shall not be permitted if mounting of required antennas can be accomplished without such platforms.

9) New non-stealth towers shall be designed to accommodate additional antennas as follows:

   a) Freestanding towers up to one hundred and twenty (120 ft.) in height shall be engineered and constructed to accommodate no less than four (4) antenna arrays.

   b) Freestanding towers more than one hundred twenty (120 ft.) shall be engineered and constructed to accommodate no less than five (5) antenna arrays.

   c) Freestanding towers more than one hundred fifty (150 ft.) shall be engineered and constructed to accommodate no less than six (6) antenna arrays.

D) Stealth Design/Camouflage Design:

1) All Stealth/Camouflage Design towers shall meet district setbacks or be designed to accommodate one hundred (100%) percent of the tower fall zone, whichever is greater.

2) Stealth/Camouflage Design towers may be located within one half (½) mile of any permitted tower.

3) All Stealth/Camouflage Design towers incorporated into existing structures must satisfy all applicable NC Building Code requirements.

(CASE #16-08-GCPL-04129, November 17, 2016)