



Nice Matters!

**Emerald Isle
Planning and Inspections**
7500 Emerald Drive
Emerald Isle, NC 28594

252-354-8548 voice
252-354-5068 fax

www.emeraldisle-nc.org

Town Planner
Josh Edmondson
jedmondson@emeraldisle-nc.org



DATE: October 3, 2016
TO: Frank A. Rush, Jr, Town Manager
FROM: Josh Edmondson, CZO, Town Planner
SUBJECT: Special Use Application for Wireless Telecommunication Support Structure (WTSS) at 9202 Coast Guard Road

A request has been submitted by Carteret Craven Electric Membership Cooperative (CCEMC) for the placement of a 100' above ground galvanized steel monopole within the existing substation located at the above address. The proposed 100' pole will replace an existing 65' pole within the substation. The current pole supports an antenna which allows the cooperative headquarters to communicate with the electrical equipment operating within the substation. This communications path provides the electrical data necessary for the cooperative to efficiently operate the electrical grid. Recent weather conditions and seasonal patterns have caused this communication to be intermittent or interrupted. In order to improve the quality of this communication, the cooperative plans to install the 100' monopole and use it to both improve substation communications and to support the smart grid initiatives of the cooperative. The smart grid initiative will improve electrical infrastructure reliability and modernize the electrical grid by communicating with smart grid devices deployed in Emerald Isle and the surrounding areas. The monopole will only be used to support the cooperative's utility infrastructure and not to provide private telecommunications service. Additional information is included on the smart grid and its benefits in the application attached.

We considered permitting this project as an electrical utility rather than a wireless telecommunication support structure (WTSS). However, after discussion between staff and the cooperative we determined that to be consistent with the ordinance that this request should comply with the standards set forth in Chapter 4.2.5 Wireless Communications Towers and Chapter 11 of the Unified Development Ordinance. This requires the issuance of a special use permit by the Board of Commissioners after a public hearing on the matter. The following are requirements outlined in the UDO of Chapter 4.2.5 that shall be submitted as part of the application which I will discuss under each section.

(2)

General Requirements

(A)

Certification of Need

Any applicant(s) requesting a new WTA or WTSS or any modification to an existing WTA or WTSS shall be required to provide substantial evidence of need for such structures both in terms of coverage and capacity. **On pages 2-3 of application**

(B)

Co-location

WTA placement on an existing structure (either AASS or WTSS) is required unless the applicant(s) can clearly demonstrate with substantial, clear and convincing evidence that all co-location opportunities have been exhausted. The Town will attempt to maintain by its own efforts or through its agents an up-to-date inventory of buildings and structures suitable for WTA installations. Maps are available showing these locations, as well as relative flood zones and flight approach vectors to neighboring airfields. **On pages 3-4 of application**

(C)

New Construction Provision for Co-location

All new WTSS shall be constructed to permit a minimum of two (2) new WTA. The owner(s) of the new WTSS shall submit a notarized letter to the Town declaring that these additional sites shall be available to new tenants and shall be negotiated in good faith at reasonable terms to other providers, and that if good faith negotiations fail, both parties may be subject to commercial arbitration. They shall further state that as a condition of sale or transfer of the proposed structure to any new owner(s), operator(s), or agent(s) that a statement of intent to provide for shared use of tower shall be required of any new owner(s), operator(s), or agent(s) and shall be delivered to the Town prior to closing. [On page 4 of application](#)

(D)

Federal Certification

Any new WTA or WTSS, or any modification to an existing structure that would effect an increase in height shall require certification in writing by the Federal Aviation Administration that such addition or modification constitutes "No Hazard" to air navigation both by its physical structure and by its potential for radiofrequency interference with aviation communication signals. The proposed structure shall also satisfy all TOWAIR requirements. If operator(s) of the proposed structure can reasonably show that the Federal Aviation Administration cannot produce such certification, then certification of "No Hazard" to air navigation from a certified private agency shall suffice. [On page 4 of application and Exhibit B](#)

(E)

Certification of Compliance with FCC's Implementation of National Environmental Policy Act of 1969 (NEPA)

The applicant(s) for any new WTA or WTSS or modification to any existing WTA or WTSS are required to file with the FCC if the structure location is within any definition provided in section 1.1307 of the NEPA. If the structure is located in any area defined by this Act, full compliance with the Act's requirements for environmental assessments (EA) shall be required. [On page 4 of application](#)

(F)

Radiofrequency

Radiofrequency exposure levels shall not exceed the lesser of FCC and ANSI exposure standards at any potential point of exposure to the general public. The owner(s) and operator(s) of all WTA shall make all reasonable attempts by design, fencing, signage, and the like to limit the public's exposure. An engineer prepared and sealed document attesting to the fact that the calculated and proposed radiofrequency levels shall remain at the lesser of the FCC and ANSI standards is required. This letter shall be required following completion of the structure's construction, and before a certificate of occupancy is issued. [On page 4 of application and Exhibit C](#)

(G)

Structural Integrity

An engineer's prepared and sealed complete site plan document that denotes compliance with all technical specifications provided in federal, state, and Town Code, and a certification that the proposed structure and all proposed

and potential occupant structures are stable and capable of withstanding a 50-year hurricane is required. [On page 4 of application and Exhibit D](#)

(H)

Insurance Requirements

A minimum of one million dollars (\$1,000,000.00) general liability insurance with a letter from the insurer attesting to this fact shall be required prior to receipt of a certificate of occupancy. This same letter shall acknowledge that the insurer shall notify the Town thirty (30) days prior to cancellation of this insurance. [See Exhibit E](#)

(3)

New Construction or Modification of Wireless Telecommunication Support Structures (WTSS)

(A)

Statement of Financial Responsibility

The owner(s), and their representative(s) shall be required to provide proof of financial responsibility for all wireless telecommunication structures constructed or maintained within the Town. This statement shall be completed upon initial application, and renewed each year. If full financial responsibility cannot clearly be demonstrated to the full satisfaction of the Town, a surety bond for one hundred ten (110) percent of the total cost of all structure(s) removal and associated cleanup may be required by the Town. The owner(s) and their representative(s) shall be fully responsible for all maintenance, and continued assurance that the structure(s) continually remain in compliance with Town Code. [Provided on Page 5 of the attached application.](#)

(B)

Special Use Permit Required

Construction of any new, or modification of any existing WTSS shall require a special use permit. Exemptions to this requirement shall include, but shall not be limited to, co-location of new WTA on an existing WTSS, reductions in height or size of a WTSS, or any issues of routine maintenance to either the WTA or WTSS.

(C)

Demonstration of Need

Applicants shall provide substantial evidence as to the current need for the proposed WTSS both in terms of coverage area and capacity, and must demonstrate why all currently available WTSS and AASS co-location opportunities can not provide adequate coverage and capacity. [Provided on pages 1-3 of the application](#)

(D)

Demonstration of Lack of Suitable Co-location Opportunities

New WTSS shall be permitted only after clear demonstration that all potential opportunities for co-location have been exhausted, and that no suitable existing support structures exist within the coverage area that may be used, including all WTSS and AASS. The applicant(s) shall identify and assess all potential opportunities for co-location within a 5,000-foot radius around the proposed point of construction for the new WTSS. An engineer's prepared and sealed letter shall be required, attesting to the fact that it is technically impossible to co-locate on any existing WTSS and all other AASS within the

search area, with a map showing all potential sites, and stating why each is technically unfeasible. A notarized letter from the applicant(s) shall be required listing all technically feasible sites, noting for each site that the applicant(s) attempted, in good faith, to negotiate terms of co-location with the owner(s) of the potential site, and negotiation has failed. **Provided on page 3 of the application**

(E)

Requirement of Notification

Applicants shall be required to notify, by certified mail with return receipt requested, all property owners within five hundred (500) feet and all adjacent property owners of their application for construction of a new, or modification of an existing WTSS. Exceptions to this requirement shall include, but shall not be limited to, co-location of new WTA on an existing WTSS, reductions in height or size of the WTSS, or any issues of routine maintenance to either the WTA or WTSS. **See Exhibit F of application**

(F)

Minimum Lot Area

Parcels used for placement of new or modified WTSS shall be the greater of a minimum of ten thousand (10,000) square feet, or shall be capable of meeting the minimum lot size necessary to accommodate the minimum setback requirements defined below. **See Exhibit D of application**

(G)

Minimum Setback Requirements

When the proposed structure is located adjacent to any church, school, public facility, or residential zone, the center of the support structure shall be located a distance from the nearest property line a minimum of one and one-quarter (1.25) times the greatest height of the structure including any WTA or devices that would add to the total height of the structure. The engineer's site plan for the tower shall indicate that the fall radius for the tower lies within the tower site, and that the fall radius zone does not include any of the aforementioned structures or zones. Otherwise, the center of structure shall be located as close as possible to then the geometric center of the property, with minimum setbacks from all sides of fifty (50) feet. **See Exhibit D of the application; Requirement met if the Bogue Banks Water property located at 9204 Coast Guard Road is rezoned, map attached**

(H)

Support Structure Type

Only camouflaged or "stealth" WTSS or monopole support structures shall be used. Structures involving the use of guy wires for either internal or external bracing and support, or lattice type structures, or any other type of support structure shall be prohibited. **On page 5 of application**

(I)

Permitted Height

The WTSS may not exceed the minimum height necessary to accomplish the technical objectives of the primary WTA and the required number of additional WTAs, and shall be the lesser of the demonstrated minimum required for the technology employed plus the minimum required for all proposed additional occupants. No WTSS shall be constructed that has any component of its structure more than seventy-five (75) feet above the average adjacent tree or

building lines. No combination of WTA and WTSS may exceed one hundred (100) feet. An engineer's sealed letter describing the proposed WTSSs adherence to this provision shall be required. [On page 5 of application](#)

(J)

Illumination

No WTSS or WTA shall be illuminated unless specifically directed by the Federal Aviation Administration or other federal agency. If required, lighting must be to the minimum specified by a federal agency. Strobe lights shall be prohibited unless specifically required. When strobe lights are required by the specifying agency, they shall be dual strobes, with white strobes for daytime use, and red strobes for nighttime use. All lighting shall be directed toward the structure, and upward and outward from any public areas. A copy of the Federal Aviation Administration lighting requirements letter shall be submitted with the application. [On page 5 of application](#)

(K)

Color

Unless otherwise specified by a federal agency, all WTSS shall be painted a flat gray color. [See attached Pole Visualization](#)

(L)

Limited to Applicant

Every special use permit for freestanding WTSS shall be limited to the applicant(s). Any assignment or transfer of the special use permit or any of the rights under the permit may be made only upon the approval of the Town.

(M)

Complete Application

The requirements for a complete application for a WTSS are provided in Appendix I. [See application and attached Exhibits](#)

All proper public hearing notices have been advertised, posted and sent to adjacent property owners. Special use permits must be considered using a quasi-judicial process. Under this process, the Board will consider the evidence presented during the public hearing, and must base its decision to grant or deny the special use permit on the evidence presented during that hearing. Individuals interested in testifying must be sworn in by the Town Clerk. The Board may approve the special use permit as presented, deny the special use permit, or approve the special use permit with conditions. In approving a special use permit (with or without conditions), the Board must determine that:

1. the proposed wireless telecommunication support structure will not materially endanger the public health or safety if located where proposed and if developed according to the plan approved,
2. the proposed wireless telecommunication support structure meets all conditions and specifications required by the Unified Development Ordinance (UDO) and other applicable Town, County, State, and Federal laws and regulations,
3. the proposed wireless telecommunication support structure will not substantially injure the value of abutting or adjoining property, or that the use is a public necessity,

4. the proposed wireless telecommunication support structure, if developed according to the plan approved, will be in harmony with the area in which it is to be located and in general conformity with the Town's land use plan.

The Board may impose any conditions on the approval of the special use permit intended to aid in making the 4 determinations above. Attached to this memorandum is the application and supporting documentation submitted by Carteret Craven EMC, the adjacent property owner list and mailing affidavit and adjacent property zoning map. I look forward to discussing this issue with the Commissioners at their October 11, 2016 meeting.