

ORDINANCE NO. _____

An Ordinance to add Section 14-900 to the Crossville Municipal Code pertaining to telecommunication facility services.

WHEREAS, it is necessary and beneficial for the health, safety and welfare of the community to provide regulations for development of telecommunications facilities in the City of Crossville; and,

WHEREAS, it is important to accommodate the growing need and demand for telecommunications services while protecting the character of Crossville; and,

WHEREAS, there is a need to establish standards for location, aesthetics and compatibility for small cell communication structures and uses, and to update the standards for other kinds of telecommunications facilities; and,

WHEREAS, there is a need to encourage the availability of affordable, high-speed internet and cellular telephone access for businesses and residents, acknowledging that a growing number of businesses are conducted in whole or in part from homes and/or on-the-go, that increasingly education incorporates on-line learning necessitating good home internet connections for students and faculty, and that government participation and emergency services to the general public are enhanced by fast and reliable cellular and home internet connectivity;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CROSSVILLE, TENNESSEE AS FOLLOWS:

SECTION I. That Title 14, Chapter 9, be added to the Crossville Municipal Code as follows:

14-901. Definitions.

- (A) *Alternative Structure* means a structure that is not primarily constructed for the purpose of holding antennas but on which one or more antennas may be mounted, including but not limited to buildings, water tanks, pole signs, billboards, church steeples, electric power transmission poles/towers, and streetlights.
- (B) *Antenna* means any apparatus designed for the transmitting and/or receiving of electromagnetic waves, including telephonic, radio or television communications. Types of elements include omni-directional (whip) antennas, sectionalized or sectorized (panel) antennas, multi or single bay (FM & TV), yagi, or parabolic (dish) antennas, or any other antenna elements approved by the Director of Information Technology Services or his delegate.
- (C) *Base Station* means equipment and non-tower supporting structure at a fixed location that enable wireless telecommunications between user equipment and a communications network. Examples include transmission equipment mounted on a rooftop, water tank, silo or other above ground structure other than a tower. The term does not encompass a tower as defined herein or any equipment associated with a tower. "Base Station" includes, but is not limited to: equipment associated with wireless telecommunications services such as private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services such as microwave backhaul; radio transceivers, antennas, coaxial or fiber optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration (including Distributed Antenna Systems and small-cell networks); any structure other than a tower that, at the time the application is filed under this Section, supports or houses equipment described in this definition that has been reviewed and approved, or under another City regulatory review process, even if the structure was not built for the sole or primary purpose of providing such support. "Base station" does not include any structure that, at the time the application is filed under this Section, does not support or house wireless communication equipment.

- (D) *Breakpoint Technology* means the engineering design of a monopole, or any applicable support structure, wherein a specified point on the monopole is designed to have stresses concentrated so that the point is at least five percent (5%) more susceptible to failure than any other point along the monopole so that in the event of a structural failure of the monopole, the failure will occur at the breakpoint rather than at the base plate, anchor bolts, or any other point on the monopole.
- (E) *Co-location* means the mounting or installation of transmission equipment on an eligible support structure for the purposes of transmitting and/or receiving radio frequency signals for communications purposes so that installation of a new support structure will not be required, including an eligible facilities request or a qualified co-location request.
- (F) *Cellular on Wheels (COW)* means a temporary PWSF placed on property to provide short term, high volume telecommunications services to a specific location and which can be easily removed from the property.
- (G) *Distributed Antenna System (DAS)* means a system consisting of: (1) a number of remote communications nodes deployed throughout the desired coverage area, each including at least one antenna for transmission and reception; (2) a high capacity signal transport medium (typically fiber optic cable) connecting each node to a central communications hub site; and (3) radio transceivers located at the hub site (rather than at each individual node as is the case for small cells) to process or control the communications signals transmitted and received through the antennas.
- (H) *Eligible Facilities Request* means any request for modification of an existing tower or base station involving co-location of new transmission equipment; removal of transmission equipment; or replacement of transmission equipment that does not Substantially Change the physical dimensions of such tower or base station.
- (I) *Eligible support structure* means any tower or base station existing at the time the application is filed. For purposes of this ordinance, the definition of "eligible support structure" shall include utility structures currently hosting fiber, cable and wire.
- (J) *Pedestrian Travelway* means the portion of a sidewalk or multi-use path intended to facilitate the unobstructed through movement of pedestrians and/or bicyclists.
- (K) *Personal Communication System Carrier (PCSC)* means telecommunications carriers that bundle voice communications, numeric and text messaging, voice-mail and various other features into one device, service contract and bill. PCSC are carried over cellular links, most often digital.
- (L) *Personal Wireless Service Facility (PWSF)* means any staffed or unstaffed location for the transmission and/or reception of radio frequency signals or other personal wireless communications, including commercial mobile services, unlicensed wireless services, wireless broadband services, and common carrier wireless exchange access services as defined in the Telecommunications Act of 1996, and usually consisting of an antenna or group of antennas, transmission cables, feed lines, equipment cabinets or shelters, and may include a tower. Facilities may include new, replacement, or existing towers, replacement towers, co-location on existing towers, base station attached concealed and non-concealed antenna, dual purpose facilities, concealed towers, and non-concealed towers (monopoles, lattice and guyed), so long as those facilities are used in the provision of personal wireless services as that term is defined in the Telecommunications Act.
- (M) *Qualified Co-location Request* means co-location of PWSF on a tower or base station that creates a Substantial Change in the facility but is entitled to processing within 90 days under 47 U.S.C. §332(c)(7).
- (N) *Small Cell Facility* means a wireless service facility that either meets both of the following qualifications or is within a stealth design that is consistent with the design guidelines:
1. Each antenna is located inside an enclosure of no more than five (5) cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all of its exposed elements could fit within an enclosure of no more

than five (5) cubic feet, however, the maximum dimensions of the antenna shall not exceed 36" in height and 16" in diameter; and

2. Primary equipment enclosures are no larger than seventeen (17) cubic feet in volume. The following associated equipment may be located outside of the primary equipment enclosure and, if so located, is not included in the calculation of equipment volume: Electric meter, concealment, telecommunications demarcation box, underground enclosures, back-up power systems, grounding equipment, power transfer switch, and cut-off switch.

(N) *Small Cell Network* means a collection of interrelated small cell facilities designed to deliver wireless service.

(O) *Substantial Change* means a modification or co-location constitutes a "substantial change" of an eligible support structure if it meets any of the following criteria:

1. A telecommunications facility co-location on an existing structure within a public right of way increases the overall height of the structure, antenna and/or antenna array more than 10% or 10 feet, whichever is greater.
2. A telecommunications facilities co-location for towers not in a public right of way protrudes from the structure more than 10% or 20 feet whichever is greater or the width of the structure at the elevation of the co-location, and for towers within a public right of way, protrudes from the structure more than 6 feet.
3. A telecommunications facility co-location on an existing structure fails to meet current building code requirements (including windloading).
4. A telecommunications facility co-location adds more than 4 additional equipment cabinets or 1 additional equipment shelter.
5. A telecommunications facility co-location requires excavation outside of existing leased or owned parcel or existing easements.
6. A telecommunications facility co-location defeats any existing concealment elements of the structure.
7. A telecommunications facility co-location fails to comply with all conditions associated with the prior approval of the structure except for modification of parameters as permitted in this section.

(P) *Support Structure* means anything constructed or erected, the use of which requires permanent location on the ground, or attachment to something having a permanent location on the ground, including alternative structures, but excluding antennas.

(Q) *Telecommunications Facility* means one or more antenna, tower, base station, mechanical and/or electronic equipment, conduit, cable, fiber, wire, and associated structures, enclosures, assemblages, devices and supporting elements that generate, transmit or produce a signal used for communication that is proposed by an entity other than the Metropolitan Government, including but not limited to radio/tv/satellite and broadcast towers, telephone service, including new microwave or cellular towers, PWSF, DAS, small cell facilities and COW's.

(R) *Tower* means any support structure built for the primary purpose of supporting any antennas and associated facilities for commercial, private, broadcast, microwave, public, public safety, licensed or unlicensed, and/or fixed or wireless services. A tower may be concealed or non-concealed. Non-concealed towers include:

1. Guyed - A style of tower consisting of a single truss assembly composed of sections with bracing incorporated. The sections are attached to each other, and the assembly is attached to a foundation and supported by a series of wires that are connected to anchors placed in the ground or on a building.
2. Lattice - A self-supporting tapered style of tower that consists of vertical and horizontal supports with multiple legs and cross bracing, and metal crossed strips or bars to support antennas.
3. Monopole - A style of freestanding tower consisting of a single shaft usually composed of two (2) or more hollow sections that are in turn attached to a foundation. This type of tower is designed to support itself without the use of guy wires or other stabilization devices. These facilities are mounted to a foundation that rests on or in the ground or on a building's roof. All feed lines shall be installed within the shaft of the structure.

(S) *Transmission Equipment* means equipment that facilitates transmission of communication service (whether commercial, private, broadcast, microwave, public, public safety, licensed or unlicensed, fixed or wireless), including but not

limited to radio transceivers, antennas, coaxial or fiber-optic cable, and regular and backup power supply.

14-902. Telecommunications Facility

(A) Application requirements. An applicant for a telecommunications facility, including co-locating on an eligible support structure or adding transmission equipment to an alternative structure shall provide the codes department with the following information at the time of application for the final site plan or building permit (for eligible facilities requests, it is not necessary to meet the requirements of d through g, below):

1. A schematic site plan, including schematic landscape plan for any application where landscaping is required, and an elevation view of the type of facility to be placed on the site. The site plan shall depict where the facility is to be located on the site and where additional co-located communication equipment, shelters or vaults will be or can be placed.
2. If the application is not for co-location, a statement justifying why co-location is not possible. Such statement shall include:
 - (i) Such structure and technical information and other justifications as are necessary to document the reasons why co-location is not possible; and
 - (ii) The applicant shall provide a list of all eligible support structures and alternative structures considered as alternatives to the proposed location. The applicant shall provide a written explanation why the alternatives considered were impossible due to technical or physical alternatives.
3. Identification of any radio frequencies that would be utilized on the telecommunications facility. If any frequency is later changed, notice of the new frequency shall be provided to the Information Technology Services (ITS) Department. The City reserves the right to immediately require the discontinuance of any radio frequency that causes interference with the City of Crossville and Cumberland County Communications System.
4. The applicant shall demonstrate that through location, construction, or stealthing, the proposed facility or network of facilities will have minimum visual impact upon the appearance of adjacent properties and the views and vistas from adjacent residential neighborhoods and pedestrian environment, while retaining viable opportunities for future co-location, provided applications for designs consistent with the design guidelines provided for in subsection (E) 6 of this section shall be deemed to have met the requirement of this subsection.
5. Documentation of the number of other users that can be accommodated within the design parameters of the telecommunications facility as proposed.
6. A statement indicating the owner's commitment to allow feasible shared use of the facility within its design capacity for co-location.
7. The proposed site plan and design plans meet or exceed all applicable standards, including without limitation those of the Federal Communications Commission (FCC), American National Standards Institute (ANSI), and Institute of Electrical and Electronics Engineers (IEEE) standards for power density levels and structural integrity, American Concrete Institute (ACI), American Standards Testing and Materials Institute (ASTM), the National Electrical Code, and the American Steel Institute. The telecommunications facility must comply with building codes and other federal, state, and local regulations, Applicant must also comply with Section 106 of the National Historic Preservation Act of 1966.

(B) Co-location Requirements. Co-location or location on existing alternative structures is required where possible. New telephone service towers of a height of more than one hundred feet (100') and less than two hundred feet (200') must be designed and built to accommodate three or more personal communication system carrier applications and must be made available upon reasonable terms for co-location to at least three additional single antenna applications such as 911 and emergency management communications. Additionally, the site must be sufficiently large enough to accommodate at least three telecommunication equipment shelters, cabinets, or additions to existing structures. New telephone service towers of a height of two hundred feet (200') or more must be designed and built to accommodate at least three personal communication system applications and at least three additional single antenna applications plus at least

one additional personal communication system application and at least one additional single antenna application for each additional fifty feet of height, to a maximum of six personal service communication system carriers and six single antenna applications, to be made available upon reasonable terms for co-location.

(C) Removal of Abandoned Telecommunication Facilities: Any telecommunication facility that is replaced with a new or updated telecommunication facility, including conduit, wire or cable, or any telecommunication facility permitted under this chapter that is not operated as a personal communication system carrier application for a continuous period of twelve months shall be considered abandoned and the owner of such telecommunication facility shall notify the Codes Department of the abandonment and remove same within ninety days. Failure to do so shall be deemed to be a violation of these regulations. The owner of the antenna or tower may appeal the decision of the department of codes administration to the City Council, but at such hearing shall be required to show just cause why the antenna or tower should not be considered abandoned and subject to removal.

If a provider fails to fully comply with a demand by the city pursuant to this section promptly or by the date specified by the city, the city shall have the right to: (i) declare that all rights and title to and interest in the affected equipment or facilities are the property of the city; and/or (ii) move, alter, relocate, or remove any such equipment or facilities and restore the affected public right-of-way as it deems necessary. The provider shall reimburse the city for any costs incurred in moving, altering, relocating, or removing any equipment or facilities and restoring the affected public right-of-way in an amount equal to the sum of the actual cost of moving, altering, relocating, or removing any equipment or facilities and restoring the affected public right-of-way and twenty-five (25%) percent of such costs as compensation to the city for general overhead and administrative expenses associated with such work and shall make any payment due as directed by the city and not later than 20 calendar days after receipt of a bill.

(D) Telecommunication facilities outside of the public right-of-way.

1. New support structures or substantial changes to eligible support structures 150' and greater, shall be designed to accommodate a minimum of three PWSF providers. This number shall be inclusive of any emergency management communication systems.

2. A permit for a COW is limited to 30 days, but when circumstances reasonably warrant, the permit may be renewed.

3. Additional provisions for Substantial Changes to Eligible Support Structures or Placement of New Telecommunications Equipment on Alternative Structures.

(a) New telecommunications equipment placements on alternative structures, shall be designed with screening and other stealth elements so as to minimize the visual impact from a pedestrian viewpoint within any abutting public right of way, excluding alleys, even after any eligible facilities request. Once said alternative structure is approved and becomes an eligible support structure, any subsequent modifications must meet established design guidelines.

(b) Communication equipment or any new structure that is integrated as an architectural feature of a structure so that the purpose of the facility for providing wireless services is not readily apparent to a casual observer or which is concealed within a building or structure so that it is architecturally indiscernible may be permitted subject to building permit procedures and standards. Architecturally indiscernible shall mean that the addition or feature containing the antenna is architecturally harmonious in such aspects including but not limited to material, height, bulk, scale and design with the building or structure to which it is to be a part.

4. Additional provisions for towers.

(a) Setbacks. A tower shall be set back from all property lines on which the tower is located by the distance equal to the height of the lowest engineered break point on the proposed structure or the height of the tower.

(b) Lights. No lights shall be permitted on a tower except such lighting that is required by state or federal law.

- (c) Height. The maximum height of a tower shall be in compliance with airport zoning regulations (Crossville Municipal Code 14-202). Guy wire anchors, if used, shall be set back a minimum of five feet from all property lines.
- (d) Final Site Plans: Final site plans for a tower shall be accompanied by a certification from a qualified structural engineer that the tower has sufficient structural integrity and equipment space to accommodate multiple users shall be required at the time of applying for a building permit.
- (e) As-Builts: Stamped engineered drawings showing final construction details and location of the tower and associated buildings.

5. Generators shall be placed in a building with sufficient barriers to eliminate any noise being heard from outside of the building.

(E) Recommendations and other actions from departments of the city government. Prior to the consideration of a variance for or issuance of a permit for a telecommunication facility, the following departments shall submit recommendations or approvals to the Codes Administrator that describe compliance with all applicable design guidelines or other regulations:

1. Planning Commission
2. Department of Information Technology Services shall provide a recommendation on all permits, with regard to the issue of interference with city and county facilities.
3. Street Department
4. Water/Sewer Utilities
5. City Clerk

The review shall be completed within twenty (20) business days of the filing of the application, all required documentation, and applicable fees.

14-903. Non-conforming structures.

- (A) All non-conforming structures located in public right-of-way which, prior to enactment of this chapter, were legally erected, and which are existing and properly maintained, shall be allowed to remain and shall be considered as "grandfathered" in place. These structures may not be enlarged in any manner.
- (B) As of the effective date of this chapter, the structure may not be totally replaced. Maintenance and repairs to the structure will only be allowed if over fifty (50%) percent of the structure is in good condition. If the structure is over fifty (50%) in disrepair, it must be removed completely.

14-904. Severability If any provision of this ordinance or if any policy, or order thereunder of the application of such provision to any person or circumstances shall be held invalid, the remainder of this ordinance, and the application of such provision of this ordinance or of such policy, or order to persons or circumstances other than those to which it is held invalid, shall not be affected thereby.

SECTION II. This ordinance shall take effect upon and after its final date of passage, the public welfare requiring it.

Mayor

Councilmember

Councilmember

Councilmember

Councilmember

ATTEST:

APPROVED AS TO FORM:

City Clerk

City Attorney

Passed 1st Reading: _____

Passed 2nd Reading: _____

Passed 3rd Reading: _____