

**ARTICLE IX. Supplemental Regulations**

**DIVISION 3. Telecommunication Towers**

**Section 74-541. Purpose and Intent.**

- (a) In order to accommodate the communication needs of residents and businesses while protecting the public health and safety, and general welfare of the community, the City Council finds the regulations of this division are necessary to:
- (1) Facilitate the provision of wireless telecommunication services to the residents and businesses of the City;
  - (2) Minimize adverse visual effects of wireless telecommunication towers through careful design and siting standards;
  - (3) Avoid potential damage to adjacent properties from wireless telecommunication tower failure through structural standards and setback requirements; and
  - (4) Maximize the use of existing and approved towers, buildings and structures to accommodate new wireless telecommunication antennae to reduce the number of towers needed to serve the community.
- (b) This division is intended to regulate wireless telecommunication towers and is not intended to regulate other types of towers such as audio and television antennae, residential satellite dishes or public safety transmitters.

**Section 74-542. Definitions.**

The following words and terms, when used in this division, shall have the following meanings unless the context clearly indicates otherwise:

*Antenna* means any structure or device used for the purpose of collecting or transmitting electromagnetic waves, including, but not limited to, directional antennae, such as panels, microwave dishes, and satellite dishes, and omni-directional antennae, such as whip antennae.

*Co-location* means the placement of wireless telecommunication antennae by two or more service providers on a tower, building or structure.

*Federal Communications Commission* means the federal administrative agency, or lawful successor, authorized to regulate and oversee telecommunications carriers, services and providers on a national level.

*Guyed tower* means a tower that is supported, in whole or in part, by wires and ground anchors.

*Lattice or self-supported tower* means a tower, erected on the ground, which consists of metal crossed strips or bars to support antennae and related equipment.

*Monopole tower* means a single, self-supported pole-type tower, tapering from the base to the top and supporting a fixture designed to hold one or more antennae.

*Multi-user tower* means a tower to which is attached the antennae of more than one service provider or governmental entity.

*Protected residential property* means any property within the City that meets both of the following requirements:

- (a) The property is zoned R-1, R-2, or R-3 and the property may or may not also have a planned unit development overlay classification; and
- (b) The property is designated on the comprehensive plan land use map as low-density residential, medium-density residential or high-density residential.

*Public utility* means persons, corporations, or governments supplying gas, electric, transportation, water, or landline telephone service to the general public. For the purpose of this Article, wireless telecommunication service facilities shall not be considered public utility uses and are defined separately.

*Service provider* means any individual or entity which provides wireless telecommunication services.

*Single-user tower* means a tower to which is attached only the antennae of a single service provider, although the tower may be designed to accommodate the antennae of multiple users as required in this division.

*Tower* means any ground or roof mounted pole, spire, structure, or combination thereof, including supporting lines, cables, wires, braces, and masts intended primarily for the purpose of mounting or supporting an antenna, or antenna for wireless telecommunication purposes which is taller than 15 feet, including roof antennas.

*Wireless telecommunication services* means licensed commercial wireless telecommunications services including cellular, personal communication services (PCS), specialized mobilized radio (SMR), enhanced specialized mobilized radio (ESMR), paging, and similar services that are marketed to the general public.

#### **Section 74-543.**

#### **Effect of division on existing towers and antennae.**

Antennae and towers in existence as of November 7, 1997, which do not conform or comply with this division are subject to the following provisions:

- (a) Towers may continue in use for the purpose now used and as now existing but may not be replaced or structurally altered without complying in all respects with this division.
- (b) If such towers are hereafter damaged or destroyed due to any reason or cause whatsoever, the tower may be repaired and restored to its former use, location and physical dimensions upon obtaining a building permit therefore, but without otherwise complying with this section; however, if the cost of repairing the tower to its former use, physical dimensions, and location would be 50 percent or more of the cost of a new tower of like kind and quality, then the tower may not be repaired or restored except in full compliance with this division.

**Section 74-544. Application, building permits, fees and inspections.**

- (a) *Application.* Applications for approval to construct towers shall include information as required in section 74-37. In addition to the information required elsewhere in this division, applications for towers shall include the following supplemental information:
- (1) A report from a licensed professional engineer which:
    - a. Describes the tower height and design including a cross section and elevation;
    - b. Documents the height above grade for all potential mounting positions for co-located antennae and the minimum separation distances between antennae;
    - c. Describes the tower's capacity, including the number and type of antennae it can accommodate;
    - d. Documents what steps the applicant will take to avoid interference with established public safety telecommunications;
    - e. Includes an engineer's stamp and registration number; and
    - f. Includes other information necessary to evaluate the application.
  - (2) A letter of intent committing the tower owner and the owner's successors to allow the shared use of the tower if an additional user agrees in writing to meet reasonable terms and conditions for shared use.
  - (3) Applications requiring conditional use permits shall be subject to the requirements set forth in section article IV, division 3 of this chapter, excepting section 74-114.
- (b) *Building permits.*
- (1) It shall be unlawful for any person to erect, construct in place, place or re-erect, replace, or repair any tower without first making application to the building inspections department and securing a building permit therefore as provided in subsection (b) of this section.
  - (2) The applicant shall provide at the time of application sufficient information to indicate that construction, installation, and maintenance of the antenna and tower will not create a safety hazard or damage to the property of other persons.
  - (3) Only one tower shall exist at any one time on any one parcel of protected residential property as defined in section 74-542.
  - (4) Building permits are not required for:

- a. Adjustment or replacement of the elements of an antenna array affixed to a tower or antenna, provided that replacement does not reduce the safety factor.
  - b. Antennae and/or towers erected temporarily for test purposes, for emergency communication, or for broadcast remote pick-up operations. Temporary antennae shall be removed within 72 hours following installation.
- (5) Before issuance of a building permit, the following information shall be submitted by the applicant:
- a. Proof that the proposed tower complies with regulations administered by the Federal Aviation Administration; and
  - b. A report from a State licensed professional engineer which demonstrates the tower's compliance with structural and electrical standards.
- (6) Any City cost of testing or verification of compliance shall be borne by the applicant.
- (c) *Fee.* The fee to be paid is that prescribed by the Council.
- (d) *Inspections.* Towers may be inspected by an official of the building department to determine compliance with original construction standards. Deviation from original construction for which a permit is obtained constitutes a violation of this section. Notice of violations will be sent by registered mail to the owner of the tower and the property upon which it is located who will have 30 days from the date notification is issued to make repairs. Upon completion of the repairs, the owner shall notify the building inspector that the repairs have been made.

**Section 74-545.**

**Permitted and conditionally permitted towers.**

- (a) *Permitted towers.* The following towers are permitted in all zoning districts if in compliance with the performance standards set forth in section 74-546:
- (1) Towers located in the following locations:
    - a. Church sites, when camouflaged as steeples or bell towers;
    - b. Park sites, when compatible with the nature of the park; and
    - c. Government, school, utility and institutional sites.
  - (2) Wall or roof-mounted towers.
- (b) *Tower as conditional use.* Towers, other than those listed in subsection (a) of this section, are permitted in all zoning districts upon issuance of a conditional use permit as follows: Commercial towers other than those listed in subsection (a)(2) of this section.
- (c) *Conditional use permit standards.* The following standards apply to a conditional use permit for a tower:

- (1) The site must comply with the performance standards set forth in section 74-546.
  - (2) No employees of the service providers shall be located on the site on a permanent basis. Employees may be on the site to perform periodic maintenance.
  - (3) If the proposed tower is located in a residential district, documentation must be included in the application that demonstrates that the tower cannot reasonably be located in a commercial or industrial district.
  - (4) Existing on-site vegetation shall be preserved to the maximum amount practicable.
  - (5) No outdoor storage shall be permitted on the tower site.
- (d) *Towers located within boundaries to blend in with surrounding environment.* Towers located within the boundaries of the Mississippi River Corridor Critical Overlay District shall be designed and constructed to blend in with the surrounding environment.

#### **Section 74-546.**

#### **Performance Standards.**

All towers erected within the City must conform to the applicable performance standards contained in this section.

- (a) *Co-location requirements.* All towers erected, constructed or located within the City shall comply with the following requirements: A proposal for a new tower shall not be approved unless the City Council finds that the wireless telecommunications equipment planned for the proposed tower cannot be accommodated on an existing or approved tower, building or structure within a one mile radius except that the radius shall be one-half mile for towers between 80 and 120 feet and one quarter mile for towers under 80 feet of the proposed tower due to one or more of the following reasons:
- (1) The planned equipment would exceed the structural capacity of the existing or approved tower or building, as documented by a licensed professional engineer, and the existing or approved tower cannot be reinforced, modified, or replaced to accommodate planned or equivalent equipment at a reasonable cost.
  - (2) The planned equipment would cause interference materially impacting the usability of other existing equipment at the tower or building as documented by a licensed professional engineer and the interference cannot be prevented at a reasonable cost.
  - (3) Existing or approved towers or buildings within the radius cannot accommodate the planned equipment at a height necessary to function reasonably as documented by a licensed professional engineer.
  - (4) Other unforeseen reasons that make it infeasible to locate the planned telecommunications equipment upon an existing or approved tower or building.

(b) *Construction and maintenance of towers.*

(1) Tower and antenna design requirements. Proposed or modified towers and antennae shall meet the following design requirements:

- a. Towers and antennae shall be designed to blend into the surrounding environment through the use of color and camouflaging architectural treatment, except in instances where the color is dictated by federal or state authorities such as the Federal Aviation Administration.
- b. Towers shall be of a monopole design unless the City Council determines that an alternative design would better blend in to the surrounding environment. Lattice tower designs may be allowed to facilitate co-location.
- c. The use of guyed towers is prohibited. Towers must be self-supporting without the use of wires, cables, beams or other designs.
- d. The base of the tower shall occupy no more than 500 square feet and the top of the tower shall be no larger than the base.

(2) Tower construction requirements. All antennae and towers erected, constructed, or located within the City, and all wiring therefore, shall comply with the following requirements:

- a. All applicable provisions of this division must be met.
- b. Towers shall be certified by a State licensed professional engineer to conform to current structural standards and wind loading requirements of the state building code and the Electronics Industry Association.
- c. With the exception of necessary electric and telephone service and connection lines approved by the City, no part of any antenna or tower nor any lines, cable, equipment or wires or braces in connection with either shall at any time extend across or over any part of the right-of-way, public street, highway, sidewalk, or property line.
- d. Towers and associated antennae shall be designed to conform with accepted electrical engineering methods and practices and to comply with the provisions of the National Electrical Code.
- e. All signal and remote control conductors of low energy extending substantially horizontally above the ground between a tower or antenna and a structure, or between towers, shall be at least eight feet above the ground at all points, unless buried underground.

- f. Every tower affixed to the ground shall be protected to discourage climbing of the tower by unauthorized persons.
  - g. All towers shall be constructed to conform with the requirements of the Occupational Safety and Health Administration.
  - h. Antennae and towers shall not be erected on any protected residential property as defined in section 74-542 in violation of the following restrictions:
    - 1. Notwithstanding the provisions of this Article, the required setback for antennae and towers not rigidly attached to a building shall be equal to the height of the antenna and tower. Those antennae and towers rigidly attached to a building, and whose base is on the ground, may exceed this required setback by the amount equal to the distance from the point of attachment to the ground.
    - 2. No tower shall be in excess of a height equal to the distance from the base of the antenna and tower to the nearest overhead electrical power line, which serves more than one dwelling or place of business, less five feet.
    - 3. Metal towers shall be constructed of, or treated with, corrosive resistant material. Wood poles shall be impregnated with rot resistant substances.
- (c) *Tower setbacks.* Towers shall conform with each of the following minimum setback requirements:
- (1) Towers shall be set back from any property line a minimum distance equal to the height of the tower.
  - (2) A tower's setback may be reduced or its location in relation to a public street varied, at the sole discretion of the City Council, to allow integration of a tower into an existing or proposed structure such as a church steeple, light standard, power line support device or similar structure.
  - (3) The minimum distance to a residential structure shall be the height of the tower plus ten feet.
  - (4) The tower or associated accessory structures shall not encroach upon any public easements.
  - (5) The setback shall be measured from a point on the base of the tower located nearest the property line to the actual property line.
- (d) *Height.* The height of towers shall be determined by measuring the vertical distance from the tower's point of contact with the ground or rooftop to the highest point of the tower, including all antennae or other attachments. When

towers are mounted upon other structures, the combined height of the structure and tower must meet the height restrictions of section 74-483.

- (e) *Height limitations for towers.*
  - (1) In all protected residential property, towers, including antennae and other attachments, shall not exceed a maximum height of 60 feet.
  - (2) In residential property other than protected residential property, the maximum height of any tower, including antennae and other attachments, shall not exceed 90 feet.
  - (3) In all nonresidential zoning districts, the maximum height of any tower, including antennae and other attachments, shall not exceed 150 feet.
  - (4) Exceptions to the provisions of this subsection shall be as follows: Multi-user towers may exceed the height limitations of section 74-483 by up to 20 feet.
  - (5) Noncompliance of characteristics of antennae and towers created by application of this division shall not in any manner limit the legal use of the property, nor in any manner limit the repair, maintenance, or reconstruction of a noncomplying antenna or tower; however, in no instance shall the degree of noncompliance be increased except as otherwise permitted by this Code.
- (f) *Tower lighting.* Towers shall not be illuminated by artificial means and shall not display strobe lights unless such lighting is specifically required by the Federal Aviation Administration or other federal or state authority for a particular tower. When incorporated into the approved design of the tower, light fixtures used to illuminate ball fields, parking lots, or similar areas may be attached to the tower.
- (g) *Signs and advertising.* The use of any portion of a tower for signs other than warning or equipment information signs is prohibited.
- (h) *Accessory utility buildings.* All utility buildings and accessory structures to a tower shall be architecturally designed to blend in with the surrounding environment and shall meet the minimum setback requirements of the underlying zoning district. Ground mounted equipment shall be screened from view by suitable vegetation, except where a design of nonvegetative screening better reflects and complements the architectural character of the surrounding neighborhood.
- (i) *Abandoned or unused towers or portions of towers.* Abandoned or unused towers or portions of towers shall be removed as follows:
  - (1) All abandoned or unused towers and associated facilities shall be removed within 12 months of the cessation of operations at the site unless a time extension is approved by the zoning administrator. In the event that a tower is not removed within 12 months of the cessation of operations at a site, the tower and associated facilities may be removed by the City and the costs of removal assessed against the property.

- (2) Unused portions of towers above a manufactured connection shall be removed within six months of the time of antenna relocation. The replacement of portions of a tower previously removed shall require the issuance of a new conditional use permit.
- (j) *Antennae mounted on roofs, walls, and existing structures.* The placement of wireless telecommunication antennae on roofs, walls, and existing towers may be approved by the zoning administrator, provided the antennae meet the requirements of this division, after submittal of (i) a final site and building plan as specified in section 74-37, and (ii) a report prepared by a licensed professional engineer indicating the existing structure or tower's suitability to accept the antenna and the proposed method of affixing the antenna to the structure. Complete details of all fixtures and couplings, and the precise point of attachment shall be indicated. Accessory equipment for wall or roof mounted antennae must be located within the principal building or, if located on the rooftop, must be enclosed.
- (k) *Interference with public safety telecommunications.* No new or existing telecommunications service shall interfere with public safety telecommunications. The City may require that all applications for new service be accompanied by an intermodulation study which provides a technical evaluation of existing and proposed transmissions and indicates all potential interference problems. Before the introduction of new service or changes in existing service, telecommunication providers shall notify the City at least ten calendar days in advance of such changes and allow the City to monitor interference levels during the testing process.
- (l) *Lights and other attachments.* No antenna or tower on any protected residential property as defined in section 74-542 shall have affixed or attached to it in any way, except during time of repair or installation, any lights, reflectors, flashers, or other illuminating device, except as required by the Federal Aviation Agency or the Federal Communications Commission, nor shall any tower have constructed thereon, or attached hereto, in any way, any platform, catwalk, crow's nest, or like structure, except during periods of construction or repair.
- (m) *Security fencing.* Towers shall be provided with security fencing to prevent unauthorized entry.

**Sections 74-547—74-559.**

**Reserved.**