

## **SECTION 13: TOWERS**

### **Subdivision 1: PURPOSE**

To accommodate the communication needs of residents and business while protecting public health, safety, and general welfare, the City finds that these regulations are necessary to:

1. Facilitate wireless telecommunication services to City residents and businesses;
2. Minimize adverse visual effects of Towers through careful design and siting standards;
3. Avoid potential damage to adjacent properties from Tower failure through structural standards and setback requirements; and
4. Maximize the use of existing and approved Towers and buildings to accommodate new wireless telecommunication antennas to reduce the number of Towers needed to serve the community.

### **Subdivision 2: CO-LOCATION REQUIREMENTS**

All Commercial Wireless Telecommunication Towers erected, constructed, or located within the City must comply with the following requirements:

1. The City Council will not approve a new Commercial Wireless Telecommunication Service Tower unless it finds that the telecommunications equipment planned for the proposed Tower cannot be accommodated on an existing or approved Tower or building within a one (1) mile search radius (one half (1/2) mile search radius for towers one hundred twenty (120) feet or less in height and one quarter (1/4) mile search radius for towers eighty (80) feet or less in height) of the proposed Tower due to one (1) or more of the following reasons:
  - A. The planned equipment would exceed the structural capacity of the existing or approved Tower or building, as documented by a qualified and 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.
  - B. The planned equipment would cause interference materially impacting the usability of other existing or planned equipment at the Tower or building as documented by a qualified and licensed

professional engineer, and the interference cannot be prevented at a reasonable cost.

- C. Existing or approved Towers and buildings within the search radius cannot accommodate the planned equipment at a height necessary to function reasonably as documented by a qualified and licensed professional engineer.
  - D. Other unforeseen reasons that make it not feasible to locate the planned telecommunications equipment upon an existing or approved Tower or building.
  - E. The proposer must establish their case to the City Council by providing clear easy to interpret evidence.
- 2. Any proposed Commercial Wireless Telecommunication Service Tower which is over one hundred (100) feet in height must be designed, structurally, electrically, and in all other respects, to accommodate both the applicant's antennas and comparable antennas, for at least two (2) additional users.
  - 3. Towers must be designed to allow for future rearrangement of Antennas upon the Tower and to accept Antennas mounted at varying heights.

### **Subdivision 3: TOWER CONSTRUCTION REQUIREMENTS**

All Towers and Antennas erected, constructed, or located within the City, and all wiring, must comply with the requirements of the City Building Code, State Electrical Code and any other applicable codes or regulations.

### **Subdivision 4: TOWER AND ANTENNA DESIGN REQUIREMENTS**

Proposed or modified Towers and Antennas must meet the following design requirements:

- 1. **Appearance.** Towers and Antennas must 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.
- 2. **Monopole Design.** Commercial Wireless Telecommunication Service Towers must be of a monopole design unless the City Council determines

that an alternative design would better blend in to the surrounding environment or better accommodate multiple use of the Tower.

### **Subdivision 5: TOWER SETBACKS**

Notwithstanding anything to the contrary in the regulations applicable to a specific zoning district, Towers must conform with each of the following minimum setback requirements:

1. **Underlying Zoning District Setbacks.** Unless this Section specifies otherwise, Towers must meet the setbacks of the applicable underlying zoning district.
2. **Residential Property.** In all non-residential zones, at a minimum, all Towers shall be set back from residentially zoned property and all structures (except structures accessory to Towers) a minimum of one hundred fifty percent (150%) of the Tower's height.
3. **Public Right-of-Way.** Towers must be set back from existing or planned public rights of way by a minimum distance equal to one half ( $\frac{1}{2}$ ) of the Tower's height including all Antennas and attachments. No part of any Tower, Antenna, support structure, lines, cables, equipment, wires or braces must extend across or over any part of a public right-of-way, public street, highway or sidewalk.
4. **Between Principal Structures and Streets.** Towers may not be located between a principal structure and a public street, with the following exceptions:
  - A. In industrial zoning districts, Towers may be placed within a side yard abutting an internal industrial street.
  - B. On sites with adjacent public streets on all sides, Towers may be placed within a side yard abutting a local street.
5. **Variance.** A Tower's setback may be reduced or its location in relation to a public street varied, at the City Council's sole discretion, to allow a Tower's integration into an existing or proposed structure such as a church steeple, light standard, power line support device, or similar structure.

## **Subdivision 6: TOWER HEIGHT**

1. **Height Determination.** A Tower's height must be determined by measuring the vertical distance from the Tower's point of contact with the ground to the Tower's highest point, including all Antennas or other attachments, and if the Tower is mounted upon another structure, the height of that structure plus the vertical distance from the Tower's point of contact with the structure must be added together to determine the Tower's height.
  
2. **Height Restrictions.** Notwithstanding anything to the contrary in the regulations applicable to a specific zoning district, Towers are subject to the following height restrictions:
  - A. In all residential districts, a Tower's maximum height is thirty-five (35) feet.
  
  - B. In all non-residential districts, a Tower's maximum height shall be one hundred-fifty (150) feet, except that in the Ag-40 districts a Tower may not exceed a maximum height of one hundred ninety-nine (199) feet.

## **Subdivision 7: TOWER LIGHTING**

Towers may not be illuminated by artificial means and may not display strobe lights unless the lighting is specifically required by the Federal Aviation Administration or other federal or state authority for a particular Tower or otherwise approved by the City Council. When incorporated into the Tower's approved design, light fixtures used to illuminate ball fields, parking lots, or similar areas may be attached to the Tower.

#### **Subdivision 8: SIGNS AND ADVERTISING**

The use of any portion of a Tower for signs other than warning or equipment information signs are prohibited.

#### **Subdivision 9: ACCESSORY UTILITY BUILDINGS**

All utility buildings and structures accessory to a Tower must be architecturally designed to blend in with the surrounding environment and must meet the minimum setback requirements and all other requirements of the underlying zoning district in which the building is located. Ground mounted equipment must be screened from view by suitable vegetation, except where a design of non-vegetative screening better reflects and compliments the architectural character of the surrounding neighborhood.

#### **Subdivision 10: FENCING**

All Commercial Towers and accessory buildings must be enclosed with an aesthetically acceptable fence between eight (8) and ten (10) feet in height with a locked gate to prevent unauthorized entry.

#### **Subdivision 11: LANDSCAPING AND SCREENING**

As a condition to approving a Commercial Tower, the City Council will establish reasonable requirements relating to landscaping and screening to improve the aesthetic appearance of the Tower's base and accessory buildings. Existing on-site vegetation should be preserved to the maximum extent possible.

#### **Subdivision 12: MINIMUM SPACING**

Commercial Tower locations must be at least one-fourth (1/4) mile apart. Antennas wholly contained within a building or other structure and not visible to the general public are exempt from this spacing regulation as determined by the City Council.

### **Subdivision 13: LICENSES**

All proposals to erect any new Tower must be accompanied by all required federal, state or local agency licenses or proof of application for them.

### **Subdivision 14: ABANDONED OR UNUSED TOWERS**

Abandoned or unused Towers or portions of Towers must be removed as follows:

1. All abandoned or unused Towers and associated facilities must be removed within twelve (12) months after the cessation of operations at the site unless the City Council approves a time extension. If a Tower is not removed within twelve (12) months after the cessation of operations at a site, the City may remove the Tower and associated facilities and assess the removal costs against the property.
2. Unused portions of Towers above a manufactured connection must be removed within six (6) months of the time of Antenna relocation. The replacement of portions of a Tower previously removed requires the issuance of a new conditional use permit.

### **Subdivision 15: ANTENNAS MOUNTED ON ROOFS, WALLS AND EXISTING TOWERS**

The City Council may approve the placement of wireless telecommunication Antennas on roofs, walls, and existing Towers if the Antennas meet this Ordinance's requirements and after submittal of: 1) a final site and building plan; and 2) a report prepared by a qualified and 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. The report must indicate complete details of all fixtures and couplings and the precise point of attachment.

### **Subdivision 16: INTERFERENCE WITH PUBLIC SAFETY TELECOMMUNICATIONS**

No new or existing telecommunications service may interfere with public safety telecommunications. All applications for new service must 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 must notify the City at least ten (10) calendar days in advance of such

changes and allow the City to monitor interference levels during the testing process.

### **Subdivision 17: ADDITIONAL SUBMITTAL REQUIREMENTS**

In addition to the information required elsewhere in this Ordinance, all applications to construct Towers must include the following supplemental information:

1. A report from a qualified and licensed professional engineer which does the following:
  - 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 Antennas and the minimum separation distances between Antennas;
  - C. Describes the Tower's capacity, including the number and type of Antennas that 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 request.
2. For all Commercial Wireless Telecommunication Service Towers, a letter of intent committing the Tower owner and his or her 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. Before a site or building permit may be issued, the following supplemental information must be submitted:
  - A. Proof that the proposed Tower complies with regulations administered by Federal Aviation Administration; and
  - B. A report from a qualified and licensed professional engineer which demonstrates the Tower's compliance with the applicable structural and electrical standards.

4. A site plan showing the boundaries of the property where the Tower is located, adjacent land uses, the Tower's location and any Accessory Buildings within the property, distance of setbacks from property lines for the Tower and all Accessory Buildings, Fence locations and proposed landscaping and screening.

### **Subdivision 18: EXCEPTIONS**

This Section's requirements apply to all structures and developments otherwise permitted under this Ordinance except:

1. Planned Unit Developments, when approved as a part of a preliminary and final development plan under this Ordinance.
2. Public utility structures, including but not limited to water towers, lights and signals, power and telephone poles, and poles supporting emergency warning devices.
3. Church sanctuaries, steeples and bell towers.
4. In accordance with the Federal Communications Commission's preemptive ruling, Towers erected for the primary purpose of supporting amateur radio Antennas may exceed thirty (30) feet in height if the City Council determines that the proposed Tower height is technically necessary to successfully engage in amateur radio communications.
5. A Tower or Antenna not more than thirty (30) feet in height used for residential television reception that is used to receive television signals exclusively for the occupants of the property where the Tower or Antenna is located.
6. A satellite or microwave dish that is one (1) meter or less in diameter used to receive signals exclusively for the occupants of the property where the dish is located.
7. Birdhouses.