

Section 10.31. **Wireless Telecommunication Towers and Antennas**

Subd. 1. **Intent and Purpose.** In order to accommodate the communication needs of resident and business while protecting the public health, safety, and general welfare of the community, the Council finds that these regulations are necessary in order to:

A. Facilitate the provision of wireless telecommunication services to the residents and businesses of the City;

B. Minimize adverse visual effects of towers through careful design and siting standards;

C. Avoid potential damage to adjacent properties from tower failure through structural standards and setback requirements; and,

D. Maximize the use of existing and approved towers and buildings to accommodate new wireless telecommunication antennas in order to reduce the number of towers needed to serve the community.

E. Encourage clustering of self-supported/lattice and guyed towers in appropriate locations.

Subd. 2. **Definitions.** Unless specifically defined below words or phrases used in this Section shall be interpreted so as to give them the same meaning as they have in common usage and so as to give this Section its most reasonable application.

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

B. Commercial Wireless Telecommunication Services - Licensed commercial wireless telecommunications services including cellular, personal communication services (PCS), specialized mobilized radio (SMR), enhanced specialized mobilized radio (ESMR), paging and similar devices.

C. Tower, Commercial Communication - A tower designed or used for commercial wireless telecommunications services, public radio transmission or commercial television transmission.

D. Tower, Camouflage - A tower or structure which is concealed or disguised to be compatible with existing or proposed uses on site (antenna incorporated into site lighting at a park or incorporated into an electrical distribution center for example).

E. Tower, Guyed - A structure that is supported either partially or completely by guy wires and ground anchors.

F. Tower, Monopole - A structure that consists of a single pole supported by a permanent foundation.

G. Tower, Non-commercial - A structure which supports the use of amateur radio antennas, private television antennas, etc.

H. Tower, Self-supporting/Lattice - A structure that is constructed without guy wires or ground anchors.

I. Tower, Stealth Facility - A structure together with the communications equipment or devices located thereon which is not readily identifiable as a tower or antenna and is architecturally compatible with existing building/structures on site, and is compatible with existing or proposed uses on site. The structure may or may not have a secondary function, (bell tower, spire, etc.).

J. Tower - Any ground or roof mounted pole, spire, structure, or combination thereof taller than 25 feet, including supporting lines, cables, wires, braces, and masts, intended primarily for the purpose of mounting an antenna, meteorological device, or similar apparatus above grade.

K. Public Utility - Any person, firm, corporation, municipal department or board fully authorized to furnish and furnishing under municipal regulation to the public, electricity, gas, steam, communication services, telegraph services, transportation or water. For the purposes of this Section, commercial wireless telecommunication service facilities shall not be considered public utility uses.

Subd. 3. **Siting Requirements.**

A. Tower facilities may be allowed as follows:

1. In residential or sensitive zoning districts, including A-O, R-1, R-1A, R-2, R-3, R-4, and R-B districts: Non-commercial towers and antennas, not exceeding 75' in height, and towers supporting essential services as defined in Section 10.02 of the City Code, shall be allowed as an accessory use in the applicable zone.

2. In commercial and industrial zoning districts, including B-1, B-2, I-1, I-2, and I-B districts: Commercial towers and antennas, not exceeding 150' in height, shall be allowed as a conditional use in the applicable zone, subject to the procedures set forth in Section 10.23 of this ordinance and the additional provisions and standards set forth in this Section.

Subd. 4. **Shared Use/Co-location.** This section is designed to foster shared use of communication towers and their accessory support facilities.

A. Multi-user Requirements. An application for a new monopole, self-support/lattice or guyed tower shall not be approved unless the City finds that the equipment plans for the proposed tower cannot be accommodated by an existing or approved tower or building within a one-half mile search radius 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, 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.

2. The planned equipment would cause interference materially impacting the usability of other existing or planned equipment at the tower as documented by a qualified professional engineer, and the interference cannot be prevented at a reasonable cost.

3. 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 professional engineer.

4. Other unforeseen reasons that make it not feasible to locate the planned equipment upon an existing or approved tower or building.

Any proposed commercial wireless telecommunication service tower shall be designed, both structurally and electrically, and in all other respects, to accommodate both the applicant's antennas and the comparable antennas for at least two additional users if the tower is over 100 feet in height and for at least one additional user if the tower is over 75 feet in height. Towers must be designed to allow for future rearrangement of antenna upon the tower and to accept antennas mounted at varying heights.

Subd. 5. **Additional Standards.** Communication towers may be located on lots containing another principal use, (including another communication tower), or they may be the principal use. Separation between communication towers and other uses on the lot shall comply with applicable building and fire codes. Towers may occupy an owned or leased parcel.

A. Tower setbacks. Commercial communications towers shall meet or exceed the minimum setback requirements of a principal structure in the underlying zoning district. This includes any guy wires or anchors.

B. Accessory Structures. All utility buildings and structures accessory to a tower shall meet the minimum setback requirements of the underlying zoning district.

C. Measurement. The separation distance between an existing and a proposed tower shall be measured at grade in a direct lineal fashion between the closest points of the base of the existing and the base of the proposed tower.

D. Perimeter Buffering.

1. Stealth and Camouflage Towers. Stealth and camouflage towers are not subject to the perimeter buffering requirements of this subsection.

2. Fence/wall. A fence or wall, a minimum of eight (8) feet in height measured from finished grade, shall be constructed around each communication tower and around each guy anchor. Access to the communication tower shall be through a locked gate. The fence material shall be compatible with and suit the character of the neighborhood or surrounding property.

3. Landscaping. The landscape and buffer standards provided below in the subsection shall be required around the perimeter of the tower, accessory structures, and guy anchor, unless waived as provided herein. These standards may be waived by the City when the proposed landscaping would not be visible from adjacent lots or rights-of-way. Landscaping shall be installed along the exterior side of the required fence. Landscaping shall include, at a minimum, evergreen type trees with a maximum separation between trees of twenty (20) feet. Trees shall have a minimum trunk diameter of two (2) inches at one (1) foot above the ground at time of planting. Trees shall only be required on that side of the tower property adjacent to a residentially zoned property or adjacent to a right-of-way. Trees as a landscaping element shall not be required when the use of trees is shown to be incompatible with the proposed antenna and tower design, (a series-fed AM directional antenna array, for example), as documented by a qualified professional engineer. Non-vegetative landscape design may be chosen where it better suits the architectural character of the surrounding neighborhood with the agreement of the City.

4. Abandoned or Unused Towers or Portions of Towers. All abandoned or unused towers or portions of towers and associated above-ground facilities shall be removed within 12 months of the cessation of operation of an antenna facility at the site unless a time extension is approved by the City, following review of the request by the Planning Commission. Any ordinary time extension shall not exceed 60 days. 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. Tower operators shall provide at the time of the application a copy of the lease or other instrument obligating them to remove tower(s) and associated facilities upon cessation of operations at any given site.

5. Building Permits. In addition to the review processes required in the Section, a building permit shall be required for all towers, support and accessory structures and antenna attachments, except as otherwise provided by State or local law.

6. Additional Submittal Requirements. In addition to the information required elsewhere in the Code, applicants for commercial towers shall include the following supplemental information:

a. A report from a qualified and licensed professional engineer which:

(1) Describes the tower height and design including a cross section and elevation;

(2) Documents the height above grade for all potential mounting positions for co-located antennas and the minimum separation distances between antennas;

(3) Describes the tower's capacity, including the number and type of antennas that it can accommodate;

(4) Documents what steps the applicant will take to avoid interference with established public safety telecommunications;

(5) Includes an engineer's stamp and registration number;

(6) Includes other information necessary to evaluate the request.

b. 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.

c. Before the issuance of a building permit for a tower under this Section, the following supplemental information shall be submitted:

(1) Proof that the proposed tower complies with regulations administered by the Federal Aviation Administration; and

(2) A report from a qualified and licensed professional engineer which demonstrates the tower's compliance with the aforementioned structural and electrical standards.

d. Signs and Advertising. The use of any portion of a tower for advertising or business purposes, including company name, shall be prohibited. Only warning or equipment information signs shall be permitted.

e. Tower Design Requirements. Towers and the antennas they support shall be designed to blend into the surrounding environment to the maximum extent possible through the use of color, except in instances where the color is dictated by Federal or State authorities such as the FAA. Commercial wireless telecommunication service towers shall be of a monopole design unless the City Council, acting on the recommendation of the Planning Commission, determines that an alternative design would better blend into the surrounding environment.

f. Radiation Standards. Towers shall comply with Federal Communications (FCC) standards for non-ionizing electromagnetic radiation (NIER).

g. Appurtenances and Accessory Equipment. All appurtenances and accessory equipment or structures shall comply with FCC standards for NIER.

7. Aircraft Hazard. Towers shall not be a hazard to air navigation as determined by the Federal Aviation Administration (FAA). Applicants shall complete and submit FAA form 7160-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION, as required.

8. Lighting. A tower shall not be illuminated by artificial means and shall not display strobe lights unless such lighting is specifically required by the FAA or other State or Federal authority for a particular tower. When lighting is required, the least intensive nighttime method of illumination acceptable to the FAA or other authority shall be utilized. All required lighting shall be maintained on an as needed bases by the owner of the 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.

E. Inspections. All towers shall be inspected in compliance with the FCC regulations or as required by the Building Inspector.

F. Interference with Equipment. As provided by the FCC, towers shall not interfere with the normal operation of electrical or mechanical equipment located within surrounding properties.

Subd. 6. **Nonconforming Towers and Structures.**

A. Nonconforming Towers and Accessory Structures. An existing, legally nonconforming tower may be replaced subject to the criteria below. If the criteria are not met, the replacement shall comply with the siting requirements of this chapter.

1. Continued Use. 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 chapter.

2. Damaged Towers. If such towers are hereafter damaged or destroyed due to any reason or cause whatsoever, the tower may be repaired or restored to its former use, location, and physical dimension upon obtaining a building permit therefore, but without otherwise complying with this chapter, provided, however, that if the cost of repairing the tower to the former use, physical dimensions, and location would be 50% or more of the cost of a new tower of like kind and quality, then the tower may be repaired or restored except in full compliance with the chapter. The tower shall be of the same or less impact than the existing structure.

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