

**PART 9. WIRELESS
COMMUNICATION
TOWERS AND ANTENNAS**

908.01 Purpose and Intent.

The purpose of this ordinance is to accommodate and provide a reasonable opportunity for the establishment of wireless telecommunications in the City. The City finds it necessary to adopt standards and regulations that promote the public health, safety, and general welfare, while minimizing the possible adverse effects of towers and antennas on nearby property. The Council finds that these regulations are necessary to:

- (a) Establish standards which permit a reasonable and equitable opportunity for the establishment of wireless telecommunication services in the City,
- (b) Ensure that towers and antennas are designed, constructed, installed, and maintained in a manner that does not adversely impact public safety,
- (c) 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, and;
- (d) Minimize adverse visual effects of towers through careful design and siting standards which attempt to screen and/or camouflage towers and antennas from adjacent public and private property.

908.02 Findings.

The City of Lilydale finds it necessary for the promotion and preservation of the public health, safety, welfare, and aesthetics of the community that the construction, location, size, and maintenance of wireless telecommunication facilities be controlled. Further, the City finds:

- (a) Towers and antennas have a direct impact on, and a relationship to, the image of the community and the environmentally sensitive Mississippi River corridor;
- (b) The manner of installation, location, and maintenance of towers and antennas affects the public health, safety, welfare, and aesthetics of the community;
- (c) A reasonable opportunity for the establishment of wireless telecommunication must be provided to serve residential and business needs, and;
- (d) Uncontrolled and unlimited towers and antennas adversely impact the image and aesthetics of the community and, thereby, adversely affect economic value and growth.

908.03 Building Permits.

- (a) No person, firm, or corporation shall erect, construct, replace, or re-erect, any tower without first making application for and securing a building permit as provided in this Ordinance and the City Code.
- (b) The applicant shall provide at the time of application for a building permit sufficient information to indicate that construction, installation, and maintenance of the antenna and tower will be in compliance with applicable Uniform Building Code requirements.
- (c) Permits are not required for:
 - (1) Adjustment, maintenance, repair, or replacement of the elements of an antenna array affixed to a tower or antenna, provided that replacement does not reduce the tower's safety, increase its height or change its color or shape.
 - (2) Antennas and/or towers erected temporarily for test purposes, for emergency communication, or for broadcast remote pick-up operations, provided that the antennas or towers are not located on public right-of-way, and towers are protected against unauthorized climbing. Temporary antennas used for test purposes or broadcast remote pick-up operations shall be removed within 72 hours following completion of installation.

908.04 Height Restrictions

- (a) Height Determination. The height of towers shall be determined by measuring the vertical distance from the tower's point of contact with the ground or roof top to the highest point of the tower, including all antennas or other attachments.
- (b) Except as provided in the following paragraph of this Section, maximum heights for towers shall not exceed:
 - (1) Eighty feet in all residential zoned property, all antennas and other attachments.
 - (2) One hundred and twenty five feet in all non-residential and open space zoning districts, including all antennas and other attachments. The City Council may allow towers up to 175 feet high in such districts if the applicant demonstrates that based upon the topography of the site and surrounding areas, antenna design, surrounding tree cover and structures and/or through the use of screening, that off-site views of the tower will be minimized.

908.05 Exceptions to Height Restrictions.

The following are exceptions to the maximum height restrictions for towers:

- (a) Multi-Use Towers designed to accommodate more than one user may exceed the height limitations of this Section by not more than 25 feet.
- (b) Antenna devices over 80 feet in height which are attached to an existing structure and not freestanding may be located in residential zoned districts under the following conditions:
 - (1) Antennas are located upon existing or proposed structures allowed as principal or conditional uses into the underlying zoning district and/or upon public structures;
 - (2) Antennas are limited to a height of 15 feet projecting above the structure. The City Council may permit antenna heights of up to 25 feet above the structure if the applicant demonstrates by a combination of antenna design, positioning of the structure and/or by screening erected or already in place on the property, that off-site views of the antenna are minimized to acceptable levels.

908.06 Setbacks.

Towers shall conform with each of the minimum setback requirements:

- (a) Towers shall conform to the setbacks of this ordinance with the exception of industrial and business zoned districts, where the tower may encroach into the rear and side setback area, provided that the rear or side property line abuts another industrial or business zoned district and the tower does not encroach upon any easements.
- (b) Towers shall maintain a minimum setback of 10 feet from all property lines.
- (c) For sites that are adjacent to parcels developed, guided, or zoned for residential and/or open space use, setbacks shall be equal to the height of the tower. The minimum distance to the nearest single family residential structure shall be two times the height of the tower and the minimum distance to the nearest multi-family structure shall be the height of the tower plus 20 feet.
- (d) Towers shall be set back from all existing and planned public right-of-way by a minimum distance equal to one half of the height of the tower including all antennas and attachments.

- (e) Towers shall not be located between a principal structure and a public street with the following exceptions: on sites adjacent to public streets on all sides, towers may be placed within a sideyard abutting a local street.
 - (1) in industrial zoning districts, towers may be placed within a side yard abutting an internal industrial street.
- (f) A tower's setback may be reduced or its location in relation to a public street varied, at the discretion of the City Council, to allow the integration of a tower into an existing or proposed structure, such as a church steeple, light pole, power line support device, or similar structure.
- (g) No tower, antenna, or accessory structure shall be located in a wetland.
- (h) In a residential district, the required setback from a property line for antennas and towers not rigidly attached to a building or structure, shall be equal to the height of the antenna and tower.
- (i) All self supporting towers shall be set back from any bluff line two times the height of the tower.

908.07 Towers in Residentially Zoned Districts.

Towers to be located in residentially zoned areas are subject to the following restrictions:

- (a) Towers supporting amateur radio antennas shall adhere to all applicable provisions of the City Code.
- (b) Towers supporting commercial antennas and conforming to all applicable provisions of this Code shall be allowed in residential zoned districts in the following locations:
 - (1) Government, school, utility, church, and institutional sites.
 - (2) The roof of a multi-family residential structure greater than three stories in height.
- (c) Only one tower shall exist at any one time on any parcel used for residential purposes with the exception of towers designed to replicate an existing structure.

908.08 Towers in Regional Parks

Towers, Antennas and accessory structures are generally prohibited in the Harriet Island-Lilydale Regional Park unless the following conditions are met:

(a) The communication system is not able to function without placement of the tower on the Regional Park land. Before locating any tower on park land, however, all other reasonable alternatives must be considered in creating the grid in order to avoid placing any tower in the Regional Park. The communication service provided must prove this criteria in requesting approval to place a tower in

the Regional Park.

(b) If the above condition has been met, the tower's impact on the Regional Park must be minimized in the following ways:

9/98 72(d)

(1) The tower must be screened from view of park users as much as possible through tower placement and design features agreed to by the City, the St. Paul Parks Department and the Metropolitan Council.

(2) The tower must be located on land already affected by park development and accessible through the existing park road system. For example, antennas placement on a maintenance building may have the least impact on the Regional Park. Towers may not be located on land

conserved for habitat restoration and/or interpretation and/or with historical designation.

(3) Co-location of towers will be preferred over constructing several towers and utilized if coloration has less visual and other environmental impact on the Regional Park.

(c) The placement of any tower, antenna or accessory structure must also meet the policies of the St. Paul Parks Department, the Metropolitan Parks and Open Space Commission, and MNRRA.

(d) Towers shall be set back two times the height of the structure from the Mississippi River Ordinary High Water Mark or shall be set back no less than 100 feet from the Mississippi River Ordinary High Water Mark, whichever is greater.

908.09 Multiple Principal Uses and Structures on a Single Lot.

For the purposes of this Ordinance, one tower and multiple antennas shall be permitted on the same lot as another principal use or structure subject to the requirements of this Chapter.

908.10 Construction Requirements.

All antennas and towers erected, constructed, or located within the City shall comply with the following requirements:

- (a) All applicable provisions of this Code.
- (b) Towers and their antennas shall be certified by a qualified engineer to conform to the latest structural standards and wind loading requirements of the Uniform Building Code and the Electronics Industry Association and all other applicable reviewing agencies.
- (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 their antennas 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 towers shall be protected against unauthorized climbing.
- (f) Metal towers shall be constructed of, or treated with, corrosive resistant material.
- (g) The applicant is responsible for confirming that it has complied with all applicable federal and state laws and regulations.

9/98 72(e)

908.11 Tower and Antenna Design.

Proposed or modified towers and antennas shall meet the following design requirements:

- (a) Towers and antennas (including supporting cables and structures) shall be designed to blend into the surrounding environment through the use of color and design. Communication towers not requiring FAA or FCC painting/markings shall have either a galvanized finish or be painted a no

contrasting color consistent with the surrounding area, such as off-white to match the towers in nearby Mendota

Heights.

- (b) Commercial wireless telecommunication service towers shall be of a monopole design unless the City Council determines that an alternative design would better blend in to the surrounding environment or that it better facilitates co-location.

908.12 Co-Location Requirement.

All personal wireless communication towers erected, constructed, or located within the City shall comply with the following requirements:

- (a) A proposal for a new commercial wireless telecommunication service tower shall not be approved unless the City Council finds, after consideration of documentation provided by the applicant, that the telecommunications equipment planned for the proposed tower cannot be accommodated on an existing or approved tower or building within a one mile search radius (one-half mile search radius for towers under 120 feet in height) 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 qualified 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 or building as documented by a qualified radio frequency engineer and 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 radio frequency engineer.
 - (4) Other unforeseen reasons that make it unfeasible to locate the planned telecommunications equipment upon an existing or approved tower or building.
 - (5) Existing or approved towers or buildings are not in the service area, or do not meet the needs of the user. Documentation shall be provided at the time of application clearly demonstrating why existing structures do not meet the needs of the user.

- (6) After good faith reasonable efforts, the applicant is unable to obtain approval to co-locate on an existing or approved tower or building.
- (b) Any proposed commercial wireless telecommunication service tower over 80 feet shall be designed, structurally, electrically, and in all respects, to accommodate both the applicant's antennas and comparable antennas for at least one additional user. Towers must be designed to allow for future rearrangement of antennas upon the tower and to accept antennas mounted at varying heights.

908.13 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 for camouflage purposes, light fixtures used to illuminate ball fields, parking lots, or similar areas may be attached to the tower.

908.14 Signs and Advertising.

No signage, advertising or identification of any kind intended to be visible from the ground, Mississippi River, or other structures is permitted, except applicable warning and equipment information signage required by the manufacturer or by Federal, State, or local authorities.

908.15 Accessory Utility Buildings.

All utility buildings, structures, or outdoor equipment accessory to a tower may not exceed one story in height and 800 square feet in size and shall be architecturally designed to blend in with the surrounding environment and meet the minimum set back requirements of the underlying zoning district or the set back of the tower if a different set back requirement for the tower is allowed whichever is greater. The use of compatible materials such as wood, brick, or stucco is required for associated support buildings. Equipment located on the roof of an existing building shall be screened from the public view with building materials identical to or compatible to existing materials. In no case shall wooden fencing be used as a rooftop equipment screen.

908.16 Landscaping.

Ground mounted equipment shall 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 area. Removal of existing shrubs and trees shall be minimized through careful site selection and design. Landscaping shall comply with the standards provided for in the Zoning

District in which it is located or with the standards required for the B-1 District, whichever is greater to a minimum of one eight foot evergreen per eight feet of tower height.

908.17 Antennas Mounted on Roofs, Walls, and Existing Towers.

The placement of wireless communication antennas on roofs, walls, and existing towers may be administratively approved by the City, provided that the antenna meets the requirements of this Code and the following:

- (a) The maximum height of an antenna shall not exceed 15 feet above the roof, and shall be set back at least 10 feet from the roof edge.
- (b) Wall or facade mounted antenna may not extend more than five feet above the cornice line and must be constructed of a material or color which matches the exterior of the building or structure.

908.18 Application.

In addition to the submittal requirements required elsewhere in this Code, an application for a Building Permit for any antenna to be mounted on an existing structure shall be accompanied by the following information:

- (a) A site plan showing the location of the proposed antenna on the structure and documenting that the request meets the requirements of this Code;
- (b) A building plan showing the construction of the antenna, the proposed method of attaching it to the existing structure, and documenting that the request meets the requirements of this Code;
- (c) A report prepared by a qualified engineer indicating the existing structure or tower's ability to support the antenna;
- (d) Photos with antenna image showing view from adjacent property and from the Mississippi River
- (e) If required by MN Rules 4410.4300 Subp. 33 - Communications Towers, a completed Environmental Assessment Worksheet in accordance with Minnesota Environmental Quality Board regulations.
- (f) Written statement describing the antenna's impact on the Mississippi River.

908.19 Appeals.

An applicant may appeal an administrative decision under this Section to the City Council. Following review and recommendation by the Planning Commission,

the City Council shall make a final determination on the application.

908.20 Existing Antennas and Towers.

Antennas and towers in residential districts and in existence as of the effective date of this Ordinance which do not conform to or comply with this Section 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 Chapter.
- (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 Chapter, provided, however, that if the cost of repairing the tower to the former use, physical dimensions, and location would be fifty 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 chapter.

908.21 Time Limit on Tower Completion.

Once a tower is approved by the City, the tower must be substantially completed within one year, including any structures accompanying the tower, following the date of permit.

908.22 Abandoned or Unused Towers or Portions of Towers.

Abandoned or unused towers or portions of towers and accompanying accessory facilities shall be removed as follows:

- (a) All abandoned or unused towers and associate facilities shall be removed within 12 months of the cessation of operations at the site unless a time extension is approved by the City Council. 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.

- (b) Unused portions of towers above a manufactured connection shall be removed within two years six months of the time of antenna relocation, if the unused portion exceeds 25 percent of the height of the tower or 30 feet, whichever is greater. The replacement of portions of a tower previously removed requires the issuance of a new conditional use permit.
- (c) After the facilities are removed, the site shall be restored to its original or an

improved condition.

908.23 Additional Submittal Requirements.

In addition to the information required elsewhere in this code in an application for a Building Permit for towers and their antennas, applications for towers shall include the following supplemental information:

- (a) A report from a qualified engineer that provides the following:
 - (1) describes the tower height and design including a cross section 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; and
 - (4) Demonstrates the tower's compliance with all applicable structural and electrical standards and includes an engineer's stamp and registration number;
- (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 and so long as there is no negative structural impact upon the tower, and there is no disruption to the service provided.

908.24 Definitions

Antenna is defined as, "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 omnidirectional antennas, such as whip antennas."

Commercial wireless telecommunication service is defined as, "Licensed commercial wireless telecommunication 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."

Public Utility is defined as, "Persons, corporations, or governments supplying gas, electric, transportation, water, sewer, or land line telephone service to the general public. For the purpose of this ordinance, personal wireless service shall not be considered public utility uses, and are defined separately."

Tower is defined as, "Any ground mounted pole, spire, structure, or combination thereof, including supporting lines cables, wires, braces, masts, intended primarily for the purpose of mounting an antenna, meteorological device, or similar apparatus above grade."

Tower, Multi-User is defined as, "A tower designed for the antennas of more than one commercial wireless telecommunication service provider or governmental agency."

Tower, Single-User, is defined as, "A tower designed for only the antennas of a single user."