

## **Subd. M.     Antennas.**

1.     **Purpose and Intent.**     The purpose of this section is to establish predictable and balanced regulations for the siting and screening of wireless communications equipment in order to accommodate the growth of wireless communication systems within the City of Delano while protecting the public against any adverse impacts on the City's aesthetic resources and the public welfare. The provisions of the section are intended to maximize the use of existing towers, structures, and buildings to accommodate new wireless telecommunication antennas in order to minimize the number of towers needed to serve the community.
2.     **General Standards.**     The following standards shall apply to all personal wireless service telephone, public utility, microwave, radio and television broadcast transmitting, radio and television receiving, satellite dish and short-wave radio transmitting and receiving antenna.
  - a.     All obsolete and unused antennas and towers shall be removed within twelve (12) months of cessation of operation at the site by the antenna or tower owner, unless an exemption is granted by the Zoning Administrator. A copy of the relevant portions of a signed lease which requires the applicant to remove the tower and associate facilities when they are abandoned, unused or become hazardous shall be submitted to the City.
  - b.     All antennas and towers shall be in compliance with all State Building and Electrical Code requirements and as applicable shall require related permits. Applications to erect new antennas and/or towers shall be accompanied by any required federal, state, or local agency licenses.
  - c.     Structural design, mounting and installation of the antenna shall be in compliance with manufacturer's specifications and as may be necessary, as determined by the City Engineer, shall be verified and approved by a professional engineer.
  - d.     When applicable, written authorization for antenna and/or tower erection shall be provided by the property owner.
  - e.     No advertising message shall be affixed to the antenna and/or tower structure.
  - f.     Antennas and/or towers shall not be artificially illuminated unless required by law or by a governmental agency to protect the public's health and safety.
  - g.     If a new tower of seventy-five (75) feet or greater in height is to be constructed, it shall be designed structurally, electrically, and in all respects, to accommodate both the applicant's antennas and antennas for

at least one (1) additional use, including but not limited to other personal wireless service communication companies, local police, fire and ambulance companies. Towers shall be designed to allow for future rearrangement of antennas upon the tower and to accept antennas mounted at varying heights.

- h. Towers shall be painted a non-contrasting color consistent with the surrounding area such as blue, gray, brown, or silver or have a galvanized finish to reduce visual impact, unless otherwise required by a governmental agency.
- i. All antennas and towers shall be reasonably posted and secured to protect against trespass, including appropriate measures to prevent unauthorized persons from climbing any tower.
- j. Towers shall comply with all applicable Federal Aviation Administration (FAA) regulations.
- k. Amateur radio towers shall be installed in accordance with the instructions furnished by the manufacturer of that tower model. Because of the experimental nature of the amateur radio service, antennas mounted on such a tower may be modified or changed at any time so long as the published allowable load on the tower is not exceeded and the structure of the tower remains in accordance with the manufacturer's specifications.
- l. Except as may be applicable in case where a conditional use permit is required, antennas and support structures for federally licensed amateur radio stations and used in the amateur radio service shall be exempt from the following: Section 51.03, Subd. M.2.h; Section 51.03, Subd. M.4; and Section 51.03, Subd. M.5.

### **3. Certification, Inspection and Maintenance.**

- a. All towers, antenna support structures, and related equipment or structures shall be kept and maintained in good condition, order, and repair so as not to menace or endanger the life or property of any person.
- b. All towers shall be certified by an engineer to be structurally sound and in conformance with the requirements of the State Building Code and federal and state law.
- c. The City shall have authority to enter onto the property upon which a tower is located to inspect the tower for the purpose of determining whether it complies with the State Building Code and all other construction standards provided by the City's Code, federal and state law. The City reserves the right to conduct such inspections at any time, upon

reasonable notice to the owner. All expenses related to such inspecting by the City shall be borne by the owner.

4. **Tower Design.** Where allowed, wireless communication towers shall be of a monopole design unless the City Council determines that an alternative design requested by the applicant would better blend into the surrounding environment.
5. **Co-Location Requirement.** An application for a new tower shall not be approved unless the applicant demonstrates that the antennas cannot be accompanied on an existing or approved tower, building, or structure within a two (2) mile search radius of the proposed tower due to one or more of the following reasons:
  - a. The planned equipment would exceed the structural capacity of the existing or approved tower, building, or structure 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 engineer and interference cannot be prevented at a reasonable cost.
  - c. Other unforeseen reasons that make it unfeasible to locate the antennas upon an existing or approved tower or structure.
  - d. Existing or approved towers, buildings, or other structures do not exist in the search 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 to the users.
  - e. The applicant shall demonstrate that a good faith effort to co-locate on existing towers or structures was made, but an agreement could not be reached.
6. **Accessory Antennas.** The following standards shall apply to all accessory antennas including radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers.
  - a. Accessory antennas shall not be erected in any required yard (except a rear yard) or within public or private utility and drainage easements, and shall be set back a minimum of five (5) feet from all lot lines.

- b. Guy wires or guy wire anchors shall not be erected within public or private utility and drainage easements, and shall be set back a minimum of one (1) foot from all lot lines.
- c. Accessory antennas and necessary support structures, monopoles or towers may extend a maximum of fifteen (15) feet above the normal height restriction for the affected zoning district, except support structures and antennas used in the amateur radio service may extend a maximum of two (2) times the normal height restriction for the affected zoning district.
- d. The installation of more than one (1) accessory structure and support structure per property shall require the approval of a conditional use permit.

## **7. Personal Wireless Service Antennas.**

### **a. Residential and Business District Standards.**

- 1) Antennas Located Upon an Existing Tower or Structure. Personal wireless service antennas as a permitted secondary use may be located upon existing towers or structures shall require the processing of an administrative permit and shall comply with the following standards:
  - a) Transmitting, receiving and switching equipment shall be housed within an existing structure whenever possible. If a new equipment building or cabinet is necessary for transmitting, receiving and switching equipment, it shall be situated in the side or rear yard of the principal use, meet all applicable accessory building setback requirements, and shall be screened from view by landscaping where appropriate.
  - b) An administrative permit is issued by the Zoning Administrator, subject to the following conditions:
    - (1) Antennas mounted on buildings or structures shall not extend more than fifteen (15) feet above the structural height of the building or structure to which they are attached.
    - (2) Wall or facade mounted antennas may not extend more than five (5) feet above the cornice line and shall be constructed of a material or color which matches the exterior of the building.

- c) In no case shall a personal wireless service antenna be located upon or affixed to a detached single family residential dwelling.

- 2) New Towers. The erection of new personal wireless service antenna towers within Residential and Business Zoning Districts of the City is prohibited.

b. Industrial District Standards.

- 1) Antennas Located Upon an Existing Structure or Existing Tower. Personal wireless service telephone antennas as a permitted secondary use may be located upon an existing structure or co-located on an existing tower shall require the processing of an administrative permit and shall comply with the following standards:

- a) An administrative permit is issued by the Zoning Administrator.
- b) Antennas mounted on buildings or structures shall not extend more than fifteen (15) feet above the structural height of the building or structure to which they are attached.
- c) Wall or facade mounted antennas may not extend more than five (5) feet above the cornice line and must be constructed of a material or color which matches the exterior of the building.

- 2) New Towers. New towers as a permitted secondary use shall require approval of an administrative permit and shall comply with the following standards:

- a) The applicant shall demonstrate to the satisfaction of the City that location of the antennas as proposed is necessary to provide adequate portable personal wireless service telephone coverage and capacity to areas which cannot be adequately served by locating the antennas on an existing tower or support structure.
- b) If no existing structure which meets the height requirements for the antennas is available for mounting purposes, the antennas may be mounted on a monopole tower provided that:
  - (1) Towers with a maximum capacity to support two (2) antennas shall not exceed one hundred forty (140)

feet in height. Towers with a minimum capacity to support three (3) antennas shall not exceed one hundred sixty (160) feet in height.

- (2) The setback of the tower from the nearest property line is not less than the height of the antenna. Exceptions to such setback may be granted in such cases when a qualified structural engineer specifies in writing that any failure of the pole will occur within a lesser distance under all foreseeable circumstances. The setback shall not be reduced in cases where the subject site abuts a residential zoning district. The setback requirements shall not be reduced below the minimum accessory building setback requirements of the base zoning district or the failure area of the tower, whichever is greater.
  - c) Transmitting, receiving and switching equipment shall be housed within an existing structure whenever possible. If a new equipment building or cabinet is necessary for transmitting, receiving and switching equipment, it shall be situated in the side or rear yard of the principal use, meet all applicable necessary building setback requirements, and shall be screened from view by landscaping where appropriate.
  - d) At the discretion of the City, a security fence not greater than eight (8) feet in height with a maximum opacity of fifty (50) percent shall be provided around the support structure, as well as no climb security measures shall be provided on the tower or support structure.
- 3) Temporary Mobile Towers. Personal wireless service antennas located upon a temporary mobile tower as a permitted secondary use may be used on an interim basis until a permanent site is constructed shall require the approval of an administrative permit and shall comply with the following standards:
- a) Temporary mobile towers are exempt from co-location and permanent tower structure design standards provided for in the following sections: Section 51.03, Subd. M.2.h; Section 51.03, Subd. M.2.i; Section 51.03, Subd. M.4; and Section 51.03, Subd. M.5.
  - b) The termination date of the permit shall not exceed one hundred twenty (120) days. Temporary mobile towers

located on a site longer than one hundred twenty (120) days shall require the processing of an interim use permit subject to the standards contained in Section 51.02, Subd. C of this Ordinance.

- c) Guyed towers are prohibited.
- d) Mobile units shall have a minimum tower design wind load of eighty (80) miles per hour, or be set back from all structures a distance equal to the height of the tower.
- e) All towers shall be protected against unauthorized climbing.
- f) The height of the tower shall not exceed one hundred (100) feet.

8. **Commercial and Public Radio and Television Transmitting Antennas, and Public Utility Microwave Antennas.** Commercial and public radio and television transmitting and public utility microwave antennas shall comply with the following standards:

- a. Such antenna shall be considered an allowed conditional use within all industrial districts of the City and shall be subject to the regulations and requirements of Section 51.02, Subd. B of this Ordinance.
- b. The antennas, transmitting towers, or array of towers shall be located on a continuous parcel having a dimension equal to the height of the antenna, transmitting tower, or array of towers measured between the base of the antenna or tower located nearest a property line and said property line, unless a qualified structural engineer specifies in writing that the collapse of any antenna or tower will occur within a lesser distance under all foreseeable circumstances.
- c. Unless the antenna is mounted on an existing structure, at the discretion of the City, a fence not greater than eight (8) feet in height with a maximum opacity of fifty (50) percent shall be provided around the support structure and other equipment, as well as no climb security measures shall be provided on the tower or structure.