

Deerfield Township

Wireless Communication Structures Ordinance #109

A. Applicability and Preamble

This Ordinance is adopted in the interest of public safety, and is designed to promote the general peace, health, safety and welfare of the residents of Deerfield Township.

The regulations of this Ordinance are intended to conform with federal laws and administrative rules governing facilities needed to operate wireless communication systems and to set forth procedures and standards for review and approval for the location of such facilities within Deerfield Township. It is the Township's intent to reasonably regulate the location and design of such facilities to retain the integrity of neighborhoods and the character, property values and aesthetic quality of the township. Given the increase in the number of wireless communication facilities requested as a result of the new technology and the Federal Telecommunications Act of 1996, it is the policy of the township that all users should co-locate on Attached Wireless Communication Facilities and Wireless Communication Support Structures. Co-location is proposed in order to assure the most economic use of land and to prevent the proliferation of duplicative services. In recognition of the township's concern that technological advances may render certain Wireless Communication Facilities obsolete or unnecessary in the future, requirements are set forth for the removal of unused or unnecessary facilities in a timely manner and provide security for removal.

B. Definitions

1. **Wireless Communication Facilities** - means and includes all structures and accessory facilities relating to the use of the radio frequency spectrum for the purpose of transmitting or receiving radio signals including but not limited to radio towers, television towers, telephone devices and exchanges, micro-wave relay towers, telephone transmission equipment building and commercial mobile radio service facilities. Included in this definition are "Antennae", "Towers", and "Storage / buildings", defined below. Not included in this definition are citizen band radio facilities, short wave facilities, ham or amateur radio facilities, satellite dishes for residential use, and governmental facilities which are subject to state or federal law or regulations which preempt municipal regulatory authority.
2. **Wireless Communication Antenna or Antennae** - means any antenna used for the transmission or reception of wireless communication signals excluding those used exclusively for dispatch communications by public emergency agencies, ham radio antenna, satellite antenna, those which receive video programming services via multi-point distribution services which are one meter (39") or less in diameter and those which receive television broadcast signals.
3. **Wireless Communication Support Structure or Tower(s)** - means structures erected or modified to support Wireless Communication Antennae or Facilities. Support structures within this definition include, but are not limited to monopoles, lattice towers, light poles, wood poles and guyed towers, or other structures which appear to be something other than a mere support structure.
4. **Wireless Communication Equipment Storage Facilities or Storage Building** - means equipment used in the operation of the Facility other than Antennae or Towers and the structure within which the equipment is stored, maintained and serviced.

5. **Co-location** - means the location of two or more Wireless Communication Facilities on a common Tower with the view toward reducing the overall number of Towers within the Township.
6. **Provider** - means entity which is properly licensed by the Federal Communications Commission (FCC) and other appropriate governmental authorities to provide services through Wireless Communications Facilities.
7. **Attached Wireless Communication Facilities** - means wireless communication facilities affixed to existing structures, including but not limited to existing buildings, towers, water tanks, or utility poles.

C. Telecommunications Facilities Permit

1. **Permit Required** - A wireless communication facility shall require the issuance of a Telecommunications Facilities Permit, herein below referred to as a permit or a "TFP".
2. **Information Required** - The following information is required for a Telecommunications Facilities Permit.
 - a. Each applicant for an antenna and/or tower shall provide an inventory of its existing towers, antennas, or sites approved for towers or antennas, that are either within the jurisdiction of Deerfield Township or within one (1) mile of the border thereof, including specific information about the location, height, type of equipment including model number, and design of each tower. Such information may be shared with other applicants applying for approvals under this Ordinance or other organizations seeking to locate towers or antennas within the jurisdiction of Deerfield Township, provided, however, that the sharing of such information in no way constitutes a representation or warrant by the Township that such sites are available or suitable.
 - b. A scaled plot plan clearly indicating the location, type and height of the proposed tower; on-site land uses and zoning; adjacent land uses and zoning; Land Use Plan classification of the site and all properties within the applicable separation distances set forth above; adjacent roadways; proposed means of access; setbacks from property lines; elevation drawings of the proposed tower; specifications of the transmitter and model numbers and any other structures, topography, parking, and any other information deemed by Deerfield Township to be necessary to assess compliance with this Ordinance.
 - c. Legal description of the parent tract and leased parcel (if applicable).
 - d. The setback distance between the proposed tower and the nearest residential unit, platted residentially zoned properties, and unplatted residentially zoned properties.
 - e. The separation distance from other towers or structures described in the inventory of existing sites submitted pursuant to Paragraph 2 above shall be shown on an updated plot plan or map. The applicant shall also identify the type of construction of the existing tower(s) and the owner/operator of the existing tower(s), if known.
 - f. A landscape plan showing specific landscape materials.

- g. Method of fencing, and finished color and, if applicable, the method of camouflage and illumination.
- h. A notarized statement by the applicant indicating that construction of the proposed tower will accommodate a minimum of five (5) additional antennas arrays equal to that submitted by the applicant, allowing a minimum total of six (6) antennas.
- i. For wireless communication systems, identification of the entities providing the backhaul network (i.e., the lines that connect a provider's structures/cell sites to one or more cellular telephone switching offices, and/or long distance providers, and/or the public switched telephone network) for the tower(s) described in the application and other cellular sites owned or operated by the applicant in the Township.
- j. A description of the suitability of the use of existing towers, other structures, or alternative technology not requiring the use of towers or structures to provide the services to be provided through the use of the proposed new tower. The applicant shall provide an affirmative statement as to the need for the proposed tower and why no existing structure will meet the needs of the proposed new tower.
- k. A map showing the location(s) of future towers, structures, or antennae proposed or anticipated by the applicant within Deerfield Township based on existing physical, engineering, technological, or geographical limitations in the event the proposed tower is erected.
- l. An environmental impact assessment disclosing any potential impact on local wetlands, flood plains, wilderness areas, wildlife preserves, endangered species, historical sites, or other environmental considerations.
- m. Name and location of communication tower manufacturer.
- n. A technical analysis setting forth the minimum height necessary for reasonable communication by the applicant and an evaluation of alternative designs which might result in lower tower heights.
- o. An annual report of the total radiation output from all channels and all antennae on the proposed tower, including all co-locations.
- p. A maintenance plan, and any applicable maintenance agreement, shall be presented and approved as part of the plot plan for the proposed facility. Such plan shall be designed to ensure long term, continuous maintenance to a reasonably prudent standard.
- q. All tax related information as requested by the Deerfield Township Assessor's Office for appraisal purposes.
- r. The name, address and phone number of the person to contact for engineering, maintenance and other notice purposes. This information shall be continuously updated during all times the facility is on the premises.

3. **Conditions of Approval** - In granting a Telecommunications Facilities Permit, Deerfield Township may impose conditions that the township determines are necessary to further the purposes of this Ordinance and/or to minimize any adverse impact of the proposal on adjoining or nearby properties.

- 4. Factors to Consider in Granting a Telecommunications Facilities Permit -** Deerfield Township shall consider all provisions of this Ordinance, including the following factors, as well as any other Deerfield Township ordinances not in conflict with this ordinance, in determining whether to issue a Telecommunications Facilities Permit, although Deerfield Township may waive or reduce one (1) or more of the following criteria if the township determines that the goals of this Ordinance are better served thereby:

- a. Height of the proposed tower.
- b. Proximity of the tower to residential structures and residential district boundaries.
- c. Nature of uses on adjacent and nearby properties.
- d. Surrounding topography
- e. Surrounding tree coverage and foliage.
- f. Design of the tower, with particular reference to design characteristics that have the effect of reducing or eliminating visual obtrusiveness.
- g. Proposed ingress and egress.
- h. Availability of suitable existing towers, other structures, or alternative technologies not requiring the use of towers or structures, as discussed in Paragraph 5 below.
- i. The design of the proposed structure will accommodate co-location of additional users.

- 5. Availability of Suitable Existing Towers, Other Structures, or Alternative Technology -** No new tower shall be permitted unless the applicant demonstrates to the reasonable satisfaction of Deerfield Township that no existing tower or structure, or alternative technology which does not require the use of towers or structures, can accommodate the applicant's proposed antenna. An applicant shall submit information requested by Deerfield Township related to the availability of suitable existing towers, other structures or alternative technology. The Township may employ specialized experts to review information and materials submitted by the applicant. The applicant shall incur all costs associated with such review. Evidence submitted to demonstrate that no existing tower, structure or alternative technology can accommodate the applicant's proposed antenna may consist of any of the following:

- a. No existing towers or structures are located within the geographic area which meet applicant's engineering requirements.
- b. Existing towers or structures are not of sufficient height to meet applicant's engineering requirements.
- c. Existing towers or structures do not have sufficient structural strength to support applicant's proposed antenna and related equipment.
- d. The applicant's proposed antenna would cause electromagnetic interference with the antenna on the existing towers or structures, or the antenna on the

existing towers or structures would cause interference with the applicant's proposed antenna.

- e. The fees, costs, or contractual provisions required by the owner in order to share an existing tower or structure or to adapt an existing tower or structure for sharing are unreasonable. Costs exceeding new tower development are presumed to be unreasonable.
- f. The applicant demonstrates there are other limiting factors that render existing towers and structures unsuitable.
- g. The applicant demonstrates that an alternative technology, which does not require the use of towers or structures, such as a cable microcell network using multiple low-powered transmitters/receivers attached to a wireline system, is unsuitable. Costs of alternative technology that exceed new tower or antenna development shall not be presumed to render the technology unsuitable. New technology, which does not require the use of a tower, shall be preferred, regardless of cost.

D. General Regulations

Wireless communication towers or structures shall be subject to the following regulations:

1. Location of Towers or Structures

- a. Wireless communications facilities shall be a permitted use on the following sites:
 - 1. Municipally owned site.
 - 2. Other governmentally owned site.
 - 3. Public park.
 - 4. Public or private school site.
 - 5. Religious or other institutional site.

If an applicant demonstrates that a wireless communication facility may not be reasonably established as a permitted use under subsection D.1.a. above, and, is required to be established in order to operate a wireless communication service, then wireless communication facilities may be permitted elsewhere in the Township as a Telecommunications Facilities Permit, subject to all other provisions of this ordinance. The Township may employ independent, specialized experts to review information and materials submitted by the applicant, or may employ independent, specialized experts to determine the feasibility of placement of wireless communication facilities on the sites listed above. The applicant shall incur all costs associated with such review.

- b. No single tower shall be located within two (2) miles of another commercial communication tower. This requirement may be waived if Deerfield Township determines that the tower is of an exceptional design so as to create a positive architectural and/or environmental feature which is compatible with the character of the surrounding area and community. Additional communications apparatus can, however, be located on an existing tower or other structure capable of accommodating such apparatus.

- c. No tower shall be located closer than one thousand (1,000) feet from the boundary of any Residential District, including any PUD District incorporating residential uses.
 - d. A tower shall have a minimum setback from all property boundaries and structures equal to one and one-half (1½) the height of the tower. (Equipment storage facilities or storage buildings erected to service the tower are exempt from this setback requirement.)
 - e. Accessory buildings must satisfy the minimum zoning district regulations.
 - f. For purposes of measurement, any required tower setback and/or separation distance shall be calculated and applied to facilities located adjacent to municipal and county jurisdictional boundaries.
2. **Access** - Unobstructed access, constructed in accordance with all provisions of this Ordinance, shall be provided to the tower and apparatus building to ensure service by police, fire, and emergency vehicles. Roads used for ingress and egress must be constructed according to specifications set forth by the Livingston County Road Commission.

3. **Structural Design and Installation**

- a. The plans for the tower construction shall be certified by a State of Michigan licensed professional engineer, and the applicant shall submit verification that the installation is in compliance with all applicable codes. All towers or structures must meet all applicable standards of the Federal Aviation Administration and the Federal Communications Commission, or other governmental agency.
- b. All towers or structures must meet or exceed current standards and regulations of the FAA, the FCC, and other agencies of the state or federal government with the authority to regulate towers, structures, and antennas. If such standards and regulations are changed, then the owners of the towers, structures, and antennas governed by this Ordinance shall bring such towers, structures, and antennas into compliance with such revised standards and regulations within six (6) months of the effective date of such standards and regulations, unless a different compliance schedule is mandated by the controlling state or federal agency. Failure to bring towers, structures, and antennas into compliance with such revised standards and regulations shall constitute grounds for the removal of the tower or antenna at the owner's expense.
- c. To ensure the structural integrity of towers or structures, the owner of a tower shall ensure that it is maintained in compliance with standards contained in applicable state or local building codes and the applicable standards for towers or structures that are published by the Electronic Industries Association, as amended, and shall supply Deerfield Township with a yearly report of such maintenance. If, upon inspection, Deerfield Township concludes that a tower fails to comply with such codes and standards and constitutes a danger to persons or property, then upon notice being provided to the owner of the tower, the owner shall have thirty (30) days to bring such tower into compliance with such standards. Failure to bring such tower into compliance within said thirty (30) days shall constitute grounds for the removal of the tower or antenna at the owner's expense.

- d. Antennae and metal towers or structures shall be grounded for protection against a direct strike by lightning. The electrical wiring and connections on all towers and structures shall comply with all applicable local, state, and federal statutes, regulations, and standards.
 - e. Towers or structures with antennae shall be designed to withstand a uniform wind loading as prescribed in the Building Code.
 - f. Towers and structures shall be subject to any state and/or federal regulations concerning nonionizing electromagnetic radiation. If more restrictive state and/or federal regulations are adopted in the future, the operator of the tower shall bring the antennae into conformance with such standards within sixty (60) days of its adoption, or the Telecommunications Facilities Permit shall be subject to revocation by the Township Board. The operator of the tower shall bear the costs for testing and verification of compliance.
 - g. All signals and remote control conductors of low energy extending substantially horizontally above the ground between a tower or antennae and a structure, or between towers, shall be at least eight (8) feet above the ground at all points, unless buried underground.
 - h. The base of the tower shall occupy no more than five hundred (500) square feet.
 - i. The use of guyed wires is prohibited, unless the applicant demonstrates that the prohibition of guyed wires is not feasible for the proposed tower.
 - j. All communications tower operators shall be required to provide an annual report of total radiation output from all channels and all antennae on the tower including all co-locators, from an independent contractor as recommended by the Township Board, its Engineer or its designee. The report shall contain any and all information deemed necessary by Deerfield Township.
4. **Lighting** - Towers or structures shall not be artificially illuminated, except as required by the FCC, FAA, or local building codes.
 5. **Height** - Towers and structures shall not exceed two hundred fifty (250) feet in height. Height shall be measured from the finished grade of the parcel to the highest point on the tower or other structure, including the base pad and any antenna, but shall not include the height of a whip, which may not exceed fifteen (15) feet in height. In no case shall the tower or structure plus the whip exceed two hundred sixty five (265) feet in height.
6. **Design**
 - a. Except as otherwise provided herein, all towers shall be of monopole design and shall be constructed of, or treated with, corrosive resistant material.
 - b. Advertising, signs and identification of any kind intended to be visible from the ground or other structures shall be prohibited, except as required for emergency purposes.
 - c. The antennae shall be painted to match the exterior treatment of the tower. The paint scheme of the tower and antennae shall be designed to minimize off-site visibility of the antennae and tower.

- d. At a tower site, the design of the buildings and related structures shall, to the maximum extent possible, use materials, textures, screening, and landscaping that will blend them into the natural setting and surrounding buildings.
 - e. If an antenna is installed on a structure other than a tower (such as a clock tower, bell steeple, or light pole), the antenna and supporting electrical and mechanical equipment must be of a neutral color that is identical to, or closely compatible with, the color of the supporting structure so as to make the antenna and related equipment as visually unobtrusive as possible.
 - f. All utility wiring going to the tower shall be placed underground.
7. **Fencing and Landscaping** - The tower and appurtenant apparatus building shall be secured by fencing a minimum of eight (8) feet in height. All towers must be equipped with an anti-climbing device to prevent unauthorized access. The fencing and apparatus building shall be screened with a landscape strip at least twenty (20) feet wide along each side of such fencing and/or building. Specifications for spacing and plant materials shall be as set forth by the township. The landscape strip shall be maintained in good condition at all times so as to continue its effectiveness. Existing mature on-site vegetation and natural land forms shall be preserved to the maximum extent feasible. In some cases, such as towers or structures sited on large, wooded lots, natural growth around the property perimeter may provide sufficient buffer, in which case Deerfield Township may waive the landscaping requirements of this Paragraph.
8. **Employees** - No employees shall be located on the site on a permanent basis to service or maintain the antennae. Occasional or temporary repair and service activities are excluded from this restriction.
9. **Plot Plan Required** - The applicant shall submit a preliminary and final plot plan and include details of tower lighting required and approved by the Federal Aviation Administration.
10. **Franchises** - Owners and/or operators of towers, structures, or antennas shall certify that all franchises required by law for the construction and/or operation of a wireless communication system have been obtained and shall file a copy of all required franchises with Deerfield Township prior to final plot plan approval.
11. **Engineering Certification** - Any information of an engineering nature that the applicant submits, whether civil, mechanical, or structural, shall be certified by a State of Michigan licensed professional engineer.
12. **Not Essential Services** - Towers, structures, and antennae shall be regulated and permitted pursuant to this Ordinance and shall not be regulated or permitted as essential services, public utilities, or private utilities.
13. **Cessation of Operation** - The Township shall condition approval of any new tower subject to the removal of said tower, including all structural components of the tower above and below ground, within one hundred and eighty (180) days of cessation of operation. The Township reserves the right to request evidence of ongoing operation at any time after construction of an approved tower. Any antenna or tower, whether approved under this Ordinance or existing at the time of adoption of this Ordinance, that is not operated for a continuous period of one hundred eighty (180) days shall be deemed abandoned. Failure to remove an abandoned antenna or tower within sixty (60) days of receipt of a notice from Deerfield Township requesting such removal

shall be grounds for Deerfield Township to remove the tower or the antenna at the owner's expense. If there are two (2) or more users of a single tower, this provision shall not take effect until all users cease using the tower.

14. **Division of Property** -The division of property for the purpose of locating a Facility is prohibited unless all requirements of the Township Ordinances are met.
15. **Advertising** -The Facility shall not be used for advertising purposes and shall contain no signs or lighting except to identify the Provider and emergency telephone numbers and as may be required by the Federal Aviation Administration.
16. **Security** - In order to insure removal of the wireless communication structure, in the event of abandonment or cessation of operation, Deerfield Township may require that security be posted at the time a building permit is obtained for uses as specified in the Telecommunications Facilities Permit in an amount sufficient to guarantee that the applicant shall perform the terms and conditions of the Telecommunications Facilities Permit.
17. **Description of Security** - The application shall include a description of the security to be posted at the time of receiving a building permit for the Facility to ensure removal of the Facility when it has been abandoned or is no longer used, as provided herein. The security shall be in the form of cash, surety bond, or letter of credit, together with an agreement in the form approved by the Township providing for removal of the Facility as described herein. The Provider shall submit an estimate of the cost of removal of the Facility, certified by a licensed engineer for the Township's use in determining the security to be posted.
18. **Validity and Severability** - Should any portion of this Ordinance be found invalid for any reason, such holding shall not be construed as affecting the validity of the remaining portions of this Ordinance.
19. **Repealer Clause** - Any ordinances or parts of ordinances in conflict herewith are hereby repealed only to the extent necessary to give this Ordinance full force and effect.
20. **Effective Date** - This Ordinance shall be effective upon publication.
21. **Adoption** - This Ordinance is hereby declared adopted by the Township of Deerfield, County of Livingston, State of Michigan at a special meeting of the Deerfield Township Board, held on the 31 day of May, 2001 and was ordered to be given publication in the manner prescribed by law.

CLERK'S CERTIFICATE

I, Nancy Laier, Clerk of the Township of Deerfield, Livingston County, Michigan, hereby certify that the foregoing Deerfield Township Ordinance #109 was duly approved and adopted by the Township Board of Deerfield Township duly assembled at a special meeting of said Board held May 31, 2001.

I further certify that Douglas Taylor moved the adoption of the ordinance supported by Cynthia Ambrose, and that the said proposed ordinance was as follows:

	YES	NO	ABSENT	ABSTAINED
Thomas A. Green, Supervisor	X			
Nancy Laier, Clerk	X			
Diane Louinger, Treasurer			X	
Cynthia Ambrose, Trustee	X			
Douglas Taylor, Trustee	X			

Nancy Laier
Nancy Laier, Township Clerk

May 31, 2001