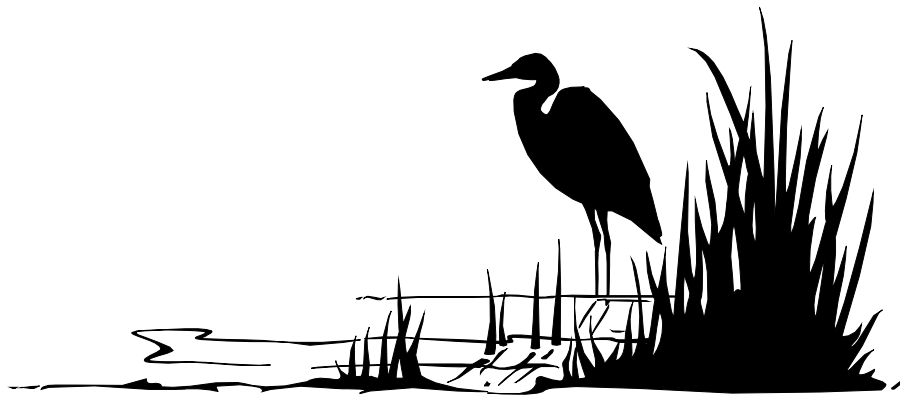


Aitkin County
Tower Ordinance



Adopted February 12, 2002

Aitkin County Tower Ordinance

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SECTION 1: INTENT AND PURPOSE

The unique and diverse landscapes of Aitkin County are among its most valuable assets. Destroying these assets risks undermining the very characteristics responsible for our economic vitality and future potential. Protecting these assets will require that location and design of tower facilities be sensitive to, and in scale and harmony with, the aesthetics of Aitkin County. This Ordinance will provide standards for the proper placement and design of tower facilities in order to ensure their compatibility with surrounding aesthetics and development.

The purpose of the Tower Ordinance shall be to establish predictable and balanced regulations that protect the public, health, safety, and general welfare of the county, these regulations are intended to:

- A. Facilitate the provision of telecommunications services and facilities including commercial wireless telecommunication services in Aitkin County;
- B. Minimize adverse visual effects of towers through careful design and siting standards;
- C. Avoid potential damage to adjacent properties from tower or antenna failure and weather-related occurrences through structural standards, careful siting, and setback requirements;
- D. Encourage the use of existing towers and buildings to accommodate commercial wireless telecommunication service antennas in order to minimize the number of towers needed to serve the county.

The Telecommunication Act of 1996 affirms Local Government's right to control the siting, construction, and modification of cellular and other wireless telecommunication facilities. The permitting process in this Ordinance does not discriminate among providers of functionally-equivalent services and does not prohibit the provision of personal wireless services.

Leasing of public buildings, publicly-owned structures, public lands, and/or rights-of-way for the purposes of locating wireless telecommunication services facilities and/or equipment is encouraged. In cases where a facility is proposed on County property, specific locations and compensation to the County shall be negotiated in lease agreements between the County and the provider on a case-by-case basis, and shall be subject to all the requirements contained in this Ordinance. Such agreements would not provide exclusive arrangements that could tie up access to the negotiated site(s) or limit competition, and must allow for the possibility of "co-locating" (sharing of facilities) with other providers.

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SECTION 2: APPLICABILITY

It shall be unlawful for any person to erect, construct, or place any new Tower facility or Wind Energy Conversion System without first receiving appropriate permits from the Aitkin County Planning and Zoning Department. Tower Facilities and Wind Energy Conversion Systems must comply with all local, state and federal regulations. It shall be unlawful to alter, modify, transform, add to, or change in any way, an existing tower structure or wind energy conversion system without first receiving permits from the Aitkin County Planning and Zoning Department. Addition of antennas and transmission lines shall not require a permit.

Amateur Radio – The provisions contained herein shall not govern any privately owned tower, or the installation of any antenna that is under seventy (70) feet in height or operated by a federally licensed amateur radio station operator, or is used exclusively as a receive only antenna.

SECTION 3: DEFINITIONS

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

Co-Location: The placement of wireless telecommunication antenna by two or more service providers on a tower, building or structure.

Commercial Wind Energy Conversion System: Any WECS designed and operated at a capacity greater than incidental excess of the amount needed for basic residential use, and/or the purpose of such energy generation is intended for commercial sale.

Department: Aitkin County Environmental Services Department.

Experimental and Homebuilt WECS: Wind machines that are one of a kind, first attempt machines built by a wind power company or individual.

Guyed Tower: A tower that is supported, in whole or in part, by wires and ground anchors.

Lowest Extension of WECS Blades: The lowest point of the arc created by the rotation of the WECS rotor.

Monopole: A type of tower mount that is self supporting through a single shaft usually constructed of wood, metal or concrete.

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Production Phase WECS: Professionally designed wind machines that are built in significant numbers on a continuing basis after testing. Wind machines made from professionally designed kits will be considered production phase WECS.

Search Ring: An area in which a wireless provider is able to locate an antenna of a defined height which will provide the wireless service providers desired coverage.

Tower: Any pole, wire, structure or combination thereof, including support lines, cables, wires, braces and masts intended primarily for the purpose of mounting antenna or to serve as an antenna, or for the placement of a wind energy conversion system.

Tower Facility(ies): A tower and its appurtenant devices including, but not limited to antennae, buildings, fences, gates and related equipment.

Total Height: The distance between the ground level at the base of a structure and its tallest vertical extension including any attachment thereon.

Wind Energy Conversion System (WECS): Any device such as a wind charger, windmill or wind turbine, which converts wind energy to a form of usable energy.

SECTION 4: LAND USE

All towers, not excluded in Section 2, require the granting of a conditional use permit by the Aitkin County Planning Commission after completion of the application requirements of this Ordinance. If a conditional use permit is granted, a zoning (land use) permit is required for the tower and supporting facilities.

All towers must meet the setback distance requirements of the underlying zoning district.

Towers, not excluded in Section 2, will not be permitted in areas zoned Residential or Rural Residential-High Density, within 300 feet of a river or stream, within 500 feet of the Mississippi River, or within 1000 feet from the Ordinary High Water Level of a lake.

THE FOLLOWING SECTIONS APPLY TO TOWERS THAT ARE NOT EXCLUDED IN SECTION 2:

SECTION 5: TOWER DESIGN

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

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- A. Towers and their antennas shall be certified by a qualified and licensed professional engineer to conform to applicable state and national structural building standards.
- B. Towers shall be monopoles, self-supporting or guyed towers.

Tower Painting - Towers shall comply with FAA requirements.

Tower Lighting – No tower shall be lighted unless FAA rules require lighting. All towers shall use only red incandescent lights. No strobe lights, red or white, will be allowed.

SECTION 6: TOWER SETBACKS

Towers and all accessory structures or buildings shall conform to the following minimum setback requirements:

- A. Towers shall be setback from all property lines an amount equal to the height of the structure;
- B. Guy wires for towers shall meet the structure setback of the underlying zoning district.
- C. In addition, towers shall have the following visual setbacks. Towers shall not be located within a distance of 1.5 times the tower height to any adjacent residential structure.

SECTION 7: CO-LOCATION REQUIREMENTS

All commercial wireless telecommunication towers erected, constructed, or located within the County shall comply with the following requirements:

- A. Documentation of the area to be served including a search ring for the antenna location. A narrative describing a search ring for the request, with not less than a two (2) mile radius clearly explaining why the site was selected, what existing structures were available and why they are not suitable as locations or co-locations.
- B. Documentation that the communications equipment planned for the proposed tower cannot be accommodated on an existing or approved tower or building within the search ring of the service area 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 and licensed professional engineer, and the existing or approved tower

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cannot be reinforced, modified, or replaced to accommodate planned 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 and licensed professional engineer or qualified radio frequency engineer and the interference cannot be prevented at a reasonable cost;
 3. Existing or approved towers and buildings within the search radius that cannot accommodate the planned equipment at a height necessary to function reasonably as documented by a qualified and licensed professional engineer; or
 4. Other unforeseen reasons that make it infeasible to locate the planned telecommunications equipment upon an existing or approved tower or building.
- C. Any proposed tower, above 200 feet, shall be designed, structurally, electrically, and in all respects, to accommodate both the applicant's antennas and at a minimum the following antennas.
1. X represents the applicant's antenna height
- | <u>2. Height</u> | <u>Quantity</u> | <u>Antenna and TX Line</u> |
|------------------|-----------------|---|
| X + 30 | 9 | 1ft x 5ft panel with 1 5/8" TX line |
| X + 15 | 9 | 1ft x 5ft panel with 1 5/8" TX line |
| X - 10 | 9 | 1ft x 5ft panel with 1 5/8" TX line |
| X - 20 | 9 | 1ft x 5ft panel with 1 5/8" TX line |
| 180 | 2 | 8ft dish with radomes, with 1 5/8" line at any azimuth. |
- D. An agreement stating that the applicant and tower owner commit to co-location at reasonable market prices within 90 days. Any prohibition of additional users on a tower shall be considered a violation of the permit and this Ordinance.
- E. The agreement shall also include a statement that any unused or abandoned tower shall be removed by the tower owner and/or applicant within 12 months of the tower being vacated. Said agreement shall be signed by the applicant and the property owner and shall be attached to and become a part of the permit.

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SECTION 8:TOWER AREA FENCING AND LANDSCAPING REQUIREMENTS

Tower base, equipment and buildings accessory to a tower shall:

- A. Be architecturally designed to blend in with the surrounding environment and shall meet the height and setback limitations as established within the respective zoning district.

- B. Tower base, equipment and buildings shall be fenced in by a 6 foot security fence. Tower base, equipment and buildings shall be screened from view by suitable vegetation which will be at least 6 feet in height within 4 years of tower construction except where a design of non-vegetative screening better reflects and complements the architectural character of the surrounding neighborhood. Screening tower plan shall be approved by the planning commission.

The anchor point for the guy wires shall be fenced. The fence shall extend at least 10 feet around the anchor point or guy base to ensure public safety.

SECTION 9: ABANDONED OR UNUSED TOWERS

Abandoned or unused towers and associated facilities shall be removed within 12 months of the cessation of operations at the site unless a time extension is approved by the Zoning Administrator. In the event that a tower is not removed within the 12 months of the cessation of operations at a site, the tower and associated facilities may be removed by the county and the costs of removal assessed against the property.

SECTION 10: SIGNS AND ADVERTISING

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

SECTION 11: NOISE

The noise levels associated with any tower facility shall conform to the Minnesota Pollution Control Agency noise level requirements as listed in MN Rules Chapter 7030.

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SECTION 12: APPLICATIONS REQUIREMENTS

The Aitkin County Planning & Zoning Office may contract with an independent technical expert to review technical materials submitted by the applicant, and/or to determine if additional information is necessary. The tower facility applicant shall pay the cost of such review and/or independent analysis. In addition to the general requirements for conditional use permit applications; all applications for new towers must also include the following:

- a. Site plan(s) drawn to a scale of one (1) inch equals twenty (20) feet or less, specifying the location of the tower facility, support structures, transmission buildings and/or other accessory structures & uses, accesses, parking areas, fences, signs, lighting, landscaped areas and all adjacent land uses within 250 feet of the tower facility, including all support structures and security fencing.
- b. Map showing the search radius for the antenna location and the proposed broadcast coverage obtained by the tower facility, including a narrative describing a search radius of not less than one (1) mile for the requested site, clearly explaining why the site was selected, identifying and locating landing and takeoff areas of aircraft within the search radius, locating all existing tower facilities, and identifying all other structures that may be potential co-location sites.
- c. Series of pictures of the constructed tower in a digital format as desired by Aitkin County. The pictures shall include a picture of the tower from nearest road, picture of base of tower only showing the bottom 20 feet, picture of the compound area, and picture of each of the guy points, if a guy tower was constructed.
- d. A signed lease on behalf of a carrier that once the tower is constructed the carrier will be leasing the tower within one (1) year after completion.
- e. A copy of a pre-FAA determination or a document that the proposed tower facility has not been found to be a hazard to air navigation under Part 77, Federal Aviation Regulations, or that no compliance with Part 77 is required, and the reasons therefore.
- f. Documentation shall be provided prior to the issuance of a land use permit demonstrating that the approved tower has been designed in compliance with a qualified engineer licensed by the State of Minnesota.

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SECTION 13: FACTORS CONSIDERED IN GRANTING CONDITIONAL USE PERMITS

The Aitkin County Planning Commission shall consider the following factors in addition to the normally prescribed conditional use factors listed in the Aitkin County Zoning Ordinance, in determining whether to issue a conditional use permit. The Board may evaluate each of these criteria on a site-by-site basis with varying levels of preference in determining how the goals of this Ordinance are best served:

- a. Height of the proposed tower facility.
- b. Capacity of the tower structure for additional antenna equipment to accommodate expansion, or to allow for co-location of other provider's equipment.
- c. Proximity of the tower to residential structures and residential district boundaries.
- d. Nature of uses on adjacent and nearby properties.
- e. Surrounding topography.
- f. Present and surrounding tree coverage and foliage.
- g. Design and siting of the tower, with particular reference to design characteristics and location that have the effect of reducing or eliminating visual obtrusiveness.
- h. Proposed ingress and egress.
- i. Availability of suitable existing towers and other structures as discussed in other sections of this ordinance.
- j. Level of adherence to the provisions set forth in Section 1 of this ordinance and the adopted tower policy statement.

SECTION 14: TIME LIMIT ON TOWER CONSTRUCTION

Construction of an approved tower including all accessory structures, including footings and foundations, must be completed within one year following the date of the permit, extendable for another year by the Aitkin County Zoning Office. All landscaping must be installed within the first growing season immediately following construction.

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SECTION 15: EFFECT OF THE ORDINANCE ON EXISTING TOWER FACILITIES

Tower facilities and antennas in all zoning districts and in existence as of February 12, 2002 that do not conform to or comply with this ordinance 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 the provisions contained herein.
- b. If a nonconforming tower is 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 land use permit if the cost of repairing the tower to its former use, location, and physical dimensions would be less than fifty (50) percent of its fair market value, as determined by the Aitkin County Assessor.
- c. If a conforming tower is 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 dimensions upon obtaining a land use permit from the Aitkin County Planning and Zoning Office.

SECTION 16: TERM OF PERMIT

A conditional use permit will remain in effect so long as the conditions contained within the permit are met.

SECTION 17: REVOCATION OF PERMIT

The grounds for revocation of a conditional use permit shall be based on a finding that:

- a. The permittee has failed to comply with the conditions of approval imposed;
- b. The facility has not been properly maintained, or
- c. The facility is no longer in use and has not been in use for the previous 12 months.

The procedure for revocation can be found under Section 3.46 of the Aitkin County Shoreland Management Ordinance.

In the event of revocation of a permit, the tower and all accessory structures must be removed and the site restored to its original condition within 12 months. Failure to do so will result in the County completing the removal and site restoration and the permittee shall pay for county costs or these costs will be assessed against the property.

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SECTION 18: WIND ENERGY CONVERSION SYSTEMS

SECTION 19: LAND USE

All Commercial WECS facilities must obtain a conditional use permit from the Aitkin County Planning Commission after completion of the application requirements of this Ordinance. If a conditional use permit is granted, a zoning (land use) permit is required for the WECS and supporting facilities.

SECTION 20: PROHIBITED LOCATION OF WECS

Commercial WECS are prohibited within 1000 feet from the Ordinary High Water level from any lake, within 500 feet from the Mississippi River, within 300 feet from any river or stream.

SECTION 21: WECS PERFORMANCE STANDARDS

All WECS facilities shall at a minimum conform to the following performance standards:

- A. All WECS facilities shall either have a climbing apparatus located no closer than 12 feet to the ground or be un-climbable by design for the first 12 feet.
- B. All Commercial WECS sited on top of buildings shall comply with applicable provisions of the Minnesota State Building Code. Certification of compliance by a Minnesota professional engineer is required.
- C. The interconnection of the WECS with the local electric utility shall comply with all applicable federal and Minnesota state regulations. Individuals proposing a WECS facility must notify their electrical utility in advance of their installation plans.
- D. Clearance between WECS facilities and electrical lines shall be in compliance with the requirements outlined in the most recent edition of the National Electrical Safety Code.
- E. Noise pollution standards established by the Minnesota Pollution Control Agency shall be used to evaluate and regulate all noise from WECS facilities.
- F. Efforts should be made to site WECS facilities to reduce the likelihood of blocking or reflecting television and other communication signals. If signal interference occurs, both the WECS owner and the individual

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receiving interference shall make reasonable efforts to resolve the problem short of shutting down the wind system.

- G. All Commercial WECS shall be equipped with manual and automatic overspeed controls. The conformance of rotor and overspeed control design and fabrication with good engineering practices shall be certified by the manufacturer's engineering staff or by a Minnesota professional engineer or by an individual with technical training on WECS.
- H. The safety of the design and construction of all Commercial WECS towers shall be certified by the manufacturer's engineering staff, by a Minnesota professional engineer, or by an individual with technical training on WECS. The standard for certification shall be good engineering practices.
- I. All proposed WECS facilities shall be in compliance with any applicable airport zoning, and shall comply with Federal Aviation Administration notification requirements and any other FAA regulations.
- J. The maximum height of the lowest extent of a Commercial WECS blade shall be 130 feet or thirty feet above any obstacles within 300 feet from the WECS tower, whichever is lower.
- K. The minimum height of the lowest extent of a Commercial WECS blade shall be 30 feet above the ground.
- L. Commercial WECS facilities shall have a minimum distance to the parcel and/or recorded easement boundary equal to the height of the tower.
- M. Any Commercial WECS that is abandoned or discontinued for a period of 12 months shall be removed from the site at the WECS's owners expense. Removal includes the complete tower facility including related infrastructures and equipment to ground level not including any base support pad if so desired by the property owner, and restoration to pre-existing vegetative cover. If the discontinued WECS has not been removed from the site within 180 days following the twelve-month period, the County may complete the removal process and site restoration, the cost of which shall be assessed against the property.
- N. All WECS facilities shall not create stray voltage that will adversely affect adjacent properties.

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SECTION 22: CONDITIONAL USE PERMIT

In addition to the general requirements for conditional use permit applications, all applications for new Commercial WECS towers must also include the following:

- A. A scaled drawing of 1 inch equals 20 feet showing the location of the proposed WECS including any auxiliary equipment.
- B. Property lines and physical dimensions of the lot, including the location and size of any obstructions within 300 feet that would be pertinent in the consideration of the permit request.
- C. Clearance distances between the farthest extension of the WECS blades to the property lines.
- D. Locations, dimensions, and types of existing structures and uses on the lot, including the location of all above ground utility lines within a distance equivalent to the total height of the proposed WECS.

SECTION 23: ENFORCEMENT

- A. This ordinance is adopted by reference pursuant to the provisions of Minnesota Statutes Section 394. It is declared unlawful for any person to violate any of the terms or conditions of this ordinance. Violation thereof shall be a misdemeanor.
- B. In the event of a violation or a threatened violation of this ordinance, Aitkin County, in addition to other remedies, may institute appropriate actions or proceedings to prevent, restrain, or abate such violations or threatened violations. The Department may and is empowered to issue cease and desist orders to halt the progress of any on-going violation. When the work has been stopped by the Department for any valid reason whatsoever, it shall not again be resumed until the reason for the work stoppage has been completely satisfied and the cease and desist order lifted.
- C. Any taxpayer of Aitkin County or person with standing, may institute mandamus proceedings in the District Court to compel specific performance by the proper official or officials of any duty required by this ordinance.
- D. Any person, firm or corporation who violates, disobeys, omits, neglects or refuses to comply with, or who resists the enforcement of any other provisions of this ordinance shall be guilty of a misdemeanor, punishable by \$1000.00 and/or 90 days imprisonment or both. Each day that a violation is permitted to exist shall constitute a separate offense. The County Attorney shall have the authority to prosecute any and all violations of this Ordinance.
- E. Any application for a permit that is made after the work is commenced and which requires a permit shall be charged five (5) times the permit fee or five (5) percent of the project cost, whichever is more. The Planning Commission and/or Board of Adjustment may require correction and/or restoration of the property to its original state before the permit is considered.

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SECTION 24: INTERPRETATION

In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements and shall be liberally construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by State Statutes.

SECTION 25: SEVERABILITY

If any section, clause, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected thereby.

SECTION 26: ABROGATION AND GREATER RESTRICTIONS

It is not intended by this ordinance to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail. All other ordinances inconsistent with this ordinance are hereby repealed to the extent of the inconsistency only, with the exception of the Aitkin County Flood Plain Ordinance.

SECTION 27: ADOPTION OF ORDINANCE

The Aitkin County Telecommunication Tower Ordinance is hereby adopted by the Aitkin County Board of Commissioners on the 12 day of February, 2002.

**Chairperson
Aitkin County Board of Commissioners**

Attest:

**Kirk Peysar
Aitkin County Auditor**

Approved as to Form:

**Bradley Rhodes
Aitkin County Attorney**

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