

CITY OF MUSKEGO
36.00.00 - WIRELESS COMMUNICATIONS FACILITIES SITING
(ORD. #1038 - 08-31-2000)

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36.01 INTRODUCTION

(1) Title

These regulations shall officially be known, cited, and referred to as the Wireless Communication Facilities Siting Ordinance of the City of Muskego (hereinafter "these regulations").

(2) Authority

(a) This Ordinance is adopted under the authority of the Federal Telecommunications Act of 1996, Wisconsin Statutes 62.23, and the Zoning Ordinance of the City of Muskego.

(b) The Plan Commission is vested with the authority to review, approve, conditionally approve, and disapprove applications for wireless communication facilities, including sketch, preliminary, and final plans.

(3) Jurisdiction

These regulations apply to all Wireless Communications Facilities, as defined in Section 36:2.02, located within the corporate limits of the municipality or outside the corporate limits as provided by law. No wireless communications facility may be constructed without a Business Site and Operations Plan approval from the Plan Commission, and where applicable a Conditional Use Grant approval by the Plan Commission.

(4) Findings

(a) Wireless Communications Facilities and Wireless Personal Communications Services comprise a rapidly growing segment of the utilities and communications sector, and have merit and value for the City of Muskego and the region as a whole.

(b) The use of wireless services has grown 20% to 30% annually on a national basis since 1991, and it is estimated that half of all households will utilize wireless service in the year 2000.

(c) Wireless Communications Facilities are supportive of the public health, safety, and welfare in that they provide useful portable communications services for personal convenience, commerce, and emergency purposes.

(d) Police and emergency services are using portable wireless services more and more, to communicate in time of crisis and natural disaster.

(e) The Zoning Ordinance of the City of Muskego was adopted before the emergence of personal wireless communication technologies, and therefore appropriate codes do not exist.

(f) The Federal Communications Commission requires license holders to provide coverage to areas within certain time frames where wireless communications licenses have been acquired; Wireless communication providers are required to furnish quality communications services to meet the growing needs of both the public and businesses.

- (g) Delays and uncertainty in the permit process which result from a lack of clear standards are an unreasonable limitation upon wireless service providers.
- (h) The City of Muskego Plan Commission and Common Council undertook a deliberate process to establish policies, standards, guidelines, and ordinances regarding the siting of tower structures and antenna arrays for wireless communications.
- (i) The Federal Telecommunications Act of 1996 preserves local zoning authority to reasonably regulate Wireless Communications Facilities, provided however, that localities may not unreasonably discriminate among Federal Communications Commission license holders, and that localities may not prohibit or have the effect of prohibiting Wireless Communications Facilities.
- (j) The Federal Communications Commission has sole jurisdiction over the radio frequency emissions of Wireless Communications Facilities so long as said facilities meet the standards thereof.

(5) Purpose

- (a) In order to protect the public health, safety, and general welfare of the community, while accommodating the communication needs of residents and business these regulations are necessary to:
- (b) facilitate the provision of wireless telecommunication services to the residents and businesses of the municipality;
- (c) minimize adverse visual effects of towers through careful design and siting standards;
- (d) encourage the location of towers in non-residential areas through performance standards and incentives;
- (e) avoid potential damage to adjacent properties from tower failure through structural standards and setback requirements.
- (f) provide mechanisms for the mitigation of tower proliferation through tower sharing requirements for all new tower applicants and those existing towers that are physically capable of sharing.
- (g) allow competition in wireless communications services
- (h) encourage the provision of advanced communications services to the community
- (i) enable the City of Muskego to discharge its public trust consistent with the rapidly changing Federal and State regulatory environment, industry competition, and technological development.

(6) Enactment

In order that wireless communications facilities may be constructed in accordance to these purposes and policies, these regulations are hereby adopted by the City of Muskego Common Council, and made effective as of August 31, 2000.

(7) Interpretation, Conflict, and Severability

- (a) Interpretation. In their interpretation and application, the provisions of these regulations shall be held to be the minimum requirements for the protection of public health, safety, and general welfare. These regulations shall be construed broadly to promote the purposes for which they are adopted.
- (b) Conflict. These regulations are not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation, statute, or other provision of law except as authorized by applicable federal or state law and as provided in these regulations. Except to the extent that the City of Muskego is not authorized or is prohibited by applicable federal or state law from imposing higher or more restrictive standards, where any provision of these regulations imposes restrictions different from any other ordinance, rule or regulation, statute, or other provision of law, the provision which is more restrictive or imposes higher standards shall govern.
- (c) Severability. If any part or provision of these regulations or the application of these regulations to any service provider or circumstances is adjudged invalid by any court of competent jurisdiction, the judgment shall be confined in its operation to the part, provision, or application directly involved in the controversy in which the judgment shall be rendered and it shall not affect or impair the validity of the remainder of these regulations or the application of them to other service providers or circumstances. The Common Council of the City of Muskego hereby declares that it would have enacted the remainder of these regulations even without any such part, provision, or application which is judged to be invalid.

36.02 DEFINITIONS

- (1) Usage
 - (a) For the purpose of these regulations, certain abbreviations, terms, and words shall be used, interpreted, and defined as set forth in this Article.
 - (b) Unless the context clearly indicates to the contrary, words used in the present tense include the future tense and words used in the plural shall also indicate the singular.
- (2) Words and Terms Defined
 - (a) **Act** - The Federal Communications Act of 1934, as it has been amended from time to time, including but not limited to the Federal Telecommunications Act of 1996, and shall include by reference all future amendments to the Federal Communications Act of 1934.
 - (b) **Affiliate** - When used in relation to an operator, another person who directly or indirectly owns or controls, is owned or controlled by, or is under common ownership or common control with the operator, or an operator's principal partners, shareholders, or owners of some other ownership interest; and when used in relation to the municipality, any agency, board, authority or political subdivision affiliated with the municipality or other person in which the municipality has legal or financial interest.
 - (c) **Alternative Tower Structure** - Man-made structures including but not limited to those resembling trees, clock towers, bell steeples, light poles, and similar alternative-design mounting structures that camouflage or conceal the presence of antennas or towers (see also **Stealth Facility**).
 - (d) **Analog Technology** - Replicates and amplifies voice messages as they are carried from the transmitting antenna to the receiving antenna.
 - (e) **Antenna or Antenna Array** - Any system of poles, panels, whips, or similar apparatus designed for telephonic, radio, or television communications through sending and/or receiving of electromagnetic waves.
 - (f) **Antenna Height** - The vertical distance measured from the base of the antenna support structure at grade to the highest point of the structure. If the support structure is on a sloped grade, then the average between the highest and lowest grades shall be used in calculating the antenna height.
 - (g) **Antenna Support Structure** - Any pole, telescoping mast, tower tripod, or any other structure which supports a device used in the transmitting and/or receiving of electromagnetic waves.
 - (h) **Applicant** - A person who applies for a wireless facility siting. An applicant can be the owner, of the property or someone who is representing the owner, such as a tenant, licensee, operator, builder, developer, optional purchaser, consultant, or architect.
 - (i) **Broadcast** - To transmit information over the airwaves to two or more receiving devices simultaneously. Information can be transmitted over local television or radio stations, satellite systems or wireless data communications networks.

- (j) **Cell Site** - A tract or parcel of land or structure that contains a wireless communication facility and, if applicable, its support structure, accessory building(s), and parking, and may include other uses associated with an ancillary to wireless communications transmission.
- (k) **Cellular Service** - A telecommunications service that permits customers to use wireless, mobile telephones to connect, via low-power radio transmission cell sites, either to the public switched network or to other mobile phones.
- (l) **Cellular Communications** - A commercial Low Power Mobile Radio Service licensed by the Federal Communications Commission (FCC) to providers in a specific geographical area in which the radio frequency spectrum is divided into discrete channels which are assigned in groups to geographic cells within a service area and which are capable of being reused in different cells within the service area.
- (m) **Cellular Communications Facility** - The equipment and structures involved in receiving wireless communication or radio signals from mobile radio communications sources and transmitting those signals to a central switching computer which connects the mobile unit with other mobile units or land-based telephone lines.
- (n) **Co-location** - The Location of wireless communications facilities of more than one provider on a single site.
- (o) **Common Carrier** - An entity licensed by the FCC or a state agency to supply local and/or long distance telecommunications services to the general public at established and stated prices.
- (p) **Communication Tower** - A guyed or un-guyed, monopole, lattice or other self-supporting tower, constructed as a free standing structure or in association with a permanent structure or equipment, containing one or more antennas intended for transmitting and/or receiving television, AM/FM radio, digital, microwave, cellular, telephone, paging, wireless internet, data, or similar forms of electronic communication.
- (q) **Communications Facility** - An appurtenance supporting antennas and / or microwave dishes that sends and / or receives radio frequencies signals. Communications facilities include structures, towers and accessory buildings.
- (r) **Communications Transmission System or Communications System** - A wired communication transmission system, open video system, or wireless communications transmission system governed by these regulations.
- (s) **Comprehensive Plan** - The current adopted Comprehensive Plan of the City of Muskego.
- (t) **Digital Technology** - branch of knowledge that converts voice and data messages into digits that represent sound intensities at specific points of time and data content.
- (u) **Directional Antenna** - An antenna or array of antennas designed to concentrate a radio signal in a particular area.

- (v) **Dish Antenna** - A dish-like antenna used to link communications sites together by wireless transmission of voice or data. Also called microwave antenna or microwave dish antenna.
- (w) **FAA** - Federal Aviation Administration.
- (x) **Fall Zone** - An area of land surrounding a tower structure, as certified by the manufacturer or an independent structural engineer, in which the structure would fall in the event of collapse or other structural failure.
- (y) **FCC** - Federal Communications Commission.
- (z) **Frequency** - The number of cycles completed each second by a sound wave; measured in hertz (Hz).
- (aa) **Guyed Tower** - A communication tower that is supported, in whole or in part, by guy wires and ground anchors.
- (bb) **Height** - The vertical measurement from a point on the ground at the mean finished grade adjoining the foundation as calculated by averaging the highest and lowest finished grade around the structure, to the highest point of the building or structure.
- (cc) **Lattice Tower** - A guyed or self-supporting three or four sided, open, steel frame structure used to support communications equipment.
- (dd) **License** - The rights and obligations extended by the FCC to an operator to own, construct, maintain, and operate its wireless facility within the specified boundaries which may include the City of Muskego in whole or in part.
- (ee) **Line of Sight** - The direct view of an object from a designated location.
- (ff) **Microwave** - Electromagnetic radiation with frequencies higher than 1,000 MHz; highly directional signal used to transmit radio frequencies from point-to-point at a relatively low power level.
- (gg) **Microwave Antenna** - A dish-like antenna manufactured in many sizes and shapes used to link communication sites together by wireless transmission of voice or data.
- (hh) **Monopole Tower** - A communication tower consisting of a single pole, constructed without guy wires and ground anchors.
- (ii) **Omni-directional Antenna** - An antenna that is equally effective in all directions and whose size varies with the frequency and gain for which it was designed.
- (jj) **Operator** - A person or entity that owns or operates a wireless communications facility.
- (kk) **Owner** - The owner of the title to real property or the contract purchaser of real property of record, as shown on the latest assessment records of the City of Muskego. Owner also includes a deed holder or contract purchaser whose name does not appear in the latest assessment records, but who presents to the municipality a copy of a deed or contract of sale showing date, book, and page of recording.

- (ll) **Parabolic Antenna** - Also commonly known as a satellite dish antenna. A bowl shaped antenna designed for the reception or transmission of radio frequency communication signals in a specific directional pattern.
- (mm) **Personal Communications Services or PCS** - Digital wireless technology such as portable phones, pagers, faxes, and computers. Such mobile technology promises to allow each consumer the same telephone number wherever he or she goes. Also known as Personal Communication Network (PCN).
- (nn) **Public Property** - Any real property, easement, air-space, or other interest in real estate, including a street, owned by or controlled by this municipality or any other governmental unit.
- (oo) **Roof, Existing Structure, and/or Building Mount Facility** - A communications facility in which antennas are mounted to an existing structure, such as a building, silo, utility pole, water tower, existing telecommunications tower, and which may be on the roof (including rooftop appurtenances), building face, side or elsewhere on the existing structure.
- (pp) **Scenic View** - A specific location, area, or corridor that consists of:
1. a three dimensional area extending out from a particular viewpoint, focusing on a single object or group of objects, such as a ridge line or a grouping of trees, resulting in an aesthetically pleasing view.
 2. lateral terrain features such as valley sides or woodland as observed to either side of the observer, constraining the view into a narrow or particular field.
- (qq) **Self-Supported Tower** - A communication tower that is constructed without guy wires and ground anchors.
- (rr) **Spectrum** - Relating to any transmissions or reception of electromagnetic waves.
- (ss) **Stealth Facility** - Any communications facility which is designed to blend into the surrounding environment. Examples of stealth facilities may include architecturally screened roof-mounted antennas, building-mounted antennas painted to match the existing structure, antennas integrated into architectural elements, and antenna structures designed to look like light poles. (See also **Alternative Tower Structure**).
- (tt) **System** - The communications transmission system operated by an operator.
- (uu) **Telecommunications** - The transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.
- (vv) **Tower** - any structure that is designed and constructed primarily for the purpose of supporting one or more antennas, including self-supporting lattice towers, guy towers, or monopole towers. The term includes radio and television transmission towers, microwave towers, common-carrier towers, cellular telephone towers, alternative tower structures, and the like.
- (ww) **View Corridor** - (See also **Scenic View**).

- (xx) **Wireless Communication Facility** - An all encompassing definition; Any towers, poles, antennas or other structures intended for use in connection with transmission or receipt of radio or television signals, or any other spectrum-based transmissions/receptions.

- (yy) **Whip Antenna** - An antenna that transmits signals in 360 degrees. Whip antennas are typically cylindrical in shape and are less than 6 inches in diameter and measure up to 18 inches in height. Also called omni-directional, stick or pipe antennas.

36.03 ADMINISTRATION AND ENFORCEMENT

(1) Administration and Enforcement Officer

- (a) **Planning Director Designated:** The Planning Director is hereby designated as the administrative and enforcement officer for the provisions of this Ordinance. For such duties he may be provided with the assistance of such additional persons as the Common Council may direct.
- (b) **Duties:** In the enforcement of said Ordinance the Planning Director shall perform the following duties:
 - 1. Issue the necessary Zoning Use Permits and / or Conditional Use Grants required by the provisions of this ordinance and provided its provisions and those of the building code have been complied with.
 - 2. Keep an accurate record of all permits, numbered in the order of issuance.
 - 3. In case of any finding of a violation of a provision of this ordinance, notify in writing of the actual violator where known, owner of the property on which the violation has taken place and indicating the nature of the violation and the action necessary to correct it.
 - 4. Carry out such additional responsibilities as are hereinafter set forth by the provisions of this ordinance.
- (c) **Authority:** In the enforcement of said Ordinance, the Planning Director shall have the power and authority for the following:
 - 1. At any reasonable time and for any proper purpose to enter upon any public or private premises and make inspection thereof.
 - 2. Upon reasonable cause or question as to proper compliance, to notify of violations and initiate penalty actions as described in Section 36.03.08 requiring the cessation of any building, moving, alteration or use which is in violation of the provisions of this ordinance, such revocation to be in effect until reinstated by the Planning Director or the Board of Appeals; or take any other action as directed by the Common Council to insure compliance with or to prevent violation of its provisions.
 - 3. In the name of the City and with authorization of the Common Council commence any legal proceedings necessary to enforce the provisions of this Ordinance or the building code including the collection of forfeitures provided for herein.

(2) Permits

- (a) **Permit Required:** No wireless communications facility shall be erected, structurally altered, or relocated within the City of Muskego until a Building Site and Operation Plan, a Conditional Use permit where applicable, has been issued by the Planning Director, and a building permit has been issued by the Building Inspector certifying that such building or structure as proposed, would be in compliance with the provisions of this ordinance and with the Building Code of the City.
- (b) **Permitting Procedure:** An application for a Building Site and Operation Plan and Conditional Use Grant where applicable, shall be made in conformity with the Zoning Code and this Chapter. An application for a Building Permit shall be accompanied by the applicant's approved Building Site and Operation Plan and Conditional Use Grant if

applicable, and shall be made in conformity with the requirements of the Building Code of the City of Muskego.

- (c) Permit Expiration: If within eighteen (18) months of the date of application, no Occupancy Permit has been issued any Building Permit and Zoning Permit related thereto shall lapse and the Planning Director shall make immediate investigation to ascertain that no use or occupancy has in fact commenced without proper authority. Upon showing of valid cause, the Planning Director may grant an extension of such permit for a period not to exceed 6 months.
- (d) Temporary Occupancy and Use Permit: Pending the issuance of a regular permit, a temporary permit may be issued by the Plan Commission upon recommendation of the Planning Director and City Engineer for a period not exceeding 6 months during the completion of alterations or during partial occupancy of a building pending its permanent occupations. Such temporary permit shall not be issued except under such restrictions and provisions as will adequately insure the safety of the occupants. A temporary permit shall be voided if the building fails to conform to the provisions of this ordinance to such a degree as to render it unsafe for the occupancy proposed.

(3) Relation to Official Zoning Map

- (a) Districts Mapped: The City of Muskego is divided into zoning districts as shown upon a map designated as the Zoning Map of the City of Muskego and made part of Chapter 17 of the Municipal Code, and all the notations, references and other information shown thereon shall be as much a part of this Ordinance as if the matters and information set forth by said map were all fully described herein.
- (b) Performance Standards: All wireless communications facilities shall adhere to the zoning and use performance standards described in 36:04.

(4) Scenic Views and View Corridors Established

- (a) The following areas are designated as Scenic Views as defined in Section 36:02.02:
 - 1. Big Muskego Lake Wildlife Area
- (b) The following areas are designated as View Corridors as defined in Section 36:02.02:
 - 1. The following corridors measured parallel to the right-of-way and measuring a distance 400 feet from the edge of the ultimate right-of-way, as illustrated in the adopted Street System Plan for the City of Muskego:
 - a. County Trunk Highway HH / College Avenue
 - b. County Trunk Highway OO / North Cape Road
 - c. Crowbar Road
 - d. Durham Drive
 - e. Hillendale Drive
 - f. Tans Drive
 - g. Tess Corners Drive

h. Woods Road

2. The following corridors measured parallel to the right-of-way and measuring a distance 600 feet from the edge of the ultimate right-of-way, as illustrated in the adopted Street System Plan for the City of Muskego:

a. County Trunk Highway L / Janesville Road

b. County Trunk Highway O / Moorland Road north of Janesville Road

c. County Trunk Highway Y / Racine Avenue

d. Moorland Road extension, between Janesville Road and Woods Road

e. State Trunk Highway 36 / Loomis Road

f. State Trunk Highway 45

(c) All Scenic Views and View Corridors established by this Ordinance shall be mapped and all the notations, references and other information shown thereon shall be as much a part of this Ordinance as if the matters and information set forth by said map were all fully described herein.

(5) Exemptions

(a) The following are exempt from the provisions of this Ordinance:

1. Emergency wireless communications facilities used for emergency communications by public officials.

2. Amateur (ham) radio stations licensed by the Federal Communications Commission.

3. Parabolic antennas less than three (3) feet in diameter.

(6) Amendments

For the purpose of protecting the public health safety, and general welfare, the Plan Commission or Common Council may from time to time propose amendments to these regulations which may be acted on by the Common Council at a public meeting following any public notice as required by Wisconsin Statutes for an amendment to a zoning ordinance, in a manner similar to a zoning ordinance. Realizing that communication technologies are evolving and changing quickly, future innovations may reduce the impacts of individual facilities and render portions of these regulations obsolete. Therefore, periodic review and revision of these regulations will be necessary.

(7) Violations and Penalties

(a) Penalties: Any person, firm, company, or corporation who violates, disobeys, omits, neglects refuses to comply with, or who resists the enforcement of any of the provisions of this ordinance, shall be subject to a forfeiture for each offense as may be determined by Resolution of the Common Council, together with the costs of the action. Each day that a violation is permitted to exist shall constitute a separate violation and be punishable as such.

- (b) Enforcement By Injunction: Compliance with the provisions of this Ordinance may also be enforced by injunction order at the suit of the City or one or more owners of real estate situated within an area affected by the regulations of this ordinance.
- (c) Declared Nuisances: Any building erected, structurally altered, or placed on a lot, or any use carried on in violation of the provisions of this ordinance is hereby declared to be a nuisance per se, and the City may apply to any Court of competent jurisdiction to retrain or abate such nuisance.

(8) Appeals

- (a) Petitioners requesting approval of a wireless communications facility who are aggrieved by a decision of the Plan Commission or its administrative officers relating a basic zoning regulation may appeal said decision to the Zoning Board of Appeals. The Zoning Board of Appeals shall hear said cases in accordance with Chapter 17 of the Municipal Code.

36.04 GENERAL PERFORMANCE STANDARDS

(1) Co-Location Requirements

A proposal for a new wireless communication tower shall not be approved unless the Plan Commission finds that the communications equipment planned for the proposed tower cannot be accommodated on an existing or approved tower or structure within a one 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 or structure, as documented by a qualified and licensed professional engineer, and the existing or approved tower or structure 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 and licensed professional engineer and the interference cannot be prevented at a reasonable cost.
- (c) Existing or approved towers and structures within the search radius cannot accommodate the planned equipment at a height necessary to function reasonably as documented by a qualified and licensed professional engineer.

(2) Tower and Antenna Design Requirements

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

- (a) All wireless communications facilities proposed to be located within the Big Muskego Lake Wildlife Area shall be located on an existing tower structure or shall be Stealth Facilities
- (b) All wireless communications facilities proposed to be located within a designated Scenic View or View Corridor shall be located on an existing tower structure or shall be Stealth Facilities as described in Section 2.02.
- (c) Towers and antennas shall be designed to blend into the surrounding environment through the use of color and other camouflaging architectural treatments, except in instances where the color is dictated by federal or state authorities such as the Federal Aviation Administration.
- (d) Towers shall be designed structurally, electrically, and in all other respects to accommodate both the applicant's antennas and comparable antennas for at least three additional users if the tower is over 150 feet in height; at least two additional users if the tower is between 100 feet and 150 feet in height; or at least one additional user if the tower is between 60 and 99 feet in height. Towers must be designed to allow for future rearrangement of antennas upon the tower and to accept antennas mounted at varying heights.
- (e) Wireless communication service towers shall be of an un-guyed monopole design. Lattice towers and guyed monopole towers shall be prohibited unless the Plan

Commission determines that an such alternative designs would better blend in to the surrounding environment.

(3) Accessory Uses and Accessory Structures

All accessory uses and structures associated with Wireless Communications Facilities shall comply with the following:

- (a) Ground mounted equipment including but not limited to equipment cabinets and generators shall be enclosed in a structure which is architecturally designed to be of residential character and screened from view by suitable vegetation, except where a design of non-vegetative screening better reflects and complements the architectural character of the surrounding neighborhood. Only one such structure shall be permitted per site; all co-locators must be housing within a common structure.
- (b) All utility buildings and structures accessory to a wireless communications tower shall be architecturally designed to be of residential character and shall meet the minimum setback requirements of the underlying zoning district.
- (c) No outdoor storage shall be permitted at any wireless communications tower site, unless specifically identified and approved in a Building Site and Operation Plan.

(4) Zoning and Use

- (a) All wireless communications facilities shall be permitted in certain zoning districts either: (1) by right following Building Site and Operation Plan approval by the Plan Commission, or (2) by conditional use following Conditional Use Grant approval by the Plan Commission, and shall comply with the following basic zoning district regulations:

(Ord. #1246 – 02/01/2007)

Zoning District	Wireless Communications Facility Allowed by Right	Wireless Communications Facility Allowed by Conditional Use Grant	Required Setback	Required Offsets (all sides)	Maximum Height
RCE , RC-1, RC-2	none	none	same	same	35 feet
RC-3, RSE, RS-1, RS-2, & RS-3, RM-1, RM-2, & RM-3, ERM-1, ERS-1, ERS-2, ERS-3, RL-1, RL-2, RL-3, BL-1, BL-2, HC-1, DR-1	none	none	same	same	30 feet
B-1, B-2, B-3, B-4	a) stealth facilities mounted on existing structures	none	same	same	30 feet
BP Districts	a) stealth facilities mounted on existing structures	none	same	same	40 feet
M-1 Industrial Park	a) stealth facilities mounted on existing structures b) new, replacement, or colocation of antenna arrays on approved tower structure	a) new tower structure b) replacement tower structure	greater of 50 feet or 105% of fall zone	greater of 50 feet or 105% of fall zone	50 feet
M-2 General Industrial M-3 Landfill & Extractive	a) stealth facilities mounted on existing structures b) new, replacement, or colocation of antenna arrays on approved tower structure	a) new or replacement tower structures b) replacement tower structure	greater of 50 feet or 105% of fall zone	greater of 50 feet or 105% of fall zone	70 feet
SW Shoreland Wetland	none	none	same	same	35 feet
A-1 Agriculture EA Exclusive Agriculture	a) stealth facilities mounted on existing structures	none	same	same	60 feet
I-1 Govt., Institutional, and Public Service District PI-1 Park and Recreation CI-1 Conservation Lands	a) stealth facilities mounted on existing structures b) new, replacement, or colocation of antenna arrays on approved tower structure	a) new or replacement tower structures b) replacement tower structure	greater of underlying district or 105% of fall zone	greater of underlying district or 105% of fall zone	towers permitted up to 200 feet; other structures per underlying zoning district
PD Planned Development District CPD Conservation Planned Development District	none	none	n /a	n /a	per planned zoning district
OWP Wellhead Protection Overlay District	none	none	n /a	n /a	per underlying zoning district

(5) Lighting

- (a) 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.
- (b) Site lighting shall be permitted in accordance with the standards identified in the City of Muskego Design Manual. (Ord. #1246 – 02-01-2007)

(6) Interference with Public Safety Communications (Ord. #1363 – 07-19-12)

- (a) No new or existing telecommunications service shall interfere with public safety telecommunications. All applications for new service shall be accompanied by an intermodulation study which provides a technical evaluation of existing and proposed transmissions and indicates all potential interference problems. Before the introduction of new service or changes in existing service, telecommunication providers shall notify the municipality at least ten calendar days in advance of such changes and allow the municipality to monitor interference levels during the testing process.
- (b) All new or existing telecommunications service providers shall route Cellular 911 calls originating within the City of Muskego directly to the City of Muskego Public Safety Answering Point as demanded by the City of Muskego Chief of Police, subject to the following. The Chief of Police shall impose no demands that conflict with any express requirement of any State or federal law or regulation, and all necessary procedures to implement this change shall be made pursuant to applicable State and federal laws.

(7) Use and Occupancy of Public Rights-of-Way

The overhead, underground, or surface use and occupancy of public streets, alleys, rights-of-way, parks or other public spaces by wireless communications service providers is prohibited without a valid right-of-way occupancy permit. Requests for such permits by wireless communications service providers shall be processed in accordance with the requirements of Chapter 8 of the Municipal Code, and the Common Council's policies related thereto.

(8) Signs and Advertising

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

(9) Noise

All noises emanating from Wireless Communications Facilities, including their accessory structures and uses, shall be prohibited as described by Chapter 9, Section 9.05 of the Muskego Municipal Code.

36:05 ANNUAL REVIEW OF WIRELESS COMMUNICATIONS TOWERS

(1) Testing and Testing Protocols

- (a) Testing Required: Wireless Communications Facilities, individually or in combination with other such facilities, are not permitted at any time to produce power densities in an inhabited area which exceed the FCC-adopted standard for human exposure, as amended. All wireless communications facilities shall be tested on no less than an annual basis to determine if the facilities are in compliance with all applicable regulations. Facilities that are in existence prior to the adoption of this Code shall be tested within three (3) months of the adoption of this Code. All such testing shall be performed at the direction of the City, and cost of such testing shall be borne by the owners of the facilities.
- (b) Procedures and Protocols: The City Engineer is directed to obtain annual tests of all Wireless Communications Facilities for Non-ionizing Electromagnetic Radiation (NEIR) calculations. All such tests shall be performed at 100% duty cycle or at full output. Copies of all test results shall remain on file in the office of the City Engineer. Violations shall be addressed in accordance with Section 36:03.08 of this Code. The Plan Commission shall review the City Engineer's recommendations and may from time to time promulgate rules for the annual testing procedure.

(2) Abandoned or Unused Towers or Tower Facilities

- (a) Annual Review: On or before July 1 of each calendar year, the owner of a wireless communications tower shall file annually a declaration with the Muskego Planning Department as to the continuing operation of every locator and co-locator installed subject to these regulations. Failure to do so may result in a determination by the City that that the facility is no longer in use and considered abandoned.
- (b) Non-Use of facilities: A wireless communications tower that is not operated for a continuous period of six (6) months shall be considered abandoned unless a Building Site and Operation Plan or Conditional Use Grant has been approved by the Plan Commission within the past 18 months, and said facility is yet to be constructed.
- (c) Abandoned towers shall be removed as follows:
 1. The City shall notify the owner of an abandoned wireless communications tower in writing and order the removal of the facility within ninety (90) days of the receipt of the written notice.
 2. The owner of the facility shall have thirty (30) days from the receipt of the written notice to demonstrate to the City that the facility has not been abandoned.
 3. In the event that a tower is not removed within 90 days of the receipt of written notice, the wireless communications tower and associated facilities may be removed by the City and the costs of removal seized from the surety, if applicable. Costs for removal may include all reclamation costs deemed necessary by the City to return the site to its pre-construction condition, including but not limited to road removal and establishment of vegetation. Costs for removal which are in excess of sureties provided in accordance with Section 36:06.02(7) of this Code shall be assessed against the property.

36.06 WIRELESS COMMUNICATION FACILITY APPLICATION PROCEDURE & APPROVAL PROCESS

(1) General Procedure

The submission of applications for wireless communications facilities shall follow the same application procedure as detailed in the City of Muskego Zoning Ordinance for Building Site and Operation Plan and / or Conditional Use Grant and as detailed in this Ordinance.

(2) Business Site and Operation Plan Supplemental Requirements

In addition to the requirements found elsewhere in the City of Muskego Zoning Ordinance for Building Site and Operation Plan submittal, site plans for wireless communications facilities shall include the following supplemental information:

- (a) Plat of Survey at a scale of 1" = 50'.
- (b) Site plan of entire development, indicating all improvements including landscaping and screening, and illustrating the location and approximate size and height of all buildings and structures within 500 feet adjacent to the proposed wireless communication facility.
- (c) Elevations showing all facades, indicating exterior materials and color of the structure(s) on the proposed site.
- (d) Documentation of the petitioner's right, title, or interest in the property where the facility is proposed to be sited, including name and address of the property owner and applicant.
- (e) Color photo simulations of the proposed facility taken from perspectives determined by the Planning Director or his designee during a pre-application conference. Each photo shall be labeled with the line of sight, elevation, and date. The photos shall also illustrate the color of the facility and proposed screening.
- (f) Fees and developers deposits in amounts approved by the Finance Committee and Common Council.
- (g) Provisions for off-street parking for service and maintenance vehicles.
- (h) Provisions for site security, which may include fencing and anti-climb appurtenances.
- (i) A form of surety approved by the Finance Committee and Common Council to pay for the cost of removing the facility if it is abandoned.
- (j) A list of all property owners within 300 feet of the property on which the facility is proposed.
- (k) A report from a qualified and licensed professional engineer which:
 - 1. describes the tower or structure height and design including a cross section and elevation,
 - 2. documents the height above grade for all potential mounting positions for co-located antennas and the minimum separation distances between antennas;

3. describes the tower or structure capacity, including the number and type of antennas that it can accommodate;
4. documents what steps the applicant will take to avoid interference with established public safety telecommunications;
5. includes an engineer's stamp and registration number;
6. includes safety considerations;
7. includes other information necessary to evaluate the request.
8. includes a master plan for all related facilities within the community and within one (1) mile of the corporate limits of the City of Muskego illustrated in a USGS 7.5 minute topographic map. Such plan shall also illustrate the location of all structures and wireless communications facilities which are 80 feet or more in height above ground level which are within five (5) miles of the proposed facility.
9. an alternatives analysis which identifies all reasonable, technically feasible, alternative locations and / or facilities which would provide the proposed wireless communications service. The intention of the alternatives analysis is to present different strategies which minimize the number, size, and adverse impact of facilities which are necessary to provide the service to the City. The analysis shall address the potential for co-location and the potential to locate facilities as close as possible to the intended service area. It shall also explain the rationale for selection of the proposed site in view of the relative merits of any of the feasible alternatives. The City may require independent verification of the petitioner's analysis at the petitioner's expense.

(l) Before the issuance of a building permit, the following supplemental information shall be submitted:

1. Proof of compliance with applicable Federal Communications Commission regulations; and
2. A report from a qualified and licensed professional engineer which demonstrates compliance with the municipality's structural and electrical standards.
3. Approval of the Department of Commerce.
4. Proof of the issuance of access permits as may be required from other government jurisdictions.

(3) Conditional Use Grant Supplemental Requirements

In addition to the requirements found in Section 36:06.02 of this Ordinance and elsewhere in the City of Muskego Zoning Ordinance for Building Site and Operation Plan submittal, Conditional Use Grant applications for wireless communications facilities shall include the following supplemental information:

- (a) An Agreement in a form acceptable to the City Attorney 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. All such Agreements shall be in a recordable format, and upon approval of the Conditional Use Grant shall be recorded with the Waukesha County Register of Deeds at tower owners expense.
- (b) Where co-location is found to be an alternative in the engineer's analysis, evidence that the petitioner has made diligent good faith efforts to negotiate co-location on an existing facility, building, or structure, and has been denied access.
- (c) Identification of districts, buildings, sites, structures or objects of historical significance that are listed or are eligible to be listed in the National Register of Historic Places.
- (d) A form of surety approved by the Finance Committee and Common Council to pay for the cost of removing the facility if it is abandoned.
- (e) A list of all property owners within 300 feet of the property on which the facility is proposed.
- (f) A report from the tower manufacturer or a qualified and licensed professional structural engineer which includes an analysis of the fall zone of the proposed tower.
- (g) Before the issuance of a building permit, the following supplemental information shall be submitted:
 1. A copy of the FAA's response to the submitted "Notice of Proposed Construction or Alteration" (FAA Form 7460-1) shall be submitted to the Planning Director.
 2. Proof of compliance with applicable Federal Communications Commission regulations; and,
 3. A report from a qualified and licensed professional engineer which demonstrates the tower's compliance with the municipality's structural and electrical standards.
 4. Approval of the Department of Commerce.
 5. Proof of the issuance of access permits as may be required from other government jurisdictions.

(4) General Approval Standards

Generally, approval of a wireless communications facility can be obtained if the following items are met:

- (a) The location of proposed tower is compatible with the Comprehensive Plan and Zoning Ordinance
- (b) All efforts to locate on an existing tower have not been successful or legally/physically possible.

- (c) The submitted site plan complies with the performance criteria set in these regulations.
- (d) The proposed facility/tower will not unreasonably interfere with the view from any public park, natural scenic vista, historic building or district, or major view corridor.
- (e) The lowest six (6) feet of the facility/tower be visually screened by trees, large shrubs, solid walls, or fences and/or nearby buildings.
- (f) The height and mass of the facility/tower does not exceed that which is essential for its intended use and public safety.
- (g) The owner of the wireless communication facility has agreed to permit other persons/cellular providers to attach cellular antenna or other communications apparatus which do not interfere with the primary purpose of the facility.
- (h) The proposed site presents fewer or less severe impacts than any feasible alternative site.
- (i) There exists no other existing facility/tower that can reasonably serve the needs of the owner of the proposed new facility/tower.
- (j) The proposed facility/tower is not constructed in such a manner as to result in needless height, mass, and guy-wire supports.
- (k) The color of the proposed facility/tower will be of a light tone or color (except where required otherwise by the FAA) as to minimize the visual impact and that the tower will have a security fence around the tower base or the lot where the tower is located.
- (l) The facility/tower is in compliance with any other applicable local, state, or federal regulations.
- (m) For new tower facilities, that all equipment for the petitioner and all potential co-locators is housed in one building, to be designed and built by the petitioner.