

## Ordinances regarding windmills and towers in other cities:

Ada OH—

### 1183.04 DEFINITIONS.

In this regulation:

(a) "Clear Fall Zone" means an area surrounding the wind turbine unit into which the turbine, tower and/or turbine components might fall due to inclement weather, poor maintenance, faulty construction methods, or any other condition causing turbine failure. The area shall remain confined within the property lines of the primary parcel where the turbine is located. The purpose of the zone being that, if the turbine should fall or otherwise become damaged, the falling structure will be confined to the primary parcel, will not fall onto dwellings or accessory buildings, and will not intrude onto a neighboring property.

(b) "Megawatt" means a unit of power equal to one million watts.

(c) "Met tower" means a tower, including any anchor, base, base plate, boom, cable, electrical or electronic equipment, guy wire, hardware, indicator, instrument, telemetry device, vane, or wiring, that is used to collect or transmit meteorological data, including wind speed and wind flow information, in order to monitor or characterize wind resources at or near a small wind energy project.

(d) "Equipment owner" or "owner" means the person or entity that owns a small wind energy project or met tower.

(d-1) "Participating landowner" means the owner of the property on which a small wind energy project is built.

(d-2) "Non-participating landowner" means an owner of property on which a small wind energy project is not being built.

(e) "Rotor diameter" means the cross sectional dimension of the circle swept by the rotating blades.

(f) "Small wind energy project" means a wind energy project that has a capacity of more than 2 kilowatts and less than 5 megawatts, including the wind turbine generator or anemometer or any parts thereof and is primarily used to generate energy for use on the property where it is located. If the wind energy project is affixed to a primary or accessory structure and not a tower then the project developer must provide definitive evidence that the existing structure has adequate capacity to support that additional weight, overturning moments and cyclic loading due to operating resonance generated by the wind turbine. Approval by a licensed professional engineer is required for any building integrated projects over 5kW.

(g) "Total height" means the vertical distance from ground level to the tip of a wind generator blade when the tip is at its highest point.

(h) "Tower" means either the freestanding or monopole structure that supports a wind generator or the freestanding or monopole structure that is used as a met tower.

(i) "Zoning Inspector" means the Village of Ada Zoning Inspector.

(j) "Wind energy project" means equipment that converts and then stores or transfers energy from the wind into usable forms of energy (as defined by Ohio R.C. 1551.20) and includes any base, blade, foundation, generator, nacelle, rotor, tower, transformer, turbine, vane, wire, or other component used in the project.

(k) "Wind generator" means the mechanical and electrical conversion components mounted at the top of a tower in a wind energy project.

(Ord. 2009-17. Passed 1-19-10.)

(Ada cont.)

**1183.05 STANDARDS - SMALL WIND ENERGY PROJECT.**

A small wind energy project is a conditional use in any district and is subject to the following requirements:

(a) Setbacks. A wind tower for a small wind energy project shall be set back:

(1) A distance equal to 1.1 times its total height from any public road right of way;

(2) A distance equal to 1.1 times its total height from any overhead utility lines, unless written permission is granted from the affected utility;

(3) A distance equal to 1.1 times its total height from all adjacent property lines, unless written permission is obtained from the adjacent participating or non-participating landowner or landowners waiving such setback.

The Owner shall provide for a "clear fall zone" that shall be maintained at all times the turbine or tower is standing. The "clear fall zone", along with the manufacturer's recommendations of such a zone, must be attached to the engineering report submitted as part of the application.

(b) Sound. The noise generated by the operation of a small wind energy project may not exceed 40 decibels measured from all adjacent non-participating landowners' property lines.

(c) Blade Clearance. The vertical distance from ground level to the tip of a wind generator blade when the blade is at its lowest point shall be at least 30 feet.

(d) Access. All ground-mounted electrical and control equipment must be labeled and secured to prevent unauthorized access. A tower may not have step bolts or a ladder within 16 feet of the ground that is readily accessible to the public.

(e) Electrical Wires. All electrical wires associated with a small wind energy project, other than wires necessary to connect the wind generator to the tower wiring, the tower wiring to the disconnect junction box, and the grounding wires, must be located underground.

(f) Lighting. A wind tower and generator shall be artificially lighted only if lighting is required by the Federal Aviation Administration or Ohio Department of Transportation.

(g) Appearance, Color, and Finish. The wind generator and tower shall remain painted or finished.

(h) Signs. No sign, other than a warning sign or installer, owner, participating landowner, or manufacturer identification sign, may be placed on any component of a small wind energy project.

(i) Code Compliance. A small wind energy project, including tower, shall comply with all applicable State construction and electrical codes, and the National Electrical Code.

(j) Signal Interference. The owner of a small wind energy project or met tower must take reasonable steps to prevent and eliminate any interference with the transmission and reception of electromagnetic communications, such as microwave, radio, telephone, or television signals.

(k) Utility Interconnection. A small wind energy project that connects to the electric utility must comply with all pertinent provisions of the Ohio Revised Code.

(Ord. 2009-17. Passed 1-19-10.)

**1183.08 MAINTENANCE.** (Ada)

Wind turbines shall be maintained in good working order.

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(a) The equipment owner shall, within 30 days of permanently ceasing operation of a met tower or small wind energy project, provide written Notice of Abandonment to the Zoning Inspector.

(b) A small wind energy project or met tower that is out-of-service for a continuous 12 month period will be deemed to have been abandoned. The Zoning Inspector may issue a Notice of Abandonment to the equipment owner of the small wind energy project or met tower that is deemed to have been abandoned. The equipment owner shall have the right to respond to the Zoning Inspector's Notice of Abandonment within 30 days from the Notice date. The Zoning Inspector shall withdraw the Notice of Abandonment and notify the equipment owner that the Notice has been withdrawn if the owner provides verification that demonstrates that the small wind energy project or met tower has not been abandoned.

(c) If the small wind energy project or met tower is determined to be abandoned or the Zoning Inspector receives a Notice of Abandonment from the equipment owner, the small wind energy project or met tower must be removed within 90 days of the Notice of Abandonment and the site must be reclaimed. "Reclamation" includes removal of all equipment and apparatuses, supports and/or other hardware associated with the existing wind turbine, including removal of the above mentioned items to a depth of three (3) feet below grade. If the owner fails to remove a small wind energy project or met tower and reclaim the site, the Village may remove or cause the removal of the small wind energy project or met tower and cause the site to be reclaimed. The cost of removal and reclamation shall become a lien upon the property and may be collected in the same manner as property taxes.

(Ord. 2009-17. Passed 1-19-10.)

**1183.09 CONDITIONAL USE PERMIT PROCEDURE.**

(a) An Owner shall submit an application to the Zoning Inspector for a Conditional Use permit for a small wind energy project. The application shall be on a form approved by the Village and shall be accompanied by three (3) copies of the site plan identified in Section 1183.07(b).

(b) The Board of Zoning Appeals shall authorize issuance of a permit or deny the application within the time provisions set out in the Zoning Ordinance.

(c) The Board of Zoning Appeals may authorize the issuance of a Conditional Use permit for a small wind energy project after a public hearing on the application if the application and supporting materials show that the proposed small wind energy project meets the requirements of this regulation and the use is otherwise authorized by the Board of Zoning Appeals.

(d) In the event that the maximum permitted height for a small wind energy system cannot be achieved on a specific property by virtue of setback constraints, the maximum permitted height shall be controlled by the setback constraints. The Board of Appeals shall not issue a variance to the minimum required setbacks for a small wind energy project.

(e) The Owner shall conspicuously post the Conditional Use permit on the premises upon issuance so as to be visible to the public at all times until construction or installation of the small wind energy project is complete.

(Ord. 2009-17. Passed 1-19-10.)

## Troy OH

### 1151.13 WIRELESS TELECOMMUNICATION FACILITIES.

(a) Purpose. The purpose of Section 1151.13 of this Zoning Code is to regulate the placement, construction, and modification of wireless telecommunication facilities and their support structures in order to protect the public health, safety and welfare, while at the same time not unreasonably interfering with the development of the competitive wireless telecommunications marketplace in the Miami Valley Region. Specifically, the purposes of such sections are:

(1) To direct the location of various types of towers and wireless telecommunications facilities into appropriate areas of the City of Troy.

(2) To protect residential areas and land uses from potential adverse impacts of towers and wireless telecommunications facilities.

(3) To minimize adverse visual impacts of towers and wireless telecommunications facilities through careful design, siting, landscaping and innovative camouflaging techniques.

(4) To promote and encourage shared use/co-location of towers and antenna support structures as a primary option rather than construction of additional single-use towers.

(5) To avoid potential damage to adjacent properties caused by towers and wireless telecommunications facilities by ensuring such structures are soundly designed, constructed, and modified, are appropriately maintained, and are fully removed.

(6) To the greatest extent feasible, ensure that towers and wireless telecommunications facilities are compatible with surrounding land uses.

(7) To the greatest extent feasible, ensure that towers and wireless telecommunications facilities are designed in harmony with natural settings and in a manner consistent with current development patterns.

(b) Applicability. All towers, antenna support structures, and wireless telecommunication facilities, any portion of which is located within The City of Troy, are subject to Section 1151.13 of this Zoning Code. Except as provided herein, any use being made of an existing tower or antenna support structure on the effective date of this Zoning Code shall be deemed a nonconforming structure and allowed to continue, even if in conflict with the terms of this Zoning Code. Any tower site that has received approval in the form of a zoning or building permit by the City of Troy, but has not yet been constructed or located, shall be considered a nonconforming structure so long as such approval is current and not expired.

(c) Standards.

(1) Construction Standards. All wireless telecommunication facilities and support structures shall be certified by an Engineer licensed in the State of Ohio to be structurally sound and, at a minimum, in conformance with Ohio Basic Building Code.

(2) Natural Resource Protection Standards. The location of the wireless telecommunication facility shall comply with all natural resource protection standards established either in this Zoning Code or in other applicable regulations, including those for flood plains, wetlands, groundwater protection, and steep slopes.

(3) Historic or Architectural Standards Compliance. Any application to locate a wireless telecommunication facility on a building or structure that is listed on a federal, state, or local historic register, or is in a historic district established by the City of Troy, shall be subject to review by the City of Troy Planning Commission to insure architectural and design standards are maintained.

(4) Color and Appearance Standards. All wireless telecommunication facilities shall be painted a non-contrasting gray or similar color minimizing its visibility, unless otherwise required by the Federal

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Communications Commission, Federal Aviation Administration, and/or by historical or architectural standards imposed under Section 1151.13(c)(3) of this Zoning Code. All appurtenances shall be aesthetically and architecturally compatible with the surrounding environment by the means of camouflage deemed acceptable by the City of Troy.

(5) Advertising Prohibited. No advertising is permitted anywhere upon or attached to the wireless telecommunication facility.

(6) Artificial Lighting Restricted. No wireless telecommunication facility shall be artificially lit except as required by the Federal Aviation Administration.

(7) Co-Location. All wireless telecommunication facilities shall be subject to the co-location requirements set forth in Section 1151.13(d) of this Zoning Code.

(8) Abandonment. All wireless telecommunication facilities shall be subject to the abandonment requirements set forth in Section 1151.13(i) of this Zoning Code.

(9) Setback from Edge of Roof. Any wireless telecommunication facility and its appurtenances permitted on the roof of a building shall be set back one (1) foot from the edge of the roof for each one (1) foot in height of the wireless telecommunication facility. However, this setback requirement shall not apply to antennas that are less than two (2) inches in thickness mounted to the sides of antenna support structures and do not protrude more than six (6) inches from the side of such an antenna support structure. This requirement is subject to change by the City of Troy upon the review of the photo simulation provided in compliance with Section 1151.13(j)(3) of this Zoning Code.

(10) Security Enclosure Required. All towers and equipment shelters shall be enclosed either completely or individually as determined by the City of Troy. The City of Troy and co-locators shall have reasonable access. Fencing shall be required, except no fence shall be required on top of a building or other structure if access to the roof or top of the structure or building is secure.

(11) Existing Vegetation and Buffer Plantings. Existing vegetation (trees, shrubs, etc.) shall be preserved to the maximum extent possible, if deemed appropriate. Buffer plantings shall be located around the perimeter of the security enclosure as deemed appropriate by the City of Troy. An evergreen screen may be required around the perimeter of the property in lieu of such buffer plantings.

(12) Access Control and Emergency Contact. "No Trespassing" signs shall be posted around the wireless telecommunications facility, along with a telephone number of whom to contact in the event of an emergency.

(d) Co-Location Requirements.

(1) Jurisdiction Study of Potential Public Sites. In order to encourage the location of a wireless telecommunication facility on publicly-owned property, the City of Troy shall cooperate with the entity desiring to locate a wireless telecommunication facility in the City to determine if it is feasible to locate such a facility on publicly-owned property.

(2) Exemption from Proof of Co-Location Availability. Persons locating a wireless telecommunication facility upon a publicly-owned property shall be exempted from the requirements herein regarding presentation of proof that co-location is not available. However, persons locating a wireless telecommunication facility on publicly owned property shall continue to be subject to the requirements contained in Section 1151.13(4) below.

(3) Exemption from Certain Requirements. Persons locating a wireless telecommunication facility on a publicly owned property identified by the City of Troy to be suitable for such purposes shall be exempt from the requirements of Sections 1151.13(e) (f) (g), and (h) of this Zoning Code.

(4) Co-Location Design Required. No new tower shall be constructed in the City of Troy unless such tower is capable of accommodating at least three (3) carriers if height is sufficient for coverage.

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(5) **Technically Suitable Space.** Authorization for a tower shall be issued only if there is not technically suitable space reasonably available on an existing tower or structure within the geographic area to be served.

(6) **Application Requirements.** With the permit application, the applicant shall list the location of every tower, building, or structure within a reasonable proximity that could support the proposed antenna. The applicant must demonstrate that a technically suitable location is not reasonably available on an existing tower, building, or structure within such area. If another communication tower owned by another party within such area is technically suitable, applicant must show that an offer was made to the owner of such tower to co-locate an antenna on a tower owned by the applicant on reciprocal terms within the City of Troy, and the offer was not accepted. If such co-location offer has not been attempted by the applicant, then such other tower is presumed to be reasonably available.

(e) **Wireless Telecommunication Facilities in Agricultural Districts.** The following wireless telecommunication facilities are permitted as a principal or accessory use upon a lot, subject to the following requirements:

(1) **Antenna:**

A. **Maximum Height.** The antenna shall not extend more than twenty (20) feet above the roof of the existing building or top of the existing structure.

B. **Separate Equipment Shelter.** If the applicant proposes to locate the telecommunications equipment in a separate equipment shelter, not located in or attached to the building, the equipment shelter shall comply with the accessory building regulations of the district and not be located above ground within any required front or side yard.

C. **Vehicular Access.** Vehicular access to the equipment shelter shall be via the existing circulation system and be paved with asphalt or concrete.

**(f) Wireless Telecommunication Facilities in Agricultural-Residential and Residential Districts.**

(1) **Prohibited as Permitted-Principal Use.** No wireless telecommunication facility is permitted as a principal use upon a lot.

(2) **Accessory Use.** The following wireless telecommunication facilities are permitted as an accessory use upon a lot, subject to the following requirements:

(3) **Antenna.** An antenna for a wireless telecommunication facility may be attached to an existing residential building or to an existing nonresidential structure subject to the following conditions:

A. **Maximum Height.** The antenna shall not extend more than twenty (20) feet above the roof of the existing building or top of the existing structure.

B. **Separate Equipment Shelter.** If the applicant proposes to locate the telecommunications equipment in a separate equipment shelter, not located in or attached to the building, the equipment shelter shall comply with the accessory building regulations of the district and not be located above ground within any required front or side yard.

C. **Vehicular Access.** Vehicular access to the equipment shelter shall be via the existing circulation system and be paved with asphalt or concrete.

(g) **Wireless Telecommunication Facilities in Office, Business, and Wellhead Operation Districts.** The following wireless telecommunication facilities are permitted as a principal or accessory use upon a lot, subject to the following requirements:

(1) **Antenna.** An antenna for a wireless telecommunications facility is permitted in the OR-1, OC-1, B-1, B-2, B-3, B-4 and WO Districts, subject to the following requirements:

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A. The antenna shall not be attached to a residential structure.

B. Maximum Height. The antenna shall not extend more than twenty (20) feet above the roof of the existing building or top of the existing structure.

(h) Wireless Telecommunication Facilities in Industrial Districts. The following wireless telecommunication facilities are permitted as a principal or accessory use upon a lot, subject to the following requirements:

(1) Tower:

A. Maximum Height. The maximum height of such tower shall be less than the distance of such tower from the nearest property line.

B. Minimum Setback from Property Lines. The minimum setbacks and yard requirements for principal or accessory structures shall apply.

C. Minimum Setback from Residential Structure. No tower shall be located a distance less than its height from a structure used as a residence.

D. Equipment Shelter. The minimum setbacks and yard requirements for principal or accessory structures shall apply and such shelter shall not be located above ground in any required front or side yard.

(2) Antenna: The antenna shall not be attached to a structure unless such structure is four (4) or more stories in height.

(i) Abandonment of Wireless Telecommunication Tower.

(1) Required Notification. All providers utilizing towers shall present a report to City of Troy notifying it of any tower facility located in the City of Troy whose use will be discontinued and the date this use will cease. Such report shall be filed with the City of Troy thirty (30) days prior to the cessation date. If at any time the use of the facility is discontinued for one hundred eighty (180) days, the zoning inspector may declare the facility abandoned. The one hundred eighty (180) day period excludes any dormancy period between construction and the initial use of the facility. The owner/operator of the facility shall, upon receipt of a written notice from the Zoning Administrator, to either reactivate use of the facility within one hundred eighty (180) days, or dismantle and remove the facility. If reactivation or dismantling does not occur, the City of Troy will either remove the facility or will contract to have the facility removed and assess the owner/operator the costs.

(2) Required Notice to Owner. The City of Troy must provide the tower owner thirty (30) days notice and an opportunity to be heard before the Board of Zoning Appeals before initiating such action to remove or dismantle the facility. After such notice has been provided, the City of Troy shall have the authority to initiate proceedings to either acquire the tower and any appurtenances attached thereto at the current fair market value at that time, or in the alternative, order the demolition of the tower and all appurtenances.

(3) Right to Public Hearing by Owner. The City of Troy shall provide the tower owner with the right to a public hearing before the Board of Zoning Appeals, which public hearing shall follow the thirty (30) day notice required in Section 1151.14(2) of this Zoning Code. All interested parties shall be allowed an opportunity to be heard at the public hearing.

(4) Order of Abatement or Demolition. After a public hearing is held pursuant to Section 1151.14(3) of this Zoning Code, the City of Troy may order the abatement or demolition of the tower. The City of Troy shall require licensee to pay for all expenses necessary to acquire or demolish the tower.

(j) Application and Review Requirements for Wireless Telecommunication Facilities.

(1) Required Information for Applications. All applications for wireless telecommunication facilities, including towers, shall include the information required under this Section.

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(2) Plot Plan Required. When a proposed wireless telecommunications facility or antenna support structure is to include a new tower, a plot plan at a scale of not less than one inch equals one hundred (100) feet shall be submitted. This plot plan shall indicate all building and land uses within two hundred (200) feet of the proposed facility. Aerial photos and/or renderings may augment the plot plan.

(3) Photo Simulations Required. Photo simulations of the proposed wireless telecommunication facility from affected residential properties and public rights-of-way taken at designated locations shall be provided.

(4) Proof Why Nonresidential Tower Location Not Feasible. In applying for authorization to erect a tower within any residential district, the applicant must present sufficient evidence as to why it is not technically feasible to locate such tower in a more appropriate nonresidential zone. City of Troy shall review this evidence. If City of Troy refutes the evidence, then the tower is not permitted.

(5) Technical Necessity. The applicant shall demonstrate that the telecommunication tower must be located where it is proposed in order to provide adequate coverage to the applicant's service area. There shall be an explanation of why a tower and the proposed site are technically necessary.

(6) Review by Radio Frequency Engineer. A radio frequency engineer, who will support or refute the evidence, shall review the evidence submitted by the applicant.

(7) Land Owner Support and Access. Where the wireless telecommunication facility is located on a property with another principal use, the applicant shall present documentation that the owner of the property supports the application and vehicular access is provided to the facility.

(8) Required Site and Landscaping Plan. The applicant shall present a site and landscaping plan showing the following:

- A. Specific placement of the wireless telecommunication facility on the site.
- B. The location of existing structures, trees, and other significant site features.
- C. Type and locations of plant materials used to screen the facilities.
- D. The proposed color of the facilities.

(9) Co-Location and Removal Agreement. The applicant shall present signed statements indicating that:

A. The applicant agrees to allow for the potential co-location of additional wireless telecommunication facilities by other providers on the applicant's structure or within the same site location; and

B. The Applicant agrees to remove the facility within one hundred eighty (180) days after its use is discontinued.

(10) Denial by Jurisdiction. Any decision to deny a request to place, construct or modify a wireless telecommunication facility and/or tower shall be in writing and supported by evidence contained in a written record.

**1151.14 WIND ENERGY CONVERSION SYSTEMS AND OTHER ALTERNATIVE ENERGY SYSTEMS.**

(a) Purpose. To regulate the placement, construction, and modification of wind energy conversion systems and other alternative energy systems and their support structures in order to protect the public health, safety and welfare, while at the same time not unreasonably interfering with the development of alternative energy systems.

(b) Applicability. All towers, support structures, and alternative energy systems, any portion of which is located within The City of Troy, are subject to Section 1151.14 of this Zoning Code. Except as provided herein, any use being made of an existing tower or support structure on the effective date of this Zoning Code shall be deemed a nonconforming structure and allowed to continue, even if in conflict with the terms of this Zoning Code. Any tower site that has received approval in the form of a zoning or building permit by the City of Troy, but has not yet been constructed or located, shall be considered a nonconforming structure so long as such approval is current and not expired.

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(c) Standards.

(1) Construction Standards. All alternative energy systems and support structures shall be certified by an Engineer licensed in the State of Ohio to be structurally sound and, at a minimum, in conformance with Ohio Basic Building Code.

(2) Color and Appearance Standards. All alternative energy systems shall be painted a non-contrasting gray or similar color minimizing its visibility, unless otherwise required by the Federal Aviation Administration. All appurtenances shall be aesthetically and architecturally compatible with the surrounding environment by the means of camouflage deemed acceptable by the City of Troy.

(3) Advertising Prohibited. No advertising is permitted anywhere upon or attached to any alternative energy system.

(4) Artificial Lighting Restricted. No alternative energy system shall be artificially lit except as required by the Federal Aviation Administration.

(5) Abandonment. All alternative energy systems shall be subject to the abandonment requirements set forth in Section 1151.14(g) of this Zoning Code.

(6) Access Control. The base of any tower ladders or other climbing apparatus shall be a minimum of twelve (12) feet above the ground.

(7) Noise. All alternative energy systems shall comply with the noise regulations outlined in Section 1157 of this Zoning Code.

(d) Large Wind Energy Conversion Systems. Large wind energy conversion systems, defined as those producing more than one hundred (100) kilowatts, are permitted in the A Agriculture Zoning District, subject to the following requirements:

(1) Maximum Height. The maximum height of the pole or support structure shall be less than the distance of such pole or support structure from the nearest property line.

(2) Minimum Setback from Property Lines. All elements of a Large Wind Energy Conversion System shall be set back 1.25 times the distance from the ground to the center of the turbine.

(3) Siting. All Large Wind Energy Conversion Systems shall adhere to all Federal and State Regulations including, but not limited to, submittal of an application to the Ohio Power Siting Board and Section 4906 of the Ohio Administrative Code.

(4) Vehicular Access. Vehicular access to the wind turbines or equipment shelter shall be via concrete or asphalt roadways.

(5) Equipment Shelter. The minimum setbacks for principal and accessory structures shall apply and such shelter shall not be located in any required front or side yards.

(6) Uncontrolled Rotation. Both a manual and automatic braking, governing or feathering system shall be required to prevent uncontrolled rotation.

(e) Small Wind Energy Conversion Systems. Small wind energy conversion systems, defined as those producing less than 100 kilowatts, are permitted in all zoning districts, subject to the following requirements:

(1) Number. No more than one (1) small wind energy conversion system shall be permitted per zoning lot and shall only generate energy for use for or in support of a main building and/or accessory buildings located on the same lot.

(2) Maximum Height. The maximum height of a small wind energy conversion system shall be forty (40) feet, measured from the ground to the center of the turbine.

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(3) Minimum Setback from Property Lines. All elements of a small wind energy conversion system shall be setback the same distance from the ground to the center of the turbine from all boundaries of the property, or shall adhere to the side and rear yard setbacks for the district in which it is located, whichever is greater. If a lesser setback is proposed, the City shall require that the small wind energy conversion system and foundation design, taking into consideration the soil conditions at the site, be certified by a State of Ohio Professional Engineer.

(4) Design. The small wind energy conversion system shall be designed with a monopole without guide wires support structure. Lattice towers are prohibited.

(5) Historic District Prohibition. Small wind energy conversion systems shall be prohibited in any Historic Preservation Overlay Districts.

(6) Uncontrolled Rotation. Both a manual and automatic braking, governing or feathering system shall be required to prevent uncontrolled rotation.

(f) Alternative Energy Source Systems. Alternative energy source systems, such as solar panels, shall be permitted in all zoning districts subject to the following provisions:

(1) Ground-Mounted.

A. Location. Ground mounted systems shall be located in the rear yard of the property, and shall not be located nearer any lot lines than what is permitted for accessory uses in that district.

B. Screening. Ground mounted shall be screened with landscaping.

(2) Roof-Mounted. Roof mounted systems shall be located so not to be visible from the public right of way fronting the property except as otherwise approved by Planning Commission.

(3) Number. Alternative energy source systems shall only generate energy for use for or in support of a main building and/or accessory buildings located on the same lot.

(g) Abandonment.

(1) Required Notification. All persons utilizing wind energy conversion systems shall present a report to City of Troy notifying it of any tower facility located in the City of Troy whose use will be discontinued and the date this use will cease. Such report shall be filed with the City of Troy thirty (30) days prior to the cessation date. If at any time the use of the facility is discontinued for one hundred and eighty (180) days, the Zoning Administrator may declare the facility abandoned. The one hundred eighty (180) day period excludes any dormancy period between construction and the initial use of the facility. The owner/operator of the facility shall, upon receipt of a written notice from the Zoning Administrator, either reactivate use of the facility within one hundred eighty (180) days, or dismantle and remove the facility. If reactivation or dismantling does not occur, the City of Troy will either remove the facility or will contract to have the facility removed and assess the owner/operator the costs.

(2) Required Notice to Owner. The City of Troy must provide the tower owner thirty (30) days notice and an opportunity to be heard before the Board of Zoning Appeals before initiating such action to remove or dismantle the facility. After such notice has been provided, the City of Troy shall have the authority to initiate proceedings to either acquire the tower and any appurtenances attached thereto at the current fair market value at that time, or in the alternative, order the demolition of the tower and all appurtenances.

(3) Right to Public Hearing by Owner. The City of Troy shall provide the tower owner with the right to a public hearing before the Board of Zoning Appeals, which public hearing shall follow the thirty (30) day notice required in Section 1151.14(2) of this Zoning Code. All interested parties shall be allowed an opportunity to be heard at the public hearing.

(4) Order of Abatement or Demolition. After a public hearing is held pursuant to Section 1151.14(3) of this Zoning Code, the City of Troy may order the abatement or demolition of the tower. The City of Troy shall require licensee to pay for all expenses necessary to acquire or demolish the tower.

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(h) Application and Review Requirements. The following information shall be submitted as part of the Zoning Permit application to the City for a wind energy conversion system or alternative energy system:

(1) Plot Plan. A plot plan at a scale of not less than one (1) inch equals one hundred (100) feet shall be submitted. This plot plan shall indicate all building and land uses within two hundred (200) feet of the proposed facility. Aerial photographs and/or renderings may augment the plot plan.

(2) A detailed description of the proposed wind energy conversion system or alternative energy system, to include:

A. Specifications and drawings, including proposed generation capacity, the generator, hub and blade, prepared by the manufacturer or a professional engineer.

B. Proposed height.

C. A line drawing, photograph or equivalent graphic representation of the wind turbine, solar panel or other alternative energy device, including support structure.

D. Structural drawings of the tower, base or foundation, prepared by the manufacturer or a professional engineer.

E. Documentation from the manufacturer that the wind energy conversion system or alternative energy system will not produce noise levels in excess of those permitted by Section 1157 of this Zoning Code.

F. Photographs of the proposed site, including photographs taken from public rights-of-way and neighboring properties if available.

(3) For Large Wind Energy Conversion Systems, documentation that the proposed project is in compliance with all applicable Federal and State regulations. Copies of all regulatory agency permits shall be included in the application.

(4) If a connection to the publicly regulated utility grid is proposed, a copy of the contract between the applicant and the utility verifying that the proposed connection is acceptable, and/or other evidence demonstrating that the utility is aware of the proposed connection and does not object to said connection.

(5) Any other additional information deemed necessary by the Director.

Groveport OH—

**1171.05 TOWERS, ANTENNAE, WINDMILLS, AND SIMILAR STRUCTURES.**

Radio and television towers, antennae, satellite earth stations (dish antennae), solar collectors, and similar structures shall be permitted in association with a principal use or structure provided that the following standards are met:

(a) All towers, antennae, windmills and similar accessory structures shall be located to the rear of the building setback line. No such structure shall be permitted to encroach upon the minimum required side yard and rear yard.

(b) No such structure shall be permitted to exceed thirty-five feet in total height, inclusive of the height of any building or base upon which said structure is erected, except upon issuance of a Conditional Use Permit in accordance with this Zoning Ordinance.

(c) Any guy anchorage or similar device shall be at least ten feet from any property line.

(d) No structure shall be in excess of a height equal to the distance from the base of the structure to the nearest overhead electrical power line or phone line less ten feet.

(e) No structure shall be in excess of a height equal to the distance from the base of the structure to the nearest lot line less than ten feet.

(f) Suitable fencing and/or landscaping or other treatment shall be provided to effectively prevent unauthorized climbing of the structure.

(g) The structure or activity for which the structure is used shall not interfere with radio and television reception on nearby properties.

(Ord. 2001-005. Passed 3-12-01.)

Canton OH

**1128.04 CONTENTS OF APPLICATION.**

Applications shall include all information as required by this chapter and any material required by the Building Department and any other local agency. This information shall include, but is not limited to:

(a) Six (6) copies of a site plan showing the subject property, abutting streets, the site and size of the proposed turbine, towers and rotors, buildings on the property, overhead utility lines, fencing, driveways and parking and any other pertinent details.

(b) Elevation drawings of the proposed facility, all structures on the property, setbacks from property lines of the proposed facility, height of same, proposed color and materials of tower.

(c) If a rooftop or building mounted facility, elevation drawing of the building being utilized and, included in the drawings, a superimposed sketch of the proposed facility on the building.

(d) A statement by a State of Ohio Licensed Engineer certifying the proposed wind turbine will meet the noise requirements of this chapter.

(e) The estimated cost of erecting the facility and the cost of demolishing the facility along with a performance bond or its equivalent sufficient to cover the estimated cost of the demolition.

#### **1128.05 LOCATIONS, SETBACKS AND HEIGHT.**

(a) Wind energy facilities may be located in any zoning district subject to the requirements and restrictions of this chapter and any other applicable local, state and federal regulations.

(b) A ground mounted wind turbine shall have a minimum of one foot of setback per one foot of height from all property lines and/or street right of way lines. The turbine setback shall be measured from the center of the wind turbine base. In no case shall a wind turbine facility be allowed to be closer than fifteen (15) feet to a property line or street right of way line.

(c) A rotor blade shall not extend closer than five (5) feet from an overhead utility line, sign or building on the subject property.

(d) The height of a ground mounted wind turbine shall be limited by the setback requirements of this chapter.

(e) The height of a rooftop or building mounted wind turbine facility shall not exceed the maximum permitted building height for the property by more than twenty percent (20%).

#### **1128.06 LIGHTING, DESIGN AND NOISE.**

(a) Wind turbines shall not be illuminated except as required by the Federal Aviation Administration or other applicable authority.

(b) Wind turbines shall be designed to meet all requirements of the Building Department and other applicable local, state and federal regulations.

(c) Wind turbines shall be designed in a manner that makes them as visually unobtrusive as possible while meeting safety requirements. Towers shall be monopole and not lattice. With respect to color, wind turbines and towers shall be white, off white or unpainted metal or a color required by other federal or state regulations. Any other color shall be approved by the Site Plan Review Committee.

(d) No signs shall be allowed on or around a wind turbine except as warnings.

(e) No wind turbine shall produce noise that unreasonably disturbs the quiet or comfort or repose of neighboring inhabitants and no wind turbine shall produce noise that routinely generates a level higher than 50 decibels when measured at the nearest property line of Open Space, Community Service, Residential or Business Districts.

#### **1128.07 MAINTENANCE AND ABANDONMENT.**

(a) All facets of the wind energy facility shall be kept in good condition and in safe working order. On the first anniversary of the issuance of permits for the facility, the holder of the permits shall verify to the Zoning and Building Departments that the facility is in conformance with the requirements of this chapter.

(b) If a wind energy facility is discontinued or abandoned, the facility shall be removed within sixty (60) days of usage stoppage and the site returned to an attractive, acceptable condition. If the facility owner does not comply, the City shall return the site to an acceptable condition. All expenses associated with returning the site to an acceptable condition shall be billed to the facility owner. Unpaid expenses shall be duly certified as a lien upon taxes and/or legally pursued as deemed appropriate by the Law Director.

(Ord. 144-2009. Passed 8-17-09.)

## **Massillon OH**

### **1187.16 FREE STANDING WINDMILL REGULATIONS.**

(a) Definitions. Certain terms are defined for the purpose of this section as follows:

(1) Small wind energy system: A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 150 kW and which is intended to reduce on-site consumption of utility power.

(2) Nacelle: The enclosure located at the top of a wind turbine to tower that houses the gear box, generator and other equipment.

(3) Power center: Serves as the central connection point for the electrical components in the system and provides a number of necessary control functions.

(4) Rotor: The rotating part of a turbine, including the blades.

(5) Tower: The support structure, including guyed, monopole and lattice types, upon which a wind turbine or other mechanical devise is mounted.

(6) Tower height: The height of the tower, measured from the natural grade surrounding the support pad to the tip of the blade in a vertical position along the vertical axis of the tower.

(7) Wind turbine: A device that converts kinetic wind energy into rotational energy that drives an electrical generator. A wind turbine typically consists of a tower, nacelle body, power center and a rotor with two or more blades.

(b) Small Wind Energy Systems.

(1) It is the purpose of this regulation to promote the safe, effective and efficient use of small wind energy systems installed to reduce the on-site consumption of utility supplied electricity. A small wind energy system may be permitted in any zoning district as a conditionally permitted use.

(2) No person shall cause, allow or maintain the use of a small wind energy system without first having obtained a conditional zoning certificate from the Board of Zoning Appeals. Application for a conditional zoning certificate shall be submitted to the Board of Zoning Appeals in accordance with Chapter 1129.

(c) District Regulations. Small wind energy systems shall meet the following requirements:

(1) Primary purpose shall be to provide power for the principal and accessory uses of the property and not for the generation of power for commercial sale.

(2) Minimum lot size of two (2) acres.

(3) One small wind energy system tower per lot or parcel.

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(4) Small wind energy system shall be located only in the rear yard area.

(5) Maximum height shall be 80 feet, measured from the natural grade surrounding the support pad to the tip of the blade in a vertical position measured along the vertical axis of the tower.

(6) Minimum setback from all property lines, structures, and above ground utility lines shall be no less than 110 percent of the tower height.

(7) Anchor points for guy wires for the tower shall be located no closer than 25 feet to the property lines and not on or across any above ground electric transmission or distribution lines.

(8) Minimum height from the base of the tower to the lowest part of the blade tip or rotor system shall be 12 feet.

(9) Tower and blade color shall be white or light gray.

(10) Lighting of the tower for aircraft and helicopters shall conform with Federal Aviation Administration standards for wattage and color, when applicable.

(11) The tower shall have either:

A. Tower climbing apparatus located no closer than 12 feet to the ground level at the base of the structure;

B. A locked anti-climb device installed on the tower; or

C. Shall be completely enclosed with a locked fence at least six feet in height to prevent uncontrolled access from unauthorized personnel.

(12) A sign shall be posted at the base of the tower warning of electrical shock or high voltage.

(13) An automatic braking, governing or feathering system shall be required to prevent uncontrolled rotation.

(14) All small wind energy systems must separately comply with Massillon Building Department regulations (building, mechanical, electrical, etc.)

(15) All small wind energy systems shall be installed, operated and maintained per the manufacturer's instructions, including compliance with Ohio EPA regulations regarding storage and disposition of batteries and other hazardous materials.

(16) No variance shall be issued for the placement of a small wind energy system so close to a property line that it may result in any portion of the system to overhang, cross, or otherwise extend beyond the property line at any time, whether erect or in the event the system should fall or be toppled.

(17) Decommissioning and Restoration. Any small wind energy system which has reached the end of its useful life or has been abandoned shall be removed. A small wind energy system

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shall be considered abandoned when it fails to operate for one year. The applicant shall include the following information regarding decommissioning of the project and restoring the site when submitting the application for a conditional zoning certificate:

- A. The anticipated life of the project;
- B. The estimated decommissioning costs in current dollars;
- C. The method and schedule for updating the costs of decommissioning and restoration;
- D. The method of ensuring funds will be available for decommissioning and restoration;

and

E. The anticipated manner in which the project will be decommissioned and the site restored.

(18) Site Plan requirement shall include, but not be limited to:

- A. Property lines and physical dimensions of the site.
- B. Location of small wind energy system tower, guy wires, setbacks from property lines, above- and under- ground utility lines, easements and any structures on the property. Also, show location of sewage treatment system, if applicable.
- C. Location of signage.
- D. Elevation of the proposed small wind energy system tower.
- E. Location of trees within a 100-ft. radius of the proposed small wind energy system.
- F. Manufacturer's specifications, including make, model, and picture.
- G. Scaled drawing prepared by a licensed engineer and/or surveyor, no smaller than 1: = 100'.

(Ord. 28-2009. Passed 3-16-09.)

(added 1-16-2011)

## **Norwood OH**

### **1151.03 MODIFICATIONS AND EXCEPTIONS FOR PRINCIPAL BUILDINGS.**

The height limitations as defined and stipulated elsewhere in this Zoning Code are subject to the following modifications and exceptions:

(a) **Structure Heights.** Public, semipublic or public service buildings, hospitals (except as otherwise provided) and churches may be erected to a height not exceeding three stories or forty-five feet including all construction mechanicals, and church and temple spires and steeples may be erected to a height not exceeding seventy-five feet from ground level; provided, however, that the building is set back from each required yard at least one foot for each one foot of additional height above the height limit otherwise provided in the district where the building is built.

(b) Height limitations shall not apply to spires, belfries, cupolas, domes, false mansards, parapet walls, monuments; water towers, fire and hose towers, observation towers, transmission towers; windmills, chimneys, smoke stacks, flag poles, radio and television towers and antennas, masts and aerials, provided that the foregoing are not extended more than four feet above the limiting height of the building. (Ord. 30-1985. Passed 6-25-85.)

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