

Article 7

Special Uses

Section 7.01 Purpose

In addition to the uses permitted by right in each zoning district, this Ordinance allows the establishment of special land uses subject to the procedures, standards, and regulations described in this Article. Applications for special use permits may be filed by any person who owns or has an interest in the property subject to the application.

Section 7.02 Application Procedures

Application for special use permits shall be submitted to the Zoning Administrator no less than twenty-one (21) days prior to the meeting at which the Planning Commission will consider the application. The review of applications submitted less than twenty-one (21) days prior to such meetings will be delayed until the next scheduled meeting.

Applications must be accompanied by the materials and information described below:

- a. A completed Special Use Permit application form and application fee.
- b. Three (3) copies of a site plan prepared as specified in Article 5.
- c. A written statement (preferably typewritten) describing how the proposed special use will comply with the general standards for special use approval listed under Section 7.05.2.

When a complete application is submitted, the Zoning Administrator shall confer with the Chairperson of the Planning Commission to schedule a public hearing on the application.

Section 7.03 Public Hearing

Section 7.03.1 Notice of Public Hearing

Notice of the public hearing on the special use application must be published in a newspaper not more than fifteen (15) days and not less than five (5) days before the date of the meeting at which the public hearing will be held.

Notice of the hearing must also be delivered, either by mail or by personal delivery, to the applicant and all owners and occupants of property located within three hundred (300) feet of the property subject to the application for the special use permit. These notices must describe:

- a. The special use being requested;
- b. The property subject to the request (address, tax number, and/or legal description);
- c. The date, time, and place of the public hearing;
- d. Where and when the application, site plan, and other materials may be inspected by the public; and
- e. Where and when written comments on the application will be received.

Section 7.03.2 Public Hearing and Review Procedures

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The Planning Commission shall hold the public hearing on the proposed special use, and shall review the site plan and other materials submitted with the application.

Following the public hearing, the Planning Commission shall make a decision based on whether or not the proposed special use is consistent with the specific standards applicable to the special use described in Section 7.08, as well as the general standards described in Section 7.05.1. If it is found that the proposed special use is consistent with these standards, the Planning Commission must approve the proposed special use.

If the Planning Commission finds that the proposed special use is not consistent with the standards in Sections 7.05.2 and 7.08.1, then it may approve the use with conditions, or it may deny the proposed use altogether. In any event, the decision to approve, approve with conditions, or deny the application must be made within sixty (60) days of the date of the public hearing.

At any point during its review of an application, the Planning Commission may request that the applicant modify the site plan, or present additional information deemed necessary before making a decision on the proposed special use. In such cases, the Planning Commission shall table consideration of the application until the applicant provides the amended site plan or additional information.

Section 7.04 Appeals

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The Township Planning Commission's decision on applications for proposed special uses may be appealed to the Zoning Board of Appeals.

Section 7.05, Determination of Application

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Section 7.05.1 General Standards for Approval of Special Uses

Prior to approving, approving with conditions, or denying an application under the provisions of this Article, the Planning Commission must find that a proposed special use complies with the standards listed in this section:

- a. The property subject to the application is located in a zoning district in which the proposed special use may be established.
- b. The special use, as proposed, complies with the specific standards applicable to that special use as listed under the regulations for that zoning district.
- c. The proposed special use will be consistent with the intent and purpose of the Township Master Plan, as well as the intent and purpose of the zoning district in which the proposed use will be located.
- d. The proposed special use will not result in a material burden on police and fire services, nor on other public services and facilities.
- e. The proposed special use will not diminish the opportunity for adjacent property owners to use and develop their properties as zoned.
- f. The proposed special use will be designed, constructed, operated, and maintained so as not to negatively impact the character of land uses in the surrounding area.
- g. The proposed special use will not involve uses, activities, processes, materials, or equipment that will create a nuisance for other properties in the vicinity by reason of traffic, noise, smoke, fumes, glare, odors, or the accumulation of scrap or waste materials.

Section 7.05.2 Basis for Determination

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In rendering its decision on a proposed special use, the Planning Commission shall make specific reference to the standards in Section 7.05.1, Section 7.08, and the basis in fact for any conditions attached to the approval of a special use.

Section 7.06 Performance Guarantee

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The Planning Commission may require a performance guarantee in the form of cash, certified check, irrevocable bank letter of credit, or surety bond acceptable to the Township, covering the estimated cost of improvements associated with an approved special use to assure that the use complies with approval as granted.

If required as a condition of approval, a performance guarantee shall be provided at the time approval is granted by the Planning Commission. If the performance guarantee is a cash deposit, it shall be rebated periodically by the Township on application by the depositor in reasonable proportion to amount of work completed on the required improvements. The Zoning Administrator shall certify in writing to the Township Treasurer that the required conditions have been met prior to such disbursements.

Section 7.07 Special Use Permit Requirements

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An approved special use shall be developed, constructed, operated, and maintained in strict compliance with the terms of the special use permit, including the approved site plan and any attached conditions of approval. All improvements and other functional elements shall be constructed as proposed by the applicant and approved by the Planning Commission.

Section 7.07.1 Certificate of Compliance

If the functional elements or improvements associated with a special use were designed by an architect or engineer, the applicant shall, following completion of construction, provide a statement prepared by the architect or engineer certifying that all improvements have been constructed in compliance with the special use permit as granted.

Section 7.07.2 Expiration of Permit

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If a use established under a Special Use Permit is discontinued for one (1) year, the Special Use Permit shall expire. To re-establish the use after such expiration, a new Special Use Permit is required, beginning with a new application to the Township.

Section 7.08, Table Showing Specific Standards, Requirements, Conditions and Districts for Special Land Use Permits

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The following charts specify the standards, requirements, and conditions for the various special land uses permitted by this Ordinance. The following items should also be noted:

- a. The granting of a Special Use Permit requires Site Plan Review and a public hearing.
- b. A Special Use Permit is a privilege granted by the Township when certain conditions are met. A special land use is not allowed “by right.”
- c. The Township will revoke a Special Use Permit for failure to maintain compliance with the terms of the permit.
- d. Each special use must meet the minimum requirements for the Zoning District in which it is located, except as specifically noted in this section.
- e. This section lists the standards and additional requirements for uses that may be authorized by Special Use Permit. These standards supercede the District Regulations.
- f. The Planning Commission may, at its discretion, attach additional conditions to the approval of a special use. These conditions shall be reasonably related to the general standards specified in Section 7.05.1

Section 7.08.1 Special Land Use Requirements

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Special Land Use	Minimum Lot Area and Other Dimensional Requirements	Other Requirements
Agricultural products storage, terminals, and processing facilities	<ol style="list-style-type: none"> 1. Site shall be minimum of 10 acres in area. 2. All buildings and structures shall be at least 50 feet from adjacent property lines. 	<ol style="list-style-type: none"> 1. Mechanical, electrical, or other hazardous areas shall be enclosed by a 6 foot high fence. 2. Must meet all state and local standards for noise, dust, and lighting. Planning Commission may attach conditions in absence of other standards.
Veterinary clinics Kennels	<ol style="list-style-type: none"> 1. Minimum lot area required shall be the same as for the district where the use is located. 2. All buildings and outdoor pens or enclosures shall be no closer than 50 feet to any property or road right-of-way line. 	<ol style="list-style-type: none"> 1. Operation shall include proper control of animal waste, odor, and noise. 2. Outdoor exercise areas shall be enclosed by a solid wall or chain link fence at least 6 feet high.
Medical clinics	<ol style="list-style-type: none"> 1. Minimum area shall be 20,000 square feet. 2. Main building setbacks shall be 50 feet on all sides. 	<ol style="list-style-type: none"> 1. Must provide an obscuring fence 6 feet high on all sides adjacent to parcels zoned RR-1 or RC-1.
Clubs and lodges	<ol style="list-style-type: none"> 1. Minimum site area shall be three (3) acres. 2. Main building setbacks shall be 50 feet on all sides. 	<ol style="list-style-type: none"> 1. Must provide an obscuring fence 6 feet high on all sides adjacent to parcels zoned RR-1 or RC-1.
Public parks	<ol style="list-style-type: none"> 1. Minimum site area shall be 5 acres. 	<ol style="list-style-type: none"> 1. The site shall include adequate vehicle access and parking facilities. 2. Planning Commission may require a fence up to 6 feet in height around the perimeter of the site.

Section 7.08,1, Continued Special Land Use Requirements

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Special Land Use	Minimum Lot Area and Other Dimensional Requirements	Other Requirements
Bed & Breakfast establishment	1. Same as Zoning District in which site is located.	<ol style="list-style-type: none"> 1. Must provide at least one bathroom for each two sleeping rooms provided for guests. 2. Must provide one off-street parking space for the inn plus one space for each sleeping room. 3. There shall be no separate cooking facilities for guests.
Group child care home	1. Same as Zoning District in which site is located.	1. Must be licensed by Michigan Family Independence Agency.
Child care center	1. Same as Zoning District in which site is located.	<ol style="list-style-type: none"> 1. Must be licensed by Michigan Family Independence Agency. 2. Must provide adequate off-street parking for all employees. 3. All outdoor play areas shall be enclosed by a fence at least 6 feet in height.
Funeral home	1. Same as Zoning District in which site is located.	<ol style="list-style-type: none"> 1. All activities related to operation of funeral home shall be conducted in main building. 2. Owner's or operator's residence may be located on the site, provided that all required setbacks are maintained.

Section 7.08,1, Continued Special Land Use Requirements

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Special Land Use	Minimum Lot Area and Other Dimensional Requirements	Other Requirements
Motor vehicle service facilities	<ol style="list-style-type: none"> 1. Same as district in which facility is located. 	<ol style="list-style-type: none"> 1. Driveways shall be at least 60 feet from the right-of-way line of the nearest intersecting road. 2. If there is more than one driveway, they shall be at least 60 feet from one another at the nearest edges. 3. If drive-through washing or oil change facilities are included, the site must provide a holding area for at least 4 vehicles to wait off the public right-of-way.
Commercial recreation facilities	<ol style="list-style-type: none"> 1. Site shall be a minimum of three (3) acres in size. 2. Site shall be at least 100 feet from any residence or residential zoning district. 	<ol style="list-style-type: none"> 1. Planning Commission may determine the need for a fence or berm. 2. Planning Commission may limit hours of operation and impose other conditions as necessary to control noise & other off-site impacts.
Institutions for health care, educational, social, cultural, and religious purposes	<ol style="list-style-type: none"> 1. Site shall be a minimum of two acres in area. 2. All buildings shall be set back at least 50 feet from any property line or road right-of-way line. 3. Structures over 30 feet in height shall be set back one additional foot for each foot of height over 30 feet. 	<ol style="list-style-type: none"> 1. Site shall have a main access.
Building supply establishments Warehouses and wholesale businesses Motor freight (truck) terminals	<ol style="list-style-type: none"> 1. Site shall be a minimum of five (5) acres in size. 2. Site must be at least 100 feet from any residential zone or property. 	<ol style="list-style-type: none"> 1. Site must have direct access. 2. Must have an obscuring fence or berm at least 8 feet high on all sides abutting any RR-1 or RC-1 districts 3. Planning Commission may limit hours of operation.

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Section 7.08, 1, Continued Special Land Use Requirements

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Special Land Use	Minimum Lot Area and Other Dimensional Requirements	Other Requirements
Junkyards	<ol style="list-style-type: none"> 1. Site shall have a minimum area of 10 acres. 2. Active area shall be at least 200 feet from all property and road right-of-way lines. 	<ol style="list-style-type: none"> 1. The active area shall be surrounded by a solid fence or wall that is at least 8 feet high. 2. All storage, salvage, and other activities shall be confined to the enclosed area.
Correctional facilities, including juvenile detention facilities.	<ol style="list-style-type: none"> 1. Site shall have a minimum area of 40 acres. 2. All structures shall be set back at least 100 feet from all property lines and road right-of-way lines. 3. Structures over 30 feet in height shall be set back one additional foot for each foot of height over 30 feet. 	<ol style="list-style-type: none"> 1. Site shall have at least one property line abutting. 2. All access to the off-street parking area shall be directly from the county primary road.
Adult entertainment businesses	<ol style="list-style-type: none"> 1. No adult entertainment business may be established on a parcel that is within 1,000 feet of any parcel zoned RR-1, or RC-1. 2. No adult entertainment business may be established on a parcel that is within 1,000 feet of any parcel containing a church, school, or public park. 3. No adult entertainment business may be established on a parcel that is within 1,000 feet of any parcel that contains another adult entertainment business. 	<ol style="list-style-type: none"> 1. Window displays, signs, decorative, or structural elements shall not include or convey any specific examples of adult entertainment uses.

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Special Land Use	Minimum Lot Area and Other Dimensional Requirements	Other Requirements
Communication Towers	<ol style="list-style-type: none"> 1. It is the Township's policy to encourage the co-location of multiple antennas on a single tower to the greatest extent possible. The applicant must demonstrate that co-location on an existing tower is not feasible before an application for a new tower may be considered. 2. Any tower structure must be centrally located on a parcel having dimensions not less than the one and one-half times the height of the tower, as measured from the base of the tower to all points on each property line. 3. A tower must meet the minimum yard setback requirements for the zoning district in which it is located, except that no portion of any tower, including guy wires and support structures, shall be located closer than fifty (50) feet to any property line. 4. The minimum spacing between communications tower locations shall be three (3) mile to prevent a concentration of towers in any single area. 5. Tower height must comply with any Tuscola County Airport Zoning Regulations that are in effect. 	<ol style="list-style-type: none"> 1. The base of any tower shall be enclosed with a security fence at least six (6) feet in height. 2. All towers shall meet the standards of the Federal Aviation Administration and the Federal Communication Commission. 3. All towers shall be constructed in compliance with all applicable local statutes, regulations, and standards, including design requirements for withstanding wind loading and grounding for lightning strike protection. 4. Towers shall not be artificially lighted unless required by the Federal Aviation Administration. 5. Towers shall not display advertising or identification of any kind, except as required for emergency purposes. 6. Accessory structures associated with a tower shall not exceed six hundred (600) square feet in area. 7. The Township may require a performance bond to ensure the proper construction and maintenance of a tower.

Section 7.08,1, Continued Special Land Use Requirements

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Special Land Use	Minimum Lot Area and Other Dimensional Requirements	Other Requirements
<p>Natural Resources Extraction: Sand, gravel, clay, and topsoil mining or removal.</p>	<ol style="list-style-type: none"> 1. Minimum site area shall be 40 acres. 2. Minimum width (frontage) shall be 250 feet. 3. No extractive or processing operations shall be conducted within 500 feet of a residence that existed at the time of application for a permit. 4. All fixed equipment and machinery shall be located at least 200 feet from any property or road right-of-way line. 5. No cut or excavation shall be made closer than 100 feet to any property or road right-of-way line. 	<ol style="list-style-type: none"> 1. Owner or agent must obtain and maintain compliance with a Michigan Soil Erosion and Sedimentation Control Act Permit (Act 347). 2. Site plan shall include a Mining Operations Plan that shows a chronological plan for the extractive use and all other land disturbing activities, and the restoration of the site to a usable condition for agriculture or development. 3. Excavated areas shall be restored so that no finished grade is greater than one foot of vertical rise in three feet of horizontal distance. A vegetative cover consisting of appropriate grass types shall be established on all graded areas to minimize soil erosion. All slopes shall be treated in conformance with the Michigan Soil Erosion and Sedimentation Control Act. 4. As part of Site Plan Review, Planning Commission may require fencing, beams, landscaping, or other means to adequately screen the use from adjacent properties, and to minimize public hazards. 5. Applicant shall provide a date for completing the mining operation, based on the volume of material to be extracted and the average annual extraction rates. The Special Use Permit shall expire upon that date. Any extension of operations beyond that date shall require the issuance of a new Special Use Permit.

ANEMOMETER TOWER means a freestanding tower containing instrumentation to determine the force or speed and direction of the wind. It is an accessory land use to a WIND ENERGY SYSTEM.

dB(A) means the sound pressure level in measured in decibels and is a numerical expression of the relative loudness of a sound.

COMMERCIAL WIND ENERGY SYSTEM a method for generating power by use of the wind and is designed and built to provide electricity to the electric utility grid. See also WIND ENERGY SYSTEM

ON SITE WIND ENERGY SYSTEM means a method for generating electric power from the wind and is intended to primarily serve the needs of a home, farm, or small business consumer at that site. See also WIND ENERGY SYSTEM

ROTOR means a component of a wind energy system that is often referred to as a blade. It acts as a rotating multi-bladed airfoil assembly extracting kinetic energy directly from the wind.

SHADOW FLICKER means alternating changes in light intensity caused by the moving rotor or blade of a wind energy system casting visible shadows on the ground and objects.

SOUND PRESSURE LEVEL means the sound pressure mapped to a logarithmic scale and reported in decibels (dB).

WIND ENERGY SYSTEM a method for generating power by use of the wind utilizing a wind turbine generator consisting of a turbine, blades, and tower as well as related electrical equipment. This does not include wiring to connect the wind energy system to the grid.

WIND SITE ASSESSMENT means a time based assessment to determine the available wind speeds at a specific site. See ANEMOMETER TOWER. Collected data is used to determine that sufficient wind resources are available for the operation of the proposed wind energy system.

Section 7.13.5 Commercial Wind Energy Systems & Anemometer Towers

7.13.6 Purpose: In order to balance the need for clean and renewable energy sources and the necessity to protect the public health, safety and welfare of the community, the Township of Arbela finds that these regulations are necessary in order to establish uniform rules and policies to ensure Commercial Wind Energy Systems are properly designed, sited, and installed.

Section 7.13.7 Review Standards:

Unless otherwise provided, all commercial wind turbine energy systems and anemometer towers shall comply with all of the following standards:

Zoning District: A commercial wind energy system or anemometer tower shall be permitted after site plan and special land use approval in A-1 Agriculture Section 6.04.1 of the Arbela Township Ordinances.

Sufficient Wind Resources: The proposed site shall have documented annual wind resources sufficient for the operation of the proposed commercial wind energy system. However, this standard shall not apply to an anemometer tower. No commercial wind energy system shall be approved without submission of a wind resource study documenting wind resources on the site over a minimum of one year. Said study shall indicate the long-term commercial economic viability of the project. Prior to acting on the application for special use permit, the Township may retain the services of an independent recognized expert to review the results of a proprietary wind resource study conducted by the applicant.

Spacing and Density: Commercial wind towers should have adequate spacing to avoid objectionable density and not be sited so the closely as to interfere with the operation of other individual wind turbines. The minimum spacing distance between each individual wind tower shall be three rotor diameters. Documents shall be submitted by the developer/manufacturer confirming specifications for tower separation based on the characteristics (prevailing wind, topography, etc.) of the particular site.

Minimum Site Area: The minimum site area of a single parcel or combination of adjoining land areas for a commercial wind energy system or an anemometer tower shall be 40 acres. When a proposed the site area is a combination or assembly of leased properties, the applicant must also submit documentation indicating the properties and individuals participating in the proposed project. The locations of any temporary off site staging areas to be used during the projects' construction phase must also be provided.

Setbacks: All proposed commercial wind energy systems or anemometer towers shall meet the following applicable setback requirements so that each commercial wind

energy system shall be set back from any adjoining lot line a distance equal to 1-1/2 times the height of the tower. Setback shall be measured from the outermost point on the base of the tower. The amount of setback relief approved by the planning commission will be based on data provided by the applicant and prepared by a qualified professional. Such data shall satisfy the planning commission that any potential blade and ice throw will not cross the property line and that sound levels will not exceed 65 decibels on the dB(A) scale at the property line from the proposed setback. Data provided shall be specific to the proposed tower in the proposed location taking into consideration prevailing winds, topography, existing vegetation, and other relevant factors.

In addition, a request for reduction from the required 1-1/2 times the tower setback shall be granted if the planning commission finds one or more of the following:

Such reduction will allow an increased setback from roadways.

The property adjacent to the reduced setback is under the same ownership.

The reduced setback otherwise greatly lessens impacts on a residential area or benefits the interests of the township residents as a whole.

Maximum Height: The maximum wind turbine rotor tip height of a commercial wind energy system or an anemometer tower shall be 300 feet. The planning commission may approve an increased height for a commercial wind energy tower or an anemometer tower, not to exceed 400 feet, if all of the following conditions are met:

The increased height will result in the preservation of a substantial stand of trees, existing land forms or structures that would otherwise be removed to increase wind velocity.

The increased height is the minimum necessary to achieve a reasonable rate of return on the operation of the wind turbine given the documented wind speeds and other site conditions. A reasonable rate of return is not equivalent to maximizing economic return to the operator. The planning commission shall not grant the increased height if economic return is not met due to the use of inefficient equipment that does not utilize current commercial technologies.

The increased height will not result in increased intensity of lighting on the tower due to FAA requirements.

Minimum Rotor or Blade Clearance: The lowest point of the arc created by rotating rotors or blades on a commercial wind energy system shall be no less than twenty (20) feet. Additional clearance may be required by the planning commission if potential safety concerns are identified.

Maximum Noise Levels: Any proposed commercial wind energy system shall produce sound levels that are no more than 65 decibels as measured on the dB(A) scale at the property lines of the site in question. A noise report shall be submitted with any application for an anemometer tower or wind turbine generator tower. A noise report shall be prepared by a qualified professional and shall include the following, at a minimum.

A description and map of the project's noise producing features, including the range of noise levels expected, and the basis of the expectation.

A survey and report prepared by a qualified engineer that analyzes the pre-existing ambient noise (including seasonal variation) and the affected sensitive receptors located within two (2) miles of the proposed project site. Potential sensitive receptors at relatively less windy or quieter locations than the project shall be emphasized and any problem areas identified.

Maximum Vibrations: Any proposed commercial wind energy system shall not produce vibrations Humanly perceptible beyond the property on which it is located.

Transmission Lines: The on site electrical transmission lines connecting the commercial wind energy system to the public utility electricity distribution system shall be located underground up to the property line and shall utilize industry standards and good utility practice to minimize, to the extent practical, the impact, if any, of electrical discharges and/or EMF on adjacent property/non-participation property.

Interference with Residential Reception: All commercial wind energy systems shall be constructed and operated so that they do not interfere with television, microwave, navigational or radio reception to neighboring areas.

Insurance: Proof of the applicant's public liability insurance.

Submittal of as-built documentation: The Planning Commission may require the applicant to notify the Township Administrator within a reasonable time frame of any change during the projects' construction phase that modifies the tangible portions of the finished work. The Administrator shall schedule a review of the applicants special land use permit and site plan by the Planning Commission when a significant design change occurs due to differing site conditions, material availability, contractor-requested changes, value engineering, and impacts from third parties. After final completion of a newly constructed commercial wind energy system, a set of drawings or documentation prepared by the general contractor or construction manager, which includes any revisions in the working drawings and/or specifications during construction, shall be provided to the administrator as a final record to indicate how the project was actually constructed.

Performance Bond: The Planning Commission may require a performance guarantee to ensure completion of the proposed project.

State or Federal Requirements: Any proposed commercial wind energy system or anemometer tower shall meet or exceed any standards and regulations of the FAA, the Michigan Public Service Commission, and National Electric Safety Code. This may also include any other agency of the state or federal government with the authority to regulate wind turbine generators or other tall structures in effect at the time the special use permit is approved.

Soil Conditions: A proposal for any commercial wind energy system or anemometer tower shall be accompanied by a report of the soils present on the site based on soil boring, and a description of the proposed foundation size, materials, and depth. Such foundation shall be installed below plow depth to allow for feasible future reuse of the land unless the applicant provides a financial assurance that the foundation will be removed in the event that the tower is removed.

Visual Impacts: This ordinance recognizes that wind energy systems may pose some visual impacts. Any proposed commercial wind energy system shall meet the following requirements:

Each commercial wind energy system or anemometer tower shall be a monopole or monotube style construction (as distinguished from a lattice-style tower) and shall not utilize guy wires.

Each commercial wind energy system, including all accessory structures, including anemometer towers shall, to the extent possible, use materials, and colors that will blend them into the natural setting and surrounding buildings. A medium gray shade or galvanized steel finish, subject to any applicable standards of the FAA is the preferred color for any wind generator or anemometer tower. However, the Planning Commission may approve an alternate color if the facility is suspected to be located within an avian migratory route or if an alternate color would otherwise benefit the community.

Each wind turbine generator or anemometer tower shall be sited on the property in a location that reduces to the maximum extent possible any adverse impacts on significant view corridors from adjacent properties, while at the same time maintaining contact with economically viable wind resources

All proposed buildings of a commercial nature, including areas necessary for vehicle parking, outdoor storage of materials, replacement parts, equipment, and turbines awaiting repair, shall be appropriately sited on the property in locations that minimizes any adverse impacts to adjacent properties.

The planning commission may require design changes in order to lessen the visual clutter associated with multiple wind turbines with non-complementary, inconsistent design within sight of each other.

The planning commission may require landscaping.

16. Lighting: Each commercial wind energy system or anemometer tower shall not be artificially lighted, unless required by the FAA or other applicable governmental authority. If lighting is required, the lighting alternatives and design chosen;

Shall be the lowest intensity allowable under FAA regulations.

Shall not be strobe lighting or other intermittent white lighting fixtures, unless expressly required by the FAA. Such intermittent lighting shall be alternated with steady red lights at night if acceptable to the FAA

May be a red top light that does not pulsate or blink.

All tower lighting required by the FAA shall be shielded to the extent possible and acceptable to the FAA to reduce glare and visibility from the ground.

Where acceptable to the FAA, the Township will approve white lights over red lights and steady lights over a strobe or intermittent lighting.

17. Signs: A sign no more than four (4) square feet in area, non illuminated, displaying an address and telephone number for emergency calls and informational inquiries shall be posted at the wind turbine generator or anemometer tower. The emergency telephone number shall allow a caller to contact a responsible individual to address emergencies at any time during or after regular business hours, on weekends or holidays. No wind turbine generator tower or anemometer tower site shall include any advertising sign.

18. Shadow Flicker: The applicant shall provide shadow flicker modeling data for any proposed commercial wind energy system and shall include:

Map and describe within a one-mile radius of the proposed project site the topography, existing residences and location of their windows, locations of other structures, wind speeds and directions, existing vegetation and roadways. The model shall represent the most probable scenarios of wind constancy, sunshine constancy, and wind directions and speeds;

Calculate the locations of shadow flicker caused by the proposed project and the expected duration's of the flicker at these locations. Calculate the total number of hours per year of flicker at all locations.

Identify problem areas where shadow flicker will interfere with existing or future residences and roadways and describe proposed measures to mitigate these problems, including, but not limited to, a change in the site of the facility, a change in the operation of the facility, or grading or landscaping mitigation measures.

The facility shall be designed such that shadow flicker will not fall on, or in, any existing dwelling. Shadow flicker expected to fall on a roadway or a portion of a residential parcel may be acceptable under the following circumstances:

1. The flicker will not exceed 30 hours per year; and
2. The flicker will fall more than 100 feet from an existing residence; or
3. The traffic volumes are less than 500 vehicles per day on the roadway.

19. Hazard Planning and Safety: An application for a special use permit for a commercial wind energy system shall be accompanied by a hazard prevention plan. Such plan shall address the following at a minimum:

Certification that the electrical wiring between turbines and the utility right-of-way does not pose a fire hazard.

Any landscape plan accompanying the application shall be designed to avoid spread of fire from any source on the turbine; such preventative measures may address the types and location of vegetation below the turbine and on the site.

A Hazardous Materials Waste Plan shall be provided with a listing of any hazardous fluids that may be used on site

Certification that the turbine has been designed to contain any hazardous fluids

A statement certifying that the turbine shall be routinely inspected to ensure that no fluids are released from the turbine.

20. Removal of Abandoned or Unsafe Wind Turbine Generators or Anemometer Towers: Any wind energy system or anemometer tower that is not operated for a continuous period of twelve (12) months shall be considered abandoned. Any tower found to be unsafe or not in compliance with the special land use conditions related to noise or shadow flicker placed upon it by the Planning Commission, shall be found to be in violation of the special land use permit. The owner of any wind turbine generator tower or anemometer tower that is abandoned or in violation of the special land use permit shall remove the same within ninety (90) days of receipt of notice from the Township of such abandonment or violation. In addition to removing the wind turbine generator or anemometer tower, the owner shall restore the site of the wind turbine generator or anemometer tower to its original condition, subject to reasonable wear and tear. Any foundation associated with a wind generator or anemometer tower shall be removed to minimum depth of five (5) feet below the final grade and site vegetation

shall be restored. Failure to remove an abandoned wind energy system or anemometer tower within the ninety (90) day period provided in this subsection shall be grounds for the Township to remove the wind turbine generator or anemometer tower at the owner's expense. The Planning Commission may require the applicant to file a bond equal to the reasonable cost of removing the wind turbine generator or anemometer tower and attendant accessory structures as a condition of a special use permit given pursuant to this section.

21. New Technology: These regulations pertaining to commercial wind energy systems and anemometer towers are intended to respond to equipment available at the time of adoption. Arbela Township recognizes that this is an emerging technology and that new means of collecting with energy, including but not limited to vertical axis wind turbine generators, are under development. Arbela Township, therefore, reserves the right to withhold approval on any wind turbine generator or anemometer tower utilizing technology and equipment not widely in use as of this date, July 13, 2009, and not addressed in this ordinance, pending appropriate study and, if necessary, alteration of these regulations.