ALTERNATIVE ENERGY SYSTEMS

The Yankee Trace Home Owners Association Design Review Committee will follow the standards as delineated in the City of Centerville, Ohio Unified Development Ordinance. A copy of the Ordinance will be made available on request.

In addition to the requirements of the Ordinance, the HOA will request that the homeowner wishing to install an alternative energy system discuss the installation with neighbors on both sides and to the rear and front (including across a street) to obtain their comments in writing concerning the installation of such a system. A form will be provided for this purpose.

No system requiring a tower for wind production of energy will be permitted.

9.57 Alternative Energy Systems

A. Purpose and Intent

In order to balance the need for clean, renewable energy resources and the necessity to protect the public health, safety and welfare of the community, the following regulations are necessary to ensure that alternative energy systems are appropriately designed and safely sited and installed. This chapter establishes the regulations and criteria which allow compatible alternative energy systems to be located within the various zoning districts in association with a principal use or structure. In the event of a conflict between the development standards in this chapter and development standards contained in the UDO applicable to the use and zoning district, the standards of this section are to be used.

B. Permitting and Application

1) Prior to the installation of an alternative energy system, a Zoning Certificate shall be issued by the City Planner as an accessory structure in accordance with Article 5 of this Ordinance for all properties in the City except those in the Architectural Preservation District (APD) and the appropriate building, electrical and/or plumbing permits have been issued by the Chief Building Official.

2) The Board of Architectural Review (BAR) shall review and decide on any alternative energy system proposed for a property in the APD before a Zoning Certificate is issued by the City Planner.

3) In addition to the submittal requirements for an accessory structure, the application shall also include:
   a. A site plan of the property showing the exact location of the proposed alternative energy system, all existing utility lines including overhead lines, setback lines, easements and all other structures on the premises,
   b. A description of the alternative energy system, including information regarding its construction, method of assembly, installation and intended use as a primary, ancillary or a back-up/emergency power source,
   c. Plans showing the specifications and elevations of the proposed system, and
   d. Proposed screening, where required.

C. Permitted Solar Energy Systems

1) Solar Energy System Mounted on a Flat Roof

   a. Zoning District
      1) A solar energy system for a flat roof shall be permitted in all base zoning districts except a solar energy system shall not be placed on any buildings designated as Landmarks in accordance with Article 9.45 of this Ordinance.
      2) A solar energy system for a flat roof may be approved as a part of a Site Plan, Planned Development Master Plan or as part of an Overlay District proposal.

b. Placement on Roof

1) For any buildng where either axis of the building is two hundred fifty (250) feet or less, there shall be a minimum four (4) foot wide clear perimeter around the edges of the roof and six (6) foot wide clear perimeter for buildings having an axis greater than two hundred fifty (250) feet.

2) A centerline pathway, having a minimum width of four (4) feet shall be established in a straight line along both axis of a building.

3) All solar panels shall be setback a minimum of three (3) feet from all vents, chimneys, roof accesses, and other appurtenances.

c. Height above roof surface

The lowest portion of the panels shall not be greater than two (2) feet above the roof surface to which it is mounted and the uppermost portion of each solar panel shall not exceed the maximum height required to optimize the system performance.

d. Screening

A solar energy system shall be screened from view to the public right-of-way in accordance with Table 9.6: Bufferyard, Landscape and Screening Requirements of this UDO.

2) Solar Energy System Mounted on a Pitched Roof

a. Zoning District

1) A solar energy system for a pitched roof shall be permitted in all base zoning districts except a solar energy system shall not be placed on any buildings designated as Landmarks in accordance with Article 9.45 of this Ordinance or any building determined to be historically significant in the APD.

2) A solar energy system for a pitched roof may be approved as a part of a Site Plan, Planned Development Master Plan, Major Site Plan or as part of an Overlay District proposal.

b. Placement on Roof

1) Panels shall be located in a manner that provides a three (3) foot wide clear access pathway from the eave to the ridge for each roof where panels are located.

2) Panels shall be located in a manner on a hip roof or a roof having valleys shall be located no closer than eighteen (18) inches from the hip, ridge, eave and valley.

3) Panels located on a roof with a single ridge shall be setback a minimum of three (3) feet from the edge of the roof and eighteen (18) inches from the ridge and eave providing an access pathways from the eave to the ridge.

4) A solar energy system shall not exceed the height of the roof peak to which it or the panels are affixed.

5) All solar panels shall be setback a minimum of eighteen (18) inches from all vents, chimneys and other appurtenances.

6) Solar panels shall be configured as a simple rectangle and aligned with the roof eaves for a roof facing a public right-of-way.

7) All solar panels shall follow the roof plane not to exceed a maximum of three (3) inches above roof surface.

8) The exposed surfaces of all solar panel framing, mounting equipment, conduit, piping and other related hardware or equipment shall match the roof color.

9) All solar panels shall have a non-reflective coating to minimize glare.

10) For single-family, two-family and three family residences having more than one front roof, solar panels shall be located on only one (1) front roof and shall be placed in a single location.

c. Solar Shingles are encouraged to be installed on a premises in-lieu of photovoltaic solar panels. Solar shingles may be placed on any roof of a principal or accessory building in the following manner.

1) Solar Shingles shall be located in a manner that provides a three (3) foot wide clear access pathway from the eave to the ridge for each roof where panels are located.

2) Solar Shingles shall be located in a manner on a hip roof or a roof having valleys shall be located no closer than eighteen (18) inches from the hip, ridge, eave and valley.

3) Solar Shingles located on a roof with a single ridge shall be setback a minimum of three (3) feet from the edge of the roof and eighteen (18) inches from the ridge and eave providing an access pathways from the eave to the ridge.

4) All solar shingles shall be setback a minimum of eighteen (18) inches from all vents, chimneys and other appurtenances.

5) The exposed surfaces of all equipment, conduit, and other related hardware shall match the roof color.

6) All solar shingles shall have a non-reflective coating to minimize glare.

D. Conditional Solar Energy Systems

Applications for a conditional Solar Energy System shall be subject to the review and approval process established in Article 5.09, Development Approvals: Categories and Criteria of this Ordinance.

1) Purpose and Intent

This section establishes supplementary standards for Solar Energy Systems that may affect adjacent properties, the neighborhood, a development plan or the community even if all of the general standards of this Chapter are met. The intent of this section is to establish appropriate standards for the location, design, and operation of these conditional Solar Energy Systems to ensure they will be installed and operated in a manner that is consistent with the underlying zoning district and will not compromise adjacent uses.

2) Freestanding Solar Energy System

a. Location - A solar energy system may be placed in the required side or rear yard of a premises in accordance with the location requirements for an accessory building in Article 9.39, Accessory Buildings and Use Standards of this Ordinance.

b. Setback - A solar energy system shall be subject to the setback standards for an accessory building in accordance with Article 9.39, Accessory Buildings and Use Standards of this Ordinance.

c. Height - The lowest portion of the solar panels shall not be greater than five (5) feet above the grade or surface to which it is mounted and the uppermost portion of each solar panel shall not exceed the maximum height required to optimize the system performance.

d. Area - A solar energy system shall be subject to the maximum area requirements for an accessory building in accordance with Article 9.39, Accessory Buildings and Use Standards of this Ordinance.

e. Screening of a solar energy system shall be in accordance with Table 9.6, Bufferyard, Landscaping and Screening Requirements.

f. Exemption: A single photovoltaic solar panel having a surface area of one (1) square foot or less in area that is attached to a light fixture or similar appurtenance to provide electrical power to said appurtenance shall be exempt from these requirements.

E. Wind energy conversion systems

1. Purpose. To regulate the placement, construction, and modification of wind energy conversion 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 these systems.

2. Standards.

a. Construction Standards. All Wind 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.

b. Color and Appearance Standards. All Wind Energy Systems shall be painted a non-contrasting gray or similar color minimizing its visibility, unless otherwise required by the Federal Aviation Administration.

c. Artificial Lighting Restricted. No Wind Energy System shall be artificially lit except as required by the Federal Aviation Administration.

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

e. Noise. All alternative energy systems shall comply with the requirements for sound levels established in Article 9.53 A 1, Environmental Requirements of this ordnance.

3. Wind Energy Conversion Systems

a. Small wind energy device

1) A Small Wind Energy Device is a permitted use in all zoning districts excepting the Architectural Preservation District for an Agricultural use.

2) A Small Wind Energy Device is a conditional use in all zoning districts excepting the Architectural Preservation District for all uses except an agricultural uses.

3) A Small Wind Energy Device is a prohibited use in the Architectural Preservation District.

4) No more than one (1) Small Wind Energy Device shall be permitted per premises and shall only generate energy for use for or in support of a main building and/or accessory buildings located on the same lot.

5) Minimum Lot Size: 5 Acres.

6) Maximum Height: 52 feet to the top of the wind turbine blade at its highest point of travel.

7) Minimum Setback from Property Lines: All elements of a Small Wind Energy Conversion System shall be set back a distance equal to the height of the system with a wind turbine blade at its highest point of travel.

8) Design: The small wind energy device shall be placed on a monopole tower without guide wire support. Lattice towers are prohibited.

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

F. Maintenance, Abandonment and Removal

All alternative energy systems and related components shall be properly maintained and kept in operation. Any alternative energy system that is unused or is non-functional for a continuous period of six (6) months shall be deemed abandoned. This shall not include functioning systems used for backup power for emergency situations. The owner shall be notified of the violation and shall be responsible for the removal of the abandoned system within three (3) months. Removal of the alternative energy system shall require approval of the Chief Building Official.

G. Appeals and Variances

1) Appeals shall be in accordance with Article 5.19 of this Ordinance.

2) Variances shall be in accordance with Article 5.17 of this Ordinance.

Table 9.6: Bufferyard, Landscaping and Screening Requirements

Zoning District by Use or Circumstance	Buffer Width (feet)	Minimum Bufferyard Requirements					
		Earthen Berm (avg. ht.)	Fence or Wall	No. of Plants per 100 Linear Feet of Bufferyard			
				Canopy Tree	Understory Tree	Shrub	Evergreen or Conifer
O-PD, B-PD, and I-PD							
Adjacent to a Residential Use	100	6 feet	Yes	10	15	50	30
Adjacent to a Public Street	20	3 feet	No	5	5	10	0
Adjacent to a non-residential use	10*	N/R	No	2	4	6	0
O-S, B-1, B-2, I-1: Non-Residential Use							
Adjacent to a Residential Use	25	4 feet	Yes	5	6	20	15
Adjacent to a Non-Residential Use or a Public Street	10	N/R	No	2	4	6	0
APD, Architectural Preservation District							
Non-Residential Use adjacent to a Residential Use	10	N/R	Yes	0	0	0	15
R-1, R-2, R-3, R-PD, Non-Residential Uses							
Adjacent to a Single-Family Use	25	3 feet	Yes	5	6	20	15
Adjacent to a Major, Public Street	25	3 feet	No	5	5	10	0
Abutting any other Street or a non- residential use	10	N/R	No	2	4	6	0
Major Use adjacent to a Residential Use	100	6 feet	Yes	10	15	50	30
R-3, R-PD: Multi-Family Residential Use							
Adjacent to a Single-Family Use	25	3 feet	Yes	5	6	20	15
Adjacent to a Major, Public Street	25	3 feet	No	5	5	10	0
R-2, Two-Family Residential Use							
Adjacent to any Public Street or a Single Family Use	10	N/R	No	2	4	6	0
R-1, Single-Family Residential Use							
Freestanding Solar Energy System	5	N/R	Yes	0	0	0	0
Residential Cluster Development or an individual lot adjacent to a Major Public Street	25	3 feet	No	4	6	10	5
RV in the Side Yard abutting a Single-Family Use**	5	N/R	Yes***	0	2	2	3
Yard abutting a Single-Family Use**	5	N/R	Yes***	0	2	2	3
Yard abutting a Single-Family Use**	5	N/R	Yes***	0	2	2	3

N/R: Not Required
* Outer Perimeter of the Planned Development Zoning Districts requires a minimum buffer width of 20 feet.
** Number of plants required per thirty (30) linear feet of bufferyard.
*** A resident or property owner may apply for a Zoning Certificate to substitute a fence for any or all of the required landscape screening provided such fence is of sufficient size and mass to provide buffering greater than or equal to the required landscape screening.

D. Parking Lot Landscaping Requirements

1. Landscaping Required

   a. Any premises having a parking lot or lots with an area of 6,000 square feet or greater shall provide landscape areas within the interior of the parking lot.

   b. Interior landscaping shall be 8% of the parking lot surface area.

   c. Landscaped areas shall be placed within the perimeter of a parking lot. The perimeter of a parking lot is defined by placing a simple geometric shape around the external edges of the lot. Landscaping areas located in the corners or otherwise set in from the edge of the