ORDINANCE 835-2022

An Ordinance to amend the Zoning Ordinance of East Pennsboro Township by modifying Chapter 27 [Zoning], Part 2 [Definitions], by amending definitions for solar photovoltaic systems and by amending Chapter 27 [Zoning], Part 19 [General And Special Regulations], by incorporating new sections to permit certain solar photovoltaic systems as accessory uses in any zoning district and repealing existing regulations and by revising and adding additional provisions for the permitting of certain solar photovoltaic systems and Repealing Inconsistent ordinances.

BE IT HEREBY ENACTED AND ORDAINED by the Board of Commissioners of East Pennsboro Township, Cumberland County, Pennsylvania, that the Zoning Ordinance shall be amended as follows:

Section 1. Added Definitions. Section 202 [Definitions] of Part 2 [Definitions] of Chapter 27 [Zoning] is hereby amended to include the following definitions in alphabetical order:

Array: Any number of electrically connected photovoltaic (photovoltaic) modules providing a single electrical output.

Best Management Practice (BMP): Activities, facilities, designs, measures or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this Part. Stormwater BMPs are commonly grouped into one of two broad categories or measures: "structural" or "nonstructural." In this Part, "nonstructural BMPs or measures" refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff, whereas "structural BMPs or measures" are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, low-impact design, bioretention, wet ponds, permeable paving, grassed swales, riparian or forested buffers, sand filters, detention basins, and manufactured devices. Structural stormwater BMPs are permanent appurtenances to the project site.

Building-Integrated System: A solar photovoltaic system that is constructed as an integral part of a principal or accessory building or structure and where the building-integrated system features maintain a uniform profile or surface of vertical walls, window openings, and roofing. Such a system is used in lieu of a separate mechanical device, replacing or substituting for an architectural or structural component of the building or structure that appends or interrupts the uniform surfaces of walls, window openings and roofing. A building-integrated system may occur within vertical facades, replacing view glass, spandrel glass or other facade material; into semitransparent skylight systems; into roofing systems, replacing traditional roofing materials; or other building or structure envelope systems.

Building-Mounted System: A solar photovoltaic system attached to any part or type of roof on a building or structure that has an occupancy permit on file with the East Pennsboro Township and that is either the principal structure or an accessory structure on a recorded parcel. This system also includes any solar-based architectural elements.

Cell: The smallest basic solar electric device which generates electricity when exposed to light.

Drip Line: The outermost edge of a roof including eaves, overhangs and gutters.

Erosion and Sedimentation (E & S) Plan: A site-specific plan identifying BMPs to minimize accelerated erosion and sedimentation and which meets the requirements of 25 Pa. Code Chapter 102 regulations. For agricultural plowing or tilling activities, the E&S Plan is that portion of a conservation plan identifying BMPs to minimize accelerated erosion and sedimentation.

Ground-Mounted System: A solar photovoltaic system mounted on a structure, pole or series of poles constructed specifically to support the photovoltaic system and not attached to any other structure.

HVAC: Equipment used to heat, cool or ventilate a structure

Impervious Surface: A surface area that prevents or retards the infiltration of water into the soil and/or a hard surface area that causes water to run off the surface of the ground in greater quantities or at an increased rate of flow from the conditions prior to development, construction, building or installation

Interconnection: The technical and practical link between the solar generator and the grid providing electricity to the greater community.

Kilowatt (kW): A unit of electrical power equal to 1,000 Watts, which constitutes the basic unit of electrical demand. A watt is a metric measurement of power (not energy) and is the rate (not the duration) at which electricity is used. 1,000 kW is equal to 1 megawatt (MW).

Module: A module is the smallest protected assembly of interconnected photovoltaic cells.

Net Metering Agreement: An agreement with a local electric utility that allows customers to receive a credit for surplus electricity generated by certain renewable energy systems.

Photovoltaic (PV): A semiconductor based device that converts light directly into electricity.

Solar-Based Architectural Element: Structural/architectural element that provides protection from weather that includes awnings, canopies, porches or sunshades and that is constructed with the primary covering consisting of solar photovoltaic modules, and may or may not include additional solar photovoltaic related equipment.

Solar Photovoltaic (PV) Related Equipment: Items including a solar photovoltaic cell, panel or array, lines, mounting brackets, framing and foundations used for or intended to be used for collection of solar energy.

Solar Photovoltaic (PV) System: A solar collection system consisting of one or more building- and/or ground-mounted systems, solar photovoltaic cells, panels or arrays and solar related equipment that rely upon solar radiation as an energy source for collection, inversion, storage and distribution of solar energy for electricity generation. A solar photovoltaic system is a generation system with a nameplate capacity of not greater than 50 kilowatts if installed at a residential service or not larger than 3,000 kilowatts at other customer service locations and do not produce excess on-site energy greater than currently permitted by Pennsylvania Public Utility

Commission guidelines.

Tracking System: A number of photovoltaic modules mounted such that they track the movement of the sun across the sky to maximize energy production, either with a single-axis or dual-axis mechanism.

Section 2. Purpose.

Section 1904 [Photovoltaic Solar Systems] is hereby created in Part 19 [General and Special Regulations] of Chapter 27 [Zoning]

Subsection 1904.1[Purpose] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

1904.1 Purpose. It is the purpose of this regulation to promote the safe, effective and efficient use of installed solar energy systems that reduce on-site consumption of utility-supplied energy while protecting the health, safety and welfare of adjacent and surrounding land uses and properties. This Ordinance seeks to:

A. Provide property owners and business owners/operators with flexibility in satisfying their on-site energy needs.

B. Reduce overall energy demands within the East Pennsboro Township and to promote energy efficiency.

C. Integrate alternative energy systems seamlessly into the East Pennsboro Township's neighborhoods and landscapes without diminishing quality of life in the neighborhoods.

Section 3. Applicability.

Subsection 1904.2 [Applicability] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

1904.2 Applicability.

A. This Ordinance applies to building-mounted and ground-mounted systems installed and constructed after the effective date of the Ordinance.

B. Solar photovoltaic systems constructed prior to the effective date of this Ordinance are not required to meet the requirements of this Ordinance.

C. Any upgrade, modification or structural change that materially alters the size or placement of an existing solar photovoltaic system shall comply with the provisions of §27-1904.

Section 4. Permitted Zoning Districts.

Subsection 1904.3 [Permitted Zoning Districts] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19

[General and Special Regulations] of Chapter 27 [Zoning] as follows:

1904.3 Permitted Zoning Districts.

A. Building-mounted and ground-mounted systems are permitted in all zoning districts as an accessory use to any lawfully permitted principal use on the same lot upon issuance of the proper permit pursuant to §27-2402 and upon compliance with all requirements of this section and as elsewhere specified in this Ordinance.

B. Building-integrated systems, as defined by this Ordinance, are not considered an accessory use and are not subject to the requirements of this Ordinance.

Section 5. Location within a Lot.

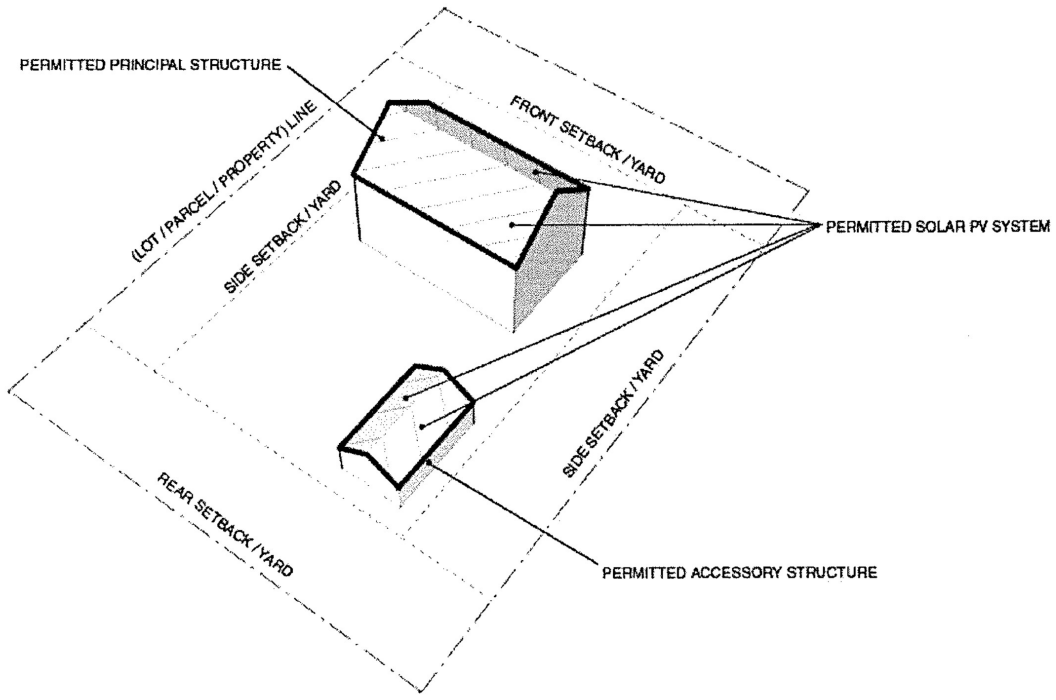
Subsection 1904.4 [Location] is hereby created within Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

1904.4 Location within a Lot.

A. Building-mounted systems are permitted to face any rear, side and front yard. Building-mounted systems may only be mounted on lawfully permitted principal or accessory structures.

B. Ground-mounted systems are permitted based on the requirements for accessory uses or structures in the property's zoning district.

PERMITTED LOCATION: BUILDING-MOUNTED SOLAR PV SYSTEM
ISOMETRIC



Section 6. Design and Installation Standards.

Subsection 1904.5 [Design and Installation Standards] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

> **1904.5 Design and Installation Requirements.** The solar photovoltaic system shall be constructed to comply with the Pennsylvania Uniform Construction Code (UCC), Act 45 of 1999, as amended and adopted by East Pennsboro Township, and any regulations adopted by the Pennsylvania Department of Labor and Industry as they relate to the UCC.

Section 7. Setback Requirements.

Subsection 1904.6 [Setback Requirements] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

> **1904.6 Setback Requirements.**
>
> A. Ground-mounted systems accessory to a principal residential use are subject to the accessory use or structure setback requirements in the zoning district in which the system is to be constructed.
>
> Exception: Ground mounted systems shall not be permitted between the architectural front of the principal structure and the right-of-way.
>
> B. Ground mounted systems as a principal use are subject to the principal use or structure setback requirements in the zoning district in which the system is to be constructed.
>
> C. The required setbacks are measured from the lot line to the nearest part of the system. No part of the ground-mounted system shall extend into the required setbacks due to a tracking system or other adjustment of solar photovoltaic related equipment or parts.

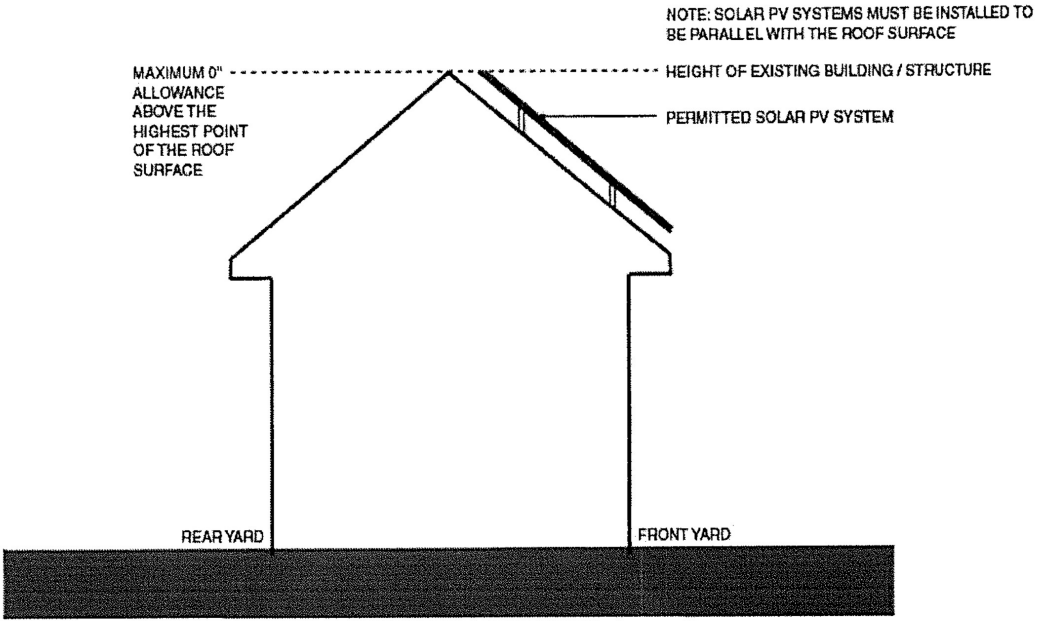
Section 8. Height Restrictions.

Subsection 1904.7 [Height Restrictions] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

> **1904.7 Height Restrictions.**
>
> A. Notwithstanding the height limitations of the zoning district:

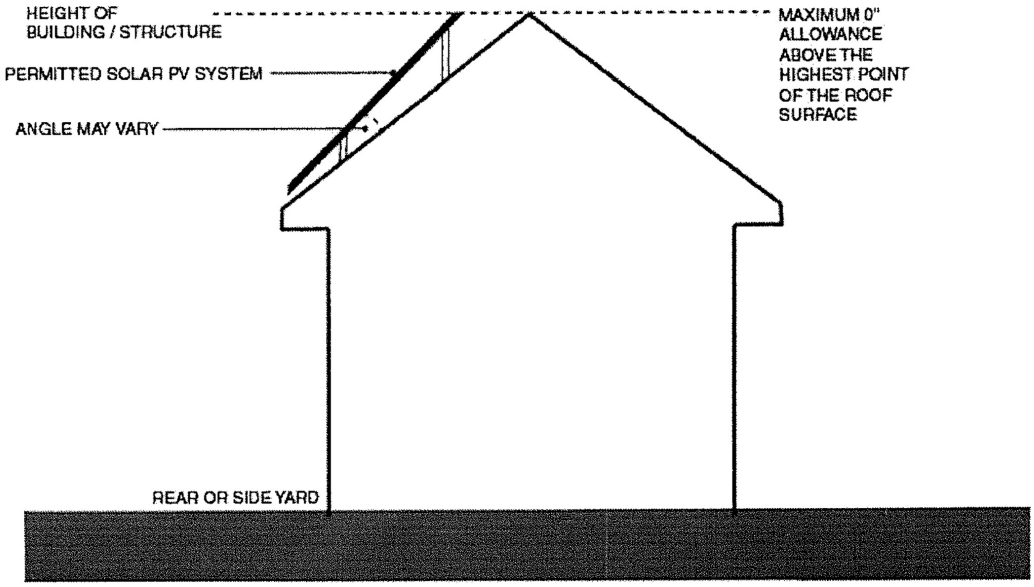
1. For a building-mounted system installed on a sloped roof that faces the front yard of a lot, the system must be installed at the same angle as the roof on which it is installed with a maximum distance, measured perpendicular to the roof, of thirty-six (36) inches between the roof and highest edge or surface of the system.

HEIGHT RESTRICTION, SLOPED ROOF FACING FRONT YARD: BUILDING-MOUNTED SOLAR PV SYSTEM
ELEVATION



2. For a building-mounted system installed on a sloped roof, the highest point of the system shall not exceed the highest point of the roof to which it is attached.

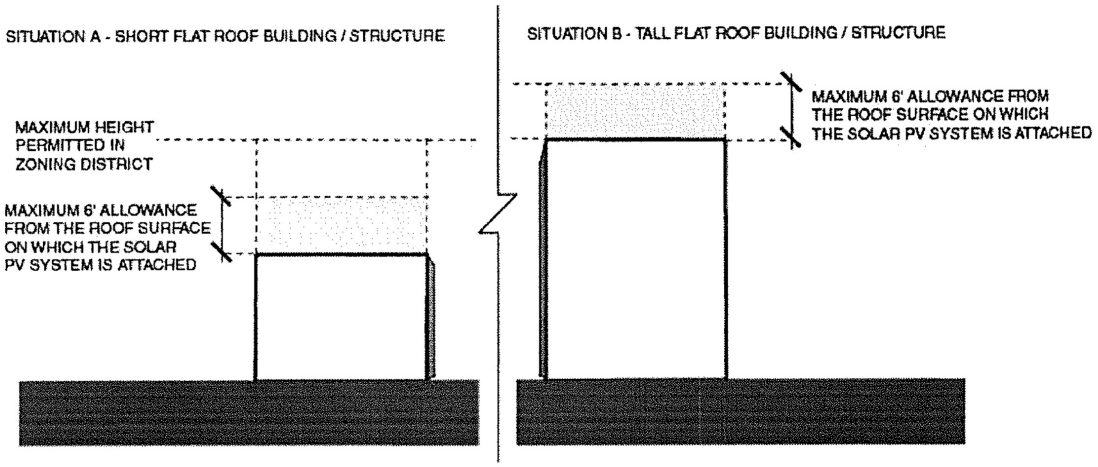
HEIGHT RESTRICTION, SLOPED ROOF FACING REAR OR SIDE YARD: BUILDING-MOUNTED SOLAR PV SYSTEM ELEVATION



B. Notwithstanding the height limitations of the zoning district:

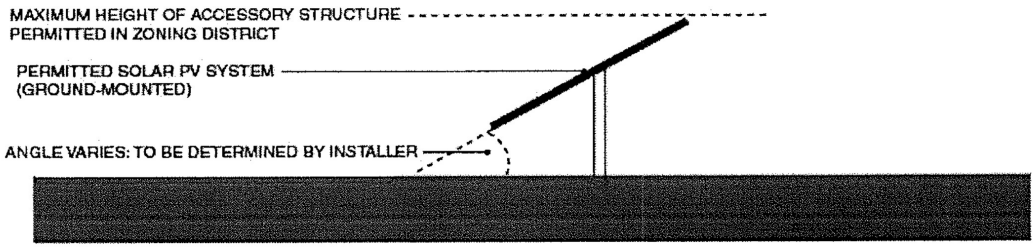
1. For a building-mounted system installed on a flat roof, the highest point of the system shall be permitted to extend up to six (6) feet above the roof to which it is attached.

HEIGHT RESTRICTION, FLAT ROOF: BUILDING-MOUNTED SOLAR PV SYSTEM
ISOMETRIC



2. Ground-mounted systems may not exceed the permitted height of accessory structures in the zoning district where the solar photovoltaic system is to be installed.

HEIGHT RESTRICTION: GROUND-MOUNTED SOLAR PV SYSTEM
ELEVATION



Section 10. Screening and Visibility.

Subsection 1904.8 [Screening and Visibility] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

1904.8 Screening and Visibility.

A. Ground-mounted Systems shall be screened from adjoining residential uses or zones according to the standards found in Part 1901 of this chapter.

Exception: Screening from residential uses shall not be required in the A-1 Agricultural, PRO Professional Office, O-A Office - Apartment, C-L Commercial Limited, C-G Commercial General, CPL Commercial Park Limited and IP Industrial Park districts.

B. Building-mounted systems on a sloped roof shall not be required to be screened.

Section 11. Impervious Lot Coverage.

Subsection 1904.9 [Impervious Lot Coverage] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

1904.9 Impervious Lot Coverage.

A. Except as provided in §27-1904.9(B) and §27-1904.9(C) the surface area of any ground-mounted system, regardless of the mounted angle of any portion of the system, is considered impervious surface and shall be calculated as part of the property lot coverage limitations for the zoning district. If the ground-mounted system is mounted above existing impervious surface, it shall not be calculated as part of the property lot coverage limitations for the zoning district.

B. Ground mounted systems complying with all of the following conditions shall not be considered impervious lot coverage.

1. Projects where earth disturbance and grading activities are minimized and where natural vegetative cover is preserved and/or restored.

2. Utilization of low impact construction techniques must be used.
   a. Refer to BMP 5.6.1: Minimize Total Disturbed Area – Grading,
   b. BMP 5.6.2: Minimize Soil Compaction in Disturbed Areas
   c. BMP 5.6.3: Re-Vegetate and Re- forest Disturbed Areas, Using Native Species from the *PA Stormwater Best Management Practices Manual*, Department of Environmental Protection, No. 363-0300-002, (December 30, 2006).

3. Vegetative cover must have a minimum uniform 90% perennial vegetative cover with a density capable of resisting accelerated erosion and sedimentation. The 90% standard exceeds the 70% standard as in 25 Pa. Code § 102.22(a)(i), as the vegetation may be typically the primary and only BMP used for solar panel farms.

(a) A meadow condition is preferable especially for projects located on slopes between 5-10%.

(b) If areas under the solar panels must be mowed, then the vegetative cover should not be cut to less than 4 inches in height.

(c) Vegetated areas will not be subject to chemical fertilization or herbicide/pesticides application, except for those applications necessary to establish the vegetative cover and in accordance with an approved E&S Plan.

4. The individual photovoltaic panels within an "array" are arranged in a fashion that

(a) Allows the passage of runoff between each module, thereby minimizing the creation of concentrated runoff.

(b) Allows for the growth of vegetation beneath the panel and between "arrays."

5. Ground mounted solar panels that are supported with structures/foundations require little earth disturbance for their installation/construction. Unless evidence is provided to the contrary, it will be assumed that for these ground mounted solar panels themselves (not including access drive, etc.) will disturb 5% of the total project area.

6. Solar panels must be situated on slopes of 10% or less.

7. The lowest vertical clearance of the solar "array" should be 10 feet or less from the surface of the ground but must be of adequate height to promote vegetative growth below the "array." Limiting the height of the solar "array" will minimize the potential for accelerate erosion to occur along the drip line of the solar "array".

C. Alternate designs may be proposed for review and consideration to the Zoning Officer in consultation with the Township Engineer. If alternate design is found by the Zoning Officer and Township Engineer to be a demonstrably acceptable alternative, then the proposal shall be forwarded to the Board of Commissioners.

1. The Board of Commissioners may, at their sole discretion, approve an alternative design.

Section 12. Non-conformance.

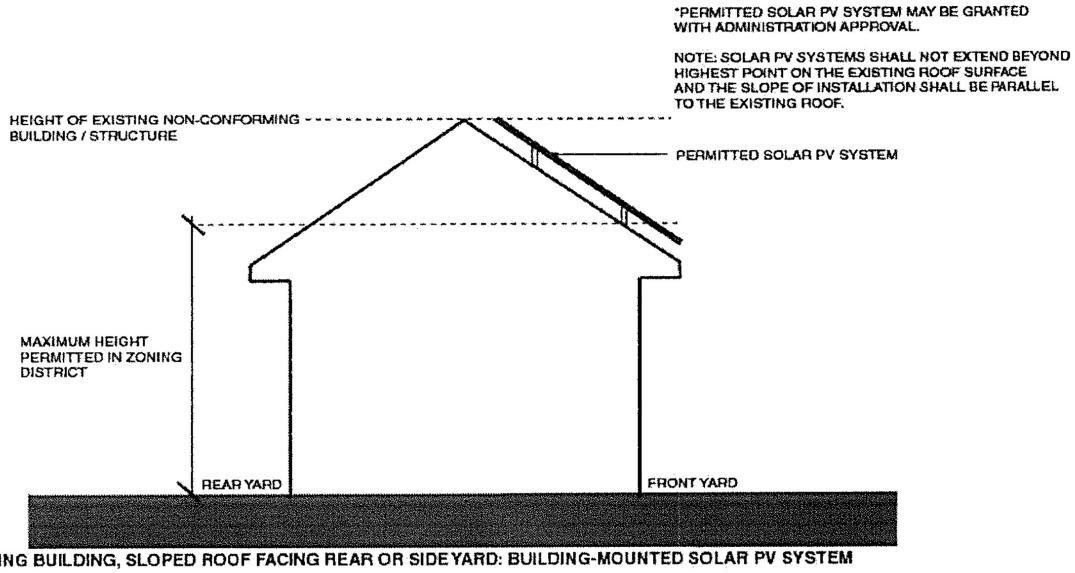
Subsection 1904.10 [Non-conformance] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

1904.10 Non-conformance.

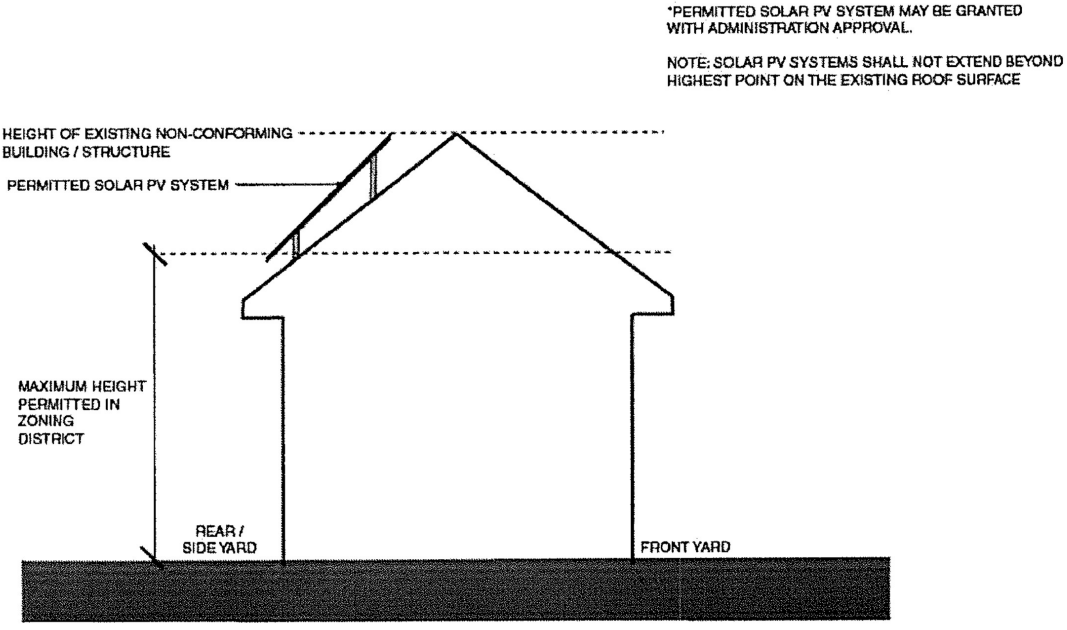
A. Building-mounted systems:

1. If a building-mounted system is to be installed on any building or structure that is non-conforming because its height violates the height restrictions of the zoning district in which it is located, the building-mounted system shall be permitted so long as the building-mounted system does not extend above the peak or highest point of the roof to which it is mounted and provided it complies with the other provisions of this Ordinance.

NON-CONFORMING BUILDING, SLOPED ROOF FACING FRONT YARD: BUILDING-MOUNTED SOLAR PV SYSTEM ELEVATION



NON-CONFORMING BUILDING, SLOPED ROOF FACING REAR OR SIDE YARD: BUILDING-MOUNTED SOLAR PV SYSTEM ELEVATION

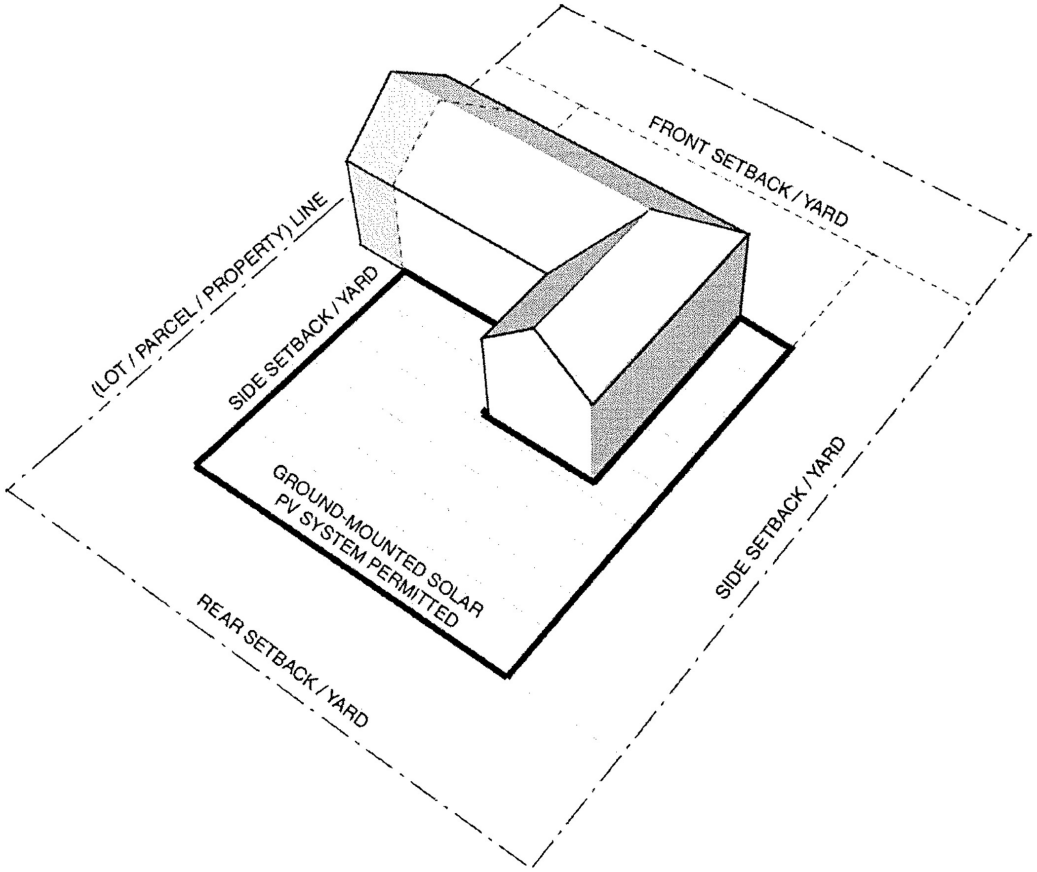


2. If a building-mounted system is to be installed on a building or structure on a non-conforming lot that does not meet the minimum setbacks required and/or exceeds the lot coverage limits for the zoning district in which it is located, a building-mounted system shall be permitted so long as there is no expansion of any setback or lot coverage non-conformity and so long as it complies with the other provisions of this Ordinance.

B. Ground-mounted systems:

1. If a ground-mounted system is to be installed on a lot containing a structure that is non-conforming because the required minimum setbacks are exceeded, the proposed system shall be permitted so long as the system does not encroach into the established setback for the lot. If a ground-mounted system is to be installed on a lot that is non-conforming because it violates zoning district requirements other than setbacks, then a variance must be obtained for the proposed installation.

NON-CONFORMING LOT, SETBACKS: GROUND-MOUNTED SOLAR PV SYSTEM ISOMETRIC



Section 13. Signage.

Subsection 1904.11 [Signage] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

> **1904.11 Signage.** No signage or graphic content may be displayed on the solar photovoltaic system except the manufacturer's badge, safety information and equipment specification information. Said information shall be depicted within an area no more than thirty-six (36) square inches in size.

Section 14. Performance Requirements.

Subsection 1904.12 [Performance Requirements] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

> **1904.12 Performance Requirements.** All solar photovoltaic systems are subject to compliance with applicable performance standards detailed elsewhere in the Zoning Ordinance

Section 15. Inspection, Safety and Removal.

Subsection 1904.13 [Inspection, Safety and Removal] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

> **1904.13 Inspection, Safety and Removal.** The Township reserves the right to inspect a solar photovoltaic system for building or fire code compliance and safety.
>
> A. If upon inspection the Township determines that a fire code or building code violation exists, or that the system otherwise poses a safety hazard to persons or property, the Township may order the property owner to repair or remove the system within a reasonable time. Such an order shall be in writing, shall offer the option to repair, shall specify the code violation or safety hazard found and shall notify the property owner of his or her right to appeal such determination.
>
> B. If a property owner fails to repair or remove a solar photovoltaic system as ordered, and any appeal rights have been exhausted, the Township may enter the property, remove the system and charge the property owner for all costs and expenses of removal, including reasonable attorney's fees or pursue other legal action to have the system removed at the property owner's expense.
>
> C. In addition to any other available remedies, any unpaid costs resulting from the Township's removal of a vacated abandoned or de-commissioned solar photovoltaic system shall constitute a lien upon the property against which the costs were charged. Legal counsel of the Township shall institute appropriate action for the recovery of such cost, plus attorney's fees, including, but not limited to filing of municipal

claims pursuant to 53 P.S. § 7107, et seq., for the cost of such work, 6% interest per annum, plus a penalty of 5% of the amount due plus attorney's fees and costs incurred by the Township in connection with the removal work and the filing of the Township's claim.

Section 16. Permit Requirements.

Subsection 1904.14 [Permit Requirements] is hereby created in Section 1904 [Photovoltaic Solar Systems] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] as follows:

1904.14 Permit Requirements. Before any construction or installation on any solar photovoltaic system shall commence, a permit issued by East Pennsboro Township shall be obtained to document compliance with this Ordinance.

Section 17. Repealed Definitions. Section 202 [Definitions] of Part 2 [Definitions] of Chapter 27 [Zoning] is hereby amended to repeal and remove the following definitions:

Accessory Solar Energy System

Principal Solar Energy System

Solar Easement

Solar Energy

Solar Panel

Solar-Related Equipment

Solar Array

Solar Cell

Solar Module

Section 18. Repealed Regulations. Section 1902 [Special Regulations] of Part 19 [General and Special Regulations] of Chapter 27 [Zoning] is hereby amended to repeal Section 1902.17 [Accessory Solar Energy Systems (ASES)] and Section 1902.18 [Principal Solar Energy Systems (PSES)]

SECTION 19: All other ordinances and parts of ordinances inconsistent herewith are hereby repealed.

SECTION 20: The provisions of this Ordinance are severable and if any of its sections, clauses or sentences shall be held illegal, invalid, or unconstitutional, such provision shall not affect or impair any other remaining sections, clauses, or sentences of the same.

SECTION 21: In all other respects, Part 2 [Definitions] and Part 19 [General and Special Regulations], of Chapter 27 [Zoning] of the Code of Ordinances of the East Pennsboro Township shall remain as heretofore enacted, ordained, and amended, which said Chapter, as amended, is hereby re-enacted in its entirety herein.

SECTION 22. This Ordinance shall take effect immediately upon its enactment.

ENACTED AND ORDAINED this 6th day of July, 2022

ATTEST:

A John Pietropaoli, Secretary

EAST PENNSBORO TOWNSHIP

By: George A. Tyson, President,
Board of Commissioners