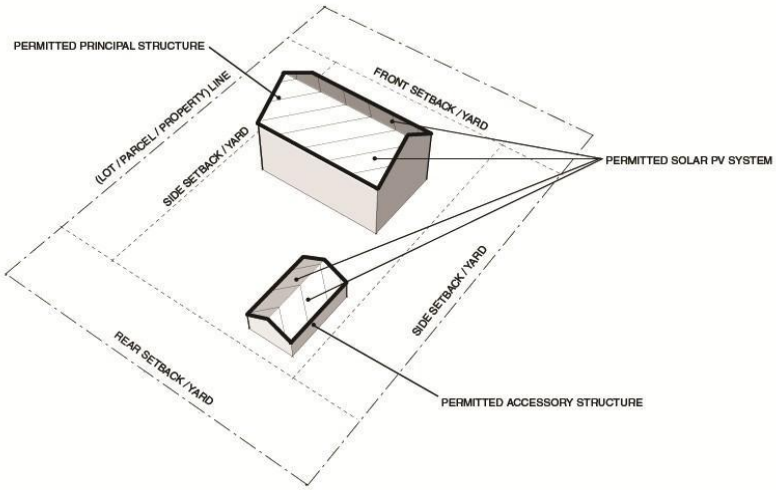
Solar Photovoltaic (PV) System

Excerpted from the *2023 Lower Nazareth Township Zoning Ordinance, Article 6, Supplemental Regulations, Section612, Solar Photovoltaic (PV) System*.

§ 612 Solar Photovoltaic (PV) System.

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 Section 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 Lower Nazareth Township and promote energy efficiency.
   C. Integrate alternative energy systems seamlessly into the Township's neighborhoods and landscapes without diminishing quality of life in the neighborhoods.
2. Applicability.
   A. This Section applies to building-mounted and ground-mounted systems installed and constructed after the effective date of this Ordinance.
   B. Solar photovoltaic systems constructed prior to the effective date of this Ordinance are not required to meet the requirements of this Section.
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 Section 109 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.
4. Location within a Lot.
   A. Building-mounted systems are permitted to face any rear, side and front yard or any unregulated yard area as defined in Section 1202 of this Ordinance. 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



5. Design and Installation Requirements.

   A. 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 Lower Nazareth Township, and any regulations adopted by the Pennsylvania Department of Labor and Industry as they relate to the UCC.

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.

   B. Exception: Ground mounted systems shall not be permitted between the architectural front of the principal structure and the right-of-way.

   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.

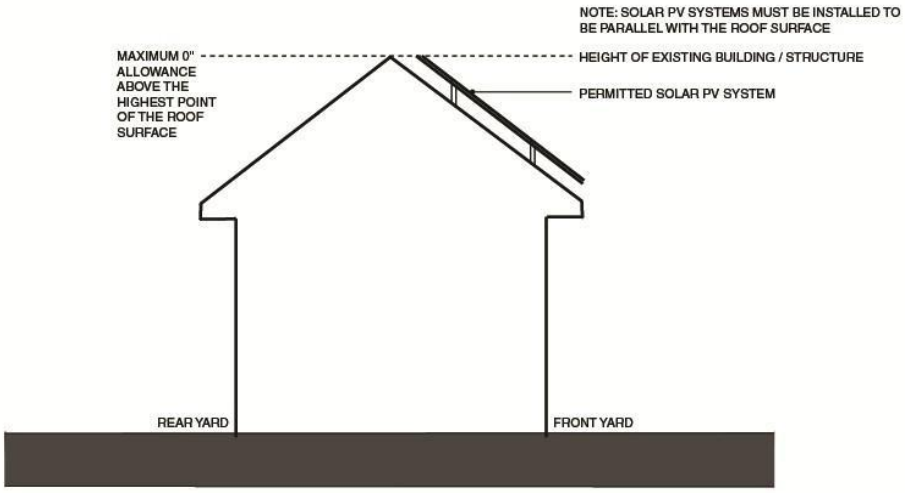
7. Height Restrictions.

   A. Notwithstanding the height limitations of the zoning district:

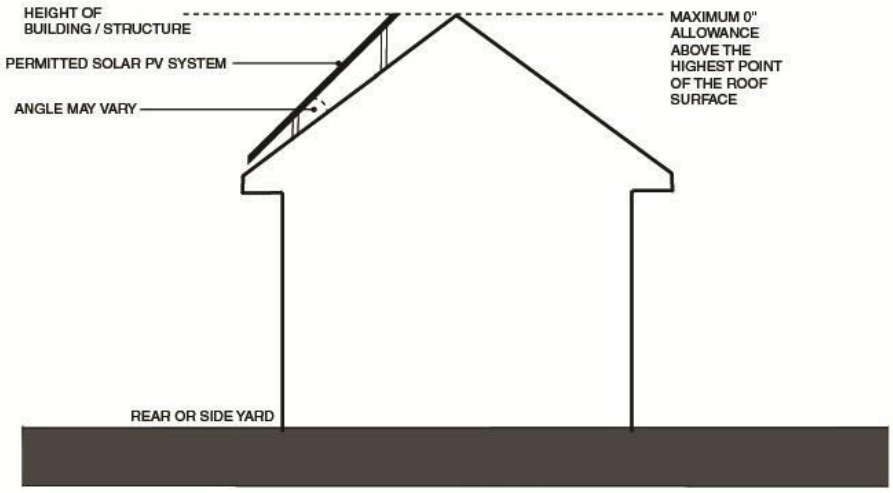
      (1) For a building-mounted system installed on a sloped roof that faces the front yard of a lot, the system must be installed at the same angle as the roof on which it is installed with a maximum distance, measured perpendicular to the roof, of thirty-six (36) inches between the roof and highest edge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

      (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.

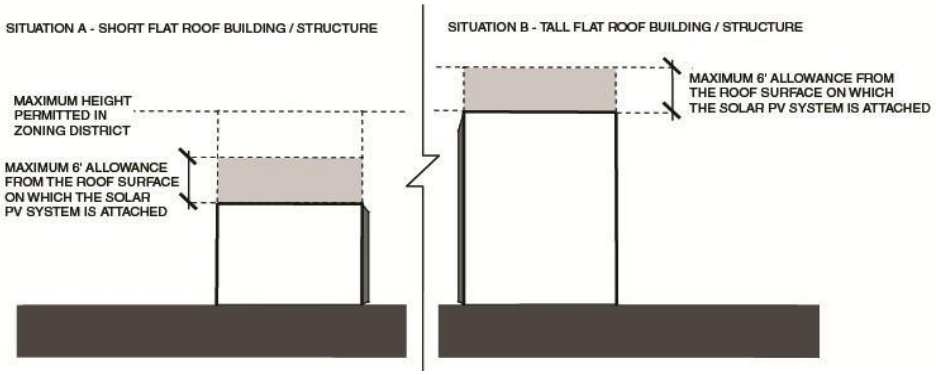
HEIGHT RESTRICTION, SLOPED ROOF FACING FRONT YARD: BUILDING-MOUNTED SOLAR PV SYSTEM ELEVATION



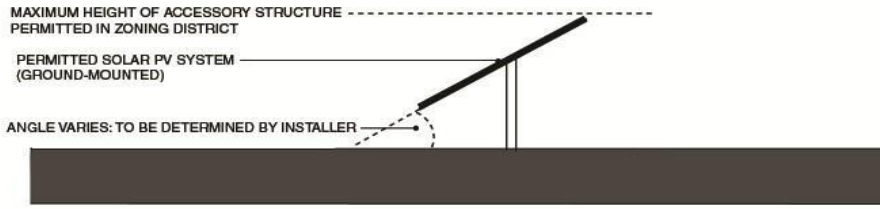
HEIGHT RESTRICTION, SLOPED ROOF FACING REAR OR SIDE YARD: BUILDING-MOUNTED SOLAR PV SYSTEM ELEVATION



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



HEIGHT RESTRICTION: GROUND-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.

(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.

8. Screening and Visibility.

A. Ground-mounted Systems shall be screened from adjoining residential uses or zones according to the standards found in Section 605 of this Chapter.

B. Exception: Screening from residential uses shall not be required in the TD1 Agriculture, TD6 Village Mixed Use, TD7 Suburban Mixed Use, TD8 Regional Mixed Use, TD9 Contracting, Craftsman, and Artisan, TD10 Assembly and Distribution, and TD11 Manufacturing, Extraction, and Processing.

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

9. Impervious Lot Coverage.

A. 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 maximum lot coverage standards listed in Article III for the respective base 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. The utilization of low impact construction techniques must be used. Refer to BMP 5.6.1: Minimize Total Disturbed Area – Grading, BMP 5.6.2: Minimize Soil Compaction in Disturbed Areas, and 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).

(2) The vegetative cover must have a minimum uniform 90 percent perennial vegetative cover with a density capable of resisting accelerated erosion and sedimentation. The 90 percent standard exceeds the 70 percent 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 percent.

(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.

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

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

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

D. 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 five (5) percent of the total project area.

E. Solar panels must be situated on slopes of ten (10) percent or less.

F. The lowest vertical clearance of the solar "array" should be ten (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".

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

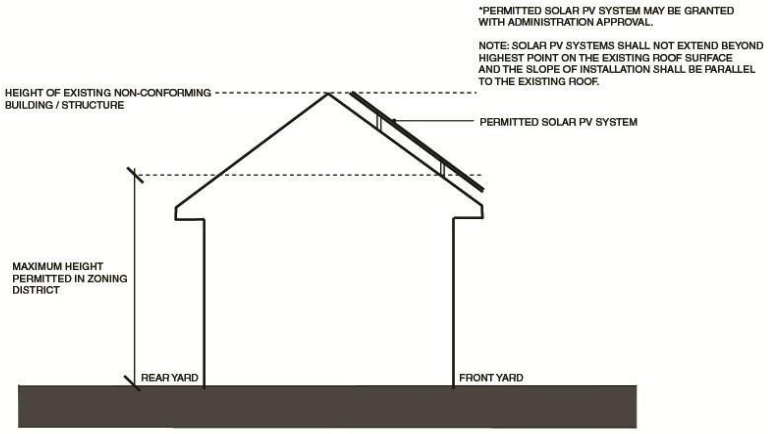
H. The Board of Supervisors may, at their sole discretion, approve the alternative design.

10. Non-conformance.

A. Building-mounted systems:

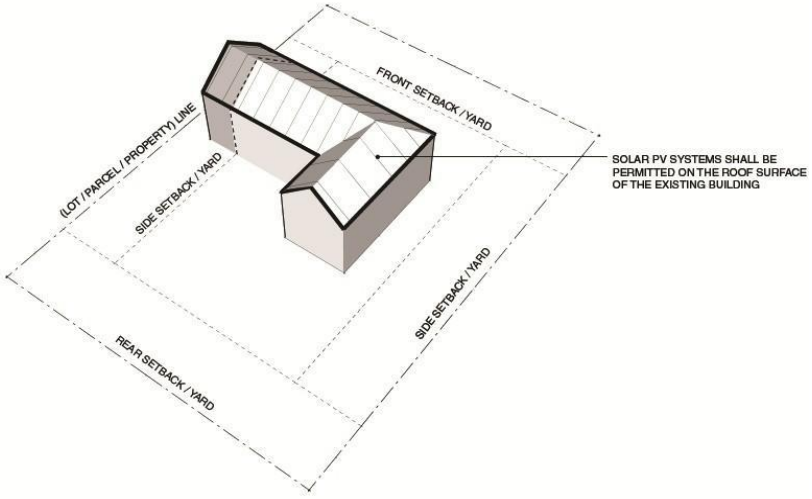
(1) If a building-mounted system is to be installed on any building or structure that is non-conforming because its height violates the height restrictions of the zoning district in which it is located, the building-mounted system shall be permitted so long as the building-mounted system does not extend 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



(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.

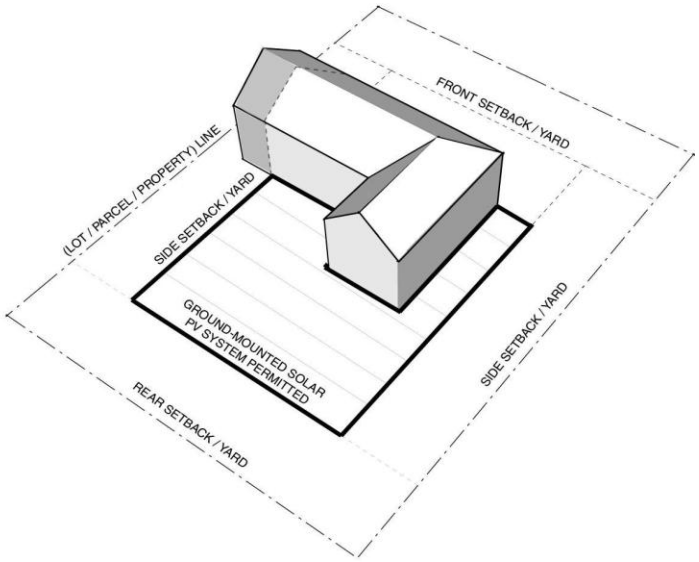
NON-CONFORMING LOT, SETBACKS, AND / OR LOT COVERAGE LIMITS: BUILDING-MOUNTED SOLAR PV SYSTEM ISOMETRIC



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



11. Signage.

A. 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.

12. Performance Requirements.

A. All solar photovoltaic systems are subject to compliance with applicable performance standards detailed elsewhere in the Zoning Ordinance.

13. Inspection, Safety and Removal.

A. The Township reserves the right to inspect a solar photovoltaic system for building or fire code compliance and safety.

B. 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.

C. 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.

D. 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, six (6) percent interest per annum, plus a penalty of five (5) percent 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.

14. Permit Requirements.

A. Before any construction or installation on any solar photovoltaic system shall commence, a permit issued by Lower Nazareth Township shall be obtained to document compliance with this Ordinance.

Excerpted from the 2023 Lower Nazareth Township Zoning Ordinance, Article 12, Definitions, Section 1202, Terms Defined.

SOLAR PHOTOVOLTAIC (PV) SYSTEM – A system, structure, or device accessory to a principal use which is used to collect, store, and distribute energy derived from the sun for the purpose of heating or cooling the interior spaces of buildings or for heating domestic hot water. Small solar energy systems may include, but are not limited to: solar collectors, solar reflectors, heat storage tanks, south facing double glazed window walls, attached south facing greenhouses utilizing double glazing, and architectural overhangs for blocking sunlight on south facing windows.

SOLAR, UTILITY SCALE – An area of land or other area used for a solar collection system principally used to capture solar energy, convert it to electrical energy or thermal power and supply electrical or thermal power primarily for off-site use. Commercial solar energy systems consist of one or more freestanding ground- or roof-mounted, solar collector devices, solar-related equipment and other accessory structures and buildings including light reflectors, concentrators and heat exchangers; substations; electrical infrastructure; transmission lines and other appurtenant structures.