



Montgomery County Central Permitting *Planning and Zoning Department*

444 North Main Street • Troy, North Carolina 27371
Phone • (910) 572-3304 Fax • (910) 576-0043

Solar Farm Zoning Requirements & Design Standards

Solar farms are permitted by right with standards and conditions in the Residential 2, Residential 3, Commercial, and Industrial zoning districts pursuant to Article III, Section 2.3 of the Montgomery County Zoning Ordinance and Text Amendment TA-01-2015. The following design standards shall apply to all solar farms within the jurisdiction of Montgomery County zoning authority:

Photovoltaic (PV) Facilities

Photovoltaic (PV) Facility – A solar collection system that generates electricity from sunlight to a wholesale electricity market through a regional transmission organization and inter-connection with the local utility power grid.

Photovoltaic (PV) Facilities shall be spatially defined as all parcels of record under the same utility commission docket number. Exterior property lines shall be defined as the leading (outside) edge of the proposed facility.

Photovoltaic Panel – A device or structure for which the primary purpose is to convert solar radiant energy to another source for direct power consumption.

All applications for a photovoltaic facility must include a full site plan showing the following:

- Shape and dimensions of the parent parcel.
 - Location of the lot with respect to adjacent rights of way
 - Shape, dimensions, and location of all buildings or solar panels or arrays, both proposed and existing.
 - Square footage of any built upon area.
 - Slope calculation of the lot.
 - Elevation drawing of the photovoltaic facility indicating compliance with Section 2.3 – B (D).
 - Full buffer plan illustrating compliance with Section 2.3 – B (E)
- A. The minimum facility size for residential and commercially zoned parcels shall be 5 acres. The minimum facility size for industrially zoned parcels shall be 3 acres.
- B. Required setbacks shall be determined by the following table. Setbacks shall be measured from the facility fence line to property line.

Facility Size	Front Yard *	Side Yard	Rear Yard
3-4 acres **	50 feet	50 feet	50 feet
5 – 7 acres	50 feet	50 feet	50 feet
8-10 acres	75 feet	75 feet	75 feet
10 acres +	100 feet	100 feet	100 feet

* Measured from the street right-of-way line.

**Applies only to industrially zoned properties



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- C. All photovoltaic panels are to be located and situated to avoid glare which may serve to cause a distraction or nuisance to traffic or adjacent residential properties.
- D. No structure shall exceed a height greater than twenty (20) feet, except for pre-existing poles or overhead wiring. This measurement shall be taken from finished grade at the base of the structure to the highest point.
- E. A vegetative screen of planted or natural wooded area shall be provided where a photovoltaic facility adjoins property used for or zoned for residential purposes and where such facility is located on any road other than a road classified as Interstate by the North Carolina Department of Transportation Functional Class System. Such vegetative screen or natural wooded area shall meet the following standards:
 - 1). A 3 foot wide, 7 foot high dense evergreen planting that shall be of a species that will normally be expected to reach a height of 7 feet in 3 years' time. Low limbs are not to be trimmed from the planting higher than 24 inches from the ground. A buffer plan shall be submitted to the Zoning Administrator prior to approval.
 - 2). Where a natural wooded buffer is to be utilized to meet this standard, such wooded buffer is to be located on the same parcel as the proposed photovoltaic facility. Wooded areas located on adjoining property shall not serve to meet this requirement. Wooded buffers shall be a minimum of 30 feet wide and serve to adequately screen a PV facility from neighboring property. Natural wooded buffers should remain in their original state for the duration of the PV facility. Any removal of this natural buffer will require a replacement that meets or exceeds standards found in item 1 above.
- F. Access to the site must be controlled by a fence at least 8 feet in height. Fences may utilize barbed or razor wire.
- G. A Decommissioning Plan, obtained from the Montgomery County Planning Department must be completed. This plan must be filed with the Montgomery County Register of Deeds and completed prior to zoning approval. Failure to abide by the approved decommissioning plan will result in a fine of not more than \$50.00 per day as such violation continues as provided by Article I, Section 9.1 of the Montgomery County Zoning Ordinance.
- H. An emergency access plan must be filed with Montgomery County Emergency Management. This plan shall be such to satisfy the requirements of the Emergency Management Director and shall be approved prior to the issuance of a zoning permit.
- I. A copy of the Certificate of Public Necessity for facilities over 2 megawatts or a copy of the Report of Proposed Construction for facilities under 2 megawatts approved by the North Carolina Utilities Commission.
- J. An approved copy of NC Department of Transportation driveway permits for facility access.
- K. Vegetation overgrowth within the confines of the PV facility shall be controlled primarily through natural or mechanical means, such as the use of grazing animals or lawn mowers. For the purposes of this subsection, the term "pesticide" shall include herbicides. Pesticides may be used, so long as they are applied according to manufacturer's instructions by an individual licensed by the NC Department of Agriculture and Consumer Services. The use of pesticides shall not be the primary method of control.
- L. Grading over an acre must abide by the requirements of the North Carolina Department of Environment and Natural Resources (NCDENR). For projects that require an approved sedimentation and erosion control plan from NCDENR, a letter of approval must be obtained prior to the issuance of a zoning permit. For projects that do not require NCDENR approval, a sedimentation and erosion control plan designed by a licensed Professional Engineer (PE) must be submitted to the Montgomery County Planning Department prior to the issuance of a zoning permit. Calculations must be provided that show the infiltration of precipitation is not reduced, the volume of runoff is not increased, and that the peak rate is not increased between the pre and post development. If needed, structural storm water Best Management Practices (BMP's) shall be installed to meet those requirements.
- M. Solar panels and any associated built-upon area must be located at least 50 feet landward of all perennial and intermittent waters. Natural vegetation within this buffer must remain intact.



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- N. The maximum slope allowed for a PV facility shall be 8%. Slope maximum may be increased up to 15% for PV facilities with at least 75% of the proposed facility site located in hydrologic group A soils. Adequate documentation of soil type and facility coverage must be provided by a soil scientist licensed in the State of North Carolina for all projects requesting a slope maximum above 8%. Slope calculations must be included in the required site plan. Slope calculations shall be taken as an average across the entirety of all parcels included in the PV facility, not just the facility project or lease area.
- O. Once all solar panels are installed and a Certificate of Occupancy (CO) has been approved by the Montgomery County Inspections Department, all PV facilities shall be tilled, seeded, and mulched appropriately within 30 days of CO issuance.