

SECTION 26

SOLAR PHOTOVOLTAIC INSTALLATIONS

26.1 Purpose

The purpose of this ordinance is to promote the creation of new solar photovoltaic installations in accordance with M.G.L. c.40A, §9B and the Green Communities Act, M.G.L. c.25A, §10, by providing standards for the placement, design, construction, operation, monitoring, modification and removal of such installations that address public safety, minimize impacts on scenic, natural and historic resources and to provide adequate financial assurance for the eventual decommissioning of such installations.

26.2 Applicability

This ordinance applies to all solar energy systems and to physical modifications that materially alter the type, configuration, or size of these systems or related equipment. Solar energy systems on municipal and school properties, except for O-S (Open Space), may be allowed in all zoning districts, but only by Special Permit from the City Council, and said solar energy systems shall comply with all setback requirements as outlined in Section 26.5. Roof mounted solar installations in all zoning districts, including municipal and school properties shall be a by right use not requiring a special permit or site plan review.

26.3 General Requirements for all Solar Photovoltaic Installations

The following requirements are common to all solar photovoltaic installations to be sited in designated locations.

1. Compliance with Laws, Ordinances and Regulations: The construction and operation of all solar photovoltaic installations shall be consistent with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements. All buildings and fixtures forming part of a solar photovoltaic installation shall be constructed in accordance with the State Building Code and each component of the solar energy system that is regulated by the building code shall be performed by those that are authorized to do such work in the Commonwealth of Massachusetts. Failure to use licensed personnel in all aspects of construction and installation of a solar photovoltaic installation shall be grounds for revocation of any approval granted under site plan review and/or any building permit issued.
2. Permits and Inspections: No solar photovoltaic installation shall be constructed, installed or modified as provided in this section without first obtaining all required building, electrical and plumbing permits.

3. The total capacity of all existing and proposed ground-mounted solar photovoltaic installations on the lot shall be measured in determining whether an installation is large-scale or small-scale.
4. All solar carports/canopies and ground-mounted solar photovoltaic installations shall be screened from view of abutting properties and streets, to the extent practicable. Screening may consist of fences, vegetation, evergreen plantings, topography and earthen berms so long as they do not interfere with or encroach upon sight lines or violate other provisions of the Woburn Municipal Code, Woburn Zoning Code or the Woburn Land Subdivision Rules and Regulations.
5. Security fencing shall be required around any medium-scale or large-scale ground mounted solar energy systems. Security fencing associated with ground mounted solar photovoltaic installations shall not be subject to the provisions of Section 5.3.2 of this Ordinance.

26.4 Use Regulations

26.4.1 Residential District Uses

(a) Uses Permitted as of Right

- i. Roof-Mounted Solar Energy Systems

(b) Uses Permitted by Special Permit

- i. Small-Scale, Medium-Scale and Large-Scale Ground-Mounted Solar Energy Systems on municipal and school properties

26.4.2 Non-Residential District Uses

(a) Uses Permitted as of Right

- i. Roof-Mounted Solar Energy Systems
- ii. Small-Scale Ground-Mounted Solar Energy Systems

(b) Uses Allowed through Site Plan Review

- i. Medium-Scale Ground-Mounted Solar Energy Systems
- ii. Large-Scale Ground-Mounted Solar Energy Systems
- iii. Solar Carport/Canopy

(c) Uses Allowed By Special Permit

- i. Small-Scale, Medium-Scale and Large-Scale Ground-Mounted Solar Energy Systems on municipal and school property

26.5 Dimensional and Density Requirements

26.5.1 Setbacks – Residential and Non-residential Districts

For all ground-mounted solar photovoltaic installations the minimum front, side and rear setbacks shall be as follows:

Residential:	Front Setback: 50 feet; Side Setback: 50 feet; Rear Setback: 50 feet.
Non-residential:	Front Setback: 25 feet Side Setback: 25 feet; Rear Setback: 25 feet.

26.5.2 Maximum height - The height limit for all solar carports/canopies shall be twenty (20) feet and all other ground-mounted solar photovoltaic installations shall be fifteen (15) feet.

26.5.3 All other yard, and space and height requirements of the underlying zoning district shall also apply, except that no ground-mounted solar photovoltaic installations shall be installed in front yards.

26.5.4 Additional Setback Requirement- When a Ground Mounted Solar Photovoltaic installation is constructed on a lot which adjoins land in a Residential Zoning District in the City of Woburn, there shall be an additional setback of seventy (70) feet in addition to the minimum side and rear yard setbacks

26.5.5 Appurtenant Structures

All appurtenant structures to a ground-mounted solar photovoltaic installation shall be subject to the requirements of this Zoning Ordinance concerning yard, space, height and setback requirements. All such appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other.

26.6 Solar Photovoltaic Installation Site Plan Review and Special Permit.

For purposes of this Section, Site Plan Review shall be conducted by the City Council prior to the construction, installation or modification of certain Ground Mounted Solar Photovoltaic Installations as provided below and, where applicable, Section 12 of this Ordinance. In accordance with Section 22(c) of the Massachusetts Green Communities Act, Solar Photovoltaic Installation Site Plan Review shall be expedited and no decision shall be rendered more than six (6) months after the date of receipt of a

complete application as determined by the City Council. For those projects that require a Special Permit, the City Council shall be the special permit granting authority and special permit procedures shall apply.

26.7 Application and Plan Requirements.

A completed application for Solar Photovoltaic Installation Site Plan Review or Special Permit shall be filed with the City Council, along with the applicable fee. Upon receipt of an application, the City Council may engage, at the applicant's cost, professional and technical consultants, including legal counsel, to assist the City Council with its review of the application, in accordance with the requirements of M.G.L. c.44, §53G. The City Council may direct the applicant to deposit funds with the City Auditor for such review at the time the application is determined to be complete, and may direct the applicant to add additional funds as needed upon notice. Failure to comply with this section shall be grounds for denying the application. Upon approval of the application, any excess amount attributable to the application processing by the City Council shall be refunded to the applicant.

1. Plans: All plans and maps shall be prepared, stamped and signed by a Professional Engineer licensed to practice in Massachusetts.
2. Required Documents: the project proponent shall provide the following documents:
 - (a) A site plan showing:
 - i. Property lines and physical features, including roads, for the project site;
 - ii. Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;
 - iii. Blueprints or drawings of the solar photovoltaic installation signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts showing the proposed layout of the system and any potential shading from nearby structures;
 - iv. One or three line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices;
 - v. Documentation of the major system components to be used, including the PV panels, mounting system, and inverter;
 - vi. Name, address, and contact information for proposed system installer;
 - vii. Name, address, phone number and signature of the project proponent, as well as all co-proponents or property owners, if any; and
 - viii. The name, contact information and signature of any agents representing the project proponent.

(b) Documentation of actual or prospective access and control of the project site sufficient to allow for construction and operation of the proposed solar photovoltaic installation;

(c) An operation and maintenance plan which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures for operational maintenance of the installation including provisions to prevent reflection of glare and/or concentrated energy onto adjacent structures and properties;

(d) The underlying Zoning district designation for the parcel(s) of land comprising the project site (submission of a copy of a zoning map with the parcel(s) identified is suitable for this purpose);

(e) Proof of liability insurance;

(f) Description of financial surety that satisfies Section 26.11.3;

(g) Proof that the utility company that operates the electrical grid where the installation is to be located has been informed of the installation owner or operator's intent to install an interconnected customer-owned generator as well as documentation from said utility that it will connect the proposed customer-owned generator into its power grid. Off-grid systems shall be exempt from this requirement; and

(h) The Applicant and owner shall execute a Right of Entry Form for the benefit of the City, in a form to be approved by the City Solicitor, to permit entry and removal in the event of Abandonment as provided in Section 26.11.2.

26.8 Design Standards

In addition to the requirements of Section 26.5, all Ground Mounted Solar Photovoltaic Installations shall be constructed as follows:

26.8.1 Lighting

Lighting of solar photovoltaic installations shall be consistent with local, state and federal law. Lighting of other parts of the installation, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties. Lighting of the solar photovoltaic installation shall be directed downward and inward and shall incorporate full cut off fixtures to reduce light pollution.

26.8.2 Signage

Signs shall comply with Section 13 of this Ordinance. A sign consistent with Section 13 shall be required to identify the owner and provide a 24-hour emergency contact phone number shall be made visible from a right of way where the property has frontage. Solar photovoltaic installations shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar photovoltaic installation.

26.8.3 Utilities

Reasonable efforts, as determined by the City Council during site plan review, shall be made to place all utility connections from the solar photovoltaic installation underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.

26.9 Safety and Environmental Standards

26.9.1 Emergency Services: The solar photovoltaic installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Fire Chief. Upon request the owner or operator shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar photovoltaic installation shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

26.9.2 Land Clearing, Soil Erosion and Habitat Impacts: Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the large – scale ground-mounted solar photovoltaic installation or otherwise prescribed by applicable laws, regulations, and bylaws.

26.9.3 The approval of an application shall neither constitute the granting of an easement to sunlight over neighboring property nor a right to solar access.

26.10 Monitoring and Maintenance

26.10.1 Solar Photovoltaic Installation Conditions: The solar photovoltaic installation owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to the Fire Chief. The owner or operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s), unless accepted as a public way.

26.10.2 Modifications: All material modifications to a solar photovoltaic installation made after issuance of the required building permit shall require approval by the City Council.

26.11 Abandonment or Decommissioning

26.11.1 Removal Requirements: Any solar photovoltaic installation which has reached the end of its useful life or has been abandoned consistent with Section 26.13.2 of this ordinance shall be removed. The owner or operator shall physically remove the installation no more than one hundred and fifty (150) days after the date of discontinued operations. The owner or operator shall notify the Building Commissioner and City Council by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:

- (a) Physical removal of all solar photovoltaic installations, structures, equipment, security barriers and transmission lines from the site;
- (b) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
- (c) Stabilization or re-vegetation of the site as necessary to minimize erosion. The City Council may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

26.11.2 Abandonment: Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the solar photovoltaic installation shall be considered abandoned when it fails to operate for more than one (1) year without the written consent of the City Council. If the owner or operator of a solar photovoltaic installation fails to remove the installation in accordance with the requirements of this Section within one hundred and fifty (150) days of abandonment or the proposed date of decommissioning, the City may enter the property and physically remove the installation.

26.11.3 Financial Surety: Proponents of large-scale ground-mounted solar photovoltaic projects shall provide a form of surety, either through escrow account, bond or otherwise, to cover the cost of removal in the event the City must remove the installation and remediate the landscape, in an amount and form determined to be reasonable by the City Council, but in no event to exceed more than one hundred and twenty five (125) percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the project proponent. Such surety will not be required for municipally- or state-owned facilities. The project proponent shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer, which shall be reviewed and verified by

the City Engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation.

(Added 9/8/2011; amended 3/29/2016)