



# Submittal Requirements Solar Photovoltaic Installations

Town of Atherton  
Building Department  
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Atherton, California 94027  
Phone: (650) 752-0560

## Submittal Requirements for Rooftop Solar Photovoltaic Installations 10 kW or Less in One- and Two-Family Dwellings

### 1. Approval Requirements

The following permits are required to install a solar PV system with a maximum power output of 10 kW or less:

#### a) Electrical Permit

New or upgraded electrical panels must be clearly shown to be included in this permit.

Menlo Park Fire Protection District approval is required for solar PV Systems prior to issuance and again prior to final inspection.

### 2. Submittal Requirements

a) A properly completed building permit application form. The permit application form may be downloaded at [www.ci.atherton.ca.us](http://www.ci.atherton.ca.us) .

b) Demonstrate compliance with the eligibility checklist for expedited permitting. These criteria can be downloaded at [www.ci.atherton.ca.us](http://www.ci.atherton.ca.us) .

c) A completed Standard Electrical Plan. The standard plan may be used for proposed solar installations of 10 kW or smaller in size and can be downloaded at [www.ci.atherton.ca.us](http://www.ci.atherton.ca.us) .

*If standard electrical plans are not provided for use, an electrical plan shall be submitted that includes the following.*

- *Locations of main service or utility disconnect*
- *Total number of modules, number of modules per string and the total number of strings*
- *Make and model of inverter(s) and/or combiner box if used*
- *One-line diagram of system*
- *Specify grounding/bonding, conductor type and size, conduit type and size and number of conductors in each section of conduit.*
- *If batteries are to be installed, include them in the diagram and show their locations and venting.*
- *No ferrous or nonferrous metallic portions of the electrical system shall be in direct contact with the earth. Ground rods are prohibited.*
- *Equipment cut sheets including inverters, modules, AC and DC disconnects, combiners and wind generators*
- *Labeling of equipment as required by CEC, Sections 690 and 705*
- *Site diagram showing the arrangement of panels on the roof, north arrow, lot dimensions and the distance from property lines to adjacent buildings/structures (existing and proposed).*

d) A roof plan showing roof layout, PV panels, clearances to plumbing and mechanical vents and the following fire safety items: approximate location of roof access point, location of code-compliant access pathways, PV system fire classification, and the locations of all required labels and markings. Examples of clear path access pathways are available in the State Fire Marshall Solar PV Installation Guide.

<http://osfm.fire.ca.gov/pdf/reports/solarphotovoltaicguideline.pdf>.

e) Completed expedited Structural Criteria along with required documentation. Provide structural drawings and calculations stamped and signed by a California-licensed Civil or Structural Engineer (if required), along with the following information.

- The type of roof covering and the number of roof coverings installed.
- Type of roof framing, size of members and spacing.
- Weight of panels, support locations and method of attachment
- Framing plan and details for any work necessary to strengthen the existing roof structure.
- Site-specific structural calculations.
- Where an approved racking system is used, provide documentation showing manufacturer of the rack system, maximum allowable weight the system can support, attachment method to the roof and product evaluation information or structural design for the rack system.

### **3. Plan Review**

Permit applications can be submitted to the Town of Atherton Building Department in person and electronically by email to [town@ci.atherton.ca.us](mailto:town@ci.atherton.ca.us) or fax at 650-688-6539. Permit applications with the required fee and utilizing a standard plan should be reviewed in one to three business days.

### **4. Fees**

See Town of Atherton Master Fee Schedule

### **5. Inspections**

Once all permits to construct the solar installation have been issued and the system has been installed, it must be inspected before final approval is granted for the solar system. On-site inspections can be scheduled by inspection request line at 650-752-0542. Inspection requests received before 2pm during regular business hours are scheduled for the next business day unless another date is requested.

Call Menlo Park Fire Protection District to request an inspection and to coordinate inspections.

Permit holders must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and with the approved plans.

The inspection checklist provides an overview of common points of inspection that the applicant should be prepared to show compliance at the time of inspection. If not available, common checks include the following.

- The quantity of PV modules and the model numbers match the approved plans and specifications.
- Array conductors and components are installed in a neat and workman-like manner.
- PV array is properly grounded.
- Electrical boxes are accessible and connections are suitable for the environment.
- Array is fastened and sealed according to attachment detail.
- Conductors ratings and sizes match plans.
- Main Panel bus rating
- Appropriate signs are property constructed, installed and displayed, including the following.
  - Sign identifying PV power source system attributes at DC disconnect
  - Sign identifying AC point of connection
  - Sign identifying switch for alternative power system
- Equipment ratings are consistent with application and installed signs on the installation, including the following.
  - Inverter has a rating as high as max voltage on PV power source sign.
  - DC-side overcurrent circuit protection devices (OCPDs) are DC rated at least as high as max voltage on sign.
  - Switches and OCPDs are installed according to the manufacturer's specifications (i.e., many 600VDC switches require passing through the switch poles twice in a specific way).
  - Inverter is rated for the site AC voltage supplied and shown on the AC point of connection sign.
  - OCPD connected to the AC output of the inverter is rated at least 125% of maximum current on sign and is no larger than the maximum OCPD on the inverter listing label.
  - Sum of the main OCPD and the inverter OCPD is rated for not more than 120% of the bus bar rating.
  - Smoke Detectors and Carbon Monoxide Alarms are required.

## **6. Departmental Contact Information**

Town of Atherton Building Department by telephone at 650-752-0560.