



Town of Woodside, Building Division
2955 Woodside Rd.
Woodside, Ca. 94062
(650) 851-6796 · Fax: (650) 851-2195
www.woodsidesidetown.org

Submittal Requirements

Solar Photovoltaic Installations OVER 10 kW, Ground Mounted or commercial buildings

This bulletin provides information about submittal requirements for plan review and required fees

This handout is designed for the average submittal. Each project is individual, additional submittal requirements and or information might be necessary based on the actual system design.

*** Minimum plan size is 11"x17" - Minimum font size is 10.* On ground mounted system plans shall be required to be a minimum of 18 x 24, but no larger than 24x36, to insure the site plan is legible**

1. **Approval Requirements** The following fees are required to install a solar PV system. All fees shall be submitted at time of permit applications.

Permit fees can be paid by **check or cash (we do not accept credit cards)**. If paying by check you will need to **submit 2 separate checks**, one check made out to the **Town of Woodside** and one check made out to **Woodside Fire Protection District**.

- a) PV Building Permit. The permit fee is based on the current fee schedule
<http://www.woodsidesidetown.org/building/fee-schedule>
- b) Archival fee is based on the current fee schedule.
<http://www.woodsidesidetown.org/building/fee-schedule>
- c) Separate electrical permit if your are replacing or upgrading the service equipment. The permit fee is based on the size of the equipment. See link to fee schedule.
<http://www.woodsidesidetown.org/building/fee-schedule>
- d) Planning review is not required on most roof mounted PV submittals.
- e) Fire Department approval is required for all solar PV installations. **The separate check for the fire district should be made out to Woodside Fire Protection District**. Their fee is based on their current fee schedule. <http://www.woodsidesidefire.org/prevention/fee-schedule>

2. Submittal Requirements:

Permit applications can be submitted to The Town Of Woodside Building Department in person at 2955 Woodside Rd, Woodside, CA 94061 counter hours 8-10am & 1-3pm.

- a) **Completed permit application form**. This permit application form can be downloaded at
- b) <http://www.woodsidesidetown.org/building/building-permit-application>

* Ground Mounted Installation can skip roof mounting, roof, framing and roof classification requirements. See additional requirements for ground mounted systems.

- c) Submit 3 complete sets of plans
- d) 1 complete set of all supporting documentation. including but not limited to cut sheets, structural calculations, installation manuals and other documents as required.
- e) **Roof Mounted Systems: Class "A" roofs are required in the Town of Woodside and we are in the Wild Land Interface. Provide 1 copy of the certified listing documentation showing that the module and roof mounting system meets the requirements for CLASS "A" listed to UL 1703 & UL2703, Complete Test Report. This document shall show complete assembly tested and shall show the report number. The manufactures brochure does not suffice.**
- f) **Roof Mounted Systems: To meet the CLASS "A" module and racking requirement, the roof under the solar modules is required to be a CLASS "A" roof.** The roof classification under the modules, shall be specified on the plans.
- g) **Roof Mounted Systems: If you are intending on reroof the structure a reroof permit is required.** See link to reroof requirements. <http://www.woodsidetown.org/building/re-roof-checklist>.

The system shall be listed to meet the requirements of the current California Residential Code R902.4 Photo voltaic panels and modules. Rooftop mounted photovoltaic panels and modules shall be tested, listed and identified with a fire classification in accordance with UL 1703. The fire classification shall comply with Table 1505.1 of the California Building Code based on the type of construction of the building. R902.1.3 Fire classification. Rooftop mounted photovoltaic panels and modules shall have the fire classification as required by Section R902.4

- h) **A completed Standard Electrical Plan filled out completely.** The standard plan may be used for proposed solar installations **10 kW in size or smaller** and can be downloaded at <http://www.woodsidetown.org/building/expedited-solar-photovoltaic-one-and-two-family-dwellings-10kv-oe-less-roof-mounted>

If standard electrical plans are not provided for use, an electrical plan should 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
- Electrical Calculations for the sizing of the systems.
- If batteries are to be installed, include them in the diagram and show their locations and venting. **Battery systems do not qualify under the expedited plan check 10k or less. See additional submittal requirements at <https://www.woodsidetown.org/building/energy-storage-battery-backup-systems-submittal-requirements>**
- Equipment cut sheets (1 copy) including inverters manual, 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 or ground, location of electrical service and any sub panels being used, north arrow, lot dimensions and the distance from property lines to adjacent buildings/structures (existing and proposed), **ground mounted systems do not qualify**

under the expedited plan check 10k or less. (see letters h-m) for additional requirements for ground mounted systems.

- i) **A roof plan showing roof layout**, PV panels, disconnects, junction box's 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 at Woodside Fire Protection Districts requirements. <http://www.woodsidefire.org/documents/prevention/Solar-Policy-Intent.pdf>
- j) **Completed expedited Structural Criteria** along with required documentation. Structural Criteria can be downloaded at <http://www.woodsidetown.org/building/expedited-solar-photovoltaic-one-and-two-family-dwellings-10kv-oe-less-roof-mounted> .

For non-qualifying systems, provide structural drawings and calculations stamped and signed by a California-licensed Civil or Structural Engineer, along with the following information.

- The type of roof covering, roof classification (e.g. class "A") and the number of roof coverings installed. (roofing under array shall be class "A" to meet the class "A" assembly requirements).
 - 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 manufacture of the rack system, maximum allowable weight the system can support, attachment method to the roof or ground and product evaluation information or structural design for the rack system.
- k) **Provide documentation demonstrating compliance with CEC 690.12 Rapid Shutdown for PV systems on buildings.**

For Ground Mounted Systems the following additional information is required:

- l) On ground-mounted systems show distance of equipment from property line, topography, location of septic system, stream corridor and all easements.
- m) Show the drip line of any trees that could be effected by the installation. Show required 10ft brush-free around array.
- n) Show any trees that will be removed as part of this project. A separate tree destruction form could be required based on the requirements of the Towns tree destruction ordinance and specify size of all trees to be removed. <http://www.woodsidetown.org/planning/tree-destruction-permit-application>
- o) Show location of where all trenching shall take place.
- p) Elevation showing the height of the system.
- q) Ground-mounted systems –Structural calculations and design for custom built rack systems supporting the array. Installation manuals can be provided in-lieu of structural design for pre-fabricated support racks.
- r) Arrays installed on slopes greater than 25% may require a letter from a Geotechnical Technical Consultant for slope stability and / or require foundation depth to bedrock. Slopes greater than 35% will require this documentation.

3. Plan Review

Permit applications can be submitted to The Town Of Woodside Building Department in person at 2955 Woodside Rd, Woodside, CA 94061 counter hours 8-10am & 1-3pm.

All fees are due at time of permit submittal, prior to review of the permit application.

Permit applications that are approved shall be picked up at Town Hall during building department business hours.

4. Fees: all fees are due at time of permit submittal. Building permit review will not take place until fees have been received.

- a) PV Building permit fee is based on current fee schedule. <http://www.woodsidetown.org/building/fee-schedule>
- b) Archival Fee is based on current fee schedule. <http://www.woodsidetown.org/building/fee-schedule>
- c) Woodside Fire Protection District fee is based on their current fee schedule. Make check payable to Woodside Fire Protection District. <http://www.woodsidefire.org/prevention/fee-schedule>
- d) New or replacement electrical service fee (if applicable) depending on service size=
<http://www.woodsidetown.org/building/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. The **Woodside Fire Protection District** shall be called at (650) 851-6206, for their inspection, **prior to scheduling with the Building Department**. On-site building inspections can be scheduled by contacting the Building Department by telephone at (650) 851-6790. Inspection requests received within business hours are typically scheduled within the next 48hours. If this is not available, inspection should happen within a five-day window. Contractor shall be present for final inspection.

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.

All changes from the town approved job set of plans shall be submitted to and approved by the Town of Woodside prior to the change being made in the field.

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

- Underground electrical inspections will be required where underground installations are taking place.
- Foundation inspection are required for ground mounted systems.
- Number of PV modules and model number match plans and specification sheets number match plans and specification sheets.
- 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 environment.
- Array is fastened and sealed according to attachment detail.
- Conductors ratings and sizes match plans.
- Appropriate signs are properly constructed, installed and displayed, including the following. **All signage located outside, exposed to the elements or in direct sunlight shall be permanent type placards, with engraved / etched lettering red background with white lettering (stickers are not allowed** and not suitable outside or exposed to sunlight)
 - 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).
 - 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.

6. Departmental Contact Information

For additional information regarding this permit process, please consult our departmental website at or contact the Building Department at (650)851-6796.

I have read Submittal Requirements and have provided all required documentation, plans and fees.

Applicant: _____ Signature _____ Date: _____