



Prescriptive Solar Photovoltaic Installation Permit Application

Marion County Public Works
 5155 Silverton Rd NE, Salem, Oregon 97305
 Phone: (503) 588-5147 Fax: (503) 588-7948
 Email: Building@co.marion.or.us
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This application is only for the installation of Solar Photovoltaic Installations utilizing the prescriptive path described in the Oregon Structural Specialty Code (OSSC) sections 3111.4.8 and 3111.5. For permits that do not comply with this section use the standard building permit application.

IF WITHIN A CITY YOU MUST SUBMIT APPLICATION TO THE CITY FOR ZONING APPROVAL	
<input type="checkbox"/> Yes <input type="checkbox"/> No	Local Zoning Approval
<input type="checkbox"/> Yes <input type="checkbox"/> No	Applicant has permission to submit application directly to Marion County
Approved by: _____	Date: _____
THIS SECTION MUST BE COMPLETED	
<input type="checkbox"/> Yes <input type="checkbox"/> No	The solar panels will be mounted on the roof
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>The installation will be on a structure meeting <u>one</u> of these requirements.</p> <p>1. The structure has a ground area of 4,000 square feet (372 m2) or less <u>and</u> is not more than 20 feet (6096 mm) in height from the top surface of the lowest floor to the highest interior finish (See ORS 671.030).</p> <p>Or,</p> <p>2. A single family dwelling, a farm agricultural building, non-farm agricultural building, or accessory building to a single-family dwelling.</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No	I have read the attached code sections and verify that the installation will meet the requirements of OSSC sections 3111.4.8 and 3111.5.
If you answered No to any of the above question, this permit application does not apply to your project and you must fill out an application for a structural permit and submit construction documents for plan review.	
Valuation of the installation: _____	
I have read the attached sections 3111.4.8 and 3111.5 and verify that this installation will comply with these sections of the 2014 OSSC. I also acknowledge that if at the time of inspection the inspector determines that this project is outside the scope of these requirements or the answer to one of the above questions should have been No, I will be require to submit plans, an application for a structural building permit, and pay the required fees.	
Signature _____	Date _____

JOB SITE INFORMATION AND LOCATION		
Owner name:		
Owner phone number:		
Job site address:		
City:	State:	ZIP:
Cross Street:		
Subdivision:	Lot no.:	
PROPERTY OWNER INFORMATION		
Name:		
Mailing Address:		
City:	State:	ZIP:
Phone:	Fax :	
E-mail:		
This installation is being made on residential or farm property owned by me or a member of my immediate family, and is exempt from licensing requirements under ORS 701.010.		
Sign here:		
CONTRACTOR INFORMATION		
Business name:		
Address:		
City:	State:	ZIP:
Phone:	Fax:	
E-mail:		
CCB license no.:		
Print name:		
Signature:		
PERMIT FEES		
(a) Permit Fee	\$ 67.25	
(b) State Surcharge of 12%	\$ 8.07	
(c) Zoning Review ___ % x 67.25 (if required)		
Total (a + b + c)		

This permit is issued under OAR 918-460-0030. Permits expire if work is not started within 180 days of issuance or if work is suspended for 180 days.

Section 3111.4.8 of the 2014 Oregon Structural Specialty Code

3111.4.8 Fire Fighter Access and Escape. To provide access and escape for Fire Fighters the location of roof-mounted PV modules shall comply with the requirements of this section.

3111.4.8.1 General Pathway Requirements. All PV installations shall include a 36 inch wide (914mm) pathway maintained along three sides of the solar roof. The bottom edge of a roof with a slope that exceeds 2:12 shall not be used as a pathway. All pathways shall be located over a structurally supported area and measured from edge of the roof and horizontal ridge to the solar array or any portion thereof.

Exception:

1. On structures with a PV array area of 1,000 square feet (92.90 m²) or less installed on a roof with a slope that exceeds 2:12 and with an intersecting adjacent roof and where no section is larger than 150 feet (45720 mm) measured in length or width:

1.1. Where the PV array does not exceed 25% as measured in plan view of total roof area of the structure, a minimum 12 inch (305mm) unobstructed pathway, shall be maintained along each side of any horizontal ridge.

1.2. Where the solar array area exceeds 25% as measured in plan view of total roof area of the structure, a minimum of one 36 inch (914 mm) unobstructed pathway from ridge to eave, over a structurally supported area, must be provided in addition to a minimum 12 inch (305 mm) unobstructed pathway along each side of any horizontal ridge.

2. Pathways are not required on *non-occupied accessory structures* provided they are separated from occupied structures by a 6 feet (3048 mm) minimum separation distance or by a minimum two-hour fire rated assembly.

3. Townhouses providing fire separation as required by the applicable code at the time of construction may be considered one structure and comply with the provisions of Section 3111.4.8.1(1.1).

Where *townhouses* are separated by real property lines and pathways cross real property lines, the building official shall review, approve and maintain a record of all easements for access related to the PV system installation. Easements may be general in nature or they may describe specific locations. The applicant shall provide a copy of the recorded easement to the building official prior to issuance of the building permit. Easements shall be recorded for each affected dwelling unit and the book and page number provided to the jurisdiction having authority.

3111.4.8.2 Intermediate Pathway Locations. Systems that include a solar array section that is larger than 150 feet (45720 mm) measured in length or width shall have additional intermediate pathways. An intermediate pathway not less than 36 inches (914 mm) wide separating the array shall be provided for every 150 feet (45720 mm) of array including offset modules or angled installations. The maximum square footage of an array shall not exceed 22,500 ft². (2090 m²) without the installation of an intermediate pathway

3111.4.8.2.1 Where a system is required to have intermediate pathways, all pathways shall have one or more cutouts located adjacent to the pathway. No point on the pathway shall be more than 25 feet (7620) from a cutout.

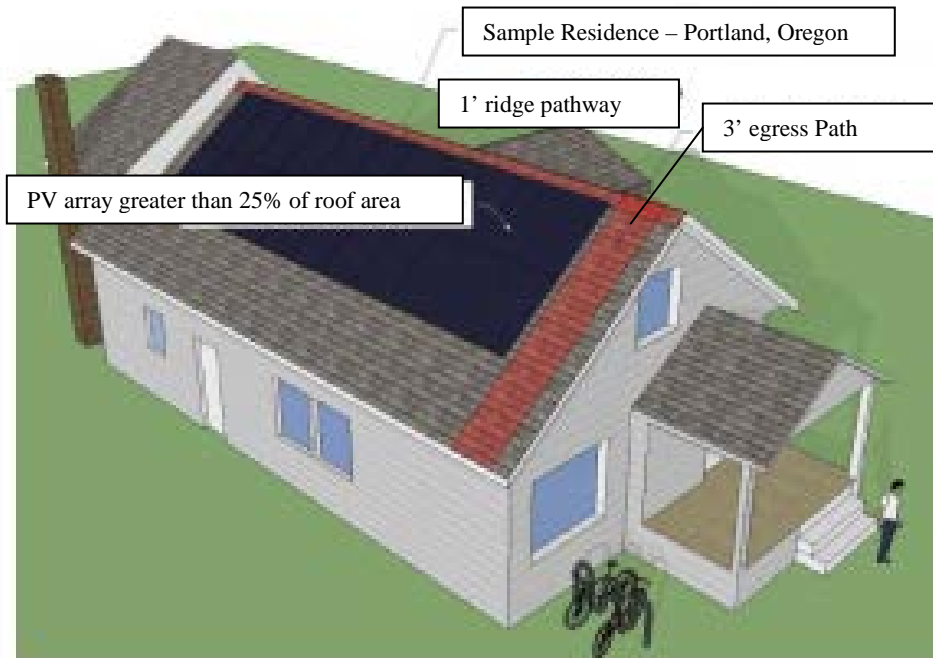
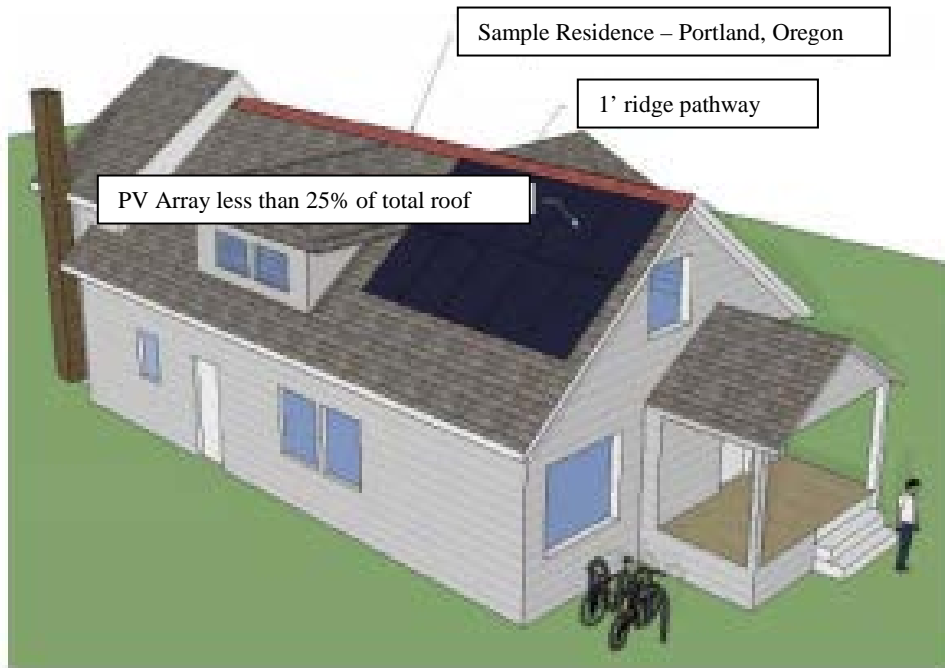
3111.4.8.3 Prohibited Locations. Pathways shall not be located within 12 inches of the low point of a valley.

3111.4.8.4 Smoke and Heat Vents. In structures where smoke and heat vents have been installed to comply with the requirements of the *Fire Code*, Chapter 9 Smoke and Heat Vents and Chapter 32 High Piled Storage, a 36 inch (914 mm) wide pathway to and around each vent shall be provided for fire department access, maintenance and testing of these vents.

3111.4.8.5 Electrical Component Location.

3111.4.8.5.1 Disconnects, j-boxes, combiner boxes or gutters shall not be located in any required pathway or cutout.

3111.4.8.5.2 Raceways on flat roofs that cross a required pathway shall be bridged to avoid tripping hazards. Raceways shall not be permitted in required pathways on roofs with a slope that exceeds 2:12 (17-percent slope).



PANEL PATHWAY LOCATIONS

Section 3111.5.3 of the 2014 Oregon Structural Specialty Code

3111.5.3 Prescriptive Installations. Roof installations on conventional light-frame construction which complies with this section shall qualify as prescriptive and shall not require an engineered design if all of the following criteria are met:

1. Roof Structure: The supporting roof framing shall be conventional light framed wood construction with pre-engineered trusses or roof framing members at a spacing of 24 inch (610 mm) on center maximum that comply with the applicable allowable spans in Table 2308.7.2(1-6) for the specific loads including ground snow loads not exceeding 50 psf and wind loads that do not exceed Risk Category II, Ultimate Wind Speed of 120 mph [95 mph three-second gust in the Residential Code] in exposure C or Risk Category II, Ultimate Wind Speed of 135 mph [105 mph three-second gust in the Residential Code] in exposures A or B as defined in 1609 of this code. Where the grade cannot be verified it is assumed to be #2 Douglas-Fir Larch.

Exception: Roof framing in compliance with the applicable allowable span in Table 2308.7.2(1-6) of this code and Tables R802.5.1(7-8) of the Residential Code for the specific loads including ground snow loads not exceeding 70 psf and wind exposure is limited to exposure A, B or C shall satisfy the requirements of this section when the PV system is installed on;

1. Detached one and two family dwellings and townhouses classified as Group R-3, and Group U Occupancies; and
2. Residences used for family child care home or foster care in accordance with ORS Chapters 418, 443 and 657A; and
3. Detached congregate living facilities (each accommodating 10 persons or less) and detached lodging houses containing not more than five guest rooms.

2. Roof materials. Roofing material shall be metal, single layer wood shingle or shake, or not more than two layers of composition shingle.

3. Loading: Installation shall comply with Figure 3111.5.3(1) and (2). The combined weight of the PV modules and racking shall not exceed 4.5 pounds per square foot (2.0412 kPa). PV modules or racking shall be directly attached to the roof framing or blocking. Attachments must be spaced no greater than 48 inches (1219 mm) on center in any direction. Attachments shall be spaced no greater than 24 inches (609.6 mm) on center in any direction where:

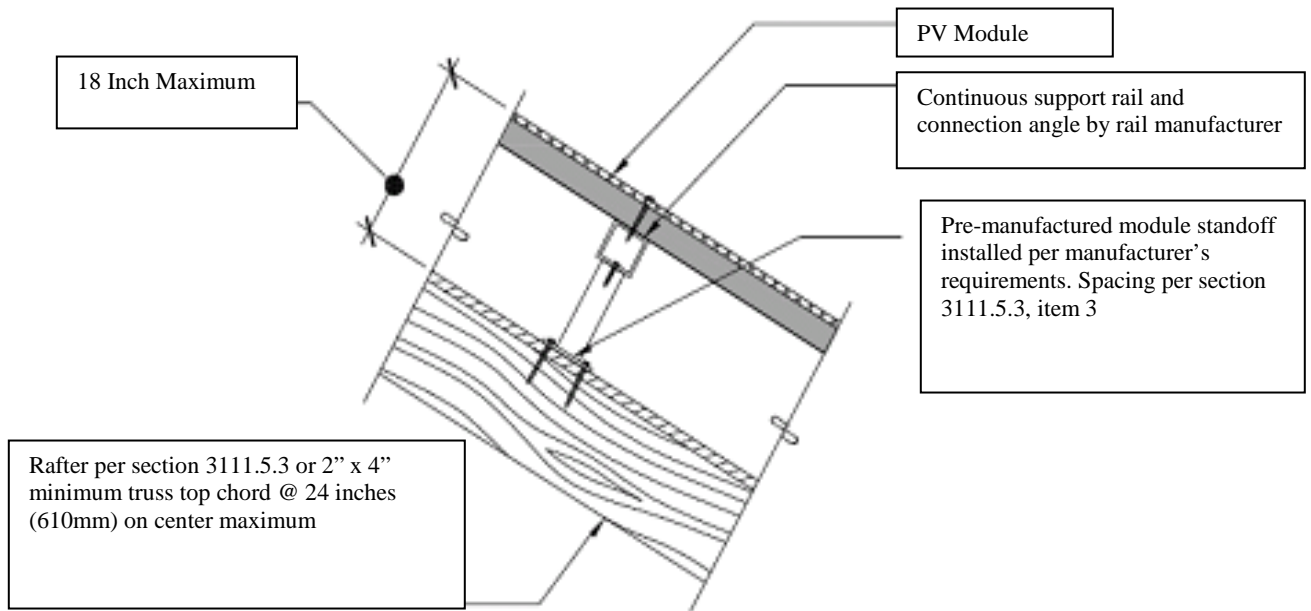
- 3.1. Ground snow loads exceed 25 psf;
- 3.2. Located within 3 feet (91.44 cm) of a roof edge, hip, eave or ridge; or
- 3.3. Wind exposure is B or greater and Risk Category II, Ultimate Wind Speed exceeds 120 mph [95 mph three-second gust in the Residential Code];
- 3.4. Wind exposure is C or greater and Risk Category II, Ultimate Wind Speed exceeds 110 mph [85 mph three-second gust in the Residential Code].

Exception: PV modules or racking may be attached directly to standing seam metal panels using clamps and roofing materials which meet the following:

1. The allowable uplift capacity of clamps shall not be less than 115 pounds for clamps spaced at 60 inches (1525 mm) on center or less as measured along the seam or not be less than 75 pounds for clamps spaced at less than 48 inches (1219 mm) on center.
2. Clamp spacing between or along seams shall not be less than 24-inches (610 mm). Spacing of clamps along a seam shall not exceed 60-inches.
3. Roofing panels shall comply with all of the following:
 - 3.1. Shall be a minimum of 26 gage steel,
 - 3.2. Shall be a maximum of 18-inches (457 mm) in width,
 - 3.3. Shall be attached with a minimum of #10 screws at 24-inches (610 mm) on center,
 - 3.4. Shall be installed over minimum ½-inch (12.7 mm) nominal wood structural panels attached to framing with 8d nails at 6-inches (153 mm) on center at panel edges and 12- inches (305 mm) on center field nailing.

4. Height: Maximum module height above roof shall be 18 inches (457 mm) from top of module to roof surface and in accordance with 3111.5.3(1) and (2).

5. Submittal Requirement. See Chapter 1 for requirements.



ALLOWS FOR CONNECTION OF MID-SPAN

**Figure 3111.5.3(1)
LOADING**

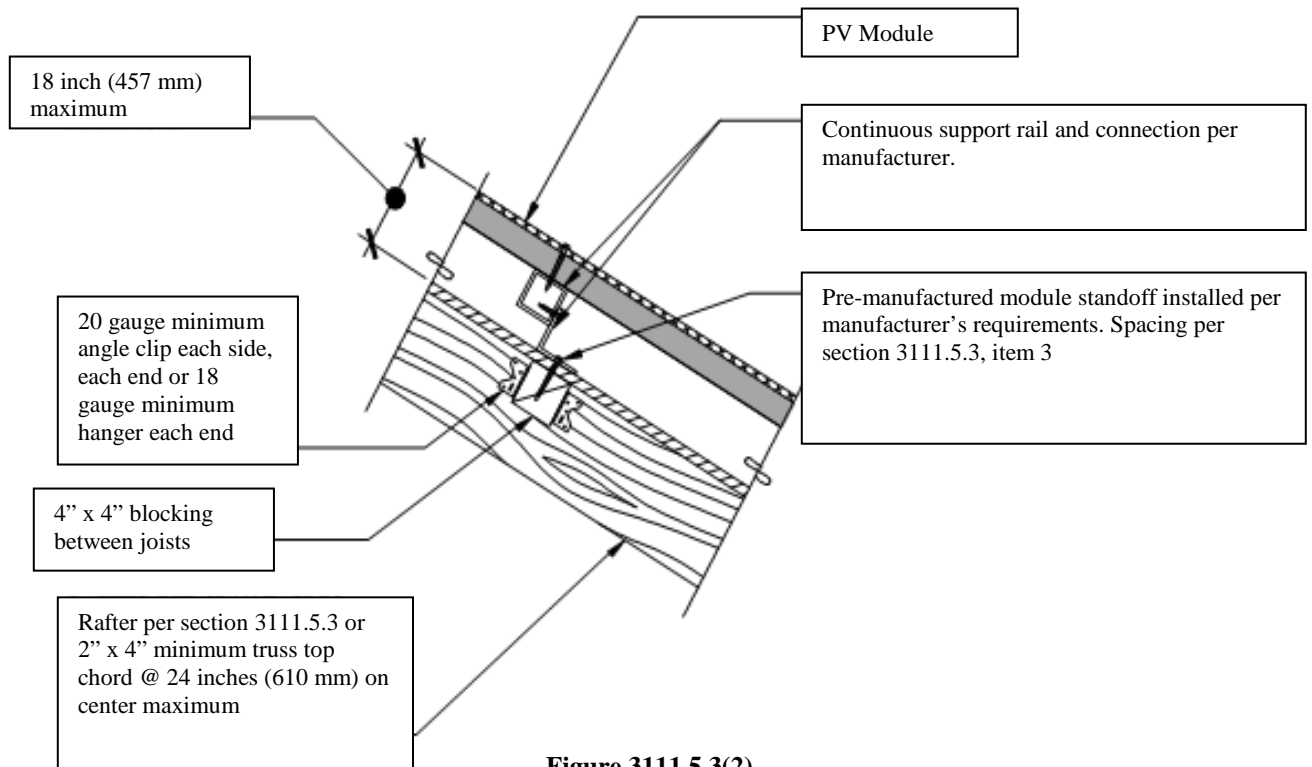


Figure 3111.5.3(2)