Residential Solar PV Building Permit Checklist

BF-02
FORM

Community Development Department
501 N. Anderson, Ellensburg, WA 98926*(509) 962-7239 (Building)*(509) 962-7231 (Planning)*permits@ellensburgwa.gov

NO COST BUILDING PERMIT CHECKLIST FOR RESIDENTIAL SOLAR PHOTOVOLTAIC SYSTEMS (PV): ROOFTOP MOUNTED

Contractors can apply for a no cost residential building permit where the PV system meets the requirements listed in this Checklist. However, application to, and approval from, the City of Ellensburg Energy Services Department and Building Department is still required prior to PV system installation (See item #4 below). IF work is completed before application-regular residential building permit fees will apply at double the rate ECC 3.01.240. Final Inspection is required by the building department.

TO BE COMPLETED BY APPLICANT

❶ Project Information

Property Owner Name:			
Project Address:		Parcel #	
Day Phone:			
Contractor Name:			
Contractor Day Phone:			
PV system description (include manuf. and model # of PV modules and inverters):			

❷ Determine if your project qualifies for No Cost Building Permit:

	Yes	No
1. PV system is designed and proposed for a detached one- or two-family dwelling or townhouse not more than three stories above grade or detached accessory structure that is code compliant to setbacks and height, or code allows expansion of nonconformity for solar modules.	☐	☐
2. Modules on pitched roofs do not exceed the highest point of the roof unless approved by the City of Ellensburg. See guidance documents for Solar Panel setbacks/pathways For residential projects.	☐	☐
3. Rooftop is made from lightweight material such as a single layer of composition shingles, metal roofing, lightweight masonry, or cedar shingles.	☐	☐
4. The installation shall comply with the manufacturer's instructions.	☐	☐
5. The installation shall meet the requirements of NFPA 70 National Electric Code, and all required electrical permit(s) must be obtained from the Authority Having Jurisdiction to administer the electrical code	☐	☐

6. The installation shall meet the requirements of the International Fire Code as amended by WA State. See attached guidance documents for solar panel setbacks and pathways for residential projects	☐	☐
7. Total dead load of modules, supports, mountings, raceways and all other appurtenances weigh no more than four pounds per square foot.	☐	☐
8. To address uplift, modules are mounted no higher than 18" above the surface of the roofing to which they are affixed.	☐	☐
9. Supports for solar modules are installed to spread the dead load across as many roof-framing embers as needed to ensure that no point load exceeds fifty (50) pounds.	☐	☐
10. The photovoltaic modules and supporting structure shall be constructed of noncombustible materials or fire-retardant treated wood equivalent to that required for the roof construction.	☐	☐
11. Roof and wall penetrations shall be flashed and sealed to prevent entry of water, rodents, and insects.	☐	☐
12. PV modules are listed and labeled with a fire classification in accordance with UL 1703.	☐	☐

If you answered YES to all of the above questions, the project qualifies to have a no cost building permit. Please submit the application with plans and manufactures specifications. You also need to apply to the City of Ellensburg Energy Services Department prior to installation (See #4 below).

❸ Submit this Checklist to:

City of Ellensburg, Department of Community Development

501 N Anderson St, Ellensburg, WA 98926

(509) 962-7239 / permits@ci.ellensburg.wa.us

As the property owner (or) authorized representative of the above listed property, I attest that all information in this checklist is accurate to the best of my knowledge.

Applicant Signature:	Date:
Applicant Name (Please Print):	

❹ Prior to PV system installation and connection to the electrical distribution system, submit the required Application for Interconnection Standards & Agreement to:

City of Ellensburg, Energy Services Department

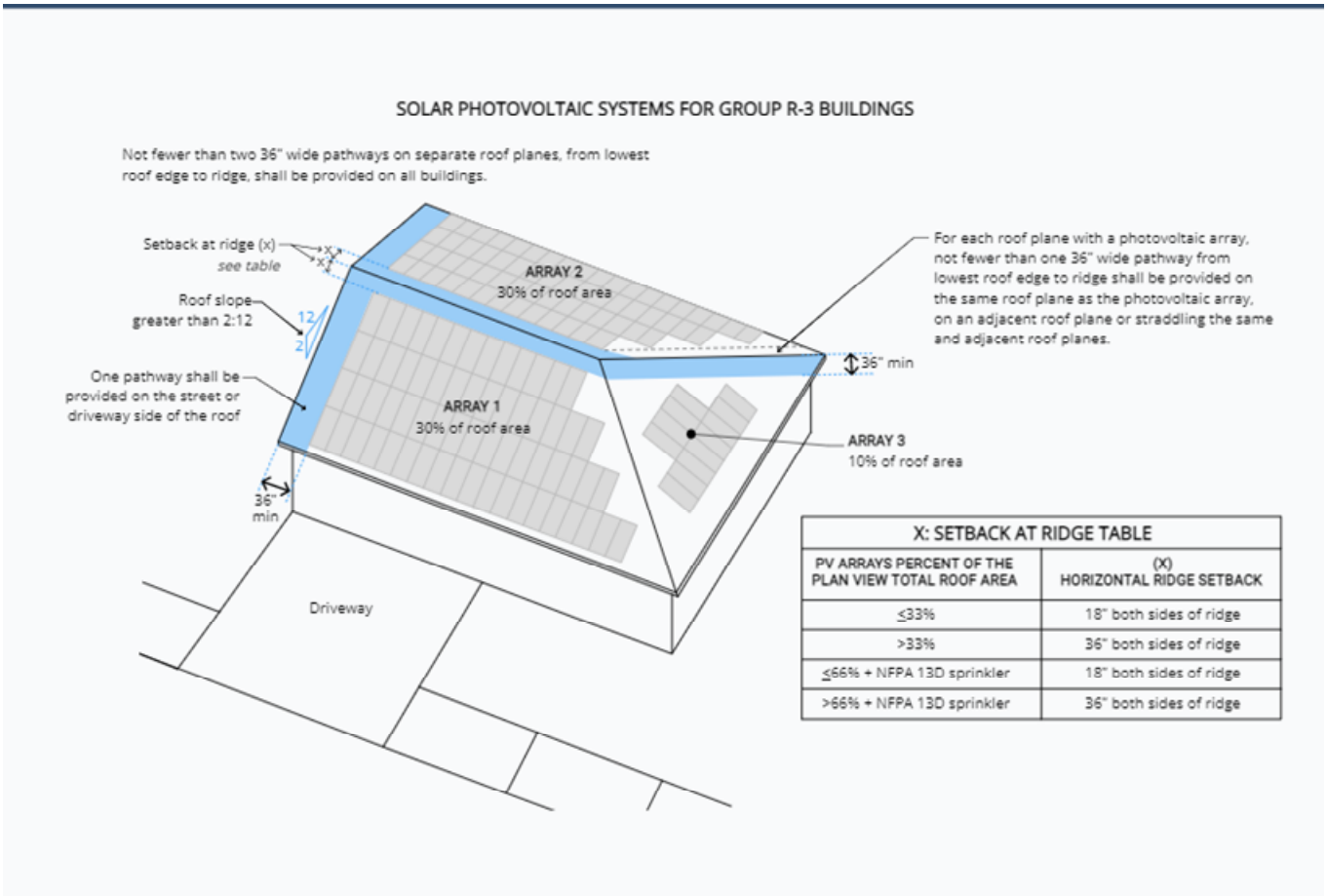
501 N Anderson St, Ellensburg, WA 98926

(509) 962-7201 / *energyservices@ci.ellensburg.wa.us*

TO BE COMPLETED BY CITY STAFF

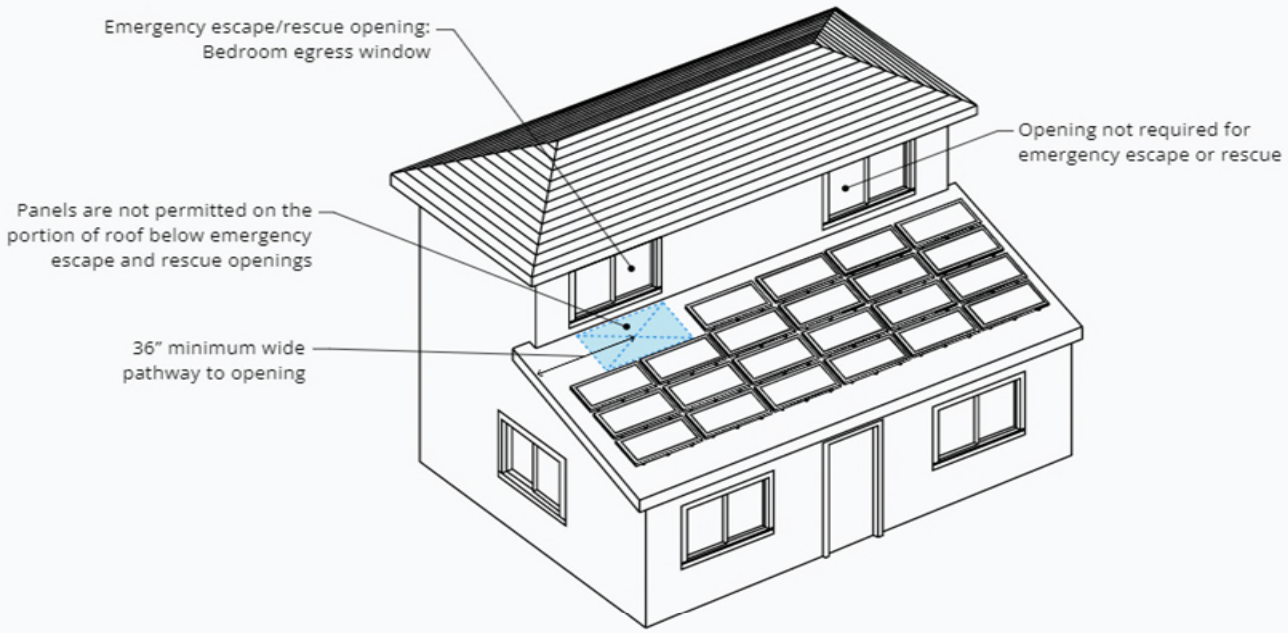
Qualifies for No Cost Building Permit? ☐Yes ☐No Notes:
Staff Initials _____ Date:

RESIDENTIAL BUILDING ROOF TOP SOLAR PANEL SETBACKS AND PATHWAYS



TYPICAL GROUP R-3 RESIDENCE

Emergency Escape and Rescue Opening (PV Panels Below)



Solar Panel Roof Setbacks for Pathways and Ridges

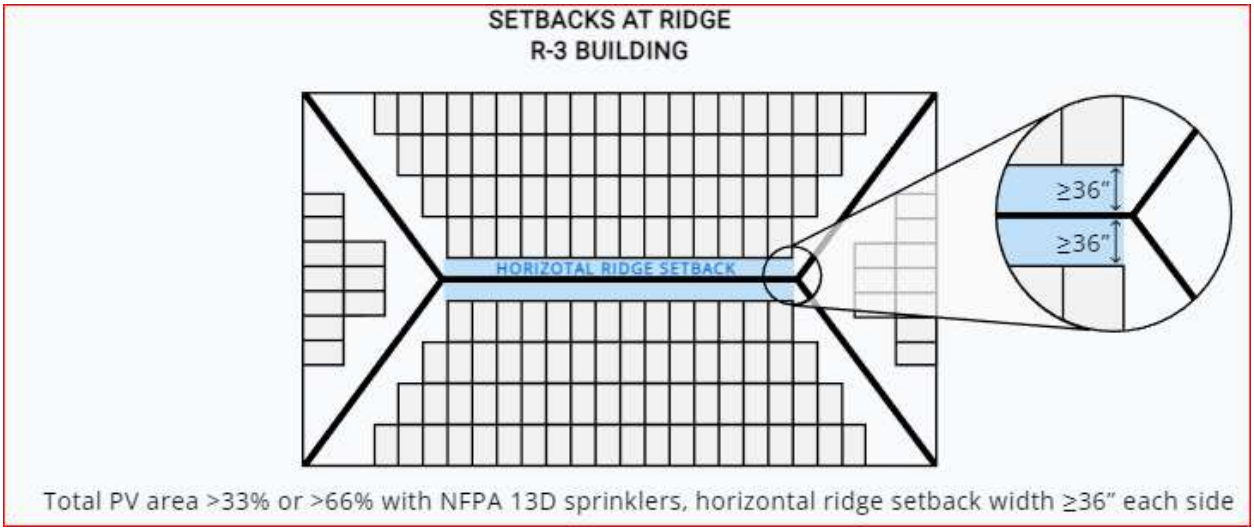
Photovoltaic panels require proper placement for firefighters to properly navigate and ventilate structures on fire. Solar panels are set back from the ridge and edges of the roof to provide the minimum distance required for these operations to happen.

Washington State Fire Code 1204.1 General Installation, modification, or alteration of solar photovoltaic power system shall comply with this section. Due to the emerging technologies in the solar photovoltaic industry, it is understood fire code official may need to amend prescriptive requirements of this section to meet the requirements for firefighter access and product installations. Section 104.9 Alternative materials and methods of this code shall be considered when approving the installation of solar photovoltaic power systems. Solar photovoltaic power systems shall be installed in accordance with Sections 605.11.1 through 605.11.2, the international building code and chapter 19.28 RCW.

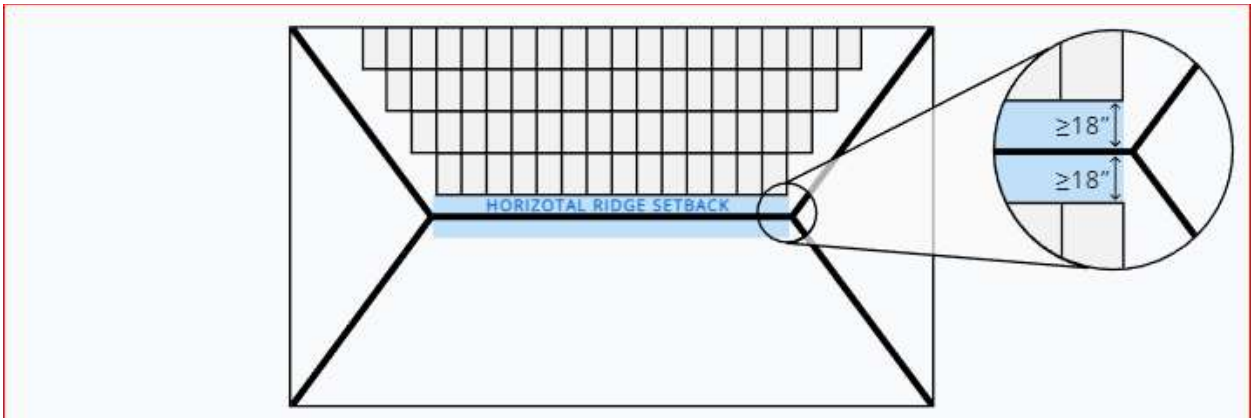
Washington State Fire Code 1204.2.1.1 Pathways to Ridge

Not fewer than two 36-inch-wide (914 mm) pathways on separate roof planes, from lowest roof edge to ridge, shall be provided on all buildings. Not fewer than one pathway shall be provided on the street or driveway side of the roof. For each roof plane with a photovoltaic array, not fewer than one 36-inch-wide (914 mm) pathway from lowest roof edge to ridge shall be provided on the same roof plane as the photovoltaic array, on an adjacent roof plane or straddling the same and adjacent roof planes.

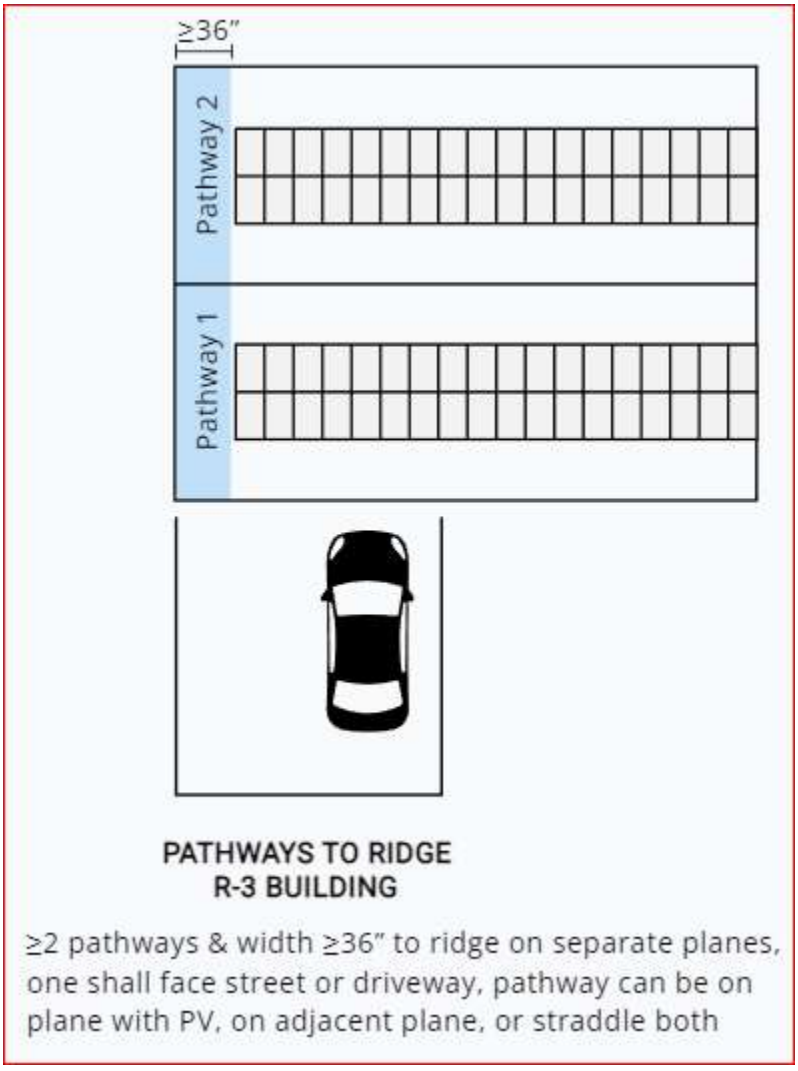
Diagrams:



Solar Panel Roof Setbacks for Pathways and Ridges



Total PV area ≤33% or ≤66% with NFPA 13D sprinklers, horizontal ridge setback width ≥18" each side



PATHWAYS TO RIDGE
R-3 BUILDING

≥2 pathways & width ≥36" to ridge on separate planes, one shall face street or driveway, pathway can be on plane with PV, on adjacent plane, or straddle both