

CITY OF RANCHO PALOS VERDES

SOLAR PHOTO-VOLTAIC SYSTEM OVER SINGLE FAMILY DWELLING SUBMITTAL REQUIREMENTS

ADMINISTRATIVE:

1. Provide 2 sets of plans minimum sheet size 11" x 17".
2. Attach all manufacturer specification sheets, installation instructions and U.L. listings to the plans.
3. Plans are to be signed by State of California licensed contractor with any of the following classifications "A", "B", "C-46", "C-10", or licensed electrical engineer. Provide signature and contractor license number on each sheet.
4. Comply with L.A. County Fire Department guidelines or code requirements.

ROOF PLAN:

1. Provide a roof plan projected on a site plan. Show the location and dimensions of all solar voltaic equipment and PV arrays.

2. Provide a partial roof framing plan. Show new and existing supporting rafters, beams and headers include rafter size, span, and spacing. Identify roof sheathing and roofing materials.

ALTERNATE: Framing information is not required if PV arrays are supported at a maximum spacing of 4 ft.

3. Detail equipment support connections to roof. Provide a detail for flashing and water proofing at system supports.

4. Provide calculations by a licensed professional engineer or architect to verify supporting members are adequate for existing and proposed loads.

ALTERNATE: Calculations not required if arrays are supported at a maximum spacing of 4 ft.

5. Provide lateral calculations by a licensed professional engineer or architect per current CBC showing that affected existing lateral resisting elements are no more than 10% overstressed according to the current CBC.

ALTERNATE: Lateral analysis is not required if total area of arrays is less than 250 sq. ft. over a second story roof or 350 sq. ft. over a first story roof.

ELECTRICAL:

1. Provide Electrical drawings to show compliance with the applicable provisions of the current California Electrical Code.

2. Show the location and size of the main electrical service, AC/DC disconnects,

all solar voltaic equipment, and PV arrays on the roof plan.

3. Single Line Diagram: show array configuration, conduit and conductor sizes with derating calculations

4. Inverter Information: show model number, specification cut sheets, and maximum D.C. input

5. PV Module Information: show open circuit voltage (VOC), short – circuit current (ISC) max series fuse

6. Array Information: show number of modules in series, number of parallel source circuits

7. Wiring and Over Current Protection: show conductor ampacities, adjusted with all derating factors show rating and location of all Over Current Devices (OCD)

8. System Labels and Warnings: show required signage on the plans per 2007 CEC- Article 690

9. Grounding Details: show equipment ground conductor, ground electrode conductor from inverter to ground rod or ufer ground

10. Disconnects: show AC/DC disconnects at inverter. DC disconnect required prior to DC array conductors penetrating the surface of the roof or entering the building unless metallic conduit is used.

11. System Calculations: show (VOC) calculated 1.13 (temperature correction factor for City of RPV) (ISC) calculated x 1.25% (NEC 690) x 1.25% (UL 1703)

12. All PV equipment shall be listed by a recognized test lab.

13. Notify serving utility before activation of PV system