

# PHOTOVOLTAIC

## Photovoltaic/Solar Panel Installation Information

### PURPOSE: Document Submittal List for Photovoltaic/Solar Panel Installation

**General Information:** Building Permits are required for the installations of photovoltaic systems, residential and non-residential. The typical plan review time for a residential (one and two family dwelling) project is three (3) working days. The review time for non-residential system projects may take up to fifteen (15) working days. Same day review and permit issuance is available for small residential rooftop PV systems (10Kw and smaller) every Wednesday between 8:30 am and 12:00 pm. The City's website provides additional information on small residential PV system at [www.fremont.gov/solarpermits](http://www.fremont.gov/solarpermits).

### 1. Document Submittal List

- A. Drawings – three (3) sets of:
  - Site Plan – 11” x 17” minimum size
  - Structural Plan – Foundation Plan (if ground mounted)  
Cross Sections  
Structural Framing Details & Notes
  - Electrical Single Line Drawing – 11” x 17” minimum size
- B. Calculations/Specifications – two (2) sets of:
  - Structural Calculations (if applicable)
  - Specification sheets for equipment: PV Modules, Inverter, Combiner Box, Disconnects, and Mounting System.
- C.  Colored Photos of the Existing Main Service Panel and Sub-panels (if applicable) that are Part of Photovoltaic System with the dead front cover(s) in place and with the dead front removed.
- D. Other Documents
  - Building Permit Application
  - Owner/Builder Form (if applicable)

### 2. Information to be Included on Documents

- A. Site Plan
  - Location of PV arrays, all equipment, raceway locations, etc.
  - Location of electrical service, sub panels, combiner boxes, inverter, ac and dc disconnects, conduit, junction boxes and battery banks
  - Indicate rooftop clearances to show compliance with California Residential Code (CRC) R908
- B. Structural Plans
  - Existing roof system information
  - Method for waterproofing roof penetrations (flashing is required for ALL penetrations in the roof weatherproofing system pursuant to California Residential Code, Chapter 9
  - Mounting System – specification sheets and fire classification rating.

C. Electrical Plan<sub>s</sub>

- Electrical line diagram showing the array configuration, types, and sizes of new and existing conductors, overcurrent protection, inverter, disconnects, and AC connection to the premise wiring system.
- Method of bonding for modules and racking system
- Load calculations if applicable
- Footing: pier and grade beams

D. Information

- Name, title, address, and contact phone number of design professional
- Address of property and name, address, contact phone number of property owner
- Cover Sheet Information:
  1. Applicable codes
  2. Description and scope of work
  3. Occupancy Type (e.g., R-3 for single family residences) and type of construction (e.g. Type V for wood-framed construction).

**Note:**      **Additional information may be required after initial plan review.**