City of Aurora Public Works Department

SOLAR PHOTOVOLTAIC SYSTEMS

Building Division • 15151 E. Alameda Parkway, Ste 2400 • Aurora, CO 80012
303.739.7420 • Email: permitcounter@auroragov.org

All submittals require the following information prior to acceptance for review:

ELECTRICAL:

- Specify if interactive, hybrid or stand-alone system.
- Three-line diagram showing number of modules, wattage of modules, conductor sizes, wire lengths, insulation types, conduit sizes, fuses, circuit breaker ratings, inverter ratings, AC & DC disconnect rating and ground fault protection devices.
- Specify the PV module's nameplate short circuit current and open circuit voltage relative to the work performed.
- Include all grounding on three-line diagram.
- Show location of all disconnecting means, installation of equipment and panels with reference to building and service equipment. Clearly identify if wiring is **interior** or **exterior**.
- Manufacturer's cut sheets, installation instructions and listing information for modules, racks, combiner boxes, DC disconnects, inverters, rapid shut down, and any other PV equipment. Please highlight cut-sheets showing equipment for intended use.
- Provide available Point-to-Point fault current calculations, that show feeder lengths, at all affected line terminals, for new and existing panel boards. U.L. Series Rated Listing Information, and Manufacture Specification Cut Sheets, and Point-to-Point Motor Contributions, per NEC 240-86, must be included with your Plan submittal.

STRUCTURAL:

- Engineering Design Criteria
  Roof Snow Load pf = 30 psf
  Ground Snow Load pg = 34 psf
  Basic Wind Speed - vult = 115 mph
  Risk Category II, 120 mph
  Risk Category III-IV (all 3-second gust)
- Structural analysis of the existing roof system with the newly proposed loads. Design criteria and assumptions used in the structural analysis. Stamped structural reinforcing details if applicable.
- Manufacturer's installation instructions specific to product being installed. Must include pounds per square foot weight of solar panels.
- Stamped plan showing the layout of the solar panels, anchorage system if installed on roof, including size, spacing, embedment depth (wood), and location of fasteners.

The Engineer's letter (residential) shall include the following information:

- Complete, detailed description of the existing roof framing (structural components of the roof and their physical condition).
- Name of person/organization, under the responsible charge of the engineer, who performed the site visit to visually inspect and identify the structural components of the roof and their condition.
- Design criteria and assumptions used in the structural analysis of the existing roof. (Note: Reduction of 30 psf roof snow load not allowed.)
- Conclusions and recommendations