



## ***VB Engineering, Inc.***

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### **Applying for a Permit for Installation of a Photovoltaic System Proposed Contents for Application Package**

1. Permit Application Forms
2. Notice of Commencement & Release of Lien
3. System Description , including whether the system is
  - a. utility interactive,
  - b. battery backup
  - c. DC array rating
  - d. Inverter ratings and UL 1741 compliance statement
  - e. Fossil generator included in system?
  - f. Nominal battery storage in kWh
  - g. Block diagram showing power flows
  - h. Brief description of system operation
4. Site Plan showing locations of all new equipment and existing service equipment
5. Riser Diagram showing how new PV system ties into existing service (if retrofit)
6. Standby Load Summary (if a battery backup system. Not needed if no batteries)
7. Electrical Schematics showing all wire sizes and types, junction boxes, disconnects, overcurrent protection and major equipment wiring connections
8. Certification of Component Listings (Include manufacturer's data sheets for PV modules, inverter(s), batteries (if applicable), array mount, charge controller(s) (if applicable)
9. Site Information for Wind Loading, including determination of wind load in psf (positive and negative)
10. Structural Drawings, showing means of attachment of PV array to roof, if roof mounted and means of attachment or array to other structure if not roof mounted
11. Electrical Calculations showing ampacity, temperature deratings, conduit fill deratings, voltage drop calculations for all DC and AC conductors, ambient temperature effects on PV array output voltage. Sizes of disconnects and overcurrent protection should also be included, as well as input and output current, voltage and power specifications for all major pieces of equipment.
12. Structural Calculations to show necessary screw thread penetrations into trusses for roof-mounted arrays, along with calculated maximum pull on attachment points and safety factors included in calculations. If other than roof mount, show calculations to indicate that structure can withstand 140 mph wind forces on modules.
13. Code References (NEC, FBC, ASCE-7) where applicable.