MILLCREEK
Residential Solar Photovoltaic (PV) System
Plan Submittal Checklist

This is a basic checklist of items required when submitting a solar PV system application for permitting and plan review – this list is not all inclusive. Having all the items listed on this checklist does not guarantee a permit will be issued, and any additional plans, information, or requirements may be requested or required by Millcreek at any time during the permitting process.

1. **Site Plan**: Provide a detailed site plan showing the location of the home, electrical meter Panel, back fed sub-panelboards, and all PV system components on the property.

2. **Mounting System:** Provide detailed information in regard to the module mounting system and also the weight of all PV system components which will be installed on the roof. The support manufacture specs shall also specify the required support spacing based on the local wind and snow loads. Note if the home roof rafters are engineered trusses, if not, provide information on the type, size, spacing of the existing roof rafters. Also, note the type of roof covering (shingles, metal, or tile) and the number of existing roof covering layers. If the racking system has integrated grounding and bonding, provide spec sheets illustrating so.

3. **One-line Diagram**: A detailed one-line diagram is required and shall show the following: type of PV system being installed (a single inverter system with one or more strings of modules connected in series, a micro inverter system, or an AC module system), the **exact** number and layout of modules and how they will be connected together (in series or in parallel), all wire types, all wire sizes, conduit types and sizes, detailed information of the grounding wiring and connections, the locations of all circuits and system components on or in the house, and the ratings of all fuses or breakers.

4. **Electric Panel to be Back fed: Note which home electrical panel the PV system will back feed and give the location and rating of that panel. Provide photos of the service panel and a photo of its interior label. Also, provide photos of labels of any sub-panel that will be back fed.**

5. **Module Specification Sheets**: Provide the PV module (solar panel) spec sheets showing the module's **STC** rated watts (Pmp), volts (Vmp), amps (Imp), open circuit voltage (Voc), and short circuit current (Isc). Modules shall be UL 1703 listed.

6. **Inverter Specification Sheets**: Provide the inverter manufacture spec sheets showing the amount of watts and volts the inverter can safely handle, also provide the inverter's max rated AC output amps and voltage. Utility tied inverters shall be listed as "utility interactive" meeting UL 1741 and having ground fault protection.

7. **Total Array Power** (This is not required for systems with micro inverters): Provide the total amount of watts, amps, volts, open circuit voltage (Voc at the coldest possible outside temperature – refer to NEC 690.7), and short circuit current the array can produce.

8. **System components**: Provide information on the different types of components that will be used in the system and how they will be installed. Also, show that all equipment is listed and rated for the type of voltage (AC or DC), amount of voltage, and the amount of current to which it may be subjected.