Information gathered during a site survey should be carefully documented.

There is a form on the resource disk.

A sun path calculator is used to evaluate shading at potential array locations.
A variety of testing and measuring devices and marking equipment is used during site surveys.

A compass is used to determine the orientation of a sloped roof surface.

Magnetic declination varies by location and changes slightly over time. Up-to-date maps are used to determine the necessary declination adjustment.
Directional bearings from magnetic compasses must be adjusted for magnetic declination.

Roof slope is measured with an angle finder or calculated from the rise and run.

The density of the module arrangement in an array affects the accessibility and the area required to produce a certain amount of power.
The potential loss in receivable solar radiation from non-optimal orientations may not be significant.

Shading of PV modules and arrays can cause disproportional reductions in power output.

Most of the daily solar radiation occurs between 9 AM and 3 PM, so avoiding shading during this period is high priority.
When the sun is in the northern part of the sky, shading can be caused by obstructions immediately north of an array.

The profile angle is the vertical angle to the top of an obstruction.

Profile angles can be determined using a transit, a protractor, or by calculations from measurements.
The profile angle method of shading analysis compares the profile angle and azimuth angle of potential obstructions to a sun path diagram.

The photographic method of shading analysis compares a panoramic photo of the potential obstructions to a sun path diagram.

The Solar Pathfinder™ analyzes shading for potential array locations by comparing the reflections of potential obstructions on the horizon to a sun path diagram of the solar window.
Roof and Conduit Run

Electrical Box

- Roofs should be inspected for signs of deterioration.
- Tile Roofs break when you walk on them.
- Metal roofs need specific attachment options.
- We do not mount on wood shake
- Flat roofs usually last about 15 years
- Noticeable dips on roof surfaces may be a sign of underlying structural defects.
- Some roofs were not framed with heavy enough joists.
- Minimum dimensional lumber should be 2x6@18" oc.

- Inverters and other system components should be located as close together as possible.
- Preferably near the meter or service panel.