

	City of Casa Grande Development Center Policies & Procedures	Effective Date: September 11, 2015
	Solar System Building Plan Submittal Requirements	Date Reviewed: September 11, 2015
		Department of Primary Responsibility: Building Safety
		Policy Number: B - PR - 003 - 2015 - 01

The requirements in this document are a guide and are NOT all-inclusive, as your design will dictate the plan details required to show codes compliance of your design. The City does a plan review to check for code compliance before issuing a permit. During the planning stages of a project, we sometimes have several meetings with owners and the design team to discuss code issues and answer questions. After the design is finalized, the City does a plan review that, to the best of our ability, identifies code issues to be corrected before the permit is issued and construction starts.

All plans submitted for review shall have digital copies attached.

Resubmissions of revised drawings per City comments shall be one complete submission. The applicant may either submit new complete sets of drawings or the corrected pages. IF submitting only the corrected pages applicant must remove and replace these pages in City offices. The city WILL NOT replace pages in ANY plan set. A complete digital copy of the final City Reviewed Plans is to be submitted before the permit is picked up.

Design Professional Required.

The City requires all building plans and their mechanical, electrical, plumbing, fuel gas, or fire protection systems to be prepared by a design professional. The design professional shall be registered under ARS Title 32. He shall affix his official seal and signature to said drawings and specifications for all occupancies. Detached single-family dwellings are not required to have sealed drawings. However, the design engineer shall seal all engineered systems and/or structural components. Calculations shall be provided as required. Arizona Law does have exceptions to licensing requirements. See ARS 32-144.

Solar System Plan Requirements

- 1) **Solar Permit Application that is completely filled out, including:**
 - A) Project address, Subdivision Name, and Parcel Number
 - B) Contractor's name, address, phone number, e-mail, and fax
 - C) Owner's name, address, phone number, e-mail, and fax
 - D) Specify a contact person: name, address, phone number, e-mail, and fax
 - E) If involved, the designer's, architect's, and/or engineer's name, address, phone number, e-mail, and fax
 - F) Size of the system in kW or gallons and construction cost of system
- 2) **Signed Property Owners Authorization for permitting.**
- 3) **Plot Plan: 2 sets.**
 - A) Lot dimensions
 - B) Building footprint with all projections including overhangs & dimensions to all property lines and/or other buildings
 - C) North arrow
 - D) Building Setbacks, Easements, etc.
 - E) Location of solar system
 - F) Height of system from grade, if ground mounted
- 4) **Photovoltaic Systems: 2 sets that include:**
 - A) **Foundation Plan:**
 - i) Soils report by an engineer (If required)
 - ii) Structural details
 - iii) Footings, foundation, piers, and grade beam locations & sizes (engineered design if required)
 - iv) Reinforcing spacing and size
 - v) Anchor bolt spacing, type, and size
 - vi) Structural details of the roof panel mounts. (engineered design if required)
 - vii) Flashing details for mounting brackets
 - B) **Solar Panel Lay-out Plan:**
 - i) Complete plans, with full dimensions and notes
 - ii) All array to array dimensions
 - iii) All wiring on one- and three-line electrical diagrams
 - iv) Wiring protection, junction boxes, combiner boxes, disconnects, etc. (Proper equipment for WET locations)

- v) Show the locations of the conduit and other circuiting
 - vi) Show the required access paths between and around panels
 - vii) Show and describe all equipment and vents on roof at panel locations (plumbing, attic ventilation, B-vents, etc.)
- C) **Exterior Elevations:**
- i) Identify roof pitch, orientation, and panel location(s) and pitch
 - ii) Show ground mount orientation and panel pitch
 - iii) Indicate finish grade.
- D) **Structural Details:** (engineered design if required)
- i) Roof details. If roof mounted and include any roof framing modifications
 - ii) Structural framing details. Show racks, mounts, and, if ground mounted, all framing and footing details
 - iii) Structural section with details at foundation, grade, and roof levels. As required
 - iv) Identify all materials, material sizes, spacing, etc.
 - v) Provide a Registered Design Professional's sealed structural design, required if any "NO" answer to the following questions.
 - a) Is the PV system to be installed on a site built (not manufactured) building? Yes No
 - b) Is the PV system to be installed on a roof that meets current code? Yes No
 - c) Is the roofing lightweight (composition) type or a properly designed tile roof? Yes No
 - d) If composition type roof, does the roof have only one layer? Yes No
 - e) Is the weight on each attachment point 45 pounds or less? Yes No
 - f) Does the solar array have a total distributed weight of 5 lbs/ft² or less? Yes No
- E) **Manufacturer's Specifications and installation instructions:** complete and specific to the equipment installed.
- F) **Electrical Details:**
- i) Service meter location and main breaker size in amps
 - ii) Sub-panel, disconnects, fuses or breakers, arc-fault protection (if required), and meter locations(s)
 - iii) Detail locations of grounding equipment conductor, bonding, and all grounding
 - iv) Show locations and protection of all wiring as required
 - v) Show required exterior egress, roof access, and Fire Department Access
 - vi) Show all labeling - must meet all code requirements
- 5) **Solar Water Heater Plans: 2 sets that include:**
- A) **Structural Plan:**
- i) Structural details
 - ii) Structural details of the roof panel mounts
(Engineered design if required – See "D" in PV Systems above)
- B) **Solar Panel Lay-out Plan:**
- i) Complete plans, with full dimensions and notes
 - ii) Panel to panel dimensions including exterior egress, roof access, and Fire Department Access
 - iii) All piping diagrams
 - iv) Show and describe all vents on roof at panel locations (plumbing, attic ventilation, B-vents, etc.)
- C) **Exterior Elevations:**
- i) Identify roof pitch, orientation, and panel location(s) and pitch.
 - ii) Show ground mount orientation and panel pitch
 - iii) Indicate finish grade
- D) **Structural Details:**
- i) Roof details: if roof mounted and include any roof framing modifications
 - ii) Structural framing details: Show racks, mounts, and, if ground mounted, all framing details (engineered design if required – See "D" in PV Systems above)
 - iii) Structural section with details at foundation, grade, and roof levels as required
 - iv) Identify all materials, material sizes, spacing, etc.
- E) **Manufacturer's Specifications and installation instructions:** complete and specific to the equipment to be installed
- F) **Electrical Details:**
- i) Panel, disconnect, pump, and other equipment locations(s)
- G) **Plumbing Plan:** (to include the pipe sizes and proposed layout of all supply and drainage piping)
- i) Show all water heaters and storage tanks
 - ii) Water connection, drain location, valves, pumps, riser diagrams, etc.