

MASTER PLAN SUBMITTAL REQUIREMENTS FOR ONE- AND TWO-FAMILY DWELLINGS

There are two designations for master plans, a site/subdivision specific master plan and a general master plan. This policy provides the submittal requirements for initial review and approval of specific models and requirements for construction permits after initial model plans are approved for use.

No changes will be permitted to the final approved master plans. Models with proposed changes that are not part of the original master plan will be processed as a custom single-family residence requiring new plan review.

Initial Submittal Requirements

- All plans and supporting documentation to be submitted electronically in PDF Format.
- All submittals shall be drawn in compliance with the 2018 International Residential Code and the 2006 Energy Conservation Code as adopted by Yavapai County.
- One (1) set of plans are required for the initial submittal, prepared on a minimum of 18"x24" and a maximum of 30"x42" sheet size and drawn to standard architectural scale of not less than 1/4" = 1' and details of 1/2" = 1'.
- All initial submittals shall show, in detail, the nature and extent of the work proposed.
- Plans and calculations shall be prepared by a registrant licensed in the State of Arizona. Submitted plans shall include plumbing, mechanical and electrical drawings.
- One copy of the Geotechnical Report as required by policy PB-21.
- The report shall include all building lots, if subdivided.
- Special inspection requirements shall be detailed on the plans and the special inspection form completed, signed, and sealed by the Arizona registrant. (Architect or Engineer)

Model Identification Number:

- Models for a specific site/subdivision will be indicated by **S** models and for general areas throughout Yavapai County will be indicated by **G**.
- A separate designation shall be assigned for each model (example – S1835 L or R, A or B with options, 1, 2, 3 or 4 for subdivision models or G1835 L or R, A or B with options 1, 2, 3 or 4 for general models).
- The number following the letter S or G is the square footage of the livable area of the model.
- L or R indicates left or right orientation.
- A or B indicates different elevation (roof) styles.
- 1, 2, 3 Indicates different options for the model.
- This numbering system shall be used for all submittals pertaining to master plans.



Master Plan Submittal Requirements for One- and Two-Family Dwellings, cont.

Option List

- All initial submittals shall clearly list all options that are available for this model.
- All option details and pertinent information must be included and consistently labeled in all plan sheets affected (foundation plan, floor plan, roof framing plan, etc.).
- Optional roof systems must include a separate roof framing plan and separate elevations for each option roof system (Santa-Fe, hip roof, etc.) and include ventilation methods for each system.
- Truss Design Drawings must be submitted for each option.

Foundation Plan

- Foundation and required expanded footings shall include dimensions and reinforcement type, size and locations detailed.
- Cross-section of the foundation and details
- Hold-down types or other embedded hardware including locations.
- Include heights and limits for stem walls of varying heights.
- Provide details showing type and R-value of slab insulation to comply with or exceed the 2006 IECC.
- Engineered design and details for post tension slabs including special inspection criteria and form.

Floor Plan

- Provide a square footage summary of each of the following: livable, garage, carport, covered patios, porches, and basement (finished or unfinished) and any other areas.
- Provide a complete floor plan for each floor including the basement.
- Provide a window/door/skylight schedule. Schedule shall include sizes, operation (fixed, slider, awing, etc.) safety glazing, egress, fenestration & U-Factors and glazing solar heat gain coefficient (SHGC).
- Label intended use of all rooms and ceiling heights of each room
- Indicate location and types of fire separations including detailed construction methods to be used.
- A right and left orientated floor plan is required, with options listed and square footage for each option.



Master Plan Submittal Requirements for One- and Two-Family Dwellings, cont.

Brace Wall Plan

- Lateral Analysis with supporting calculations.
- Provide details for all alternate braced walls and portal frames.
- Indicate hold-down types and locations.
- If a separate lateral analysis is required, a right and left orientated plan will be required.
- If a separate exterior/interior braced wall plan is provided with the plans, a right and left orientated plan will be required.

Floor Framing Plan

- Provide manufacturer's specifications and layout sheet for I-joist floor systems.
- Indicate sizes, locations, grades and species for posts, beams, headers, and girders. Provide details for all connections, including fastener types. Indicate the load path from floor system to foundation
- All floor joists are noted with dimensions and connections/fasteners indicated.
- Include under-floor access location and under-floor ventilation types, sizes, and locations.
- Detail insulation material types with notes as to R-value at the intersection of floor systems with exterior walls, crawlspaces, basement walls, mass walls and at conditioned space separation barriers complying with or exceeding the 2006 IECC
- A right and left orientated floor framing plan is required.

Roof Framing Plan

- Provide engineered manufacturer's specifications layout sheet
- Size and location of headers, beams and/or lintel sizes. Specify the number of required trimmers/jacks for load bearing walls including grade and species.
- Rafters and ceiling joists are noted with dimensions and construction/fasteners indicated.
- Connections/fasteners detailed to provide the continuous tie from the foundation to the roof line.
- Types and sizes of attic ventilation and their locations.
- Over-framing details for conventionally framed portions on truss roof systems.
- Show locations of any roof-mounted equipment such as solar panels, HVAC, etc.
- Separate roof framing plans for all optional roof systems.
- Provide insulation details, locations, type, and R-values complying with or exceeding the 2006 IECC requirements.
- A right and left orientated roof framing plan for each roof system is required.



Master Plan Submittal Requirements for One- and Two-Family Dwellings, cont.

Elevations

- Materials used for roof covering and exterior finishes are noted.
- Existing and proposed grade lines, plate and building heights are specified.
- Stepped foundation shown, if applicable.

Building Sections and Connections

- Complete cross-sections of the building, in each direction showing proposed materials to be used, and how load path connections are to be achieved.
- All materials used (steel, wood, concrete, etc.) Provide details for any framing connections.
- Clearly indicate the building thermal envelope elements that enclose the conditioned space. Provide insulation details, location, type, and R-value complying with or exceeding the 2006 IECC requirements-
- Details on how the air barrier will be achieved
- Details specific to certain options must be labeled as such.

Mechanical Plan

- Location and type of thermostatically controlled heat source.
- Provide a complete mechanical layout – include all duct work with sizes, length of sections, material types with notes as to R-value. Show return and supply air grill locations and sizes.
- Identify manufacturers' model numbers and equipment capacities of A/C and heating units. Show locations of equipment.
- Provide calculations for equipment and duct sizing per data from ACCA Manual J and Manual D (reference 2006 IECC section 402.6 – IRC M1401.3 and IRC M1601.1).
- Specify condensation line locations and terminations with notes as to R-values.
- Specify the CFM ratings for exhaust fans.
- Provide combustion air details for all gas appliances including calculations for amount required (show compliance with 2018 IRC Chapter 17, Chapter 24, and the 2018 IFGC).

Plumbing Plan

- Provide fixture unit calculations.
- Specify type of water supply (well, public system, shared well or haul) and size of main water service line (size based on fixture unit count and 2018 IRC P2903.7)
- Indicate location of the water heater temperature/pressure relief piping to drain termination location.



Master Plan Submittal Requirements for One- and Two-Family Dwellings, cont.

Plumbing Plan, Cont.

- Provide a one-line gas isometric drawing to include:
 1. Type of fuel – natural or LPG.
 2. Total developed length of piping from meter/tank to furthest appliance outlet.
 3. Total BTC/CFH demand
 4. Total BTU/CFH rating of each appliance.
 5. The size, type, and length of each pipe section in the system.
 6. The size, type (above or below grade) and location of the LPG tank.
 7. Indicate which table was used from the IRC or IFGC for sizing of the gas line.
- Indicate the type of pump shut off and piping insulation R-value for hot water circulating system (system required in dwellings with 2 or more bathrooms per 2018 IRC adopted ordinance).

Electrical Plan

- Complete layout showing locations of receptacles including GFCI's and AFCI's, switches, smoke detectors, carbon monoxide detectors, fixed equipment, sub-panels, and service entrance.
- Indicate a minimum of two (2) 20-amp GFCI protected circuits in the kitchen/dining area.
- Electrical service 400 amps or greater shall include load calculations and a one-line diagram. Services over 400 amps must be done by an Arizona electrical engineer.
- Indicate locations and sizes of all electrical panels.
- Grounding method details see Policy PE-2 for reference.

Additional Drawings/Information Required if Utilized for the Model

Truss Design Drawings sealed by an Arizona registrant, including truss to truss connections and a layout sheet, with considerations for permanent roof-mounted or attic-mounted equipment. The design professional of record shall provide information stating that the truss calculations have been reviewed by him/her for compliance with his/her design loads and design criteria on the roof framing plan”.

- Truss Design Drawings sealed by an Arizona registrant for each roof system right and left with a roof layout sheet for each roof system with appropriate design criteria specified.
- I-Joists Systems (roof or floor) from the manufacturer with the manufacturer's layout sheet and engineering sheets designed and sealed by an Arizona Registrant.
- Engineering calculations, plans and details must be sealed by an Arizona registrant



Master Plan Submittal Requirements for One- and Two-Family Dwellings, cont.

Additional Drawings/Information Required if Utilized for the Model, Cont.:

- ICC/ESR Evaluation Reports for all alternative building materials being used.
- Specification sheets for special equipment such as solar systems, elevators, saunas, alternative heating/cooling systems, etc.
- Off Grid Solar systems will require a separate permit. Reference Policy PE-8 for requirements.

After final approval of the initial model plans, a copy of the approved plan set is required to be on site at the time of inspection.

