Residential Addition/Remodel Information

Include items below in your plans that are applicable to your project. See Plan Review Information handout for more about plan organization.

1. Every permit requires a completed and signed permit application and plans.
   a. **Five (5)** sets of plans showing existing conditions and proposed work. All construction plan sheets are to be scaled ¼ inch per foot minimum and be of uniform size except for specifications or referenced reports. Sheets are to be a minimum of 11 x 17 inches.
   b. **Two (2)** sets of Energy Compliance forms (for additions only), registered as required, and with signature of document author and designer on Energy forms.
   c. Include on all plan sheets signature, license number, and contact information of person responsible for plans. The plan sheets need to be numbered and indexed on the cover sheet. Cover sheet need to include the name of owner with contact information and the project address.


3. Identify the occupancy classification, the building areas (existing and proposed), number of stories, and area of remodel.

4. For additions or exterior building extensions provide a scaled site plan showing:
   a. Specify drawing scale (minimum 1:20), North directional arrow, and property dimensions
   b. Proposed location of project (for example, label and hash-mark area)
   c. Size and location (distance from lot lines) of proposed and existing buildings or structures. Dimension distance to property lines for both first and second floors where different.
   d. Location and grade of driveways, and disposition of surface and roof drainage
   e. Include the proposed finish grades, direction and management of surface flows. Designate storm water management plan for during construction.
   f. Show location and dimension of easements

5. Addition or extension of conditioned space requires Energy and CalGreen compliance to be included:
   a. Describe energy compliance for new exterior walls, ceiling, floors, and fenestration.
   b. Provide applicable energy compliance certificates in the plan set
   c. Provide CalGreen compliance at the mandatory level only. Use the checklist from page 83 of the 2019 CalGreen code. Check the applicable boxes or indicate “N/A”.
   d. Incorporate energy and green code compliance information into the plan set.
   e. Specify the CalGreen special inspector on the Special Inspection and Testing Procedure form: https://cityofpetaluma.org/documents/special-inspection-and-testing-procedure

6. Water Use Efficiency Improvement Form must be completed and submitted by final Inspection

7. Provide floor plan of existing and of proposed addition and remodel areas. Label usage of all rooms and spaces on floor plan. Specify heat source to new habitable spaces.

8. Provide elevations of each side of the building and addition. Provide exterior features of all wall openings, wall finishes, roof pitch, roof covering material, and height of the building.
9. Provide building section showing load path from roof to foundation. Specify building components from grade to roof; wood clearance to grade, floor-to-ceiling height, foundation, floor, wall, roof, and finishes.

10. Where addition or remodel is attached to or includes a garage, provide and detail fire-resistant construction for walls and ceiling separating garage and dwelling.

11. Dimension all windows and doors; indicate window energy features, operation, and type (double hung, horizontal sliders, fixed). Label emergency escape windows. Glazed area is to be at least 8% of room floor area with 4% operable. Verify existing rooms maintain requirements with an addition.

12. At least one emergency escape or rescue opening shall be provided in basements, habitable attics, and every sleeping room. See exceptions for fire-sprinklered buildings in CRC R310. Emergency escape and rescue openings must be open to a yard, court or public way. Openings must be a minimum of 5.7 square feet in size except for grade floor openings which have a minimum of 5 square feet. Opening dimensions are a minimum:
   - 24 inches clear opening height
   - 20 inches clear opening width
   - 44 inches at the bottom of the clear opening above floor

   The minimum area and dimensions shall be measured after the window is opened. The requirements are to be met without removal or destruction of the window unit. Also, a window with minimum width and height does not provide the minimum required area.


14. Designate foundation ventilation. Underfloor access openings through the floor shall be a minimum of 18 inches by 24 inches. Openings through a perimeter wall shall be not less than 16 inches by 24 inches. Provide positive drainage for the underfloor area.

15. Designate attic ventilation and access. Minimum dimension of attic access opening is 22"x30". Attics with a maximum vertical height of less than 30 inches need not be provided with access openings. The opening shall be located in a hallway or other readily accessible location.

16. Specify interior wall and ceiling covering and finish materials. [CRC 702]

17. Specify or dimension ceiling height. Minimum ceiling height in habitable rooms, hallways, bathrooms, toilet rooms, laundry rooms and portions of basements containing these spaces is 7 feet. [CRC 305]

18. Specify roof covering (comp, shakes, tile, etc.) Note that “All roof covering materials applied as roof or exterior wall covering shall have a minimum fire rating of Class B” per city of Petaluma Ordinance.

19. Note that “All roof covering materials shall have a minimum fire rating of Class A” when located in the high fire severity zone as determined by Petaluma Fire." per City of Petaluma Ordinance

**Structural**

20. When a building of otherwise conventional construction contains structural elements exceeding the limits of Section R301 or otherwise not conforming to the residential code, these elements shall be designed in accordance with accepted engineering practice. [CRC R301.1.2]

21. Provide a scaled and dimensioned structural plan set including foundation, floor, wall, ceiling, and roof construction.

22. Provide a scaled and dimensioned building section through the structure and addition:
   a. Identify framing lumber, interior and exterior finish materials, sheathing, siding, and roof covering materials and slope proposed.
b. Designate building height from grade to roof and ceiling heights above floor.
c. Include foundation, grades, water-resistant barrier, insulation, interior finishes, ceiling height, and exterior coverings.

23. Specify structural connections between new construction and existing elements.


25. Designate raised wood floor framing, joists girders, post and piers, size, spacing, connections of all members. Designate under floor access opening.

26. Designate wall framing size, spacing of studs, wall bracing methods, connection details, and locations of braced or shear wall lines.

27. Designate roof and ceiling framing size, spacing, and span of rafters and joists, connections and support. Size of ridge, hip and valley rafters with applicable girders, connection details, blocking, and bracing.

28. Foundations for additions up to 50% of existing floor area are permitted to match existing foundation type unless justified by a soils investigation. Where existing is a continuous spread footing foundation, the proposed foundation design must also be continuous spread footing foundation. Where existing is an engineered type, provide foundation design as required by a state licensed engineer.

29. In lieu of a soils test and report (CRC 401.4), the Engineer of Record shall provide a stamped and signed report stating the type and condition of existing foundation system, that the existing foundations have been observed, and has performed adequately with no signs of settlement, uplift, or cracking due to soil conditions. The proposed foundation is intended to match this adequately performing existing foundation system.

30. Designate concrete mix design. Footing and foundation reinforcement and applicable details, retaining walls, embedded hold downs, anchor bolts (size and spacing), etc.

31. Where pre-engineered trusses are proposed, include roof truss plans in submittal or list as a deferred submittal on the cover sheet. The submittal is deferred until the design and review by designer of record is complete. Submittal is then to be made to the building division for review and approval. The installation cannot occur until these approvals are completed.

32. Where engineering is included, provide calculations for designed building elements, such as foundation, beams or girders, and lateral shear bracing.

33. Specify structural connections of walls to foundation and roof to walls. Specify column to footings and column to beams or headers. Specify anchor bolts, post base, and post cap connectors.

34. Protection of wood and wood-based products from decay shall be provided. Designate where pressure-treated or naturally durable lumber is proposed.

35. Identify wood frame lumber grade and species. Specify the structural panel grade (veneer grade front and back, i.e. A-C, C-D), bond classification (exterior, exposure 1), and Performance Category (panel thickness). Identify span rating of structural panels for roof, wall and floor applications.

**Mechanical/Plumbing**

36. Clearly scope all mechanical and plumbing work on the plans.

37. Provide a gas piping plan for the new or relocated appliances greater than 6 feet. Designate the material, size, lengths, and loads served.

38. Locate existing and proposed water heater, furnace and/or AC units on plans. Plans need to reflect high efficiency furnaces of at least 90% per City General Plan 2025. Water heaters are to be low NOX.
39. Designate HVAC duct alteration, relocation, or replacement. Furnace return air is prohibited from a toilet room.

40. Specify new plumbing system. Locate connections to existing or public services, service entry, fixture locations, drain waste, and vent modifications. Provide a plumbing plan or isometric diagram. Locate fixtures, cleanouts, and vents. Indicate pipe sizes and materials.

41. Additions greater than 1000 square feet and additions that are new dwelling units require indoor air quality ventilation per CEnC 150.2(a)1C verified by acceptance testing.

42. Residential energy compliance requires acceptance testing of duct system when 40 feet of new or replacement ducts are installed in unconditioned space, and when furnace, or air conditioner is replaced.

43. Bathroom, toilet rooms, and kitchens require mechanical exhaust ventilation. Bathrooms and kitchens require mechanical ventilation even if an operable widow is provided. Specify vent directly to the outside of building and must not be closer than 3 feet to building openings.

44. Designate the bathroom exhaust fan control by humidistat and vented to outdoors with a minimum exhaust rate of 20 cfm continuous or 50 cfm intermittent.

45. Specify kitchen exhaust vented to outdoors with a minimum exhaust rate of 50 cfm minimum continuous or 100 cfm intermittent. The ducted kitchen exhaust is required to have a metal, smooth interior surface duct for vent hood or down draft exhaust vent. Aluminum flex duct is not approved. Provide back draft damper.

46. CalGreen requires gas fireplaces to be direct-vent, sealed-combustion type.

**Electrical**

47. Clearly scope all electrical work on the plans.

48. Locate electrical service and panelboards on the plans. Provide electrical plans for new service or panelboards, lighting equipment, and power outlets or receptacles. Provide panel schedule designating overcurrent protection, feeder conductors, circuit conductors, and wiring methods.

49. Existing panelboards with new loads may require load calculations to confirm panel is adequate.

50. Provide electrical layout plan, showing location of electrical receptacles, electrical equipment, lighting, switches, smoke, and carbon monoxide alarms.

51. Additions require Ufer (concrete encased electrode) to be installed at new footing reinforcement steel, bonded to the grounding electrode system and grounded service conductor in the panelboard on the supply side of the electrical service for each building.