COUNTY OF SONOMA

THESE ATTACHMENTS ARE PART OF THE APPROVED PLANS.
* DO NOT REMOVE THEM *
09/16/2021
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT BUILDING PLAN CHECK
PERMIT #: BLD20-8723

BPC-002 Residential Plan Checklist

Version 04/11/2020

The following is only a partial list of required checklist items. Full compliance is required by reference to the following adopted codes:

- 2019 California Residential Code (CRC)
- 2019 California Building Code (CBC)
- 2019 California Mechanical Code (CMC)
- 2019 California Electrical Code (CEC)
- 2019 California Plumbing Code (CPC)
- 2019 California Energy Code
- 2019 California Green Building Standards Code (CalGreen)

Sections 2-7 of this document are considered Life-Safety sections. They apply to all one and two family dwellings and their accessory structures as defined by CRC R202.

Sections 8-11 address building structural design and are applicable to non-engineered structures and non-engineered elements of partially engineered structures. Some residential structures in close proximity to known earthquake faults may not be eligible to use the CRC for the structural portion of their design. Resources available to assist with questions about the applicability of the CRC are, the CRC, the Permit Sonoma website, the California Building Standards Commission, and Permit Sonoma Plan Check staff members.

All applicable and referenced codes are available through the California Building Standards Commission[1].

Adoption and amendments to the applicable codes and regulations by the County of Sonoma (Chapter 7), as well as zoning regulations (Chapter 26) and Fire Safe Standard requirements (Chapter 13) are available on the Permit Sonoma website[2].

1. Guidelines for All Submittals

Items to be considered at earliest possible stage of project development which could affect project:

a. Land use limitations – County zoning ordinances, contact Planning Division
b. Earthquake fault – Alquist/Priolo Zones
c. Geologic hazards – Landslides, geotechnical (soils) report
d. Flood zone – (Sonoma County Code 7B), waterways, creeks, etc.

Upload the digital plan file and separate files of all supporting documentation such as structural calculations, energy compliance forms, soil reports, etc. Preliminary review with staff is encouraged to ensure complete applications.

Omission of any items in the following list may result in delay of plan check, requiring resubmission of documents or information. All documents must be digitally sealed, signed, and dated by the person responsible for preparing them. Residences which are conventionally wood framed and up to two stories in height may not need to be prepared by a licensed design professional; however, the individual preparing and signing plans is responsible to be knowledgeable of all applicable codes and capable of preparing plans drawn to recognized architectural standards. All plan views, elevations, and details shall be identified with an applicable scale; and a known dimension shall be provided on the associated plan, elevation, or detail to allow a plans examiner to digitally calibrate the referenced scale. All drawing sheets within the digital plan set shall be included in the same file and be identified with a unique sheet number.

1.1 Cover Sheet: Identify all applicable codes, scope of work, type of construction, sheet index, building address, parcel number, parcel size, fire safety area (i.e. local or State responsibility area) and itemized square footages of all existing, proposed, and altered building areas (e.g. dwelling area, garage area, covered porches, decks, retained square footage retained at the face of retaining walls, storage areas, basements, etc.).

1.2 Site Plan: Show property lines, easements and new and existing building locations. Dimension front, side and rear distances to property lines and between structures. Indicate finished and existing grade elevations, i.e. contour lines. Provide adequate drainage information, e.g. sub-drain and dissipation locations. A separate plan and details will be required identifying protection of storm water runoff during construction (i.e. BMPs). Show other relative information such as driveways, wells, septic systems, source of emergency water supply, and dimension emergency vehicle access. Provide North Arrow and drawing scale. Print job title or description, address and assessor's parcel number and drawing index on the cover sheet.

1.3 Floor Plan: Show all proposed building dimensions (outside wall dimensions) and label use of each room, cross reference locations and sizes of windows and doors to window and door schedules, show electric outlets, plumbing and heating fixtures (identify furnace size), carbon monoxide, and smoke detectors. Show location and type of all braced panels or shear walls.

1.4 Foundation Plan: Completely dimension plan including interior footings. Label and locate porches, patios, decks, garage, tec. Locate and note size and spacing of anchor bolts, straps and tie downs on plan. Note size, number and position of crawl space vents.

1.5 Exterior Elevations: Provide a minimum of four elevation views showing all openings, wall and roof finish materials, original and finished grades, stepped footing outline, underfloor vents and roof pitch.

1.6 Framing Plans: Identify framing members and sheathing for floor and roof & ceiling plans. Show size and spacing of joists and rafters, and nail types and spacing for all plywood diaphragms, identify all beams with grade of lumber or engineered wood type and dimensions to be used. Show how all gravity and lateral loads are transferred from the roof sheathing to the foundation through specific, cross-referenced connection details.

1.7 Wall Bracing Plans/Shear Wall Plans: Provide plans which adequately dimension all braced wall segments and locations for non-engineered plans, and/or identify and dimension engineered shear wall locations and minimum lengths. Justify the amount of bracing provided at each wall line, per wind and seismic requirements of the CRC for non-engineered structures. Provide adequate identifications of assumed braced wall lines for conventional bracing, and provide on the plans lateral load resisting gridlines, corresponding to the structural calculations, for engineered structures.

1.8 Cross Sections: Provide sections through building showing structural elements, and other sections as needed, including earth to wood clearances, floor to ceiling heights, roof slopes, etc. Note typical finishes; call out insulation type and value.

1.9 Details: Submit foundation, floor and roof details, beam connections, special framing and flashing details as necessary for construction.

1.10 Calculations: Provide engineers' or architects' design calculations for engineered plans. Design methodology and loading criteria shall be taken from ASCE 7-16 or other applicable referenced documents.

1.11 Energy and Calgreen Documentation: Provide California Energy Code prescriptive or performance method compliance documentation, registered by an approved agency as applicable. All required insulation values and installation details, including details and justifications of adequate attic and underfloor venting shall be provided. Provide the appropriate CALGreen checklist, reviewed and approved by a CALGreen special inspector, approved by the County of Sonoma. All CALGreen required details and specifications shall be reflected in the applicable project plans.

1.12 The job address must be posted at the job site and at the county road, and the building location shall be staked prior to submitting for the permit application.

1.13 Specific County of Sonoma Design Requirements:

A. **Wind:** Basic LRFD wind speed for dwellings is 110 miles per hour, and 100 miles per hour for uninhabitable accessory structures. Most sites will be classified as Exposure C. Exposure D shall be used close to the coast and Exposure B may be used with justification. When CRC Table 602.10.3(1) is utilized, the Ultimate Design Wind Speed of 110 miles per hour shall be assumed.

B. **Seismic:** Seismic Design Category is site specific and will typically be D2 or E.

C. **Allowable soil bearing pressure** for sites not requiring a geotechnical report is 1,500 pounds per square foot.

D. **Minimum soil pressures** on retaining and foundation walls shall be 60 pounds per cubic foot for active pressure and 100 pounds per cubic foot for at-rest pressure without an applicable geotechnical report (CBC Table 1610.1).

E. **Climate zone:** Most sites are climate zone 2. Climate zone 1 is to be used in coastal areas.

2. Light, Ventilation, and Room Dimensions

2.1 Required window area for light shall be not less than 8 percent of the floor area of the room served; the minimum openable area to the outdoors shall be 4 percent of the floor area being ventilated. The glazed area need not be openable for ventilation when a whole house ventilation system is installed (R303.1)

2.2 Every sleeping room and any basement must have at least one openable window or door approved for emergency rescue with a minimum net clear opening of 5.7 square feet, except the windows at the grade floor shall have a minimum net area of 5.0 square feet. The minimum net vertical opening dimension shall be 24 inches. The minimum net clear opening width dimension shall be 20 inches. The bottom of the clear opening shall be no more than 44 inches from the floor (R 310.1).

2.3 Bathrooms, water closet compartments and similar rooms shall have window at least 3 square feet in area, half of which must be openable, or mechanical ventilation must be provided. (R303.3) Provide ventilation for products of combustion to outside air. (CMC 802.0)

2.4 Each bathroom containing a bathing facility shall be mechanically ventilated for the purposes of humidity control. (R303.3.1)

2.5 Provide ventilation for products of combustion to outside air. (CMC80230)

2.6 Attic ventilation: 1/150 of attic area. If 40 percent to 50 percent of the vents are no more than 3 feet below the ridge or highest point of the roof area; then the ratio may be reduced to 1/300. (R806.2) Unvented attics may be allowed if meeting the requirements of R806.5.

2.7 Enclosed rafter spaces shall have a minimum 1 inch space between the insulation and roof sheathing and at the location of all eave and cornice vents. (R806.3)

2.8 Underfloor space shall have a ventilation opening area of 1/150 square feet of underfloor area. If a Class I vapor retarder is used the ratio may be reduced to 1/1500. One opening shall be placed within 3 feet of each building corner. Openings shall be covered with a covering having openings no greater than ¼ inch. (R408.2)

2.9 Heating system is required to maintain 68 degrees at 3 feet above floor level and 2 feet from exterior walls in all habitable room. (R303.10)

2.10 Air infiltration, insulation, space heating, space cooling, water heating, etc., shall meet CA Energy Commission Standards.

2.11 All habitable rooms except kitchens shall be at least 70 square feet in area and shall have a width of at least 7 feet. In addition there shall be at least one room with a minimum of 120 square feet in each dwelling. Minimum ceiling height shall be 7 feet. See CRC for exceptions. (R304/R305)

3. Doors, Stairways and Landings (Including Decks)

3.1 Required egress door shall be side hinged and have a minimum net clear width of 32 inches and a minimum height of 78 inches. (R311.2)

3.2 There shall be a landing at each side of all doors not more than 1 ½ inches lower than the threshold at the required egress door, and not more than 7¾ inches for other exterior doors. The landing shall be at least as wide as the door served and 36 inches minimum length measured in the direction of travel. A landing is not required at doors other than the required egress door where a stairway of two or fewer risers is located on the exterior of the door, and the door does not swing over the stairway. (R311.3)

3.3 Stairway rise shall be 4 inches minimum and 7¾ inches maximum. Run shall be 10 inches minimum. Headroom shall be 80 inches minimum. Width shall be 36 inches minimum. Handrails shall provide graspability and be 34 to 38 inches above tread nosing without openings less than 4 3/8 inches clear, except openings formed by the riser, tread, and bottom rail of the guard may be 6 inches maximum diameter. (R 311.7 & R312.1.3 exception 1 & 2)

3.4 Enclosed useable space under interior stairs shall be finished with ½ inch gypsum board (R302.7)

3.5 Fire blocking is required in concealed spaces between stair stringers at the top and bottom of the run. (R302.11)

3.6 There shall be a floor or landing at the top and bottom of each stairway. Width and length of landings shall be not less than the width of the stairway served. A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided a door does not swing over the stairs. (R311.7.6)

3.7 Guards shall be located along open sided walking surfaces, including stairs, ramps, landings, and decks, that are more than 30 inches above the floor or grade, measured at any point within 36 inches horizontally. Required guards shall be not less than 42 inches above the adjacent walking surface, except that handrails may be considered as guards at stairways. Openings in guards shall not exceed 4 inches. (R312)

3.8 Exterior deck support posts shall be cross-braced in two directions for lateral stability.

3.9 Minimum size of concrete footings for exterior decks shall be in accordance with CRC Table R507.3.1, based on the tributary area of the footing and an assumed bearing capacity of soil of 1500 pounds per square foot, unless a higher bearing capacity has been justified by a geotechnical report. (R507.3.1)

3.10 Lateral restraint of deck posts at footings shall be provided by manufactured connectors or a minimum post embedment of 12 inches in surrounding soils or concrete piers. (R507.4.1)

3.11 Provide detail at junction of exterior decking, wall and interior floor framing. Show elevations, flashing, and anchorage. Deck framing shall be positively attached to building framing at a minimum of 2 locations within 24 inches of each end of the deck with hold-down tension devices having an allowable design capacity of not less than 1500 pounds each, or at a minimum of 4 locations with hold-down tension devices of not less than 750 pounds allowable design capacity. (R507.9.2)

3.12 Deck framing and support posts to be of preservative treated or naturally durable lumber. (R317.1) Hardware and fasteners shall be hot-dipped galvanized, stainless steel, silicon bronze, or copper. (R317.3.1)

4. Weather and Corrosion Damage Prevention Measures

4.1 Naturally durable wood or preservative treated wood, per AWPA U1, shall be required in the following locations (R317.1):

A. Wood joists and girders closer than 18 inches or 12 inches, respectively, to the exposed ground.

B. Wood framing members that rest on concrete or masonry and are less than 8 inches from the ground.

C. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated by an impervious moisture barrier.

D. Wood siding, sheathing and wall framing on the exterior of the building having a clearance of less than 6 inches from the ground or less than 2 inches from a horizontal concrete surface.

E. All wood in contact with the ground.

F. All wood embedded in concrete that is in direct contact with the ground or exposed to weather and that supports structures intended for human occupancy.

4.2 Exposed glulams shall be preservative treated, applied by the manufacturer, or made from naturally durable wood.

4.3 Weatherproofing of exterior surfaces above and below grade is required. (R406 & R703)

4.4 Concrete slabs shall be separated from earth by a minimum 6 mil vapor retarder, with edges lapped a minimum of 6 inches. This may be omitted if the space above is not heated and is not likely to become heated in the future. (R506.2.3)

4.5 A capillary break shall be installed when concrete slab-on-ground floors are required to have a vapor retarder. This capillary break shall be a 4 inch thick base of ½ inch or larger clean aggregate with a vapor retarder in direct contact with concrete. The concrete mix design shall address bleeding, shrinkage, and curling, in accordance with ACI 302.2R-06. As an alternative, the slab design may be prepared by a licensed design professional. (R506.2.3.1 & CalGreen 4.505.2.1)

4.6 The ground adjacent to the foundation shall be sloped so that the grade shall fall a minimum of 6 feet within the first 10 feet. Impervious surfaces may be sloped at 2 percent minimum. (R401.3)

4.7 All fasteners used for attachment of siding shall be corrosion-resistant and fastened in accordance with CRC Table R703.3(1). (R703.3.3)

4.8 Corrosion resistant flashing shall be provided at openings and intersections/attachments. (R703.4)

4.9 All roof areas of buildings shall be provided with gutters or roof drains. Provide adequate roof slope for drainage (1/4 inch per foot, minimum) or submit deflection and ponding calculations. Primary roof drains shall be designed based on a 60 minute storm with a 100 year return period, per Table D of the CPC. Secondary roof drains shall be provided not less than 2 inches above the roof surface (CPC 1101.12)

5. Garages and Doors

5.1 Common wall between garage and dwelling shall have ½ inch gypsum board applied on the garage side. Garage ceiling with habitable space above shall have 5/8 inch type X gypsum wallboard applied to the ceiling. Carports with no enclosed uses above do not require protection. (R302.6)

5.2 No openings may be provided between a garage and a sleeping room. Other openings shall be equipped with solid wood or steel doors 1 3/8 inches in thickness, or 20 minute fire rated doors, equipped with self-closing or automatic-closing and self-latching device. (R302.5.1)

5.3 Garage and carport floor surfaces shall be of approved noncombustible material. Asphaltic surfaces shall be permitted at ground level in carport. (R309.1 & R309.2)

5.4 Appliances and receptacles installed in garages and carports shall be located so that all burners and burner-ignition devices are located 18 inches minimum above the floor unless listed as flammable vapor ignition resistant. Provide protective bollard or other impact barrier or located out of the normal path for vehicles. (CMC 305.1)

6. Electrical

6.1 Do not install electrical panels larger than 16 square inches in rated firewalls. Garage to dwelling unit separation is not a rated firewall. (R302.4.2). Never install electrical panels in a closet. Maintain a clearance of 36 inches in front of the panels (CEC110.26).

6.2 Provide a minimum of one 20 ampere receptacle in areas designated for laundry equipment. (CEC 210.52F)

6.3 Kitchens and dining areas must have a minimum of two 20 ampere circuits. Kitchen counter outlets must be installed in every counter space 12 inches or wider, not greater than 4 foot on center and within 24 inches of the end of any counter space. (CEC 210.52)

6.4 GFCI outlets are required for all kitchen receptacles that are designed to serve countertop surfaces, in bathrooms, in underfloor spaces at or below grade level, in exterior outlets, in laundry areas, and in all garage outlets not dedicated to a single device or appliance. (CEC 210.8) All dwellings must have at least one exterior outlet at the front and the back of the dwelling. (CEC 210.52E)

6.5 Receptacles must be installed at 12 foot on center maximum in walls. Walls longer than 2 feet and halls longer than 10 feet must have a receptacle. A receptacle must be provided within 3 feet of bathroom sinks. (CEC 210.52)

6.6 Bond all metal gas and water pipes to ground. All ground clamps must be accessible and of an approved type. (CEC 250.104)

6.7 Furnaces installed in attics and crawl spaces must have an access platform (catwalk in attics), light, light switch, and receptacle in the space. (CMC 904.10)

6.8 New dwellings must have a 120 volt powered smoke alarm in every sleeping room, outside each sleeping room, on every story of the dwelling, including basements and habitable attics, but not including crawl spaces or uninhabitable attics. (R314.3)

6.9 When more than one smoke alarm or carbon monoxide alarm is required, the alarm devices shall be interconnected. If the proposed scope of work does not result in the removal of wall and ceiling, finishes exposing areas requiring installation devices may be battery operated. (R314.4 & R315.7)

6.10 When alterations, repairs, or additions require a permit, smoke alarms shall be installed where required in new dwellings. (R314.2.2)

6.11 For new construction and work in an existing dwelling, where an addition is made to an existing dwelling or a fuel-burning appliance is added, carbon monoxide alarms shall be installed in sleeping rooms within which fuel- burning appliances are installed, outside of each sleeping area, and on each occupiable level. Carbon monoxide alarms are not required in dwellings where there is no fuel-fired appliance or attached garage. (R315.2; R315.3)

6.12 All 120 volt, 15 and 20 ampere branch circuits in dwelling units except those in bathrooms, unfinished basements, garages and outdoors shall have AFCI protection. (CEC 210.12)

6.13 Receptacles on 120 volt, 15 and 20 ampere circuits shall be tamper resistant. Except when located more than 5.5 feet above the floor or when part of a luminaire or appliance. (CEC 406.12)

7. Miscellaneous Life Safety

7.1 Provide pressure relief valve with drain to outside for water heater. (CPC 608.3) Provide seismic strapping or anchorage resisting overturning of water heater. (CPC 507.2, CRC R301.2.2.10)

7.2 Liquefied petroleum gas (LPG) appliances shall not be installed in a pit, basement or similar location. LPG appliances shall not be installed in an above grade underfloor space or basement unless such location is provide with an approved means for removal of unburned gas (CMC 303.7.1)

7.3 Provide combustion air for all gas fired appliances. (CMC Chapter 7)

7.4 Fuel burning water heater is not allowed in bedroom or bathroom unless direct vent type or complying with CPC 504.1.

7.5 Vent clothes dryer to outside of building (not to underfloor area). Vent length shall be 14 feet maximum and the vent diameter shall not be less than 4 inches. (CMC 504.4.2)

7.6 Water closet shall be located in a space not less than 30 inches in width with 24 inch minimum clearance in front. (CPC 402.5)

7.7 Showers and tubs with showers require a non-absorbent surface up to 72 inches above the floor. (R307.2). Provide curtain rod or approved enclosure material.

7.8 Provide backflow preventers on all hose bibs. (CPC 603.5.7)

7.9 Safety glazing shall be required within 24 inches of a door edge or within 36 inches of a stairway, landing or ramp when the bottom edge of the glazing is less than 60 inches from the floor or walking surface. (R308.4.2 & R308.4.3)

7.10 Safety glazing is required in all fixed and operable panels of swinging, sliding and bi-fold doors. (R308.4.1)

7.11 Safety glazing is required in enclosures and walls facing hot tubs, saunas, steam rooms, showers and tubs where the bottom edge of the glazing is less than 60 inches from any standing or walking surface. (R308.4.5)

7.12 Wood burning appliances shall be EPA phase II certified in the Northern Sonoma County Air Pollution Control District. In the Bay Area Air Quality Management District, wood burning appliances are not allowed. (Sonoma County Ordinance)

7.13 Provide a minimum 18 inch by 24 inch foundation access through floors or a 16 inch by 24 inch foundation access through perimeter walls within 5 feet of all plumbing cleanouts. (R408.4; CPC 707.9)

7.14 Fire blocking shall be provided in concealed spaces of stud walls and partitions, including furred spaces, and parallel rows of studs or staggered studs; vertically at floor and ceiling levels, horizontally at intervals not to exceed 10 feet. (R302.11)

7.15 Show minimum 22 inch by 30 inch access opening to attic, in a hallway or other location with ready access. (CMC 304.4; R807.1) In attics in which an appliance is installed, an opening and passageway at least as large as the largest component of the appliance shall be required. (CMC 903.2.3)

7.16 Roof construction and covering shall comply with R905 and local ordinance. All roofing shall be of Class A fire resistive material, supported by solid sheathing (Chapter 7 Sonoma County Code).

7.17 Storage use or placement of a fuel-burning appliance in an underfloor area may trigger the requirement for a 1/2 inch gypsum wallboard or 5/8 inch wood panel membrane on the underside of the floor-framing member. See Section R302.13 of the CRC for exceptions.

8. Foundations and Concrete

8.1 Concrete shall be 3,000 pounds per square inch minimum for foundation and retaining walls (including stem walls), garage floor slabs, and porches or steps exposed to weather and 2,500 pounds per square inch minimum for all other concrete. (R402.2; Table R402.2; R608.5.1.5)

8.2 For conventional residential foundation requirements for walls of light frame construction, see table below. For foundation requirements for light frames walls with brick veneer, see Table R403.1(2). For foundation requirements of concrete and masonry wall construction, see Table 403.1(3). (R404.1.4.2; Table R403.1(1))

Foundations for Stud Bearing Walls-Minimum Requirements

No. of Stories	Thickness of stem wall concrete	Width of footing	Thickness of footing	Depth below undisturbed ground surface
1	6.0 inches	12 inches	6 inches	12 inches
2	6.0 inches	15 inches	6 inches	12 inches

Foundation walls exceeding 4 foot 6 feet in height shall be a minimum 7.5 inches thick.

8.3 Horizontal reinforcing at footing and stem wall: one number 4 rebar within top 12 inches of stem wall and one number 4 rebar 3 to 4 inches from bottom of footing (R403.1.3.1)

8.4 When the stem wall and footing are not poured monolithically, a number 4 rebar shall be installed vertically at not more than 4 feet on center. The vertical bar shall extend to 3 inches clear from the bottom of the footing, have a standard hook, and extend a minimum of 14 inches into the stem wall. (R403.1.3.1)

8.5 Stepped footings shall be used when slope of footing bottom is greater than 10:1 (H:V). Step footing detail shall be shown on building elevations and foundation plan. (R403.1.5)

8.6 Concrete slabs shall be 3.5 inches thick minimum. (R506.1)

8.7 Provide adequate setbacks from slopes greater than 33 percent gradient equal to half the height of the slope (need not exceed 15 feet) for an adjacent ascending slope surface, and one third the height of the slope (need not exceed 40 feet) for an adjacent descending slope surface. If these setbacks cannot be met, a geotechnical report justifying soil characteristics and suitability of the proposed building site shall be provided. (R403.1.7)

8.8 Anchor bolts shall be minimum ½ inch by 10 inches placed at 6 foot on center maximum. Embed bolts 7 inches minimum. Locate end bolts neither less than 3.5 inches nor more than 12 inches from ends of sill members. (R 403.1.6) Provide minimum 3 inch by 3 inch by 0.229 inch plate washers on each bolt. (R602.11.1)

9. Floors

9.1 Floor joist size, spacing and grade shall conform to Tables R502.3.1(1 & 2); or shall be designed by a licensed professional.

9.2 Joists under and parallel to bearing partitions shall be doubled. (R502.4)

9.3 Bearing partitions perpendicular to joists shall not be offset from supporting girders, walls or partitions more than the joist depth. (R502.4)

9.4 Girders for single-story construction or supporting one floor shall be 4 by 6 inch for spans 6 feet or less, with girders spaced at 8 feet on center. For other sizes and spans, see Table R602.7 (1, 2, & 3).

9.5 Nail spacing for floor plywood sheathing: 6 inches on center at edges, 12 inches on center in field (unless closer nailing is specified). Table R602.3(1)

9.6 Provide detail of connection of floor girder at foundation wall.

9.7 Solid block all joists at ends and intermediate supports with full-depth solid blocking not less than 2 inch nominal thickness. (R502.7)

9.8 At floor openings where header joist span exceeds 4 feet, show double trimmer joists and headers. Approved hangers shall be used for the header joist to trimmer joist connections when the header joist span exceeds 6 feet. (R502.10)

10. Walls

10.1 Show stud size, height, grade and spacing. (Table R602.3(5)) Exterior and interior studs shall be continuous floor to roof unless braced to ceiling.

10.2 Balloon frame gable end walls or provide soft wall bracing detail.

10.3 Minimum header sizes shall be according to Table R602.7 (1, 2, & 3)

10.4 Double top plates shall have a minimum lap of 24 feet. Nail with eight 16d common nails on each side of the joint, unless additional nailing is specified. Plates at intersections with bearing walls and corners shall also be overlapped. (Table R602.3)

10.5 Sole plate to joist or blocking shall be 16d common nails at 16 inches on center and 2-16d common nails at 16 inches at braced wall panels (Table R602.3 item 14)

10.6 Foundation cripple walls shall be framed of studs not less in size than the studs of the wall above. Cripple walls exceeding 4 feet in height shall be framed of studs as required for an additional story. Cripple walls shall be sheathed per R602.10.9 & R602.10.9.1. Cripple walls less than14 inches in height shall be continuously sheathed or constructed of solid blocking. (R602.9)

10.7 Minimum wood structural panel sheathing nailing: 6 inches on center at edges and 12 inches on center in field. (Table R602.3) Nailing shall be inspected prior to covering.

10.8 Provide one layer of number 15 asphalt felt or other approved material under exterior siding. Material shall have upper layer lapped 2 inches minimum over lower layer with 6 inches minimum laps at joints. (R703.2) Provide 2 layers of Grade D paper, or equivalent, between wood sheathing and stucco lath. (R703.7.3)

10.9 Braced wall lines shall be sized and configured in accordance with section R602.10 in its entirety. Provide a table justifying all braced wall lines complete with required and provided values for wind and seismic for the specified wall type. All braced walls and conventional bracing shall be adequately labeled and dimensioned.

10.10 Spacing of braced wall lines shall not exceed 25 feet (interior & exterior) unless length of required bracing, per Table R602.10.3(3) is adjusted in accordance with Table R602.10.3(4). (R602.10.1.3)

11. Roof

11.1 Show roof rafters and ceiling joists. Spans shall be per Tables R802.4(1) & (2) for ceiling joists and Tables R802.5.1(1) & (2) for rafters. Include the size, spacing and grade of all members.

11.2 Rafters shall be sized and framed in accordance with CRC Section R802.4, and the referenced span tables.

11.3 Where ceiling joists or rafter ties are not provided trusses shall be used or engineering shall be provided. (R802.3.1 & R802.10)

11.4 Solid block all rafters and trusses at exterior walls. (R802.8) Nail blocking to top plate with (3) 8d toe nails per block or provide clips.

11.5 For roofs shallower than 3:12 ridges, hips and valleys shall require engineering. (R802.2)

11.6 Wood structural panel sheathing, when designed to be permanently exposed in outdoor applications, shall be of an exterior exposure durability. Wood structural panel roof sheathing exposed to the underside may be identified as Exposure 1. (R803.2) Minimum nailing per Table R602.3(1) is 6 inches at edges and 12 inches in the field, 8d common, box or casing. Nail panels to blocking between rafters.

11.7 Deferred truss submittals shall be reviewed and approved by the design professional in responsible charge prior to submittal to the Building Division for review and approval. Show roof rafters and ceiling joists. Spans shall be per Tales R802.4(1) & (2) for ceiling joists and Tables R802.5.1(1) & (2) for rafters. Include the size, spacing and grade of all members.

12. Green Building and Energy

12.1 New construction and additions/alterations increasing a building's conditioned floor area or volume shall comply with applicable provisions of CalGreen. (CalGreen 301.1) Mandatory provisions shall apply only to the specific area of the addition or alteration. (CalGreen 301.1.1)

12.2 The Residential California Green Building Checklist shall be filled out and all mandatory and elective features selected shall be identified with adequate notations and details on the proposed project plans. An approved third party CALGreen special inspector shall review the proposed checklist and project plans and provide verification that all applicable mandatory and elective elements identified in the checklist have been adequately incorporated into the proposed project plans and details. The

third party CALGreen special inspector shall also achieve the field verification of the required CALGreen elements during the construction and inspection process.

12.3 Residential buildings undergoing permitted alterations, additions or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. (CalGreen 301.1.1)

12.4 Energy code documentation shall be provided for any additions and alterations to the conditioned envelope, space-conditioning systems, or lighting systems. Energy code documentation shall be registered with the California Energy Commission prior to permit issuance. (California Energy Code Section 100(b))

13. Fire Resistant Construction

13.1 New structures, and remodels and additions to existing structures shall meet the requirements of the Permit Sonoma Planning Division based on parcel specific zoning, use, and setback requirements.

13.2 Exterior walls within 5 feet (or 3 feet when the structure is equipped with an automatic fire sprinkler system) of an adjacent property line (or assumed property line between structures) shall be 1 hour fire-resistance rated.

13.3 The exposed underside of projections from exterior walls from 2 feet to less than 5 feet from an adjacent property line, or from 2 feet to less than 3 feet when the structure is equipped with an automatic sprinkler system, shall be 1 hour fire-resistance rated. Exterior wall projections less than 2 feet from an adjacent property line are not allowed.

13.4 When a parcel is located in a State Responsibility Area (SRA), all new construction shall comply with the applicable fire resistant construction requirements of CRC Section R337. Accessory Group U occupancy structures located at least 50 feet from an applicable building and additions and remodels to structures originally constructed prior to July 1, 2008 are exempt from these requirements.

13.5 Structures which are subject to Fire Safe Standards and located in the STA on parcels 1 acre and larger, shall have a minimum 1 hour fire-resistance rating at exterior walls and the underside of exterior projections within 10 feet from an adjacent property line.

13.6 Dwelling units in two-family dwellings shall be separated from each other by wall and floor assemblies having not less than a 1 hour fire-resistance rating. Fire-resistance rated floor/ceiling assemblies shall extend to the exterior walls, and the supporting construction shall have an equal or greater fire-resistance rating. Wall assemblies shall extend from the foundation to the underside of the roof sheathing, although wall assemblies need not extend through attic spaces where the ceiling is protected by not less than 5/8 inch Type X gypsum board, an attic draft stop is provided above and along the wall assembly separating the dwellings, and the structural framing supporting the ceiling is protected by not less than ½ inch gypsum board or equivalent. (R302.3)

Contact Information

Building Plan Check
Building Division[3]
Permit & Resource Management[4]
County of Sonoma

Contact Plan Check by Phone
Phone: (707) 565-2095
CA Relay Service: 711

Address
2550 Ventura Avenue
Santa Rosa, CA 95403

Links

1. http://www.bsc.ca.gov/codes.aspx

2. https://sonomacounty.ca.gov/PRMD/Instructions-and-Forms/BPC-002-Residential-Plan-Checklist//PRMD/Regulations/County-Code/
3. https://sonomacounty.ca.gov/PRMD/Instructions-and-Forms/BPC-002-Residential-Plan-Checklist//PRMD/Eng-and-Constr/Building/
4. https://sonomacounty.ca.gov/PRMD/Instructions-and-Forms/BPC-002-Residential-Plan-Checklist//Permit-Sonoma/