



City of Walnut Creek
Development Review Services
1666 N. Main Street, Walnut Creek, CA 94596
(925) 943-5834 phone (925) 256-3500 fax

Issued May 24, 2011

Information Bulletin # IB-037

Revised April 30, 2020

Submittal Requirements for an Accessory Building (Shed)

The building code exempts from permit structures that are less than 120 square feet in floor area. Customers often ask the question: What are the foundation and wall bracing requirements for detached structures such as backyard sheds that are larger than 120 square feet?

The building code has a discussion of wood foundations, but many shed installers wish to use either pressure-treated wood skids directly on grade or girders on isolated piers, not a continuous perimeter footing trenched into the ground. Chapter 4 in the California Residential Code gives foundation requirements with prescriptive design for conventional construction. A perimeter foundation is required by the CRC unless a foundation system is engineered with supporting analysis and calculations prepared by an architect or engineer licensed in the State of California.

Walls of a structure must be braced as specified in the California Residential Code for conventional light-framing or as designed by a California registered engineer. The window and door openings on one side of many sheds do not have enough length to meet braced wall provisions of the California Residential Code.

The U occupancy of sheds implies that life-safety hazard classification is relatively low. However the building code does not make a distinction to allow relaxation of foundation or wall bracing requirements for these structures.

Example plan check comments for a detached accessory wood-framed shed:

1. Print Code editions on top sheet of plans.
2. Provide an index to the drawings.
3. Provide a site plan. Show the location of the property lines around each building (main house and shed). Dimension the distance from the exterior walls to the property lines. Show and dimension the shed width and length to outside edge of exterior walls. Show trees on the property. Show the location of the trees, the tree type, their size (trunk circumference), and the drip outline.
4. Maximum slope of site is assumed to be less than 1 vertical in 3 horizontal. If site slopes more than 1V:3H, engineer or architect shall be retained by owner to address construction above, on or below slopes.
5. Provide a floor plan. Include door and window opening sizes and types. This may be expressed as XOXO SL, for example. Size is width then height in feet and inches. Type SL is for "slider".
6. Provide elevation views of all sides of the shed. Show the top plate height. Specify roof pitch on an elevation view: units vertical per 12 units horizontal. Specify type of roofing: minimum Class C.
7. Specify a 36-inch exterior landing at exterior door. Width at least the width of the door opening. Maximum step down 7 ¾ inches where the door does not swing over landing. Specify maximum ¾-inch threshold. If power is available specify a switched light near the exterior door.
8. Specify footing dimensions at least minimums from (see attached standard drawing).
9. Specify pressure-treated Douglass Fir mud sill plate. For sill plate attachment to footing use ½-inch diameter anchor bolts with 3" x 3" x 0.229" plate washers and 7-inch minimum embedment into concrete, 6-foot maximum on center, minimum two bolts per piece, with first bolt located between 4"- 12" from end of piece.
10. The shed must be braced to resist lateral (wind and seismic) forces. The conventional bracing provisions of the California Residential Code The CRC requires adjustment factors to both the wind-based bracing table and the seismic-based bracing table and special considerations for seismic category D₂. Refer to Section R602.10 for all the bracing requirements. To show compliance with the bracing provisions, please provide a brace wall floor plan layout and required calculations. Label the brace wall lines using letter and number wall lines as references so that the calculations may reference the brace wall lines in a clear manner.
11. Provide a detail of construction to specify exterior siding, eave and overhang depth dimensions.
12. Provide framing nailing schedule on plan for Conventional Light-Framed construction.
13. Provide a roof framing plan. Specify rafter size and spacing, ridge board, ceiling joists or collar ties.



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14. Specify nailing of minimum ½-inch thick plywood roof sheathing shall be minimum 8d common or box at 6-inches on-center edges and 12-inches on-center field.
15. Specify whether any mechanical or plumbing work will be included.
16. Specify whether any electrical work will be included.
 - a. Specify a means for connection all ungrounded conductors near the entrance to the shed
 - b. Specify means of grounding electrical service to the shed
 - c. Specify the number of branch circuits to the shed
 - d. Show all fixtures and outlets inside and outside the shed
 - e. Note on plans receptacle outlets must be GFCI protected
 - f. Receptacle outlets on an exterior wall must also have an in-use gasket-type cover
17. Specify energy conservation measures for any lighting: high-efficacy or dimmer-controlled inside, high-efficacy or with motion-sensor/ photocontrol on outside.
18. Obtain approval from Planning division.