

WAC 246-359-220 Floor framing for wood framed construction. (1)

Girders.

(a) Girders supporting floor joists must be a minimum four-by-six Hem-Fir #2, spaced not more than eight feet on center, and placed at least twelve inches above ground.

(b) Girders must be continuous, or must be spliced over supports. When a girder is spliced over a support, a positive tie to the support must be provided.

(c) Each end of each girder member must have a minimum three inch of bearing on treated wood plates or treated wood posts.

(2) Floor joists.

(a) Floor joists must be a minimum two-by-six spaced sixteen inches on center or two-by-eight spaced twenty-four inches on center, Hem-Fir #2 or better, spanning not more than eight feet between supports, and placed at least eighteen inches above ground.

(b) Floor joists must be continuous or spliced only over a support with a minimum three-inch lap.

(c) The end of each joist must have not less than three inch bearing on treated wood plate.

(d) Notches on the ends of joists cannot exceed one fourth the joist depth. Holes bored in joists cannot be within two inches of the top or bottom of the joist, and the diameter of any such hole cannot exceed one-third the depth of the joist. Notches in the top or bottom of joists cannot exceed one-sixth the depth and cannot be located in the middle third of the span.

(e) Floor joists must have solid blocking at the ends and at each support. Solid blocking cannot be less than two inches nominal in thickness and the full depth of the joist.

(3) **Interior bearing.** Interior bearing footings (pads) must be of plain concrete at least sixteen inches by sixteen inches by eight inches thick placed on firm undisturbed soil.

(4) **Ventilation.** Under floor areas (crawl spaces) must be ventilated by one-fourth inch screened openings of not less than one square foot of opening for each one hundred fifty square feet of under-floor area.

(5) **Supporting interior bearing partitions.** Interior bearing partitions perpendicular to floor joists must not be offset from support girders more than the joist depth. Interior bearing partitions parallel to the floor joists must be supported by a doubled floor joist located directly under the interior bearing partition.

(6) **Subflooring.** Subflooring must be structural wood panels (plywood or OSB), particleboard subfloor or combination subfloor-underlayment, or solid wood.

(a) Structural wood panels will be tongue-and-groove installed perpendicular to the floor joists with end joints occurring over floor joists. The minimum thickness must be five-eighth inches (eleven-sixteenths inches) over floor joists spaced sixteen inches on center and three-fourths inches (twenty-five thirty-seconds inches) over floor joists spaced twenty-four inches on center. Structural wood panels must be grade stamped for use and span. Secure structural wood panels to the floor joist system by use of either nails or glue and nails combination. In both systems, nails must be 8d common or deformed shank, spaced six inches on center at the edges and twelve inches on center at intermediate supports.

(b) Particleboard subfloor or combination subfloor-underlayment must be installed perpendicular to the floor joists. The minimum thickness must be five-eighths inches over floor joists spaced sixteen

inches on center and three-fourths inches over floor joists spaced twenty-four inches on center. Particleboard must be grade stamped for use and span. Secure particleboard to the floor joist system by use of either nails or glue and nails combination. In both systems, nails must be 8d common or deformed shank, spaced six inches on center at the support edges and twelve inches on center at intermediate supports.

(c) Solid wood must be a minimum size of one-inch by six-inch nominal tongue-and-groove wood strip flooring applied perpendicular or diagonally to the floor joists. Secure solid wood flooring to the floor joist system by use of either nails or glue and nails combination as follows for:

(i) Wood strip flooring six inches or less must be nailed to each floor joist by "2-8d" common or box nails; or

(ii) Wood strip flooring greater than six inches must be nailed to each floor joist by "3-8d" common or box nails.

[Statutory Authority: RCW 70.114A.081. WSR 99-03-065, § 246-359-220, filed 1/18/99, effective 2/18/99.]