

Nailing Schedule



**BUILDING
INSPECTIONS**
City of Richfield

The Richfield building code and city code provide minimum standards for creating an environment of health and safety for all Richfield residents.

The building code provides nailing requirements for construction:

CONNECTION - NAILING ¹

1. Joist to sill or girder, toenail 3-8d
2. Bridging to joist, toenail each end 2-8d
3. 1" 6" (25 mm 152 mm) subfloor or less to each joist, face nail 2-8d
4. Wider than 1" 6" (25 mm 152 mm) subfloor to each joist, face nail 3-8d
5. 2" (51 mm) subfloor to joist or girder, blind and face nail 2-16d
6. Sole plate to joist or blocking, typical face nail 16d at 16" (406 mm) o.c.
Sole plate to joist or blocking, at braced wall panels 3-16d per 16" (406 mm)
7. Top plate to stud, end nail 2-16d
8. Stud to sole plate 4-8d, toenail or 2-16d, end nail
9. Double studs, face nail 16d at 24" (610 mm) o.c.
10. Doubled top plates, typical face nail 16d at 16" (406 mm) o.c.
Double top plates, lap splice 8-16d
11. Blocking between joists or rafters to top plate, toenail 3-8d
12. Rim joist to top plate, toenail 8d at 6" (152 mm) o.c.
13. Top plates, laps and intersections, face nail 2-16d
14. Continuous header, two pieces 16d at 16" (406 mm) o.c. along each edge
15. Ceiling joists to plate, toenail 3-8d
16. Continuous header to stud, toenail 4-8d
17. Ceiling joists, laps over partitions, face nail 3-16d
18. Ceiling joists to parallel rafters, face nail 3-16d
19. Rafter to plate, toenail 3-8d
20. 1" (25 mm) brace to each stud and plate, face nail 2-8d
21. 1" 8" (25 mm 203 mm) sheathing or less to each bearing, face nail 2-8d
22. Wider than 1" 8" (25 mm 203 mm) sheathing to each bearing, face nail 3-8d
23. Built-up corner studs 16d at 24" (610 mm) o.c.
24. Built-up girder and beams 20d at 32" (813 mm) o.c. at top and bottom and staggered 2-20d at ends and at each splice
25. 2" (51 mm) planks 2-16d at each bearing
26. Wood structural panels and particleboard:² Subfloor and wall sheathing (to framing): 1/2" (12.7 mm) and less 6d ³
19/32"-3/4" (15 mm-19 mm) 8d₄ or 6d₅
7/8"-1" (22 mm-25 mm) 8d₃
1 1/8"-1 1/4" (29 mm-32 mm) 10d₄ or 8d₅
Combination subfloor-underlayment (to framing): 3/4" (19 mm) and less 6d₅
7/8"-1" (22 mm-25 mm) 8d₅

This handout is written as a guide to common questions and problems.
It is not intended nor shall it be considered a complete set of requirements.

City of Richfield • 6700 Portland Avenue South • Inspections Division • (612) 861-9860

Zoning Administrator • (612) 861-9760

Nailing Schedule continued

- 11/8"-11/4" (29 mm-32 mm) 10d₄ or 8d₅
- Combination subfloor-underlayment (to framing): 3/4" (19 mm) and less 6d₅
- 7/8"-1" (22 mm-25 mm) 8d₅
- 11/8"-11/4" (29 mm-32 mm) 10d₄ or 8d₅
- Combination subfloor-underlayment (to framing): 3/4" (19 mm) and less 6d₅
- 7/8"-1" (22 mm-25 mm) 8d₅
- 11/8"-11/4" (29 mm-32 mm) 10d₄ or 8d₅
- 27. Panel siding (to framing)²: 1/2" (12.7 mm) or less 6d₆
- 5/8" (16 mm) 8d₆
- 28. Fiberboard sheathing:⁷ 1/2" (12.7 mm) No. 11 ga.⁸ 6d₄ No. 16 ga.⁹
- 25/32" (20 mm) No. 11 ga.⁸ 8d₄ No. 16 ga.⁹
- 29. Interior paneling 1/4" (6.4 mm) 4d₁₀
- 3/8" (9.5 mm) 6d₁₁
- 30. Wood structural panel roof sheathing, 8d common 6 inches on center at edges, 8d common 12 inches on center in field

NOTES

- 1 Common or box nails may be used except where otherwise stated.
- 2 Nails spaced at 6 inches (152 mm) on center at edges, 12 inches (305 mm) at intermediate supports except 6 inches (152 mm) at all supports where spans are 48 inches (1219 mm) or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Sections 2315.3.3 and 2315.4. Nails for wall sheathing may be common, box or casing.
- 3 Common or deformed shank.
- 4 Common.
- 5 Deformed shank.
- 6 Corrosion-resistant siding or casing nails conforming to the requirements of Section 2304.3.
- 7 Fasteners spaced 3 inches (76 mm) on center at exterior edges and 6 inches (152 mm) on center at intermediate supports.
- 8 Corrosion-resistant roofing nails with 7/16-inch-diameter (11 mm) head and 1 1/2-inch (38 mm) length for 1/2-inch (12.7 mm) sheathing and 1 3/4-inch (44 mm) length for 25/32-inch (20 mm) sheathing conforming to the requirements of Section 2304.3.
- 9 Corrosion-resistant staples with nominal 7/16-inch (11 mm) crown and 1 1/8-inch (29 mm) length for 1/2-inch (12.7 mm) sheathing and 1 1/2-inch (38 mm) length for 25/32-inch (20 mm) sheathing conforming to the requirements of Section 2304.3.
- 10 Panel supports at 16 inches (406 mm) [20 inches (508 mm) if strength axis in the long direction of the panel, unless otherwise marked]. Casing or finish nails spaced 6 inches (152 mm) on panel edges, 12 inches (305 mm) at intermediate supports.
- 11 Panel supports at 24 inches (610 mm). Casing or finish nails spaced 6 inches (152 mm) on panel edges, 12 inches (305 mm) at intermediate supports.

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