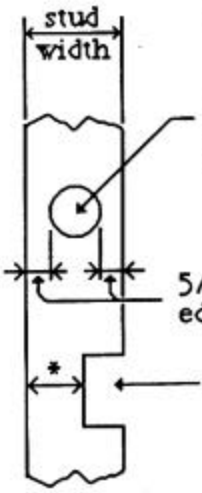
CUTTING, NOTCHING & BORING OF STUDS

Section 2517(g), Items 8 & 9

Exterior Walls and Bearing Walls



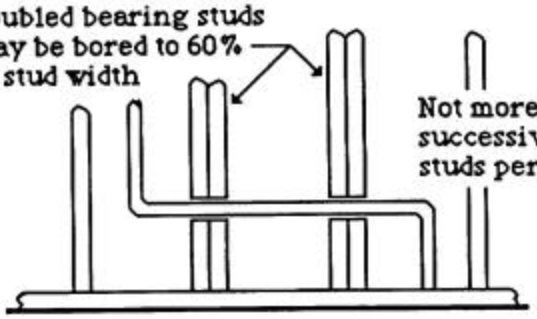
Bored Holes–Maximum size hole is 40% of stud width.
2 x 4–1-3/8 inch diameter hole
2 x 6–2-3/16 inch diamete hole

Bored Holes in Double Studs–Maximum size hole in double studs is 60% of stud width. No more than two adjoining double studs to be bored. See detail below.
2 x 4–2-1/8 inch diameter hole
2 x 6–3-5/16 inch diameter hole

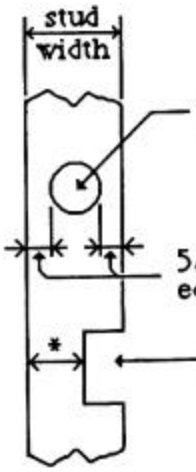
5/8" min.
edge distange*

Notches–Maximum depth of notch is 25% of stud width
2 x 4–7/8 inch deep notch
2 x 6–1-3/8 inch deep notch

Per Artical 300-4(1) of the NEC, 1/16 inch thick plate or bushing required if edge of hole is less than 1-1/4 inches from nearest edge of wood member



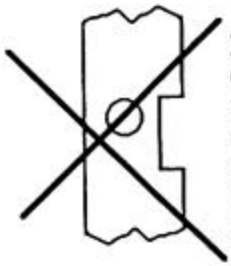
Interior Non-Bearing Walls



Bored Holes–Maximum size hole is 60% of stud width.
2 x 4–2-1/8 inch diameter hole
2 x 6–3-5/16 inch diameter hole

5/8" min.
edge distange*

Notches–Maximum depth of notch is 40% of stud width
2 x 4–1-3/8 inch deep notch
2 x 6–2-3/16 inch deep notch



For either bearing or non-bearing walls, bored holes shall not be located at the same section of the stud as a cut or notch

* Portion of stud remaining at bored holes or notches shall be sound wood without excessive strength reducing properties such as knots, breaks, splits, excessive slope of grain and the like.

TABLE NO. 25-Q—NAILING SCHEDULE

CONNECTION	NAILING[1]
1. Joist to sill or girder, toenail	3-8d
2. Bridging to joist, toenail each end	2-8d
3. 1" x 6" subfloor or less to each joist, face nail	2-8d
4. Wider than 1 " x 6" subfloor to each joist, face nail	3-8d
5. 2" subfloor to joist or girder, blind and face nail	2-16d
6. Sole plate to joist or blocking, face nail	16d at 16" o.c.
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" o.c.
10. Double top plates, face nail	16d at 16" o.c.
11. Top plates, laps and intersections, face nail	2-16d
12. Continuous header, two pieces	16d at 16" o.c. along each edge
13. Ceiling joists to plate, toenail	3-8d
14. Continuous header to stud, toenail	4-8d
15. Ceiling joists, laps over partitions, face nail	3-16d
16. Ceiling joists to parallel rafters, face nail	3-16d
17. Rafter to plate, toenail	3-8d
18. 1" brace to each stud and plate, face nail	2-8d
19. 1" x 8" sheathing or less to each bearing, face nail	2-8d
20. Wider than 1" x 8" sheathing to each bearing, face nail	3-8d
21. Built-up corner studs	16d at 24" o.c.
22. Built-up girder and beams	20d at 32" o.c. at top and bottom and staggered 2-20d at ends and at each splice
23. 2" planks	2-16d each end
24 Plywood and particleboard:[5]	
Subfloor, roof and wall sheathing (to framing):	
1/2" and less	6d[2]
19/32"—3/4"	8d[3] or 6d[4]
7/8"—1"	10d[3] or 8d[4]
1-1/8"—1-1/4"	10d[3] or 8d[4]
Combination Subfloor-underlayment (to framing):	
3/4" and less	6d[4]
7/8"—1"	8d[4]
1-1/8"—1-1/4"	10d[3] or 8d[4]
25. Panel Siding (to framing)	
1/2" and less	6d[6]
5/8"	8d[6]
26. Fiberboard Sheathing:[7]	
1/2"	No. 11 ga.[8] -or- 6d[3] -or- No. 16 ga.[9]
25/32"	No. 11 ga.[8] -or- 8d[3] -or- No. 16 ga.[9]

NOTES:

1. Common or box nails may be used except where otherwise stated.
2. Common or deformed shank
3. Common
4. Deformed shank
5. Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports (10 inches at intermediate supports for floors), except 6 inches at all supports where spans are 48 inches or more. For nailing of plywood and particleboard diaphragms and shear walls, refer to Section 2513(c). Nails for wall sheathing may be common, box or casing.
6. Corrosion-resistant siding or casing nails conforming to the requirements of Section 2516(j)1.
7. Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports.
8. Corrosion-resistant roofing nails with 7/16 inch diameter head and 1/2 inch length for 1/2 inch sheathing and 1-3/4 inch length for 25/32 inch sheathing conforming to the requirements of Section 2516(j)1.
9. Corrosion-resistant staples with nominal 7/16 inch crown and 1-1/8 inch length for 1/2 inch sheathing and 1-1/2 inch length for 25/32 inch sheathing conforming to the requirements of Section 2516(j)1.