

Don't Forget the Blocks

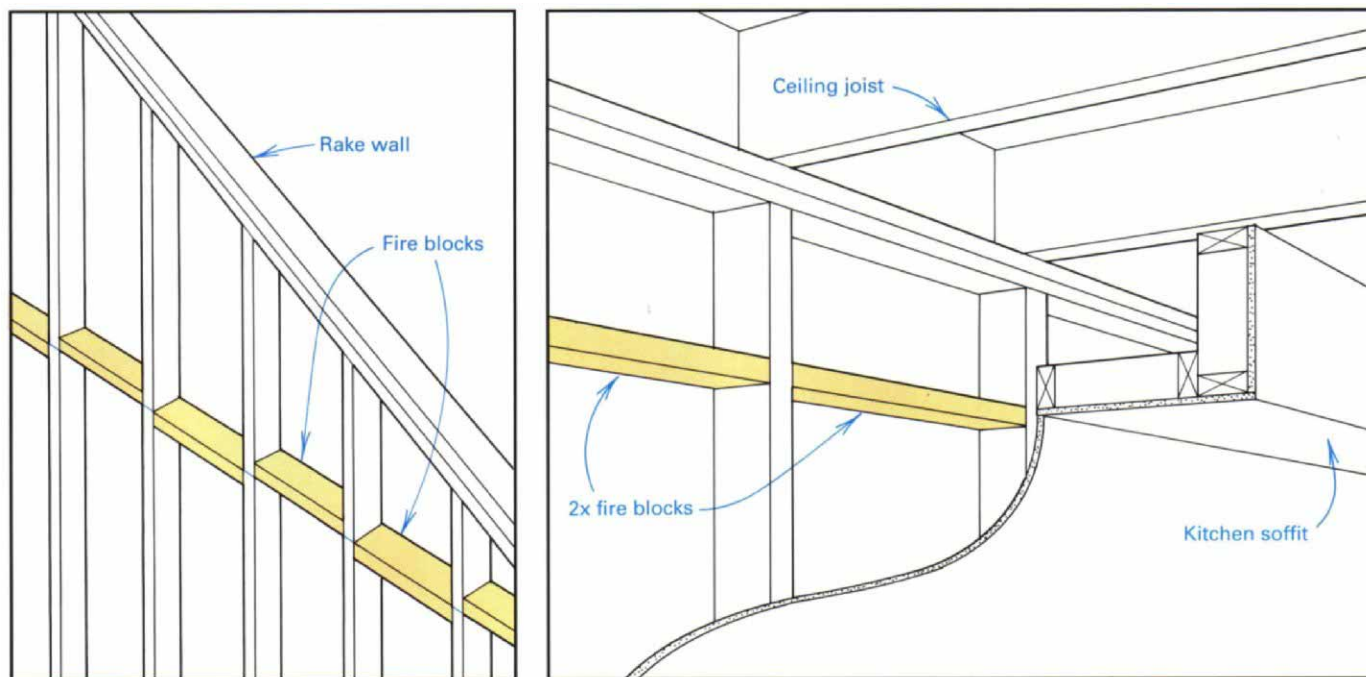
Blocking makes a house more stable and makes it easier to install drywall, plumbing and siding

by Larry Haun

Along with a mortgage, homeowners sometimes get an unwelcome riddle or two not long after they move in to their new house. Why, for instance, did the handrail on the staircase loosen up so quickly? And what caused the towel bar in the bathroom to fall off? These are telltale signs that something was forgotten when the house was framed: Backing and blocking that should have been included as the house was built almost certainly were overlooked by the framing crew. Blocking aids the installation of everything from bathtubs and handrails to siding and wainscoting, and it en-

sures that things will stay put. And forgotten blocks can be more than an inconvenience. Some blocking used in construction is important structurally, such as edge blocks used under floor sheathing. Still other blocks, fire stops for instance, are safety features. The trick is to know when blocking is needed and where to nail it. □

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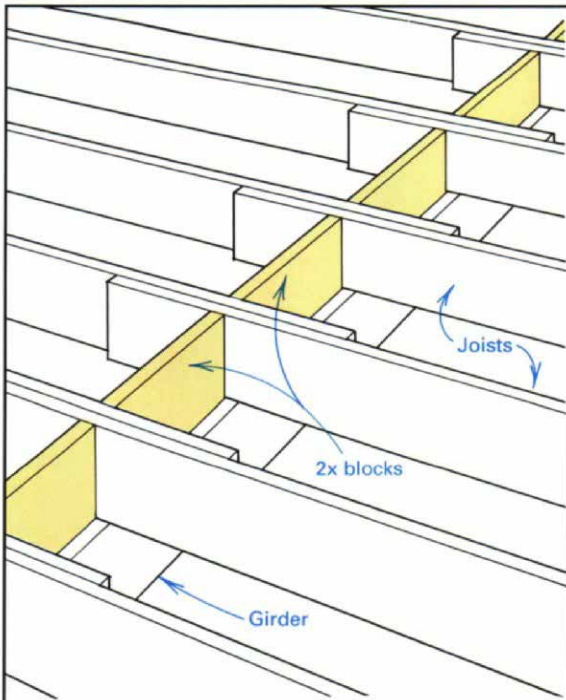
Blocks for safety—Fire stops (or blocks) were important in balloon-framed walls, when uninterrupted stud cavities rose two stories instead of just one. When fires started, those spaces acted just like flues, creating drafts that spread flames quickly. With the introduction of platform framing, fire blocks in standard-height walls became history. But many of today's codes do require fire blocks in walls that are more than 10 ft. high, like rake walls (left drawing, above).

When they are needed, cut the blocks to length (14½ in. for studs 16 in. o. c.; 22½ in. when studs are 24 in. o. c.) and nail them between the studs while framing the wall on the floor. One 16d common nail on one end and two nails on the other end provide plenty of support. Snap a chalkline on the wall and alternately nail the blocks above and below the line. There are two good reasons to stagger the blocks like this: It

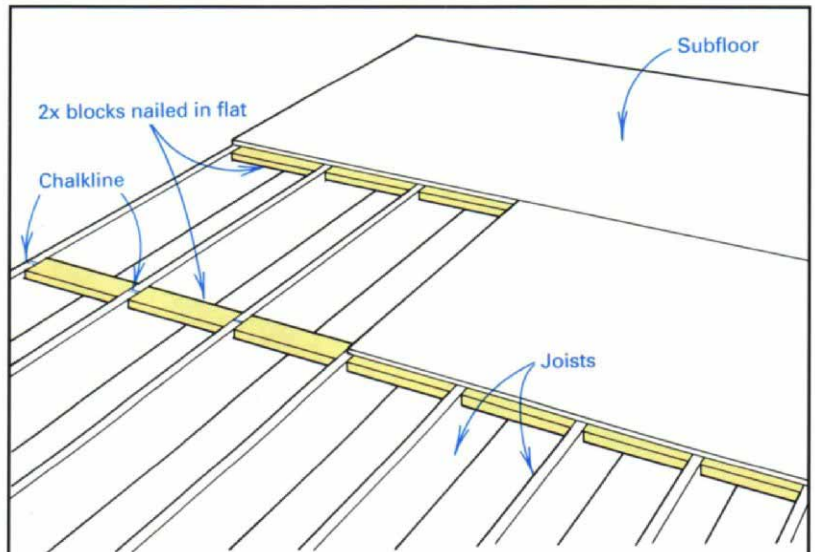
makes it easier to nail them, and a plaster wall won't crack when applied over them. Cracks can develop in plaster if the blocks are nailed in a straight line.

Fire blocks are also used to close off one framed area from another. A dropped ceiling in a hallway, for example, or a kitchen soffit should be closed off from the framed walls by a row of fire blocks (right drawing, above). If a fire did get started in one of these places, blocks would help contain it. Codes in my area call for 2x fire blocks, which provide more protection than 1x material.

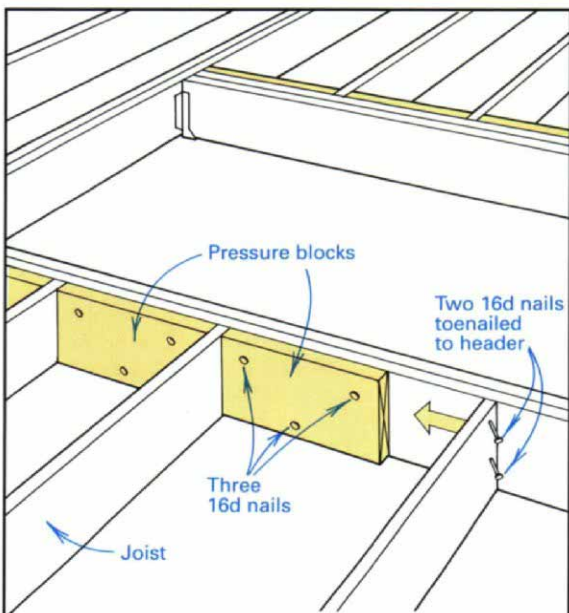
If you do use fire blocks, be careful not to nail them in at head height. Someone may get hurt as they go from room to room through a stud wall. There's nothing like having your eyes crossed by walking into a fire block that catches you squarely in the forehead.



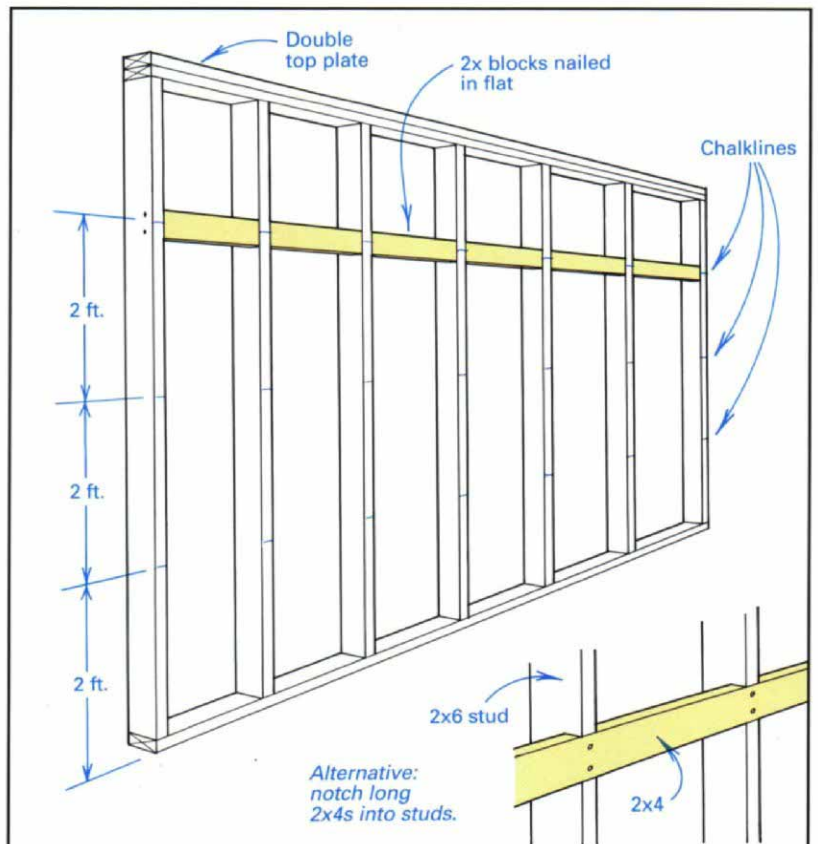
Joist blocks—For greater structural stability, joists should be blocked where they lap over a girder or a bearing wall (drawing above). Some codes require joists to be blocked over all bearing points, not just where joists overlap. Midspan blocks are no longer required by most codes, but see what is required in your area. Blocks at the lap should be 13 in. long when joists are 16 in. o. c. You can put the blocks in as you install the joists so that you won't have to toenail both ends in later.



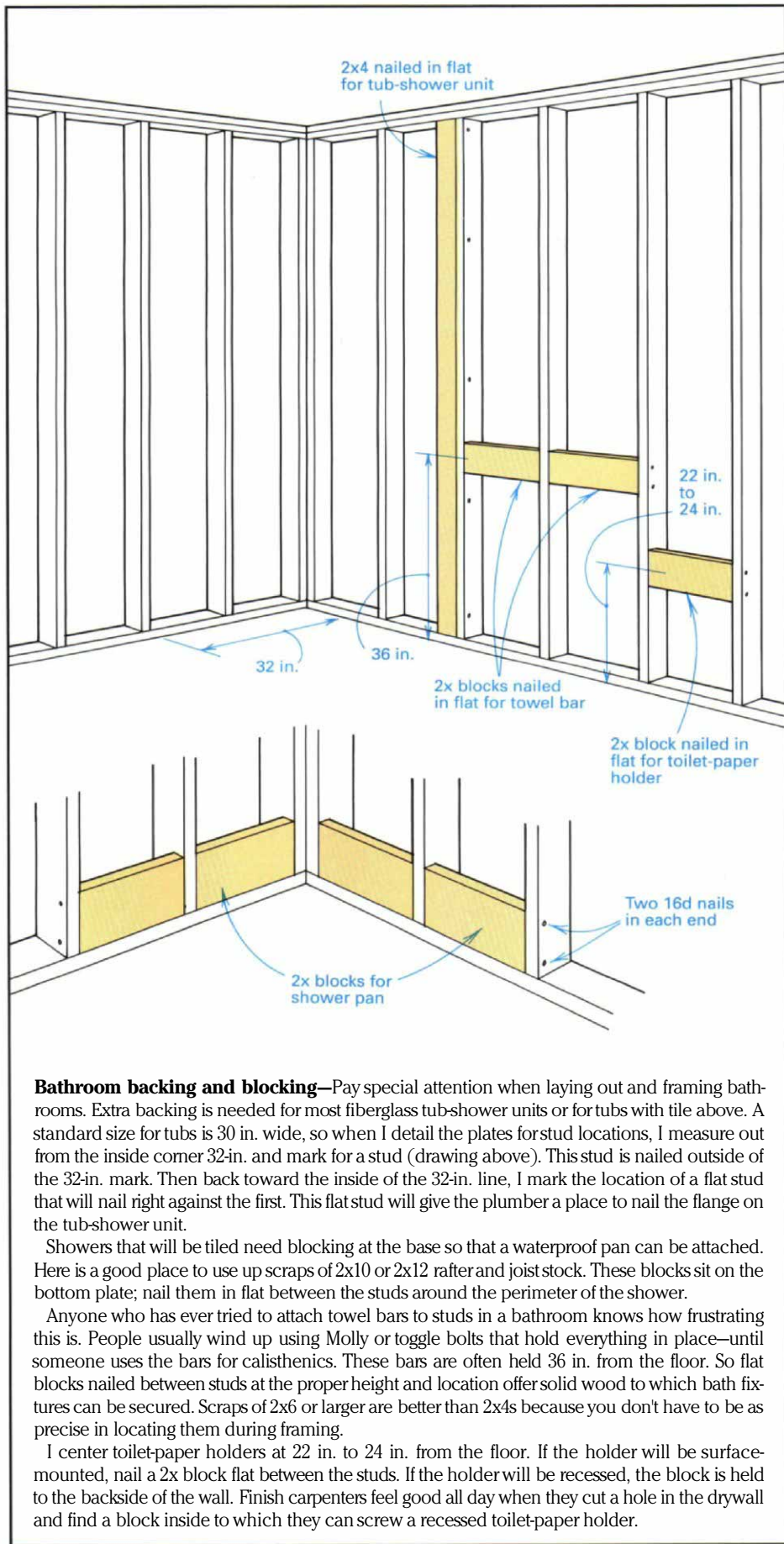
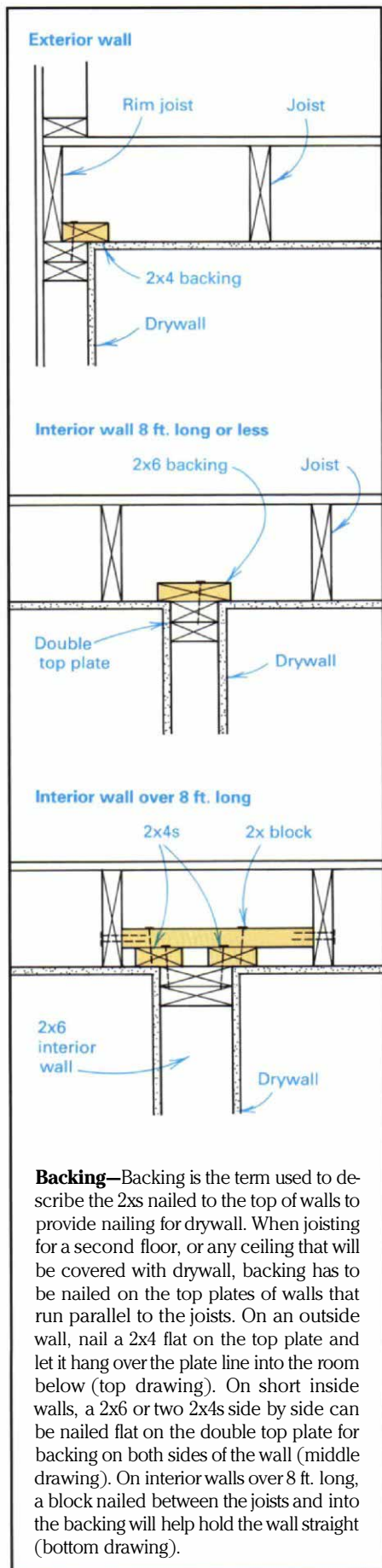
Edge blocks—If your subfloor is straight-edged sheathing, you may be required to use edge blocking to support the subfloor (drawing above). These 2x blocks, which are nailed flat between joists, support panel edges but generally are not needed when T&G subfloor is used. Snap a chalkline every 4 ft. across the joists and nail in a row of blocks centered on this line, two 16d nails at each end.

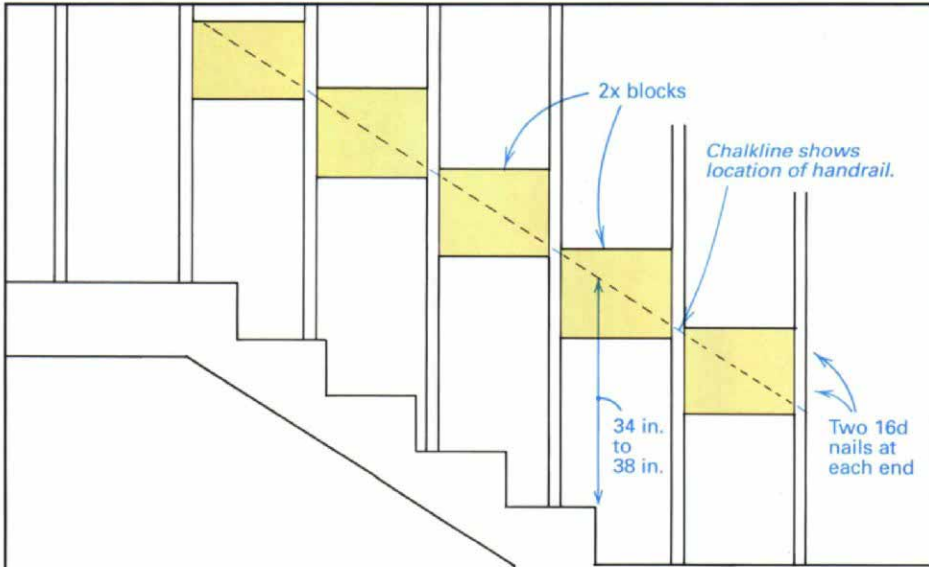


Pressure blocks—Ceiling joists that run into headers around an opening, such as an attic access or a skylight, often are supported by joist hangers. But if the joists are not going to carry much weight, you can use what I call pressure blocks (drawing above). These 2x blocks are cut to size (14½ in. for joists 16 in. o. c.) and are nailed between every joist.

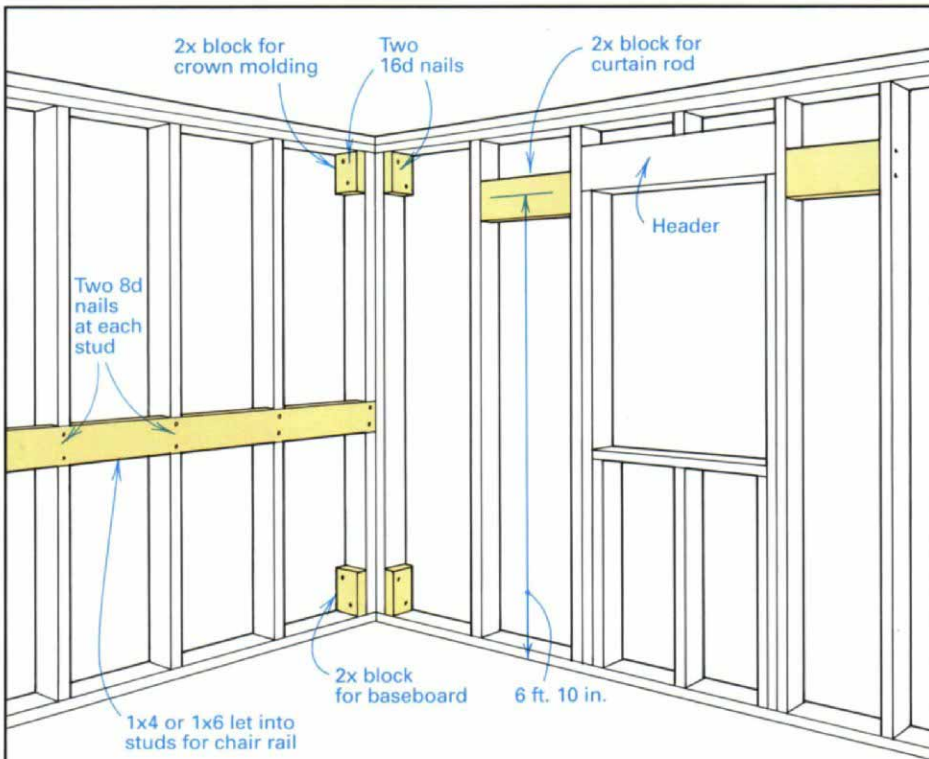


Blocks for siding—To support vertical siding, such as board and batten, I nail rows of blocks about every 2 ft. o. c. in exterior walls (drawing above). Just snap chalklines while framing the wall and nail the blocks in flat, flush with the exterior side, so that they won't be in the way of insulation. When the exterior walls have 2x6 studs, it's just as easy to notch in long 2x4s for siding support. This is fairly easy to do when the wall is flat on the floor during the framing process. Straighten up the wall, and snap two lines the width of a 2x4 apart every 2 ft. across the studs. Then make a saw cut 1½ in. deep on these lines and cut out the notch. A 2x4 nailed in across the studs supports the siding and straightens bowed studs.



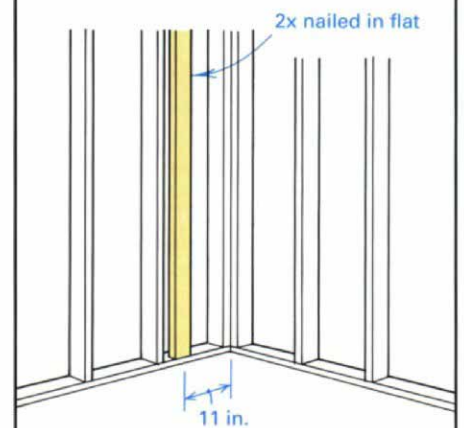
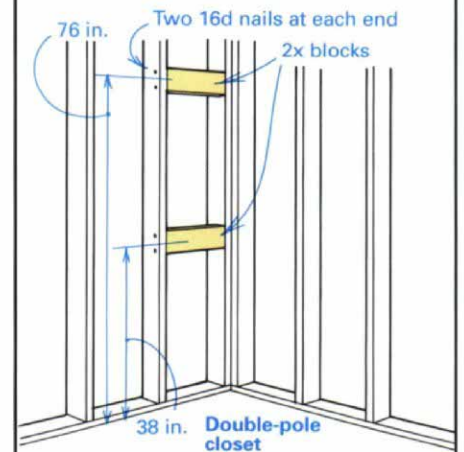
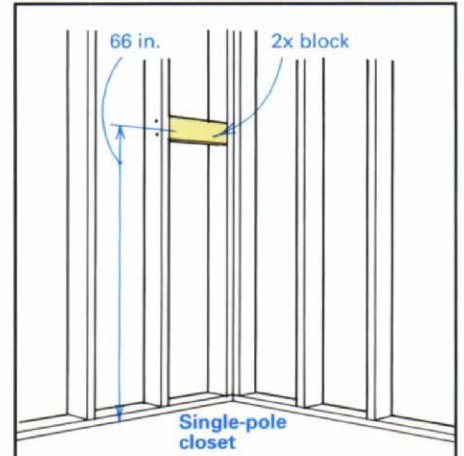


Stair-rail blocks—My codes state that stair handrails need to be positioned 34 in. to 38 in. plumb off the nose of the tread. Rather than try to guess the exact points at which a finish carpenter will attach the rail, I snap a chalkline at the proper rail height of the stairs. Then I pick up some joist or rafter scraps and cut blocks to fit between every stud space (drawing above).



Special blocking—When installing wide baseboard and crown molding, it's nice to have scraps of 2x4 nailed at the top and bottom of the corner studs and at the bottom of king studs on door openings (drawing above). Blocks nailed flat between studs at the proper height offer solid backing for wainscoting, chair rail and picture rail, too. It may be just as fast to let in a continuous 1x4 or 1x6 in these areas.

Curtain-rod holders usually can be attached to the king studs or trimmers. But sometimes the homeowners will use curtain rods that extend beyond those studs. If this is the case, a 2x nailed flat at the window ends, and centered at 6 ft. 10 in. from the floor (the standard window height), will give adequate backing. Another place for special blocks is in the kitchen for a cabinet that will hang over an island or peninsula. The 2x blocks should be nailed between joists.



Closet blocks—The height of closet shelves and poles can vary. Around here a single pole is 66 in. off the floor. In a double-pole closet, the poles go in at 38 in. and 76 in. To provide solid backing for the poles, nail 2x blocks flat between the studs at the desired height on closet sidewalls (drawing above). It's also a good idea to provide backing for shelf cleats or adjustable shelf hardware that will be attached to a closet wall. Standard shelving in closets is 1½ in. wide. Rather than try to figure out closet arrangements during framing, I like to center a stud flat on the sidewall 11 in. out from the back wall.