

Wall braces

If the walls aren't going to be sheathed or sided with plywood, they will need to be braced laterally with let-in braces made of metal or 1x lumber. Wall bracing helps to hold the building plumb (straight up and down). When bracing is required, building codes usually call for permanent braces in almost every wall that has room for one. On longer walls, braces are required at each end, with an additional brace for every 25 ft. of wall space. If there are two braces in a wall they should oppose each other, one slanting one way, the other slanting the opposite way.

Even though permanent bracing is not necessary on a wall that will be sheathed, temporary braces will be needed to plumb and line the walls (see pp. 116-124). Because temporary braces often get in the way, many builders go ahead and install permanent ones even when they are not required by code.

Metal angle framing braces are a fairly new item in the construction industry. Compared to 1x6 let-in braces, metal braces are faster, easier and safer to install and will hold the building plumb just as well. Flat metal braces can also be used to provide lateral stability to walls. But, unlike the angle braces and

let-in wood braces, they must be nailed on in pairs, forming an X to stabilize the wall in both directions.

To install a metal angle brace, lay it across the framed wall diagonally from the bottom plate to the double top plate and make a pencil mark along one side. Then cut a slot 1 in. deep along this line into the plates and studs. Slip one flange of the brace into the slot and nail it to the bottom plate with two or three 8d nails, then add one more 8d through the brace and into the first stud. At the double top plate, start an 8d nail alongside the brace and bend it over to hold it in place as the wall is raised. Later, when the building is plumbed, it will be nailed permanently to the other studs and plates.

If metal braces are not available you can let in a 12-ft. 1x6 or 1x4, as the code allows. An experienced framer can cut in one of these in a matter of two or three minutes. They are good braces, but the procedure for installing them needs to be studied well and applied carefully to avoid the possibility of injury.

Make sure that the wall is reasonably square. Then lay the brace at about a 45° angle across the studs, avoiding door and window openings. Set your sawblade to a depth of about 1¾ in. Place one foot on the brace to keep it in position and hold the saw

Permanent Wall Braces

Metal angle brace

Wood let-in brace

