

This copy is for your personal non-commercial use only. To order presentation-ready copies of Toronto Star content for distribution to colleagues, clients or customers, or inquire about permissions/licensing, please go to: [www.TorontoStarReprints.com](http://www.TorontoStarReprints.com)

DIY

# Staggered studs do double duty

What benefit do staggered wall studs offer? Studs are vertical pieces of wood that form a wall, and staggering them offers a couple of benefits. In above-ground applications, they help boost thermal insulation values by reducing the amount of conductive heat transfer from one side of the wall to the other. If the studs were aligned and touching, energy would escape more readily through the wood

By **Steve Maxwell** Special to the Star

🚩 Sat., March 14, 2009 | ⌚ 3 min. read

## JOIN THE CONVERSATION

**Q:** What benefit do staggered wall studs offer?

**A:** Studs are vertical pieces of wood that form a wall, and staggering them offers a couple of benefits. In above-ground applications, they help boost thermal insulation values by reducing the amount of conductive heat transfer from one side of the wall to the other. If the studs were aligned and touching, energy would escape more readily through the wood.

Staggered studs also boost the sound resistance of a wall. One approach I've used involves positioning staggered two-by-fours along alternate edges of a two-by-six top and bottom wall plate. This creates two independent wall surfaces in one wall, preventing sound from resonating through the studs as it would if they extended from one side of the wall to the other.

**Q:** What should I do to get my wet basement ready for finishing? The ceiling is nine feet high, and no more than one inch of water comes in on the floor during wet weather. I was thinking of building up the floor with gravel and concrete to get it above water level. There's also a mouldy smell I need to get rid of.

**A:** Eliminating water intrusion is Job 1, but simply raising the floor isn't a good approach. Water will still be present below the floor, and may even rise up high enough to cause problems.

Begin by doing everything you can to make rain and surface water drain away from your house. This might mean repairing or installing eavestroughs or establishing a properly sloped soil profile that directs water away. Be sure to wait for wet weather to see if these changes actually make your basement dry. If leaks still occur, seek the opinion of a reputable basement contractor. Check out references before. Since your basement ceiling is so high, you may have the option of installing a network of drainage tiles on top of your current basement floor to direct water to the main household drain pipe before covering the tiles with crushed stone and a new concrete floor.

You could treat affected areas of visible mould with a non-toxic anti-mould spray (my current favourite is called Concrobium), or call in an accredited indoor air quality investigator. Canada Mortgage and Housing Corp. ([cmhc.ca](http://cmhc.ca); 800-668-2642) offers a list of qualified professionals around the country.

**Q:** How can I remove 12-inch by 12-inch mirror tiles from the walls of an entrance hall without damaging the wall surface?

**A:** Removing these mirrors might be easy or difficult, depending on how they're anchored. Either way, you need to protect yourself from the hazards of sharp, breaking glass. Leather work gloves, safety goggles and a drop sheet to collect debris are essential. Keep everyone else away from the work zone.

Start by covering the face of one mirror with a criss-cross pattern of duct tape. This consolidates the glass if it breaks (and it probably will). You also need to be prepared for the mirror coming loose all at once.

Instead of using a pry bar to lever the mirror off, start with a hacksaw blade out of the saw frame. Work it back and forth behind the mirror and see what happens. If the mirror is held on with self-sticking adhesive pads (many mirrors are), you may be able to saw right through them. If this doesn't work, try gently prying the mirrors. You can also intentionally break the glass with careful hammer blows, after covering the mirror with duct tape to hold pieces together.

When the wall is bare, scrape off any remaining tape or glue, then patch flaws. Multiple coats of drywall compound should do the trick. Apply a layer into the damaged areas using a four-inch wide drywall knife, let it dry for a day or two, sand the area flat with an abrasive sanding sponge, then repeat until the wall is flawless.

*Sign up for Steve's free homeowner newsletter at [www.stevemaxwell.ca](http://www.stevemaxwell.ca).*

**SHARE:**