

Upgrading to a Tile Shower



Replace your old fiberglass tub with a tiled shower that sports some classy details

BY TOM MEEHAN

When fiberglass shower units were first introduced in the 1970s, they were the stars of the plumbing world. Inexpensive and relatively easy to install, they didn't crack and were easy to clean. Fiberglass units had their own problems, but they worked. These days, bathrooms are a big renovation target for many homeowners who might not know how to deal with their old fiberglass tub/shower units (photo above). For this project, I removed the old tub unit in pieces, did a little carpentry, and had the plumber relocate the drain and mixing valve for about \$400 or \$500. After that, the job was like any other: a site-built pan, backerboard substrate, and tile (in this case limestone) combined with some interesting details that made a luxurious shower (photo right). □

Tom Meehan and his wife, Lane, run Cape Cod Tileworks in Harwich, Mass. Photos by Roe A. Osborn, except where noted.



DEMOLITION

THE FUN STAGE WITH QUICK RESULTS

To take out the existing shower unit, I first shut off the main water valve to the house, then start disassembling the plumbing fixtures (mixing valve and shower head, etc.). The door is closed and the fan turned on to keep dust out of the house. I always cut the drywall along the outside edge of the unit with a knife, hammer, and chisel to avoid damaging the drywall outside the shower stall. Next, I put on a dust mask and safety glasses, stick a new wood-cutting blade in a reciprocating saw, and start cutting from the top, working down. It helps to have someone hold some of the loose pieces, which vibrate as they are cut free from the rest of the unit. Each piece carted away makes it easier to attack the remaining section; usually the unit comes out in five or six pieces. The hardest piece to remove surrounds the drain; here, a little patience and cutting smaller pieces help. Once I've cut out around the drain, I reach down and undo the drain assembly with a wrench.



Work from the top down. The first cuts are made in the corners to separate the unit's walls from the tub.



It takes only a few cuts. Once the walls are removed, the tub should come out in pieces that are small enough to cart away without scratching walls and woodwork.

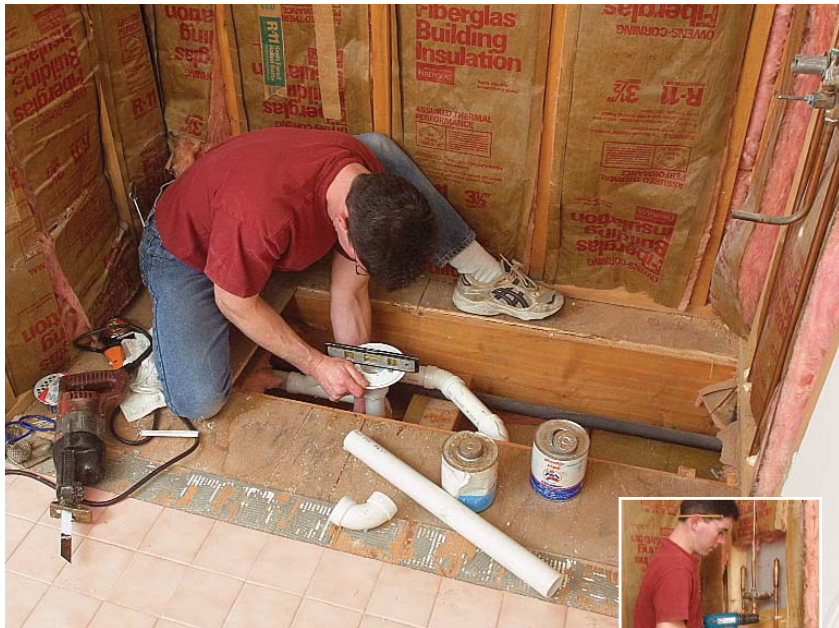
AVOID FLOODS, SHOCKS, AND BREAKAGE

When cutting, watch out for pipes and wires, and check in neighboring rooms for items like mirrors or vases that might vibrate onto the floor.

PLUMBING

RELOCATING THE DRAIN FOR THE NEW PAN

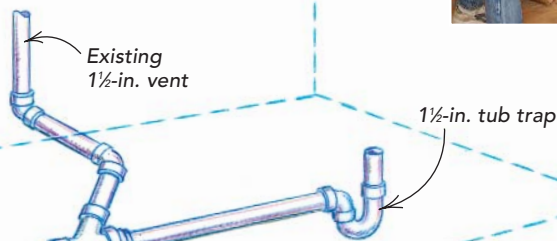
Once the old tub is removed, the drain typically must be moved from the tub end to the center of the new shower pan. After I open the subfloor, the plumber can reroute the drain and vent to the new position.



Time to call the plumber. The plumber levels the drain (photo above) so that it matches the shower-pan floor. He also replaces the mixing valve with a thermostatic pressure-balanced shower valve (photo right).



Existing tub layout

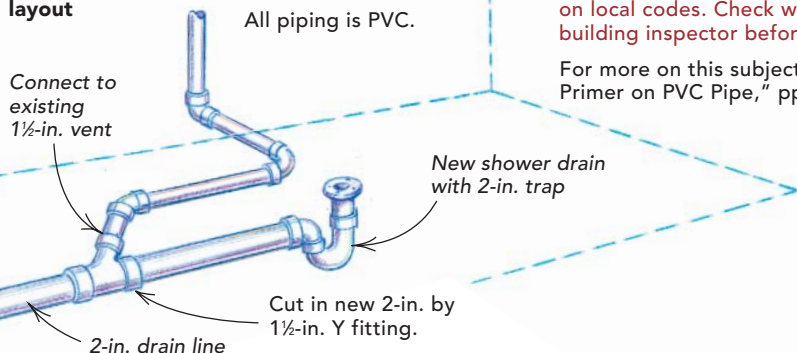


Don't forget to change the vent location

Plumbing code requires that a specific distance between the vent and the trap be maintained, based on local codes. Check with the local building inspector before starting.

For more on this subject, see "A Primer on PVC Pipe," pp. 80-83.

New shower layout



Shower pans:
Build your own
or buy them
ready made

ONLINE CONNECTION

Check out Tom Meehan's previous article, "Installing a Leakproof Shower Pan" (FHB #141), on our Web site at www.finehomebuilding.com.



SHOWER CONSTRUCTION

BACKERBOARD CREATES A WATER-RESISTANT SUBSTRATE

Unlike moisture-resistant gypsum-based products, cementitious backerboard can't come apart, even if it's soaking wet. Unless the installation is for a commercial steam shower, I don't use a vapor barrier between the framing and the backerboard. My experience tells me that any water vapor that does end up in the stud bays won't react with the backer or thinset and will evaporate quickly. Here are a few other tips:

- Use the largest pieces possible. Fewer pieces equal fewer joints, which minimizes any potential for water problems.
- Attach backerboard with 1½-in. galvanized roofing nails or screws, and don't put any fasteners lower than 2 in. above the threshold to avoid leaks.



Securing the backerboard. The author likes to nail the substrate every 6 in. to 8 in. (photo left). All seams then are sealed with fiber-glass-mesh tape bedded in thinset and troweled smooth (photo below).



I like to build my shower pans (see *FHB* #141, pp. 66-71) with a waterproof membrane and built-up mud floor. I think this type of pan makes the best substrate for a tile floor because it's solid, it won't crack, and it can conform to fit any space. I usually charge from \$300 to \$400 to build a shower pan, but if you want something faster, you can buy a prefab pan (photo top right) that you still can tile over. Made of waterproof extruded polystyrene and backerboard, these pans have floors that slope uniformly to a built-in drain and are relatively easy to install. A 36-in. by 36-in.

tile-ready pan (photo right) by Bonsal ("Sources," p. 91) costs about \$400.

A shower doesn't always have to have a tiled floor and threshold; often, a homeowner just wants a simpler look. Options include prefab shower pans made of fiberglass (photo center right) or acrylic (photo bottom right) that look fine with most tile jobs. They come in standard sizes that fit many, but not all, installations and are found in most plumbing-supply houses and home centers. Expect to pay about \$160 for a 32-in. by 32-in. fiberglass pan and about \$350 for an acrylic pan of the same size.



Tile ready: a prefab pan of reinforced backerboard



Fiberglass: inexpensive but the least durable



Acrylic: a tougher skin than fiberglass

THE DETAILS

MAKE A TILE SHOWER SPARKLE

The difference between an average tile job and an outstanding one is often a matter of a few relatively inexpensive details that don't require lots of time and personalize the bath area.

SHAMPOO SHELF



When laying out the shampoo shelf, first determine where the full tiles will land to keep tile cuts to a minimum. A vacuum helps to remove dust as backerboard is cut.

DECORATIVE BORDER



Used for an accent, small mesh-backed tiles are easier to install if they're first mounted on a piece of waterproof membrane with binding-fortified thinset. The membrane also brings the small tiles flush with the big ones.

SOAP DISH



The author installed a little limestone soap dish into notches cut across the tops of two tiles. (If you're using ceramic tile, solid-surface material works, too.) He squared up the corners and sanded down the front edge, then cut three 2-in.-long slots for a drain.

CORNER SEAT



Available in different sizes ("Sources," facing page), the galvanized-steel seat form is screwed into the framing behind the backerboard at a height of 18 in. from the floor.





Remove the waste, then reinforce the opening with 2x scrap material secured to the backerboard with construction adhesive and galvanized screws.



After coating the recess with thinset, cover the inside with a piece of waterproof membrane, folding and sealing corners as needed. Prefab inserts are also available.



Starting with the bottom piece, line the recess with tile, followed in order by the back, top, and sides. All pieces should be back-coated with a layer of thinset.



The next day, when the thinset has dried, the assembly is cut into uniform strips two tiles wide and to a length that matches the width of the large tiles.



The strips now can be applied to the backerboard with a liberal coating of thinset.



The form then is filled with mud that creates the substrate for the tile. After the top is leveled off, the mud is left to dry overnight.



After the mud is prepped with successive layers of thinset, waterproof membrane, and thinset, tile is laid across the top, then the front. Temporary braces keep the edge tile in place until the thinset bonds.

SOURCES OF SUPPLY

Acrylic/fiberglass shower pans

American Standard
www.americanstandard-us.com
800-442-1902

Aquaglass Corp.
www.aquaglass.com
731-632-2501

Lasco Bathware
www.lascobathware.com
800-945-2726

Chlorinated polyethylene waterproof membrane

Nobleseal TS
The Noble Co.
www.noblecompany.com
800-878-5788

Galvanized-steel seat form

Better Bench
Innovis Corp.
www.innoviscorp.com
800-382-9653

Thinsets

Laticrete International Inc.
www.laticrete.com
800-243-4788

Tile-ready shower pan

Bonsal
www.bonsal.com
800-334-0784

continued

Reader Response

Why no waterproofing behind cementboard?

Tom Meehan certainly created a beautiful shower in his article “Upgrading to a Tile Shower” (*FHB* #160, pp. 88-93), but I see that he has no waterproofing behind the cement backerboard on the walls. Here in California, the inspector must sign off on the moisture barrier in tiled shower areas. This barrier usually consists of nothing more than #15 saturated felt applied horizontally and neatly folded in the corners.

I don’t think it would break the bank to spend 15 minutes and \$15 to provide an ounce of prevention for this \$5,000 shower. Let’s keep the “fine” in *Fine Homebuilding*.

—KURT HOUSH
San Anselmo, Calif.

Author Tom Meehan replies: Years ago, I used a membrane behind the backerboard. The problem was that when I ripped out showers on remodeling jobs, I often found mold and bacteria trapped between the moisture barrier and the substrate. My feeling now is that on an average job that has tile or stone properly installed with thinset cement over cementboard and has a good sealer applied, there is no need for a membrane behind the cementboard. I do like to put a 4-in. strip of membrane wrapped into each of the corners that drapes back into the pan. This strip protects the installation if any of the walls settle as the lumber dries.

In the cases where I think a membrane is needed (such as a steam shower), there are very good membrane systems that are applied to the surface of the cementboard and then tiled over. This way moisture never enters the backerboard at all. Many companies make these products, including The Noble Co. (www.noblecompany.com; 800-878-5788) and Laticrete International (800-243-4788; www.laticrete.com)