

## REAL ESTATE

# Building Basement Appeal

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For as long as Joyce Jones and her partner Floyd Brown have lived in their Capitol Hill rowhouse, they have talked about needing more space. Seventeen years and many buckets of dirt later, they are going to get it.

Their basement is being excavated and remodeled, giving Brown some room now that Jones, who is retiring, will be home more. They want a second bedroom, a den, workbench and storage, as well as more headroom for Brown, who has to fold his lanky 6-foot-1-inch frame to accommodate the four-foot-high ceiling while doing laundry.

Homeowners like Jones and Brown turn to excavators to dig, shovel and remove dirt through alleys, doors, windows or a big hole in the wall to create a subterranean living level. Many, like Jones, say they do not want to leave homes they have lovingly renovated but can't expand outward or face other building or zoning restrictions. Digging down is the next logical step to get the desired playroom, office, storage or, more rarely, rental unit.

Much excavation, whether by a few feet or a complete dig-out, requires a new foundation, or underpinning. The underpinning is usually concrete reinforced with steel rebar and done in three- or four-foot sequences around the perimeter.

For Jeff Cukr and his wife, partially excavating the basement of their single-family 1917 Alexandria home gave them more space, fixed structural problems and strengthened their foundation so they could build a second floor onto the house.

Because of the structural problems, Cukr decided not to use a mini-loader or mini-excavator, which meant the job took three months. While Jones and Brown did not have that problem, they did find old plumbing running lickety-split right through the center of the new room. Excavators have found less problematic items in the dirt, including horseshoes, milk bottles, liniment bottles, a human jawbone and an unexploded shell.

However, things can go from odd to calamitous when the crucial underpinning isn't done correctly. Plans are required to be drawn by an engineer.

"The most dangerous point is when you have the whole basement dug out, and it is supported on dirt," said builder David Perez. If it rains, the house can collapse. It can damage your neighbor's home as well, he said -- particularly if the underpinning is not done correctly.

That means not opening up 20 to 30 feet of wall at a time, but rather doing it in smaller sections, said Surseh Baral, a structural engineer. In the District, inspectors usually come by at the beginning and the end of the underpinning process, and in Virginia and Maryland, they're required to inspect each sequence of three to four feet.

Lynn Tsao learned about the importance of underpinning the hard way. A few years ago, she and her neighbor in their Capitol Hill duplex went in together for an excavation to create a rental unit out of the crawl space under their homes. The construction crew was digging out sections bigger than three or four feet, and partway into the job, tiny cracks started appearing in the upstairs walls. They widened to two inches over the next two weeks and started exposing the brick behind the plaster, Tsao said. Door frames slumped out of alignment, and the back door wouldn't open.

Out went the contractor, abandoning the project. In came a structural engineer who drew up a plan for remediation. The exterior masonry needed to be repointed, but the Tsaos had to wait three months to see whether the house settled, and, inside, "everything had to be plastered and painted."

"It was a four-month project that ended up being 18 months," Tsao said, and cost \$25,000 to \$30,000 for repairs alone.

**Architect Jennifer Fowler of Fowler Architects** in the District recommends making sure you know what fixes your contract covers and what your homeowner's insurance would take care of in case of serious problems. Don't forget to call references.

Beyond the potential for tremendous structural damage, excavating a basement can be a messy, expensive, inconvenient, time-consuming and sometimes home- and nerve-rattling enterprise. But to many homeowners the inconveniences, costs and risks are worth it.

"The worst part was when they were driving under the house with the Bobcat [excavator] and the whole house would fill with smoke. Sometimes the Bobcat would hit a joist and the whole house would shake," said Leslie Nayman, a graphic designer who lives on Capitol Hill. "It was a little disconcerting."

But now Nayman has a cheerful, bright basement playroom, an office that doubles as a guest room, a full bath and a room devoted to husband Brian Paxson's collection of bicycles, which he can now pedal in and out of the house with ease. As with any major construction, it's not a cheap project.

A full excavation to create a 600-square-foot basement cost Nayman and Paxson \$84,000 -- and that's before they finish it.

Nino Perrotti of his family-owned P&P Construction said that with costs for underpinning, dirt removal and a dumpster, he charges about \$63 for every three feet of dirt and concrete foundation. So a 700-square-foot basement excavated three feet down and underpinned entirely would cost about \$44,000.

Brokers and appraisers are mixed on the resale value of a basement excavation.

"Where every square inch counts, it is a good investment. You can use it for yourself and then use it for resale. That is the best-case scenario," said Megan Shapiro, an agent with Re/Max Allegiance on Capitol Hill. Owners could recoup 75 to 80 percent of the costs -- even more if they have a unit that is certified for occupancy.

Jennifer Walker, an agent with McEneaney Associates in Alexandria, said she has seen excavated basements add \$40,000 to \$50,000 in value -- or even up to \$100,000 if it's large and nicely finished.

Others said space added on to the back of a house is generally more valuable. John Perry, an appraiser for three decades, called an excavation an "over-improvement." Veteran appraiser Linda Braley said owners shouldn't think of the basement as an asset for selling and should plan on staying in the house for a long time.

Elisa Vitale, a city planner for College Park, and her husband paid \$142,050 and dealt with six months of digging and underpinning, including a big excavation of a crawl space.

"We spend a lot of time down there now -- it doesn't feel like a basement," Vitale said. Before, "it was a raw concrete floor, we had gross, jumping crickets, and we would go down there to do the laundry and that's it. It was gross, and now it's a very nice space and it made a huge difference."

<http://www.washingtonpost.com/wp-dyn/content/article/2009/05/29/AR2009052901369.html>