



## Going Up, Up, Up: Vertical Vibes

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Going up! First floor: kitchen. second floor: master bedroom. Third floor: family room.

The popularity of residential elevators is on the rise – no pun intended – in new-home construction, with a recent study by the National Association of Home Builders reporting that upward of 7 percent of home buyers see elevators as a “must have.”

“We used to sell only one or two residential elevators a year, but the market has almost doubled every year in the last 10 years,” said Bob Richmon, president of Virginia Elevator Company Inc., whose father started the company in 1954. “It is nothing to sell two or three elevators a week in residential now.”

**THINKING AHEAD** Builders say that home buyers are putting elevators in their homes for a variety of reasons.

“People understand they will be in these houses for quite some time and you have an aging population seeing themselves in their last house and they want an amenity that will allow them to access all levels,” says custom home builder Tony Pitts, owner-president of Pitts & Associates Inc.

Pitts installed his first residential elevator seven years ago and has seen a considerable rise in the frequency of clients interested in pricing elevator installations for their new homes in the last several years.

“I am also seeing clients who want to accommodate a family member with limited mobility or a handicap and they want them to have easy access in the house,” said Pitts. “Another key issue is people see the eventuality or likelihood that a parent will end up moving in with them, so they want to accommodate them.”

For Paul and Sue Anne Klinefelter, having an elevator in the new home they are having built in Goochland County was something they considered while the house was being designed.

“First and foremost was that this would be our first and last custom house and that we would have no need to move and would want to spend the rest of our lives on this property,” says Paul Klinefelter. He and his wife, who are both approaching 50, are physically active at play and working on their farm. “It seemed that based on our lifestyle and living here a long time that the elevator



Paul Klinefelter, on first level, wife Sue Anne, and son Daniel, top level, plan on using the elevator in their new Goochland County home to move furniture from one level to another. The house is being built by Pitts & Associates.

would prove useful.”

**CONSIDERING COST** The Klinefelters initiated the idea of an elevator when Patrick Farley, principal architect with Watershed Architects, was designing their three-story house with a full basement. At the time, their main concern was the feasibility.

“Our architect said the cost on these was coming down. The first quote we got was fine and is only a very small portion of the cost of the whole house,” said Paul Klinefelter, citing the cost of about \$25,000 for their four-stop elevator.

With demand increasing, prices have decreased and the cost for a standard residential elevator starts around \$17,000. According to Dan Ensminger, principal architect of Ensminger Architecture, elevators can actually save you money because they allow the master bedroom to be on an upper floor.

“For a while, design shifted to the master suite on the first floor and that added a lot of square footage on to the first floor,” Ensminger said. “But with an elevator, you have the option to put the master suite back on the second floor. The average cost of an elevator is nowhere compared to the cost of adding an extra 1,000 square feet to the first floor for a first-floor master,” he said.

Residential elevators can travel up to six stories with a maximum travel distance of 50 feet. Standard capacity ranges from 500 to 750 pounds, with the interior size of the cab maximized at 12 square feet by code.

Most elevator shafts are a minimum of 4 feet by 5 feet and are typically built out of an engineered wall or a concrete block wall engineered to support the load. Most require a small room, usually around 5 feet by 5 feet, to house the equipment and mechanicals.

**DIFFERENT TYPES, OPTIONS** There are several kinds of elevators, including hydraulically operated, cable operated and mechanical room-less. Richmon of Virginia Elevator says, “Cable has led the way in residential.” For hydraulic and cable, you need a separate room to house the mechanical equipment. With a mechanical room-less, the machinery is housed in the shaft.

Elevators can have single- or dual-access doors with front, rear and side openings that can open on one side on a floor and on the other side on another floor. Most come standard with handrails, recessed lights and power gates. Code requires that they have a telephone in them. Battery backup systems ensure that they work in the event of a power outage.

Elevator interiors come in most types of wood from oak to mahogany to cherry. You can even get them with mirrors, with windows, raised panels or in plastic laminate.

“A lot of times people will send their decorator directly to us to design the elevator,” said Richmon.

Elevators require little maintenance. Richmon suggests a quarterly or semi-annual preventative maintenance program to his customers. These programs focus on safety and lubrication.

**LAST-STAGE INSTALLATION** It takes about five days to install a residential elevator. It is actually



Many families have elevators installed either to accommodate a family member with limited mobility or in anticipation of their own needs as they grow older in their home.

done as one of the last components in the house.

"The elevator comes in hundreds of parts. The builder builds the shaft complete with the doors and even paints the inside of the shaft. We come in at the last stage of the home's construction and install it after the door stops have been trimmed and painted," explains Richmon.

For some people, the lack of immediate need or budget restraints may inhibit their need for an elevator during the construction of the house. But planning for the possibility is paramount during construction.

"Residential elevators are a luxury, not a necessity. If there are budget constraints, then what we are doing is providing the structural rough opening that can accommodate a future installation," said custom home builder Pitts.

Ensminger says he has designed several homes with framed elevator shafts designed to receive an elevator in the future. "You just make the space into walk-in closets and then frame floors over the hole that are easy to remove," he said.

Elevators are not just being put into large homes. "A lot of places where the lots are smaller, the houses are taller with three and four floors, so people think more about elevators," said Richmon. Houses on steep sloped lots with the garage in the basement are also good candidates for elevators.

**ADDS TO RESALE VALUE** "I think people also think long term about resale," said Farley. "And since the market is demanding elevators in many larger homes, people are willing to make that investment knowing they will get it back when they move and they can use it as a selling point."

The Klinefelters say they look at their elevator as a means of basic transportation from floor to floor but really do not expect to spend a lot of time using it.

"The goal would be not to use it until we have to," said Paul Klinefelter. "If you are moving something like a piece of furniture from floor to floor, it will be useful. But getting up and down in the house I hope we still use the stairs. I hope we do not get lazy and use it as a crutch."