

Above and BEYOND

FOR MANY CHARLESTON BUILDERS, CODES ARE
JUST THE BEGINNING

By David Caraviello

For half the year there is the very real threat of hurricanes, and the driving rain and rising floodwater that tropical systems can bring. There is the ever-present menace of moisture, seeping into every crack and crevice. And, the Lowcountry remains an active region as evidenced by the Great Earthquake of 1886.

In the Charleston area, there is no shortage of hazards that can adversely impact a home. That environment is the reason building codes in the region can be more stringent compared to other parts of the state, and why home builders in the Lowcountry often go above and beyond those codes to protect what is often a family's largest investment.

"Because we have the type of elements that we have, the code requirements as far as the envelope of the house definitely have to be looked at in detail," says Richard Jackson, owner and president of JacksonBuilt Custom Homes. "You're more cognizant of the ways in which you construct those envelopes. And we do a lot of different things

that go beyond what code requires, because of the conditions we have in the coastal environment."

South Carolina did not have uniform statewide building codes until 2000; before that, it was up to municipalities to draw up codes as they saw fit, and some places allowed home building with as little as a \$15 permit and proof of a checking account. In 2000, at the urging of the industry, the state adopted International Code Council guidelines that are updated every three years.

"More and more people were moving here, and the state recognized the need for a uniform code, and the builders highly agreed with it," says Charleston's Andy Barber, owner of Generation Homes. "For me, as a builder, Charleston County may have had one code they adopted, and then you go to Dorchester County, and they may have a completely separate set of building codes, and Berkeley County may have another set of building codes. So, for once, the code people and the building people all agreed."



A downtown home reflects the traditional method of protecting windows using heavy plywood boards.

Barber would know — he chairs the state’s building codes committee working directly with the Department of Labor, Licensing and Regulation in the formation and adoption of building codes for the state. Those statewide codes can have slight differences depending on the region, and the coast, in particular, demanded stringent codes due to the hazards that can threaten a home.

“We get the worst things: we have a high wind code; we have lift from hurricanes; and we have high seismic codes,” Barber says. “So we’ve got a double whammy. While we’re having to build houses to keep a Category 5 hurricane from blowing them down, we also have to make sure that if a 7 on the Richter scale earthquake is going on at the same time, the house has to survive all of that.”

Charleston-area building codes can be demanding enough; for example, while the statewide code mandates building at or above floodplain, Barber says Charleston County mandates building 2 feet above floodplain. Charleston homes are also typically built with the input of a structural engineer — not standard practice elsewhere. But many Charleston homebuilders, especially those who build custom homes that families may pour their dreams and savings into, regularly go above and beyond that.

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- Andy Barber of Generation Homes

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Jackson, for instance, says he won’t build a home without an encapsulated crawlspace; even though that isn’t mandated by code, the Daniel Island-based builder said the region’s moist environment makes it necessary. He also prefers multi-speed HVAC systems, which are beyond code, as well as copper flashing rather than cheaper metals. “In the salty air, metal is going to deteriorate over time,” he says. “Copper is going to hold up much better for our climate.”

Jackson also always builds copper pans under exterior doors to keep out water from driving rain.



This local home constructed by JacksonBuilt includes features like storm-proof windows.



The metal roof of a house built by Generation Homes provides additional storm protection.

Most custom builders in the Charleston area prefer 2x6 studs for exterior walls, which is thicker than the code minimum. Others use a rain screen siding ventilation system that goes behind the siding, thus allowing air to circulate freely and to prevent the buildup of moisture.

Barber is an advocate of metal roofing, which is permanent and stands up to wind storms far better than standard shingles. And both Barber and Jackson believe in installing impact-resistant windows — another item that exceeds code minimums but in a hurricane-prone area is better for the long-term health of the home.

“I won’t put windows in unless they’re hurricane-rated windows — what we call impact-resistant windows. I can go out and spend \$10,000 on a window package and leave the homeowner with a box of screws and a bunch of plywood in his garage. Or, I can spend \$20,000 on the window package and tell the homeowner the next time a hurricane comes he can get in his car and drive away,” Barber said. “Because of the glazing of the windows, it’s like the windshield of a car. Projectiles are not going to come through it.”

Demand for impact-resistant windows has led to manufacturers dropping the price and making them more affordable — even more reason for builders to prefer them.

“We do push for storm windows now. One thing we’ve

seen over the last eight years, with the scare of all these large storms that have turned, is people get numb to it. Nobody puts up plywood anyway,” Jackson said. “No one’s going to get on a ladder and put that up, because we’ve had so many close calls. Everyone’s become numb to it, and thinks we’re not going to get hit. It’s frightening.”

Exceeding local codes when building homes can also benefit owners with their insurance rates, especially for higher-end custom or waterfront construction. It’s just another way the stringent standards of Charleston builders help ensure that homes will last for decades to come.

“You get into some of the higher-end homes on the beaches, where homeowners are looking for insurance rate reductions, and they will build a house to a much higher standard using thicker plywood, impact-resistant windows, go a little bit heavier on the foundation,” Barber says. “They’re looking to save insurance dollars, because it’s a recurring cost for them. They put an extra \$15,000 or \$20,000 into the house, and ... if you can cut your insurance rate by 15 or 20 percent, you’ll pay for all that within a few years.”

And all of this hard work and care bundled into a package for the homeowner means a beautiful home that stands the test of time.