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## **RIGHT TIME TO REBUILD SAFER, STRONGER**

**ATLANTA** – Rebuilding in the aftermath of the early May storms is not only about recovering from disaster, it’s also about reducing future risks caused by high winds or tornadoes.

“It’s the right time for residents and business owners to use techniques to rebuild safer and stronger to reduce the risks of future disaster,” said Joe McKinney, Georgia Emergency Management Agency’s (GEMA) deputy state coordinating officer.

State and Federal Emergency Management Agency (FEMA) officials offer tips to rebuild a better, safer way.

The roof is the part of the house that is most vulnerable to damage from high winds. “Make the right decision about the roof,” said McKinney.

Experts say it should be a hip roof as opposed to a gable roof. With a gable roof, the wind hits harder on the corners. Studies have shown the wind slides over a hip roof. It’s like a dome; there is nothing for wind to get its teeth into. Also, the less overhang for the roof, the better.

Whether with new construction or retrofitting an existing roof, build to ensure the connections between the roof and walls are strong enough to resist the “uplift” effect of high winds.

In such winds, the windows and doors often blow out first. Once the windows and doors are gone, the wind puts pressure on the roof from below and the wind also pulls on the top, so there is double pressure on the roof. When the roof lifts off it may collapse back down on the house.

What about the advice to “equalize the pressure” by opening windows and doors when there is a tornado? “That’s wrong,” said Jeff Bryant, federal coordinating officer for the Georgia disaster. “Don’t open the doors and windows. It only gives the wind additional entry into the house.”

Shutters or plywood covers can protect windows from breaking when there is advance notice of a wind storm event. “Electric shutters are now available that operate by just pushing a button,” Bryant explained.

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Wooden doors are simply not designed to withstand much of a wind load. Heavier metal doors with several bolts are much more wind resistant.

Garage doors are another vulnerable area. With a weak garage door, a severe wind blows in the door. Wind pressure then lifts the garage roof which is hinged to the house. The garage roof pulls off part of the house, lets the wind into the attic, puts pressure on the house roof, which may then lift off.

“Retrofitting older garage doors helps increase a home’s storm resistance but new garage doors are stronger and reinforced,” Bryant said.

Building with 2-by-6 wall studs rather than the more common 2-by-4 timber is another way to make a structure more wind resistant.

Getting down to the foundation, many homes are built on concrete pads to which they are only slightly connected. Severe winds pull the walls right out of the foundation. To resist high winds, structures must be firmly connected to foundations. Bolts set deep into concrete foundations and topped with a washer and nut should be used to screw the structure to the foundation.

For personal safety, a safe room provides protection.

“It’s very economical to construct a safe room while building or rebuilding,” said Bryant.

“Always contact a local building official before undertaking rebuilding, renovating or retrofitting to be sure your plans meet local and state government requirements,” McKinney added. “Building codes typically do not require construction practices such as those described here, but a ‘code plus’ approach is well worth the effort.”

More information is available at [www.fema.gov/plan/prevent/howto/index.shtm#5](http://www.fema.gov/plan/prevent/howto/index.shtm#5)

*FEMA coordinates the federal government’s role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters, whether natural or man-made, including acts of terror.*

*Disaster recovery assistance is available without regard to race, color, religion, nationality, sex, age, disability, English proficiency or economic status. If you or someone you know has been discriminated against, call FEMA toll-free at 800-621-FEMA (3362). For TTY call 800-462-7585.*

*SBA’s disaster loans are the primary form of federal assistance for non-farm, private sector disaster losses. Disaster loans from SBA helps homeowners, renters, businesses of all sizes, and nonprofit organizations fund repair and replacement of disaster damaged real and personal property. These disaster loans cover uninsured and uncompensated losses and do not duplicate benefits of other agencies or organizations. For information about SBA programs, applicants may call 800-659-2955 or online at [www.sba.gov](http://www.sba.gov).*

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