

Hurricane Season is Here! Are you prepared?

Hurricane Preparedness

Severe damage can occur from flying debris, fallen trees and limbs and the winds that breach the home's envelope.

Seal exterior gaps. Check the health and stability of surrounding trees and prune or remove if necessary.

Remove debris, furniture and anything that could become airborne.

Secure items that cannot be removed, and don't forget to inspect your home's shingles, gutters and other exterior fixtures for solid attachment.

If you've got something that's flapping in the breeze right now, you can be sure that if a tropical storm comes through it's going to fly.

Fix anything that needs repair, and approach neighbors about trees or items on their property that could damage yours.

Do You Know That...

Wind often invades a home due to garages without proper hurricane code doors or through carports.

Pressure from water outside a garage door can push it in, and crosswinds create suction which can often harm the home's structure and cause roofs to collapse.

- The garage door is potentially the largest and weakest opening of your home to a hurricane?
- According to the Federal Alliance for Safe Homes about 80 percent of residential hurricane wind damage starts with wind entry through garage doors?
- The Federal Emergency Management Agency (FEMA) has identified the loss of the garage door as one of four major factors in homes damaged and destroyed in Hurricane Andrew?
- As the American Red Cross warns, if your garage door fails, the full fury of the hurricane will enter your house and in all probability blow off your roof and destroy your home?

Why Protect Your Garage?

Unrecognized by most homeowners is the fact that the garage door is potentially the largest, weakest opening of a residential home's exterior envelope to a hurricane. Many people that are concerned about the safety of their homes and families in hurricane conditions (even those that

pay thousands of dollars for window shutters and impact resistant windows) fail to take any precautions to properly secure their garage door. The Florida Alliance for Safe Homes has stated that "about 80 percent of residential hurricane wind damage starts with wind entry through the garage door." According to the Federal Emergency Management Agency (FEMA) and the American Red Cross in their booklet "Against the Wind - Protecting your Home from Hurricane Damage", the loss of **the garage door was one of the four major factors in homes destroyed or damaged in Hurricane Andrew.** As the American Red Cross warns, **once the garage door goes, the full power of a hurricane enters the home, blowing off the roof and resulting in major damage to, if not complete destruction of, the home.**

Why is it so crucial to reinforce the garage door? Studies have shown that hurricane winds exert the greatest pressure and suction at the corners of a structure, which is the location of most garage doors. A garage door is held in place only by the door's tracks. Hurricane winds exert both tremendous pressure and suction on the garage door, causing it to flex inward and outward. Consequently hurricanes generate severe stress not only on the door but on its supporting tracks as well. As the pressure builds, the garage door pushes against and pulls away from the garage door tracks. If either the tracks or door give way, the garage door blows in or is sucked out. This allows the full power of the hurricane force winds to enter the compromised structure and attack the roof and walls. Homeowners focus on securing the windows by applying shutters or installing expensive impact-resistant glass yet this weakest and most important area, **the garage door, is often either ignored or inadequately protected**, reducing the value of investment in shutters or impact-resistant windows. With the enormous number of attached garages in the coastal states, failure to properly safeguard this single largest area of vulnerability is a major weakness in overall storm readiness.

Carports - Understanding the Risks:

Porches and other structures such as carports that are attached to houses can break loose and tear away from the home. When the roof of this attached structure is solid and **one or more of the sides is open, the uplift forces on the roof can be quite large,** particularly when the wind is blowing towards the house and pressures build up on the bottom surface of the roof because the wind is blocked by the house's wall. These pressures on the bottom surface add to the uplift pressures of the wind speeding up over the top of the roof (the kind of uplift created on an airplane's wing) and the combined loads can easily overcome the uplift resistance unless the roof is properly tied down. When this happens, a part of the house roof is usually damaged leaving openings where water and wind can enter your home and the debris from the structure can cause serious damage to your house and those of your neighbors. Because roofs have a large area and posts are usually no closer than 10' apart, the uplift forces on posts can accumulate to be in the hundreds of pounds.