



## 5 Steps to a Safer and Stronger Home

### High Wind

What you need to know to make your home hurricane and high-wind resistant.

**A**s you prepare to build, remodel or retrofit your home, knowing these simple steps will help to ensure your home is structurally sound and storm resistant. We've included important questions to ask as well as helpful illustrations, so you'll know what you're talking about.

#### 1. Wise Up on Wind.

Knowing how high winds work will help you make your home safer and more secure. There are four ways wind can affect your home:

- **Uplift**

Wind flows over the roof of the home, creating a lifting effect.



- **Racking**

Wind exerts horizontal pressure which can cause the home to tilt.



- **Sliding**

Wind exerts horizontal pressure which can cause the home to slide off its foundation.



- **Overturning**

When the home is unable to rack or slide, wind can cause the walls to rotate off the foundation.



#### 2. Create a Path.

A continuous load path, that is. A continuous load path is a method of construction that ties your house together from the roof to the foundation using a system of framing materials, metal connectors, fasteners (*like nails and screws*) and reinforced walls called shearwalls. This system connects and strengthens the structural frame of the house. If your home is built with a continuous load path, it will be better equipped to resist the forces of high winds by redistributing the pressure of the wind from the exterior of your house to the frame, and then to the foundation. You may also want to consider building your home with wind-resistant garage doors and either storm shutters or impact-resistant windows.

#### 3. Crack the Code.

What are the residential building codes in your area? Learn about your codes and how they are enforced. Are changes being made to the building code that will make your home safer? Check with your building department to determine if you live in a high-wind speed zone – building standards are much stricter for areas susceptible to high winds. Keep in mind the residential building code requires new homes to be built with a continuous load path, but you should always check with your builder.

#### 4. Know Your Builder/Remodeler.

Check the reputation of your builder or remodeler. Quality builders and remodelers will know that you live in a high-wind area and will have your safety in mind. They will build or remodel your home using metal connectors to create a continuous load path. Interview your builder/remodeler and ask them questions about how your home can be more wind resistant. If you own a home, you can have it inspected by a qualified, licensed home inspector or structural engineer who can identify areas that need to be retrofitted.

#### 5. Get Involved, Stay Involved.

Involve yourself in the building process from start to finish. Ask questions and visit the job site often, particularly when your house is being framed.



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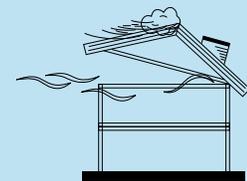


## Continuous Load Path

Ties your home together from the roof to the foundation

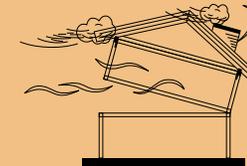
### Roof to Top Story Connection:

Fastens the roof to the top story



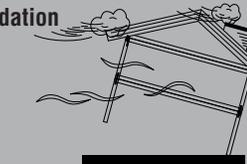
### Floor to Floor Connection:

Ties the second story to the first story



### Bottom Floor to Foundation Connection:

Anchors the bottom floor to the foundation



## 5 Questions to ask your Builder: The answer to each should be “Yes.”

### 1. Is my home built with a continuous load path?

Your home should be tied together with metal connectors from the roof to the foundation.

### 2. Is my roof secured properly?

The roof decking should be securely nailed to the roof framing (*rafters or trusses*).

### 3. Is my roof connected to the top story/floor of my house?

Roof framing (*rafters or trusses*) should be securely fastened to the top story with metal connectors, such as hurricane ties, based on your local building code requirements.

### 4. Are the walls on each story/floor of my house properly connected to each other? Are there enough shearwalls on each story/floor?

The wood studs that run along each wall should be properly connected to the top of the wall and to the bottom of the wall with metal connectors. If you live in a two-story house, the walls on the top story should be connected to the walls on the lower story with connectors, such as strap ties. Reinforced walls known as shearwalls also should be installed at various locations within a home to resist racking and overturning forces caused by wind.

### 5. Is the bottom story/floor of my house properly bolted to the foundation?

The bottom floor of the house should be attached to the foundation with mudsill anchors or anchor bolts.

*Just about all parts of the country are subject to high winds. It's important that your house is designed to withstand a high-wind storm. If you own a home, have it inspected by a professional who can point out the areas that need to be retrofitted. For more information about hurricanes and high winds, and how to prepare your home, visit [www.strongtie.com](http://www.strongtie.com) and click on “For Homeowners.”*