Make Mitigation Happen

Community Workshop

www.BeReadyFlorida.org

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Make Mitigation Happen

Mitigating against hazards translates to peace of mind and savings

What is Mitigation?

The Mission of Mitigation

Mitigation is the effort to reduce the loss of life and property by lessoning the impact of disasters. Wind mitigation aims to increase the integrity of structural and nonstructural aspects of your home to prevent or lessen damage caused by high winds that can occur during storms.

In Florida, a major concern is the wind damage caused by strong storms and hurricanes. Due to its geographic location and tropical weather Florida has an increased likelihood of experiencing storms with high winds. It is a good idea to prepare early and mitigate your home for all hazards.

The first step to mitigating against disasters is to have the property inspected to identify projects.

Generally, there is an expense to obtain an inspection, but is worth the cost to invest in fully preparing and mitigating your home against possible hazards.

The activities to mitigate your home included in this guide are research based recommendations.

The Florida Division of Emergency Management, Florida Department of Financial Services, Federal Alliance for Safe Homes, and the Insurance Institute for Business and Home Safety all endorse these research based recommendations.

What actions constitute as mitigating your home?

Water and wind intrusion are the two causes of damage during hurricanes. Water can enter homes through gable ends, soffit vents and poorly sealed windows and doors. Once water enters the home, mildew can develop within days.

Like water, wind can cause damage by entering the home through poorly sealed or unfortified openings. Wind can cause uplift forces on the roof, by increasing pressure within the house. These uplift forces can severely damage the structural integrity of a home.

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Why Mitigation is Important

FEMA's Federal Insurance and Mitigation Administration (FIMA) has reviewed mitigation activities between mid-1993 and mid-2007. FIMA determined that for every $1 spent on mitigation, $4 is saved on response and recovery.

The Florida Office of Insurance Regulation (OIR) estimates that up to 70% of your insurance premium could be attributed to wind-damage risk.

For the majority of homeowners, their home is their largest asset, their primary source of shelter, and holds unlimited sentimental value. The value of preparing and mitigating your home is often unseen until a disaster occurs. Strengthening your home against hazards such as high winds will aid in preventing damage to your home.

By protecting your greatest asset, you can minimize the expense and decrease the time it takes to recover from a natural disaster.

It can take many years for a community to fully recover from a disaster.

Do what you can now to reduce the time and expense of recovery.

Financial Impact

Florida Statue 627.711 states the insurance companies shall clearly notify homeowners the availability and range of each premium discount, credits, other rate differential, or reduction in deductibles, for properties on which fixtures or construction techniques demonstrated to reduce the amount of loss in a windstorm can be or have been installed or implemented.

The form shall describe generally what actions the homeowner may be able to take to reduce their windstorm premium. A wind mitigation inspection of your home is required to determine which, if any, of the discounts you are eligible for.

Beyond possible insurance savings, mitigation efforts can increase the value of your home, while decreasing the cost when a disaster occurs.

Additional information can be found at the Florida Office of Insurance Regulation website www.floir.com

No amount of strengthening of your home should ever cause you to disregard information from local officials, including evacuation orders.

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Mitigation Types

Shutters are a visible architectural feature, and often one of the first things people consider when protecting their homes against high winds. However, shuttering windows is only one of the recommended activities. Mitigation activities that are not seen from the outside can make a big difference in lessening the impact of a disaster.

Water Barriers

Page 4

In the event that roof shingles are blown away, a sealed roof deck will prevent significant water intrusion.

A sealed roof deck serves as insulation, often resulting in a more energy efficient home.

Anchoring

Page 5

Anchoring is one technique used to increase the structural integrity of your home.

By anchoring the walls to the foundation, the ground floor to second story, and walls to roof, you establish a connection from the roof to foundation.

Gable Ends

Page 6

Reinforcing the gable end to the roof and wall below is one way to mitigate against wind damage.

When gables are not properly braced, they may collapse during a wind event, causing catastrophic damage.

Window Openings

Page 7

Windows, glass doors and glass blocks are found in many homes. Securing these will reduce the overall impact to a home during a disaster.

Windows and glass doors broken during a disaster put your home at risk.

Doorways

Page 8

Doors, including garage doors, should be reinforced or replaced with hurricane-rated doors.

A structure can be compromised during a disaster when doorways are not reinforced or replaced with hurricane-rated doors.

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Water Barriers

The best way to mitigate your home is to prevent water from entering the structure following a disaster which could lead to mold and mildew.

One of the easiest and most cost-effective mitigation techniques is to replace damaged boards and to place a water barrier on the roof deck. When homeowners are building or remodeling a home, considering this mitigation technique is beneficial. Allowable products vary based on local building codes, so check with your local building department.

To install a water barrier, first inspect the roof deck. If any boards are warped, damaged or deteriorating, replace them. Secure all boards with an 8d rink shank nail. Re-nail sections if needed. A ringed shank (grooves in the nail) provides a more secure grip and prevents forces from pulling the nails out of the wood.

Recommended spacing is a maximum of 6 inches on-center. Follow the manufacturers guide for spacing in high wind areas. Once the integrity of the roof deck is confirmed you can seal the deck.

On the roof deck you can tape the horizontal and vertical seams with a 4 inch or wider self-adhering membrane tape followed by a synthetic underlayment. A primer may be needed to help secure attachment of the tape.

For the underlayment, the Institute for Business and Home Safety recommends a code compliant 30 pound ASTM D226, type II underlayment, attached using annular rings or deformed shank roof fasteners with minimum 1-inch diameter caps. Metal caps are recommended where wind speeds may exceed 140 mph.

When buying asphalt shingles verify the technical standards for the product. The highest standard currently withstands over 130 mph winds and should be installed using the number of fasteners recommended by the manufacturer for high wind areas.

Local building codes may require more fasteners than the manufacturer's recommendation, therefore it is important to check local regulations.

Other roof coverings, such as metal panels and tiles (clay and concrete), require strict adherence to manufacturer's and local building department's recommended installation.

Consider replacing existing roof vents as there are options for roof vents that have passed wind-driven water tests and prevent water intrusion.

If you are not considering a roof replacement or any major roofing repairs, you may still strengthen your existing roof by re-nailing the sheathing using 8d ringed shank nails and by providing a water barrier on the underside of the roof deck.

Options include spray-on polyurethane foam adhesives. They provide additional anchoring of the roof deck and are acceptable water barriers. Documentation of application from a properly trained and qualified applicator is generally required for insurance discounts.

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Anchoring

Anchoring is an investment that will increase the integrity of your home.

Anchoring means to adequately secure a structure to prevent a collapse, or lateral movement. It is important to check with your local building code office for specific construction mitigation guidance.

Seek guidance from a licensed contractor or engineer with experience in preparing and mitigating your home for high winds.

Strengthening the structural frame of your house includes creating a "continuous load path." By anchoring walls to the foundation, the ground floor to second story, and the walls to the roof, you establish a connection between the roof and the foundation. This helps your home resist the various forces that exist when winds push on the roof and walls, or penetrate your home.

A roof-tie-down is most easily done with new construction, re-roofing or major remodeling. On existing homes this generally requires the removal of the soffit to expose where the rafters meet the wall framing.

Most homes have a standard connection on one side of the beams.

For high wind resistance, metal connectors are bolted to both sides where the rafter and the wall frame meet. A double wrap connector is a continuous connector in the shaped of a modified U to fit the framing.

Many types of connectors are manufactured to meet the wide variety of connections that could exist between the rafters and the walls. Every connection and every joint must be secured.

Local building departments generally require permits which will leave the soffits uncovered until a post-inspection of work is complete. Work closely with local building department to minimize this exposure time.

An upper wall to lower wall connection, must exist within a multi-story home. This connection is not required for single story homes. The connector/hurricane strapping for the upper wall to the lower wall connection is a solid steel connector. Installation requires the removal of siding on existing homes.

Wall-to-foundation connectors and reinforcements generally require the removal of siding on existing homes.

Block and brick walls require steel rod supports to be added. Like roof to wall connections, every joint should be secured.

Porches that are connected to the house or that share a common roof should have attachments strengthened. Enclosed porches should be shuttered as well to minimize uplift forces. Reinforce wood porch frames to the same level as roof-to-wall and wall-to-foundation connections.

Aluminum porches and screen frames (often found around pool decks) are not designed to withstand hurricane force winds. Most aluminum porches are attached to the boards at the eaves of homes.

The best way to mitigate aluminum porches is to ensure the boards are well-reinforced to the structure, to help the board continue connection to the home if the aluminum frame is damaged.

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Gable Ends & Vents

Reinforce gable ends to increase the stability of your home against wind.

Gable Ends

A gable is the enclosure at the end of a pitch roof. If gables are not properly braced and anchored, they could collapse causing catastrophic damage to your home. It is important to properly reinforce and brace gables to ensure the integrity of your home.

One way to mitigate against wind damage is by reinforcing the gable end connections to the roof and wall below.

This can be done by placing four horizontal beams two to three feet from the highest point of the gable end. Horizontal beams should be at least six feet long and long enough to connect at least three attic floor framing boards and extend 2 $^{1}/_{2}$ feet past the third board. If there is a gap in connecting the horizontal beam to the gable wall, which is more common in block homes, use a wood shim to close the gap.

The reinforcement of horizontal beams against the gable minimizes the bowing that occurs as pressure within the house varies during a storm.

When installing horizontal beams, it may be best to install the lower beams first to extend the walking surface in the attic.

Make sure you do not pinch wires between the boards, as this could result in a fire hazard.

In some cases, an engineer may recommend multiple vertical beams be attached to an existing stud, connecting to the horizontal beam. This creates a U-shape against the gable end wall. Connect the beam with an L-shape strap and reinforce with a block of wood at the joint to further compress the connection. The top of the retrofit stud should be cut square and does not have to match the pitch of the roof. Further secure the retrofit stud by applying construction adhesive along the sheathing (wall of the gable end).

A chimney that is over five feet above the roof and/or on the side of the home should be anchored. It is best to have a licensed engineer anchor the chimney to ensure adequate stability.

Wind from hurricanes and thunderstorms can push water into the vents causing extensive mold and mildew damage. Vents should be covered with a nonporous material. Vent covers can be installed inside the attic.

Soffits and Vents

Like a roof deck, soffits should be inspected for damage, cracks, weaknesses, and deteriorated materials. It is important to check with local building standards for soffit and vent installation regulations.

Soffits must be removed to check, strengthen and install roof-to-wall anchors. This is a good time to replace any soffits that have compromised integrity.

Follow manufacturers instructions for installation in high wind zones.

Ensure soffits are properly anchored to the overhang and to the wood along the building length. Spacing of anchors should be 12 inches off center.

A polyurethane sealant can be used to secure aluminum or vinyl soffits and seal the gap between the track and wall. Anchoring and applying sealant can be used to further secure wood soffits.

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Window Openings

Protecting window openings will reduce the impact of wind on your home.

During a storm, windows, glass doors and glass blocks that are shattered compromise the safety and integrity of your home. Many options exist to mitigate your home for window and glass surfaces.

Panel shutters are the most common type of covering for glassed openings and are available in a wide variety of materials and mounting options.

Panel shutters can be mounted either by tracks or by small metal posts on the outside of a house. Both options are permanent features of your home. Panel shutters come in steel, lightweight aluminum, plexi-glass and cloth. Shutters also come in different styles, and deployment methods. Some are made to have a traditional appearance (good for registered historical homes and structures), while others are accordion or automated, rolling down and locking with the click of a button.

Another option is to replace existing openings with windows and doors made of impact-resistant glass. This type of glass can be expensive but has a high threshold to withstand impact. However, this glass is not completely shatterproof.

French doors or double doors should be shuttered.

A quick, effective and easy way to protect your home is to shutter with plywood board. There are various clips and braces that can be added to hold plywood in place. Insurance companies are not required to provide discounts

It is important to replace cracked surfaces to help secure your home from high winds.

Areas around doorways that have decorative glass and/or glazed surfaces should be shuttered. Even small, decorative inlaid glass features weaken the wall and its ability to withstand high winds.

When shuttering your home make sure you have multiple access points.

To qualify for insurance savings, all windows and doors must be shuttered or replaced with a wind rated equivalent.

If you want to install shutters yourself, consider what type of shutter you want to install, any obstacles or outcrops around the windows (including window sills and window AC units) and the local building code. In some Florida communities shutters require local building permits. This is required to ensure effective and proper installation.

Before installing shutters, inspect the framing around the windows and doors to ensure the framing is in good condition. If necessary, replace or reinforce framing and apply weathering strips or caulk to create a good seal around the windows and doors.

If installing shutters yourself, make sure you follow all installation recommendations issued by the manufacturer.

Make sure you inspect all window frames and openings before and after a storm to ensure water has not penetrated the walls of the home. If water penetrates the home and it is left untreated, mold and mildew will grow quickly.

In many cases even shuttering a window will not prevent water intrusion. Sealing the window and framing is just as important as shuttering.

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Doorways

Doorways should be reinforced or replaced with hurricane-rated doors.

Wind Resistant Doors

Doorways and garage doors can compromise the integrity of your home during a disaster if they do not withstand the winds. Main doors and garage doors should either be reinforced or replaced with hurricane-rated doors. Existing garage doors should be braced.

Wind resistant doors are generally heavy, solid, doors that open outwards. Wind resistant doors have at least three, if not four mounting brackets with screws that are $2^1/_2$ to 3 inches long. This will ensure the door is connected to the door frame and the wall framing behind the door frame.

When replacing your door, ensure the framing is solid and if necessary replace or reinforce the framing. It is important to ensure the door is installed to manufacturer's specifications.

Hinges strengthen only one side of the door. On the other side a bolt lock should secure the door. The bolt lock should be at least 1 inch long to extend far enough into the frame to hold the door in a closed position.

Garage Doors

Garage doors should be shuttered, replaced with a wind rated door, or, in some cases, reinforced by adding a bracing bar behind each panel.

Using your car to brace your garage door will only result in your car being damaged if impacted by the garage door. In addition, any glassed surface should be shuttered or replaced with solid panels before the storm.

Wind rated garage doors are generally solid doors with extra bracing built into the design. The added weight of a solid door requires reinforced racks and a stronger garage door opener.

Often during a hurricane, power is lost for a period of time. If there is a major storm, power may be out for days. Make sure the garage door opener has a manual release. Also, given the added weight of a wind rated garage door, the garage door should not be your primary exit. It may be difficult to open the door after a storm.

The insurance savings for updating doorways is included in savings for shuttering.

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Resources

Mitigating against disasters is everyone's responsibility. You are encouraged to research mitigation techniques available for your home. Contacting your local building code office is highly recommended. For many activities a contractor is recommended.

- **Florida Division of Emergency Management (FDEM) Website**
  www.floridadisaster.org

- **FDEM Hurricane Retrofit Guide**
  www.florida.org/hrg/

- **FEMA Wind Mitigation for Existing Homes Guide**
  www.ready.gov/hurricanes

- **IBHS Fortified Home**
  www.disastersafety.org/fortified/home/home-property-owners/

- **FLASH How-to Video Guides**
  www.flash.org/video.php

- **Florida Building Commission**
  www.floridabuilding.org

- **Blueprint for Safety**
  www.blueprintforsafety.org/animated-how-to.php

- **Florida Office of Insurance Regulation**
  www.floir.com

GET A PLAN!
FLORIDA DIVISION OF EMERGENCY MANAGEMENT

Appendix

“Homeowner’s Insurance: A Toolkit for Consumers”
(Florida Department of Financial Services)

“Notice of Premium Discounts for Hurricane Loss Mitigation”
(Florida Office of Insurance Regulation)

“Community Rating System” Fact Sheet
(Federal Emergency Management Agency)

“Avoiding Hurricane Damage 2013” Fact Sheet
(Federal Emergency Management Agency)

“Mitigation Planning” Fact Sheet
(Federal Emergency Management Agency)

“Mitigation’s Value to Society” Fact Sheet
(Federal Emergency Management Agency)

MITIGATION TECHNIQUE FACT SHEETS
(Federal Emergency Management Agency)

Reinforce or Replace Garage Doors
Protect Windows and Doors with Covers
Secure Composition Shingle Roofs
Secure Metal Siding and Metal Roof
Maintain EIFS Walls
Secure Built-Up and Single Ply Roofs
Brace Gable End Roof Framing
Remove Trees and Potential Windborne Missiles

CHIEF FINANCIAL OFFICER
JEFF ATWATER
FLORIDA DEPARTMENT OF FINANCIAL SERVICES

Homeowners' Insurance

A Toolkit for Consumers

TOOLKIT

Florida residents know firsthand that it pays to plan ahead. Dealing with wildfires, floods, tornadoes, hurricanes, winter storms, sinkholes and other disasters, can drastically change our lives. Individual losses such as a home burglary, kitchen fire, or a lightning strike can also disrupt our daily lives. Homeowners' insurance helps pay to repair or rebuild your home and replace personal property due to a covered loss.

This toolkit provides information to assist you with insuring your home. It also contains tools to help you if you have a covered loss that involves the largest investment you've made - your home.

Contents

Section 1 Insuring Your Home

Florida law does not require homeowners' insurance, but most people want to insure the largest investment they may ever make – their home. Also, if you own certain pets or a swimming pool, some cities and counties require liability coverage, which would pay for covered injuries to others, or damage to their property, for which you are legally responsible.

For mortgaged homes, the lending institution may require full insurance coverage on the home, including flood (if located in a special zone), fire, liability, windstorm, etc. Some developments and subdivisions may also require insurance.

Depending on your home and which insurer you choose, you may obtain one of several homeowners' insurance packages to cover your home and personal property. Each package provides coverage against specified perils or events that cause damage to property, such as fire, windstorm or theft.

Four categories apply to covered perils:

- Structure (the dwelling itself)
- Other structures (like sheds and fences)
- Personal property (the contents of the structures)
- Loss of use (also called Additional Living Expense or ALE)

The first three are defined as "property."

Property

Property coverage helps pay for damage by covering perils to your home, the contents of your home and other personal belongings owned by you or family members who live with you. In some cases, it helps pay for damage to other structures, such as tool sheds, detached garages, small boats, guest houses and their contents. Your insurance agent or company can point out the items covered in a given policy.

Your policy provides limited coverage for some personal property, such as antiques, firearms, jewelry, furs and electronics. You may need additional coverage as an endorsement, or addition, to your insurance policy to modify its original terms for an additional premium.

Your homeowners' insurance policy may also cover your dependent children's belongings while they attend college, whether they live on or off campus. Check with your agent or company representative concerning coverage for children living away from home. You may need a separate policy.

Homeowners' policies do not cover vehicles. Your agent or company can help you find coverage for items not included in your policy.

Additional Living Expense (ALE)

Homeowners' policies provide Additional Living Expense coverage that will pay some extra expenses if damage to your home prevents you from living there while it is being repaired. Most policies also will provide this coverage when a civil authority (law enforcement agency, emergency management service, etc.) prohibits the use of a residence due to direct damage to neighboring homes by a covered threat.

The items typically covered - above and beyond normal expenses - include extra costs for food, housing, telephone, transportation (to and from work or school), relocation and storage, utility installation and furniture rental for a temporary residence. Be sure to check your policy to find out what is specifically covered. This coverage applies only to differences in expenses. For example, it would apply to the cost of restaurant meals minus normal food expenses. It does not cover your mortgage, groceries and utilities or the monthly cost of a telephone in a rented space (since you normally pay for the telephone in your house).

Your policy may designate limited coverage for additional living expenses, but your policy does not obligate your company to pay this amount up front or in full if you suffer a total or partial loss. For this reason, you must keep receipts for additional living expenses and submit these to your company for reimbursement.

Policies generally offer ALE coverage without any deductible. It applies only to the primary insured structure in the event of a loss. ALE coverage does not apply to your dependent children while they are away at college, and flood insurance policies don't provide this coverage. For more information, contact your insurance agent or company.

Personal Liability

This coverage protects you against a claim or lawsuit resulting from (non-auto) bodily injury or property damage to others. For example, if a neighbor slips and falls in your house and sues you, and a jury finds you legally liable, this coverage would pay that claim plus legal fees up to the policy limits. This coverage applies to you and all family members who live with you. It does not cover intentional damage or harm caused by you or family members who live with you. Check your policy for exclusions and discuss them with your agent.

Medical Payments

Regardless of fault, this coverage pays for medical expenses, up to the medical payment limits, of persons accidentally injured at your home. It does not apply to your injuries or those of anyone living with you, or to activities involving an at-home business.

Inflation Guard

Inflation or room additions can increase the replacement cost of your home and its contents, while the actual cash value of your home may decrease over time. An inflation guard endorsement gradually increases your dwelling's coverage limit annually to keep your insurance coverage up-to-date with current prices and inflation. It also may keep the policy value in line with increases in local building costs per square foot. If your policy lacks this endorsement, you are responsible for periodically updating your coverage with your insurance agent or company.

No matter how you insure your home, you should keep track of its replacement cost evaluation. Check with your agent or company once a year to make sure your policy provides adequate coverage.

For more information, please call the DFS Consumer Helpline toll-free at 1-877-MY-FL-CFO (1-877-693-5236), or visit the DFS website at www.MyFloridaCFO.com.

How Much Insurance Should You Buy?

Do not rely on the purchase price of the home, the amount of the mortgage loan, or the amount set by the property tax appraiser or insurance agent. In order to be adequately covered, your home must be insured for the amount it will take to rebuild the home at current prices for building materials and labor costs, including the amount necessary to bring it into compliance with current building codes. Please contact your insurance agent, and consult a licensed contractor or certified property appraiser who will provide you with a detailed estimate. This is the only way to ensure that you have adequate coverage at the time of a loss.

If your home is underinsured at the time of a loss, there may be a penalty or reduction in the amount the insurance company will pay for the loss.

Ask your agent about limits and exclusions.

Insurance Packages

This section explains the basic insurance packages available to Florida homeowners, condominium-unit owners, mobile home owners, and renters. The basic homeowners' policy is a package policy that may be modified, but dwellings, adjacent structures, contents, liability, and medical payments usually cannot be eliminated from the basic package.

Homeowners' Insurance

The three packages offered most frequently to owner-occupied, single-family homes include Broad Form HO-2, Special Form HO-3, and Modified Coverage Form HO-8. These policies insure your home and belongings against a number of perils (examples listed below are not inclusive), and the more perils your policy covers, the more you will pay for it.

Perils may include:

- Fire or lightning
- Windstorm or hail
- Explosion
- Riot or civil commotion
- Aircraft
- Vehicles
- Smoke
- Vandalism or malicious mischief
- Theft
- Falling objects
- Weight of ice, snow or sleet
- Accidental discharge or overflow of water or steam
- Sudden and accidental tearing apart, cracking, burning or bulging
- Freezing
- Sudden and accidental damage from artificially generated electrical current
- Volcanic eruption

Florida Statute also requires insurers to provide policyholders the option to exclude coverage for contents (your personal property inside the dwelling), if the policyholder personally writes a statement that he does not want such coverage.

Homeowners' policies vary in their broad coverage, and they may also differ in price and customer service between companies. It is important to review your insurance needs with your agent or company representative and compare them to the coverage offered before making a decision.

Special Form (HO-3) is the most popular and most comprehensive homeowners' form of the three forms mentioned above. It covers the home for all causes of loss not specifically excluded. All homeowners' policies provide liability coverage.

Condominium Insurance

Condominium-Unit Owners' Form (HO-6) covers property and certain items and perils not insured by the association's policy. It also includes personal liability coverage.

A condominium association may choose to cover some items in its policy, so make sure you are thoroughly familiar with its by-laws and policy to know what the association is responsible for. If you have difficulty obtaining copies of these documents, call the Florida Department of Business and Professional Regulation, Division of Florida Land Sales, Condominiums, and Mobile Homes, at (850) 488-1122.

A condo association policy usually does not cover the following items if they are located within your unit:

- Floor, wall and ceiling coverings
- Electrical fixtures

- Appliances
- Air conditioning and heating equipment
- Water heaters
- Water filters
- Built-in cabinets and countertops
- Window treatments, including drapes, blinds and hardware replacement
- Air conditioning compressors that serve only one unit are not normally covered by the association's policy, no matter where they are located.

Also, condo associations may require unit owners to insure items such as front doors and screened porches. In addition, unit owners should insure interior additions or upgrades which are not the same kind or quality as the original building items.

If an item is covered by both the association's and unit owner's policy, then the association's policy pays first. This affects the amount of coverage needed for the building under the unit owner's policy, so it is important to review your existing policy with your agent to make sure you are adequately covered.

Condo associations may assess individual unit owners for damages to the commonly owned areas that are not covered by the association's policy. Your unit-owner's policy may provide limited coverage for such a "loss assessment." The extent and amount of "loss assessment" coverage varies by insurance company, so you should review your coverage with your agent or insurance company. **An assessment by the condo association for the association's policy deductible is usually not covered by your unit owner's policy.**

Mobile Home Insurance

Mobile home policies may not provide coverage as broad as a homeowner's policy. You should review your individual policy to determine what is covered and what is excluded. There are three settlement options available on a mobile home policy. All three are subject to the limits shown on your policy. You should review your individual policy to determine your options.

A **stated amount policy** specifies that you will recover the policy's face amount in the event of a total loss, based upon the agreement made in your application. Insurance companies usually offer this type of policy for newer-model homes.

An **actual cash value policy** will pay the amount needed to repair a home after depreciation is subtracted. These policies usually feature lower premiums.

A **replacement cost policy** will pay for the replacement of a damaged or destroyed home without deducting for depreciation.

Home Rental or Dwelling Insurance

If you rent your home to others, insurance companies offer landlord coverage to suit your situation. If you rent a room or a portion of your home, ask your agent what coverage you may need. Most companies write up to four rentals on personal dwelling fire policies.

Renters' Insurance

Renters' or tenants' insurance (HO-4) insures your household contents against the perils included in the Broad Form (HO-2). It also includes personal liability coverage.

Other Factors to Consider

Because policies vary, some additional factors should be considered when determining your coverage needs. Please check with your agent. Additional factors include:

Coverage Availability When Storms Threaten

You cannot obtain immediate coverage when a tropical storm or hurricane watch or warning has been issued for any area within the state of Florida. This applies to new applications or requests to increase coverage. Don't wait until the last minute to buy your policy, especially during hurricane season (June 1 through Nov. 30), when several storms can form simultaneously.

Building Materials

The building materials used in the construction of your home can affect the cost to insure it. For example, it's more expensive to insure a frame house than a brick one.

Home-Warranty Plans

Homeowners' insurance can protect your home from losses due to fire, theft, and other perils. A home-warranty plan, though, offers a service contract that can pay for unexpected repairs to the home's plumbing, electrical system, appliances, etc., during the warranty period, which typically ranges from one to 10 years. Such plans offer no substitute for homeowners' insurance or a lack of quality construction for a new home.

Carefully research your insurance needs and the qualifications of your homebuilder. Also read and understand any home warranty plan under consideration. Be sure to read the exclusion section of the warranty.

Options If You Can't Find Coverage

Hurricane Andrew, the major storms of 2004-05, and other disasters created serious problems in the insurance industry and caused a significant disruption of Florida's residential insurance marketplace. Many Floridians experienced homeowners' insurance rate increases; others were dropped or otherwise left without coverage. Fortunately, help is available.

Florida Market Assistance Plan (FMAP)

The Florida Market Assistance Plan can offer help if you can't find coverage. FMAP will supply names and phone numbers of agents and agencies that represent insurance companies accepting new business in your county. For more information, call your agent or FMAP at 1-800-524-9023 (www.fmap.org).

Citizens Property Insurance Corporation

If you are having trouble finding coverage, there is help. The 2002 Florida Legislature merged the Florida Windstorm Underwriting Association and the Florida Residential Property and Casualty Joint Underwriting Association to form Citizens Property Insurance Corporation, which writes coverage for consumers who can't find it elsewhere. (See the "Windstorm Coverage" section of this guide for more details on Citizens, or visit www.citizensfla.com.)

Surplus Lines Companies

The standard insurance market does not necessarily insure every risk. Standard companies often reject risks that do not meet their underwriting requirements for type and date of construction, location and other conditions.

Surplus Lines insurers can help fill this need for consumers who can't obtain coverage from licensed standard companies. Before turning to a surplus lines insurer, your agent must apply for and receive rejections from at least three licensed insurers.

Freedom from some insurance regulation, such as coverage and rate filings, allows Surplus Lines insurers to respond to unmet needs of insurance consumers. The Florida Insurance Guaranty Association does not

provide any coverage for claims if a Surplus Lines company goes bankrupt. A Surplus Lines policy shall have stamped or written on the first page of the policy the words:

> ***"This insurance is issued pursuant to the Florida Surplus Lines law. Persons insured by Surplus Lines carriers do not have the protection of the Florida Insurance Guaranty Act to the extent of any right of recovery for the obligation of an insolvent unlicensed insurer."***

Thoroughly read any Surplus Lines policy, if purchased, since DFS does not regulate the rates these companies charge or the forms they use. These policies frequently involve differences in coverage and deductibles not found in other policies - for example, sinkhole or mold damage. Surplus Lines companies must give a 45-day notice of cancellation.

Your Lending Institution

Most financial institutions that offer mortgages require insurance coverage in the loan contract to protect their interest in the property. It may also require the insurer's financial stability to be rated above a specific level by one of the many rating services, and the lender becomes a co-payee (with you) in case of loss and will remain one as long as it has a vested interest in your home.

This means your insurance company will generally make any checks for home-repair claims payable to you (the insured) and your financial institution. The lender gets equal rights to the insurance check to ensure that you make any necessary repairs. For this reason, an official at the financial institution will also need to endorse the check.

The lender will inform you of its stipulations. To protect its financial interests, the lender will generally place the money in an escrow account. (This means a third party holds the money until certain requirements are met.)

During the process, the lender will pay for repairs as you complete the work. Show the lender your contractor's bid and how much it will cost to start the job. Make sure you ask for and save receipts. When repairs are completed, financial institutions can't keep remaining settlement proceeds to cover the balance of your loan. Any funds that exceed the mortgage's balance should be released to you. You may also receive a separate check from your insurance company for your home's contents and other expenses. If you don't, the lender should send you the portion of the payment not related to dwelling repairs.

If you feel your financial institution is withholding funds that are rightfully yours, call the Office of Financial Regulation toll-free at 1-800-848-3792.

Force-Placed Homeowners' Insurance

If you fail to obtain homeowners' insurance, your lending institution may buy it for you since loan contracts usually require it. This is called "force-placed" insurance.

***Warning*:** The premium for force-placed coverage is very costly. Such a policy will usually only cover the structure and not your personal property, or the policy may only cover the loan's outstanding balance.

What about Private Mortgage Insurance?

Most homeowners know this type of coverage by its initials: PMI. This insurance helps protect lending institutions from default by borrowers. The mortgage company may require this type of insurance if you pay for a mortgage on a high-ratio loan. This is when your mortgage down payment is less than 20 percent of your property's value. This insurance allows you to qualify for a larger mortgage than is otherwise available with a small down payment.

Mortgage Life Insurance

This insurance pays off your home in the event of your death. The cost depends upon the mortgage amount, payoff time, and a special calculation table. The loan principle and mortgage interest decrease with each monthly payment. Your mortgage-insurance amount may exceed your mortgage amount.

You may obtain this coverage for both spouses under one contract on a first-to-die basis. This means that the surviving spouse becomes the beneficiary. Mortgage life insurance may prove economical for its specific purpose, but you may need a good health record to buy a policy. As with all policies, it is a good idea to do research in order to choose the mortgage life insurance policy that is right for you.

What About Building a New Home?

If you plan to build your own home or hire a contractor to build one for you, a Builder's Risk policy may be what you need. Coverage under a typical Builders' Risk policy covers the home from the start of construction and continues until a stated time found in the policy after construction is completed.

Builder's Risk policies cover items such as the home under construction, building materials, machinery, equipment, permanent fixtures, debris removal, pollutant cleanup, floor plans, blueprints, valuable records or papers, landscaping, etc. This coverage can help ensure that you or your contractor can obtain funds to repair or rebuild in case of loss. In addition, liability coverage may be purchased to cover your liability exposure in connection with the construction.

Before you start a home-construction project, find out whether you or your contractor should purchase a Builders Risk policy. Individuals hiring a contractor to build a home can require them to obtain a builders risk policy as part of the construction contract.

Also, some homeowners policies cover a home under construction. Some insurance companies will add Builders' Risk coverage to a homeowners policy for an additional premium eliminating the need for a separate policy. You should contact your insurance agent or insurer for more information.

Policy Termination

Licensed insurance companies can take up to 90-days to decide whether you meet their underwriting guidelines. Within this 90-day period, a company must give you a 20-day notice if it intends to cancel the policy, except for nonpayment of premium, which requires a 10-day notice.

After 90-days, your company may cancel your policy if:

- You don't pay your premium;
- You deliberately provide false information on your application;
- You fail to follow the company's requirements; or
- You increase your risks through new activities or home improvements.

For reasons other than nonpayment of premiums, the company must provide a 100-day notice before it may cancel your policy.

Companies can always opt for non-renewal of your policy. This process also requires a 100-day notice unless you have been insured with the insurer or its affiliate for five or more years. If so, the notice required is 120-days.

You may cancel your policy at any time by providing a written request. You should receive a refund of any unearned premium. However, if you cancel an insurance policy early, the company may retain 10% of the unearned premium amount. If you are changing insurance policies or companies, make sure you do not have a break in coverage between the two policies. This could result in your mortgage company adding the cost of single interest (protects the interest of the mortgage company only) insurance to your mortgage.

Special limits on certain personal property

Standard homeowners' policies usually have special limits for coverage on valuables such as jewelry, silverware, guns, antiques, boats and other items. Check your policy and contact your insurance agent or company with questions or to request additional coverage.

This is why keeping a home inventory is so important - it helps you realize the value of your personal property.

Replacement Cost versus Actual Cash Value

When buying coverage, you may insure your property and personal property for Actual Cash Value or Replacement Cost.

Replacement Cost

Replacement Cost is the amount needed to replace or repair your damaged property with materials of similar kind and quality, without deducting for depreciation (the decrease in the value of your home or personal property due to normal wear and tear).

Actual Cash Value

Actual Cash Value is the amount needed to repair or replace an item less depreciation. For example, your insurance company would deduct for the age and condition of a 17-year-old roof with a 20-year life expectancy. In this scenario, you have used 17 out of 20 years expectancy. You would be paid for the remaining three years value.

Here is how the two types of coverage work in practice. Let's say you purchased a new television in 1994 for $700 and it was destroyed by lightning in 2005. If the settlement option available on your insurance policy is Actual Cash Value, your insurer will pay an amount that reflects the current value of the 1994 TV - say $300. A policy that settles claims based on the Actual Cash Value will consider depreciation. A Replacement Cost policy would cover the cost to replace the TV with a new one of the same type - say $900.

Your agent must offer you Replacement Cost coverage for your dwelling. If you reject this coverage, you must sign a statement on the application form indicating that you don't want it. Most homeowners' insurance policies require the policyholder to insure the dwelling for at least 80% of its replacement value.

If your home is covered by a Replacement Cost policy that requires you to have it insured for at least 80% of its replacement cost, and you do not insure the correct amount, you may become a co-insurer for any partial loss claim. For instance, if you insure the home for $100,000 and the true replacement cost is $200,000, you should have insured the home for at least 160,000. If you have a loss of $25,000.00, the company would pay only $15,625, less your deductible, on the claim. The formula used by the insurer to determine the amount they owe in this example is the **amount of insurance carried** divided by the **amount of insurance required**, times the **amount of loss**, equals the **amount payable** by the insurance company ($100,000 divided by $160,000 times $25,000 = $15,625 and then subtract the deductible.)

Some insurers offer Guaranteed Replacement Cost Dwelling insurance - an option that costs only a few dollars more, and insures your home for an increased amount, even if it exceeds policy limits. Many companies will not offer Guaranteed Replacement benefits for older homes.

Windstorm Coverage

Most homeowners' insurance policies cover damage caused by windstorms, hurricanes and hail, unless you sign to waive the coverage. Also, if your home is located in the Wind-Pool Area, it is likely that Windstorm Coverage is excluded and you must purchase a separate windstorm policy if you want the coverage. Most mortgage companies will require you to carry Windstorm Coverage if you have a mortgage.

Flood Insurance

Typically, homeowners' policies exclude flood damage (rising water). Depending on your home's location, however, you may qualify for flood insurance through the National Flood Insurance Program. You also may qualify for a discount if you include a special elevation report with your application. For more information, contact the National Flood Insurance Program at 1-888-FLOOD29 (1-888-356-6329), or your local agent.

Flood insurance is available for your home and personal property. Normally, there is a 30-day waiting period before a flood insurance policy becomes effective; unless the policy is purchased at the same time you buy your home. Flood insurance can be obtained from your local agent.

Sinkholes and Catastrophic Ground Collapse

Florida insurance companies are not required to include sinkhole coverage on new or existing homeowners' insurance policies. However, they are required to inform homeowners that sinkhole coverage is available for an additional premium.

A law passed in 2007 requires that insurance companies now include "catastrophic ground cover collapse" which means:

1. The abrupt collapse of the ground cover;
2. A depression in the ground cover clearly visible to the naked eye;
3. Structural damage to the building, including the foundation; and
4. The insured structure being condemned and ordered to be vacated by the governmental agency authorized by law to issue such an order for that structure.

Insurers may also restrict sinkhole and catastrophic ground collapse to the principal building, as defined in the applicable policy.

Surplus Lines insurers are not required to offer sinkhole coverage, but many do. Ask your agent for details.

Ordinance or Law Exclusion

If a local building ordinance or law increases the cost to repair or replace your home, the insurance company does not pay that extra amount, unless your policy includes ordinance or law coverage. You should check your policy to determine if this coverage is automatically included or if you should add it to your contract. Even if the coverage is included, you may be able to purchase increased limits for this valuable coverage.

This is how it works: Let's say your home was build in 1982 and at that time the building code required an elevation of the home of at least five feet above ground. Your home was badly damaged in 2011 by a hurricane and the current building code required elevation of the home at least 10 feet above ground. Ordinance or Law coverage could help pay the increased costs to elevate the home another five feet above ground.

Complying with current codes may require changes in design and/or building materials which could result in you paying more to repair or rebuild your home, if necessary. If you have a claim that is covered by your homeowners' policy, and do not have ordinance or law coverage, the insurance company will not pay the cost of bringing the repaired home up to current building code requirements.

Your agent must offer you ordinance or law coverage. If you do not wish to buy this coverage, you must sign a form stating that you reject it.

Biological Deterioration (mold and fungi)

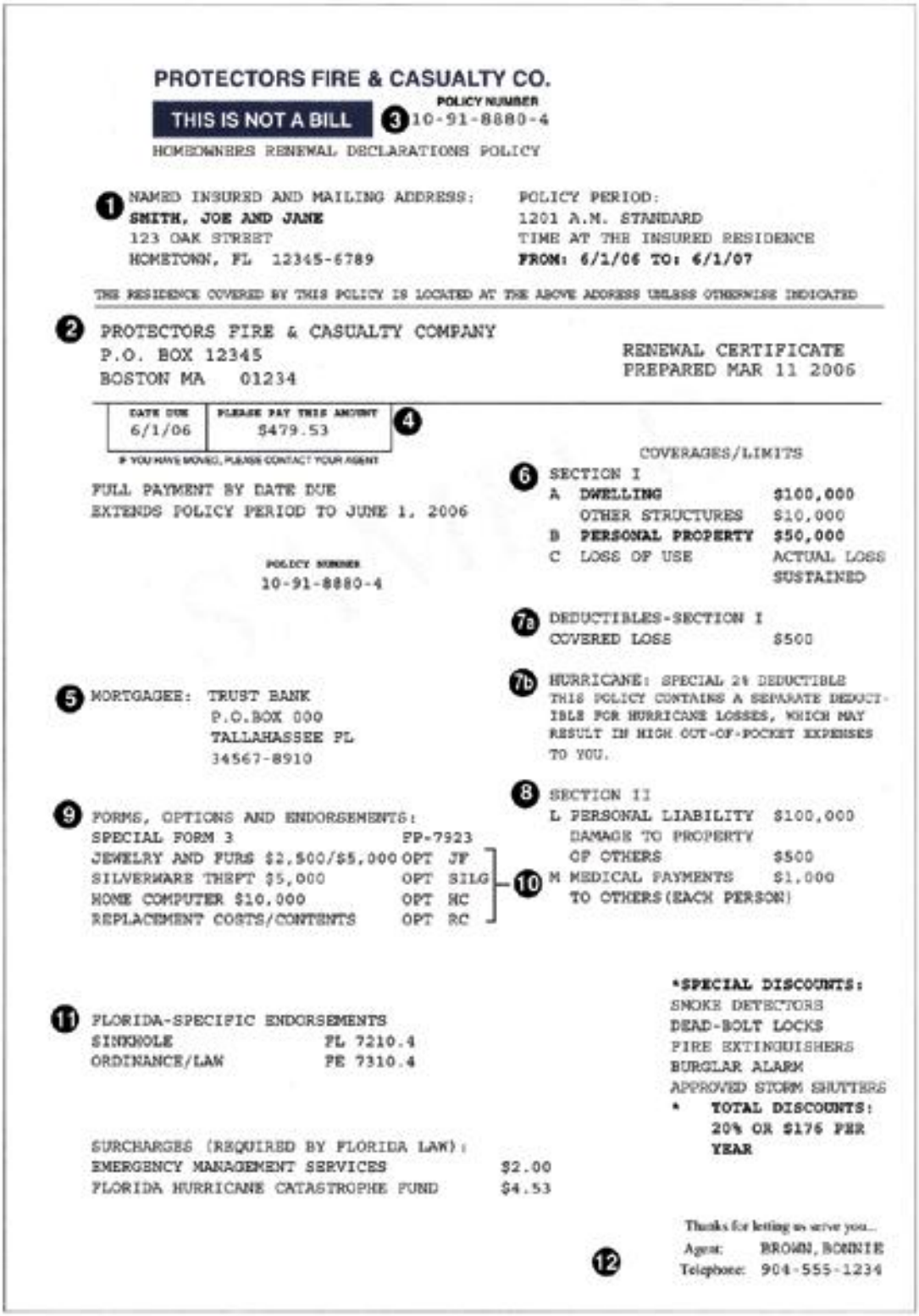
Typically, mold that results from a covered peril is a covered claim through your homeowners' policy. An example would be a sudden and accidental discharge of water - like a burst pipe or other plumbing failure, or claims that arise from water damage due to hurricanes or flooding. Please refer to your policy provisions for details of specific mold coverage and limitations.

Most insurers now offer limited levels of mold-related property damage coverage within the basic policy. Many insurers offer $10,000 of limited coverage, with an opportunity to purchase additional coverage for an additional premium. Other insurers exclude mold-related property damage entirely, but offer coverage in amounts of $10,000, $15,000, $25,000, $50,000 and policy limits, for an additional premium.

Sample Declarations Page

Where to Locate Policy Information

❶ - Policyholder name and location of insured dwelling
❷ - Company Name
❸ - Policy Number
❹ - Premium
❺ - Mortgage holder name and address
❻ - Summary of basic coverages and limits
❼a - Deductible (amount policyholder must pay per claim or accident)
❼b - Hurricane deductible
❽ - Liability protection
❾ - Type of policy (in this case, HO-3)
❿ - Optional coverage (called an endorsement) for special items such as jewelry or silverware
⓫ - Coverage offered or required under Florida law
⓬ - Name of agent or company representative



PROTECTORS FIRE & CASUALTY CO.

THIS IS NOT A BILL

POLICY NUMBER ❸ 10-91-8880-4

HOMEOWNERS RENEWAL DECLARATIONS POLICY

❶ NAMED INSURED AND MAILING ADDRESS:
SMITH, JOE AND JANE
123 OAK STREET
HOMETOWN, FL 12345-6789

POLICY PERIOD:
1201 A.M. STANDARD
TIME AT THE INSURED RESIDENCE
FROM: 6/1/06 TO: 6/1/07

THE RESIDENCE COVERED BY THIS POLICY IS LOCATED AT THE ABOVE ADDRESS UNLESS OTHERWISE INDICATED

❷ PROTECTORS FIRE & CASUALTY COMPANY
P.O. BOX 12345
BOSTON MA 01234

RENEWAL CERTIFICATE
PREPARED MAR 11 2006

DATE DUE	PLEASE PAY THIS AMOUNT ❹
6/1/06	$479.53

IF YOU HAVE MOVED, PLEASE CONTACT YOUR AGENT

FULL PAYMENT BY DATE DUE
EXTENDS POLICY PERIOD TO JUNE 1, 2006

POLICY NUMBER
10-91-8880-4

❺ MORTGAGEE: TRUST BANK
P.O.BOX 000
TALLAHASSEE FL
34567-8910

❾ FORMS, OPTIONS AND ENDORSEMENTS:

SPECIAL FORM 3	FP-7923	
JEWELRY AND FURS $2,500/$5,000	OPT	JF
SILVERWARE THEFT $5,000	OPT	SILG
HOME COMPUTER $10,000	OPT	HC
REPLACEMENT COSTS/CONTENTS	OPT	RC

⓫ FLORIDA-SPECIFIC ENDORSEMENTS

SINKHOLE	FL 7210.4
ORDINANCE/LAW	FE 7310.4

SURCHARGES (REQUIRED BY FLORIDA LAW):

EMERGENCY MANAGEMENT SERVICES	$2.00
FLORIDA HURRICANE CATASTROPHE FUND	$4.53

COVERAGES/LIMITS

❻ SECTION I

A	DWELLING	$100,000
	OTHER STRUCTURES	$10,000
B	PERSONAL PROPERTY	$50,000
C	LOSS OF USE	ACTUAL LOSS SUSTAINED

❼a DEDUCTIBLES-SECTION I
COVERED LOSS $500

❼b HURRICANE: SPECIAL 2% DEDUCTIBLE
THIS POLICY CONTAINS A SEPARATE DEDUCTIBLE FOR HURRICANE LOSSES, WHICH MAY RESULT IN HIGH OUT-OF-POCKET EXPENSES TO YOU.

❽ SECTION II

L	PERSONAL LIABILITY	$100,000
	DAMAGE TO PROPERTY OF OTHERS	$500
M	MEDICAL PAYMENTS TO OTHERS(EACH PERSON)	$1,000

❿

*SPECIAL DISCOUNTS:
SMOKE DETECTORS
DEAD-BOLT LOCKS
FIRE EXTINGUISHERS
BURGLAR ALARM
APPROVED STORM SHUTTERS
* TOTAL DISCOUNTS: 20% OR $176 PER YEAR

Thanks for letting us serve you...
Agent: BROWN, BONNIE
Telephone: 904-555-1234

⓬

Florida Department of Financial Services • 1-877-MY-FL-CFO (1-877-693-5236) • www.MyFloridaCfo.com

Section 3 Property Inventory & Claim Process

We recommend completing a room-by-room inventory so if you have a covered loss, you will be able to provide complete and accurate information to the insurer so they can complete your claim. The more detailed documentation you can supply during the claims process, the fewer problems you will experience.

The following inventory includes the main rooms of a home, but don't forget other areas such as your closets, basement, attic, garage, porch, patio, workroom or sheds. In addition to completing an inventory, take photos of your personal property. Pictures add details about your inventory that written documents can't. Also, on larger ticket items, include serial numbers if they are available.

Once the inventory is complete, estimate the replacement cost of your inventory using current prices and compare that amount to your personal property coverage limit. If you feel your coverage should be increased, contact your agent. Also, review your inventory list for items that may be underinsured due to the limitations on certain types of personal property. Since insurance policies differ, you should check your own insurance policy for the list of personal property subject to limitations. If you determine you need additional coverage for any of these items, contact your insurance agent.

It's very important to update your inventory at least once a year.

Personal Asset Inventory

The inventory provided includes the following rooms. Use additional sheets of paper if needed.

- Living Room
- Dining Room
- Kitchen
- Family Room (Den)
- Bedrooms
- Bathrooms
- Other

TIP: **If possible, take photographs or video recordings of your property and store all records in a safe, dry place.**

TIP: **When dealing with an insurance claim, never give original documents to anyone. Always provide copies and keep the original documents.**

Disclaimer: This toolkit may not provide a complete list of items in your inventory. You should add pages as needed to complete your own personal inventory.

Financial Account Information

Name of Institution:
Address:
Phone Number:
Account Number:
Website:

Mortgage Information

If your home is mortgaged, any insurance claim settlement will be made out to you and the mortgage holder. You will need to keep the mortgage holder informed of the process and arrange a schedule of release of funds for repairs.

Name of Institution:
Address:
Phone Number:
Account Number:
Website:
Additional Accounts (utility companies, cell phone provider, etc):

Living Room

Item	Qty	Purchase Date	Purchase Price	Brand Name	Make / Model / Serial Number
Furniture					
Sofas/Chairs					
Mirrors					
Lamps					
Rugs/Carpet					
Tables					
Curtains/Draperies					
Entertainment Center					
Bookcases/Books					
Other:					
Arts and Crafts					
Pictures/Paintings					
Statues/Pottery					
Other:					
Electronics					
Television					
Stereo					
VCR/DVD					
CDs					
Telephones					
Computer					
Clocks					
Other:					
Miscellaneous					
Air Conditioner					
Cabinets					
Fireplace fixtures					
Blinds					
Other:					
Additional Notes:					

Dining Room

Item	Qty	Purchase Date	Purchase Price	Brand Name	Make / Model / Serial Number
Furniture					
Tables					
Chairs					
Cabinets					
Curtains/Draperies					
Chandeliers/Lamps					
Mirrors					
Rugs/Carpet					
Other:					
Electronics					
Telephones					
Clocks					
Other:					
Arts and Crafts					
Pictures/Paintings					
Statues/Pottery					
Other:					
Miscellaneous					
China/Crystal					
Glassware					
Table Linens					
Blinds					
Other:					
Additional Notes:					

Kitchen

Item	Qty	Purchase Date	Purchase Price	Brand Name	Make / Model / Serial Number
Furniture					
Floor Mats					
Cabinets					
Curtains/Draperies					
Tables					
Chairs					
Other:					
Major Appliances					
Freezer					
Refrigerator					
Oven					
Microwave					
Other:					
Utensils					
Pots/Pans					
Silverware					
Glasses					
Plates/Dishes					
Cooking Utensils					
Other:					
Miscellaneous					
Blender					
Toaster					
Can Opener					
Coffee Maker					
Pictures/Paintings					
Blinds					
Cabinets					
Other:					
Additional Notes:					

Family Room (Den)

Item	Qty	Purchase Date	Purchase Price	Brand Name	Make / Model / Serial Number
Furniture					
Tables					
Sofas/Chairs					
Rugs/Carpet					
Entertainment Center					
Game table					
Bookcases/Books					
Desks					
Mirrors					
Other:					
Electronics					
Television					
VCR/DVD					
Stereo					
CDs					
Computer					
Video Game System					
Clocks					
Other:					
Arts and Crafts					
Pictures/Paintings					
Statues/Pottery					
Other:					
Miscellaneous					
Air Conditioner					
Fireplace fixtures					
Blinds/Draperies					
Other:					
Additional Notes:					

Bedrooms

Item	Qty	Purchase Date	Purchase Price	Brand Name	Make / Model / Serial Number
Furniture					
Beds					
Nightstand					
Lamps					
Desks					
Rugs/Carpet					
Bed Linens					
Curtains/Draperies					
Dressers					
Bureaus/Chests					
Bookcases/Books					
Mirrors					
Other:					
Arts and Crafts					
Pictures/Paintings					
Statues/Pottery					
Other:					
Electronics					
Computer					
Clocks					
Television					
VCR/DVD					
Stereo					
CDs					
Other:					
Miscellaneous					
Blinds					
Clothing					
Other:					
Additional Notes:					

Bathrooms

Item	Qty	Purchase Date	Purchase Price	Brand Name	Make / Model / Serial Number
Furniture					
Hamper					
Floor Mats					
Mirrors					
Bath Mats					
Bathtub					
Curtains/Draperies					
Other:					
Arts and Crafts					
Pictures/Paintings					
Statues/Pottery					
Other:					
Electronics					
Electric Toothbrush					
Hair Dryer					
Shaver					
Curlers					
Other:					
Miscellaneous					
Towels/Linens					
Toiletries					
Scale					
Other:					
Additional Notes:					

Other

Item	Qty	Purchase Date	Purchase Price	Brand Name	Make / Model / Serial Number
Real Estate					
Vehicles					
Cars/Trucks					
Boats					
RVs					
Other:					
Jewelry and Collectibles					
Computer Hardware/Peripheral Devices					
Additional Notes:					

Other

Item	Qty	Purchase Date	Purchase Price	Brand Name	Make / Model / Serial Number
Miscellaneous					
Cameras					
Furs					
Antiques					
Tools					
Firearms					
Plants					
Toys/Porcelain Dolls					
Telescope					
Fish/Fish Tanks					
Musical Instruments					
Outdoor Furniture					
Lawnmower					
Other:					

Additional Notes:

The Claims Process

The first thing you should do if you have a covered loss is determine if the amount of the loss exceeds your policy deductible. If the damage exceeds your deductible, report the loss to your agent or insurer as soon as possible. The insurer generally assigns an insurance adjuster to handle your claim.

If your home is damaged, you must make emergency repairs to prevent further damage. You should keep all your receipts for material and labor while making emergency repairs. It is beneficial to take pictures of the damaged property before starting the emergency repairs. You should never repair all the structure damage or throw away any damaged personal property until instructed to do so by the adjuster. The company has a right to inspect the damage before you receive payment.

Make sure your adjuster is properly licensed in Florida. If you have any questions about the license status of an adjuster, or the way your claim was handled, call the DFS Consumer Helpline toll-free at 1-877-My-FL-CFO (1-877-693-5236).

Keep a phone log of the dates, times, and names of all persons you speak to regarding your claim. Also keep a copy of anything you sign.

Options available if you have a claim dispute

Mediation: This is an informal process where a trained, neutral mediator tries to help resolve the dispute without dictating the outcome. The insurer pays the cost of the mediation process. Mediation is not binding on either party. You are not required to accept the offer made by the insurer at the mediation conference. To determine if your claim qualifies for mediation, call our Consumer Helpline at 1-877-My-FL-CFO (1-877-693-5236).

Appraisal: If you and your company representative cannot reach a satisfactory settlement and your policy allows appraisal, you may hire an appraiser to reach a compromise figure. Your appraiser will negotiate with the insurer's appraiser to reach a settlement. If the two appraisers cannot agree, they will hire an umpire. The cost of the umpire is shared by you and the insurer. A decision of any two or the three appraisers is binding on all parties.

Types of Adjusters

When you report a claim to your insurer, they normally assign an adjuster to inspect and estimate your loss. Adjusters must be licensed in the state of Florida. There are three types of adjusters.

1. Company Adjusters: They work and are paid by your insurance company to inspect and estimate your loss. They submit a report directly to the insurance company which is used by the company to determine payment to you. In the event of a disaster, emergency adjusters are licensed to assist in Florida. The emergency adjusters are also hired and paid by the insurance companies.

2. Independent adjusters: They may be self-employed or work for an independent adjusting firm. Independent adjusters and their firms are also hired and paid by insurance companies to adjust claims of their policyholders. They inspect and estimate your loss and report it to the insurer. The insurer makes the final decision regarding the amount they pay you.

3. Public adjusters: They may be self-employed or work for a public adjusting firm. You may hire a public adjuster to estimate your damage and negotiate a settlement on your behalf with the insurer. A public adjuster will charge a fee to handle the claim on your behalf. Their fee is normally stated on the contract as a percentage of the amount they collect on your behalf. In Florida, there are limitations on the amount public adjusters can charge you depending on the type of claim you have and the insurer you have. When you call to verify a public adjuster's license, you should also verify the amount they are charging you is correct.

In the event you need to file a claim, you will deal with an insurance adjuster. Keep this person's name and contact information handy at all times to facilitate evaluation of the loss and to handle any dispute. Also, use this space to record information from your contacts with the adjuster and the insurance company - include dates, the information discussed, and the names and phone numbers of the people you talk to. This log will help in the event of a claim dispute.

Adjuster Name:
Adjuster's Company:
Adjuster's Phone:
Adjuster's License Number:
Claim Number:

LOG:

Before the Storm

- **Conduct scheduled reviews of your insurance policy to make sure you are adequately covered and your coverage is up to date.**

- **Make sure you have a designated place to meet other family members in the event of an emergency. If you are directed to a specific location by local authorities, make sure other family members know where you are.**

- **Listen to the news on your TV or radio to receive emergency instructions from local authorities and to keep up with the current weather conditions. You should have a battery-operated radio available in case you lose power. Make sure you have extra batteries on hand.**

- **If you know a storm is headed your way, fill up your gas tank in case you must evacuate. It is not always easy to find an operating gas station as the storm approaches.**

- **If you must evacuate, try to contact your employer and let them know your plans.**

- **You should always have an emergency kit for injuries or illnesses on hand. It is a good idea to have one located permanently in your vehicle.**

- **Make advance plans for your pets. Not all public shelters or hotels allow animals unless they are "service animals". If you must leave your pets at home, leave a 3-day supply of food and water.**

- **Before a storm arrives, move any outside furniture or other valuables into your home and lock all windows and doors. Pick up any loose items in the yard as they can become projectiles in a storm. Also, check on your neighbors to see if they need assistance.**

- **You should keep cash on hand. ATMs will not work if the power is out, and banks may not be able to restock the ATMs for a while once power is restored.**

When a Storm Approaches

Have a plan of evacuation, including a list of people to contact in the event you need to leave your home.

Home Information*:*

List individuals to be contacted before and after evacuation (one person should be out of state).

Name:
Email:
Phone Number:
Name:
Email:
Phone Number:

List evacuation route options:

Route One:
Storm Shelter:
Route Two:
Storm Shelter:

Medical Information

Physician's Name:
Physician's Phone Number:
Pharmacy Name:
Pharmacy Phone Number:

Note: If you take prescription medications regularly, you should contact your pharmacy before a storm strikes to get prescriptions filled so that you don't run out.

- List of Necessary Medications
- Health Insurance ID card (s)
- Record of Immunizations/Allergies
- Disabilities Documentation
- Living Will
- Dental Records / Child Identity Cards / DNA Swabs

Section 4 Legal & Financial Document Checklist

Make sure you have the following information. If you are missing some of this information and are unsure where to obtain it, see the list of resources at the end of this list. These items may assist if you need to file for government disaster assistance, tax assistance, etc.

Insurance Policies

Make sure you have the correct phone number to report a claim with your insurance company. Review your coverage to make sure it is adequate for your current circumstances.

- Property Insurance
- Rental Insurance
- Auto Insurance
- Health Insurance
- Life Insurance
- Other

Financial Information

- Bank/Credit Union Statements
- Credit/Debit Card Statements
- Retirement Accounts (401K, TSP, IRA)
- Investment Accounts (Stocks, Bonds, Mutual Funds)

Tax Information

Tax returns from the previous year may be required to apply for loans and to verify your income in the event you need to apply for assistance.

- Previous Year's Income Tax Return
- Property Tax Statement
- Personal Property Tax (i.e. Car Tax)

Sources of Income/Assets

You may be required to provide verification of your income and its source if you need to apply for assistance.

- Recent Pay Stubs for All Sources of Income
- Government Benefits (e.g. Social Security, Temporary Assistance for Needy Families, Veterans')
- Alimony Income
- Child Support Income
- Professional Appraisals of Personal Property
- Rewards Accounts (e.g., Frequent Flyer Programs, Hotel Rewards)

Special Note about Security Concerns

In addition, electronic payments, credit/debit cards and software programs for taxes and other finances require a password, PIN (Personal Identification Number) or personal security questions as an extra measure of protection. It is important to keep these access codes secure. DO NOT include a list of passwords and PINs in your documents.

Choosing secure passwords is one of the most important things you can do to keep your electronic accounts safe and avoid the headaches and potential suffering caused by security breaches. Be sure to select a password or PIN that is something you will be able to remember, but that is NOT something easily associated with you, such as a birth date, phone number, nickname or other reference someone could easily discover. Never write your password down or store it in an unencrypted file.

NEVER give out a password or PIN for any account to anyone, no matter who the person is or claims to be. No customer service representative, systems administrator or corporate security officer should ever ask you for your password or PIN. If someone is authorized to access your account, he or she does not need your password to get access.

Vital Insurance Information

The following information will be of the most importance immediately after a storm and will help expedite the filing of claims. Be sure to know what your insurance policies cover. It is a good idea to perform an annual review of the type and amount of coverage you have, to make sure you are adequately protected in the event of a loss.

Property Insurance

- Company Name
- Policy Number
- Company Phone Number
- Company Address
- Deductible
- Premium Due Date

Rental Insurance

- Company Name
- Policy Number
- Company Phone Number
- Company Address
- Deductible
- Premium Due Date

Auto Insurance

- Company Name
- Policy Number
- Company Phone Number
- Company Address
- Deductible
- Premium Due Date

Health Insurance

- Company Name
- Policy Number
- Company Phone Number
- Company Address
- Deductible
- Premium Due Date

Life Insurance

- Company Name
- Policy Number
- Company Phone Number
- Company Address
- Deductible
- Premium Due Date

Other Insurance (Boat, Windstorm, Flood, etc.)

- Type of Policy
- Company Name
- Policy Number
- Company Phone Number
- Company Address
- Deductible
- Premium Due Date

Financial Obligations

Having a record of your financial obligations can be extremely important to demonstrate your discretionary income and to qualify for income-based assistance following a disaster. If you do not have a lease, having proof of utility payments is very important to demonstrate residence in the home.

- Mortgage Statement
- Lease
- Utility Bills (Electric, Water, Gas)
- Car Payment
- Student Loan
- Alimony Payments
- Child Support Payments
- Elder Care Facilities
- Other Debt

How to Get Important Documents

You can obtain copies of birth, death, marriage, divorce and adoption certificates from your state health or social services administrations for a minimal fee.

The IRS requires all U.S. Citizens who receive income to have a Social Security Number. You may obtain assistance in obtaining replacement cards at http://www.cpsr.org/cpsr/privacy/ssn/ssn.faq.html or you may visit your local Social Security Office.

If you need to replace your passport, a copy of your passport helps expedite this process. Additional information may be obtained at http://travel.state.gov/passport/.

If you need to replace naturalization documents please visit http://uscis.gov/graphics/formsfee/forms/. Naturalization documents are the only acceptable proof of citizenship for individuals not born in the United States. Additional information regarding U.S. Citizenship and Immigration Services is also available at the site listed above.

A Will is an extremely important document that can help reduce family conflicts, probate, time and expenses during the stressful time of losing a loved one. A Short Form Will, an uncomplicated will used to give all assets equally to one or more heirs, can generally be obtained for less than $10. Most financial planners can help you with this or you can contact your local legal aid offices.

A Power of Attorney is a legal document that authorizes another person to act on your behalf. That person does not have to be an attorney, just someone you trust to make decisions for you if you cannot make them yourself. A Power of Attorney can grant complete authority or can be limited to certain acts and/or for certain periods of time.

If you need a copy of your mortgage or deed of trust, contact your lending institution. Proof of home ownership may be required in order to receive federal disaster assistance.

If you do not have the title or registration to your vehicle, you should be able to get a duplicate title or registration from your local Department of Motor Vehicles.

Notice of Premium Discounts for Hurricane Loss Mitigation

*** Important Information ***

About Your Personal Residential Insurance Policy

Dear Homeowner,

Hurricanes have caused tens of billions of dollars in insured damages and predictions of more catastrophic hurricanes making landfall in Florida have triggered increases in insurance premiums to cover potential future losses. Enclosed is information regarding wind loss mitigation that will make your home more resistant to wind and help protect your family during a catastrophic event. In addition to reducing your hurricane wind premium by installing mitigation features, you may also reduce the likelihood of out of pocket expenses, such as your hurricane deductible, you may otherwise incur after a catastrophic event.

What factors are considered in establishing my premium?

Your location: The closer a home is to the coast, the more vulnerable it is to damage caused by hurricane winds. This makes the hurricane-wind premium higher than for similar homes in other areas of the state.

Your policy: Your insurance policy is divided into two premiums: one for damage caused by hurricane force winds (hurricane-wind) and one for all other damage (all perils), such as fire.

Your deductible: Under the law, you are allowed to choose a $500, 2%, 5% or 10% deductible, depending on the actual value of your home. The larger your deductible, the lower your hurricane-wind premium. However, if you select a higher deductible your out-of-pocket expenses in the event of a hurricane claim will be higher.

Improvements to your home: The state requires insurance companies to offer discounts for protecting your home against damage caused by hurricane winds. Securing your roof so it doesn't blow off and protecting your windows from flying debris are the two most cost effective measures you can take to safeguard your home and reduce your hurricane –wind premium. These discounts apply only to the hurricane-wind portion of your policy.

The costs of the improvement projects vary. Homeowners should contact a licensed contractor for an estimate. You can find a Certified Contractor in your area by visiting the Florida Department of Business and Professional Regulation online at www.myfloridalicense.com.

Your maximum discount: Discounts are not calculated cumulatively. The total discount is not the sum of the individual discounts. Instead, when one discount is applied, other discounts are reduced until you reach your maximum discount of XX%.

How can I take advantage of the discounts?

Homeowners will need a qualified inspector such as a general, building, or residential contractor licensed under Section 489.111, Florida Statutes, or a professional engineer licensed under Section 471.015, Florida Statutes, who has passed the appropriate equivalency test of the Building Code training program as required by Section 553.841, Florida Statutes, or a professional architect licensed under Section 481.213, Florida Statutes, or a building code inspector certified under Section 468.607, to inspect the home to identify potential mitigation measures and verify improvements. For a listing of individuals and/or inspection companies meeting these qualifications contact your insurance agent or insurance company.

The following is an example of how much you can reduce your insurance premium if you have mitigating features on your home. The example is based on your hurricane-wind premium* of _____which is part of your total annual premium of _____. Remember, the discounts shown only apply to the hurricane-wind portion of the premium and the discounts for the construction techniques and features listed below are not cumulative.

*** Wind mitigation credits apply to that portion of your premium that covers the peril of wind, whether or not a hurricane exists.**

Homes built prior to the 2001 building code

Description of Feature	Estimated* Premium Discount Percent	Estimated* Annual Premium ($) is **Reduced** by:
Roof Covering (i.e., shingles or tiles) • Meets the Florida Building Code. • Reinforced Concrete Roof Deck. (If this feature is installed on your home you most likely will not qualify for any other discount.)		
How Your Roof is Attached • Using a 2" nail spaced at 6" from the edge of the plywood and 12" in the field of the plywood. • Using a 2 1/2" nail spaced at 6" from the edge of the plywood and 12" in the field of the plywood. • Using a 2 1/2" nail spaced at 6" from the edge of the plywood and 6" in the field of the plywood.		

Roof-to-Wall Connection • Using “Toe Nails” – defined as three nails driven at an angle through the rafter and into the top roof. • Using Clips - defined as pieces of metal that are nailed into the side of the rafter/truss and into the side of the top plate or wall stud. • Using Single Wraps – a single strap that is attached to the side and/or bottom of the top plate and are nailed to the rafter/truss. • Using Double Wraps - straps are attached to the side and/or bottom of the top plate and are nailed to the rafter/truss.		
Roof Shape • Hip Roof – defined as your roof sloping down to meet all your outside walls (like a pyramid). • Other.		
Secondary Water Resistance (SWR) • SWR – defined as a layer of protection between the shingles and the plywood underneath that protects the building if the shingles blow off. • No SWR.		
Shutters • None. • Intermediate Type —shutters that are strong enough to meet half the old Miami-Dade building code standards. • Hurricane Protection Type -- shutters that are strong enough to meet the current Miami-Dade building code standards.		

* Estimate is based on information currently on file and the actual amount may vary.

Homes built under the 2001 building code or later

Description of Feature	Estimated* Premium Discount Percent	Estimated* Annual Premium ($) is **Reduced** by:
Homes built under the 2001 Florida Building Code or later edition (also including the 1994 South Florida Building Code for homes in Miami-Dade and Broward Counties) are eligible for a minimum 68% discount on the hurricane-wind portion of your premium. You may be eligible for greater discount if other mitigation features are installed on your home.		
Shutters • None. • Intermediate Type —shutters that are strong enough to meet half the old Miami-Dade building code standards. • Hurricane Protection Type -- shutters that are strong enough to meet the current Miami-Dade building code standards.		
Roof Shape • Hip Roof – defined as your roof sloping down to meet all your outside walls (like a pyramid). • Other.		

* Estimate is based on information currently on file and the actual amount may vary.

Alternately and regardless of the year of construction, if you meet the minimum fixture and construction requirements of the 2001 Florida Building Code you have the option to reduce your hurricane-wind deductible from _____ to _____.

If you have further questions about the construction techniques and features or other construction techniques and features that could result in a discount, please contact your insurance agent or the insurance company at _____.

FEMA

Fact Sheet

Federal Insurance and Mitigation Administration

Changes to the Community Rating System to Improve Disaster Resiliency and Community Sustainability

In 2011, the National Flood Insurance Program (NFIP) completed a comprehensive review of the Community Rating System (CRS) that will result in the release of a new *CRS Coordinator's Manual*.

The changes to the 2013 *CRS Coordinator's Manual* are the result of a multi-year program evaluation that included input from a broad group of contributors to evaluate the CRS and refine the program to meet its stated goals.

The upcoming changes will drive new achievements in the following six core flood loss reduction areas important to the NFIP: (1) reduce liabilities to the NFIP Fund; (2) improve disaster resiliency and sustainability of communities; (3) integrate a Whole Community approach to addressing emergency management; (4) promote natural and beneficial functions of floodplains; (5) increase understanding of risk, and; (6) strengthen adoption and enforcement of disaster-resistant building codes.

CRS Background

The CRS program, started in 1990, provides flood insurance premium reductions based on a participating community's implementation of floodplain management programs that exceed the minimum requirements established by the NFIP. Credit points for the CRS floodplain management activities determine a community's CRS Class. Currently, there are 1,229 communities participating in CRS. The CRS continues to see growth with an average of 35 new communities joining each year, and 80 communities achieving CRS Class improvements.

The CRS is governed by three goals: reduce and avoid flood damage to insurable property; strengthen and support insurance aspects of the NFIP; and foster comprehensive floodplain management.

The primary motivators for communities to join the CRS are to reduce the cost of flood insurance for citizens, receive recognition for their strong floodplain management programs, and enjoy the positive sense of community pride that comes with CRS participation.

The 2013 CRS Manual changes will give more recognition to the benefits of flood loss reduction and floodplain natural functions.

What led to the 2013 changes in the CRS? The CRS program has over 20 years of experience, which has allowed for understanding of how floodplain management has changed and has provided a valuable base from which to guide program improvements. Although minor revisions to the CRS have occurred regularly with the release of each *CRS Coordinator's Manual*, there had been a growing list of suspected changes needing research and assessment to fully understand. In 2008, Federal Insurance and Mitigation Administration (FIMA) and the CRS Task Force began to implement *A Strategic Plan for the Community Rating System,* which, based on the CRS goals, detailed CRS objectives that guided the program evaluation that led to the 2013 changes.

How were suggestions for the 2013 changes gathered? FIMA and the CRS Task Force managed an extensive effort to gather input and recommendations from nationally recognized flood loss reduction experts, community CRS coordinators, insurance industry professionals, professional organizations, and others about the effectiveness of CRS activities in meeting the CRS goals. Due to the wide range of CRS activities, numerous opportunities were pursued for learning and receiving input, including:

- 11 CRS committees were convened to review and comment on CRS activity revisions.
- 50 individuals participated in a 2011 "weighting forum" to provide recommendations on the relative importance and viability of various CRS changes.
- 3 newsletters were distributed that highlighted anticipated revisions and sought input from participating community CRS coordinators.
- 5 academic institutions conducted original research related to CRS and provided reports and recommendations
- 34 two-hour webinars with a total of 1,000 participants were hosted in 2011 that provided details on the anticipated changes and collected input.
- 45 written comments were received about the changes. Comments overwhelmingly acknowledged the need to move in a direction that contributed greatest to flood loss reduction.

What do the 2013 changes mean for CRS Class improvements or retrogrades? The 2013 *CRS Coordinator's Manual* changes will impact each CRS community differently. Some communities will see an increase in the points they receive since points for certain activities have increased (e.g., Activity 420 Open Space Preservation). Other communities will receive fewer points for certain activities (e.g., Activity 320 Map Information Service). It is likely that some communities with marginal CRS Class 9 programs will have to identify new CRS credits in order to remain in the CRS.

Typically, CRS communities do not request credit for all the activities they are currently implementing unless it would earn enough credit to advance the community to a higher CRS Class. A community that finds itself losing CRS credit with the 2013 *Manual* could likely identify activities deserving credit they had not previously received.

How will the changes affect a specific community and its current CRS Class? Due in the changes in both activities and CRS points, community CRS coordinators should speak with their ISO/CRS Specialist to understand how the 2013 *Manual* will impact their community and when.

The CRS 600 Warning and Response activities have been enhanced to focus more clearly on the emergency management aspects associated with flood warning, levees, and dams.

When must communities use the 2013 *CRS Coordinator's Manual*? Any community receiving a CRS verification cycle visit before the 2013 *CRS Coordinator's Manual* becomes effective will be verified using the current *Manual*. Once the 2013 *Manual* becomes effective – anticipated to be Spring 2013 – any community receiving a CRS verification cycle visit will be verified using the 2013 *Manual*. As with all verification visits, the ISO/CRS Specialists will work with communities to identify additional CRS activities eligible for CRS points that the community might not have previously received.

How does a community CRS coordinator get more information? In addition to contacting a community's ISO/CRS Specialist, CRS coordinators will be kept informed through the *CRS Update* newsletter.

Summary

The CRS program strives to improve community floodplain management programs. Changing demographics and other built environment conditions are likely to result in increased risk of flooding. Additionally, communities face future challenges posed by climate change, including more intense storms, frequent and heavy precipitation, extreme flooding, and high sea levels. CRS communities are striving to adjust to changing environments in order to reduce the vulnerabilities of individual families and their communities. Similarly, these challenges require the CRS program to make adjustments that best complement community capabilities and uphold the CRS goals.

FEMA

Fact Sheet

Federal Insurance and Mitigation Administration

Avoiding Hurricane Damage 2013

A Checklist for Homeowners

Preparing for hurricane season means more than just making a disaster kit and reviewing your family's disaster plan, although those are critical first steps (visit: http://www.fema.gov/areyouready.) There's much more you can do to protect your home and your family before a hurricane hits. The Federal Emergency Management Agency's (FEMA's) Federal Insurance and Mitigation Administration recommends you take the following additional steps to prepare for hurricane season.

Know Your Risk

People who live along our Nation's coastlines are at greater risk of experiencing the damaging effects of a hurricane, but that doesn't mean you're not at risk if you live farther inland. Ask your local emergency management office about the history of hurricanes in your area and how to protect your family and home. For additional information, visit the FEMA Map Service Center at: http://www.msc.fema.gov.

Buy Flood Insurance

Buying flood insurance will not only give you greater peace of mind, but it will also greatly speed your recovery if a hurricane does cause flooding. To learn more about flood insurance, contact your insurance company, or call 1-800-427-4661. For additional information, visit: http://www.floodsmart.gov.

INSTALL HURRICANE STRAPS

Hurricane straps (made of galvanized metal) help keep the roof fastened to the walls in high winds. They can be difficult to install, so you may need a contractor for this project.

Install and Maintain Storm Shutters

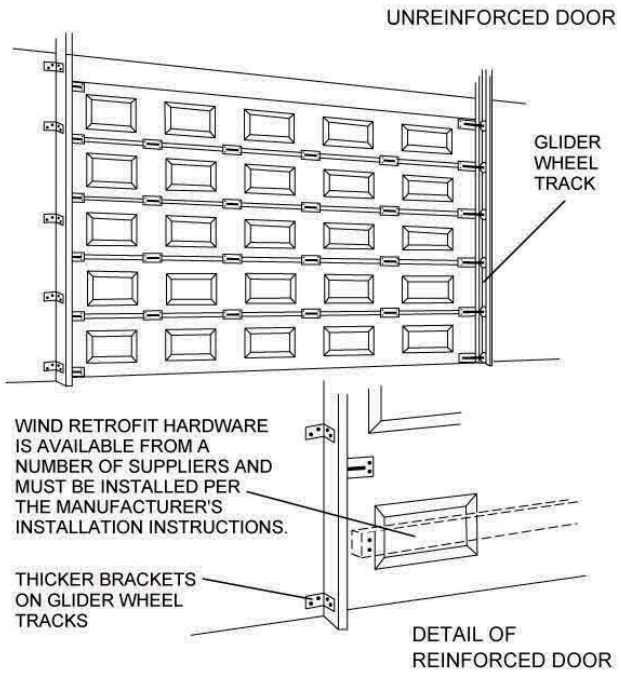
Installing storm shutters on windows, sliding glass doors, skylights, and French doors is one of the best ways to protect your home. You can buy manufactured shutters made of wood, steel, or aluminum. You can also make storm shutters with 5/8-inch thick exterior-grade plywood.

Reinforce Your Garage Door

High winds from hurricanes can damage garage doors or even blow them in. If wind enters a garage, it can cause dangerous and expensive structural damage. Reinforcing your garage door helps you protect not only your garage, but its contents as well.

As shown in the figure, you can reinforce a garage door by adding girts across the back of the door and by strengthening the glider wheel tracks.

Determination concerning the need to reinforce a garage door should be based on an inspection by a trained door systems technician. Adding weight to a garage door in the form of reinforcement may require an adjustment to or replacement of the door's counterbalance system. Only a trained door systems technician should perform the adjustments or replacement. Don't wait until a hurricane warning is issued to reinforce your garage door; you probably won't have time.



Anchor or Remove Potential Windborne Objects

Everyday objects outside your home such as trash cans, yard furniture, barbecue grills, playhouses, and tools can be moved by the wind and cause damage during a hurricane. The wind can pick up smaller objects and drive them through windows and glass doors.

Be sure to anchor storage sheds to a permanent foundation and remember that the straps and ground anchors used for manufactured homes can be used to anchor outbuildings, especially small garden sheds, which are usually not placed on a permanent foundation.

You can secure trash cans with cables or chains attached to ground anchors or to wood posts firmly embedded in the ground.

Remove Trees That Could Fall on Your Home

All trees should be far enough away from your home that they can't fall on it. The distance between your home and any nearby tree should be greater than the height the tree will reach when it is fully grown.

Use GovDelivery

Receive updates about flood insurance, mitigation, individual assistance, disaster declarations, and much more. To learn more about this feature, visit: http:// www.fema.gov/help/getemail.shtm.

FEMA

Mitigation Planning

Under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288), as amended, State, Tribal, and local governments are required to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects.

Mitigation Planning Process

The planning process promoted by the Federal Emergency Management Agency (FEMA) is as important as the resulting plan because it creates a framework for governments to reduce the negative impacts from future disasters on lives, property, and the economy. Mitigation planning includes the following elements:

Public Involvement – Planning creates a way to solicit and consider input from diverse interests. Involving stakeholders is essential to building community-wide support for the plan. In addition to emergency managers, the planning process involves other government agencies (e.g., zoning, floodplain management, public works, community and economic development), businesses, civic groups, environmental groups, and schools.

Risk Assessment – Mitigation plans identify natural hazards and risks based on history, estimate the potential frequency and magnitude of disasters, and assess the potential losses of life and property. The assessment considers the built environment, including the type and numbers of existing and future buildings, infrastructure, and critical facilities located in or near identified hazard areas.

Mitigation Strategy – Based on the risk assessment, communities develop mitigation goals and objectives, as part of a strategy for mitigating disaster losses. The strategy is a community's approach for implementing mitigation activities that are cost-effective, technically feasible, and environmentally sound as well as allowing strategic investment of limited resources.

Hazard Mitigation

Hazard mitigation is sustained action taken to reduce or eliminate long-term risk to people and their property from hazards. Hazard mitigation planning is the process State, Tribal, and local governments use to identify risks and vulnerabilities associated with natural disasters, and to develop long-term strategies for protecting people and property from future hazard events.

http://www.fema.gov/multi-hazard-mitigation-planning

RiskMAP
Increasing Resilience Together

Benefits of Mitigation Planning

- Increases public awareness and understanding of vulnerabilities as well as support for specific actions to reduce losses from future natural disasters.
- Builds partnerships with diverse stakeholders, thereby maximizing opportunities to leverage data and resources, which can help reduce workloads and achieve shared community objectives. For example, managing floodplain development may not only reduce flood losses, but also protect water quality by restoring natural functions.
- Expands understanding of potential risk reduction measures to include structural and regulatory tools, where available, such as ordinances and building codes. Implementation of local floodplain ordinances prevents an estimated $1.1 billion in flood damages annually.

  Informs development, prioritization, and implementation of mitigation projects. Benefits accrue over the life of the project as losses are avoided from each subsequent hazard event.

Planning Guidance, Tools, and Training

To assist with mitigation planning, FEMA and its partners offer a variety of guidance, training, and informative publications, such as:

- Multi-Hazard Mitigation Planning Guidance, or "Blue Books," designed to increase State, Tribal, and local governments' understanding of the requirements for developing new or updated mitigation plans. They also help Federal and State reviewers fairly and consistently evaluate mitigation plans from different jurisdictions.
- Training sessions, including the following courses: Mitigation Planning Workshop for Local Governments (G318), HAZUS Multi-Hazard/DMA 2000 Risk Assessment (E296), and Protecting Tribal Communities and Acquiring Resources (E344).
- A series of "How-To" guides with information beyond FEMA's basic requirements. The guides focus on initiating and maintaining a planning process that will result in safer communities and are applicable to jurisdictions of all size, resource, and capability levels.

Hazard Mitigation Planning Results

History shows that the physical, financial, and emotional losses caused by disasters can be reduced significantly through hazard mitigation planning. A broad range of activities designed to reduce risk can result from the mitigation planning process. The examples listed below illustrate a range of possible long-term mitigation actions; however, they are not necessarily intended to serve as examples of eligible activities under the FEMA Hazard Mitigation Assistance programs:

- Consider adopting and enforcing regulatory tools, including ordinances, regulations, and building codes, to guide and inform land use, development, and construction decisions in areas affected by hazards. Where authorized, adopt more stringent criteria to provide greater protection for citizens, as conditions may change over time. For example, consider:
  - Exceeding the National Flood Insurance Program (NFIP) floodplain management regulations by elevating structures above the Base Flood Elevation (BFE) in high-risk areas.
  - Creating a buffer area by protecting natural resources, such as floodplains, wetlands, or sensitive habitats. Additional benefits to the community may include improved water quality and recreational opportunities.
- Develop mitigation projects to acquire and demolish flood damaged structures, such as homes or businesses, or to retrofit public buildings, schools, and critical facilities to withstand extreme wind events or ground shaking from earthquakes.

Hazard Mitigation Assistance (HMA)

FEMA's HMA programs fund eligible mitigation activities that reduce future disaster losses and protect life and property. Funding is available for mitigation plan development and updates as well as mitigation projects. For more information on FEMA's HMA programs, visit http://www.fema.gov/hazard-mitigation-assistance.

RiskMAP
Increasing Resilience Together

FEMA

Fact Sheet

Federal Insurance and Mitigation Administration

Mitigation's Value to Society

Building Stronger and Safer

Mitigation is the effort to reduce the loss of life and property by lessening the impact of disasters. A recent study by the Multihazard Mitigation Council (MMC) shows that each dollar spent on mitigation saves an average of $4.00.*

Value to Society

Mitigation yields benefits to society and therefore:

- It creates safer communities by reducing loss of life and property;
- It enables individuals to recover more rapidly from floods and other disasters; and
- It lessens the financial impact on the Federal Treasury, States, Tribes, and communities.

FEMA's Federal Insurance and Mitigation Administration implements numerous Congressionally-authorized programs that address the effects of natural hazards through mitigation activities.

Mitigation Creates Safer Communities

In any disaster, buildings constructed to a higher standard not only reduce property damage but can also save lives. Homes constructed to National Flood Insurance Program (NFIP) standards incur 80 percent less damage from floods than structures not built to those standards.

Mitigation Speeds Recovery

Mitigation is key to decreasing the time it takes to rebuild and recover after a disaster. By using existing, proven plans and building standards, mitigation allows individuals and communities to lessen post-disaster disruption and rebuild more quickly. Long-term hazard mitigation planning and projects enable communities and individuals to break the cycle of disaster damage, reconstruction, and repeated loss.

Mitigation Saves Money

Mitigation activities have been proven to lessen the financial impact on individuals, communities, and society as a whole. Floodplain management actions save the country more than $1 billion in prevented damages each year.

Mitigation is Cost-Effective

In December 2005, the MMC of the National Institute of Building Sciences (NIBS) released *Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities*. The report was the culmination of a 3-year, Congressionally-mandated independent study.

Key findings included:

- A dollar spent on mitigation saves society an average of $4.00, with positive benefit-cost ratios for all hazard types studied.
- In addition to savings to society, the Federal Treasury can redirect an average of $3.65 for each dollar spent on mitigation resulting from disaster relief costs and tax losses avoided.

Case Study: Grand forks, North Dakota

In 1997, the Red River flooded 8,600 homes in Grand Forks, North Dakota, causing $3.7 billion in flood losses. Following the disaster, the State of North Dakota, local governments, and FEMA worked together to buy out almost 700 of the most vulnerable homes in the State with FEMA mitigation grant program funds. The Red River flooded again in 2006, yet losses were kept to $6.5 million as a result of the mitigation projects and studies. Demonstrating mitigation's cost-effectiveness is critical to the continued success of FEMA mitigation

- In each of the eight communities studied in-depth, FEMA mitigation grants were a significant part of the community's mitigation history and often led to additional loss reduction activities.
- Mitigation is sufficiently cost-effective to warrant Federal funding both before disasters occur and during post-disaster recovery.

MMC Report Recommendations

The MMC report demonstrated through statistical and community analyses that positive net benefits result from hazard mitigation. In addition, the MMC report included three basic recommendations:

- Mitigation should continue to be Federally funded on an ongoing basis. It should encompass projects that relate to enforcing strong building codes and land use measures, and promote development of comprehensive plans to limit damage and reduce losses.
- Mitigation is most effective when carried out on a comprehensive, community-wide, and long-term basis. Implementing coordinated mitigation activities over time is the best way to ensure that communities will be physically, socially, and economically resilient to future hazard impacts.
- The effectiveness of mitigation activities must continue to be studied and analyzed. Systematic data collection and assessment of various mitigation approaches are required to ensure that lessons learned are incorporated into disaster public policy.

For More Information

The two-volume study report is available for free download at: http://www.nibs.org/index.php/mmc/projects/nhms.

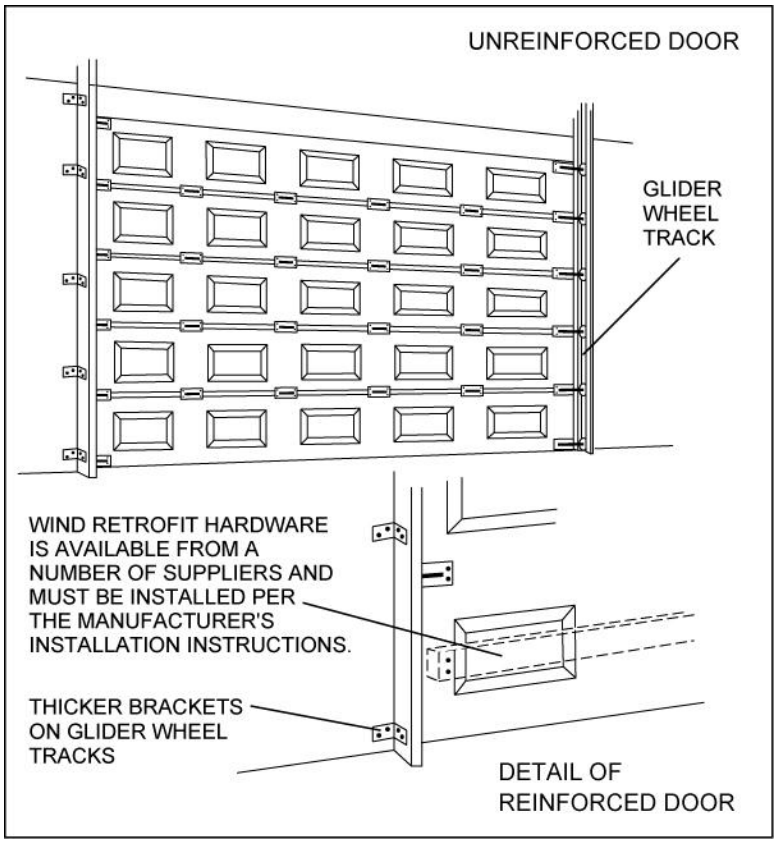
Reinforce or Replace Garage Doors

FEMA

PROTECTING YOUR PROPERTY FROM HIGH WINDS

High winds from hurricanes and tornadoes can damage garage doors or even blow them in. If wind enters a garage, it can cause dangerous and expensive structural damage. Reinforcing your garage door helps you protect not only your garage, but its contents as well.

The garage door industry strongly recommends that any determination concerning the need to reinforce or replace a garage door be based on an inspection by a trained door systems technician or a qualified professional engineer. Adding weight to a garage door in the form of reinforcement may require an adjustment to or replacement of the door's counterbalance system. Only a trained door systems technician should perform the adjustments or replacement. An inspection may find that other improvements should be made to an existing door, and if the door is old or damaged, replacement with a stronger door system may be recommended.



BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

- Helps to prevent structural damage
- Helps to prevent damage to or loss of contents in the garage

TIPS

Keep these points in mind when an inspection by a trained door systems technician or qualified professional engineer has determined that your garage door needs to be reinforced or replaced:

- ✓ Because of the extreme amount of stored energy in the door counterbalance system combined with the potential impact on the counterbalance system's effectiveness when weight is added to an existing door, reinforcing a garage door is a job that should be done only by a trained door systems technician.
- ✓ A local garage door professional should be able to assess the wind load requirement of your garage door, which is based on size, local design wind speed, and location on the structure, among other factors. The Door & Access Systems Manufacturers Association International (DASMA) can also be of help in this area.

- ✓ Don't wait until a hurricane warning is issued to have your garage door evaluated; there will probably not be enough time for this service to be provided.

- ✓ Glazing (windows) in a garage door can be broken by windborne debris and should be avoided. If glazing is installed, it should be protected. Your local garage door professional or DASMA may be able to advise you on garage door glazing and the governing requirements.

ESTIMATED COST

If you hire a contractor to reinforce or replace an existing two-car garage door, you can expect to pay about $600. However, this cost can vary depending on the size and type of door.

OTHER SOURCES OF INFORMATION

FEMA 488, *Hurricane Charley in Florida: Mitigation Assessment Team Report, Observations, Recommendations, and Technical Guidance*, Chapter 8, "Recommendations," April 2005, http://www.fema.gov/library/viewRecord.do?id=1444.

To view other flyers in the *Protecting Your Property From High Winds How to Series* go to http://www.fema.gov/library/viewRecord.do?id=3263.

Information is also available from DASMA, by phone at 1-216-241-7333, or on the World Wide Web at http://www.dasma.com.

To view and download FEMA publications visit the FEMA Library at http://www.fema.gov/library. To obtain FEMA publications please call 1-800-480-2520 or fax 1-240-699-0525 Monday through Friday 8 a.m. – 5 p.m. EST. You may also email your request to FEMA-Publications-Warehouse@dhs.gov. Please provide the title, item number, short number, and quantity of each publication, along with your name, address, zip code, and daytime telephone number.

FROM THE WEB PAGE

http://www.eeri.org/mitigation/files/resources-for-success/00070.pdf

FEDERAL EMERGENCY MANAGEMENT AGENCY

ARE YOU AT RISK?

If you aren't sure whether your house is at risk from hurricanes or tornadoes, check with your local building official, city engineer, or planning and zoning administrator. They can tell you whether you are in an area where these high-wind events occur. Also, they usually can tell you how to protect yourself and your house and property.

WHAT YOU CAN DO

Hurricane and tornado protection can involve a variety of changes to your house and property – changes that can vary in complexity and cost. You may be able to make some types of changes yourself; however, complicated or large-scale changes and those that affect the structure of your house or its electrical wiring and plumbing should be carried out only by a professional contractor licensed to work in your state, county, or city. One example of hurricane and tornado protection is reinforcing garage doors to protect them from damage by high winds, or replacing them with doors that are more wind-resistant. These are things that should be done only by a trained door systems technician.

REINFORCE OR REPLACE GARAGE DOORS

High winds from hurricanes and tornadoes can damage garage doors or even blow them in. If wind enters a garage, it can cause dangerous and expensive structural damage. Reinforcing your garage door helps you protect not only your garage, but its contents as well.

The garage door industry strongly recommends that any determination concerning the need to reinforce or replace a garage door be based on an inspection by a trained door systems technician or a qualified professional engineer. Adding weight to a garage door in the form of reinforcement may require an adjustment to or replacement of the door's counterbalance system. Only a trained door systems technician should perform the adjustments or replacement. An inspection may find that other improvements should be made to an existing door, and if the door is old or damaged, replacement with a stronger door system may be recommended.

TIPS

Keep these points in mind when an inspection by a trained door systems technician or qualified professional engineer has determined that your garage door needs to be reinforced or replaced:

- Because of the extreme amount of stored energy in the door counterbalance system combined with the potential impact on the counterbalance system's effectiveness when weight is added to an existing door, reinforcing a garage door is a job that should be done only by a trained door systems technician.
- A local garage door professional should be able to assess the wind load requirement of your garage

door, which is based on size, local design wind speed, and location on the structure, among other factors. The Door & Access Systems Manufacturers Association International (DASMA) can also be of help in this area.

- Don't wait until a hurricane warning is issued to have your garage door evaluated; there will probably not be enough time for this service to be provided.
- Glazing (windows) in a garage door can be broken by windborne debris and should be avoided. If glazing is installed, it should be protected. Your local garage door professional or DASMA may be able to advise you on garage door glazing and the governing requirements.

ESTIMATED COST

If you hire a contractor to reinforce or replace an existing two-car garage door, you can expect to pay about $600. However, this cost can vary depending on the size and type of door.

OTHER SOURCES OF INFORMATION

Against the Wind, FEMA 237 (Brochure 2-0003; Video 0-0001), 1993

Building Performance: Hurricane Iniki in Hawaii -- Observations, Recommendations, and Technical Guidance, FIA-23, January 29, 1993

Building Performance: Hurricane Andrew in Florida -- Observations, Recommendations, and Technical Guidance, FIA-22, December 21, 1992

Best Build I, Constructing a Sound Coastal Home, FEMA and the NAHB (videotape)

To obtain copies of these and other FEMA documents, call FEMA Publications at 1-800-480-2520. Information is also available on the World Wide Web at http//:www.fema.gov..

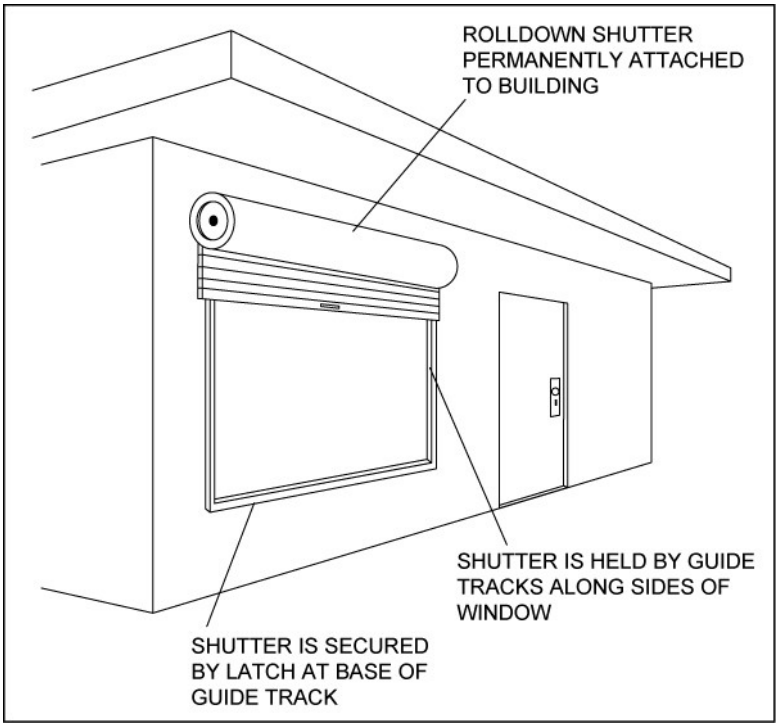
Information is also available from DASMA, by phone at 1-216-241-7333, or on the World Wide Web at http//:www.dasma.com

Protect Windows and Doors with Covers

FEMA

PROTECTING YOUR PROPERTY FROM HIGH WINDS

High winds and windborne debris can easily break unprotected windows and cause doors to fail. Once wind enters a structure, the likelihood of severe structural damage increases, and the contents of the building will be exposed to the elements. The most reliable method of protecting windows and doors is installing permanent storm shutters. Alternatives include using temporary plywood covers, mesh or screen systems, and replacing existing windows and doors with impact-resistant windows and doors.



Permanent storm shutters are usually made of aluminum or steel and are attached to a building in such a way that they can be closed quickly before a storm arrives. One type is the "rolldown" shutter (see figure on this page), which is contained in a housing mounted above the window and lowered when necessary. Manually operated and motor-driven models are available.

While permanent storm shutters can usually be closed quickly and easily, temporary covers can be an economical alternative and can be installed fairly quickly if the necessary preparations are made. Plywood covers can also be used to protect sliding glass doors and French doors (see figure on page 2).

BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

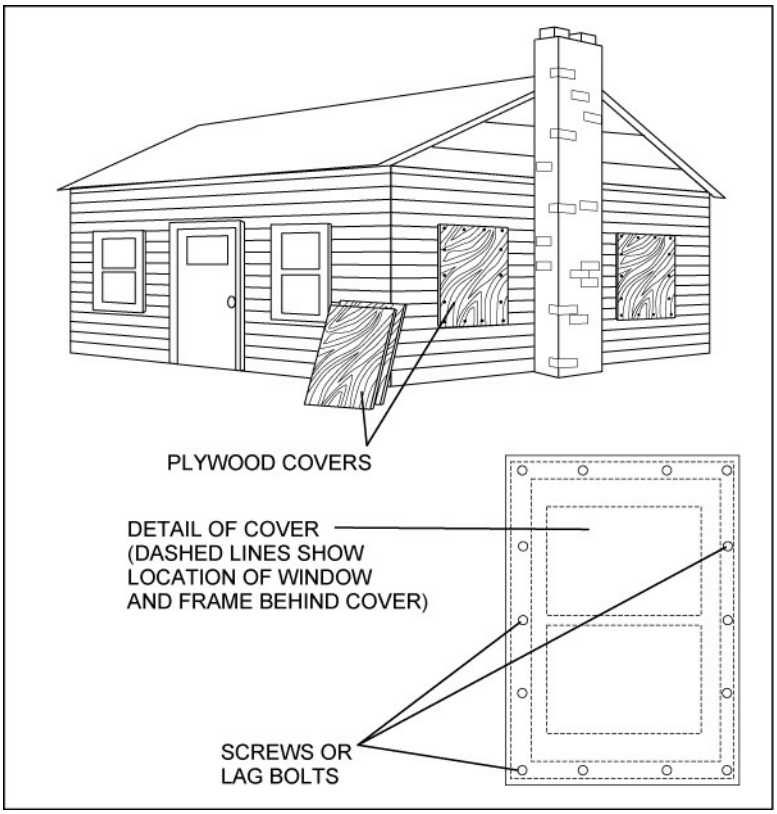
- Helps to prevent damage to a structure and its contents

TIPS

Keep these points in mind when you install shutters or use temporary plywood, fiberglass, metal panel, or mesh covers to protect your windows and doors:

- ✓ Always consider using permanent storm shutters if you live in an area where you know you will need to act quickly to protect your windows. If your property is in an area where you will have little warning of high winds, permanent shutters that can be closed quickly, such as the rolldown shutter, are better than temporary plywood covers, which must be retrieved from storage and mounted with bolts or screws.
- ✓ If you decide to buy permanent shutters, look for models that meet the wind load and impact standards established for your area. These standards can be obtained from your local building official. If you have any questions about the strength of a specific model, check with the manufacturer. Permanent shutters are available in a wide range of sizes, so you can use them to protect many types of windows and doors, as well as large areas of glass.

- ✓ If you decide to use temporary plywood covers, you may want to hire a contractor or handyman to make them for you. If you do the work yourself, you will need to cut the plywood and drill holes for screws or lag bolts in each cover and in the wall around each window. You should follow a prescriptive deign appropriate for the windspeed of the are. DO NOT use oriented strand board (OSB). The screws or lag bolts should be placed along the top, bottom, and sides of each cover, and they should be long enough to penetrate the wall studs around the window, and not just the siding or wall covering.
- ✓ Don't wait until a hurricane or high wind warning is issued to make temporary covers; you probably won't have time. Make them during the "off season" so that you'll be ready to install them at any time. Store the mounting screws or lag bolts with the covers, in a place where they are readily accessible – don't stack heavy boxes or other hard-to-move materials on top of or around the covers. Use a numbering or lettering system that shows which cover goes with which window.



- ✓ If you buy motor-driven shutters, make sure they also can be operated manually if the power fails.
- ✓ If you are constructing a new building in an area subject to high winds, avoid designs that include large areas of glass, windows with multiple panels, and double entry doors. The widths of individual doors and windows should not exceed 3 feet.
- ✓ Check the local building code for windborne debris protection requirements in your area.

ESTIMATED COST

Storm shutters can cost $50 to $60 per square foot of window. A set of shutters for a 3-foot by 4-foot window will cost approximately $600 to $720. The cost of a plywood cover will also depend on the size of the window. If you do the work yourself, you can expect plywood to cost about $0.60 per square foot. Screws or lag bolts, including washers, will cost about $0.10 to $0.15 each. For example, protecting a window that is 3 feet wide and 4 feet high will cost about $10. This figure covers only the materials you will have to buy and excludes the cost of any tools you use and the value of your time. If you hire a contractor or handyman to do the work, you will have to pay for time as well as materials.

OTHER SOURCES OF INFORMATION

Applied Technology Council, *Windspeed by Location*, http://atcouncil.org/windspeed.

Institute for Business & Home Safety (IBHS), http://www.disastersafety.org.

The Federal Alliance for Safe Homes (FLASH), http://www.flash.org.

FEMA 247, *Against the Wind*: *Protecting Your Home from Hurricane Wind Damage*, December 1993, http://www.fema.gov/library/viewRecord.do?id=1641.

FEMA 488, *Hurricane Charley in Florida: Mitigation Assessment Team Report, Observations,*

Recommendations, and Technical Guidance, "Hurricane Recovery Advisories," April 2005, http://www.fema.gov/library/viewRecord.do?id=1444.

FEMA 489, *Hurricane Ivan in Alabama and Florida: Mitigation Assessment Team Report, Observations, Recommendations, and Technical Guidance*, August 2005, http://www.fema.gov/library/viewRecord.do?id=1569.

FEMA P-499, *Home Builder's Guide to Coastal Construction*, "Protection of Openings – Shutters and Glazing," Technical Fact Sheet No. 6.2, December 2010, http://www.fema.gov/library/viewRecord.do?id=2138.

FEMA 549, *Hurricane Katrina in the Gulf Coast: Mitigation Assessment Team Report, Building Performance Observations, Recommendations, and Technical Guidance*, July 2006, http://www.fema.gov/library/viewRecord.do?id=1857.

FEMA P-757, *Hurricane Ike in Texas and Louisiana: Mitigation Assessment Team Report, Building Performance Observations, Recommendations, and Technical Guidance*, April 2009. http://www.fema.gov/library/viewRecord.do?id=3577.

FEMA P-762, *Local Officials Guide for Coastal Construction: Design Considerations, Regulatory Guidance, and Best Practices for Coastal Communities,* February 2009. http://www.fema.gov/library/viewRecord.do?id=3647.

International Residential Code® (IRC®) for One- and Two-Family Dwellings, Section R301.2.1, Wind Limitations, 2009.

To download FEMA publications visit the FEMA Library at http://www.fema.gov/library.To obtain copies of FEMA publications call the FEMA Distribution Center at 1-800-480-2520 or fax 1-240-699-0525 Monday through Friday 8 a.m. – 5 p.m. EST. You may also email your request to FEMA-Publications-Warehouse@dhs.gov. Please provide the title, item number, short number, and quantity of each publication, along with your name, address, zip code, and daytime telephone number.

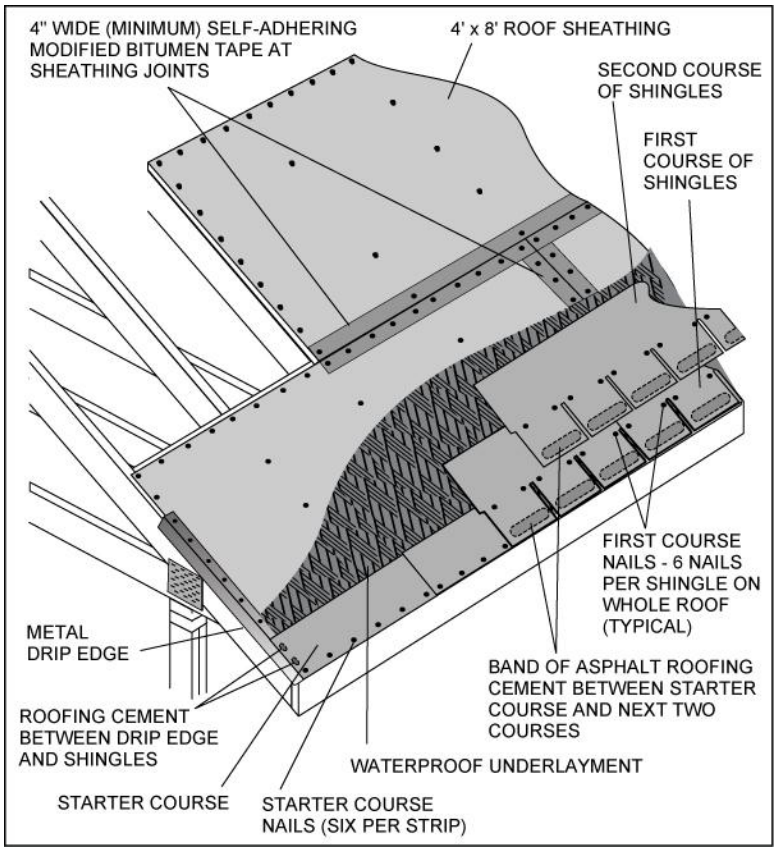
Secure Composition Shingle Roofs

FEMA

PROTECTING YOUR PROPERTY FROM HIGH WINDS

When composition shingles are not securely attached, they can be damaged or torn away by high winds. When this happens, the interior of the structure becomes vulnerable to rainwater infiltration. If your composition shingle roof is being repaired or replaced, your roof designer or roofing contractor should make sure that the following requirements have been met (see figure):

- Each shingle should be held by at least six nails or staples, which should be installed below the edge of the upper, overlapping row of shingles.
- A waterproof underlayment should be installed beneath the shingles. When well attached, it temporarily protects the building from rain if shingles are torn away by the wind.



The roof sheathing (typically plywood panels) should be at least 15/32-inch thick and should be securely attached to the roof trusses. (Nails in older wood roof sheathing are often farther apart than recommended, especially in areas subject to high winds. Your roof designer or roofing contractor should check with local building officials for nailing requirements.)

BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

- ✓ Helps to prevent damage to a structure and its contents
- ✓ Helps to prevent injuries

TIPS

Keep these points in mind when you have your composition shingle roof repaired or replaced:

- ✓ If you are having an old roof replaced, your contractor should remove the existing shingles and underlayment rather than install new shingles over them. This approach allows the contractor to inspect the sheathing and make any repairs that may be necessary.
- ✓ All nails used to attach the roof sheathing must penetrate the underlying roof trusses, otherwise the sheathing will not be securely attached and can be more easily torn away by high winds. Inadequate attachment of roof sheathing, resulting from poor workmanship, has been a common cause of roof failures during hurricanes and other storms with high winds.

- ✓ If your building is in a hurricane-prone area, the following precautions are recommended:
  - The general recommendations given in the Fifth Edition of the National Roofing Contractors Association (*NRCA) Steep-Slope Roofing Manual* should be followed.
  - Shingles should be attached with nails, not staples.
  - The first course of shingles should be sealed to the starter strip with dabs or bands of roof cement. Details are provided in FEMA 499, Technical Fact Sheet No. 7.3.
  - If your building is within 3,000 feet of saltwater, the nails should be hot-dip galvanized or stainless steel.
  - Your roofing designer should try to obtain information from manufacturers about bond strength and nail pull-through resistance, and then use products with values in the upper ranges of available strengths.
- ✓ Check local code requirements for roof repair or replacement criteria. Your local building official should be able to provide additional recommendations.
- ✓ Provide your roofing contractor with FEMA P-499, *Home Builder's Guide to Coastal Construction*, "Asphalt Shingle Roof for High-Wind Regions," Technical Fact Sheet No. 7.3.

ESTIMATED COST

A roofing contractor will charge approximately $10 to $15 per square foot of roof area to remove and replace shingles and underlayment.

OTHER SOURCES OF INFORMATION

The Federal Alliance for Safe Homes (FLASH), http://www.flash.org.

FEMA 488, *Hurricane Charley in Florida: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, "Hurricane Recovery Advisories," April 2005, http://www.fema.gov/library/viewRecord.do?id=1444.

FEMA 489, *Hurricane Ivan in Alabama and Florida: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, Appendix D, Recovery Advisories No. 1 and 2, August 2005, http://www.fema.gov/library/viewRecord.do?id=1569.

FEMA 499, *Home Builder's Guide to Coastal Construction*, "Roof Underlayment for Asphalt Shingle Roof," and "Asphalt Shingle Roof for High-Wind Regions," Technical Fact Sheets No. 7.2 and No. 7.3, December 2010, http://www.fema.gov/library/viewRecord.do?id=2138 .

FEMA 549, *Hurricane Katrina in the Gulf Coast: Mitigation Assessment Team Report, Building Performance Observations, Recommendations, and Technical Guidance*, July 2006, http://www.fema.gov/library/viewRecord.do?id=1857.

Institute for Business & Home Safety (IBHS), http://www.disastersafety.org.

NRCA Steep-Slope Roofing Manual, National Roofing Contractors Association, Fifth Edition, 2003, http://www.nrca.net/rp/pubstore/details.aspx?id=445 or http://www.nrca.net/rp/pubstore.

To view and download FEMA publications visit the FEMA Library at http://www.fema.gov/library. To obtain FEMA publications please call 1-800-480-2520 or fax 1-240-699-0525 Monday through Friday 8 a.m. – 5 p.m. EST. You may also email your request to FEMA-Publications-Warehouse@dhs.gov. Please provide the title, item number, short number, and quantity of each publication, along with your name, address, zip code, and daytime telephone number.

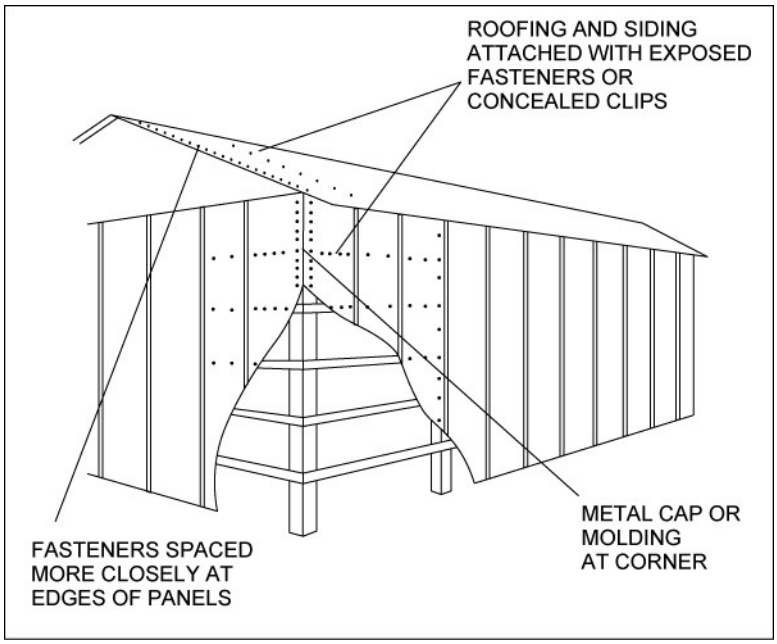
Secure Metal Siding and Metal Roofs

FEMA

PROTECTING YOUR PROPERTY FROM HIGH WINDS

High winds can damage buildings with metal siding and metal roofs in primarily two ways:

- If the siding and roofing panels are not adequately attached to the frame of the building, the force exerted by the wind can lift them, possibly to the point where the fasteners pull through or break. When this occurs, entire panels can be torn off.
- Windborne debris can puncture siding or roofing panels and make them more susceptible to further wind damage.



In both situations, wind will be able to enter the building, increasing the likelihood of severe structural damage inside as well as injuries.

Metal siding and roofing in high-wind areas should be securely attached to the frame of the building with exposed fasteners such as screws or bolts or with concealed clips. The spacing of the fasteners or clips will depend on their strength and on the design and strength of the siding and roofing panels. In general, fasteners should be more closely spaced at the edges of panels (see figure). Also, all edges of siding, such as along the corners of the building, should be covered with a metal cap or molding and secured so that wind cannot work its way underneath. For information on additional types of siding (vinyl, wood, and fiber cement), refer to FEMA P-499, *Home Builder's Guide to Coastal Construction*, Technical Fact Sheet No. 5.3.

For buildings within 3,000 feet of the ocean, use corrosion resistant fasteners.

BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

- Helps to prevent damage to a structure and its contents
- Helps to prevent injuries from large windborne debris

TIPS

Keep these points in mind when you inspect and repair metal siding and roofs:

- ✓ Have your buildings inspected periodically and repaired as necessary. Loose or missing connectors, rust, and damage caused by past storms can leave metal siding and roofing more vulnerable to serious damage from high winds.
- ✓ If the siding or roofing on your building is attached with metal clips, make sure they are strong enough to resist the force of the wind without bending. If you can bend a clip with your hands, it is likely to fail when high-winds act on the siding or roofing.

- ✓ Windows and glass doors are usually more susceptible than walls and roofs to penetration by windborne debris. You should consider protecting windows and glass doors with permanent or temporary covers that can be closed or installed before a storm arrives. For more information, refer to the separate high wind protection fact sheet titled "Protect Windows and Doors with Covers."
- ✓ You can also help protect your building against damage by windborne debris by removing or securely anchoring any loose objects on your property that could be picked up and moved by the wind. Trash, construction debris, warehouse pallets, and other loose materials should be removed or stored inside. Other objects, such as signs and trash cans, should be bolted down or held in place with chains or cables.

ESTIMATED COST

A contractor will probably charge to inspect the exposed fasteners in a building with metal siding or a metal roof. If any modifications are necessary, the cost will depend on what must be done.

OTHER SOURCES OF INFORMATION

FEMA 488, *Hurricane Charley in Florida: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, "Hurricane Recovery Advisories," April 2005, http://www.fema.gov/library/viewRecord.do?id=1444.

FEMA 489, *Hurricane Ivan in Alabama and Florida: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, August 2005, http://www.fema.gov/library/viewRecord.do?id=1569.

FEMA P-499, *Home Builder's Guide to Coastal Construction*, "Siding Installation in High-Wind Regions," Technical Fact Sheet No. 5.3, December 2010, http://www.fema.gov/library/viewRecord.do?id=2138.

FEMA 549, *Hurricane Katrina in the Gulf Coast: Mitigation Assessment Team Report, Building Performance Observations, Recommendations, and Technical Guidance*, July 2006, http://www.fema.gov/library/viewRecord.do?id=1857.

NRCA Architectural Sheet Metal and Metal Roofing Manual, 2006 Edition, National Roofing Contractors Association, http://www.nrca.net/rp/pubstore/details.aspx?id=320.

Protect Windows and Doors with Covers fact sheet, FEMA, April 2011, http://www.fema.gov/plan/prevent/howto/index.shtm.

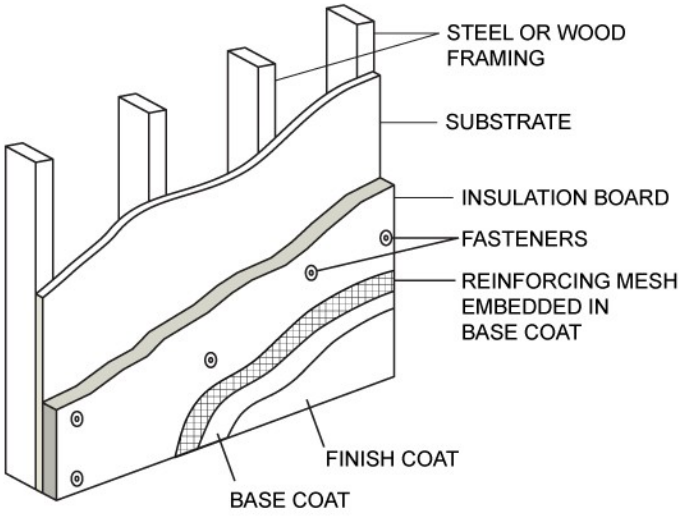
To view and download FEMA publications visit the FEMA Library at http://www.fema.gov/library. To obtain FEMA publications please call 1-800-480-2520 or fax 1-240-699-0525 Monday through Friday 8 a.m. – 5 p.m. EST. You may also email your request to FEMA-Publications-Warehouse@dhs.gov. Please provide the title, item number, short number, and quantity of each publication, along with your name, address, zip code, and daytime telephone number.

Maintain EIFS Walls

FEMA

PROTECTING YOUR PROPERTY FROM HIGH WINDS

An Exterior Insulation Finishing System (EIFS) wall typically consists of several layers of materials sandwiched together into a single panel, which is then attached to a substrate mounted on the wall studs (see figure). The exterior of an EIFS wall is water resistant, but the wall can be weakened by moisture that becomes trapped behind the wall. The sources of this moisture are usually leaks around doors and windows and where the wall joins the roof. Once an EIFS wall has been weakened, it is more likely to be torn away or penetrated by high winds and windborne debris. If wind enters a building, the likelihood of severe structural damage increases, and the contents of the building will be exposed to the elements.



CUT AWAY VIEW OF TYPICAL EIFS WALL PANEL AND SUBSTRATE MOUNTED ON STEEL OR WOOD FRAMING

You should periodically inspect your EIFS walls, particularly the flashing where the walls meet the roof and all the seals around doors, windows, and any objects that pass through the wall, such as utility lines. Make sure that the flashing and seals have been properly installed and are not damaged.

BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

- Helps to prevent damage to a structure and its contents
- Helps to prevent injuries to occupants

TIPS

Keep these points in mind when maintaining your EIFS walls:

- ✓ A licensed contractor can test EIFS walls for moisture content and advise you on repairs.
- ✓ EIFS walls should be installed only by experienced contractors who have completed a manufacturer's training program. Contact the manufacturer or the EIFS Industry Members Association (EIMA) at 1-800-294-3462 or online at http://www.eima.com for more information.
- ✓ Most EIFS walls are susceptible to damage from windborne debris; however, impact-resistant walls have been developed by some EIFS manufacturers. Ask manufacturers whether their walls meet the wind load and impact standards established for your area. Your local building official can advise you about these standards.

- ✓ Ask your local building official about state and local code restrictions on the use of EIFS walls.
- ✓ EIFS walls have had mixed degrees of success in different parts of the country. Ask your local building official about the performance of EIFS walls in your area.
- ✓ EIFS manufacturers provide different types of fasteners and adhesives for buildings designed to withstand high wind loads. Ask the EIFS manufacturer and installer what the highest allowable wind speed is for your building and what can be done to help the walls withstand even higher wind speeds.

ESTIMATED COST

EIFS wall costs vary; however, the cost of a typical EIFS wall is approximately $4 to $6 per square foot.

OTHER SOURCES OF INFORMATION

EIFS Industry Members Association (EIMA), http://www.eima.com.

FEMA 489, *Hurricane Ivan in Alabama and Florida: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, Chapter 5.3, "Non-Load-Bearing Walls, Wall Coverings, and Soffits," August 2005, http://www.fema.gov/library/viewRecord.do?id=1569.

FEMA 549, *Hurricane Katrina in the Gulf Coast: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, July 2006, http://www.fema.gov/library/viewRecord.do?id=1857.

To view and download FEMA publications visit the FEMA Library at http://www.fema.gov/library. To obtain FEMA publications please call 1-800-480-2520 or fax 1-240-699-0525 Monday through Friday 8 a.m. – 5 p.m. EST. You may also email your request to FEMA-Publications-Warehouse@dhs.gov. Please provide the title, item number, short number, and quantity of each publication, along with your name, address, zip code, and daytime telephone number.

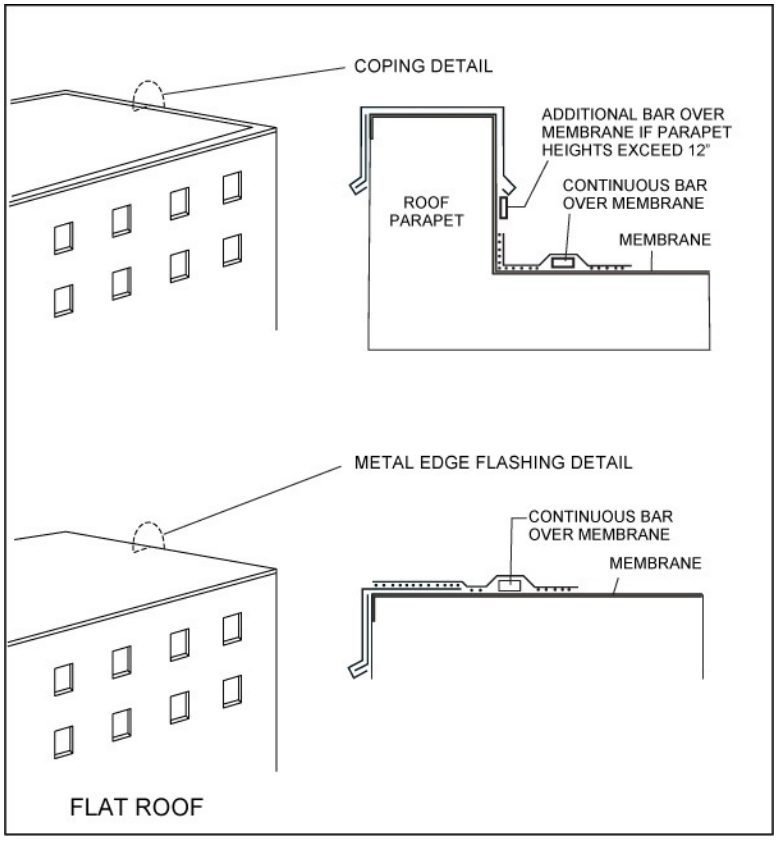
.

Secure Built-Up and Single-Ply Roofs

FEMA

PROTECTING YOUR PROPERTY FROM HIGH WINDS

Built-up and single-ply roofs are common on commercial buildings. Built-up roofs consist of multiple layers of felt and asphalt; single-ply roofs consist of one waterproof membrane. These roofs are often damaged when high winds tear away the metal edge flashing or coping around the perimeter of the roof. Once the flashing or coping is gone, the wind can peel back the roofing material and expose the interior of the building to the elements. The major building codes do not address the wind resistance of flashings and copings.



Whenever your built-up or single-ply roof is repaired or replaced, your roof designer or roofing contractor should ensure that the flashing and coping are made of a corrosion-resistant metal, such as aluminum, and are securely attached to the building with screws, concrete spikes, or a continuous cleat. Using a supplementary attachment method to provide additional strength is recommended. For single-ply roofs, a continuous bar placed over the membrane (see detail figures) is an effective means of strengthening the attachment.

BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

- Helps to prevent damage to a structure and its contents
- Helps to prevent injuries

TIPS

Keep these points in mind when you have your built-up or single-ply roof repaired or replaced:

- ✓ Single-ply membranes that are fully adhered are less susceptible to damage than mechanically attached or loose-laid air-pressure-equalized membranes.
- ✓ Some local building codes may require that roofs meet design standards for resisting uplift forces (an example is the latest version of the American Society of Civil Engineers Standard ASCE 7). Ask your local building official whether any special requirements apply in your area.
- ✓ Your local building official may be able to inspect your roof and recommend changes that will help protect it from high winds.

- ✓ If you add stone ballast or pavers to your roof, make sure the roof parapet is high enough and that the pavers or individual stones are large enough to resist being picked up and carried by the wind (refer to *Wind Design Standard for Ballasted Single-Ply Roofing Systems*).
- ✓ Roof warranties typically will not cover damage caused by strong storms.
- ✓ If you are considering a reroofing project, properly securing rooftop equipment should be investigated prior to reroofing.

ESTIMATED COST

A roofing contractor will charge approximately $1 to $2 per linear foot to replace aluminum fascia cap when the roof is being replaced. The cost would be much higher if the fascia is replaced separately.

OTHER SOURCES OF INFORMATION

FEMA 488, *Hurricane Charley in Florida: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, Chapter 8.5, "Architectural, Mechanical, and Electrical," April 2005, http://www.fema.gov/library/viewRecord.do?id=1444.

FEMA 489, *Hurricane Ivan in Alabama and Florida: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, August 2005, http://www.fema.gov/library/viewRecord.do?id=1569.

FEMA 549, *Hurricane Katrina in the Gulf Coast: Mitigation Assessment Team Report, Building Performance Observations, Recommendations, and Technical Guidance*, July 2006, http://www.fema.gov/library/viewRecord.do?id=1857.

National Roofing contractors Association, http://www.nrca.net

Single Ply Roofing Industry (SPRI), http://www.spri.org.

Wind Design Standard for Ballasted Single-Ply Roofing Systems, ANSI/SPRI RP-4-2002. (Available from SPRI, http://www.spri.org, info@spri.org, tel: (781) 647-7026).

To view and download FEMA publications visit the FEMA Library at http://www.fema.gov/library. To obtain FEMA publications please call 1-800-480-2520 or fax 1-240-699-0525 Monday through Friday 8 a.m. – 5 p.m. EST. You may also email your request to FEMA-Publications-Warehouse@dhs.gov. Please provide the title, item number, short number, and quantity of each publication, along with your name, address, zip code, and daytime telephone number.

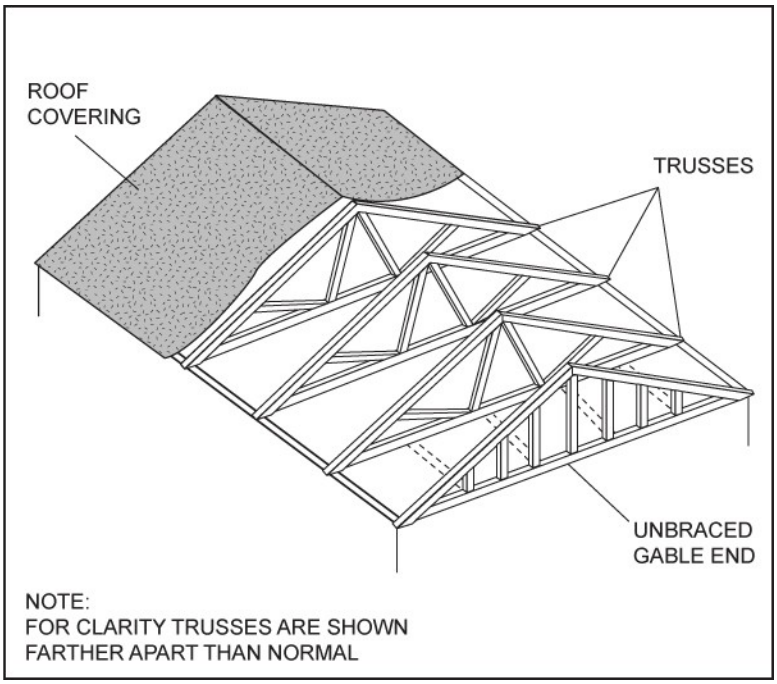
Brace Gable End Roof Framing

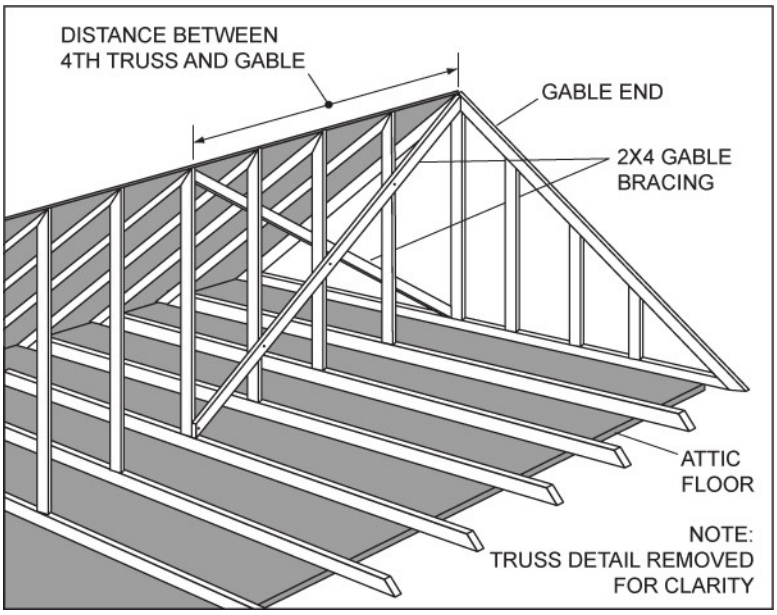
FEMA

PROTECTING YOUR PROPERTY FROM HIGH WINDS

Gable end roofs are more susceptible to damage from high winds than hip or flat roofs. The gable end presents a large, flat obstacle to the wind and receives its full force. If the framing of the gable end and the entire roof is not adequately braced to resist the wind, the roof can fail. Roof failures, especially in unbraced gable roofs, are a common cause of major damage to structures and their contents in high winds.

If your property has a gable roof, check to see whether the roof framing is braced. The top figure shows a cutaway view of an unbraced gable end roof. This is a truss roof, but some gable end roofs are constructed with rafters rather than trusses. Both types should be braced as shown in the bottom figure. If you are unsure whether your gable end roof is adequately braced, check with your local building department. After inspecting your roof framing, a building official can tell you whether bracing is required and if so, how it should be added.





BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

- Helps to prevent roof failure, which can lead to major damage of a structure and its contents
- Helps to prevent injuries to occupants

TIPS

Keep these points in mind if you have bracing added to a gable end roof:

- ✓ Bracing can be added fairly easily, but you should have a contractor perform the work to make sure that the bracing is properly designed and attached.
- ✓ If you have a building official inspect your roof framing, ask about other changes you may be able to make to your property to protect it from high winds.

- ✓ The detail featured on this Fact Sheet provides increased resistance of the gable end to wind loads. For another gable end retrofit that meets current building code requirements, see FEMA P-804, *Wind Retrofit Guide for Residential Buildings*.

ESTIMATED COST

If you hire a contractor to brace a gable end roof, you can expect to pay about $100 for each gable end. This figure is for a gable end about 30 feet long. Bracing longer gable ends may be slightly more expensive.

OTHER SOURCES OF INFORMATION

Institute for Business & Home Safety (IBHS), http://www.disastersafety.org.

FEMA 247, *Against the Wind*: *Protecting Your Home from Hurricane Wind Damage*, December 1993, http://www.fema.gov/library/viewRecord.do?id=1641.

FEMA 488, *Hurricane Charley in Florida: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, Chapter 8, "Building Envelope Performance," April 2005, http://www.fema.gov/library/viewRecord.do?id=1444.

FEMA 489, *Hurricane Ivan in Alabama and Florida: Mitigation Assessment Team Report, Observations, Recommendations and Technical Guidance*, August 2005, http://www.fema.gov/library/viewRecord.do?id=1569.

FEMA P-499, *Home Builder's Guide to Coastal Construction*, "Roof Sheathing Installation," Technical Fact Sheets No. 7.1, December 2010, http://www.fema.gov/library/viewRecord.do?id=2138.

FEMA 549, *Hurricane Katrina in the Gulf Coast: Mitigation Assessment Team Report, Building Performance Observations, Recommendations, and Technical Guidance*, July 2006, http://www.fema.gov/library/viewRecord.do?id=1857.

FEMA P-804, Wind Retrofit Guide for Residential Buildings, December 2010, http://wwwfema .gov/library/iewRecord.do?id-4569.

The Federal Alliance for Safe Homes (FLASH), http://www.flash.org.

To view and download FEMA publications visit the FEMA Library at http://www.fema.gov/library. To obtain FEMA publications please call 1-800-480-2520 or fax 1-240-699-0525 Monday through Friday 8 a.m. – 5 p.m. EST. You may also email your request to FEMA-Publications-Warehouse@dhs.gov. Please provide the title, item number, short number, and quantity of each publication, along with your name, address, zip code, and daytime telephone number.

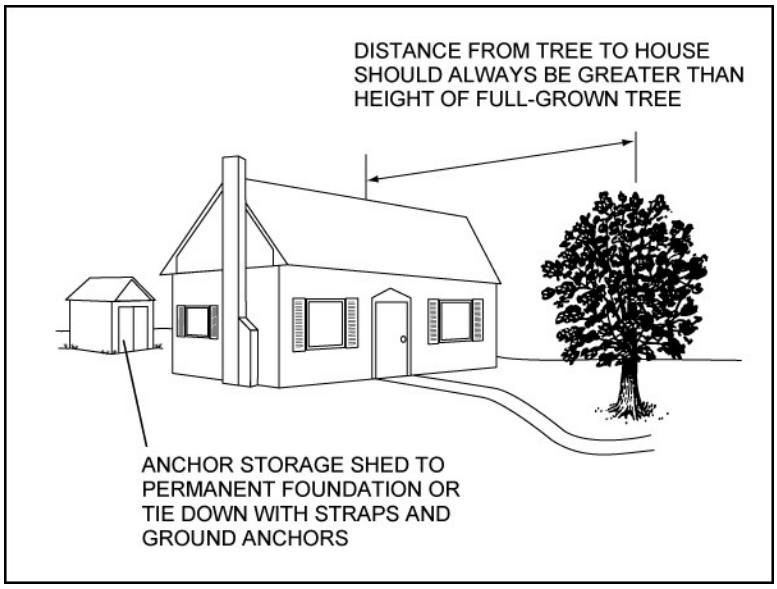
.

Remove Trees and Potential Windborne Missiles

FEMA

PROTECTING YOUR PROPERTY FROM HIGH WINDS

If the area immediately surrounding your home contains trees, outbuildings, trash cans, yard debris, or other materials that can be moved by the wind, your house will be more likely to be damaged during a hurricane or tornado. The wind can topple trees onto your house and can pick up smaller objects and drive them through windows and glass doors.



You should ensure that all trees on your property are far enough away to prevent them from damaging your home if they should fall. The distance between the structure and any nearby tree should always be greater than the height the tree will reach when it is fully grown. All storage sheds and other outbuildings should be securely anchored, either to a permanent foundation or with straps and ground anchors. Smaller objects, such as trash cans, barbecue grills, and outdoor furniture should also be anchored or, if you have adequate warning, moved indoors. You should also clear away any debris, such as fallen tree branches.

BENEFITS OF UTILIZING THIS MITIGATION STRATEGY

- Helps to prevent damage to a structure and its contents
- Helps to prevent injuries to occupants

TIPS

Keep these points in mind when you remove trees and potential windborne missiles:

- ✓ Remove large trees near your property. They can be extremely dangerous for both you and your home. Therefore, this is a job for a skilled contractor.
- ✓ Use the straps and ground anchors also used for manufactured homes to anchor outbuildings, especially small garden sheds that are usually not placed on a permanent foundation.
- ✓ Secure outdoor furniture and barbecue grills by bolting them to decks or patios or by attaching them to ground anchors with cables or chains.
- ✓ Secure trash cans with cables or chains attached to ground anchors or wood posts firmly embedded in the ground. Trash can lids should be attached to cans with cables or chains.
- ✓ Contact your local agricultural extension office to get suggestions on which varieties of trees will be less susceptible to storm damage.

- ✓ Contact an arborist for assistance with pruning existing trees properly. Improperly pruning trees or damaging root systems can make them more susceptible to storm damage.

ESTIMATED COST

If you hire a contractor to remove a large tree, you can expect to pay about $1,000 to $1,500. Having a contractor anchor a storage shed with straps and ground anchors will cost about $100 to $200.

OTHER SOURCES OF INFORMATION

U.S. Department of Agriculture, National Institute of Food and Agriculture, Cooperative Extension System Offices, http://www.csrees.usda.gov/Extension/

FEMA 247, *Against the Wind*: *Protecting Your Home from Hurricane Wind Damage*, December 1993, http://www.fema.gov/library/viewRecord.do?id=1641.

FEMA 549, *Hurricane Katrina in the Gulf Coast: Mitigation Assessment Team Report, Building Performance Observations, Recommendations, and Technical Guidance*, Chapter 11, "Recommendations," July 2006, http://www.fema.gov/library/viewRecord.do?id=1857.

To view and download FEMA publications visit the FEMA Library at http://www.fema.gov/library. To obtain FEMA publications please call 1-800-480-2520 or fax 1-240-699-0525 Monday through Friday 8 a.m. – 5 p.m. EST. You may also email your request to FEMA-Publications-Warehouse@dhs.gov. Please provide the title, item number, short number, and quantity of each publication, along with your name, address, zip code, and daytime telephone number.