



Prepare Your Business Annually before Hurricane Season

The Atlantic hurricane season runs June 1 through November 30. A combination of winds, wind-driven rain, surge, and power outages from a hurricane can cause damage to your business.

Start Annual Business Prep!

Every year, use these steps to prepare your business ahead of hurricane season to help reduce potential damage. These annual maintenance activities will help you be Hurricane Ready!

PLAN AHEAD

1. Assess your exposure & create an emergency business response and continuity plan.

- **Assess your exposure.**
 - Conduct a risk assessment to identify vulnerability of your facilities, identify critical assets and operational functions that could be affected.
 - Look up your property on your local flood map by visiting [FEMA's Flood Map Service Center](#) or by contacting your city or county government to understand your flood risk. Note: Flooding can occur outside of high-risk flood areas.
 - Know the [base flood elevation](#) (BFE) for your property and determine whether the elevation of your building's lowest floor is above or below the BFE. All electrical and mechanical equipment and connections should be placed at least 3 ft above the BFE.

Remember: Return periods are just probabilities. A "1 in 100-year event" does NOT mean it happens once every 100 years; it means there is a 1% chance every year that this type of event could happen.

- **Create a business continuity severe weather plan.**

- Establish an emergency response team responsible for developing and implementing the business continuity plan.
- Compile a list of emergency contacts, including fire, police, tree services, utility companies, and your insurance agent.
- Determine who is responsible for last-minute preparations when severe weather is in the forecast.
- Define procedures and communication protocols for employees and customers before, during and after an event. Develop procedures for sharing updates and emergency procedures.



Why?

Having a hurricane plan helps ensure the safety of you and your employees. A plan enables you to make time-sensitive decisions, communicate clearly, safeguard important equipment and documents, and proactively implement measures to prevent damage to your business.

- Implement an IT data backup and recovery system off-site or utilize a cloud-based location.
- Identify alternate facilities or workspaces where your business could operate in case the primary location becomes inaccessible.
- Develop an employee support plan. The plan may include guidelines for remote work and resources for mental health.
- Conduct regular training and simulation drills.

2. Stay informed. Ensure 3 ways to receive weather alerts.

- Find a reliable source for hurricane updates. Pay attention to hurricane forecasts from the [National Hurricane Center](#) (NHC). Follow the NHC on [Facebook](#) or [X](#) and tune in to local news often. For impacts to your local area, follow your [local National Weather Service \(NWS\) office](#).
- Purchase a NOAA weather radio, preferably one with a hand crank.
- Enable wireless emergency alerts on your cell phone. Check your wireless service provider's website to find out how to do this for your specific phone type.

Note: Geographical maps are used to communicate critical weather information. Know where you are on a map and know your county name.

How do you receive severe weather alerts?

- Weather Radio
- Phone Alerts
- Local TV
- Smart Home Devices
- Weather Apps
- Social Media

Why?
A hurricane can knock out power and disrupt communications. Having multiple ways to receive alerts helps keep you informed throughout the storm.



3. Review your insurance and document your inventory and equipment.

- Know what your insurance covers and what it doesn't.
- Keep your insurance agent's contact information in your phone and accessible offsite.
- Complete an inventory list of your commercial property. Include photo documentation of the property highlighting the building components, equipment, and inventory. Store it somewhere safely offsite and in the cloud.



Why?

If your building is damaged and you need to file a claim, you will likely have to itemize losses for your insurance company. Documenting your belongings is easier before a disaster happens.

NOTE: All do-it-yourself guidance outlined is to be completed under safe operating conditions. If fall protection is not available, it is best to hire a licensed and insured contractor.

2 ROOF TYPES

Low-slope (Flat) roof



Steep-slope roof



Low-slope (Flat) roof

4. Inspect & repair your low-slope commercial roof.

• Low-slope (flat) roof guidelines

- A roof inspection should occur at least twice a year and after storms, high winds, or heavy rain.
- Remove all debris (vegetation, trash, and/or loose equipment) on the roof and under roof-mounted equipment.
- After any service is performed on the roof, re-inspect equipment to make sure all screws, cables and straps are tightened and back in place, and no debris is left behind.

• Inspect your roof cover

- **Age of roof:** All roof covers age depending on the material used, quality of the roofing, routine maintenance, site specific conditions (i.e. environment, salt water/chemical exposure) and the weather endured.
- **Single-ply membrane:** tears or punctures, gaps, worn seams or seam failure, fasteners backing out, and brittleness along with unique issues to assess below:
 - **Fully-adhered membrane** is glued directly to the insulation boards, which are secured to the metal deck below. Look for unadhered portions of the membrane and blisters.
 - **Mechanically attached membrane** is rolled onto the insulation and screwed into the metal deck below. The seams are then fused using a heat welder or bonding adhesive, or they are taped. Check seams and fasteners backing out.
- **Built-up and modified bitumen:** bubbles/blisters, cracks, excessive wear around connections, tears, punctures and missing protective coatings for built-up roofs with embedded gravel or smooth surface.
- **Sprayed polyurethane foam:** excessive weathering, tears, or punctures, which causes a loss of the acrylic coating and brittleness.
- **Metal panels:** dents/divots, loose screws, deteriorated rubber washers, discolored or worn off paint, which acts as an anti-rust layer, and for signs of rusting.



Why?

A roof in need of maintenance or repair is more vulnerable to damage during high winds and can more easily fail during a hurricane. Long-term standing water can speed up aging and degradation, causing your roof membrane to become brittle. Standing water can also cause mold growth. Improperly secured roof-mounted equipment can slide or become airborne in high-winds, damaging a roof or worse. Water leaking into your building through a damaged roof cover can cause a cascade of damage to your roof assembly (insulation), ceilings, walls, floors and even your equipment and inventory, ultimately causing business downtime!

• Secure metal-edge flashing

- Visually inspect flashing for:
 - Signs of deterioration like rust
 - Bending fascia (waviness)
 - Unattached fascia
- Physically inspect flashing for:
 - Watertight roof cover membrane transition from the top flange of the flashing to the roof cover
 - Physically pull the bottom flange of the fascia to check for loose bottom edge.
 - Check the securement of perimeter flashing to the building.
 - Hire a Licensed contractor to properly secure or replace the flashing.

• Secure and inspect roof-mounted equipment

- Check mechanical units for rust on metal panels and screws. Ensure service panels have all fasteners in place so panels do not become dislodged.
- Inspect all roof-mounted equipment at the curb for loose connection to the curb or rusted flashing, curb leaks, and curbing rot from water damage.
- Ensure air conditioning condensers and similar equipment are secured with straps fastened to the stand, curb, or roof deck.
- Ensure secure cables and straps. Pull on them; there should be little to no slack. Check manufacturer guidelines for more specific information.

• PV Panels:

- Check for rust on the framing and screws. Ensure all panels are properly attached to the racking system.
- Ensure a secure attachment to the structure and proper waterproofing.
- Ballasted systems are NOT recommended in hurricane-prone regions. If your building has this roof cover, ensure the blocks are securely anchored to the tray and strapped or bolted together (for both mechanical units and PV).

• Check roof hatch and skylights

- Check roof hatches for:
 - Loose hardware (like bolts, nuts, or screws).
 - Flashing; seal around any cracks or leaks.
 - Curb securement.
- Inspect skylights for:
 - Securement to the curb and curb securement to the roof.
 - Cracks in the seal, leaks, and any rotting wood.
 - Signs of hail damage.

- **Inspect lightning protection**

- Check for loose rods and cables by gently pulling on the securements and conductor poles; there should be little to no slack.
- If a new cable connector is required, install a closed loop connector rather than a conventional 3-prong connector. If the metal conductor cable becomes loose from its

securement, the wind can drag or slam it against a roof membrane.

- **Inspect roof drainage systems, gutters, and downspouts**

- Inspect gutters and downspouts to ensure they're secured to the building by gutter straps.
- Clear all roof drains, gutters, and downspouts of tree debris.

- Ensure downspouts divert water at least 3 feet away from the foundation.
- Check for long-term standing water that is not due to a blockage and ensure gutter is properly sloped to the downspout. Hire a licensed contractor if the gutter is not properly sloped.

Steep-slope roof

4. Inspect and repair your steep-slope commercial roof.

- **Have your roof inspected by a trusted and licensed roofing company that will look for the following:**

Note: A roof inspection should occur at least twice a year and after any severe storms, high winds, or heavy rain.



Why?

A roof in need of repair is more vulnerable to high winds and its condition can worsen in a hurricane. Water leaking into your building can cause a cascade of water damage to your roof, ceilings, walls, floors and even your equipment and inventory, ultimately causing business downtime!

- **Roof cover condition**

- Asphalt shingles: look for curling, loose (unsealed), missing and/or torn shingles.
- Clay, concrete, and slate tiles: look for cracked, missing, and/or unattached tiles.
- Metal panels: look for dents/divots, loose screws, deteriorated rubber washers, sealants/caulks, discolored or worn-off paint (which acts as an anti-rust layer), and/or signs of rusting.

- **Vents, skylights, and chimneys**

- Vents: look for loose seals, rusted or deteriorated parts.
- Skylights: Look for signs of water intrusion, loose or wavy flashing around skylights, and cracks or damage to the window itself.
- Chimneys: Check for leaking around the flashing and/or missing mortar.

- **Roof valleys/seams**

- Check for leaks from roof valleys or the seams from the bottom of your roof deck.
- Remove debris such as leaves and dirt that builds up in valleys and against dormers.

5. Check & clear your gutters, downspouts and drains.

- Ensure gutters and downspouts are secured to the building with gutter straps.
- Clean all gutters, downspouts, and drains free of tree debris.
- Ensure downspouts divert water at least 3 feet away from the foundation.



Why?

Water that does not properly drain off your roof and away from your structure can leak into your building, causing costly interior water and structural damage. Clogged gutters can back up and allow water to damage roof decking and fascia.

6. Seal your building's envelope.

- Caulk and seal any cracks or gaps around wall penetrations, windows and door frames on your building's exterior using silicone caulk.
- Add weatherstripping as needed to seal around operable doors and windows, making sure you cannot see any daylight from inside the building.
- Seal any cracks or gaps around inoperable windows and use sealants compatible with adjacent building materials. *Note: In some cladding and/or storefront systems, there are weeps intended to stay open which should not be caulked.*



Why?

Hurricanes produce wind-driven rain, and any unsealed opening in your building can then allow water and wind to enter the structure.

7. Conduct preventative maintenance on commercial doors.

Know your commercial door(s)

- Ensure you have the right commercial door(s) for your geographical location. Check for a label that may say what the wind rating of the door is to determine the minimum **wind** speed (MPH) your **door** must meet or exceed. If you do not have the correct door for your location, it should be replaced with the correct wind-rated door. Check out the Building Upgrades page, to know what to look for when purchasing a new wind-rated commercial door.



Why?

During a hurricane, large commercial doors, including overhead, roll-up, and sectional, are susceptible to high winds that can push them in and allow pressure to push up on your roof. When they fail, they act as damage amplifiers. Inward and outward forces will find a weak link and cause the door to fail leading to water intrusion, damage of building contents and increased pressures on the roof.

Conduct a visual inspection regularly.

- Is all the hardware tight?
 - Inspect the track assembly to be sure it's properly attached to the wall tightly. Ensure it's not damaged and has all bolts in place with none of them broken, damaged or rusted.
 - Inspect the door tracks. Tracks are considered weak if you can rotate them in a twisting motion. Look at the tires on the rollers and ensure they are straight and tight on the axle.
 - Inspect the spring counterbalance assembly. It should look lubricated, and all springs should appear unbroken. Ensure the cables are not frayed or worn.

Conduct an operational test.

- Open the door and then close it all the way.
 - Make sure there are no major dents, damage, warping and/or rusting.
 - Does the door system run smoothly? When the door opens fully, does it drift back into the opening a little bit?
 - When the door is closed, does it close firmly without any gaps?
 - Inspect weather-stripping for wear or damage.
 - Ensure the reversing is working properly by starting the close cycle:

- Reverse bottom edge: bump the bottom with your hands as it's shutting - it should reverse back up.
- Photo eyes: place a box or object in front of the eye beam as it's shutting - it should reverse back up.
- Contact a licensed contractor to make repairs and improvements as necessary.

8. Maintain landscaping and secure outdoor items.

- Keep all tree limbs trimmed and away from your building. Hire an arborist to remove branches that overhang the structure and remove any dead, dying, or diseased trees.
- Pay particular attention to trees within falling distance of overhead power lines leading into the property.
- Ensure building signage and any awnings are securely fastened to the building with all bolts or screws intact and are free from rust.
- Keep large items that are not typically used every day anchored or placed in a shed or storage area indoors.



Why?

During high winds, trees with branches near or overhanging your building can damage the roof cover, wall cladding, and windows. Unsecured awnings, large planters, wooden pallets, inventory, and other large items can become flying debris.

9. Service your generator.

Permanent:

- Permanent generators should have a proper maintenance plan that includes weekly, monthly, and annual checks. See the manufacturer's specifications for more information.
- Run the unit weekly on its maintenance plan to ensure it is properly functioning in case of an emergency. Individual units may have a timer that allows a programmed test to be scheduled. Qualified personnel should oversee these scheduled weekly tests.
- Check the generator enclosure for loose debris or other conditions that could cause the unit to not function properly.

Portable:

- Ensure you store the unit in a dry location.
- Set up a maintenance schedule for your specific model by checking the owner's manual, which should tell you:
 - How often to check and change the oil.
 - When to replace the spark plug and air filter, including when to clean the spark arrestor screen.
 - How often to conduct periodic test runs for the unit.



Why?

The time to maintain a generator is well before a landfalling hurricane as power may go out (when professional assistance may be unavailable, power lines are down, and access roads are blocked).

Building Upgrades for Further Resilience Against Hurricanes

Commercial structures built using stronger construction methods can better withstand hurricanes by reducing building damage, inventory loss, and business interruption caused by these storms.

Start Building Upgrades!

If you're renovating, re-roofing, or building new consider these upgrades to make your building stronger against hurricanes. Upgrade now and be Hurricane Ready!

1. Strengthen your roof against severe weather.

- Replace your roof with a [FORTIFIED Roof](#), designed to prevent avoidable wind and water damage with just a few additional methods and materials. Based on decades of IBHS research, this roofing standard helps keep your roof on and water out during severe weather.
- **Here's how a FORTIFIED Roof works:**
 - **Stronger roofing system** designed to better protect against high wind.
 - **Roof flashing** designed and tested for wind, used to secure the perimeters of low-slope membrane roof systems.
 - **Gutters & downspouts** designed and tested for outstanding performance.
 - **A sealed roof deck** keeps rain from seeping into the cracks of the roof deck boards on a steep-slope roof even when shingles are lifted or blown off.
 - **Roof-mounted equipment** is designed for increased wind pressures.
 - **Impact Resistant & Pressure-Rated Skylights** can withstand water intrusion and large impacts.
- How do I build to FORTIFIED?
 - Visit fortifiedcommercial.org or fortifiedmultifamily.org to learn about the standards and how the process works.
 - Determine the level of resilience you want to achieve (FORTIFIED Roof, FORTIFIED Silver, or FORTIFIED Gold).



Why?

Your roof is your first line of defense against severe weather. Hurricane winds can damage an improperly designed or maintained roof cover which leads to roof leaks that can damage inventory, machinery, tools, and belongings.

- Complete an online application.
- Work with a third-party evaluator provided by IBHS to verify compliance with the standards.
- Having a designated FORTIFIED Roof may qualify you for an insurance discount so be sure to ask your insurance agent for available incentives!

2. Upgrade to wind-rated commercial doors.

- **Check for a wind rating label on your commercial doors.**
 - Look for a label on the door that shows its rating for wind pressures in PSF (pounds per square foot) values. Wind-rated doors labeled with PSF values have been tested to withstand wind pressures. Research the wind load requirements for your geographic region and make sure your commercial door(s) meet them.
 - If there is no label or the label is missing this information, it may not be wind-rated. Contact the manufacturer to see if there are any additional ways to indicate wind rating such as a serial number.
 - If the door is not wind rated, replace it with a door that meets the minimum site-specific wind pressures.
- **Purchase wind-rated commercial doors.**
 - Hire a licensed contractor to properly select and install a wind-rated overhead door. When available, consult the building's structural drawings to identify the design wind design pressures.
 - Look for doors tested to one of these standards:
 - ANSI/DASMA 115 Standard Method for Testing Sectional Doors, Rolling Doors, and Flexible Doors
 - The Florida Building Code TAS 201 (Impact Test Procedures), 202 (Criteria for Testing Impact & Nonimpact Resistant Building Envelope Components Using Uniform Static Air Pressure), and 203 (Criteria for Testing Products Subject to Cyclic Wind Pressure Loading)
 - Once the door is installed, ensure it shows a label with the wind rating. Remember—don't peel off the label!

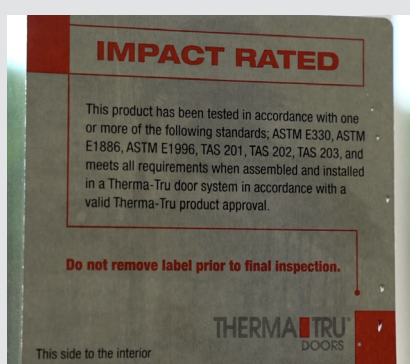


Why?

Commercial overhead, roll-up, and sectional (garage) doors are one of the most vulnerable areas of the building during a hurricane because they are large openings. High winds from a hurricane can push the doors inward, allowing pressure to build inside the garage and push up on the roof and surrounding walls—often resulting in major structural damage to your building.

3. Upgrade to impact-rated windows & doors with glass.

- Purchase windows and doors with glass that have been tested to ASTM E1996 for small missile impacts.



Why?

Typical windows and doors with glass can be shattered by high winds and flying debris during a hurricane.

4. Purchase hurricane shutters.

- Purchase hurricane shutters (code-conforming aluminum paneling) to cover your windows before an approaching hurricane. Find what's right for your business with the [IBHS Opening Protection Guide](#).
- **Note:** Plywood should only be used in place of shutters as a last-minute resort when tropical weather is imminent. If plywood must be used, be sure it's at least $\frac{3}{4}$ inch thick. Additionally, taping windows provides no protection and should NOT be done.



Why?

Shutters can protect your windows from flying debris and help keep out damaging winds.

5. Invest in a commercial backup generator.

- Purchase a backup generator that is properly sized to operate critical utilities necessary to maintain vital business operations.

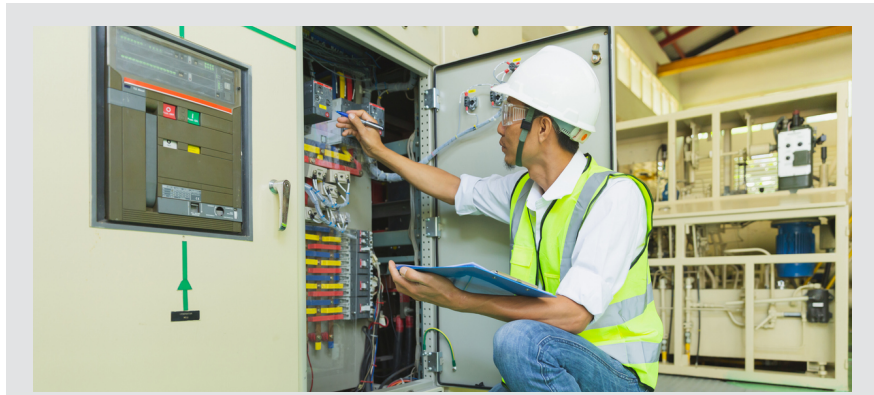


Why?

High winds and falling trees can cause power outages during a hurricane, causing downtime to your normal business operations.

6. Protect critical equipment.

- Elevate electrical and mechanical equipment and connections necessary to operate critical systems a minimum above the 500-year flood level, if known, or 3 ft above the base flood elevation (BFE) for the property.
- If the equipment cannot be sufficiently elevated as described above, permanent dry flood protection such as flood gates, walls, doors, or similar devices shall be used to prevent water intrusion to the heights described above. Flood depth, duration, velocity, and condition of water shall be considered (including floating debris).
- Move and elevate inventory and important documentation away from windows and doors in the event water penetrates the openings.



Why?

Heavy rain and storm surge can cause flooding which could penetrate your business, damaging your critical equipment. Additionally, wind-driven rain can seep through vulnerable building components such as windows and doors leaving inventory and other valuables exposed to water.

7. Check packaged terminal air conditioner (PTAC) units.

- Inspect all units to make sure they are properly installed to resist wind-driven rain. Leaks from these units can cause costly damage.
- Ensure all units are installed per manufacturer guidelines, typically tilted 2° toward the outside of the building, and are correctly caulked between the outside of the building and the sleeve.



Want a stronger commercial building?

- When constructing a new commercial or multifamily building, enhance its building components with [FORTIFIED](#), a stronger construction method developed by decades of IBHS research. It strengthens your building to better withstand severe weather including high winds, hail, and even hurricanes.