

Finding Small Building Issues Before Hurricanes Do

Tropical storms and hurricanes do not always require a major building failure to cause significant damage. Often, the first problems start with smaller conditions that were already there, such as a loose seal, a clogged drain, a failed sealant, an aging roof detail, an unprotected opening, or a door or window assembly that was not installed or maintained as intended.

Individually, these conditions may not look serious during normal weather. During a hurricane, they can become the first places where wind and water find their way in.

With hurricane season underway, the focus should shift from general preparedness to the building conditions that can affect performance as wind, rain, and pressure changes begin to test the envelope.

Intertek helps building owners, facility teams, design professionals, contractors, and manufacturers evaluate these conditions through building enclosure consulting, field performance testing, inspections, and product testing and certification services. Through its Assurance, Testing, Inspection, and Certification (ATIC) approach, Intertek helps teams identify issues, verify performance, and make more informed decisions before the next storm arrives.

"Small building issues that seem manageable in normal weather can become the first places where wind and water find their way in during a hurricane."

Why Small Building Issues Are Significant

A hurricane puts many parts of a building under stress simultaneously. The roof, walls, windows, doors, drainage systems, exterior cladding, and surrounding site conditions all affect how the building responds.

When one part of the building envelope is compromised, damage can spread quickly. Water entering through a failed seal, a vulnerable opening, or a roof condition can affect interior finishes, insulation, electrical systems, and structural components. Wind entering through a damaged opening can also increase internal pressure and place additional stress on roof and wall systems.

These conditions become much harder to address as a storm approaches. A repair that might have been manageable during normal operations becomes more difficult when contractors are unavailable, materials are delayed, power is out, or access to roofs and exterior systems is unsafe.

The smaller conditions are often the ones worth identifying early because they can become larger problems once wind, rain, and pressure changes begin to test the building.

Where Building Teams Should Look

One of the first areas to review is the building envelope. Windows, doors, louvers, curtain wall systems, storefronts, and other openings should be evaluated for condition, anchorage, sealant condition, and water resistance. Even products designed for hurricane-prone regions still depend on proper selection, installation, and maintenance.

These reviews should not wait until a named storm is approaching. For existing building envelopes, condition assessments should be part of routine maintenance and early-season storm readiness planning. Facility teams may start with visual checks. However, design professionals, building enclosure consultants, roofing professionals, or qualified testing and inspection providers may be needed when there are recurring leaks, prior storm damage, aging assemblies, or questions about installed performance.

Roof systems are another common point of concern. Loose materials, damaged flashing, worn membranes, clogged drains, and weak edge details can all become vulnerabilities during high winds and heavy rain. Roof-mounted equipment should also be reviewed, as unsecured or poorly protected components can become both points of damage and debris hazards.

Drainage conditions can create additional risk. Site grading, roof drains, gutters, scuppers, and surrounding stormwater systems should be evaluated before peak storm activity. Water that cannot move away from the building increases the risk of intrusion, flooding, and damage to lower-level areas.

Exterior walls and cladding should also be checked for cracks, gaps, loose components, failed sealants, and previous repairs that may not have been fully addressed. These conditions may seem cosmetic in calm weather, but they can become pathways for water during wind-driven rain.

How Intertek Supports Hurricane Readiness

Intertek supports hurricane readiness across the building life cycle from product performance and project design through construction and maintenance and post-storm evaluation.

For existing buildings, Intertek can provide building enclosure assessments, roof evaluations, facade reviews, drainage observations, and field testing to help identify conditions that may affect performance during severe weather. These services can help teams

better understand where water intrusion, air leakage, aging materials, or installation concerns may require further review.

For new construction and renovation projects, Intertek can support performance verification through field testing and inspection services. This may include air infiltration testing, water penetration testing, fenestration testing, curtain wall testing, mock-up testing, roof testing, and other evaluations tied to project specifications, code requirements, and applicable standards.

For manufacturers, Intertek provides product testing and certification services that can help demonstrate performance for building materials, fenestration products, roofing components, and other systems used in the building envelope. Certification and code evaluation can support product selection and help project teams determine whether products are appropriate for specific applications.

Intertek's ATIC approach brings these services together across the building life cycle. Assurance helps teams understand and manage risk. Testing helps verify how products and assemblies perform. Inspection helps identify conditions that may not be obvious during a general walkthrough. Certification helps demonstrate that products and materials meet applicable standards and performance requirements.

Together, these services help connect design intent, product performance, installation quality, and long-term building operation. That connection is especially important in hurricane-prone regions, where a product or assembly may be rated for a specific use but still must be properly selected, installed, coordinated, and maintained to perform as expected.

Taking Action Early in Hurricane Season

The best time to identify building vulnerabilities is before a storm is approaching. Early-season reviews can help building teams address small issues before access, materials, and contractor availability become more limited.

At this stage, the priority is to review the conditions most likely to affect performance during severe weather and determine what requires repair, testing, documentation, or further evaluation before the next storm approaches.

Hurricane readiness is not only about reacting to the forecast. It is about understanding the building before the weather finds the weak spots first.

Intertek's building science, testing, inspection, and certification services can help teams evaluate building conditions, verify performance, and plan next steps for hurricane readiness.

To learn more, click here: Hurricane Resistant Building Materials Testing & Standards

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