

What Shapes a Building's Risk Profile?

A heavy storm hits two buildings on the same block. One reopens the next morning; the other loses power to critical equipment and remains closed for days. The hazard is shared, but the outcome depends on the property, including its site, construction, systems, maintenance, and the occupants and operations it supports.

The stakes are substantial. According to Swiss Re Institute, natural catastrophes caused $107 billion in insured losses worldwide in 2025. North America accounted for $90 billion, including $46 billion from severe convective storms and $40 billion from California wildfires.

For an owner, lender, developer or facility team, a hazard map is a starting point. From there, three questions can help define the property's risk: What hazards could reach this site? Where is this building vulnerable? What would damage or downtime mean for its occupants and operations?

Look Beyond the Hazard Map

Maps and models can show where flooding, wind, wildfire, and other hazards are possible. They cannot, on their own, tell you whether water will reach an electrical room, whether a roof attachment is vulnerable to wind, or whether smoke can enter through the enclosure.

"A building's risk profile depends on its site, construction, systems, maintenance, and operations. Understanding these conditions helps owners identify vulnerabilities, assess potential consequences, and prioritize improvements."

Those details change the picture. For flooding, an assessment may examine grading, drainage, below-grade spaces, openings, and the location of mechanical and electrical equipment. For wind, it may focus on roofing, glazing, wall assemblies, attachments, and structural components. For wildfire, vegetation, exterior materials, roof assemblies, openings, and pathways for embers or smoke may matter. Even neighboring buildings can have markedly different vulnerabilities.

What a Property Resilience Assessment Adds

ASTM E3429-24, Standard Guide for Property Resilience Assessments, provides a framework for connecting natural hazards with property conditions and potential resilience measures. It covers hazards such as flooding, hurricanes, wildfire, earthquakes, extreme weather, landslides, land subsidence, storm surge, and coastal erosion. Intertek applies this building-specific approach to site and drainage conditions, building systems, the enclosure, and potential effects on operations and recovery.

The Same Damage Can Have Different Consequences

Consider water entering a parking structure versus an electrical room. Both can require repairs, but the second may shut down essential systems and prolong recovery. In a health care facility, data center, or manufacturing space, even limited water or enclosure damage can interrupt critical activities. Looking at likely consequences for occupants, equipment, access, and operations helps teams distinguish urgent fixes from items that can be monitored or planned as future capital work.

Risk Changes as Buildings Change

A building's risk profile changes over time. Adjacent development can redirect runoff. Renovations can introduce new enclosure penetrations. Equipment moves; roofs and sealants age; landscaping changes wildfire exposure. Deferred maintenance can turn minor ponding into a more serious problem, while updated hazard information can reveal exposure that was previously overlooked. A new review may be appropriate during an acquisition, major renovation, portfolio review or capital planning process.

Look Beyond Minimum Requirements

Building codes establish minimum requirements for design and construction. Owners may also need to understand how an existing property could perform during a particular hazard and how long its operations might be disrupted. ASTM E3429-24 is a voluntary guide, not a substitute for applicable codes. It helps teams evaluate property conditions and resilience measures, including measures that may go beyond code minimums, when decisions call for a closer look at damage, downtime, and recovery.

Turn Findings Into Priorities

A finding does not automatically call for a major retrofit. Some priorities may be straightforward: improve drainage, seal a leakage pathway, protect an opening, or move sensitive equipment. Others may warrant larger investments in stormwater systems, flood protection, the enclosure, structure, or mechanical and electrical infrastructure. The priority order depends on the likely consequences, the available options, and the owner's objectives.

A Property Resilience Assessment gives owners a stronger basis for due diligence and capital decisions: where the building may be vulnerable, what the consequences could be, and which measures merit closer evaluation. Intertek's team brings site, enclosure, building systems, and operational considerations together to help owners move from risk information to specific next steps.

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