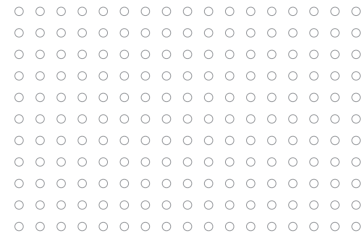


5 Measures Building Owners Can Take to Head Off Major Structural Issues



The recent collapse of Champlain Towers in Surfside, Florida has prompted owners and residents alike to re-evaluate the structure of their buildings. Modern building codes and structural engineering safeguards including building assessments, monitoring and capital upgrades are designed to prevent such rare collapses.

The contributing factors that led to the collapse of the Champlain Towers are undetermined at this point. This document does not speculate on the reasons for this tragedy but provides information to help prevent potentially catastrophic damage to buildings.

Modern building codes and structural engineering have made our buildings extremely safe places to live and work. However, buildings do require maintenance, and if signs of structural damage become apparent, immediate action should be taken. Continual maintenance and inspections are critical to the operations of any building, and the safety of all inhabitants.

HUB Risk Services Division recommends the following primary actions that building owners should take to prevent major structural issues to their buildings.

1. Buildings should be inspected annually.

- Third-party professionals should conduct annual inspections to identify any issues which could lead to deficiencies or damages. For example, major structural components should be assessed by structural engineers with experience performing such inspections. When issues are identified, corrective actions should be taken and documentation made for maintenance or repairs.
- Inspectors conducting building assessments should review any changes following renovations, additions or other changes which may affect the building's structure. Adding loading to a roof, moving walls or other changes can adversely affect a building. Inspectors (including structural engineers) need to be familiar with building design changes and proper authorities must sign off on all renovations or upgrades.
- Conduct post-event inspections following major weather events to identify any damage, including major structural issues or minor things like blocked drains which can lead to significant property damage as a result of water ponding.
- Seek location-specific expertise from inspectors familiar with the signs of structural damage due to local weather, such as snow loading or the damage salt water can cause to buildings near the ocean. Ensure inspectors are experts in their fields and familiar with regional hazards.

2. Look for and monitor damaged building components

- In high-rise towers, regular inspections should include identification of concrete spalling. Corrective action should be taken in places where concrete has fallen off or detached, especially in structural columns. If there is deterioration of reinforcing steel, immediately have a structural engineer determine the extent of damage.
- Identify and carefully monitor wall cracks. New buildings may settle, and this should be monitored. Cracks that grow, spread or otherwise show deterioration should be addressed immediately.

3. Build capital improvements into your budget today

- Institute financial planning for major improvements and capital expenditures in all building maintenance plans. Putting off known issues due to funding issues puts buildings and occupants at risk.

4. Identify risks early

- Building management should be intimately familiar with the building and perform regular assessments. Training maintenance staff and leadership to recognize potential signs of risk may help identify issues prior to formal inspections. Formalizing the documentation of such assessments may help to record actions taken to reduce both property and liability risk for the buildings and their residents.

5. Review insurance coverage regularly

- Owners should not reduce coverage to cut costs. Have a formal review of your insurance policies and coverage completed by a trusted insurance professional.

Taking these five measures does not guarantee a building will not experience a catastrophic event. However, these measures will reduce risk to all buildings — they have been proven to prevent both minor and major loss events.

As always, HUB's Risk Services Division is available to help. Whether you are looking for additional information or guidance on how to reduce property risk, we are here to help protect what matters most: your people, your property and your profitability.