



Take A Load Off Your Mind Before Winter Arrives

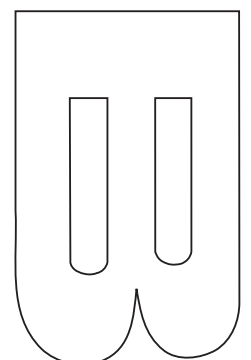
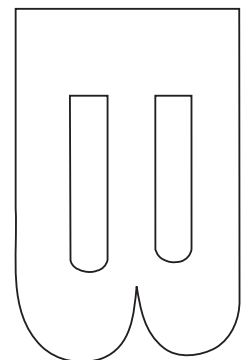
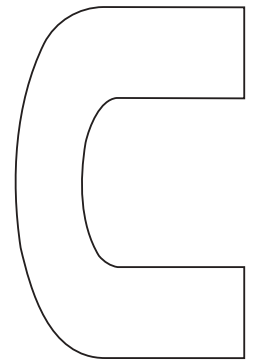
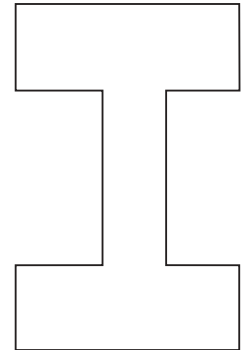
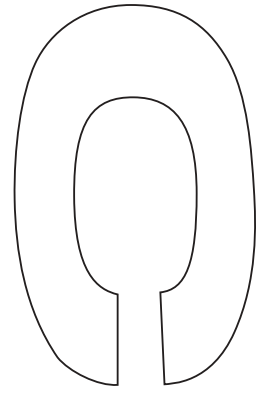


Don't wait until the first snowfall before thinking about the potential of excessive snow loads on your roof. The severe winter storms of recent years have raised the awareness of many property owners. There have been too many pictures in the news of collapsed roofs and severe building damage. Many of these incidents could have been prevented with careful planning and preventive maintenance.

The potential for roof collapse and building damage is a critical concern for both property owners and tenants. Although tenants may not realize the immediate importance of preparing for winter storms, any harm to the building may damage contents, interrupt operations or injure an employee.

Although you don't naturally think of freshly fallen snow and winter jackets in the summer and early autumn, now is the time to make your building winter storm ready. One of the first areas to review is the physical makeup of your building. Many facility managers and building owners know the exact dimensions of the roofs. They may have blueprints or engineering specifications that detail the amount of load that a roof is designed to withstand. If this information is not readily available, you can contact a structural engineer or your local municipal office to determine the maximum snow load capacity of your building.

Often the effect of adjacent structures on the snow loads of your buildings is overlooked. You need to consider the height and dimensions of adjacent structures in addition to your own. For example, a taller structure directly adjacent to your building can create a "roof step" — the formation of drifts from snow carried over a taller wind-exposed roof onto a lower roof. Accumulation from additional snowfalls and periods of windy activity will ultimately result in high drifts, potentially exceeding the snow load capacity of your building.



Steps to take in summer and autumn to help protect your building:

- Determine the maximum snow load capacity of your roof. Snow load is measured in pounds per square foot (psf). For example, 10 inches of snow is approximately 5 psf. Resources available to you include the building blueprints and specifications, local building codes, building inspectors and structural engineers.
- Inspect roof drains to ensure they are free of debris that may obstruct water flow. Check downspouts for blockage and make sure that runoff discharges away from the building and walkways.
- Inspect the interior of the building for signs of a damaged or weakened roof structure. Complete repairs before the onset of cold weather.
- Fix any leaks and repair or replace roof insulation as needed.
- Mark the location of skylights, roof drains, electrical lines or other utilities that could become obscured by snow.

Steps to help prepare for winter storm emergencies:

- Make sure the necessary equipment is available and in good condition. These include snow shovels and snow blowers. Instruct appropriate employees in the proper use of all equipment prior to a storm.
- Before allowing employees access to roofs, implement a Fall Protection Program that meets current OSHA standards (CFR 1926.500). Be sure to review the program annually.
- Determine where removed snow will be deposited. These areas should be away from walkways, air intakes and emergency exits.
- Establish a plan for monitoring the path and intensity of storms, using the National Weather Service, radio or television.
- Reduce the potential for ice damming by thoroughly sealing openings and providing proper ventilation.

Steps to take during and following a storm:

- Examine the building for visible signs of structural distress, such as twisting, bending or cracking. Consult with the local municipal office or a structural engineer if necessary.
- Verify that roof drains and downspouts are clear to handle melting snow and runoff.
- Before removing any snow from the roof, cordon off the deposit area on the ground and post an employee to monitor the area to ensure that pedestrians or vehicles do not enter this zone.
- Avoid producing any uneven or concentrated loading during snow removal.
- If snow blowers are used on the roof, ensure that the blades are raised high enough to prevent damage to the roof cover.
- Watch for ponding as snow compresses and absorbs rain. The increased weight can create depressions that may not drain.

For additional information, contact your local Loss Control Services risk engineer.

