



**Severe Canadian winters — with freezing temperatures, heavy snow accumulation, ice storms, and high winds — present unique hazards and challenges for property administrators and custodial staff. Extreme winter weather can result in a range of problems, from burst pipes and collapsed roofs to increased fire risks.**

A comprehensive risk management and property maintenance program with clearly defined policies and procedures can prevent and/or significantly reduce winter-related property damages, as well as personal injury.

Property inspection is a key component of an effective risk management program and should include:

- Regular monthly inspections of the property throughout the year, with special attention in the fall, keeping winter hazards in mind

- A checklist that helps identify problem areas, such as loose shingles, exposed water pipes, insufficient insulation, furnace and boiler issues
- Documentation requirements — written reports that identify the person performing the inspection, the date and time of the inspection, steps taken to repair any problems and the name of the person or contractor who carried out the repairs

The following are major winter risks, as well as best practices to help manage them.

## Ruptured pipes

Sub-zero temperatures can cause water pipes to freeze and rupture. Pipes most prone to freezing are generally located in areas that are not insulated, for example attic spaces, blind spaces, vestibules and basements. When ruptured pipes thaw, escaped water can accumulate in pools, eventually leading to collapsed ceilings and flooding. This, in turn, can cause serious damage to structural features and electrical wiring. Ongoing vigilance and inspection are critical throughout the winter months.

To reduce the likelihood of frozen water pipes:

- Insulate attic spaces, outside walls, and the sides of water tanks.
- Insulate water pipes or use electric trace heating elements. Be sure to protect pipes in unheated areas like attics, basements, under floors and in outbuildings.
- Make sure that your sprinkler system — whether a wet- or a dry-pipe system — is appropriately configured for winter conditions.
- Seal off any areas where cold air can enter the building, especially if there are pipes nearby.
- On cold days, open attic trap doors to allow heat to circulate upward.
- To help prevent pipes from freezing, keep all interior rooms above 12 °C. Keep the heat on even when the building is unoccupied. If the building is unheated, ensure that the water is turned off and all pipes are drained.

## Ice dams

An ice dam is a ridge of ice that forms at the edge of a roof or around drains and prevents melting snow from sliding off the roof. This melting snow can be the result of a sudden rise in temperature or excessive heat from inside. Water backs up behind the dam and eventually leaks into your property, causing damage to walls, ceilings, insulation, furniture, etc. A too-rapid thaw can also simply cause melting ice and snow to overwhelm drains and gutters, and cause the same damage.

- Leave central heating on a “frost protect” setting overnight.
- Put new washers on all dripping taps to reduce the likelihood of freezing.
- Make sure that all custodians know the location of the main water shut-off valve and that they can access it quickly and easily. Place a “Main Shut Off” tag on this valve.

If there is a frozen or ruptured water pipe:

- Turn off the water at the main valve but turn on the faucet closest to the rupture to allow water to flow through. If it is a sprinkler system valve, call your monitoring company and fire department before closing.
- If any water has leaked near electrical wiring or appliances, shut off electricity at the main panel immediately and consult an electrician. Never touch wiring or equipment that is wet.
- Have a professional plumber make the necessary repairs as soon as possible. Do not attempt to thaw pipes with a blowtorch or heat gun.
- Make sure that no individuals are located in areas that may have become unsafe due to a water leak.
- If there is an adjacent area that is safe, remove any contents or furnishings that could potentially be damaged as the ruptured pipe thaws.
- Report any sustained or possible loss to your insurance company.

Some steps to take:

- Make sure there is sufficient insulation between the beams of the attic floor to prevent heat from rising through the attic to the roof
- Improve ventilation in all attic spaces — a cold attic ensures less melting and re-freezing on the roof.
- Make sure that recessed light fixtures in the ceiling below the attic are properly sealed and insulated.

- At least twice a year, make sure that gutters and drains are clear of leaves, branches, mud and other debris that might block the flow of water away from the building.
- Prune trees whose branches overhang the roof to prevent an accumulation of leaves that can prevent or slow down roof drainage.
- When gutters and drainpipes are cleared of obstructions, they should be flushed out with a hose.
- Install gutter guards.
- If feasible, install self-regulating heating cables on gutters, downspouts and roof drains.
- Ensure that all drainpipes are positioned to drain water away from the building's foundation.
- If your building is more than a single storey in height, hire a contractor — the use of ladders should be avoided.

## Roof failure

Heavy snow loads, drifting snow, ice, severe winds and repeated temperature extremes (partial thawing and re-freezing) can wreak havoc on a roof and put both people and property at risk. While it is critical to maintain a roof throughout the year, the risks created by extreme winter conditions cannot be underestimated. If the roof doesn't drain properly, snow, ice and water remain trapped, adding weight loads that can cause the roof to collapse. Flat roofs are at increased risk because of their wide spans and low-slopes.

To "winterize" and protect your roof:

- Perform an inspection of all roof structural members before winter begins. Any parts that are sagging, cracked or otherwise compromised should be repaired immediately to prevent roof failure. The "Roof Maintenance Checklist" is available on the Ecclesiastical web site.

- If shingles are missing, have them replaced immediately to avoid interior damage.
- When the roof is dry, inspect the roof cover for evidence of long term standing water. This will be evident by the presence of mold, mildew, and even small vegetation growing.
- Consider having heating cables installed and connected to the drainage system, creating a path for melting ice.
- Check the roof regularly for excessive snow load, especially after heavy snowfalls.
- Hire a bonded and insured contractor to conduct snow removal in a safe and controlled manner, with care taken to ensure that the areas below are free of passers-by and vehicles.

## Hazards on the ground

A thorough and meticulously followed outdoor maintenance plan is essential to creating a safe environment for all your communities of interest — the people you serve, employees, volunteers and visitors.

To help prevent slips and falls during severe winter conditions:

- Inspect all stairs, ramps, footpaths, sidewalks, and parking lots on your property, and repair cracks, potholes and other defects that can cause ice to form.
- Make sure there is an adequate supply of salt, sand, and ice melt.
- Have the trees on your property pruned to prevent branches from breaking off following heavy snow or ice accumulation.
- Make sure that roof downspouts are directed away from walkways.
- Determine snow and ice removal procedures well in advance so they can be executed quickly and efficiently.
- Keep a snow removal log.
- Make sure that all third party snow and ice control contractors are bonded and insured, and can provide a Certificate of Insurance naming your organization as an additional insured.

- Remove any window air conditioning units and cover air conditioning compressors.
- Have the furnace or boiler inspected by a qualified contractor.
- Exterior oil or propane tanks should be inspected for leaking or corrosion. Report any problems to the fuel supplier immediately if detected.

## Sprinkler Systems

Sprinkler systems both wet and dry type present the possibility of false trips during cold weather.

Adequate heat must be provided in areas protected by wet pipe systems and additional preventative maintenance must be done on dry pipe systems each fall before cold weather occurs.

- Display emergency contact details of your sprinkler system and plumbing system maintenance provider.
- Dry pipe sprinkler systems should be trip tested and lines blown dry. Low points should be drained completely.

- Check slope of sprinkler piping and condition of pipe hangers.
- Ensure dry pipe system air compressors and the air intake valve are located in a cool/dry area to prevent moisture from entering the piping.
- Inspect the sprinkler system every few hours during periods of extreme cold weather looking for broken or cracked piping or signs of damage.

For more information and related Risk Control Bulletins, visit [www.ecclesiastical.ca](http://www.ecclesiastical.ca).

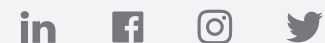
## ABOUT ECCLESIASTICAL INSURANCE

Ecclesiastical Insurance Office plc is a specialist commercial insurance company. We are deeply committed to protecting the needs of organizations that enrich the lives of others; to preserving Canada's distinct communities, cultures and history; and to supporting initiatives that help improve the lives of people in need.



Proudly part of the **BENEFACT GROUP** 

[ecclesiastical.ca](http://ecclesiastical.ca) | [@EI10Canada](https://twitter.com/EI10Canada)



This advice or information is provided in good faith and is based upon our understanding of current law and practice. Neither Ecclesiastical Insurance Office plc nor its subsidiaries accepts any liability whatsoever for any errors or omissions which may result in injury, loss or damage, including consequential or financial loss. It is the responsibility of the Insured or any other person to ensure that they comply with their statutory obligations and any interpretation or implementation of the above is at the sole discretion of the Insured or other party who may read these notes.