

# MIND your business



Institute for Catastrophic  
Loss Reduction

Building resilient communities

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A photograph showing a person in winter clothing shoveling snow on a flat roof. The person is on the left, and the snow is being thrown towards the right. In the background, there are some roof fixtures like a vent and a pipe, all partially covered in snow. The overall scene is a winter maintenance activity.

## Nine budget-friendly ways to prepare your commercial building for the winter season

Winter weather can cause business disruption, structural damage to buildings from excessive snow loads, water damage from bursting frozen pipes, and can generate dangerous ice dams on the roof. Depending on your business' specific location, it could have greater risk of exposure to these elements. On the following pages are some actions that can be taken to prepare your business ahead of the winter season.

NOTE: All do-it-yourself maintenance guidance is to be completed under safe operating conditions. If fall protection is not available, it is best to hire a licensed contractor.

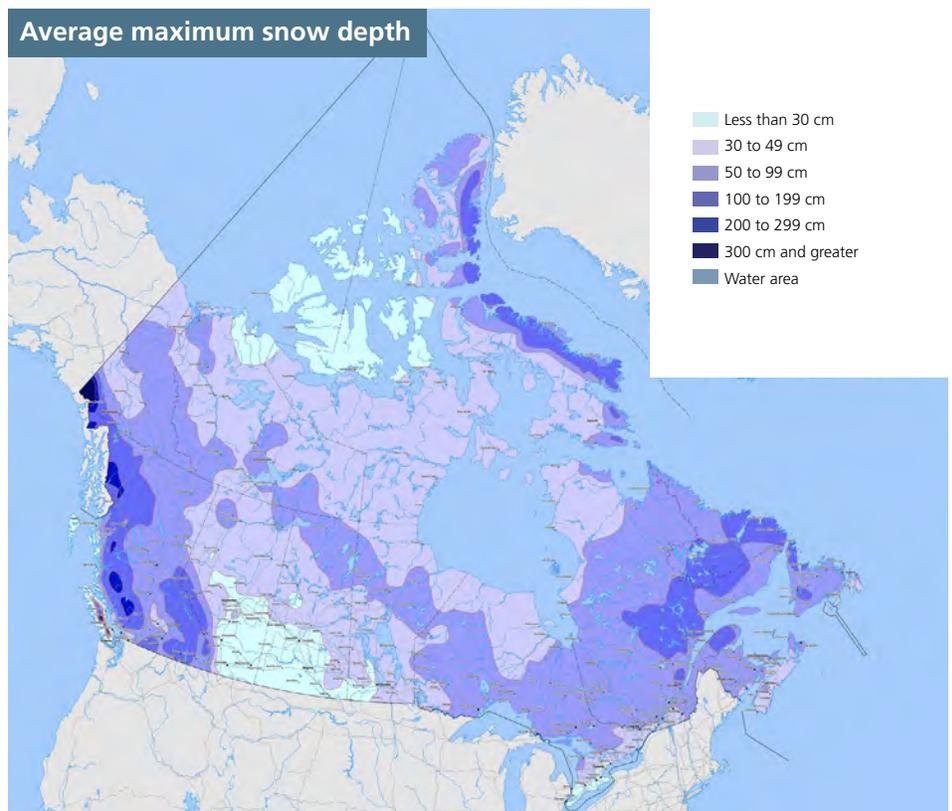
## Assess your exposure

- Severe winter weather is a significant cause of insured catastrophic losses and is a risk for many businesses across Canada.
- Commercial enterprises in all areas should be prepared for severe winter weather.
- Regional differences may exist between commercial properties located in northern Canada and those located in the south, particularly in urban areas. Older buildings may be more impacted by below-freezing temperatures as they may be more likely to have uninsulated water pipes in areas outside of the building insulation. Older buildings, particularly those with large roof areas (like arenas, churches and school gyms) may also be more susceptible to heavy snow/ice loads.

Average annual snowfall



Average maximum snow depth



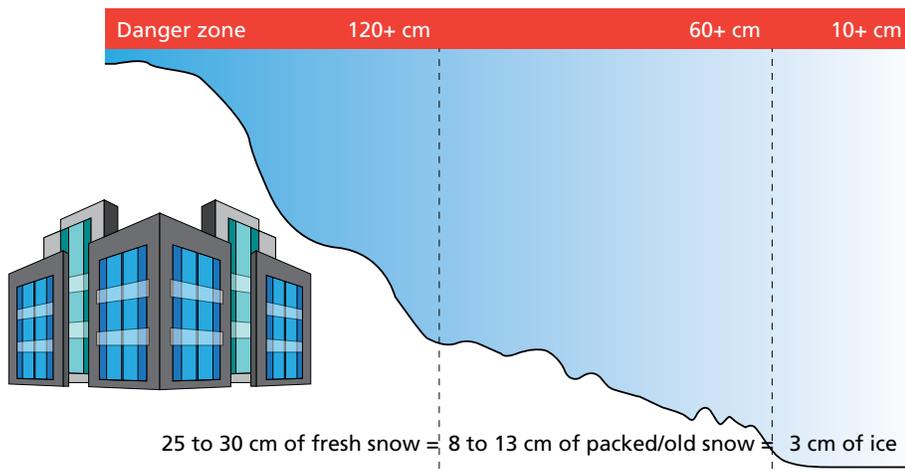
Maps courtesy of Natural Resources Canada

## Know your roof's maximum snow load

- When it comes to the weight of snow, the type of snow is as important as the depth. Fresh powder snow is typically lighter than wet packed snow, and ice is heavier than snow.
- There are several contributing factors to the acting load on your roof that include snow drifts from adjacent buildings or mechanical equipment, heavy rain on snow, and melting snow that refreezes.

If you don't know your roof's snow load, hire a structural engineer to verify the snow load threshold of your roofing system. This information will be important after an event when determining if there is too much snow on your roof.

Consider hiring a professional (insured) service provider to remove snow and ice from your roof.



## Prevent plumbing from freezing

- Inspect and seal or repair all cracks, holes, leaks, windows, doors, and other openings on exterior walls with caulk or insulation to prevent cold air from penetrating the wall cavity.
- Insulate and seal around attic penetrations such as partition walls, vents, plumbing stacks, and electric and mechanical chases.
- Make sure your pipes in hard-to-reach places like attics, crawl spaces, and along outside walls are insulated. Wrap pipes and faucets in unheated or minimally heated areas of the building.
- Make sure your existing freeze-protection devices and alarms are in good working order. Test freeze stats (i.e. a temperature sensing device for HVAC that monitors a heat exchanger to prevent its coils from freezing) and valves before the weather gets cold.

- Pipes that may be exposed to freezing temperatures, especially those that enter a building above ground, should be wrapped with insulation or heat trace tape to prevent them from freezing.
- Pipes leading to the exterior should also be wrapped with insulation or heat trace tape, or should be shut off and drained at the start of winter if possible. If exterior faucets do not have a shut-off valve inside the building, have one installed by a plumber.
- Hire a licensed fire protection specialist to conduct routine maintenance on your sprinkler system. Discuss the systems exposure to winter weather and potential mitigation options.



## Winterize your landscaping and irrigation

- Keep all bushes and trees trimmed and away from the building. Trees with branches near or hanging over your building can damage the roof cover, siding, and windows.
- Pay particular attention to trees within falling distance of overhead power lines leading to the property. Avoiding a power outage can save a day or two of business interruption.
- Shut off and drain irrigation systems and outdoor hoses.

## Maintain your HVAC system

- Schedule preventative maintenance and make sure the system is operating properly and efficiently.
- Be sure to change any air filters and check that exhaust gases are being ventilated properly.
- Select a heating system repair service before an unexpected outage or maintenance issue arises mid-season. Loss of heat for even a few hours could significantly disrupt your business during a cold snap. Have someone ready to come quickly – including after hours – and negotiate an emergency rate in advance.



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## Service your generator

The time to maintain a generator is well before a major storm or disaster strikes (when professional assistance may be unavailable, power lines are down, and access roads are blocked). Backup power can help maintain a consistent building temperature and reduce the risk of freezing pipes leading to business disruption and damage.

### Permanent

- Permanent generators should have a proper maintenance plan that includes weekly, monthly, and annual checks. See the manufacturer's specifications for more information.
- Run the unit weekly on its maintenance plan to ensure it is properly functioning in case of an emergency. Individual units may have a timer that allows a programmed test to be scheduled. Qualified personnel should oversee these scheduled weekly tests.
- Check the generator enclosure for loose debris or other conditions that could cause the unit to not function properly.

### Portable

- Store in a dry location.
- Set up a maintenance schedule to include periodic test runs of the unit.



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## Check your roof and gutters

Water that does not properly drain off a roof has the potential to freeze, adding to snow load and creating ice dams. Ice dams can add significant additional loads to the roof and could cause interior water damage if left unattended. It is important for your team to maintain the roof drains and gutters.

### Low slope (flat) roofs

- Inspect roof and repair leaks before winter season.
- Remove all debris and other items from roof and roof drainage systems that prevent drainage of water from the roof during the melting process.
- Check that all flashing and seals are flush and secure.

### Steep slope roofs

- Inspect your roof and repair leaks before winter season.
- Secure loose shingles.
- Check roof-edge waterproofing and seal to prevent potential drafts.
- Add extra insulation in your attic or surrounding areas.



### Gutters

- Inspect gutters and ensure they are secured to the building. Replace any missing gutter fasteners.
- Clean gutters and interior downspouts thoroughly, removing all debris and unclog drains.
- Run test of gutters and downspouts to be sure water does not back up. This can be done by using a hose.
- Check downspouts to ensure they divert water away from the foundation.

## Create a business continuity plan

- Have a plan for communicating with employees across multiple channels (text, email, phone).
- Have an emergency/recovery plan that is communicated to employees, customers, clients, delivery, etc.
- Create a snow and ice removal plan for all roofs and grounds.
- Plan for emergency snow removal in event of heavy accumulation. Identify and supply proper equipment and check it in advance of predicted snow.

- Some businesses rely on on-street parking, so develop a back-up plan for nearby off-street parking if the municipality imposes a parking ban on streets (for plows).
- Purchase and be ready to add non-slip water absorption mats to all entrances for your employees and customers to capture water and snow as they enter your business and to minimize slips and falls.
- Test/practice the plan.

Check out for **Open for Business**, a free, easy-to-use business continuity planning toolkit available from ICLR under licence from the Insurance Institute for Business and Home Safety. See [www.iclr.org/small-business/](http://www.iclr.org/small-business/)



## Check your insurance coverage and inventory valuable equipment

- Know what your insurance covers and what it does not cover.
- Keep your insurance provider's contact information in your phone.
- If you have a loss due to a winter-related event, you'll have to itemize your losses for your insurance company. Take a complete inventory of your business and store it somewhere safely offsite.

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**NOTE:** Check in with tenants regarding any maintenance requests or building concerns they may have. Living or working in your commercial property means they are on constant alert to their surroundings. If they see, hear, or smell something, ask that they say something.



Adapted from 'Nine budget friendly ways to prepare your commercial building BEFORE the winter season' by the Insurance Institute for Business and Home Safety (IBHS) with sincere thanks.

### Institute for Catastrophic Loss Reduction

#### Mission

To reduce the loss of life and property caused by severe weather and earthquakes through the identification and support of sustained actions that improve society's capacity to adapt to, anticipate, mitigate, withstand and recover from natural disasters.

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