



## **Question of the Month: How does the weather affect my building and what can I do about it?**

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As far back as I can remember, I have not experienced a winter as cold as this winter. According to the meteorologists, this has been the coldest winter since 1939. Last year, we had an overabundance of snow, and currently we are getting blasted with cold arctic air. If you are a landlord or an owner/occupant, severe cold temperatures do have a deteriorating effect on your commercial buildings.

The sections of the buildings that are most directly affected are the roofs, parking lots, driveways and sprinkler systems. In addition, excessive cold weather has damaging effects on the exterior walls for which water freezing between the brick and the block can result in separations.

Let's begin with the most important part of the building.

### **The Roof**

If properly maintained, inclusive of annual preventive maintenance, a roof can last 15 to 17 years. A critical component to a roof's life expectancy is proper water drainage from the roof. If the roof is not pitched properly, the water will remain on the roof and settle in the most minor crack. Then, when the temperatures drop, the freezing water will expand and the "minor" crack will become larger and further penetrate the roof during the cold winter months. Unfortunately, once a leak is detected, the repairs cannot be completed until you have to have a dry surface with no snow, ice or no water in order.

Besides having a roof properly pitched so that the water drains properly, the right drainage is important. The best method is to have built-in interior roof drains. By using interior roof drains, the water will not freeze inside the drains or back-up and remain on the roof. Another, less expensive construction option is to have outside drains. With this option, drain pipes are installed to run along the outside wall of a building, whereby the water will freeze with dropping temperatures without any drainage. While there is no quick and easy fix, proper annual maintenance and seal coating will help protect a roof and support longevity.

### **Parking Lots and Driveways**

The same premise holds true for parking lots and driveways. The water has to drain off. If not, standing water will find its way through the cracks, freeze and expand, and when subject to truck and car traffic, the asphalt will weaken, loosen and potholes will result. An effective drainage system from the driveways through the parking lot, coupled with preventive maintenance of these areas, include annual seal coating, can help mitigate potential problems.

### **Building Sprinkler Systems**

As we all know, sprinkler systems burst as a result of dropping temperatures. Roof leaks, as well as parking lot and driveway potholes can be a walk in the park compared to the results of sprinkler-related damage. A simple solution is to make sure the building's temperature is set

between at least 40 to 45 degrees. To ensure your heating systems are in good working order, have an annual maintenance contract with your preferred HVAC contractor. For those with an oil-fired system, common causes of system breakdowns are clogged nozzles or belt pulley becoming loose or breaking. I always recommend that gas-fired systems be used whenever available. Gas-fired systems are clean-burning and require less maintenance. For those who would want to convert to gas, there are incentive programs for the purchase of the equipment, and in some cases, abatement programs as well.

Finally, to avoid or to minimize the exterior walls from cracking or, in extreme cases, giving away from the block and collapsing, make sure that no water gets between the brick and the block during the winter months. Proper drainage off the roof certainly will minimize this potential problem as will the next level of prevention, to treat the walls with silicone.

The good news is that by the time you read this article, spring will be upon us. So save this information and revisit it between spring and the end of fall. Take note of the recommended maintenance suggestions to avoid large, costly problems and protect your real estate investment. Stay tuned...

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