

Avoiding Frozen or Burst Water Pipes

Every winter the Village experiences a number of homes that suffer from water damage caused from frozen water pipes bursting. This occurrence usually takes place in homes that are left unoccupied for extended periods of time during the winter months, where the thermostat is turned down too low, or in some cases, turned off completely!

- You should never turn your furnace off when you leave your home in cold weather.
- It is wise to leave your thermostat set closer to 70 degrees while you are gone.
- If you plan to be away for extended periods of time always make sure your furnace is in good working order by having it serviced before you leave home.
- If you plan on extended vacations you should seriously consider having a backup generator installed to power your furnace and other essential equipment in case of a power outage while you are gone.

What is a burst pipe and how do I avoid this?

Pipes “burst” when the water contained in them is exposed to freezing temperatures and the water starts to turn into ice. The formation of ice causes expansion. That expansion can cause fractures, splits, and breaks in the pipe commonly referred to as a pipe “bursting.” As the ice thaws water leaks into the home from those fractures.

The water in your plumbing pipes is susceptible to freezing when the home’s heat is unable to keep the temperature of the water in the pipes from reaching the freezing point. This can occur from improper or too little insulation, air leakage points in the home, poorly located plumbing pipes such as those in outside walls and garage ceilings, or inadequate heating equipment.

To compensate for risks to your pipes during unusually cold periods:

- Your thermostat should never be lowered, but kept close to a constant 72 degrees,
- sink cabinet doors should be left open to aid in air circulation around water piping,
- Every attempt to add insulation and seal every leaky area in your home should be made, preferably prior to the onset of the winter season.

In severely cold weather, it can sometimes be quite easy to detect leaks or drafts merely by touch or feel. A home energy audit can help in detecting areas of air leakage in your home, especially the more difficult to find leaks. Hoffman Estates offers home energy assessments for a nominal fee with a potential rebate. Call 847-781-2638 for more information about this program.

Allowing all of your faucets to trickle water can prevent freeze-ups in many cases. If you won’t be away from home too long this may be the simplest solution. Simply turn the faucets on to a fast drip or slow trickle during the periods of time that you won’t be home or able to monitor the situation.

Another option is to provide temporary heating for your home. The Village does not recommend using fuel burning heaters to heat your house but if you choose to do so, you must carefully follow the manufacturer’s instructions regarding proper ventilation and separation from

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combustible materials. **Every house and room is different and there are serious risks involved with using temporary kerosene, propane, or other fueled heating devices indoors.** Guidance from a professional is strongly recommended if you are considering use of a temporary fuel burning heater. The use of electric heaters powered by generators is much safer when proper clearances to combustibles are maintained.

If you will not be home during the winter months:

The most reliable way to prevent pipes from damage by freezing is to drain the water from the pipes. To do this: 1) shut off the main water supply, 2) turn off the water heater, and 3) open all faucets in your home. The more water that drains out; the more room the ice formation has to expand, the less likely the expansion caused by freezing will break the pipes. This does not guarantee all water will be removed and a pipe can still contain some water but the possible damage will be significantly reduced. For this reason the furnace still should not be turned off. It is also a good idea to wrap insulation around the pipe from where it enters your home to the shut off valve. Usually the temperature of the ground outside your foundation or concrete floor will keep that small section of pipe from freezing.

To put the water back in service: 1) Turn your main water valve on, 2) Make sure your water heater pilot is lit or follow the lighting instructions on your water heater to light it, 3) Close all of your faucets and 4) Listen and look for leaks. Keep in mind that some small leaks may take some time to become apparent. At the first sign of a leak shut the water off, open your faucets and call your plumber to make the necessary repairs.

If your home is equipped with fire sprinklers

Turning the sprinkler system off or draining it down is not permitted without approval from the Village Fire Department and your homeowner insurance provider. Generally they will not allow the sprinkler system to be shut down unless it is in immediate danger of freezing and then only for the time needed to remedy the situation. You should seriously consider having a permanent generator installed if you intend to be away from your home for extended periods of time during the winter months.

Do not attempt these suggestions unless you are confident that you have the knowledge and ability to successfully perform these tasks. If you are uncomfortable or have questions about draining your pipes, using a generator or using a temporary heat source, you should consult the appropriate professional rather than attempting to do it yourself. Contact the Village of Hoffman Estates Code and Building Department for more information at 847-781-2631.