

## **IRRIGATION SYSTEMS**

Taking care of landscapes helps to make property look great all year long. When landscapes get damaged, most people make repairs in a timely manner to keep things looking good.

Watering the lawn seems harmless enough. Many people take pride in their green grass and how their lawns look. A lot of irrigation systems are set to water lawns automatically.

**HOWEVER, it's important to know that irrigation systems can cause major headaches.**

Watering your lawn incorrectly can cause damage to property. With automatic irrigation systems, it is very easy to over-water. Over-watering causes the ground to be saturated. Over-watering causes puddles in lawns and gardens. Excess watering erodes pavements, paths, gardens and lawns. Standing water also becomes a breeding site for mosquitos. Runoff can affect neighboring properties and create dangers for passersby, such as water standing in curbs, on sidewalks and in streets.

Preventing over-watering is easier than ever. Irrigation systems can typically be fitted with sensors that will cancel watering sessions on rainy days or when the ground is already saturated. These devices can save a lot of worry and headaches.

### **The Foundation**

The foundation is arguably the most important component of a house. If the foundation goes bad, the rest of the house goes bad. Over-watering can saturate the ground to the point water no longer soaks into the ground, instead the water collects against foundations. Water can seep through basement walls, get into holes in cement blocks and soak basement walls and floors. Eventually the wet ground swells and contracts, which can cause the foundation to move or crack. If the foundation isn't well-built, movement and cracks can lead to broken pipes, leaks and more water damage.

### **The Basement**

Excess watering can lead to water getting into basements. This can happen easily if the irrigation system isn't turned off after a heavy rain. As water builds up around windows, doors and vents it can flood the basement. Dangerous molds can grow when there are persistent wet conditions.

### **The Driveway, Sidewalks and Street**

Irrigation water from sprinklers shouldn't be wasted on driveways, sidewalks and streets. Malfunctioning irrigation systems can lead to puddling on pavements, causing two separate problems:

Pavements in Minnesota see all kinds of weather throughout the year. They need to withstand snow, rain and dramatic changes in temperature, so they are built with a slope to direct water off of the surface into a gutter and eventually into a storm sewer system. Paved surfaces are designed to minimize the amount of water that can seep through the pavement.

Misplaced or broken sprinklers, irrigation lines and leaking hoses can direct a lot of water into a small space in a short time. Sprinkler heads can deliver six gallons of water every minute. Even drip irrigation hoses can leak five gallons of water per day. Excess water usually ends up in curbs, on driveways and sidewalks or on streets.

Accumulated water adjacent to pavements will end up causing damage. Excess water penetrates the pavement, gets below the paved surface and softens the base layer. As the base layer softens, the pavement is structurally weakened. Saturated soils compact and sink, resulting in settled pavement, cracks, potholes and grooved gullies in the pavement. Repairing this kind of damage is very expensive.

To ensure proper drainage, sprinkler heads must be aimed away from pavements. If any water from the irrigation system accumulates on adjacent pavement, nearby sprinkler heads should be capped, repaired or replaced. Having a professional regularly inspect the irrigation system for leaks can also help to prevent damage.

Safety hazards and potential accidents can be caused by over-watering or malfunctioning irrigation systems. Whenever travelers have to deviate from established paths to avoid spraying water or, when they stay in their lane, hydroplane while driving through standing water, significant traffic hazards are created. Slippery conditions can be present when algae grows in wet areas. People that swerve to avoid these situations often end up unexpectedly turning into traffic.