

Residential Sprinkler System Considerations

The 2015 Minnesota Building Code is scheduled to become effective January 24, 2015. A new requirement in the code update is fire sprinklers in certain housing types and sizes, including:

- Two-family dwellings
- Townhouses
- Single family dwellings of 4,500 square feet or more (including all floors and basement but excluding garage area)

The residential sprinkler requirements are part of both the International Residential Code and International Building Code. Minnesota has adopted these national standards.

What are the primary benefits of a residential sprinkler system?

- Resident Safety: A sprinkler system can contain a fire and offer protection when a smoke alarm may not be enough, such as when residents are disoriented, unconscious, or not mobile. In the case of attached housing, it also provides an extra measure of safety from fire risks in an adjacent home.
- Firefighter Safety: Modern construction materials burn (and sometimes melt) faster than building materials used in the past; sprinklers protect the structural integrity during a fire, improving safety for fire fighters.
- Minimize Property Damage: Smoke alarms alert occupants but do not extinguish fires. Sprinklers are “zoned;” intense heat triggers sensors in individual sprinkler heads. If a fire is contained to one area of the home, only the sprinklers in the affected room(s) will discharge. The rate of discharge from a sprinkler head is approximately 20 gallons per minute. A fire hose discharge is approximately 250 gallons per minute. Research from FM Global and HFSC finds automatic sprinklers can reduce fire damage by up to 97%.
- Other considerations: When a sprinkler system is in place, the builder will not be required to sheetrock the ceiling on the lower level, and may leave foam board insulation exposed if desired.

Are sprinklers required in all homes? No. The building code change requiring sprinklers affects:

- Two-family dwellings
- Townhouses
- Single family dwellings of 4,500 square feet or more (including all floors and basement but excluding garage area)

Based on recent construction history in the City of Moorhead, 10% - 15% of single family homes are estimated to be affected.

What is the cost of a residential sprinkler system?

The cost of a residential sprinkler system will vary. Nationally, sprinkler system costs have ranged from \$1.50 - \$3.00/sprinklered square foot. It is estimated sprinkler systems can often be installed in one to three days and local subcontractors are expected to be able to meet local demand.

Can I get a discount on my homeowners' insurance policy when my home has a sprinkler system?

According to a survey conducted by the Insurance Federation of Minnesota in April 2014, individual companies are offering annual premium discounts ranging from 4% to 13%.

Do sprinklers go off by mistake? Individual sprinkler heads will activate only in areas that experience a significant heat change. Sprinklers do not operate in response to smoke, cooking vapors or burned food, steam, or an activating smoke alarm. Systems are designed with a control valve in the basement so the system can be shut off in the unlikely event of accidental discharge.

How are sprinklers affected by our cold climate? Home sprinkler systems have been proven to work properly in cold regions. Sprinkler lines should be installed with the same care and consideration as other plumbing lines and maintained at similar temperatures (above 50 degrees).

Are residential sprinkler systems in demand by home buyers? Some real estate professionals cite peace of mind and resale value as additional benefits of residential sprinkler systems, and note that there is a growing consumer demand for this home feature. The [Home Fire Sprinkler Coalition](#) website includes [testimonials from Realtors](#) and other information about resale value of homes with residential fire sprinklers.

More information for consumers, homebuilders, and real estate professionals:

www.homefiresprinkler.org