



City of White Bear Lake  
Building Department  
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## **FIRE SUPPRESSION SYSTEMS**

This handout is a summary of the permit & inspection process. All Sprinkler systems must be designed and installed per current applicable standards to meet the minimum requirements of the Minnesota State Fire Code (MSFC) and NFPA standards.

### **Permit Submission Requirements:**

- A completed permit application signed by a state licensed sprinkler contractor
- Provide 2 sets of hard copy plans or electronic plans to [buildingdepartment@whitebearlake.org](mailto:buildingdepartment@whitebearlake.org)
- Provide 1 set of hydraulic calculations for each areas of sprinkler design
- Provide equipment data sheets on all material being used for installation of the system
- For jobs of 10 heads or less, only a completed permit application is required

**Fire Suppression Permit Fees:** See the White Bear Lake Fee Schedule at [www.whitebearlake.org](http://www.whitebearlake.org)

### **Licensing Requirements:**

- Contractor must be licensed in the State of Minnesota

### **Inspection Requirements:**

- A 24-hour notice to the Fire Department is required for inspections and witnessing tests. Call 651-762-4842 to set up all inspections.
- Rough In Inspection
- 2 hour, 200 psi wet pressure test
- 24 hour, 40 psi air pressure test for dry systems
- Main drain and alarm test
- NFPA 13 contactor's material and test certificate for above piping paperwork.
- Permit and one set of approved plans for work must be kept at the site or inspections will not be performed.

### **Information and Guidelines:**

#### **Installation Requirements:**

- All areas of a building shall be sprinklered including: attics, electrical rooms, under stairs, under overhead doors, each landing in stairwell, concealed combustible areas, elevator mechanical rooms, etc.
- Main drain and primary inspectors test must terminate at the exterior of the building.
- The maximum height of indication control valves and main drains shall not exceed 6 feet. You should be able to read all gauges from the floor.
- All systems that are in areas subject to freezing are required to be continuously heated and have a low temperature alarm installed that will read a supervisory signal at the alarm panel.

### **System Components and Hardware:**

- Fire Department connection shall be a minimum of 15 feet from gas meter and electric transformers.
- Fire Department connection shall be a minimum of 2 feet above grade, maximum 4 feet above grade.
- All indicating control valves and risers shall have permanent signs identifying the area of the building that is controlled by that valve or riser.
- Power supply breakers for all alarm systems components must have approved locking devices to prevent the accidental disconnection of power.
- A control valve will be required on all flammable storage rooms, hazardous materials storage rooms, spray booths, hoods, and other locations involving special consideration.
- Control valves are required before and after the check valve on systems that are combination domestic and fire served by one underground line.
- All indicating control valves must be secured and electronically supervised.

### **Monitoring and Alarm:**

- Separate plans and permit are required for all fire alarm systems.
- Systems with 20 or more heads must be equipped with central station monitoring service.
- All sprinkler systems containing air pressure shall have the air pressure electronically supervised.
- Test the flow switch retard setting with the inspector's test; 30-60 second retard setting is required.
- Dry valve trip test-water to flow from inspector's test within 60 seconds on systems containing more than 750 gallons. Accelerators and/or exhausters will be required if the 60 second requirement is not met.

*This document is for informational purposes only and not intended to address every situation for the permitting and plan review process.*

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