Chanhassen Fire Department
FIRE PREVENTION BUREAU
7700 Market Blvd. PO Box 147
Chanhassen, MN 55317
Ph. 952.227.1150 Fx. 952.227.1190

CHANHASSEN FIRE DEPARTMENT POLICY
FIRE SPRINKLER SYSTEMS

1. Extinguishing systems for kitchen hoods, spray booths and similar locations require a separate permit. Permit fees are based on valuation of work, and are determined by Chanhassen City Ordinance Article II, Section 4-30. They are available by calling Chanhassen Building Inspections at 952-227-1180.

2. A minimum of two sets of plans are required. Send or drop off plans and specifications and calculations to:

   Fire Inspections
   Attn: Fire Marshal
   City of Chanhassen
   7700 Market Boulevard
   P.O. Box 147
   Chanhassen, MN 55317

3. Calculation sheets and specification sheets may be submitted by electronic media.

4. If post indicators are provided they must have tamper protection.

5. All system tests must be witnessed by the Chanhassen Fire Marshal. Appointments can be made by calling the Fire Marshal at 952-227-1151 between 8:00 AM and 4:00 PM, Monday through Friday. Please try to arrange tests at least 24 hours in advance.

6. Main drains and inspector test connections must be piped to the outside atmosphere.

7. Water may not be introduced into sprinkler piping from the City main until the Fire Marshal witnesses a flush test per 2010 NFPA 13 10.10.2.1.

8. The City of Chanhassen has adopted Chapter 1306 including item E1 of the Minnesota State Building Code.

9. The entire sprinkler system must be designed and installed per current applicable standards, i.e. 13, 13D, 13R and current Minnesota State Building Code, Chapter 9.

10. All equipment installed in a fire protection sytem shall be UL listed or factory mutual approved for fire protection service.

11. Fire protection systems that are hydraulically calculated shall have a 5 psi safety factor at maximum system flow.

12. Include spec sheets for fire sprinkler heads-dry pipe/pre-action valving, back flow preventers.

13. The definition of inspection is contained in MN Rule 7512.0100 Subpart 10, and states that inspection means:

    - Conducting a final acceptance test.
    - Trip test of dry pipe, deluge or pre-action valves.
    - A test that an authority having jurisdiction requires to be conducted under the supervision of a contractor. Only licensed fire protection contractors are permitted to conduct these tests.
    - All other inspections including the inspector's test, main drain and other valves are permitted under MN Rule 7512.0400 Subpart-2G, as maintenance activities and do not require a license as a fire protection contractor.
    - Rough-in inspection required if piping or hangers will be concealed.
    - 2 hour 200# wet pressure test including the fire department connection.
    - 24 hour air pressure test (for dry systems only).
    - **System must be 100% tested prior to calling for inspection.**
    - 2 hour 200# west pressure test of dry pipe systems.

14. A UL 72 certificate is required for sprinkler monitoring.

15. A zone map will be required for all multi-riser systems. The map must be permanently mounted adjacent to the sprinkler riser.

16. On Spec Warehouse (S1 or S2 Building Code Occupancies) projects:

    - Ordinary group 2 designs will be accepted for the shell building.
    - Upon tenant finish, a review for storage height and commodity class will need to be reviewed for proper sprinkler protection.

17. Backflow prevention: See attachment from the Minnesota Department of Labor and Industry.

18. Sprinkler contractor is responsible for choosing the appropriate density and for the accuracy of hydraulic calculations.

19. Sprinkler systems with specialized design criteria (i.e. high pile storage, flammable liquids) must include a code analysis of the proposed design including specific code references.

20. Exterior combustible decks on R-1 apartment buildings shall have sprinkler protection above.

21. 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.

22. Dry pipe systems will be inspected to ensure that flush or tri-seal gaskets will be used.

23. Additional signage is required. A general information sign meeting the requirements of Section 24.6 (NFPA 13, 2010) shall be installed.

24. Aluminum plugs with chains are required on the FDC.

25. Water flow data for hydraulically-designed fire protection systems shall be less than three-years old.

Revisions 6/10/02
3/22/05
6/20/07
5/2/08
2/15/10
3/20/13
1/08/15
5/29/15
4/17/17

443 Lafayette Road N.
St. Paul, Minnesota 55155

MINNESOTA DEPARTMENT OF LABOR & INDUSTRY

(651) 284-5067
www.dli.mn.gov/Plumbing.asp

What you need to know about backflow protection and fire sprinkler systems in the new 2015 Minnesota Plumbing Code

This information sheet provides some highlights relating to building water supply backflow requirements and transitional guidance relating to the installation of fire protection systems. This is not intended to be a comprehensive list of the Code. To access the plumbing code, please visit http://www.dli.mn.gov/CCLD/codes15.asp

Backflow Protection (Chapter 4714, section 603.5.15)

1. Low hazard fire sprinkler system application (wetted system without introduction of any chemicals) connected to the building water supply system must be provided with a double check valve assembly (DC). *A single detector check valve is no longer acceptable under this code.*
2. High hazard fire sprinkler system application (with introduction of inhibitors, chemicals, etc) connected to the building water supply must be provided with a reduced pressure zone backflow assembly (RP).
3. Fire department connections (FDC) with secondary nonpotable water sources taken from river, lakes, or fire trucks carrying unsafe or treated water must be provided with an RP backflow device. The local fire department should also be consulted for determination of proper backflow protection.
4. *Exception:* One-or two- family dwellings or townhouse buildings with stand-alone residential fire sprinkler systems (separated from the domestic water supply system via a "tee" connection) may continue to have a single check valve if the fire protection system is piped with materials approved in the new plumbing code for potable water piping.

Types of Backflow Devices (Chapter 4714, Table 603.2)

1. Acceptable double check assembly (DC).
   a. Double check detector fire protection backflow prevention assembly must be listed to ASSE 1048; or
   b. Double check valve backflow prevention assembly must be listed to ASSE 1015, AWWA C510, or CSA B64.5.1)
2. Acceptable reduced pressure zone (RP)
   a. Reduced pressure reduced pressure detector fire protection backflow prevention assembly zone must be listed to ASSE 1047; or
   b. Reduced pressure principle backflow prevention assembly must be listed to ASSE 1013, AWWA C511, CSA B64.4 or CSA B64.4.1
3. Installation of DC and RP devices must be in accordance with the manufacturer's installation instructions and provided with minimum of 12 inches above finished floor for maintenance.

Testing of Backflow Devices (Chapter 4714, section 603.5.23)

1. DC and RP devices must be tested and inspected annually, and notifications of installation are required.
2. DC and RP devices must be tested by a DLI certified backflow prevention tester. For more information about this, see http://www.dli.mn.gov/CCLD/PlumbingBackflow.asp

DLI Code Transition Guidance

1. Fire sprinkler systems reviewed and approved under the existing 2012 plumbing code, Chapter 4715, prior to January 23, 2016, can proceed with construction in accordance with the approved plans and permit application.
2. Fire sprinkler systems designed and date stamped by the designer prior to January 23, 2016, can be submitted for review and approval for permit application under the existing 2012 plumbing code, Chapter 4715.
3. Large projects currently under design to the existing plumbing code, Chapter 4715, and will be signed by the designer after the effective date of Jan. 23, 2016, a reasonable extension may be requested through the Authority Having Jurisdiction.
4. Fire sprinkler systems designed after January 23, 2016, backflow protection must be designed to meet the new plumbing code, Chapter 4714.