



Standard for NFPA 13D Fire Sprinkler Systems

1. SCOPE

This standard covers the permitting, installation, inspection, testing and maintenance of NFPA 13D residential fire sprinkler systems in the City of Marysville as administered by the fire marshal. Fire sprinkler systems shall meet the requirements of the currently adopted codes and standards, unless specifically amended or noted otherwise, and as approved by the AHJ:

- A. NFPA 13D sprinkler systems installation standards.
- B. The International Fire Code (IFC) as amended by the city and state.
- C. The Marysville Municipal Code (MMC) [Chapter 9.04 FIRE CODE](#).

2. DESIGN REQUIREMENTS

- A. System designer qualifications shall comply with [WAC 212-80-018](#).
- B. All plans and calculations shall be stamped with a valid Washington State certificate seal identifying the appropriate level of competency.
- C. For new construction, systems shall be installed as NFPA 13D multipurpose piping sprinkler looped systems with a minimum of 2 interconnections to domestic appliances and at least 1 per floor.
- D. Backflow preventers are prohibited from all new construction unless otherwise approved.
- E. A single control valve shall be arranged to shut off both the domestic system and the sprinkler system. Sprinkler Control Valve signage shall be provided.
- F. A drain shall be installed on the system side of the domestic shut-off.
- G. A minimum of one sprinkler head shall be installed on the garage side of the door leading into the residence from an attached garage.
- H. Dead-legs or arm-overs shall not exceed six times the pipe diameter in distance from an active water main. (Ex. a dead leg cannot exceed 6" in distance from a 1" main loop)
- I. Designate most hydraulically demanding heads for a two head and one head bucket test.

3. SUBMITTAL REQUIREMENTS

- A. Working isometric plans of the system in a digital format shall be submitted for review.
- B. Hydraulic calculations are required for all new systems or modifications exceeding five heads. Request flow data from Ryan Keefe: RKeefe@marysvillewa.gov 360.363.8168
- C. Data sheets for all system components.
- D. Completed permit application through the City of Marysville.

4. PERMITS

A fire permit is required for all installation and modification work. The application for a fire construction permit is available on the City of Marysville's permitting [portal](#). Approved plans and permit inspection cards shall be available onsite for the permitted work. A permit is only valid for the contractor and work designated by the permit.

5. CONTRACTOR LICENSING

Contractors must be WA state licensed per [WAC 212-90-018](#) or [WAC 212-90-015](#) Proof of licensing shall be available onsite for all workers performing installation.

6. EMERGENCY REPAIR WORK

A permit is required for repairs. Emergency repairs may begin without a permit provided the system configuration is not altered and a permit application is submitted the next working business day. A fire inspection is required for final approval of all repair work.

7. UNDERGROUND PIPING & WATER METER

- A. Supply piping shall be flushed until clear of any debris prior to above ground tie in.
- B. Per City of Marysville Water Dept.: *"Install the water service per Standard Plan 2-090-001 Full 3/4" x 1" Meter Service. Under this plan a 1" tap is made at the water main and 1" piping is run to the 1" meter setter. If in the end a 3/4" water meter will suffice then all that is required is to install two reducer bushings with the 3/4" water meter. A single service tap should be used where sprinklers are required, not a double service installation."*

9. INSPECTIONS

Fire inspections are required from the Marysville Fire District (MFD) for permitted work.

- A. **Scheduling Instructions:** please use the permit portal with the City of Marysville to request all fire inspections via the permitting [portal](#). MFD will contact you to confirm appointment time. If you are not contacted by 5pm the business day prior to the requested date, or if you need to reschedule, please call (360)363-8525 and leave a voicemail.
- B. Approved plans and permit inspection cards must be available on-site during inspections. The installing contractor shall pretest all systems prior to requesting an inspection. If fire code violations are noted, correction will be required for approval, and a re-inspection fee will be assessed via permitting services.

Each system is allotted two inspections by MFD:

1st Inspection: Rough in, hydrostatic test, tenting, and bucket test.

2nd Inspection: Final* (leave trim / concealment covers off for sprinkler head visualization, unless otherwise approved).

*Note: For final inspections, appointment times are not provided *unless specifically requested*. Inspector will arrive on the day of the requested inspection during regular business hours. You will be contacted only if inspection is not available on the requested day. Check the permit portal to confirm receipt.

Please leave permit and approved plans on the counter inside the house or other approved area.