Village of Glen Ellyn

Fire Protection Information Sheet

(Residential Fire Sprinklers)

Date of Submittal: _____

Address of Project: _____

Fire Protection Contractor:

Company_____ Contact Person _____

Address_____

Telephone_____ Fax _____

General Contractor/Builder:

Company_____ Contact Person _____

Address_____

Telephone_____ Fax _____

Sprinkler Heads for project:

Manufacturer_____ Sprinkler Identification Number (SIN)_____

Manufacturer_____ Sprinkler Identification Number (SIN)_____

Manufacturer_____ Sprinkler Identification Number (SIN)_____

Manufacturer_____ Sprinkler Identification Number (SIN)_____

Manufacturer_____ Sprinkler Identification Number (SIN)_____

Documents required for submission:

(1) Copy information sheet (this document)

(3) Copies of sprinkler shop drawings showing sprinkler and piping locations, piping materials, building cross section, and calculation nodes. Drawings must include list of sprinkler head data including manufacturer and SIN, designed maximum head spacing, and maximum distance between h.s.w. deflector and ceiling.

(1) Copy of hydraulic calculations. Note: 2-head calculation is required unless compartment is covered by only 1 head.

(1) Copy catalog cut sheets for sprinkler heads, backflow preventer, and any specialized items.

Upon approval and permit issuance, 2 copies of shop drawings shall be stamped and returned to the applicant. Excess documents shall be discarded.

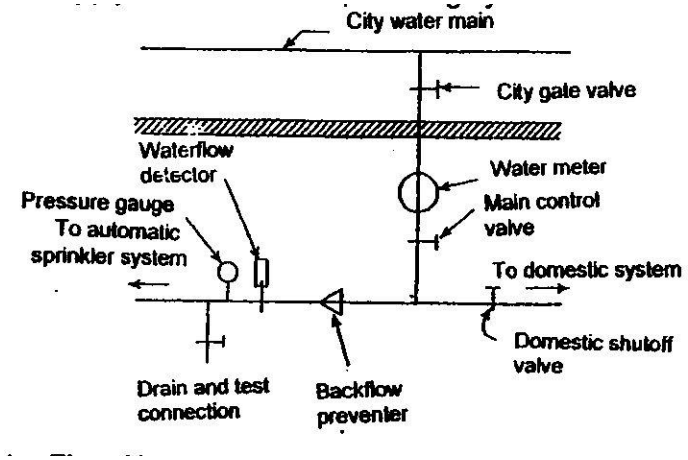
Local Requirements

Design Standard

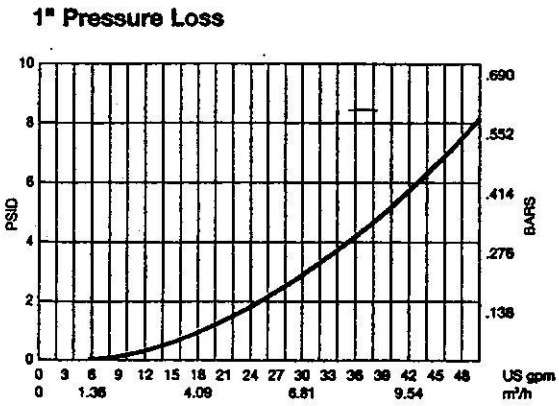
Fire sprinkler systems for single family homes are required to meet the requirements set forth in National Fire Protection Association (NFPA) Pamphlet 13D "Standard for the installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes," 1999 Edition.

Water Connection Arrangement

Residential fire sprinkler systems connect to the public water supply after the water meter. A minimum of a 1" water meter is approved for homes with fire sprinkler systems. Shut-off valves shall be arranged such that it shall be impossible to turn off the water supply to the fire sprinkler system without shutting off the water supply to the domestic plumbing system.



Typical arrangement



Neptune T-10 water meter

Water Flow Alarm

All systems shall be equipped with a water flow alarm consisting of the following as a minimum:

- Water flow detector which activates within 1 minute of water flow from the smallest sprinkler orifice in the system.
- Inside bell six inches in diameter, mounted to the (exterior of) home's furnace return duct. In the event that a home as more than one furnace, a separate bell shall be required for each furnace return duct. *As an alternative to bells, a combination horn-strobe may be located in the building's interior. Horn strobes shall be located to insure that one is within 20 feet of all sleeping rooms.*
- Outside bell ten inches in diameter mounted on the street side of the building. (for the purpose of locating the bell, a side wall within 6 feet of the front of the building will meet this requirement.) *As an alternate, a weatherproof combination horn-strobe may be used in lieu of the ten inch bell.*
- Power for alarm bells shall be on a separate circuit from any fire pump. If a dedicated circuit is used for alarm bells, a locking clip shall be installed on the circuit breaker to insure that it is not inadvertently turned off.
- Connection to a central station alarm system is encouraged, but not required.

Backflow Prevention

The Illinois Plumbing Code requires that fire safety systems employ a Double Check Valve assembly. If the system utilizes antifreeze, a Reduced Pressure Zone (RPZ) assembly is required.

Fire Pumps

Fire pump shall be approved only upon documentation that no other options exist such as reduced spacing, increased pipe sizing, and additional risers. In the event that a fire pump is utilized in a NFPA 13D sprinkler system, the pump is not required to be listed for fire protection use. Electrical power for fire pumps shall be supplied by a dedicated circuit. This circuit shall not supply any other equipment including alarm bells. The circuit breaker shall be equipped with a locking clip to insure that it is not inadvertently turned off.

VILLAGE OF GLEN ELLYN

RESIDENTIAL SPRINKLER CONTRACTOR'S MATERIAL AND TEST CERTIFICATE

To Be Submitted at Time of Final Inspection

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system shall be left in service before the contractor leaves the job. A certificate shall be filled out and signed by all representatives. Copies shall be prepared for approving authorities, owners and contractors. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY ADDRESS _____ DATE _____

INSTALLATION CONFORMS TO APPROVED PLANS: YES ☐ NO ☐

							COVERAGE
SPRINKLERS	MAKE	MODEL	YEAR	ORIFICE	QUANT.	TEMP	AREA

PIPE AND FITTINGS	TYPE OF PIPE	MANUFACTURER	ADHESIVE	

FLOW INDICATOR	TYPE	MAKE	MODEL	TIME TO OPERATE
				MIN SEC
				MIN SEC

TEST DESCRIPTION	HYDROSTATIC TESTS SHALL BE MADE AT NOT LESS THAN 100 PSI FOR TWO HOURS OR 50 PSI ABOVE STATIC PRESSURE IN EXCESS OF 50 PSI FOR TWO HOURS	
	DRAIN TEST INVOLVES THE RECORDING OF STATIC PRESSURE AND RESIDUAL PRESSURE WITH TRIP TEST VALVE FULLY OPEN	
TESTS	HYDRO	ALL PIPING HYDROSTATICALLY TESTED AT ____PSI FOR ___ HOURS
	DRAIN	STATIC PRESSURE _____PSI RESIDUAL PRESSURE _____PSI
	ALARM	ALARM DEVICE MAXIMUM TIME TO OPERATE: _____MIN _____ SEC
SPARE HEADS	PROVIDE THREE SPARE SPRINKLER HEADS OF EACH TYPE INSTALLED IN SYSTEM SPARE HEADS PROVIDED _____YES _____NO	
DATA LABEL	INFORMATION LABEL PROVIDED AT RISER LOCATION _____YES _____NO	
	INFORMATION PACKET PROVIDED AT RISER LOCATION _____YES _____NO	
VALVES OPEN	DATE SYSTEM LEFT IN SERVICE WITH VALVES OPEN _____	
CERTIFICATION	SPRINKLER CONTRACTOR	
	ADDRESS	
	TELEPHONE	
	FITTER NAME SIGNATURE	
SIGNATURES	FOR PROPERTY OWNER DATE	
	FOR GENERAL CONTRACTOR DATE	

Residential Sprinkler System Periodic Maintenance and Inspection Schedule

Based on NFPA 25, 77 Illinois Administrative Code, Part 890

Monthly	Pressure gauge	Visual Inspection	Verify proper pressure
	Control valves	Visual Inspection	Verify valves are open
Quarterly	Alarm devices	Functional Test	Operate water flow detector and alarm bells. Test all smoke detectors
	Main drain	Functional Test	Compare static and residual pressures to those recorded on data sheet
	System data sheet	Visual Inspection	Verify data sheet is present and legible
Annually	Sprinklers	Visual Inspection	Check for damage or painted heads
	Pipe and fittings	Visual Inspection	Check for damage or leaks
	Hangers	Visual Inspection	Check for missing or damaged hangers
	Spare sprinklers	Visual Inspection	Check for spare sprinklers
	Antifreeze solution	Functional Test	Test freezing point of antifreeze solution (if system is equipped with antifreeze)
	Backflow preventer	Functional Test	Inspected and tested by a state licensed cross-connection control device inspector.
After 50 years	Sprinklers	Replace	Replace all sprinkler heads
Or			
After 50 years and every 10 years thereafter	Sprinklers	Functional Test	Representative test of 1% but not less than 4 sprinkler heads.