City of Brooklyn Center
Building and Community Standards
6301 Shingle Creek Parkway
Brooklyn Center, MN 55430
Phone 763-569-3330 Fax 763-569-3360

Plan Review for Fire Sprinkler and Standpipe System

Please give all applicable information--an incomplete form may delay your permit.

Project name_____ Date_____

Project street address_____

City_____State_____Zip_____

Fire protection contractor name_____

Fire protection contractor street address_____

City_____State_____Zip_____

License no._____Phone_____Fax_____

Date of plan_____Last revision no._____Revision date_____

Engineer=s signature on plan (print name)_____

MN Registration no._____Contractor contact person_____

**Provide specification sheets on sprinkler heads Y N

**Provide MSD sheets on commodities stored Y N

KSITE PLAN:

Underground fire main size	_____	Located and dimensioned	Y	N
City water main size	_____	Circulating	Y	N

Comments this page_____

***K*HAZARD CLASSIFICATION**

Light hazard _____ Description_____

Ordinary group 1 2 3 Description_____

Extra hazard 1 2 Description_____

General storage to 12 ft. height (NFPA 13) Y N Commodity class_____

General storage over 12 ft. height (NFPA 231) Y N Storage height_____

Rack storage (NFPA 231C): storage height_____ In rack heads? Y N

Interior hose station information:

Required Y N Supply from overhead system Y N

Supply from adjacent overhead system Y N Supply is separate piping system Y N

Applicable NFPA standard: □ 13 □ 13R □ 13D □ 231 □ 231C □ other_____

Type of system: □ Wet □ Dry □ Pre-action □ Combined dry/pre-action

□ Antifreeze □ Deluge □ Foam □ Foam/water □ other

System Configuration: □ Tree □ Looped mains □ Grid

System area limitations: Light and ordinary hazard: 52,000 sq ft max_____

Warehouse (general and rack storage over 12 ft) 40,000 sq ft max_____

Extra hazard (calculated) 40,000 sq ft max_____

Extra hazard (non-calculated) 25,000 sq ft max_____

Dry system capacity _____gal Antifreeze system_____gal

System design criteria: density_____ Remote area size_____sq ft

Remote area length determined by: NFPA 13 (1.2/remote area size)_____Other_____

Dry system remote area increased by 30%: (Minimum 1,950 sq ft)_____sq ft

***K*TYPE OF CONSTRUCTION: (NFPA 13, para. A-1-4.6(a), 4-4.1.4.3)**

Type and description of obstructed construction:

Beam and girder (spacing 3-0 to 7-6 ft on center) Size_____Spacing_____

Composite wood joist (spacing less than 3-0 ft) Size_____Spacing_____

Panel construction (beams spaced more than 7-6 ft on center, not over 300 sq ft)

Beam sizes_____ _____ Spacing_____

Comments this page_____

Wood joist construction Size_____ Spacing_____

Concrete twin ATT≅ Size_____ Spacing_____

Other_____

Type and description of unobstructed construction:

Bar joist: Size_____ Spacing_____ Open grid ceilings_____

Smooth ceiling_____ Standard mill construction_____

Wood truss construction size_____ Spacing?_____

Other_____

Above ceiling space used as an air plenum Y N Steel fire-proofed Y N

Fire separation walls/smoke barriers/floor penetrations fire caulked Y N

Draft Curtains Y N Smoke/heat vents Y N

Skylights/glass roofs Y N Ceiling elevation defined Y N

Hanger material defined Y N Overhead pipe over 6" in size Y N

Freezing protection provided for exposed heads Y N

KSPRINKLER HEAD SPACING AND INFORMATION: (NFPA 13, 1991, Table 4-2.2)
(Due to new or possible changes in LISTINGS of sprinkler heads, it may be necessary to review a copy of the latest data sheet of the product.)

Actual head spacing on drawing:

Light hazard _____sq ft per head

Ordinary hazard _____sq ft per head

Extra hazard pipe schedule _____sq ft per head

Extra hazard calculated _____sq ft per head

High piled storage with density below .25 (max 130 sq ft)_____

High piled storage with density over .25 (max 100 sq ft)_____

ESFR sprinkler heads (max 100 sq ft) _____ Large drop sprinkler _____sq ft

Extended coverage upright or pendent _____sq ft per head

Sidewall heads: (Table 4-4.2.1) _____sq ft Extended coverage _____sq ft

Small room rule properly applied: (NFPA 13, A-4-4.1.2.1 Exception) Y N

Other_____

Comments this page_____

Deflector distance below roof or ceiling: (Refer to listing or manufacturer's data sheets for extended coverage and special sprinklers, i.e. ESFR, large drop.)

Unobstructed construction:	Spray heads 1" to 12" (an exception may apply)_____	
	Sidewall heads 4" to 6" (an exception may apply)_____	
Obstructed construction:	Spray heads 1" to 6" under structural member_____	
	(Max of 22" below ceiling/roof deck) _____	

Special considerations:

Minimum 18" clearance from deflector to top of storage: (standard head)	Y	N
Minimum clearance from deflector to top of storage: (special head listing) Clearance_____	Y	N
Temperature ratings identified	Y	N
Heater zones (NFPA 13, 1991, Fig. 4-3.1.3.2)	Y	N
Ventilated attic (165EF)	Y	N
Unventilated attic (212EF)	Y	N
Skylights (glass or plastic), unventilated show windows (212EF)	Y	N
Single level of sprinklers in rack (2" 165EF)	Y	N
Multiple level of sprinklers in rack (2" 165EF with deflector shield)	Y	N

KRISER AND VALVE ARRANGEMENT:

Single wet riser: (FDC connection to system above alarm check or main riser check valve, except on multiple risers or when FDC is at pit)	Y	N
Single dry riser: (FDC connection to system below dry pipe valve and above the main riser gate valve and check valve, except on multiple risers or when FDC is at pit)	Y	N
Multiple system riser valve arrangement with a single lead-in supply: (Refer to latest edition of NFPA 13, Fig. A-4-5.1.1)		
Is the required relief valve shown on a wet grid system?	Y	N
Are water pressure gauges provided above and below the main check valve?	Y	N
Are the inspectors test connection valve and discharge locations acceptable?	Y	N
Are auxiliary drains indicated on secondary mains of gridded system?	Y	N
Are auxiliary drains and discharge for trapped sections of piping shown?	Y	N

Comments this page_____

Does the main drain on the riser go to the exterior for discharge? Y N
If not, why not?_____

Is a double check valve provided? Y N
(No meter or bypass is required)

Is an outside control valve provided? Y N
(Yard or wall PIV)

Other_____

KSTANDPIPE SYSTEM: ***ALow Rise Building≅*** Number of stories_____

Interior hose stations Y N Exterior hose stations Y N

Supply from sprinkler system Y N Separate control valve Y N

Size of sprinkler pipe supplying interior hose stations _____ inch pipe

Size of pipe to interior hose stations _____inch Length of pipe _____ft

Hose station with hose Y N Rack Y N Cabinet Y N

Size of valve: 1.5 inch Y N 2.5 inch Y N 2.5 x 1.5 reducer Y N

Type of nozzle: adjustable_____ straight_____ other_____

Minimum nozzle operating pressure_____psi Discharge_____gpm

Other_____

KSTANDPIPE SYSTEM: ***AHigh Rise Building≅*** Number of stories_____

Height from grade to roof_____ft Pressure gauge at top Y N

Roof manifold piping equipped with ball drip drain Y N

Roof manifold Y N Roof manifold equipped with hose valves Y N

Comments this page_____

Hose valve/cap_____ Pressure regulating type valve_____

Pressure restricting type valve_____ Pressure adjusting type_____

Factory set/non-adjustable_____ Hose valve with hose Y N

Other_____

Types of standpipe system: □ Automatic-dry □ Automatic-wet □ Semi-automatic-dry
□ Manual-dry □ Manual-wet

Class of standpipe system: □ Class I (trained or fire department use)
□ Class II (untrained building occupants)
□ Class III (trained and untrained personnel)

Are valved outlets for a pressure gauge provided on each side of every pressure regulating device to testing and maintenance? Y N

Are manual control valves provided at the base of each standpipe riser? Y N

Is minimum residual 100 psi provided at the top of most remote standpipe? Y N N/A

Class I and III minimum flow rates: most remote at 500 gpm, each additional standpipe at 250 gpm with a maximum of 1,250 gpm required in a fully sprinklered property: Total GPM required_____

Class II minimum flow rate at the top of most remote standpipe: 100 gpm Y N

Standpipe is sized by: □ Pipe schedule □ Hydraulic calculated

KSPECIAL FIRE PUMP AND SUPPLEMENTAL WATER SUPPLY INFORMATION:

□ Public city water supply □ Circulating □ Deadend

Size of main_____in Type of pipe: □ Ductile □ PVC □ Transite □ Other_____

□ Elevated tank Capacity_____gallons

Height to bottom of tank_____ft Year installed_____

□ Ground storage Capacity_____gallons

Diameter_____ft_____in Height_____ft_____in

□ Open reservoir □ Rubberized bladder tank Capacity_____gallons

Other_____

□ Electric driven pump □ Diesel driven pump □ Vertical □ Horizontal

Type of controller_____ Transfer switch provided_____

Gpm_____ Discharge psi_____ Suction pressure psi_____

Comments this page_____