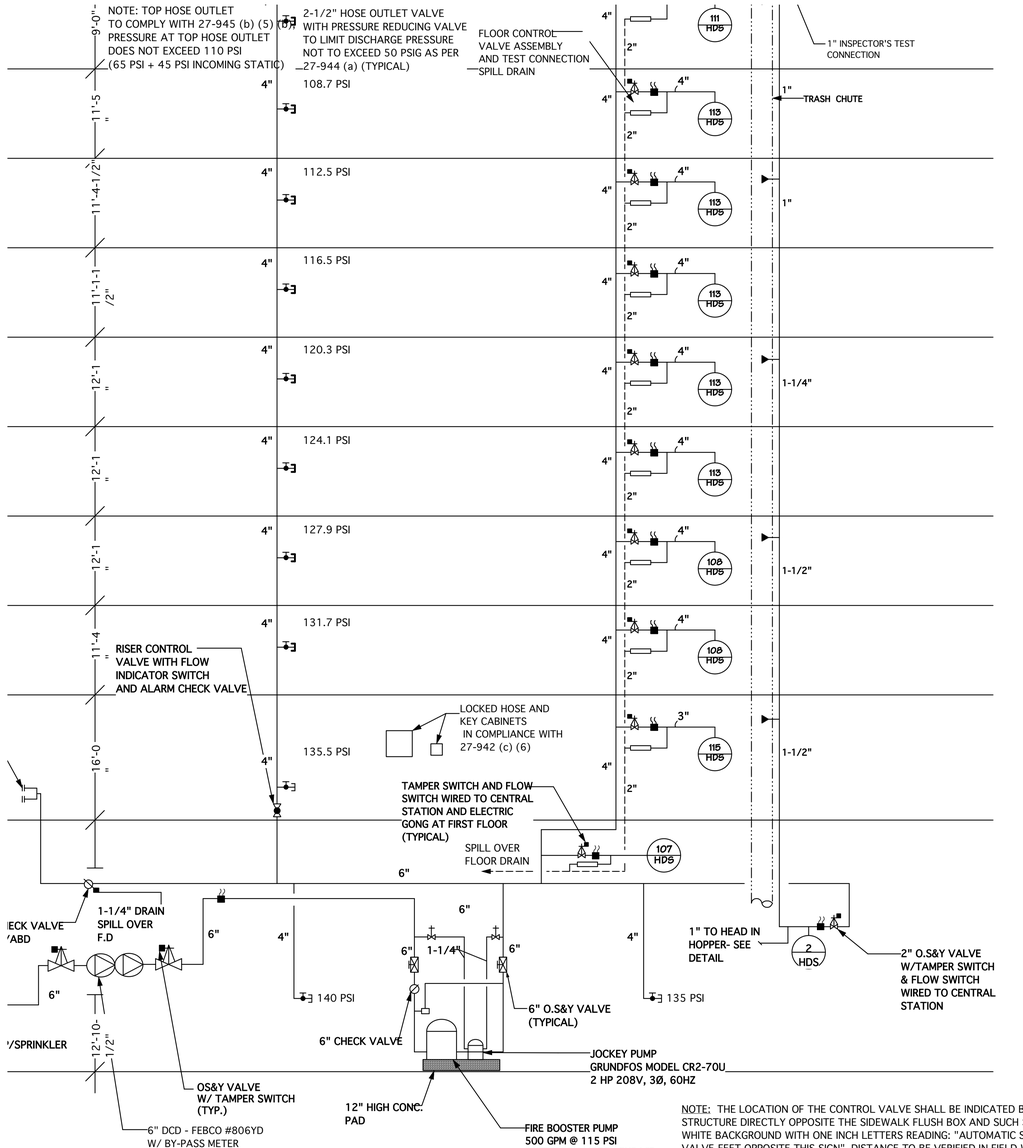
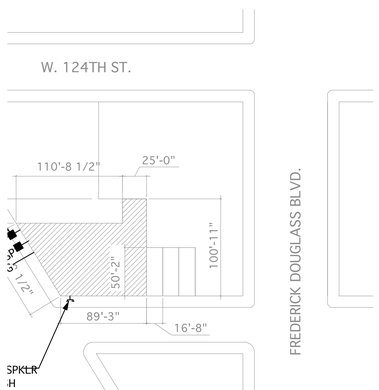


ANDPIPE RISER DIAGRAM

NOTE: TOP HOSE OUTLET TO COMPLY WITH 27-945 (b) (5) (i) PRESSURE AT TOP HOSE OUTLET DOES NOT EXCEED 110 PSI (65 PSI + 45 PSI INCOMING STATIC)

NOTE: FIRE BOOSTER PUMP ELECTRIC SERVICE TO COMPLY WITH 27-945 (b) (5) (c)

NOTE: FIRE/SPRINKLER BOOSTER PUMP TO COMPLY WITH THE REQUIREMENTS OF SECTION 27-946



SPRINKLER CALCULATION

HEIGHT TO HIGHEST SPRINKLER HEAD	128'-4-1/2"	
	X .431	PSI
	55.33	PSI
REQUIRED AT TOP SPRINKLER HEAD	+ 15	PSI
	70.33	PSI
AVAILABLE =	42	PSI

* NOT ACCEPTABLE AS PER 27-963
PROVIDE BOOSTER PUMP

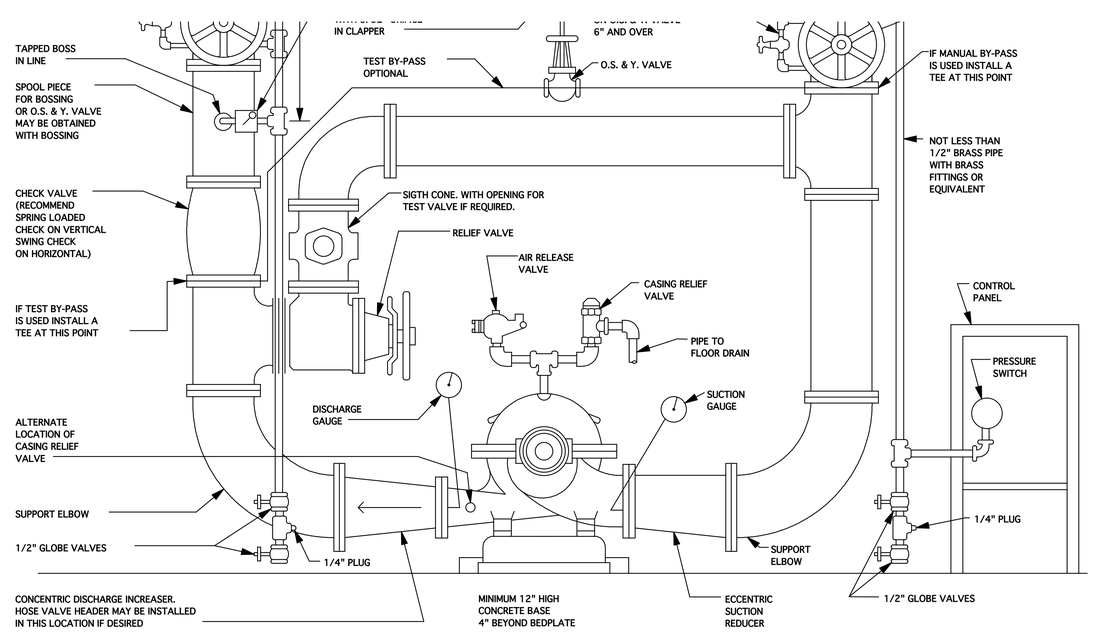
FIRESTANDPIPE CALCULATION

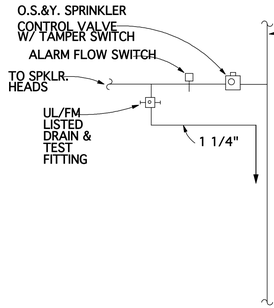
HEIGHT TO HIGHEST HOSE RACK	114'-4-1/2"	
	X .431	PSI
	49.30	PSI
REQUIRED AT TOP HOSE RACK	+ 15	PSI
	64.30	PSI
AVAILABLE =	42	PSI

* NOT ACCEPTABLE AS PER 27-963
PROVIDE BOOSTER PUMP

Fire Standpipe Notes

1.Siamese shall be 3" x 3" x 2-1/2" flush connection of free standing or approved type with separate clapper and chain as per RS 17-1-2.
2.Siamese shall be located 18" to 36" above final grade and be provided metal "STANDPIPE" sign as per RS 17 1-2 (b) and (c).
3.Siamese shall have approved type 3/4" automatic ball drip set in a horizontal position, RS 17-1-2 (e).
4.Hose shall be "flax-line" unlined linen hose coupled in 25 and 50 feet lengths, 27-942 (c).
5. Hose valves shall be approved type 2-1/2" angle globe valve located not more than 6 feet and not less than 5 feet above floor or stair landing, 27-942 (a) and RS 17-1-3.
6.Hose racks shall be approved type, RS 17-1-3 (h).
7.Couplings and nozzles shall be approved type, RS 17-1-3 (f) and (g).
8.Approved 3-way manifold will be located above roof. I f area is not heated a control valve and automatic ball drip in heated space below will be provided, 27-942 (a) (2).
9.Pipe and fittings for Standpipe will be according to RS 17-1-1 All pipe and fittings as approved by Board of Standards and Appeals.
10.Supports will comply with RS 17-1-1.
11.Tests shall comply with 27-951.
12.Frost protection to be provided as per 27-936.
13.Riser location shall comply with 27-936.
14. Install riser control valves as per RS 17-1-1 (c) (3).
15.Combined house and fire tank if required, shall be installed at least 25'-0" above the highest hose outlet, 27 945 (b) (3).
16.Fire pump is required, shall be installed as per 27-946, 947, 951 and RS 16-1-5.
17.Electrical equipment used in conjunction with the standpipe system shall comply with RS 17-3.
18.All devices used shall bear manufacturer's name and number of approval as per 27-939.
19.Control valves shall be indicated by signs and arrows; valves greater than 7'-0" above floor as per RS 17-1-1 (c) (3) and (7) will be made accessible by means of approved type locks, RS 16-1-1 (c) (9).
20.Valves shall be sealed open by means of heavy chain and approved type locks, RS 16-1-1 (c) (9).
21.An elevator shall be maintained at all times for Fire Department use 27-989 and RS 167-1 and Division of Fire Prevention.
22.All branch line to hose racks shall be in accordance with RS 17-1-3 (c) (1). 2-1/2" branch lines shall not exceed 4 feet.
23.The roof tank is filled by automatic pump at a rate of not less than 65 GPM, RS 17-1-4 (c) (1).



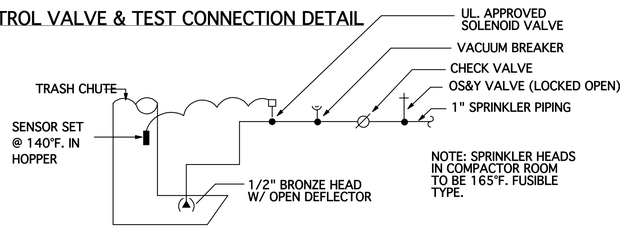


SUGGESTED METHOD FOR PIPING FIRE BOOSTER PUMP IN NEW YORK CITY

NOT TO SCALE

FLOOR CONTROL VALVE & TEST CONNECTION DETAIL

NOT TO SCALE



DETAIL OF SPRINKLER HEAD IN COMPACTOR HOPPER

NOT TO SCALE

NOTE: THE LOCATION OF THE CONTROL VALVE SHALL BE INDICATED BY A SIGN PLACED ON THE STRUCTURE DIRECTLY OPPOSITE THE SIDEWALK FLUSH BOX AND SUCH SIGN SHALL HAVE A WHITE BACKGROUND WITH ONE INCH LETTERS READING: "AUTOMATIC SPRINKLER SHUTOFF VALVE-FEET OPPOSITE THIS SIGN". DISTANCE TO BE VERIFIED IN FIELD WITH CONTRACTOR AND ARCHITECT.

Sprinkler Notes

1. The installation, components, sizing, spacing, location, clearances, position and type of systems shall conform to RS 17-2 and Article 4.
2. As per paragraph 27-958 only approved materials will be used.
3. Direct connection of sprinklers to the public water system shall conform to paragraph 27-963.
4. Sprinklers will be protected against freezing and injury as per paragraph 27-966.
5. Inspection and tests of sprinkler system shall be conducted as specified in paragraph 27-967.
6. The occupancy of the areas to be sprinklered in accordance with chapter 1-7 of RS 17-2 shall be those specified on the plans.
7. Water supply test pipes and gauges shall be provided as specified in chapter 2-9 of RS 17-2.
8. Piping specifications, pipe schedules, system test pipes, protection against corrosion, damage, fittings, valves, hangers, sprinklers, guards and shields shall be in accordance with chapter 3 of RS 17-2.
9. Stock of extra sprinklers will be furnished as per chapter 3-16.7 of RS 17-2 (required for each temperature rating).
10. Sprinkler alarm will be in accordance with chapter 3-17 of RS 17-2 .
11. Spacing, location and position of sprinklers will be in accordance with chapter 4 of RS 17-2.
12. All blind spaces exceeding 6 inches in width or depth which contain combustible material will be sprinklered.
13. All pipe passing through walls will comply with paragraph Sec. 27-375 (j).
14. There is no piled high storage, defined in chapter 4-1.3.8 of RS 17-2.
15. Distance of sprinklers from heat sources shall be in accordance with table 3-16.6.4 (A).
16.Automatic interlock cutoff switch for ventilation will conform to paragraph 1005 of RS 13-1 (applicable only if there is an air system utilizing recirculated air and requiring a thermostatic device).
17. As per paragraph 27-963 provide Department of Water Supply letter with flow test data.
18. All pipes passing through foundation walls to be protected as provided by section P101.1 of RS 16.
19. This application is not filed as result of actions by the Fire Commissioner as authorized by the B.S. & A. to modify the certifcate of occupancy nor is such action pending.
20. All valves shall be identified as required by RS 17-2 chapter 3-14.3.

SPRINKLER LEGEND

———	SPRINKLER PIPING
———	DRAIN PIPING
◎	SPRINKLER HEAD (HIGH TEMP.= 265°F.)
▼	SPRINKLER HEAD- SIDEWALL TYPE
•	SPRINKLER HEAD- CONCEALED TYPE
○	SPRINKLER HEAD- DRY TYPE (PENDANT)
FDC	FLOOR CONTROL VALVE ASSEMBLY
	SPRINKLER SIAMESE
	OS&Y VALVE W/ TAMPER SWITCH
	CHECK VALVE W/ 3/4" AUTO. BALL DRIP
	DETECTOR CHECK VALVE
SPKLR	SPRINKLER
	RISER CONTROL VALVE W/DRIP

FIRESTANDPIPE LEGEND

	COMBINED FSP/SPKLR SIAMESE
	OS&Y VALVE W/ TAMPER SWITCH
	CHECK VALVE W/ 3/4" AUTO. BALL DRIP
	DETECTOR CHECK VALVE
FSP	FIRE STANDPIPE
	2-1/2" HOSE VALVE W/CAP & CHAIN
	THREE VALVE MANIFOLD
	RISER CONTORL VALVEDRIP
F	FIRE STANDPIPE PIPING

Sprinkler heads

Sidewall

Grinnell model F950/Q-46 BSA#334-79-SA

Light Hazard 14'-0" o.c., max 7'-0" from wall, 14'-0" throw
Ordinary Hazard 10'-0" o.c., max 7'-0" from wall, 12'-0" throw

Sidewall extended coverage

Grinnell model FR-1 RES/QR-EC BSA#334-79-SA

28lbs 16'x18' throw
45lbs 16'x20' throw

Pendant, Upright or Conventional

Grinnell model FR-1 BSA#334-79-SA

258 - 264

CROSS CONS
599 WEST HARTSD
WHITE PLAIN

HISTORI

HIGGINS A
270 LA
NEW YORK,
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STRUCT

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19 MURRAY ST
NEW YOR
TEL (
FAX (

MEF

ABRAHAM
45 WEST 34TH
NEW Y
TEL (212) 736-25
E-MAIL: PJOSE

ELEVAT

120-
COLLEGE
TEL (718) 321-03
E-MAIL: dtn

CONSTR

CROSS
599 WEST HART
WHITE P
TEL (
FAX (

KEY PLAN

REVISIONS :

No.	DATE