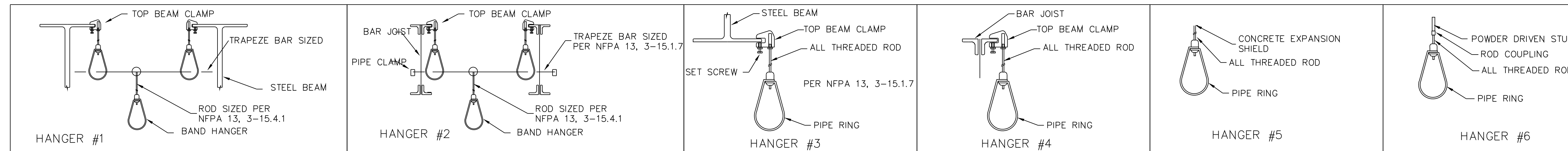


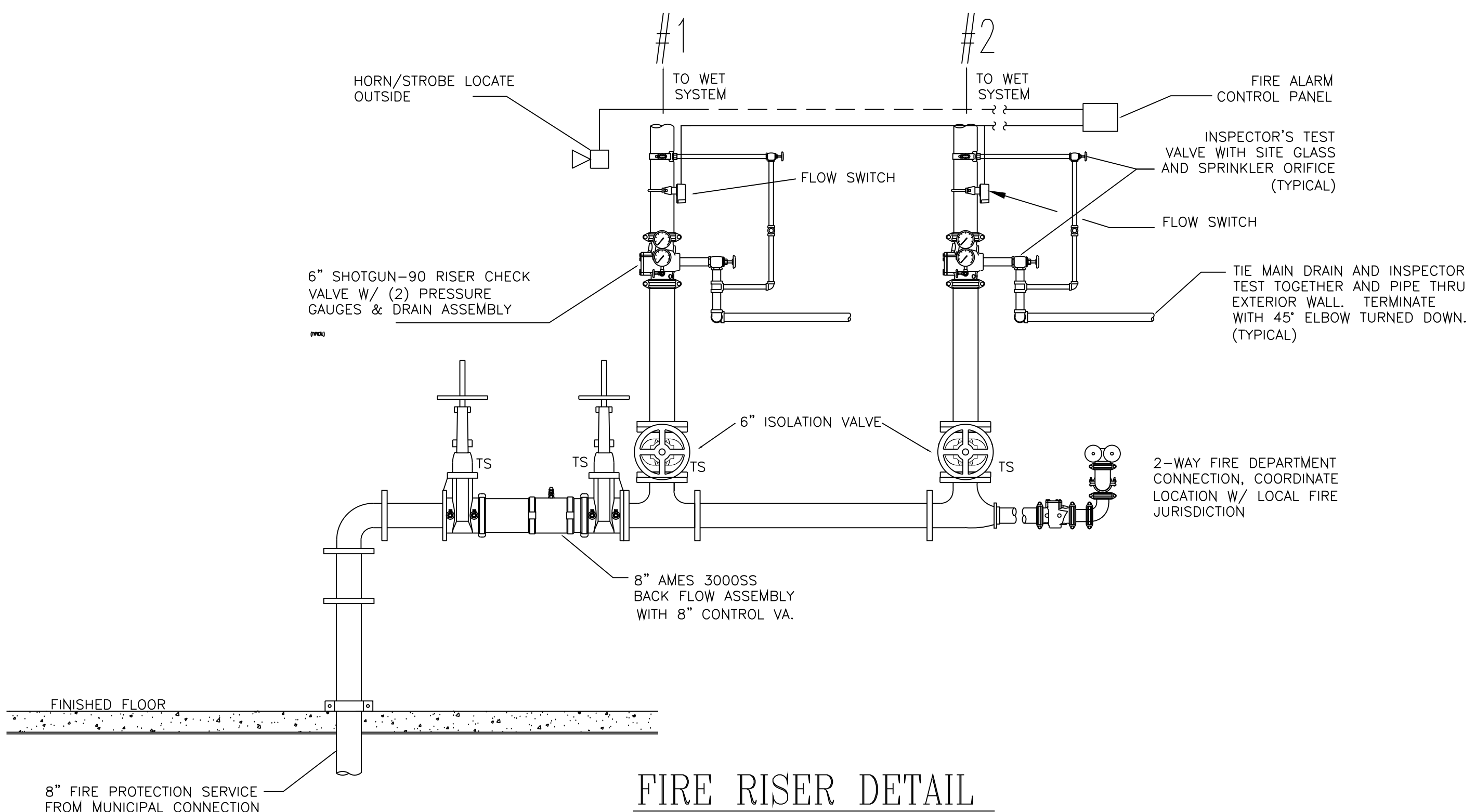
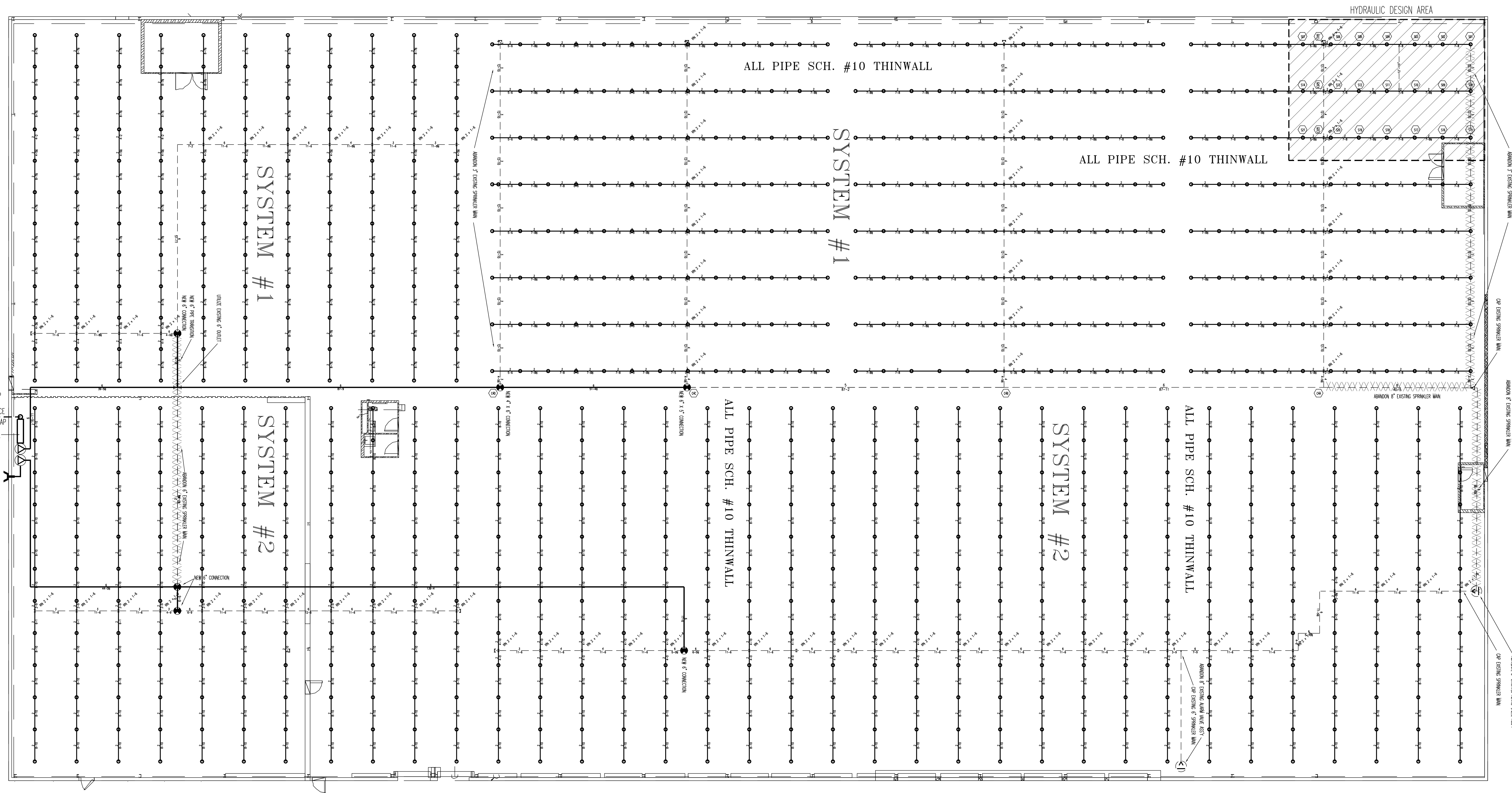
DUNNIGAN DRIVE



NFPA-13 - TABLE 4-6.2.2.1 MAXIMUM DISTANCE BETWEEN HANGERS (FT-IN.)

NOMINAL PIPE SIZE (IN.)	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8
STEEL PIPE EXCEPT THREADED LIGHTWALL	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0

STANDARD HANGER DETAILS PER NFPA # 13



DESIGN NOTES PER NFPA # 13 (2016 EDITION)

- TYPE OF CONSTRUCTION: NON COMBUSTIBLE
- CEILING HEIGHT: (+) (-) 55 FEET
- SYSTEM INSTALLED IN ACCORDANCE WITH NFPA #13-2016
- OCCUPANCY: ORDINARY HAZARD-2/ WAREHOUSE FACILITY
- SYSTEM TYPE: WET AUTOMATIC SYSTEM
- MAKE, MODEL, AND TEMPERATURE OF SPRINKLER HEADS: SEE LEGEND
- DENSITY: 40
- SPRINKLER (K-Factor): 112
- AREA OF SPRINKLER OPERATION: 2000 SQ. FT.
- HOSE ALLOWANCE: 500 GPM
- RACK ALLOWANCE: N/A
- "C" FACTORS USED:
 - ABOVE GROUND 100
 - UNDERGROUND 140
- FOR WATER SUPPLY: SEE DRAWING
- G.P.A.L. REQUIRED: RST INSIDE DEMAND
- P.S.L. REQUIRED: 101
- ALARM TYPE: BY OWNER
- TOTAL NUMBER OF SPRINKLERS: 911 NEW
- ALL PIPE, VALVES, FITTINGS, HANGERS, SPRINKLERS, ETC., TO BE FURNISHED AND INSTALLED PER NFPA REGULATIONS.
- ALL PIPE TO BE HUNG IN ACCORDANCE WITH NFPA REGULATIONS.
- PIPE TYPE:
 - ABOVE GROUND MAINS 2 1/2" AND LARGER TO BE SCH40 BULK
 - ASTM A106, GR. B, 10" THRU 24"
 - ABOVE GROUND BRANCHES 1 1/2" THRU 2" TO BE SCH40 BULK
 - ASTM A106, GR. B, 10" THRU 24"
 - ABOVE GROUND BRANCHES 1 1/2" THRU 2" TO BE SCH40 BULK
 - ASTM A106, GR. B, 10" THRU 24"
- FITTING TYPE:
 - CAST IRON THREADED, CLASS 125, ANSI B16.4
 - CAST IRON FLANGED, CLASS 150, ANSI B16.5
 - GROoved TYPE: ANSI AWWA
- FOR HYDRAULIC REFERENCE SPENTS: N/A
- ALL PIPE, VALVES, FITTINGS, SPRINKLING COUPLINGS, ETC., TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
- WHERE SPRINKLER PIPES ARE INSTALLED IN AREAS SUBJECT TO FREEZING, AND AREAS COLDER THAN 40°F, IT IS THE OWNERS RESPONSIBILITY TO PROTECT THE WET PIPE SPRINKLER SYSTEM FROM FREEZING.

NARRATIVE OF DESIGN

COMMODITY: BEER IN CANS & BOTTLES STORED TO A MAX HEIGHT OF 16'-0" IN CARDBOARD BOXES (ENCAPSULATED STORAGE)

NFPA #13 REFERENCES:

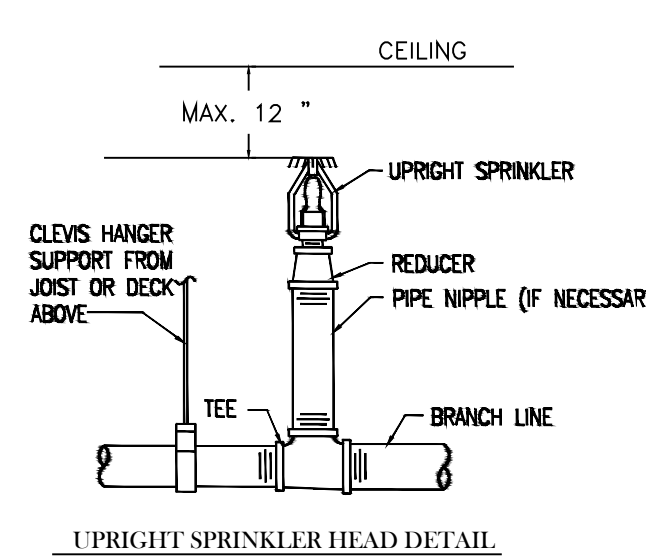
FOR DESIGN DENSITY REQUIREMENT:

- NFPA #13-2016 A.5.3.2. ORDINARY HAZARD-2
- NFPA #13-2016 14.3.5.4 (For Encapsulated Storage)
- NFPA #13-2016 14.2.4.3 (For Density Reduction)

LEGEND

(911) RELIABLE BRASS UPRIGHT SPRINKLER HEAD MODEL #XOLO STANDARD RESPONSE 3/4" NPT 165 DEG K=112

NEW SPRINKLER PIPING
 EXISTING SPRINKLER PIPING



WATER SUPPLY

160 PSI STATIC
110 RESIDUAL PRESSURE
1404 GPM FLOWING

BY: CAMPBELL FIRE PROTECTION

HYDRAULIC DESIGN AREA

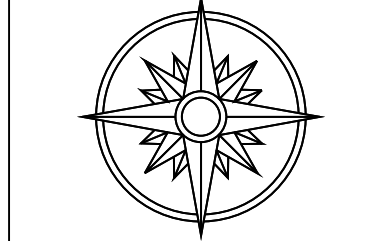
SYSTEM: WET AUTOMATIC
OCCUPANCY: BEER IN CANS & GLASS
BOTTLES STORED 16 FT IN CARDBOARD
BOXES ENCAPSULATED IN BULK STORAGE
HAZARD: CLASS II COMMODITY
DENSITY: 40 GPM
AREA OF APPLICATION: 2000 SF
HOSE ALLOWANCE: 500 GPM
DEMAND: 101 PSI @ 927 GPM
SAFETY: 7 PSI

Karl Stockert, P.E.
Licensed Professional Engineer
New Jersey License # 24388
New York License # 51626

Date: _____

Campbell Fire Protection Inc
49 Chatham Street
Suffern, New York 10901
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fax: 845-337-1444

Division of Fire, Alarm, and Emergency Services
New York State Office of Fire, Alarm, and Emergency Services
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Engineering
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No. Date & Description
REVISIONS

FIRE PROTECTION SPRINKLER
10 FT. CANS BOTTLE STORAGE WAREHOUSE
MANHATTAN BEER
10 DUNNIGAN DRIVE
SUFFERN, NEW YORK

DRAWING TITLE
PROJECT
DESIGNER
JOB No.
DATE
SCALE
PLOT NAME
DWG. No.

FP-1

of 1