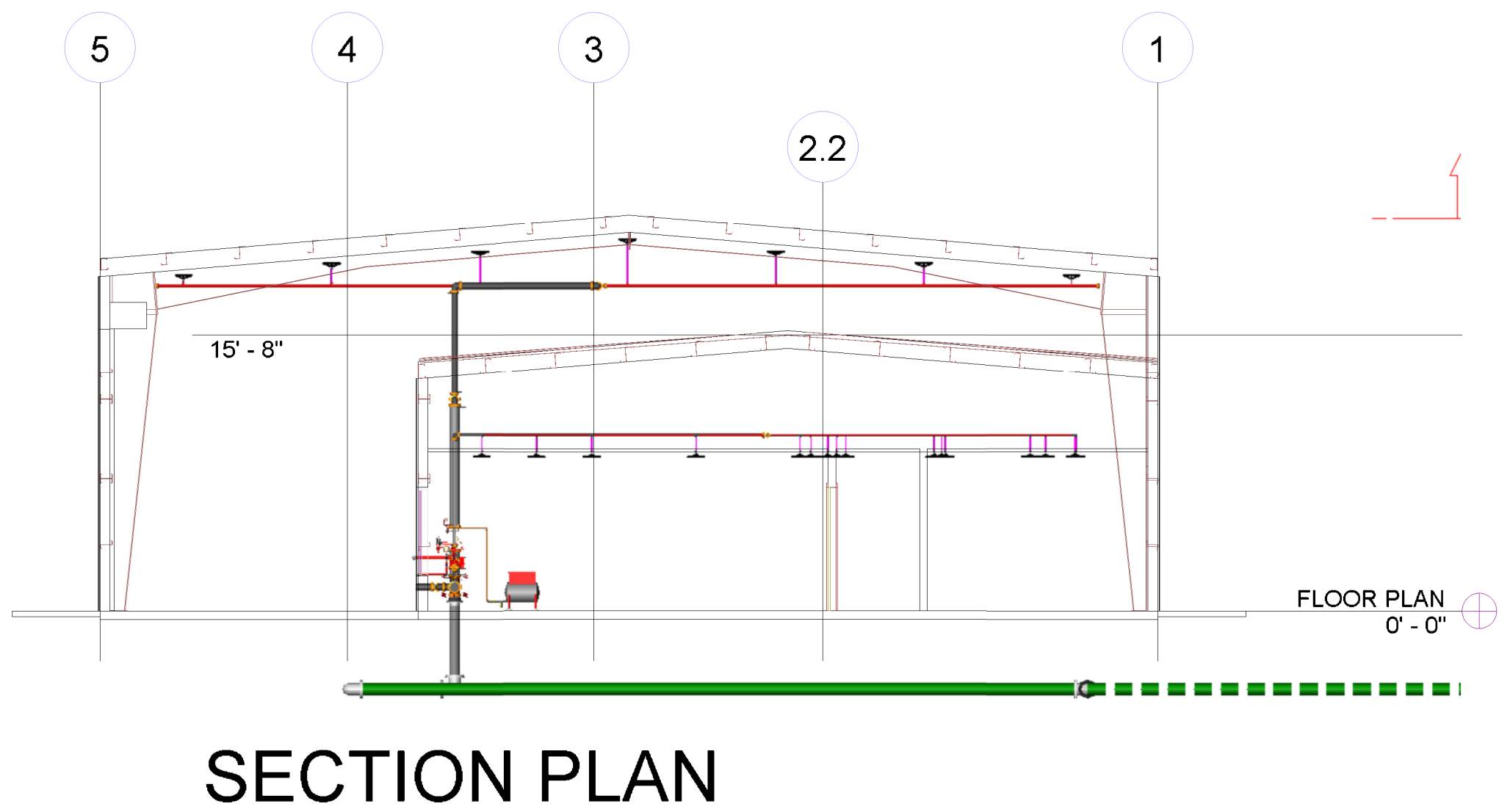


100 PSI Hanger Note:

- * Unsupported Length with Maximum Pressure Exceeding 100 psi (6.9 bar) and a Branch Line Above a Ceiling
- Supplying Sprinklers in a Pendent Position Below the Ceiling
- 9.2.3.4.4.1 Where the maximum static or flowing pressure, whichever is greater at the sprinkler, applied other than through the fire department connection, exceeds 100 psi (6.9 bar) and a branch line above a ceiling supplies sprinklers in a pendent position below the ceiling, the hanger assembly supporting the pipe supplying an end sprinkler in a pendent position shall be of a type that prevents upward movement of the pipe.

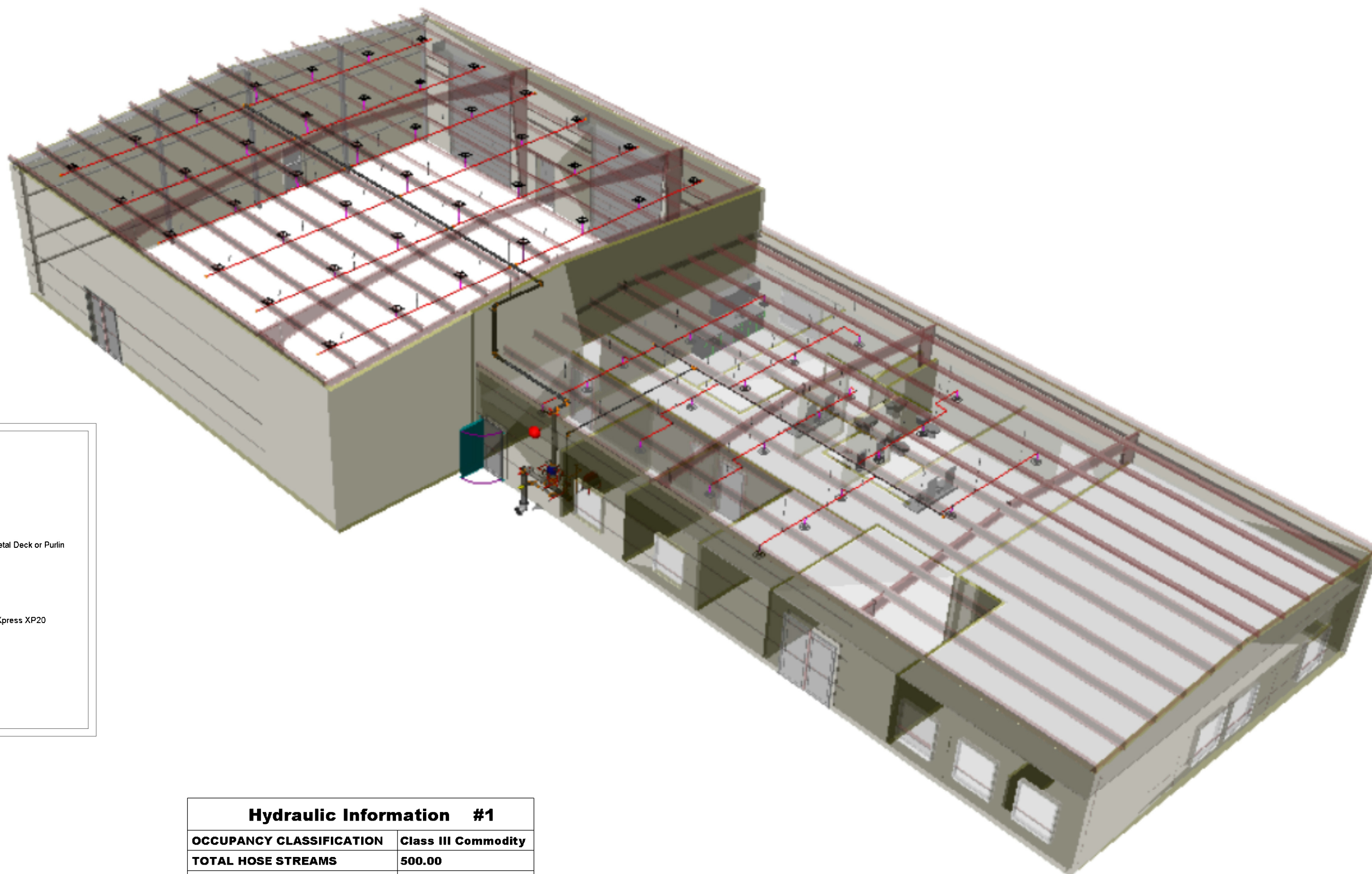
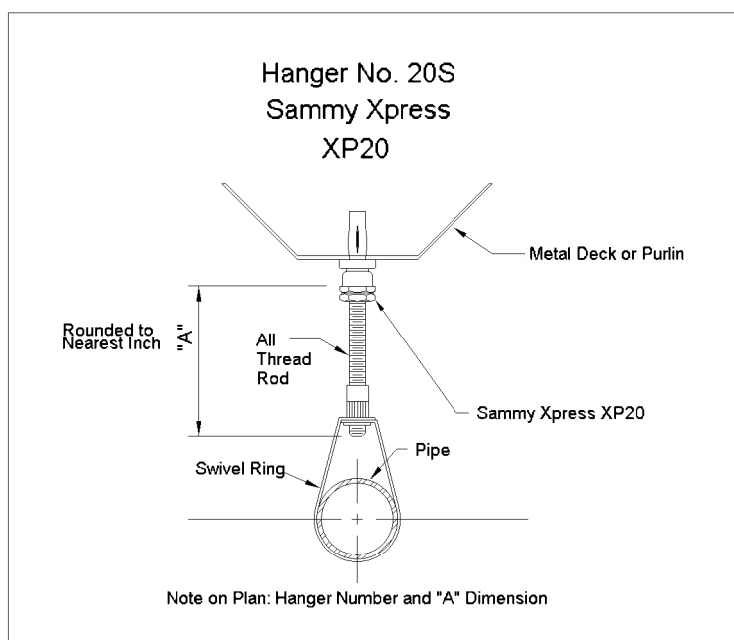
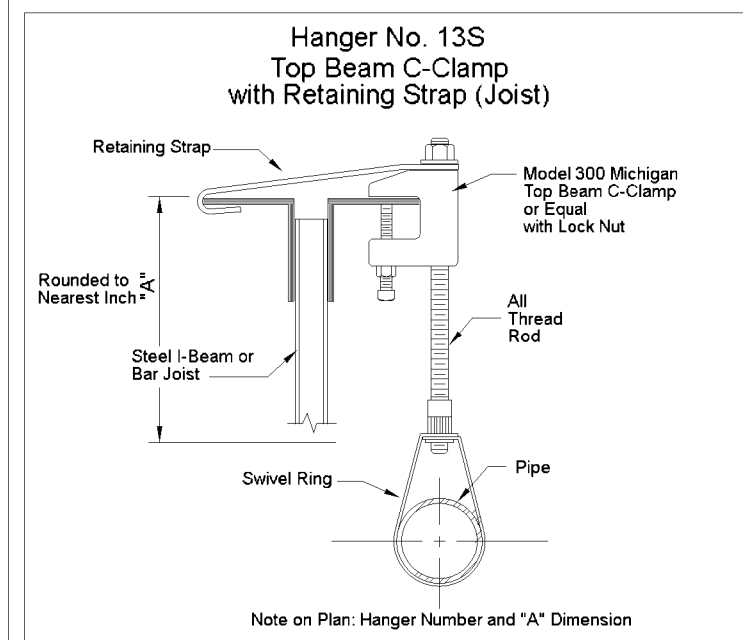
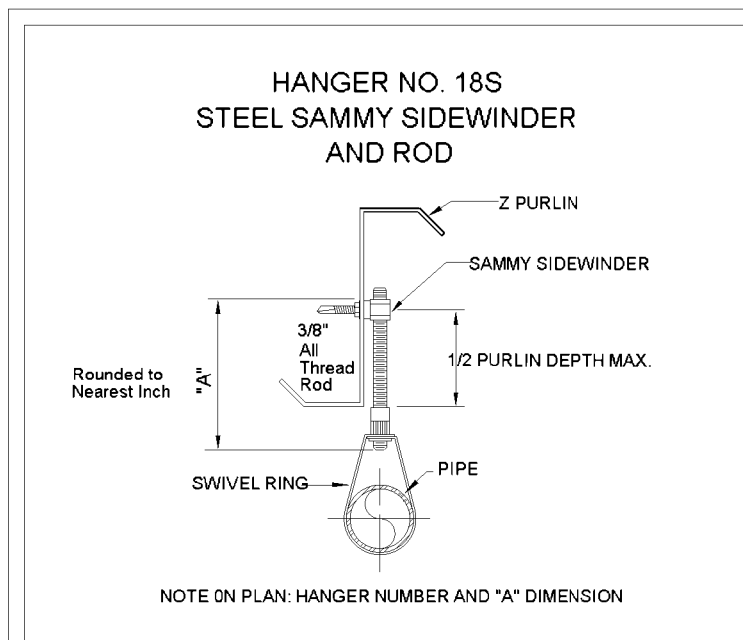
Water Supply	
Static Pressure	135.000
Residual Pressure	104.000
Flow	1700.00
Outside Hose Flow	500.00



SECTION PLAN

**CONTRACT START POINT:
5' OUT FROM BLDG.**

**120v Bell, FDC, and Aux
Drain**

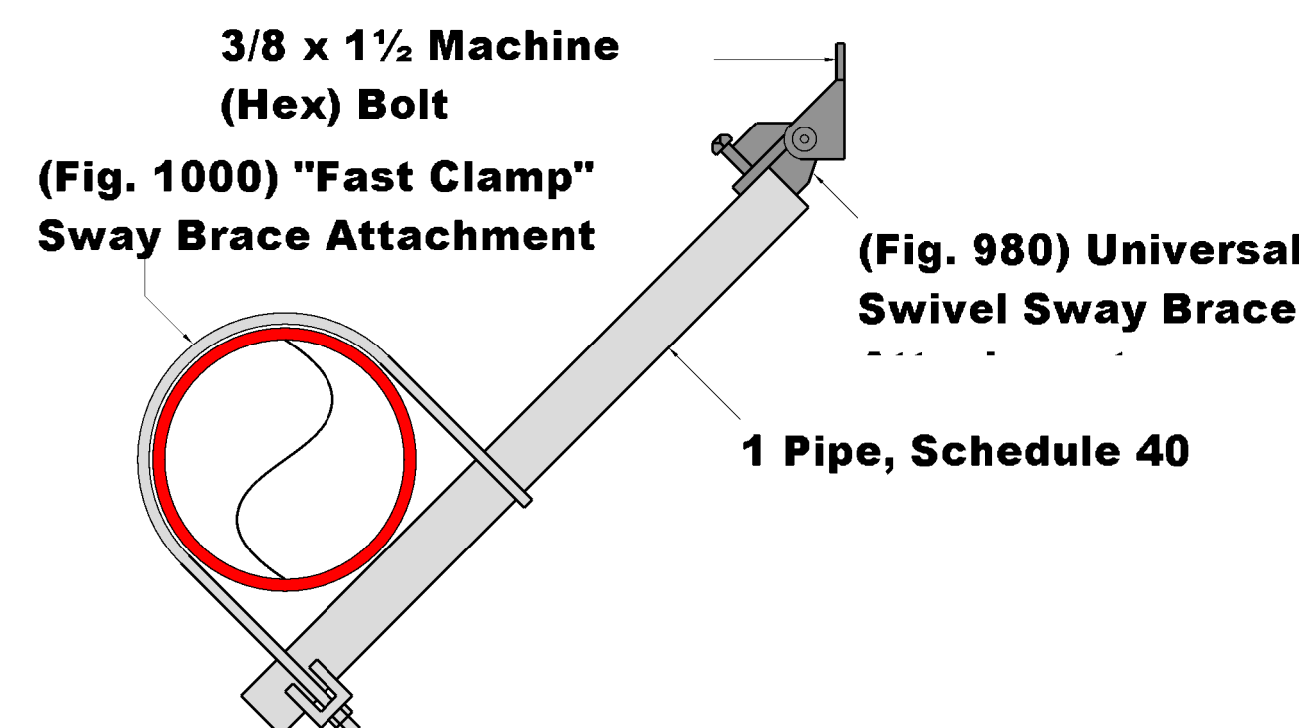


Hydraulic Information #1	
OCCUPANCY CLASSIFICATION	Class III Commodity
TOTAL HOSE STREAMS	500.00
DRY CAPACITY	261.16gal
TOTAL HEADS FLOWING	20
K-FACTOR	11.2
TOTAL WATER REQUIRED	1768.76
TOTAL PRESSURE REQUIRED	91.256
BASE OF RISER - GPM	1768.76
BASE OF RISER - PSI	91.256
SAFETY MARGIN - PSI	+10.385 (10.2%)

FM 8-9 Table 7. Ceiling Level Protection Guidelines for Class 1,2,& 3 Commodities in Open Frame Rack Storage Arrangements:

Ceiling Height: 25'
System Type: Dry, with min 280 Degree Uprights
Design Criteria: (20) 11.2 K Heads @ 30 psi each

Hydraulic Information #2	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY	0.100gpm/ft ² for 900.00ft ² (Actual 1002.56ft ²)
TOTAL HOSE STREAMS	500.00
TOTAL HEADS FLOWING	11
K-FACTOR	5.6
TOTAL WATER REQUIRED	677.21
TOTAL PRESSURE REQUIRED	33.303
BASE OF RISER - GPM	677.21
BASE OF RISER - PSI	33.303
SAFETY MARGIN - PSI	+96.049 (74.3%)



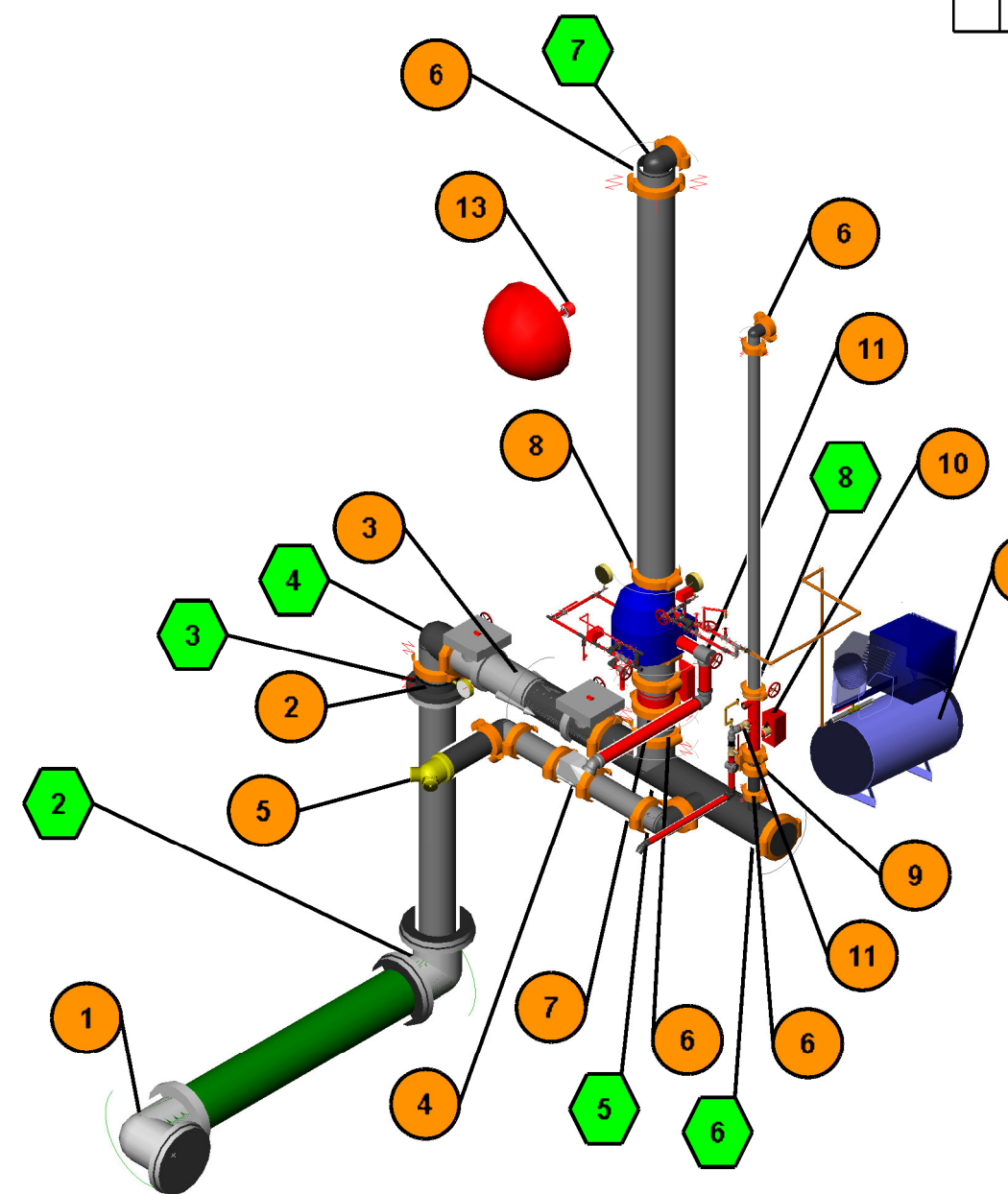
EQ TAG			
Brace Type	Brace Pipe Size	Fastener Type	Fastener Orientation
Lateral	1"	Machine (Hex) Bolt	NFPA Type "D"
Brace Angle	Attached To	Fastener Size	Maximum Fastener Load
30	Steel	3/8 x 1 1/2"	800lb Oz
Code: NFPA #13 - 2007		Table: 9.3.5.9.1	Plan ID: SB-7
		Manufacturer: Tolco Inc	

EQ LEGEND				
4	Pipe, Schedule 10	41-9 1/2"	11lb 12 1/2oz	0.5
1 1/2	Pipe, Schedule 10	157-9	3lb 0oz	0.5
1	Pipe, Schedule 40	22-1 1/2"	2lb 0oz	0.5
			Total Weight (x Wp)	508lb 11oz
			Total Load (Fp x 1.15)	584lb 15 1/2oz

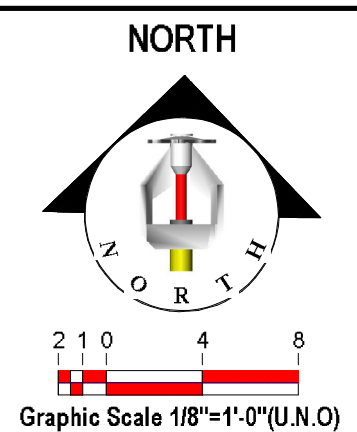
- UNDERGROUND NOTES**
- SYSTEM TO BE INSTALLED, TESTED, AND FLUSHED per NFPA 13 STANDARDS AND LOCAL REQUIREMENTS.
 - UNDERGROUND PIPING TO BE HYDROSTATICALLY TESTED AT 200 PSI FOR 2 HOURS.
 - NUTS, BOLTS, RODS, WASHERS, CLAMPS, AND OTHER RESTRAINING DEVICES ON ALL UNDERGROUND PIPING ARE TO BE COATED WITH BITUMINOUS OR OTHER APPROVED CORROSION RETARDING MATERIAL.
 - BEFORE BACKFILLING A COVER INSPECTION IS REQUIRED ON ALL UNDERGROUND PIPING AS PER LOCAL REQUIREMENTS.
 - UNDERGROUND PIPING TO HAVE A MINIMUM OF 4'-6" GROUND COVER.
 - THRUST BLOCKS TO BE INSTALLED PER NFPA 13.

FIRE SPRINKLER PIPING PLAN

SCALE 1/8"=1'-0"



Riser Detail	
Part Number Tag	Description
1	8" Fire Line
2	Spool w/Gauge
3	6" Ames Colt 200 Backflow
4	Check Valve (FDC)
5	FDC w/ball drip
6	Flexible Cplg
7	Control Valve
8	6" Dry Pipe Valve w/Trim (Volume: 110 Gallons)
9	System Control Valve
10	2" Comm. Riser
11	System Main Drain (Piped to Outside)
12	Air Compressor
13	120v 10" Bell (Wiring and Installation by others)



Standard Symbols	
Alarm Check Valve	Alarm Check Valve
Thrust Block	Thrust Block
Public Hydrant	Public Hydrant
Fire Dept. Connection	Fire Dept. Connection
0.8.8V Gate Valve	0.8.8V Gate Valve
Check Valve	Check Valve
New Underground	New Underground
Existing Underground	Existing Underground

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