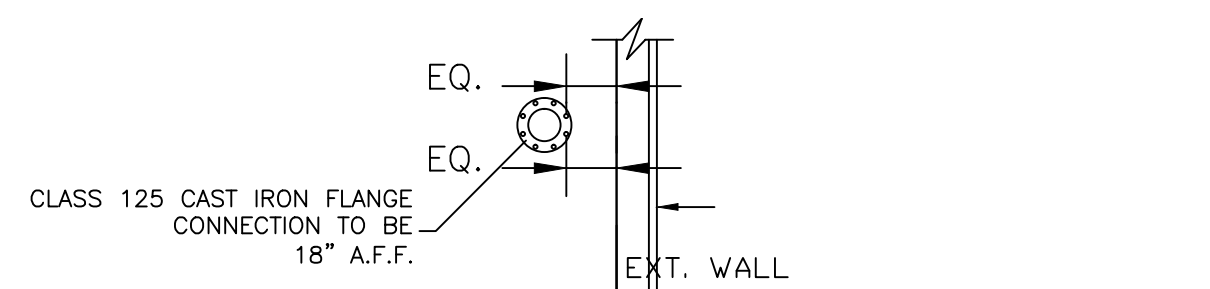


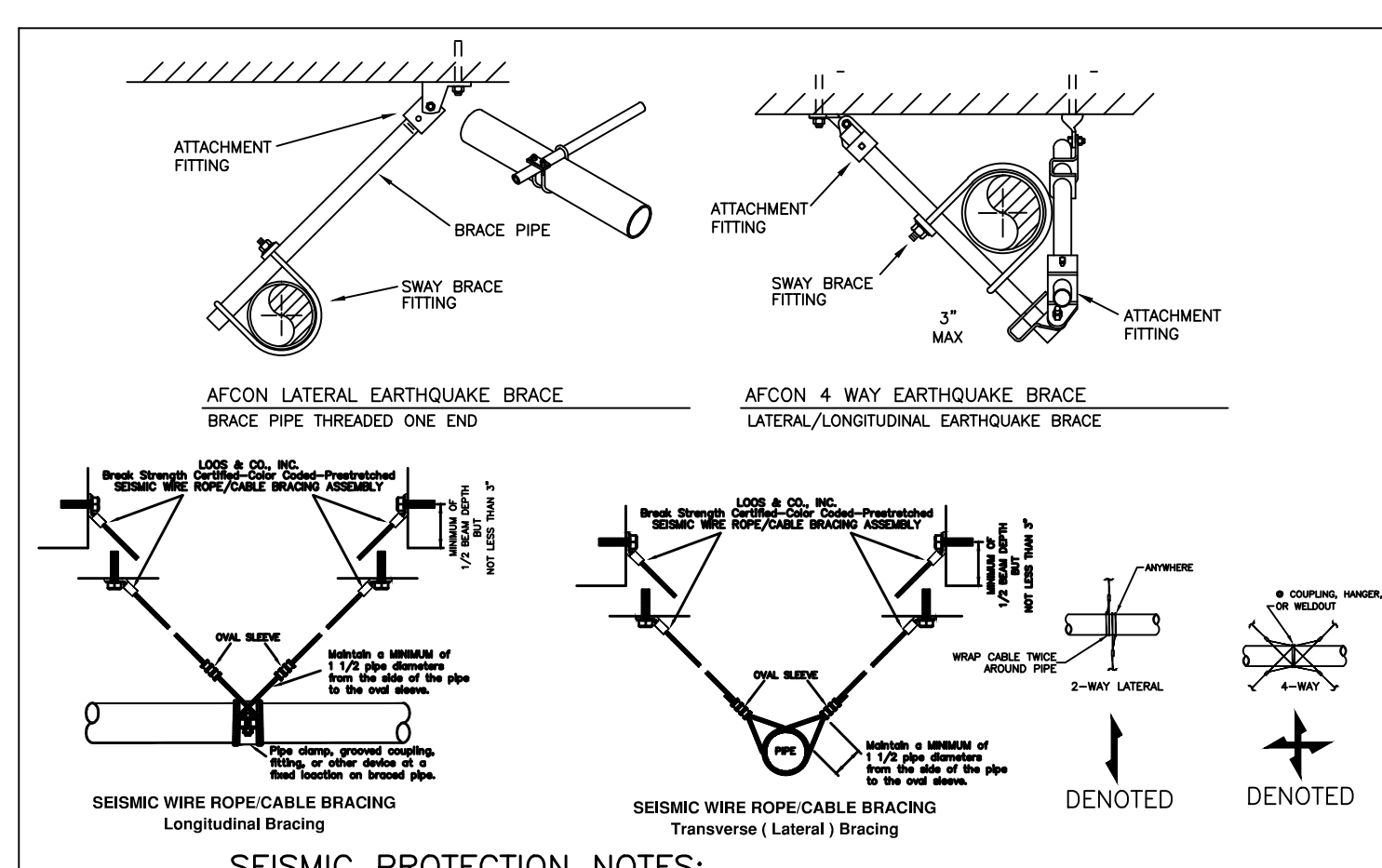
UG STUB UP W/ ROD
SCALE: NTS



FLUSHING FLOW RATES

4" D.I.C.L. Pipe	=	390 GPM
6" D.I.C.L. Pipe	=	880 GPM
8" D.I.C.L. Pipe	=	1560 GPM
10" D.I.C.L. Pipe	=	2440 GPM
12" D.I.C.L. Pipe	=	3520 GPM

FLUSHING FLOW RATES

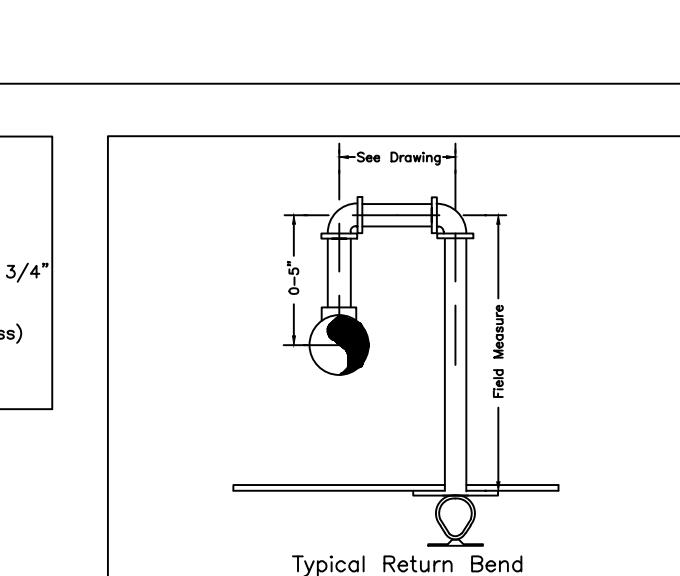
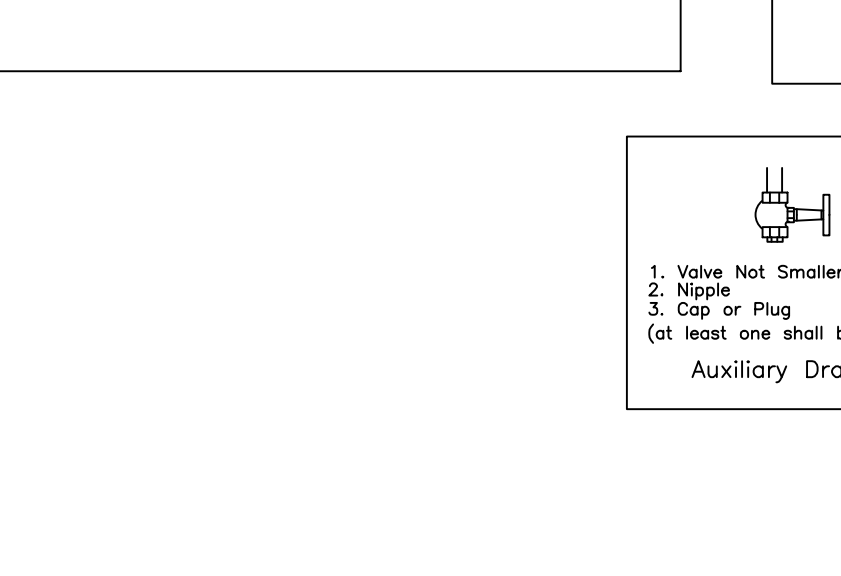
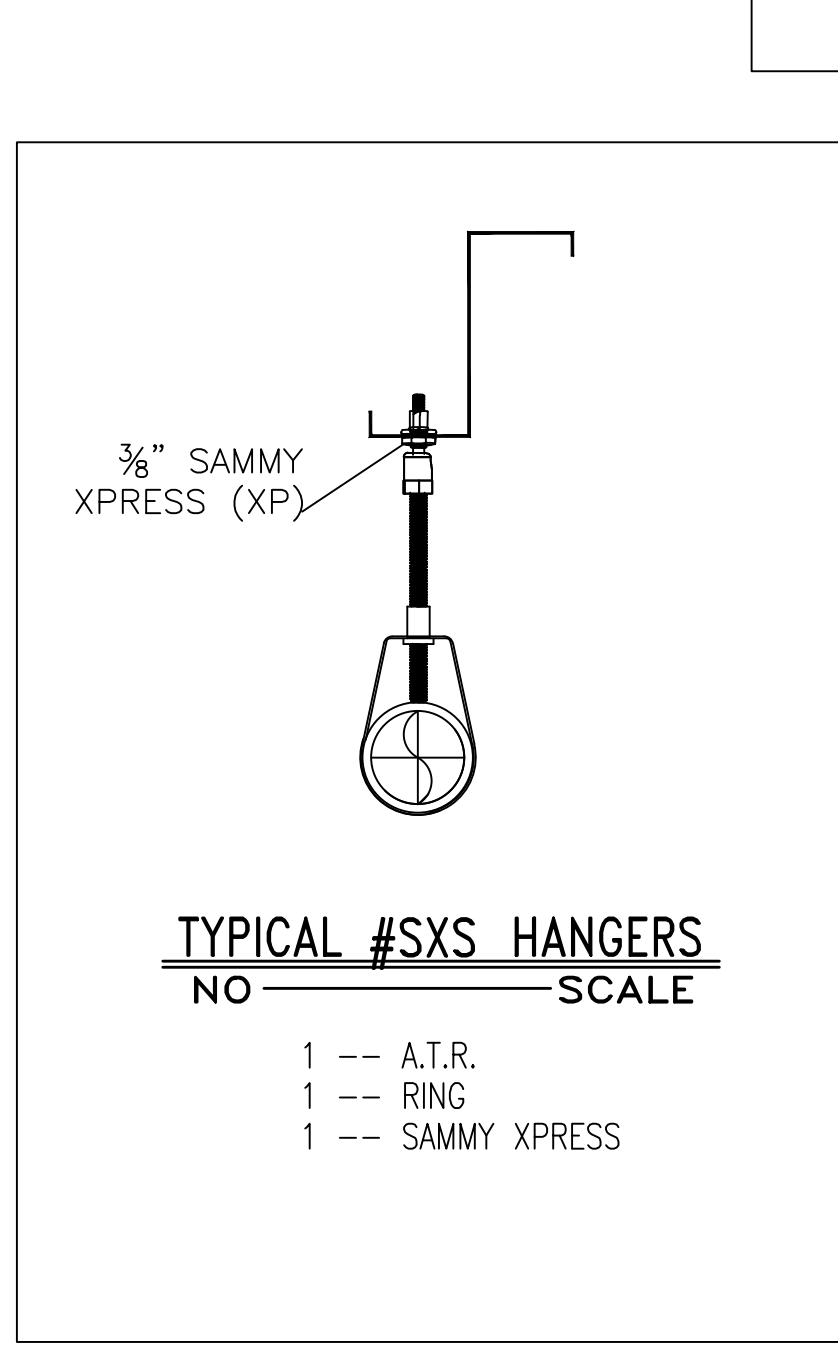


SEISMIC PROTECTION NOTES:
LATERAL/4-WAY BRACING SPACED AT 40' MAX ON CENTER WILL BE PROVIDED FOR ALL MAINS, BRANCHLINES AND ARMOURS EXCEEDING 2' IN LENGTH WILL BE RESTRAINED (SEE DETAIL ABOVE). FLEXIBLE COUPLERS WILL BE PROVIDED AT 90° AND LARGER PIPE CROSSING BEARING JOINTS. ADEQUATE CLEARANCES SHALL BE PROVIDED AT ALL PIPING PASSING THROUGH WALLS AND SLEEVES PER NFPA 13.

SEISMIC DESIGN:

2 1/2" MAIN WITH 1 1/2" BRANCH LINES:
LATERAL BRACE - 5.89 LBS PER FT. x 40'-0" x 1.15 x 0.5 = 135.47 LBS TO BE BRACED.
1 1/2" LINE PIPING - 2.52 LBS PER FT. x 245'-7" x 1.15 x 0.5 = 355.92 LBS TO BE BRACED.
TOTAL = 491.39 LBS TO BE BRACED.
LONGITUDINAL BRACE - 4.22 LBS PER FT. x 80'-0" x 1.15 x 0.5 = 194.12 TO BE BRACED.
USE L00S & CO. #18 CABLE - ANCHOR INTO STEEL, FASTENER CODE 27, MODEL "B" OR "C" (MAX LOAD = 400 LBS FOR 30', 500 LBS FOR 45', 600 LBS FOR 60').

SEISMIC DESIGN:



GENERAL NOTES:

ALL NEW PIPING TO BE HYDROSTATICALLY TESTED AT NOT LESS THAN 200 PSI FOR 2 HOURS, OR AT 50 PSI IN EXCESS OF THE MAXIMUM PRESSURE, WHEN THE MAXIMUM PRESSURE TO BE MAINTAINED IS IN EXCESS OF 150 PSI, PER N.F.P.A. 13.

WHETHER OR NOT INDICATED ON THE DRAWINGS, THE FOLLOWING ITEMS ARE TO BE PROVIDED:
SPARE HEAD CABINET WITH WRENCH
PROVISIONS FOR FLUSHING CONNECTIONS AND DRAINING OF ALL PIPE
INSPECTORS TEST CONNECTION FOR EACH SYSTEM

ALL PIPING 1 1/2" AND LARGER TO BE GROOVED, SCHEDULE 10 BLACK STEEL WITH GROOVED COUPLINGS AND FITTINGS AND WELDED OUTLETS.

ALL PIPING 1" TO BE THREADED SCHEDULE 40 WITH CAST IRON SCREWED FITTINGS.

SYSTEM DESIGN AND INSTALLATION TO CONFORM WITH N.F.P.A. 13 AND ALL OTHER APPLICABLE CODES.

SYSTEM DESIGN CRITERIA: AREA 1 - LOW ROOF

Design Area No. 1	-	LOW ROOF
Density 0.1	Area	1500
Flow	340.4	gpm @ 39.6 psi
Includes	100	gpm Hose allowance
Safety Factor	32.19	psi

REMOTE AREA BASED UPON N.F.P.A. 13 FOR LIGHT HAZARD OCCUPANCY TO PROVIDE .10 GPM FOR THE MOST REMOTE 1500 SQ. FT. WITH 100 GPM HOSE ALLOWANCE.

Design Area No. 2	-	HIGH ROOF
Density 0.1	Area	1500
Flow	286.1	gpm @ 38.1 psi
Includes	100	gpm Hose allowance
Safety Factor	13.76	psi

AREA 2 - HIGH ROOF
REMOTE AREA BASED UPON N.F.P.A. 13 FOR LIGHT HAZARD OCCUPANCY TO PROVIDE .10 GPM FOR THE MOST REMOTE 1500 SQ. FT. WITH 100 GPM HOSE ALLOWANCE.

Design Area No. 3	-	BELOW MEZZANINE
Density 0.1	Area	900
Flow	318.9	gpm @ 54.5 psi
Includes	100	gpm Hose allowance
Safety Factor	17.30	psi

AREA 3 - BELOW MEZZANINE
REMOTE AREA BASED UPON N.F.P.A. 13 FOR LIGHT HAZARD OCCUPANCY TO PROVIDE .10 GPM FOR THE MOST REMOTE 900 SQ. FT. (NFPA 13-2010, FIGURE 11.2.3.2.3.1) QUICK RESPONSE SPRINKLERS WITH 100 GPM HOSE ALLOWANCE.

ALL SYSTEM PIPING TO BE HUNG PER N.F.P.A. 13.

PLANS ARE SUBJECT TO MINOR DEVIATIONS ARISING FROM FIELD CONDITIONS AND/OR COORDINATION. MINOR DEVIATIONS WILL NOT AFFECT CODE COMPLIANCE OR SCOPE OF WORK.

SEISMIC BRACING WILL BE PROVIDED PER NFPA 13.

ALL WIRING TO BE DONE BY OTHERS.

ALL UNDERGROUND WORK TO BE DONE BY OTHERS.

PAINTING OF PIPE OR EQUIPMENT TO BE DONE BY OTHERS.

A MINIMUM OF 18" CLEARANCE MUST BE PROVIDED BETWEEN THE SPRINKLER DEFLECTOR AND THE TOP OF ALL STORAGE.

ALL PLANS AND HYDRAULIC CALCULATIONS REVIEWED BY DON MCALLISTER, NICET LEVEL IV, CERT #078231.

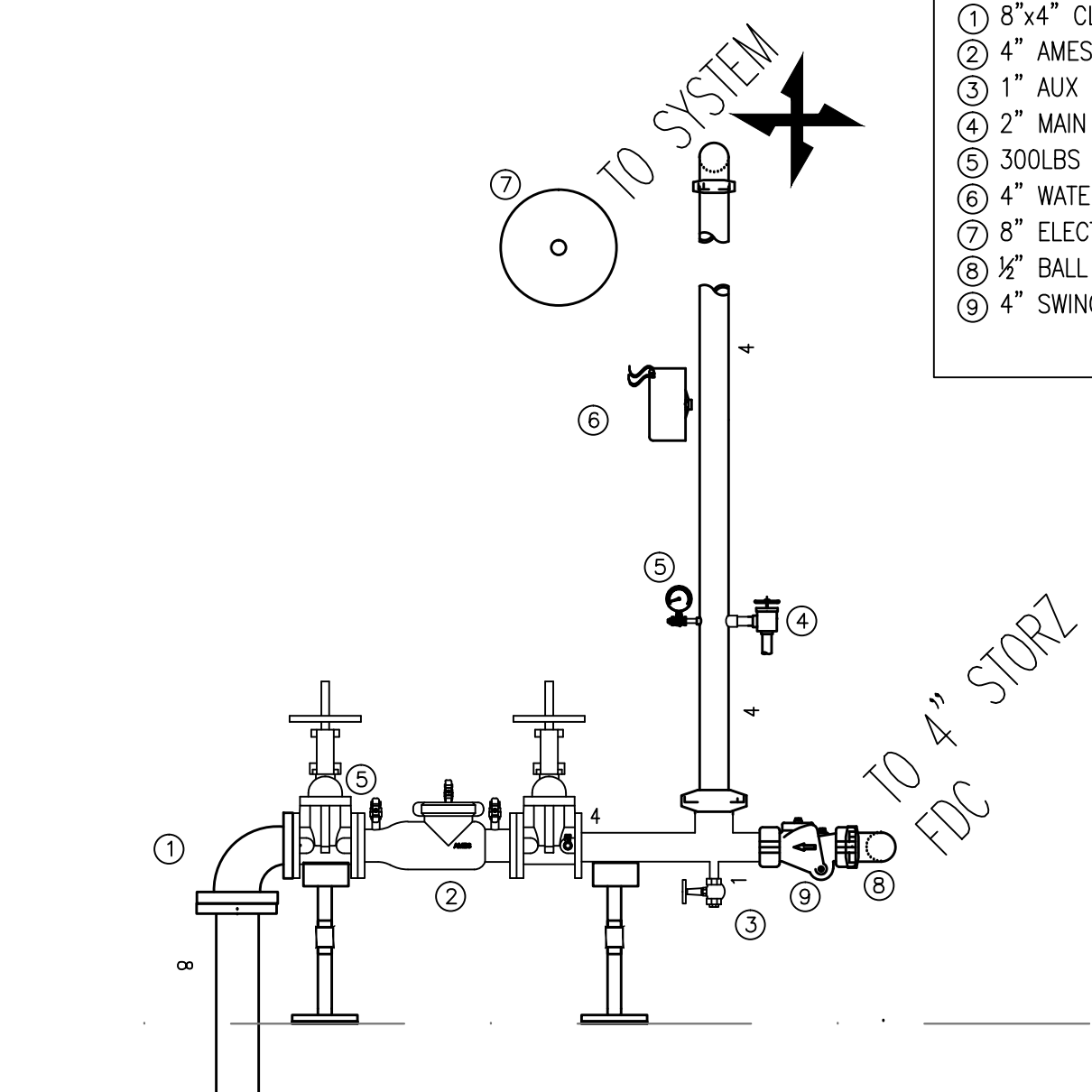
RESPONSIBLE MANAGING SUPERVISOR: BRIAN BENDIT, LICENSE #280

SPRINKLER COVERAGE FOR ROCK WALL TO BE SUBMITTED AT LATER DATE.

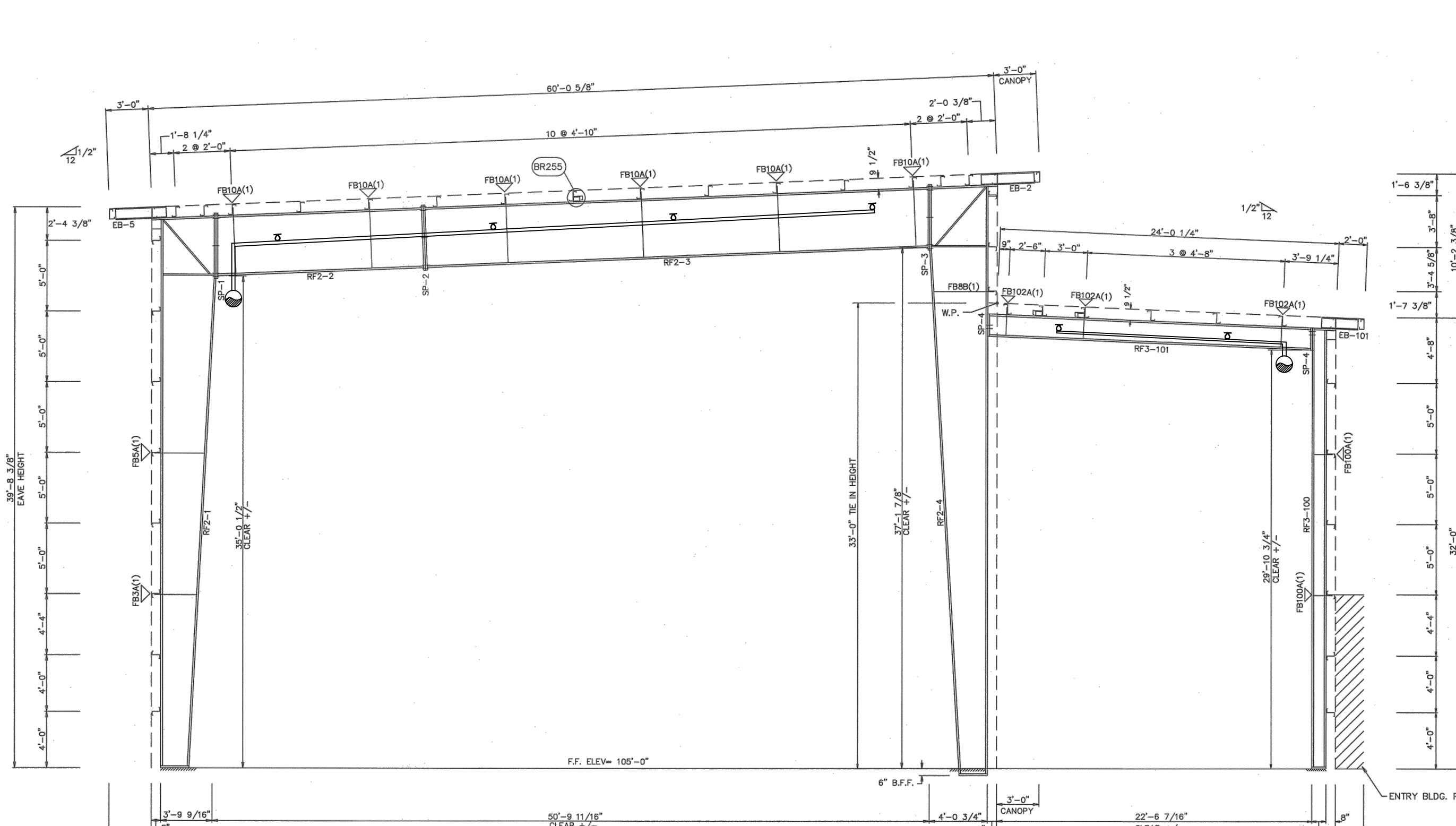
OWNER TO PROVIDE ADEQUATE HEAT TO ALL AREAS OF THE BUILDING THAT CONTAIN WET SPRINKLER PIPING. HAMPSHIRE FIRE PROTECTION CO. INC. WILL NOT BE HELD LIABLE, NOW, NOR IN THE FUTURE, FOR ANY DAMAGES THAT ARISE DUE TO THE FREEZING, AND SUBSEQUENT BURSTING OF WATER FILLED SPRINKLER PIPING.

WORK DOES NOT INCLUDE COVERAGE FOR CLIMBING STRUCTURE. COVERAGE FOR THE CLIMBING STRUCTURE WILL BE DONE AT A LATER DATE, AND WILL BE PROVIDED WITH RECORD DRAWINGS.

- RISER MATERIAL
- 1 8"x4" CLDI REDUCING ELBOW
 - 2 4" AMES C200 DCVA W/ GATE VALVES W/ TAMPERS W/ PRESSURE GAUGE
 - 3 1" AUX DRAIN
 - 4 2" MAIN DRAIN
 - 5 300LBS WATER PRESSURE GAUGE
 - 6 4" WATER FLOW SWITCH
 - 7 8" ELECTRIC BELL
 - 8 1/2" BALL DRIP
 - 9 4" SWING CHECK VALVE



RISER DETAIL - 2 R.S.



CROSS SECTION - 1 C.S.



SITE PLAN

Hampshire
FIRE PROTECTION
8 NORTH WENTWORTH AVENUE LONDONDERRY, NH 03063
PH: (603) 432-8221 FAX: (603) 434-3194
EMAIL: HAMPSHIRE@FIRE.MV.COM
MASS LIC# 003841 MAINE LIC# 238
VERMONT CERTIFIED

WATER SUPPLY DATA

Static pressure	72	psi
Residual pressure	70	psi
Flow	1255	gpm
Location	HYD 01318	
Elevation	-97'-0"	
Date	5/2/2013	Time N/A
Information by	PORTLAND WD	

SPRINKLERS

Total This Sheet	0	Total This Job	107
Symbol		Description	

GENERAL NOTES AND DETAILS

Contract No.	No.4480	CME
Drawn By	CRAIG S.	
Date	6/9/2014	
Approval By	STATE OF MAINE PORTLAND PD	

Project:

EVOLUTION ROCKS PORTLAND
65 WARREN AVE
PORTLAND, ME, 04103

Contract with:

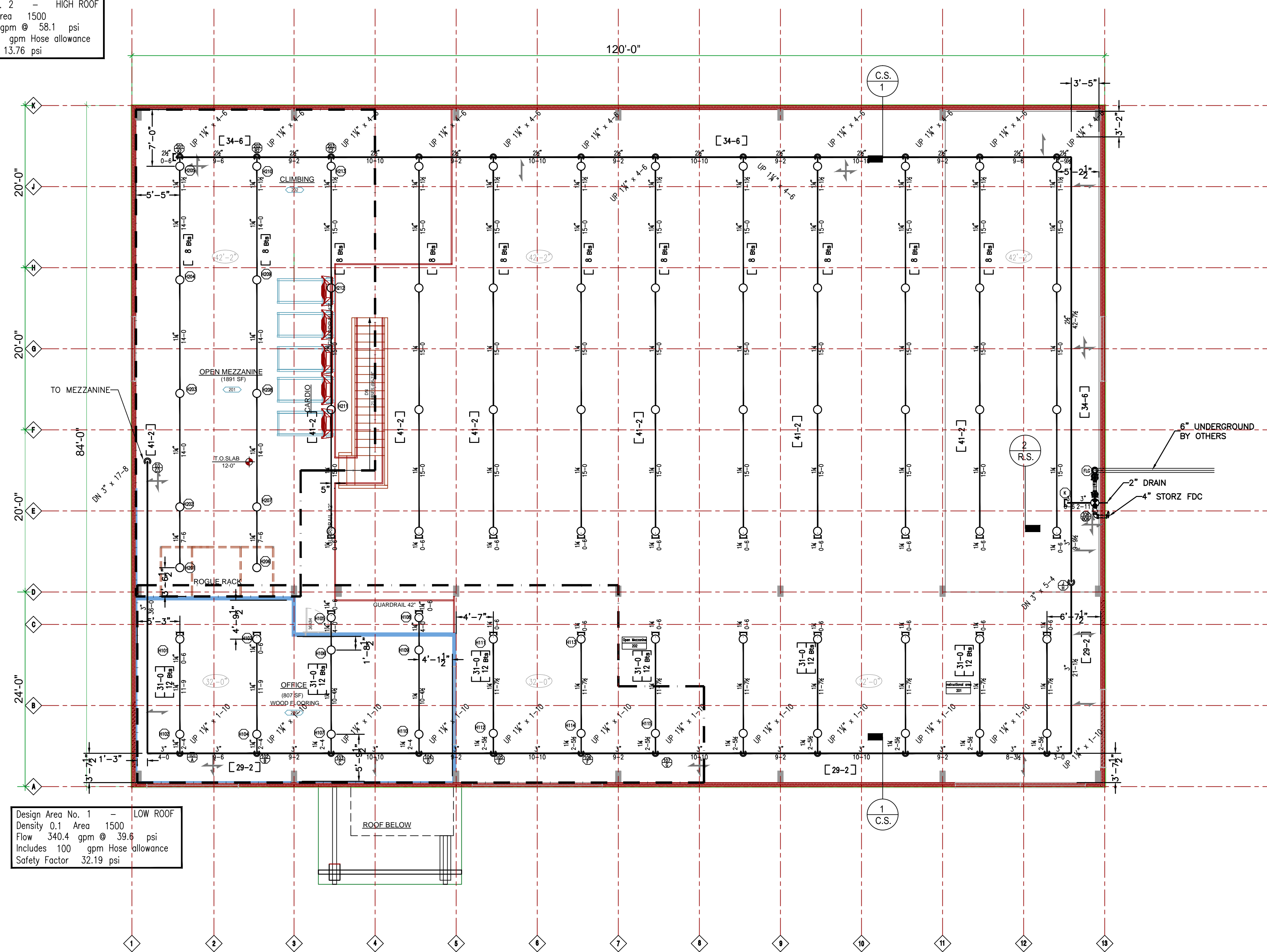
FLYNN CONSTRUCTION CORPORATION
17 OLD NASHUA ROAD, SUITE 15
AMHERST, NH 03031

FIRE PROTECTION ENGINEER STAMP

HYDRAULIC — ADDITIONAL INFORMATION	
This building is protected by a Hydraulically Designed Automatic Sprinkler System	
LOCATION	HIGH ROOF
Number of Sprinklers	15
BASIS of DESIGN	
Density	0.10 GPM
Design Area of Discharge	1500 FT ²
SYSTEM DEMAND	
GPM Discharge	286.1 GPM
Hose Demand	100 GPM
Residual Pressure at the Base of the Riser	58.1 PSI
Included Safety Factor	13.76 PSI

HYDRAULIC — ADDITIONAL INFORMATION	
This building is protected by a Hydraulically Designed Automatic Sprinkler System	
LOCATION	LOW ROOF
Number of Sprinklers	15
BASIS of DESIGN	
Density	0.10 GPM
Design Area of Discharge	1500 FT ²
SYSTEM DEMAND	
GPM Discharge	340.4 GPM
Hose Demand	100 GPM
Residual Pressure at the Base of the Riser	39.6 PSI
Included Safety Factor	32.19 PSI

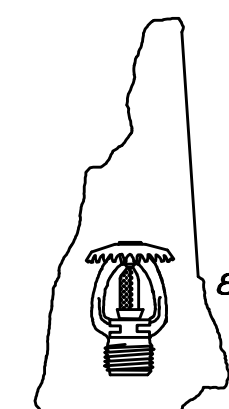
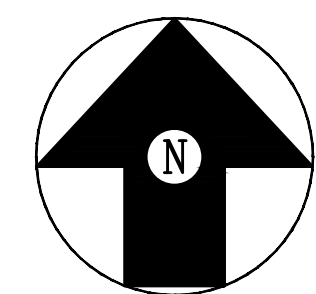
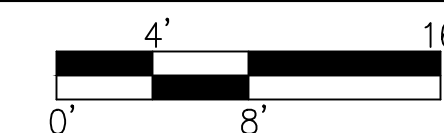
Design Area No. 2 — HIGH ROOF
 Density 0.1 Area 1500
 Flow 286.1 gpm @ 58.1 psi
 Includes 100 gpm Hose allowance
 Safety Factor 13.76 psi



Design Area No. 1 — LOW ROOF
 Density 0.1 Area 1500
 Flow 340.4 gpm @ 39.6 psi
 Includes 100 gpm Hose allowance
 Safety Factor 32.19 psi

ROOF FP PLAN

SCALE: 1/8" = 1'-0"



Hampshire
FIRE PROTECTION
 8 NORTH WENTWORTH AVENUE LONDONBERRY, NH 03053
 PH: (603) 432-8221 FAX: (603) 434-3194
 EMAIL: HAMPSHIRE@FIRE.MV.COM
 MASS LIC# 003841 MAINE LIC# 238
 VERMONT CERTIFIED

WATER SUPPLY DATA	
Static pressure	72 psi
Residual pressure	70 psi
Flow	1255 gpm
Location	HYD 01318
Elevation	-9'-0"
Date	5/2/2013 Time N/A
Information by	PORTLAND WD

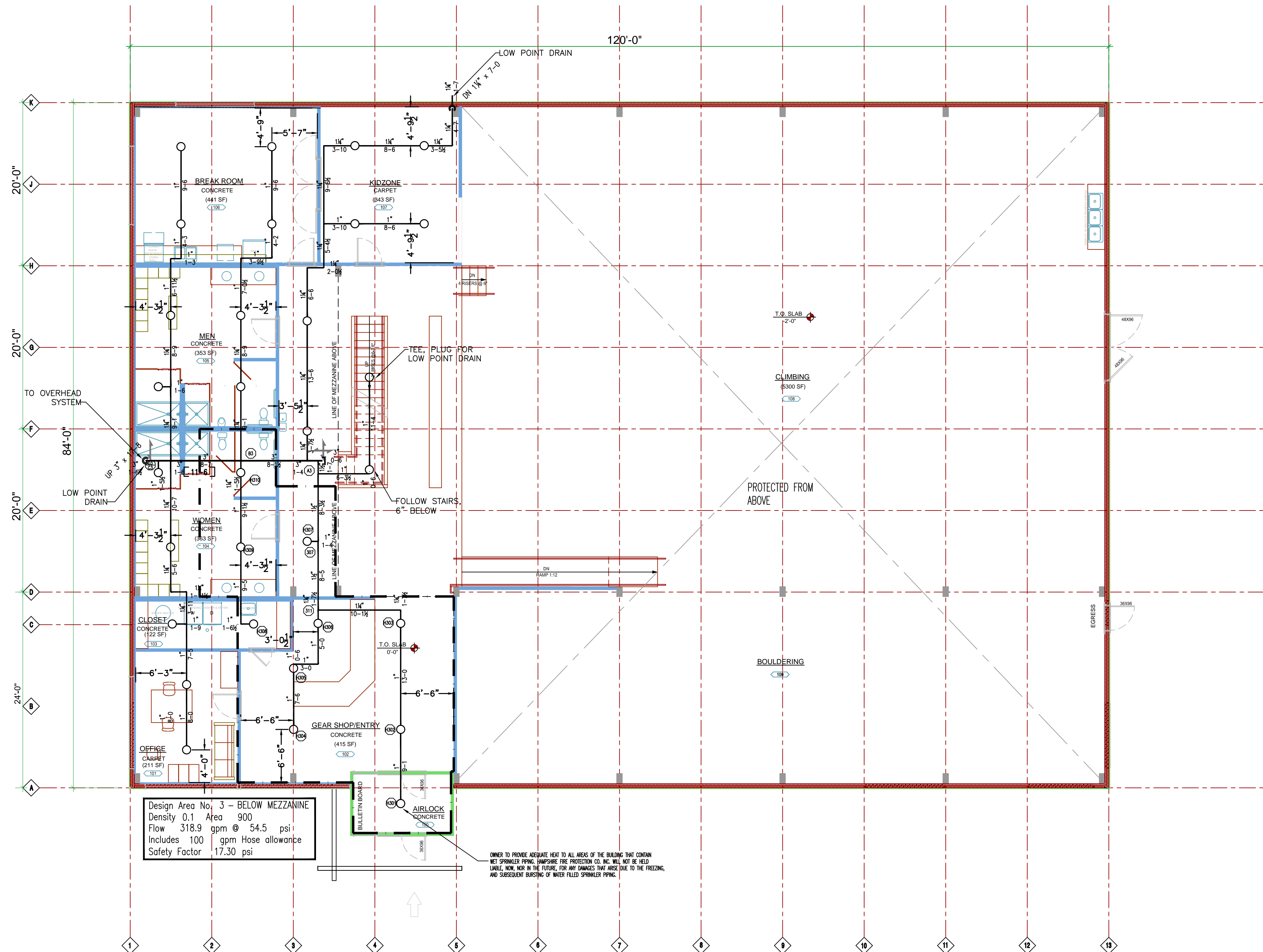
SPRINKLERS	
Total This Sheet	76
Total This Job	107
Symbol	Description
○ 76	(1/2"K=5.6) RELIABLE F1FR56 155' BRASS QR SSU (SIN: RA1425)

Drawing Title	
ROOF LEVEL FP PLAN	
Contract No.4480 CME	Revisions:
Drawn By CRAIG S.	1
Scale 1/8" = 1'-0"	2
Date 6/9/2014	3
Approval By STATE OF MAINE	4
PORTLAND PD	5
	6
	7

Project:
 EVOLUTION ROCKS PORTLAND
 65 WARREN AVE
 PORTLAND, ME, 04103
 Contract with:
 FLYNN CONSTRUCTION CORPORATION
 17 OLD NASHUA ROAD, SUITE 15
 AMHERST, NH 03031

FIRE PROTECTION ENGINEER STAMP

CUT



HYDRAULIC - ADDITIONAL INFORMATION

This building is protected by a Hydraulically Designed Automatic Sprinkler System

LOCATION:

Number of Sprinklers:

BASIS of DESIGN

Density: gpm

Design Area of Discharge:

SYSTEM DEMAND

GPM Discharge: gpm

Hose Demand: gpm

Residual Pressure at the Base of the Riser: psi

Included Safety Factor: psi

Hampshire FIRE PROTECTION

100% FULLY LICENSED AND INSURED
 8 NORTH WENTWORTH AVENUE LONDONDERRY, NH 03053
 PH: (603) 432-8221 FAX: (603) 434-3194
 EMAIL: HAMPSHIRE@FIRE.MV.COM
 MASS LIC# 003841 MAINE LIC# 238
 VERMONT CERTIFIED

Design Area No. 3 - BELOW MEZZANINE
 Density 0.1 Area 900
 Flow 318.9 gpm @ 54.5 psi
 Includes 100' gpm Hose allowance
 Safety Factor 17.30 psi

UNITS TO PROVIDE ADEQUATE HEAT TO ALL AREAS OF THE BUILDING THAT CONTAIN NET SPRINKLER PIPING. INSURE THE PROTECTION CO. INC. WILL NOT BE HELD LIABLE FOR AND WILL BE RESPONSIBLE FOR ANY DAMAGES THAT MAY OCCUR TO THE BUILDING AND OVERSEER'S WORKING OF WATER FILLED SPRINKLER PIPING.

BELOW MEZZANINE FP PLAN



Hampshire FIRE PROTECTION

8 NORTH WENTWORTH AVENUE LONDONDERRY, NH 03053
 PH: (603) 432-8221 FAX: (603) 434-3194
 EMAIL: HAMPSHIRE@FIRE.MV.COM
 MASS LIC# 003841 MAINE LIC# 238
 VERMONT CERTIFIED

WATER SUPPLY DATA		SPRINKLERS		Drawing Title	
Static pressure	72 psi	Total This Sheet	31	MEZZANINE FP PLAN	
Residual pressure	70 psi	Total This Job	107	Contract No.	4480 CME
Flow	1255 gpm	Symbol		Drawn By	CRAIG S.
Location	HYD 01318		○ 31	Scale	1/8" = 1'-0"
Elevation	-9'-0"			Date	6/9/2014
Date	5/2/2013			Approval By	STATE OF MAINE PORTLAND FD
Information by	PORTLAND WD				

Project:		Revisions:	
EVOLUTION ROCKS PORTLAND		1	
65 WARREN AVE		2	
PORTLAND, ME, 04103		3	
Contract with:		4	
FLYNN CONSTRUCTION CORPORATION		5	
17 OLD NASHUA ROAD, SUITE 15		6	
AMHERST, NH 03031		7	

FIRE PROTECTION ENGINEER STAMP

COPY