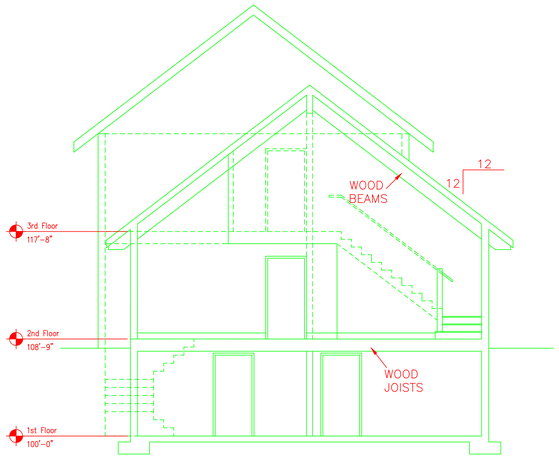
Approved for Code Compliance
Date: 03/15/17



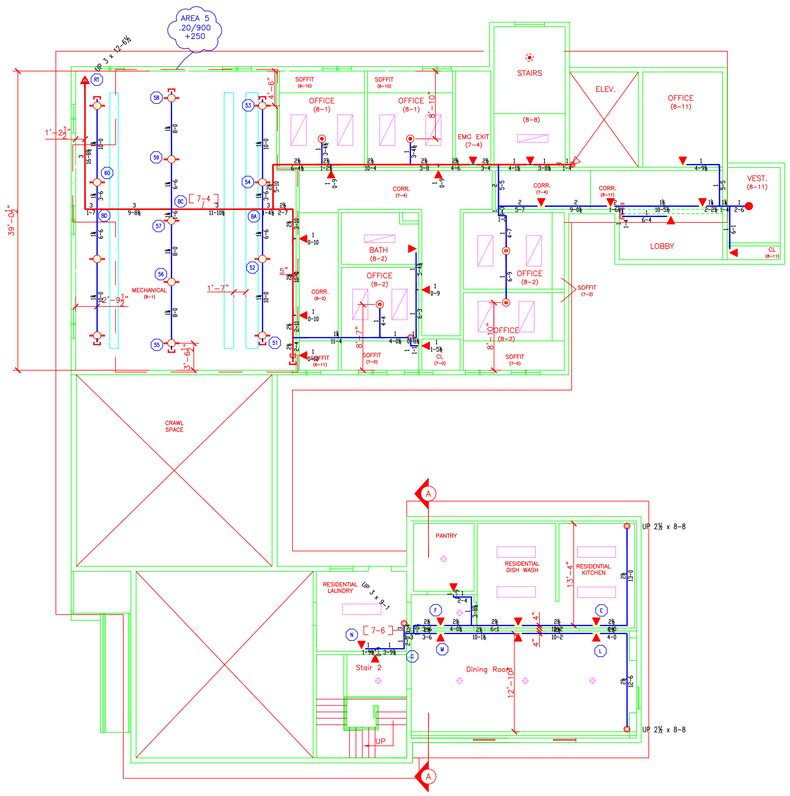
BUILDING SECTION "A"

SCALE: "NTS"
FINISH FLOOR ELEV. 100.0'

HYDRAULIC DATA NAMEPLATE				
This Building is protected by a hydraulically designed Automatic Sprinkler System				
Location	AREA-1	AREA-2	AREA-3	AREA-4	AREA-5
No. of Sprinkler	19	7	5	5	10
Basis of design					
1. Density	.10 gpm/ft²	.10 gpm/ft²	.10 gpm/ft²	.10 gpm/ft²	.20 gpm/ft²
2. Design area of discharge	LRG ROOM ft²	LRG ROOM ft²	5HD CALC. ft²	5HD CALC. ft²	900 ft²
System Demand					
1. Water Flow Rate					
❶ Base/Pump	355.217 gpm	125.88 gpm	126.083 gpm	126.163 gpm	271.684 gpm
2. Residual Pressure					
❶ Base/Pump	67.555 psi	38.930 psi	53.940 psi	43.375 psi	38.571 psi
CUSHION =	7.965 psi	37.941 psi	22.930 psi	33.495 psi	36.882 psi
	MOST REMOTE				

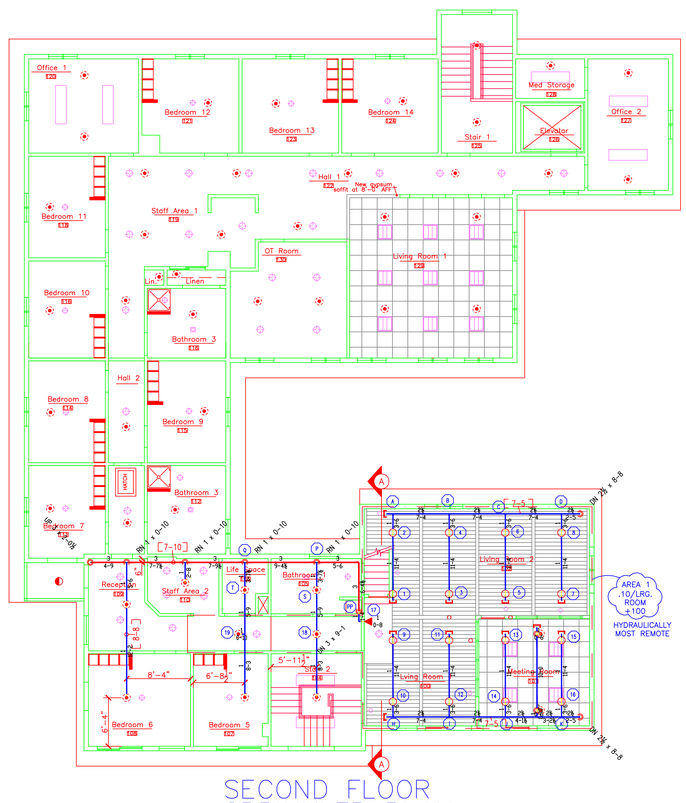
GENERAL NOTES:

- IT IS THE BUILDING OWNERS RESPONSIBILITY TO PROVIDE ADEQUATE HEAT FOR ALL AREAS IN THE BUILDING PROTECTED BY WET SPRINKLER SYSTEMS AND FOR ALL WATER FILLED SUPPLY PIPES, VALVES AND SYSTEM RISERS IN ALL DRY PIPE SPRINKLER SYSTEMS.
- ALL NEW PIPING IS 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 NFPA 13)
- WHETHER OR NOT INDICATED ON DRAWINGS, THE FOLLOWING ITEMS ARE TO BE PROVIDED:
  . SPARE HEAD CABINET WITH WRENCH (NFPA 13).
  . PROVISIONS FOR FLUSHING CONNECTIONS AND DRAINING OF ALL PIPE.
  . INSPECTORS TEST CONNECTION SHALL BE PROVIDED FOR EACH SYSTEM
    A) FOR WET PIPE SYSTEMS SEE NFPA 13)
    B) FOR DRY PIPE SYSTEMS SEE NFPA 13)
  . AIR PRESSURE SHALL BE MAINTAINED ON ALL DRY PIPE SYSTEMS BY AN APPROVED AUTOMATIC AIR COMPRESSOR OR PLANT AIR SYSTEM SPECIFICALLY APPROVED FOR AND CAPABLE OF AUTOMATICALLY MAINTAINING THE REQUIRED AIR PRESSURE.
  . WET PIPE SYSTEMS SHALL BE PROVIDED WITH A RELIEF VALVE NOT LESS THAN 1/2" IN SIZE. (NFPA 13).
- ALL PIPE 1" SHALL BE SCHEDULE 40 STEEL WITH MALLEABLE IRON FITTINGS.
- ALL PIPE 1 1/4" AND LARGER, SHALL BE SCHEDULE 10 STEEL, WITH GROOVED COUPLINGS AND VICTAULIC" MECHANICAL FITTINGS OR EQUIVALENT.
- ALL MECHANICAL TRADES ARE TO COORDINATE THEIR WORK WITH SPRINKLER WORK AS SHOWN ON THESE PLANS.
- ALL HANGERS AND LOCATIONS ARE TO BE IN ACCORDANCE WITH N.F.P.A. 13.
- ALL PIPING IS TO BE PITCHED IN ACCORDANCE WITH N.F.P.A. 13.
- HYDRAULIC DATA REFERENCE POINTS: (25)
- CENTER LINE OF PIPE ABOVE FINISH FLOOR 12'-0" BELOW DECK (12")
- PROTECTIVE CAPS ARE TO REMAIN ON THE SPRINKLER HEADS UNTIL AFTER CEILINGS ARE INSTALLED.
- THE SCOPE OF WORK UNDER THIS CONTRACT IS TO DESIGN AND INSTALL A WET SPRINKLER SYSTEM PER NFPA 13.



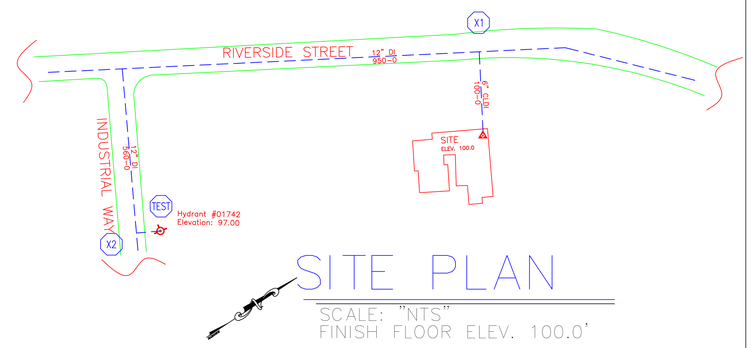
FIRST FLOOR SPRINKLER PLAN

SCALE: 1/8"= 1'-0"
FINISH FLOOR ELEV. 100.0'



SECOND FLOOR SPRINKLER PLAN

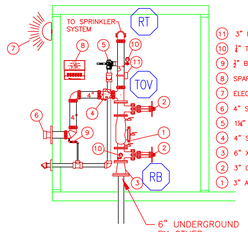
SCALE: 1/8"= 1'-0"
FINISH FLOOR ELEV. 108.75'



SITE PLAN

SCALE: "NTS"
FINISH FLOOR ELEV. 100.0'

WATER DATA
STATIC 79 PSI
RESIDUAL 75 PSI
FLOW 1491 GPM
BY PORTLAND WATER DISTRICT
DATE 10/17/14
HYDRANT ELEV: 97.00' +/-



(11) 3" FLOW SWITCH
(10) ¾" THREE WAY VALVE WITH PRESSURE GAUGE
(9) ¾" BALL DRIP VALVE
(8) SPARE HEAD AND WRENCH BOX
(7) ELECTRIC ALARM BELL POTTER
(6) 4" STORZ FIRE DEPARTMENT CONNECTION
(5) 1¼" TEST AND DRAIN VALVE WITH ⅛" ORIFICE + RELIEF VALVE
(4) 4" SWING CHECK VALVE VICTAULIC MODEL 717
(3) 6" X 3" CONCENTRIC REDUCER
(2) 3" OS&Y VALVE WITH TAMPER SWITCH
(1) 3" AMES 2000 DOUBLE CHECK BACK FLOW

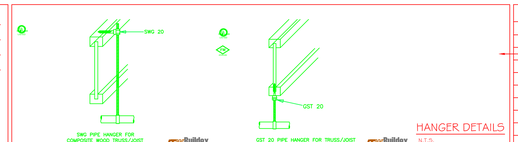
RISER DETAIL & LEGEND

NOT TO SCALE

SPRINKLER HEAD LEGEND

SYMBOL	MAKE	MODEL	SIN	FINISH	TYPE	TEMP	NPT	ORIFICE	K-FACTOR	TOTAL
HEAD 1	RELIABLE	G5 56	RA3415	WHITE	CONCEAL	165° F	1/2"	1/2"	5.6	45
HEAD 2	RELIABLE	F1FR 56	RA1425	BRONZE	UPRIGHT	200° F	1/2"	1/2"	5.6	14
HEAD 3	RELIABLE	F1FR 56	RA1414	WHITE	SEMI-RECPENDENT	155° F	1/2"	1/2"	5.6	6
HEAD 4	RELIABLE	F3QR	R5714	CHROME	DRY PENDENT	200° F	1"	1/2"	5.6	1
HEAD 5	GLOBE	GL	GL5639	BRONZE	DRY UPRIGHT	200° F	1"	1/2"	5.6	1
HEAD 6	TYCO	BB3	TY3182	BRONZE	ATTIC	200° F	1/2"	1/2"	5.6	26
HEAD 8	RELIABLE	F1FR 56	RA1435	BRONZE	HORZ SIDEWALL	200° F	1/2"	1/2"	5.6	1
HEAD 9	RELIABLE	F1FR 56	RA1435	WHITE	HORZ SIDEWALL	155° F	1/2"	1/2"	5.6	25
HEAD 10	RELIABLE	F1FR 56	RA1425	BRONZE	UPRIGHT	155° F	1/2"	1/2"	5.6	16
	HEAD 4 + HEAD 2									
	HEAD 3 + HEAD 5									
									TOTAL →	135

1. Type of Hazard OH2/LIGHT
2. Deflector Distance PER SPEC
2. Pipe Type Used BLK SCH 10/40
4. Sprinkler Area PER SPEC
5. Type of Construction NON-COMBUSTIBLE
6. Maximum Spacing Allowed PER NFPA 13
7. PIPE SIZING METHOD: PIPE SCHEDULE ☐ HYDRAULICALLY CALCULATED ■
8. ALL HANGERS AND LOCATIONS TO BE IN ACCORDANCE WITH N.F.P.A. PAMPHLET NO. 13
9. HIGH DEGREE TEMPERATURE SPRINKLER HEADS TO BE INSTALLED IN ACCORDANCE WITH N.F.P.A. PAMPHLET NO. 13



HANGER DETAILS
N.T.S.

HANGERS
AS SHOWN IN DETAIL

ABBREVIATIONS

B	Bottom of Beam
D	Bottom of Deck
P	Bottom of Pipe
HV	Hose Valve
N & C	Nipple and Cap
NIC	Not in Contract
NTS	Not to Scale
OBJ	Open Bar Joists
PRV	Pressure Red Valve
RM	Roof Manifold
SP	Standpipe
TOB	Top of Beam
TOP	Top of Pipe
TOS	Top of Steel
UON	Unless Otherwise Noted
CL	Centerline
NAS	No Automatic Sprinklers
OTA	Open to Above

CONTRACT RESPONSIBILITIES		
ITEM	FPC	OTHERS
STREET CONN		●
UGD. MAIN		●
EXCAVATION		●
FLUSHING		●
WIRING		●
PAINTING		●
TAMPER SWITCHES	●	
FLOW SWITCHES	●	
STREET CONN		●

SUBMITTALS		
SENT TO		
DATE SENT 03/30/12	DATE RECEIVED	
I S O		
F M		
L M		
I R I		
L A		
STATE FIRE	●	
LOCAL FIRE	●	
LOCAL WATER		
OWNER	●	

LICENSE# 093
R.M.S.# 442
PERMIT # ????

SPRINKLER SYSTEMS INC.
P.O. BOX 1285
LEWISTON MAINE
04243-1285

SUBMITTAL COPY

SMITH HOUSE-SPURWINK
899 RIVERSIDE STREET
PORTLAND, ME 04103

CONTRACT WITH PC

SYSTEM TYPE		REVISIONS		
WET	■	NO.	DATE	DESCRIPTION
DRY	☐			
DELUGE	☐			
PREACTION	☐			
ME. LIFE	☐			
HYDRO-PRO	☐			

SCALE	AS NOTED
DRAWN BY	RDO
CHECKED BY	SEG
DATE	12/8/2016
TOTAL SPKRS ON JOB	135
SHEET#	1 of 1
JOB#	16136