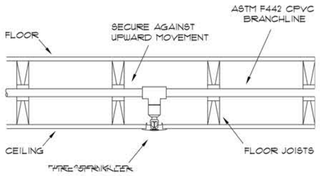
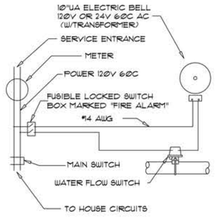
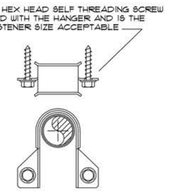




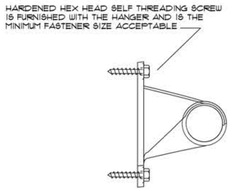
WIRING DIAGRAM for WATER FLOW SWITCH

* ELECTRICAL WORK SHALL CONFORM TO PARAGRAPH 3-12.7 OF THE NFPA PAMPHLET #13 ('10 EDITION)



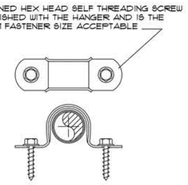
CPVC DOUBLE FASTENER STRAP TYPE HANGER

FIGURE 24 - CPVC HANGER



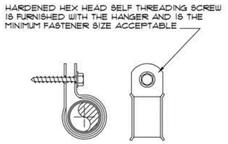
CPVC STAND-OFF STRAP TYPE HANGER

FIGURE 28 - CPVC HANGER



CPVC DOUBLE FASTENER STRAP TYPE HANGER

FIGURE 23 - CPVC HANGER



CPVC SINGLE FASTENER STRAP TYPE HANGER

FIGURE 22 - CPVC HANGER

CURE TIMES WITH ONE STEP SOLVENT CEMENT 225 psi (MAXIMUM) TEST PRESSURE			
PIPE SIZE	Ambient Temperature During Cure Period		
Inches	60°F to 120°F	40°F to 59°F	0°F to 39°F
3/4"	1 hr.	4 hr.	48 hr.
1"	1.5 hr.	4 hr.	48 hr.
1¼"	3 hr.	32 hr.	10 days
1½"	3 hr.	32 hr.	10 days
2"	8 hr.	48 hr.	See Note 1
2½"	24 hr.	96 hr.	See Note 1
3"	24 hr.	96 hr.	See Note 1

Note 1 For these sizes, the solvent cement can be applied at temperatures below 32°F, however, the sprinkler system temperature must be raised to a temperature of 32°F or above and allowed to cure per the above recommendations prior to pressure testing.

BLAZEMASTER® PIPE SDR 13.5 (ASTM F442) HANGER SPACING			
NOMINAL SIZE		MAX SPACING	
Inches	(mm)	Feet	(m)
3/4"	(20.0)	5.5'	(1.7)
1"	(25.0)	6.0'	(1.8)
1¼"	(32.0)	6.5'	(2.0)
1½"	(40.0)	7.0'	(2.1)
2"	(50.0)	8.0'	(2.4)
2½"	(65.0)	9.0'	(2.7)
3"	(80.0)	10.0'	(3.0)

SPRINKLER LOCATION NEAR HEAT SOURCES

Sprinklers must be placed a sufficient distance away from common residential heat sources that include kitchen ranges, wall ovens, fireplaces,stoves, light fixtures, hot water pipes, water heaters, furnaces and associated flues and ducts. Sprinklers installed too close to these heat sources can operate prematurely. The following minimum distances must be maintained.

- 1'-0" laterally from the surfaces of furnaces and water heaters and light fixtures.
- 1'-6" laterally from the surfaces of hot air flues, uninsulated heating ducts and uninsullated water pipes.
- 1'-6" laterally from the surfaces of kitchen ranges and wall ovens.
- 2' laterally from the edges of a ceiling mounted hot air diffuser, and 2' laterally from the sides and 3' laterally from the front of wall-mounted hot air diffusers
- 3' laterally from the edges of fireplaces (5' laterally from the front of a recessed-hearth fireplace.
- 3'-6" laterally from the surfaces of a wood or coal burning stove.

GENERAL NOTES - OVERHEAD FIRE SPRINKLERS

1. ALL WORK TO CONFORM WITH 2013 NFPA 13D AND THE SONOMA COUNTY FIRE DEPARTMENT.

2. ALL MATERIAL TO BE NEW U.L. OR F.M. LISTED AND THAT WHICH IS APPROVED PER THE STANDARD.

3. IN LOCALITIES SUBJECT TO FREEZING CONDITIONS, IT IS THE OWNERS RESPONSIBILITY TO PROVIDE ADEQUATE HEAT THROUGHOUT ALL WET PIPE SYSTEM AREAS.

4. ALL ELECTRICAL WORK BY OTHERS.

5. SUPERVISED ALARMS BY OTHERS. (N.I.C.)

6. ALL UNDER GROUND FIRE SERVICE LINES INSTALLED BY OTHERS. (N.I.C.)

7. THE SPRINKLER SYSTEM SHALL BE TESTED AT 200 LBS FOR TWO HOURS AND WITNESSED BY THE SONOMA COUNTY FIRE DEPARTMENT.

8. MAXIMUM SPRINKILER HEAD SPACING IS 16' X 16'..

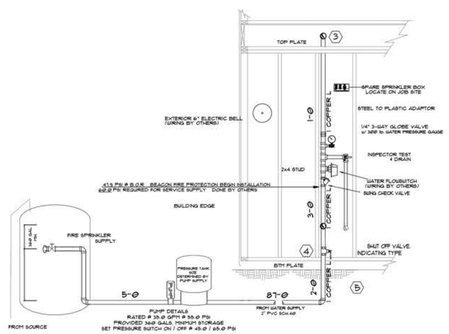
9. MAXIMUM DISTANCE BETWEEN HANGERS WILL BE 6'-0".

10. HANGERS SHALL BE WITHIN 6" OF SPRINKLER HEAD.

11. THE FIRE SPRINKLER UNDERGROUND SUPPLY SHALL BE COMPLETELY FLUSHED (FOR 10 MIN.) PRIOR TO CONNECTING TO OVERHEAD PIPING, AND BE WITNESSED BY AUTHORITY HAVING JURISDICTION, (SCHEDULED BY OTHERS).

• ALL PIPING SHALL BE 1" CPVC (U.O.N.) •

HYDRAULIC CALCULATIONS						
HARDWIDGE REMODEL						
1384 BARLOW LANE, SEBASTOPOL, CA						
UNDER GROUND PIPING SHALL BE PVC SCHEDULE 40					MAX HEAD SPACING 16 X 16	
ABOVE GROUND PIPING SHALL BE CPVC					S.I.N. SENJU SS-8464	
NODE	FLOW	PIPE	FTGS/DVCS	LENGTH	LOSS PER FT	PRESSURE
1	Q= 0 Q= 13	1" CPVC	1-TEE TURN= 5.00	LENGTH =11.25 FITTINGS =5.00 ELEV= 0.00 TOTAL =16.25	0.0500	PT = 1.00 PF = 0.82 PE = 0.00
2	Q= 13 Q= 26	1" CPVC	3-TEE RUN= 3.00 3-TEE TURN= 15.00 3-90= 21.00 2-45= 2.00	LENGTH =38.75 FITTINGS =41.00 ELEV= 20.00 TOTAL =99.75	0.1800	PT = 1.82 PF =18.00 PE = 8.70
3	Q= 26 Q= 26	1" COPPER L	1-90= 2.00 2-TEE RUN= 2.00 1-FLW SWCH= 27.00 1-CHK VA= 8.00	LENGTH =0.50 FITTINGS =33.00 ELEV=1.00 TOTAL =40.50	0.1800	PT =34.52 PF = 7.29 PE = 0.433
4	Q= 26 Q= 31	1" COPPER L	1-TEE RUN= 1.00 1-90 VA= 5.0	LENGTH =0.00 FITTINGS =6.00 ELEV=5.00 TOTAL =11.00	0.2400	PT = 42.24 PF =2.64 PE =2.17
5	Q= 31 Q= 31	2" SCH.40 PVC	1-90= 6.00 1-45= 2.50	LENGTH =52.00 FITTINGS =8.50 ELEV=0.00 TOTAL =100.50	0.0080	PT =41.05 PF =0.80 PE = 0.00
6	Q= Q=			LENGTH = FITTINGS = ELEV= TOTAL =		PT = PF = PE =
7	Q= Q=			LENGTH = FITTINGS = ELEV= TOTAL =		PT = PF = PE =
					MINIMUM PRESSURE:	47.9 PSI



RESIDENTIAL RISER DETAIL
NO SCALE

IMPORTANT

This drawing and the information and design application herein contained is the property of BEACON FIRE PROTECTION information herein contained shall be treated as secret, and confidential. No reproduction of this drawing.

In localities subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and on enclosures.

REVISION

ITEM	DATE
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	

SPRINKLERS

TYPE	ORIFICE	TEMP.	FINISH	CANOPY	SYMBOL	ID#	QTY.