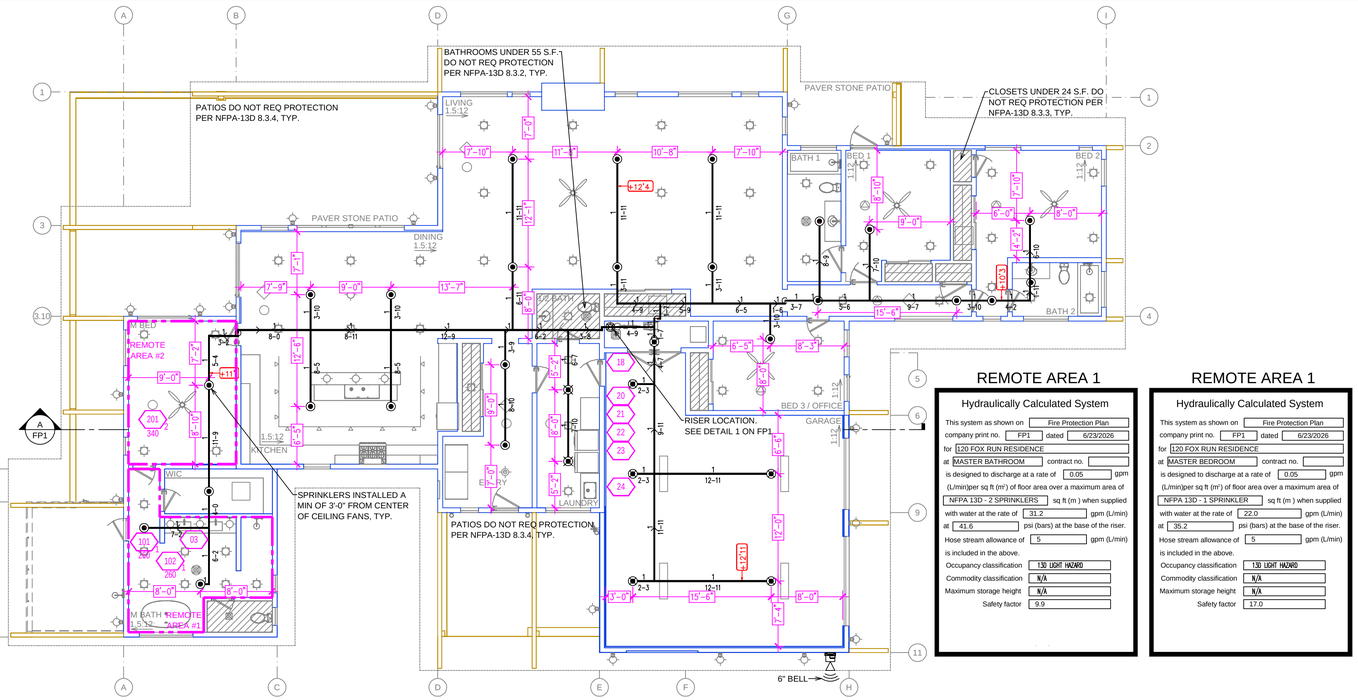


FIRST FLOOR FIRE SPRINKLER PLAN

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

REMOTE AREA 1

Hydraulically Calculated System

This system as shown on: Fire Protection Plan
company print no.: FP1 dated: 6/23/2026
for: 120 FOX RUN RESIDENCE
at: MASTER BATHROOM contract no.:
is designed to discharge at a rate of 0.05 gpm (L/min)per sq ft (m²) of floor area over a maximum area of NFPA 13D - 2 SPRINKLERS sq ft (m) when supplied with water at the rate of 31.2 gpm (L/min) at 41.6 psi (bars) at the base of the riser.
Hose stream allowance of 5 gpm (L/min) is included in the above.

Occupancy classification	13D LIGHT HAZARD
Commodity classification	N/A
Maximum storage height	N/A
Safety factor	9.9

REMOTE AREA 1

Hydraulically Calculated System

This system as shown on: Fire Protection Plan
company print no.: FP1 dated: 6/23/2026
for: 120 FOX RUN RESIDENCE
at: MASTER BEDROOM contract no.:
is designed to discharge at a rate of 0.05 gpm (L/min)per sq ft (m²) of floor area over a maximum area of NFPA 13D - 1 SPRINKLER sq ft (m) when supplied with water at the rate of 22.0 gpm (L/min) at 35.2 psi (bars) at the base of the riser.
Hose stream allowance of 5 gpm (L/min) is included in the above.

Occupancy classification	13D LIGHT HAZARD
Commodity classification	N/A
Maximum storage height	N/A
Safety factor	17.0

NFPA 13 - Table 9.2.2.1(a) Maximum Distance Between Hangers (ft-in.)

	Nominal Pipe Size (in.)								
	¾	1	1¼	1½	2	2½	3	4	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
Threaded lightwall steel pipe	N/A	12-0	12-0	15-0	15-0	15-0	15-0	N/A	N/A	N/A
Copper tube	8-0	8-0	10-0	10-0	12-0	12-0	12-0	15-0	15-0	15-0
CPVC	5-6	6-0	6-6	7-0	8-0	9-0	10-0	N/A	N/A	N/A

SPRINKLER HEAT ZONES:

HEAT SOURCE:	ORDINARY TEMP SPRINKLER	INTERMEDIATE TEMP SPRINKLER
SIDE OF OPEN OR RECESSED FIRE PLACE	36"	12"
FRONT OF RECESSED FIRE PLACE	60"	36"
COAL OR WOOD BURNING STOVE	42"	12"
RANGE/OVEN, HOT AIR FLUES & UNINSULATED HEAT DUCT	18"	9"
UNINSULATED HOT WATER PIPES & 250-499 WATT LIGHTS	12"	6"
SIDE OF CEILING OR WALL MOUNTED HOT AIR DIFFUSERS	24"	12"
FRONT OF WALL MOUNTED HOT AIR DIFFUSERS	36"	18"
HOT WATER HEATER, FURNACE, LIGHT FIXTURE 0-250 WATT	6"	3"

PIPE VOLUMES:
(CPVC)

TOTAL PIPE FOOTAGE AND CAPACITY:
1" = 340' (16.81 GAL)
1-1/4" = 7' (0.55 GAL)

ADD 10% FOR DROPS AND PIPE SIZE DISCREPANCIES
TOTAL VOLUME: ±19.11 GALLONS

NFPA 13 - Table A.7.2.3 Capacity of 1 ft of pipe (Based on Actual Internal Pipe Diameter)

Nominal Pipe Diameter (in.)	Pipe Schedule 40 (gal)	Schedule 10 (gal)	CPVC
1	0.045	0.049	0.049
1¼	0.078	0.085	0.079
1½	0.106	0.115	0.104
2	0.174	0.190	
2½	0.248	0.283	

PROJECT SUMMARY:

PROJECT NAME:	120 FOX RUN RESIDENCE
PROJECT ADDRESS:	120 FOX RUN, PORTOLA, CA
APN:	131-110-022
PROJECT TYPE:	☑ NEW ☐ T.I.
TYPE OF CONSTRUCTION:	V
OCCUPANCY GROUP(S):	R3
OCCUPIED LEVELS:	1
TOTAL SPRINKLERED AREA:	4060 SQ. FT.
NFPA CODE REQUIREMENT:	☐ NFPA 13 ☐ NFPA 13R ☑ NFPA 13D
NUMBER OF SYSTEMS:	1
SYSTEM TYPE(S):	☐ WET ☑ ANTI-FREEZE ☐ DRY ☐ PREACTION
TOTAL SPRINKLERS:	32
SPECIAL NOTES:	SEE FIRE SPRINKLER NOTES THIS SHEET

SUBMITTAL

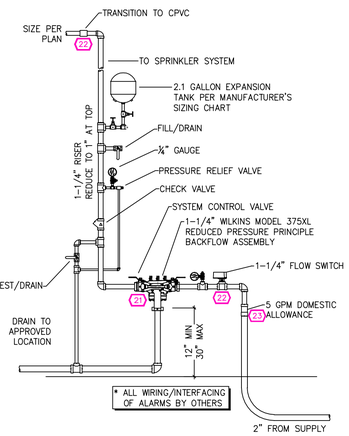
NO SPRINKLERS REQUIRED IN:
BATHROOMS 55 SQ.FT. OR LESS IN AREA PER NFPA 13D SECTION 8.6.2
CLOSETS 24 SQ.FT. OR LESS IN AREA PER NFPA 13D SECTION 8.6.3

PROJECT SQUARE FOOTAGES
MAIN FLOOR = 4060 S.F.

SPRINKLER SPACING

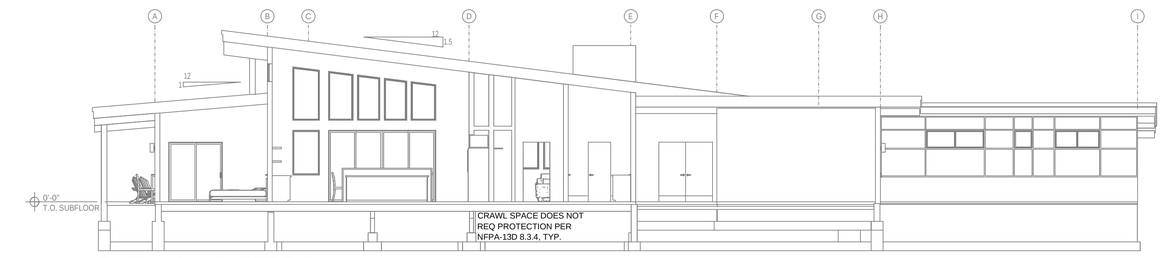
1. A SINGLE PENDENT SPRINKLER MAY BE SPACED AT A MAXIMUM OF 18'x18'(324SQ. FT.) OR UP TO 9' OFF A WALL.(MINIMUM 8'-0" BETWEEN SPRINKLERS)
2. TWO OR MORE HEADS IN A COMPARTMENT SHALL BE SPACED AT A MAXIMUM OF 16'x16'(256SQ. FT.) OR UP TO 8' OFF A WALL UNO. (MINIMUM 8'-0" BETWEEN SPRINKLERS)
3. SPRINKLERS SHALL BE MEASURED AT PERPENDICULAR ANGLES TO WALLS AND ALONG THE SLOPES OF CEILINGS.

THIS FIRE SPRINKLER SYSTEM UTILIZES THE NOBLE COMPANY FIREFIGHTER ELIMINATOR ANTI-FREEZE SOLUTION



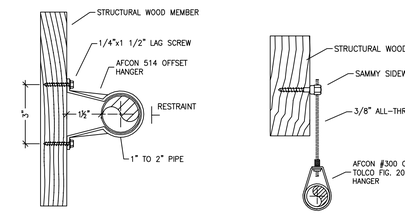
1 RISER DETAIL

SCALE: ½" = 1'-0"

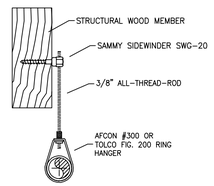


A BUILDING SECTION

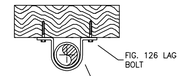
SCALE: ⅛" = 1'-0"



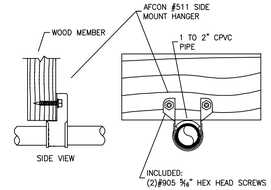
514 OFFSET HANGER
STEEL PIPE APPLICATION NTS



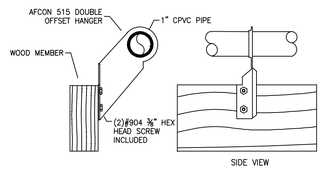
SWG-20 HANGER DETAIL
FOR HORIZONTAL ATTACHMENT TO WOOD NTS



STANDARD PIPE STRAP
NTS

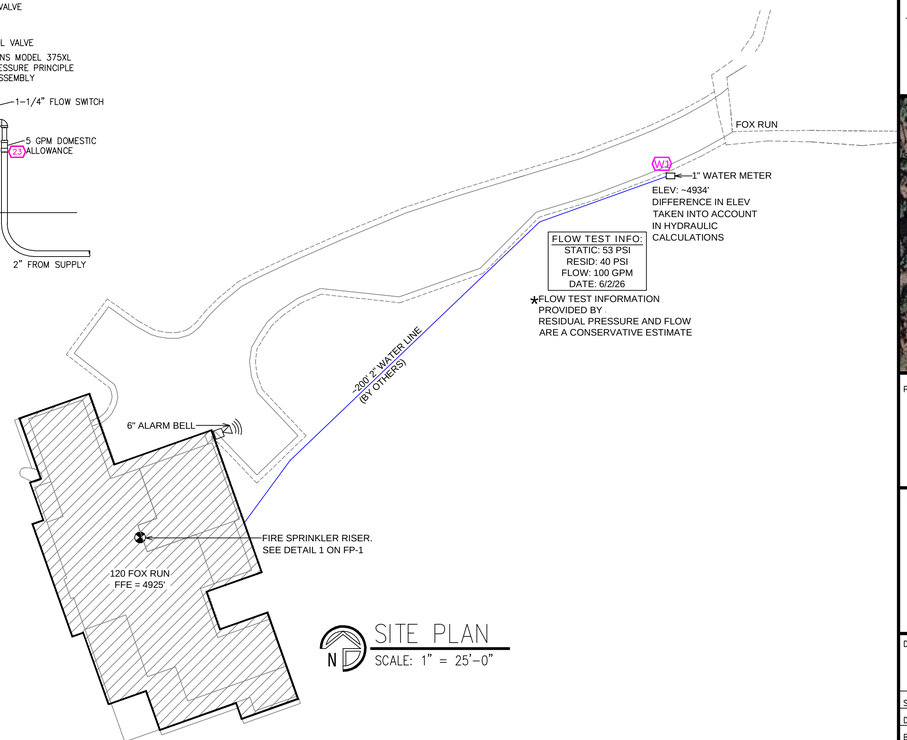


511 SIDE MOUNT HANGER
CPVC PIPE APPLICATION NTS



515 DOUBLE OFFSET HANGER
CPVC PIPE APPLICATION NTS

HANGER DETAILS



SITE PLAN

SCALE: 1" = 25'-0"

NO.	DATE	REVISIONS	DRAWN	CHECKED

GENERAL CONTRACTOR:	AUTHORITY HAVING JURISDICTION:
	BECKWOURTH FIRE DISTRICT
ADDRESS:	ADDRESS: 180 MAIN STREET
CITY:	CITY: BECKWOURTH, CA
PHONE:	PHONE: 530-832-1008
CONTACT:	CONTACT:
ARCHITECT:	FIELD INSPECTIONS:
	1.
ADDRESS:	2.
CITY:	3.
PHONE:	4.

FIRE SPRINKLER NOTES:

1. THE PROPOSED FIRE SPRINKLER SYSTEM IS AN ANTI-FREEZE SYSTEM AND SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13D 2022
2. THIS SPRINKLER SYSTEM IS HYDRAULICALLY CALCULATED IN ACCORDANCE WITH NFPA 13D TO PROVIDE 0.05 GPM PER SQ. FT. OVER THE MOST REMOTE AREA.
3. THE NUMBER OF DESIGN SPRINKLERS SHALL INCLUDE ALL SPRINKLERS WITHIN A COMPARTMENT UP TO A MAXIMUM OF 2 SPRINKLERS.
4. ALL SPRINKLER PIPING CONCEALED ABOVE CEILINGS SHALL BE CPVC PIPING UNLESS OTHERWISE NOTED.
5. ALL DIMENSIONS SHOWN ARE CENTER TO CENTER U.O.N.
6. ALL HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13D AND/OR NFPA 13 REQUIREMENTS.
7. HOLES THROUGH SOLID STRUCTURAL MEMBERS SHALL BE PERMITTED TO SERVE AS HANGERS FOR THE SUPPORT OF SYSTEM PIPING.
8. ALL SYSTEM PIPING SHALL BE TESTED FOR LEAKAGE AT NORMAL SYSTEM OPERATING PRESSURE.
9. THE OWNER SHALL BE RESPONSIBLE FOR MAINTAINING A MINIMUM TEMPERATURE OF 40° FAHRENHEIT TO PROTECT FROM FREEZING, THE SECTIONS OF THE SPRINKLER SYSTEM WHERE THERE IS NO ANTI-FREEZE IN THE PIPING (UPSTREAM OF THE RISER).

SPRINKLER HEAD LEGEND

SYM	QTY	TYPE	MFG.	MODEL#	NPT	K	TEMP	FINISH	S.I.N.
⊗	24	CONCEALED	SENJU	RC-RES	1/2"	4.9	162	WHITE	SS8464
⊠	2	CONCEALED	SENJU	RC-RES	1/2"	4.9	205	WHITE	SS8464
⊗	6	SEMI-RECESS	SENJU	FR-RES	1/2"	4.9	205	WHITE	SS4451

32 TOTAL SPRINKLERS ON THIS SHEET

FIRE SPRINKLER SYMBOLS

AUTOMATIC SPRINKLER RISER	•13" ELEV. BELOW DECK OR TOS
EARTHQUAKE BRACING 2-WAY & 4-WAY	+12'-9" ELEV. ABOVE FINISHED FLOOR
PIPE HANGER & TYPE DESIGNATION	CHANGE ELEVATION UP
HYDRAULIC REF PT	CHANGE ELEVATION DN
GRVD OR THRD CAP	INSPECTORS TEST
GRVD COUPLING	AUX DRAIN
TYPICAL POINT OF CONNECTION (POC)	REVISION NOTATION
	LOCAL ALARM

PROJECT NAME:
FIRE SPRINKLER PLANS FOR

120 FOX RUN RESIDENCE

120 FOX RUN
PORTOLA, CA 96122

STAMP:

DRAWING TITLE:
FIRE SPRINKLER PLAN

SCALE: 1/8"=1'-0"	JOB NO.: 26-6010
DRAWN BY:	DWG NO.: FP-1
BORN ON DATE: 6/23/2026	
FILE:	SHEET 1 OF 1