

UPPER FLOOR FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"

HEAT SOURCE:	SPRINKLER HEAT ZONES:	
	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"

PROJECT SUMMARY:
PROJECT NAME: WRIGHT RESIDENCE
PROJECT ADDRESS: 3539 KNOB POINT TRAIL, CARSON CITY, NV 89705
APN: 1419-09-001-070
PROJECT TYPE: NEW T.I.
TYPE OF CONSTRUCTION: V
OCCUPANCY GROUP(S): R3
OCCUPIED LEVELS: 2
TOTAL SPRINKLERED AREA: 7352 SQ. FT.
NFPA CODE REQUIREMENT: NFPA 13 NFPA 13R NFPA 13D
NUMBER OF SYSTEMS: 2
SYSTEM TYPE(S): WET ANTI-FREEZE DRY PREACTION
TOTAL SPRINKLERS: 81
SPECIAL NOTES: SEE FIRE SPRINKLER NOTES THIS SHEET

SUBMITTAL

NO SPRINKLERS REQUIRED IN:
 BATHROOMS 56 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 = 5931 S.F.
 UPPER FLOOR = 1421 S.F.

Nominal Pipe Size (in.)	Nominal Pipe Size (in.)							
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Steel Pipe except threaded	N/A	12-0	12-0	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	N/A	N/A
Copper tube	8-0	8-0	10-0	10-0	12-0	12-0	15-0	15-0
CPVC	5-6	6-0	6-6	7-0	8-0	8-0	10-0	15-0

- SPRINKLER SPACING**
- A SINGLE PENDENT SPRINKLER MAY BE SPACED AT A MAXIMUM OF 18'x18' (324 SQ. FT.) OR UP TO 9' OFF A WALL (MINIMUM 8'-0" BETWEEN SPRINKLERS).
 - TWO OR MORE HEADS IN A COMPARTMENT SHALL BE SPACED AT A MAXIMUM OF 16'x16' (256 SQ. FT.) OR UP TO 8' OFF A WALL (MINIMUM 8'-0" BETWEEN SPRINKLERS).
 - 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

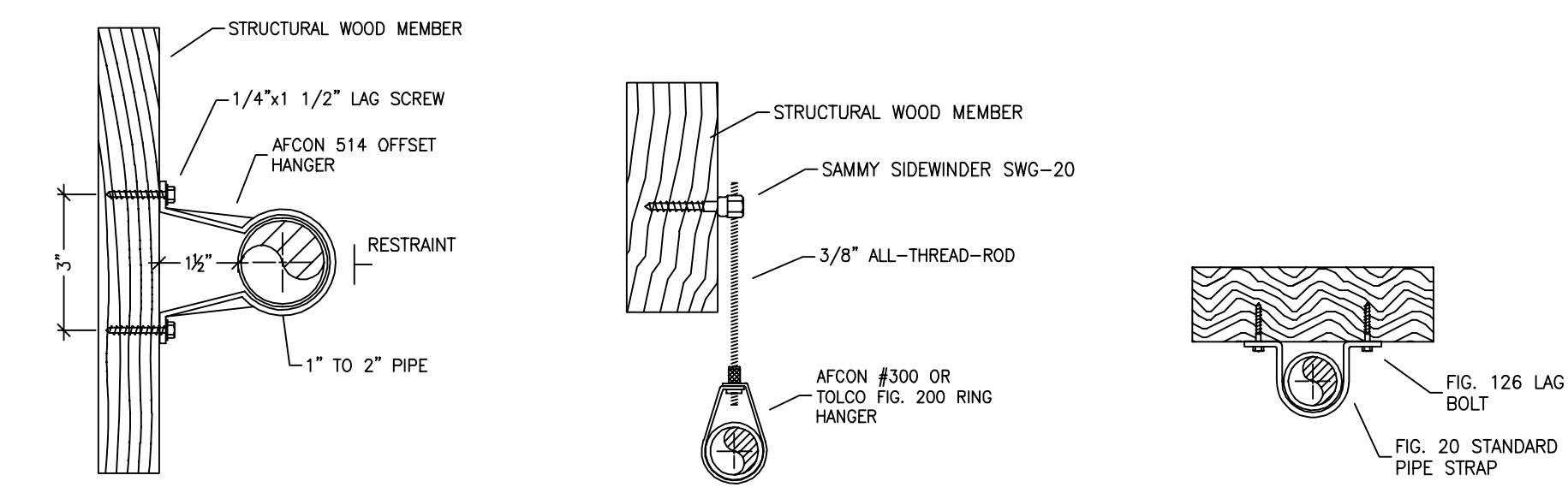
PIPE VOLUMES:
 (CPVC)
 ZONE 1: MAIN HOUSE & UPPER LEVEL
 TOTAL PIPE FOOTAGE AND CAPACITY:
 1" = 451' (22.30 GAL)
 1-1/4" = 184' (14.59 GAL)

TOTAL VOLUME: ±36.89 GALLONS

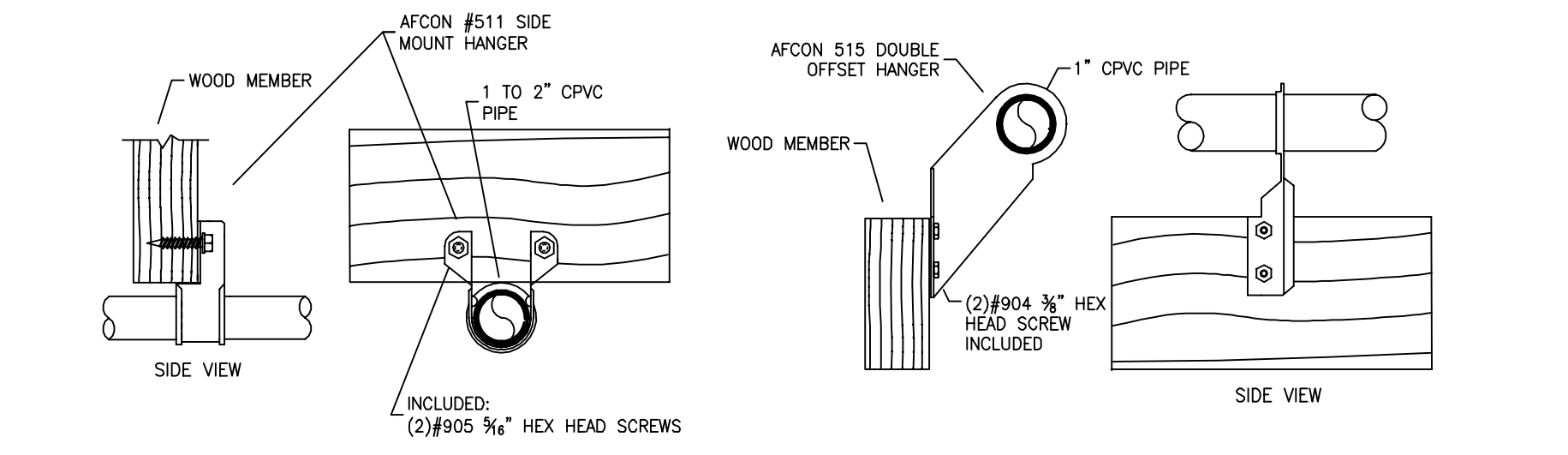
PIPE VOLUMES:
 (CPVC)
 ZONE 2: MAIN LEVEL GARAGE WING
 TOTAL PIPE FOOTAGE AND CAPACITY:
 1" = 202' (9.99 GAL)

TOTAL VOLUME: ±9.99 GALLONS

Nominal Pipe Diameter (in.)	Pipe Schedule 40 Schedule 10 (gal)	CPVC (gal)
1	0.045	0.049
1 1/4	0.078	0.085
1 1/2	0.106	0.115
2	0.174	0.190
2 1/2	0.248	0.283

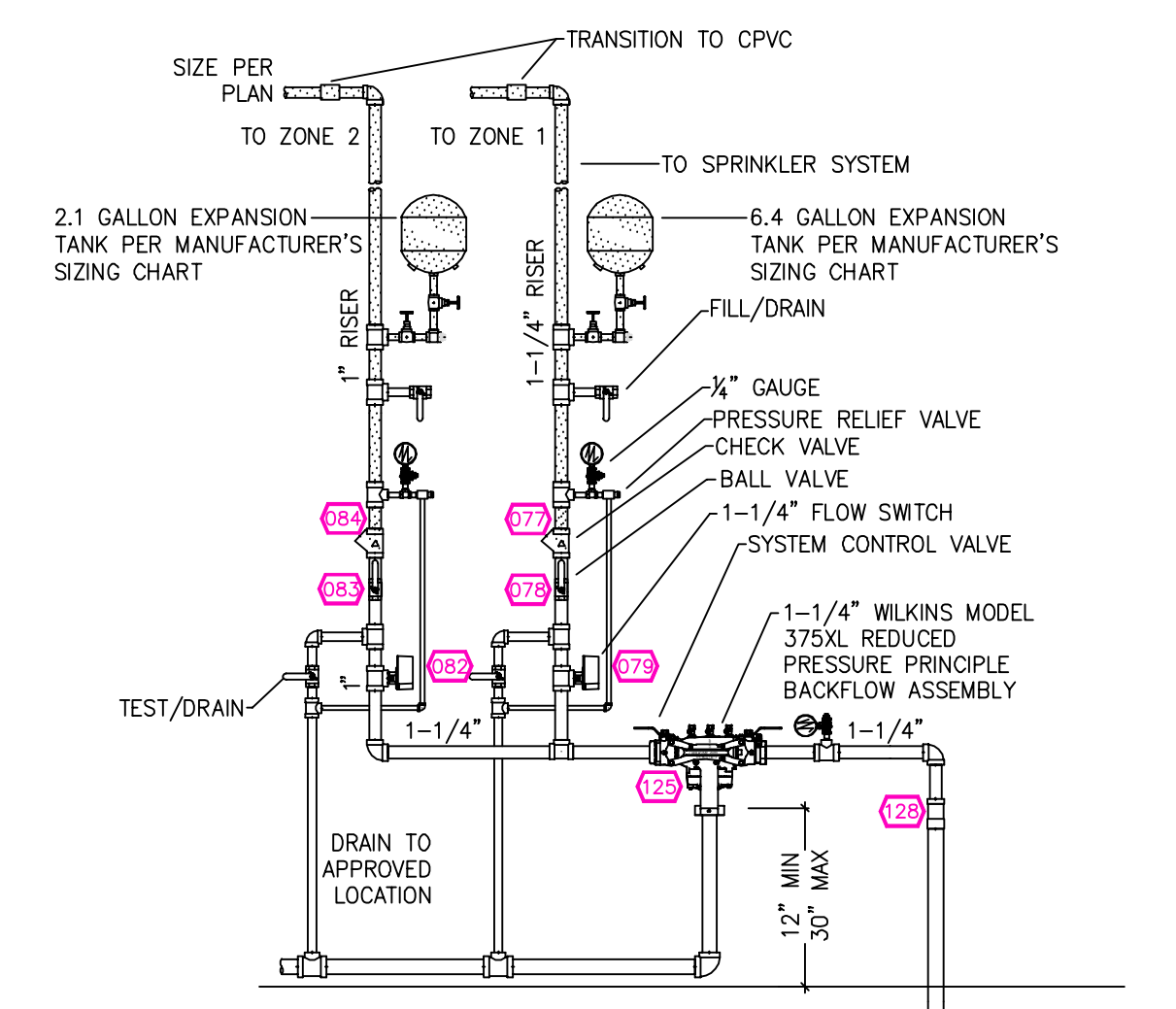


514 OFFSET HANGER STEEL PIPE APPLICATION NTS
 SWG-20 HANGER DETAIL FOR HORIZONTAL ATTACHMENT TO WOOD NTS

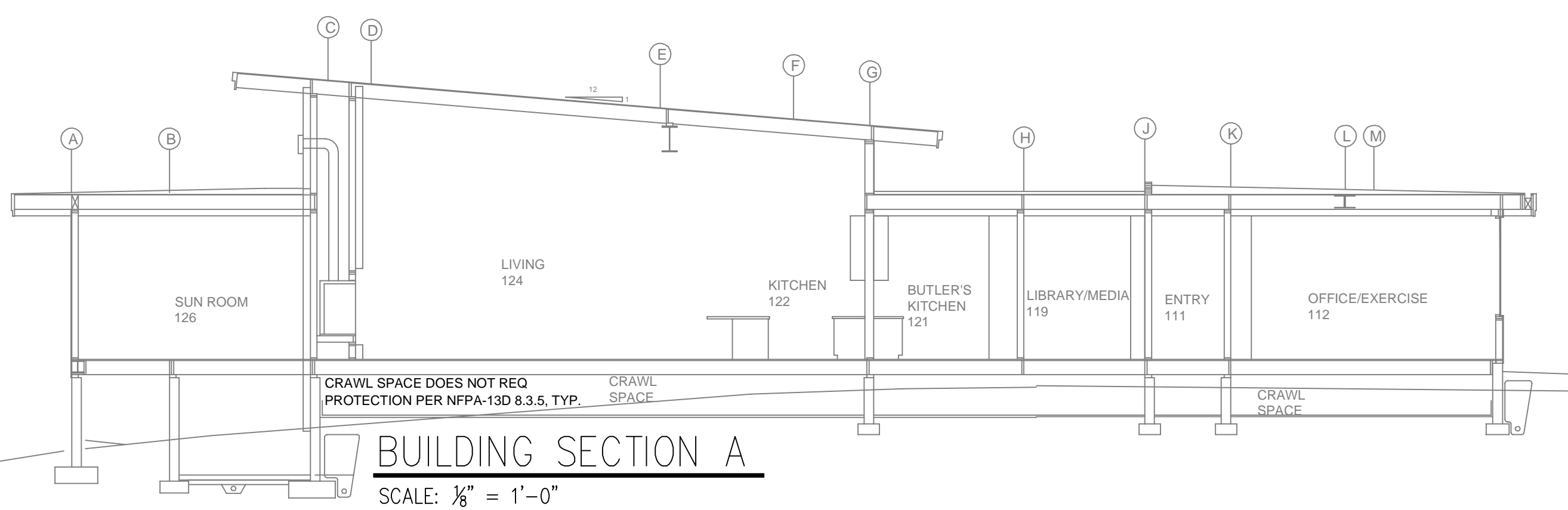


511 SIDE MOUNT HANGER CPVC PIPE APPLICATION NTS
 515 DOUBLE OFFSET HANGER CPVC PIPE APPLICATION NTS

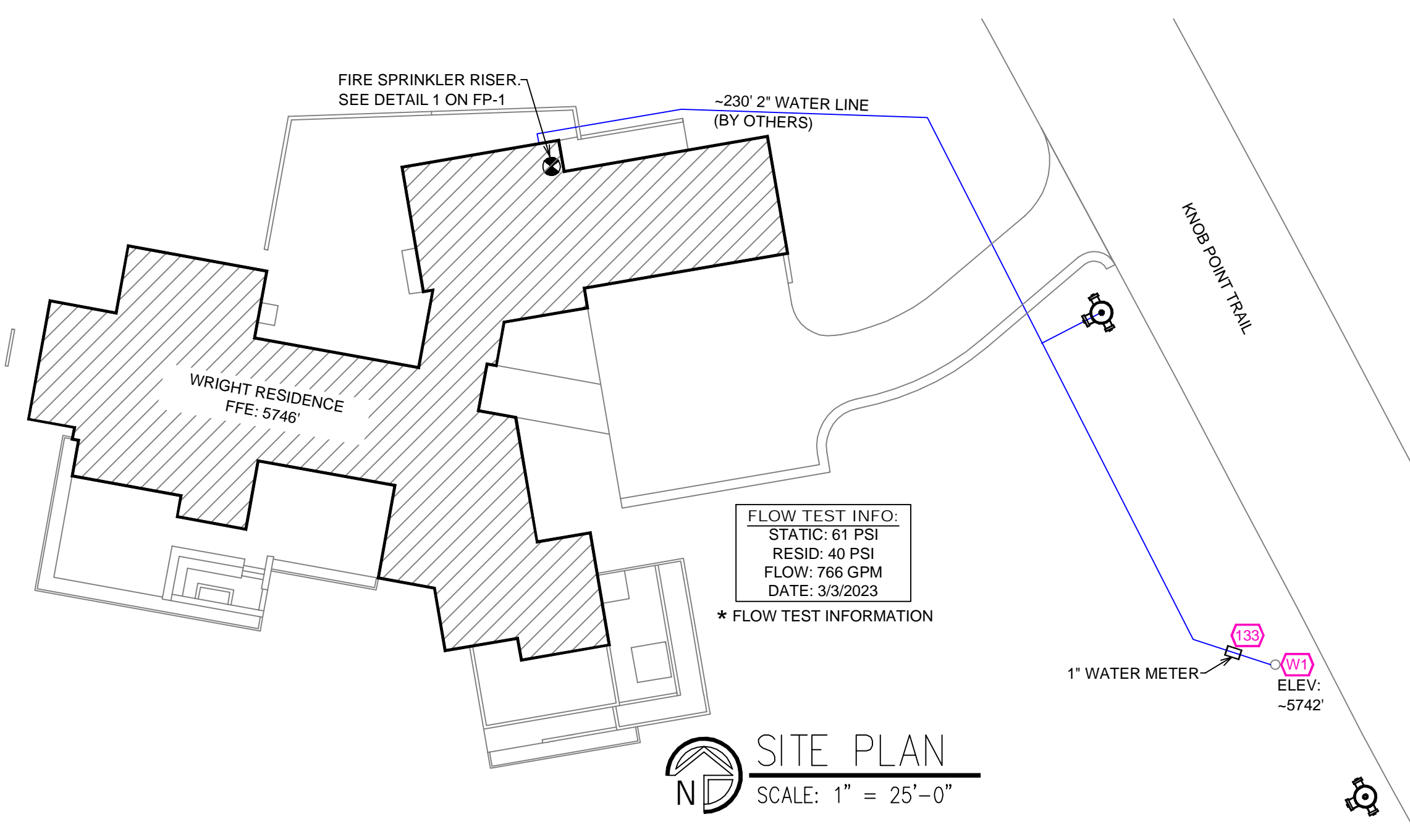
HANGER DETAILS



1 RISER DETAIL
SCALE: 1/2" = 1'-0"



BUILDING SECTION A
SCALE: 1/8" = 1'-0"



SITE PLAN
SCALE: 1" = 25'-0"

NO.	DATE	REVISIONS	DRAWN	CHECKED

GENERAL CONTRACTOR: AUTHORITY HAVING JURISDICTION:
 CARSON CITY FIRE DEPT
ADDRESS: ADDRESS: 777 S STEWART ST
CITY: CARSON CITY, NV 89701
PHONE: PHONE: 775-887-2210
CONTACT: CONTACT:

ARCHITECT: FIELD INSPECTIONS:
 1.
 2.
 3.
 4.

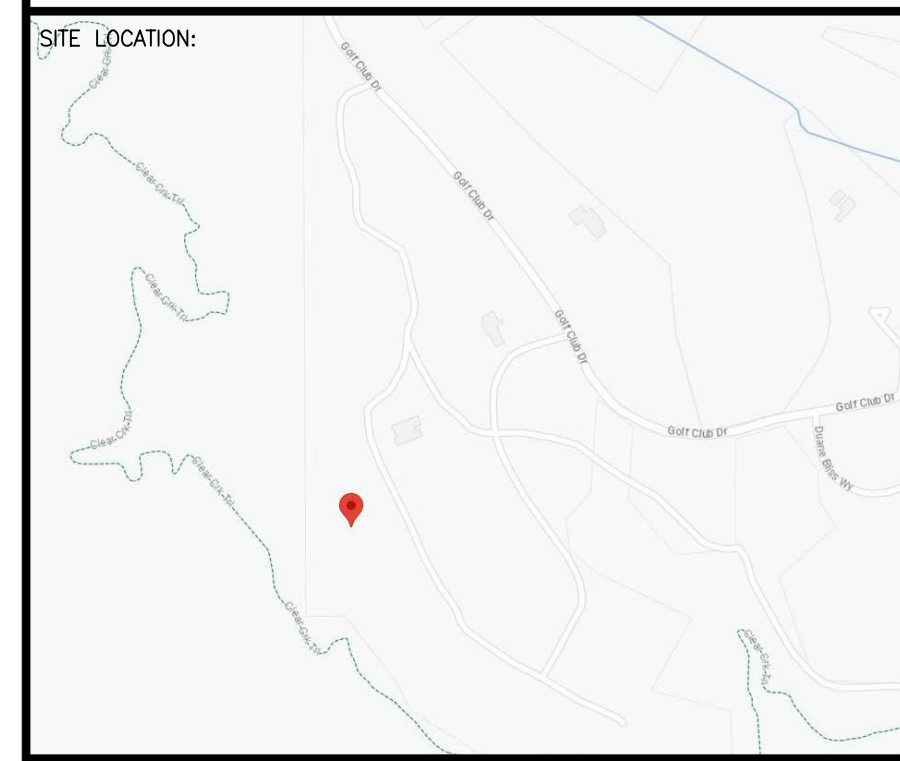
FIRE SPRINKLER NOTES:
 1. THE PROPOSED FIRE SPRINKLER SYSTEM IS AN ANTI-FREEZE SYSTEM AND SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13D PIPING UNLESS OTHERWISE NOTED.
 2. THIS SPRINKLER SYSTEM IS HYDRAULICALLY CALCULATED IN ACCORDANCE WITH NFPA 13D TO PROVIDE 0.05 GPM PER SQ. FT. OVER THE 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).

SYM	QTY	TYPE	MFJ	MODEL	NPT	K	TEMP	FINISH	S.I.N.
⊗	70	CONCEALED	SENJU	RC-RES	1/2"	4.9	162	WHITE	SS8464
⊗	1	CONCEALED	SENJU	RC-RES	1/2"	4.9	205	WHITE	SS8464
⊗	10	SEMI-RECESS	SENJU	FR-RES	1/2"	4.9	205	WHITE	SS4451

81 TOTAL SPRINKLERS

FIRE SPRINKLER SYMBOLS

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



PROJECT NAME: FIRE SPRINKLER PLANS FOR
WRIGHT RESIDENCE
 3539 KNOB POINT TRAIL
 CARSON CITY, NV 89705

DRAWING TITLE:
FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'-0"	JOB NO.:	FP-1
BORN ON DATE: 9/18/2023	DWG NO.:	
FILE:	SHEET 1 OF 2	



MAIN FLOOR FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"

REMOTE AREA 1

Hydraulically Calculated System	
This system as shown on <u>Fire Protection Plan</u>	
company print no. <u>FP1</u> dated <u>9/5/2023</u>	
for <u>WRIGHT RESIDENCE</u>	
at <u>SUNROOM</u> contract no. <u> </u>	
is designed to discharge at a rate of <u>0.05</u> gpm	
(L/min) per sq ft (m ²) of floor area over a maximum area of	
<u>NFPA 13D - 2 SPRINKLERS</u> sq ft (m ²) when supplied	
with water at the rate of <u>31.3</u> gpm (L/min)	
at <u>55.5</u> psi (bars) at the base of the riser.	
Hose stream allowance of <u>5</u> gpm (L/min)	
is included in the above.	
Occupancy classification <u>130 LIGHT HAZARD</u>	
Commodity classification <u>N/A</u>	
Maximum storage height <u>N/A</u>	
Safety factor <u>5.5</u>	

REMOTE AREA 2

Hydraulically Calculated System	
This system as shown on <u>Fire Protection Plan</u>	
company print no. <u>FP1</u> dated <u>9/5/2023</u>	
for <u>WRIGHT RESIDENCE</u>	
at <u>DINING</u> contract no. <u> </u>	
is designed to discharge at a rate of <u>0.05</u> gpm	
(L/min) per sq ft (m ²) of floor area over a maximum area of	
<u>NFPA 13D - 1 SPRINKLER</u> sq ft (m ²) when supplied	
with water at the rate of <u>22.0</u> gpm (L/min)	
at <u>43.9</u> psi (bars) at the base of the riser.	
Hose stream allowance of <u>5</u> gpm (L/min)	
is included in the above.	
Occupancy classification <u>130 LIGHT HAZARD</u>	
Commodity classification <u>N/A</u>	
Maximum storage height <u>N/A</u>	
Safety factor <u>17.1</u>	

REMOTE AREA 3

Hydraulically Calculated System	
This system as shown on <u>Fire Protection Plan</u>	
company print no. <u>FP1</u> dated <u>9/5/2023</u>	
for <u>WRIGHT RESIDENCE</u>	
at <u>GARAGE</u> contract no. <u> </u>	
is designed to discharge at a rate of <u>0.05</u> gpm	
(L/min) per sq ft (m ²) of floor area over a maximum area of	
<u>NFPA 13D - 2 SPRINKLERS</u> sq ft (m ²) when supplied	
with water at the rate of <u>31.3</u> gpm (L/min)	
at <u>47.6</u> psi (bars) at the base of the riser.	
Hose stream allowance of <u>5</u> gpm (L/min)	
is included in the above.	
Occupancy classification <u>130 LIGHT HAZARD</u>	
Commodity classification <u>N/A</u>	
Maximum storage height <u>N/A</u>	
Safety factor <u>13.4</u>	

NO.	DATE	REVISIONS	DRAWN	CHECKED
GENERAL CONTRACTOR:		AUTHORITY HAVING JURISDICTION:		
ADDRESS:		CARSON CITY FIRE DEPT		
CITY:		ADDRESS: 777 S STEWART ST		
PHONE:		CITY: CARSON CITY, NV 89701		
CONTACT:		PHONE: 775-887-2210		
ARCHITECT:		CONTACT:		
ADDRESS:		FIELD INSPECTIONS:		
CITY:		1.		
PHONE:		2.		
		3.		
		4.		

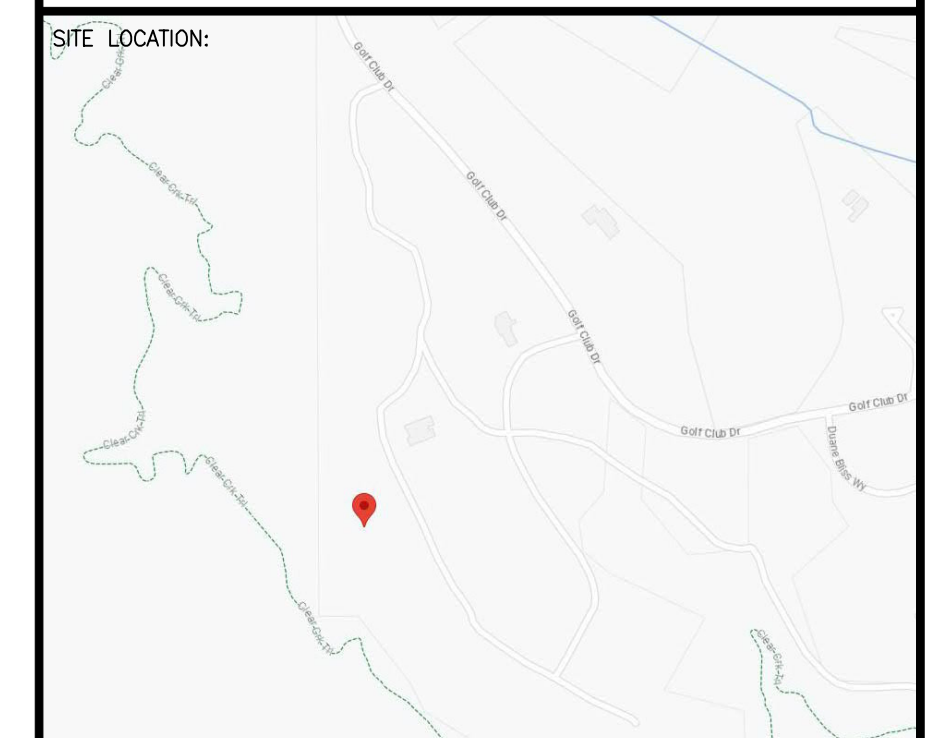
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SPRINKLER HEAD LEGEND

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 - CHANGE ELEVATION UP
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 - REVISION NOTATION
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 - ⊕ LOCAL ALARM



PROJECT NAME: FIRE SPRINKLER PLANS FOR
WRIGHT RESIDENCE
3639 KNOB POINT TRAIL
CARSON CITY, NV 89705

DRAWING TITLE:
FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'-0" JOB NO.:
BORN ON DATE: 9/18/2023 DWG NO.:
FILE: SHEET 2 OF 2 **FP-2**