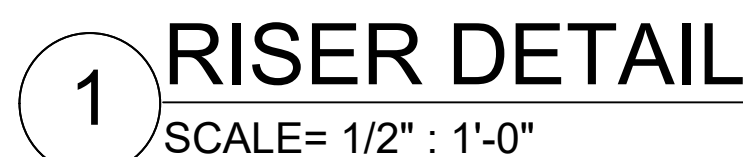




- FLOW TEST INFO:**
 STATIC: 55 PSI
 RESID: 47 PSI
 FLOW: 890 GPM
 DATE: 02/09/26
- ★ FLOW TEST INFORMATION PROVIDED BY
- ON 2-9-26



NFFPA 13 STEEL PIPE HANGER SPACING (EXCEPT LIGHT WALL THIN WALL)		NFFPA 13 CPVC PIPE HANGER SPACING	
NOMINAL SIZE inches	MAX SPACING feet	NOMINAL SIZE inches	MAX SPACING feet
1"	12'-0"	3/4"	5'-6"
1-1/4"	12'-0"	1"	6'-0"
1-1/2"	15'-0"	1-1/4"	6'-6"
2"	15'-0"	1-1/2"	7'-0"
2-1/2"	15'-0"	2"	8'-0"
3"	15'-0"	2-1/2"	9'-0"
4" & LARGER	15'-0"	3"	10'-0"



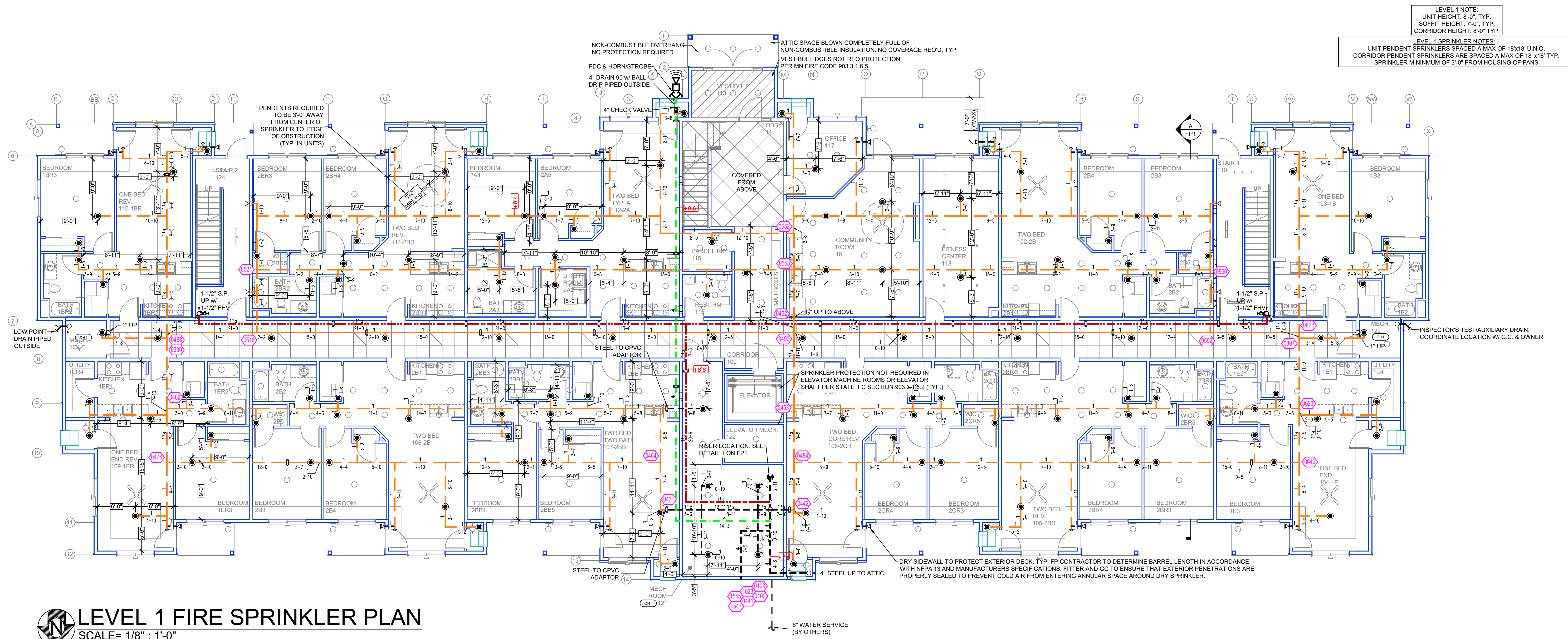
- | | |
|----|---|
| 2 | SYSTEM INSTALLED PER NFPA-13 (2016) EDITION AND STATE FIRE MARSHAL |
| 3 | ALL EQUIPMENT FOR THIS SYSTEM SHALL BE U.L. LISTED |
| 4 | MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE |
| 5 | ALL SCH-40 LIGHTWALL PIPING SHALL BE DRESSED OUTLETS & GROoved SHORT RADIIUS FITTINGS |
| 6 | ALL WELDING PER NFPA-33(4.2) |
| 7 | NO INSTALLATION OR FABRICATION TO BEGIN WITHOUT APPROVED SHOP DRAWINGS |
| 8 | ALL FIELD ECTIONS ARE TO BE COMPLETED PRIOR TO FABRICATION AND INSTALLATION BY SPRINKLER CONTRACTOR |
| 9 | ALL DIMENSIONS SHOWN ARE CENTER TO CENTER |
| 10 | HIGH TEMPERATURE HEADS ARE TO BE FIELD HEADS WHERE REQUIRED |
| 11 | PROVIDE ON SPARE HEAD CABINET W/8 HEADS & 1 HEAD WRENCH |
| 12 | HANGERS ARE TO BE U.L. LISTED AND APPROVED |
| 13 | ELECTRICAL WIRING, ALARM, DETECTION AND SUPERVISORY BY OWNER |
| 14 | OWNER'S RESPONSIBILITY TO PROVIDE ADEQUATE HEATING TO PREVENT WET SYSTEM PIPING FROM FREEZING |

[illegible]

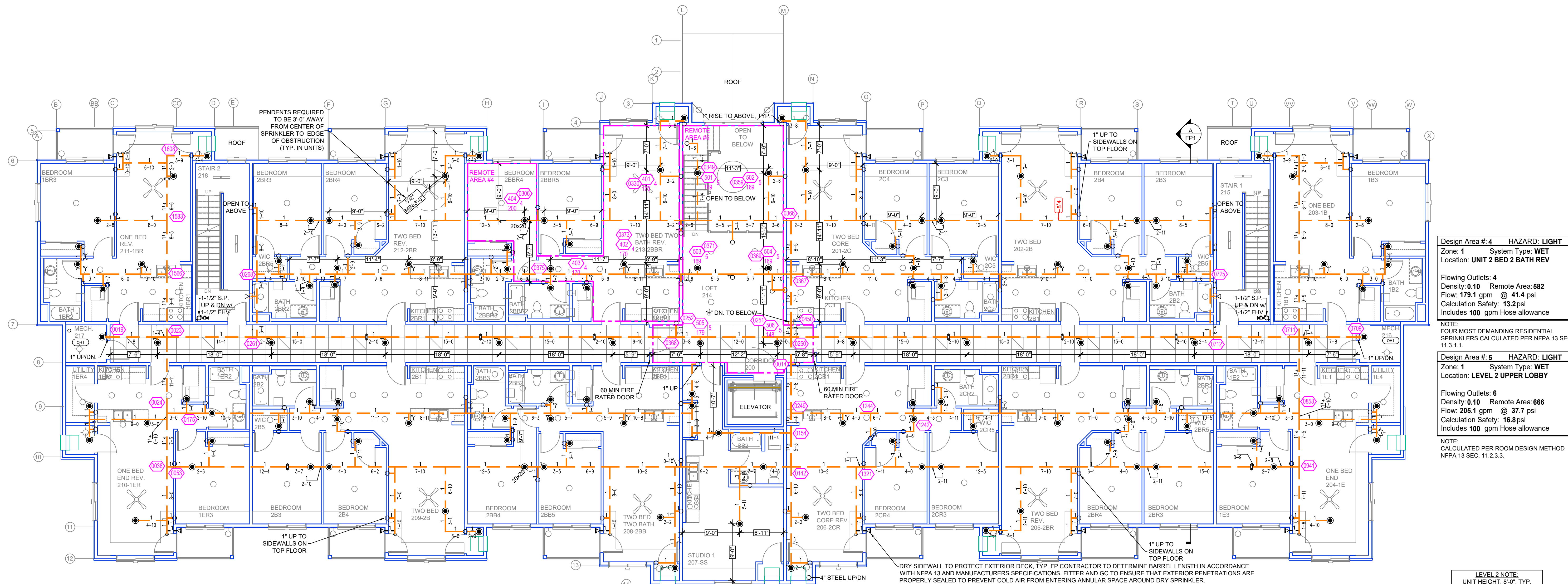
Drawing Title	FIRE PROTECTION PLAN
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**SOUTH SHORE
APARTMENT BUILDING 1**
800 EAST FLOWER LANE
WORTHINGTON, MN 56187

Contract No.	
C25-89	
Drawing Date:	03/30/2026
Scale:	1/8" = 1'-0"
Drawn By:	BCJ
Approval By:	STATE FIRE MARSHAL DIV.
SHEET NO.	FP 1 of 3



LEVEL 1 FIRE SPRINKLER PLAN
SCALE= 1/8" = 1'-0"



LEVEL 2 FIRE SPRINKLER PLAN
SCALE= 1/8" = 1'-0"

Design Area # 4 HAZARD: LIGHT
Zone: 1 System Type: WET
Location: UNIT 2 BED 2 BATH REV

Flowing Outlets: 4
Density: 0.10 Remote Area: 582
Flow: 179.1 gpm @ 41.4 psi
Calculation Safety: 13.2 psi
Includes 100 gpm hose allowance

Design Area # 5 HAZARD: LIGHT
Zone: 1 System Type: WET
Location: LEVEL 2 UPPER LOBBY

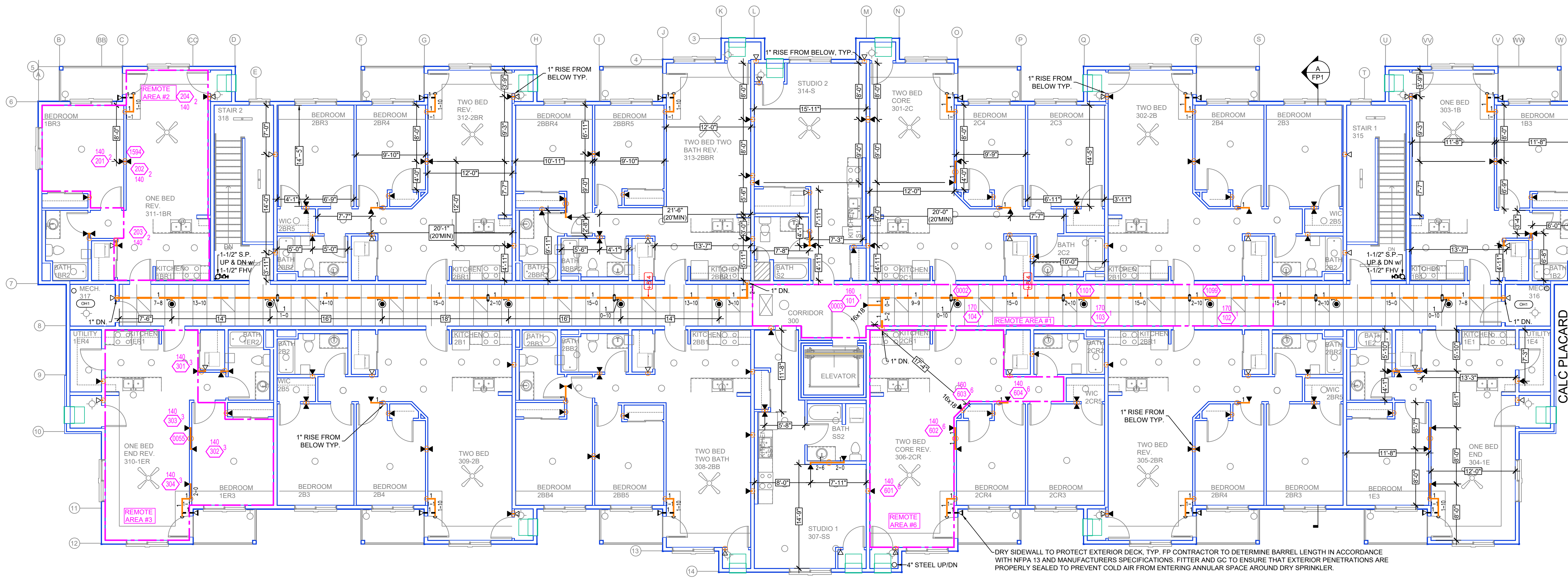
Flowing Outlets: 6
Density: 0.10 Remote Area: 666
Flow: 205.1 gpm @ 37.7 psi
Calculation Safety: 16.8 psi
Includes 100 gpm hose allowance

NOTE:
FOUR MOST DEMANDING RESIDENTIAL SPRINKLERS CALCULATED PER NFPA 13 SEC. 11.5.1.1.

NOTE:
CALCULATED PER ROOM DESIGN METHOD NFPA 13 SEC. 11.2.3.3.

NO	REVISIONS	DATE	APPROVAL STAMPS
1	SYSTEM INSTALLED PER NFPA-13 (2016 EDITION) AND STATE FIRE MARSHAL		
2	ALL EQUIPMENT FOR THIS SYSTEM SHALL BE U.L. LISTED		
3	MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE		
4	ALL SCH-40 & LIGHTWALL PIPING HAS WELDED OUTLETS & GROOVED SHORT RADIUS FITTINGS		
5	ALL WELDING PER NFPA-514 (2011)		
6	NO INSTALLATION OR FABRICATION TO BEGIN WITHOUT APPROVED SHOP DRAWINGS		
7	ALL PIPE LOCATIONS ARE TO BE FIELD MEASURED PRIOR TO FABRICATION AND INSTALLATION BY SPRINKLER CONTRACTOR		
8	ALL DIMENSIONS SHOWN ARE CENTER TO CENTER		
9	HIGH TEMPERATURE HEADS ARE TO BE FIELD LOCATED WHERE REQUIRED		
10	PROVIDE ON SPRINKLER HEAD CABINET WITH HEADS & 1 HEAD WRENCH		
11	HANGERS ARE TO BE U.L. LISTED AND M. APPROVED		
12	ELECTRICAL WIRING, ALARM, DETECTION AND SUPERVISORY BY OWNER		
13	OWNER'S RESPONSIBILITY TO PROVIDE ADEQUATE HEATING TO PREVENT WET SYSTEM PIPING FROM FREEZING		

Drawing Title:	FIRE PROTECTION PLAN	Contract No.:	C25-89
Drawing Date:	03/30/2026	Scale:	1/8" = 1'-0"
Drawn By:	BCJ	Approval By:	STATE FIRE MARSHAL DIV.
Sheet No.:	FP 2 of 3		



LEVEL 3 FIRE SPRINKLER PLAN
SCALE= 1/8" = 1'-0"

LEVEL 3 NOTE:
UNIT HEIGHT: 8'-0" TYP.
SOFFIT HEIGHT: 7'-0" TYP.
CORRIDOR HEIGHT: 8'-0" TYP.

LEVEL 3 SPRINKLER NOTES:
4.0K RESIDENTIAL SIDEWALL SPRINKLERS SPACED A MAX OF 16'-10" U.N.O. & INSTALLED 6"-12" DN. TYP.
CORRIDOR PENDENTS ARE SPACED A MAX OF 18' x 18' TYP.

Design Area # 6 HAZARD: LIGHT
Zone: 1 System Type: WET
Location: LEVEL 3 TWO BED CORE REV
Flowing Outlets: 4
Density: 0.10 Remote Area: 474
Flow: 164.8 gpm @ 41 psi
Calculation Safety: 13.7 psi
Includes 100 gpm Hose allowance
NOTE: FOUR MOST DEMANDING RESIDENTIAL SPRINKLERS CALCULATED PER NFPA 13 SEC. 11.3.1.1.

Design Area # 3 HAZARD: LIGHT
Zone: 1 System Type: WET
Location: LEVEL 3 ONE BED END REV
Flowing Outlets: 4
Density: 0.10 Remote Area: 530
Flow: 158 gpm @ 38.9 psi
Calculation Safety: 15.8 psi
Includes 100 gpm Hose allowance
NOTE: FOUR MOST DEMANDING RESIDENTIAL SPRINKLERS CALCULATED PER NFPA 13 SEC. 11.3.1.1.

Design Area # 1 HAZARD: LIGHT
Zone: 1 System Type: WET
Location: LEVEL 3 CORRIDOR
Flowing Outlets: 4
Density: 0.10 Remote Area: 463
Flow: 171.3 gpm @ 47.4 psi
Calculation Safety: 7.2 psi
Includes 100 gpm Hose allowance
NOTE: FOUR MOST DEMANDING RESIDENTIAL SPRINKLERS CALCULATED PER NFPA 13 SEC. 11.3.1.1.

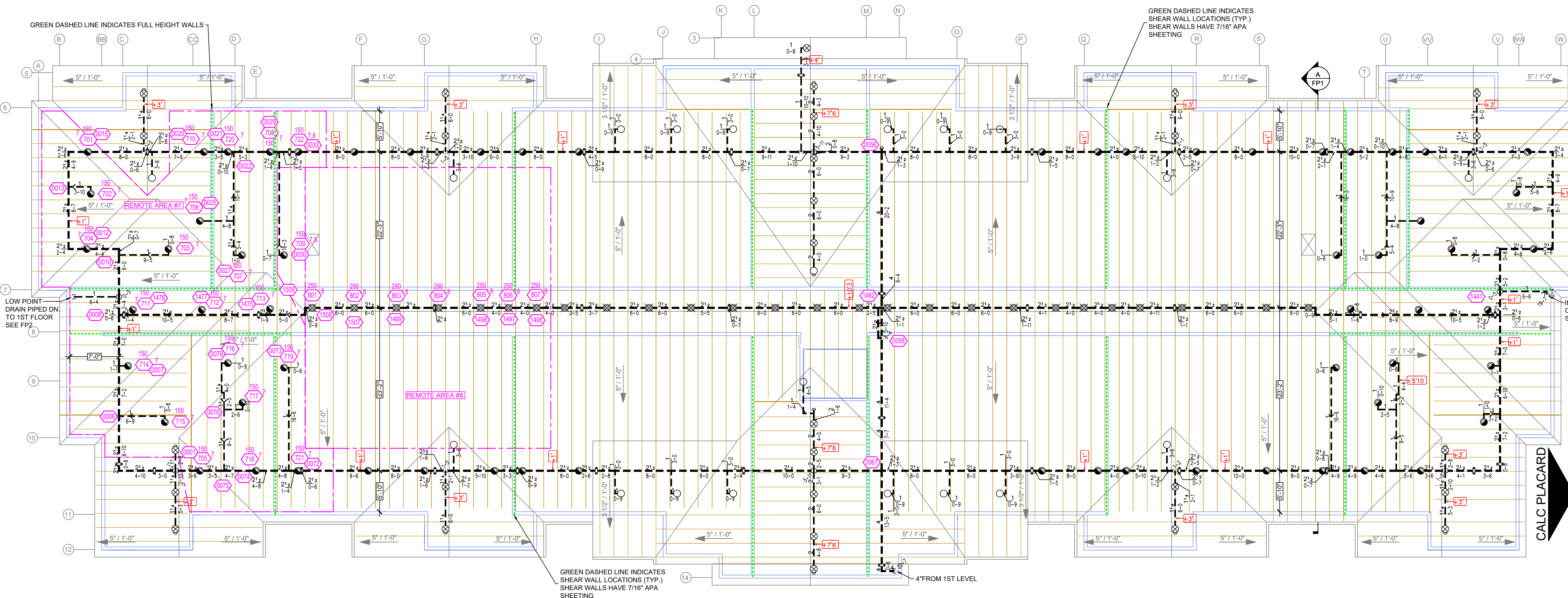
Design Area # 2 HAZARD: LIGHT
Zone: 1 System Type: WET
Location: UNIT ONE BED REV
Flowing Outlets: 4
Density: 0.10 Remote Area: 424
Flow: 159.2 gpm @ 42.8 psi
Calculation Safety: 11.9 psi
Includes 100 gpm Hose allowance
NOTE: FOUR MOST DEMANDING RESIDENTIAL SPRINKLERS CALCULATED PER NFPA 13 SEC. 11.3.1.1.

PIPE LEGEND

—	BLACK STEEL FIRE SPRINKLER PIPING
—	CPVC FIRE SPRINKLER PIPING
—	FIRE SPRINKLER STANDPIPE PIPING
—	FIRE SPRINKLER FDC PIPING

SPRINKLER HEAD LEGEND

SYM	CONT	POSITION	FINISH	TEMP	K	NPT	BR	MFG.	MODEL#	ESCUTCHION	MAX SPACING
72	PENDENT		WHITE	150°	4.80	1/2"	V2740	VICTAULIC	FL-RES	SEMI-RECESS	18" x 18" U.N.O.
72	PENDENT		BRASS	200°	5.60	1/2"	V2708	VICTAULIC	FL-QRP	SEMI-RECESS	225 SF (LH) - 130 SF (OH)
39	SIDEWALL		CHROME	200°	5.60	1"	R5734	RELIABLE	FSQR56	401	14" x 14"
39	SIDEWALL		BRASS	200°	5.60	1/2"	V2710	VICTAULIC	FL-QRSW	SEMI-RECESS	196 SF (LH) - 100 SF (OH)
117	SIDEWALL		WHITE	150°	4.80	1/2"	W486	WVING	W486	SEMI-RECESS	18" x 18" U.N.O.
20	UPRIGHT		BRASS	200°	5.60	1/2"	R4524	RELIABLE	OD56-4	N/A	6" x 40"
20	UPRIGHT		BRASS	212°	5.60	1/2"	V2740	VICTAULIC	FL-QR	N/A	225 SF (LH) - 130 SF (OH)
64	UPRIGHT / SPRIG		BRASS	212°	5.60	1/2"	R4526	RELIABLE	AH56	N/A	10" x 15"
27	UPRIGHT / SPRIG		BRASS	200°	8.00	3/4"	R4522	RELIABLE	DD60-6	N/A	6" x 40"
612 TOTAL SPRINKLERS											



ATTIC FIRE SPRINKLER PLAN
SCALE= 1/8" = 1'-0"

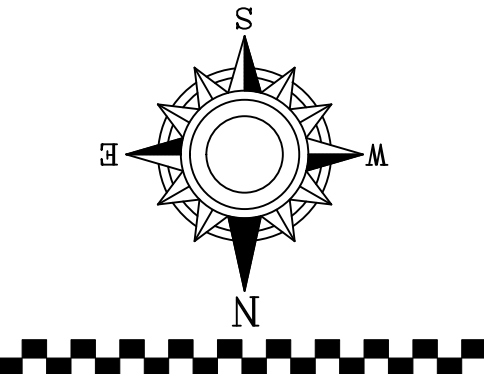
DD56-6 & DD60-6 SPRINKLERS INSTALLED 4'-6" APART W/ A MIN OF 26" DOWN THE SLOPE TOWARD EAVE TO NEAREST SPRINKLER MEASURED PARALLEL TO ROOF DECK. HORIZONTAL DISTANCE FROM FACE OF TRUSS: 6" MIN. VERTICAL DISTANCE OF DEFLECTOR ABOVE SCISSOR TRUSS: MIN 18". HORIZONTAL DISTANCE FROM CENTER LINE OF RIDGE: MAX 6". VERTICAL DISTANCE OF TOP OF DEFLECTOR BELOW PEAK, RIDGE, OR DECK: 17'-21" TYP.

AH56 SPRINKLERS INSTALLED 6'-10" APART W/ A MIN OF 12" DOWN THE SLOPE TO NEAREST SPRINKLER MEASURED PARALLEL TO ROOF DECK. TYP. A MIN 2" LATERAL OFFSET IS REQUIRED BETWEEN SPRINKLERS WHEN VIEWED LOOKING UP THE ROOF SLOPE. DISTANCE FROM TOP OF DEFLECTOR TO BOTTOM OF TRUSS TOP CHORD: 1'-3" TYP.

INSPECTOR'S TEST/AUXILIARY DRAIN. COORDINATE LOCATION W/ G.C. & OWNER. SEE FP2 FOR CONTINUATION

Design Area # 8 HAZARD: LIGHT
Zone: 2 System Type: DRY
Location: ATTIC RIDGE
Flowing Outlets: 9
Density: 0.10 Remote Area: 2588
Flow: 314.4 gpm @ 36.9 psi
Calculation Safety: 16.9 psi
Includes 100 gpm Hose allowance
NOTE: 7 DD AND 2 AH SPRINKLERS CALCULATED PER MANUFACTURER'S CUT SHEET

Design Area # 7 HAZARD: LIGHT
Zone: 2 System Type: DRY
Location: ATTIC HIP
Flowing Outlets: 20
Density: 0.10 Remote Area: 1826
Flow: 494.5 gpm @ 44.3 psi
Calculation Safety: 7.4 psi
Includes 100 gpm Hose allowance
NOTE: UP TO 1960 SF CALCULATION PER MANUFACTURER'S CUT SHEET



GENERAL NOTES

- SYSTEM INSTALLED PER NFPA-13 (2016 EDITION) AND STATE FIRE MARSHAL
- ALL EQUIPMENT FOR THIS SYSTEM SHALL BE U.L. LISTED
- MINIMUM PIPE SIZE SHALL BE 1" NOMINAL PIPE
- ALL SCH-40 & LIGHTWALL PIPING HAS WELDED OUTLETS & GROOVED SHORT RADIUS FITTINGS
- ALL WELDING PER NFPA-514 (2015)
- NO INSTALLATION OR FABRICATION TO BEGIN WITHOUT APPROVED SHOP DRAWINGS
- ALL PIPE LOCATIONS ARE TO BE FIELD MEASURED PRIOR TO FABRICATION AND INSTALLATION BY SPRINKLER CONTRACTOR
- ALL DIMENSIONS SHOWN ARE CENTER TO CENTER
- HIGH TEMPERATURE HEADS ARE TO BE FIELD LOCATED WHERE REQUIRED
- PROVIDE ON SPRINKER HEAD CABINET W/8 HEADS & 1 HEAD WRENCH
- HANGERS ARE TO BE U.L. LISTED AND M. APPROVED
- ELECTRICAL WIRING, ALARM, DETECTION AND SUPERVISORY BY OWNER
- OWNERS RESPONSIBILITY TO PROVIDE ADEQUATE HEATING TO PREVENT WET SYSTEM PIPING FROM FREEZING

NO	REVISIONS	DATE	APPROVAL STAMPS

Drawing Title: FIRE PROTECTION PLAN

SOUTH SHORE APARTMENT BUILDING 1

800 EAST FLOWER LANE
WORTHINGTON, MN 56187

Contract No: C25-89
Drawing Date: 03/30/2026
Scale: 1/8" = 1'-0"
Drawn By: BCJ
Approval By: STATE FIRE MARSHAL DIV.
SHEET NO: FP 3 of 3