

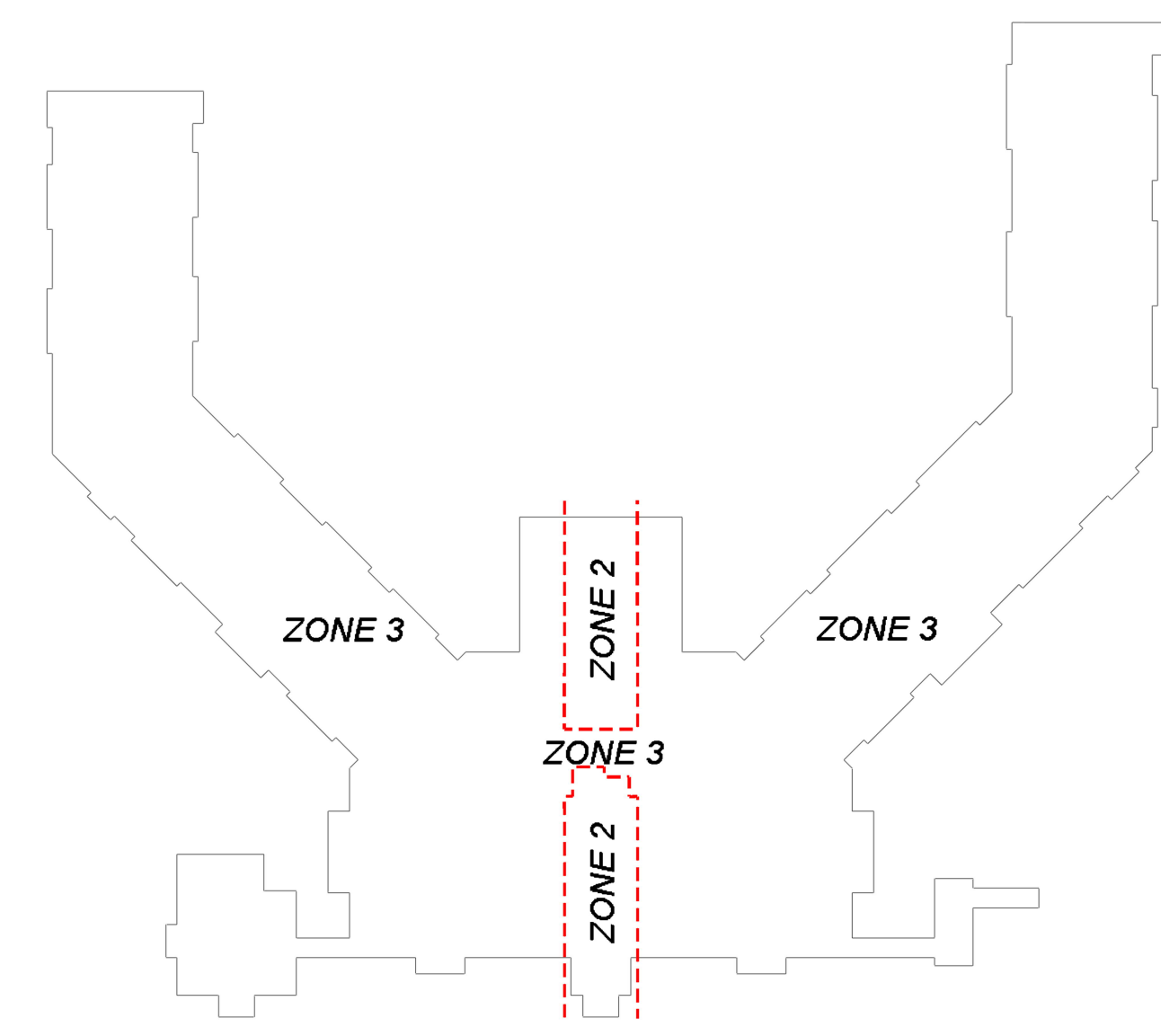
- SYMBOLS USED ON DRAWINGS:**
- *X.XFF PIPE ELEVATION A.F.F
 - OHM ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD UNLESS NOTED)
 - (H) HYDRAULIC CALCULATION JUNCTION POINT
 - 8'-0" CEILING HEIGHT (8'-0" U.N.O. UNLESS NOTED OTHERWISE)
 - 2 CPVC PIPE
 - 2 STEEL WET PIPE
 - 2 STEEL DRY PIPE

- MATERIAL NOTES:**
1. MAIN PIPING THROUGHOUT SHALL BE SCH. 7 AND 10 TYPE JOINED BY GRV FITTINGS.
 2. BRANCHLINES THROUGHOUT SHALL BE XL TYPE JOINED BY THREADED FITTINGS.
 3. UNIT AND CONCEALED PIPING SHALL BE CPVC (PLASTIC) TYPE JOINED BY CPVC SLIP FITTINGS.
- GENERAL NOTES:**
1. ALL PIPING SHALL BE HYDRAULICALLY TESTED FOR 2 HOURS AT 200 PSI OR 50 PSI EXCESS OF SYSTEM PRESSURE, WHICHEVER IS GREATER.
 2. SIGNED COPIES OF TEST CERTIFICATES SHALL BE FORWARDED TO APPROPRIATE OFFICES.
 3. CALCULATIONS SUMMARY STICKERS SHALL BE PLACED ON SYSTEM RISER.
 4. SPRINKLER HEADS SHALL BE INSTALLED UNDER EXPOSED DUCTWORK OVER 4'-0" IN WIDTH OR OTHER OBSTRUCTIONS AS REQUIRED.
 5. PAINTING OF EXPOSED PIPING SHALL BE DONE BY OTHERS.
 6. SPARE SPRINKLER HEADS AND CABINET SHALL BE PROVIDED.
 7. PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRE CALKED.
 8. PERMANENT SIGNS SHALL BE PLACED ON CONTROL VALVES AND SYSTEM RISERS, TEST VALVES, AND DRAINS.
 9. MONITORING OF SYSTEM TO BE PROVIDED BY OTHERS.

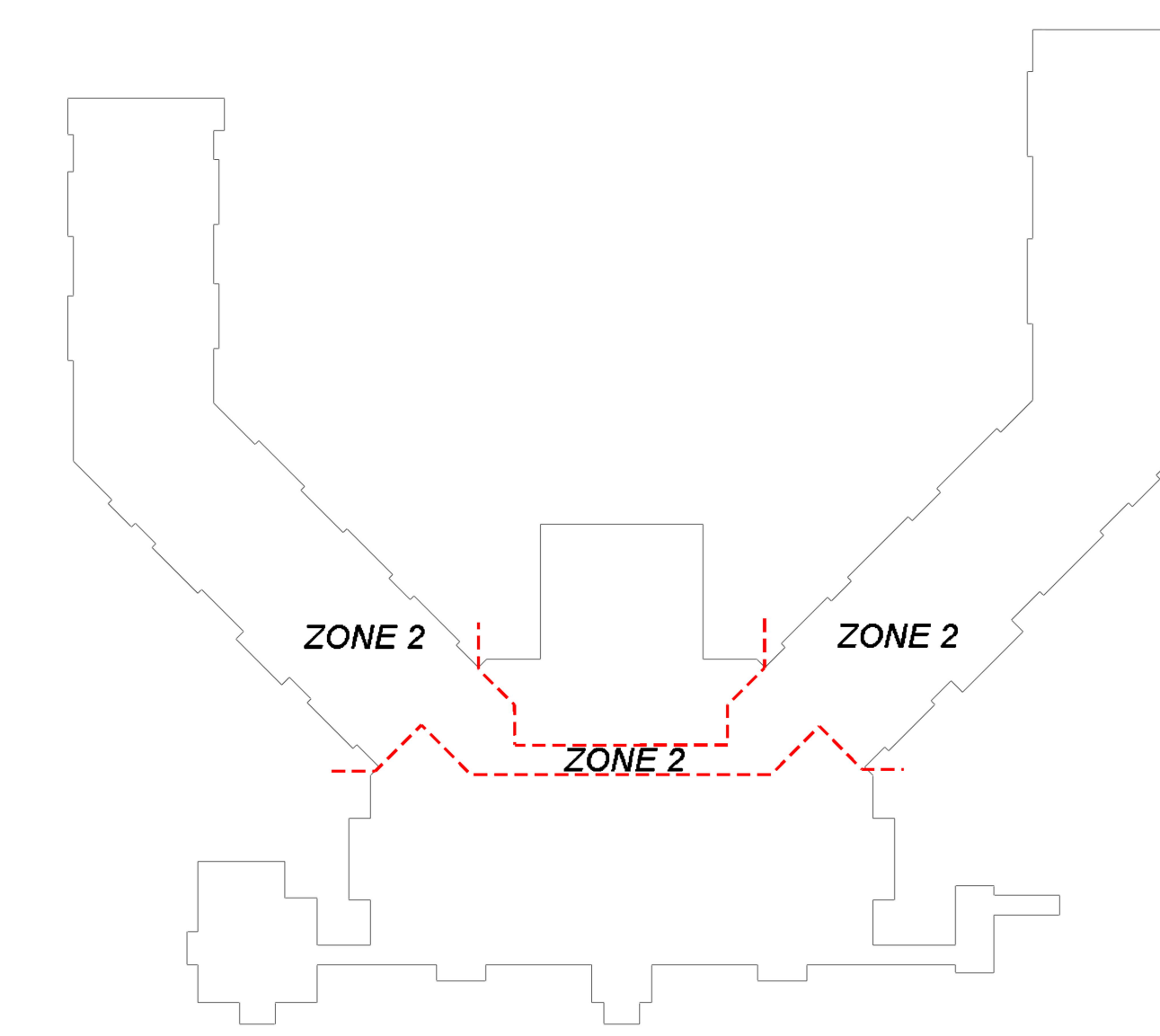
- SYSTEM NOTES:**
- SYSTEM TYPE: WET & DRY SYSTEM
 DESIGN STANDARD: NFPA 13, 2016 ED.
 CONSTRUCTION: I-1 ASSISTED LIVING
 SYSTEM AREA:
 LEVEL 1 ZONE 2 WET- 4,300 SQ. FT.
 ZONE 3 WET- 51,900 SQ. FT.
 LEVEL 2 ZONE 2 WET- 33,000 SQ. FT.
 LEVEL 3 ZONE 2 WET- 37,300 SQ. FT.
 LEVEL ATTIC ZONE 1 DRY- 16,900 SQ. FT.
 ZONE 4 DRY- 18,200 SQ. FT.
 ZONE 5 DRY- 11,600 SQ. FT.
- OCCUPANCY: A-3, A-2, B
 ALARM: ELECTRIC HORN/STROBE
 DRY VOLUME: ZONE 1 716 GALLONS
 ZONE 4 723 GALLONS
 ZONE 5 548 GALLONS

- HANGER SPACING:**
- HANGER SPACING AS PER 2010 ED. OF NFPA 13:
 1. GROOVED LIGHTWALL STEEL PIPE: 1 1/2" TO 8" MAX SPACING 15'-0"
 2. THREADED LIGHTWALL STEEL PIPE: 1" TO 3" MAX SPACING 12'-0"
 3. CPVC: 3/4" MAX SPACING 5'-6"; 1" MAX SPACING 6'-0"; 1 1/4" MAX SPACING 6'-0";
 1 1/2" MAX SPACING 7'-0"; 2" MAX SPACING 8'-0";
 * HANGERS ARE NOT SHOWN FOR CLARITY

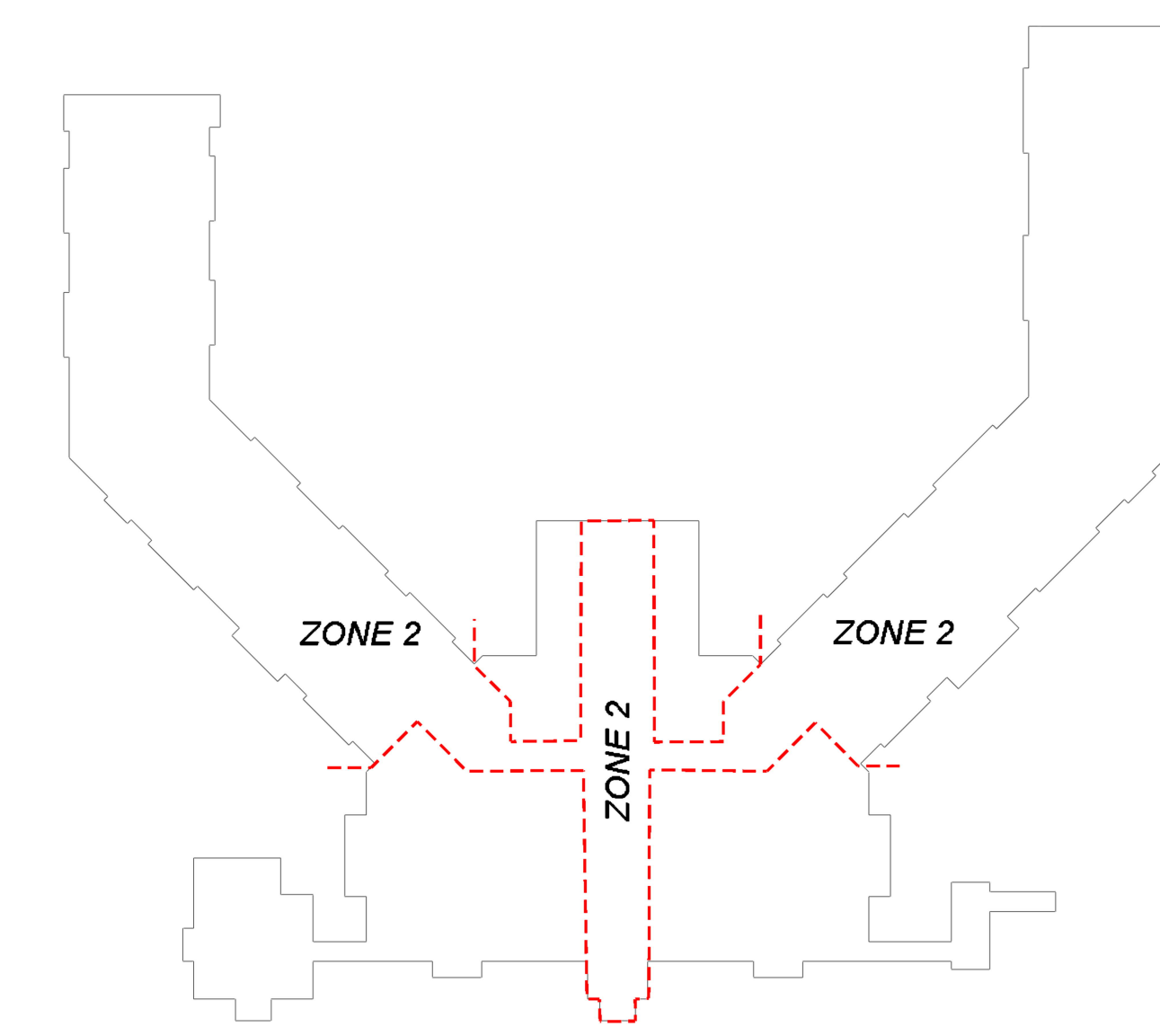
- WATER SUPPLY:**
- STATIC: 52 PSI
 RESIDUAL: 47 PSI
 FLOW: 1,087 GPM
 TEST DATE: NOV 19, 2020



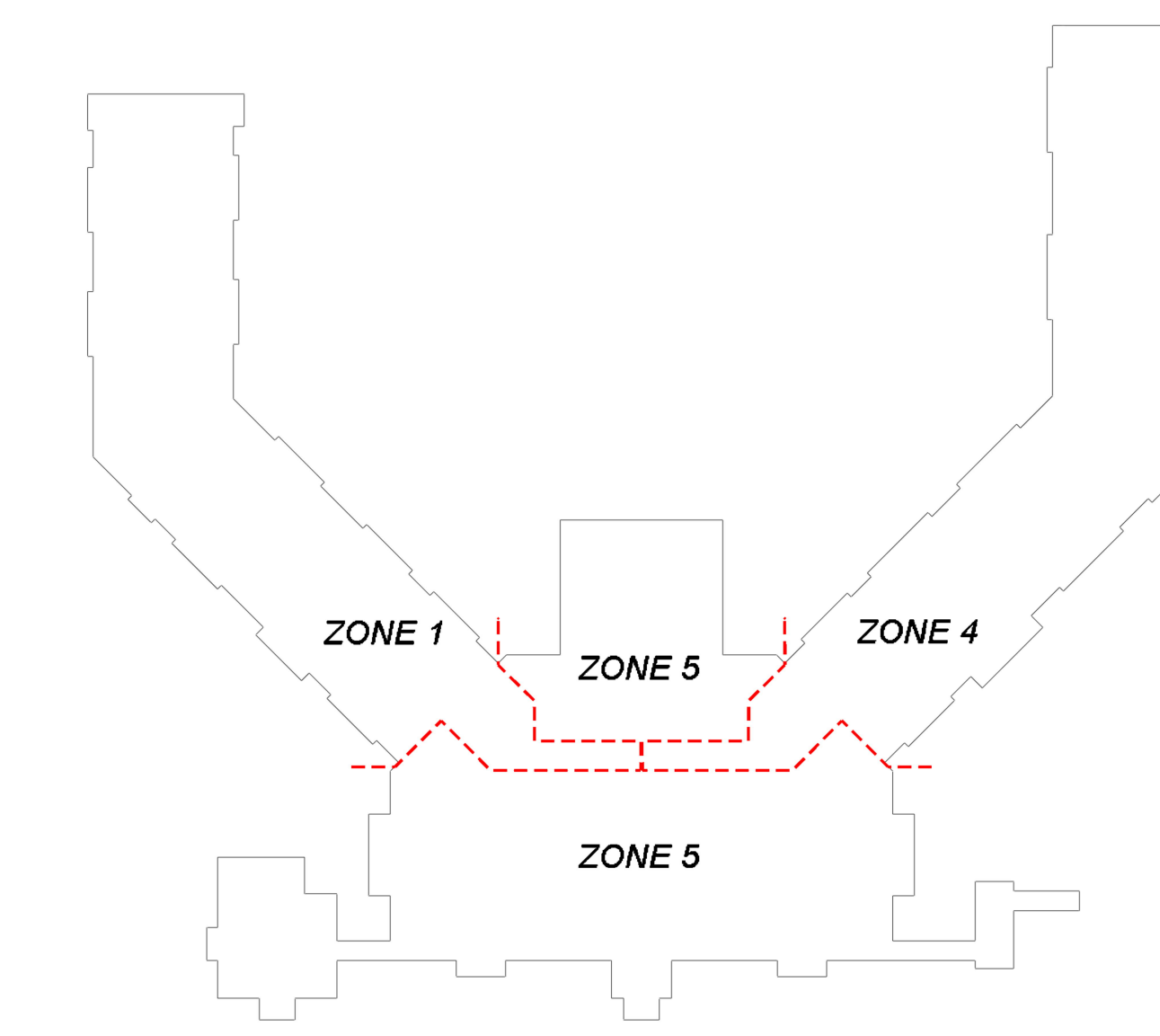
LEVEL 1 ZONE MAP



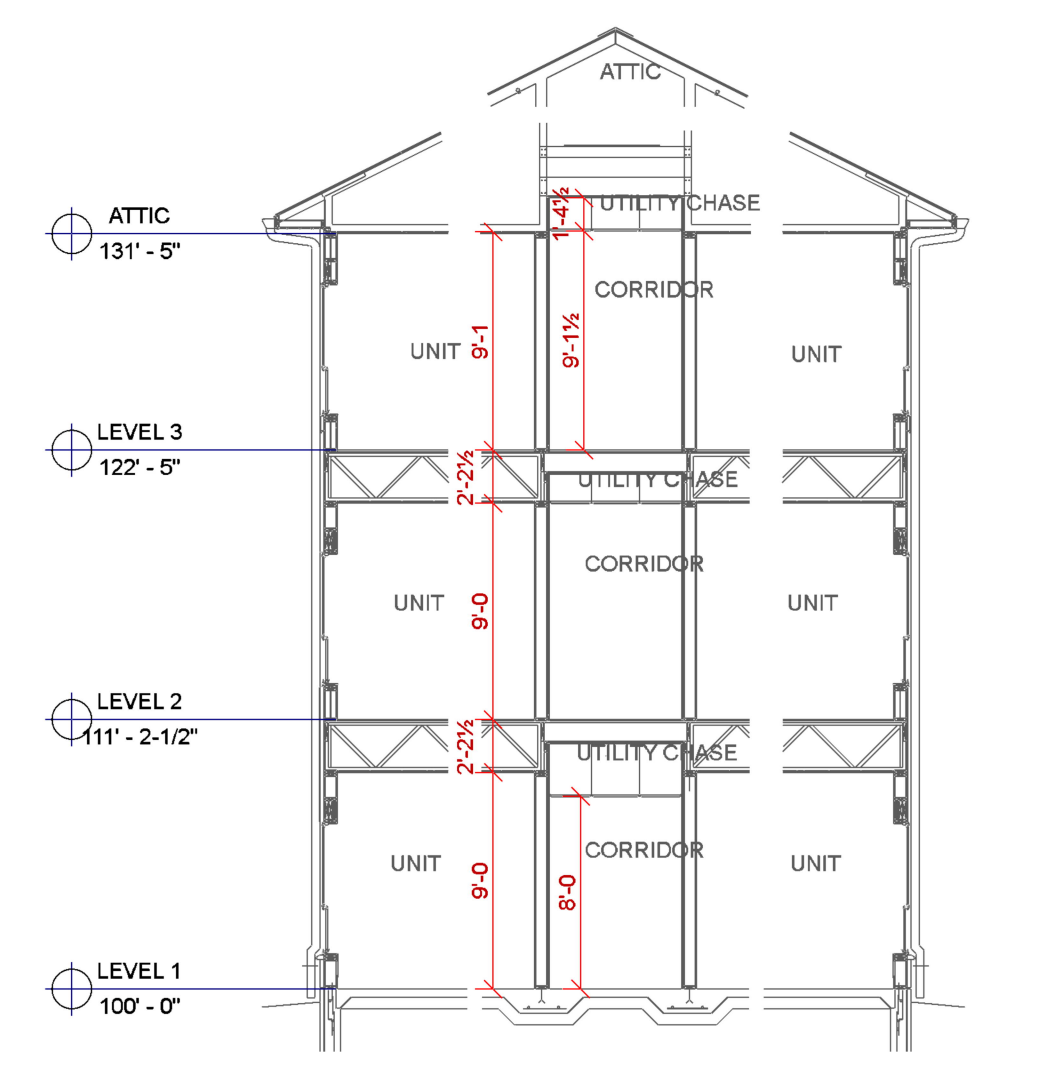
LEVEL 2 ZONE MAP



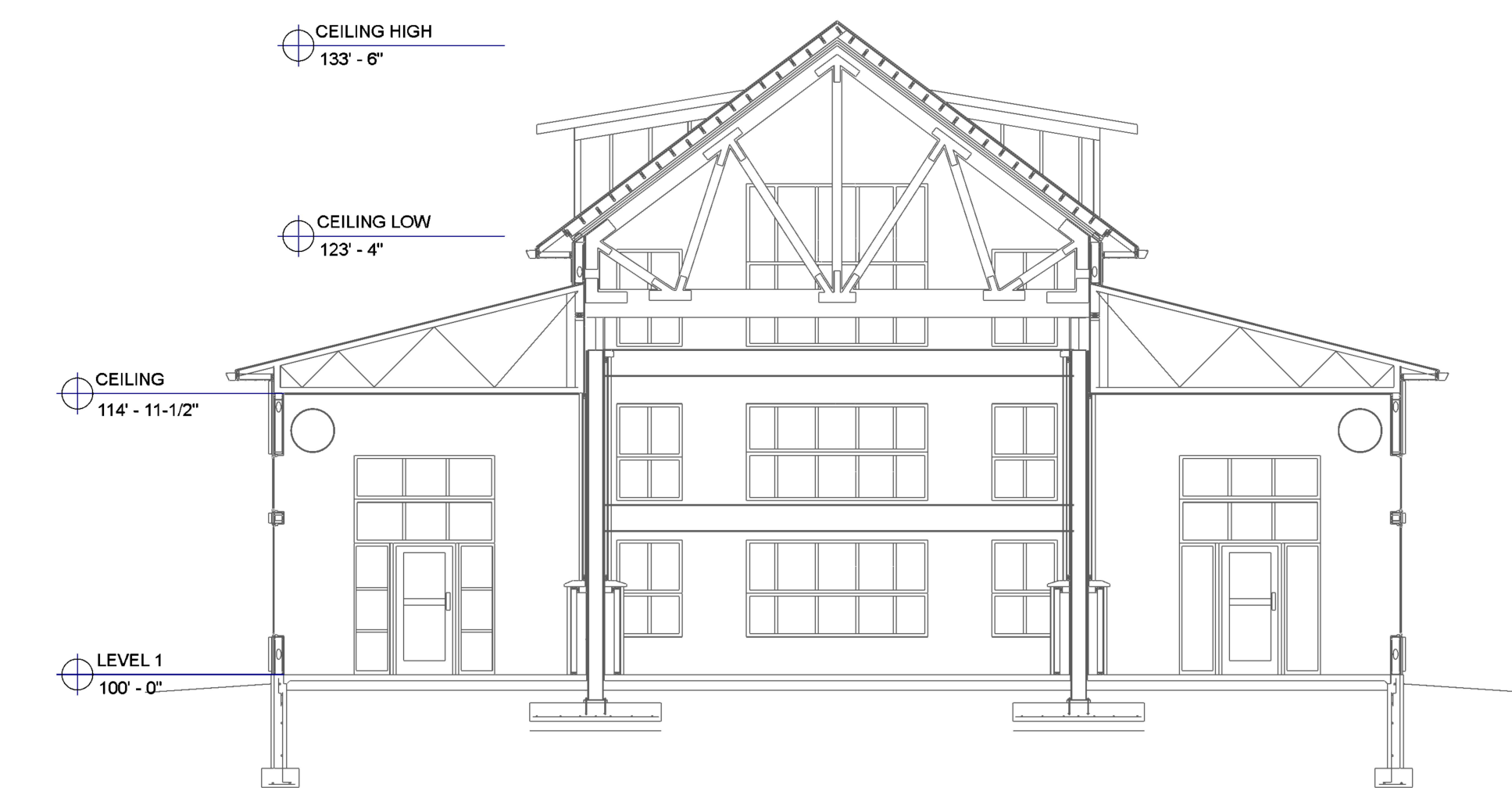
LEVEL 3 ZONE MAP



ATTIC ZONE MAP

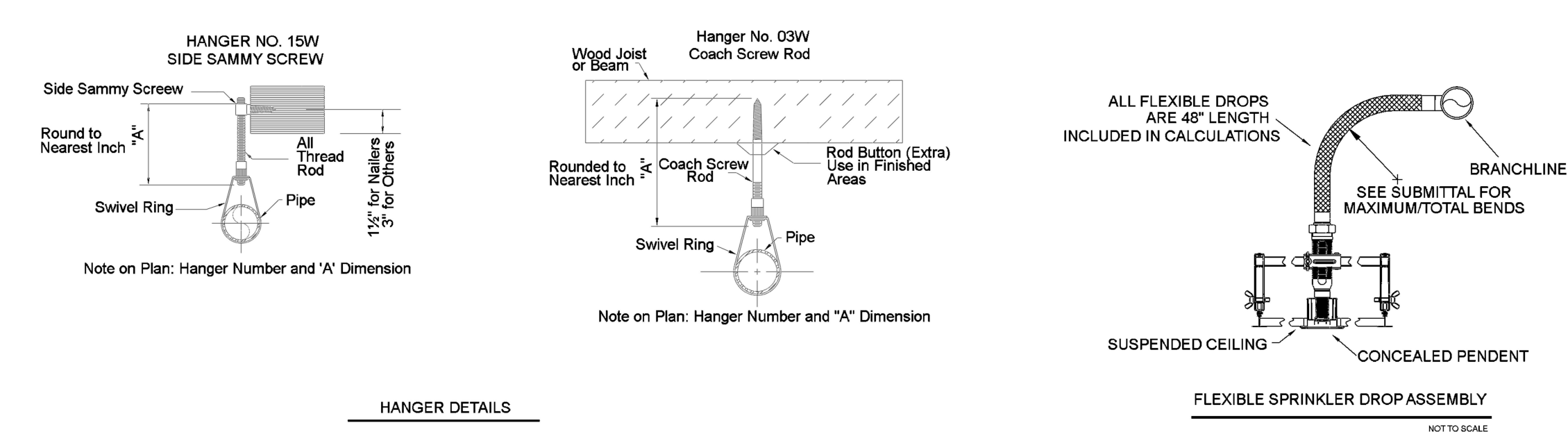


WING BUILDING SECTION
 B SP-1 1/8" = 1'-0"

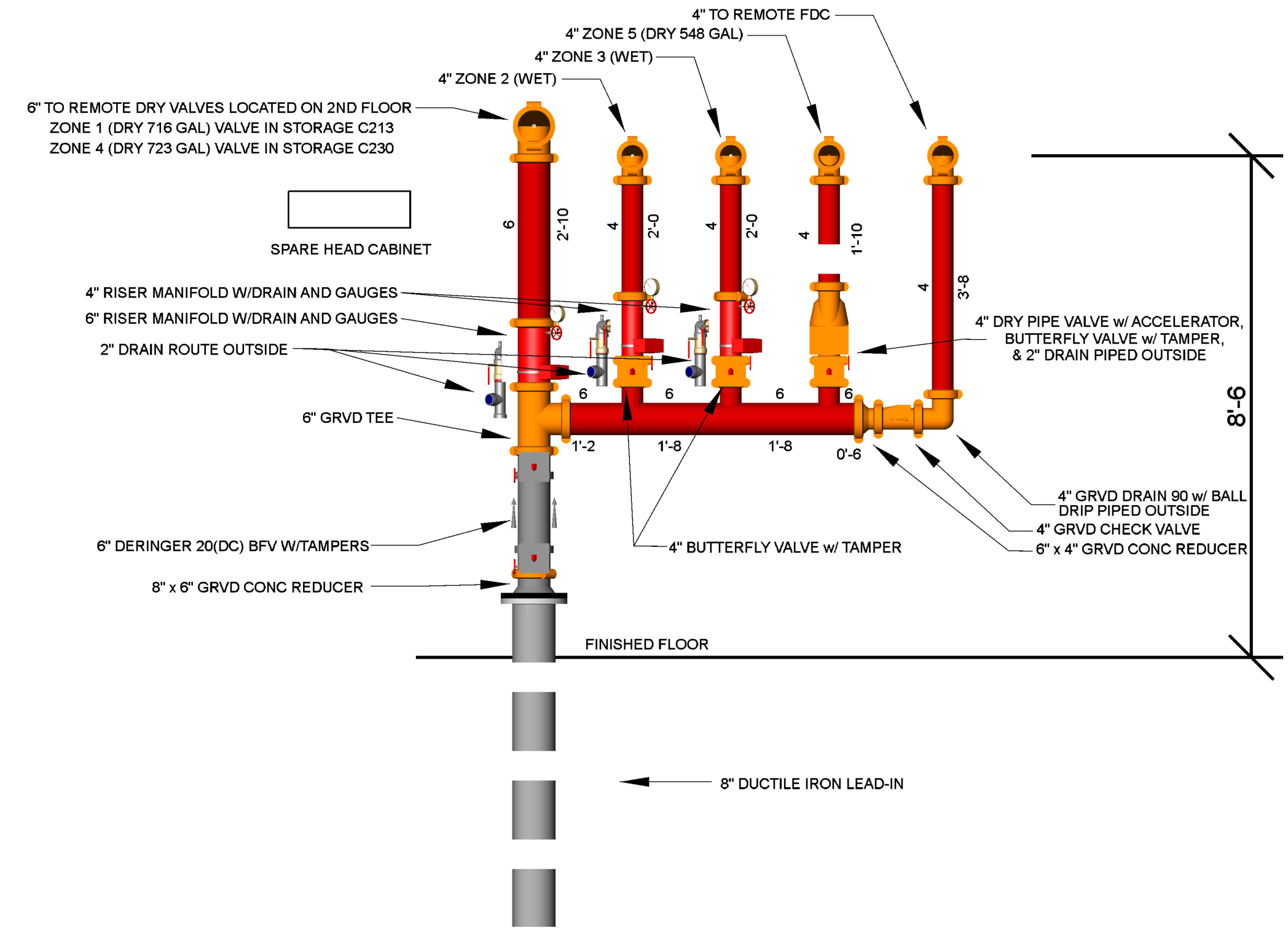


BUILDING SECTION A
 A SP-1 1/8" = 1'-0"

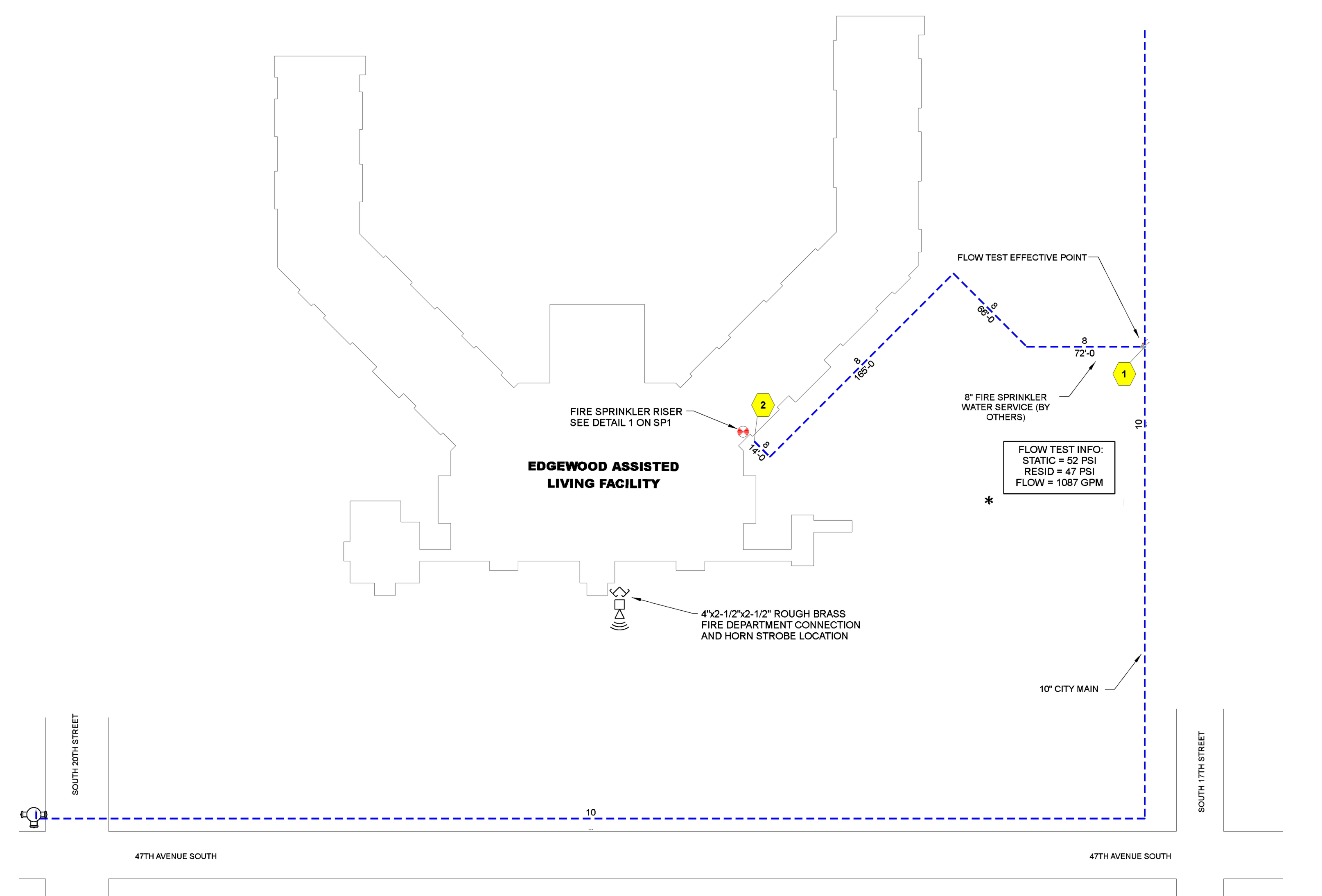
MAXIMUM DISTANCE BETWEEN HANGERS (FT.-IN.)										
	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	NA	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHTWALL STEEL PIPE	NA	12-0	12-0	12-0	12-0	NA	NA	NA	NA	NA
COPPER TUBE	8-0	8-0	10-0	10-0	12-0	12-0	12-0	NA	NA	NA
BLAZEMASTER CPVC	5-6	6-0	6-6	7-0	8-0	8-0	10-0	NA	NA	NA



HANGER DETAILS



RISER DETAIL
 1 SP-1 1/2" = 1'-0"

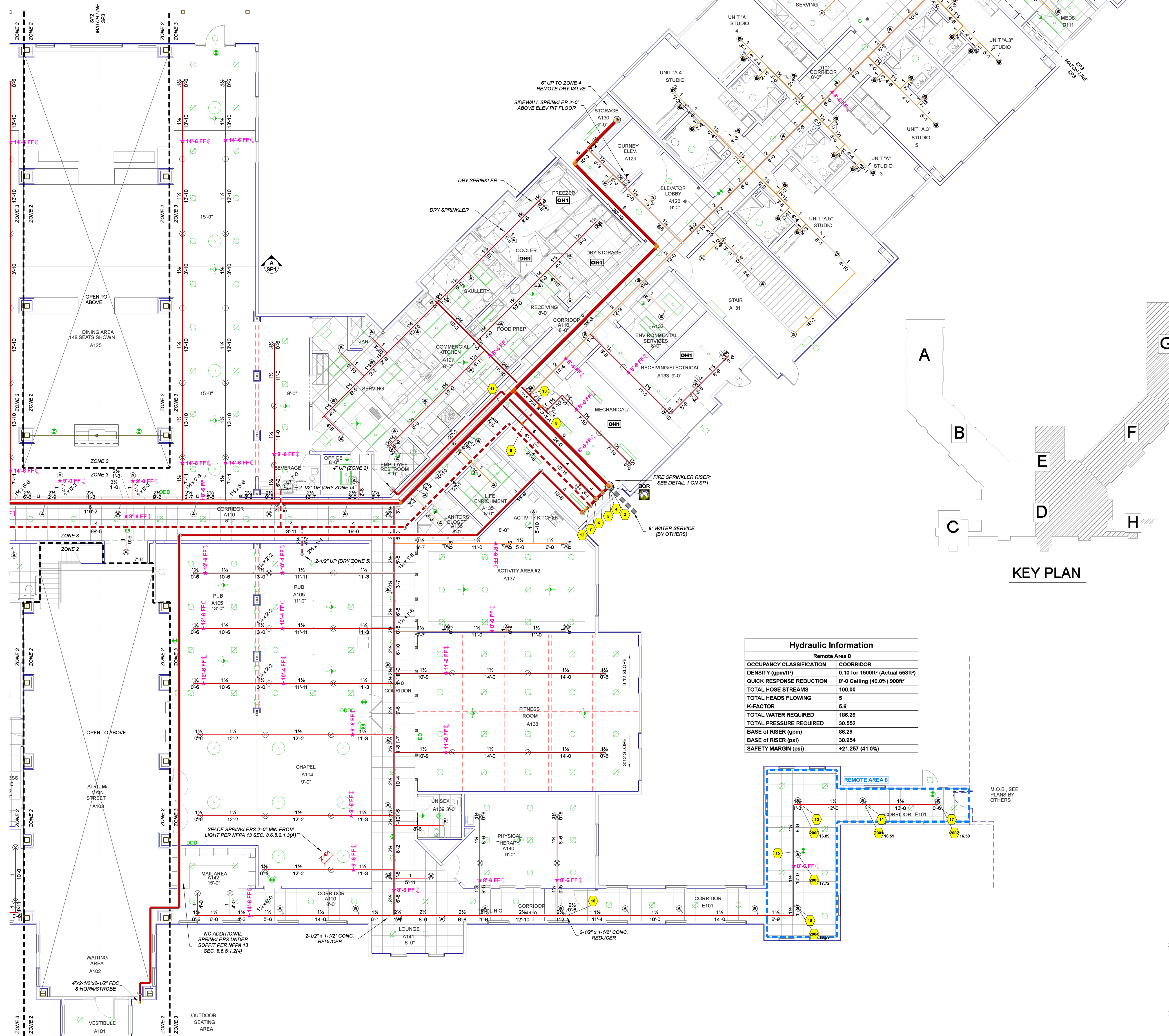


SITE PLAN
 2 SP-1 SCALE: 1" = 50'-0"

DATE: 03-01-21
 SCALE: 1/8" = 1'-0"

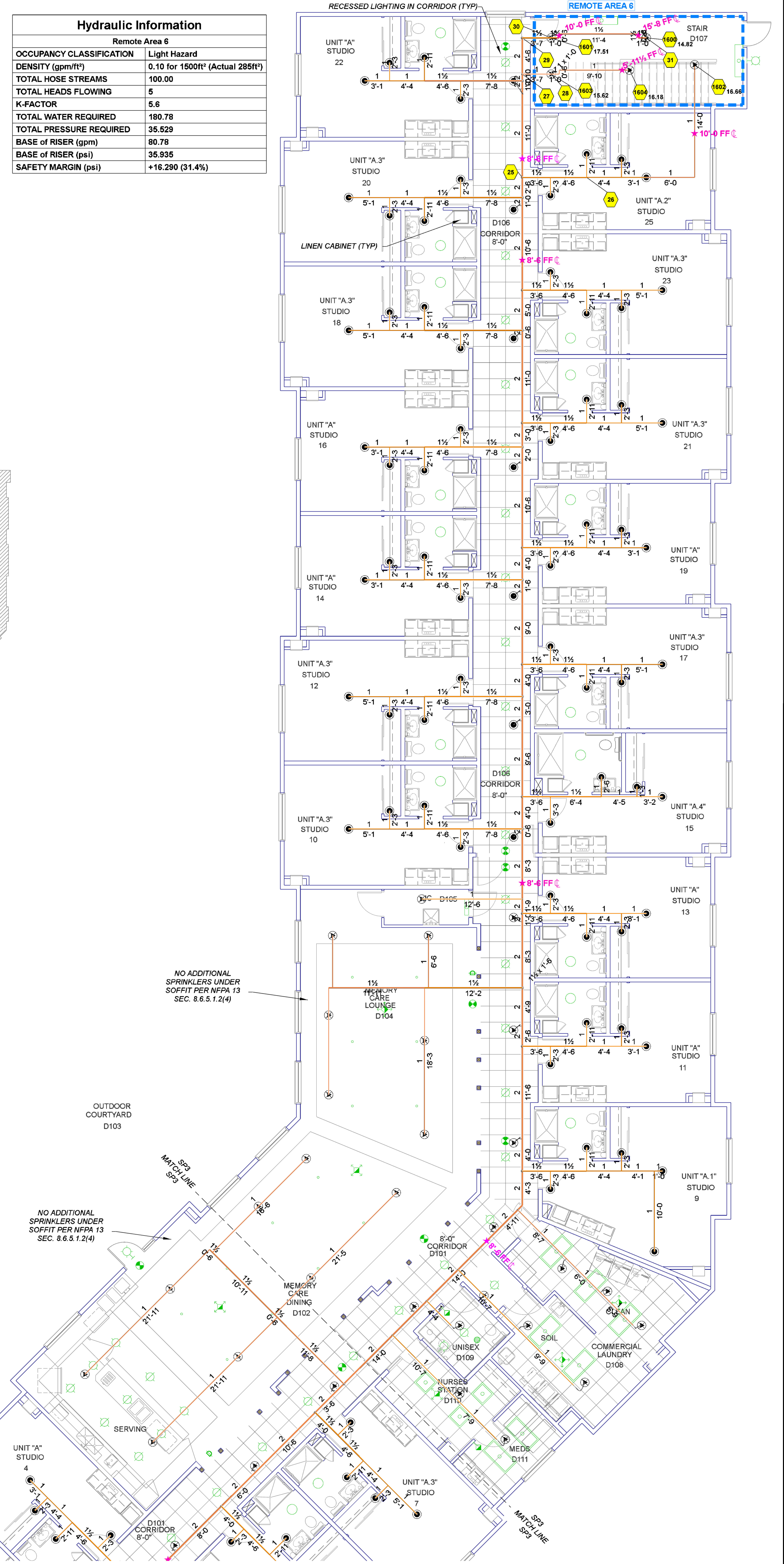
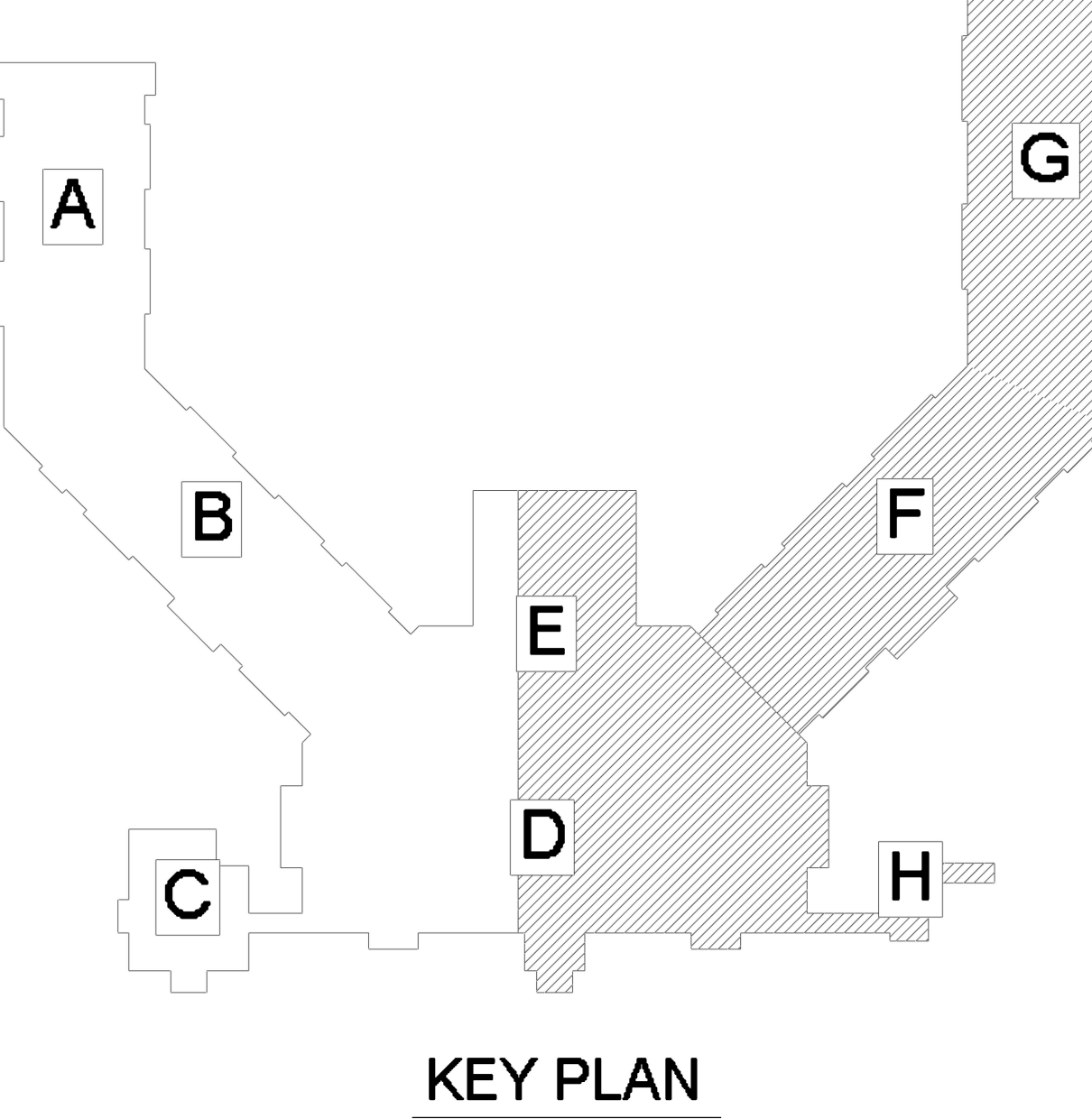
EDGEWOOD ASSISTED LIVING
 T.B.D 47TH AVE S
 GRAND FORKS, ND

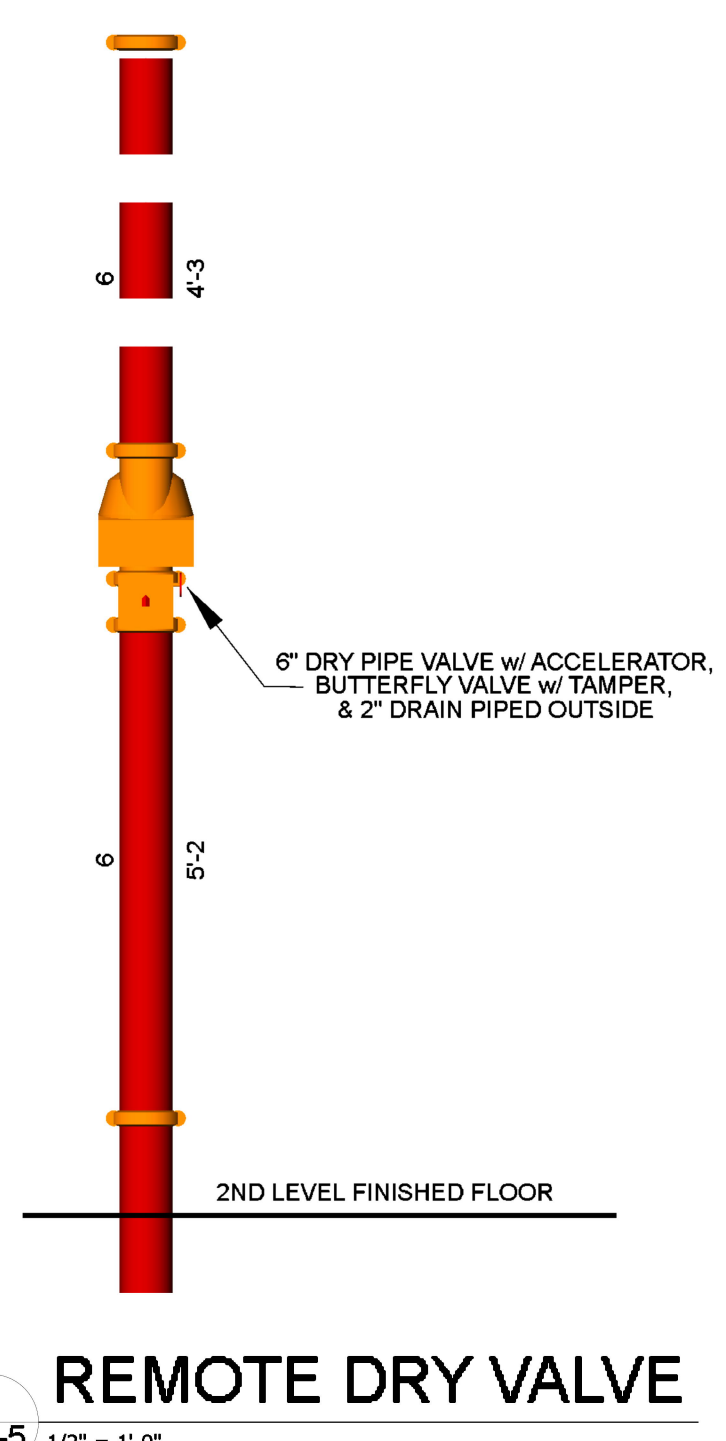
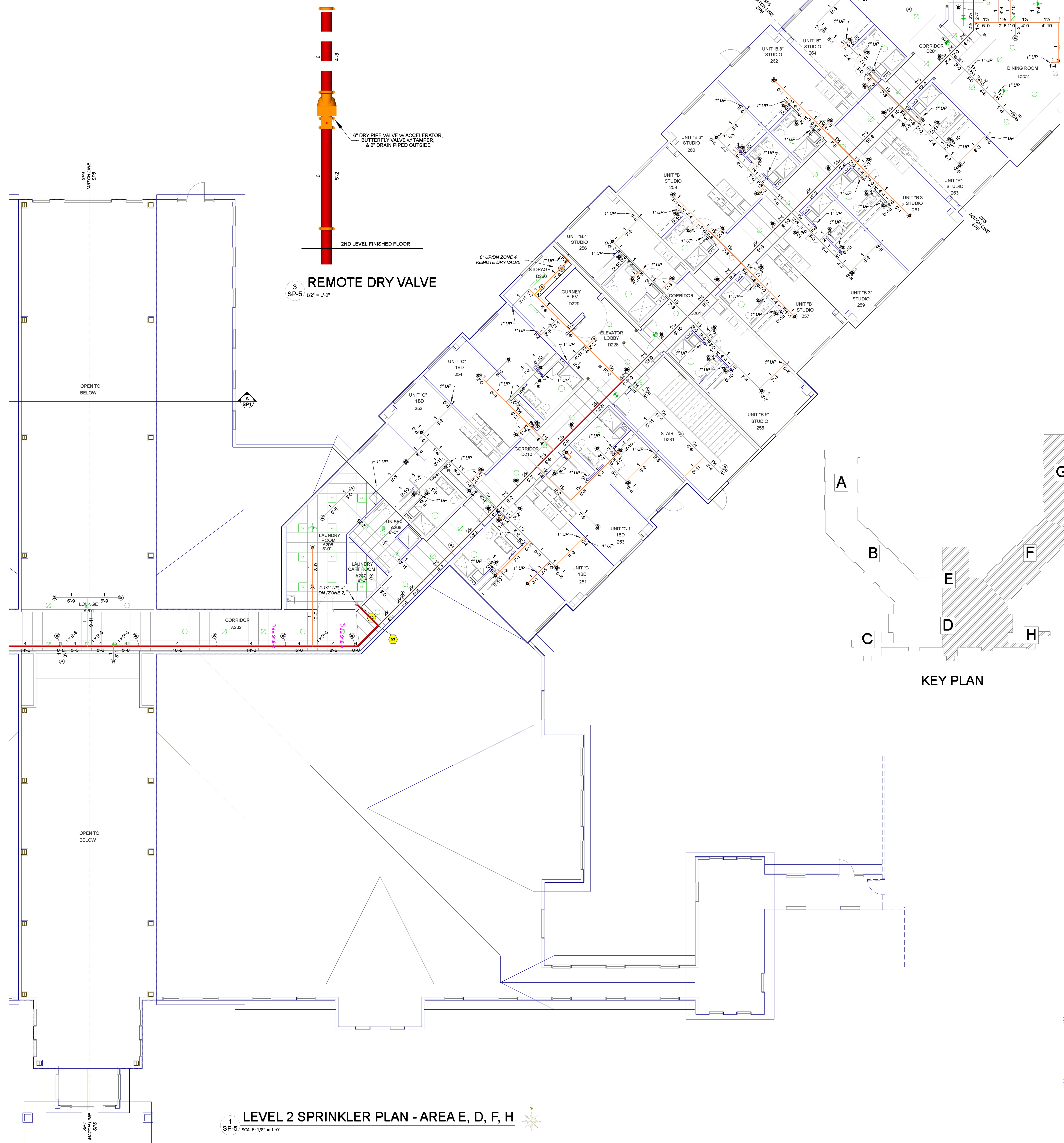
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Escutcheons
●	Reliable	R3516	F1Res49	560	4.0	Pendent	1/2"	Quick	Chrome	155°F	RECESSED
○	Reliable	RA1414	F1FR56	248	5.6	Pendent	1/2"	Quick	Chrome	155°F	RECESSED
○	Reliable	RA1425	F1FR	182	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
○	Reliable	R3531	F1Res44	262	4.4	Sidewall	1/2"	Quick	Chrome	155°F	401 w/ SKIRT
○	Reliable	R4862	F1FR QREC	3	8	Sidewall	1/2"	Quick	Chrome	155°F	401 w/ SKIRT
○	Reliable	R5714	F3QR56	4	5.6	Pendent	1"	Quick	Chrome	200°F	STANDARD
○	Reliable	RA1435	F1FR56	18	5.6	Sidewall	1/2"	Quick	Brass	200°F	N/A
○	Globe	GL5620	GL-SS/RE	80	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
○	Globe	GL5621	GL-SS/DS	138	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
○	Reliable	R5734	F3QR56	2	5.6	Sidewall	1"	Quick	Chrome	200°F	N/A
○	Reliable	RA5626	AH56	68	5.6	Upright	1/2"	Quick	Brass	212°F	N/A
○	Reliable	RA5692	DD80-27	112	8	Upright	1/2"	Quick	Brass	212°F	N/A
○	Reliable	RA1425	F1FR	34	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
Total = 1711											



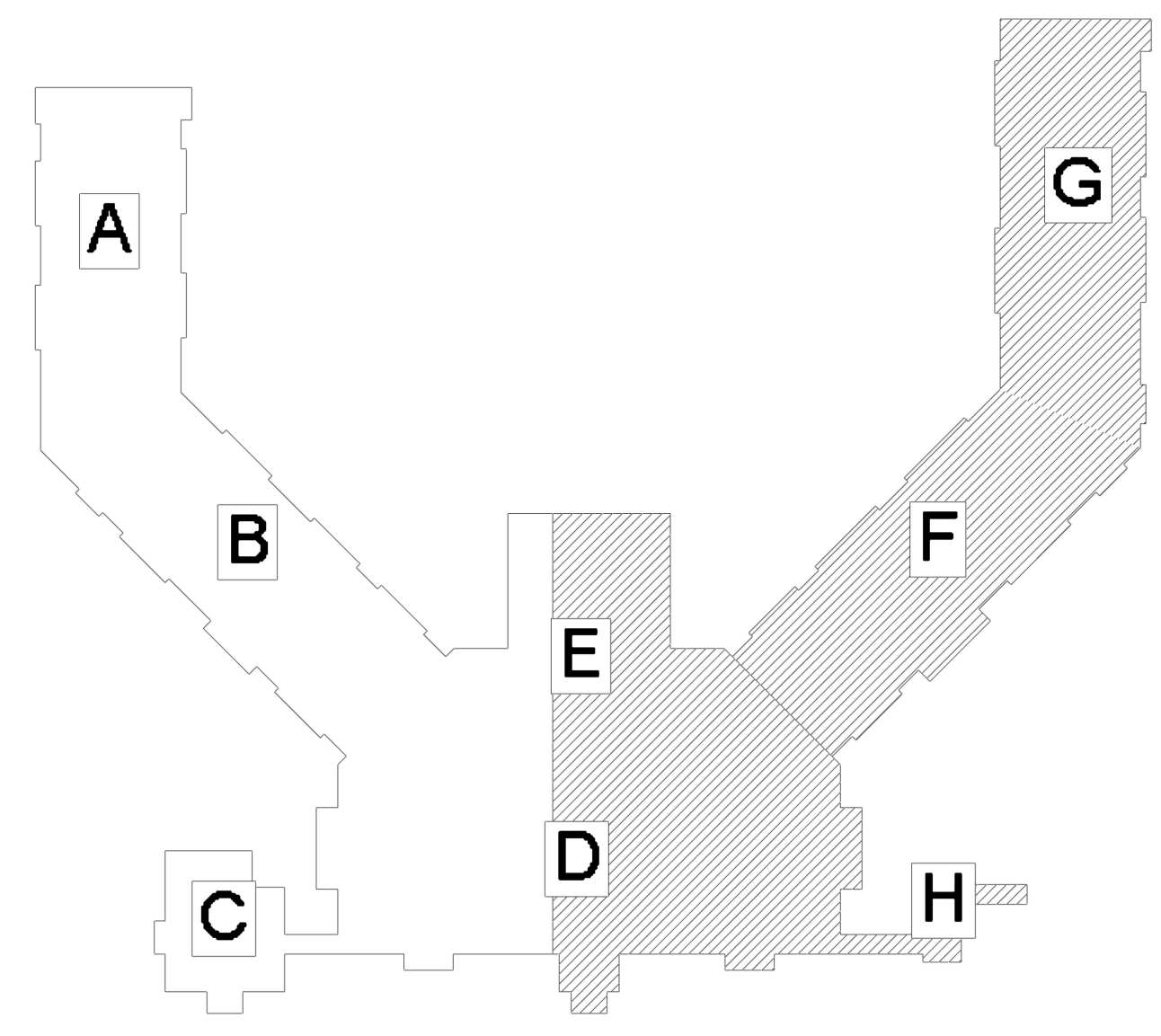
Hydraulic Information	
Remote Area 8	
OCCUPANCY CLASSIFICATION	CORRIDOR
DENSITY (gpm/ft ²)	0.10 for 1500ft ² (Actual 553ft ²)
QUICK RESPONSE REDUCTION	9'-0" Ceiling (40.0%) 900ft ²
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	5
K-FACTOR	5.6
TOTAL WATER REQUIRED	188.29
TOTAL PRESSURE REQUIRED	30.552
BASE OF RISER (gpm)	98.29
BASE OF RISER (psi)	30.954
SAFETY MARGIN (psi)	+21.257 (41.0%)

Hydraulic Information	
Remote Area 6	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft ²)	0.10 for 1500ft ² (Actual 289ft ²)
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	5
K-FACTOR	5.6
TOTAL WATER REQUIRED	180.78
TOTAL PRESSURE REQUIRED	35.529
BASE OF RISER (gpm)	90.78
BASE OF RISER (psi)	35.895
SAFETY MARGIN (psi)	+16.280 (31.4%)



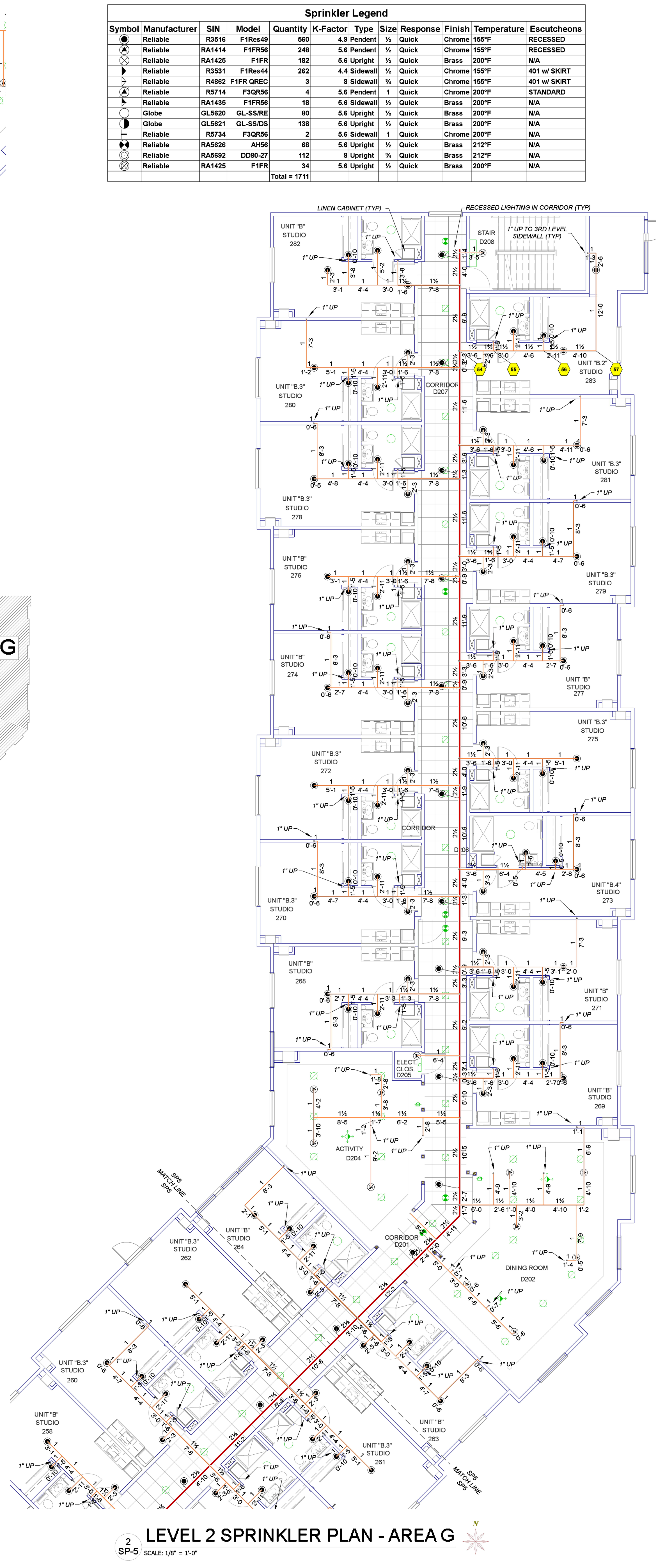


REMOTE DRY VALVE
SP-5 1/2" = 1'-0"



KEY PLAN

1 LEVEL 2 SPRINKLER PLAN - AREA E, D, F, H
SP-5 SCALE: 1/8" = 1'-0"



2 LEVEL 2 SPRINKLER PLAN - AREA G
SP-5 SCALE: 1/8" = 1'-0"

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Escutcheons
●	Reliable	R3516	F1Res49	960	4.9	Pendent	1/2"	Quick	Chrome	165°F	RECESSED
○	Reliable	RA1414	F1FR56	248	5.6	Pendent	1/2"	Quick	Chrome	165°F	RECESSED
○	Reliable	RA1425	F1FR	182	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
○	Reliable	R3531	F1Res44	262	4.4	Sidewall	1/2"	Quick	Chrome	165°F	401 w/ SKIRT
○	Reliable	R4822	F1FR QREC	3	8	Sidewall	1/2"	Quick	Chrome	165°F	401 w/ SKIRT
○	Reliable	R5714	F3QR56	4	5.6	Pendent	1"	Quick	Chrome	200°F	STANDARD
○	Reliable	RA1435	F1FR56	18	5.6	Sidewall	1/2"	Quick	Chrome	200°F	N/A
○	Globe	GL5620	GL-SSPRE	80	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
○	Globe	GL5621	GL-SSDRE	138	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
○	Reliable	R5734	F3QR56	2	5.6	Sidewall	1"	Quick	Chrome	200°F	N/A
○	Reliable	RA5626	AH56	68	5.6	Upright	1/2"	Quick	Brass	212°F	N/A
○	Reliable	RA5682	DD80-27	112	8	Upright	1/2"	Quick	Brass	212°F	N/A
○	Reliable	RA1425	F1FR	34	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
				Total =	1711						

SCALE: 1/8" = 1'-0"
DATE: 03-01-21

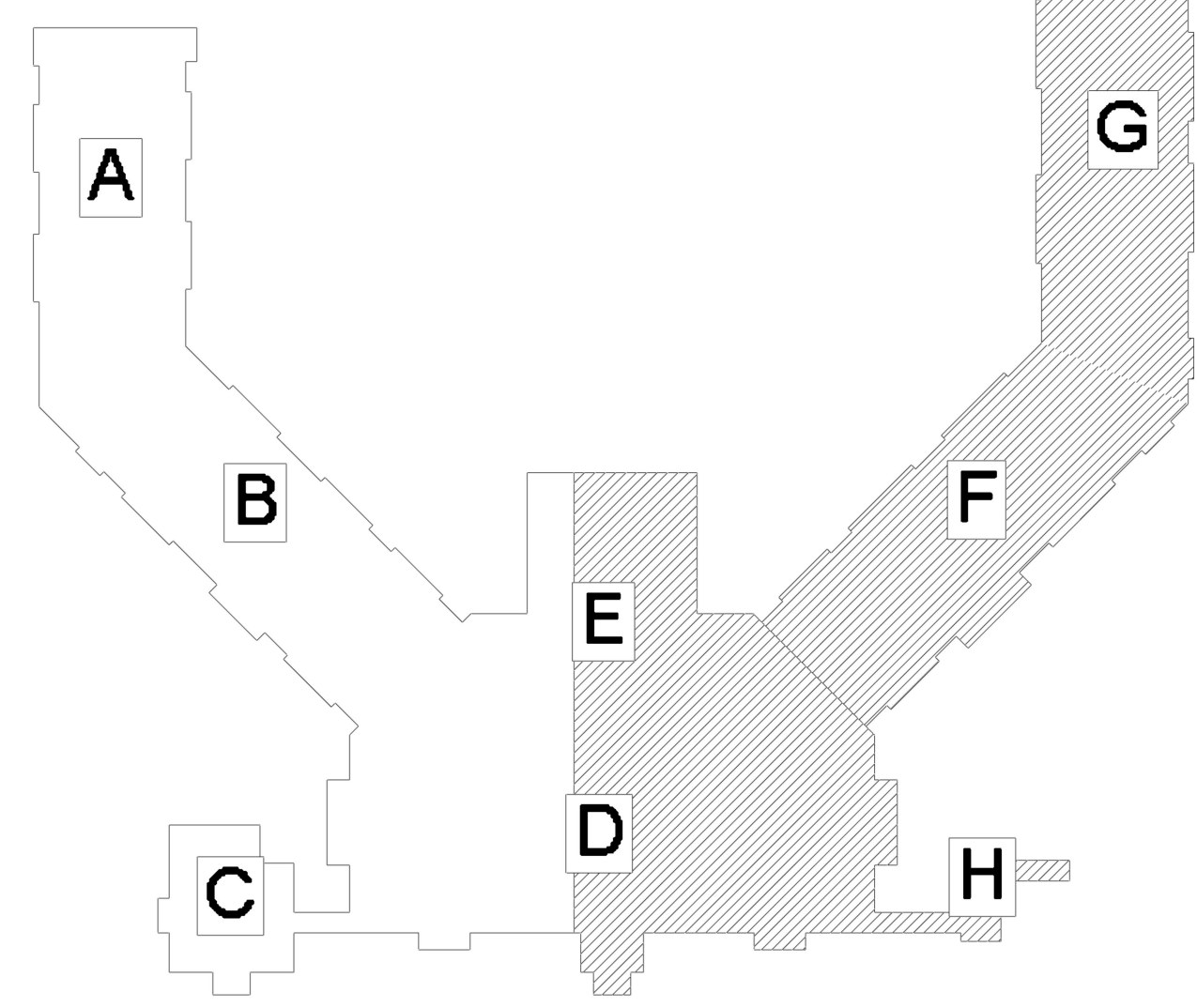
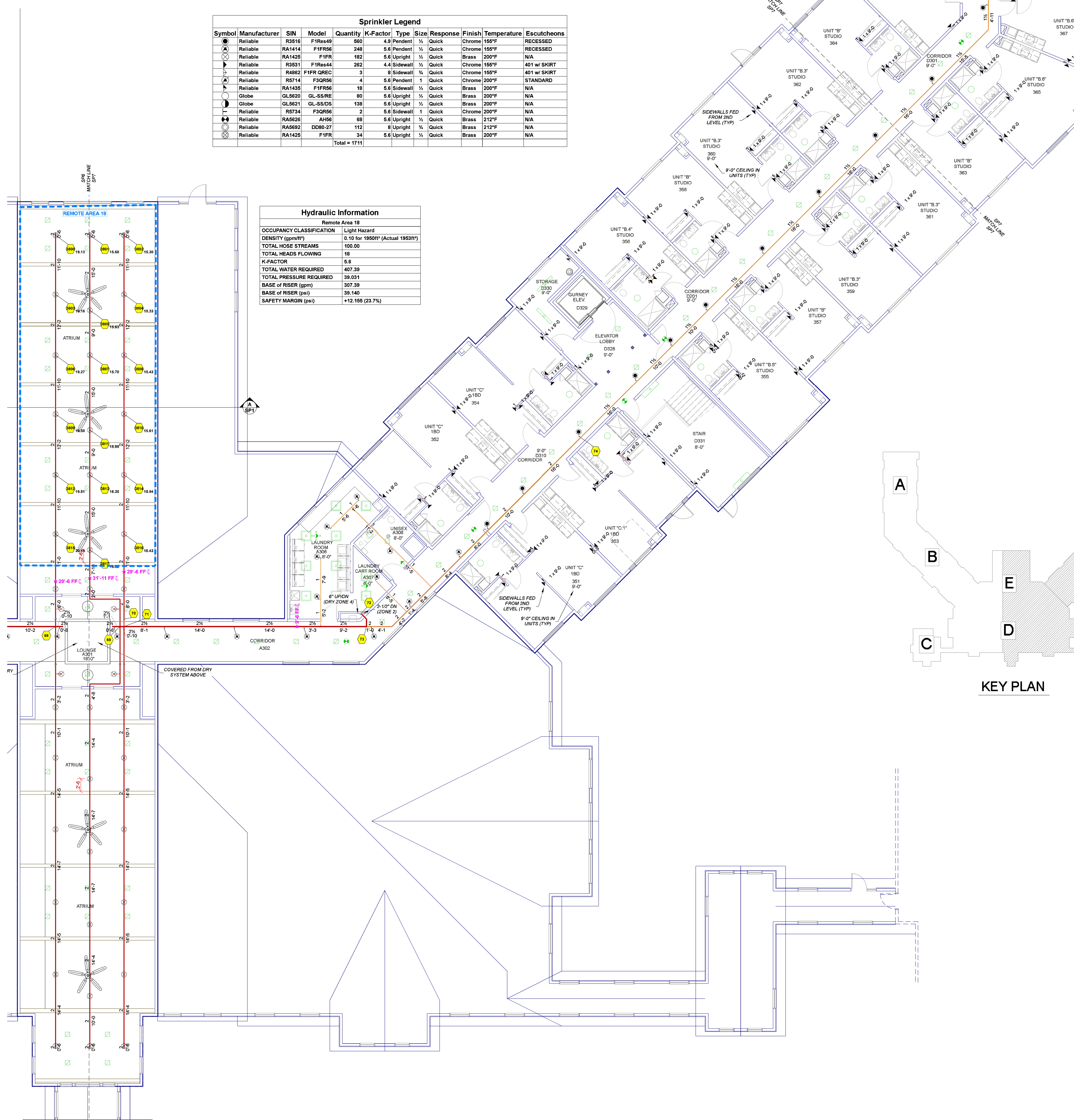
EDGEWOOD ASSISTED LIVING
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GRAND FORKS, ND

Sprinkler Legend											
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Escutcheons
⊙	Reliable	R3516	F1Res49	560	4.9	Pendant	1/2"	Quick	Chrome	155°F	RECESSED
⊙	Reliable	RA1414	F1FR56	248	5.6	Pendant	1/2"	Quick	Chrome	155°F	RECESSED
⊙	Reliable	RA1425	F1FR	182	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
⊙	Reliable	R3531	F1Res44	262	4.4	Sidewall	1/2"	Quick	Chrome	155°F	401 w/ SKIRT
⊙	Reliable	RA982	F1FR QREC	3	9	Sidewall	1/2"	Quick	Chrome	155°F	401 w/ SKIRT
⊙	Reliable	R5714	F3QR56	4	5.6	Pendant	1"	Quick	Chrome	200°F	STANDARD
⊙	Reliable	RA1435	F1FR56	18	5.6	Sidewall	1/2"	Quick	Brass	200°F	N/A
⊙	Globe	GL5620	GL-SS/RE	80	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
⊙	Globe	GL5621	GL-SS/DS	138	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
⊙	Reliable	R5734	F3QR56	2	5.6	Sidewall	1"	Quick	Chrome	200°F	N/A
⊙	Reliable	RA5626	AH56	68	5.6	Upright	1/2"	Quick	Brass	212°F	N/A
⊙	Reliable	RA5692	DD90-27	112	9	Upright	1/2"	Quick	Brass	212°F	N/A
⊙	Reliable	RA1426	F1FR	34	5.6	Upright	1/2"	Quick	Brass	200°F	N/A
				Total = 1711							

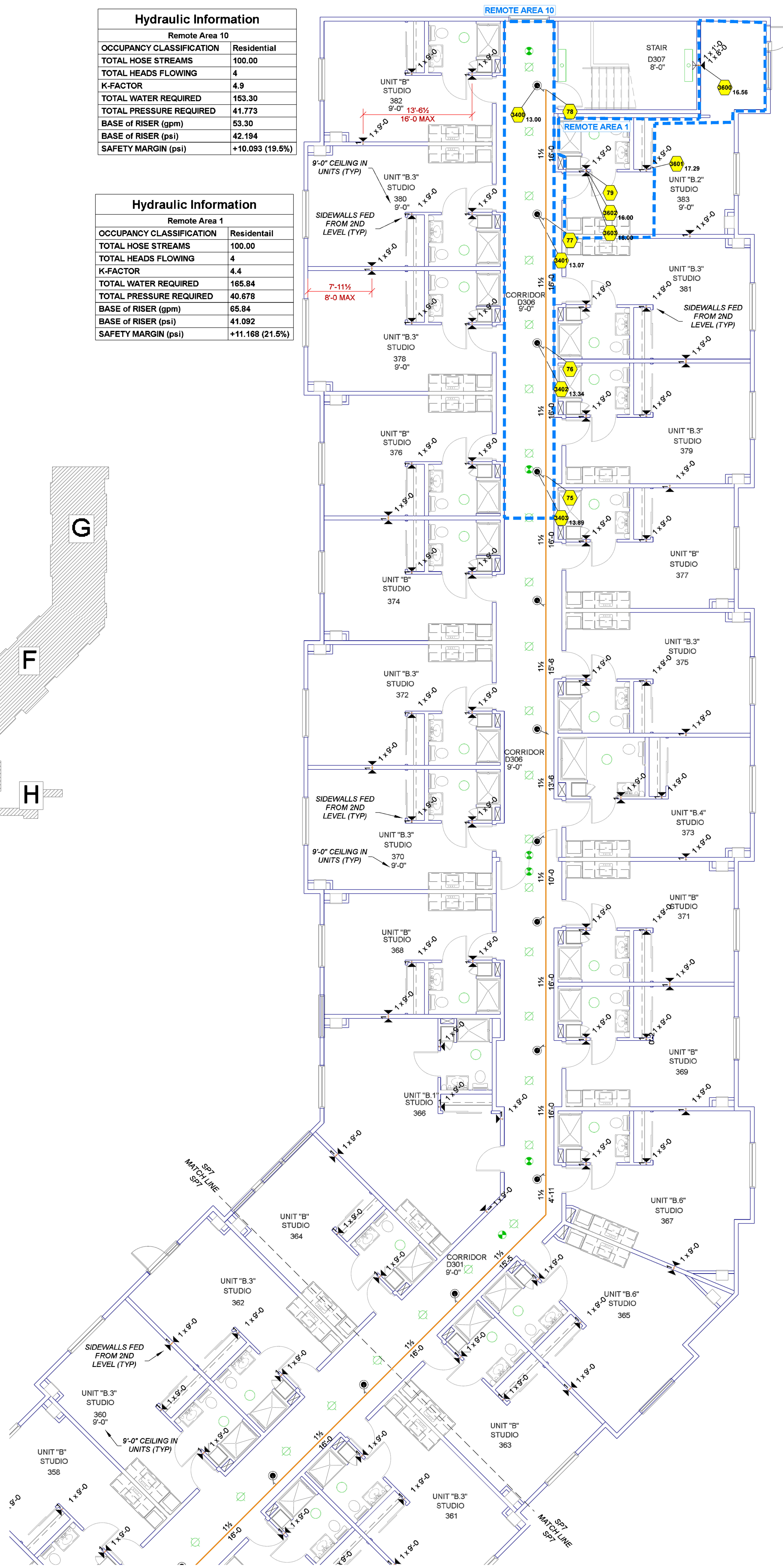
Hydraulic Information	
Remote Area 18	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (ppm/ft ²)	0.10 for 1950ft ² (Actual 1953ft ²)
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	18
K-FACTOR	5.6
TOTAL WATER REQUIRED	407.39
TOTAL PRESSURE REQUIRED	39.031
BASE OF RISER (gpm)	307.39
BASE OF RISER (psi)	39.140
SAFETY MARGIN (psi)	+12.155 (23.7%)

Hydraulic Information	
Remote Area 10	
OCCUPANCY CLASSIFICATION	Residential
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	4
K-FACTOR	4.9
TOTAL WATER REQUIRED	163.30
TOTAL PRESSURE REQUIRED	41.773
BASE OF RISER (gpm)	83.30
BASE OF RISER (psi)	42.194
SAFETY MARGIN (psi)	+10.093 (19.5%)

Hydraulic Information	
Remote Area 1	
OCCUPANCY CLASSIFICATION	Residential
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	4
K-FACTOR	4.4
TOTAL WATER REQUIRED	165.84
TOTAL PRESSURE REQUIRED	40.678
BASE OF RISER (gpm)	66.84
BASE OF RISER (psi)	41.092
SAFETY MARGIN (psi)	+11.168 (21.5%)



KEY PLAN



LEVEL 3 SPRINKLER PLAN - AREA G

LEVEL 3 SPRINKLER PLAN - AREA E, D, F, H

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

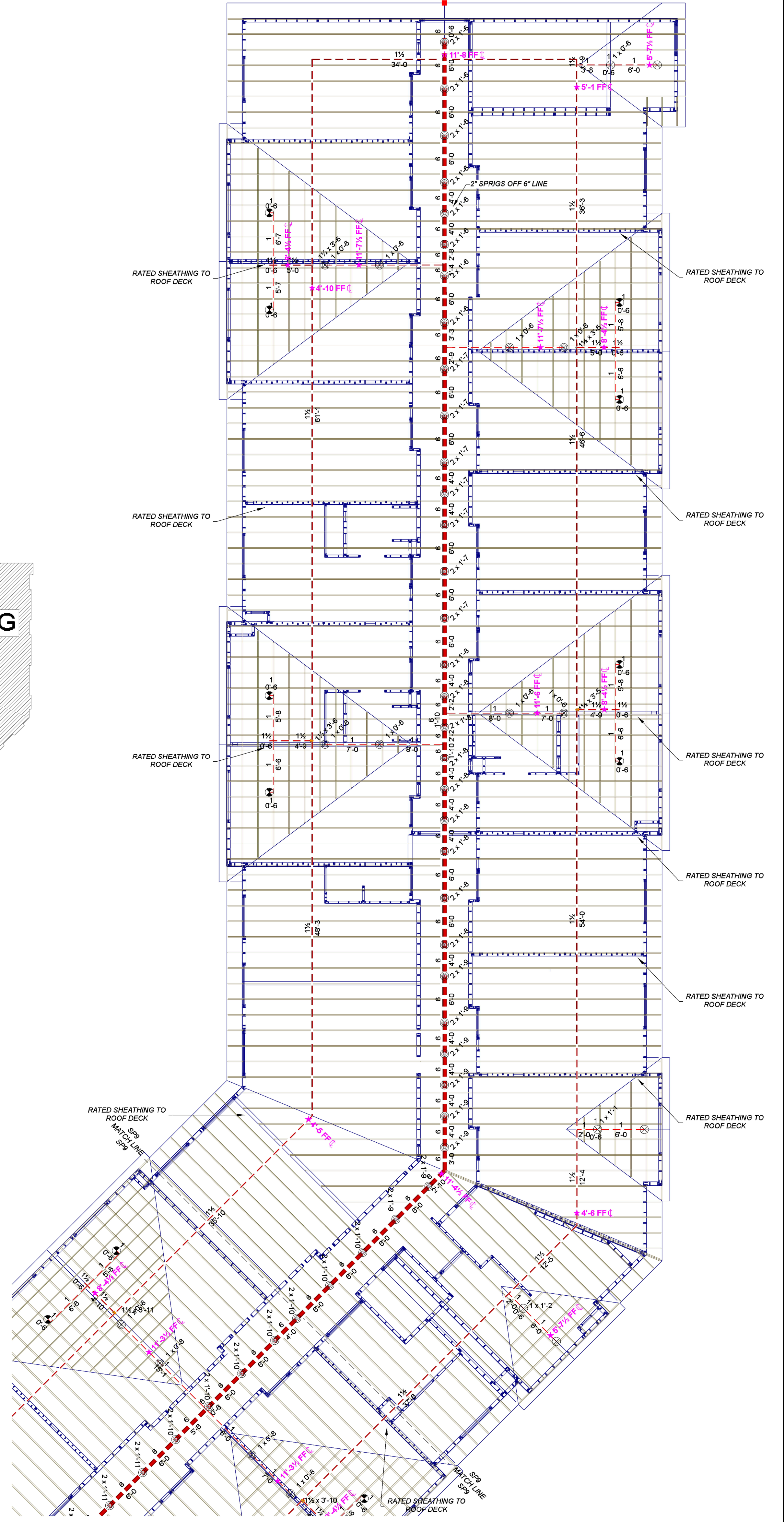
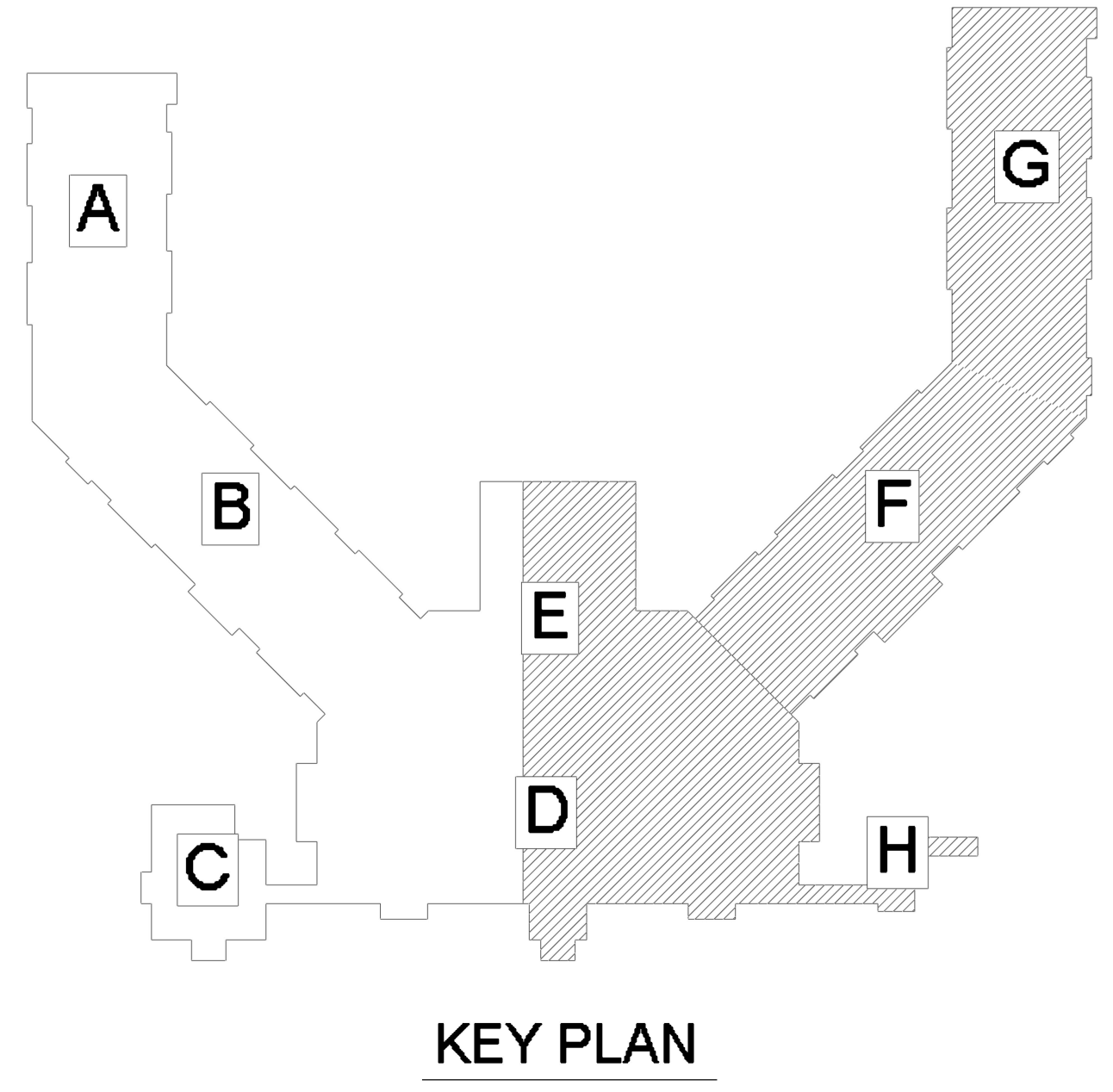
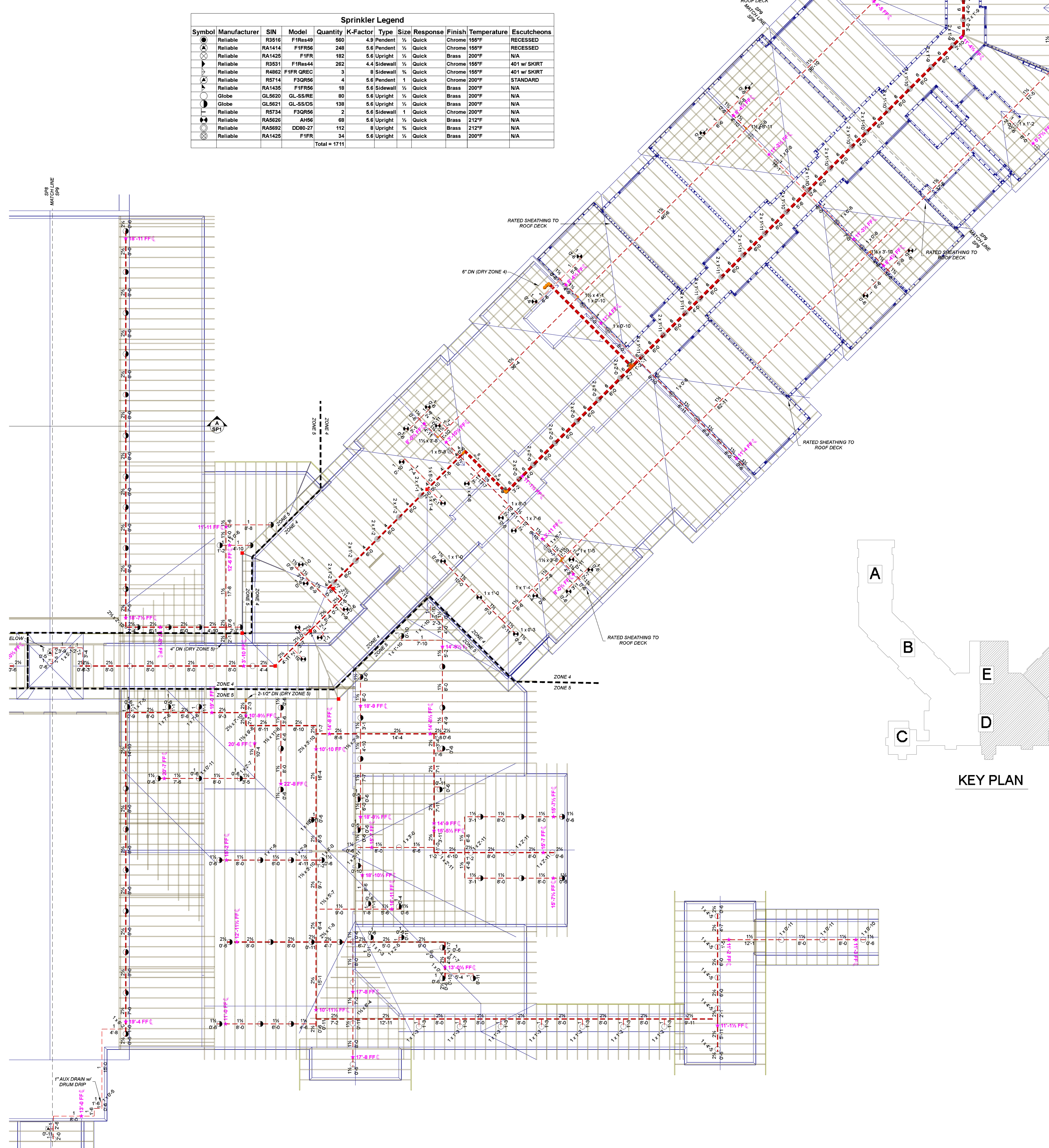
SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"
DATE: 03-01-21

EDGEWOOD ASSISTED LIVING
T.B.D 47TH AVE S
GRAND FORKS, ND

SP
7 of 9
JOB NO.: 20-60-1622

Sprinkler Legend											
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Escutcheons
●	Reliable	R3516	F1Res49	560	4.9	Pendent	1/2	Quick	Chrome	155°F	RECESSED
○	Reliable	RA1414	F1FR56	249	5.6	Pendent	1/2	Quick	Chrome	155°F	RECESSED
○	Reliable	RA1425	F1FR	182	5.6	Upright	1/2	Quick	Brass	200°F	N/A
○	Reliable	R3531	F1Res44	262	4.4	Sidewall	1/2	Quick	Chrome	155°F	401 w/ SKIRT
○	Reliable	R4882	F1FR QREC	3	8	Sidewall	1/2	Quick	Chrome	155°F	401 w/ SKIRT
○	Reliable	R5714	F3QR56	4	5.6	Pendent	1	Quick	Chrome	200°F	STANDARD
○	Reliable	RA1435	F1FR56	18	5.6	Sidewall	1/2	Quick	Brass	200°F	N/A
○	Globe	GL5620	GL-SS/RE	80	5.6	Upright	1/2	Quick	Brass	200°F	N/A
○	Globe	GL5921	GL-SS/DS	138	5.6	Upright	1/2	Quick	Brass	200°F	N/A
○	Reliable	R5734	F3QR56	2	5.6	Sidewall	1	Quick	Chrome	200°F	N/A
○	Reliable	RA5626	AH56	68	5.6	Upright	1/2	Quick	Brass	212°F	N/A
○	Reliable	RA5692	DD80-27	112	8	Upright	1/2	Quick	Brass	212°F	N/A
○	Reliable	RA1425	F1FR	34	5.6	Upright	1/2	Quick	Brass	200°F	N/A
				Total	= 1711						



1 ATTIC SPRINKLER PLAN - AREA E, D, F, H
SP-9 SCALE: 1/8" = 1'-0"

2 ATTIC SPRINKLER PLAN - AREA G
SP-9 SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"
DATE: 03-01-21

EDGEWOOD ASSISTED LIVING
T.B.D 47TH AVE S
GRAND FORKS, ND