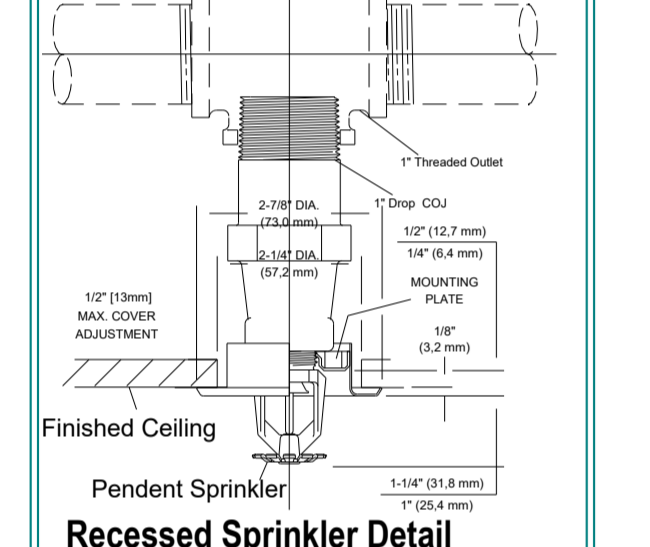
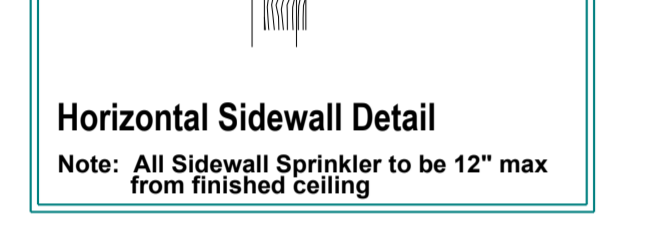
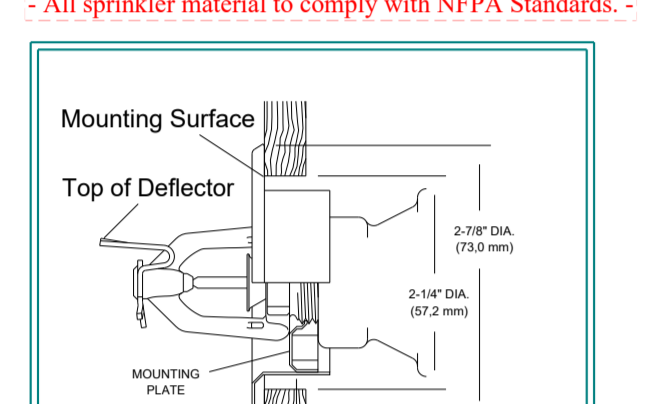


CPVC Pipe Hanger Details

All sprinkler material to comply with NFPA Standards.

Hanger Schedule for Steel Pipe	Standard Hanger Detail
1/2"	1/2"
3/4"	3/4"
1"	1"
1 1/4"	1 1/4"
1 1/2"	1 1/2"
1 3/4"	1 3/4"
2"	2"



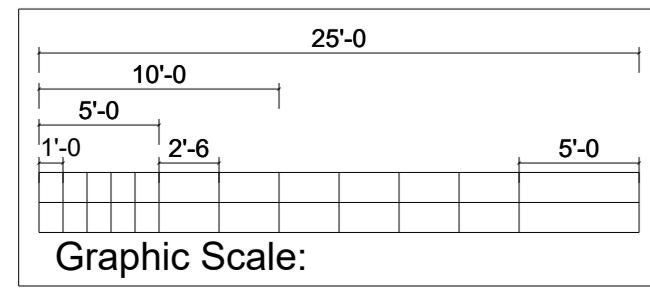
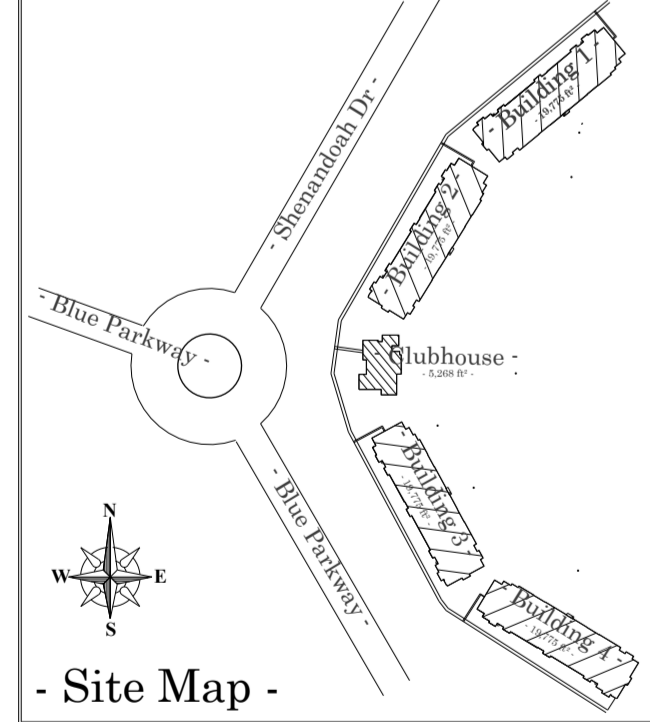
6.4.6.5.5.1 Shadow Areas: Shadow areas shall be permitted in the protection area of a sprinkler as long as the cumulative dry area does not exceed 150 ft² (14 m²) per sprinkler.

NFPA 13R - Shadow Area Code Section

6.4.6.5.5.2 Combustible Stairs Code Section

6.4.6.5.5.3 Garage Door Code Section

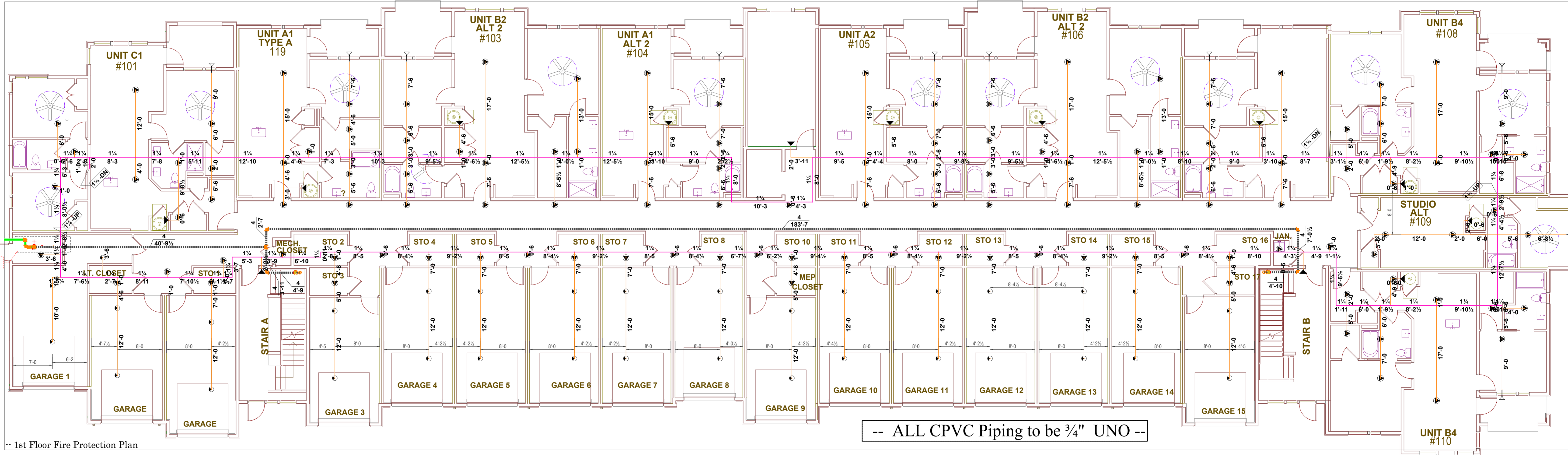
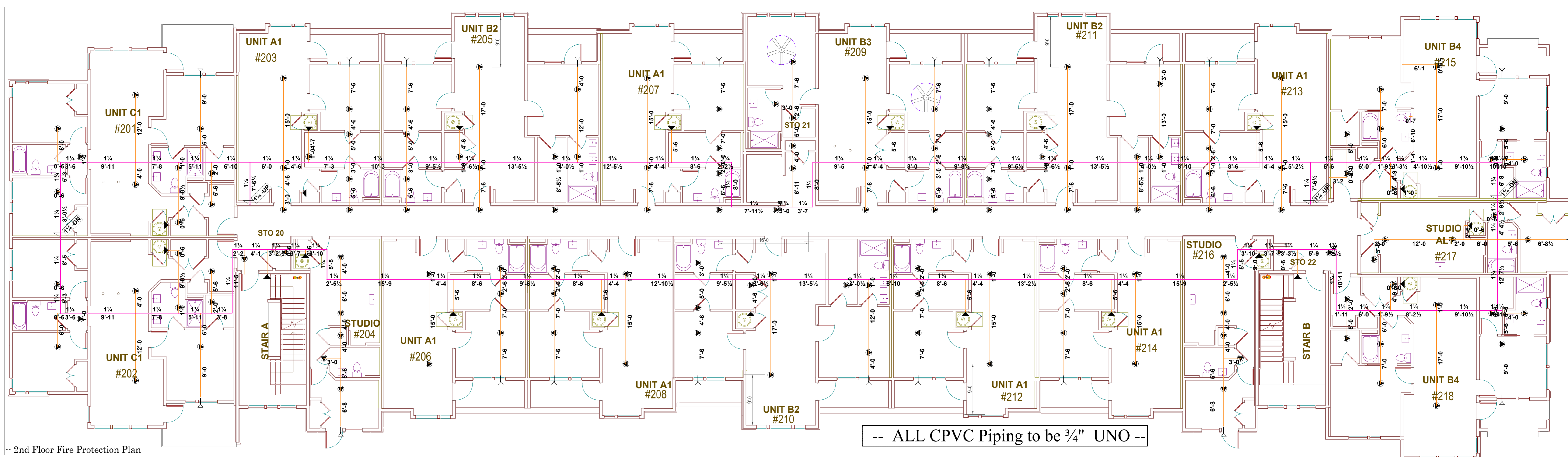
6.4.6.5.5.4 Ordinary Hazard Code Section



-- ALL CPVC Piping to be < Solid >

-- ALL Steel Piping to be < Dashed >

** All Exposed Piping to be Steel - UNO **



Air Venting shall be provided for each system, per NFPA.

Sprinkler Legend

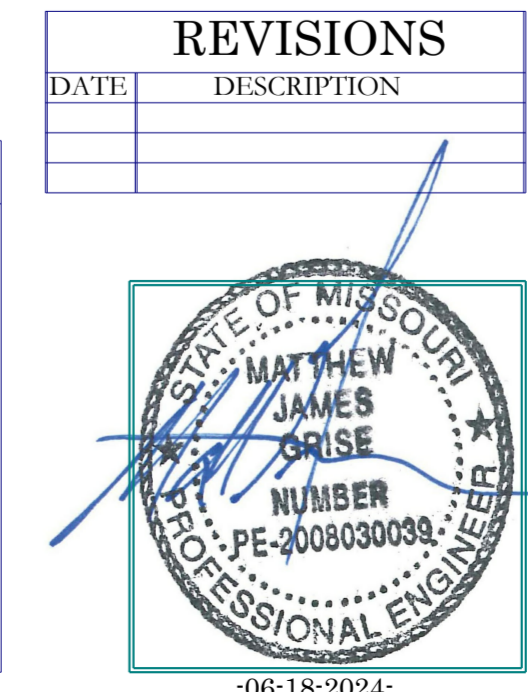
Symbol	Make	SIN	Quantity	-K-	Type	Size	Response	Finish	Temp	Note
□	Tyco	TY2335	31	4.4	Horizontal Sidewall	1	Fast	White RAL 9003	155°F	
▲	Viking	VK486	34	4	Horizontal Sidewall	1/2	Fast	White Polyester	175°F	16" x 18"
●	Viking	VK468	266	4.9	Pendent	1/2	Fast	White Polyester	175°F	18" x 18"
○	Tyco	TY2236	33	4.9	Pendent	1/2	Fast	White RAL 9010	175°F	Dry Res P
			Total = 364							

GENERAL NOTES

- This design is based upon the owner's acceptance of NFPA 13R 2016 & NFPA 14 2016.
- All threaded piping to be SCH 40.
- All residential piping to be CPVC.
- All sprinkler material to comply with all local requirements and applicable NFPA Standards.
- Continuous central monitoring of sprinkler systems per NFPA 72 to be by others.
- All electrical wiring to be by others.
- All underground work to be by others.
- All painting of sprinkler pipes to be by others.
- All patching and/or painting of penetrated drywall and masonry walls to be by others.
- Building to be provided with adequate heat to prevent piping from freezing.
- All marking or labeling of sprinkler piping to be by others.
- All piping at exterior wall penetrations to be Gable Plate.
- All Control Valves to be supervised.

Supply Flow Test Data

Date of Test	1/24/2024
Location	5801 W 115th St
Hydrant Numbers	110010216
Static Pressure	86.000
Residual Pressure	78.000
Flow	2000.00



REVISIONS

DATE	DESCRIPTION

REVIEWING AUTHORITY: LS Codes

TOTAL HEADS FOR JOB: 795

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

DRAWN BY: JJR

DATE DRAWN: 06-18-2024

CONTRACT NUMBER: NC-1429

DRAWING NUMBER: FP 2 of 3

Building 1.2.3.4

Fire Protection Plan < Submittal >

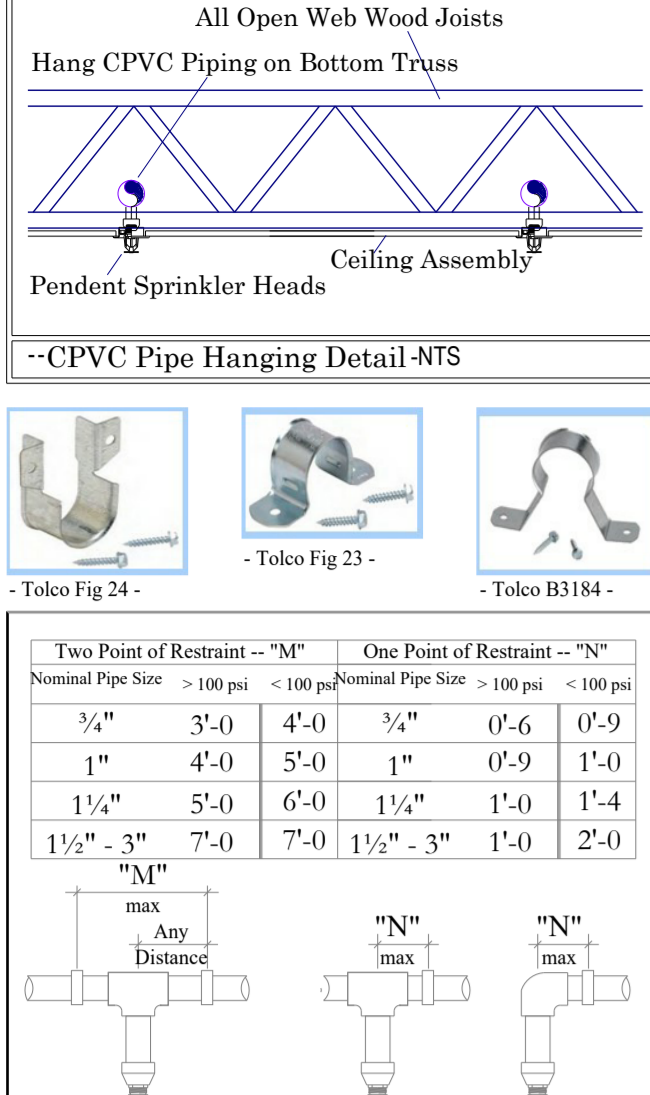
-Residences @ Blackwell -

2840 SE Blue Pkwy
Lee's Summit, MO 64063

Contract with: **- Streamline Construction -**

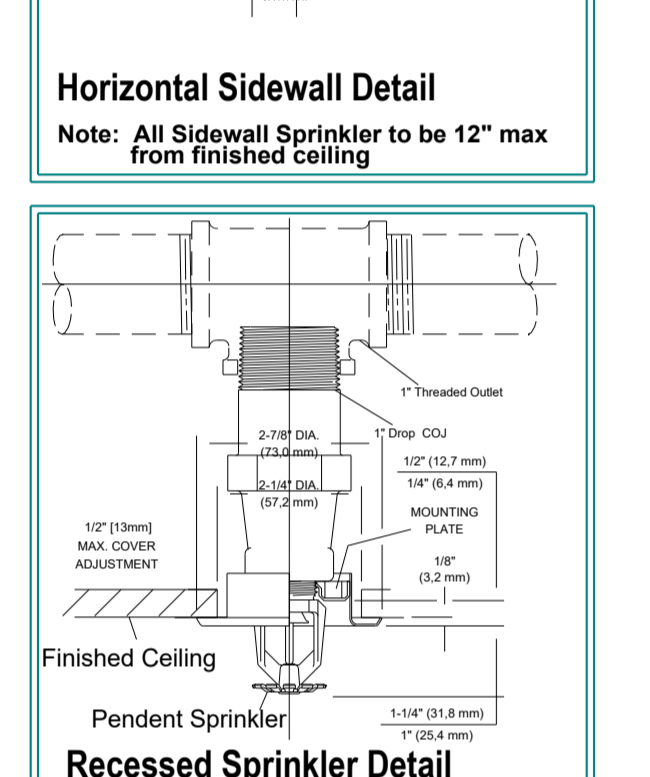
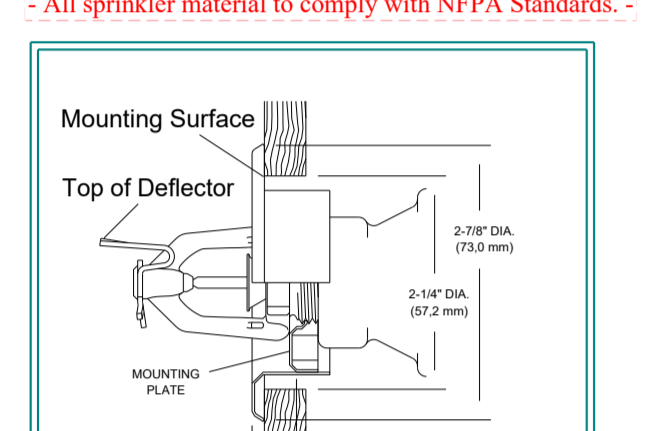
Fire Protection Plan

Alliance Fire Protection
130 W 9th Ave
Suite 101
NORTH KANSAS CITY, MO 64116
PHONE (913) 888-0647
FAX (913) 888-0618



CPVC Pipe Hanger Details
- All sprinkler material to comply with NFPA Standards -

Hanger Schedule for Steel Pipe	Max Size	Min Hanger Spacing
1/2"	1/2"	12'-0"
3/4"	3/4"	12'-0"
1"	1"	12'-0"
1 1/4"	1 1/4"	12'-0"
1 1/2"	1 1/2"	12'-0"
2"	2"	12'-0"
3"	3"	12'-0"



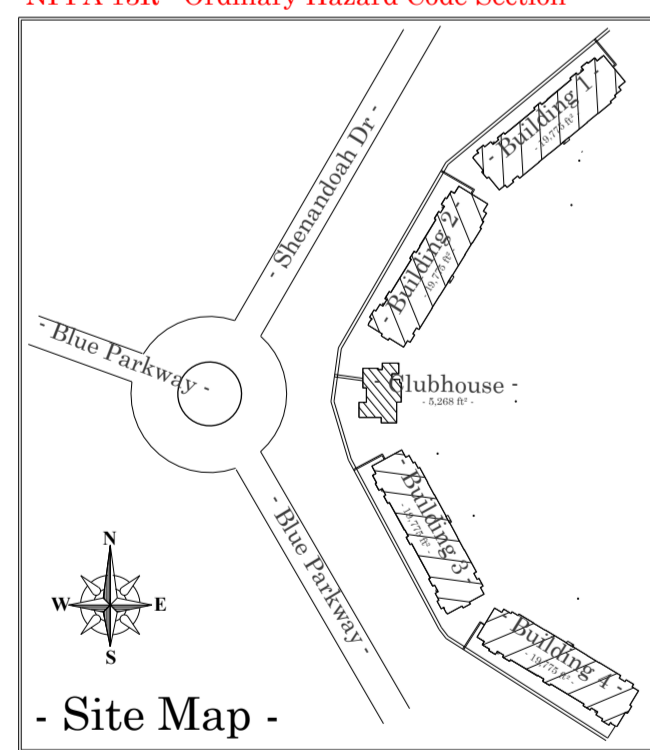
NFPA 13 - Combustible Stairs Code Section

7.2.4.2.1 Garage doors shall use fire-rated observation windows and shall be permitted to be ignored for protection and calculation of sprinklers.

NFPA 13R - Garage Door Code Section

7.2.4.1 Residential sprinklers shall be permitted to be used in ordinary hazard areas that meet the following conditions:

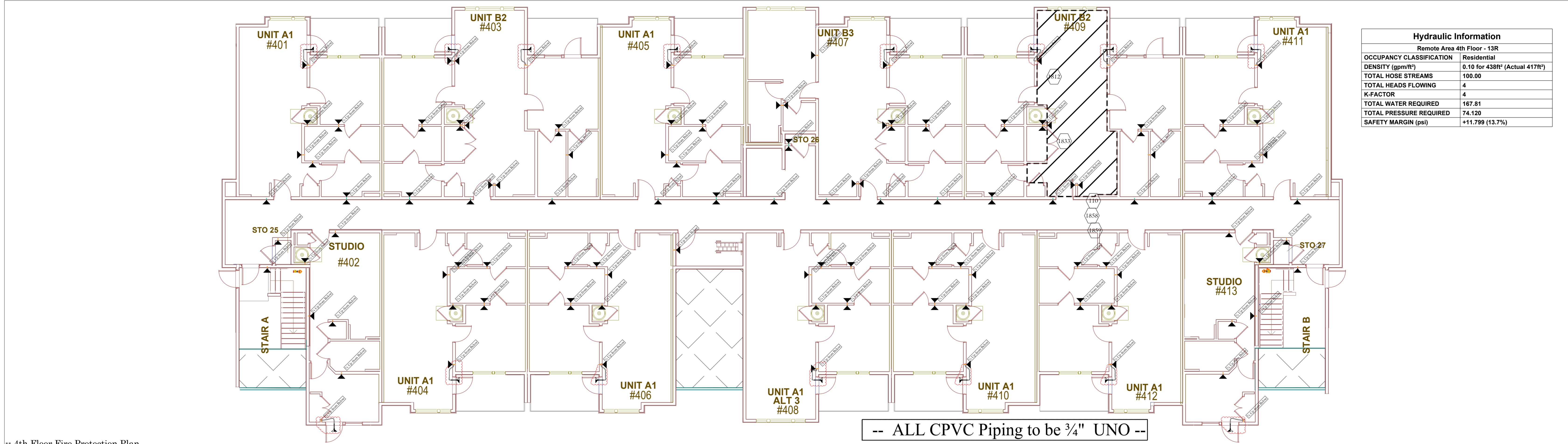
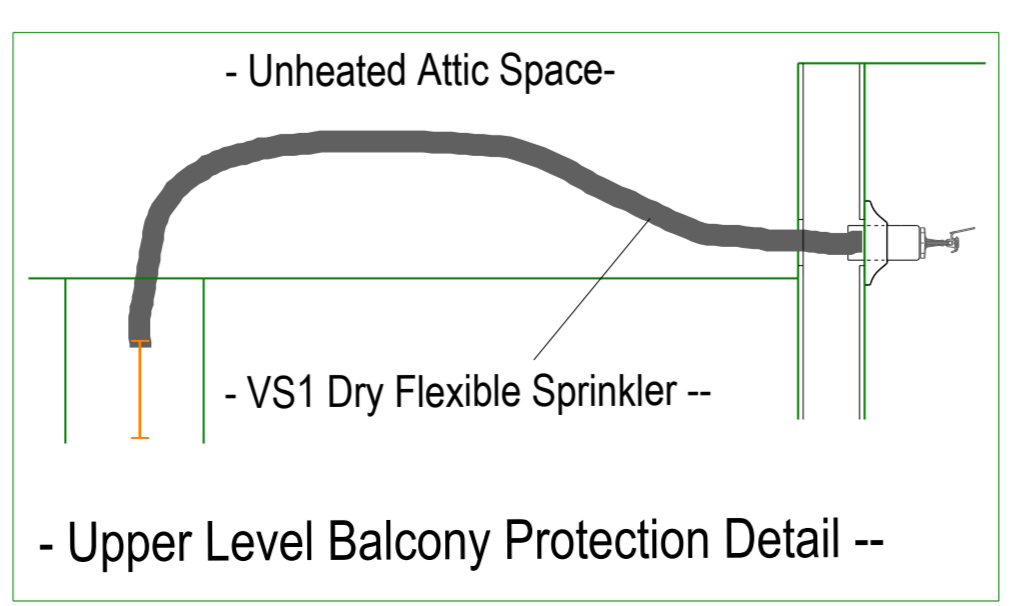
- The area is compartmented into 500 sq ft (46 sq m) or less by 20-minute fire-rated construction.
- The sprinklers are spaced at 130 sq ft (12 sq m) per sprinkler.
- Opening doors are closed at the time of fire detection.
- The total area of openings, including any overhead garage doors that open at the time of fire, does not exceed 50 sq ft (4.6 sq m) for each compartment.
- Other hazards are in accordance with NFPA 13 for ordinary hazard.



-- ALL CPVC Piping to be < Solid >

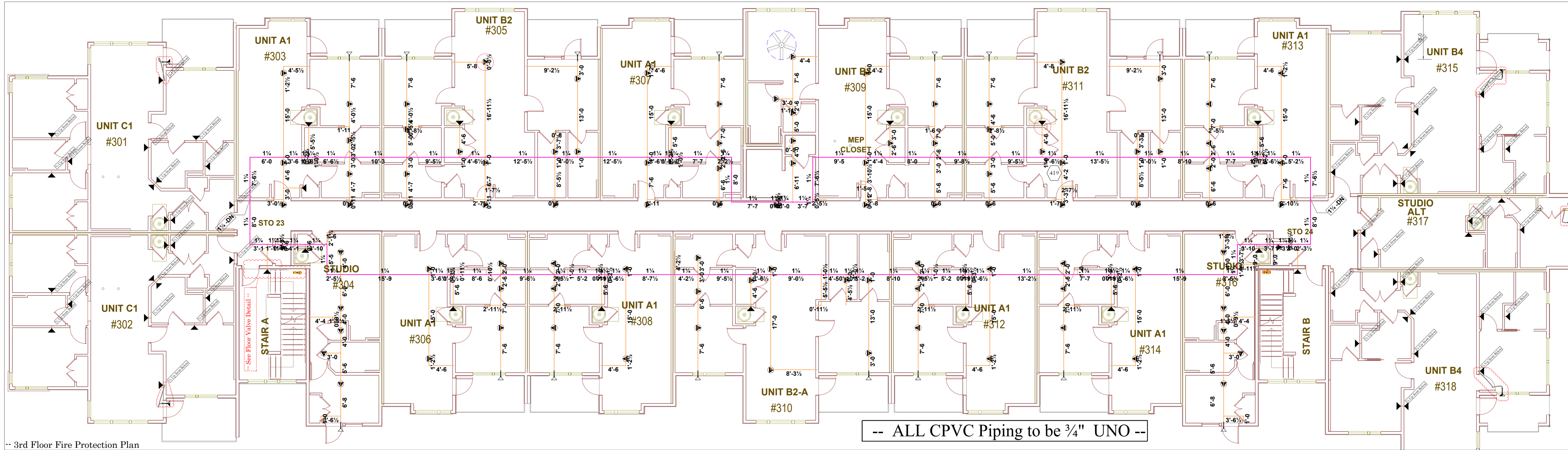
-- ALL Steel Piping to be < Dashed >

** All Exposed Piping to be Steel - UNO **



Hydraulic Information

Remote Area 4th Floor - 13R	Residential
OCCUPANCY CLASSIFICATION	0.10 for 438ft ² (Actual 417ft ²)
DENSITY (ppm/ft ²)	100.00
TOTAL HOSE STREAMS	4
TOTAL HEADS FLOWING	167.81
K-FACTOR	74.120
TOTAL WATER REQUIRED	+11.799 (13.7%)
TOTAL PRESSURE REQUIRED	
SAFETY MARGIN (psi)	



Air Venting shall be provided for each system, per NFPA.

Sprinkler Legend

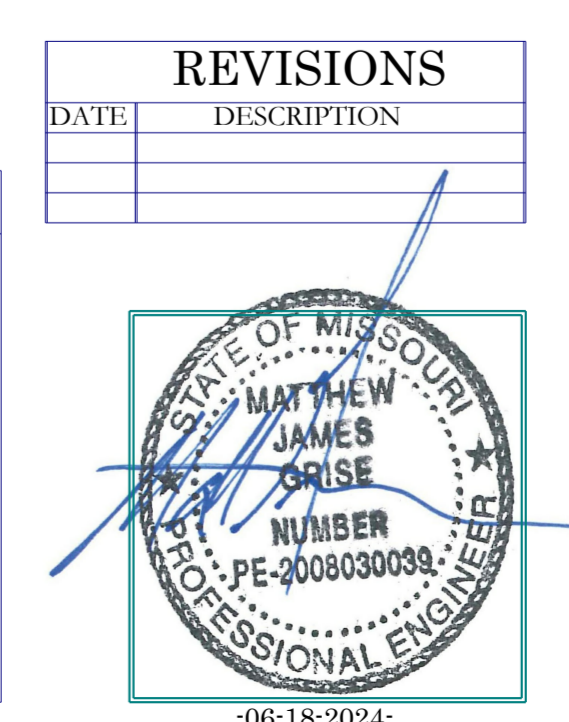
Symbol	Make	SIN	Quantity	K-	Type	Size	Response	Finish	Temp	Note
	Vietacnic	V3510	20	5.6	Horizontal Sidewall	1"	Quick	White RAL 9010	175°F	14' x 14'
	Tyco	TY2335	16	4.4	Horizontal Sidewall	1"	Fast	White RAL 9003	155°F	
	Viking	VK486	196	4	Horizontal Sidewall	3/4"	Fast	White Polyester	175°F	16' x 18'
	Viking	VK468	99	4.9	Pendent	3/4"	Fast	White Polyester	175°F	18' x 18'
			Total = 331							

GENERAL NOTES

- This design is based upon the owner's acceptance of NFPA 13R 2016 & NFPA 14 2016. NFPA 25 for maintenance.
- All grooved piping to be SCH 40.
- All threaded piping to be SCH 40.
- All Residential Piping to be CPVC.
- All sprinkler material to comply with all local requirements and applicable NFPA Standards.
- Continuous central monitoring of sprinkler systems per NFPA 72 to be by others.
- All electrical wiring to be by others.
- All underground work to be by others.
- All painting of sprinkler pipe to be by others.
- All patching and/or painting of penetrated drywall and masonry walls to be by others.
- Building to be provided with adequate heat to prevent piping from freezing.
- All marking or labeling of sprinkler piping to be by others.
- All piping at exterior wall penetrations to be Galv w Gals plate.
- All Control Valves to be supervised.

Supply Flow Test Data

Date Conducted By	Lee's Summit H2O
Date of Test	1/24/2024
Location	5801 W 115th St
Hydrant Numbers	110010216
Static Pressure	86.000
Residual Pressure	78.000
Flow	2000.00



REVISIONS

DATE	DESCRIPTION

REVIEWING AUTHORITY
LS Codes

TOTAL HEADS FOR JOB
795

SCALE
1/8" = 1'-0"

DRAWN BY
JJR

DATE DRAWN
06-18-2024

CONTRACT NUMBER
NC-1429

DRAWING NUMBER
FP 3 of 3

Building 1.2.3.4

Fire Protection Plan < Submittal >

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2840 SE Blue Pkwy
Lee's Summit, MO 64063

Contract with:
- Streamline Construction -
Fire Protection Plan

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