J&D SPRINKLER CO., INC.

DANA GRAHAM NC # 16269FS CERT # 71075 NIGFT LEVEL II

JASON GRAHAM NC # 16269FS CERT # 12184 NICET LEVEL I 05/15/23

02/13/2022

1/8"=1'-0"

Job Number:

Drawn By:

Sheet Number FP-1 OF 7

**GENERAL NOTES:** 1. MATERIALS AND INSTALLATION SHALL COMPLY WITH APPLICABLE NFPA CODES, STATE BUILDING CODE, LOCAL AUTHORITY HAVING JURISDICTION, AND INSURANCE UNDERWRITER'S REQUIREMENTS.

2. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, UL LISTED FOR THE INTENDED USE AND SHALL BE INSTALLED IN FULL COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.

3. ALL NEW AND EXISTING SPRINKLER PIPE 1" AND SMALLER IS SCHEDULE-40 BLACK STEEL WITH THREADED ENDS AND FITTINGS. ALL NEW AND EXISTING SPRINKLER PIPE 11/4" AND LARGER IS SCHEDULE-10 BLACK STEEL WITH GROOVED ENDS AND FITTINGS.

4. SPRINKLER HEAD SPACING IS BASED ON THE NFPA 13 (2013 EDITION) STANDARDS FOR LIGHT HAZARD OCCUPANCIES (OFFICE) ALLOWING A MAXIMUM HEAD SPACING OF 225 S.F. PER HEAD. SPRINKLER HEAD SPACING IN THE ATTIC IS BASED ON THE NFPA 13 STANDARDS FOR COMBUSTIBLE CONCEALED SPACES IN ACCORDANCE WITH 8.6.4.1.4. ALLOWING A MAXIMUM HEAD SPACING OF 120SF PER HEAD.

5. LOCATIONS OF PIPING AS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD.

6. THE TENANT SHALL REMOVE ANY COMBUSTIBLE MATERIALS LOCATED ABOVE THE EXISTING CEILINGS.

7. THE SCOPE OF WORK FOR THIS PROJECT IS TO INSTALL A NEW FIRE SPRINKLER SYSTEM IN THE NEW BUILDING SHOWN. J&D SPRINKLER CO SCOPE OF WORK BEGINS AT 1'-0 ABOVE THE FINISHED FLOOR.

8. THE WATER TEST INFORMATION HAS BEEN PROVIDED BY J&D SPRINKLER CO DATED 10/20/2022 INDICATES THE FOLLOWING...

Sprinkler Design Data

CALCULATED

LIGHT HAZARD

WET

1,998 SF

.10

5.6

100 GPM

N/A

506.77

48.638

606.77

65.533

+35.564 (37.2%) | +37.523 (38.7%) | +21.972 (27.6%) | +29.730 (31.4%)

Water Supply Information

Copy of Water Test Data Included with Calculation is required

Certified pump curve required

If Storage is Greater than 12 Feet Complete Commodity Storage Design Information

Fire Pump Data

120 SF MAX

Phone: 919-553-2356

CALCULATED CALCULATED

LIGHT HAZARD LIGHT HAZARD

5 HEADS

6 X 30'-0

100 GPM

**B2B ATTIC** 

45.499

Residiual (PSI)

Rated Pressure

Churn Pressure

Storage Height

150%%% Flow (suction) -

5.6

ACTIVITY ATTIC

WET

5.6

1,343 SF

100 GPM

45.506

402.08

J&D SPRINKLER CO

120 SF MAX

Design Area #

Type of System

Hazard Class

Criteria From

Sprinkler Spacing

Hose Allowance

# Design Sprinklers

G.P.M. Req'd

P.S.I. Req'd

Requirement @ TEST

Safety factor @ Test

Dry Sys. Volume (gal)

**Hydrant Elevation** 

Static (PSI)

Rated G.P.M.

Diesel/Electric

Combined Discharge

Comodity Class

GPM Required

PSI Required

Special Application Spk. Requirement @ BASE

Design Area

Density

K-factor

Location

Hazard: LIGHT HAZARD

System: WET

Ceiling Height: -

Total Bldg. Hgt.+

CALCULATED

UNIT 119-125

LIGHT HAZARD

WET

NFPA 13

1,570 SF

5.6

**225 SF MAX** 

100 GPM

337.74

50.242

437.74

65.080

Pressure Hydrant

Flow Hydrant #2

1130 GPM

Flow (gpm)

Horsepower Style of pump

150%%% Flow (gpm)

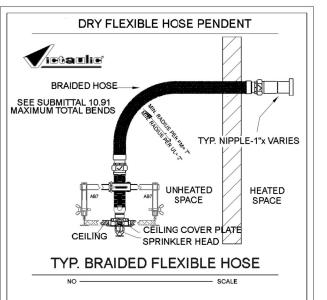
Clearance

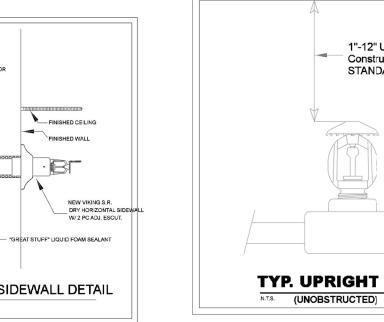
Wet/Dry

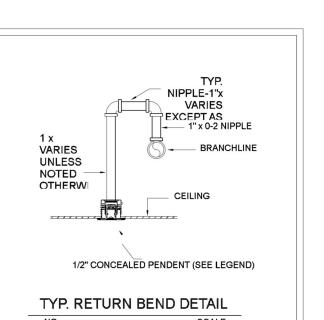
Svs. Sq. Ft.: 30,930 FT<sup>2</sup> +/-

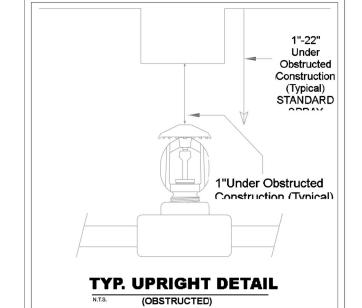
STATIC: 100 PSI **RESIDUAL:** 70 PSI 1130 GPM FLOW:

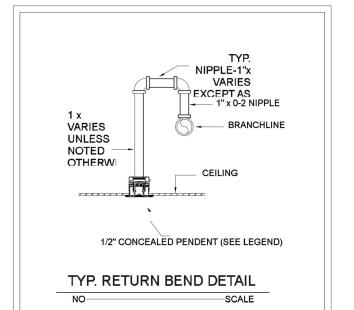
POTTER ELECTRIC ALARM BELL WATERFLOW DETECTOR GROOVED CHECK VALVE TO FDC 4" VIKING E-Z RISER CHECK VALVE **GROOVED BUTTERFLY VALVE W/ TAMPER** MAIN DRAIN ANGLE STORZ CONNECTION W/ WALL PLATE **6X4 FLANGED CONCENTRIC REDUCER** FIRE LINE RUN IN RISER DETAILS 0½ " = 1 Foot (FOR 1" TO 3" PIPE SIZES)











# TYP. DRY HORIZONTAL SIDEWALL DETAIL

## THE SPRINGS OF BALLENTINE FFE 390.00'

U.L. SYSTEM NO. WL1054

METAL PIPE THROUGH GYPSUM WALL ASSEMBLY

F RATING = 1-HR. OR 2-HR.

L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.

L RATING AT 400°F = LESS THAN 4 CFM/SQ. FT.

1. GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).

A. MAXIMUM 30" DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).

3. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT: A. MINIMUM 5/8" DEPTH OF SEALANT FOR A 1-HR. FIRE-RATING.

4. MINIMUM 1/2" BEAD HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT

NOTES: 1. MAXIMUM DIAMETER OF OPENING = 32-1/4".

2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2-1/4".

SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS

HILTI, INC. TULSA, OK 1-800-879-8000

B. MINIMUM 1-1/4" DEPTH OF SEALANT FOR A 2-HR. FIRE-RATING.

2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:

B. MAXIMUM 6" DIAMETER COPPER PIPE.

D. MAXIMUM 4" DIAMETER STEEL EMT.

C. MAXIMUM 6" DIAMETER STEEL CONDUIT

FIRESTOP SEALANT AT POINT OF CONTACT.

T RATING = 0-HR.

Relocate FDC next to

PROPOSED FIRE SPRINKLER

RISER LOCATION

proposed new fire

183'-0 +/-

**Reviewed for Fire Code Compliance** 

Roger Sullivan

06/15/2023 3:18:09 PM

PROPOSED FIRE

HYDRANT

ANGLE STORZ CONNECTION

W/ WALL PLATE

PROPOSED 6" GATE VALVE

## SITE PLAN (FOR HYDRAULIC REFERENCE ONLY) HANGER INSTALLATION REQUIREMENTS MAXIMUM DISTANCE BETWEEN HANGERS NOMINAL PIPE SIZE | 3/4" | 1" | 1-1/4" | 1-1/2" | 2" | 2-1/2" | 3" | 4" | 6" BLAZEMASTER CPVC | 5' 6" | 6' 0" | 6' 6" | 7' 0" | 8' 0" | 9' 0" | 10' 0" | N/A | N/A !#READABLE LIGHTWAĻL N/A | 12' 0" | 12' 0" | 12' 0" | 12' 0" | 12' 0" | 12' 0" | N/A | N/A STEEL PIPE (10/40) | N/A | 12' 0" | 12' 0" | 15' 0" | 15' 0" | 15' 0" | 15' 0" | 15' 0" | 15' 0" | 15' 0" | 15' 0" 100 PSI STATIC PRESSURE ON SYSTEM REQUIRES UP-LIFT RESTRAINT WITHIN 12 INCHES HORIZONTALLY OF HEAD FOR ARM-OVERS AND END OF BRANCH LINE

**EXISTING 6" GATE VALVE** 

**EXISTING 6" FIRE HYDRANT** 

W/ 2 21/2" HOSE

CONNECTIONS

TEST-

STATIC :100 PSI

RESIDUAL: 70 PSI

EXISTING 6" FIRE HYDRANT W/ 2 21/2 HOSE CONNECTIONS

(FLOW 1,130)

6" RPZ BACKFLOW

PREVENTER

(WILKINS 375DA)

**EXISTING 6" GATE VALVE** 

WATER SUPPLY

**⊘** | **⊘** 

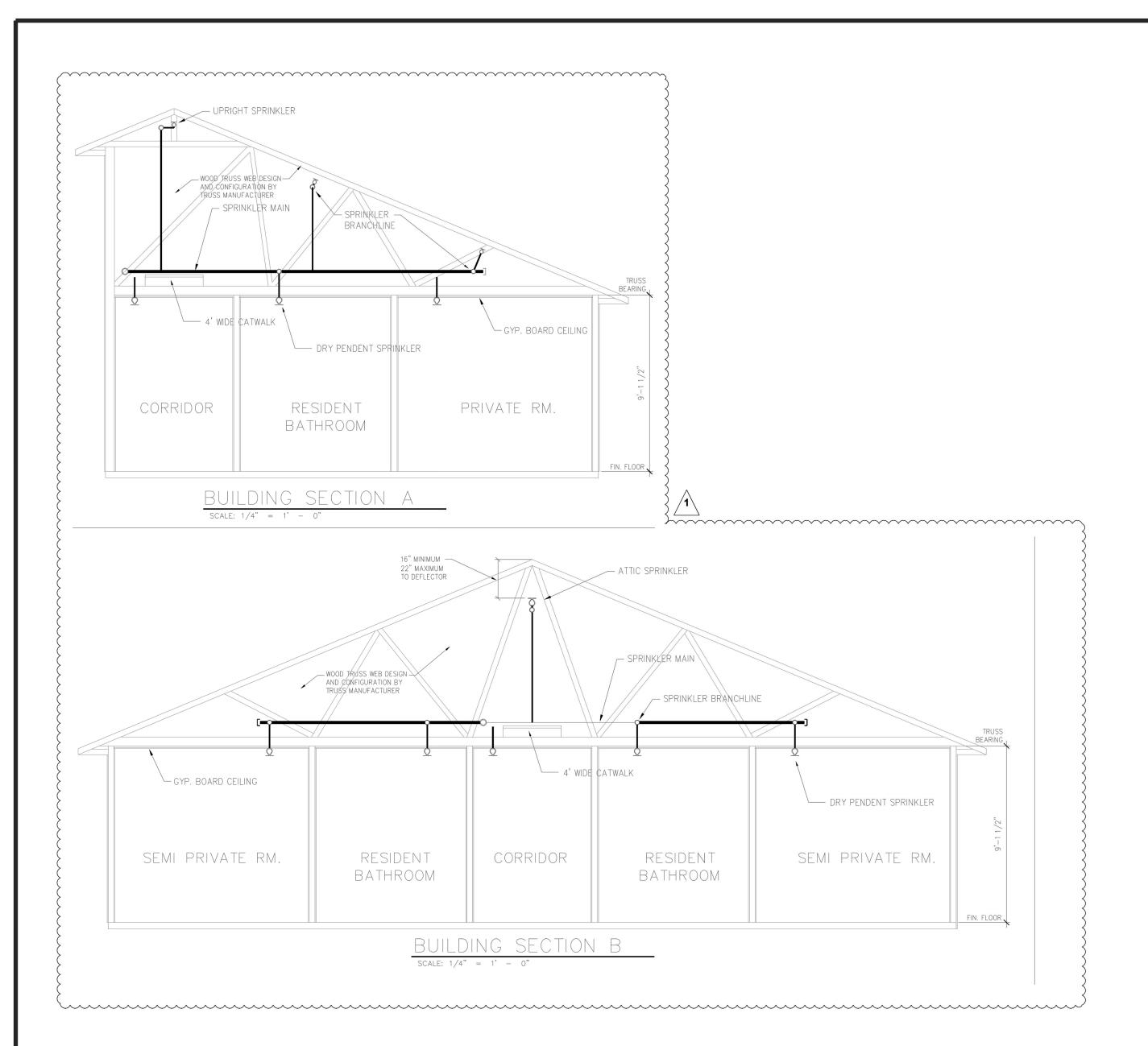
THE UNSUPPORTED LENGTH BETWEEN THE END SPRINKLER AND THE LAST HANGER ON THE LINE SHALL NOT EXCEED 36" FOR 1" PIPE, 48" FOR 1 1/4" PIPE AND 60" FOR 1 1/2" PIPE OR LARGER THE CUMULATIVE HORIZONTAL LENGTH OF AN UNSUPPORTED ARMOVER

TO A SPRINKLER, SPRINKLER DROP, OR SPRIG-UP SHALL NOT EXCEED 24"

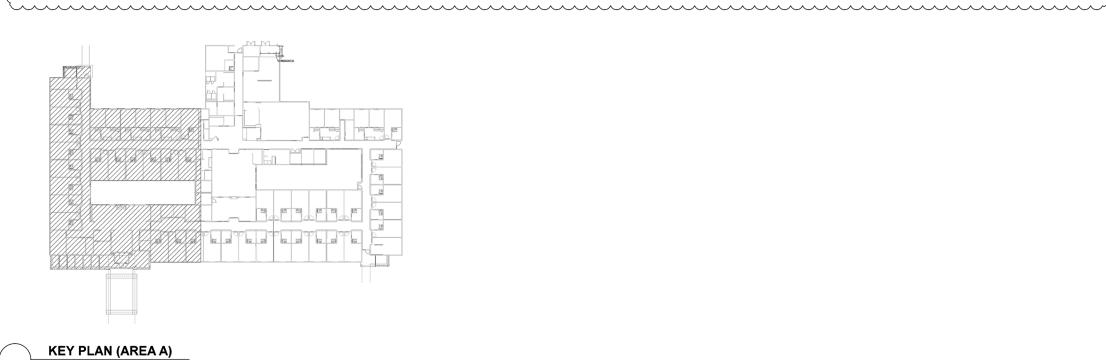
TRA	PEZE I	NSTAL	LATION	N REQU	JIREME	ENTS			
SPAN OF TRAPEZE	NOMINAL PIPE SIZE SUPPORTED								
(Schedule 10)	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"	
1 FT. 6 IN.	1"	1"	1"	1"	1"	1"	1-1/4"	1-1/4"	
2 FT. 0 IN.	1"	1"	1"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	
2 FT. 6 IN.	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	2"	
3 FT. 0 IN.	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	1-1/2"	2"	
4 FT. 0 IN.	1-1/2"	1-1/2"	1-1/2"	1-1/2"	2"	2"	2"	2-1/2"	
5 FT. 0 IN.	2"	2"	2"	2"	2"	2"	2-1/2"	2-1/2"	
6 FT. 0 IN.	2"	2"	2"	2"	2"	2-1/2"	2-1/2"	3"	
7 FT. 0 IN.	2"	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	
8 FT. 0 IN.	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	
9 FT. O IN.	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	4"	
10 FT. 0 IN.	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	3"	4"	

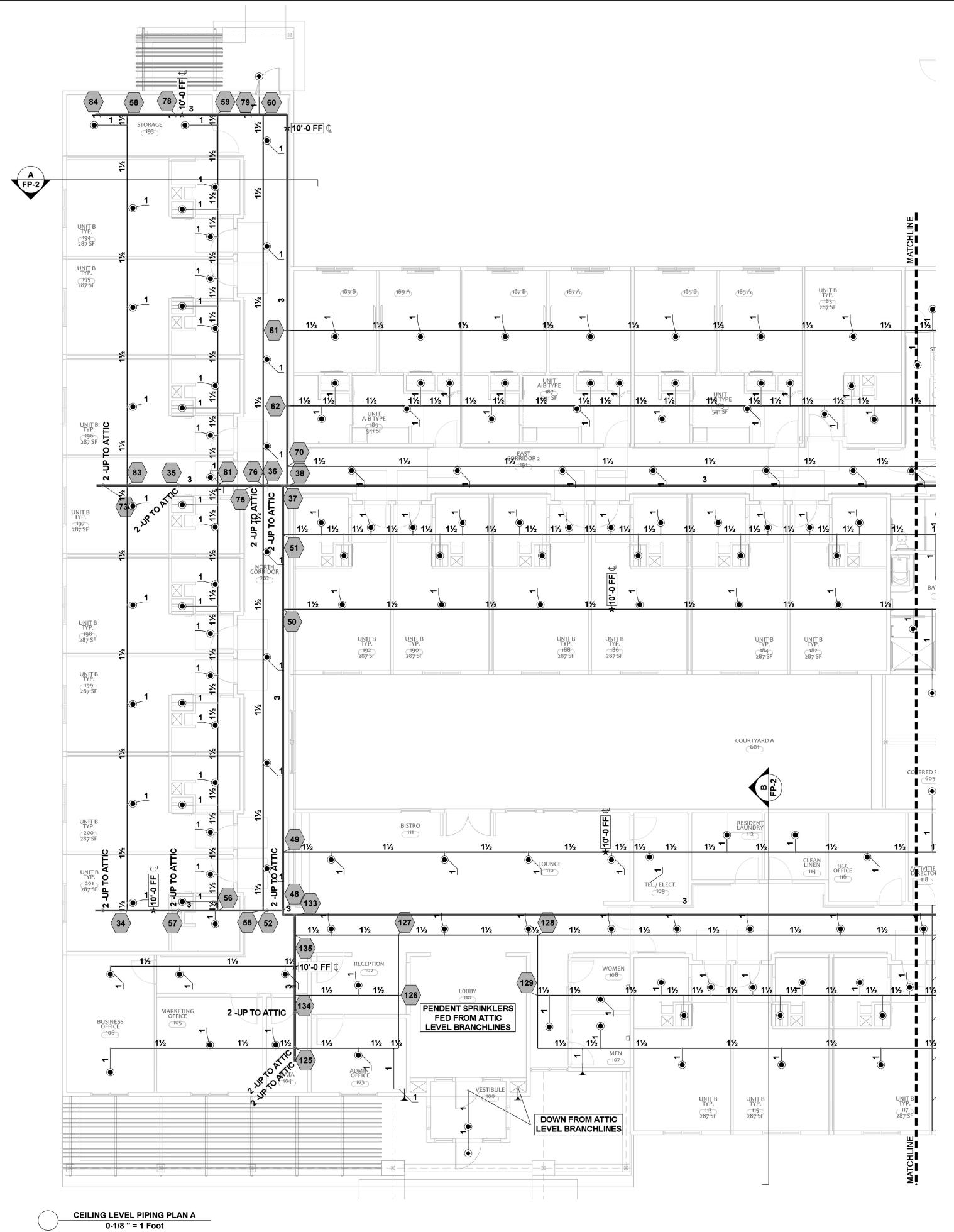
Project Name: THE SPRINGS OF BALENTINE WOOD SAMMY SIDEWINDER SCREW HANGER Project Street Address: 40 RAWLS CLUB RD 1 - 3/8" OR 1/2" x LENGTH (A) A.T.R. 1 - (PIPE SIZE) LOOP RING Designed By: J&D SPRINKLER CO Occupancy: NURSING Design Method

## 1"-12" Under Unobstructed Construction (Typical) STANDARD SPRAY SPRINKLERS TYP. UPRIGHT DETAIL



	Sprinkler Legend										
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Туре	Size	Response	Finish	Temperature	Note
	Viking	VK3021	QR/SS	340	5.6	Pendent	1/2	Quick	White Polyester	155 °F	NEW PENDENT
•	Victaulic	V3506	VS1	6	5.6	Pendent	1	Quick	VC250	155 °F	NEW DRY FLEX PENDENT
	Viking	VK3021	QR/SS	6	5.6	Pendent	1/2	Quick	White Polyester	200 °F	NEW 200° PENDENT
<b>(A)</b>	Viking	VK176	QR/SS - DRY	2	5.6	Pendent	1	Quick	Chrome	155 °F	NEW DRY PENDENT
	Viking	VK3001	QR/SS	191	5.6	Upright	1/2	Quick	Brass	155 °F	NEW UPRIGHT SPRINKLER
•	Viking	VK681	V-BB	62	8	Upright	3/4	Quick	Brass	200 °F	NEW ATTIC UPRIGHT
Q	Viking	VK3001	QR/SS	6	5.6	Upright	1/2	Quick	Brass	155 °F	NEW UR IN OVERSHEETING
<u> </u>	Тусо	TY3335	SERIES DS-1	7	5.6	Sidewall	1	Quick	Chrome	200 °F	NEW DRY SIDEWALL
				Total = 620							





Date: 02/13/2023

J&D SPRINKLER CO., INC. Fire Protection - Est. 1986

DANA GRAHAM

NC # 16269FS CERT # 71075 NICET LEVEL III JASON GRAHAM

NC # 16269FS CERT # 121842 NICET LEVEL II

REVISION: NO. DATE

05/15/23

40 RAWLS CLUB RD FUQUAY-VARINA, NC 27526

SPRINKLER (
. MAIN ST., CLAYTOR
. (919)553-2356 FAX:

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

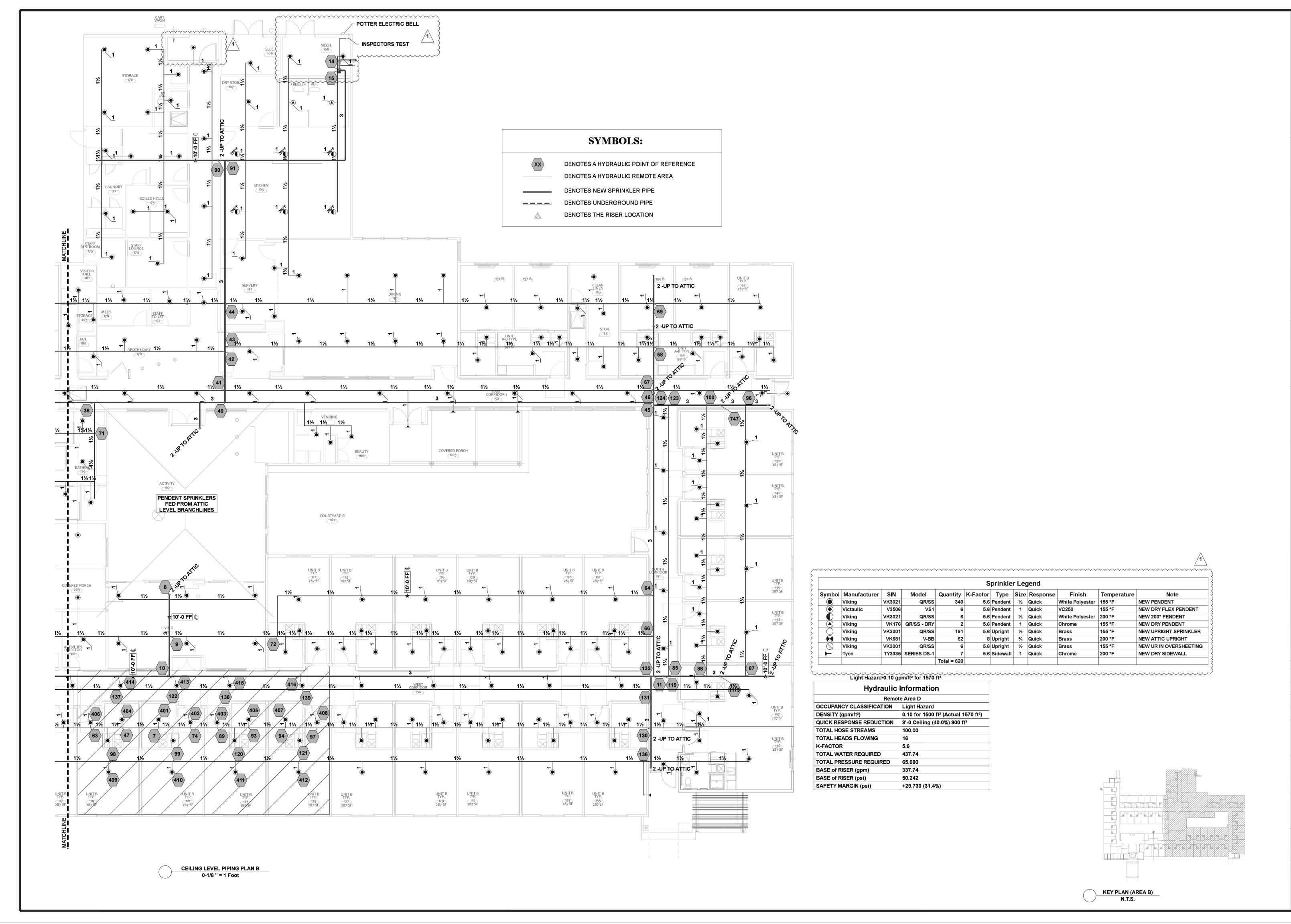
Job Number: F23007

Drawn By:

Sheet Number

FP-2 OF 7

24X36



40 RAWLS CLUB RD UQUAY-VARINA, NC 27526

J&D SPRINKLER CO., INC. Fire Protection - Est. 1986

DANA GRAHAM NC # 16269FS CERT # 71075 NICET LEVEL III JASON GRAHAM

NC # 16269FS CERT # 121842 NICET LEVEL III REVISION: NO. DATE 05/15/23

Date: 02/13/2023

1/8"=1'-0" 

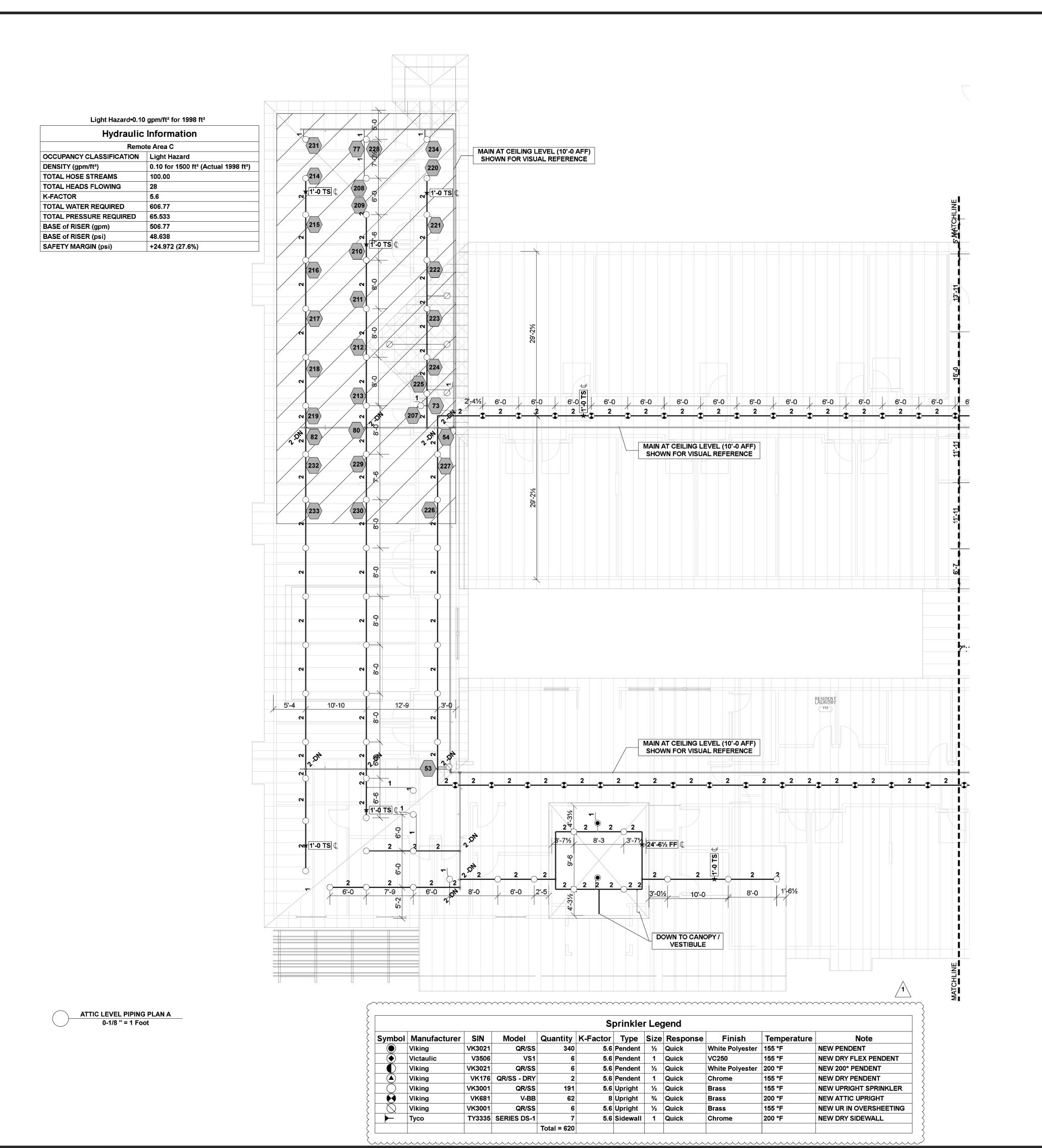
Job Number:

F23007

Drawn By: TWC

Sheet Number

FP-3 OF 7



THE SPRINGS OF BALLENTIN

J & D SPRINKLER CO. INC. 315 W. MAIN ST., CLAYTON, NC 27520 PHONE: (919)553-2356 FAX: (919) 359-0622

& D Sprinkler Co. as a licensed fire ractor under Article 2 of Chapter 87 of tatutes for J & D Sprinkler's exclusive to G.S. § 89C-25(8), and J & D Sprinkler any and all installation work and other Aed in reliance on this drawing pursuant to A(a)(2). Installation work or any other work

J&D SPRINKLER CO., INC.
Fire Protection - Est. 1986

DANA GRAHAM

NC # 16269FS CERT # 71075
NICET LEVEL III

JASON GRAHAM

NC # 16269FS CERT # 121842
NICET LEVEL III

REVISION:
NO. DATE

REVISION:
NO. DATE
1 05/15/23

Date: 02/13/2023

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

Job Number: F23007

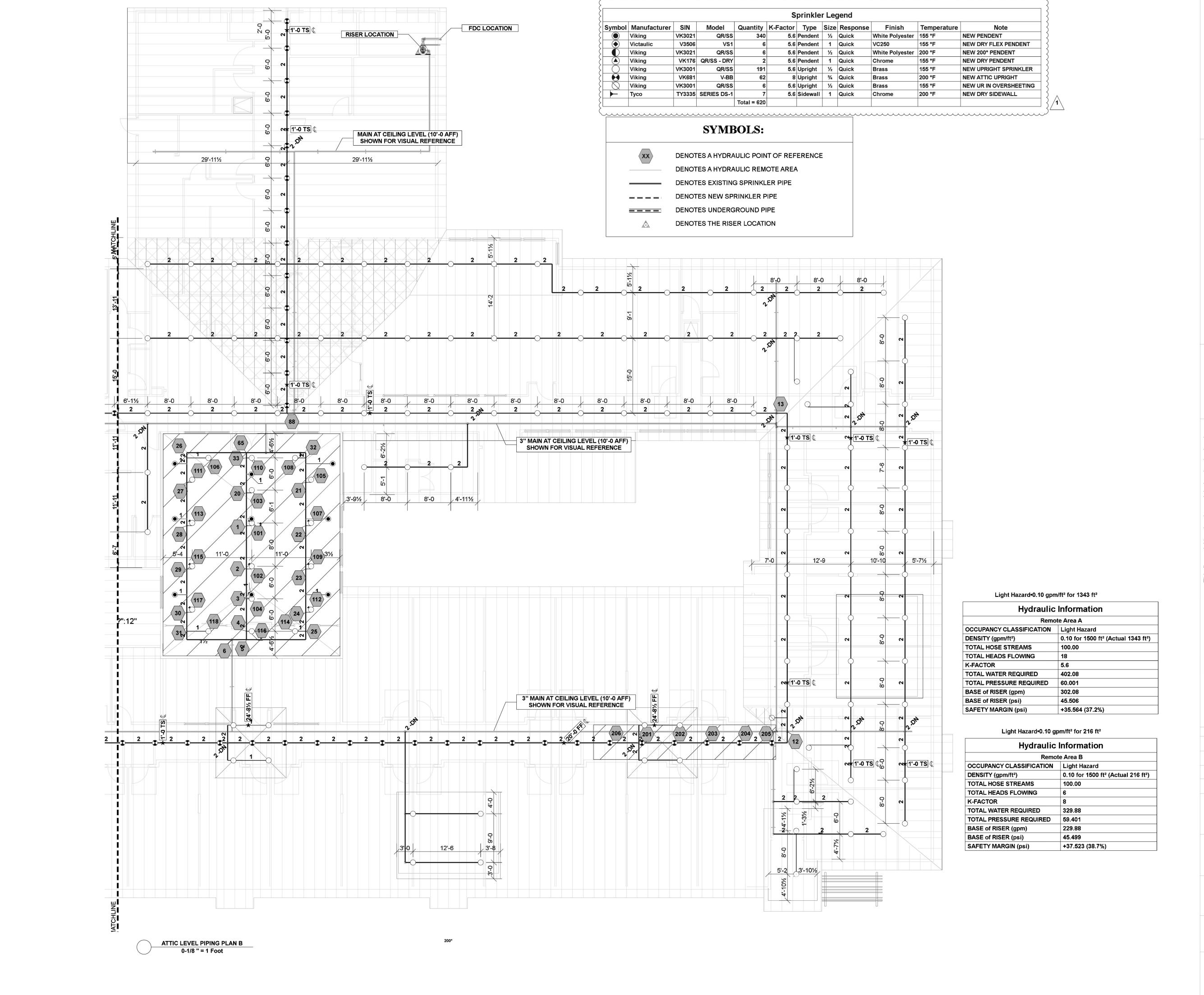
Drawn By:

TWC

Sheet Number

FP-4 OF 7

24X36



J&D SPRINKLER CO., INC. Fire Protection - Est. 1986

DANA GRAHAM NC # 16269FS CERT # 71075 NICET LEVEL III JASON GRAHAM

NC # 16269FS CERT # 121842 NICET LEVEL II REVISION: NO. DATE 05/15/23

02/13/2023

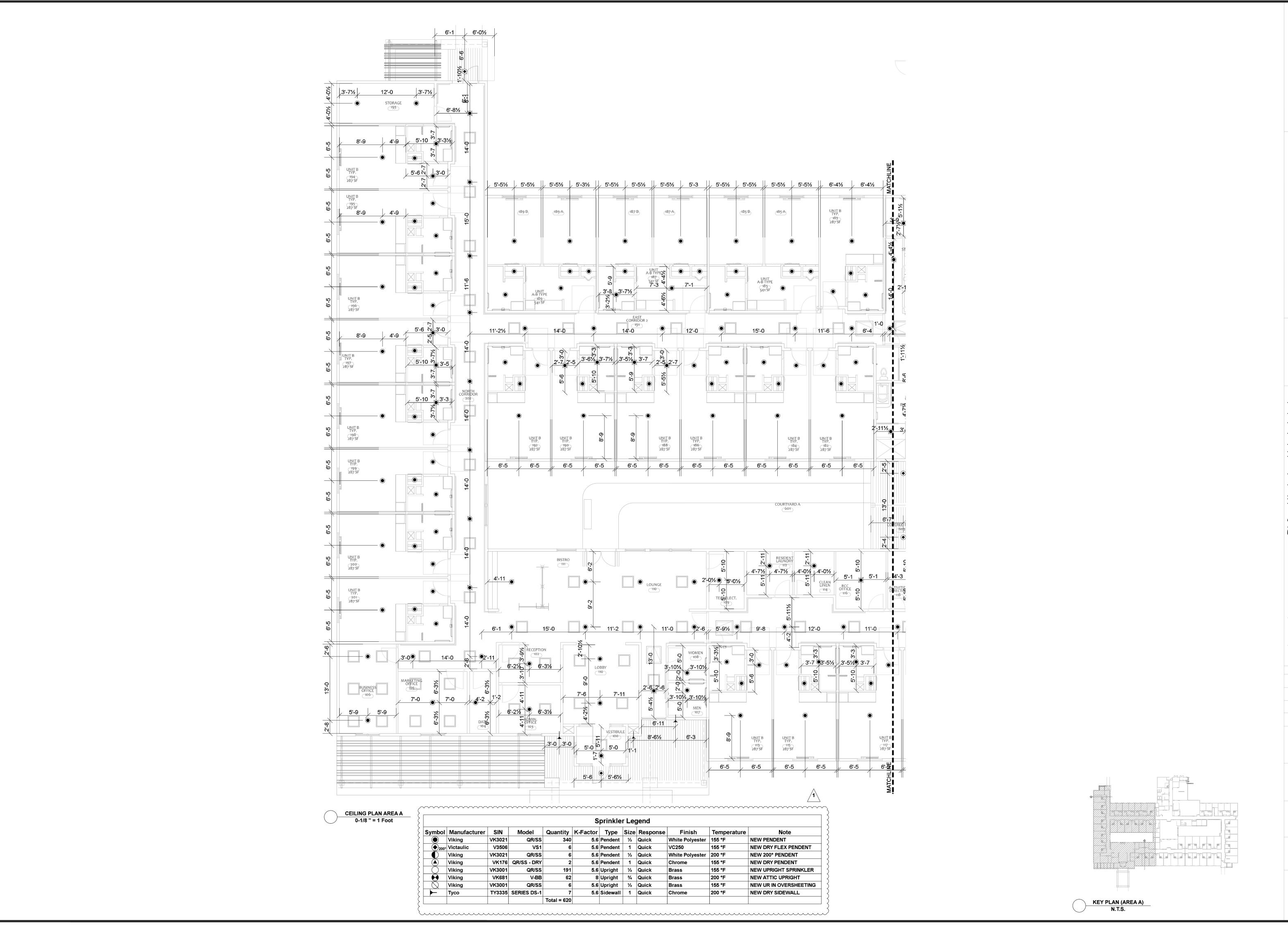
1/8"=1'-0" 

Job Number: F23007

Drawn By: TWC

Sheet Number

FP-5 OF 7



J & D SPRINKLER CO. INC. 315 W. MAIN ST., CLAYTON, NC 27520 PHONE: (919)553-2356 FAX: (919) 359-0622 CEILING PLA AREAA SHEET TITLE:

40 RAWLS CLUB RD FUQUAY-VARINA, NC 27526

J&D SPRINKLER CO., INC. Fire Protection - Est. 1986

DANA GRAHAM NC # 16269FS CERT # 71075 NICET LEVEL III JASON GRAHAM NC # 16269FS CERT # 121842 NICET LEVEL III REVISION: NO. DATE

05/15/23

Date: 02/13/2022

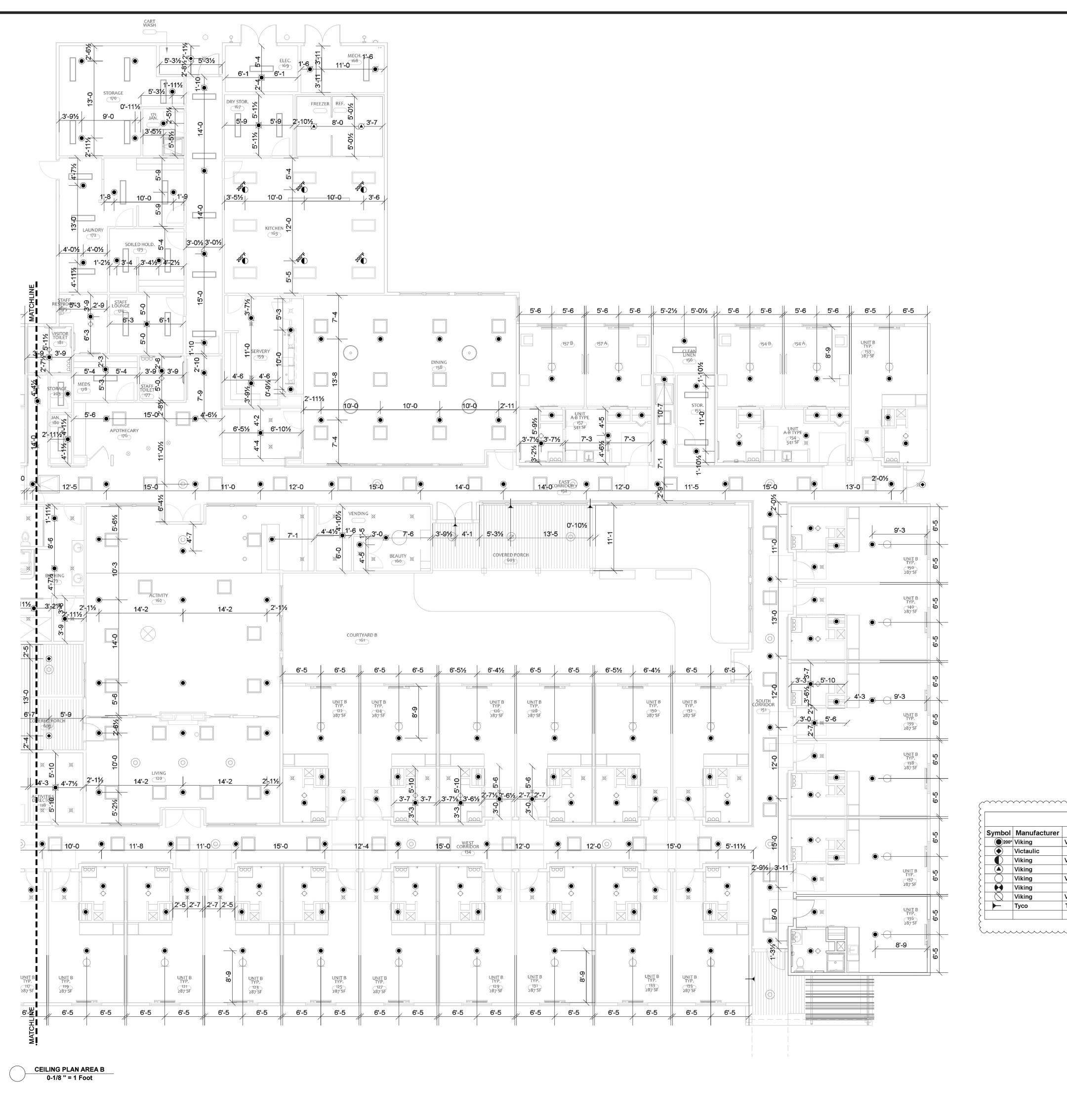
1/8"=1'-0"

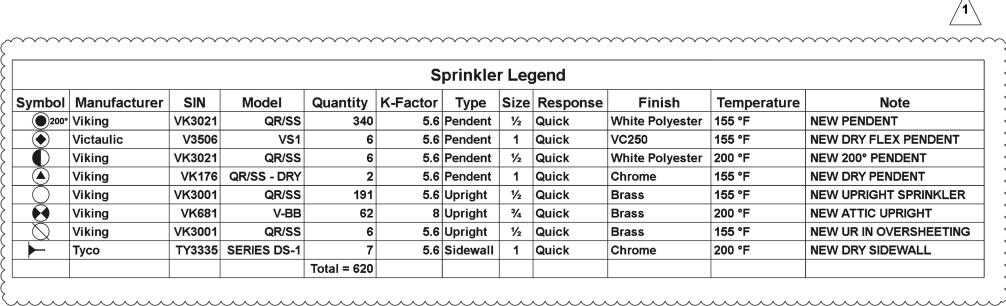
Job Number: F23007

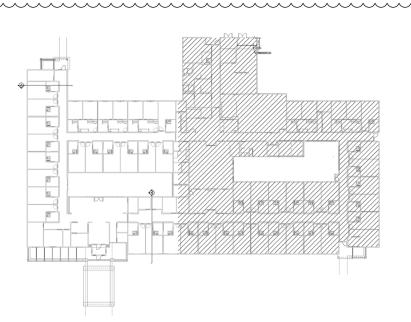
Drawn By: TWC

Sheet Number

FP-6 OF 7







KEY PLAN (AREA B) N.T.S. Date: 02/13/2023

40 RAWLS CLUB RD FUQUAY-VARINA, NC 27526

SPRINKLER (
MAIN ST., CLAYTOR
(919)553-2356 FAX:

ILING PL AREA B

J&D SPRINKLER CO., INC. Fire Protection - Est. 1986

DANA GRAHAM

NC # 16269FS CERT # 71075 NICET LEVEL III JASON GRAHAM

NC # 16269FS CERT # 121842 NICET LEVEL III

REVISION: NO. DATE

05/15/23

SHEET TITLE:

Scale: 1/8"=1'-0" 10'

Job Number:

F23007

Drawn By:

Sheet Number

FP-7 OF 7

24X36