

McCarthy Building Companies Inc. 7930 Santa Fe Drive Suite 200 Overland Park, Kansas 66204 Phone: (913) 202-7002 RELEASED FOR CONSTRUCTION
As Noted on Plan Review

Lee's Summit Fire Department
Lee's Summit, Missouri
10/29/2024

Submittal #21 13 13-4.0 21 13 13 - Wet Pipe Sprinkler Systems

Printed On: 09/30/2024 11:41 AM

Project: 003057.000 - Saint Luke's Continous Work Projects 2023 100 NE Saint Luke's Blvd, Lees Summit, Missouri 64086

Fire Sprinkler				
SPEC SECTION:	21 13 13 - Wet Pipe Sprinkler Systems	SUBMITTAL MANAGER:	Nadia Opalenik (McCarthy Building Companies Inc)	
STATUS:	Open	DATE CREATED:	09/30/2024	
ISSUE DATE:	09/30/2024	REVISION:	0	
RESPONSIBLE CONTRACTOR:	Jayhawk Fire Sprinkler Co Inc	RECEIVED FROM:	Coby Aebersold	
RECEIVED DATE:		SUBMIT BY:		
FINAL DUE DATE:	10/14/2024	LOCATION:		
TYPE:		COST CODE:		
CRITICAL:	No			
APPROVERS:	Nadia Opalenik (McCarthy Building Companie Consultants), Darin Crowder (Professional Eng Inc), Beth Elliott (Professional Engineering Co	gineering Consultants) , Brian Do	<u> </u>	
	Professional Engineering Consultants), Darin Coofessional Engineering Consultants)	rowder (Professional Engineerin ç	g Consultants), Brian Dostal (ACI Boland	
DISTRIBUTION:				
DESCRIPTION:				
ATTACHMENTS:				

This review is for general conformance with Plans and Specifications only. Any deviations from same not clearly noted by the Preparer have not been reviewed. Review shall not constitute a complete check of detailed dimensions or count or serve to relieve the Preparer of contractual responsibility for any error or deviation from contract requirements.

SUBMITTAL WORKFLOW

#	NAME	SUBMITTER/ APPROVER	SENT DATE	DUE DATE	RETURNED DATE	RESPONSE	ATTACHMENTS
1	Coby Aebersold	Submitter		10/14/2024	9/30/2024	Submitted	SLH EAST ED PATIENT TREATMENT EXPANSION (APPROVAL) - Sealed - Signed - Flat.pdf
COMMEN	COMMENTS:						
2	Nadia Opalenik	Approver	9/30/2024	10/14/2024	9/30/2024	Approved	211313 Fire Sprinkler Drawings for ED.pdf
COMMENTS:							
3	Monique Bromley	Approver	9/30/2024	10/14/2024		Pending	
COMMEN	ITS:						
4	Darin Crowder	Approver	9/30/2024	10/14/2024		Pending	



Submittal #21 13 13-4.0 21 13 13 - Wet Pipe Sprinkler Systems

#	NAME	SUBMITTER/ APPROVER	SENT DATE	DUE DATE	RETURNED DATE	RESPONSE	ATTACHMENTS
COMMEN	COMMENTS:						
5	Brian Dostal	Approver	9/30/2024	10/14/2024		Pending	
COMMEN	COMMENTS:						
6	Beth Elliott	Approver	9/30/2024	10/14/2024		Pending	
COMMEN	COMMENTS:						

ВҮ	DATE	COPIES TO



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Fire Sprinkler				
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ISSUE DATE:	09/30/2024	REVISION:	0	
RESPONSIBLE CONTRACTOR:	Jayhawk Fire Sprinkler Co Inc	RECEIVED FROM:	Coby Aebersold	
RECEIVED DATE:		SUBMIT BY:		
FINAL DUE DATE:	10/28/2024	LOCATION:		
TYPE:		COST CODE:		
CRITICAL:	No			
APPROVERS:	Nadia Opalenik (McCarthy Building Companies Inc), Brian Dostal (ACI Boland I	nc), Shari McConnell (IMEG)	
BALL IN COURT: Nadia Opalenik (Mc	Carthy Building Companies Inc)			
DISTRIBUTION:				
DESCRIPTION:				
ATTACHMENTS:				

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COMMEN	COMMENTS:						
3	Brian Dostal	Approver		10/28/2024		Pending	
COMMEN	COMMENTS:						
4	Shari McConnell	Approver		10/28/2024		Pending	
COMMEN	COMMENTS:						





BY DATE COPIES TO

McCarthy Building Companies Inc. Page 2 of 2 Printed On: 09/30/2024 11:37 AM

1st FLOOR PARTIAL SPRINKLER PLAN SCALE 1/4"=1'-0"

THIS HATCH INDICATES NO SPRINKLER **WORK IN THESE AREAS.**

in Light Hazard Occupancies Only (SSU/SSP).

FIGURE 8.6.5.1.2(b) Obstruction Against Wall (SSU/SSP).

NFPA 13 - OBSTRUCTION CODES: Table 8.6.5.2.2 Suspended or Floor-Mounted Obstructions in Light Hazard Occupancies Only (SSU/SSP) Ceiling or roof **Minimum Vertical Distance** Below Deflector (B) Horizontal Distance (A) [in. (mm)] 6 in. (150 mm) or less 3(75)More than 6 in. (150 mm) to 4 (100) 9 in. (225 mm) 6 (150) More than 9 in. (225 mm) to 12 in. (300 mm) More than 12 in. (300 mm) to 8 (200) 15 in. (375 mm)

9½ (240)

 $12\frac{1}{2}$ (315)

15½ (395)

18 (450)

Ceiling or roof

8.6.6 Clearance to Storage (Standard Pendent and Upright Spray Sprinklers). **8.6.6.1** The clearance between the deflector and the top of

storage shall be 18 in. (450 mm) or greater. **8.6.6.2** The 18 in. (450 mm) dimension shall not limit the height of shelving on a wall or shelving against a wall in accordance with 8.6.6, 8.7.6, 8.8.6, and Section 8.9. **8.6.6.2.1** Where shelving is installed on a wall and is not directly below sprinklers, the shelves, including storage thereon, shall be permitted to extend above the level of a plane located 18 in. (450 mm) below ceiling sprinkler deflectors. **8.6.6.2.2** Shelving, and any storage thereon, directly below the sprinklers shall not extend above a plane located 18 in.

(450 mm) below the ceiling sprinkler deflectors. **8.6.6.3** Where other standards specify greater clearance to storage minimums, they shall be followed. FIGURE 8.6.5.2.2 Suspended or Floor-Mounted Obstruction

Ceiling

Open web steel or wood truss

Obstruction $A \ge (D - 8 \text{ in.}) + B$ [$A \ge (D - 200 \text{ mm}) + B$] where: $D \le 30$ in. (750 mm) **Elevation View of Truss** (Obstruction in horizontal orientation) $A \ge 3C \text{ or } 3D$ $A \le 24 \text{ in. (600 mm)}$ **Elevation View**

(Use dimension C or D, whichever is greater) FIGURE 8.6.5.2.1.3(b) Minimum Distance from an Obstruction in the Horizontal Orientation (SSU/SSP).

Table 8.6.5.1.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

Maximum Allowable

Distance from Sprinklers to Side of Obstruction (A)	Distance of Deflector Above Bottom of Obstruction (B) [in. (mm)]
Less than 1 ft (300 mm)	0 (0)
1 ft (300 mm) to less than 1 ft 6 in. (450 mm)	2½ (65)
1 ft 6 in. (450 mm) to less than 2 ft (600 mm)	3½ (90)
2 ft (600 mm) to less than 2 ft 6 in. (750 mm)	5½ (140)
2 ft 6 (750 mm) in. to less than 3 ft (900 mm)	7½ (190)
3 ft (900 mm) to less than 3 ft 6 in. (1.1 m)	9½ (240)
3 ft 6 in. (1.1 m) to less than 4 ft (1.2 m)	12 (300)
4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)	14 (350)
4 ft 6 in. (1.4 m) to less than 5 ft (1.5 m)	16½ (420)
5 ft (1.5 m) to less than 5 ft 6 in. (1.7 m)	18 (450)
5 ft 6 in. (1.7 m) to less than 6 ft (1.8 m)	20 (510)
6 ft (1.8 m) to less than 6 ft 6 in. (2.0 m)	24 (600)
6 ft 6 in. (2.0 m) to less than 7 ft (2.1 m)	30 (750)
7 ft (2.1 m) to less than 7 ft 6 in. (2.3 m)	35 (875)

Note: For A and B, refer to Figure 8.6.5.1.2(a). Ceiling Elevation View

FIGURE 8.6.5.1.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

ER AREA:

CODE SUMMARY

PROJECT CONSTRUCTION PURPOSE: Renovating existing offices into 3 new exam rooms for the ED.

OWNER: Saint Luke's East Hospital 120 NE Saint Luke's Blvd Lee's Summit, MO 64063

> 1710 WYANDOTTE ST. KANSAS CITY, MO 64108

PHONE: (816) 763-9600

<u>LOCAL AUTHORITY:</u>
RESPONDING FIRE SERVICE: CITY OF LEE'S SUMMIT MO

LOCAL BUILDING INSPECTION: CITY OF LEE'S SUMMIT MO

CODE INFORMATION: 2018 INTERNATIONAL BUILDING CODE 2018 INTERNATIONAL PLUMBING CODE 2018 INTERNATIONAL MECHANICAL CODE 2017 NATIONAL ELECTRICAL CODE (NFPA 70)

2018 INTERNATIONAL FIRE CODE 2012 LIFE SAFETY CODE (NFPA 101 CHAPTER 20) 2009 ICC/ANSI A117.1 AS AMENDED AND ADOPTED BY THE CITY OF LEE'S SUMMIT 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN / AMERICANS WITH DISABILITIES ACT OF 1990

STATE OF MISSOURI DEPT. OF HEALTH & ENVIRONMENT REFERENCES THE FOLLOWING

2012 NFPA 101 LIFE SAFETY CODE (LSC) 2018 FGI GUIDELINES FOR DESIGN & CONSTRUCTION OF HOSPITALS & OUTPATIENT FACILITIES

I-2 -SECTION 308.3 (HEALTHCARE - SECTION 6.1.5)

TYPE OF CONSTRUCTION TYPE 1-A -SECTION 602.2 (TYPE 1 - 332 SPRINKLERED - SECTION 18.1.6.1)

NOTE: IF CODE REQUIREMENTS OVERLAP, THE MOST STRINGENT SHALL APPLY

OCCUPANT LOAD:
TOTAL SQUARE FOOTAGE: SF / = 785SF TOTAL NUMBER OF OCCUPANTS = DEAD END CORRIDOR LENGTH LIMIT: EXIT ACCESS TRAVEL DISTANCE:

OCCUPANCY GROUP:

AREA OF CONSTRUCTION: 785+/- SF REQUIRED FIRE RESISTANCE RATINGS (IN HOURS)

PER NFPA 101 A.8.2.1.2: INTERIOR BEARING WALLS PRIMARY STRUCTURAL FRAME 3 HR FLOOR CONSTRUCTION

INTERIOR NON-BEARING WALLS 0 HR

ROOF CONSTRUCTION

PLUMBING FIXTURE CALCULATIONS: EXISTING TO REMAIN NO CHANGE IN OCCUPANCY

ACTIVE FIRE SAFETY FEATURES:
- FIRE ALARM SYSTEM - THE FIRE ALARM SYSTEM IS SPECIFIED AS AN ADDRESSABLE TYPE SYSTEM. THE DEVICE TYPE AND LOCATIONS ARE PER THE APPLICABLE CODES AS WELL AS ADA REQUIREMENTS.

1 1/2 HR

SMOKE CONTROL SYSTEM - ALL DUCTWORK PENETRATING SMOKE RATED WALLS WILL HAVE A SMOKE OR COMBINATION FIRE/SMOKE DAMPER AS INDICATED ON CONSTRUCTION DOCUMENTS. THESE DAMPERS WILL CLOSE UPON DETECTION OF SMOKE BY THE AREA SMOKE DETECTORS OR DUCT SMOKE DETECTORS IN THE AIR HANDLING UNITS.

FIRE SPRINKLER SYSTEM - SPECIFIED TO BE PER NFPA 13. THE SPRINKLER HEADS ARE SPECIFIED TO BE QUICK RESPONSE TYPE.

EMERGENCY LIGHTING AND POWER - EMERGENCY LIGHTING, LIFE SAFETY AND CRITICAL

LOADS WILL RECEIVE POWER FROM A BACKUP GENERATOR LOCATED OUTSIDE THE MAIN ELECTRICAL ROOM.

X REVIEWED

MAKE CORRECTIONS NOTED

and re-submittal is not required unless specifically

noted in the correction comments. Review does not

authorize changes to Contract Sum unless stated

If checked below, fabrication MAY NOT be undertaken. Resubm

corrected copies for final approval. Correction shall be limited t

REVISE AND RESUBMIT

- ILLUMINATED EXIT SIGNS

PASSIVE FIRE SAFETY FEATURES:

- SMOKE COMPARTMENTS NO GREATER THAN 22,500 SF

GENERAL NOTES:

ALL FITTINGS CONFORM TO SECTION 2-4 OF NFPA PAMPHLET 13.

VALVES ON CONNECTIONS TO WATER SUPPLIES, SECTIONAL CONTROL VALVES AND OTHER VALVES IN SUPPLY PIPES TO SPRINKLERS SHALL BE SUPERVISED OPEN BY AN APPROVED METHOD.

IT IS THE OWNERS RESPONSIBILITY TO PROVIDE ADEQUATE HEAT TO KEEP THE SPRINKLER SYSTEM FROM FREEZING.

ALL ELECTRICAL WIRING OF ALARM BELLS, FLOW SWITCHES AND TAMPER

THE SPRINKLER SYSTEM TO BE INSTALLED IN ACCORDANCE WITH NFPA 13.

HANGERS TO BE SPACED TO MEET NFPA REQUIREMENTS

SWITCHES (IF REQUIRED) TO BE DONE BY OTHERS.

PER NFPA 13, SECTION 8.6.3.2.4, WITHIN SMALL ROOMS AS DEFINED IN SECTION 3.3.20, SPRINKLERS SHALL BE PERMITTED TO BE LOCATED NOT MORE THAN 9 FT. FROM ANY SINGLE WALL, AND SPRINKLER SPACING LIMITATIONS OF SECTION 8.6.3 AND AREA LIMITATIONS OF TABLE 8.6.2.2.1(a) SHALL NOT BE EXCEEDED. JFS MAY MODIFY HEADS SHOWN ON THIS DRAWING TO COMPLY WITH THIS RULE.

€ = CENTER LINE OF PIPE BELOW TOP OF STEEL

EL = CENTER LINE OF PIPE ABOVE FINISHED FLOOR

CONSTRUCTION: CONCRETE SLAB, CONCRETE BEAMS AND TEES

PLAN NOTES:

- 1. ALL CEILING HEIGHTS ARE TO BE 9'-0" UNLESS NOTED OTHERWISE
- 2. SPRINKLERS WILL BE CENTERED IN CEILING TILES WHERE POSSIBLE YET NEVER ANY CLOSER THAN 6" FROM GRID.
- 3. ALL THREADED PIPING IS TO BE ALLIED "SCHEDULE 40" WITH THREADED CAST IRON FITTINGS.
- 4. ALL GROOVED PIPING IS TO BE SCH. 10 PIPE, ASTM A-795 WITH ROLLED GROOVED ENDS. ALL FITTINGS TO BE IRON GROOVED OR WELDED STEEL OUTLETS.

8.6.5.2.2.1 IN LIGHT HAZARD OCCUPANCIES, PRIVACY CURTAINS SHALL NOT BE CONSIDERED OBSTRUCTIONS WHERE ALL OF THE FOLLOWING AREA MET: (1) THE CURTAINS ARE SUPPORTED BY FABRIC MESH ON CEILING TRACK (2) OPENINGS IN THE MESH ARE EQUAL TO 70 PERCENT OR GREATER. (3) THE MESH EXTENDS A MINIMUM OF 22 INCHES DOWN FROM CEILING.

DESIGN CRITERIA:

BUILDING CODE: SEE CODE SUMMARY

OCCUPANCY: SEE CODE SUMMARY

TYPE OF CONSTRUCTION: SEE CODE SUMMARY

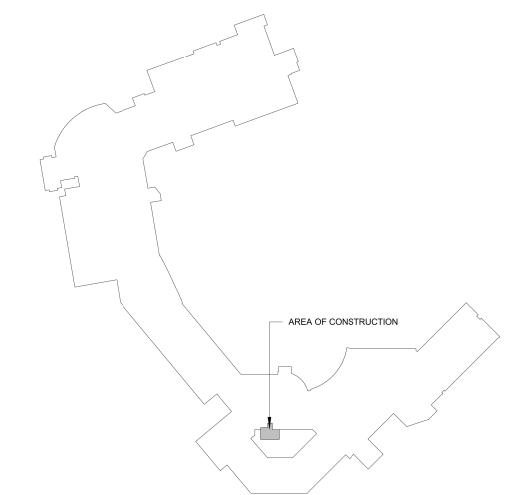
AREA OF CONSTRUCTION: SEE CODE SUMMARY

PER NFPA 13, 2016 EDITION:

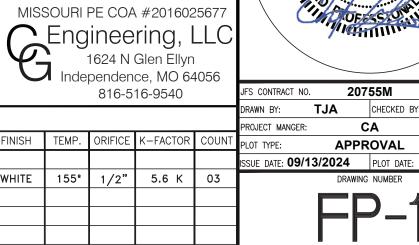
100 GPM HOSE ALLOWANCE

SYSTEM TYPE: WET (EXISTING)

CORRIDOR, EXAM ROOMS, OFFICES, ETC... LIGHT HAZARD MAXIMUM 225 S.F. SPRINKLER SPACING (STANDARD SPRINKLER)







CHECKED BY: SB SSUE DATE: 09/13/2024 PLOT DATE: 09/13/2024 FIRE PROTECTION SPRINKLER RELOCATION

FLOOR PLAN

1 OF 1

HANGER SPACING TABLE 1" 1¼" 1½" 2" 2½" 3" 3½" 4" 5" 6" 8" NOMINAL PIPE SIZE | 34" | THREADED LIGHTWALL THREADED LIGHTWALL STEEL PIPE COPPER TUBE | 5-6|6-0|6-6|7-0|8-0|9-0|10-0|N/A|N/A|N/A|N/A|N/A

More than 15 in. (375 mm) to

More than 18 in. (400 mm) to

More than 24 in. (600 mm) to

Note: For *A* and *B*, refer to Figure 8.6.5.2.2.

lo maximum

FIGURE 8.6.5.1.2(c) Obstructions Against Walls (SSU/SSP).

More than 30 in. (750 mm)

Obstruction

24 in. (600 mm)

No additional

protection is required

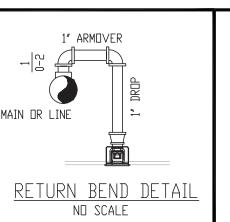
For SI units, 1 in. = 25.4 mm.

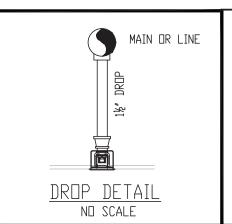
18 in. (400 mm)

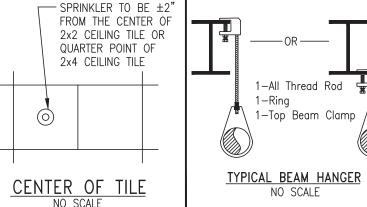
24 in. (600 mm)

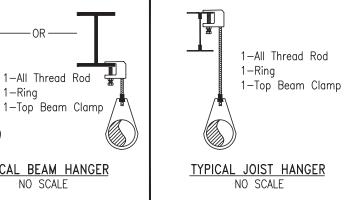
30 in. (750 mm)

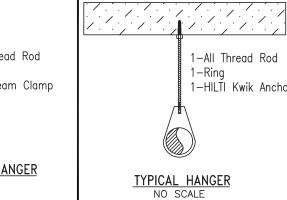












1-HILTI Kwik Anchor 夏岁8

COMPATIBLE.** TYP. FIRESTOP DETAIL

FIRE STOP CAULK BEAD FIRE STOP PENETRATION FIRESTOP DETAIL FOR RATED CONSTRUCTION ONLY SEE FIRE STOP SUPPLEMENT SHEETS FOR INFO

**ALL SPRINKLER PIPING PASSING

THROUGH FIRE RATED ASSEMBLIES

FIRE STOPPING MATERIAL SHALL BE

SUITABLE FOR THE PIPE MATERIAL

MATERIALS SHALL BE FBC SYSTEM

IN USE AND THE ASSEMBLY

**SEALANTS USED FOR CPVC

PENETRATED.**

SUBMITTAL REVIEW

LEGEND DESCRIPTION SYMBOL ETR EXISTING SPRINKLER TO REMAIN SYMBOL R EXISTING SPRINKLER TO BE RELOCATED/REPLACED EXISTING SPRINKLER TO BE ADDED NEW SPRINKLER TO BE INSTALLAED SEMI-RECESSED PENDENT TO BE CHANGED TO CONCEALED FIRE SPRINKLER STANDPIPE NEW SPRINKLER LINE — EXISTING SPRINKLER LINE HANGER LOCATION

Reviewed is only for general conformance with the design concept of the project. Contractor at all times remains solely responsible for

compliance with the Contract Documents, including dimensions and

safety analyses. Deviations are not approved unless Contractor has

in writing called Engineer's attention to such deviation at the time of

submission and Engineer has in writing approved the specific

deviation. No acceptance by Engineer relieves Contractor from

10/03/2024

SHALL BE FIRESTOPPED BY OTHERS. OF THE SPRINKLER HEADS AND SHOW THE INTENT

PIPE END CAP

THE DRAWING INDICATES A "SCHEMATIC LAYOUT"

OF THE DESIGN. EXACT LOCATIONS SHALL BE

COORDINATED WITH OTHER TRADES, FIELD

COVERAGE REQUIREMENTS FOR THE SPACE.

VERIFIED, AND INSTALLED TO MEET NFPA 13

beth.elliott

SPRINKLER LEGEND SIN # FINISH TEMP. ORIFICE K-FACTOR VK462 WHITE VIKING MIRAGE Q.R. CONCEALED PENDENT

Q

9-16-2024 CHRISTOPHER T. GROSS