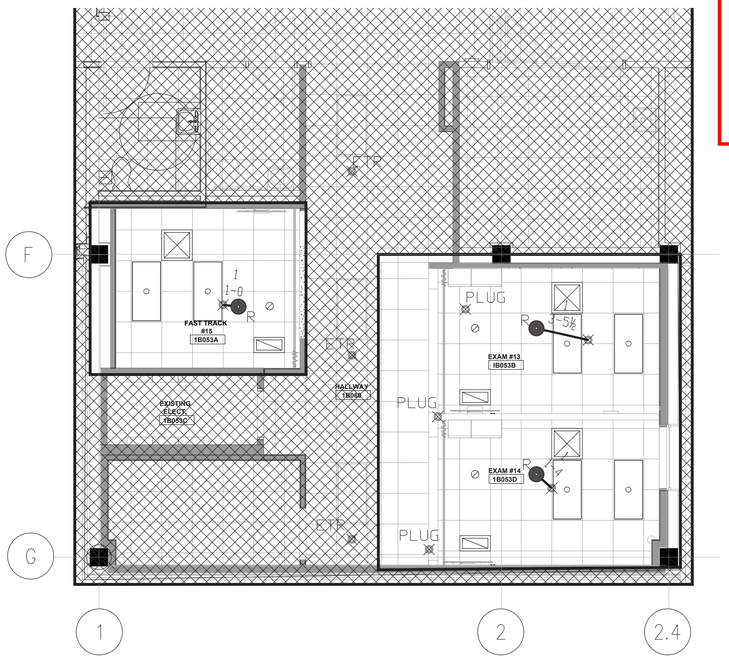


1st FLOOR PARTIAL SPRINKLER PLAN

NORTH

SCALE 1/4"=1'-0"

THIS HATCH INDICATES NO SPRINKLER WORK IN THESE AREAS.

RELEASED FOR CONSTRUCTION
As Noted on Plan Review

Lee's Summit Fire Department
Lee's Summit, Missouri

07/17/2025

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

DESIGNER:
ACI BOLAND ARCHITECTS
1710 WYANDOTTE ST.
KANSAS CITY, MO 64108
PHONE: (816) 763-9600

LOCAL AUTHORITY:
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 CODES:
2012 NFPA 101 LIFE SAFETY CODE (LSC)
2018 FGI GUIDELINES FOR DESIGN & CONSTRUCTION OF HOSPITALS & OUTPATIENT FACILITIES
1979 19-CSR-30
NOTE: IF CODE REQUIREMENTS OVERLAP, THE MOST STRINGENT SHALL APPLY

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

OCCUPANCY GROUP: I-2 -SECTION 308.3 (HEALTHCARE - SECTION 6.1.5)

OCCUPANT LOAD:
TOTAL SQUARE FOOTAGE: SF / = 785SF
TOTAL NUMBER OF OCCUPANTS = 6

DEAD END CORRIDOR LENGTH LIMIT: 50'

EXIT ACCESS TRAVEL DISTANCE: 200'

AREA OF CONSTRUCTION: 785+/- SF

REQUIRED FIRE RESISTANCE RATINGS (IN HOURS) PER NFPA 101 A.8.2.1.2:

EXTERIOR BEARING WALLS	3 HR
INTERIOR BEARING WALLS	3 HR
PRIMARY STRUCTURAL FRAME	3 HR
FLOOR CONSTRUCTION	2 HR
ROOF CONSTRUCTION	1 1/2 HR
INTERIOR NON-BEARING WALLS	0 HR

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.

- 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.

- 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 SWITCHES (IF REQUIRED) TO BE DONE BY OTHERS.

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

HANGERS TO BE SPACED TO MEET NFPA REQUIREMENTS

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.

CODE NOTE:

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:

SYSTEM TYPE: WET (EXISTING)

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

NFPA 13 - OBSTRUCTION CODES:

Table 8.6.5.2.2 Suspended or Floor-Mounted Obstructions in Light Hazard Occupancies Only (SSU/SSP)

Horizontal Distance (*A*)	Minimum Vertical Distance Below Deflector (*B*) [in. (mm)]
6 in. (150 mm) or less	3 (75)
More than 6 in. (150 mm) to 9 in. (225 mm)	4 (100)
More than 9 in. (225 mm) to 12 in. (300 mm)	6 (150)
More than 12 in. (300 mm) to 15 in. (375 mm)	8 (200)
More than 15 in. (375 mm) to 18 in. (400 mm)	9½ (240)
More than 18 in. (400 mm) to 24 in. (600 mm)	12½ (315)
More than 24 in. (600 mm) to 30 in. (750 mm)	15½ (395)
More than 30 in. (750 mm)	18 (450)

For SI units, 1 in. = 25.4 mm.
Note: For *A* and *B*, refer to Figure 8.6.5.2.2.

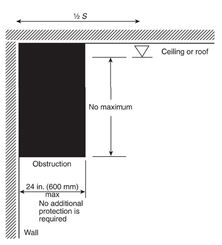


FIGURE 8.6.5.1.2(c) Obstructions Against Walls (SSU/SSP).

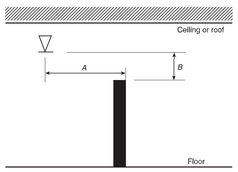


FIGURE 8.6.5.2.2 Suspended or Floor-Mounted Obstruction in Light Hazard Occupancies Only (SSU/SSP).

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.

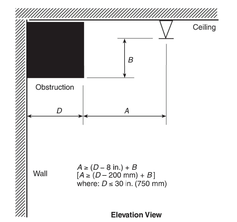


FIGURE 8.6.5.1.2(b) Obstruction Against Wall (SSU/SSP).

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

Distance from Sprinklers to Side of Obstruction (*A*)	Maximum Allowable 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. (2.5 m)	35 (875)

For SI units, 1 in. = 25.4 mm; 1 ft = 0.3048 m.
Note: For *A* and *B*, refer to Figure 8.6.5.1.2(a).

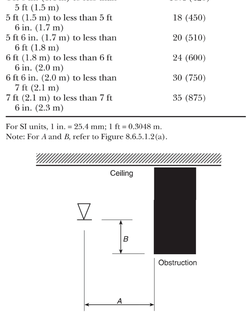
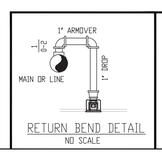


FIGURE 8.6.5.1.3(b) Minimum Distance from an Obstruction in the Horizontal Orientation (SSU/SSP).

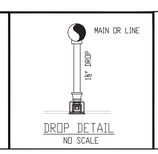
FIGURE 8.6.5.1.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

HANGER SPACING TABLE

NOMINAL PIPE SIZE	¾"	1"	1¼"	1½"	2"	2½"	3"	3½"	4"	5"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHTWALL STEEL PIPE	N/A	12-0	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A	N/A	N/A
COPPER TUBE	8-0	8-0	10-0	10-0	12-0	12-0	12-0	15-0	15-0	15-0	15-0	15-0
CPVC	5-6	6-0	6-6	7-0	8-0	9-0	10-0	N/A	N/A	N/A	N/A	N/A



RETURN BEND DETAIL
NO SCALE



DROP DETAIL
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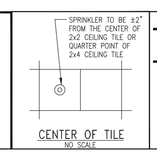
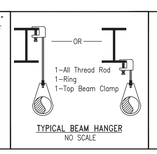
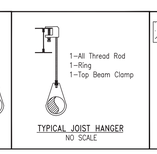


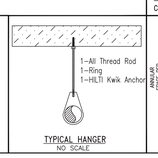
CENTER OF TILE
NO SCALE



TYPICAL BEAM HANGER
NO SCALE

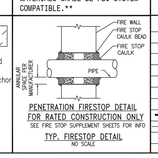


TYPICAL JOIST HANGER
NO SCALE



TYPICAL HANGER
NO SCALE

ALL SPRINKLER PIPING PASSING THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRESTOPPED BY OTHERS. FIRE STOPPING MATERIAL SHALL BE SUITABLE FOR THE PIPE MATERIAL IN USE AND THE ASSEMBLY PENETRATED.
SEALANTS USED FOR CPVC MATERIALS SHALL BE FBC SYSTEM COMPATIBLE.



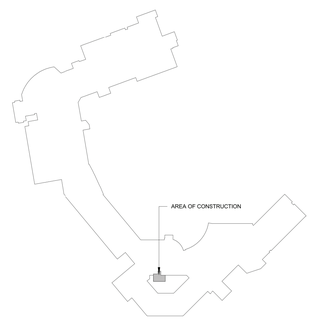
PENETRATION FIRESTOP DETAIL FOR RATED CONSTRUCTION ONLY
SEE FIRE STOP SUPPLEMENT SHEETS FOR INFO

TYP. FIRESTOP DETAIL
NO SCALE

NOTE:
THE DRAWING INDICATES A "SCHEMATIC LAYOUT" OF THE SPRINKLER HEADS AND SHOW THE INTENT OF THE DESIGN. EXACT LOCATIONS SHALL BE COORDINATED WITH OTHER TRADES, FIELD VERIFIED, AND INSTALLED TO MEET NFPA 13 COVERAGE REQUIREMENTS FOR THE SPACE.

LEGEND

SYMBOL	DESCRIPTION
SYMBOL E_TR	EXISTING SPRINKLER TO REMAIN
SYMBOL E_R	EXISTING SPRINKLER TO BE RELOCATED/REPLACED
SYMBOL E_A	EXISTING SPRINKLER TO BE ADDED
SYMBOL N	NEW SPRINKLER TO BE INSTALLED
SYMBOL C	SEMI-RECESSED PENDENT TO BE CHANGED TO CONCEALED
	FIRE SPRINKLER STANDPIPE
	NEW SPRINKLER LINE
	EXISTING SPRINKLER LINE
	HANGER LOCATION
	PIPE END CAP



KEY PLAN
N.T.S.

NORTH

SPRINKLER LEGEND

SYMBOL	SPRINKLER TYPE	SIN #	FINISH	TEMP.	ORIFICE	K-FACTOR	COUNT
	ER AREA						
●	VIKING MIRAGE Q.R. CONCEALED PENDENT	VK462	WHITE	155°	1/2"	5.6 K	03
						TOTAL THIS SHEET	03
						TOTAL THIS JOB	03

MISSOURI PE COA #2016025677
CG Engineering, LLC
1624 N Glen Elyn
Independence, MO 64056
816-516-9540

REVISIONS:

NO	DATE	DESCRIPTION

JAYHAWK
FIRE SPRINKLER CO., INC.
Fire Protection Engineering & Service
Olathe, Kansas 66061
PHONE: (913) 647-0220
FAX: 1-(913)-777-0026
CONTRACT MFPC

McCARTHY CONSTRUCTION
7930 SANTA FE DRIVE, STE. 200
OVERLAND PARK, KANSAS 66204

Saint Luke's East
Lee's Summit
SAINT LUKE'S HEALTH SYSTEM
East ED Patient Treatment Expansion

100 NE Saint Luke's Blvd.
Lee's Summit, MO 64086

SEAL

9-16-2024
STATE OF MISSOURI
CHRISTOPHER T. GROSS
NUMBER PE-2010039448
REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE OF AUTHORITY

JFS CONTRACT NO.	20755M
DRAWN BY:	TJA
CHECKED BY:	SB
PROJECT MANAGER:	CA
PLOT TYPE:	APPROVAL
ISSUE DATE:	09/13/2024
PLOT DATE:	09/13/2024

DRAWING NUMBER
FP-1
FIRE PROTECTION
SPRINKLER RELOCATION
FLOOR PLAN
SHEET: 1 OF 1