

FIRE PROTECTION ABBREVIATIONS	
REFER TO THE FIRE PROTECTION PLANS FOR LOCATIONS.	
ABV	ABOVE
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BLW	BELOW
CFM	CUBIC FEET PER MINUTE
CFH	CUBIC FEET PER HOUR
CI	CAST IRON
CLG OR CLNG	CEILING
CO	CLEANOUT
CONC	CONCRETE
CW	COLD WATER
CWR	COLD WATER RETURN
CWS	COLD WATER SUPPLY
DIA	DIAMETER
DWG	DRAWING
EL or ELEV	ELEVATION
FOO	FLOOR CLEANOUT
FDC	FIRE DEPARTMENT SIAMESE CONNECTION
FEC	FIRE EXTINGUISHER CABINET
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FHC	FIRE HOSE CONNECTION
FHV	FIRE HOSE VALVE
FLR	FLOOR
FP	FIRE PROTECTION
FPWH	FREEZE PROOF WALL HYDRANT
FS	FLOW SWITCH
FSP	FIRE STANDPIPE
FT	FOOT OR FEET
FV	FLUSH VALVE
GAL	GALLONS
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
GPR	GROUND PENETRATION RADAR
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
ID	INSIDE DIAMETER
INV	INVERT
ITC	INSPECTOR'S TEST CONNECTION
MAX	MAXIMUM
MIN	MINIMUM
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
OD	OUTSIDE DIAMETER
OS&Y	OUTSIDE SCREW AND YOKE
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
QR	QUICK RESPONSE
RM	ROOM
RBPB	REDUCED PRESSURE BACKFLOW PREVENTER
SPEC	SPECIFICATIONS
SS	STAINLESS STEEL
SSP	STANDARD SPRINKLER PENDANT
SSU	STANDARD SPRINKLER UPRIGHT
TS	TAMPER SWITCH
TW	TEMPERED WATER
TYP	TYPICAL
W/	WITH
WV	WATER VALVE

FIRE PROTECTION GENERAL SYMBOLS	
REFER TO FIRE PROTECTION PLANS FOR LOCATIONS.	
	LIMIT OF DEMOLITION
	CONNECT NEW TO EXISTING
	DETAIL INDICATOR
	SECTION INDICATOR
	PHOTO INDICATOR
	FIRE PROTECTION EQUIPMENT INDICATOR

FIRE PROTECTION LEGEND	
REFER TO THE FIRE PROTECTION PLANS FOR LOCATIONS.	
	ITEMS TO BE DEMOLISHED
	EXISTING SPRINKLER PIPE W/ PIPE SIZE AND LENGTH
	NEW SPRINKLER PIPE W/ PIPE SIZE AND LENGTH
	FIRE HOSE CABINET
	TAMPER SWITCH
	FLOW SWITCH
	INSPECTOR'S TEST CONNECTION
	EXISTING STANDPIPE

FIRE SPRINKLER LEGEND									
SYMBOL	ORF	TEMP	RESPONSE	K-FAC	FINISH	MODEL	STYLE	RECESSED ESCUTCHEON	MFG.
	1/2"	155°	QUICK	5.6	BRASS	QR	PENDANT	YES	TYCO OR EQUAL
	1/2"	175°	QUICK	5.6	BRASS	QR	UPRIGHT	NO	TYCO OR EQUAL
	1/2"	225°	QUICK	5.6	BRASS	QR	UPRIGHT	NO	TYCO OR EQUAL
	1/2"	155°	QUICK	5.6	BRASS	QR	DRY SIDEWALL	NO	TYCO OR EQUAL

NOTES:
1. PROVIDE CHROME RECESSED ESCUTCHEON AND INSTALL AS PER MANUFACTURERS REQUIREMENTS.

FIRE PROTECTION HAZARD LEGEND	
ABBR.	DESCRIPTION
LH	LIGHT HAZARD OCCUPANCY
OH1	ORDINARY HAZARD (GROUP 1)
OH2	ORDINARY HAZARD (GROUP 2)
EH2	EXTRA HAZARD (GROUP 2)

FIRE PROTECTION OCCUPANCY LEGEND	
ABBR.	DESCRIPTION
ABU	AMBULATORY HEALTH CARE OCCUPANCY
ASS	ASSEMBLY OCCUPANCY
BUS	BUSINESS OCCUPANCY
HC	HEALTH CARE OCCUPANCY
ME	MERCANTILE OCCUPANCY
MUL	MULTI-PURPOSE OCCUPANCY
RBC	RESIDENTIAL BOARD AND CARE OCCUPANCY
RS	RESIDENTIAL OCCUPANCY
ST	STORAGE OCCUPANCY
U	NORMALLY UNOCCUPIED UTILITY AREAS

FIRE PROTECTION OCCUPIABLE SPRINKLERED SPACE	
REFER TO THE FIRE PROTECTION PLANS FOR LOCATIONS.	
	LIGHT HAZARD 0.10 GPM/SQ.FT. OVER 1500 SQ.FT.
	ORDINARY HAZARD (GROUP 1) 0.15 GPM/SQ.FT. OVER 1500 SQ.FT.
	ORDINARY HAZARD (GROUP 2) 0.20 GPM/SQ.FT. OVER 1500 SQ.FT.
	EXTRA HAZARD (GROUP 1) 0.30 GPM/SQ.FT. OVER 2500 SQ.FT.

FIRE PROTECTION DATA	
ENTIRE BUILDING (EXCEPT AS NOTED):	
OCCUPANCY CLASSIFICATION:	LIGHT HAZARD GROUP 1
SYSTEM TYPE:	WET PIPE
DESIGN DENSITY:	0.10 GPM/SQ. FT.
HYDRAULIC REMOTE AREA:	1500 SQ. FT.
SPRINKLER ORIFICE SIZE:	1/2"
DURATION OF SUPPLY:	30 MIN.
MAXIMUM COVERAGE/SPRINKLER HEAD:	130 SQ. FT.
HOSE STREAM ALLOWANCE:	100 GPM
STORAGE, MECHANICAL, AND ELECTRICAL ROOMS:	
OCCUPANCY CLASSIFICATION:	ORDINARY HAZARD GROUP 1
SYSTEM TYPE:	WET PIPE
DESIGN DENSITY:	0.15 GPM/SQ. FT.
HYDRAULIC REMOTE AREA:	1500 SQ. FT.
SPRINKLER ORIFICE SIZE:	1/2"
DURATION OF SUPPLY:	60-90 MIN.
MAXIMUM COVERAGE/SPRINKLER HEAD:	130 SQ. FT.
HOSE STREAM ALLOWANCE:	250 GPM
STORAGE ROOMS, LINEN STORAGE AND FILE STORAGE AREAS:	
OCCUPANCY CLASSIFICATION:	ORDINARY HAZARD GROUP 2
SYSTEM TYPE:	WET PIPE
DESIGN DENSITY:	0.20 GPM/SQ. FT.
HYDRAULIC REMOTE AREA:	1500 SQ. FT.
SPRINKLER ORIFICE SIZE:	1/2"
DURATION OF SUPPLY:	60-90 MIN.
MAXIMUM COVERAGE/SPRINKLER HEAD:	130 SQ. FT.
HOSE STREAM ALLOWANCE:	250 GPM
GENERATOR ROOM:	
OCCUPANCY CLASSIFICATION:	EXTRA HAZARD GROUP 1
SYSTEM TYPE:	WET PIPE
DESIGN DENSITY:	0.30 GPM/SQ. FT.
HYDRAULIC REMOTE AREA:	2500 SQ. FT.
SPRINKLER ORIFICE SIZE:	1/2"
DURATION OF SUPPLY:	90-120 MIN.
MAXIMUM COVERAGE/SPRINKLER HEAD:	100 SQ. FT.
HOSE STREAM ALLOWANCE:	500 GPM

- FIRE PROTECTION GENERAL NOTES**
- ALL FIRE PROTECTION INSTALLATIONS AND DESIGNS SHALL COMPLY WITH THE VAMC FIRE PROTECTION DESIGN MANUAL, NFPA 13, AND THE REQUIREMENTS OF THIS DRAWING (LATEST REVISION).
 - HYDRAULIC ANALYSIS SHALL BE PERFORMED BY OR UNDER THE CONTROL OF A PROFESSIONAL ENGINEER AND PROVIDED WITH THE STAMP OF THE ENGINEER OF RECORD IN THE STATE WHERE THE FIRE PROTECTION SYSTEM IS INSTALLED. HYDRAULICALLY CALCULATE THE FIRE PROTECTION SYSTEM, INCLUDING THE EXISTING ELEMENTS, PER NFPA 13, AND THE SPACING LISTED IN THE FIRE PROTECTION DESIGN AREA DENSITY TABLE.
 - THE GENERAL CONTRACTOR SHALL UTILIZE FLOW DATA PROVIDED TO BASE HYDRAULIC CALCULATIONS AND SIZE PIPING. IF THE TEST RESULTS ARE OVER ONE YEAR OLD, SPRINKLER CONTRACTOR TO PERFORM A NEW HYDRANT FLOW TEST. INCLUDE 10 % SAFETY FACTOR PER VA DESIGN MANUAL.
 - FIRE PROTECTION PIPING LAYOUT AND DESIGN SHALL BE PERFORMED BY OR UNDER THE CONTROL OF A PROFESSIONAL ENGINEER AND PROVIDED WITH THE STAMP OF THE ENGINEER OF RECORD IN THE STATE WHERE THE INSTALLATION IS TO BE PERFORMED.
 - COORDINATE FIRE PROTECTION PIPING WITH ALL ELECTRICAL, HVAC, PLUMBING, STRUCTURAL, AND ARCHITECTURAL FEATURES OF THE SITE.
 - CERTIFIED NICET III SUBCONTRACTORS MAY PERFORM WORK UNDER (2.) AND (3.) BUT SHALL NOT PLACE THEIR STAMP ON DRAWINGS THAT ARE TO BE USED ON PROPERTY OF THE UNITED STATES GOVERNMENT.
 - PROVIDE AUXILIARY DRAINAGE WITH A DRAIN VALVE AND PLUG FOR ALL TRAPPED SECTION OF PIPE, AS REQUIRED BY NFPA 13. PIPE MAIN DRAIN TO OUTSIDE OF BUILDING.
 - THESE DOCUMENTS DEPICT PERFORMANCE LEVEL ENGINEERING DECISION CRITERIA TO BE USED FOR THE PLANNING OF THE FIRE SPRINKLER SYSTEM BY THE CONTRACTOR. PROVIDE COMPLETE DOCUMENTS FOR REVIEW AND APPROVAL BY THE ENGINEER OF RECORD AND AHJ PRIOR TO INSTALLATION. INCLUDE IN THE SHOP DRAWINGS AND CALCULATIONS ANY ADDITIONAL EQUIPMENT NECESSARY TO PROVIDE A COMPLETE INSTALLATION.
 - THE GENERAL CONTRACTOR SHALL PROVIDING HEAT ADEQUATE ENOUGH TO PREVENT FREEZING OF THE SPRINKLER PIPE.
 - INSTALL ALL PIPING AND SPRINKLERS AS HIGH AS POSSIBLE AND LOCATE IN "RELATION TO ALL OBSTRUCTIONS. PROVIDE ADDITIONAL SPRINKLERS AS NECESSARY TO WORK AROUND STRUCTURE, DUCTWORK, LIGHTS, FANS AND ALL OTHER OBSTRUCTIONS.
 - FIRE HYDRANT IS TO BE WITHIN 150 FEET OF THE FIRE DEPARTMENT CONNECTION (FDC).

CODES AND REGULATIONS	
<u>APPLICABLE CODES:</u> ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES, STANDARDS AND GOVERNING AUTHORITIES, INCLUDING, BUT NOT LIMITED TO:	
<u>BUILDING:</u>	INTERNATIONAL BUILDING CODE, 2021 EDITION
<u>LIFE SAFETY:</u>	NFPA 101 LIFE SAFETY CODE, 2021 EDITION
<u>FIRE PREVENTION:</u>	NFPA 13 2022 EDITION
<u>PLUMBING:</u>	INTERNATIONAL PLUMBING CODE (IPC) 2021 EDITION
<u>ELECTRICAL:</u>	NATIONAL ELECTRICAL CODE (NEC), 2023 EDITION

ADDENDUM 9/13/24	CONSULTANT CMG FIRE PROTECTION ENGINEERING, INC. 10727 W 128 ST / OVERLAND PARK / KS / 66213 913-239-8900 / WWW.CMGFIRE.COM CINDY GIER, P.E., OWNER / FIRE PROTECTION ENGINEER 	ARCHITECT/ENGINEER OF RECORD Architecture Engineering Design-Build 9000 Wessax Pl, Suite 202, Louisville, KY 40222 www.paradigmusa.com	STAMP 	Office of Construction and Facilities Management U.S. Department of Veterans Affairs	Drawing Title FIRE PROTECTION ABBREVIATIONS, SYMBOLS AND GENERAL NOTES Approved: Project Director	Phase 100% CONSTRUCTION DOCUMENTS FULLY SPRINKLERED	Project Title SIoux FALLS BOILER PLANT Location SIoux FALLS VA HEALTH CARE SYSTEM 2501 W 22ND ST, SIoux FALLS, SD 57065	Project Number 438-22-900 Building Number Drawing Number FX001
	Revisions:	Date:	Issue Date 06-25-2024	Checked CG	Drawn RWI			

FIRE PROTECTION GENERAL NOTES

- A. REFER TO FX001 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES, HAZARD LEGEND, AND OCCUPANCY LEGEND RELATED TO THIS DRAWING.
- B. COMPLETE LAYOUT DRAWINGS SHALL BE REQUIRED BY PARAGRAPH 1.4 SUBMITTALS OF ALL SPECIFICATION SECTIONS. CONSTRUCTION WORK SHALL NOT START ON ANY SYSTEM UNTIL THE LAYOUT DRAWINGS HAVE BEEN APPROVED.
- C. INSTALL ALL PIPING AND SPRINKLERS AS HIGH AS POSSIBLE AND LOCATE IN "RELATION TO ALL OBSTRUCTIONS. PROVIDE ADDITIONAL SPRINKLERS AS NECESSARY TO WORK AROUND STRUCTURE, DUCTWORK, LIGHTS, FANS AND ALL OTHER OBSTRUCTIONS.

FIRE PROTECTION KEY NOTES

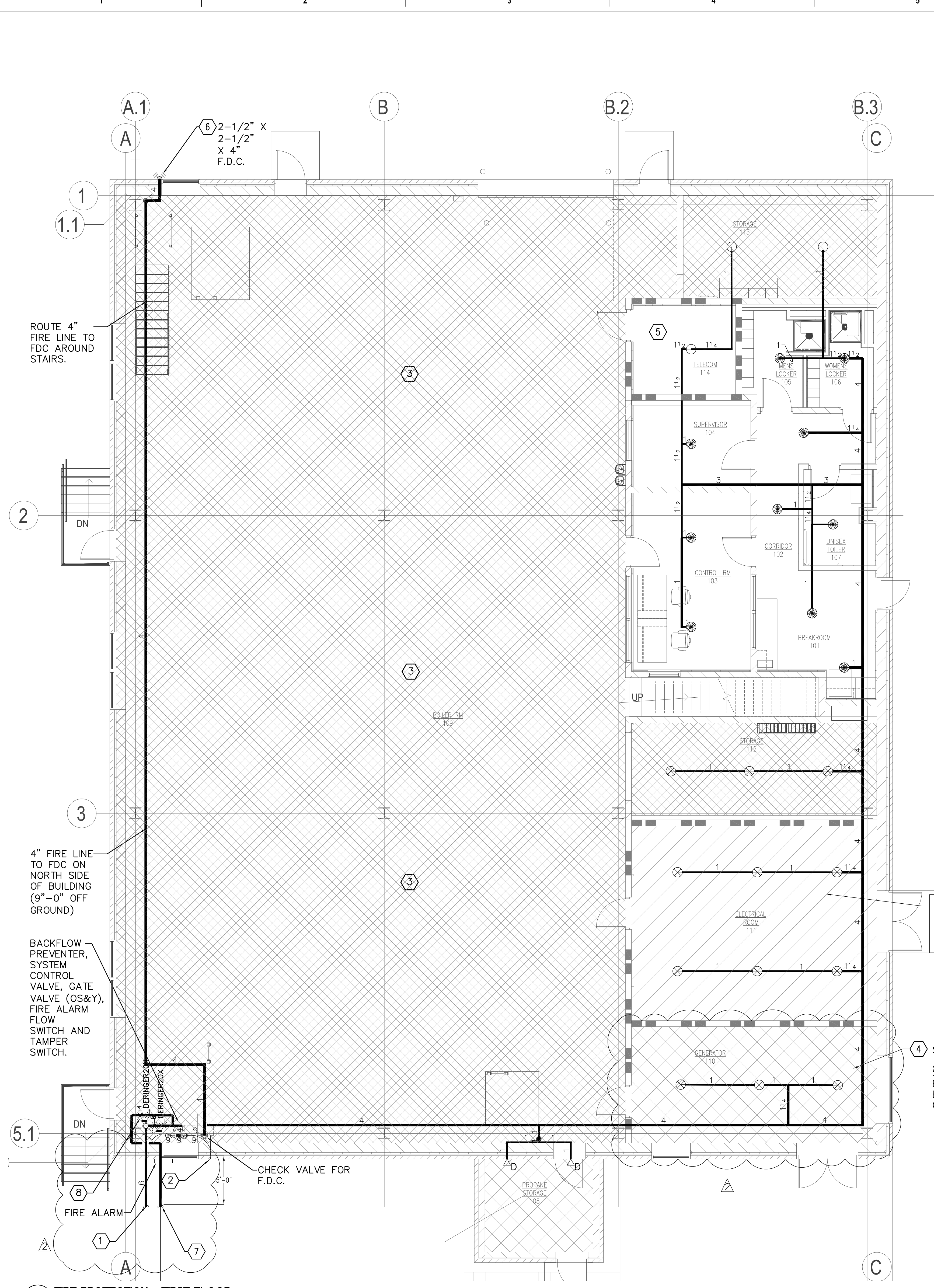
- 1. NEW FIRE SPRINKLER LINE TO TERMINATE 5' OUTSIDE BUILDING. CIVIL CONNECT TO P.I.V.. THIS IS A NEW FIRE LINE TO WATER MAIN IN STREET. SEE CIVIL FOR CONTINUATION.
- 2. ENSURE ALL DRAINS AND TEST CONNECTIONS DISCHARGE TO THE EXTERIOR OF THE BUILDING AND NOT TO INTERIOR DOMESTIC DRAINS.
- 3. SEE SHEET FX102 FOR ABOVE DESIGN THESE AREAS.
- 4. GENERATOR ROOM SHALL BE PROTECTED WITH 0.25 GPM COVERAGE OVER THE ENTIRE AREA, IN ACCORDANCE WITH CHAPTER 22.27 AND 22.29 OF NFPA 13 FOR EMERGENCY AND STANDBY GENERATORS.
- 5. ALL EXPOSED SPRINKLER PIPING IN TELECOMM ROOM 114 SHALL BE PAINTED RED IN ACCORDANCE WITH SPECIFICATION CHAPTER 09 91 00.
- 6. FIRE HYDRANT IS TO BE WITHIN 150 FEET OF THE FIRE DEPARTMENT CONNECTION (FDC).
- 7. BACKUP WATER TO BE PROVIDED BY WATER TOWER. SEE CIVIL FOR CONTINUATION.
- 8. WATER TOWER CONNECTION WITH BACKFLOW PREVENTER, AUTOMATIC VALVE AND SENSOR (LOCATED IN PRIMARY FIRE PROTECTION PIPE) TO SWITCH FROM PRIMARY FIRE PROTECTION TO EMERGENCY FIRE PROTECTION LINE UPON LOSS OF PRESSURE IN PRIMARY LINE.

FIRE PROTECTION OCCUPIABLE SPRINKLERED SPACE
REFER TO THE FIRE PROTECTION PLANS FOR LOCATIONS.

NO HATCH	LIGHT HAZARD 0.10 GPM/SQ.FT. OVER 1500 SQ.FT.
[Diagonal Hatching]	ORDINARY HAZARD (GROUP 1) 0.15 GPM/SQ.FT. OVER 1500 SQ.FT.
[Cross-hatching]	ORDINARY HAZARD (GROUP 2) 0.20 GPM/SQ.FT. OVER 1500 SQ.FT.
[Dense Cross-hatching]	EXTRA HAZARD (GROUP 1) 0.30 GPM/SQ.FT. OVER 2000 SQ.FT.

FIRE PROTECTION LEGEND

[Symbol]	PENDANT HEAD
[Symbol]	UPRIGHT HEAD
[Symbol]	UPRIGHT HEAD
[Symbol]	DRY SIDEWALL HEAD
[Symbol]	FIRE SPRINKLER PIPING



COORDINATE WITH ELECTRICAL PANEL LAYOUT - DO NOT RUN PIPING ABOVE ELECTRICAL PANELS

4 SPEC INTERMEDIATE / HIGH TEMPERATURE SPRINKLERS IN HERE BASED ON HIGH EXPECTED TEMP OF GENERATOR ROOM

Calculation results for Design Area 1 - Ground Floor Offices
This system as shown on _____ company print no _____ dated 6-2-23 for BOILER PLANT at _____ is designed to discharge at a rate of 0.2 gpm/ft² (L/min/m²) of floor area over a maximum area of 1500 ft² when supplied with water at a rate of 440.9 gpm at 47.8 psi at the base of the riser. Hose stream allowance of 250 is included in the above.
Occupancy classification: Light & Ord. Haz GP2 Number of heads flowing: 16
System Type: Wet
Maximum velocity: 18.4 ft/s

Flow from In-Rack sprinklers:	0 gpm	Pressure Required at Source:	47.8 psi
Flow from Overhead sprinklers:	440.9 gpm	Pressure Available at Source:	59.1 psi
Flow from Inside Hoses:	0 gpm	Surplus Pressure at Source:	11.3 psi
Flow from Outside Hoses:	0 gpm		
Other fixed flows:	0 gpm		
Total flow in system piping:	440.9 gpm		
Additional flow at/beyond source:	250 gpm		
Total of all flows:	690.9 gpm		

F1 FIRE PROTECTION - FIRST FLOOR
SCALE 3/16" = 1'-0"

ADDENDUM	9/13/24	CONSULTANT	ARCHITECT/ENGINEER OF RECORD	STAMP	Office of Construction and Facilities Management	Drawing Title	Phase	Project Title	Project Number
		CMG FIRE PROTECTION ENGINEERING, INC. 10727 W 128 ST / OVERLAND PARK / KS / 66213 913-239-8900 / WWW.CMGFIRE.COM CINDY GIER, P.E., OWNER / FIRE PROTECTION ENGINEER	paradigm Architecture Engineering Design-Build 9000 Wesssex Pl, Suite 202, Louisville, KY 40222 www.paradigmusa.com		U.S. Department of Veterans Affairs	FIRE PROTECTION FIRST FLOOR	100% CONSTRUCTION DOCUMENTS	SIoux FALLS BOILER PLANT	438-22-900
Revisions:	Date:					Approved: Project Director	FULLY SPRINKLERED	Location	Drawing Number
								SIoux FALLS VA HEALTH CARE SYSTEM 2501 W 22ND ST, SIoux FALLS, SD 57105	FX101
								Issue Date	Checked
								06-25-2024	CG
								Drawn	RWI

FIRE PROTECTION GENERAL NOTES

- A. REFER TO FX001 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES, HAZARD LEGEND, AND OCCUPANCY LEGEND RELATED TO THIS DRAWING.
- B. COMPLETE LAYOUT DRAWINGS SHALL BE REQUIRED BY PARAGRAPH 1.4 SUBMITTALS OF ALL SPECIFICATION SECTIONS. CONSTRUCTION WORK SHALL NOT START ON ANY SYSTEM UNTIL THE LAYOUT DRAWINGS HAVE BEEN APPROVED.
- C. INSTALL ALL PIPING AND SPRINKLERS AS HIGH AS POSSIBLE AND LOCATE IN "RELATION TO ALL OBSTRUCTIONS. PROVIDE ADDITIONAL SPRINKLERS AS NECESSARY TO WORK AROUND STRUCTURE, DUCTWORK, LIGHTS, FANS AND ALL OTHER OBSTRUCTIONS.

FIRE PROTECTION KEY NOTES

- 1. DROP FROM ABOVE FIRE LINE TO QTY 2 SPRINKLER HEADS UNDER SOLID STAIRS.

FIRE PROTECTION OCCUPIABLE SPRINKLERED SPACE

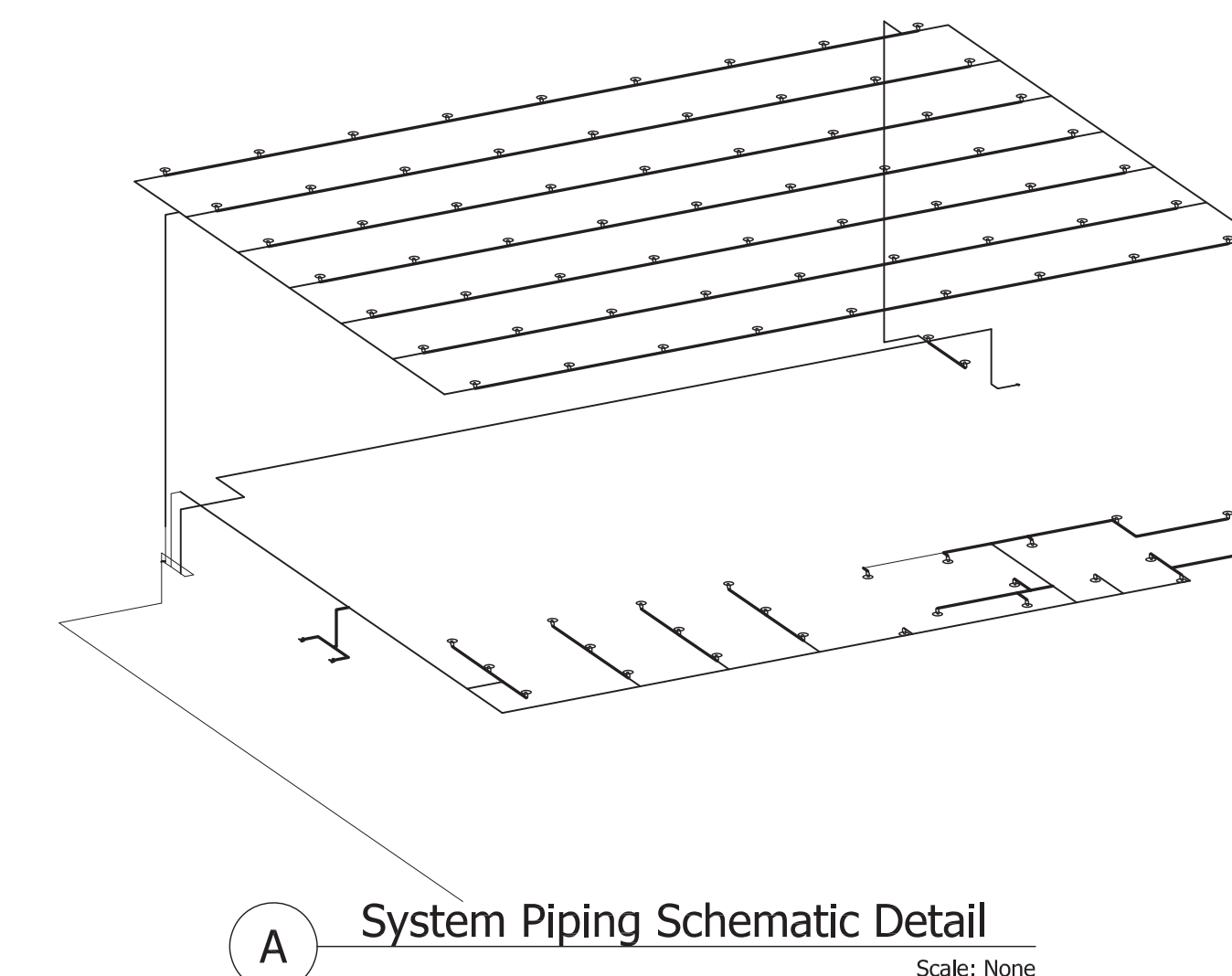
REFER TO THE FIRE PROTECTION PLANS FOR LOCATIONS.



ORDINARY HAZARD (GROUP 2)
0.20 GPM/SQ.FT. OVER 1500 SQ.FT.

FIRE PROTECTION LEGEND

-  PENDANT HEAD
-  UPRIGHT HEAD
-  UPRIGHT HEAD
-  DRY SIDEWALL HEAD
-  FIRE SPRINKLER PIPING

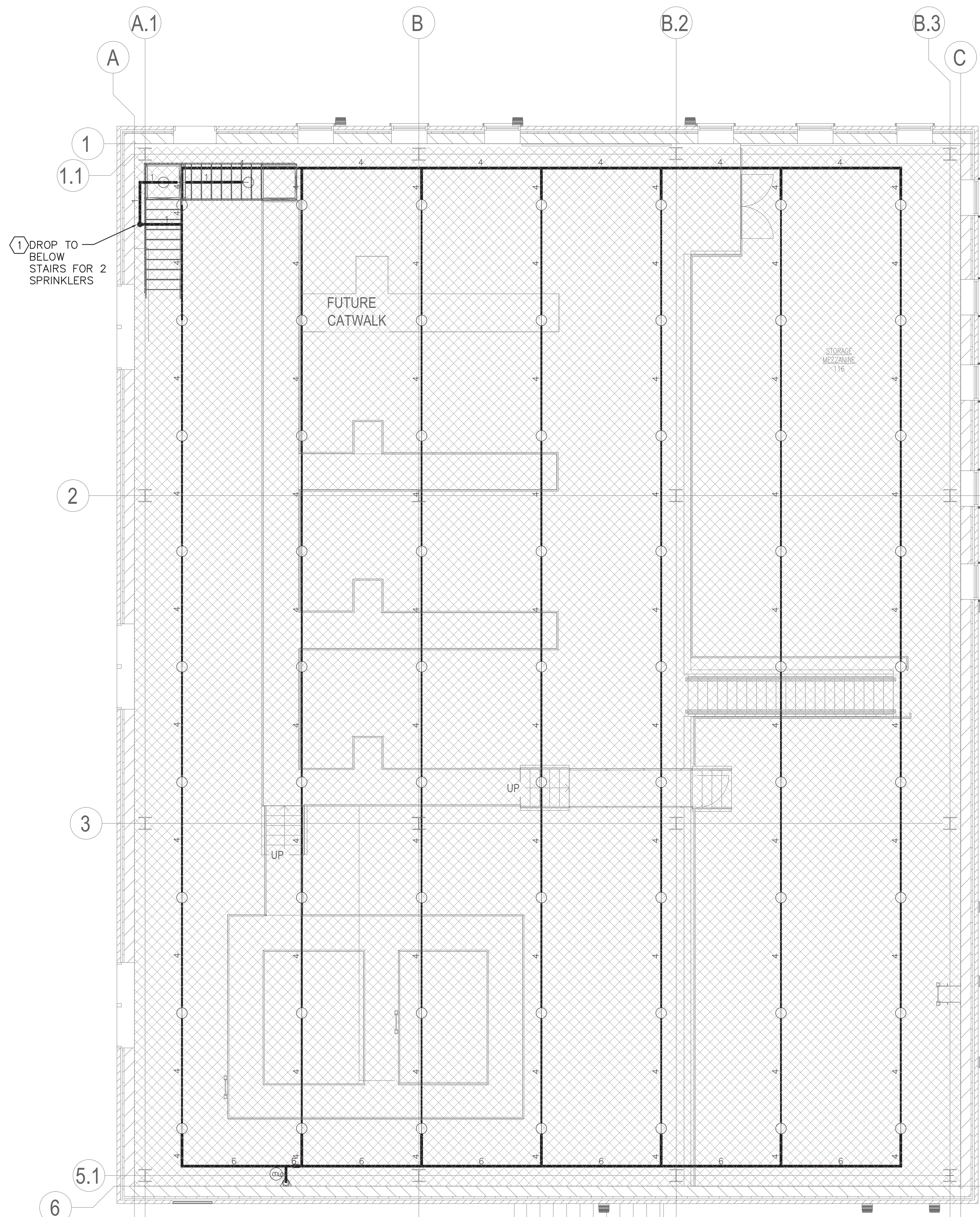


Calculation results for Design Area 2 - STORAGE AREA

This system as shown on _____ company print no _____ dated 6-2-23 for BOILER PLANT at _____ is designed to discharge at a rate of 0.2 gpm/ft² (L/min/m²) of floor area over a maximum area of 1500 ft² when supplied with water at a rate of 316.2 gpm at 43.1 psi at the base of the riser. Hose stream allowance of 250 is included in the above.

Occupancy classification: ORD HAZ. GP2
Number of heads flowing: 13
System Type: Wet
Maximum velocity: 3.2 ft/s

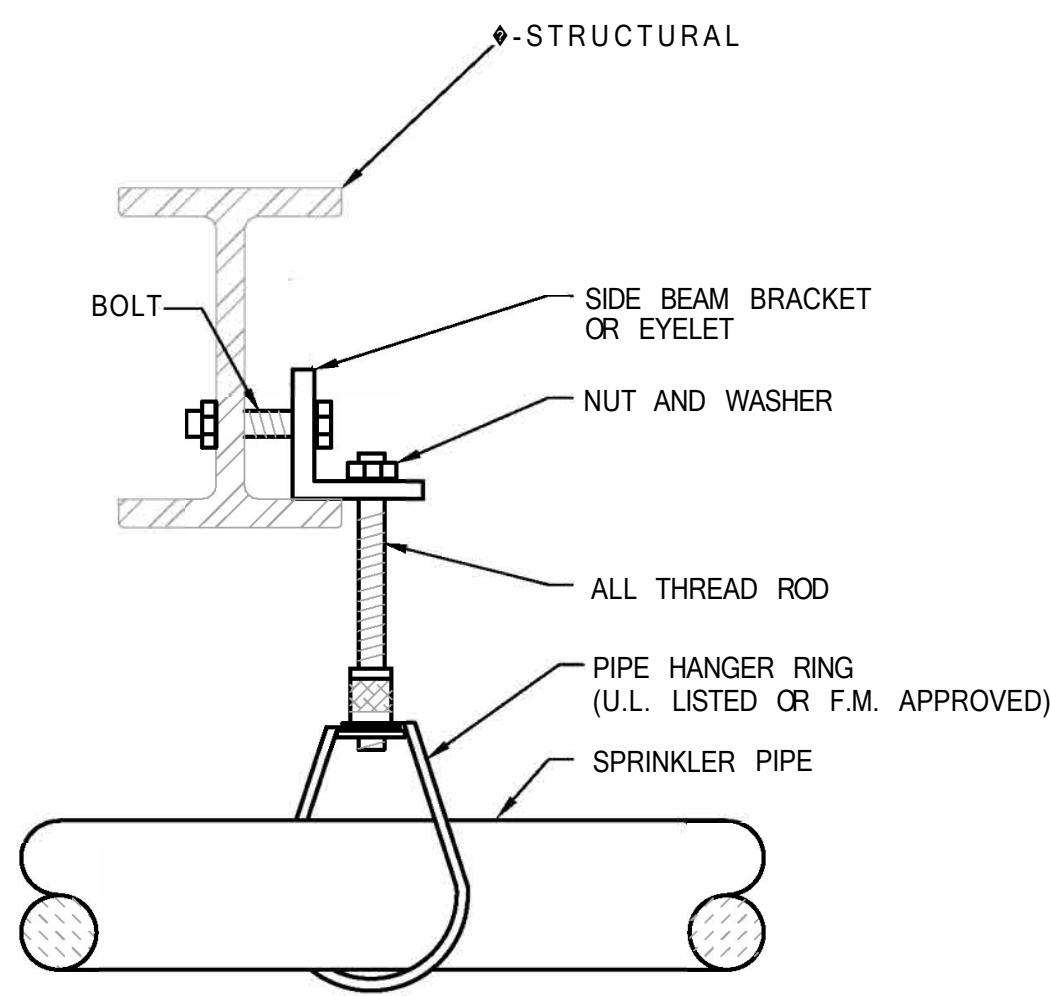
Flow from In-Rack sprinklers:	0 gpm	Pressure Required at Source:	43.1 psi
Flow from Overhead sprinklers:	316.2 gpm	Pressure Available at Source:	59.4 psi
Flow from Inside Hoses:	0 gpm	Surplus Pressure at Source:	16.3 psi
Flow from Outside Hoses:	0 gpm		
Other fixed flows:	0 gpm		
Total flow in system piping:	316.2 gpm		
Additional flow at/beyond source:	250 gpm		
Total of all flows:	566.2 gpm		



F1 FIRE PROTECTION - MEZZANINE
SCALE 3/16" = 1'-0"



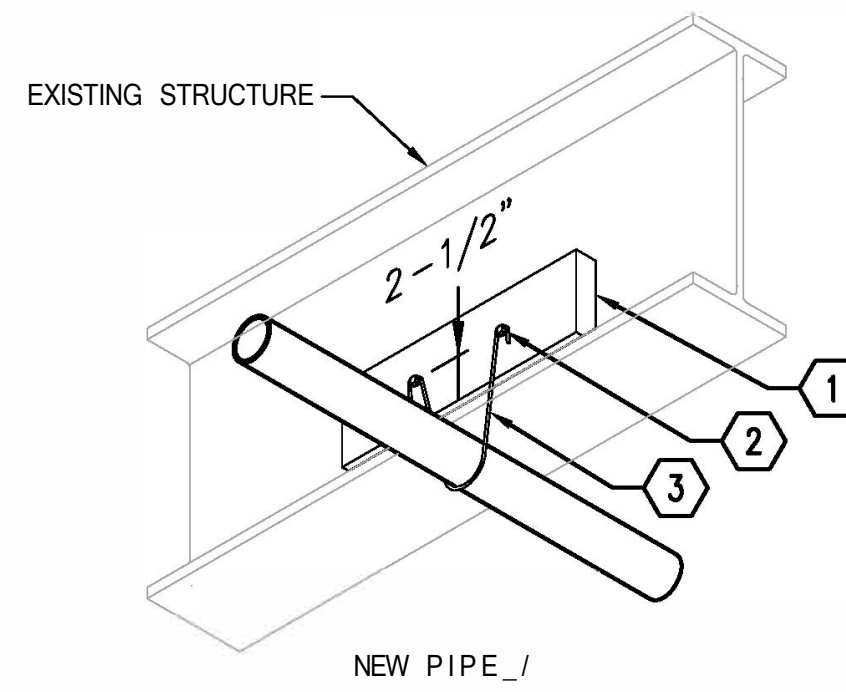
ADDENDUM	9/13/24	CONSULTANT CMG FIRE PROTECTION ENGINEERING, INC. 10727 W 128 ST / OVERLAND PARK / KS / 66213 913-239-8900 / WWW.CMGFIRE.COM CINDY GIER, P.E., OWNER / FIRE PROTECTION ENGINEER cmgfire	ARCHITECT/ENGINEER OF RECORD paradigm Architecture Engineering Design-Build 9000 Wesssex Pl, Suite 202, Louisville, KY 40222 www.paradigmusa.com	STAMP CYNTHIA M. GIER REGISTERED PROFESSIONAL ENGINEER KANSAS 12767 10/10/2024 Sep 10, 2024	Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs	Drawing Title FIRE PROTECTION MEZZANINE Approved: Project Director	Phase 100% CONSTRUCTION DOCUMENTS	Project Title SIoux FALLS BOILER PLANT	Project Number 438-22-900	
								Location SIoux FALLS VA HEALTH CARE SYSTEM 2801 W 22ND ST, SIoux FALLS, SD 57105	Drawing Number FX102	
Revisions:	Date:							Issue Date 06-25-2024	Checked CG	Drawn RFI



HANGER LOCATION DETAIL			
PIPE SIZE	A	B*	C
1"	3'-0" MAX.	12'-0" MAX.	3" MIN.
1 1/2"	4'-0" MAX.	12'-0" MAX.	3" MIN.
2"	5'-0" MAX.	15'-0" MAX.	3" MIN.

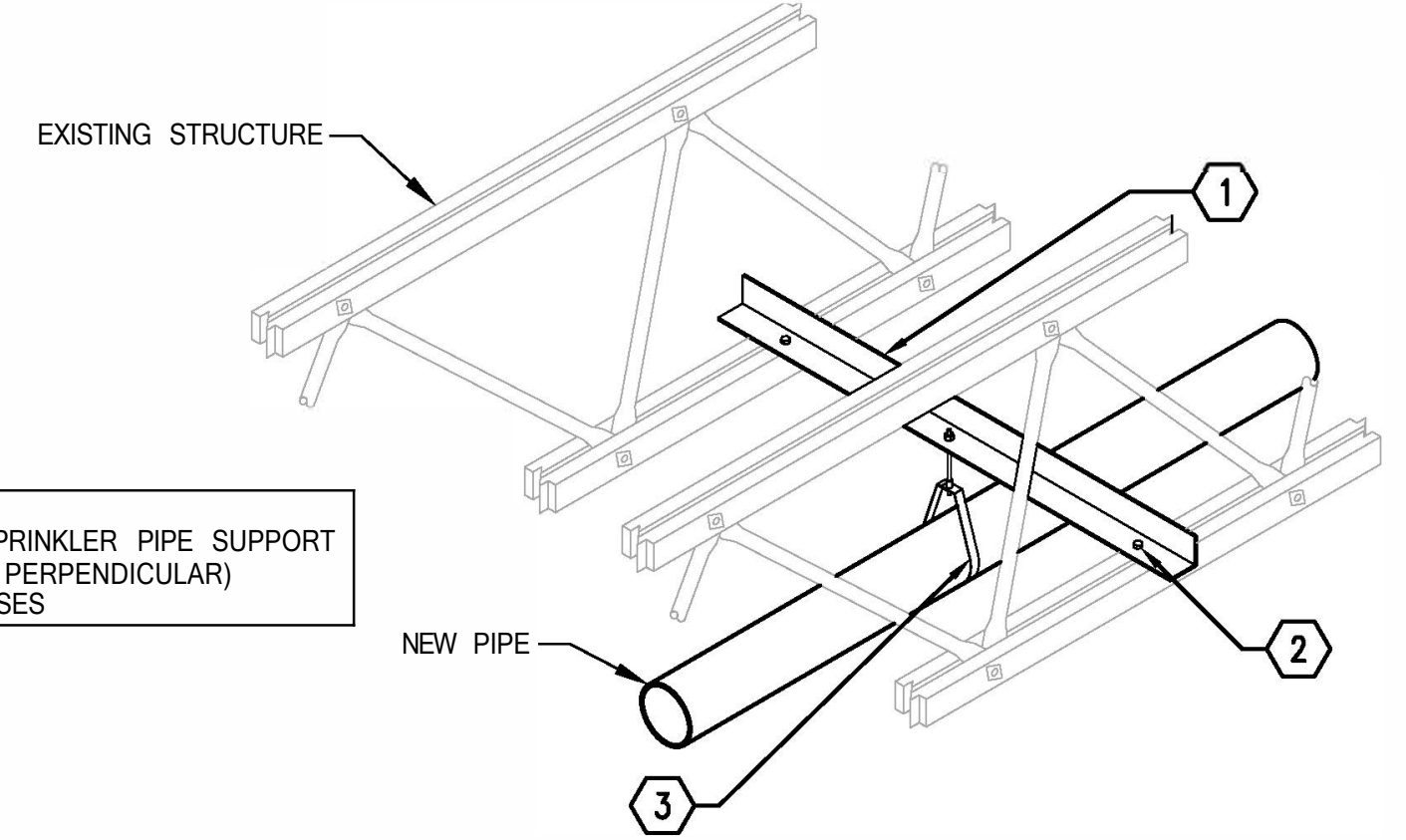
* MAXIMUM HANGER SPACING FOR THREADED LIGHTWALL STEEL PIPE IS 12'-0" FOR ALL PIPE SIZES

HANGER DETAIL
NOT TO SCALE



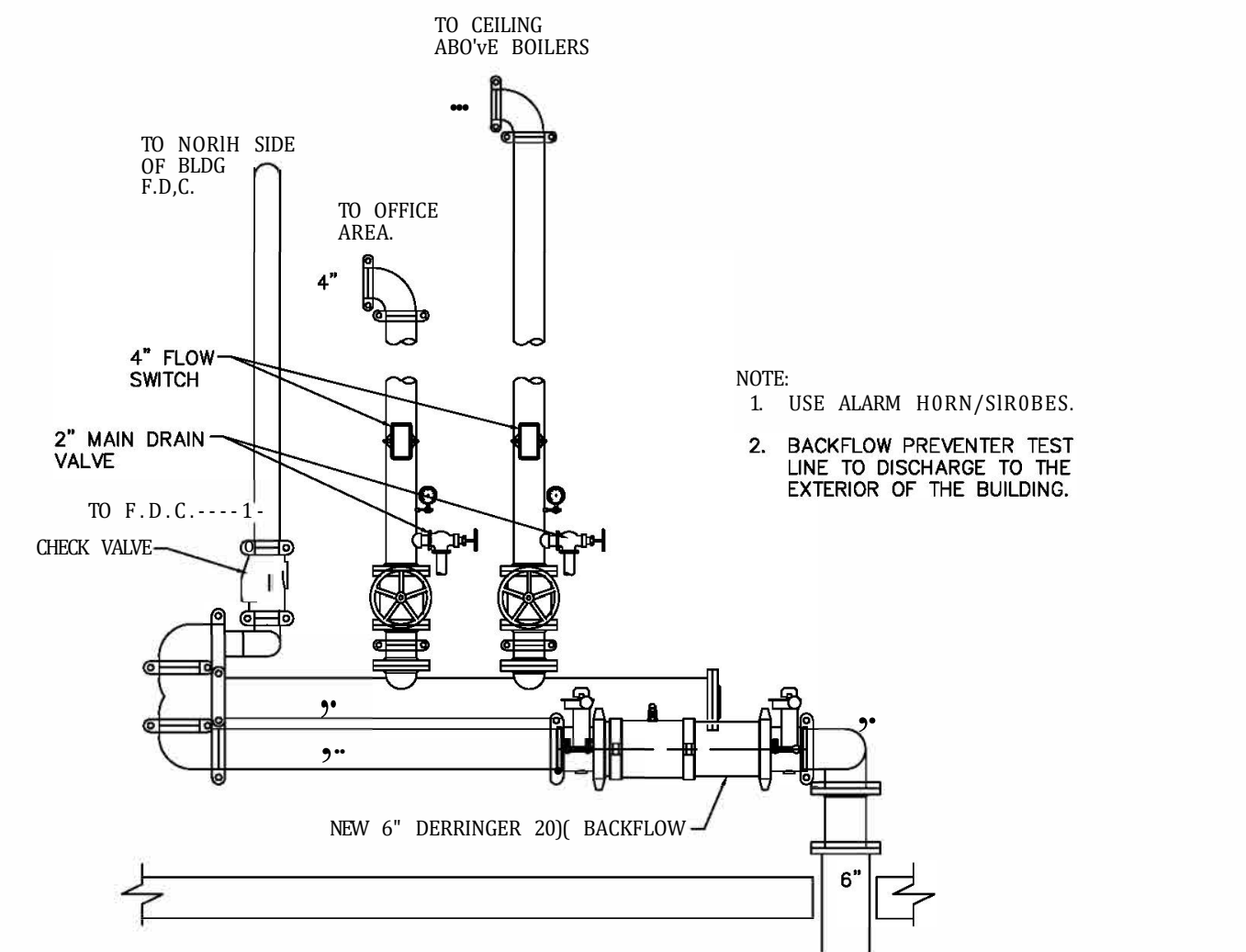
- NOTES:**
- 2" X 6" X 18" LONG MINIMUM (RESTING ON BOTTOM CHORD).
 - TWO 3/8" DIAMETER MACHINE BOLTS WITH WASHERS - CINCH TIGHT.
 - U-HOOK PER NFPA 13

86 TYPICAL PIPE HANGER SPACING (4" MAX. SPACING)
NOT TO SCALE

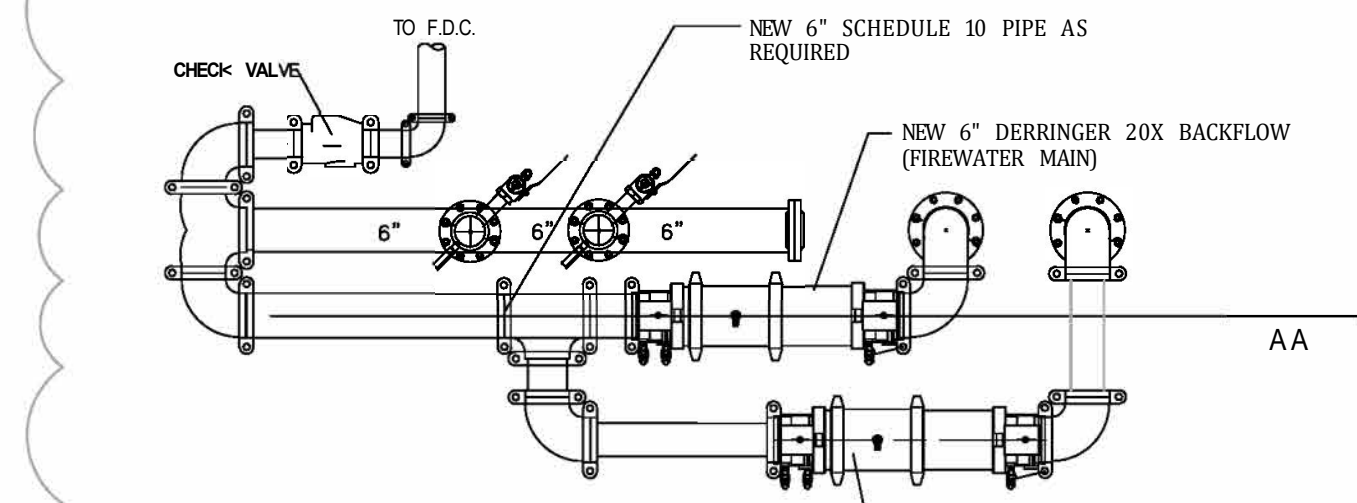


- NOTE:**
CENTER THE SPRINKLER PIPE SUPPORT (PARALLEL OR PERPENDICULAR) BETWEEN TRUSSES.
- NOTES:**
- ANGLE IRON, PIPE TRAPEZE OR OTHER APPROVED CROSS PIECE PER NFPA 13.
 - 1/4" LAG SCREWS INTO 1/8" PREDRILLED PILOT HOLE. (IF USING A PIPE TRAPEZE, USE INVERTED U-HOOKS TO SECURE TO CHORD).
 - HANGER ROD SUPPORT PER NFPA 13

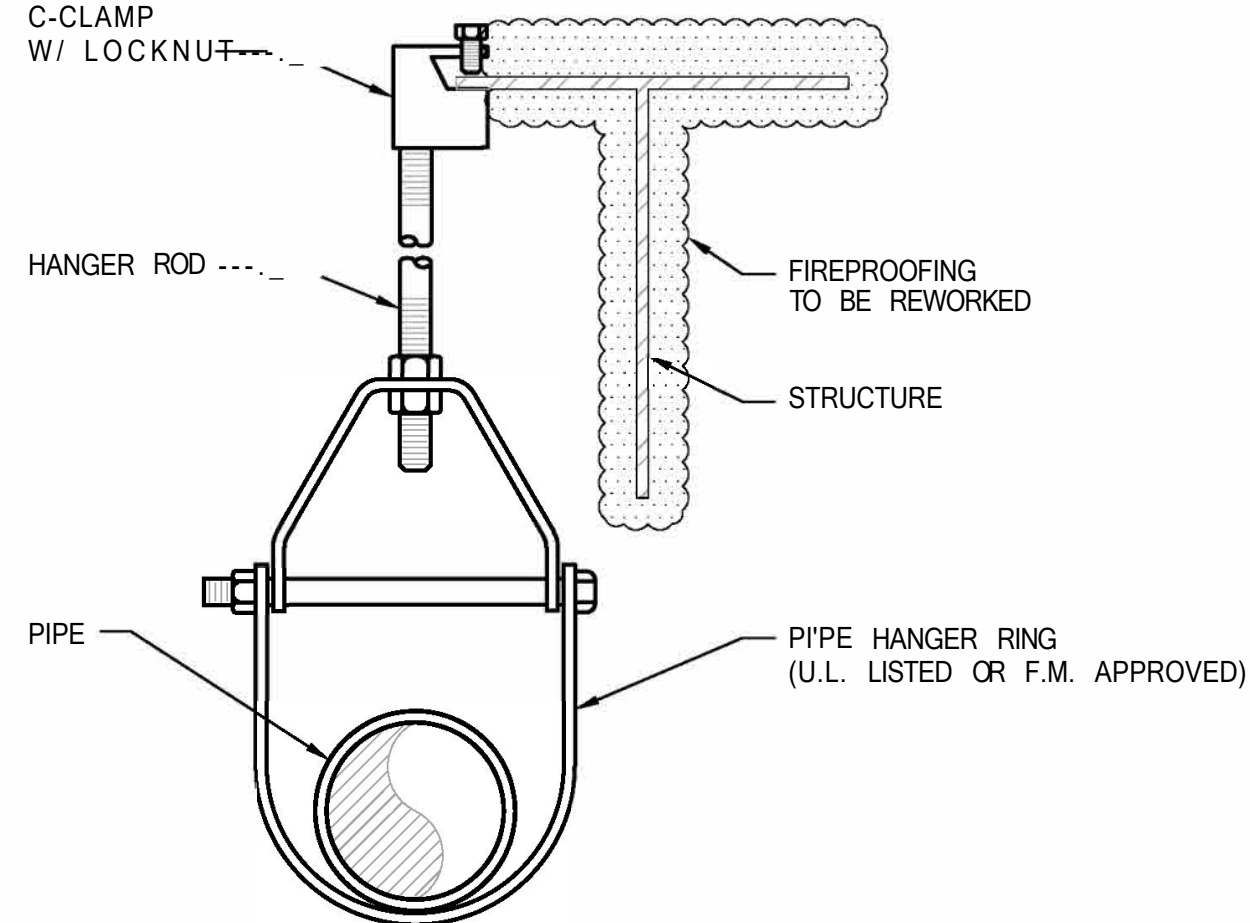
TYPICAL PIPE HANGER SPACING
NOT TO SCALE



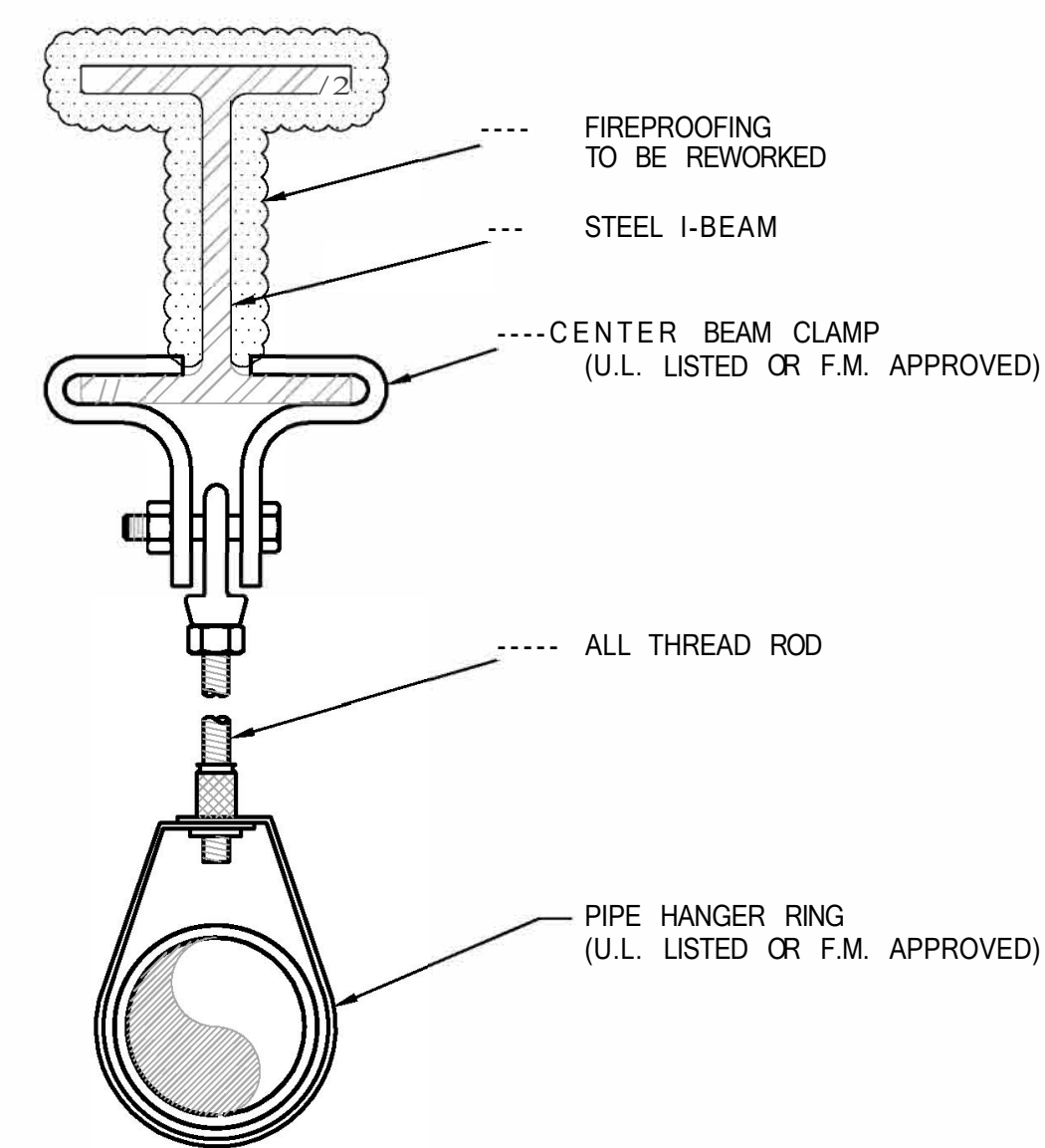
FIRE SPRINKLER RISER PIPING SECTION
SCALE: N.T.S.



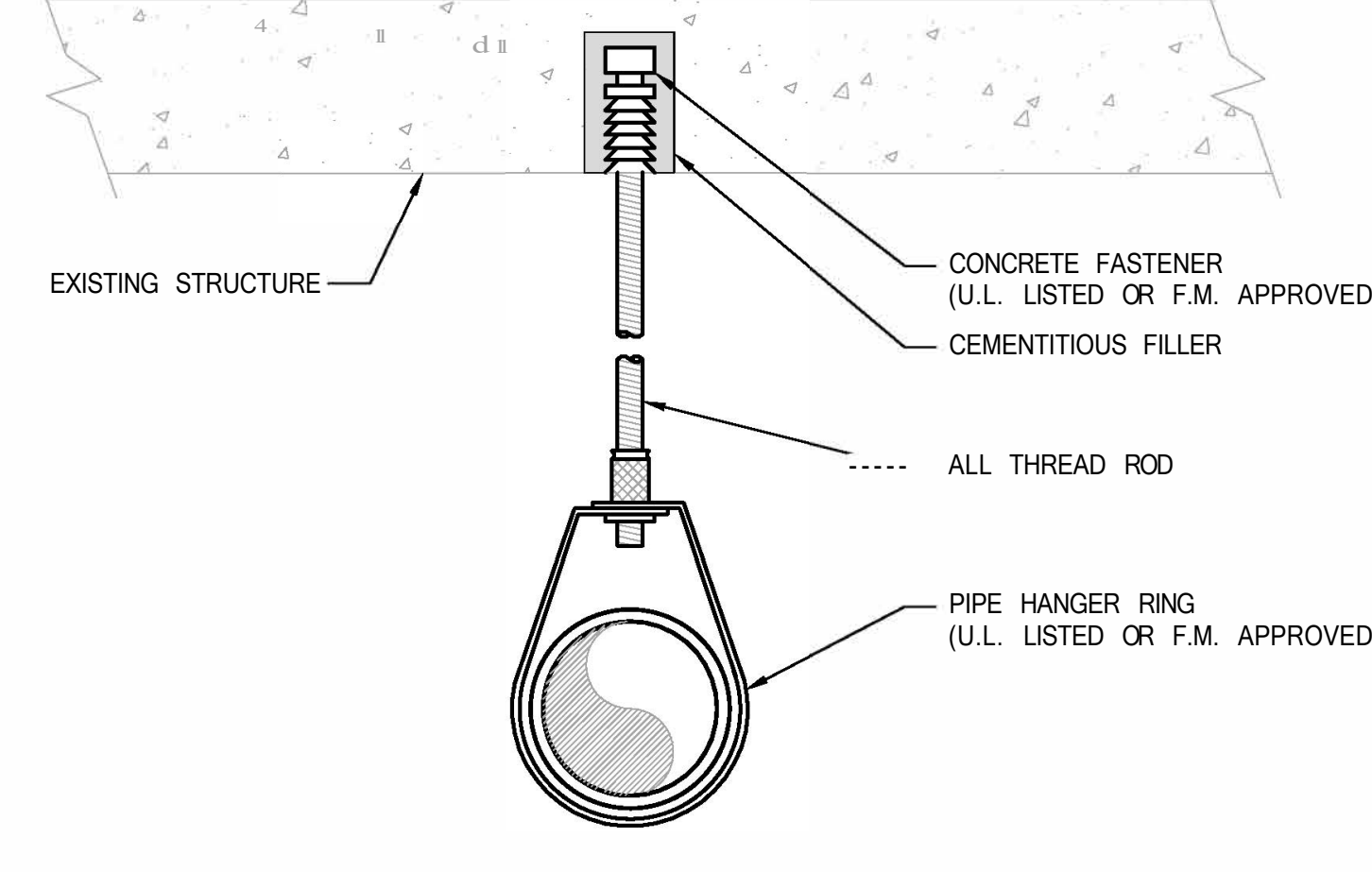
FIRE SPRINKLER RISER SECTION PLAN VIEW
@ 1/2" SECTION



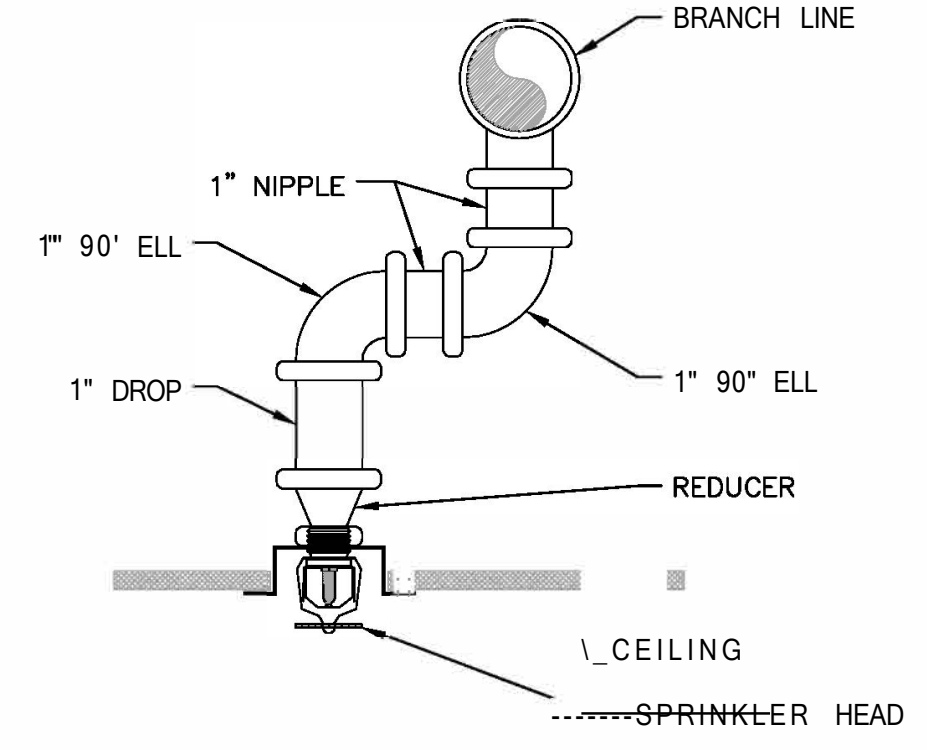
HANGER DETAIL (OFFSET BEAM CLAMP)
NOT TO SCALE



HANGER DETAIL (CENTER BEAM CLAMP)
NOT TO SCALE

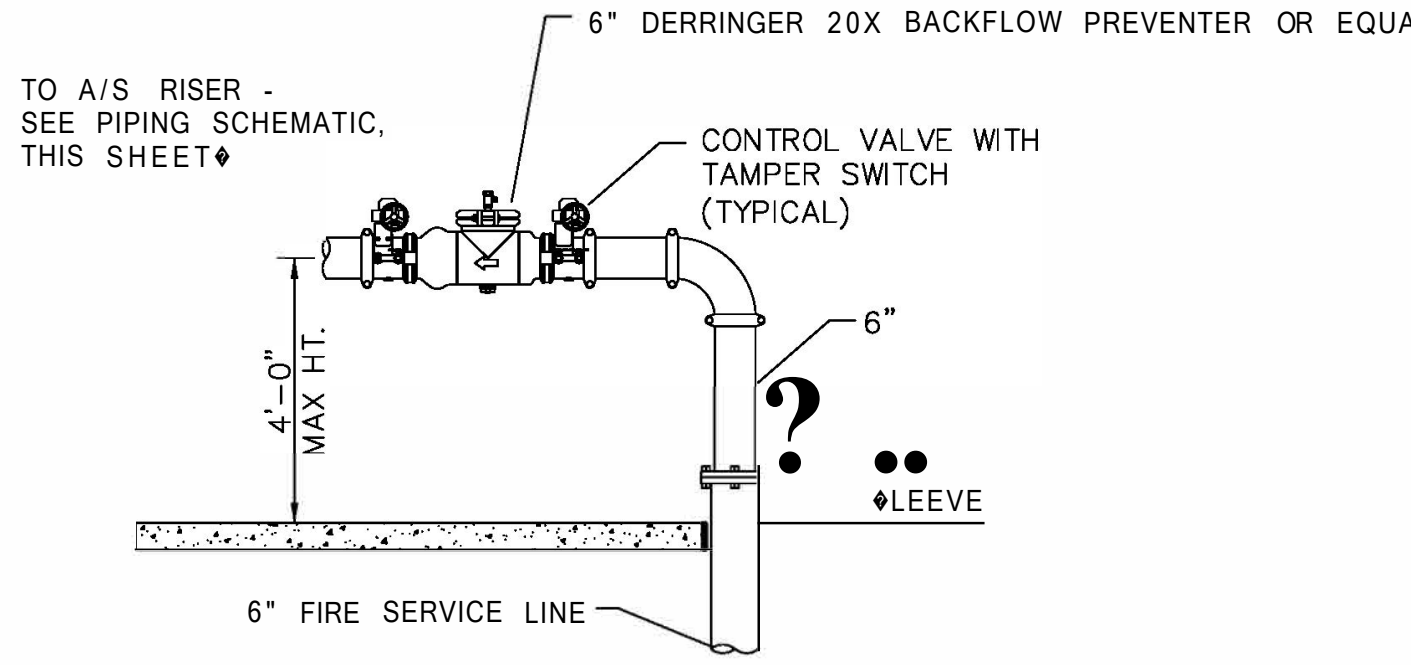


HANGER DETAIL (CONCRETE)
NOT TO SCALE



SWING JOINT
NOT TO SCALE

NOTE: BACKFLOW PREVENTER TEST LINE TO DISCHARGE TO THE EXTERIOR OF THE BUILDING.



A1 FIRE PROTECTION BACKFLOW PREVENTER DETAIL
NOT TO SCALE

ADDENDUM	DATE
	9/13/24

CONSULTANT

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STAMP

Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

Drawing Title: FIRE PROTECTION DETAILS

Phase: 100% CONSTRUCTION DOCUMENTS

Approved: Project Director

Project Title: SIOUX FALLS BOILER PLANT

Location: SIOUX FALLS VA HEALTH CARE SYSTEM
2301 W2210 ST, SIOUX FALLS, SD 57115

Issue Date: 06-25-2024

Check: IICheck

Drawn: IIDrawn

Project Number: 438-22-900

Building Number:

Drawing Number: FX501