

GENERAL NOTES

- AUTOMATIC SPRINKLER SYSTEM DESIGN CRITERIA SHALL BE BASED ON LIGHT HAZARD OCCUPANCY FOR CLASSROOM, AND STAIRS WITH QUICK RESPONSE 165 DEGREES FAHRENHEIT RATED SPRINKLER HEADS. THE DENSITY REQUIREMENT SHALL BE A MINIMUM OF 0.10 GPM/SQ. FT. OVER THE HYDRAULIC MOST REMOTE 1500 SQ. FT. STORAGE. MECHANICAL ROOM SHALL BE BASED ON ORDINARY HAZARD WITH A DENSITY OF 0.12 GPM/SQ. FT. OVER THE MOST HYDRAULIC MOST REMOTE 1500 SQ. FT.
- ALL SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF NFPA NO. 13, THE INDIANA BUILDING CODE AND ANY REFERENCED AMENDMENTS AND STANDARDS.
- CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTION FEES AS REQUIRED FOR THIS WORK.
- CONTRACTOR SHALL VISIT THE SITE TO VERIFY THE FULL EXTENT OF THE WORK AND THE EXACT LOCATION, ELEVATION, ETC. OF PIPING. COORDINATE ALL WORK WITH THE RESPECTIVE TRADES.
- PROVIDE ALL REQUIRED CUTTING, DRILLING AND PATCHING. NO STRUCTURAL WORK TO BE CUT WITHOUT PREVIOUS APPROVAL OF THE ARCHITECT. PATCH ALL DISTURBED WALLS, CEILINGS AND FLOORS TO MATCH ADJACENT SURFACES AS NECESSARY.
- WATER PRESSURE AND SUPPLY INFORMATION: FIELD VERIFY ALL PRESSURES AND CAPACITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR FLOW TEST INFORMATION. CONTRACTOR SHALL VERIFY FIRE PUMP SIZE UPON COMPLETION OF FLOW TEST.
- SPRINKLER PIPE SIZING SHALL BE HYDRAULICALLY CALCULATED.
- WHERE CEILINGS OCCUR USE CONCEALED PENDANT TYPE SPRINKLER HEADS.
- WHERE THERE ARE NO CEILINGS PROVIDE UPRIGHT SPRINKLER HEADS.
- MAINTAIN MINIMUM CLEARANCE OF 18" OR GREATER BETWEEN SPRINKLER HEAD DEFLECTOR AND THE TOP OF STORAGE.
- CONTRACTOR SHALL INSTALL METAL SPRINKLER CABINET CONTAINING TWO SETS OF SPRINKLER WRENCHES COMPATIBLE WITH EACH TYPE OF SPRINKLER PROVIDED AND THE NUMBER OF SPARE SPRINKLERS OF EACH TYPE, FINISH AND TEMPERATURE RATING AS REQUIRED BY SECTION 6.2.9 OF NFPA 13.
- EACH SPRINKLER SYSTEM SHALL BE HYDROSTATICALLY TESTED AT NOT LESS THAN 200 PSI FOR TWO HOURS. THE TEST SHALL CONFORM TO NFPA STANDARDS AND WITNESSED BY AUTHORITY HAVING JURISDICTION.
- SPRINKLERS SHALL BE INSTALLED BENEATH DUCTWORK OR OTHER OBSTRUCTIONS 48" OR WIDER.
- ALL PIPING, VALVES AND DEVICES SHALL BE INSTALLED SO AS NOT TO OBSTRUCT ANY PORTION OF A WINDOW, DOORWAY, STAIRWAY OR PASSAGEWAY OR ANY PIECE OF MECHANICAL OR ELECTRICAL EQUIPMENT.
- EVERY SPRINKLER SYSTEM ZONE SHALL HAVE ALL NECESSARY VALVES, TAMPER SWITCHES, WATERFLOW INDICATORS AND COMBINATION INSPECTORS TEST AND DRAIN FITTINGS.
- ALL HANGERS AND METHODS FOR HANGING SHALL BE IN ACCORDANCE WITH NFPA STANDARDS.
- FACTORY MUTUAL RESEARCH CORPORATION APPROVED EQUIPMENT SHALL BE PROVIDED WHERE APPLICABLE AND DETAILS OF THE INSTALLATIONS SHALL CONFORM TO FACTORY MUTUAL RECOMMENDED PRACTICES.
- DO NOT INSTALL PIPING OR SPRINKLER HEADS IN HIGH VOLTAGE (OVER 480 V) ELECTRICAL CLOSETS, TRANSFORMER ROOMS, OR ELEVATOR EQUIPMENT ROOMS. THESE AREAS SHALL HAVE HEAT DETECTORS FURNISHED AND INSTALLED BY ELECTRIC CONTRACTOR (U.N.O.).
- PIPING SHALL NOT BE ROUTED THROUGH OR OVER ANY TELEPHONE EQUIPMENT, ELECTRICAL EQUIPMENT, COMMUNICATION ROOMS OR SIMILAR AREAS.
- PROVIDE HEAD GUARDS FOR SPRINKLERS LOCATED LOWER THAN 7'-0" ABOVE THE FLOOR AND IN MECHANICAL EQUIPMENT ROOMS. HEAD GUARDS ARE REQUIRED FOR THE GYMNASIUM AND NATATORIUM.
- ALL SPRINKLERS LOCATED IN SUSPENDED CEILING TILES SHALL BE LOCATED IN THE CENTER OF THE TILE.
- ALL FLOOR CONTROL VALVE ASSEMBLIES ARE TO BE LOCATED WITHIN THE STAIR ENCLOSURE. CONTROL VALVES ARE TO BE SUPERVISED AND LOCKED IN THE OPEN POSITION.
- ALL SPRINKLER SYSTEMS SHOWN SHALL BE WET UNLESS OTHERWISE NOTED.
- MULTIPLE FIRE DEPARTMENT CONNECTIONS ARE REQUIRED AS SHOWN.
- PIPE ROUTING IS FOR DIAGRAMMATIC PURPOSES ONLY. SPRINKLER CONTRACTOR IS RESPONSIBLE FOR PIPE ROUTING, HEAD LOCATIONS, AND PIPE SIZING BASED ON HYDRAULIC CALCULATIONS.
- SPRINKLER CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF SPRINKLER PIPING AND HEADS WITH OTHER TRADES. AVOID ALL DUCTWORK, LIGHTING FIXTURES, DIFFUSERS, ETC.
- PIPES, DUCTS, CONDUITS AND ELECTRICAL CABLE TRAYS WHICH PASS THROUGH EXISTING AND NEW FIRE-RESISTIVE BARRIERS, INCLUDING FLOOR SLABS AND WALLS, SHALL BE FIRE SEALED TO MAINTAIN THE INTEGRITY OF THE FIRE RESISTIVE BARRIER. ALL EXPOSED PIPES PASSING THROUGH A WALL, CEILING OR FLOOR SHALL HAVE CHROME ESCUTCHEON PLATES.
- SPRINKLER SYSTEM SHALL BE INSTALLED SO THAT DRAINING OF THE ENTIRE SYSTEM IS POSSIBLE AS PER NFPA NO. 13.
- ALL SPRINKLER PIPING SHALL BE SCHEDULE 40 STEEL PIPE.
- SPRINKLER CONTRACTOR SHALL SUBMIT SPRINKLER PLAN LAYOUT, INCLUDING PIPE SUPPORT LOCATIONS AND TYPES. SUBMITTALS SHALL INCLUDE PENETRATIONS AND DETAILS.
- ABOVE-GROUND SPRINKLER PIPING SHALL BE: BLACK STEEL WELDED OR SEAMLESS; ASTM A 795; GALVANIZED STEEL WELDED OR SEAMLESS; ANSI/ASTM A 53; WROUGHT STEEL; ANSI B36.10M; STEEL, ELECTRONIC-RESISTANCE WELDED; ASTM A 135.
- SCREWED UNIONS SHALL NOT BE USED ON PIPE LARGER THAN 2". COUPLINGS AND UNIONS OF OTHER THAN SCREWED-TYPE SHALL BE OF TYPES LISTED SPECIFICALLY FOR USE IN SPRINKLER SYSTEMS.
- PROVIDE SIDEWALL SPRINKLER HEAD AT BOTTOM OF ELEVATOR SHAFT. LOCATE SPRINKLER HEAD WITHIN ELEVATOR PIT SAFETY ZONE. PROVIDE AN ISOLATION VALVE IN THE LOCKED OPEN POSITION UPSTREAM OF SPRINKLER.
- CONCEALED SPRINKLER HEADS TO BE INSTALLED IN ALL FINISHED SPACES WITH CEILING U.N.O., REFER TO ARCHITECTURAL FINISH SCHEDULE FOR COVERAGE.
- ALL SPRINKLERS TO BE QUICK RESPONSE U.N.O.
- ALL SPRINKLERS TO BE OF AN ORDINARY TEMPERATURE RATING U.N.O.
- ALL SPRINKLERS SHALL HAVE A 5.6 K-FACTOR ORIFICE U.N.O.
- FIRE PROTECTION SYSTEM SHALL INCLUDE ALL ITEMS FOR COMPLETE SYSTEM, SPECIFICALLY THIS IS TO INCLUDE BUT IS NOT LIMITED TO: PIPE, SUPPORTS, VALVES, GAUGES, TRIM, ALARMS, SPECIALTY DEVICES, CONTROLS, AND ITEMS INCIDENTAL TO A COMPLETE SYSTEM.
- ADDITIONAL SPRINKLERS MAY BE REQUIRED TO PROVIDE ADEQUATE COVERAGE WHERE FURNITURE, LIGHT FIXTURES, DUCTWORK OR STRUCTURE ACT AS OBSTRUCTIONS TO A SPRINKLER SPRAY PATTERN.
- GENERAL CONTRACTOR'S ME/FPF COORDINATOR TO SUBMIT ME/FPF COORDINATION DRAWINGS FOR REVIEW OF DESIGN INTENT INDICATING COORDINATION OF ALL TRADES PRIOR TO PLACEMENT OF ME/FPF WORK. DRAWINGS TO BE SUBMITTED AFTER SPRINKLER DRAWINGS HAVE BEEN SUBMITTED AND APPROVED BY BFP AND SUBSEQUENTLY COORDINATED WITH ALL OTHER TRADES.
- ALL SPRINKLER HEADS LOCATED AT SKYLIGHTS AND CLEAR STORY TO BE INTERMEDIATE TEMPERATURE TYPE.

SPRINKLER SYSTEM SCHEDULE									
SPACE	HAZARD CLASS	OCCUPANCY CLASS	DENSITY	AREA	SYSTEM TYPE	DESIGN ADJUSTMENT	CEILING HEIGHT	MAX. AREA/SPRINKLER	HOSE DEMAND
CLASSROOMS, TOILET RMS, VESTIBULES, MULTI-PURPOSE RMS, CORRIDORS, STAIRWAYS, STUDENT SERVICES, TYPICAL CLASSROOMS, LOBBY, WAITING RM, OFFICES, CLOSET, PLATFORM, STAFF.	LIGHT	CLASS C OR E	0.12	1,500 SQ.FT	WET	NONE	-	225 SQ.FT	250 GPM
MECHANICAL ROOMS,	ORDINARY	HVAC	0.12	1,500 SQ.FT	WET	NONE	-	130 SQ.FT	250 GPM
ELECTRICAL ROOMS UNDER 600 VOLTS	ORDINARY	F, G-1 OR H-1	0.15	2,000 SQ.FT	WET	NONE	<14'	130 SQ.FT	250 GPM
JANITOR'S CLOSETS, LABORATORY STORAGE	ORDINARY	F, G-1 OR H-1	0.20	2,500 SQ.FT	WET	NONE	>14'	130 SQ.FT	250 GPM
ELEVATOR MACHINE RM, GENERATOR RM, MAIN ELECTRICAL RM, TRANSFORMER RM	ORDINARY	G-2, H-2, H-3, OR I	0.30	2,500 SQ.FT	WET	NONE	-	100 SQ.FT	250 GPM

* ANY STORAGE OVER 12' IN HEIGHT SHALL HAVE A MAX. AREA/SPRINKLER OF 100 SQ.FT.

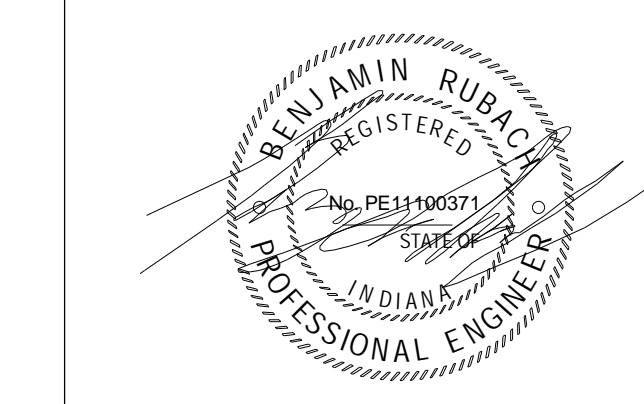
SPRINKLER SCHEDULE						
MANUFACTURE MODEL NO.	TYPE	COVERAGE	TEMP.	FINISH SPRK.	FINISH CANOPY	REMARKS
VIKING MODEL M VK300/VK302	UPRIGHT	STANDARD	155°	BRASS	---	UL/FM APPROVED
VIKING MODEL B-2 QR VK404	CONCEALED PENDENT	STANDARD	155°	CHROME	CHROME COVERPLATE	UL/FM APPROVED
VIKING MODEL M VK158	RECESSED DRY PENDENT	STANDARD	155°	CHROME	CHROME ESCUTCHEON	UL/FM APPROVED
TYCO MODEL WS (TY348B)	PENDENT WINDOW	QUICK RESPONSE	155°	CHROME	CHROME, 2 PIECE TRIM	UL/FM APPROVED
VIKING MODEL 09849	HORIZONTAL SIDEWALL	QUICK RESPONSE	155°	BRASS	CHROME ESCUTCHEON	UL/FM APPROVED

SYMBOLS LIST	
SYMBOLS	DESCRIPTION
	ELBOW DOWN
	ELBOW UP
	TEE DN
	TEE UP
	OS&Y VALVE
	NON SPRINKLED AREA
	SIAMESE FIRE DEPT CONNECTION
	FIRE ALARM BELL
	DRY PIPE VALVE
	FLOOR CONTROL ASSEMBLY VALVE WITH FLOW SWITCH AND TAMPER SWITCH
	PRESSURE GAUGE
	UPRIGHT SPRINKLER HEAD
	PENDANT SPRINKLER HEAD
	PENDANT CONCEALED SPRINKLER HEAD
	PENDANT DRY SPRINKLER HEAD
	STANDARD SIDEWALL SPRINKLER HEAD HORIZONTAL
	STANDARD SIDEWALL SPRINKLER HEAD CONCEALED
	SPRINKLER LINE

DRY PIPE VALVE AND AIR COMPRESSOR (AC) SCHEDULE						
SYMBOL	MANUFACTURER / MOCEL	GPM	PRESSURE / PSI	MOTOR		COMMENTS
				V/HP/HZ	HP	
	VICTALIC FIRELOCK NXT SERIES 768	1.5	15	120/160	1/3	PROVIDE DRY SYSTEM VALVE, TRIM, DRY HEADS AND AIR COMPRESSOR FOR EXTERIOR WALKWAY AS SHOWN ON PLANS.

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FIRE PROTECTION
GENERAL NOTES &
SYMBOLS
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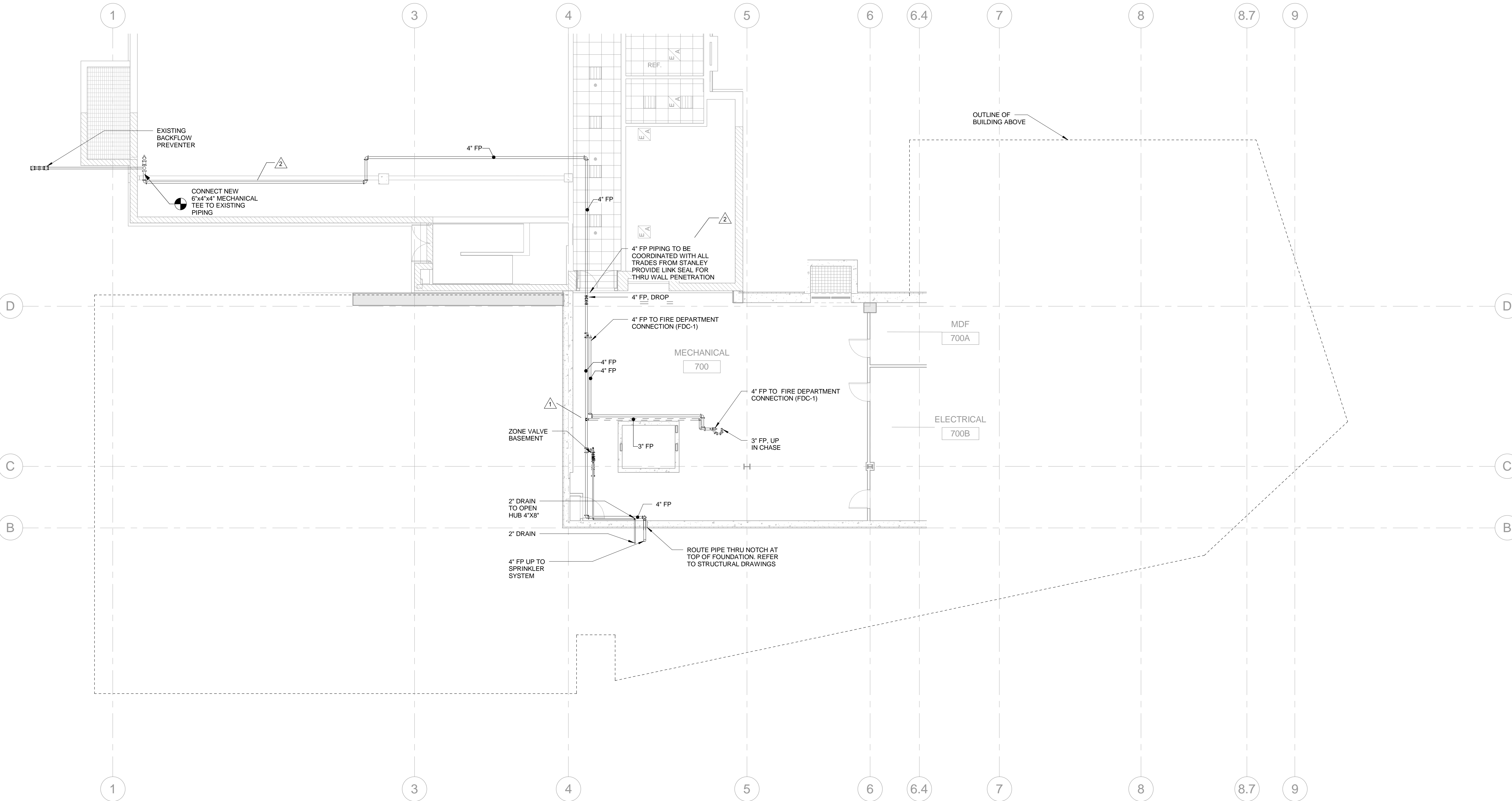
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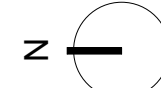
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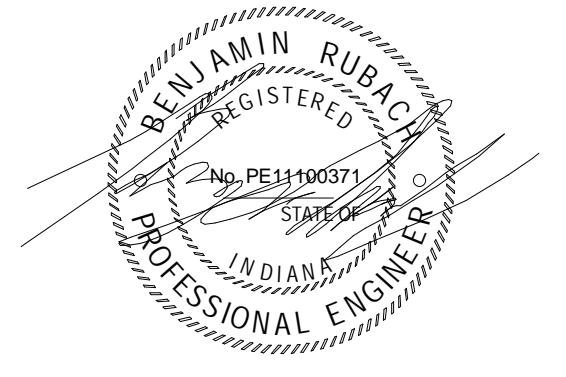
1 BASEMENT - FIRE PROTECTION PLAN
1/8" = 1'-0"



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BASEMENT PLAN - FIRE PROTECTION

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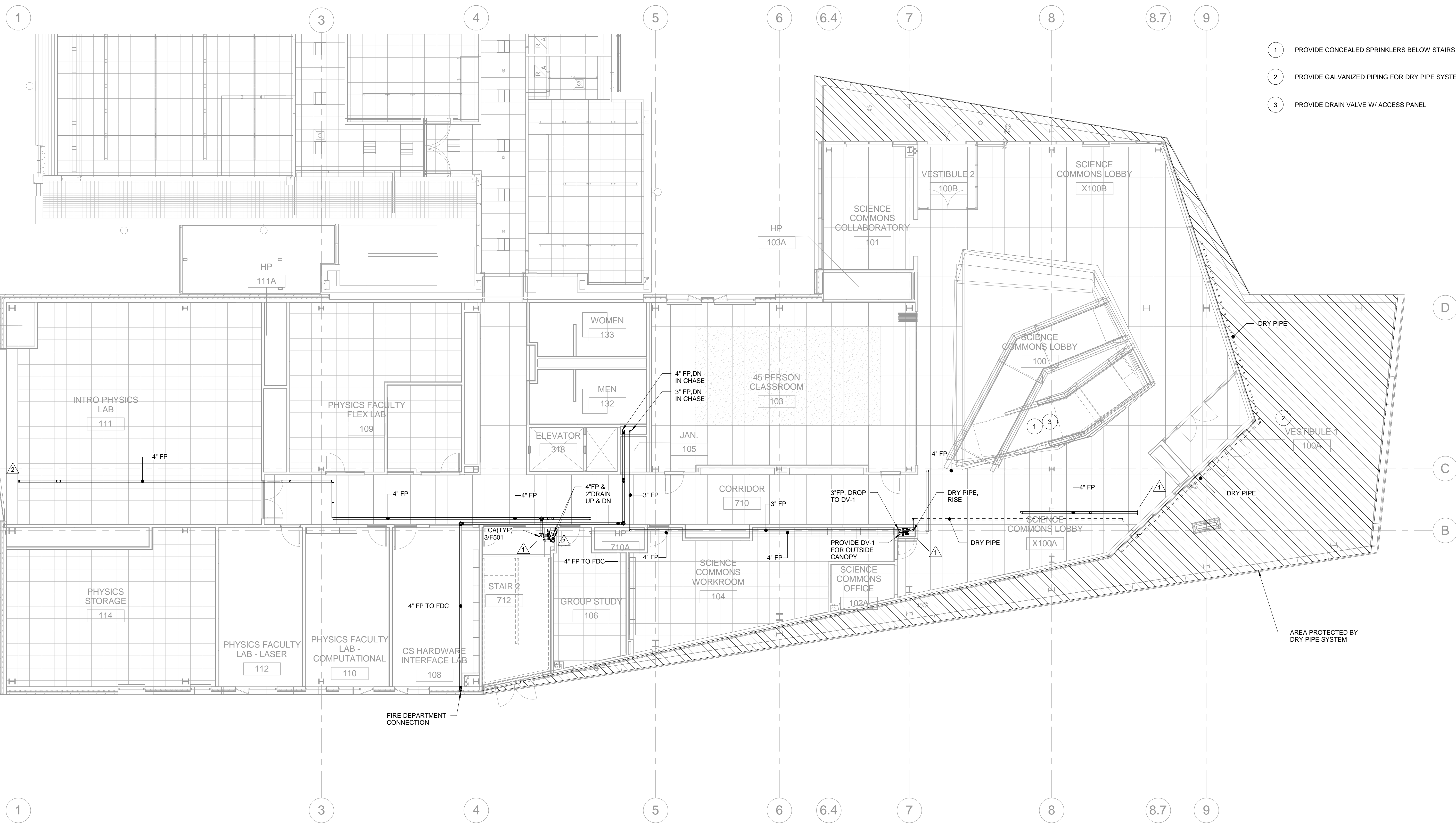
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- 1 PROVIDE CONCEALED SPRINKLERS BELOW STAIRS
- 2 PROVIDE GALVANIZED PIPING FOR DRY PIPE SYSTEM
- 3 PROVIDE DRAIN VALVE W/ ACCESS PANEL

1 FIRST FLOOR - FIRE PROTECTION PLAN
1/8" = 1'-0"

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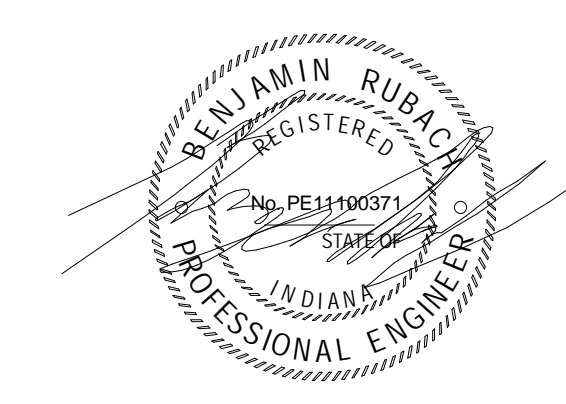
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FIRST FLOOR PLAN -
FIRE PROTECTION

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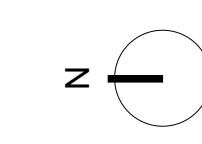
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1 SECOND FLOOR - FIRE PROTECTION PLAN
1/8" = 1'-0"



1 PROVIDE CONCEALED SPRINKLERS BELOW STAIRS. REFER TO ARCHITECTURAL PLANS.

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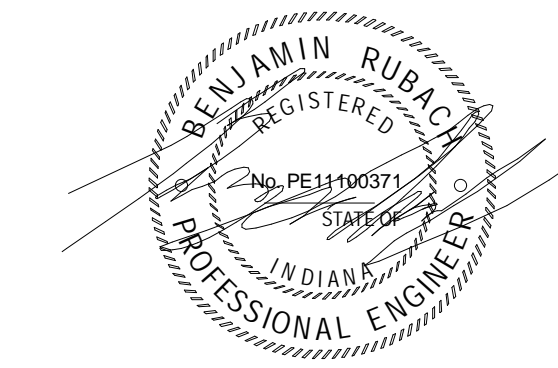
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SECOND FLOOR PLAN -
FIRE PROTECTION

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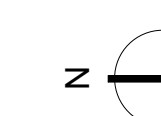
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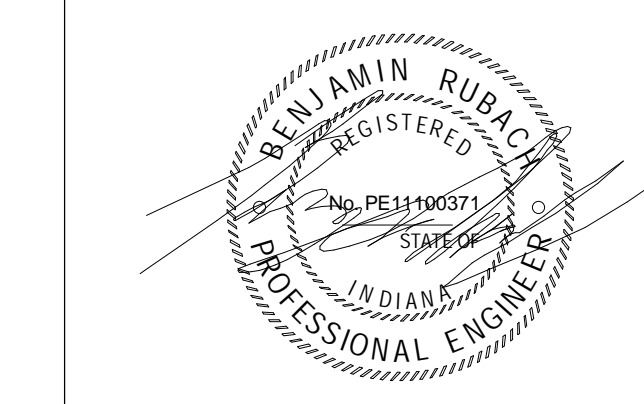
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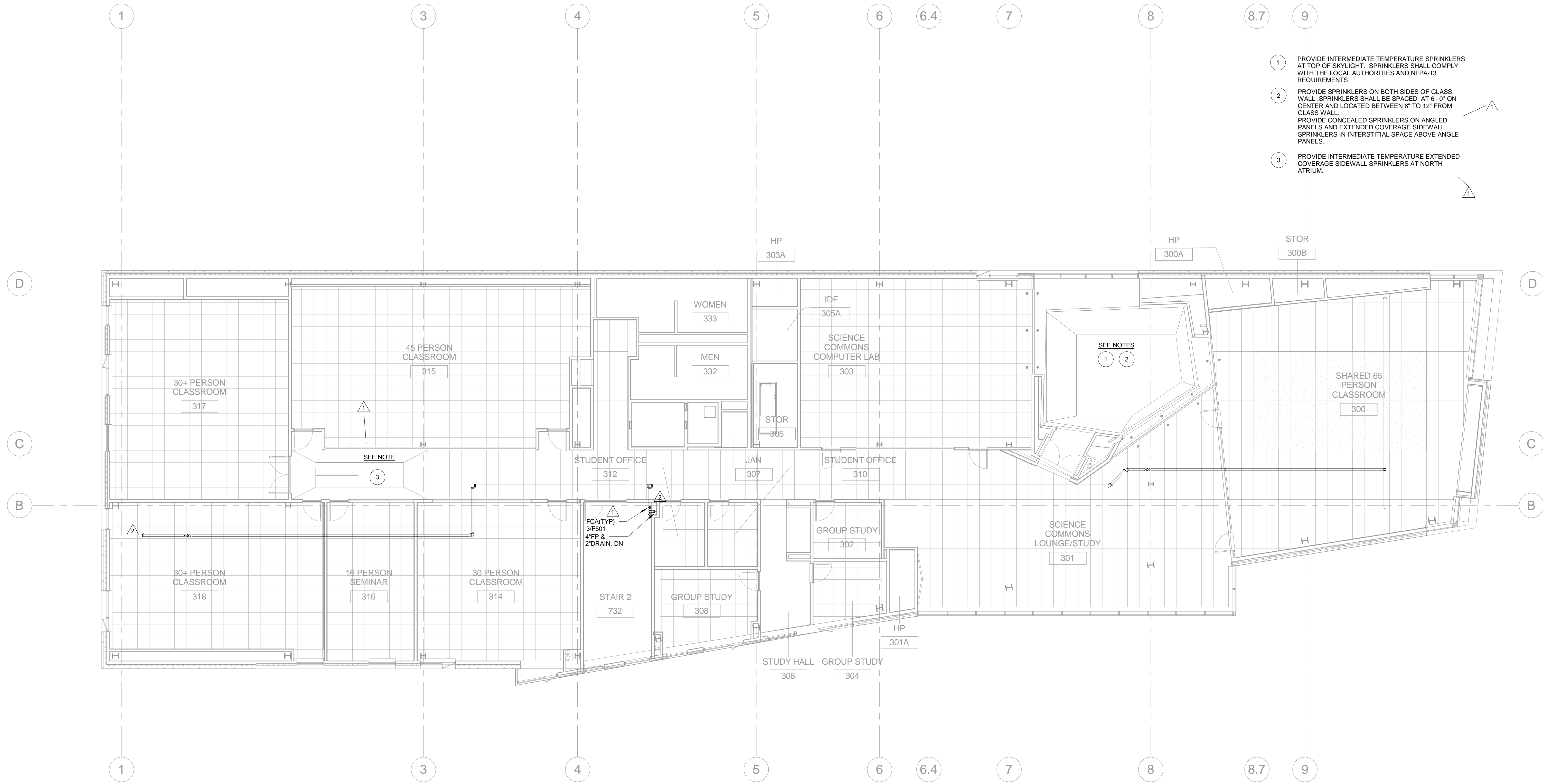
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**THIRD FLOOR PLAN -
FIRE PROTECTION**

F103



- 1 PROVIDE INTERMEDIATE TEMPERATURE SPRINKLERS AT TOP OF SKYLIGHT. SPRINKLERS SHALL COMPLY WITH THE LOCAL AUTHORITIES AND NFPA-13 REQUIREMENTS
- 2 PROVIDE SPRINKLERS ON BOTH SIDES OF GLASS WALL. SPRINKLERS SHALL BE SPACED AT 6'-0" ON CENTER AND LOCATED BETWEEN 6" TO 12" FROM GLASS WALL. PROVIDE CONCEALED SPRINKLERS ON ANGLED PANELS AND EXTENDED COVERAGE SIDEWALL SPRINKLERS IN INTERSTITIAL SPACE ABOVE ANGLE PANELS.
- 3 PROVIDE INTERMEDIATE TEMPERATURE EXTENDED COVERAGE SIDEWALL SPRINKLERS AT NORTH ATRIUM.

1 THIRD FLOOR - FIRE PROTECTION PLAN
1/8" = 1'-0"

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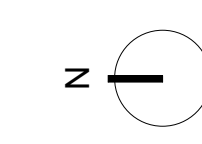
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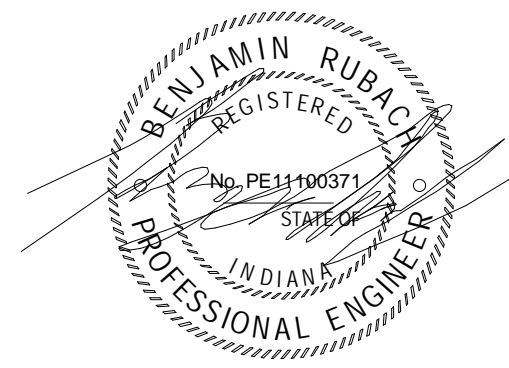
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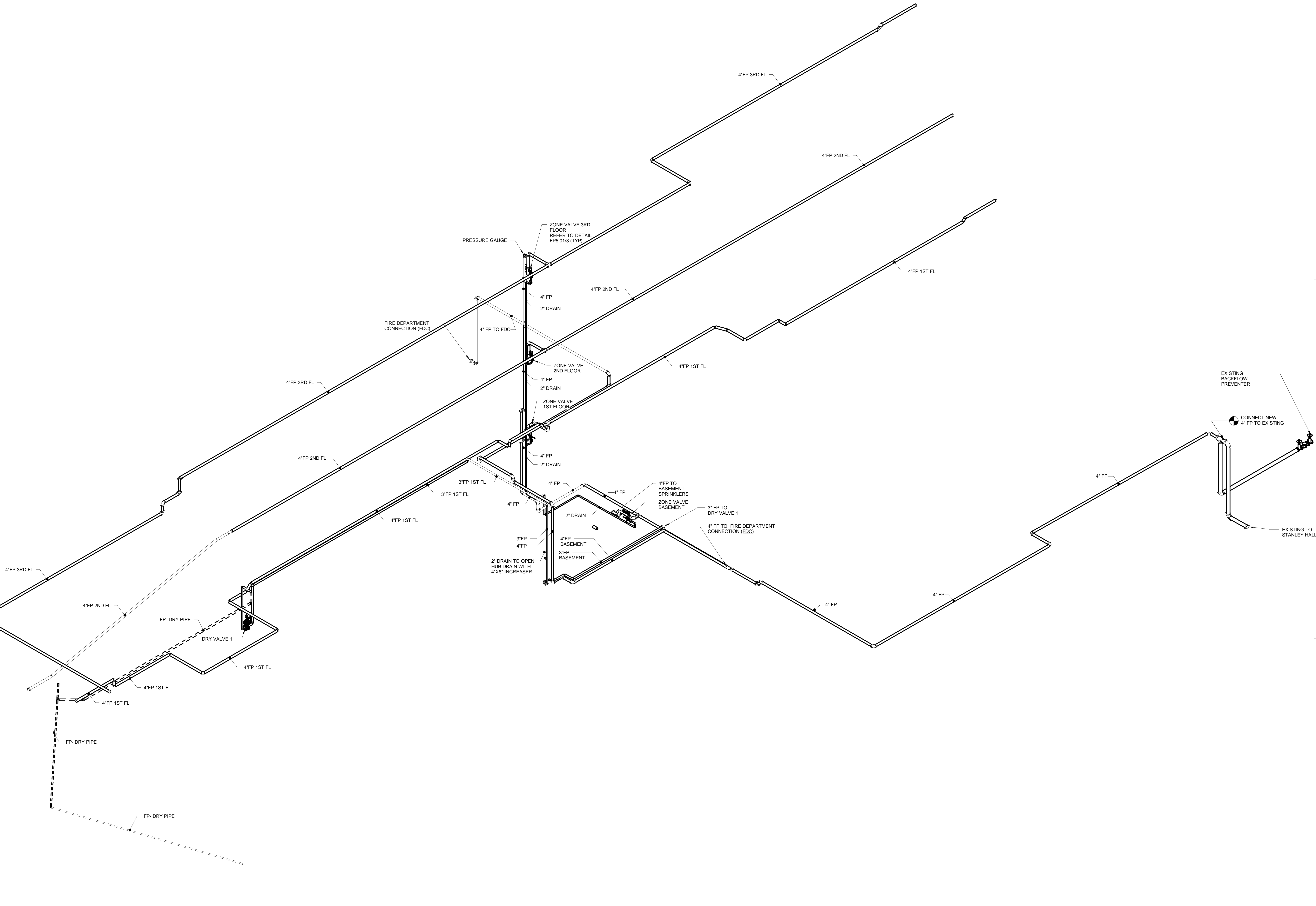
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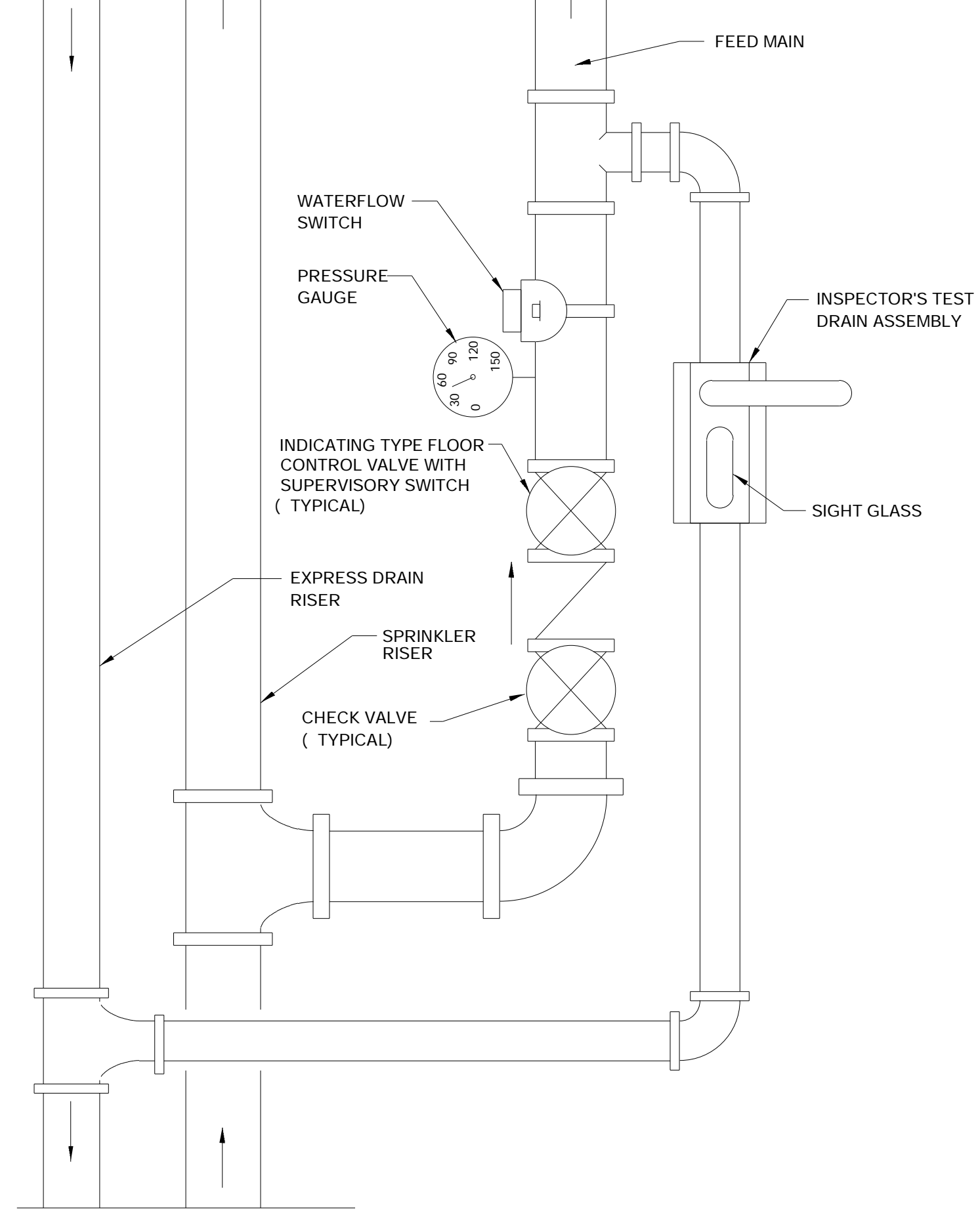
FIRE PROTECTION RISER DIAGRAM

F401

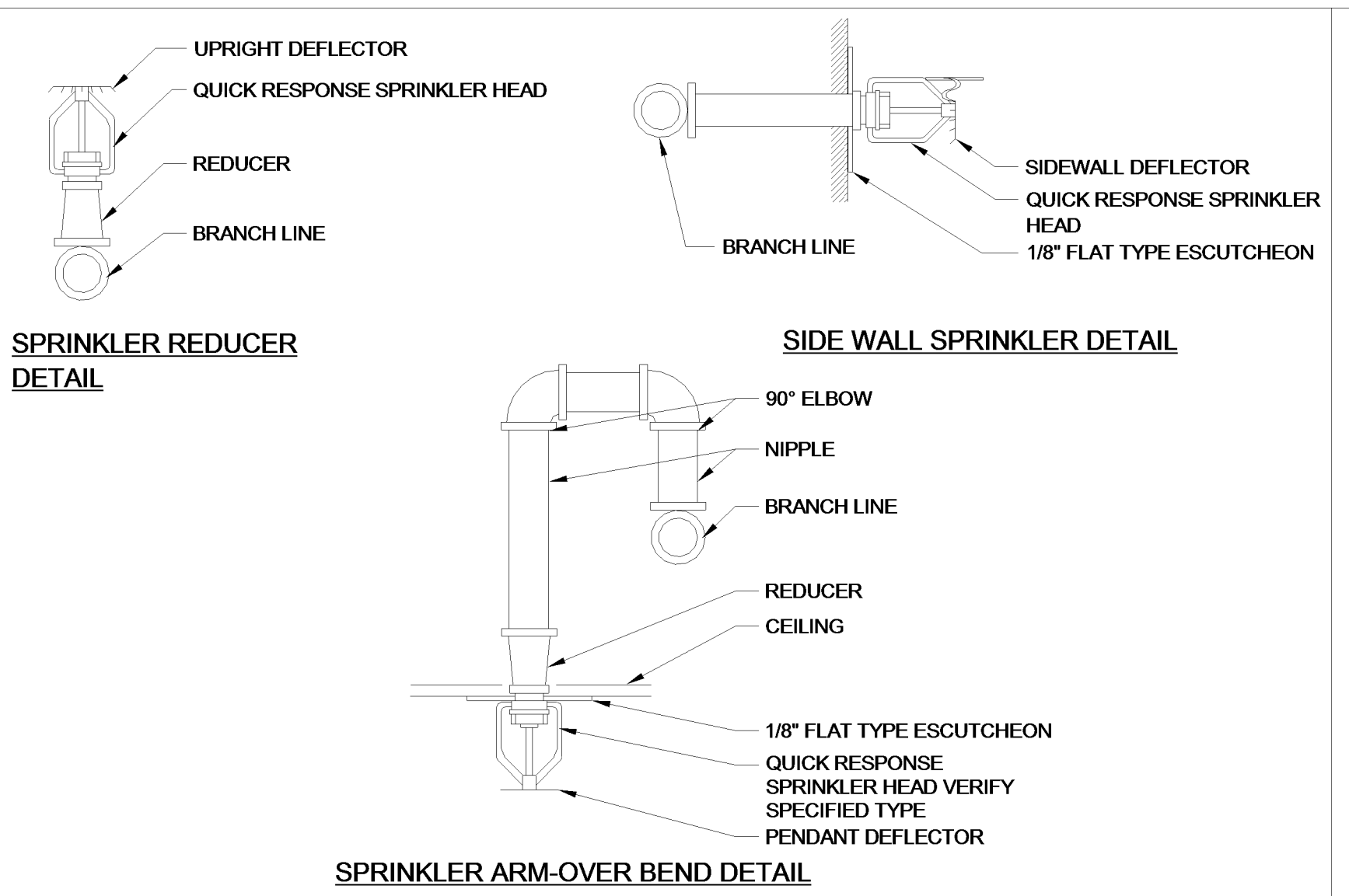


① FIRE PROTECTION RISER DIAGRAM

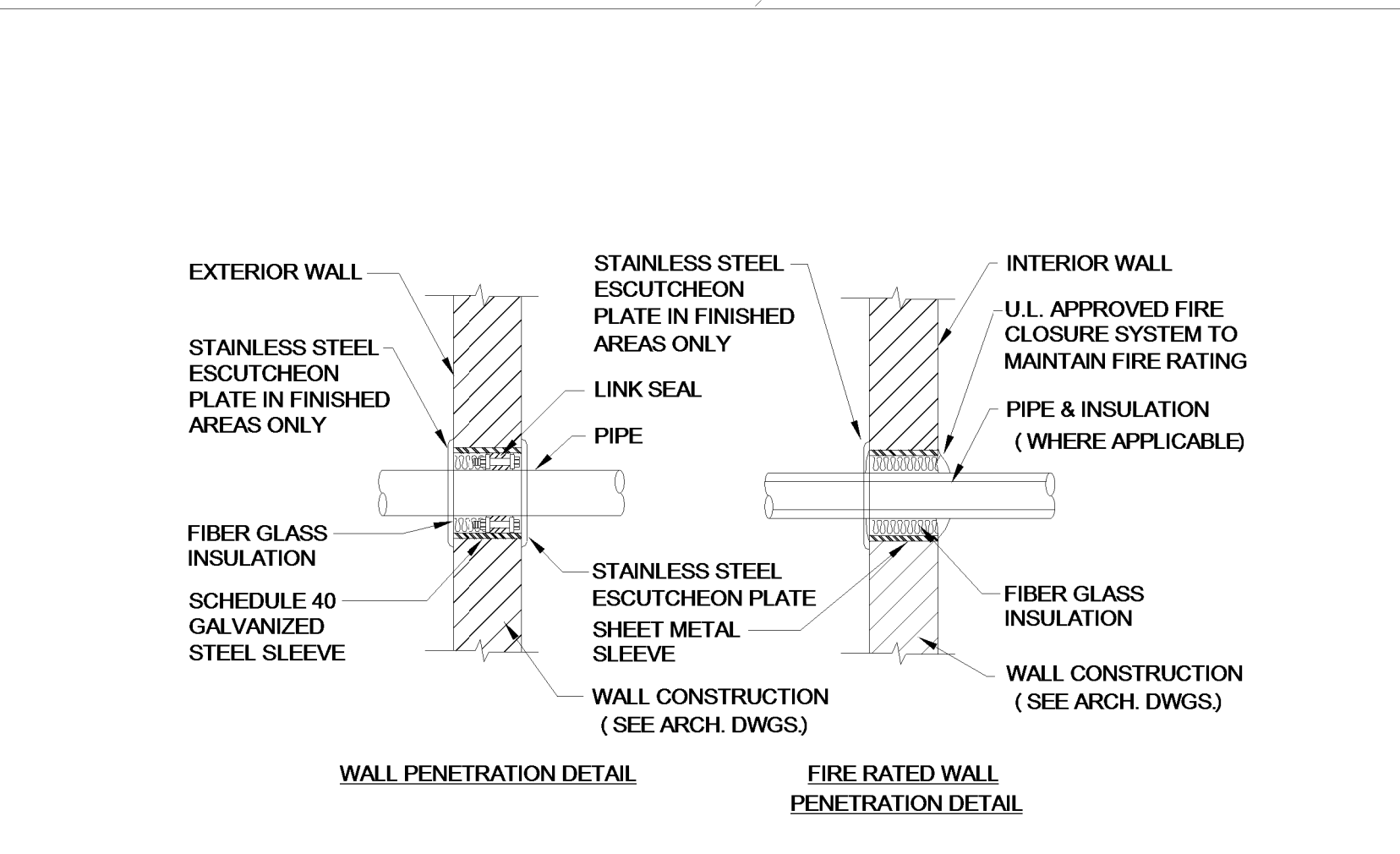
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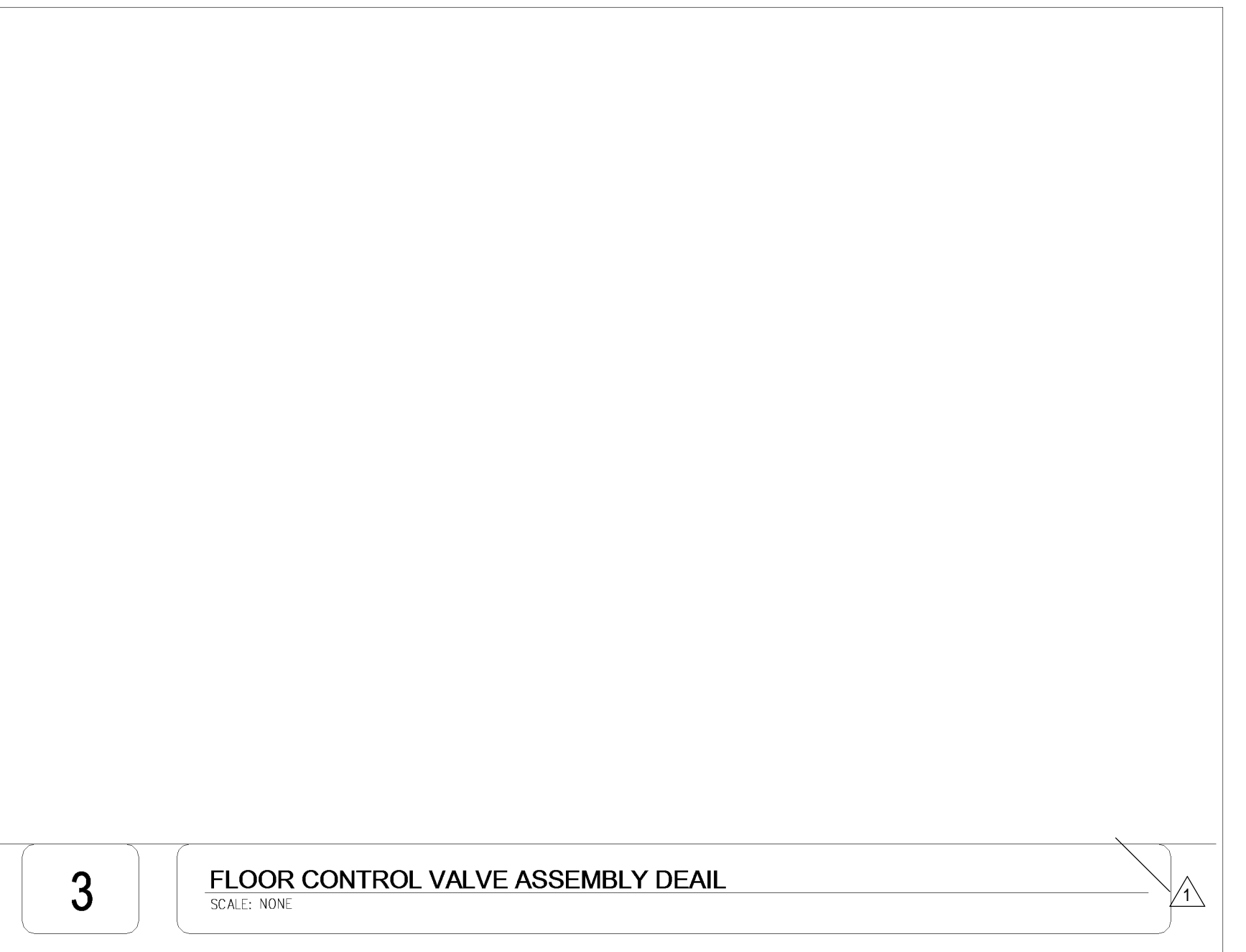
3 FLOOR CONTROL VALVE ASSEMBLY DETAIL
SCALE: NONE



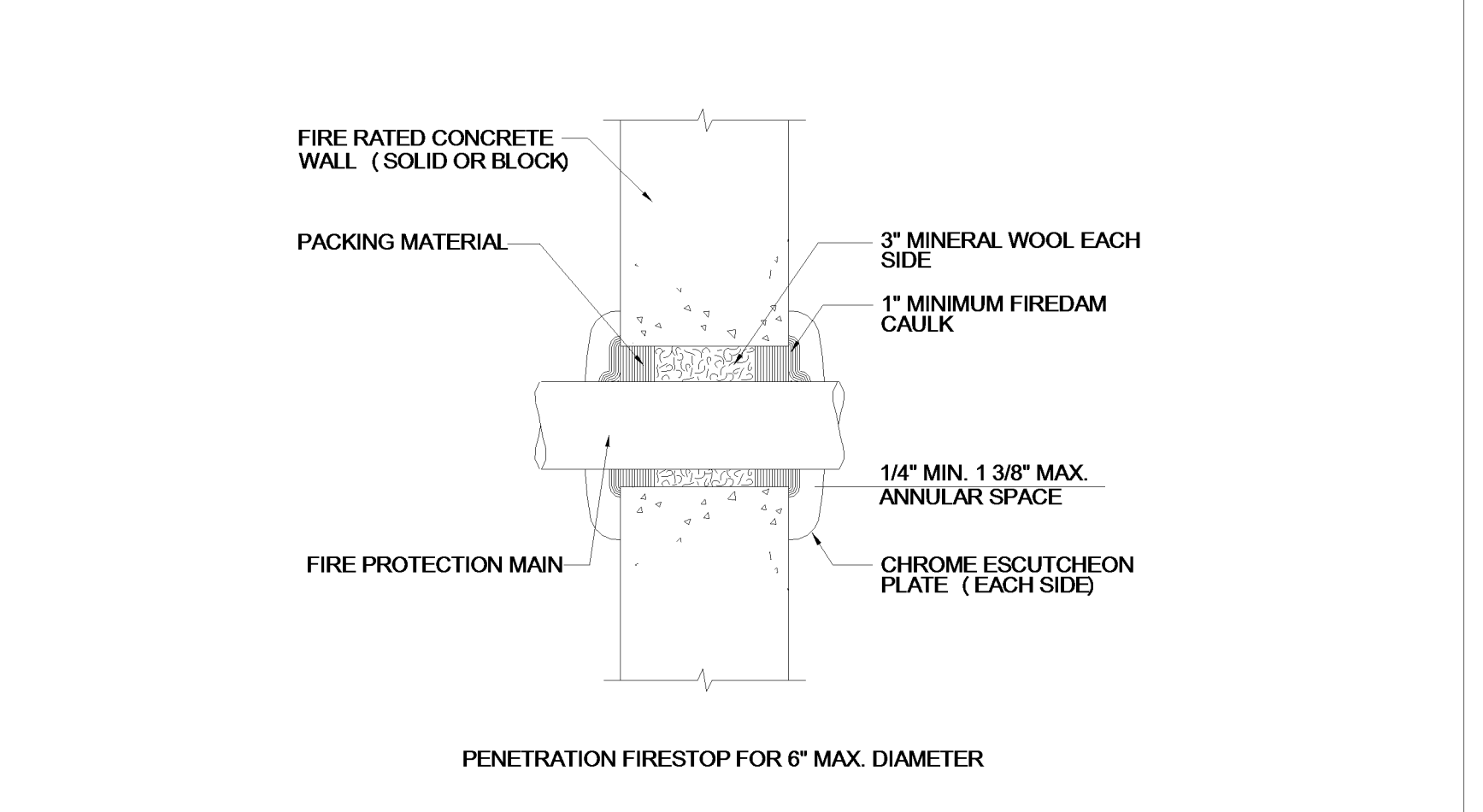
1 SPRINKLER DETAILS
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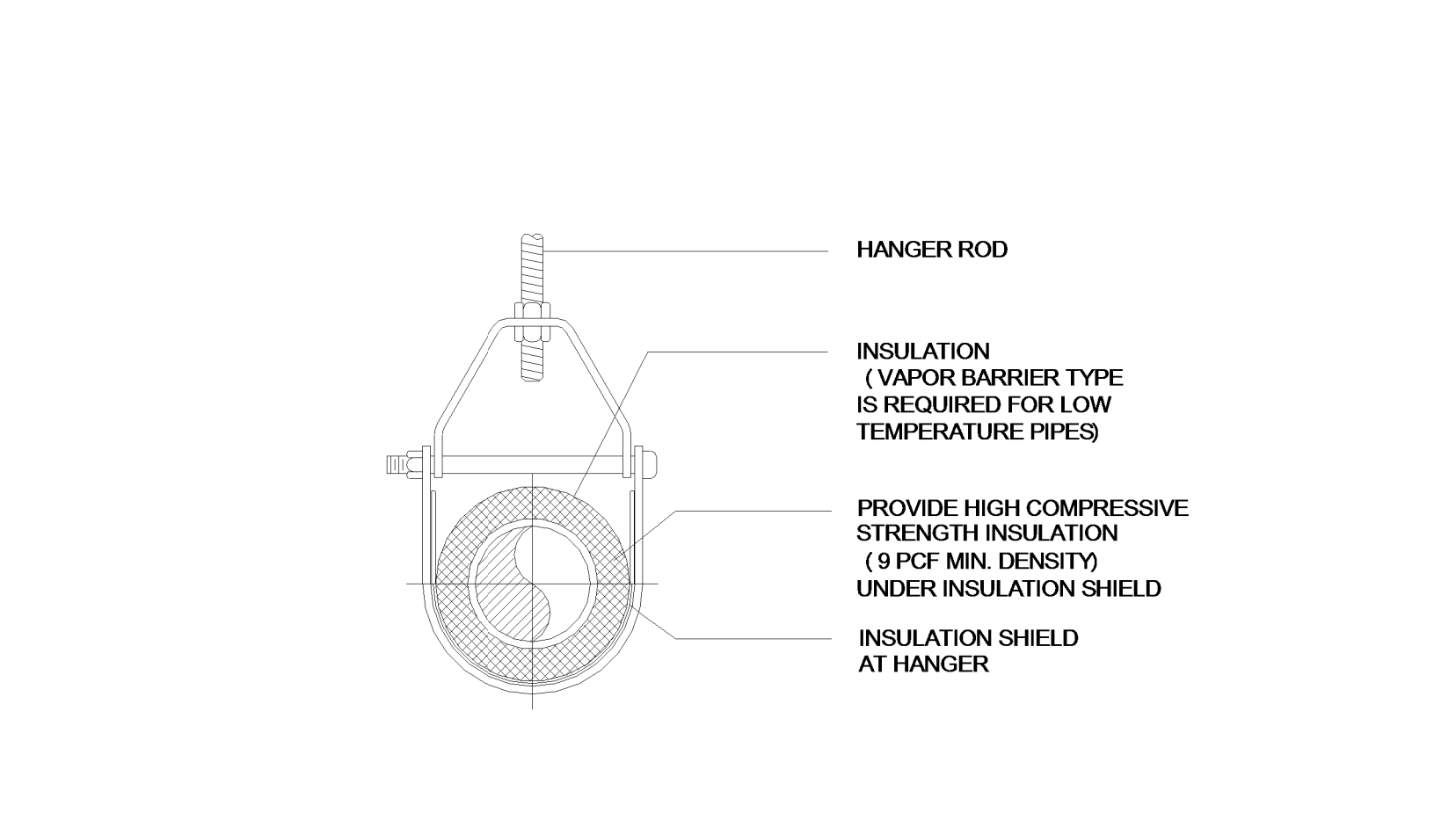
2 WALL PENETRATION DETAIL
SCALE: NONE



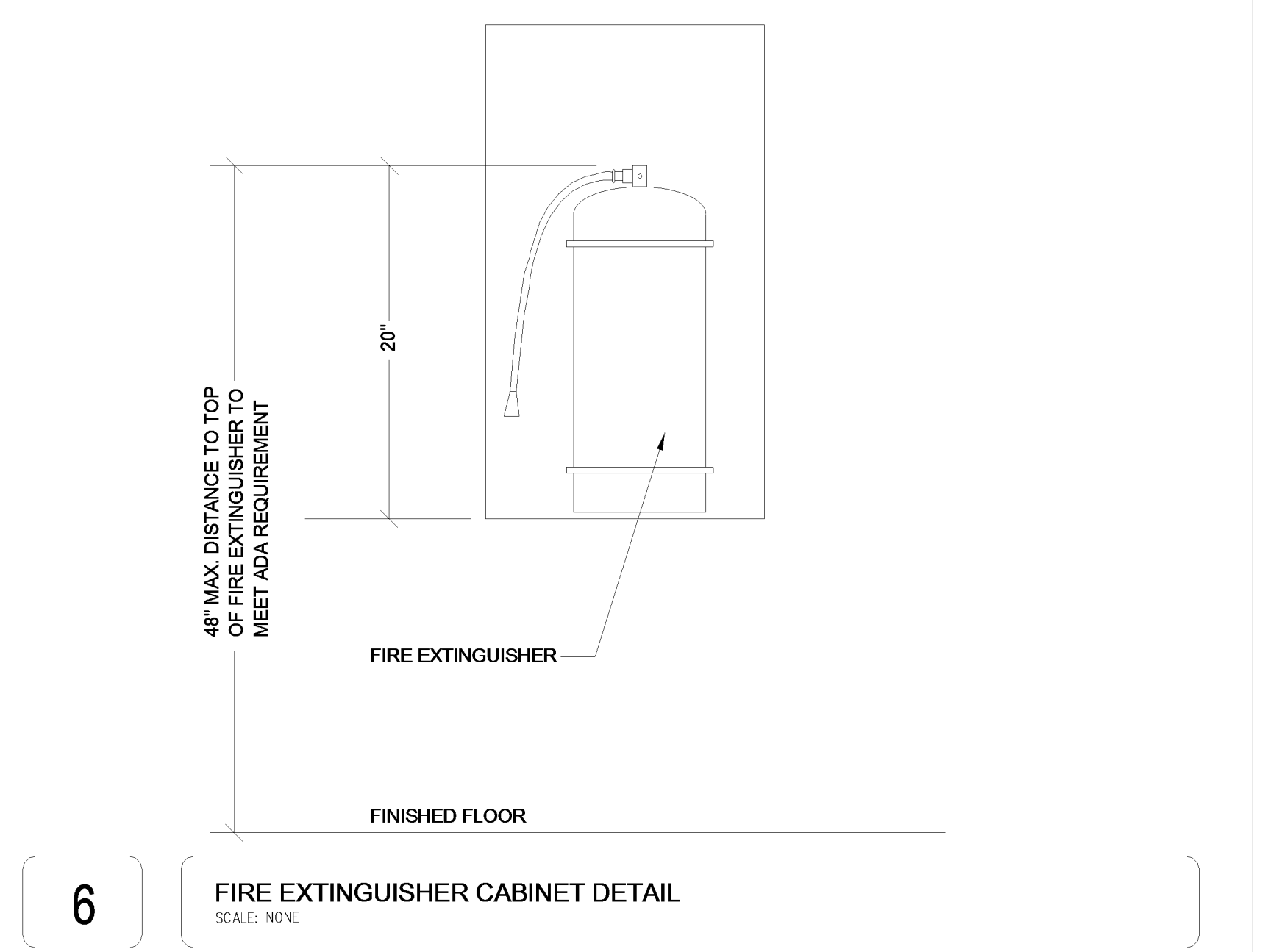
3 FLOOR CONTROL VALVE ASSEMBLY DETAIL
SCALE: NONE



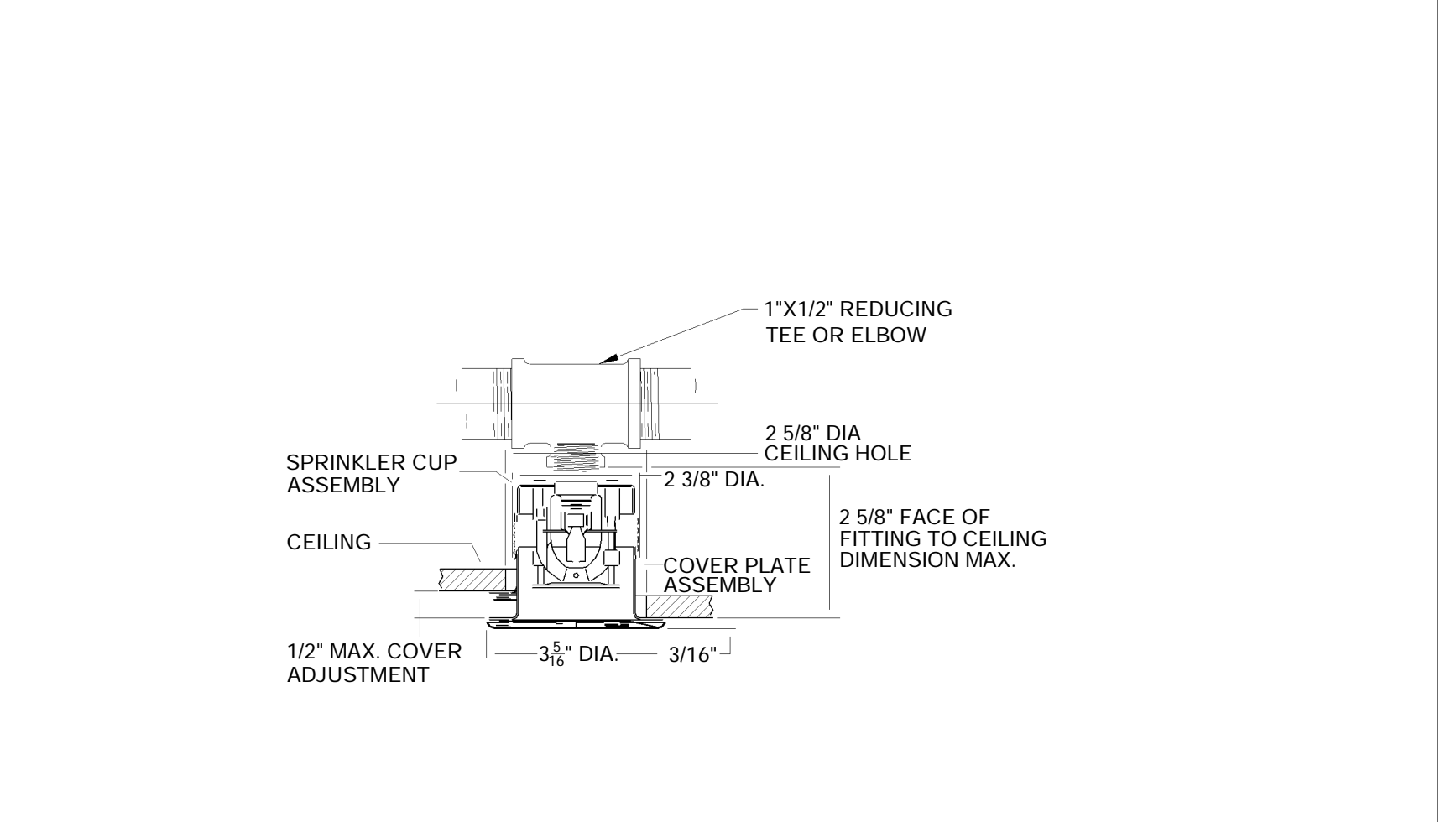
4 METAL PIPE THROUGH CONCRETE WALL
SCALE: NONE



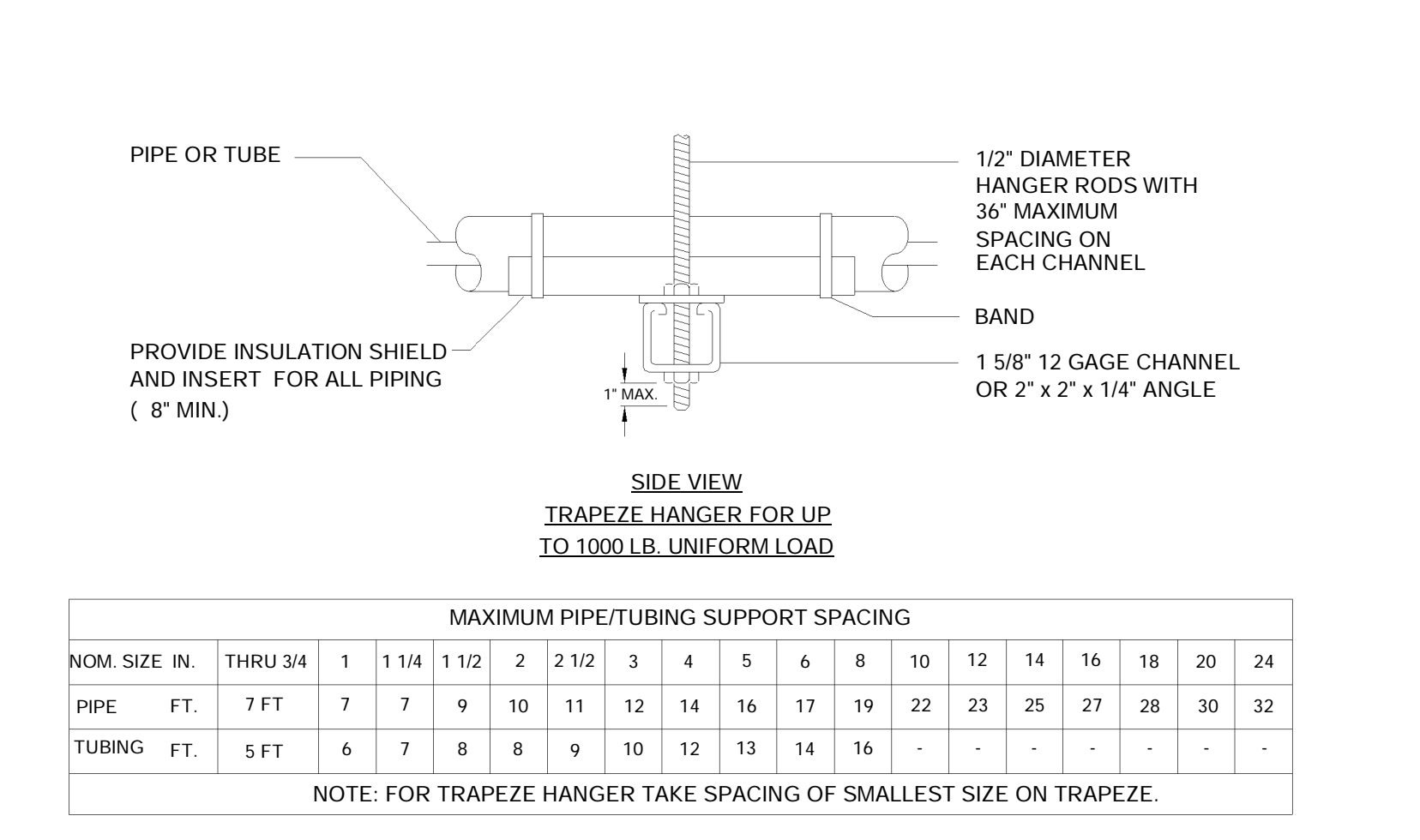
5 ADJUSTABLE CLEVIS HANGER
SCALE: NONE



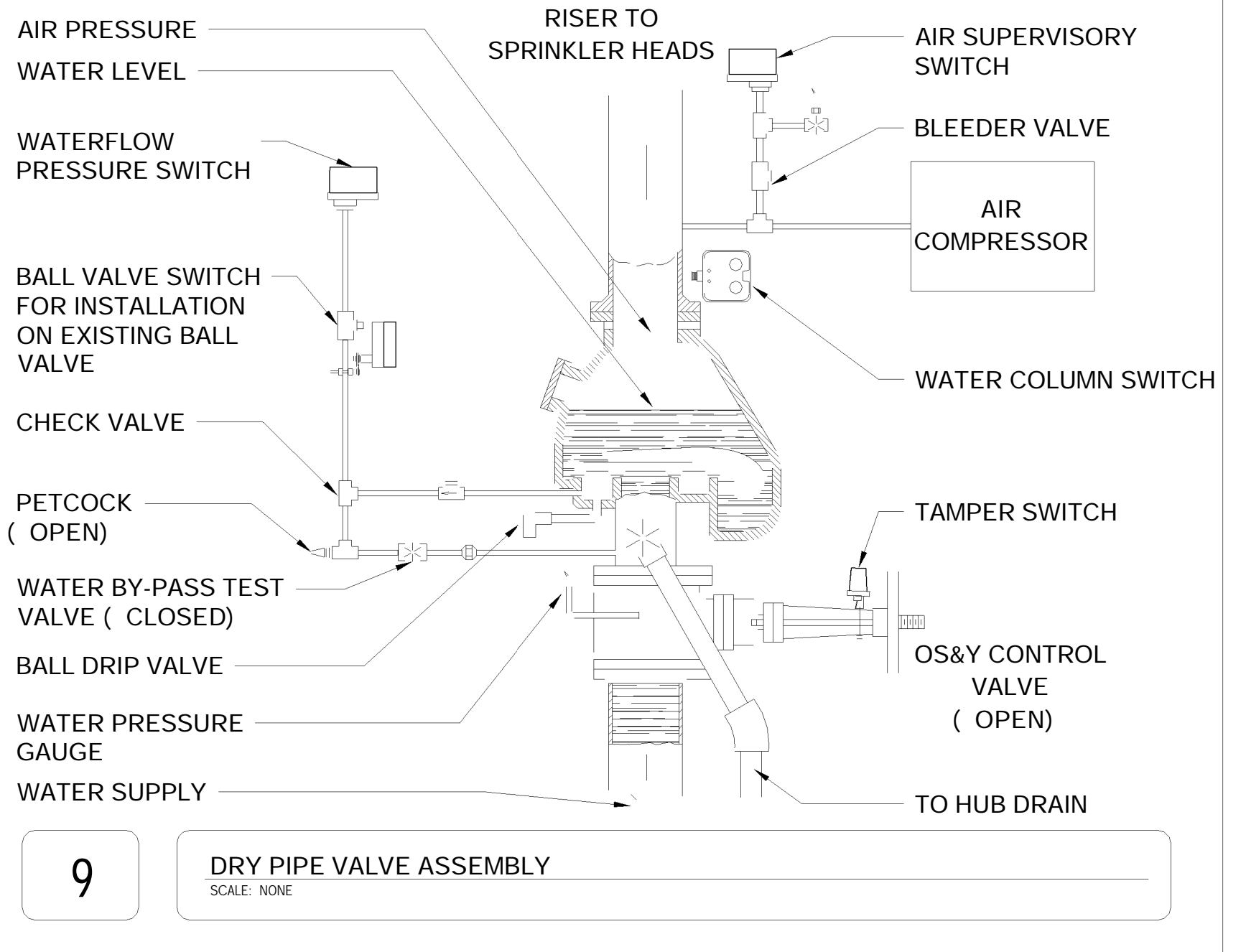
6 FIRE EXTINGUISHER CABINET DETAIL
SCALE: NONE



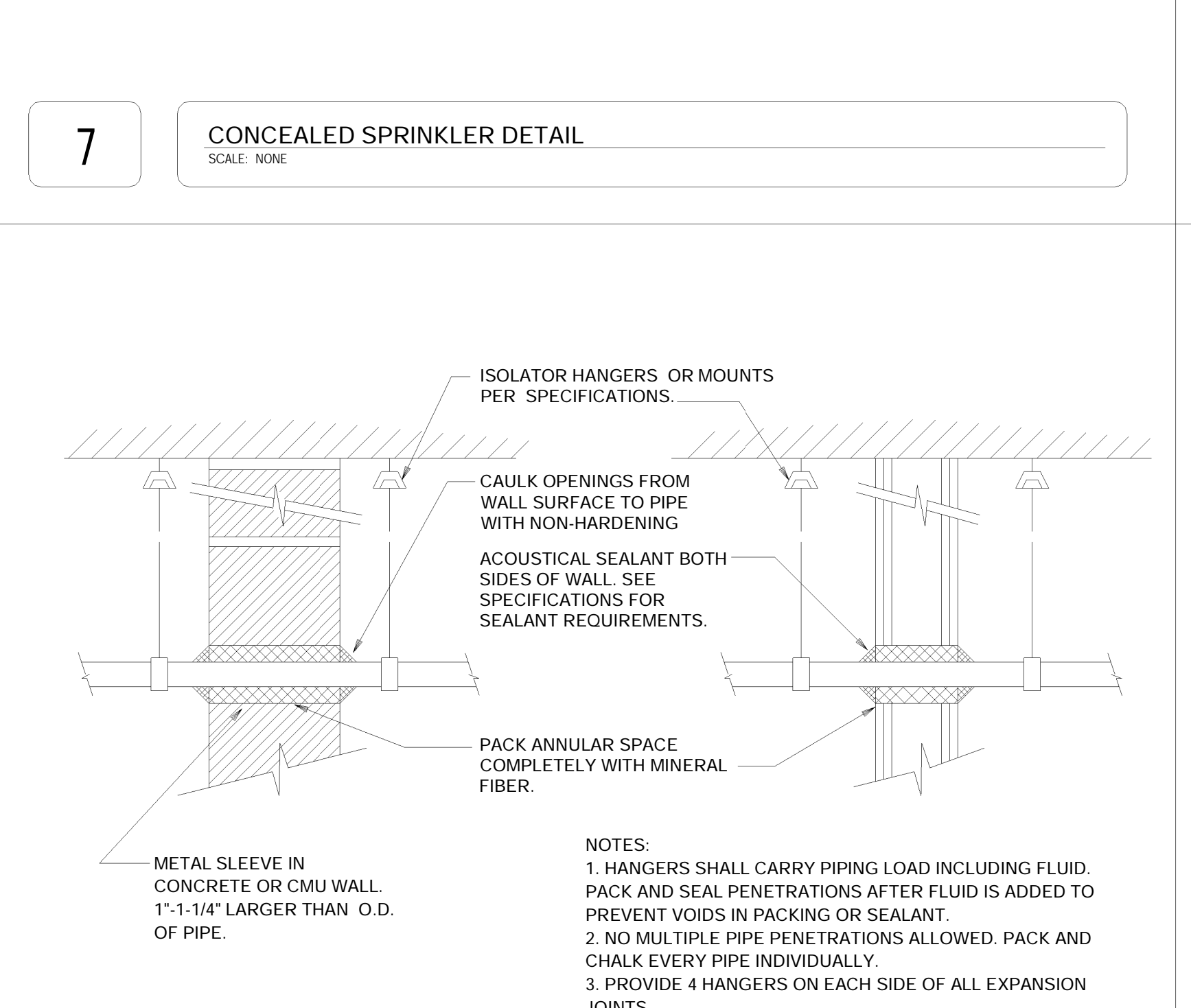
7 CONCEALED SPRINKLER DETAIL
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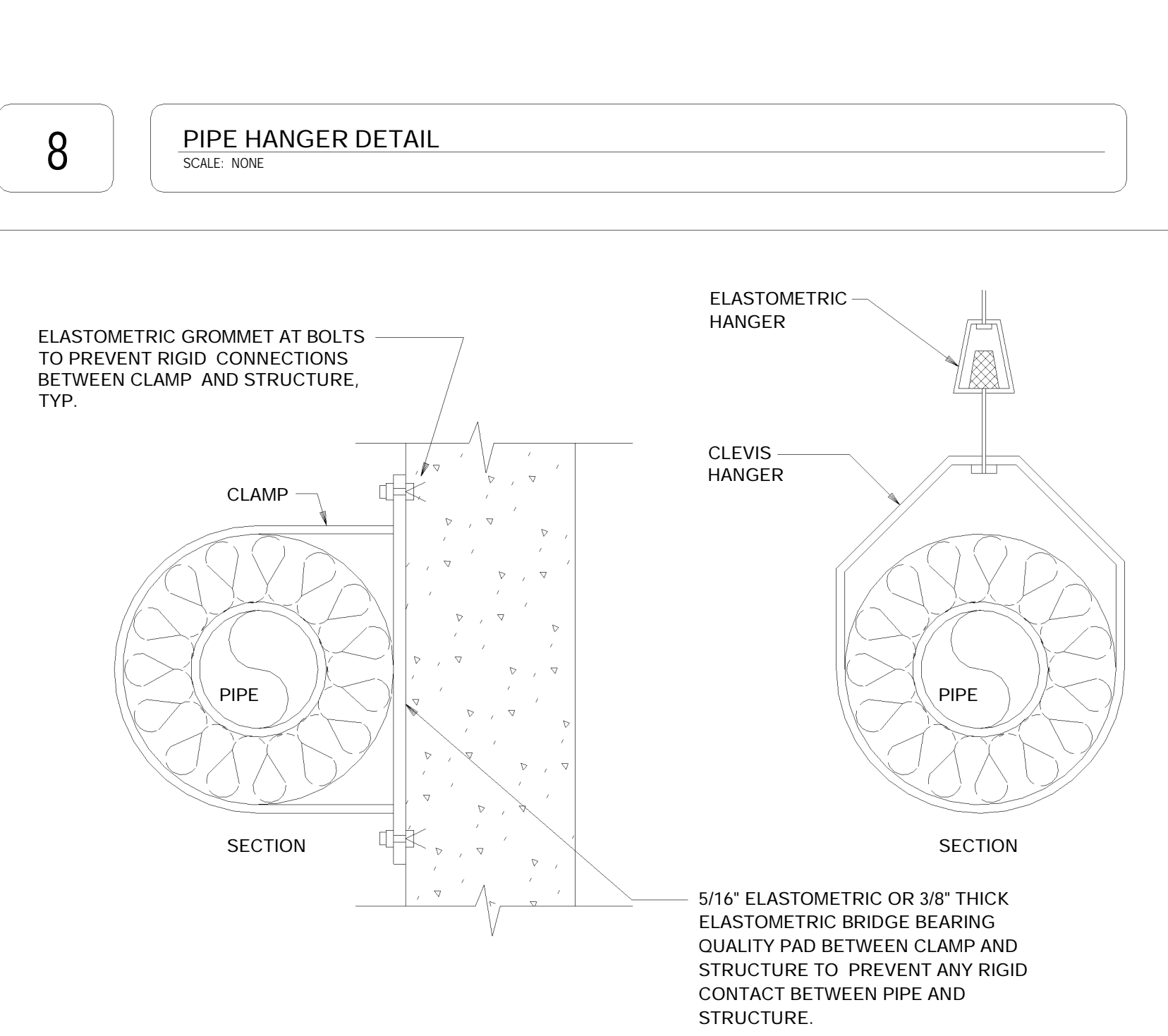
8 PIPE HANGER DETAIL
SCALE: NONE



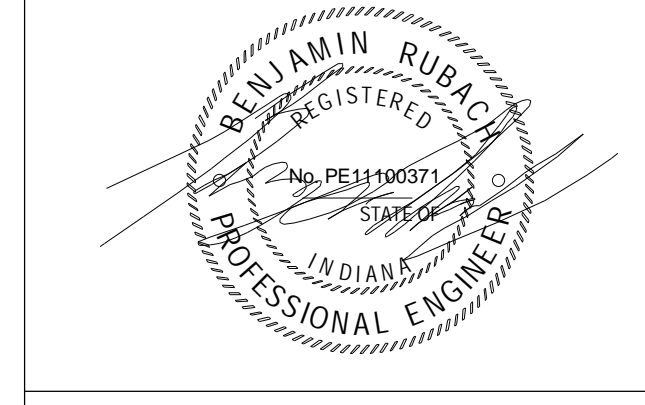
9 DRY PIPE VALVE ASSEMBLY
SCALE: NONE



10 RESILIENTLY SEALED PIPING PENETRATION DETAILS
SCALE: NONE



11 RESILIENT PIPING SUPPORT FOR CLAMP & CLEVIS HUNG PIPE DETAIL
SCALE: NONE



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**FIRE PROTECTION
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