

<b>CONTRACTOR ABBREVIATION KEY</b>			
ABBR:	DESCRIPTION:		
E.C.	ELECTRICAL CONTRACTOR		
F.P.C.	FIRE PROTECTION CONTRACTOR		
G.C.	GENERAL CONTRACTOR		
H.C.	HEATING CONTRACTOR		
M.C.	MECHANICAL CONTRACTOR		
P.C.	PLUMBING CONTRACTOR		
S.C.	SECURITY CONTRACTOR		
T.C.	TECHNOLOGY CONTRACTOR		
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR		
V.C.	VENTILATION CONTRACTOR		

NOT ALL SYMBOLS MAY APPLY.		
SYMBOL:	DESCRIPTION:	
—DFP——	DRAIN	
——FP——	FIRE PROTECTION	
<del></del> 3	PIPE CAP	
<del></del>	PIPE DOWN	
<del></del>	PIPE UP OR UP/DOWN	
	UNION/FLANGE	
-	DIRECTION OF FLOW IN PIPE	
7	ROUTE TO DRAIN	
—⋈—	SHUTOFF VALVE NORMALLY OPEN	
<u> </u>	AUTOMATIC DRAIN VALVE	
<b>₹</b>	ANGLE VALVE	
₩	BUTTERFLY VALVE WITH MONITOR SWITCH	
— <u>—</u>	CHECK VALVE	
MÜÜM	BACKFLOW PREVENTER	
<sup>↓</sup> — <b>□</b> —	INSPECTOR TEST AND DRAIN VALVE	
	FLOW SWITCH	
P	PRESSURE SWITCH	
<b>—⋈—(</b> P)	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)	
×	MONITOR SWITCH	
	AREA BOUNDARY	
NO HATCH	LIGHT HAZARD	
	ORDINARY GROUP 1	
	ORDINARY GROUP 2	
•	SPRINKLER - WALL MOUNTED	
•	SPRINKLER	
0	SPRINKLER - CONCEALED	

FIRE PROTECTION ABBREVIATION KEY		
ABBR:	DESCRIPTION:	
AD	ACCESS DOOR	
AFF	ABOVE FINISHED FLOOR	
BFP	BACKFLOW PREVENTER	
I.E.	INVERT ELEVATION	
N.C.	NORMALLY CLOSED	
NIC	NOT IN CONTRACT	
N.O.	NORMALLY OPEN	
SCCR	SHORT CIRCUIT CURRENT RATING	
TYP	TYPICAL	
UNO	UNLESS NOTED OTHERWISE	

## FIRE SPRINKLER USAGE SCHEDULE SEE FLOOR PLANS FOR ZONING REQUIREMENTS. SPRINKLER SHALL HAVE COLOR CODED BULB THERMAL ELEMENT. ALL SPRINKLERS SHALL BE UL AND FM LISTED. CONTRACTOR TO VERIFY SPRINKLER REQUIREMENTS BASED ON ACTUAL INSTALLATION, USAGE, ARCHITECTURAL CEILING PLAN AND NFPA 13 REQUIREMENTS TAG NAME IS PRIMARILY FOR IDENTIFIYING SPRINKLERS IN SUBMITTALS. IT MAY OR MAY NOT BE FOUND ELSEWHERE ON THE DRAWINGS. CONTRACTOR TO SUBMIT ALL SPRINKLER TYPES TO BE USED. AREAS ARE GENERAL IN NATURE. CONTRACTOR TO MATCH UNSCHEDULED AREAS TO SIMILAR SPACES. SPRINKI FF TEMPERATURE | MANUFACTURER | AREA TYPE TAG NAME SPRINKLER RESPONSE (NOTE 1 & 6) HAZARD (NOTE 4 & 5) TYPE RATING CATEGORY FINISH & MODEL NOTES CHROME 155 (PER NFPA) VIKING VK, AREAS WITH FINISHED | SEE PLANS | SPR-1 QUICK NOTES 2, 3 RECESSED CEILINGS PENDENT PLATED RELIABLE F1FR, TYCO TY-FRB,

QUICK

ROUGH

BRASS

AREAS WITHOUT

CEILINGS

SEE PLANS

SPR-2

UPRIGHT

VICTAULIC V2708

RELIABLE F1FR.

VICTAULIC 2704

TYCO TY-FRB.

NOTES 2, 3

155 (PER NFPA) VIKING VK,

## **MECHANICAL RENOVATION NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
   NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS
- BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK.

  3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD
- CONDITIONS.

  4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF HIS/HER WORK AND SHALL NOTIFY THE GENERAL CONTRACTOR PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO HIS/HER AREA OF
- WORK.
  5. EACH CONTRACTOR SHALL CUT AND PATCH ROOFS, WALLS, AND FLOORS ASSOCIATED WITH HIS WORK.
  6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF
- CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING.

  7. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH
- NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, PIPING, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK.

  8. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING
- CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT REMAIN ACTIVE.

  9. OBTAIN PERMISSION FROM OWNER BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW

SYSTEMS ARE INSTALLED.

- 10. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.
- 11. DISCONNECT AND REMOVE MECHANICAL DEVICES AND EQUIPMENT SERVING EQUIPMENT THAT HAS BEEN REMOVED.

## **MECHANICAL GENERAL NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING
- CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.

  2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
- 3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS. ALL VALVES MUST BE LOCATED WITH
- REASONABLE ACCESS FOR SERVICE, MAINTENANCE, AND FUNCTION.

  4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER
- 5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR
- 6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN
- DESIGN.

  7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING
- MOUNTED DEVICES, OTHER THAN SPRINKLERS.

  8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS
- RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.

  9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING.
- PANELS PRIOR TO BIDDING.

  10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER
- FOR OUTDOOR USE.

  11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL,
  PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE
  TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS
- WITHIN ROOMS.

  12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT.

  13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND
- PIPING, DUCTWORK, ETC.

  14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES.

  15. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR

REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS,

- STARTERS, SWITCHES, AND DISCONNECTS.

  16. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT.
- 17. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.

## **FIRE PROTECTION GENERAL NOTES:**

- THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
   CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER IS THE BASIS OF DESIGN.
- BASIS OF DESIGN.
  3. CENTER SPRINKLERS IN CEILING TILES IN BOTH DIRECTIONS IN ALL AREAS. IN AREAS WITH 2'X4' CEILING TILES CENTERING USING A 2'X2' CEILING PATTERN IS ACCEPTABLE. SPRINKLER HEADS SHALL BE ALIGNED WITH OTHER SPRINKLER HEADS, LIGHTING, DIFFUSERS, AND ANY OTHER FEATURES IN THE CEILING.
  4. NEW SPRINKLERS SHALL BE QUICK RESPONSE TYPE, UNLESS OTHERWISE NOTED.
- RESPONSE SPRINKLERS IN UNPARTITIONED SPACES.
  5. PROVIDE COVERAGE ABOVE AND BELOW ALL DUCTWORK GREATER THAN 48" WIDE.
  6. FIRE PROTECTION PIPE ROUTING IS SHOWN FOR GENERAL LAYOUT. DETERMINE EXACT NUMBER OF SPRINKLERS, PIPE SIZING, AND PIPE ROUTING.
  7. THE FIRE PROTECTION SYSTEM SHALL BE DESIGNED TO MEET OWNER'S INSURANCE

CONTRACTOR SHALL NOT MIX STANDARD RESPONSE SPRINKLERS WITH QUICK

- COMPANY STANDARDS WHERE APPLICABLE. THE MORE STRINGENT OF THE OWNER'S INSURANCE UNDERWRITER'S DESIGN CRITERIA AND THE NFPA STANDARDS SHALL BE USED.
- 8. ALL BUILDING AREA SHALL BE FULLY SPRINKLERED INCLUDING CANOPIES, WALKWAYS, OVERHANGS, SOFFITS, AND BUILDING PROJECTIONS. ALL ACCESSIBLE COMBUSTABLE CONCEALED SPACES SHALL BE FULLY PROTECTED BY THE SPRINKLER SYSTEM.
- CONCEALED SPACES SHALL BE FULLY PROTECTED BY THE SPRINKLER SYSTEM.

  9. EACH ASSEMBLY SHALL INCLUDE CHECK VALVE BUTTERFLY CONTROL VALVE INDICATING "OPEN" OR "CLOSED" POSITION, TEST INSPECTION VALVE, FLOW SWITCH AND PRESSURE GAUGES.
- AND PRESSURE GAUGES.

  10. PROVIDE RISER ROOM IDENTIFICATION SIGNAGE OUTSIDE THE FIRE RISER ROOM.

  COORDINATE EXACT SIGN LANGUAGE WITH AHJ.

  11. WHERE FEASIBLE INSTALL PIPES HIGH AS POSSIBLE TO AVOID CONFLICT WITH OTHER
- DISCIPLINES, AND TO REDUCE THE AMOUNT OF REQUIRED ROD STIFFENER SUPPORTS.

  12. INSTALL SYSTEM DRAINS AT LOW POCKET AREAS CONTAINING FIVE GALLONS OF WATER OR MORE, PROVIDE WITH ISOLATION VALVE AND THREADED HOSE CONNECTION.
- 13. FOLLOW STRUCTURAL DETAILS WHEN PENETRATING OR PASSING THROUGH STRUCTURAL ELEMENTS. ALTERNATE DESIGNS WILL NEED TO BE APPROVED THROUGH THE STRUCTURAL ENGINEER.
- 14. PROVIDE INTERMEDIATE TEMPERATURE SPRINKLER HEADS WHERE REQUIRED BY NFPA
  13 OR FM UNLESS OTHERWISE NOTED.
  15. FINAL HEAD LOCATION, TYPE AND FINISH SHALL BE REVIEWED AND APPROVED BY THE ARCHITECT.
- 16. EXACT LOCATION OF THE ALL PANELS SHALL BE VERIFIED ON SITE AND COORDINATED WITH THE ELECTRICAL CONTRACTOR.17. PAINT ALL EXPOSSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY THE ARCHITECT.
- ARCHITECT.

  18. THE OWNER MUST BE NOTIFIED PRIOR TO EACH AND EVERY DRAINING OR RECHARGING OF THE SPRINKLER SYSTEM.

  19. THE CONTRACTOR SHALL PREPARE A COORDINATED SET OF SHOP DRAWINGS AND
- SHALL OBTAIN APPROVAL FROM THE AUTHORITIES HAVING JUSISDICTION AND THE LOCAL FIRE DEPARTMENT PRIOR TO ANY INSTALLATION.

  20. WHERE PIPE PASSES THROUGH HOLES IN PLATFORMS, FOUNDATIONS, WALL, OR FLOORS, THE HOLES SHALL BE SIZED SUCH THAT DIAMETER OF THE HOLE IS NOMINALLY 2 INCHES LARGER THAN THE PIPE FOR 1" NOMINAL TO 3 ½" NOMINAL AND 4"
- LARGER THAN THE PIPE FOR PIPE 4" AND LARGER.

  21. DRAWING SHOW LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE
  DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS.
  DRAWINGS SHOW THE GENERAL ARRANGMENT OF DUCTWORK, PIPING, EQUIPMENT,
  ETC. AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE
  INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING
- CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.

  22. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL,
  SUBMITTALS AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE REVIEW
- SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS. INCLUDING THOSE OF OTHER TRADES.

  23. A FLOW TEST SHALL BE PERFORMED ON THE FIRE PROTECTION MAIN SERVING THE BUILDING TO ENSURE ADEQUATE FLOW AND PRESSURE TO THE FIRE PROTECTION.
- 23. A FLOW TEST SHALL BE PERFORMED ON THE FIRE PROTECTION MAIN SERVING THE BUILDING TO ENSURE ADEQUATE FLOW AND PRESSURE TO THE FIRE PROTECTION SYSTEM. CURRENT DESIGN ASSUMES ADEQUATE FLOW AND PRESSURE FOR REVISED FLOOR PLANS.

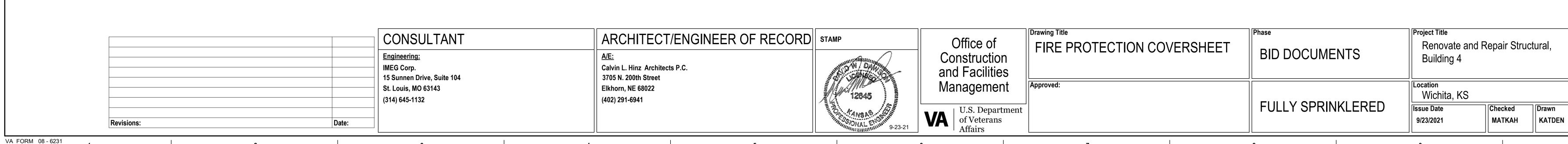
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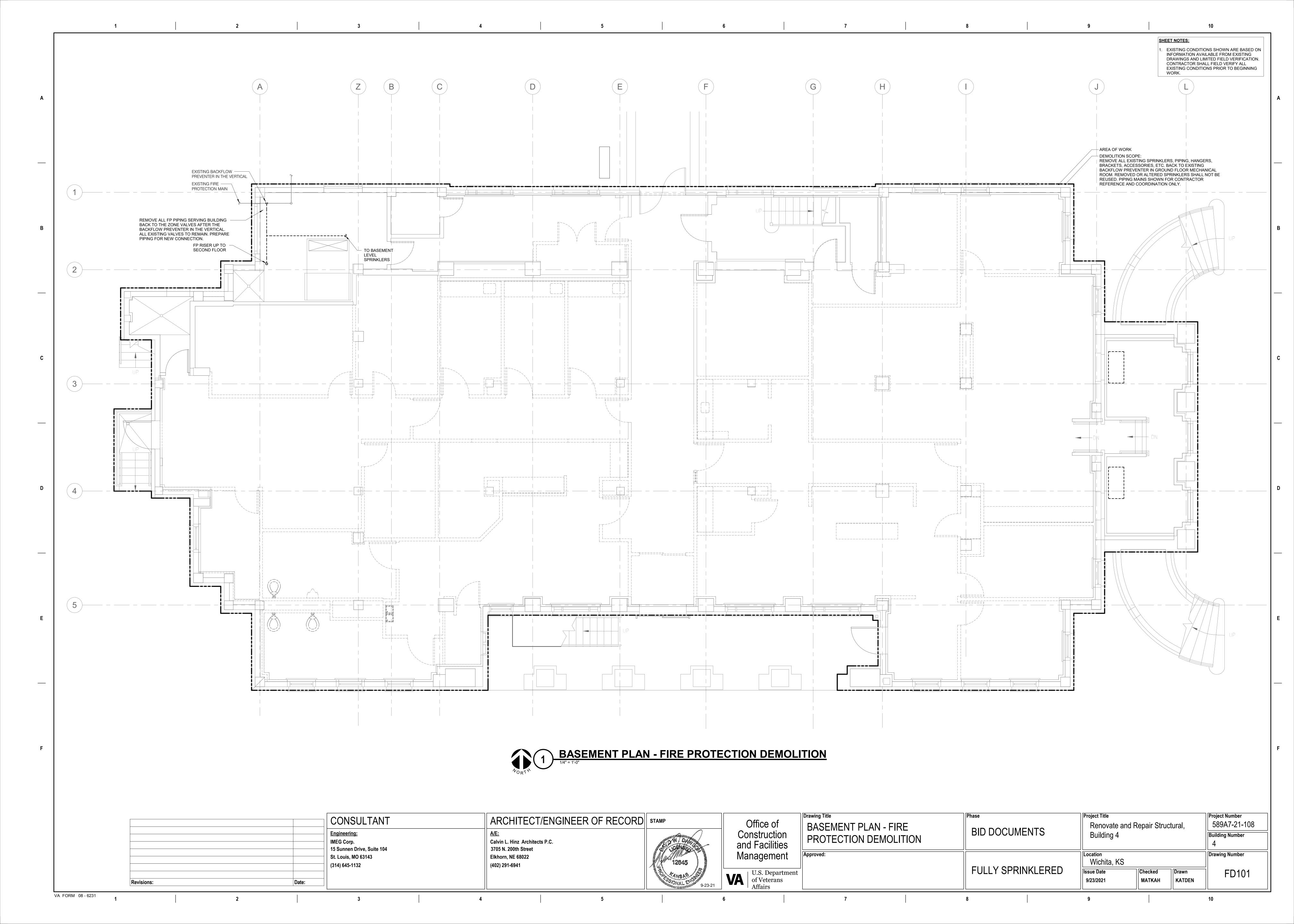
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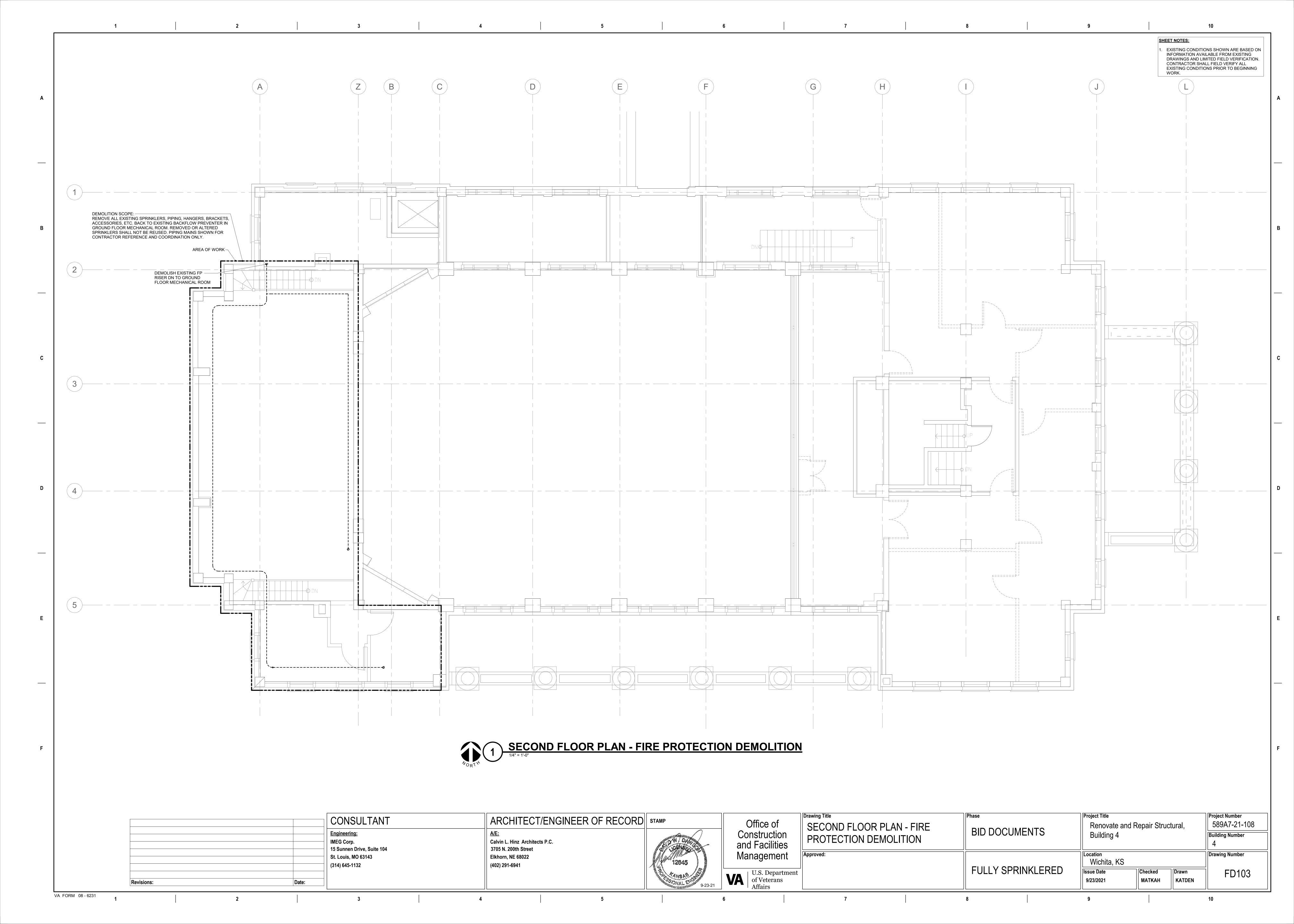
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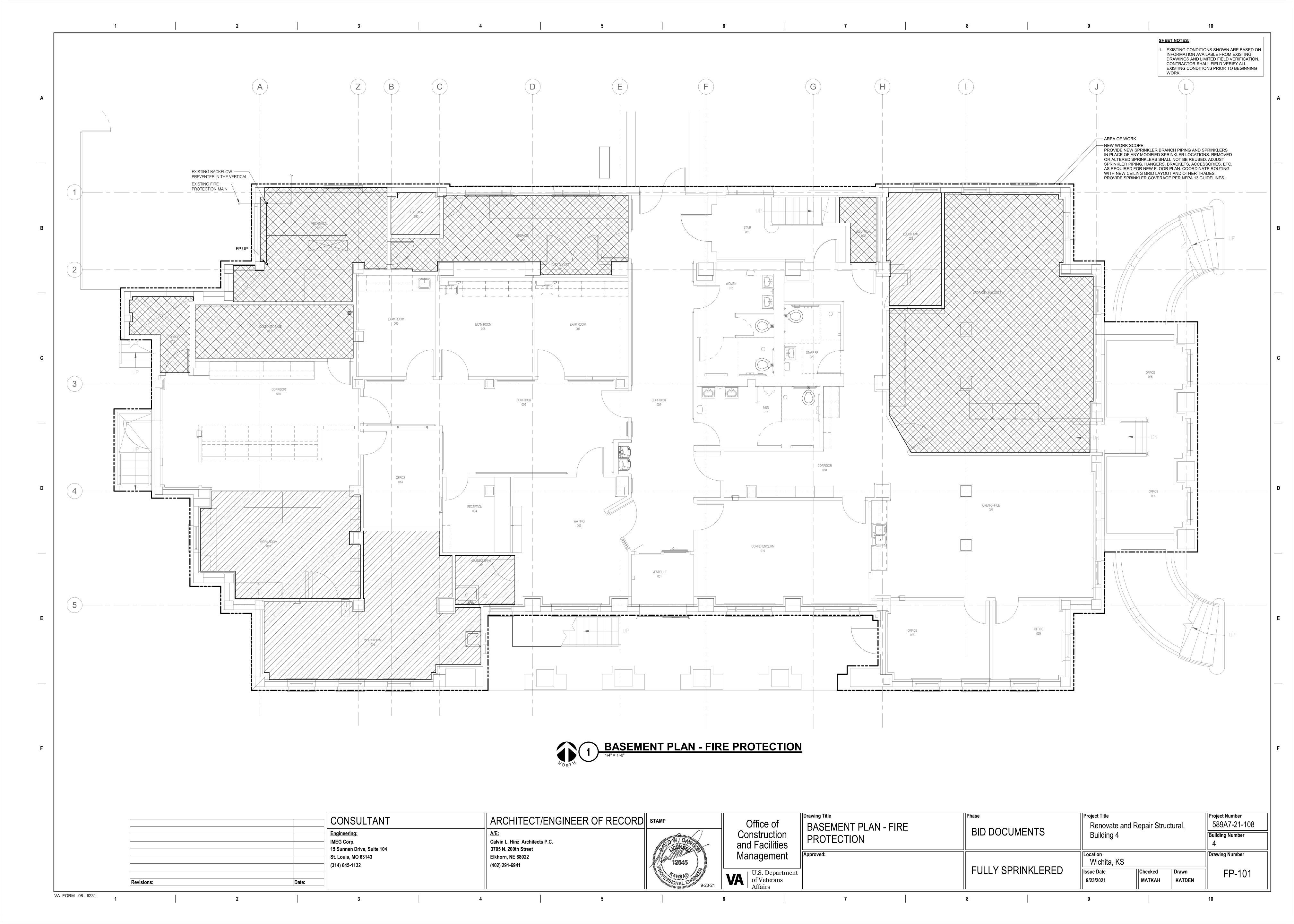
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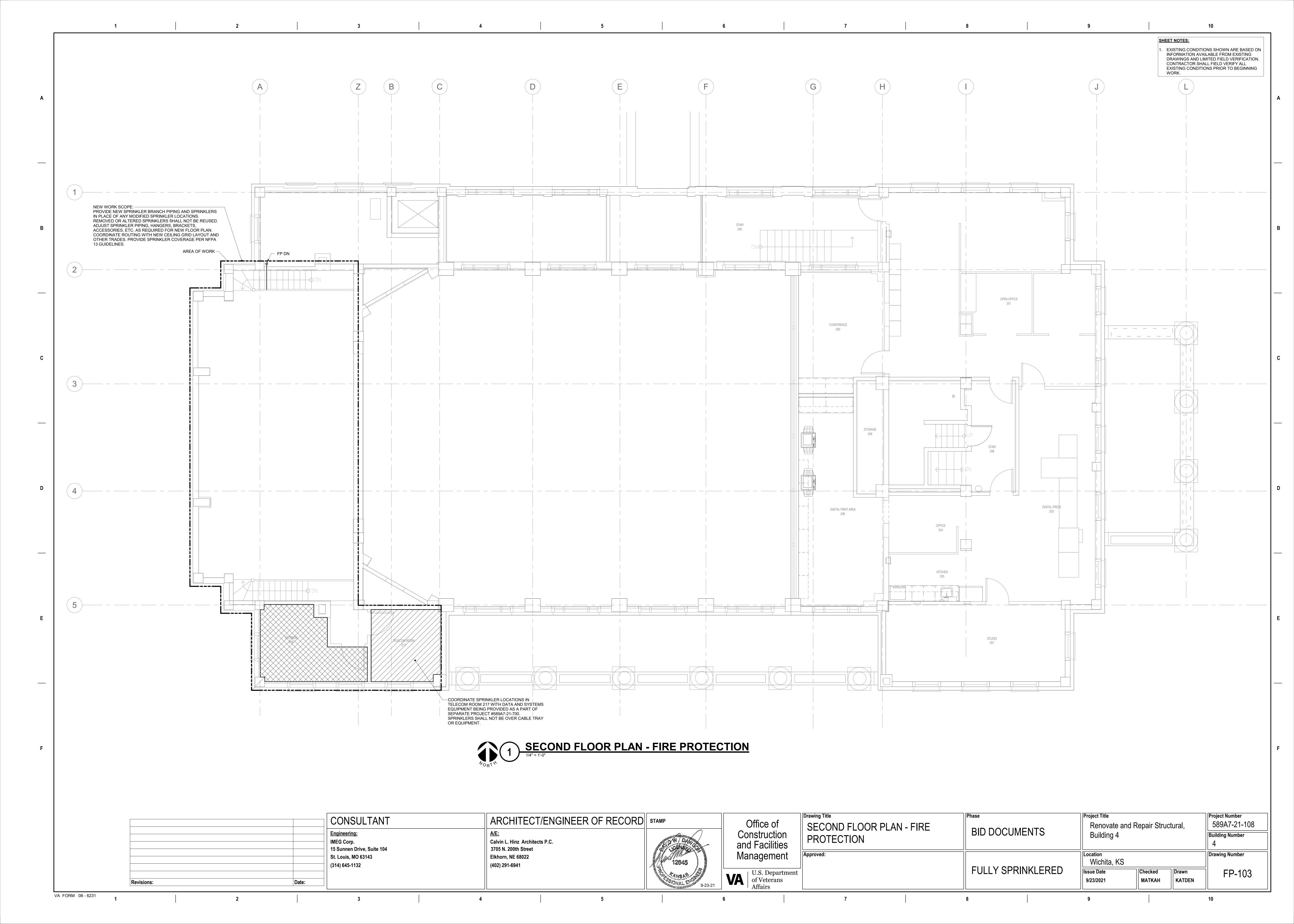
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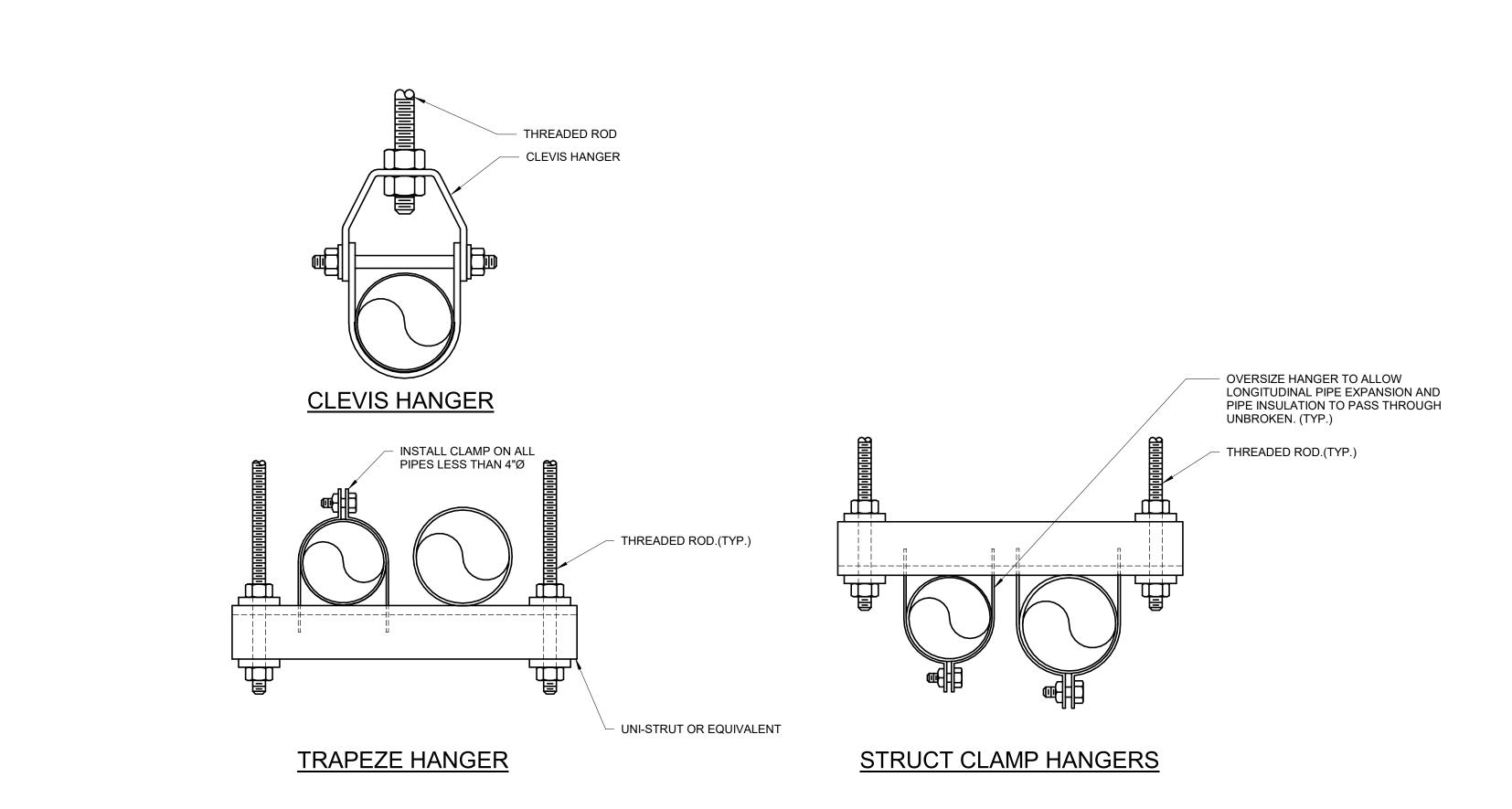












PIPE SUPPORT DETAIL
NO SCALE 1. REFER TO SPECIFICATION SECTION 21 05 29.

Drawing Title Project Title Project Number CONSULTANT ARCHITECT/ENGINEER OF RECORD | STAMP Office of 589A7-21-108 Renovate and Repair Structural, FIRE PROTECTION DETAILS **BID DOCUMENTS** Construction and Facilities Engineering: <u>A/E:</u> Building 4 Building Number Calvin L. Hinz Architects P.C. IMEG Corp. 15 Sunnen Drive, Suite 104 3705 N. 200th Street Location Wichita, KS Drawing Number Management St. Louis, MO 63143 Elkhorn, NE 68022 (314) 645-1132 (402) 291-6941 FULLY SPRINKLERED Issue Date Checked Drawn VA U.S. Department of Veterans Affairs FP-301 KATDEN 9/23/2021 MATKAH Date: **Revisions:** 

VA FORM 08 - 6231

PROVIDE TWO ELL'S FOR ADJUSTING HEAD TO CENTER OF CEILING TILE

LAY IN CEILING

1 SPRINKLER HEAD MOUNTING DETAIL
NO SCALE

- CEILING PLATE

AUTOMATIC SPRINKLER HEAD. REFER TO SPRINKLER HEAD SCHEDULE FOR HEAD TYPE.

SPRINKLER MAIN