

# ADDENDUM



## SECTION 00 91 11.02 - ADDENDUM 002

**OWNER**

**INDIANA UNIVERSITY**

**PROJECT**

**20250167 - BL107 BIOLOGY BUILDING -  
REPLACE PRVS**

**A/E PROJECT 5-6671**

**PURPOSE**

**THIS ADDENDUM SHALL FORM PART OF THE  
BIDDING DOCUMENTS. CHANGES, ADDITIONS,  
CLARIFICATION OR DELETIONS HEREIN  
SUPERSEDE THE DRAWINGS AND  
SPECIFICATIONS. BIDDERS SHALL INCLUDE  
ON THE PROPOSAL FORM  
ACKNOWLEDGEMENT OF THE RECEIPT OF  
THIS ADDENDUM.**

**ATTACHMENTS**

**GENERAL: 4/22 PRE-BID MEETING SIGN-IN  
SHEET**

**REISSUED SPECIFICATIONS: 23 22 13 STEAM  
AND CONDENSATE HEATING PIPING**

**REISSUED SHEETS: M2.01 GROUND FLOOR  
MECHANICAL PLANS**

**ARCHITECT-ENGINEER**

**GMB  
317.641.0674  
WWW.GMB.COM**

# ADDENDUM



## **GENERAL**

### **1.1 BIDDER QUESTIONS & ANSWERS (NEW)**

Q1: The spec book calls for the medium pressure steam to be Schedule 80 pipe. I just want to make sure that wasn't a typing error because this is normally ran in schedule 40.

A1: There is a typo. It should be schedule 40. The Specification Section is updated and reissued.

Q2: The relief vent is to run under the loading dock beams, and they have netting out there that looks like it was professionally installed for bird/rodent prevention. Will that be removed during the project so we can install hangers from the beams? If so, who will be responsible for the removal/replacement of the netting?

A2: The contractor will be responsible for temporary removal, salvage, and re-installation of bird netting. Drawing is updated and reissued.

Q3: I sent the specs for the Metraflex expansion joints to Ross Fazekas at FACO because they used to carry Metraflex. It sounds like he has already contacted Oleg to so if we can substitute with Flex-Hose. Has that substitution been approved?

A3: Ross Fazekas at FACO was provided with all requested information. No substitution information has been provided to GMB or approved.

Q4: Please confirm that there is no asbestos on the tanks

A4: The two large tanks have already been abated and should be clean metal on the tanks with no insulation.

### **1.2 PRE-BID MEETING SIGN IN SHEET - 4/22 (NEW)**

## **SPECIFICATION CLARIFICATIONS / REVISIONS**

### **2.1 SECTION 23 22 13 STEAM AND CONDENSATE HEATING PIPING (REISSUED)**

A. Refer to Paragraph 3.2.A for change

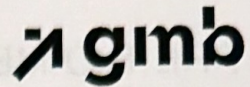
## **SHEET CLARIFICATIONS / REVISIONS**

### **3.1 SHEET M2.01 - GROUND FLOOR MECHANICAL PLANS (REISSUED)**

A. Key note 18 was added.

**END OF SECTION**

# PRE-BID MEETING AGENDA



The abandoned hot water storage tanks are to be removed in Mechanical Room 024. Alternate(s).

## Alternate No. 1

Replacement of existing steam condensate pump in pit in Mechanical Room 024. Reference specification section 01 23 00 and drawings for additional information

There is a small amount of GC work associated with this project which can be seen in the documents.

## H. Steam Shutdowns

Steam Shutdowns shall occur between June 1, 2026 and September 30, 2026.

Steam shutdowns shall occur between Thursday and Sunday and must be coordinated with the Owner at least three weeks prior to the anticipated shutdown date(s).

## I. Questions and Substitutions

All questions and requests must be received in writing. Email GMB Ecosystem of Teams by Friday, April 24, 2026, to be included in Addendum.

- a. [sarahb@gmb.com](mailto:sarahb@gmb.com)
- b. [olego@gmb.com](mailto:olego@gmb.com)

## J. Additional Site Visits

Contact Matt Harms ([harmsm@iu.edu](mailto:harmsm@iu.edu)) to schedule additional visits.

Wednesday, April 22<sup>nd</sup> Pre-Bid Walk Through Sign-In

Name	Company	Email	Telephone
Bobby Hensley	Sexson	bhensley@sexsonmechanical.com	317-748-4668
Brad Selvia	Sexson	bselvia@sexsonmechanical.com	317-809-4549

## SECTION 23 22 13 - STEAM AND CONDENSATE HEATING PIPING

### ADDENDUM 002

#### **PART 1 GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Pipe and pipe fittings.
- B. Pipe hangers and supports.
- C. Steam piping system.
- D. Steam condensate piping system.

##### **1.2 RELATED REQUIREMENTS**

- A. Section 23 05 23 - General-Duty Valves for HVAC Piping.
- B. Section 23 05 53 - Identification for HVAC Piping and Equipment.
- C. Section 23 07 19 - HVAC Piping Insulation.
- D. Section 23 22 14 - Steam and Condensate Heating Specialties.

##### **1.3 REFERENCE STANDARDS**

- A. ASME B16.3 - Malleable Iron Threaded Fittings: Classes 150 and 300.
- B. ASME B31.1 - Power Piping.
- C. ASME B31.9 - Building Services Piping.
- D. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
- E. ASTM A234/A234M - Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service.
- F. AWS D1.1/D1.1M - Structural Welding Code - Steel.
- G. MSS SP-58 - Pipe Hangers and Supports - Materials, Design, Manufacture, Selection, Application, and Installation.

##### **1.4 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on pipe materials, pipe fittings, valves and accessories. Provide manufacturers catalogue information. Indicate valve data and ratings.

##### **1.5 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.

##### **1.6 DELIVERY, STORAGE, AND HANDLING**

- A. Accept valves on site in shipping containers with labeling in place. Inspect for damage.
- B. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.
- C. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the work, and isolating parts of completed system.

#### **PART 2 PRODUCTS**

##### **2.1 REGULATORY REQUIREMENTS**

- A. Comply with ASME B31.9 and ASME B31.1 code for installation of piping system.
- B. Welding Materials and Procedures: Comply with ASME BPVC-IX and applicable state labor regulations.

## 2.2 MEDIUM PRESSURE STEAM PIPING (40 PSIG MAXIMUM)

- A. Steel Pipe: ASTM A53/A53M, Schedule 8040, black.
  - 1. Fittings: ASME B16.3 malleable iron Class 150, or ASTM A234/A234M wrought steel welding type.
  - 2. Joints: Threaded, or AWS D1.1/D1.1M welded.

## 2.3 LOW PRESSURE STEAM PIPING (15 PSIG MAXIMUM)

- A. Steel Pipe: ASTM A53/A53M, Schedule 40, black.
  - 1. Fittings: ASME B16.3 malleable iron Class 150, or ASTM A234/A234M wrought steel.
  - 2. Joints: Threaded, or AWS D1.1/D1.1M welded.
- B. Steel Pipe Sizes 12 Inch and Over: ASTM A53/A53M, 3/8 inch wall, black.
  - 1. Fittings: ASTM A234/A234M wrought steel.
  - 2. Joints: Welded in accordance with AWS D1.1/D1.1M.

## 2.4 MEDIUM PRESSURE STEAM CONDENSATE PIPING

- A. Steel Pipe: ASTM A53/A53M, Schedule 80, black.
  - 1. Fittings: ASME B16.3 malleable iron Class 150 or ASTM A234/A234M wrought steel.
  - 2. Joints: Threaded, or AWS D1.1/D1.1M welded.

## 2.5 LOW PRESSURE STEAM CONDENSATE PIPING

- A. Steel Pipe: ASTM A53/A53M, Schedule 80, black.
  - 1. Fittings: ASME B16.3 malleable iron Class 150, or ASTM A234/A234M wrought steel.
  - 2. Joints: Threaded, or AWS D1.1/D1.1M welded.

## 2.6 PIPE HANGERS AND SUPPORTS

- A. Provide hangers and supports that comply with MSS SP-58.
  - 1. If type of hanger or support for a particular situation is not indicated, select appropriate type using MSS SP-58 recommendations.
- B. Hangers for Pipe Sizes 1/2 to 1-1/2 Inch: Malleable iron, adjustable swivel, split ring.
- C. Hangers for Pipe Sizes 2 to 4 Inches: Carbon steel, adjustable, clevis.
- D. Hangers for Pipe Sizes 6 Inches and Over: Adjustable steel yoke, cast iron roll, double hanger.
- E. Multiple or Trapeze Hangers for Pipe Sizes to 4 inches: Steel channels with welded spacers and hanger rods.
- F. Multiple or Trapeze Hangers for Pipe Sizes 6 Inches and Over: Steel channels with welded spacers and hanger rods; cast iron roll and stand.
- G. Wall Support for Pipe Sizes to 3 Inches: Cast iron hook.
- H. Wall Support for Pipe Sizes 4 to 5 Inches: Welded steel bracket and wrought steel clamp.
- I. Wall Support for Pipe Sizes 6 Inches and Over: Welded steel bracket and wrought steel clamp; adjustable steel yoke and cast iron roll.
- J. Vertical Support: Steel riser clamp.
- K. Floor Support for Pipe Sizes to 4 Inches: Cast iron adjustable pipe saddle, lock nut, nipple, floor flange, and concrete pier or steel support.
- L. Floor Support for Pipe Sizes 6 Inches and Over: Adjustable cast iron roll and stand, steel screws, and concrete pier or steel support.
- M. Hanger Rods: Mild steel threaded both ends, threaded one end, or continuous threaded.
- N. Inserts: Malleable iron case of galvanized steel shell and expander plug for threaded connection with lateral adjustment, top slot for reinforcing rods, lugs for attaching to forms; size inserts to suit threaded hanger rods.

## 2.7 UNIONS, FLANGES

- A. Unions for Pipe 2 Inches and Under:
  - 1. Ferrous Piping: 150 psig malleable iron, threaded.
- B. Flanges for Pipe Over 2 Inches:
  - 1. Ferrous Piping: 150 psig forged steel, slip-on.
  - 2. Gaskets: 1/16 inch thick preformed non-asbestos graphite fiber.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe.
- B. Remove scale and dirt on inside and outside before assembly.
- C. Prepare piping connections to equipment with flanges or unions.
- D. Keep open ends of pipe free from scale and dirt. Whenever work is suspended during construction protect open ends with temporary plugs or caps.
- E. After completion, fill, clean, and treat systems. See Section 23 25 00.

### 3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Route piping in orderly manner, plumb and parallel to building structure, and maintain gradient.
- C. Install piping to conserve building space and avoid interference with use of space.
- D. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
- E. Pipe Hangers and Supports:
  - 1. Install in accordance with ASME B31.9.
  - 2. Support horizontal piping as indicated.
  - 3. Place hangers within 12 inches of each horizontal elbow.
  - 4. Use hangers with 1-1/2 inch minimum vertical adjustment. Design hangers for pipe movement without disengagement of supported pipe.
  - 5. Support vertical piping at every other floor. Support riser piping independently of connected horizontal piping.
  - 6. Where several pipes can be installed in parallel and at same elevation, provide multiple or trapeze hangers.
- F. Slope steam piping one inch in 40 feet in direction of flow. Use eccentric reducers to maintain bottom of pipe level.
- G. Slope steam condensate piping one inch in 40 feet. Provide drip trap assembly at low points and before control valves. Run condensate lines from trap to nearest condensate receiver. Provide loop vents over trapped sections.
- H. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welds.

### 3.3 SCHEDULES

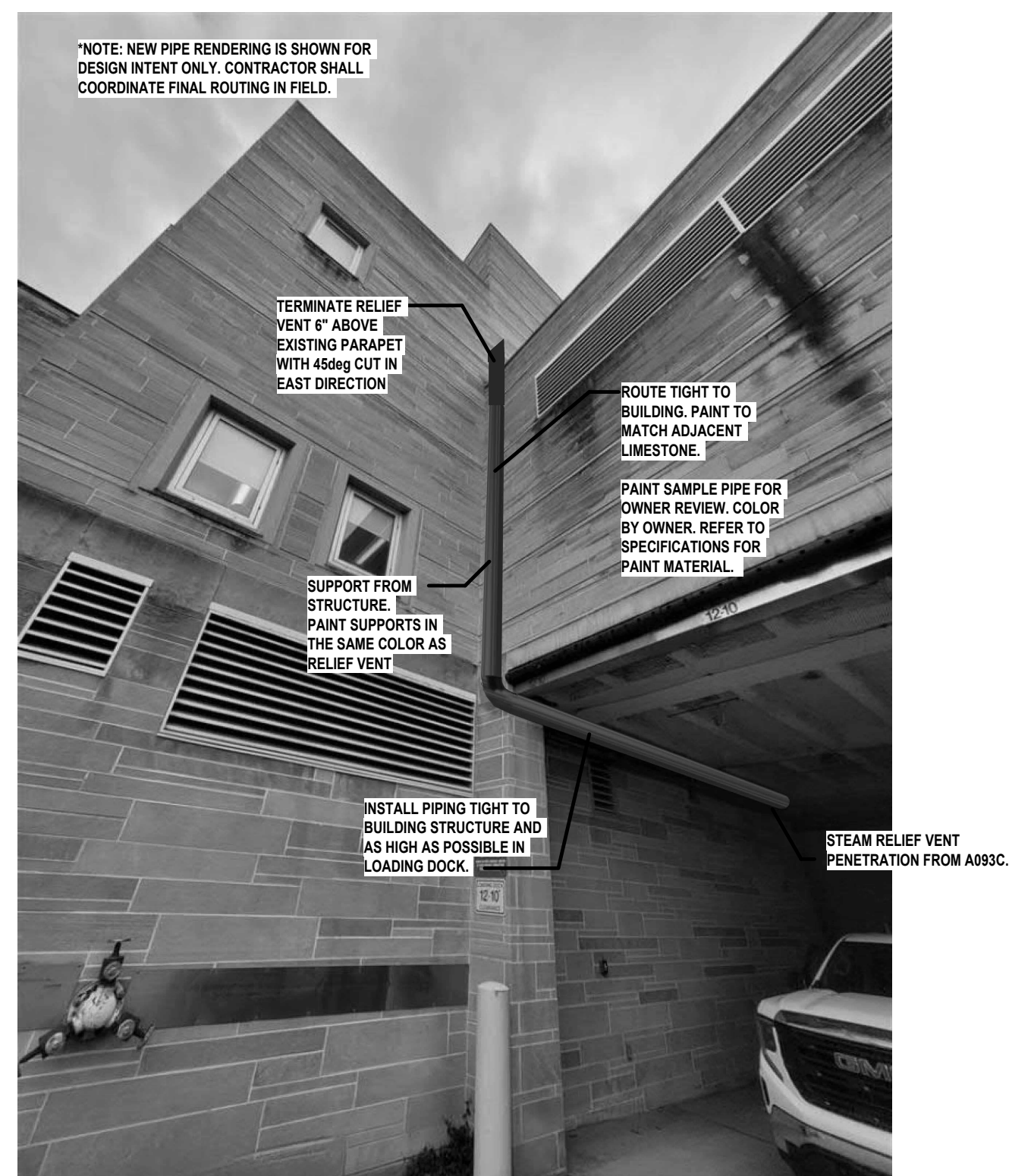
- A. Hanger Spacing for Steel Steam Piping.
  - 1. 1-1/2 inches: Maximum span, 12 feet; minimum rod size, 3/8 inch.
  - 2. 2 inches: Maximum span, 13 feet; minimum rod size, 3/8 inch.
  - 3. 2-1/2 inches: Maximum span, 14 feet; minimum rod size, 3/8 inch.
  - 4. 3 inches: Maximum span, 15 feet; minimum rod size, 3/8 inch.
  - 5. 4 inches: Maximum span, 17 feet; minimum rod size, 1/2 inch.
  - 6. 6 inches: Maximum span, 21 feet; minimum rod size, 1/2 inch.
  - 7. 8 inches: Maximum span, 24 feet; minimum rod size, 5/8 inch.
  - 8. 10 inches: Maximum span, 26 feet; minimum rod size, 3/4 inch.

9. 12 inches: Maximum span, 30 feet; minimum rod size, 7/8 inch.
  10. 14 inches: Maximum span, 32 feet; minimum rod size, 1 inch.
- B. Hanger Spacing for Steel Steam Condensate Piping.
1. 1/2 inch, 3/4 inch, and 1 inch: Maximum span, 7 feet; minimum rod size, 1/4 inch.
  2. 1-1/4 inches: Maximum span, 8 feet; minimum rod size, 3/8 inch.
  3. 1-1/2 inches: Maximum span, 9 feet; minimum rod size, 3/8 inch.
  4. 2 inches: Maximum span, 10 feet; minimum rod size, 3/8 inch.
  5. 2-1/2 inches: Maximum span, 11 feet; minimum rod size, 3/8 inch.

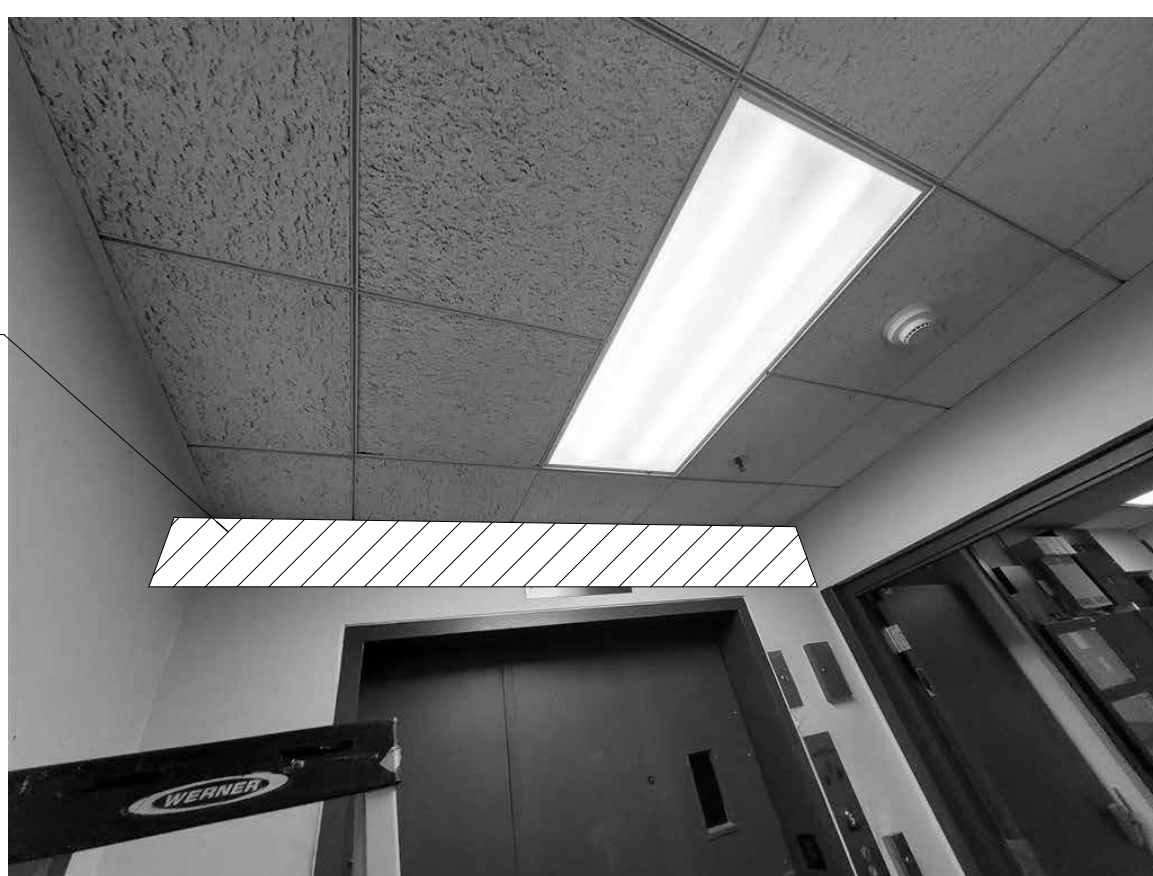
**END OF SECTION**

MECHANICAL KEYNOTE LEGEND	
01	CONNECT NEW 8" MPS TO EXISTING 8" STEAM MAIN.
08	ROUTE STEAM RELIEF AS INDICATED. INSTALL WITH APPROPRIATE SLOPE. COORDINATE WITH EXISTING CONDITIONS. PAINT ALL EXPOSED RELIEF PIPING (INTERIOR & EXTERIOR) COLOR AS SELECTED BY OWNER. REFER TO 3/MEZ.01 FOR EXTERIOR TERMINATION INFORMATION.
09	CONNECT NEW 6" LPS AND 8" MPS TO EXISTING MAIN PIPING.
10	5" MPS VALVED CONNECTION FOR FUTURE.
14	RELOCATE/REINSTALL EXISTING JUNCTION BOX AND ASSOCIATED CONDUIT AS REQUIRED TO ACCOMMODATE RELIEF VENT ROUTING.
15	REINSTALL CEILING ASSEMBLY. PROVIDE NEW CEILING TILES IF REQUIRED.
17	RELOCATE EXISTING CONDUIT (AS REQUIRED) FOR NEW RELIEF PIPE ROUTING.
18	THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY PARTIAL REMOVAL AND SALVAGE OF EXISTING BIND NETTING TO ALLOW NEW HANGERS FOR RELIEF VENT INSTALLATION. AFTER HANGERS INSTALLATION EXISTING FIREPROOFING SPRAY SHALL BE RE-APPLIED AND BIND NETTING SHALL BE RE-INSTALLED.

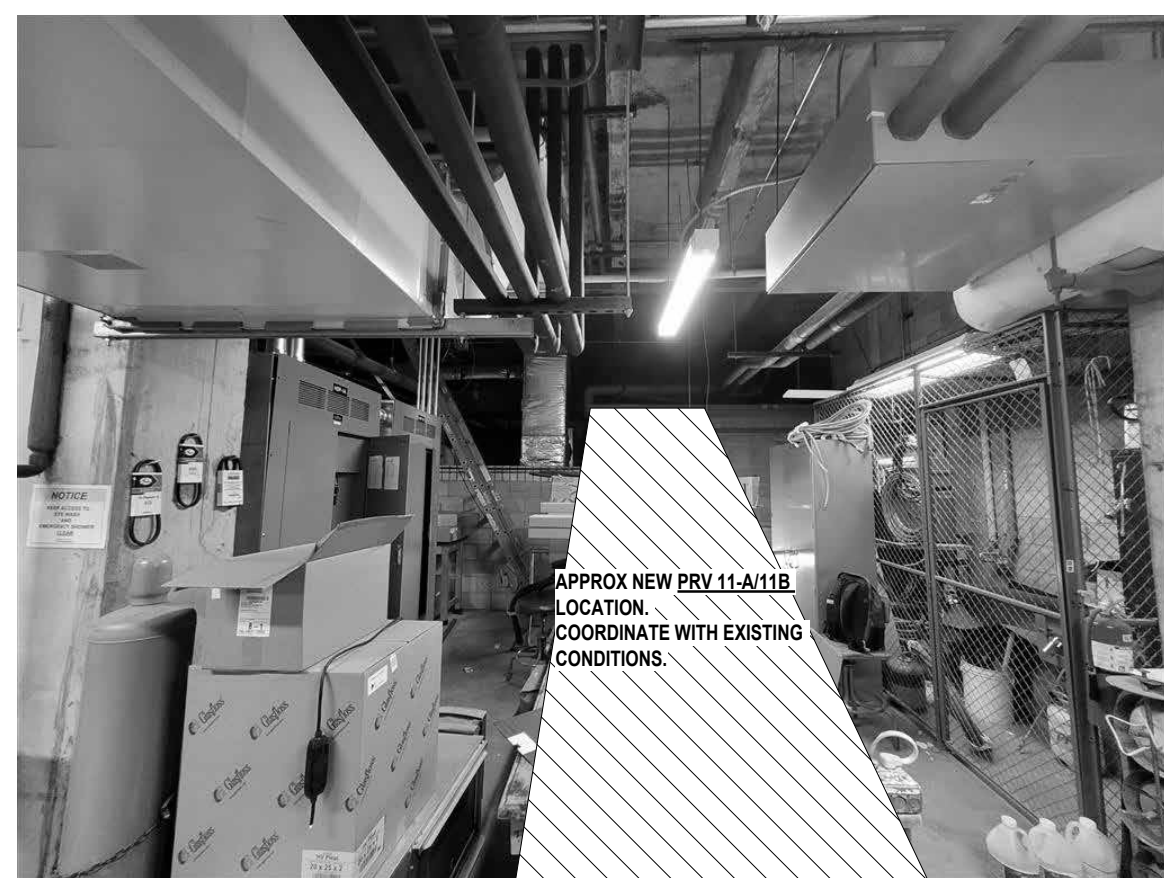
GENERAL NOTES	
1.	STEAM SHUTDOWNS SHALL OCCUR BETWEEN THURSDAY AND SUNDAY. COORDINATE ALL SHUTDOWNS WITH OWNER AT LEAST 3 WEEKS PRIOR TO ANTICIPATED SHUTDOWN DATE.
2.	INSTALL ALL PIPING WITH APPROPRIATE SLOPE.
3.	SHUT DOWN OF ANY SYSTEM MUST BE COORDINATED WITH IJ AND MUST BE MINIMAL.



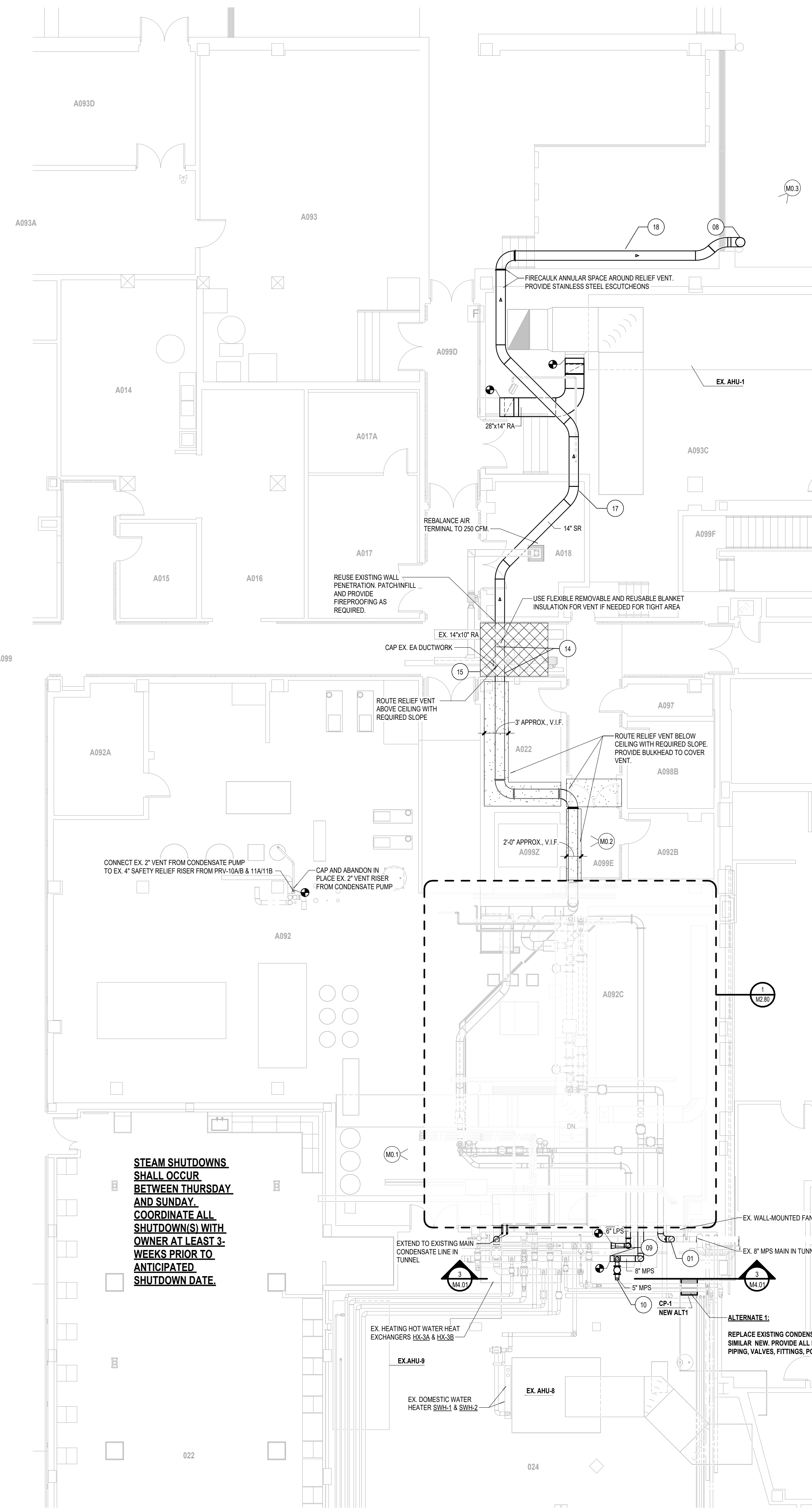
**3** MECHANICAL PHOTO M0.3  
 MZ.01 NOT TO SCALE



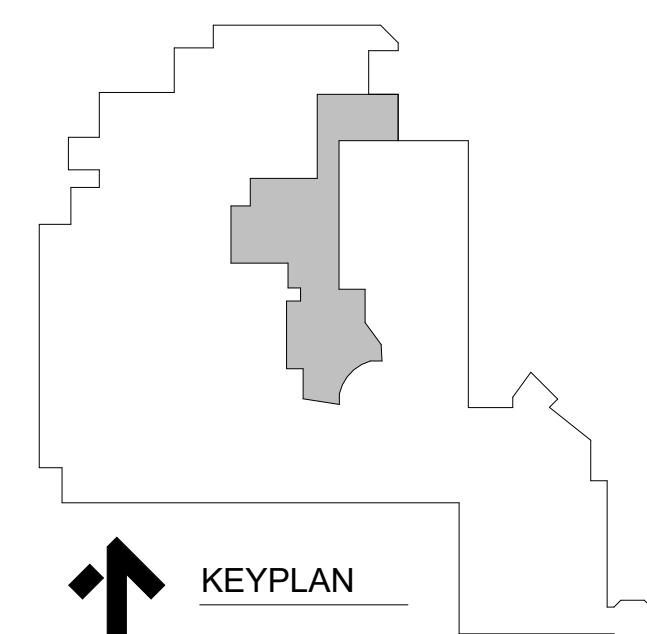
**4** MECHANICAL PHOTO M0.2  
 MZ.01 NOT TO SCALE



**1** MECHANICAL PHOTO M0.1  
 MZ.01 NOT TO SCALE



**↑** GROUND FLOOR MECHANICAL PLAN  
 1/8" = 1'-0"



ISSUANCES	
04.06.2026	BIDS & CONSTRUCTION
04.16.2026	ADDENDUM 001
04.27.2026	ADDENDUM 002

DRAWN	GSH
REVIEWED	OSO

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GROUND FLOOR MECHANICAL PLANS

**M2.01**