ADDENDUM

SECTION 00 91 11.01 - ADDENDUM 001

OWNER	**INDIANA UNIVERSITY**
PROJECT	**20251272 BL601 MEMORIAL STADIUM - NEW HVAC AND HEATING SYSTEM** **A/E PROJECT 100038**
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: PRE-BID MEETING AGENDA AND SIGN-IN SHEETS** **REISSUED SPECIFICATIONS: 23 82 16, 23 21 14** **REISSUED SHEETS: MP9.01**
ARCHITECT-ENGINEER	**GMB** **317.641.0674** **WWW.GMB.COM**

ADDENDUM

GENERAL

1.1 PRE-BID MEETING AGENDA(NEW)

1.2 PRE-BID MEETING SIGN-IN SHEETS (NEW)

A. 10:30AM & 1:00PM Meetings

SPECIFICATION CLARIFICATIONS / REVISIONS

2.1 SECTION 23 82 16 AIR COILS (REISSUED)

A. Heatcraft added as an acceptable Manufacturer.

2.2 SECTION 23 21 14 HYDRONIC SPECIALTIES (REISSUED)

A. Bell & Gossett added as an acceptable Manufacturer for Air/Dirt Seperator.

B. American Wheatley added as an acceptable Manufacturer for Air/Dirt Seperator.

C. American Wheatley added as an acceptable Manufacturer for Expansion Tank.

D. American Wheatley added as an acceptable Manufacturer for Balancing Valve.

SHEET CLARIFICATIONS / REVISIONS

3.1 SHEET MP9.01 - MECHANICAL SCHEDULES (REISSUED)

A. Updated reheat and preheat coil performance parameters.

END OF SECTION

PRE-BID MEETING AGENDA

Owner: Indiana University
Project Name: 20251272 - BL601 Memorial Stadium - New HVAC and Heating System
Date/Time: February 10, 2026 at 10:30am or 1:00pm
GMB Project Number: 100038

A. Introductions

1. Sign-in
2. Owner
    a. IU Team Lead – Darby Simpson
    b. IU Mechanical – Teddy Lashley
    c. IU Electrical – Karl Parker
    d. IU CM – Matt Smethurst
3. A/E
    a. Oleg Osipchuk
    b. Logan Earlywine

B. Bidding Documents

Bidding Documents are available. Please contact Eastern Engineering Distribution Department, 9901 Allisonville Road, Fishers, Indiana 46038, Ph. 317-598-0661, www.iuplanroom.com for deposit and purchase information.

C. Bid Date

Bids will be received until 2:00 P.M. (local time) on February 26, 2026.

Via electronic bid submission on www.iuplanroom.com. Bidders must be registered on the plan room, and signed in to the plan room, in order to submit a bid.

D. Schedule

Mobilization is **April 20, 2026** and must be substantially complete no later than **August 14, 2026**.

Home football games commence on Saturday, September 5, 2026.

E. Preliminary Construction Schedule

Per Specification 00 43 13, a preliminary construction schedule is to be provided with your bid. This schedule is intended to demonstrate the Bidder's understanding of project sequencing, major work activities, and anticipated overall duration.

The preliminary construction schedule will not be considered the baseline schedule. The successful Bidder will be required to submit a detailed baseline schedule after Notice to Proceed, in accordance with the General Conditions.

F. Project Access

There is a gated drive at the southeast corner of the stadium that leads down to the project area.

Review contractor access plans for approximate location of dumpster. Exact location needs to be coordinated with IU CM and Athletics.

G. Project Scope

Removal existing gas-fired unit GF, three exhaust air fans and all associated piping and controls. Providing new AHU-2 and Hot Water heating system (including gas-fired wall-hung condensing boiler, system in-line pumps, air separator, expansion tank, water treatment system and all other required components) that serves the visitors' locker room. There is minor electrical work, roof work, and the addition of floor drains and associated sanitary system.

There is a mandatory Alternate for the manufacturer of the AHU, and a submittal(s) will be required for your bid.

Alternate No. 2 – Replace all grilles and diffusers connected to the new air-handling unit and new exhaust air fan

Alternate No. 3 – All ductwork connected to the new air-handling unit and new exhaust air fan is to be internally cleaned.

Alternate No. 4 – Disable electric reheat coil at Fan Coil Unit No. 1, and provide duct-mounted hot water coil with all associated piping and controls.

Contractor will need to coordinate schedule and scope with:

1. IU EMS: Controls will be provided and installed by IU EMS with exception of the dampers which are to be provided by Contractor.
2. SSI: Removal of ductwork/duct insulation/roof cap, clean pigeon debris and install bird netting/spikes

H. Questions and Substitutions

All questions and requests must be received in writing. Email GMB Ecosystem of Teams by Monday, February 23, 2026, to be included in Addendum.

a. sarahb@gmb.com
b. olego@gmb.com
c. logane@gmb.com

I. Additional Site Visits

Contact Matt Smethurst (msmethur@iu.edu) to schedule additional visits.

20251272 - BL601 Memorial Stadium - New HVAC and Heating System

Pre-Bid Meeting – February 10, 2026 10:30AM

NAME	COMPANY	TELEPHONE	EMAIL
Teddy Lashley	IU CPF	812-679-8131	tedlashl@iu.edu
MATT SMETHURST	IU	812-679-9075	msmethur@IU.EDU
Cody Dobner	HVIC	812-865-0024	CodyDobner@Hiltonventilation.com
Tyler Doades	CSD	812-339-9114	tdoades@commercialservice.com
Drew TODD	HFI	812-322-0366	dtodd@harrell-fish.com
mark Hays	Steve's Roofing	812-824-3006	steves.srsm@gmail.com
Ben Ollestad	Poynter Sheet Metal	812-603-7537	ben.ollestad@poyntersheetmetal.com
DARBY SIMPSON	IU. CPF	812-856-5893	darbsimp@iu.edu
Davis Bolsteins	IU Athletics	240-676-6211	dbdsfei@iu.edu
Jesus Flores	IU Athletics	956-655-1239	jesuflor@iu.edu

20251272 - BL601 Memorial Stadium - New HVAC and Heating System

Pre-Bid Meeting – February 10, 2026 1:00PM

NAME	COMPANY	TELEPHONE	EMAIL
Teddy Lashley	IU CPF	812-679-8131	tedlashl@iu.edu
MATT SMETHURST	IU	812 679-9075	MSMethur@IU.EDU
Steve Webb	Electric Plus	812-327-4267	Swebb@electricplus.com
DAVID DEPIERRO	HEFFLIN	812 825 1600	ddepierro@heffl.com
Tyler Copeland	PKS CONSTRUCTION	317 626-0147	tyler@pks-construction.com
DAVE VANHART	SEXSON MECHANICAL	317.989-9176	DVANHART@SEXSONMECHANICAL.COM
DAVID KOSETIN	PKS CONSTRUCTION	317-294-8909	DAVID@PKS-CONSTRUCTION.COM
DARBY SIMPSON	IU CPF	812-856-5897	darbsimp@iu.edu

SECTION 23 21 14 - HYDRONIC SPECIALTIES

(ADDENDUM 001)

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Expansion tanks.

B. Air vents.

C. Air separators.

D. Strainers.

E. Pressure-temperature test plugs.

F. Balancing valves.

G. Relief valves.

H. Pressure reducing valves.

1.2 RELATED REQUIREMENTS

A. Section 23 21 13 - Hydronic Piping.

1.3 REFERENCE STANDARDS

A. ASME BPVC-VIII-1 - Boiler and Pressure Vessel Code, Section VIII, Division 1: Rules for Construction of Pressure Vessels.

1.4 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements for submittal procedures.

B. Product Data: Provide product data for manufactured products and assemblies required for this project. Include component sizes, rough-in requirements, service sizes, and finishes. Include product description and model.

C. Manufacturer's qualification statement.

D. Project Record Documents: Record actual locations of flow controls.

E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 60 00 - Product Requirements for additional provisions.

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 EXPANSION TANKS

A. Manufacturers:
   1. American Wheatley, a company of Global Flow Products, LLC:
   2. Amtrol Inc.
   3. Armstrong Fluid Technology.
   4. Bell & Gossett, a brand of Xylem, Inc.
   5. Grundfos

B. Construction: Welded steel, tested and stamped in accordance with ASME BPVC-VIII-1; supplied with National Board Form U-1, adjustable flexible EPDM diaphragm or bladder seal with factory precharge, and steel support stand.

C. Accessories: Provide air-charging fitting, bulls eye sight glass, pressure gauge, and tank drain ball valve.

2.2 AIR VENTS

A. Manufacturers:
1. Amtrol Inc.
2. Apollo Valves.
3. Armstrong International, Inc.
4. Bell & Gossett, a brand of Xylem, Inc.
5. Nibco
6. WATTS

B. Manual Air Vent: Short vertical sections of 2-inch diameter pipe to form air chamber, with 1/8 inch brass needle valve at top of chamber.

C. Maximum Fluid Pressure: 150 psi.

D. Maximum Fluid Temperature: 250 degrees F.

2.3 AIR SEPARATORS

A. Coalescing Air/Dirt Separators:
1. Manufacturers:
   a. American Wheatley, a company of Global Flow Products, LLC:
   b. Bell & Gossett, a brand of Xylem, Inc.
   c. Spirotherm, Inc.
2. Tank: Fabricated steel tank; tested and stamped in accordance with ASME BPVC-VIII-1 for maximum fluid service subject to application requirements and manufacturer's standard maximum operating conditions.
3. Coalescing Medium: Provide stainless steel medium filling the entire vessel to suppress turbulence and provide air elimination efficiency of 100 percent free air, 100 percent entrained air, and 99.6 percent dissolved air at the installed location.
4. Air Vent: Integral float actuated air vent at top fitting of tank rated at 150 psi, threaded to top of separator.
5. End Connections: Class 150 flanged for 2-1/2 inch and larger otherwise threaded.
6. Blowdown Connection: Threaded.
7. Size: As indicated on drawings.
8. Maximum Fluid Service Pressure: 150 psi.
9. Maximum Fluid Service Temperature: 250 degrees F.

2.4 STRAINERS

A. Manufacturers:
1. Armstrong International, Inc.
2. Keckley Company
3. Nexus Valve, Inc.
4. The Metraflex Company.
5. WATTS.

B. Size 2 inch and Under:
1. Provide threaded or sweat brass or iron body for up to 125 psi working pressure, Y-pattern strainer with 1/32 inch stainless steel perforated final screen.
2. Body Material by Fluid Service:
   a. Cast Iron or Brass:
      1) Liquids: Up to 400 psi at 150 degrees F.

C. Size 5 inch and Larger:
   1. Provide flanged or grooved iron body for up to 175 psi working pressure, basket pattern with 1/8 inch stainless steel perforated screen.

D. Accessories: Provide blowdown vent/drain and hanging tag.

2.5 PUMP CONNECTORS

A. Manufacturers:
   1. Flex-Hose Co.
   2. The Metraflex Company.
   3. Twin City Hose

B. Flexible Connectors: Flanged, braided type with wetted components of stainless steel, sized to match piping.
   1. Maximum Operating Service: 150 psi at 240 degrees F.
   2. Accommodate the Following:
      a. Axial Deflection in Compression and Expansion: 1/8 inch.
      b. Lateral Movement: 3/4 inch.
      c. Angular Rotation: 15 degrees.
      d. Force developed by 1.5 times specified maximum allowable operating pressure.
   3. End Connections: Same as specified for pipe jointing.
   4. Provide necessary accessories including, but not limited to, swivel joints.

2.6 PRESSURE-TEMPERATURE TEST PLUGS

A. Manufacturers:
   1. Flow Design, Inc.
   2. Miljoco Corporation.
   3. Nexus Valve, Inc.
   4. Peterson Equipment Company Inc.
   5. Trerice, H. O. Co.
   6. Weiss Instruments, Inc.

B. Construction: Brass body designed to receive temperature or pressure probe with removable protective cap, and EPDM rated for minimum 200 degrees F.

C. Application: Use extended length plugs to clear insulated piping.

2.7 BALANCING VALVES

A. Manufacturers:
   1. American Wheatley, a company of Global Flow Products, LLC:
   2. Armstrong International, Inc.
   3. Bell & Gossett, a brand of Xylem, Inc.
   4. Flow Design, Inc.
   5. Griswold Controls
   6. Nexus Valve, Inc.
   7. NIBCO INC.
   8. Pro Hydronics Specialties
   9. WATTS

B. Size 2 inch and Smaller:
   1. Provide ball, globe, or plug style with flow balancing, shut-off capabilities, memory stops, and minimum of two metering ports and female sweat, NPT threaded, or soldered connections.
   2. Metal construction materials consist of bronze or brass.
   3. Non-metal construction materials consist of EPDM or engineered resin.
   4. Maximum Service Operation: 255 psi at 240 degrees F.

C. Size 2-1/2 inch and Larger:

1. Provide ball, globe, or plug style with flow balancing, shut-off capabilities, memory stops, and minimum of two metering ports and flanged or grooved connections.
2. Valve body construction materials consist of cast iron, carbon steel, or ductile iron.
3. Internal components construction materials consist of brass, bronze, EPDM, or engineered resin.
4. Maximum Service Operation: 175 psi at 250 degrees F.

2.8 RELIEF VALVES

A. Manufacturers:
1. Amtrol, Inc.
2. Apollo Valves.
3. Armstrong International, Inc.
4. Bell & Gossett, a brand of Xylem, Inc.
5. WATTS

B. Bronze body, Teflon seat, stainless steel stem and springs, automatic, direct pressure actuated, capacities ASME certified and labeled.

2.9 PRESSURE REDUCING VALVES

A. Manufacturers:
1. Amtrol, Inc.
2. Apollo Valves.
3. Armstrong International, Inc.
4. Bell & Gossett, a brand of Xylem, Inc.
5. WATTS.

B. Operation: Automatically feeds make-up water to the hydronic system whenever pressure in the system drops below the pressure setting of the valve. Refer to Section 23 21 13.

C. Materials of Construction:
1. Valve Body: Constructed of bronze or brass.
2. Internal Components: Construct of stainless steel or brass and engineered plastics or composition material.

D. Connections:
1. NPT threaded: 1/2 inch or 3/4inch.
2. Soldered: 1/2 inch.

E. Provide integral check valve and strainer.

F. Maximum Inlet Pressure: 400 psi.

G. Maximum Fluid Temperature: 180 degrees F.

H. Adjustable Pressure Range: From 10 to 45 psi, set to 25 psi.

2.10 AUTOMATIC FLOW LIMITING VALVES

A. Manufacturers:
1. Bell & Gossett; a Xylem brand.
2. Flow Design, Inc.
3. Griswold Controls LLC.
4. Nexus Valve, Inc.
5. NIBCO INC.
6. WATTS.

B. Size 1/2 inch to 14 inch:
1. Provide ball or globe style with flow balancing, flow measurement, and shut-off capabilities, memory stops, minimum of two metering ports and NPT threaded or soldered connections.
2. Metal construction materials consist of bronze, brass, or ductile iron.

3. Non-metal construction materials consist of Teflon, EPDM, or engineered resin.

PART 3 EXECUTION

3.1 INSTALLATION

A. Install specialties and equipment in accordance with manufacturer's instructions.

B. Install shutoff valves at each branch connection to supply mains and at supply connection to each piece of equipment and where indicated on drawings.

C. Install balancing valves at each branch connection to return main and where indicated on drawings.

D. Install balancing valves in the return pipe of each heating or cooling terminal and where indicated on drawings.

E. Install check valves at each pump discharge and elsewhere as required to control flow direction and where indicated on drawings.

F. Provide manual air vents at system high points and as indicated.

G. Provide air separator on suction side of system circulation pump and connect to expansion tank.

H. Provide valved drain and hose connection on strainer blowdown connection.

I. Support pump fittings with floor-mounted pipe and flange supports.

J. Provide relief valves on pressure tanks, low-pressure side of reducing valves, heat exchangers, and expansion tanks.

K. Select system relief valve capacity so that it is greater than make-up pressure reducing valve capacity. Select equipment relief valve capacity to exceed rating of connected equipment.

L. Pipe relief valve outlet to nearest floor drain.

M. Where one line vents several relief valves, make cross-sectional area equal to sum of individual vent areas.

3.2 MAINTENANCE

A. See Section 01 70 00 - Execution Requirements for additional requirements relating to maintenance service.

B. Refer to Section 23 25 00 for additional maintenance requirements.

C. Explain corrective actions to Owner's maintenance personnel in person.

END OF SECTION

SECTION 23 82 16 - AIR COILS

(ADDENDUM 001)

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Hydronic Coils.

1.2 RELATED REQUIREMENTS

A. Section 23 07 19 - HVAC Piping Insulation.

B. Section 23 21 14 - Hydronic Specialties.

C. Section 23 31 00 - HVAC Ducts and Casings: Installation of duct coils.

1.3 REFERENCE STANDARDS

A. AHRI 410 - Forced-Circulation Air-Cooling and Air-Heating Coils.

B. SMACNA (DCS) - HVAC Duct Construction Standards Metal and Flexible.

1.4 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide coil and frame configurations, dimensions, materials, rows, connections, and rough-in dimensions.

C. Shop Drawings: Indicate coil and frame configurations, dimensions, materials, rows, connections, and rough-in dimensions.

D. Certificates: Certify that coil capacities, pressure drops, and selection procedures meet or exceed specified requirements.

E. Warranty: Submit manufacturer's warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

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.

B. Products Requiring Electrical Connection: Listed and classified by testing firm acceptable to the Authority Having Jurisdiction as suitable for the purpose specified and indicated.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect coil fins from crushing and bending by leaving in shipping cases until installation, and by storing indoors.

B. Protect coils from entry of dirt and debris with pipe caps or plugs.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Aerofin Corporation: www.aerofin.com/#sle.

B. Trane Technologies, PLC: www.trane.com/#sle.

2.2 HYDRONIC COILS

A. Manufacturers:
   1. Aerofin Corporation: www.aerofin.com
   2. Trane Technologies, PLC: www.trane.com.
   3. Heatcraft: www.lutvata.com/heatcraft

B. Tubes: 5/8 inch OD seamless copper or brass arranged in parallel or staggered pattern, expanded into fins, brazed joints.

C. Fins: Aluminum or copper continuous plate type with full fin collars.

D. Casing: Die formed channel frame of 16 gauge, 0.0598 inch galvanized steel with mounting holes on 3 inch centers. Provide tube supports for coils longer than 36 inches.

E. Headers: Cast iron with tubes expanded into header.

F. Testing: Air test under water to 200 psi for working pressure of 200 psi and 220 degrees F.

G. Configuration: Drainable, with threaded plugs for drain and vent.

H. Refer to the Mechanical Equipment Schedule for capacity and sizes

PART 3 EXECUTION

3.1 INSTALLATION

A. Install in accordance with manufacturer's written instructions.

B. Install in ducts and casings in accordance with SMACNA (DCS).
   1. Where independent support of coils is necessary, support coil sections independent of piping on steel channel or double angle frames and secure to casings.
   2. Provide frames for maximum three coil sections.
   3. Arrange supports to avoid piercing drain pans.
   4. Provide airtight seal between coil and duct or casing.
   5. Refer to Section 23 31 00.

C. Protect coils to prevent damage to fins and flanges. Comb out bent fins.

D. Install coils level.

E. Make connections to coils with unions and flanges.

F. Hydronic Coils:
   1. Connect water supply to leaving air side of coil (counterflow arrangement).
   2. Provide manual air vents at high points complete with stop valve.
   3. Ensure water coils are drainable and provide drain connection at low points.
   4. Refer to Section 23 21 14.

END OF SECTION

AIR HANDLING UNIT SCHEDULE

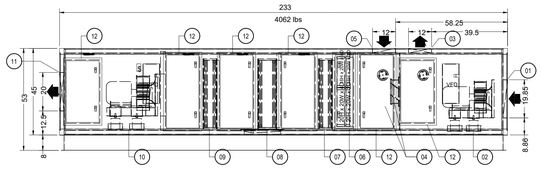
MARK	SERVICE	MANUFACTURER	MODEL	SUPPLY AIR CFM (EVENT MODE)	RETURN AIR CFM (EVENT MODE)	OA CFM (EVENT MODE)	SUPPLY AIR CFM (NON-EVENT MODE)	RETURN AIR CFM (NON-EVENT MODE)	OA CFM (NON-EVENT MODE)	SUPPLY AIR												RETURN AIR												PREHEAT COIL							COOLING COIL									NOTES
										TSP (in-wg)	ESP (in-wg)	NO. FANS	MOTOR HP (EA)	RPM	DRIVE	BHP	VOLT	PH	FLA	MCA	MOP	TSP (in-wg)	ESP (in-wg)	NO. FANS	MOTOR HP (EA)	RPM	DRIVE	BHP	VOLT	PH	FLA	MCA	MOP	EAT (°F)	LAT (°F)	FACE VEL (FPM)	MAX. APD (in-wg)	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT)	ROWS	FPI	TOTAL CAPACITY MBH	EAT (DB °F)	EAT (WB °F)	LAT (DB °F)	LAT (WB °F)	FACE VEL (FPM)	MAX. APD (in-wg)	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT)	ROWS	FPI	TOTAL CAPACITY MBH	SENSIBLE CAPACITY MBH	
AHU-2	W032 LOCKER ROOM	PACE	PAI-45x54	4900	2800	2100	2200	1350	950	5.5	2	1	7.5	2455	DIRECT	6.03	460	3	10.2	12.75	20	2.1	2	1	5	1753	DIRECT	1.33	460	3	6.86	8.58	15	35	70	480	0.1	15	140	115	0.7	2	8	187.5	80	67	55.1	53.6	480	0.6	35	42.0	53.8	8.5	5	10	208	140	1-4

NOTES:

1. MAX VFD HZ IN EVENT MODE: 82
2. PROVIDE PIEZO RINGS BY MFR ON SUPPLY AND RETURN FAN TO MONITOR AIR FLOW.
3. VFD TO BE FURNISHED BY IU EMS AND INSTALLED BY ELECTRICAL CONTRACTOR.
4. INTEGRAL MIXED AIR DAMPER BY MFR.

AIR HANDLING UNIT SCHEDULE (CONT.)

REHEAT COIL										FILTRATION								NOTES
EAT (°F)	LAT (°F)	FACE VELOCITY (FPM)	MAX. APD (in-wg)	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT)	ROWS	FPI	TOTAL CAPACITY MBH	PREFILTER TYPE	PREFILTER MERV	PREFILTER DEPTH (IN)	PREFILTER CLEAN APD (in-wg)	FINAL FILTER TYPE	FINAL FILTER MERV	FINAL FILTER DEPTH (IN)	FINAL FILTER CLEAN APD (in-wg)	OPER. WEIGHT (LB)	
55	90	480	0.10	15.0 GPM	140	115	1.40	2	8	187.5	PLEATED	8	2	0.3	MINI PLEAT	13	4	0.7	4061	1-4



AHU-1 CONFIGURATION NOTES

01. RETURN AIR CONNECTION
02. RETURN FAN SECTION
03. EXHAUST AIR CONNECTION
04. MIXING DAMPER / MIXING SECTION
05. OUTSIDE AIR CONNECTION
06. FILTER SECTION
07. PREHEAT COIL, 15 GPM
08. COOLING COIL, 35 GPM
09. REHEAT COIL, 15 GPM
10. SUPPLY FAN SECTION
11. SUPPLY AIR CONNECTION
12. ACCESS DOOR

BOILER SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	EFFICIENCY %	BURNER		INPUT		OUTPUT					FLUE CONN. SIZE (IN)	COMB AIR INLET CONN. (IN)	RELIEF VALVE SETTING (PSI)	ELECTRICAL					OPER. WEIGHT (LB)	NOTES
					TYPE	TURNDOWN	FUEL	TOTAL CAPACITY (MBH)	SUPPLY GAS PRESS.	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT)	TOTAL CAPACITY (MBH)				VOLT	PH	HZ	MCA	FLA		
B-1	LOCHINVAR	KNIGHT WHB399	CONDENSING	94.4	FIRE TUBE	10:1	NATURAL GAS	399	4"-14"	31.5	115	140	1.4	377	4	4	30	120	1	60 Hz	5 A	4 A	213	1-6

NOTES:

1. INSTALL RELIEF VALVE, TEMPERATURE AND PRESSURE GAUGE FOR EACH BOILER PROVIDED BY MFR.
2. INSTALL CONDENSATE NEUTRALIZATION KIT AND DRAIN TRAPS PROVIDED BY MFR.
3. PROVIDE FUSED EXTERNAL DISCONNECT BY MFR.
4. PROVIDE FLUE GAS EXHAUST AL29-4C STAINLESS STEEL.
5. PROVIDE COMBUSTION AIR PIPE SCHEDULE 40 PVC.
6. PROVIDE VENTLESS GAS REGULATOR.

ALTERNATE 4 HEATING COIL SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	CFM	SIZE WxH (IN)	EAT (°F)	LAT (°F)	MBH	FACE VEL (FPM)	APD (in-wg)	FLUID TYPE	GPM	EWT (°F)	LWT (°F)	WPD (FT)	ROWS	FPI	NOTES
RHC-1	EX. FCU	TRANE	DT0B180	795	18X12	70	90.3	17.54	530	.122	WATER	1.5	140	115	0.61	1	12.5	

FAN SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	TYPE	WHEEL DIA. (IN)	CFM MAX	CFM MIN	ESP (in-wg)	OV (FPM)	RPM	DRIVE	BHP	MOTOR HP	ELECTRICAL VOLT	ELECTRICAL PH	ELECTRICAL HZ	CURB HEIGHT	OPER. WEIGHT (LB)	NOTES
EF-1	W032 LOCKER ROOM	COOK	ACRUD-XP VF	UPBLAST CENTRIFUGAL EXHAUST		2000	850	0.75	517	1941	DIRECT	0.842	1	230	3	60	18"	185	1-8

NOTES:

1. PROVIDE AND INSTALL ROOF MOUNTED EXHAUST FANS WITH PRE-INSULATED ROOF CURB.
2. PROVIDE FACTORY INSTALLED DISCONNECT
3. PROVIDE GRAVITY BACKDRAFT DAMPERS.
4. BIRDSCREEN.
5. MOTOR SHALL BE EC MOTOR.
6. HINGED FAN BASE
7. CONTROLLED BY BMS
8. 2-SPEED CONTROLLER

PUMP SCHEDULE

MARK	SERVICE	MANUFACTURER	SERIES	MODEL	TYPE	FLUID TYPE	GPM	HEAD (FT)	BHP	RPM	ELECTRICAL MOTOR HP	ELECTRICAL VOLT	ELECTRICAL PH	ELECTRICAL HZ	OPER. WEIGHT (LB)	NOTES
P-1	AHU-2	GRUNDFOS	MAGNA3	40-120GF	INLINE CENTRIFUGAL	WATER	31.5	25	0.38	3196	3/4	115	1	60	35.5	
P-2	AHU-2	GRUNDFOS	MAGNA3	40-120GF	INLINE CENTRIFUGAL	WATER	31.5	25	0.38	3196	3/4	115	1	60	35.5	STAND-BY

AIR AND DIRT SEPARATOR SCHEDULE

MARK	MANUFACTURER	MODEL	SIZE (IN)	GPM	GPM MAX	MAX. WPD	STRAINER	NOTES
ADS-1	SPIROTHERM	VDN 200 FA	2	31.5	60	0.3 INCH	Yes	

DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	DESCRIPTION	BORDER TYPE	MATERIAL	FINISH	NOTES
EG	TITUS	63FL	RETURN CEILING GRILLE WITH 35 DEGREE DEFLECTION	SURFACE MOUNT	ALUMINUM	WHITE	1, 2
RG	TITUS	63FL	RETURN CEILING GRILLE WITH 35 DEGREE DEFLECTION	SURFACE MOUNT	ALUMINUM	WHITE	1, 2
S-1-1	TITUS	301-FL	ADJUSTABLE SUPPLY GRILLE WITH SINGLE DEFLECTION	SURFACE MOUNT	ALUMINUM	WHITE	1, 3
SG	TITUS	TMSA-AA	HIGH PERFORMANCE SQUARE CONE DIFFUSER	SURFACE MOUNT	ALUMINUM	WHITE	1, 2

NOTES:

1. ALL DIFFUSERS/ GRILLES TO BE REPLACED UNDER ALTERNATE BID UNLESS NOTED OTHERWISE ON THE PLANS
2. DIFFUSER/GRILLE NECK AND MODULE SIZE TO BE FIELD VERIFIED TO MATCH EXISTING
3. 12"X8" NECK

EXPANSION TANK SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	MOUNTING	TANK VOLUME (GAL)	ACCEPT. VOLUME (GAL)	DIAMETER (IN)	HEIGHT (IN)	WEIGHT WHEN FULL (LB)	CHARGE PRESSURE (PSI)	MAX WORK PRESS (PSI)	NOTES
ET-1	B-1	ELBI OF AMERICA	HTS-45	BASE SUPPORT	12	10.8	15 13/16"	22 13/32"	52	12	150	

LAVS AND SINKS SCHEDULE

FIXTURE TAG	MANUFACTURER	MODEL	DESCRIPTION	MOUNTING TYPE	NOMINAL SIZE	BOWL SHAPE	BOWL DEPTH	NOTES
MSB-1	STERN WILLIAMS	EB-79-8PA-20	MOP SERVICE BASIN, TERAZZO	FLOOR MOUNTED/FIXED	36" X 36"	SQUARE	6"	1

NOTES:

1. PROVIDE BACK PANEL 36" WIDE X 24" HIGH, ALUMINUM BUMPER GUARDS.

DRAINS AND CLEANOUTS SCHEDULE

FIXTURE TAG	MANUFACTURER	MODEL	DRAIN TYPE	DISCHARGE SIZE	NOTES
FD-1	JAY R. SMITH MFG. CO.	2120	DUCO CAST IRON BODY WITH FLASHING COLLAR AND ADJUSTABLE STRAINER HEAD	3"	1
CO-1	JAY R. SMITH MFG. CO.	4250	HEAVY DUTY CAST IRON	3"	

NOTES:

1. PROVIDE 2692 TRAP SEAL.

REDUCED PRESSURE BACKFLOW PREVENTER SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE DESCRIPTION	SIZE	MAX PRESSURE DROP (PSI)	NOTES
BFP-1	WATTS	LF909-QT-S	RPZ BACKFLOW PREVENTER W/ QUARTER TURN BALL VALVES & BRONZE STRAINER	3/4"	175.0	1, 2

NOTES:

1. PROVIDE WITH AIR GAP - PROVIDE COPPER DISCHARGE PIPING FROM AIR GAP TO NEAREST FLOOR DRAIN.
2. MOUNT ON WALL AT 4' A.F.F.

gmb

20251272 BL601 MEMORIAL STADIUM - NEW HVAC & HEATING SYSTEM

INDIANA UNIVERSITY

BLOOMINGTON, INDIANA

ISSUANCES

02.02.2026 BIDS & CONSTRUCTION
02.12.2026 ADDENDUM 001

DRAWN LDE

REVIEWED OSO

PROJECT NO. 100038

MECHANICAL SCHEDULES

MP9.01