

Green Activities Partial Renovation Vincennes, IN 47591 Project #: 71GA-22-01

ADDENDUM - 001

Addendum - 001 to the Drawings and Specifications dated, February 2023, for Vincennes University **Green Activities Partial Renovations**, located on the Main Campus, Vincennes, IN 47591, as prepared by Andrew Young, Campus Architect, Vincennes University.

All Contractors bidding on this project shall read all of the items covered below and shall comply with all of the requirements as set forth, including any necessary refinements or additions generated by this Addendum and required by the intent of the original Documents. All Contractors shall acknowledge on their bid form that they have received this Addendum and included the appropriate content of same within their bid proposal.

Miscellaneous:

1. Pre-Bid Meeting Minutes and Sign-In Sheet

- A. The Minutes of the Pre-Bid Meeting held February 9, 2023 are included in this Addendum. It is the Bidder's responsibility to read the Pre-Bid Meeting Minutes in their entirety, and Bidder shall pay special attention to the Questions/Comments section.
- B. The Pre-Bid Meeting was specified in Section 00200 Information for Bidders of the Project Specifications as mandatory. The Owner reserves the right to waive the mandatory attendance as the Owner deems necessary. It is the Bidder's responsibility to verify all existing conditions. Contact Jeffrey Weber (812-888-4323) at Architectural Services to schedule a visit to verify conditions.

2. Bid Form

A. Refer to attached Bid Form, revised to include Alternate #6: Pad-Mount Transformer Replacement, as listed below.

3. Prevailing Wage Scales

A. This is <u>not</u> a prevailing wage scale project.

Specifications:

1. 01 12 00 – Multiple Contract Summary



- A. Add Section 1.6, A, 15, to read as follows:
 - a. Full protection of existing chandeliers throughout building & existing sound panels inside Auditorium #110, for full duration of project. In addition, provide for professional cleaning of chandeliers & sound panels at conclusion of project, via a quality, Owner-approved cleaning subcontractor.
- B. Add Section 1.6, A, 16, to read as follows:
 - a. For exterior areas only: While Mechanical & Electrical Contractors shall be responsible for their own equipment pads, excavation, & backfilling/compacting up to existing grade, General Contractor shall be responsible for final surface restoration. All disturbed lawn areas shall be sodded, using sod species approved by Vincennes University Grounds Department. General Contractor shall provide for regular watering of all new sod over 30-day period from sod installation, and do not expect Owner's irrigation system to be operational for the sod watering period.
- C. Change Section 1.7, A, 14, to read as follows:
 - a. Mechanical Contractor (including plumbing) shall be responsible for, as it pertains to their work, the saw-cutting, excavating, installation, backfilling/compacting, and surface restoration. Mechanical Contractor shall immediately repair any damaged underground irrigation system components caused by their respective work.
- D. Change Section 1.8, A, 8, to read as follows:
 - a. Electrical Contractor shall be responsible for, as it pertains to their work, the saw-cutting, excavating, installation, backfilling/compacting, and surface restoration. Electrical Contractor shall immediately repair any damaged underground irrigation system components caused by their respective work.

2. 01 23 00 – Alternates

- A. Add Section 2.1, F, to read as follows:
 - a. Pad-Mount Transformer Replacement
 - b. Base Bid: No work associated with transformer replacement. Existing transformer to remain in place, while adding new underground feeder to new Panel #LPM.
 - c. Alternate (Add): Disconnect/remove & transport existing 300kVA padmount transformer to Owner's storage facility. Provide for new 500kVA



pad-mount transformer (4160V 3-ph primary, 120/208V 3-ph secondary), complete with entirely new concrete pad & re-connections. Provide for 100kW diesel generator, connections, fuel, & monitoring for the Mail Room, from 7:00 AM to 6:00 PM, Monday through Friday, for duration of power outage.

3. 10 21 13.19 – Plastic Toilet Compartments

A. Add Metpar Polly Toilet Enclosures as an approved substitution

4. 23 09 00 - Instrumentation and Control for HVAC

- A. Add Section 1.1, F, to read as follows:
 - a. Provide for thermostat, humidistat, and CO2 sensors in the return air duct, rather than wall-mount devices.
- B. Add Section 3.2, M, to read as follows:
 - a. Provide for pressure transducer, located 2/3 distance from hot water pumps, to control pump VFD's.

5. 23 21 13 – Hydronic Piping

- A. Add Section 3.5, A, 3, to read as follows:
 - a. Belowground: Ferro-Therm SC pre-insulated piping system by Thermacor. Contact Matt Wathen (502-222-4000) at Cas-Air-Co for pricing.

Drawings:

1. Sheets #A1.1, #A1.4 & #A2.0

A. Women's Restroom #124: Window in restroom has been changed from a W4 to a new type W5. Refer to attached sheets #AD01.1 & #AD01.2.

2. Sheet #A1.2 – Reflected Ceiling Plan

A. Lay-in ceiling mislabeled as Note #1 "to remain", changed to Note #6 "new 2x2 lay-in ceiling". Refer to attached sheet #AD01.3.

3. Sheet #E2 – Electrical Lighting Plan

A. Refer to attached Sheet #E2-REV.



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- 4. Sheet #E3 Attic Electrical Lighting Plan A. Refer to attached Sheet #E3-REV.
- Sheet #E6 Electrical Details
 A. Refer to attached Sheet #E6-REV.
- Sheet #M4 Mechanical Piping Plan
 A. Refer to attached Sheet #M4-REV.
- 7. Sheet #M6 Mechanical Schedules A. Refer to attached Sheet #M6-REV.

Attachments:

- Bid Form.
- 8.5" x 11" Sheet AD01.1
- 8.5" x 11" Sheet AD01.2
- 8.5" x 11" Sheet AD01.3
- 30" x 42" Sheet M4.
- 30" x 42" Sheet M6.
- 30" x 42" Sheet E2.
- 30" x 42" Sheet E3.
- 30" x 42" Sheet E6.
- Pre-Bid Meeting Minutes
- Pre-Bid Meeting Sign-In Sheet

Can yes

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State Board of Accounts Form No 96 (Revised 2005)

BID OF

(Contractor)

(Address)

FOR PUBLIC WORKS PROJECTS OF

GREEN ACTIVITIES CENTER PARTIAL RENOVATIONS VINCENNES UNIVERSITY VINCENNES, INDIANA

Filed ______, ____

Action taken _____

CONTRACTORS BID FOR PUBLIC WORKS

PARTI (to be completed for all bids. Please type or print)

	Date:
1.	Owner Name: Vincennes University, Vincennes, Indiana
2.	County:
3.	Bidder (Firm):
	Address:
	City/State:
4.	Telephone Number:
5.	Facsimile Number:
6.	Agent of Bidder (if applicable):
7.	Project Number:
8.	Acknowledgement of Addenda:
Pursuant to	notices given, the undersigned offers to furnish labor and/or material necessary to complete the

construction work for the public works project, Green Activities Center – Partial Renovations, in accordance with plans and specifications prepared by Andrew Young, AIA LEED AP, Vincennes University,, LLC and dated February 2023, for the sum of:

CONTRACT #1: GENERAL CONSTRUCTION

	(\$)
CONTRACT #2: MECHANICAL CONSTRUCTION		
	(\$)
CONTRACT #3: ELECTRICAL CONSTRUCTION		
	(\$)
CONTRACT #4: UNIFIED BID		
	(\$)
The undersigned further agrees to furnish a bond or certified ch	eck with this bid for an amount spe	ecified in the notice of

the letting. Alternate Bids & Unit Prices must be tabulated on the following page. Any addendums attached will be specifically referenced at the applicable page

Alternates												
No.	Amount (Words)	Amount (Numerals)										
1												
2												
3												
4												
5												
6												

Unit Prices										
No.	Amount (Words)	Amount (Numerals)								
1										

If additional units of material included in the contract are needed, the cost of units must be the same as that shown in the original contract if accepted by the Governmental Unit. If the bid is to be awarded on a unit basis, the itemization of the units shall be shown on a separate attachment.

The contractor and his subcontractors, if any, shall not discriminate against or intimidate any employee, or applicant for employment, to be employed in the performance of this contract, with respect to any matter directly or indirectly related to employment because of race, religion, color, sex, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

CERTIFICATION OF USE OF UNITED STATES STEEL PRODUCTS (if applicable)

I, the undersigned bidder or agent as a contractor on a public works project, understand my statutory obligation to use steel products made in the United States. I.C. 5-16-8-2. I hereby certify that I and all subcontractors employed by me for this project will use U.S. steel products on this project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

ACCEPTANCE

The above bid is accepted this	day of	, 2	subject to the following
conditions:			
Contracting Authority Members:			

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Section 003000 - form No. 96 (Revised 2005)

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PART II

(Complete sections I, II, III, and IV for all state and local public works projects as required by statutes if project is one hundred thousand dollars (\$100,000) or more. (IC 36-1-12-4)

Owner Name:

Bidder (Firm)

Date:

These statements to be submitted under oath by each bidder with and as a part of his bid. Attach additional pages for each section as needed.

SECTION I EXPERIENCE QUESTIONNAIRE

1. What public works projects has your organization completed for the period of one (1) year prior to the date of the current bid?

		When	
Contract Amount	Class of Work	Completed	Name and Address of Owner

2. What public works projects are now in process of construction by your organization?

Contract Amount	Class of Work	When Completed	Name and Address of Owner

3. Have you ever failed to complete any work awarded to you? _____ If so, where and why?

4. List references from private firms for which you have performed work.

SECTION II PLAN AND EQUIPMENT QUESTIONNAIRE

- 1. Explain your plan or layout for performing proposed work. (Examples could include a narrative of when you could begin work, completed the project, number of workers, etc. and any other information which you believe would enable the governmental unit to consider your bid.)
- 2. Please list the names and addresses of all subcontractors (i.e. persons or firms outside your own firm who have performed part of the work) that you have used on public works projects during the past five (5) years along with a brief description of the work done by each subcontractor.
- 3. If you intend to sublet any portion of the work, state the name and address of each subcontractor, equipment to be used by the subcontractor, and whether you will require a bond. However, if you are unable to currently provide a listing, please understand a listing must be provided prior to contract approval. Until the completion of the proposed project, you are under a continuing obligation to immediately notify the governmental unit in the event that you subsequently determine that you will use a subcontractor on the proposed project.
- 4. What equipment do you have available to use for the proposed project? Any equipment to be used by subcontractors may also be required to be listed by the governmental unit.
- 5. Have you entered into contracts or received offers for all materials which substantiate the prices used in preparing your proposal? Otherwise, please explain the rationale used which would corroborate the prices listed.

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SECTION III CONTRACTOR'S FINANCIAL STATEMENT

<u>Attachment of bidder's financial statement is mandatory</u>. Any bid submitted without said financial statement as required by statute shall thereby be rendered invalid. The financial statement provided hereunder to the governing body awarding the contract must be specific enough in detail so that said governing body can make a proper determination of the bidder's capability for completing the project if awarded.

SECTION IV CONTRACTOR'S NON - COLLUSION AFFIDAVIT

The undersigned bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to include anyone to refrain from bidding, and that this bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms, or corporation has, have or will receive directly or indirectly, any rebate, fee, gift, commission or thing of value on account of such sale.

SECTION V OATH AND AFFIRMATION

I hereby affirm under the penalties of perjury that the facts and information contained in the foregoing bid for public works are true and correct to the best of my knowledge and belief.

Dated at	this	day of			
		(Name of Organ	nization)		
	Ву				
		(Title of Person S	signing)		
	ACI	KNOWLEDGEMENT			
STATE OF)				
COUNTY OF) SS:)				
Before me, a Notary Public	, personally appeared th	e above-named			and
that the statements contain	ed in the foregoing docu	ment are true and correc	:t.		
Subscribed and sworn to be	efore me this	day of		,	
My Commission Expires: _					
County of Residence:					
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1 PARTIAL FLOOR PLAN





MECHANICAL YARD REMOVED FOR CLARITY





1 REFLECTED CEILING PLAN







——CHWS——	CHILLED WATER SUPPLY
——CHWS——	CHILLED WATER RETURN
——HWS——	HOT WATER SUPPLY
——HWR——	HOT WATER RETURN
——STEAM——	STEAM SUPPLY
—STM COND —	STEAM CONDENSATE RETURN
o	PIPE ELBOW UP
—	PIPE TEE UP
	PIPE TEE UP W/ TAP
с —	PIPE ELBOW DOWN
—	PIPE TEE DOWN
	PIPE TEE DOWN W/ TAP
ю	BALL VALVE OR BUTTERFLY VALVE
E	CAP END FOR FUTURE EXTENSION
	DIRECTION OF FLOW
44	CHECK VALVE
Ŷ	PRESSURE GUAGE
	THERMOMETER
<u>}</u>	AQUASTAT
$\Box \overline{X}$	MOTOR OPERATED ELECTRIC VALVE (2-WAY)
	MOTOR OPERATED ELECTRIC VALVE (3-WAY)

GENERAL MECHANICAL NOTES $\langle G1 \rangle$ MECHANICAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & ELEVATIONS PRIOR TO CONSTRUCTION.

	ALL DUCTWORK DIMENSIONS ARE CLEAR INSIDE DIMENSIONS. MECHANICAL CONTRACTOR SHALL OVERSIZE DUCTWORK AS NECESSARY, TO ACCOUNT FOR INSULATION/LINERS.
G3	MECHANICAL CONTRACTOR SHALL PROVIDE FOR TESTING & BALANCING OF ALL AIR & HYDRONIC WATER SYSTEMS, INCLUDING NEW KITCHEN EXHAUST HOODS.
	MECHANICAL CONTRACTOR SHALL CONFIRM ALL EQUIPMENT ELECTRICAL REQUIREMENTS, INCLUDING BREAKER/DISCONNECT CAPACITY, WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
	DIAGNOSTIC TOOL. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONCRETE FLOOR CUTTING & REMOVAL,
	WHICH PERTAINS TO THEIR RESPECTIVE WORK, AND ALSO RESPONSIBLE FOR NEW COMPACTED GRANULAR BACKFILL TO UNDERSIDE OF SLAB. ALL REMOVED SPOIL SHALL BE REMOVED & DISPOSED OFF-SITE - NO RE- USE ALLOWED. MECHANICAL CONTRACTOR RESPONSIBLE FOR CONCRETE FLOOR REPLACEMENT, INCLUDING FINAL FINISH.
G7	MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ALL AFFECTED ROOF, CEILING, WALLS & FLOORS, AND FINISHING FLUSH TO SURFACE. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL SURFACE FINISH, I.E. PAINT, TILE, CARPET, ETC.
(G8)	THROUGH AND MEMBRANE PENETRATIONS IN FIRE-RESISTIVE WALLS SHALL BE FIRESTOPPED IN ACCORDANCE WITH THE INDIANA BUILDING CODE REGULATIONS. IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE INSTALLED TO CUT OFF CONCEALED DRAFT OPENINGS (BOTH VERTICAL & HORIZONTAL) AND SHALL FORM AN EFFECTIVE BARRIER BETWEEN FLOORS, BETWEEN A TOP STORY AND A ROOF OR ATTIC SPACE. FIREBLOCKING SHALL BE INSTALLED IN LOCATIONS IN ACCORDANCE WITH THE INDIANA BUILDING CODE REGULATIONS.
(G9)	MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE FILTER REPLACEMENT OF ALL UNITS, UPON DETERMINATION OF SUBSTANTIAL COMPLETION.
GIU	ACTUATORS, & OTHER SUCH COMPONENTS ARE INSTALLED IN A FULLY-ACCESSIBLE LOCATION
	EYED MECHANICAL NOTES
< <u>M1</u> >	MAKE-UP AIR UNIT, WITH CONCRETE FOUNDATION, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR ALL ALUMINUM DUCT, 2" THICK RIGID INSULATION WITH FULL-PERIMETER EDPM MEMBRANE LINER, & DUCT VIBRATION ISOLATION. MECHANICAL CONTRACTOR SHALL PROVIDE FOR NEW CONCRETE EQUIPMENT FOUNDATION WITH SEISMIC ANCHORS, AND WALL PENETRATION WITH LINTEL, AS DETAILED. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
M2	AIR HANDLING UNIT, WITH SPRING ISOLATORS & STRUCTURAL STEEL FRAMING, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR SEISMICALLY-DESIGNED HANGERS WITH ANCHORS, AS DETAILED. MECHANICAL CONTRACTOR SHALL PROVIDE FOR REFRIGERANT LINE SETS, REFRIGERANT, HOT WATER COIL, & VALVING, AS DETAILED. TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE FOR ALL REQUIRED CONTROL CIRCUITING TO ROOFTOP CONDENSING UNIT. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
<u><мз</u> >	ROOFTOP AIR HANDLING UNIT, WITH SEISMIC INSULATED ROOF CURB & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR HOT WATER COIL, & VALVING, AS DETAILED. MECHANICAL CONTRACTOR SHALL PROVIDE FOR STRUCTURAL STEEL REINFORCING, AS DETAILED. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PIPING PORTALS, ROOF PENETRATIONS, FLASHING & ROOF REPAIRS USING AN OWNER-APPROVED ROOFING SUBCONTRACTOR. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
< <u>M4</u> >	CONDENSING UNIT, WITH SEISMICALLY-DESIGNED RAILS & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR SEISMICALLY-DESIGNED HANGERS WITH ANCHORS, AS DETAILED. MECHANICAL CONTRACTOR SHALL PROVIDE FOR REFRIGERANT LINE SETS & REFRIGERANT, AS SHOWN. MECHANICAL CONTRACTOR SHALL PROVIDE FOR STRUCTURAL STEEL REINFORCING, AS DETAILED. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PIPING PORTALS, ROOF PENETRATIONS, FLASHING & ROOF REPAIRS USING AN OWNER- APPROVED ROOFING SUBCONTRACTOR. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
< <u>M5</u> >	EXHAUST FAN, WITH INSULATED ROOF CURB, M.O. DAMPER, & BIRDSCREEN, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. EXHAUST FAN TO BE CONTROLLED VIA IN-RESTROOM OCCUPANCY SENSOR WITH TIME DELAY OFF. MECHANICAL CONTRACTOR SHALL CONFIRM EXISTING ROOF SLOPE. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ROOF PENETRATIONS, FLASHING & ROOF REPAIRS USING AN OWNER-APPROVED ROOFING SUBCONTRACTOR. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
M6	HEAT PUMP UNIT, WITH SEISMICALLY-DESIGNED RAILS & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR REFRIGERANT LINE SETS & REFRIGERANT, AS SHOWN. MECHANICAL CONTRACTOR SHALL PROVIDE FOR STRUCTURAL STEEL REINFORCING, AS DETAILED. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PIPE PORTALS, ROOF PENETRATIONS, FLASHING & ROOF REPAIRS USING AN OWNER-APPROVED ROOFING SUBCONTRACTOR. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M7)	FAN COIL UNIT, WITH SEISMICALLY-DESIGNED HANGERS, SPRING ISOLATORS & INTEGRAL CONDENSATE PUMP, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR REFRIGERANT LINE SETS & REFRIGERANT, AS SHOWN. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
<u>M8</u>	REHEAT COILS, WITH SEISMICALLLY-DESIGNED HANGERS & SPRING ISOLATORS, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
< <u>M9</u> >	ROOF HATCH BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. ROOF HATCH TO MATCH EXISTING. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ROOF PENETRATIONS, FLASHING & ROOF REPAIRS USING AN OWNER-APPROVED ROOFING SUBCONTRACTOR. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M10)	VAV BOX, WITH SEISMICALLY-DESIGNED HANGERS & SPRING ISOLATORS, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M11)	DUCT SILENCER, WITH SEISMICALLY-DESIGNED HANGERS & DUCT VIBRATION ISOLATION, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
M12	HYDRONIC PUMP, WITH CONCRETE HOUSEKEEPING PAD, GROUTING, & SEISMIC INERTIA RESTRAINT BASE, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE & INSTALL VFD, AND ELECTRICAL CONTRACTOR SHALL PROVIDE FOR CIRCUITING TO/FROM BOTH VFD & PUMP. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M13)	STEAM CONDENSATE PUMP, WITH CONCRETE HOUSEKEEPING PAD, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M14)	STEAM TO HOT WATER CONVERTER, WITH NEW STRUCTURAL STEEL FRAME, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR STRUCTURAL STEEL FRAME, AS DETAILED, COMPLETE WITH (1) COAT PRIMER & (2) COATS PAINT. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M15)	TRANSFER & DOOR GRILLES BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M16)	MECHANICAL CONTRACTOR SHALL PROVIDE FOR REPLACEMENT OF EXISTING DIFFUSERS & GRILLES, COMPLETE WITH SUPPLY/RETURN PLENUM BOX, AS DETAILED. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M17)	STEAM PRV STATION BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS DETAILED. MECHANICAL CONTRACTOR SHALL ADD NEW PRV STATION TO EVISION DRV STATION COODENING INSTALLATION WITH ALL TRADEC & OWNER
(M18)	EXISTING PRV STATION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. NEW MEZZANINE ACCESS LADDER BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS.
(M19)	COORDINATE INSTALLATION WITH ALL TRADES & OWNER. MECHANICAL CONTRACTOR SHALL PROVIDE FOR RELOCATION OF EXISTING WATER HEATER & PUMP, AS SHOWN, COMPLETE WITH ANY NECESSARY PIPING EXTENSIONS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR NEW 1-1/2" SUPPLY & RETURN TO NEW HEATING HOT WATER MAINS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR NEW 6" CONCRETE HOUSEKEEPING PAD AND SEISMIC WALL BRACING TO STRUCTURE. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M20) (M21)	MECHANICAL CONTRACTOR SHALL SEISMICALLY BRACE ALL NEW DUCT TO STRUCTURE. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ELECTRIC CABINET HEATER BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE
(M22)	INSTALLATION WITH ALL TRADES & OWNER. AIR SEPARATOR TANK BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR 1" MAKE-UP VALVE & PRV, FROM DOMESTIC WATER SYSTEM. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M23)	50 GAL EXPANSION TANK, WITH OVERHEAD STRUCTURAL FRAME SUPPORT, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE INSTALLATION WITH ALL TRADES & OWNED
(M24)	CHEMICAL ONE-SHOT FEEDER, WITH CONCRETE HOUSEKEEPING PAD, WITH ALL TRADES & OWNER. MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M25)	GLYCOL FEEDER SYSTEM, WITH CONCRETE HOUSEKEEPING PAD, WITH ASSOCIATED PIPING, BY MECHANICAL CONTRACTOR. SYSTEM SHALL BE EDDINGTON #GL-50-E-AA-RC, WITH 1/2 HP PUMP, 50-GALLON TANK, & CONTROL PANEL. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M26)	NEW BOLLARD, BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. MECHANICAL CONTRACTOR SHALL PROVIDE FOR A 24" DIA x 48" DEEP CONCRETE PIER. CONFIRM EXACT LOCATION WITH WITH ARCHITECT. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M27)	NEW LAY-IN CEILING, BY GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
M28	NEW LAY-IN CEILING, BY GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. GENERAL CONTRACTOR SHALL DEMOLISH/REMOVE EXISTING CEILING, AS SHOWN. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
(M29)	EXISTING CEILING, BY GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. GENERAL CONTRACTOR SHALL REMOVE, SALVAGE, AND REINSTALL CEILING, AS SHOWN. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
× M30	NEW LAY-IN CEILING, BY GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS. GENERAL CONTRACTOR SHALL DEMOLISH/REMOVE EXISTING CEILING, AS SHOWN. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.

NORTH MEZZANINE MECHANICAL PIPING PLAN 1/8" = 1'-0"



Date: 02-02-2023 Drawn By: NAB Checked By: MJH



												S	CHE	DULE	E OF N	1AKE-I	JP AIF	R UNIT														
ERV COOLING PERFORMANCE ERV											ELECTRICAL DATA																					
MARK MANUFACTURE	ER MODEL AIR FL (CFM	W MOTOR E.S (HP) (II	N)	MOTOR (HP)	E.S.P. (IN)	CIR. FM) IEER	RECOVERY	OA	SA	RA E	A CA REI	APACITY OA	SA	WINTER RA	CAPACITY REDUCTION	TOTAL CAPACITY (BTU/HR)	SENSIBLE CAPACITY (BTU/HR)	ENTR. AIR TEMPERATURE (°F)	LVG. AIR TEMPERATURE (°F)	E RH TOTAL CAPACITY (BTU/HR)	RH LVG. AIR TEMPERATURE (°F)	HEATING CAPACITY (BTU/HR)	GPM	PRESSURE DROP (FT)	ENTR. WATER TEMPERATURE (°F)	LVG. WATER TEMPERATURE (°F)	ENTERING AIR TEMPERATURE (°F)	LEAVING AIR TEMPERATURE (°F)	VOLTAGE	MCA (A)		REMARKS
MU-1 VALENT	VXE-352-81D-501-2-J2 16,00) (3) @ 7.5 2.	0 5,000	(2) @ 1	1.0 11	000 15.5	80.5 %	95/78	78/66	75/62 92/	75 2	247,500 -10/-11	57/47	72/56	360,180	546,000	402,200	76/64	53/52	276,800	69.1	809,900	83 GPM	9.0	180.0	160.0	67	114	208V, 3-PH	282.4	12345	
ES: 1. DESIGNED FOR 95/78°F 3 2. ALL FANS TO BE EQUIPF 3. MODULI ATING INVERTER	SUMMER, -10°F WINTER. PED WITH VFD'S. & SCROLL COMPRESSORS.	CEPTABLE.																														

	SCHEDULE OF AIR HANDLING UNITS																			
					COOLING 2					,					REHE	AT COIL				
MARK	MANUFACTURER	MODEL	AIR FLOW (CFM)	E.S.P (IN)	HP	TOTAL CAPACITY (BTU/HR)	SENSIBLE CAPACITY (BTU/HR)	COMPRESSORS STAGING	SST	LIQUID TEMP	SUPERHEAT	COIL VELOCITY	COIL PRESSURE	FINS/ CIRCUITS	TOTAL CAPACITY (BTU/HR)	WATER FLOW (GPM)	MCA (A)	VOLTAGE		REMARKS
AHU-1	KRUEGER	BCU-20	2,000	1.0	1	88,700	59,600	(2)	43	110.0	10	411	0.35	6/8/4			16	120V, 1-PH	D2 KITCHEN	
NOTES: 1. HOR 2. AT 9	DTES: 1. HORIZONTAL INSTALLATION. EQUIP W/ STAINLESS STEEL DRAIN PAN, DIRECT DRIVE E C FAN, DX COOLING COIL, 0-10 DC FAN SPEED CONTROL, MERV 8 FILTER, FOIL-FACED ENCAPSULATED INSULATION, CONDENSATE OVERFLOW FLOAT SWITCH. 2. AT 95/80/67°F ENTERING AIR TEMPERATURE .																			

					SC	HEDU	ILE OI	= ROOI	= TOP	UNITS	5	
MARK	MANUFACTURER	MODEL	AIR FLOW (CFM)	E.S.P (IN)	HP	TOTAL CAPACITY (BTU/HR)	COC SENSIBLE CAPACITY (BTU/HR)	LING 2 COMPRESSORS STAGING	LVG. AIR TEMPERATURE (F)	EER	MCA (A)	HOT WATER HEATING INPUT (MBTU/HR)
RTU-1	VALENT	VX-112-10I-0-J1	3,350	1.5	2.13	128,100	91,400	(1)	54.9/54.5	11.3	56.9	
RTU-2	VALENT	VX-12-5I-0-J1	1,800	0.6	1	66,100	48,200	(1)	54.6/54.6		24.4	
RTU-3	VALENT	VX-12-4I-O-G1	1,425	0.6	3/4	52,100	38,100	(1)	54.5/54.5		19.6	
RTU-4	VALENT	VX-12-4I-O-G1	1,425	0.6	3/4	52,100	38,100	(1)	54.5/54.5		19.6	
RTU-5	VALENT	VX-12-4I-O-G1	1,425	0.6	3/4	52,100	38,100	(1)	54.5/54.5		19.6	
TES: 1. MOI 2. AT 9 3. ROO 4. TRA 5. BAC	DULATING INVERTER SCR 55/80/67°F ENTERING AIR 1 F MOUNT INSTALLATION NSITION CURBS FOR HOF NET INTERFACE W/ LCD F	COLL COMPRESSOR, E TEMPERATURE. W/SEISMIC CURB, & V RIZONTAL DISCHARGE READOUT.	AV SPEED F NOT ACCEF	CONOMIZEF AN, MODUL PTABLE.	LATING O.A	' TRIC RELIEF W/L DAMPER, ECONC	UW LEAKAGE D	AMPERS, MODULA	TING O.A. DAMPE	R, ECM EVAPOF	HATOR FAN, VFE) DRIVE SUPPLY F S, ENHANCED DE

REV 1

	S	SCHEDL	ILE OF	OUTE	DOOR	HEAT	PUMP	UNIT	S
			CAPACITY	(BTU/HR)		POWEI	RINPUT		
MARK	MANUFACTURER	MODEL	COOLING	HEATING	COOLING (KW)	HEATING (KW)	VOLTAGE	MCA (A)	REMARKS
HP-1	LG	LUU240HHV	30,000	33,000	3	3.8	208V, 1-PH	22	①②CONTROLS ROOM
NF-1	LG	L00240HHV	30,000	33,000	3	3.0	2000, 1-PH	22	

NOTES: 1. PROVIDE HAIL GUARDS, ROOF MOUNT FRAME W/SEISMIC ANCHORS, REMOTE CONTROLLER, AHU COMMUNICATIONS KIT FOR RA. 2. PROVIDE FOR LOW AMBIENT COOLING OPERATION TO 0°F.

SCHEDULE OF CONDENSING UNITS											
			COOLING		POWER INPUT						
MARK	MANUFACTURER	MODEL	CAPACITY TOTAL (BTU/HR)	COOLING (KW)	VOLTAGE	MCA (A)	REMARKS				
CU-1	LG	ARUM096BTE5	96,000	5.3	208V, 3-PH	28.5	①KITCHEN				
OTES: 1. PROV	IDE HAIL GUARDS, ROOI	F MOUNT FRAME W/SE	EISMIC ANCHORS	REMOTE CONTR	ROLLER, AHU COMI	MUNICATION	S KIT FOR RA.				

	SCHEDULE OF FAN COIL UNITS											
			CAPACITY	(BTU/HR)		POWE	RINPUT					
MARK	MANUFACTURER	MODEL	COOLING	HEATING	COOLING (KW)	HEATING (KW)	VOLTAGE	MCA (A)	EER	REMARKS		
FC-1	LG	LCN249HV	30,000	33,000			208V, 1-PH			① CONTROLS ROOM		
NOTES: 1. PROV	IDE W/INTEGRAL CONDE	ENSATE PUMP WITH F	PIPING TO FLOOR	DRAIN.								

					SCH	EDULE	E OF V	AV BC	DXES				0
MARK	MARK MANUFACTURER MODEL SIZE MAX CFM MIN CFM M												
VAV-1	KRUEGER	LMHS	12	1,800	206	0.4	26,000	55	160	127.9	1.7	0.28	1 2 ROW HW COIL
VAV-2	KRUEGER	LMHS	10	1,200	145	0.4	17,400	55	160	132	1.3	0.18	1 2 ROW HW COIL
VAV-3	KRUEGER	LMHS	06	400	52	0.4	7,100	55	160	139.7	0.7	0.1	1 2 ROW HW COIL

NOTES: 1. EQUIP W/BACNET INTERFACE TO BMS.

	SCHEDULE OF HOT WATER COILS													
MARK	MARK MANUFACTURER MODEL WATER INLET TEMP. (°F) CF) CF GPM GPM CFM CFM CFM CFM CFM CFM CFM CFM CFM CF													
HWC-1	AEROFIN	18.0 X 18.0	180.0	160.0	7.0	0.27	1,800	60.0	95.0	68,100				
HWC-2	AEROFIN	18.0 X 14.0	180.0	160.0	6.0	0.27	1,450	60.0	95.0	54,800				
HWC-3	AEROFIN	18.0 X 14.0	180.0	160.0	6.0	0.27	1,450	60.0	95.0	54,800				
HWC-4	AEROFIN	18.0 X 14.0	180.0	160.0	6.0	0.27	1,450	60.0	95.0	54,800				
HWC-5	AEROFIN	18.0 X 18.0	180.0	160.0	7.0	0.21	1,600	60.0	95.0	60,500				
										0				

SCHEDULE OF PUMPS												
MARK	MANUFACTURER	SERIES	MODEL	GPM	HEAD (FT)	HP	RPM	EFF	VOLTAGE	REMARKS		
HWP-1	B&G	1520	2BC	150	90	7.5	1750	75%	208V, 3-PH	1 END SUCTION		
HWP-2	B&G	1520	2BC	150	90	7.5	1750	75%	208V, 3-PH	1 END SUCTION		

NOTES: 1. PROVIDE WITH VFD DRIVE W/FULL BYPASS AND DISCONNECT.

	SCHEDULE OF HEAT EXCHANGERS												
MARK	MANUFACTURER	MODEL	GPM	TUBE SIDE (HW) TEMPS. (°F)	PRESSURE DROP (FT)	LB/HR	HELL SIDE (STEAN PRESSURE (PSIG)	A) PRESSURE DROP (FT)	REMARKS				
HE-1	THRUSH	TW08-048-222	150	160/180	15.0	1535	10	15.0	SHELL & TUBE, RATED FOR BUILDING HEAT				







	STEAM PRV VALVES SCHEDULE											
MARK	MANUFACTURER	MODEL	CV	INLET PRESSURE (PSIG)	OUTLET PRESSURE (PSIG)	LB/HR	REMARKS					
PRV-1	ARMSTRONG	GP2000-1	10.9	75	15	1672						
PRV-2	ARMSTRONG	GP2000-1-1/2	18.8	75	15	2884						

	STEAM RELIEF VALVE SCHEDULE											
MARK	MANUFACTURER	MODEL	INLET SIZE (IN)	OUTLET SIZE (IN)	OUTLET PRESSURE (PSIG)	LB/HR	REMARKS					
STEAM RELIEF	ARMSTRONG	6010 JH	2"	2-1/2"	25	2730						

	STEAM TRAP SCHEDULE											
Mark	MANUFACTURER	MODEL	CAPACITY (LB/HR)	OUTLET SIZE (IN)	OPERATING PRESSURE (PSIG)	REMARKS						
ST-1	ARMSTRONG	F&T B8	8,000	2"	15							
ST-2	ARMSTRONG	811	425	3/4"	15							

	STEA		STEAM CONDENSATE PUMP SCHEDULE											
MARK	MANUFACTURER	MODEL	GPM	OUTLET PRESSURE (PSIG)	HP	STORAGE (GAL)	REMARKS							
CP-1	FABTEK		8	25	1/2	12								

	SCHEDULE OF CABINET HEATERS								
MARK	MANUFACTURER	MODEL	SIZE	HEATING CAPACITY (BTU/HR)	POWER (WATTS)	VOLTAGE	FULL-LOAD AMPS	REMARKS	
CH-1	QMARK	CWH3150F		5,115	1,500	120V, 1-PH	12.5	SURFACE MOUNT	

			S	CHED	ULE C	DF FAN	S		
MARK	MANUFACTURER	MODEL	AIR FLOW (CFM)	RPM	BHP	SOUND (SONES)	E.S.P (IN)	VOLTAGE	REMARKS
EF-1	GREENHECK	BSQ 160-7	3,000	1260	.74	14.6	.25	208V, 3-PH	① MECHANICAL ROOM

Mark	MANUFACTURER	MODEL	INLET DIM. SIZE	NOMINAL SIZE	AIR FLOW (CFM)	AIR THROW (FT)	AIR PRESSURE DROP (IN W.C.)	SOUND (NC)	MOUNTING		REMAR
S1	PRICE	SMD	18" x 18"	24" x 24"	667	12-24	0.036	<15	LAY-IN	1	
S2	PRICE	SMD	18" x 18"	24" x 24"	667	12-24	0.036	<15	DUCT		
S3	PRICE	SMD	15" x 15"	24" x 24"	600	10-21	0.036	<15	LAY-IN	(1)	
S4	PRICE	SMD	15" x 15"	24" x 24"	475	10-21	0.036	<15	LAY-IN	1	
S5	PRICE	520D	32" x 8"	32" x 8"	466	13-40	0.014	<15	WALL	(1)	
S6	PRICE	SMD	15" x 15"	24" x 24"	450	10-21	0.036	<15	LAY-IN	(Î)	
S7	PRICE	SMD	12" x 12"	18" x 18"	300	8-19	0.036	<15	LAY-IN	(Ť)	
S8	PRICE	520D	22" x 6"	22" x 6"	250	8-28	0.014	<15	DUCT	ň	
S9	PRICE	SMD	9" x 9"	15" x 5"	200	8-18	0.065	<15	LAY-IN	(Ť)	
S10	PRICE	SMD	9" x 9"	15" x 5"	180	8-18	0.065	<15	LAY-IN	ň	
S11	PRICE	520D	12" x 8"	12" x 8"	180	7-24	0.006	<15	WALL	ő	
S13	PRICE	SMD	9" x 9"	15" x 15"	150	6-16	0.036	<15	SURFACE	(Ť)	
S14	PRICE	SMD	6" x 6"	12" x 12"	80	4-12	0.036	<15	LAY-IN	-	
S15	PRICE	SMD	6" x 6"	12" x 12"	75	4-12	0.036	<15	LAY-IN	b	
										-	
R1	PRICE	95	60" x 56"	60" x 56"	8000			<15	WALL	2	
R2	PRICE	80	24" x 48"	24" x 48"	3000			<15	LAY-IN		
R3	PRICE	90	32" x 24"	32" x 24"	1800			<15	WALL	b	
R4	PRICE	90	28" x 24"	28" x 24"	1600			<15	WALL	-	
R5	PRICE	80	24" x 24"	24" x 24"	1425			<15	LAY-IN		
R6	PRICE	80	12" x 12"	12" x 12"	150			<15	LAY-IN		
R7	PRICE	80	12" x 12"	12" x 12"	125			<15	LAY-IN		
R8	PRICE	80	24" x 24"	24" x 24"	75			<15	SURFACE		
R9	PRICE	80	24" x 24"	24" x 24"	75			<15	LAY-IN		
DG	PRICE	ATGH	24" x 24"	24" x 24"	900		0.024	24	DOOR		
TG-1	PRICE	90			0		0.021	<15	WALL		

NOTES: 1. PROVIDE OPPOSED-BLADE VOLUME DAMPER AT EACH SUPPLY DIFFUSER. 2. PROVIDE FOR BLACK GRILLE IN COLOR. DUCTWORK INSIDE GRILLE SHALL BE PAINTED BLACK TO REDUCE REFLECTIONS.











- SINGLE POLE WALL SWITCH W/ OCCUPANCY SENSOR
- SINGLE POLE WALL SWITCH W/ DIMMER WALL SWITCH W/ LIGHTING CONTACTORS
- 3-WAY WALL SWITCH 4-WAY WALL SWITCH
- OCCUPANCY SENSOR LIGHT SWITCH
- ILLUMINATED EXIT SIGN ILLUMINATED EXIT SIGN W/ DIRECTION ARROW
- EMERGENCY EGRESS LIGHT
- CEILING MOUNT LIGHT FIXTURE
- WALL MOUNT LIGHT FIXTURE
- 2X2 LIGHT FIXTURE

STRIP LIGHT FIXTURE

2X4 LIGHT FIXTURE

COOPER-METALUX #SNLED, 4' SURFACE-MOUNT LINEAR LED FIXTURE, FULL FROSTED LENS, 0-10V DIMMABLE, 4000K, 120V. 5,660 LUMENS, 51.5 WATTS. COOPER-METALUX #SNLED, 4' SURFACE-MOUNT LINEAR LED FIXTURE, FULL FROSTED LENS, 0-10V DIMMABLE, 4000K, 120V. 7,500 LUMENS, 62 WATTS. COOPER-METALUX #SNLED, 4' SURFACE-MOUNT LINEAR LED FIXTURE, FULL FROSTED LENS, 0-10V DIMMABLE 4000K 120V 4.214 LUMENS 13 WATTS. INSTALLED IN CEILING TROFFER COOPER-PORTFOLIO #LD8A, 8" RECESSED CAN LED FIXTURE, 0-10V DIMMABLE, 4000K COLOR, 120V. 4,000 LUMENS, 58 WATTS. COOPER-METALUX #SNLED, 4' SURFACE-MOUNT LINEAR LED FIXTURE, FULL FROSTED LENS, 0-10V DIMMABLE, 4000K, 120V. 2,380 LUMENS, 16 WATTS. COOPER-METALUX #SNLED, 2' SURFACE-MOUNT LINEAR LED FIXTURE, FULL FROSTED LENS, 0-10V DIMMABLE, 4000K, 120V. 1,960 LUMENS, 14 WATTS. N) CELESTIAL-AQUARIUS #R SERIES, SURFACE-MOUNT VANITY LED FIXTURE, 4000K, 120V. 2,700 LUMENS, 9 WATT PER LAMP. FACTORY COLOR SELECTION BY ARCHITECT. EQUIP WITH ROUND LAMP GUARD. REFER TO ARCHITECTS DRAWINGS FOR LENGTH & SPACING. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR. O) COOPER-LUMARK #XTOR MAXX LED, WALL-MOUNT LED WALL PACK, FULL CUTOFF, WITH PHOTOCELL, FACTORY COLOR SELECTION BY ARCHITECT, 4000K, 120V. 7,300 LUMENS, 82 WATTS. LEVITON #9726 WITH GUARD, 120V. (1) LED LAMP, MAX 30 WATTS.

REV 1

GENERAL ELECTRICAL NOTES

- ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & ELEVATIONS PRIOR TO CONSTRUCTION. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR TEMPORARY LIGHTING, AS NEEDED, FOR DURATION OF
- ELECTRICAL CONTRACTOR SHALL CONFIRM ALL EQUIPMENT ELECTRICAL REQUIREMENTS, INCLUDING BREAKER/DISCONNECT CAPACITY, WITH OTHER TRADES PRIOR TO ORDERING.
- ELECTRICAL CONTRACTOR SHALL PROVIDE FOR ALL FINAL TERMINATIONS & CONNECTIONS TO EQUIPMENT & POWER FEED COMPONEN
- ELECTRICAL CONTRACTOR SHALL VERIFY ALL CIRCUITS IN EXISTING PANELS, AND PROVIDE FOR NEW, TYPED PANEL LEGENDS UPON COMPLETION OF PROJECT. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR ALL ADDITIONAL PANEL CIRCUIT BREAKERS AS REQUIRED FOR INSTALLATION OF ALL CIRCUITS AS SHOWN.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONCRETE FLOOR CUTTING & REMOVAL, WHICH PERTAINS TO THEIR RESPECTIVE WORK, AND ALSO RESPONSIBLE FOR NEW COMPACTED GRANULAR BACKFILL TO UNDERSIDE OF SLAB. ALL REMOVED SPOIL SHALL BE REMOVED & DISPOSED OFF-SITE - NO RE-USE ALLOWED. ELECTRICAL CONTRACTOR RESPONSIBLE FOR CONCRETE FLOOR REPLACEMENT,
- NCLUDING FINAL FINISH. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ALL AFFECTED ROOF, CEILING, WALLS & FLOORS, AND FINISHING FLUSH TO SURFACE. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL
- SURFACE FINISH, I.E. PAINT, TILE, CARPET, ETC. THROUGH AND MEMBRANE PENETRATIONS IN FIRE-RESISTIVE WALLS SHALL BE FIRESTOPPED IN ACCORDANCE WITH THE INDIANA BUILDING CODE REGULATIONS. IN COMBUSTIBLE CONSTRUCTION,
- FIREBLOCKING SHALL BE INSTALLED TO CUT OFF CONCEALED DRAFT OPENINGS (BOTH VERTICAL & HORIZONTAL) AND SHALL FORM AN EFFECTIVE BARRIER BETWEEN FLOORS, BETWEEN A TOP STORY AND A
- ROOF OR ATTIC SPACE. FIREBLOCKING SHALL BE INSTALLED IN LOCATIONS IN ACCORDANCE WITH THE INDIANA BUILDING CODE REGULATIONS.

KEYED ELECTRICAL NOTES

- (E1) ELECTRICAL CONTRACTOR SHALL PROVIDE FOR A SECOND CIRCUIT ROUTED TO EACH EMERGENCY/NIGHT LIGHT FIXTURE, BYPASSING THE SWITCH LEG. IN POWER OUTAGE, THIS SECOND CIRCUIT WILL SEE NO POWER, WHICH WILL ENABLE FIXTURE'S BATTERY BACK-UP AND PROVIDE FOR EMERGENCY EGRESS LIGHTING. COORDINATE INSTALLATION WITH ALL TRADES & OWNER \langle E2 \rangle ELECTRICAL CONTRACTOR SHALL INSTALL NEW LIGHT FIXTURE AFTER MECHANICAL DUCTWORK & PIPING IS SUBSTANTIALLY COMPLETE, EXTENDING WIRING/CONDUIT TO NEW FIXTURE LOCATIONS, AS NECESSARY EXACT FIXTURE LOCATION TO BE FIELD DETERMINED, TO PROVIDE OPTIMAL ILLUMINATION IN ROOM.
- COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
- MAKE-UP AIR UNIT, WITH CONCRETE FOUNDATION, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #350 MCM THHW + GND, COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (2) DUCT SMOKE DETECTORS - LOCATED IN SUPPLY & RETURN AIR DUCTWORK -ROUTED TO EXISTING FIRE ALARM CONTROL PANEL & PROGRAMMED TO AUTOMATICALLY SHUT DOWN FAN OPERATION UPON ACTIVATION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E5) AIR HANDLING UNIT, WITH SPRING ISOLATORS & STRUCTURAL STEEL FRAMING, BY MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2) #10 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (1) DUCT SMOKE DETECTOR - LOCATED IN RETURN AIR DUCTWORK - ROUTED TO EXISTING FIRE ALARM CONTROL PANEL & PROGRAMMED TO AUTOMATICALLY SHUT DOWN FAN OPERATION UPON ACTIVATION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ROOFTOP AIR HANDLING UNIT, WITH SEISMIC INSULATED ROOF CURB & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT. (3) #10 THE HOLD COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (1) DUCT SMOKE DETECTOR - LOCATED IN RETURN AIR DUCTWORK - ROUTED TO EXISTING FIRE ALARM CONTROL PANEL & PROGRAMMED TO AUTOMATICALLY SHUT DOWN FAN OPERATION UPON ACTIVATION. COORDINATE INSTALLATION WITH ALL **FRADES & OWNER** ROOFTOP AIR HANDLING UNIT, WITH SEISMIC INSULATED ROOF CURB & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT. (3) #4 THE HOLD COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (1) DUCT SMOKE DETECTOR - LOCATED IN RETURN AIR DUCTWORK - ROUTED TO EXISTING FIRE ALARM CONTROL PANEL & PROGRAMMED TO AUTOMATICALLY SHUT DOWN FAN OPERATION UPON ACTIVATION. COORDINATE INSTALLATION WITH ALL **FRADES & OWNER** CONDENSING UNIT, WITH SEISMICALLY-DESIGNED RAILS & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #10 THHW + GND, COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. EXHAUST FAN, WITH INSULATED ROOF CURB, M.O. DAMPER, & BIRDSCREEN, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2) #10 THHW + GND, COMPLETE NEMA 1 COMBINATION STARTER/DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. EXHAUST FAN TO BE CONTROLLED VIA IN-RESTROOM OCCUPANCY SENSOR WITH TIME DELAY OFF. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E10) HEAT PUMP UNIT, WITH SEISMICALLY-DESIGNED RAILS & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 1-PH CIRCUIT, (2)#10 THHW + GND, COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. OORDINATE INSTALLATION WITH ALL TRADES & OWNER. FAN COIL UNIT, WITH SEISMICALLY-DESIGNED HANGERS, SPRING ISOLATORS & INTEGRAL CONDENSATE PUMP, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 1-PH CIRCUIT, (2) # 12 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. HYDRONIC PUMP, WITH CONCRETE HOUSEKEEPING PAD, GROUTING, & SEISMIC INERTIA RESTRAINT BASE, BY MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #8 THHN + GND COMPLETE NEMA 1 DISCONNECT NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE & INSTALL VFD, AND ELECTRICAL CONTRACTOR SHALL PROVIDE FOR CIRCUITING TO/FROM BOTH VFD & PUMP. COORDINATE INSTALLATION WITH ALL TRADES & OW NER. STEAM CONDENSATE PUMP, WITH CONCRETE HOUSEKEEPING PAD, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 1-PH CIRCUIT, (2) #12 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. COORDINATE
- INSTALLATION WITH ALL TRADES & OWNER. E14 NEW EXIT DOOR BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR ANY CONDULT/CONDUCTOR RELOCATIONS, AS NECESSARY. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. MECHANICAL CONTRACTOR SHALL PROVIDE FOR RELOCATION OF EXISTING WATER HEATER & PUMP, AS SHOWN, COMPLETE WITH ANY NECESSARY PIPING EXTENSIONS. FOR WATER HEATER, ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #3/0 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2) #12 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. E16 CONDENSING UNIT, WITH SEISMICALLY-DESIGNED RAILS & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #8 THHW + GND, COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS.
- COORDINATE INSTALLATION WITH ALL TRADES & OWNER.

 (E17)
 LIFT PROVIDED & INSTALLED BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V

 1-PH CIRCUIT, (2) #12 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER

 PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER &

 CONTROL WIRING FROM CONTROLLER TO LIFT. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. E18 ELECTRIC CABINET HEATER BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR A 120V 1-PH CIRCUIT, (2) #12 THHN + GND, WITH A NEMA 1 DISCONNECT, COMPLETE WITH FINAL FERMINATIONS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES & OWNER. CONDUITS BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (3) 4" CONDUITS, ROUTE FROM SOUND BOOTH TO STAGE AS SHOWN. ELECTRICAL CONTRACTOR SHALL ROUTE DROPS AT
- IGHTING CONTROLS IN AUDITORIUM AS SHOWN. ELECTRICAL CONTRACTOR SHALL INCLUDE A PULL HROUGH WIRE IN EACH CONDUIT FOR FUTURE. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES & OWNER. TELEVISION PROVIDED BY OWNER, WITH MOUNTING & INSTALLATION BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V DUPLEX OUTLET & (1) CAT6 DATA DROP, (1) HDMI DROP, AT APPROXIMATELY +84" A.F.F. ELECTRICAL CONTRACTOR SHALL CONFIRM EXACT LOCATION & ELEVATION WITH ARCHITECT. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. VAV BOX UNIT, WITH SPRING ISOLATORS, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2) #12, THHN + GND, WITH A 1-POLE NEMA 1 COMBINATION STARTER/DISCONNECT, COMPLETE WITH FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL RADES & OWNER
- (E22) ELECTRICAL CONTRACTOR SHALL INVESTIGATE & REPAIR WIRING ON 100A BREAKER LISTED AS "ICE MACHINE". COORDINATE INSTALLATION WITH ALL TRADES & OWNER. HEATING HOT WATER PIPING BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE HEAT TRACE FOR FULL LENGTH (8 WATT/FT), WITH A 120V 1-PH CIRCUIT, (2) #12, THWN + GND, COMPLETE WITH A NEMA 3R DISCONNECT, THERMOSTAT FOR AUTOMATIC OPERATION, & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. \langle E24 \rangle ELECTRICAL CONTRACTOR SHALL REPLACE EXISTING STAGE HOUSE LIGHTING AS SHOWN. COORDINATE NEW LOCATIONS WITH OWNER. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
- NEW FIRE ALARM DEVICE (SMOKE/HEAT DETECTOR, HORN/STROBE ALARM, MANUAL PULL STATION, ETC.) BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS, COMPLETE WITH FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR TESTING OF ENTIRE SYSTEM, PRIOR TO SUBSTANTIAL COMPLETION. NOT ALL DEVICES ARE INDICATED WITH A KEYED NOTE, FOR CLARITY. COORDINATE INSTALLATION WITH ALL **TRADES & OWNER** NEW FIRE ALARM DEVICE (SMOKE/HEAT DETECTOR, HORN/STROBE ALARM, MANUAL PULL STATION, ETC.) BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS, COMPLETE WITH FINAL TERMINATIONS. ELECTRICAL
- CONTRACTOR SHALL PROVIDE FOR TESTING OF ENTIRE SYSTEM. PRIOR TO SUBSTANTIAL COMPLETION. NOT LL DEVICES ARE INDICATED WITH A KEYED NOTE, FOR CLARITY. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ELECTRICAL CONTRACTOR SHALL DISCONNECT/REMOVE EXISTING FIRE ALARM DEVICE (SMOKE/HEAT DETECTOR, HORN/STROBE ALARM, MANUAL PULL STATION, ETC.), THEN PROVIDE FOR NEW DEVICE & WIRING TO NEW FIRE ALARM PANEL. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR TESTING & REPAIR OF ENTIRE SYSTEM, PRIOR TO SUBSTANTIAL COMPLETION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E28) GENERAL CONTRACTOR SHALL PAINT EXISTING JUNCTION BOX FACEPLATE TO MATCH EXISTING WALL COLOR. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ELECTRICAL CONTRACTOR SHALL REPLACE EXISTING RECEPTACLE (DUPLEX, GFCI, QUADPLEX) WITH NEW RECEPTACLE, (SAME TYPE) GREY IN COLOR, AS SHOWN. ELECTRICAL CONTRACTOR SHALL REPLACE
- EXISTING FACEPLATE. INCLUDING JUNCTION BOXES, WITH NEW FACEPLATE, STAINLESS STEEL FINISH, AS SHOWN. COORDINATE INSTALLATION WITH ALL TRADES AND OWNER. <E30> PANELBOARD BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS, COMPLETE WITH FINAL FERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR NEW FEEDER WITH CIRCUIT BREAKER FROM EXISTING MSG. ELECTRICAL CONTRACTOR SHAPP PROVIDE FOR A FLOOR MOUNT A-FRAME FOR PANEL SUPPORT. DO NOT MOUNT PANEL UNDER DUCTWORK. COORDINATE INSTALLATION WITH ALL TRADES AND OWNER.
- (E31) GLYCOL PUMP BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR A 120V 1-PH CIRCUIT, (2) #12 THHN + GND, WITH A NEMA 1 DISCONNECT, COMPLETE WITH FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES & OWNER. ELECTRICAL CONTRACTOR SHALL CONFIRM CIRCUIT, THEN DISCONNECT/REMOVE AND CLEAN EXISTING LIGHT FIXTURES, LEAVING ALL ASSOCIATED WIRING/CONDUIT, FOR RE-CONNECTIONS & EXTENSIONS, AS NECESSARY. ELECTRICAL CONTRACTOR SHALL RETROFIT LIGHT FIXTURE FOR LED CAPABILITIES. EQUIP
- WITH BATTERY/INVERTER FOR USE AS AN EMERGENCY/NIGHT LIGHT WITH PHOTOCELL. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S ECOMMENDATIONS & DETAILS, COMPLETE WITH FINAL TERMINATIONS. CUSTOM COLOR SELECTION BY ARCHITECT. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E33) ELECTRICAL CONTRACTOR SHALL PROVIDE FOR GROUNDING OF (3)SURGE SUPPRESSION DEVICES. ELECTRICAL CONTRACTOR SHALL GROUND DEVICES TO BUILDING GROUND. COORDINATE INSTALLATION WITH ALL TRADES & OW NER. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR CLEANING OF EXISTING CHANDELIERS BY PROFESSIONAL CLEANING COMPANY AT END OF PROJECT. FIRE ALARM PANEL BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION. AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS, COMPLETE WITH FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.
- \sim \langle E36angle FIRE SPRINKLER FLOW & VALVE TAMPER SWITCHES BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE ALARM CIRCUITS TO FLOW & TAMPER SWITCHES, AT INTERIOR FIRE SPRINKLER RISER & EXTERIOR P.I.V., FROM FIRE ALARM PANEL. REFER TO CIVIL/SITE DRAWINGS FOR EXACT LOCATION OF EXTERIOR P.I.V. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAW-CUTTING. EXCAVATION, INSTALLATION, & BACKFILLING/COMPACTION, AND COMPLETE SURFACE RESTORATION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ELECTRIC HAND DRYER BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH
- ᠕ᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬᠬ COOPER-METALUX #SNLED, 8' SUSPENDED LINEAR LED FIXTURE, CLEAR LENS, 0-10V DIMMABLE, 4000K, 120V. 6,154 LUMENS, 42 WATTS. COOPER-METALUX #SNLED, 8' SURFACE-MOUNT LINEAR LED FIXTURE, CLEAR LENS, 0-10V DIMMABLE, 4000K, 120V. 6,154 LUMENS, 42 WATTS. EXISTING STAGE LIGHTING NOT IN CONTRACT
 - SL) SURE-LITES #APEL LED EMERGENCY FIXTURE, AC ONLY, TEST SWITCH WITH INDICATOR, 277V. LED COLOR SELECTION BY ARCHITECH. EQUIP WITH EMERGENCY BATTERY/INVERTER FOR USE AS AN EMERGENCY/NIGHT LIGHT AUDITORIUM LIGHTING CONTROL - PROVIDE FOR (4) STATIONS AS SHOWN. EACH STATION SHALL BE CAPABLE OF UP TO (6) DIMMABLE SCENEDS FOR ENTIRE AUDITORIUM LESS THE STAGE FIXTURES. PROVIDE SEPARATE
- DIMMERS FOR THE CHANDLIER.

INSTALLATION WITH ALL TRADES & OWNER.

CIRCUIT, (2) #12, THHN + GND, WITH A NEMA 1 DISCONNECT, WITH FINAL TERMINATIONS. COORDINATE

S ES UNIVER: ITECTURAL VICES AND CILITIES SERVI FAO

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Date

2/13/20

Revision

Date: 02-02-2023

F2

ELECTRICAL

LIGHTING PLAN

REV

awn Bv: NAB

hecked By: MJH

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ATTIC ELECTRICAL LIGHTING PLAN 1/8" = 1'-0"

ELECTRICAL LIGHTING LEGEND

\$	SINGLE POLE WALL SWITCH
\$ _M	SINGLE POLE WALL SWITCH W/ OCCUPANCY SENSOR
\$ _D	SINGLE POLE WALL SWITCH W/ DIMMER
<u>م</u>	

- WALL SWITCH W/ LIGHTING CONTACTORS 3-WAY WALL SWITCH 4-WAY WALL SWITCH
- OCCUPANCY SENSOR LIGHT SWITCH
- ILLUMINATED EXIT SIGN ILLUMINATED EXIT SIGN W/ DIRECTION ARROW
- EMERGENCY EGRESS LIGHT 只
- CEILING MOUNT LIGHT FIXTURE
- WALL MOUNT LIGHT FIXTURE
- 2X2 LIGHT FIXTURE
- 2X4 LIGHT FIXTURE
- STRIP LIGHT FIXTURE



GENERAL ELECTRICAL NOTES

ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & ELEVATIONS PRIOR TO CONSTRUCTION. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR TEMPORARY LIGHTING, AS NEEDED, FOR DURATION OF ELECTRICAL CONTRACTOR SHALL CONFIRM ALL EQUIPMENT ELECTRICAL REQUIREMENTS, INCLUDING BREAKER/DISCONNECT CAPACITY, WITH OTHER TRADES PRIOR TO ORDERING. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR ALL FINAL TERMINATIONS & CONNECTIONS TO EQUIPMENT & POWER FEED COMPONENT. ELECTRICAL CONTRACTOR SHALL VERIFY ALL CIRCUITS IN EXISTING PANELS, AND PROVIDE FOR NEW, TYPED PANEL LEGENDS UPON COMPLETION OF PROJECT. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR ALL ADDITIONAL PANEL CIRCUIT BREAKERS AS REQUIRED FOR INSTALLATION OF ALL CIRCUITS AS SHOWN. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONCRETE FLOOR CUTTING & REMOVAL, WHICH PERTAINS TO THEIR RESPECTIVE WORK, AND ALSO RESPONSIBLE FOR NEW COMPACTED GRANULAR BACKFILL TO UNDERSIDE OF SLAB. ALL REMOVED SPOIL SHALL BE REMOVED & DISPOSED OFF-SITE - NO RE-USE ALLOWED. ELECTRICAL CONTRACTOR RESPONSIBLE FOR CONCRETE FLOOR REPLACEMENT, INCLUDING FINAL FINISH. G7 ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ALL AFFECTED ROOF, CEILING, WALLS & FLOORS, AND FINISHING FLUSH TO SURFACE. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL SURFACE FINISH, I.E. PAINT, TILE, CARPET, ETC. G8 THROUGH AND MEMBRANE PENETRATIONS IN FIRE-RESISTIVE WALLS SHALL BE FIRESTOPPED IN ACCORDANCE WITH THE INDIANA BUILDING CODE REGULATIONS. IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE INSTALLED TO CUT OFF CONCEALED DRAFT OPENINGS (BOTH VERTICAL & HORIZONTAL) AND SHALL FORM AN EFFECTIVE BARRIER BETWEEN FLOORS, BETWEEN A TOP STORY AND A ROOF OR ATTIC SPACE. FIREBLOCKING SHALL BE INSTALLED IN LOCATIONS IN ACCORDANCE WITH THE INDIANA BUILDING CODE REGULATIONS. **KEYED ELECTRICAL NOTES** (E1) ELECTRICAL CONTRACTOR SHALL PROVIDE FOR A SECOND CIRCUIT ROUTED TO EACH EMERGENCY/NIGHT LIGHT FIXTURE, BYPASSING THE SWITCH LEG. IN POWER OUTAGE, THIS SECOND CIRCUIT WILL SEE NO POWER, WHICH WILL ENABLE FIXTURE'S BATTERY BACK-UP AND PROVIDE FOR EMERGENCY EGRESS LIGHTING. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. E2 ELECTRICAL CONTRACTOR SHALL INSTALL NEW LIGHT FIXTURE AFTER MECHANICAL DUCTWORK & PIPING IS SUBSTANTIALLY COMPLETE, EXTENDING WIRING/CONDUIT TO NEW FIXTURE LOCATIONS, AS NECESSARY. EXACT FIXTURE LOCATION TO BE FIELD DETERMINED, TO PROVIDE OPTIMAL ILLUMINATION IN ROOM. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. E3 NOT USED
 MAKE-UP AIR UNIT, WITH CONCRETE FOUNDATION, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #350 MCM THHW + GND, COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (2) DUCT SMOKE DETECTORS - LOCATED IN SUPPLY & RETURN AIR DUCTWORK -ROUTED TO EXISTING FIRE ALARM CONTROL PANEL & PROGRAMMED TO AUTOMATICALLY SHUT DOWN FAN OPERATION UPON ACTIVATION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E5) AIR HANDLING UNIT, WITH SPRING ISOLATORS & STRUCTURAL STEEL FRAMING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2)#10 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (1) DUCT SMOKE DETECTOR - LOCATED IN RETURN AIR DUCTWORK - ROUTED TO EXISTING FIRE ALARM CONTROL PANEL & PROGRAMMED TO AUTOMATICALLY SHUT DOWN FAN OPERATION UPON ACTIVATION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ROOFTOP AIR HANDLING UNIT, WITH SEISMIC INSULATED ROOF CURB & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #10 THE AND COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (1) DUCT SMOKE DETECTOR - LOCATED IN RETURN AIR DUCTWORK - ROUTED TO EXISTING FIRE ALARM CONTROL PANEL & PROGRAMMED TO AUTOMATICALLY SHUT DOWN FAN OPERATION UPON ACTIVATION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ROOFTOP AIR HANDLING UNIT, WITH SEISMIC INSULATED ROOF CURB & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT. (3) #4 THE AND COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (1) DUCT SMOKE DETECTOR - LOCATED IN RETURN AIR DUCTWORK - ROUTED TO EXISTING FIRE ALARM CONTROL PANEL & PROGRAMMED TO AUTOMATICALLY SHUT DOWN FAN OPERATION UPON ACTIVATION. COORDINATE INSTALLATION WITH ALL **FRADES & OWNER** CONDENSING UNIT, WITH SEISMICALLY-DESIGNED RAILS & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #10 THHW + GND, COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. E9 EXHAUST FAN, WITH INSULATED ROOF CURB, M.O. DAMPER, & BIRDSCREEN, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2) #10 THHW + GND, COMPLETE NEMA 1 COMBINATION STARTER/DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. EXHAUST FAN TO BE CONTROLLED VIA IN-RESTROOM OCCUPANCY SENSOR WITH TIME DELAY OFF. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E10) HEAT PUMP UNIT, WITH SEISMICALLY-DESIGNED RAILS & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 1-PH CIRCUIT, (2) #10 THHW + GND, COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. FAN COIL UNIT, WITH SEISMICALLY-DESIGNED HANGERS, SPRING ISOLATORS & INTEGRAL CONDENSATE PUMP, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 1-PH CIRCUIT, (2) # 12 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. HYDRONIC PUMP, WITH CONCRETE HOUSEKEEPING PAD, GROUTING, & SEISMIC INERTIA RESTRAINT BASE, BY MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #8 THHN + GND. COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE & INSTALL VFD, AND ELECTRICAL CONTRACTOR SHALL PROVIDE FOR CIRCUITING TO/FROM BOTH VFD & PUMP. COORDINATE INSTALLATION WITH ALL TRADES & OW NER. (E13) STEAM CONDENSATE PUMP, WITH CONCRETE HOUSEKEEPING PAD, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 1-PH CIRCUIT, (2) #12 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. E14 NEW EXIT DOOR BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR ANY CONDUIT/CONDUCTOR RELOCATIONS, AS NECESSARY. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. MECHANICAL CONTRACTOR SHALL PROVIDE FOR RELOCATION OF EXISTING WATER HEATER & PUMP, AS SHOWN, COMPLETE WITH ANY NECESSARY PIPING EXTENSIONS. FOR WATER HEATER, ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #3/0 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2) #12 THHN + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMÍNATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E16) CONDENSING UNIT, WITH SEISMICALLY-DESIGNED RAILS & STRUCTURAL STEEL REINFORCING, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 208V 3-PH CIRCUIT, (3) #8 THHW + GND, COMPLETE NEMA 3R DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E17) LIFT PROVIDED & INSTALLED BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2) #12 THNH + GND, COMPLETE NEMA 1 DISCONNECT, NEW BREAKER/FUSING AT FEEDER PANEL & FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER & CONTROL WIRING FROM CONTROLLER TO LIFT. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E18) ELECTRIC CABINET HEATER BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR A 120V 1-PH CIBCUIT (2) #12 THHN + GND WITH A NEMA 1 DISCONNECT COMPLETE WITH FINAL FERMINATIONS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES & OWNER. CONDUITS BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR (3) 4" CONDUITS, ROUTE FROM SOUND BOOTH TO STAGE AS SHOWN. ELECTRICAL CONTRACTOR SHALL ROUTE DROPS AT IGHTING CONTROLS IN AUDITORIUM AS SHOWN. ELECTRICAL CONTRACTOR SHALL INCLUDE A PULL FHROUGH WIRE IN EACH CONDUIT FOR FUTURE. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES & OWNER. TELEVISION PROVIDED BY OWNER, WITH MOUNTING & INSTALLATION BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V DUPLEX OUTLET & (1) CAT6 DATA DROP, (1) HDMI DROP, AT APPROXIMATELY +84" A.F.F. ELECTRICAL CONTRACTOR SHALL CONFIRM EXACT LOCATION & ELEVATION WITH ARCHITECT. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. VAV BOX UNIT, WITH SPRING ISOLATORS, BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2) #12, THHN + GND, WITH A 1-POLE NEMA 1 COMBINATION STARTER/DISCONNECT, COMPLETE WITH FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL RADES & OWNER (E22) ELECTRICAL CONTRACTOR SHALL INVESTIGATE & REPAIR WIRING ON 100A BREAKER LISTED AS "ICE MACHINE". COORDINATE INSTALLATION WITH ALL TRADES & OWNER. E23 HEATING HOT WATER PIPING BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE HEAT TRACE FOR FULL LENGTH (8 WATT/FT), WITH A 120V 1-PH CIRCUIT, (2) #12, THWN + GND, COMPLETE WITH A NEMA 3R DISCONNECT, THERMOSTAT FOR AUTOMATIC OPERATION, & FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER $\left< \text{E24} \right>$ ELECTRICAL CONTRACTOR SHALL REPLACE EXISTING STAGE HOUSE LIGHTING AS SHOWN. COORDINATE NEW LOCATIONS WITH OWNER. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. NEW FIRE ALARM DEVICE (SMOKE/HEAT DETECTOR, HORN/STROBE ALARM, MANUAL PULL STATION, ETC.) BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS, COMPLETE WITH FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR TESTING OF ENTIRE SYSTEM, PRIOR TO SUBSTANTIAL COMPLETION. NOT ALL DEVICES ARE INDICATED WITH A KEYED NOTE, FOR CLARITY. COORDINATE INSTALLATION WITH ALL TRADES & OWNER NEW FIRE ALARM DEVICE (SMOKE/HEAT DETECTOR, HORN/STROBE ALARM, MANUAL PULL STATION, ETC.) BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS, COMPLETE WITH FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR TESTING OF ENTIRE SYSTEM, PRIOR TO SUBSTANTIAL COMPLETION. NOT L DEVICES ARE INDICATED WITH A KEYED NOTE, FOR CLARITY. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ELECTRICAL CONTRACTOR SHALL DISCONNECT/REMOVE EXISTING FIRE ALARM DEVICE (SMOKE/HEAT DETECTOR, HORN/STROBE ALARM, MANUAL PULL STATION, ETC.), THEN PROVIDE FOR NEW DEVICE & WIRING TO NEW FIRE ALARM PANEL. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR TESTING & REPAIR OF ENTIRE SYSTEM, PRIOR TO SUBSTANTIAL COMPLETION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. $\langle E28 \rangle$ GENERAL CONTRACTOR SHALL PAINT EXISTING JUNCTION BOX FACEPLATE TO MATCH EXISTING WALL COLOR. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ELECTRICAL CONTRACTOR SHALL REPLACE EXISTING RECEPTACLE (DUPLEX, GFCI, QUADPLEX) WITH NEW RECEPTACLE, (SAME TYPE) GREY IN COLOR, AS SHOWN. ELECTRICAL CONTRACTOR SHALL REPLACE EXISTING FACEPLATE, INCLUDING JUNCTION BOXES, WITH NEW FACEPLATE, STAINLESS STEEL FINISH, AS SHOWN. COORDINATE INSTALLATION WITH ALL TRADES AND OWNER. (E30) PANELBOARD BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS COMPLETE WITH FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR NEW FEEDER WITH CIRCUIT BREAKER FROM EXISTING MSG. ELECTRICAL CONTRACTOR SHALP PROVIDE FOR A FLOOR MOUNT A-FRAME FOR PANEL SUPPORT. DO NOT MOUNT PANEL UNDER DUCTWORK. COORDINATE INSTALLATION WITH ALL TRADES AND OWNER. (E3) GLYCOL PUMP BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR A 120V 1-PH CIRCUIT, (2) #12 THIN + GND, WITH A NEMA 1 DISCONNECT, COMPLETE WITH FINAL TERMINATIONS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES & OWNER. ELECTRICAL CONTRACTOR SHALL CONFIRM CIRCUIT, THEN DISCONNECT/REMOVE AND CLEAN EXISTING <E32> LIGHT FIXTURES, LEAVING ALL ASSOCIATED WIRING/CONDUIT, FOR RE-CONNECTIONS & EXTENSIONS, AS NECESSARY. ELECTRICAL CONTRACTOR SHALL RETROFIT LIGHT FIXTURE FOR LED CAPABILITIES. EQUIP WITH BATTERY/INVERTER FOR USE AS AN EMERGENCY//INGHT LIGHT WITH PHOTOCELL. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION, AS PER MANUFACTURER'S ECOMMENDATIONS & DETAILS, COMPLETE WITH FINAL TERMINATIONS. CUSTOM COLOR SELECTION BY ARCHITECT. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. (E33) ELECTRICAL CONTRACTOR SHALL PROVIDE FOR GROUNDING OF (3)SURGE SUPPRESSION DEVICES. ELECTRICAL CONTRACTOR SHALL GROUND DEVICES TO BUILDING GROUND. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR CLEANING OF EXISTING CHANDELIERS BY PROFESSIONAL CLEANING COMPANY AT END OF PROJECT.

ALTERNATE ALTERNATE > (E37)

ALTERNATE

EXCAVATION, INSTALLATION, & BACKFILLING/COMPACTION, AND COMPLETE SURFACE RESTORATION. COORDINATE INSTALLATION WITH ALL TRADES & OWNER. ELECTRIC HAND DRYER BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A 120V 1-PH CIRCUIT, (2) #12, THHN + GND, WITH A NEMA 1 DISCONNECT, WITH FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.

FINAL TERMINATIONS. COORDINATE INSTALLATION WITH ALL TRADES & OWNER.

COOPER-METALUX #SNLED, 8' SUSPENDED LINEAR LED FIXTURE, CLEAR LENS, 0-10V DIMMABLE, 4000K, 120V. 6,154 LUMENS, 42 WATTS. COOPER-METALUX #SNLED, 8' SURFACE-MOUNT LINEAR LED FIXTURE, CLEAR LENS, 0-10V DIMMABLE, 4000K, 120V. 6,154 LUMENS, 42 WATTS.

EXISTING STAGE LIGHTING NOT IN CONTRACT. SL) SURE-LITES #APEL LED EMERGENCY FIXTURE, AC ONLY, TEST SWITCH WITH INDICATOR, 277V. LED COLOR SELECTION BY ARCHITECH. EQUIP WITH EMERGENCY BATTERY/INVERTER FOR USE AS AN EMERGENCY/NIGHT LIGHT.

AUDITORIUM LIGHTING CONTROL - PROVIDE FOR (4) STATIONS AS SHOWN, EACH STATION SHALL BE CAPABLE OF UP TO (6) DIMMABLE SCENEDS FOR ENTIRE AUDITORIUM LESS THE STAGE FIXTURES. PROVIDE SEPARATE DIMMERS FOR THE CHANDLIER.

FIRE ALARM PANEL BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FOR COMPLETE INSTALLATION. AS PER MANUFACTURER'S RECOMMENDATIONS & DETAILS, COMPLETE WITH CONTRACTOR SHALL PROVIDE FIRE ALARM CIRCUITS TO FLOW & TAMPER SWITCHES, AT INTERIOR FIRE SPRINKLER RISER & EXTERIOR P.I.V., FROM FIRE ALARM PANEL. REFER TO CIVIL/SITE DRAWINGS FOR EXACT LOCATION OF EXTERIOR P.I.V. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAW-CUTTING.













TYPICAL WIRELESS ACCESS POINT DETAIL





NEW ELECTRICAL FEEDERS 1-1/4" COND

Vincennes University Office of Arch. Services 1002 N 1st St Vincennes, IN 47591

Phone (812) 888-4323 Fax (812) 888-2220

Pre-Bid Meeting

Vincennes University, Green Activities Center, Partial Renovations

February 9, 2023

1. INTRODUCTIONS

- A. Andrew Young, Vincennes University
- B. Jeff Weber, Vincennes University
- C. Erik Heinz, Heinz Associates
- D. Nick Bammes, Heinz Associates

2. BIDDING

- a. Notice is hereby given that sealed proposals for the Green Activities Center Partial Renovations, Vincennes University, Indianapolis, Indiana will be received by the Board of Trustees for Vincennes University at the Office of the Architectural Services & Facilities, 817 North Second Street, Vincennes, Indiana, until Thursday, February 23, 2023 at 2:00 PM (LOCAL TIME). To clarify, Vincennes is located in the Eastern time zone.
- b. Bids will be opened and publicly read aloud immediately following.
- c. The Owner reserves the right to accept or reject any proposal or waive any informality or errors in bidding.
- d. Bids shall be executed in accordance with the provided bid forms, Certification of Non-Segregated Facilities and with Indiana State Board of Accounts Form 96 (revised 2013), a completed AIA Form G705, and accompanied by a satisfactory bid bond, payable to Vincennes University for not less than 5% of the total bid price. Contractor shall acknowledge all addenda on bid form.
- e. Contractor receiving award shall furnish an approved Performance Bond in an amount of at least equal to 110% of the contract price and also a Labor and Material Payment Bond in an amount at least equal to 110% of the contract price or in a penal sum not less than that prescribed by law; as securities for the faithful performance of the contract and for the payment of all persons performing labor and furnishing materials on this project.
- f. Should bidder withdraw his bid within 90 days from date of opening without written consent of the Owner, the Owner may declare the bid deposit forfeited as liquidated damages.
- g. All Contractors are to carefully review Division 00 for bidding instructions and method of bidding. Also included in Division 00 are forms to report Minority, Women's and Veteran's Business Participation.

3. PROJECT SUMMARY

- a. BASE BID
 - Replacement of existing mechanical HVAC & temperature controls system;
 - b. Replacement of fluorescent lighting with new LED lighting;
 - c. Upgrade existing fire alarm system & IT/low voltage cabling in building.

b. ALTERNATES

- a. Alternate #1: Replacement of windows;
- b. Alternate #2: Renovation of existing restroom & green room areas;
- c. Alternate #3: Provide new vertical wheelchair lift;
- d. Alternate #4: Provide for exterior brick repair;
- e. Alternate #5: Provide for new fire suppression system.
- f. Alternate #6: Replace existing pad-mount transformer.
- c. ALLOWANCES
 - a. Include in the bid all allowances as indicated in specification section 012100.
 - i. Allowance No. 1: Contract #1 General Contingency Allowance: Include the sum of \$30,000.
 - ii. Allowance No. 2: Contract #2 Mechanical Contingency Allowance: Include the sum of \$30,000.
 - iii. Allowance No. 3: Contract #3 Electrical Contingency Allowance: Include the sum of \$30,000.
 - iv. Allowance No. 4: Contract #4 Unified Contingency Allowance: Include the sum of \$90,000.
 - v. Allowance No. 5: Contract #1 and Contract #4 Hardware Allowance: Include the sum of \$9,000.

d. WORK UNDER SEPARATE CONTRACTS

- a. Project will be constructed under (3) contracts, as follows:
- b. Contract #1: General Construction.
- c. Contract #2: Mechanical Construction.

- d. Contract #3: Electrical Construction.
- e. In addition, Owner will entertain bids for Unified contract, which would encompass General, Mechanical, & Electrical Construction:
 - i. Contract #4: Unified Construction.
- f. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.
- e. WORK PROVIDED BY OWNER
 - a. Owner shall provide & install security cameras.
- f. OWNER-FURNISHED CONTRACTOR-INSTALLED PRODUCTS
 - a. Toilet paper dispensers & soap dispensers.
 - b. Television monitors.
 - c. Wireless access points (WAP's).
- g. ACCESS TO SITE
 - a. Owner shall allow parking/staging in paved parking lot in front of building. At Substantial Completion, restore parking/staging areas to condition existing before initial use, including surface, stormwater structures, curbs, etc. Contractors to take special precautions to protect existing pervious pavements.
 - b. Contractors will be allowed to work inside the building from 7:00 AM 4:30 PM, Monday through Friday. If weekend or after-hours work is necessary, Contractors shall coordinate with Office of Architectural Services.
 - c. Contractor shall have restricted use of Project site for construction operations during construction period. Contractor's use of Project site is limited by Owner's right to perform daily work and the right of the owner to retain other contractors on portions of Project.
- h. COORDINATION WITH OCCUPANTS
 - a. Owner will not occupy any portions of the building during construction period.

b. Use of Owner's existing restrooms is prohibited. Contractor shall be responsible for providing & servicing their own portable restroom facilities.

i. PROJECT SCHEDULE

a.	Bids Due:	February 23, 2023
b.	Contracts Executed:	March 17, 2023
c.	Anticipated Notice to Proceed:	March 17, 2023
d.	Submittal Phase Complete:	April 7, 2023
e.	Start On-Site Work:	May 15, 2023
f.	Completion of Work:	October 27, 2023

j. TIME FOR COMPLETION

- a. The successful bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project NO LATER THAN October 27, 2023.
- k. ADDENDUM 1 to be issued February 13, 2023.
 - a. Further updates/addenda will be sent to all plan holders and posted on Vincennes University Office of Architectural Services & Facilities website as needed.
- I. COMMENTS, QUESTIONS AND ANSWERS:
 - a. All contractors shall take special precautions to protect existing finishes in areas they are working, for duration of construction.
 - b. Who is responsible for protecting existing sound panels inside Auditorium #110? *General Contractor shall be responsible for protecting existing sound panels.*
 - c. Please clarify quantity of Window #W4 in project. *Refer to revised sheets in Addendum 1.*
 - d. What is the glass make-up in the windows? *Refer to Specification 08 51 13, Section 2.3, D, for glass make-up information.*
 - e. Who is responsible to install the (3) new 2"x10" walk boards on either side of main duct trunk? *Mechanical Contractor shall be responsible for these walk boards, and shall coordinate the installation schedule with other Contracts.*

- f. Is the Mechanical Contractor responsible for final surface finishes? *No, each contract General, Mechanical, Electrical shall be responsible for final surface finishes only regarding their respected work.*
- g. How is Room #106 to be cooled/heated? *Room #106 shall have (1)* supply diffuser and (1) return grille – both are ducted from the north mezzanine, directly above.
- h. Is hydronic piping running along east wall of Auditorium #110 to be demolished, and new piping re-installed? Yes, existing pipe size is unknown. This existing piping is to be demolished/removed, and new 1-1-1/4" piping to be installed in same general route, although with new hangers installed. Disregard the "Point of Connection New to Existing" notation shown all piping is new.
- i. There are (2) instances of missing HWS/HWR pipe sizes. *Refer to revised sheets in Addendum 1.*
- j. Do new supply penetrations through drywall ceiling in Auditorium #110 need to be fire-rated? *No fire ratings needed for these penetrations.*
- k. If access hole(s) are cut in second ceiling above Auditorium #110, do they need to be patched? Existing second ceiling holds up batt insulation, so yes, any holes shall be patched. Existing 16" diameter supply duct drops through this ceiling can be re-used, with new main trunk above & new plenum box & GRD's below. While this is a means & method item and Contractor is ultimately responsible to determine how to install items above second ceiling Contractor is encouraged to consider lifting items from the stage area, then "walking" items down the walk boards to their location.
- I. Please clarify HW coil operation on MU-1 and RTU's. *MU-1 shall have a* 3-way control valve with a primary pump, to mix flows during winter months. All others RTU's shall have a 3-way control valve, with a manual valve in bypass.
- m. Please clarify control sequencing for AHU-1. *AHU-1 shall include controls for space temperature control with setback. Provide for humidity control with VFD fan control and reheat as required.*
- n. Please clarify controls for RTU-1. *RTU-1 shall be a multi-zone VAV system* with reheat at each terminal. Thermostats will be required at each zone (3) each. Humidity & CO2 sensors at VAV-3 for the main Lobby only.
- o. What is new Panel #LPM amperage? New Panel #LPM is to be a 120/208V 3-ph, 4-wire, 600A, with a main circuit breaker, and service-entrance rated. New Panel #LPM shall be fed from existing 300kVA padmount transformer.

- p. Where is new fire alarm control panel (FACP) to be located? *New FACP* shall be installed in same location as existing FACP, in North Mezzanine Mechanical Room.
- q. Are any existing electrical circuits changing? Most existing circuits other than Auditorium #110 lighting – shall remain in place, with existing home runs. However, bidder shall be responsible to carefully review construction documents to ensure any circuit changes are identified.
- r. Are any new raceways to be installed between stage to sound room? *Refer to Sheets #E4 & E5, for conduit & cable tray routing.*
- s. Are lighting controls to be tied back to the temperature controls BMS? *No, lighting controls are not tied into BMS.*
- t. Who is responsible to demolish/remove and install new suspended ceiling grid/tile? In areas scheduled for new suspended ceiling grid/tile, General Contractor shall be responsible for both demolishing/removing and installing new suspended ceiling grid/tile. In areas scheduled to maintain suspended ceiling grid/tile, each individual contract working in the area shall be responsible for both removing and re- installing existing suspended ceiling grid/tile.
- u. Where can MC cable be utilized in lieu of hard conduit? *Hard conduit* shall be utilized from feeder panel to each individual room/space or piece of equipment. MC cable may only be utilized from the last junction box to the individual end use or equipment. In addition, MC cable may not be utilized in any exposed application.
- v. Please clarify (2) locations where Keyed Note #P6 is shown (1) in Room #123 and (1) outside building near Room #119A. Disregard these 2 locations of Keyed Note #P6. There is only 1 floor sink to be installed in the project, to be located in Room #107.

PRE-BID MEETING

VINCENNES UNIVERSITY Green Activities Center - Partial Renovations PROJECT #71GA-22-01

NAME	COMPANY	TEL. NO	EMAIL
ERIM HEINZ	HEINZ ASSOLATES	317-407-3429	erik 2 hoiszassociates, net
NICK BAMMES	HEINZ ASSOLIATES	757-329-4745	NICK @ heinz ASSOCIATES, NET
Neil Weyer	Weyer Electric	812-367-1650	neile wyvrehoric.com
Part Weyer WIRKE/ Fich	WolfEGNST.	<u>812-367-1650</u> 812-882-2260	parle way or dectric.com
Tim Konrath	Midwest masonry Mountain bough (costor ton	R12 430 3835 OND 244-8)/()	tim@midwestmosonsysilutions
Er Gehlhausen	Jasper Lumber Lompany	<u>x12-482-1125</u>	egenthausenejaspertumberon linc.con
NATE STALEY	DANCE CONSTRUCTION	612-410-4975	NStaly Ocanco-constr com
Andrew Zehner	Skill Electric	812-881-0737	azoskillelectric.com
Steve Paynett	HFI Mech	812-499-0515	Spayne Charrell-Fish. Con
Derek Heinz	H.G. Heinz	812-882-2480	derek @ haheinz.com
Daniel Hel	Dand H alass	812-882-8181	dabel Od Holuss. biz
Austin Wetnight	PHR Contracting	765-505-2014	phr contracting/1@gmail.com
1875 V838R	U	512-808-4037	LEFFREY. VEREROV. NUSS
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