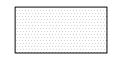
## MATERIALS LEGEND



EXISTING MATERIAL



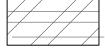
**CONCRETE** 



GYPSUM BOARD



BATT INSULATION



**PLYWOOD** 



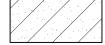
WOOD FRAMING



WOOD BLOCKING



**BRICK** 



CONCRETE BLOCK

# HHS CHMHI GYM CEILING REPAIR

CHEROKEE MENTAL HEALTH INSTITUTE 1251 W CEDAR LOOP CHEROKEE, IA 51012

> DAS RFB # 937400-01 **DAS PROJECT # 9374.00 GENESIS # 2409**

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E1.0 ELECTRICAL FLOOR PLAN **ELECTRICAL CEILING PLAN** 

## **CONTACT LIST**

OWNER:

STATE OF IOWA

DEPARTMENT OF ADMINISTRATIVE SERVICES

109 SE 13TH STREET DES MOINES, IOWA 50319

DAS REPRESENTATIVE: JENNIE ELLIOTT

PH: 515-745-3244

CHEROKEE MENTAL HEALTH INSTITUTE 1251 W CEDAR LOOP, CHEROKEE, IA 51012 CLIENT REPRESENTATIVE: JASON PIGOTT, PLANT OPNS

PH: 712-225-6949

CONSTRUCTION MANAGER:

DCI GROUP, 220 SE 6TH STREET -SUITE 200 DES MOINES, IA 50309

PROJECT MANAGER: TRAVIS HOYLE

C: 515-244-5043

ARCHITECT:

EDWARD L. MATT, AIA GENESIS ARCHITECTURAL DESIGN

939 OFFICE PARK ROAD WEST DES MOINES, IOWA 50265

PH: 515-440-1681

**ENGINEER:** 

DURANTEM MEP CONSULTING 3737 WOODLAND AVE. SUITE 420 WEST DES MOINES, IA 50266

CASEY ADAMS, P.E. OFFICE: 515-452-8341

CHEROKEE MENTAL HEALTH INSTITUTE 1251 W CEDAR LOOP CHEROKEE, IA 51012

HHS CHMHI GYM CEILING REPAIR

DAS NO. 9374.00

05761

Reg. No.

PROJECT NO. 2409

ISSUE DATE 09-12-24

SHEET NUMBER A0.0

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of lowa Casey L. Signature Adams Casev L. Adams Reg No. 23175 23175 Date Issued: Sept. 12, 2024 Pages or sheets covered by this seal: MO.O, MD1.O, M1.O, M2.O, M6.O, E0.O, ED1.O, ED2.O, E1.O, & E2.O.



I hereby certify that the portion of this technical submission described below was prepared by me or under my supervisor and responsible charge. I am a duly registered Architect under the laws of the State of Iowa.

Signature

Edward L. Matt

Pages or Sheets covered in part or whole by this seal: A0.0, A0.1, A1.0, A1.1, A2.0, & A3.0.

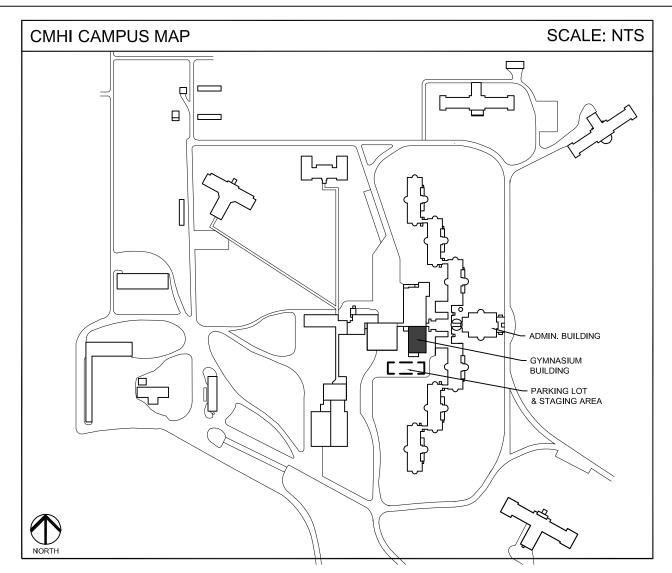
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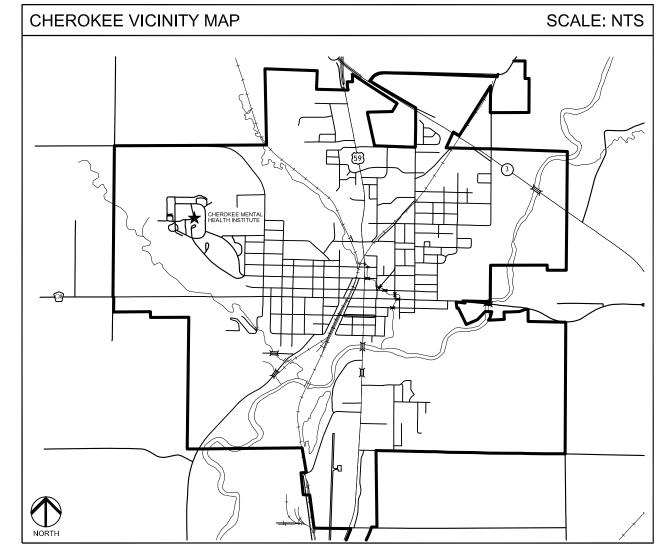
ABBRE	VIATIONS				
ADJ A/E AHJ ALUM AMT	ADJUSTABLE ARCHITECT / ENGINEER AUTHORITY HAVING JURISDICTION ALUMINUM AMOUNT	GND GYP H HDW	GROUND GYPSUM HIGH HARDWARE	R R&R RCJ REBAR	RISER REMOVE AND REPLACE REINFORCED CONTROL JOINT REINFORCING BAR
ARCH BLK BSMT	ARCHITECT BLOCK BASEMENT	HR INT	HOUR INTERIOR	REQ'D RM RO	REQUIRED ROOM ROUGH OPENING
CFLG CEN COL	COUNTER FLASHING TER LINE COLUMN	KW LF LW	KEY WALL LINEAR FOOT LIGHT WEIGHT	SCHED SECT SL SS	SCHEDULE SECTION SIDE LIGHT STAINLESS STEEL
DBL DO DWG	DOUBLE REPEAT DRAWING	MFR MTD	MANUFACTURER MOUNTED	STOR SUSP T	Storage Suspended Tread
EJF ELEC ELEV	EXPANSION JOINT FILLER ELECTRICAL ELEVATION	NO NOM OC	NUMBER NOMINAL ON CENTER	T&B T&G UNO	TOP AND BOTTOM TONGUE AND GROOVE UNLESS NOTED OTHERWISE
ENCL EXP FIN	ENCLOSURE EXPOSED OR EXPANSION FINISH	OF/CI OTS PL	OWNER FURNISHED/CONTR. INSTALLED OPEN TO STRUCTURE PLATE	VENT W/	VENTILATOR WITH
FO FR	FINISH OPINING FRAME	PNL PROT PT	PANEL PROTECTION PAINT	W/O WD WDW	WITHOUT WOOD WINDOW

#### **SECURITY AND STAGING NOTES:**

- ALL CONTRACTOR'S PERSONNEL ARE TO HAVE
   BACKGROUND CHECKS PREAPPROVED BEFORE BEING
   ALLOWED ON SITE FOR WORK.
- CONTRACTOR'S PERSONNEL TO FOLLOW ALL RULES FOR CONSTRUCTION WORKERS. SEE SPECIFICATION FOR REQUIREMENTS.
- 3. COORDINATE ALL BUILDING AND SECURITY ISSUES WITH PLANT OPERATION MANAGER AND CONSTRUCTION MGR.
- CONTRACTOR TO COORDINATE PROPOSED DAILY WORK SEQUENCE SCHEDULE WITH FACILITY STAFF AND CONSTRUCTION MANAGER.
- SEE SPECIFICATION FOR SECURING TOOLS, CONSTRUCTION EQUIPMENT, AND JOB BOXES.
- ALL WORK AREAS ARE TO BE THOROUGHLY CLEANED UP AT THE END OF EACH DAY. REMOVE LIFTS, DEMO CARTS, AND ALL DEMOLISHED MATERIALS AND CONSTRUCTION WASTE OUTSIDE BUILDING DAILY TO CONTRACTOR'S EXTERIOR DUMPSTER LOCATION.
- PROVIDE EXTERIOR DUMPSTER IN PARKING LOT SOUTH OF GYMNASIUM. COORDINATE EXACT LOCATION WITH OWNER FOR ON SITE DROP OFF AND PICK UP. SEE MAP FOR PROPOSED LOCATION.
- 8. SEE MAP FOR CONTRACTOR'S MATERIAL STAGING AND PARKING LOCATIONS.

- SEE SPECIFICATION FOR WORK HOURS. COORDINATE WITH OWNER FOR ANY PROPOSED EXTENDED WORK HOURS INCLUDING WEEKENDS.
- 10. PROVIDE TEMPORARY BARRIERS AND CAUTION LINES
  AROUND WORK AREA AND ACCESS DOORWAYS INSIDE AND
  OUTSIDE THE BUILDING AS NEEDED. MAINTAIN ALL EXITS
  FOR EGRESS.





WEST DES MOINES, IA 5 TEL: 515-440-1681

ENESIS MOHIECUM DESIGN

HHS CHMHI GYM CEILING REPAIR
CHEROKEE MENTAL HEALTH INSTITUTE
1251 W CEDAR LOOP
CHEROKEE, IA 51012

SITE MAP & STAGING

DAS NO. 9374.00

PROJECT NO. 2409

issue date 09-12-24

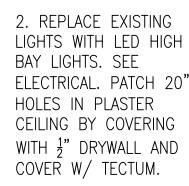
AO.1

SCALE: 1/8" = 1'-0"

CEILING AREA APPROX. 4,675 SQ FT

**CONSTRUCTION NOTES:** 

1. SEE BID ALT. #1 TO ADD 8" UNFACED BATT INSULATION IN ATTIC OVER ENTIRE CEILING AREA.



- 3. PATCH ALL HOLES IN PLASTER WALLS AT DEMO'D CONDUITS ON BOTH SIDE WALLS. PAINT TO MATCH.
- 4. PAINT NEW CONDUITS TO MATCH EXISTING WALL COLOR.
- 5. CONSTRUCTION MANAGER WILL PROVIDE GYM FLOOR PROTECTION





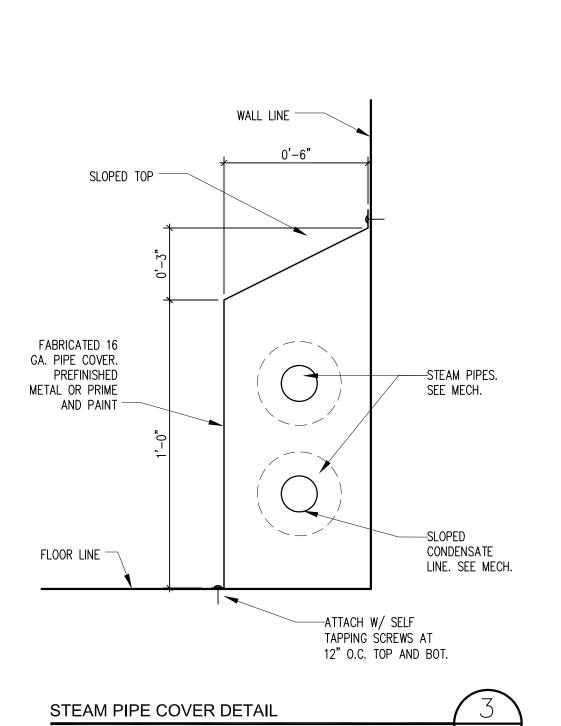
HHS CHMHI GYM CEILING REPAIR CHEROKEE MENTAL HEALTH INSTITUTE 1251 W CEDAR LOOP CHEROKEE, IA 51012

DAS NO. 9374.00

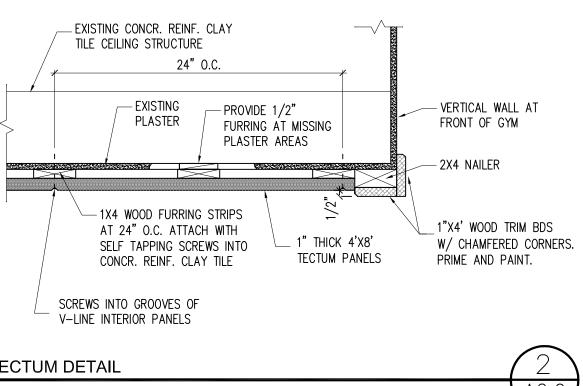
PROJECT NO. 2409

ISSUE DATE 09-12-24

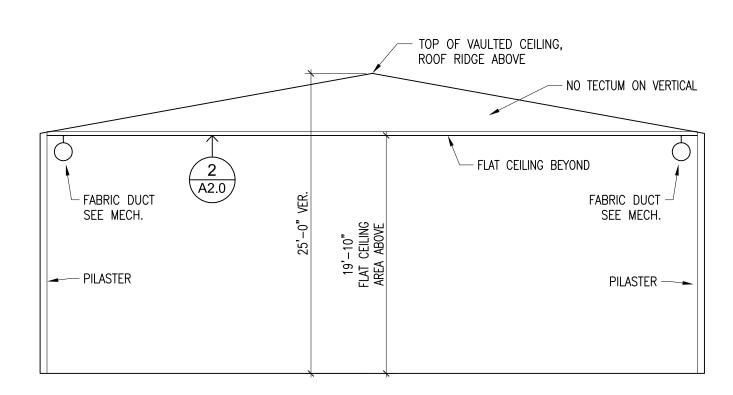
SHEET NUMBER A1.1



SCALE: 3'' = 1'-0''



**TECTUM DETAIL** SCALE:  $1 \frac{1}{2} = 1'-0"$ 



**GYM SECTION** 

SCALE: 1/8" = 1'-0"



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CHEROKEE, IA 51012

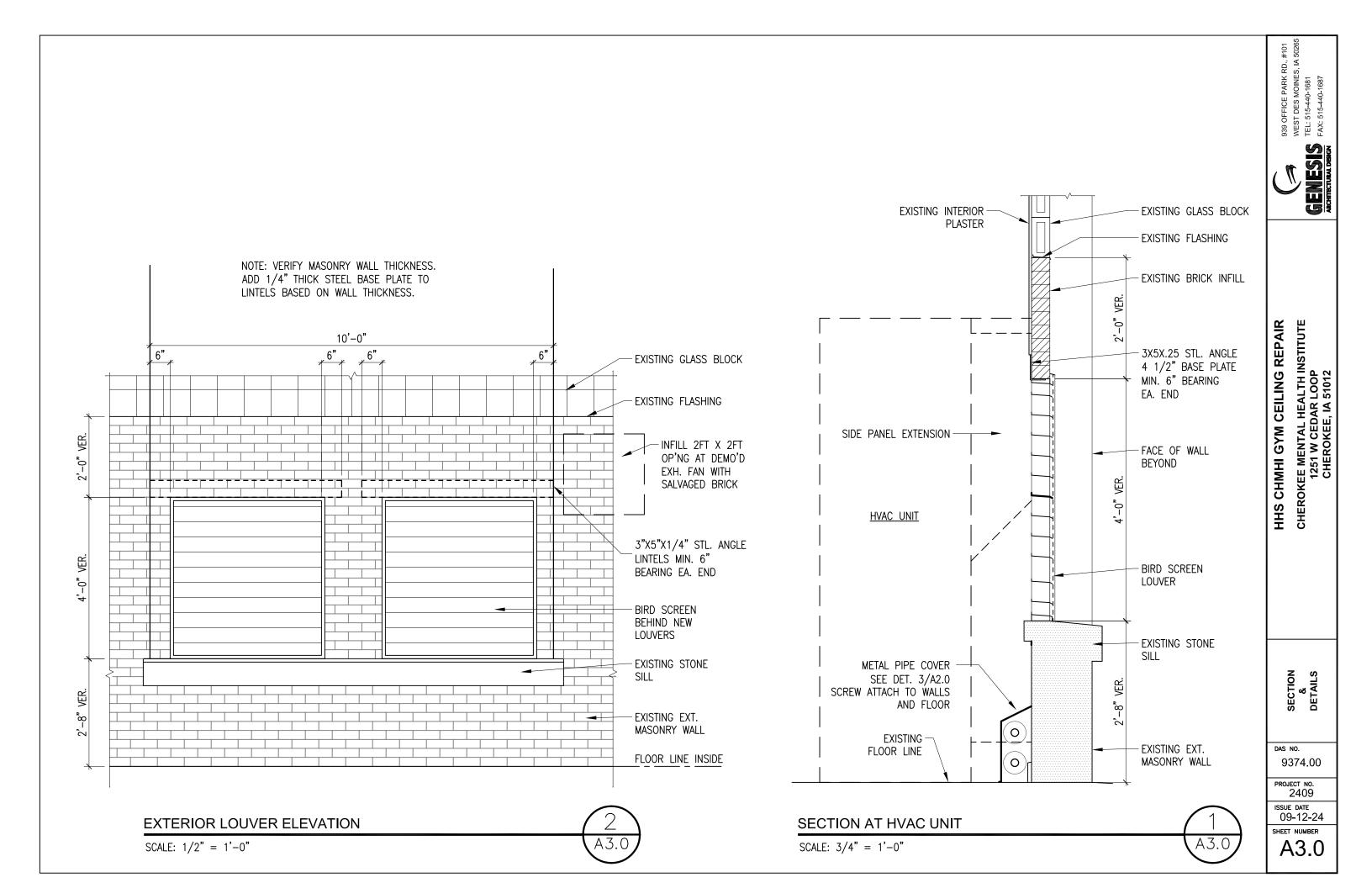
SECTION
&
DETAILS

DAS NO. 9374.00

PROJECT NO. 2409

issue date 09-12-24

SHEET NUMBER A2.0



- 11. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ROOF DECKING. ALL HANGERS SHALL BE HUNG DIRECTLY FROM STRUCTURE.
- 12. PROVIDE THIRD PARTY TESTING AND BALANCING OF MECHANICAL SYSTEM.
- 13. PROVIDE AS-BUILT DRAWINGS FOR MECHANICAL SYSTEMS WITHIN 30 DAYS OF FINAL COMPLETION.
- 14. PROVIDE 0&M MANUALS FOR ALL SYSTEMS AND EQUIPMENT TO OWNER WITHIN 30 DAYS OF FINAL COMPLETION.

939 OFFICE PARK RD., #11 WEST DES MOINES, IA 50 TEL: 515-440-1681 FAX: 515-440-1687



HIS CHMI CEILING REPAIR

MECHANICAL NOTES

DAS NO. 9374.00

PROJECT NO.

2409 ISSUE DATE 09/12/24

SHEET NUMBER



HHS CHMI CEILING REPAIR

DAS NO.

9374.00

**PROJECT NO.** 2409

09/12/24

SHEET NUMBER MD1.0

39 OFFICE PARK RD., #10 VEST DES MOINES, IA 503 EL: 515-440-1681 AX: 515-440-1687



HHS CHMI CEILING REPAIR

MECHANICAL FLOOR PLAN

DAS NO.

9374.00

PROJECT NO. 2409

09/12/24

SHEET NUMBER M 1.0

2 ROUTE FABRIC DUCT IMMEDIATELY BELOW SOLID CEILING. DUCT SHALL BE RUN HORIZONTALLY AND NOT SLOPED.

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HHS CHMI CEILING REPAIR

IECHANICAL CEILING PLAN

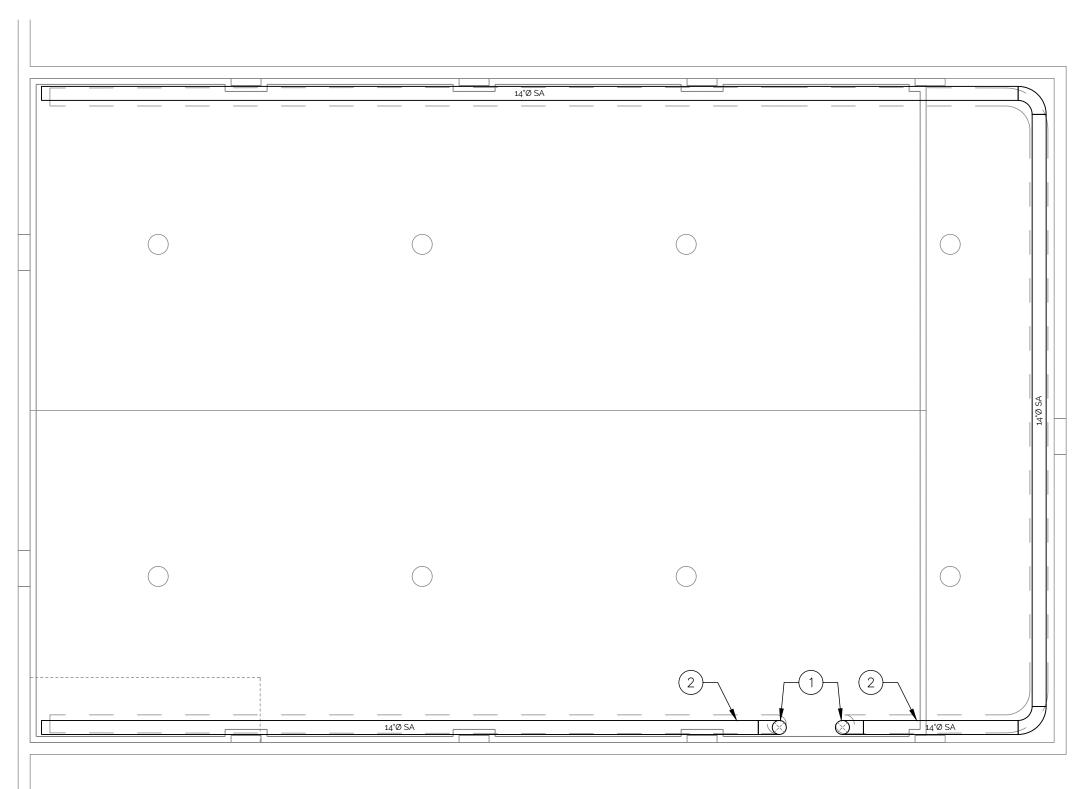
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**PROJECT NO.** 2409

09/12/24

SHEET NUMBER M2.0



09/12/24

	SINGLE PACKAGED HEAT PUMP VENTILATOR SCHEDULE																				
				Supply	Fan			Heatin	g (HP)	Heating (Steam)				Electrical							
				Outside			Cap	EAT	LAT												
			Airflow	Airflow	ESP		(Total/Sens)	WB/DB	WB/DB			Capacity		Capacity	EAT/LAT	Pressure	Condensate				
Mark	Manufacturer	Model	(cfm)	(cfm)	(in WC)	HP	(MBH)	(°F)	(°F)	EER	IPLV	(MBH)	СОР	(MBH)	(°F)	(psi)	(lb/hr)	V/Ph	MCA	МОСР	Notes
ACU-1	Airedale	CMP6oB	1,800	720	0.50	3/4	55.9/40.9	80.0/67.0	59.5/57.2	11.00	15	47.1	3.5	135.2	38.4/107.3	2.0	139.9	208/3	28.6	40	1 thru 10
ACU-2	Airedale	CMP6oB	1,800	720	0.50	3/4	55.9/40.9	80.0/67.0	59.5/57.2	11.00	15	47.1	3.5	135.2	38.4/107.3	2.0	139.9	208/3	28.6	40	1 thru 10

- 1. 2-stage scroll compressor. Ratings shown above are full load. Unit shall also be equipped with a reclaim valve and secondary condenser coil for dehumidification reheat.
- 2. Provide unit with powdered coated cabinet finish, 1/2" acoustic polyurethane insulation, 2" MERV 8 filters, stainless steel drain pan, constant airflow EC blower motor, copper inner tube and steel outer coaxial heat exchanger and insulated piping for extended range.
- 3. Provide factory-wired, non-fused disconnect, and 24V controller transformer.
- 4. Contractor to provide 2-way steam isolation valve.
- 5. Provide high pressure switch, low pressure switch, and low suction refrigerant temperature sensor. Provide automatic reset high pressure cutout and automatic reset low-pressure cutout.
- 6. Provide return air temperature sensor, discharge air temperature sensor, adjustable wall temperature/humidity sensor, Co2 sensor, and leaving water temperature sensor.
- 7. Provide economizer capable of full supply airflow modulation. Economizer shall include fault detection and diagnostics.
- 8. Provide manufacturer's wall sleeve, louver (mill finish), 14" discharge plenum, flat trim kit, and unit stand to align intake/exhaust openings with existing window opening.
- g. Provide with unit controller (BacNET) capable of initiating control as noted in the "Sequence of Operations".
- 10. Provide condensate pump with 16ft of lift, built-in thermal protection, built-in flow check valve, and safety switch.

VENTILATION CALCULATION SUMMARY														
			Ventil	ation Calcu	ılation Sur									
		Rp	Pz	Ra	Az		Vbz Min	OA Total	Ra	Er		EA Min	EA Total	
Area Served	Equipment	(cfm/p)	(People)	(cfm/sf)	(sf)	Ez	(cfm)	(cfm)	(cfm/sf)	(cfm/unit)	# Units	(cfm)	(cfm)	Equipment
Gym		20	30	0.18	4,612	1	1,430							
RR 1	ACU-1				30			1 405					70	Ex EF
RR 2	ACU-2				30			1,435					70	Ex EF
Storage					30									

Definitions (Per 2018 International Mechanical Code)

Rp - Outdoor Airflow Rate Required per Person

Pz - Zone Population

Ra - Outdoor Airflow Rate per Unit Area

Az - Zone Floor Area

Ez - Zone Aire Distribution Effectiveness

Vbz - Breathing Zone Outdoor Airflow

SHEET NUMBER E0.0

LIGHT FIXTURE SCHEDULE **Basis of Design Fixture Data Mounting Type** Location Arrangement Surface Ceiling Grade Wall CRI Delivered Efficacy Color Pole Mark **Fixture Description** Manufacturer Watts Voltage (min) **Options** Notes Model Driver Lumens (lm/w) Temp A1 High Bay Columbia CRB-40MV-EDU 0-10V 28739 201 142.98 120-277 4000K 80 Χ Χ Hang 1'-0" Below Ceiling

## **GENERAL ELECTRICAL NOTES**

- 1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE LOCAL. STATE, AND NATIONAL CODES, AS WELL AS LOCAL UTILITY REQUIREMENTS. CONTRACTOR SHALL COORDINATE WITH LOCAL CODE OFFICIALS TO DETERMINE IF ANY CODE INTERPRETATIONS BY CODE ENFORCEMENT OFFICIALS WILL IMPACT PLANNED WORK.
- 2. PROVIDE ALL REQUIRED ACCESSORIES AND EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM AND MAINTAIN WARRANTY REQUIREMENTS. VERIFY ALL EQUIPMENT PROVIDED IS SUITABLE FOR INTENDED USE. INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 3. WORK NOT SPECIFICALLY SHOWN IN DETAIL, REFERENCED, OR OTHERWISE IMPLIED, SHALL BE PROVIDED IN ACCORDANCE WITH TRADE OR INDUSTRY BEST STANDARD PRACTICES TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.
- 4. CIRCUIT ROUTING INDICATED IS DIAGRAMMATIC. WHEN CIRCUIT DESTINATION IS INDICATED AND ROUTING IS NOT SHOWN, DETERMINE EXACT ROUTING REQUIRED.
- COORDINATE EXACT WIRING REQUIREMENTS WITH MANUFACTURER'S REQUIREMENTS FOR EACH FIXTURE AND PIECE OF EQUIPMENT.
- 6. INSTALL HANGERS AND SUPPORTS AS REQUIRED TO ADEQUATELY AND SECURELY SUPPORT ELECTRICAL SYSTEM COMPONENTS IN A NEAT AND WORKMANLIKE MANNER AS SPECIFIED IN NECA 1. DO NOT FASTEN SUPPORTS TO PIPES, DUCTS, MECHANICAL EQUIPMENT, OR CONDUIT.
- INSTALL CONDUIT SECURELY IN A NEAT AND WORKMANLIKE MANNER AS SPECIFIED IN NECA 1.
- EQUIPMENT CONNECTIONS: MAKE CONDUIT CONNECTIONS TO EQUIPMENT USING FLEXIBLE CONDUIT.
- INSTALL DISCONNECT SWITCHES, CONTROLLERS, CONTROL STATIONS, AND CONTROL DEVICES TO COMPLETE EQUIPMENT WIRING REQUIREMENTS.
- 10. TEST LIGHTING SYSTEMS TO ENSURE PROPER CALIBRATION, ADJUSTMENT, PROGRAMMING, AND OPERATION.

- 11. PROVIDE TYPE-WRITTEN PANEL DIRECTORY ON ELECTRICAL PANELS. HANDWRITTEN TEXT IS NOT ACCEPTABLE.
- 12. COORDINATE COLOR OF RECEPTACLES AND COVER PLATES TO MATCH THE COLOR SCHEME PER ARCHITECTURAL DRAWINGS.
- 13. PROVIDE AS-BUILT DRAWINGS FOR ELECTRICAL SYSTEMS WITHIN 30 DAYS OF FINAL COMPLETION.
- 14. PROVIDE O&M MANUALS FOR ALL SYSTEMS AND EQUIPMENT TO OWNER WITHIN 30 DAYS OF FINAL COMPLETION.
- 15. ALL EXPOSED CABLING SHALL BE PLENUM RATED.
- 16. CONTRACTOR(S) SHALL UNCONDITIONALLY WARRANTY IN WRITING ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. CONTRACTOR(S) SHALL PROVIDE FREE SERVICE FOR ALL EQUIPMENT INVOLVED IN THEIR CONTRACT DURING THE WARRANTY PERIOD.

### **ELECTRICAL LEGEND**

Ø **EQUIPMENT POWER CONNECTION** ㅁ **EQUIPMENT DISCONNECT SWITCH Ø**5 PUMP W/ DISCONNECT SWITCH S

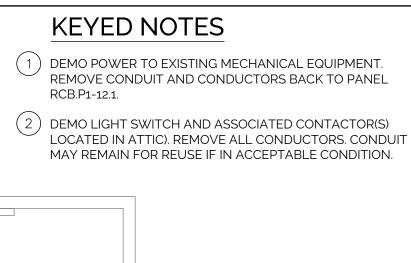
SINGLE POLE SWITCH - DECORATOR STYLE  $\varsigma^{DM}$ 

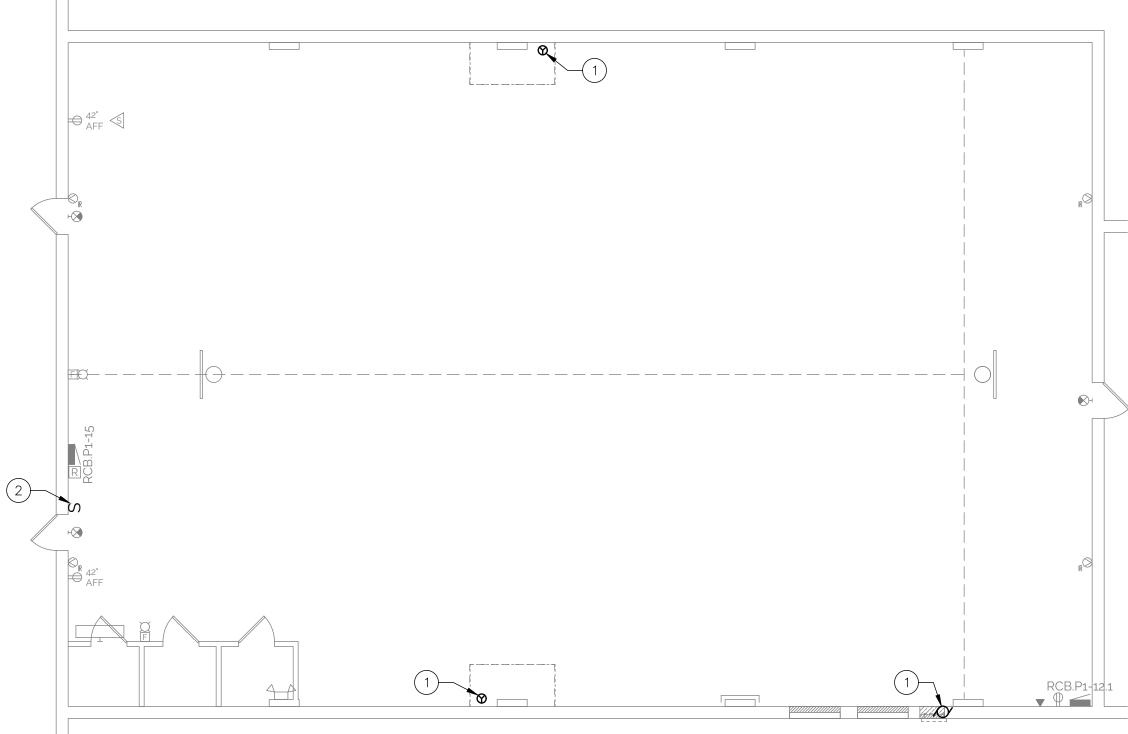
0-10V DIMMER SWITCH - DECORATOR STYLE

**PROJECT NO.** 2409

09/12/24

SHEET NUMBER ED1.0





 $N \bigoplus$ 

ELECTRICAL FLOOR PLAN

1 DEMO EXISTING LIGHT FIXTURE. BACK BOX TO REMAIN FOR FEEDING AND SUPPORT OF NEW FIXTURES. REFER TO ARCHITECTURAL FOR PATCHING OF HOLES.

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HHS CHMI CEILING REPAIR

ELECTRICAL CEILING PLAN

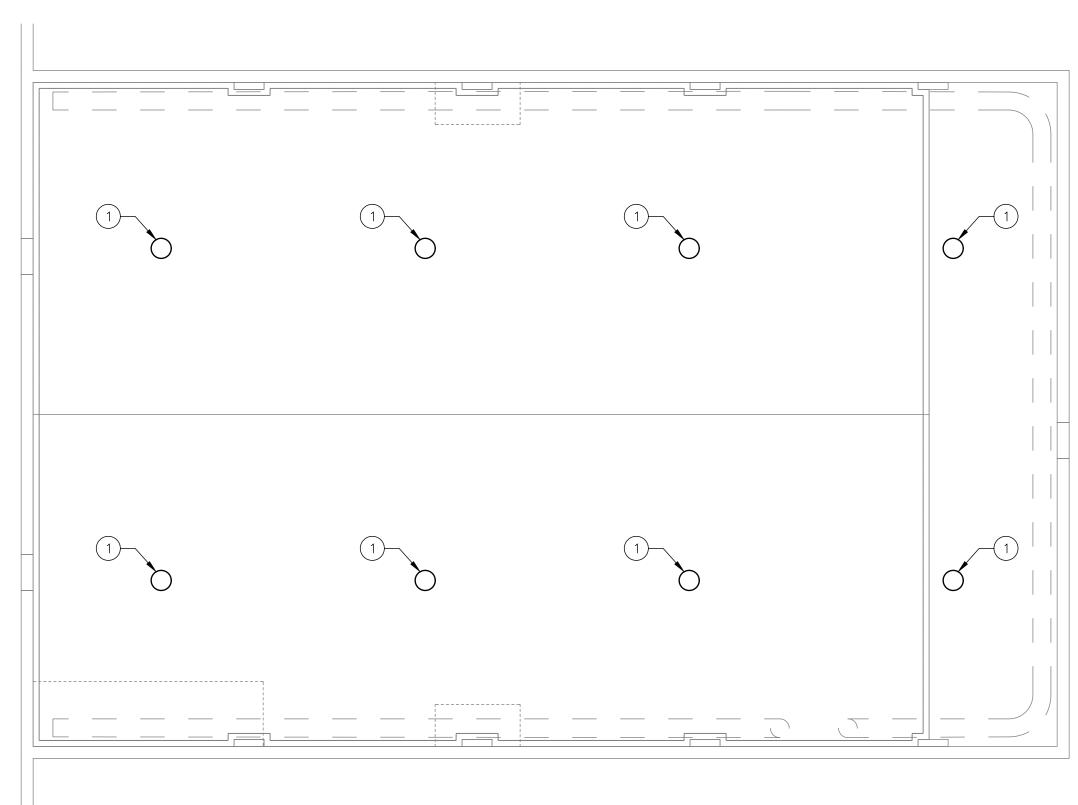
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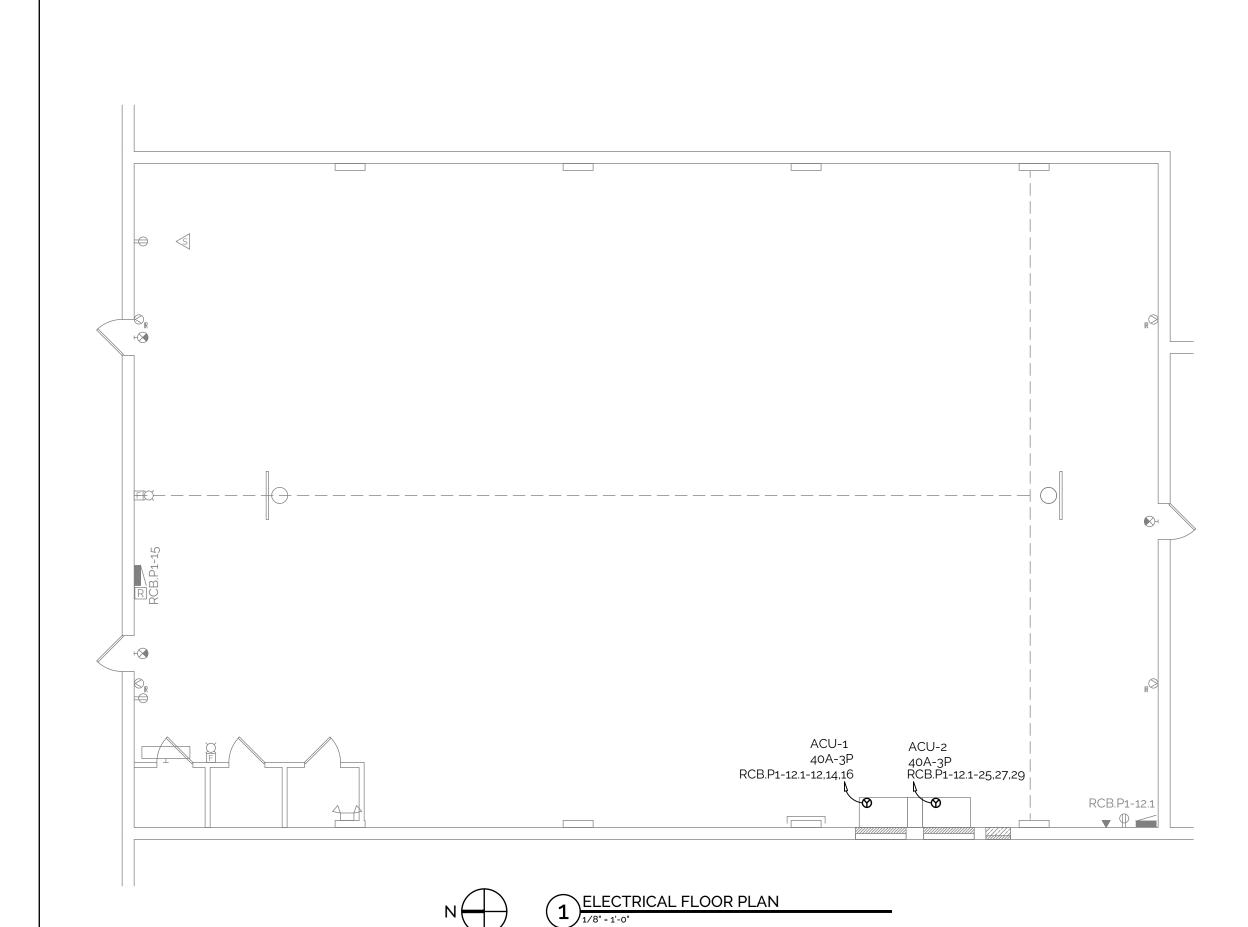
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SHEET NUMBER
E1.0



1 HANG FIXTURES FROM EXISTING MOUNTING PLATE FROM REMOVED FIXTURES.

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HHS CHMI CEILING REPAIR

ELECTRICAL CEILING PLAN

DAS NO.

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