# REPLACE BAS AND HVAC SYSTEM SUPERVISION CENTER BUILDING COMMUNITY SUPERVISION CENTER HANNIBAL, MISSOURI

OWNER:

STATE OF MISSOURI

MICHAEL L. PARSON,

**GOVERNOR** 

DEPARTMENT OF CORRECTIONS AND SECONDARY EDUCATION

PROJECT

OFFICE OF ADMINISTRATION

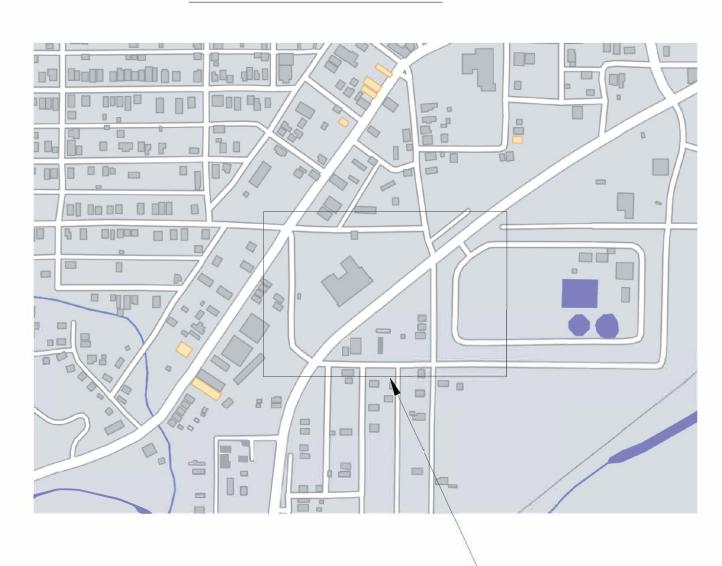
MANAGEMENT: DIVISION OF FACILITIES MANAGEMENT,

DESIGN AND CONSTRUCTION

**VICINITY MAP** 



# **LOCATION MAP**



- VICINITY

**DESIGNER:** 

BRIC PARTNERSHIP, LLC

3701 S Lindbergh Blvd

Suite 204,

St. Louis, MO 63127

PROJECT NUMBER:

C2010-01

# **DRAWING INDEX**

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ENLARGED DEMO PLANS ELECTRICAL ENLARGED PLANS - ELECTRICAL

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR

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OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF CORRECTIONS

PROJECT TITLE:

REPLACE BAS & HVAC

2002 WARREN BARRETT DRIVE HANNIBAL, MO

PROJECT # C2010-01

REVISION: 1
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**DESIGNED BY:** 

SHEET NUMBER:

G-000

7/1/22

### GENERAL NOTES (DEMOLITION)

- 1. THESE PLANS ARE DIAGRAMMATIC IN NATURE. SINCE THEY REFLECT ONLY THE AVAILABLE INFORMATION OBTAINED FROM EXISTING PLANS, SPECIFICATIONS, AND FIELD SURVEYS. THE EXACT LOCATION OF EXISTING DUCTWORK, PIPING, AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS. THE CONTRACTOR SHALL BE PREPARED TO MAKE SOME ALTERATIONS TO NEW AND/OR EXISTING SERVICES TO FIT ACTUAL JOB CONDITIONS.
- ITEMS SHOWN BOLD AND/OR DASHED ON THE DEMOLITION SHEETS INDICATE ITEMS TO BE REMOVED.
- 3. CROSS HATCHING INDICATES ITEMS TO BE REMOVED.
- 4. OWNER HAS FIRST RIGHT OF REFUSAL FOR ALL EQUIPMENT BEING REMOVED.
  CONTRACTOR TO DISPOSE OF EQUIPMENT BEING REMOVED BUT NOT RETAINED BY

### GENERAL NOTES (HYDRONIC)

- THE CONTRACTOR SHALL COORDINATE SYSTEM SHUT-DOWNS WITH THE FACILITY. PROVIDE A MINIMUM TWO DAY NOTICE PRIOR TO ANY SYSTEM SHUT-DOWN.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING, FILLING, AND VENTING OF ALL HYDRONIC SYSTEMS IMPACTED BY THIS PROJECT.

## **GENERAL NOTES**

- 1. THESE PLANS ARE DIAGRAMMATIC IN NATURE SINCE THEY REFLECT ONLY THE AVAILABLE INFORMATION OBTAINED FROM EXISTING PLANS, SPECIFICATIONS, AND FIELD SURVEYS. THE EXACT LOCATION OF EXISTING PIPING, AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE PREPARED TO MAKE SOME ALTERATIONS TO NEW AND/OR EXISTING SERVICES TO FIT ACTUAL JOB CONDITIONS.
- ANY HOLES LEFT IN EXISTING WALL CONSTRUCTION DUE TO DEMOLITION OR NEW WORK SHALL BE PATCHED TO MATCH EXISTING CONDITIONS.
- 3. CONTRACTOR TO FIRESTOP ALL PENETRATIONS THROUGH FIRE-RATED FLOORS AND WALLS CREATED BY DEMOLITION OR NEW WORK WITH "SPECSEAL SSS" OR EQUAL.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ANY FRAMING REVISIONS, EQUIPMENT LOCATIONS, ADDITION OF CONTROLS, ELECTRICAL CIRCUITING REVISIONS, ETC. THAT RESULT FROM USING EQUIPMENT OTHER THAN INDICATED ON THE DRAWINGS. APPROVAL OF THE SHOP DRAWINGS BY THE ENGINEER WILL NOT WAIVE THE CONTRACTOR OF THIS RESPONSIBILITY.
- 5. THE CONTRACTOR SHALL HAVE THE FINAL RESPONSIBILITY FOR SYSTEM START UP AND TURN OVER TO THE OWNER.
- 6. ALL ITEMS INCLUDED ON THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS OR IS NOT SURE OF THEIR MEANING, THE CONTRACTOR SHOULD OBTAIN THE ENGINEER'S WRITTEN EXPLANATION AND INTERPRETATION PRIOR TO BID TIME. THE CONTRACTOR WILL BE HELD TO THE INTERPRETATION OF THE ENGINEER.
- 7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL TEMPERATURE CONTROL SYSTEM REQUIREMENTS.
- 8. ROUTE LINE SIZE PVC CONDENSATE DRAIN PIPING FROM AIR HANDLING UNIT TO NEAREST FLOOR DRAIN. PROVIDE TRAP AT CONNECTION TO AIR HANDLING UNIT.
- 9. ANY DAMAGE TO THE SITE (SIDEWALKS, CURBS, ETC) OR TO THE BUILDING AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT SHALL BE FIXED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 10. CONTRACTOR WILL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF ROOFS/WALLS AND CORE DRILLS REQUIRED TO COMPLETE THEIR RESPECTIVE WORK.
- 11. THE OWNER SHALL HAVE FIRST SALVAGE RIGHTS OF EQUIPMENT AND MATERIALS REMOVED. ALL EQUIPMENT AND MATERIALS NOT CLAIMED BY THE OWNER SHALL BE REMOVED FROM THE PREMISES BY THE CONTRACTORS.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY TEMPORARY FENCING AROUND THE LIFT SITE DURING LIFTS.

SO SUMMAND TRANSPORT OF PLANS OF PRINTED CONTROL OF PRINTED CON

NOTE: NOT ALL SYMBOLS OR ABBREVIATIONS MAY BE USED.

PHASING NOTE:

THE JOB SHALL BE PHASED SUCH THAT ONLY ONE AIR HANDLING UNIT SHALL BE DOWN AT A

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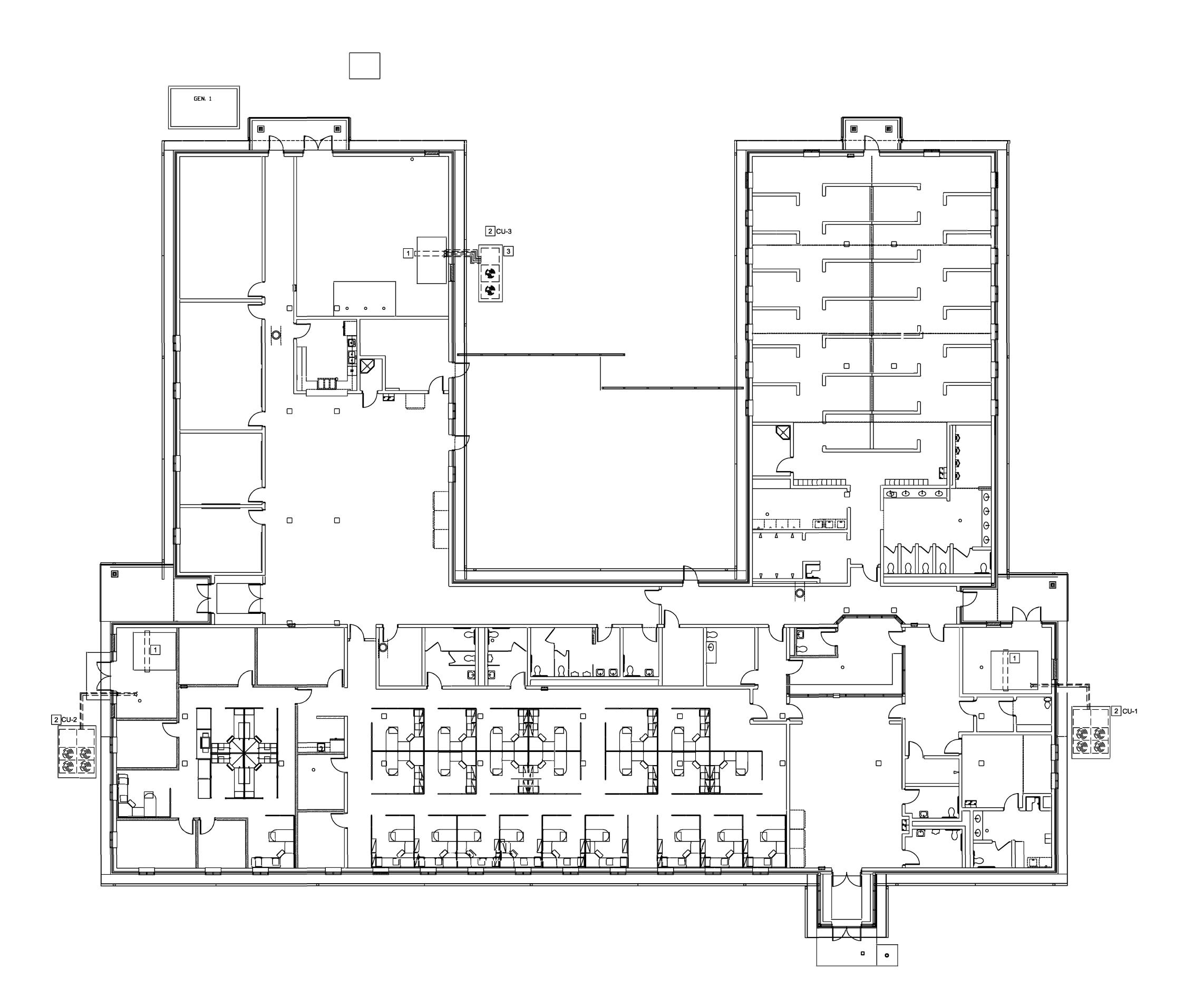
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SHEET TITLE:

MECHANICAL SYMBOLS AND LEGEND

SHEET NUMBER:



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KEYED NOTES

EXISTING.

1 DISCONNECT AND REMOVE EXISTING DX COOLING COIL IN AIR HANDLING UNIT. A NEW CHILLED

REFRIGERANT PIPING AND CONTROLS. PATCH REMAINING BUILDING OPENINGS TO MATCH

WATER COIL WILL BE INSTALLED IN THIS AIR HANDLING UNIT. SEE NEW WORK DRAWINGS.

2 DISCONNECT AND REMOVE EXISTING DX CONDENSING UNIT, AND ALL ASSOCIATED

3701 S Lindbergh Blvd **Suite 204,** REMOVE EXISTING CONCRETE PAD. BACKFILL REMAINING HOLE. COVER WITH GRASS SEED AND St. Louis, MO 63127 PHONE: 314.725.5889 MISSOURI CERTIFICATE OF **AUTHORITY** #2014035826

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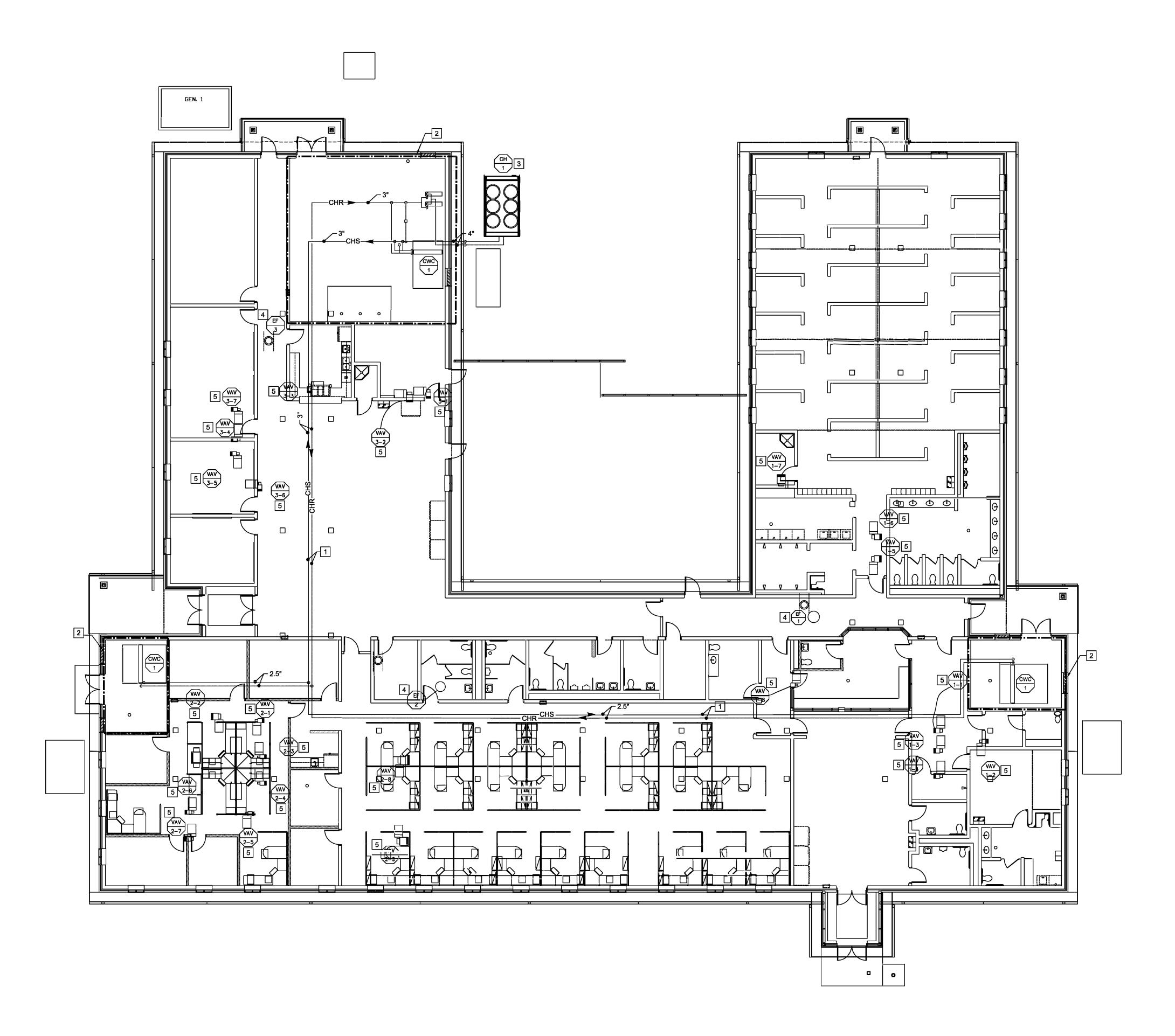
**MECHANICAL DEMOLITION** 

SHEET NUMBER:

MD-101 3 OF 13 SHEETS 7/1/22

MECHANICAL FLOOR PLAN

SCALE: 3/32" = 1'-0"



muun.

KEYED NOTES

1 CHILLED WATER PIPING ROUTED THROUGH ATTIC SPACE. SEAL WALL PENETRATIONS THROUGH FIRE WALLS TO MAINTAIN FIRE RATING.

2 SEE MECHANICAL ROOM DETAILS ON M-401

4 CONNECT EXISTING EXHAUST FAN TO BMS

5 CONNECT EXISTING VAV BOX TO BMS. EXSITING CONTROLLER, WIRING AND TSTAT MAY REMAIN.

3 NEW CHILLER ON NEW CONCRETE PAD

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MECHANICAL FLOORPLAN

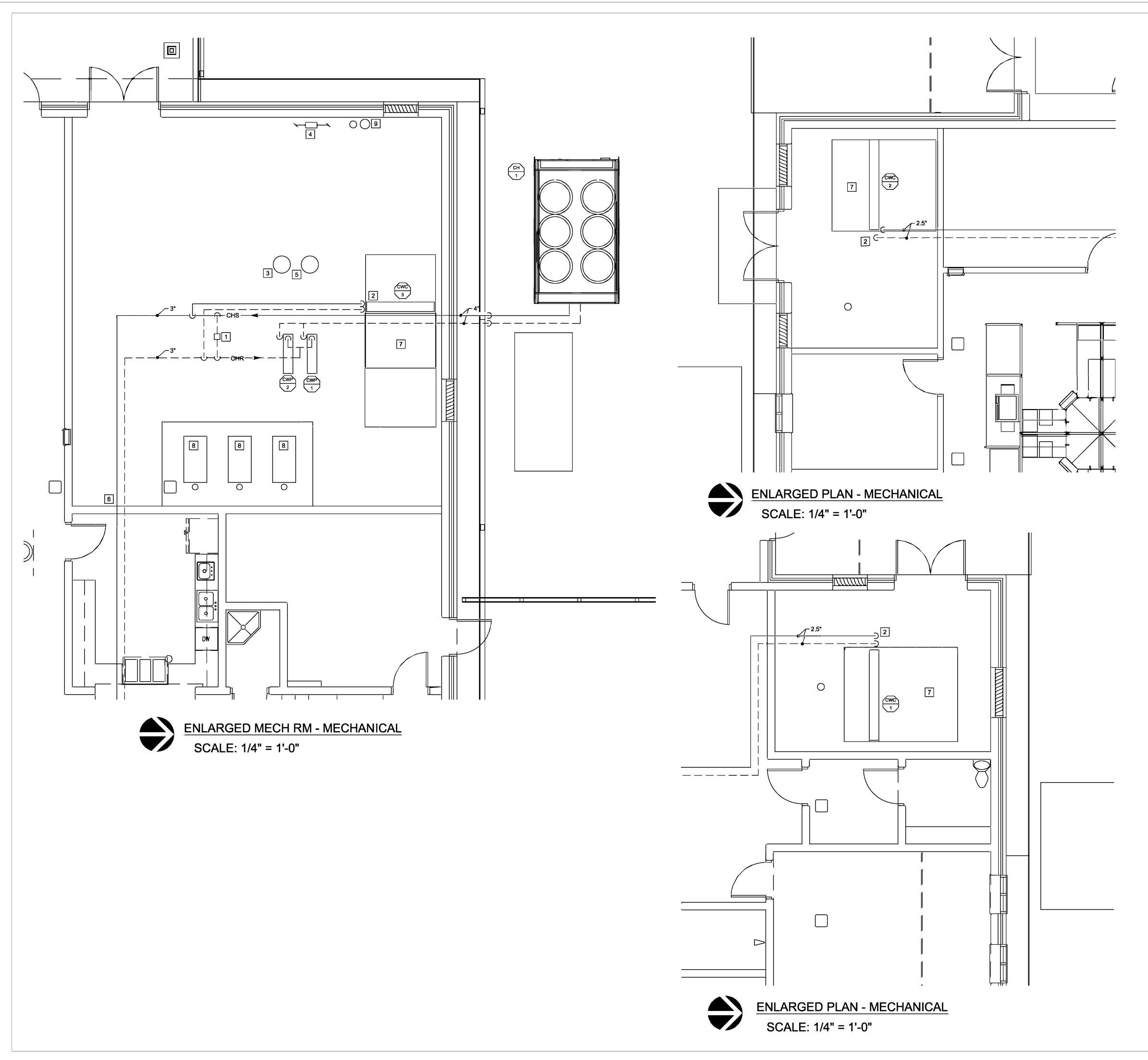
SHEET NUMBER:

M-201

4 OF 13 SHEETS 7/1/22

MECHANICAL FLOOR PLAN

SCALE: 3/32" = 1'-0"



# **KEY NOTES**

- 1 CHILLED WATER BYPASS WITH MODULATING CONTROL VALVE.
- 2 NEW CHILLED WATER COIL IN EXISTING AHU. SEE DETAIL.
- 3 EXPANSION TANK XT-1. TACO CA90-125 OR EQUAL. SECURE TANK TO EQUIPMENT PAD WITH SEISMIC ANCHORS.
- PROVIDE DEDICATED 3/4" BACKFLOW PREVENTER FOR MECHANICAL MAKEUP WATER. SHALL INCLUDE A 3/4" SHUT OFF BALL VALVE, A 3/4" PRESSURE REDUCING VALVE, A 3/4" WATTS 909 BACKFLOW PREVENTER (OR EQUAL) AND A PRESSURE GAUGE ON THE MECHANICAL DISCHARGE PIPING. TIE INTO EXITING 3" DOMESTIC WATER LINE.
- CHILLED WATER BUFFER TANK. TANK SHALL BE WESSELS MODEL CBT-200 (OR EQUAL) WITH INTERNAL BAFFLE AND TOP AIR VENT CONNECTION.
  PROVIDE AIR VENT. SECURE TANK TO EQUIPMENT PAD WITH SEISMIC
- 6 CHILLED WATER PIPING THROUGH WALL INTO ATTIC SPACE.
- 7 EACH AHU WILL REQUIRE NEW BMS CONTROLLER.
- 6 CONNECT EXISTING HW SYSTEM (BOILERS AND PUMPS) TO NEW BMS.
- 9 2 GALLON CHEMICAL POT FEEDER.

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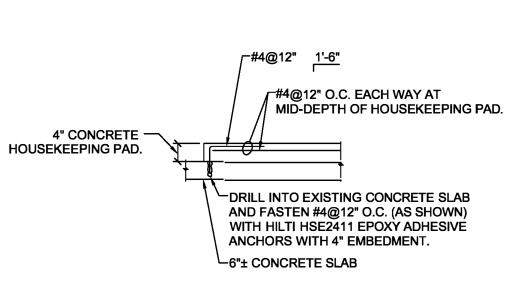
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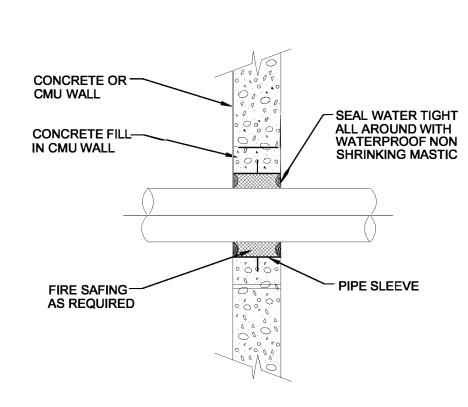
ENLARGED PLANS -MECHANICAL

SHEET NUMBER:

M-401

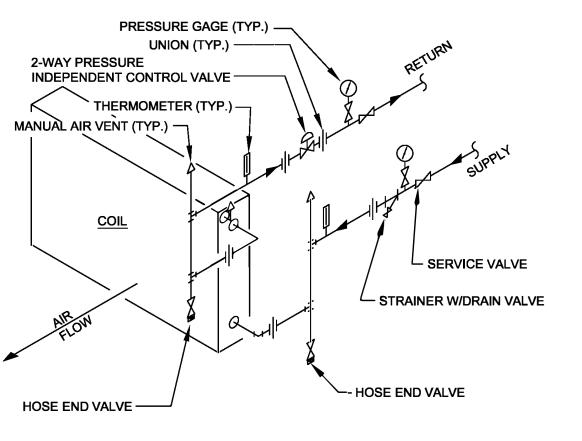






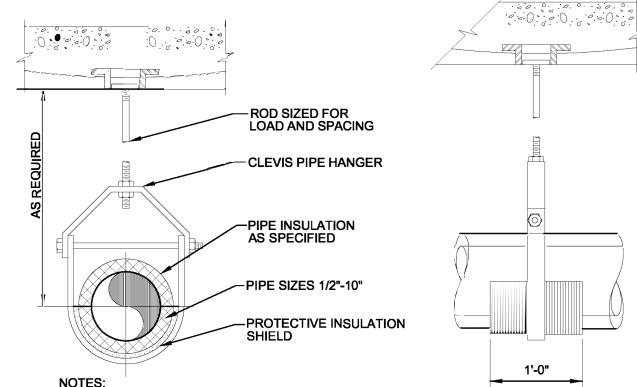
PIPE PENETRATION THRU WALL

NO SCALE



NOTE:
ARRANGE RISERS SUCH THAT COIL MAY BE REMOVED WITHOUT DISTURBING RISERS.

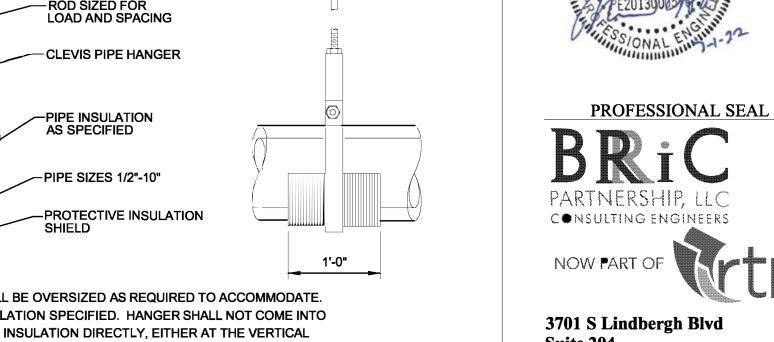
# CHILLED WATER COIL DETAIL NO SCALE



1. PIPE HANGERS SHALL BE OVERSIZED AS REQUIRED TO ACCOMMODATE.
THICKNESS OF INSULATION SPECIFIED. HANGER SHALL NOT COME INTO
CONTACT WITH THE INSULATION DIRECTLY, EITHER AT THE VERTICAL
YOKE OR AT THE POINT OF SUPPORT. FOR REQUIREMENTS ON
INSULATION SHIELD USED WITH PIPE HANGERS, SEE SPECIFICATIONS.

# PIPE HANGER DETAIL

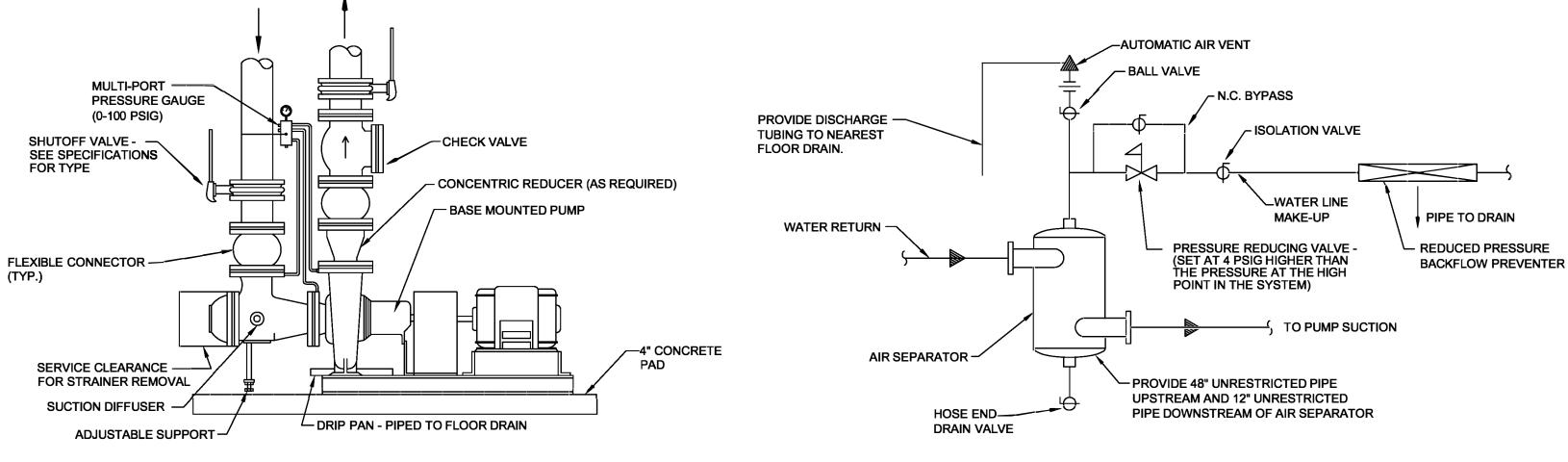
NO SCALE



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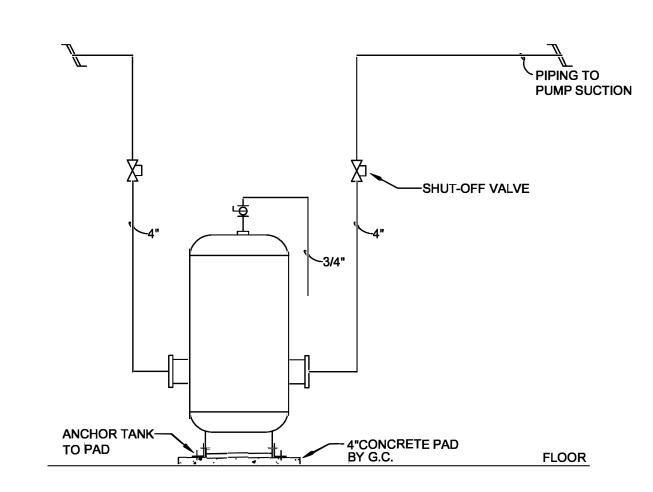
**GOVERNOR** 



# END SUCTION PUMP PIPING DETAIL NO SCALE

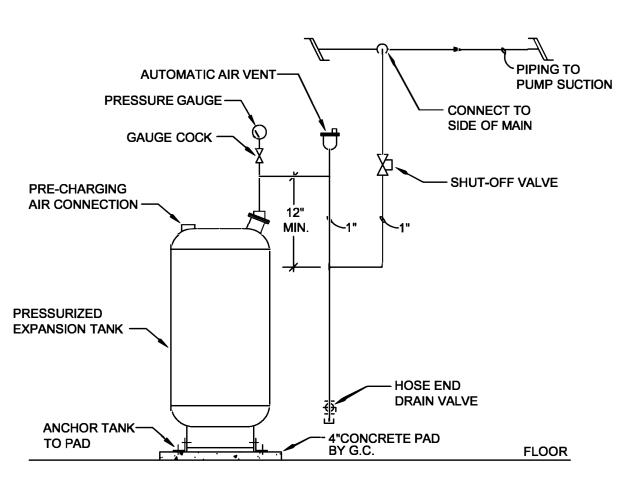
# AIR SEPARATOR DETAIL

NO SCALE

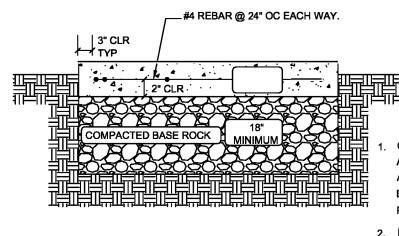


**BUFFER TANK DETAIL** 

NO SCALE



EXPANSION TANK DETAIL
NO SCALE



COORDINATE FINAL SIZE OF PAD

OF THE EQUIPMENT.

WITH EQUIPMENT TO BE PROVIDED.

PAD SHALL EXTEND 4 INCHES CLEAR

1. CONCRETE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI CODE AND AIR ENTRAINED, IT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. THE SAND AND GRAVEL ARE TO BE CLEAN AND HARD, THE AIR ENTRAPMENT SHALL BE 4 TO 7% BY VOLUME. THE MIX SHALL HAVE 5 BAGS OF PORTLAND CEMENT TYPE-1 PER CUBIC YARD OF CONCRETE.

- 2. PAD SHALL BE POURED MONOLITHICALLY, WITH NO COLD JOINTS.
- 3. NO FOOTING IS TO BE EXCAVATED WITHOUT HAVING REINFORCING AND CONCRETE READY TO PLACE WITHIN THAT WORKING DAY.
- 4. ALL REINFORCING BARS SHALL BE DEFORMED #4 BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. BARS SHALL BE FREE OF ANY GREASE, RUST, OR SCALE AT THE TIME OF PLACEMENT. TIE ALL STEEL AT INTERSECTIONS. SPACING SHALL NOT EXCEED 24" ON CENTERS.
- 5. TOP SURFACES OF CONCRETE SHALL HAVE A BROOM FINISH.
- 6. PAD 6" ABOVE GROUND.

# **EQUIPMENT PAD DETAIL**

NO SCALE

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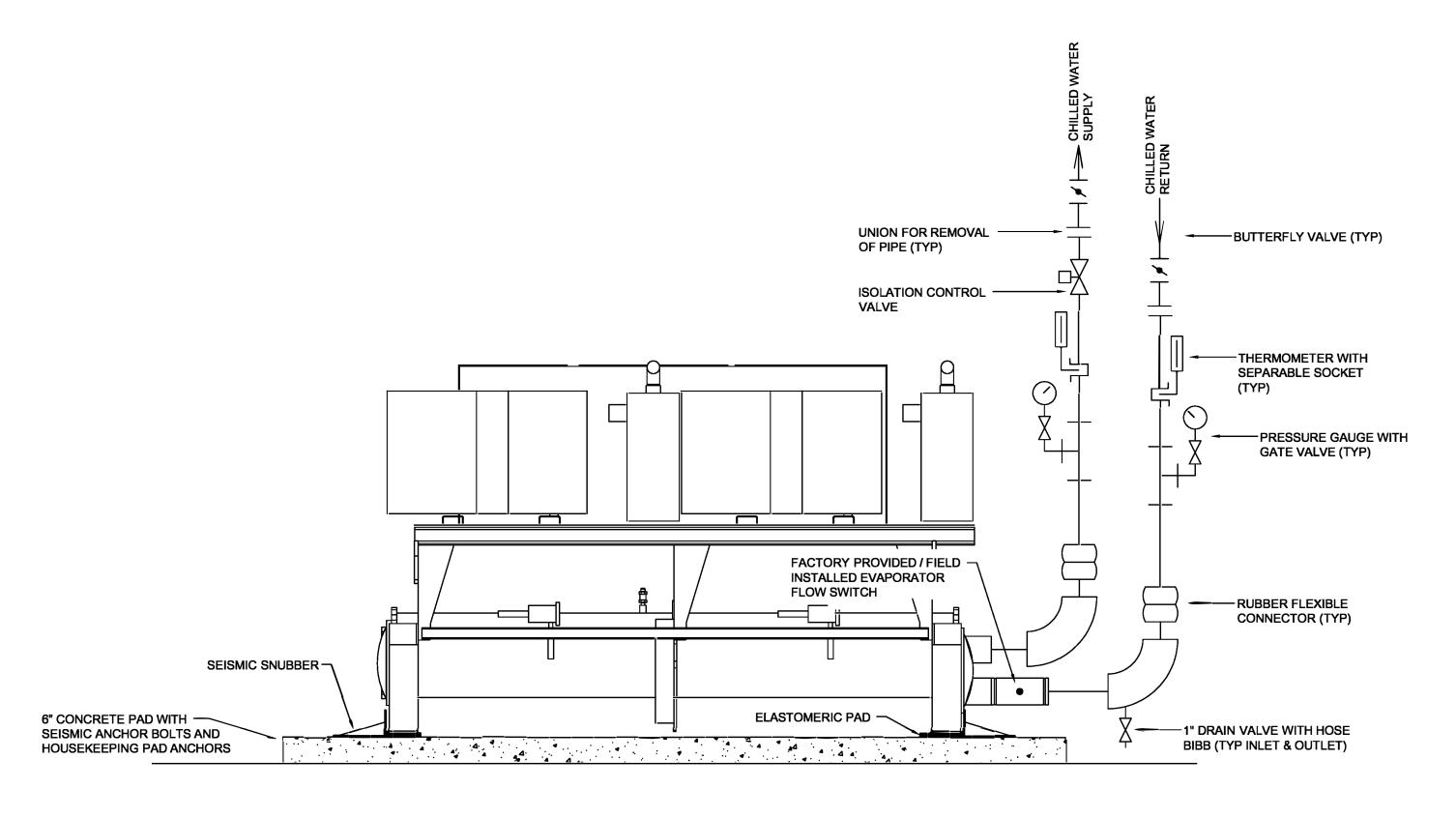
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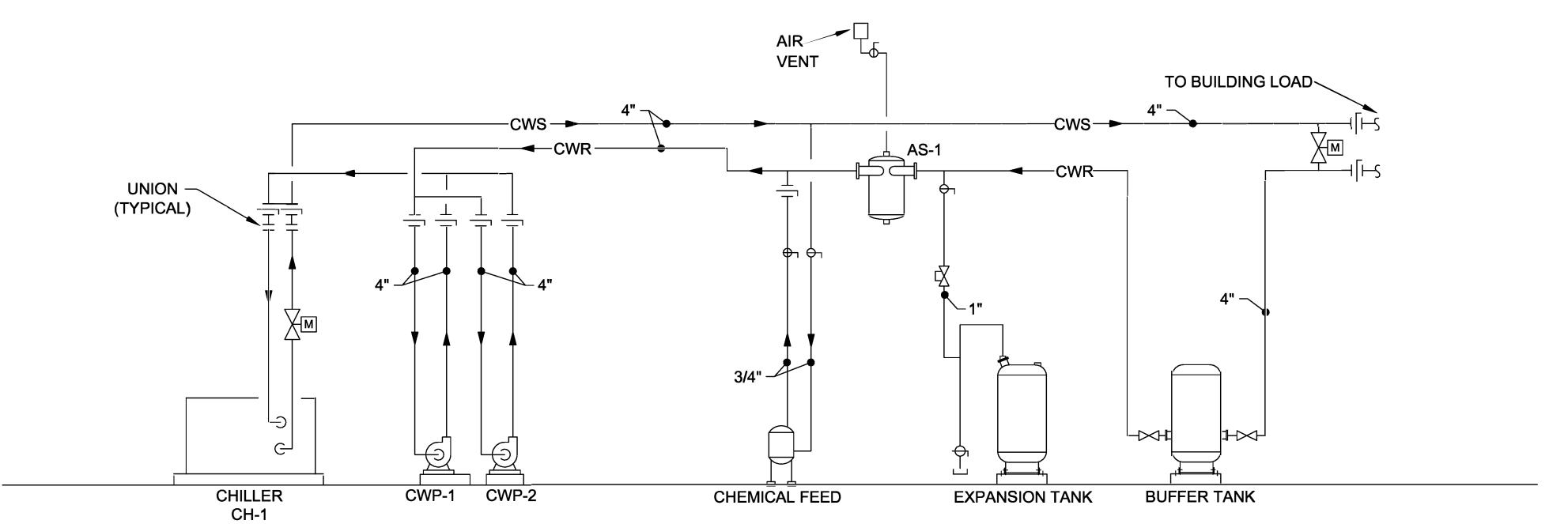
MECHANICAL DETAILS

SHEET NUMBER:

M-501
6 OF 13 SHEETS
7/1/22



# CHILLED WATER SCHEMATIC NO SCALE



# CHILLED WATER PIPING SCHEMATIC

2 CHILLED WATER SCHEMATIC NO SCALE

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SHEET TITLE:

CHILLED WATER SCHEMATIC

SHEET NUMBER:

M-502
7 OF 13 SHEETS
7/1/22

	CHILLER SCHEDULE															CH			
				CAPACITY			E۱	/APORA	TOR				COMPRES	SOR	ELE	CTRICA	L	FLUID	
PLAN MARK	MANUFACTURER	MODEL NO.	TONS	IPLV KW/TON	EER	WATER FLOW GPM	EWT*F	LWT℉	P.D. (FT. OF HD.)	MIN. WATER FLOW GPM	QTY	TYPE	RATED-LOAD AMPS	LOCKED-ROTOR AMPS	VOLT/PH	МСА	МОР	PROPYLENE GLYCOL	NOTES
CH-1	TRANE	CGAM	60	15.4	10.7	142	54	44	24	67	4	SCROLL	50.2	351	208/3	257	300	30%	ALL

1 SINGLE POINT POWER CONNECTION WITH DISCONNECT.

MINIMUM 14 IPLV.

3 FACTORY INSTALLED THERMAL DISPERSION FLOW SWITCH ON EVAPORATOR.

4 FACTORY CONTROL PANEL WITH TOUCHSCREEN AND BACNET INTERFACE.

(5) FACTORY INSULATION PACKAGE. 8 HIGH EFFICIENCY/PERFORMANCE.

7 STANDARD COOLING APPLICATION.

8 REFRIGERANT SERVICE VALVES

PRODUCT LISTED IS BASIS OF DESIGN ONLY

		,		1					HILL	.ED\	NATI	ER (	COIL	,								€wc
PLAN MARK	MANUFACTURER	MODEL	AIRFLOW	CAPACITY	SENSIBLE CAPACITY		PERATURE LDB/LWB		AIR PD (WG)	H2O TEMP	ERATURE LWT		H2O PD (WG)	PROP. GLYCOL	ROWS	FPI	TUBE DIAMETER	TUBE MATERIAL	FIN MATERIAL	WEIGHT	DIMENSIONS	REMARKS
CWC-1	MARLO	6W22-51-5609F-11.8-H-1.0-R-B	5700	283	IVII 11 I		55.0/54.3		0.5"	42	52	61	16.6"	30%	6	9	5/8	CU .035	AL .010	335	51"L X 33.4"H	ALL
CWC-2	MARLO	6W22-51-5609F-11.8-H-1.0-R-B	5400	269	170	82.1/69.1	55.0/54.3	490	0.5"	42	52	57	16.6"	30%	6	9	5/8	CU .035	AL .010	335	51"L X 33.4"H	ALL
CWC-3	MARLO	8W18-41-5508F-7.8-H-1.33-R-B	4200	201	125	81.8/69.1	55.0/54.3	540	0.5"	42	52	44	16.6"	30%	6	9	5/8	CU .035	AL .010	275	41"L X 28"H	ALL

1 CONTRACTOR TO VERIFY UNIT SIZES FOR COIL FIT.

② ALTERNATE MANUFACTURERS HEATCRAFT AND USA COIL ③ COILS SELECTED BASED ON 30% PROPYLENE GLYCOL

4) CHILLED WATER COIL MEASUREMENTS ARE THE MEASUREMENTS OF THE SPECIFIC COIL SPECIFIED. THE CASE DIMENSIONS ARE LARGER AT ROUGHLY 68 X 44 FOR AHU-1,2 AND 39 X 57 FOR AHU-3 (OUTSIDE DIMENSION), BUT MUST BE VERIFIED BY CONTRACTOR.

9 FAN VFD CONTROL

10 RATINGS BASED ON 30% POLYPROPYLENE

SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS

SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS

SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS

PRODUCT LISTED IS BASIS OF DESIGN ONLY

PUMP SCHEDULE												
PLAN MARK	MANUFACTURER	MODEL	TYPE	GPM	HEAD IN FT	MOTOR HP	PUMP RPM	ELECTRICAL VOLT/PH	WEIGHT (lbs)	REMARKS		
CWP-1	TACO	FI2509D	BASE MOUNTED END SUCTION	162	52	5	1750	208/3	343	ALL		
CWP-2	TACO	Fl2509D	BASE MOUNTED END SUCTION	162	52	5	1750	208/3	343	ALL		
② SU	RIABLE SPEED DRIV CTION DIFFUSER. AVY DUTY BASE PL											

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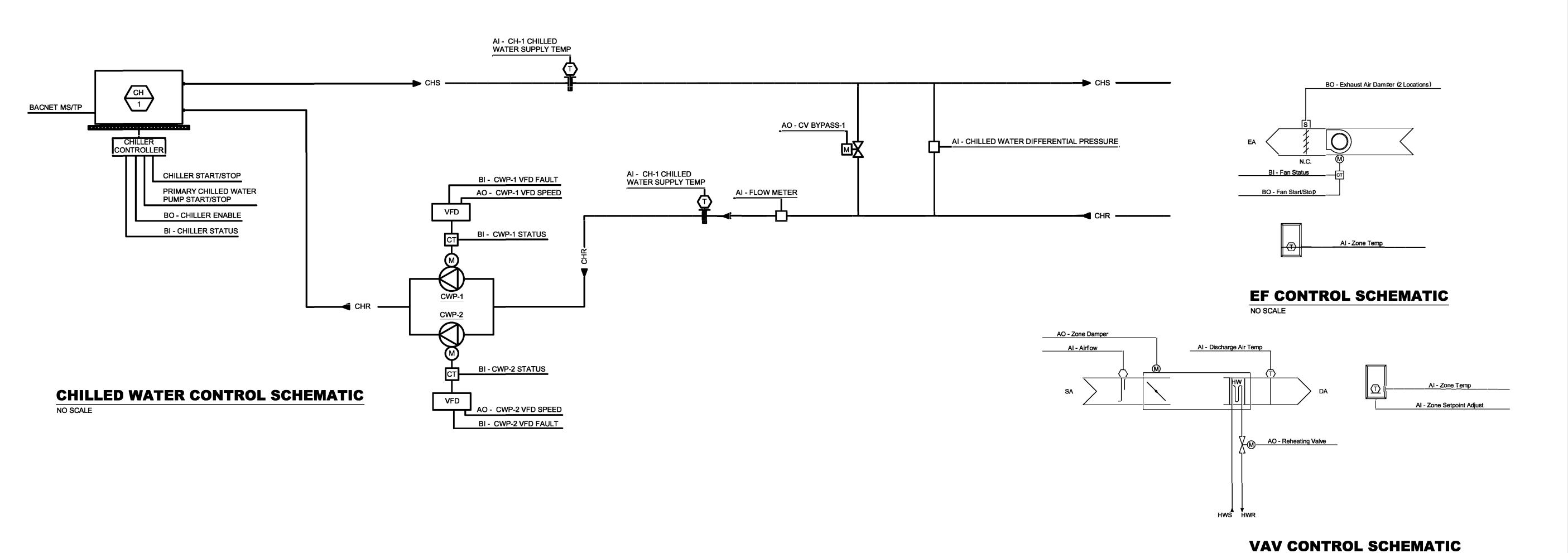
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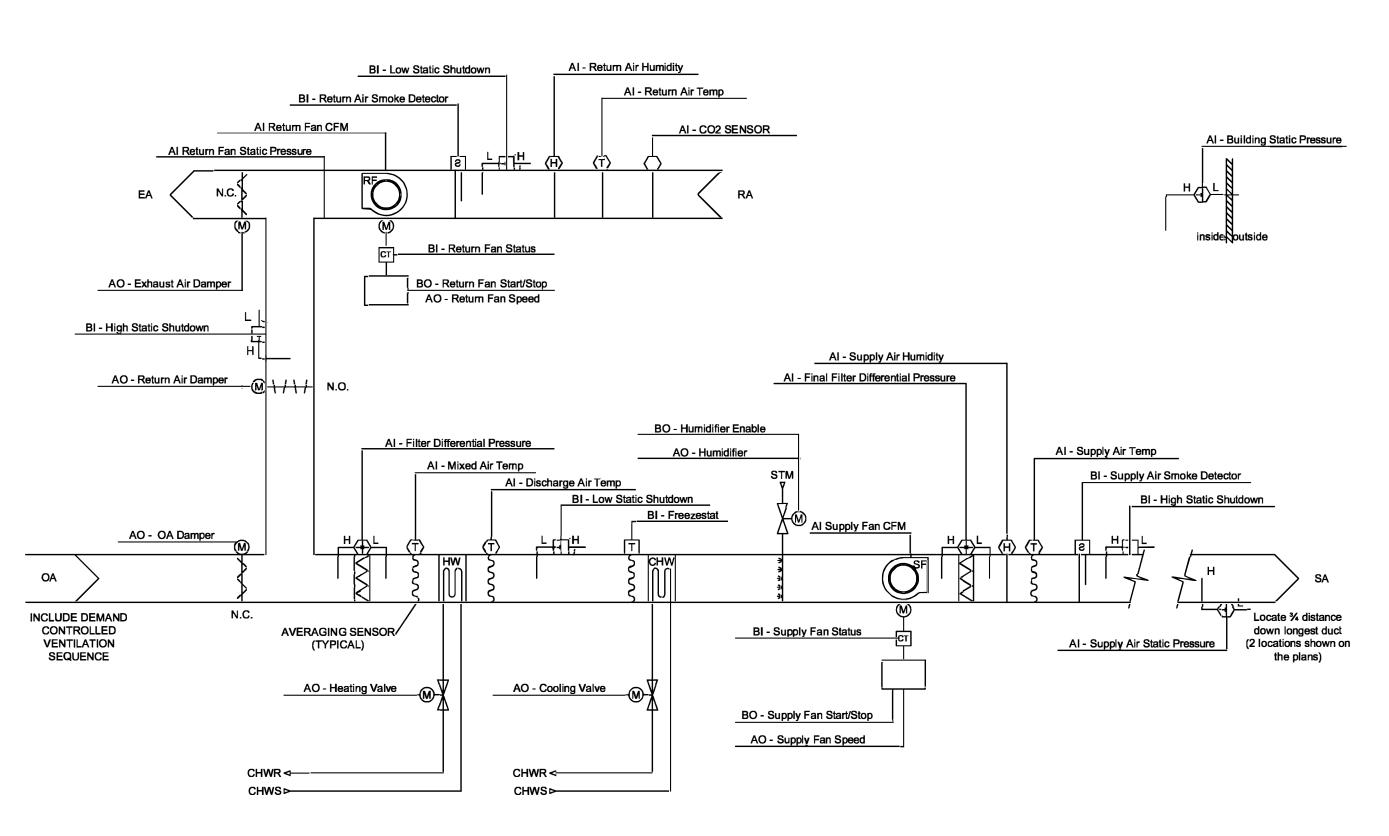
SHEET TITLE:

**MECHANICAL** SCHEDULES

SHEET NUMBER:

**8 OF 13 SHEETS** 





# AHU CONTROL SCHEMATIC NO SCALE

Al - Primary Hot Water Supply Temp

HWS

BI - Hot Water Pump Status

BO - Boiler Enable

BI - Boiler Status

BI - Boiler Status

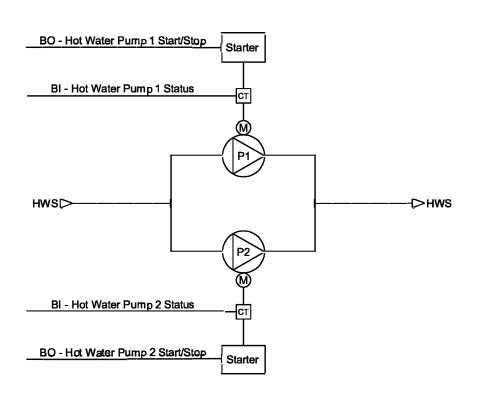
BI - Boiler Status

BI - Low Water Lewel

Al - Primary Hot Water Return Temp

# BOILER CONTROL SCHEMATIC NO SCALE

NO SCALE



# HWP CONTROL SCHEMATIC

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DRAWN BY: MRH
CHECKED BY: MRH
DESIGNED BY: MRH

SHEET TITLE:

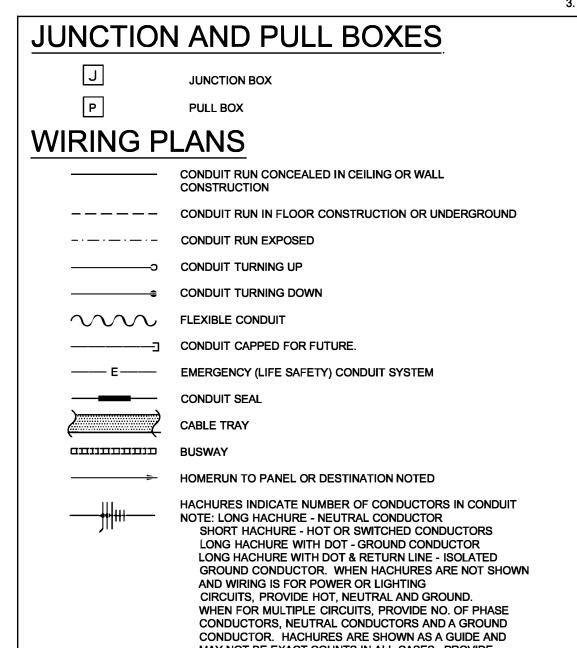
MECHANICAL CONTROLS

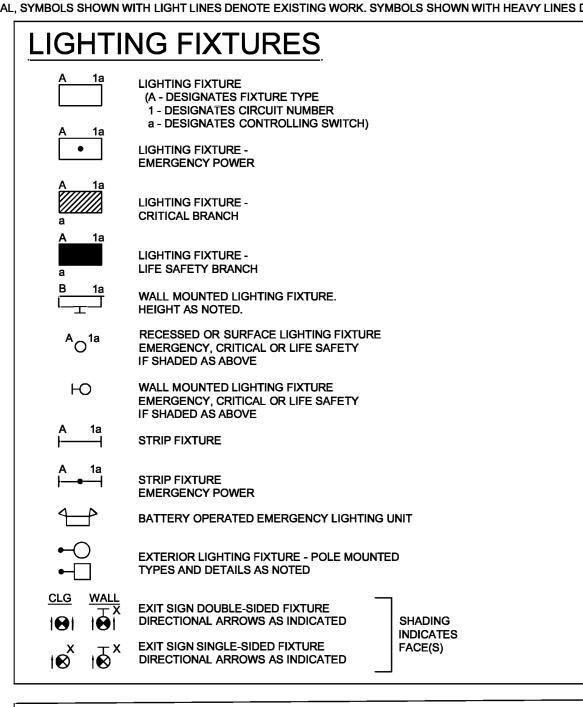
SHEET NUMBER:

M-701

# ELECTRICAL LEGEND AND ABBREVIATIONS (SEE SPECIFICATIONS & SCHEDULES)

NOTES: 1. NOT ALL SYMBOLS AND ABBREVIATIONS ARE USED ON THESE PLANS. 2. ALL MOUNTING HEIGHTS ARE TO CENTERLINE OF DEVICES AND EQUIPMENT U.O.N. 3. IN GENERAL, SYMBOLS SHOWN WITH LIGHT LINES DENOTE EXISTING WORK. SYMBOLS SHOWN WITH HEAVY LINES DENOTE PROPOSED WORK.





**SWITCHES - LIGHTING CONTROL** 

**TYPICAL MOUNTING HEIGHT - 48" AFF** 

CC-8

XXXX

— DRAWING NUMBER

NORTH ARROW

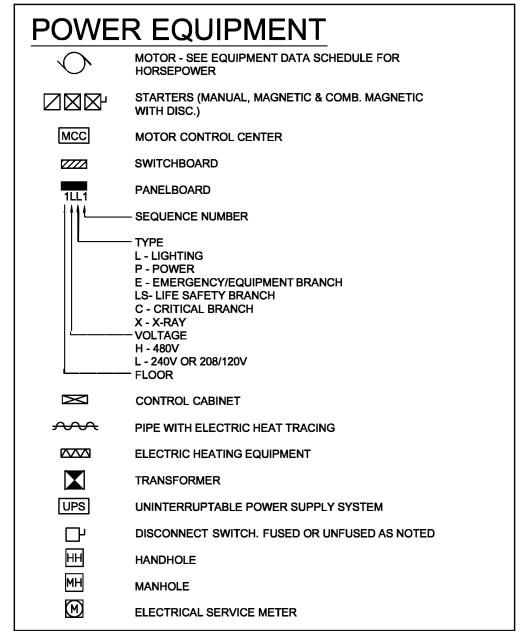
ROOM NUMBERS

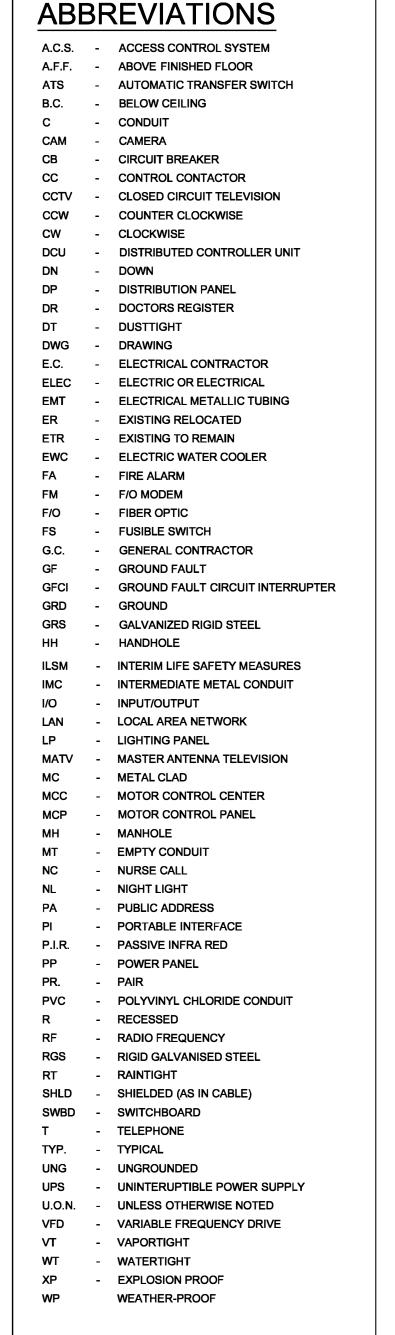
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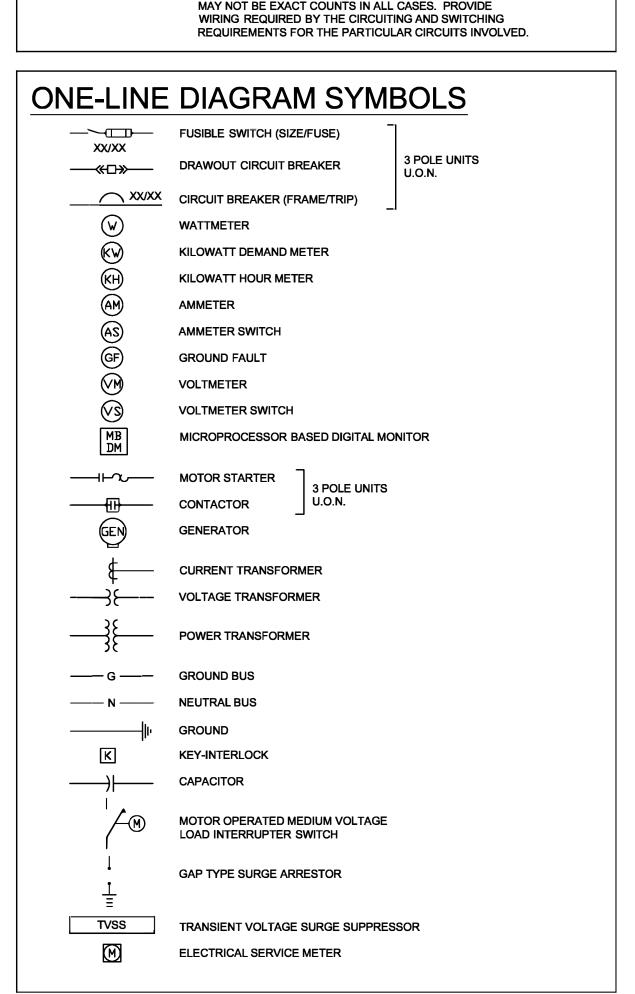
E-1 DRAWING NUMBER

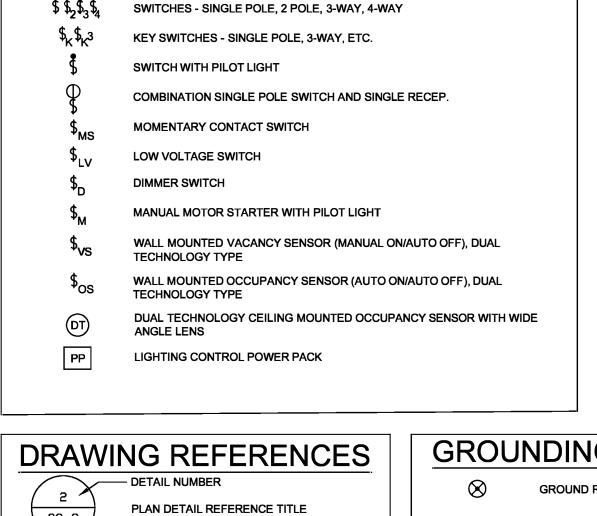
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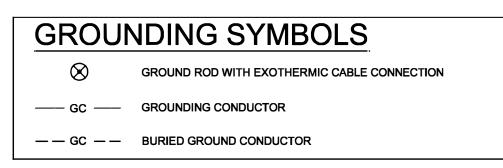
KEYED NOTE DESIGNATION











**RECEPTACLES** 

TYPICAL MOUNTING HEIGHT - 18" AFF

SPECIAL PURPOSE OUTLET AS NOTED

DUPLEX RECEPTACLE OUTLET MOUNTED +8" ABOVE COUNTER

DUPLEX RECEPTACLE OUTLET MOUNTED +8" ABOVE COUNTER -

**DUPLEX RECEPTACLE OUTLET - GROUND FAULT TYPE** 

DUPLEX RECEPTACLE OUTLET WITH ISOLATED GROUND

DUPLEX RECEPTACLE WITH ONE OUTLET SWITCHED

FLOOR BOX - SYMBOL DESIGNATES TYPE OF SERVICE

FLOOR BOX - ROUGH IN ONLY WITH BLANK COVER

DUPLEX RECEPTACLE OUTLET WITH UNIVERSAL SERIAL BUS

COMBINATION DUPLEX RECEPTACLE AND TV OUTLET (SEE TV

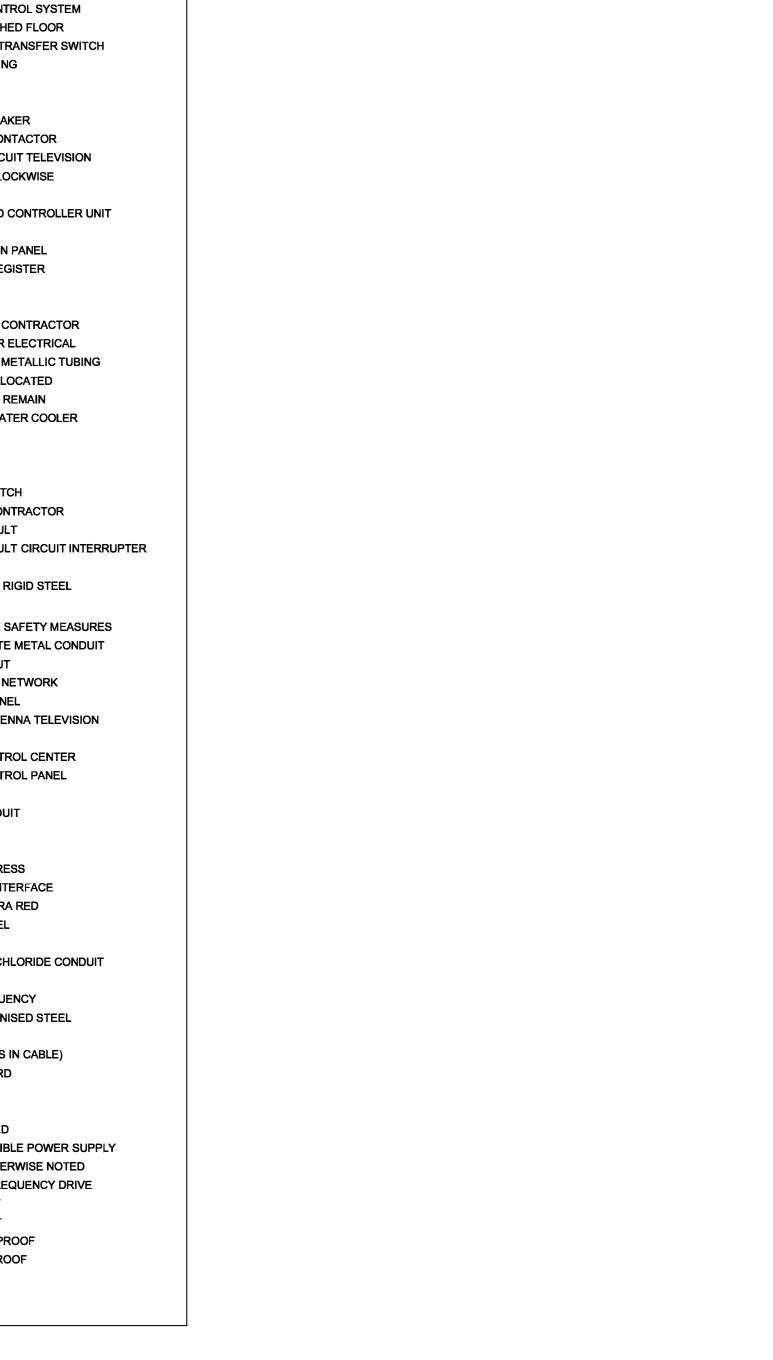
SYMBOL UNDER "SPECIAL SYSTEMS"). MOUNT 1'-3" A.F.F.

SINGLE RECEPTACLE OUTLET

**DUPLEX RECEPTACLE OUTLET** 

DOUBLE DUPLEX RECEPTACLE OUTLET

**GROUND FAULT TYPE** 



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OFFICE OF ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF CORRECTIONS

PROJECT TITLE:

REPLACE BAS & HVAC

HANNIBAL, MO

2002 WARREN BARRETT DRIVE

PROJECT # C2010-01

**REVISION:** DATE: 09/22/2022 **REVISION:** DATE: **REVISION:** DATE:

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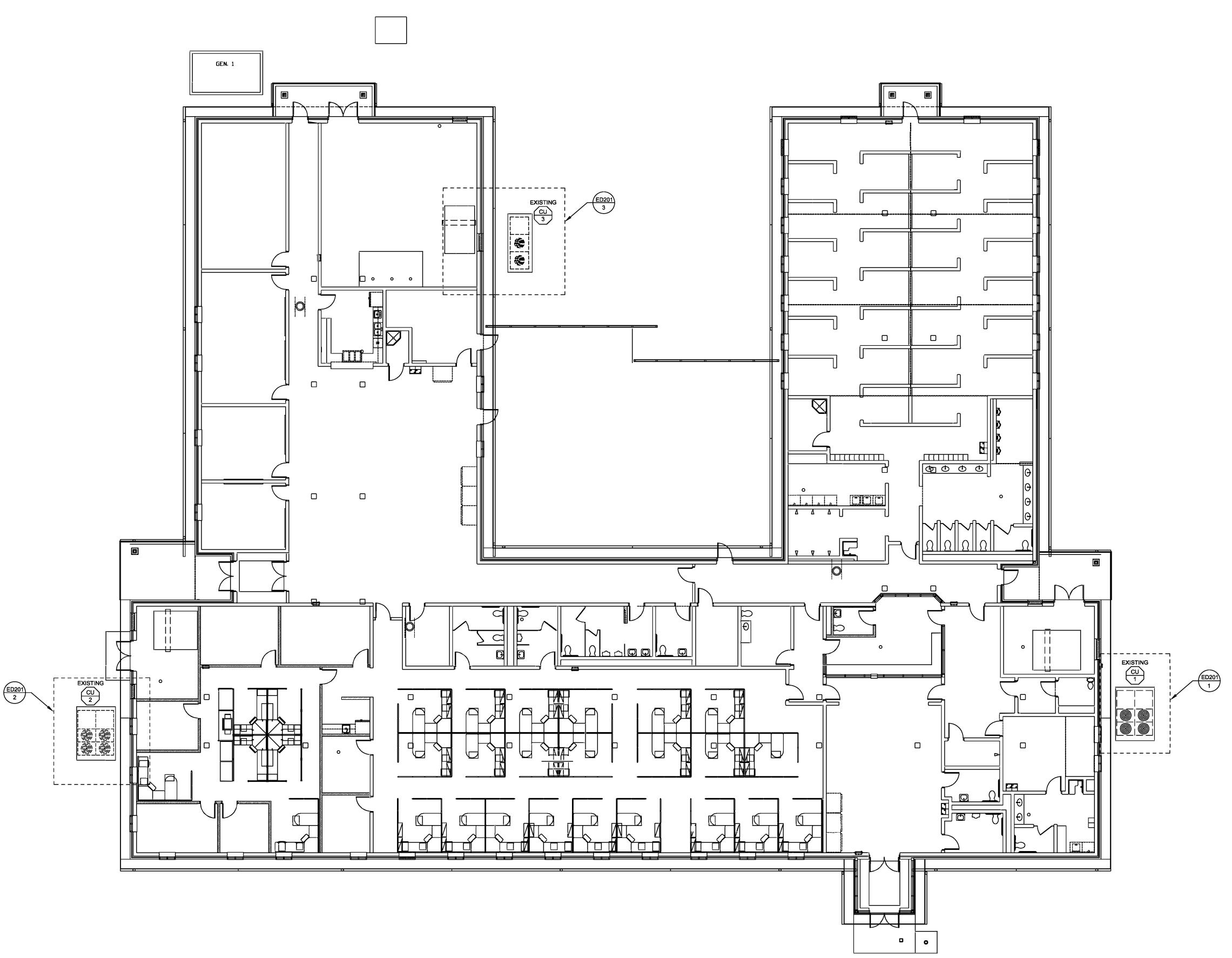
CAD DWG FILE: DRAWN BY: ASK CHECKED BY: CVH DESIGNED BY: TSM

SHEET TITLE:

**ELECTRICAL SYMBOLS** AND LEGEND

SHEET NUMBER:

**10 OF 13 SHEETS** 



ELECTRIC DEMOLITION FLOOR PLAN

SCALE: 3/32" = 1'-0"

# GENERAL NOTES

- REFER TO SHEET ED-401 FOR FURTHER ELECTRICAL DEMO INFORMATION.
- 2. PLANS ARE DIAGRAMMATIC IN NATURE. THEY REFLECT THE AVAILABLE INFORMATION OBTAINED FROM FIELD OBSERVATION AND EXISTING DOCUMENTATION. ACTUAL LOCATION OF ELEMENTS AND EQUIPMENT MAY DEVIATE FROM THE LOCATION AND QUANTITIES SHOWN.
- 3. EXISTING WIRING TO REMAIN SHALL BE TEMPORARILY SUPPORTED AND PROTECTED. IF WIRE IS DAMAGED DURING THE CONSTRUCTION PROCESS, CONTRACTOR SHALL REPLACE WIRE WITH NEW PER SPECIFICATIONS.
- 4. WHILE MOST DEMOLITION WORK IS CONFINED TO CERTAIN AREAS OF THE BUILDING, WORK FOR ELECTRICAL SYSTEMS MAY BE EXTENDED TO INCLUDE OTHER AREAS OUTSIDE THE SCOPE OF WORK. PLAN IN ADVANCE TO PERFORM WORK IN OTHER AREAS TO MINIMIZE INTERRUPTIONS.
- 5. DEMOLITION REFERS TO THE DISCONNECTION AND REMOVAL OF EQUIPMENT, WIRING, AND COMPONENTS BACK TO SOURCE.
- 6. CONTRACTORS SHALL PROVIDE ALL CUTTING AND PATCHING AS REQUIRED FOR EXECUTION OF DEMOLITION WORK AND INSTALLATION OF NEW WORK.
- COORDINATE THE DISCONNECTION AND REMOVAL OF ALL ITEMS WITH ASSOCIATED TRADES. ENSURE SERVICES THAT ARE REQUIRED TO REMAIN ACTIVE ARE ACTIVE DURING AND AFTER DEMOLITION IS COMPLETED.

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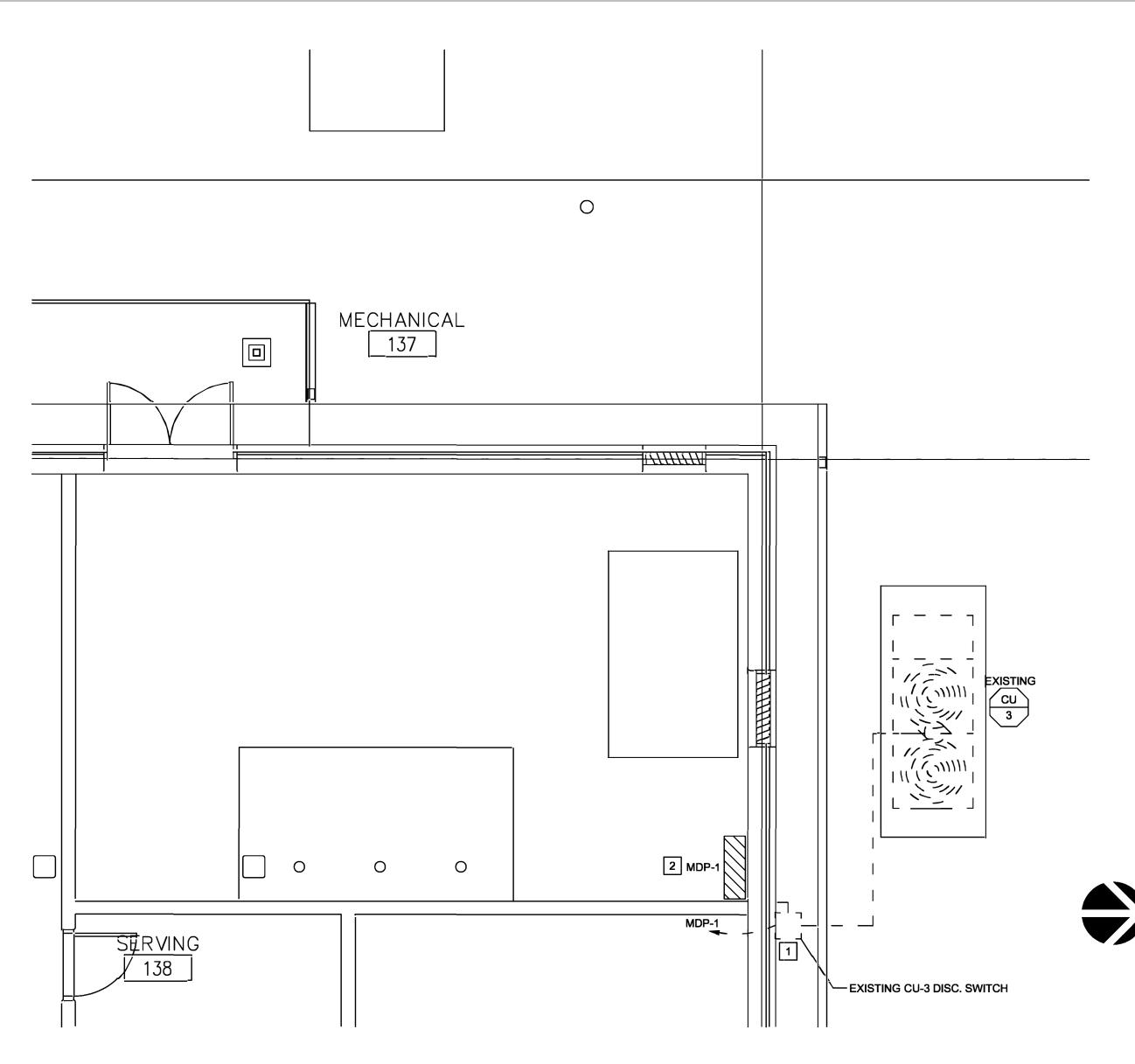
CAD DWG FILE:
DRAWN BY:
CHECKED BY:
DESIGNED BY:
TSM

SHEET TITLE:

ELECTRICAL DEMOLITION

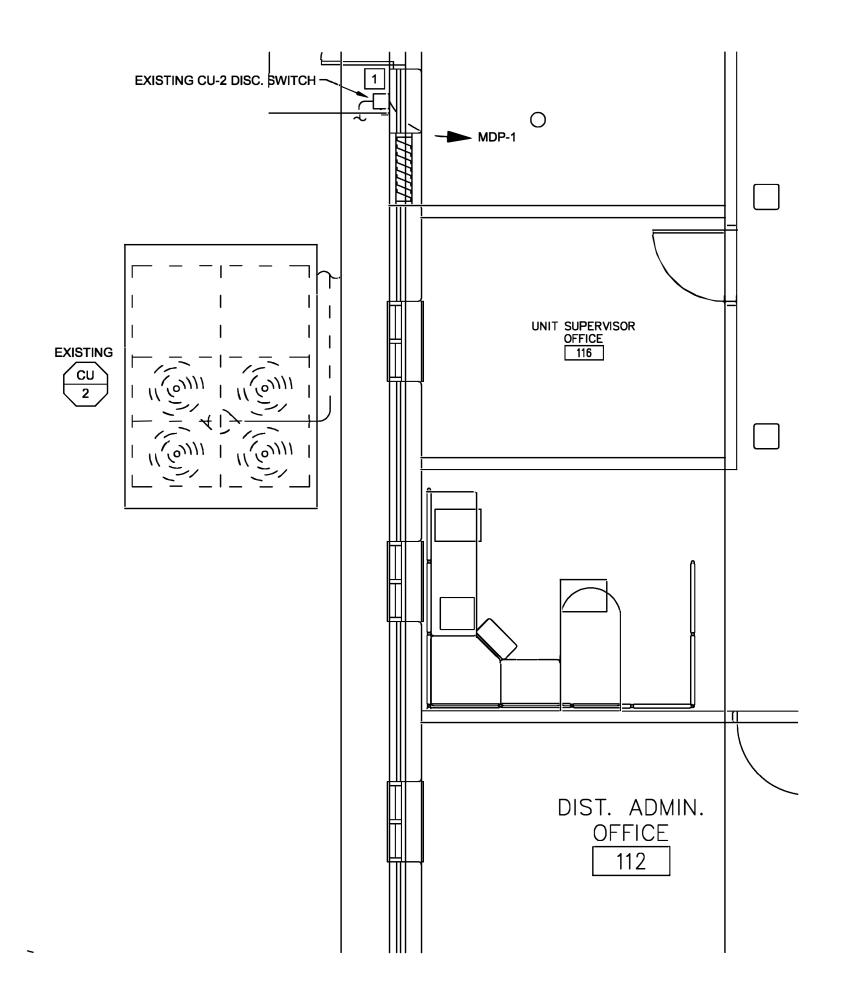
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ED-101

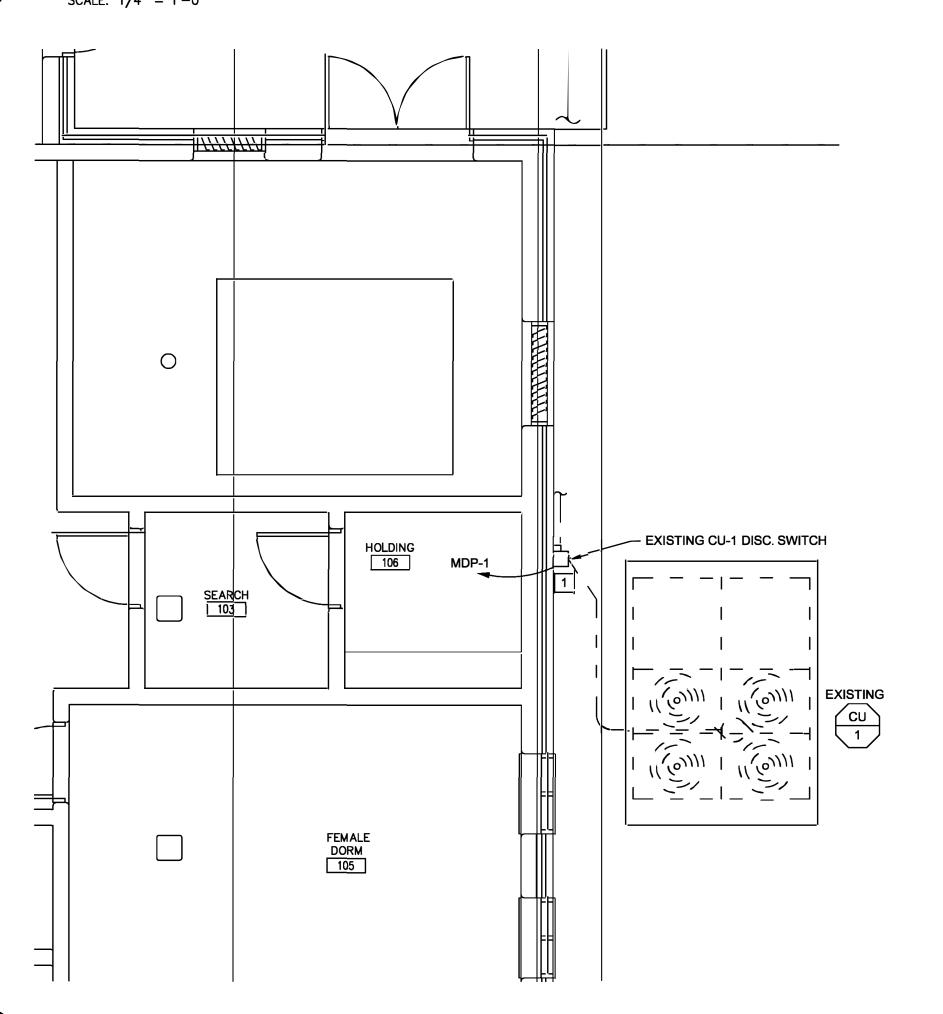




3 - ENLARGED MECH RM - ELECTRICAL DEMOLITION



# 2 - ENLARGED PLAN - ELECTRICAL DEMOLITION SCALE: 1/4" = 1'-0"





1 - ENLARGED PLAN - ELECTRICAL DEMOLITION

### GENERAL NOTES

- 1. PLANS ARE DIAGRAMMATIC IN NATURE. THEY REFLECT THE AVAILABLE INFORMATION OBTAINED FROM FIELD OBSERVATION AND EXISTING DOCUMENTATION. ACTUAL LOCATION OF ELEMENTS AND EQUIPMENT MAY DEVIATE FROM THE LOCATION AND QUANTITIES SHOWN.
- 2. EXISTING WIRING TO REMAIN SHALL BE TEMPORARILY SUPPORTED AND PROTECTED. IF WIRE IS DAMAGED DURING THE CONSTRUCTION PROCESS, CONTRACTOR SHALL REPLACE WIRE WITH NEW PER SPECIFICATIONS.
- 3. WHILE MOST DEMOLITION WORK IS CONFINED TO CERTAIN AREAS OF THE BUILDING, WORK FOR ELECTRICAL SYSTEMS MAY BE EXTENDED TO INCLUDE OTHER AREAS OUTSIDE THE SCOPE OF WORK. PLAN IN ADVANCE TO PERFORM WORK IN OTHER AREAS TO MINIMIZE INTERRUPTIONS.
- 4. DEMOLITION REFERS TO THE DISCONNECTION AND REMOVAL OF EQUIPMENT, WIRING, AND COMPONENTS BACK TO SOURCE.
- 5. CONTRACTORS SHALL PROVIDE ALL CUTTING AND PATCHING AS REQUIRED FOR EXECUTION OF DEMOLITION WORK AND INSTALLATION OF NEW WORK.
- 6. COORDINATE THE DISCONNECTION AND REMOVAL OF ALL ITEMS WITH ASSOCIATED TRADES. ENSURE SERVICES THAT ARE REQUIRED TO REMAIN ACTIVE ARE ACTIVE DURING AND AFTER DEMOLITION IS COMPLETED.

### KEYED NOTES

- 1 REMOVE EXISTING DISCONNECT, REMOVE EXISTING FEEDERS, AND REMOVE EXISTING ACCESSIBLE CONDUIT BACK TO MDP-1. CAP REMAINING CONDUIT IN CONCEALED LOCATION, SEAL AND FINISH AT WALL/FLOOR/CEILING FACE AND MATCH ADJACENT FINISHES.
- REMOVE EXISTING ABANDONED FUSED SWITCHES IN MDP-1 AS NEEDED TO MAKE SPACE FOR NEW SWITCHES PER NEW WORK PLANS. REMAINING ABANDONED SWITCHES SHALL BE SWITCHED OFF AND FUSES REMOVED AND MARKED "SPARE".

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CAD DWG FILE:
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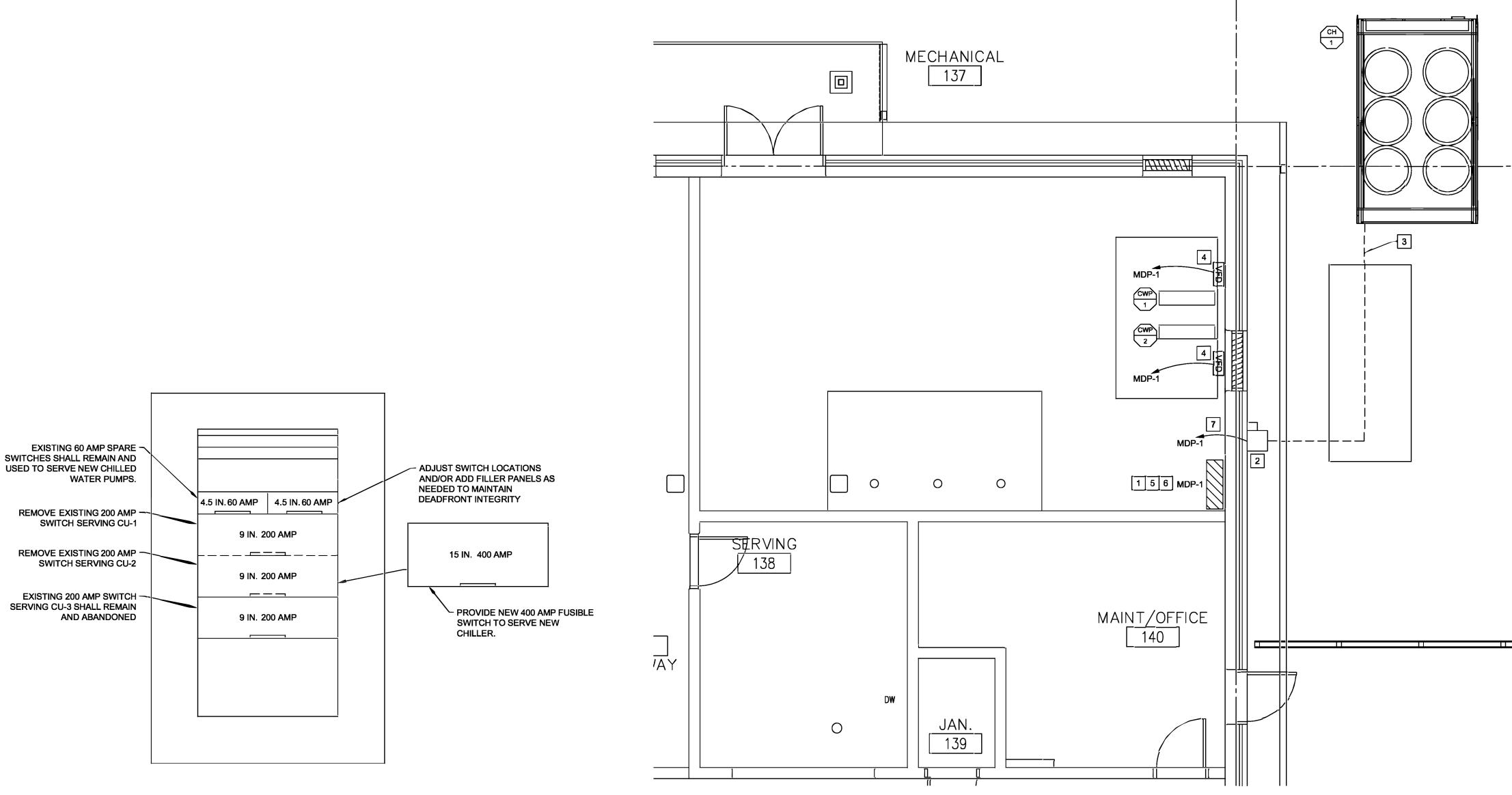
SHEET TITLE:

ENLARGED
DEMO PLANS
- ELECTRICAL

SHEET NUMBER:

ED-201

MARK	EQUIPMENT	LOCATION	FURNISH. BY	MOTOR OR EQUIPMENT DATA			FED FROM	BRANCH			DISCONNECT SWITCH AT EQUIPMENT				STARTER							REMARKS
	EQUIPMENT	LOCATION	<u>0</u>	HP/KW/A	VOLTS/ PHASE	INST.BY/ CONN.BY	FROM	CIRCUIT 3	TYPE (4)	NEMA ENCLOS. TYPE	SWITCH/ FUSE SIZE	FURNISH. BY	INST.BY/ CONN.BY	NEMA SIZE	NEMA ENCLOS. TYPE	TYPE ⑤	SWITCH/ FUSE SIZE	ACCESS.	FURNISH. BY	CONN.BY	CONTROL WIRING BY	•
CH-1	CHILLER	OUTDOORS	23	257 MCA	208/3	23/26	MDP-1	SEE E-401	-	3R	400A/300A	26	26	-	-	-	-	-	26	26	23	(-)
WP-1	PUMP	MECHANICAL ROOM 137	23	5 HP	208/3	23/26	MDP-1	SEE E-401	-	-	60A/40A	26	26	0	1	VFD	60A/40A	HOAP	26	26	23	(2)
WP-2	PUMP	MECHANICAL ROOM 137	23	5 HP	208/3	23/26	MDP-1	SEE E-401	-	-	60A/40A	26	26	0	1	VFD	60A/40A	HOAP	26	26	23	(2)
						İ																
DIVI DIVI DIVI DIVI UNI KILO	SION 22 - PLUMBING SION 23 - MECHANICAL SION 26 - ELECTRICAL  RSEPOWER(HP) IS SHOWN ESS AMPS(A),	REFER TO FEEDER SCHEDI THIS COLUMN CONTAINS A FEEDER DESIGNATION INS OF CONDUCTOR SIZE. NF - NON FUSED F - FUSED TOG - TOGGLE	١		COMB2 - COMB3 - COMB4	COMBINATION STARTER WIT COMBINATION STARTER WIT COMBINATION STARTER WIT BREAKER DIS COMBINATION	N FULL VOTLAC	CONNECT SWIT GE NON-REVER ISCONNECT SV GE NON-REVER AGNETIC MOLI GE NON-REVER	CH RSING M WITCH RSING M DED CAS	AGNETIC AGNETIC SE CIRCUIT AGNETIC	MAN M SDS - S PWCP - P VFD - V 2S2W - 2	TARTER WIANUAL STAR DELTAREWIRED FARIABLE FOR SPEED 2 WINDER	THOUT DISC ARTER WITH STARTER CONTROL PAREQUENCY	CONNECT PILOT LIG NNEL DRIVE	MAGNETIC		OA WITH PIL ART/STOP PI		(1) NACT) (2) (3) (4) (5)	INTEGRAL MOUNT DIS ON EQUIPM INTEGRAL INTEGRAL	M INTERLOC DISCONNECT SCONNECT S MENT HOUSI MOTOR STA CONTROLLE	T SWITCH SWITCH NG RTER



# **EXISTING MDP-1 ELEVATION** SCALE: NO SCALE



### **GENERAL NOTES**

1. FOR FURTHER MECHANICAL INFORMATION, REFER TO SHEET M-601. 2. FOR FURTHER ELECTRICAL INFORMATION, REFER TO SHEET E-501. 3. THE CHILLER SHALL BE TEMPORARY FED FROM A 400 AMP FUSIBLE DISCONNECT, FED FROM EXISTING MECHANICAL EQUIPMENT DISTRIBUTION PANEL MDP-1. EXISTING FUSED SWITCHES FEEDING EXISTING THREE CONDENSING UNITS SHALL BE REMOVED FROM MDP-1 ONCE THE TRANSITION FROM THE CONDENSING UNITS TO THE NEW CHILLER SYSTEM IS COMPLETE, THE CHILLER SHALL BE FED FROM NEW DISTRIBUTION PANEL MDP-1. NEW FUSED SWITCH SHALL BE PROVIDED IN MDP-1 TO SERVE THE PROPOSED CHILLER. PER KEYED NOTES

### KEYED NOTES

- 1 PROVIDE NEW 400 AMP 3-POLE FUSED-SWITCH, FUSED AT 300 AMP IN EXISTING PANEL MDP-1 TO SERVE CH-1. PROVIDE ALL NECESSARY FILLER PANELS AND SPACE COVERS TO RETAIN DEADFRONT INTEGRITY.
- 2 PROVIDE NEW NEMA 3R 400AMP DISCONNECT TO SERVE CH-1.
- PROVIDE NEW (3) 350KCM AND (1) #4 GROUND IN 3" CONDUIT FROM CH-1 TO NEW 400 AMP 3-POLE DISCONNECT SWITCH.
- PROVIDE NEW NEMA 1 VFD WITH INTEGRAL DISCONNECT FOR CHILLER PUMP. PROVIDE NEW 40-AMP RATED CIRCUITRY (3) #8 AND (1) #10 GROUND IN 3/4" CONDUIT. EXTEND CHILLER PUMP CIRCUIT TO EXISTING PANEL MDP-1, AND TERMINATE AT SPARE FUSED SWITCH DESCRIBED IN KEYED NOTE 5.
- 5 PROVIDE NEW 40 AMP FUSES IN EXISTING SPARE FUSED SWITCHES IN PANEL MDP-1, FOR CWP-1 AND CWP-2.
- 6 ELECTRICAL CONTRACTOR SHALL PROVIDE A TEMPORARY MEANS OF MAINTAINING POWER AND CIRCUIT PROTECTION TO THE THREE EXISTING CONDENSING UNITS. TWO OF THE EXISTING 200 AMP, 3-POLE FUSED DISCONNECTS IN MDP-1 SHALL BE REMOVED IN ORDER TO FACILITATE THE INSTALLATION OF NEW 400 AMP, 3-POLE FUSED DISCONNECT IN MDP-1 FOR THE NEW CHILLER CIRCUIT. TEMPORARY POWER MAY COME FROM MDP-1 BY MEANS OF TEMPORARY EXTERNAL 200-AMP, 3-POLE FUSED DISCONNECTS. AFTER THE NEW CHILLER BECOMES OPERATIONAL THE TEMPORARY EXTERNAL FUSED DISCONNECTS SHALL BE REMOVED.
- PROVIDE (3) 350 KCM AND (1) #4 GROUND IN 3" CONDUIT TO NEW 400 AMP 3-POLE FUSED SWITCH IN MDP-1. PROVIDE 300 AMP FUSES IN SWITCH AT

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DESIGNED BY:
TSM

SHEET TITLE:

**ENLARGED** PLANS -**ELECTRICAL** 

SHEET NUMBER:

E-101

**13 OF 13 SHEETS**