

# UPGRADE HVAC AND BAS COMMUNITY SUPERVISION CENTER MISSOURI DEPARTMENT OF CORRECTIONS FARMINGTON, MISSOURI

STATE OF MISSOURI  
MICHAEL L. PARSON,  
GOVERNOR



PROFESSIONAL SEAL



3701 S. LINDBERGH BLVD.  
SUITE 204  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

**OWNER:** STATE OF MISSOURI  
MICHAEL L. PARSON,  
GOVERNOR  
DEPARTMENT OF CORRECTIONS  
AND SECONDARY EDUCATION

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

**DESIGNER:** BRIC PARTNERSHIP, LLC  
3701 S. LINDBERGH,  
SUITE 204  
ST. LOUIS, MISSOURI 63127

**PROJECT  
NUMBER:** C2014-01

**Site #:** 7009  
**Asset #:** 9327009001

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC & BAS UPGRADE  
Community Supervision  
Center  
1430 DOUBET ROAD  
FARMINGTON, MO

PROJECT # C2014-01  
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DRAWN BY: \_\_\_\_\_  
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DESIGNED BY: \_\_\_\_\_

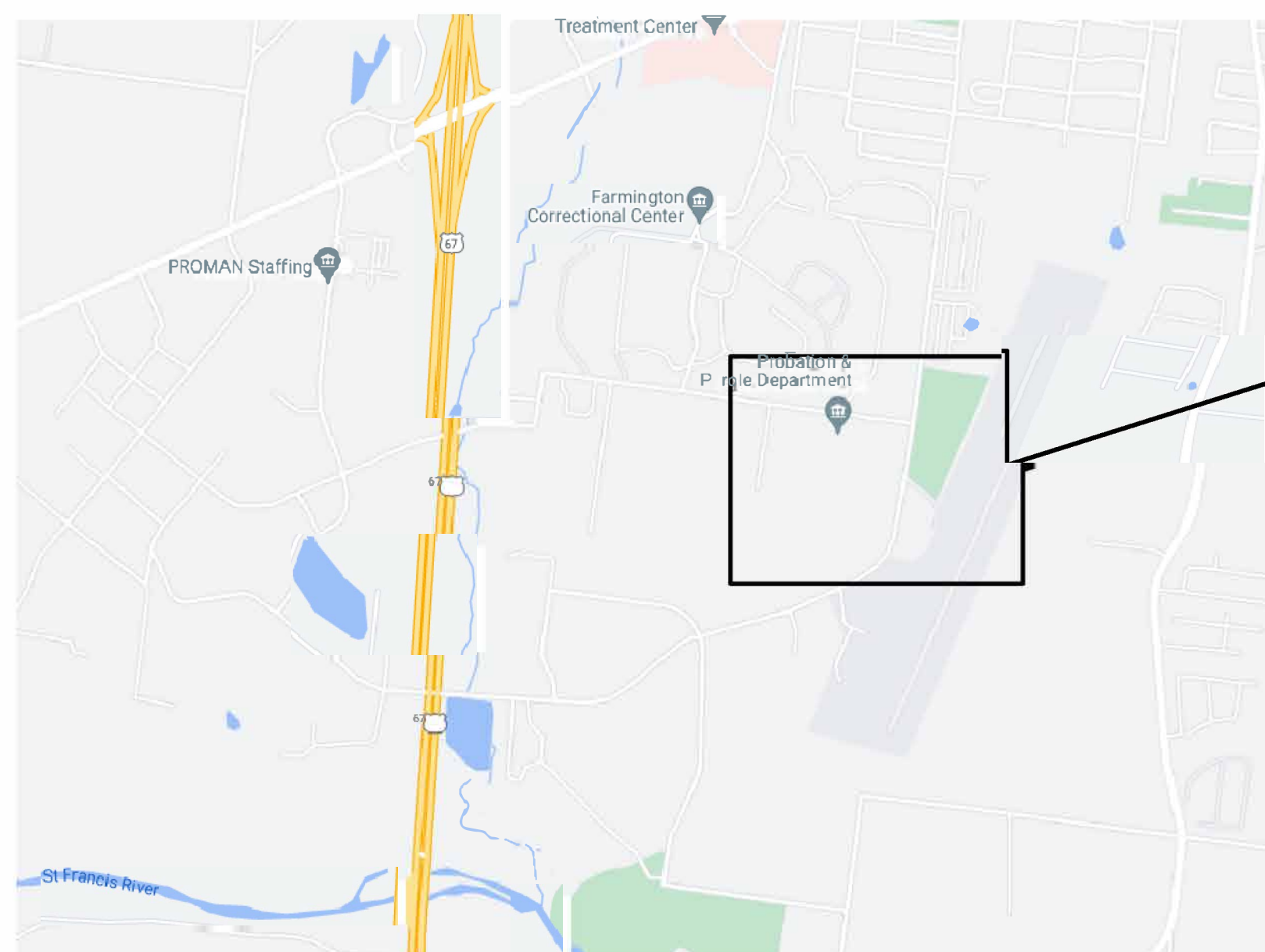
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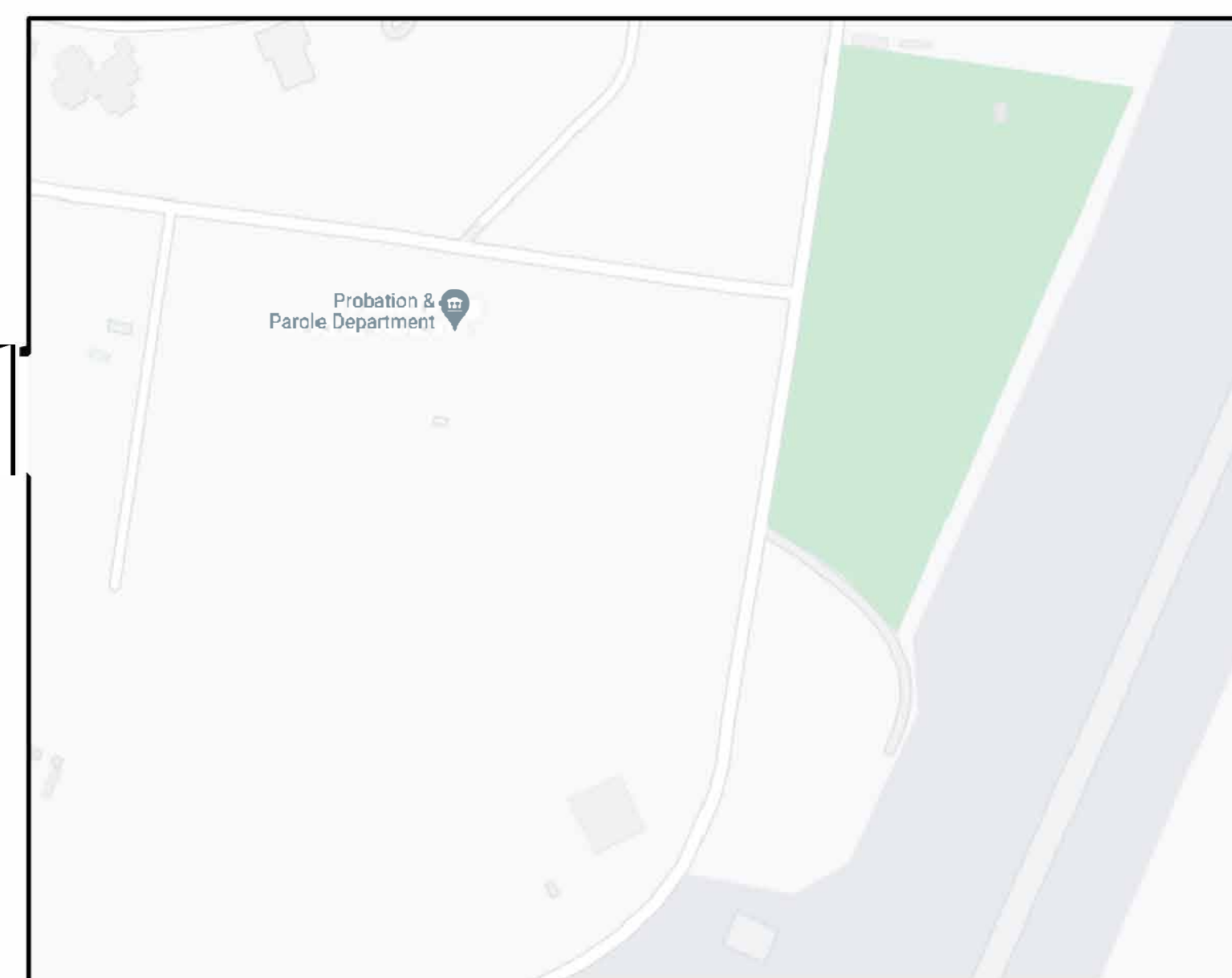
## G-000

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VICINITY MAP



LOCATION MAP



FACILITY  
LOCATION

DRAWING INDEX

GENERAL

G-000 COVER SHEET

MECHANICAL

M-001 MECHANICAL SYMBOLS AND LEGEND  
MD-101 MECHANICAL DEMOLITION  
M-201 MECHANICAL FLOOR PLAN  
M-401 ENLARGED PLAN - MECHANICAL  
M-501 MECHANICAL DETAILS  
M-502 CHILLED WATER SCHEMATIC  
M-601 MECHANICAL SCHEDULES  
M-701 MECHANICAL CONTROLS

ELECTRICAL

E-001 ELECTRICAL SYMBOLS AND LEGEND  
ED-101 ELECTRICAL DEMOLITION ENLARGED  
ED-201 ENLARGED DEMO PLAN - ELECTRICAL  
E-101 ENLARGED PLANS - ELECTRICAL



**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.
- 2. 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 OWNER.

**GENERAL NOTES (HYDRONIC)**

- 1. 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.
- 3. THE CONTRACTOR SHALL COORDINATE 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.

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- 2. 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.
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HEATING AND AIR CONDITIONING		PIPING SPECIALTIES		ABBREVIATIONS	
	SA SOUND ATTENUATOR		GV GATE VALVE	F.F.E.	FINISH FLOOR ELEVATION
	FC FLEXIBLE CONNECTION		CV CHECK VALVE	A.F.F.	ABOVE FINISH FLOOR
	SD SPLITTER DAMPER		GLV GLOBE VALVE	T.E.	TOP ELEVATION
	VD VOLUME DAMPER		BLV BALL VALVE	B.E.	BOTTOM ELEVATION
	TV TURNING VANES		STR STRAINER	F.L.	FLOW LINE
	RETURN, EXHAUST, OR OUTSIDE AIR DUCT		U UNION	INV.	INVERT ELEVATION
	DISCHARGE OR SUPPLY AIR DUCT		BC BALANCING COCK	CL	CENTER LINE
	INCLINED DROP IN THE DIRECTION OF AIR FLOW		SOC SHUT-OFF COCK	G.C.C.	GENERAL CONSTRUCTION CONTRACTOR
	INCLINED RISE IN THE DIRECTION OF AIR FLOW		SLV SOLENOID VALVE	H.A.C.	HEATING & AIR CONDITIONING CONTRACTOR
	FIRE DAMPER (F) SMOKE DAMPER (S)		BFV BUTTERFLY VALVE	P.C.	PLUMBING CONTRACTOR
	MD MOTORIZED DAMPER (ELECTRIC OR PNEUMATIC)		FS FLOW SWITCH	E.C.	ELECTRICAL CONTRACTOR
	FXD FLEXIBLE DUCT		FCV FLOW CONTROL VALVE (GPM INDICATED)	A.C.S.	AUTOMATIC CONTROL SUB-CONTRACTOR
	CEILING AIR DEVICE		T&PR TEMPERATURE AND PRESSURE RELIEF VALVE	F.P.C.	FIRE PROTECTION CONTRACTOR
	SIDEWALL AIR DEVICE		PG PRESSURE GAUGE	H.S.C.	HALON SUB-CONTRACTOR
	DUCT SIZE DESIGNATION: (1st FIGURE SIDE SHOWN, SIDE SHOWN IS SHEET METAL SIZE. ALLOWANCE HAS BEEN MADE FOR INTERIOR INSULATION WHERE SPECIFIED.)		PRV PRESSURE REDUCING VALVE	K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
	HUMIDISTAT		DIRECTION OF FLOW		
	T THERMOSTAT		ANCHORS		
	TN THERMOSTAT NITE		PIPE GUIDES		
	CWS CONDENSING WATER SUPPLY		MV MOTORIZED VALVE	MISCELLANEOUS	
	CWR CONDENSING WATER RETURN		DV DIAPHRAM VALVE	EQUIPMENT OR PLUMBING FIXTURE DESIGNATION	
	DTS DUAL TEMPERATURE SUPPLY		LPV LUBRICATED VALVE	(RISER INDICATION P=PLUMBING, K=KITCHEN, P=ACID)	
	DTR DUAL TEMPERATURE RETURN		HEV HOSE END VALVE	RISER DESIGNATION (RISER NUMBER)	
	FOS FUEL OIL SUPPLY		SWV STOP AND WASTE VALVE	(DETAIL NUMBER)	
	FOR FUEL OIL RETURN		TWV 3-WAY VALVE (MIXING OR BY-PASS AS INDICATED)	DETAIL DESIGNATION (SHEET NUMBER WHERE DETAIL IS FOUND)	
	FOV FUEL OIL VENT		PETES PLUG	(SECTION NUMBER)	
	MWL MAKE - UP WATER LINE		RV RELIEF VALVE	SECTION DESIGNATION (SHEET NUMBER WHERE SECTION IS FOUND)	
	D DRAIN LINE (OTHER THAN PLUMBING)		FC FLEXIBLE PIPE CONNECTION	KEYED NOTES	
	VL VENT LINE (OTHER THAN PLUMBING)		AVM AIR VENT (MANUAL)	REVISIONS	
	RD REFRIGERANT DISCHARGE		AVA AIR VENT (AUTOMATIC)	AP ACCESS PANEL	
	RL REFRIGERANT LIQUID		EX EXPANSION JOINT	NEW CONNECTION	
	RS REFRIGERANT SUCTION		CCR CONCENTRIC REDUCER		
	G GAS		TEE (SIDE OUTLET UP)		
	C CHILLED WATER SUPPLY		TEE (SIDE OUTLET DOWN)		
	CR CHILLED WATER RETURN		ELBOW (TURNED UP)		
	A COMPRESSED AIR		ELBOW (TURNED DOWN)		
	LPS LOW PRESSURE STEAM		BMD COMBINATION BALANCING & MEASURING DEVICE		
	MPS MEDIUM PRESSURE STEAM		ECR ECCENTRIC REDUCER		
	LPC LOW PRESSURE CONDENSATE		FMD FLOW MEASURING DEVICE		
	MPC MEDIUM PRESSURE CONDENSATE		STEAM TRAP		
	HPS HIGH PRESSURE STEAM				
	HPC HIGH PRESSURE CONDENSATE				
	CPD CONDENSATE PUMP DISCHARGE				
	H HOT WATER SUPPLY				
	HR HOT WATER RETURN				

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 TIME.



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

SHEET TITLE:  
**MECHANICAL  
SYMBOLS  
AND LEGEND**

SHEET NUMBER:

**M-001**





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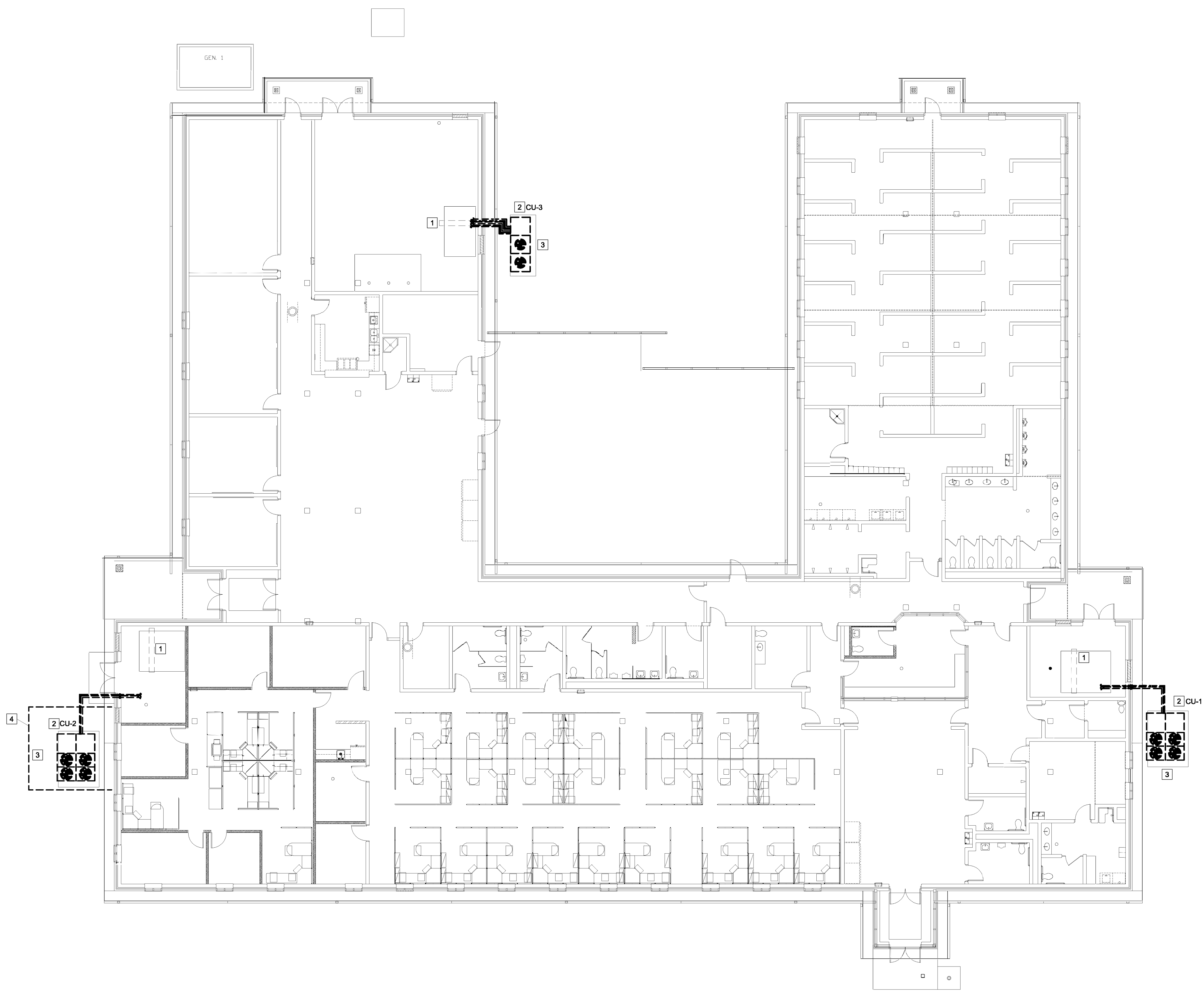
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**MECHANICAL  
DEMOLITION**

SHEET NUMBER:

**MD-101**

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- KEYED NOTES**
- 1 DISCONNECT AND REMOVE EXISTING DX COOLING COIL IN AIR HANDLING UNIT. A NEW CHILLED 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 REFRIGERANT PIPING AND CONTROLS. PATCH REMAINING BUILDING OPENINGS TO MATCH EXISTING. REMOVE CONCRETE PIPING SUPPORTS.
  - 3 REMOVE EXISTING CONCRETE PAD. BACKFILL REMAINING HOLE. COVER WITH GRASS SEED AND STRAW.
  - 4 REMOVE EXISTING VINYL FENCE AROUND CONDENSING UNIT. STRIP ROCK COVER AND GRASS SEED AND STRAW WITHIN THE PERIMETER OF THE FENCE.



**MECHANICAL FLOOR PLAN**  
SCALE: 3/32" = 1'-0"



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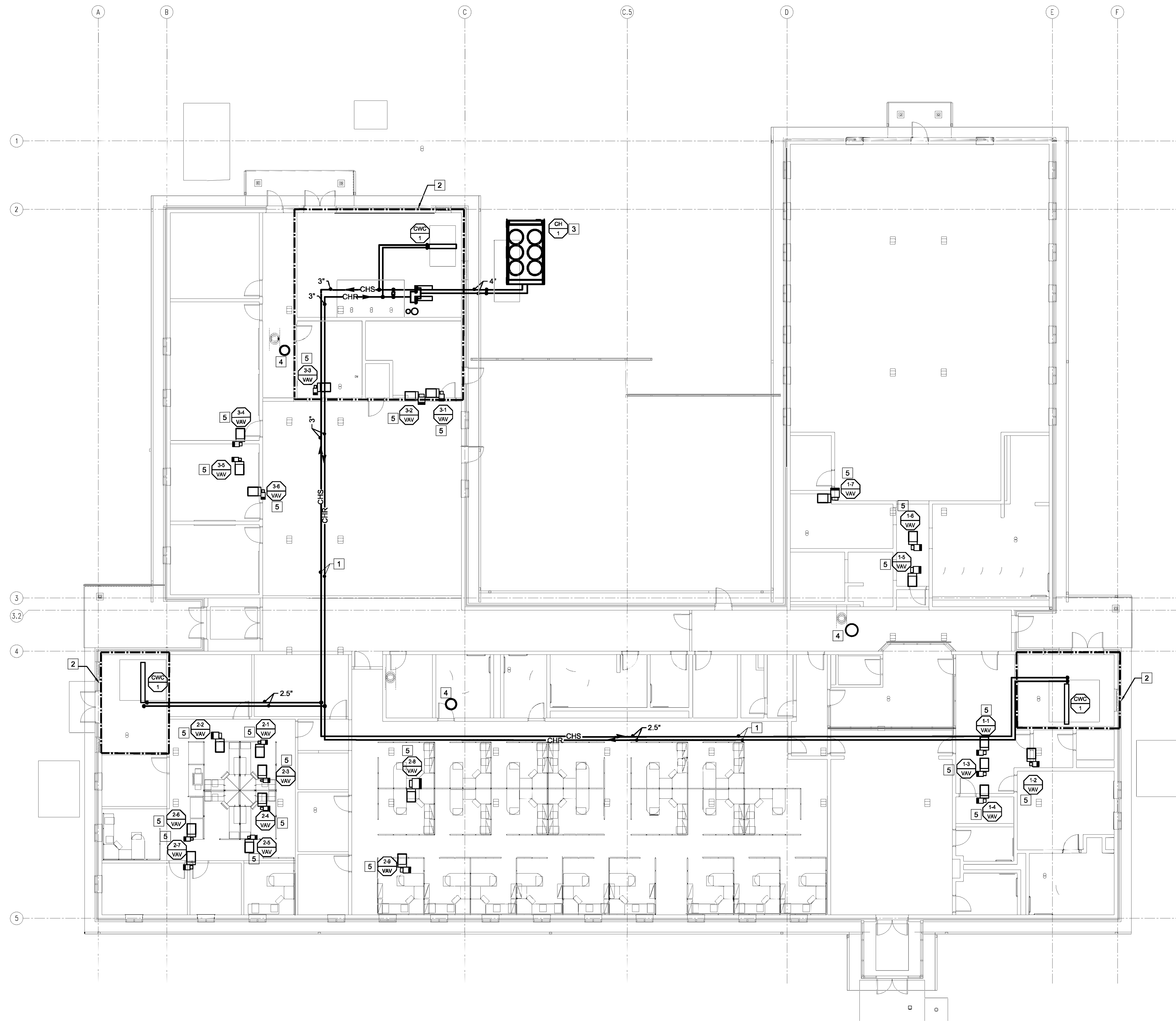
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SHEET TITLE:  
**MECHANICAL  
FLOORPLAN**

SHEET NUMBER:  
**M-201**

PAGE: 4 OF 13  
12/22/2022



- 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
  - 3 NEW CHILLER ON NEW CONCRETE PAD
  - 4 CONNECT EXISTING EXHAUST FAN TO BMS
  - 5 CONNECT EXISTING VAV BOX TO BMS. EXISTING CONTROLLER, WIRING AND TSTAT MAY REMAIN.

**MECHANICAL FLOOR PLAN**  
SCALE: 3/32" = 1'-0"





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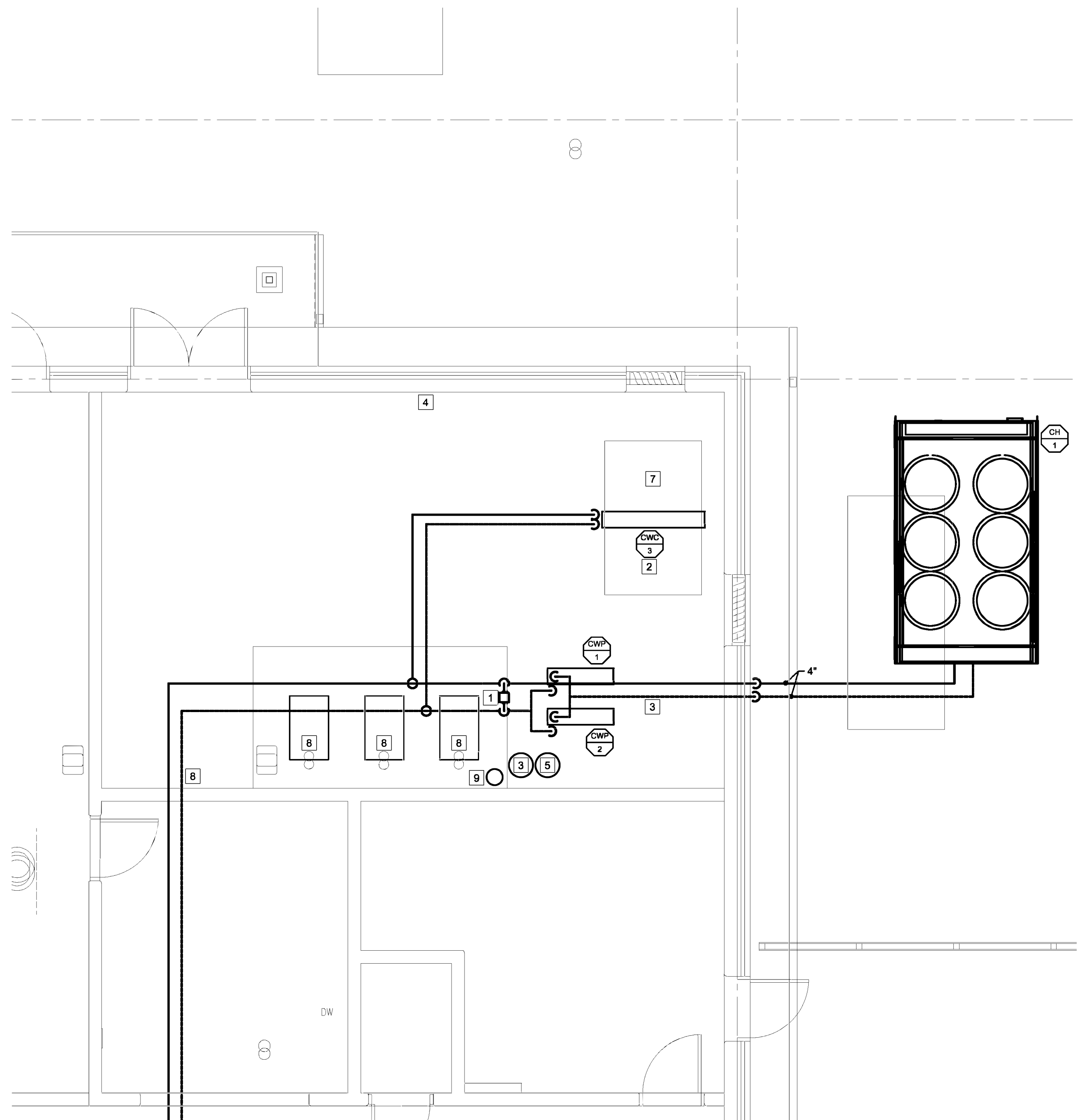
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SHEET TITLE:  
**ENLARGED  
PLANS -  
MECHANICAL**

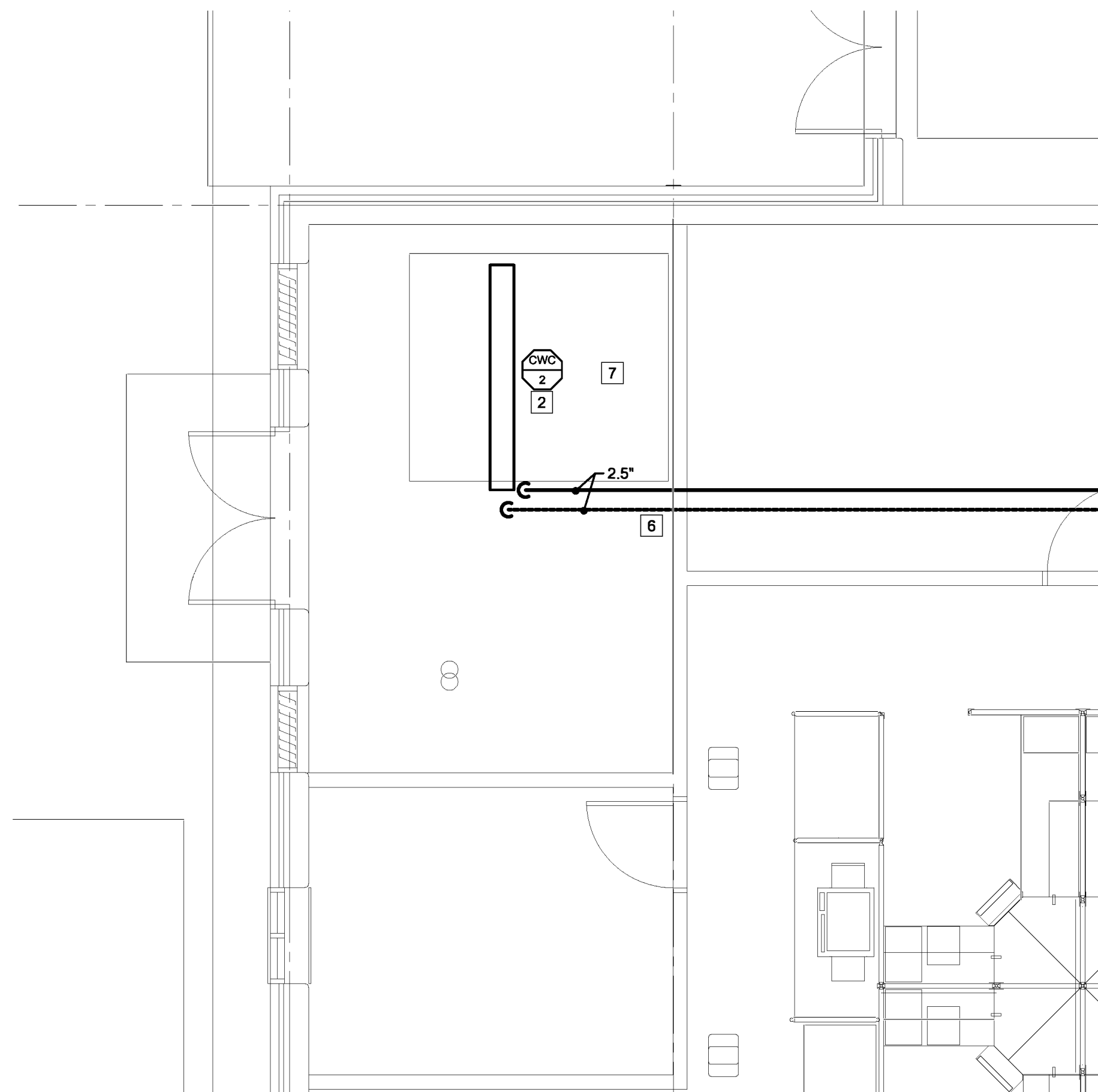
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**KEY NOTES**

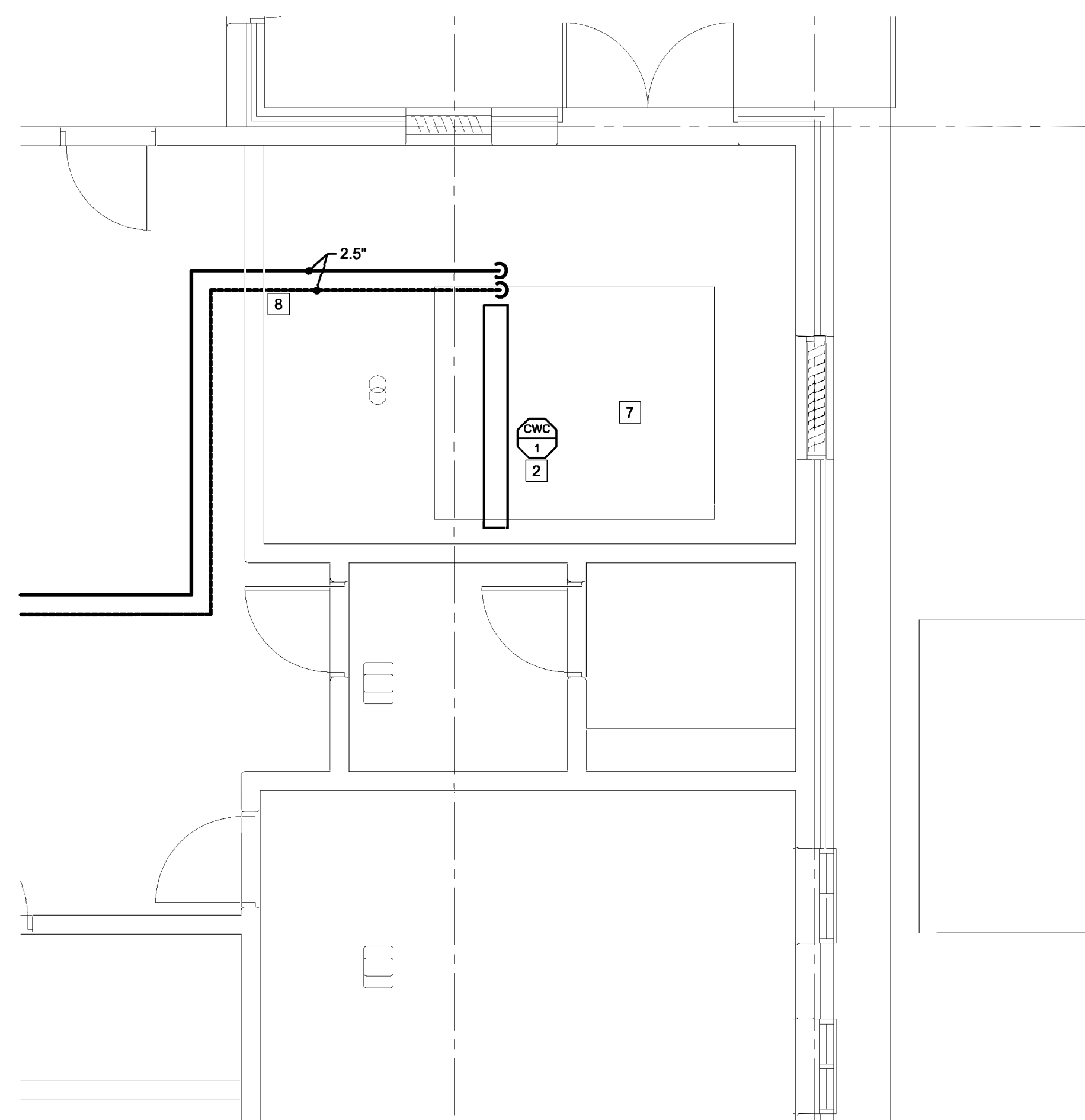
- 1 CHILLED WATER BYPASS WITH MODULATING CONTROL VALVE.
- 2 NEW CHILLED WATER COIL IN EXISTING AHU. SEE DETAIL.
- 3 EXPANSION TANK XT-1. TACO CA90-125 OR EQUAL. SECURE TANK TO EQUIPMENT PAD WITH SEISMIC ANCHORS.
- 4 PROVIDE DEDICATED 3/4" BACKFLOW PREVENTER FOR MECHANICAL MAKEUP WATER. SHALL INCLUDE 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.
- 5 CHILLED WATER BUFFER TANK. TANK SHALL BE WESSELS MODEL CBT-200 (OR EQUAL) WITH INTERNAL BAFLE AND TOP AIR VENT CONNECTION. PROVIDE AIR VENT. SECURE TANK TO EQUIPMENT PAD WITH SEISMIC ANCHORS.
- 6 CHILLED WATER PIPING THROUGH WALL INTO ATTIC SPACE.
- 7 EACH AHU WILL REQUIRE NEW BMS CONTROLLER.
- 8 CONNECT EXISTING HW SYSTEM (BOILERS AND PUMPS) TO NEW BMS.
- 9 2 GALLON CHEMICAL POT FEEDER.



**ENLARGED MECH RM - MECHANICAL**  
SCALE: 1/4" = 1'-0"



**ENLARGED PLAN - MECHANICAL**  
SCALE: 1/4" = 1'-0"



**ENLARGED PLAN - MECHANICAL**  
SCALE: 1/4" = 1'-0"



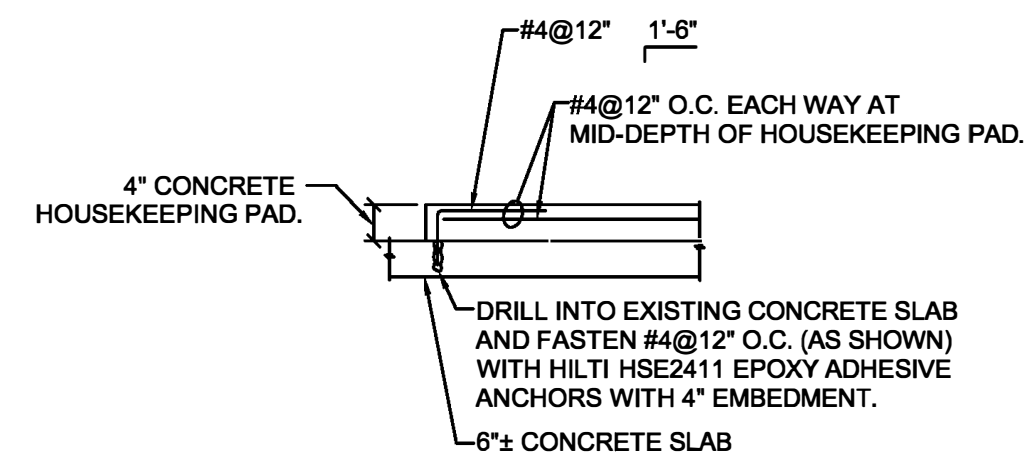


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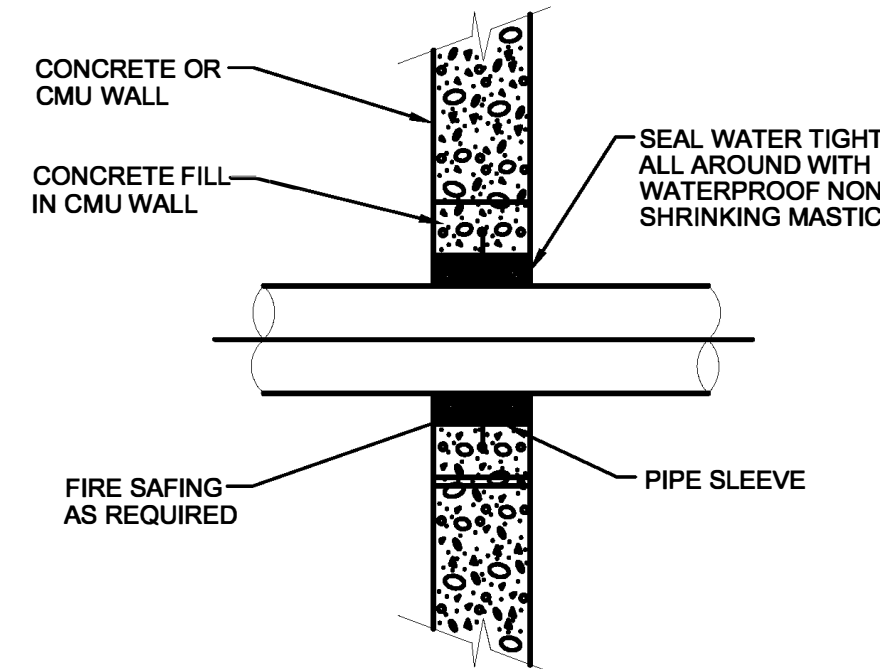
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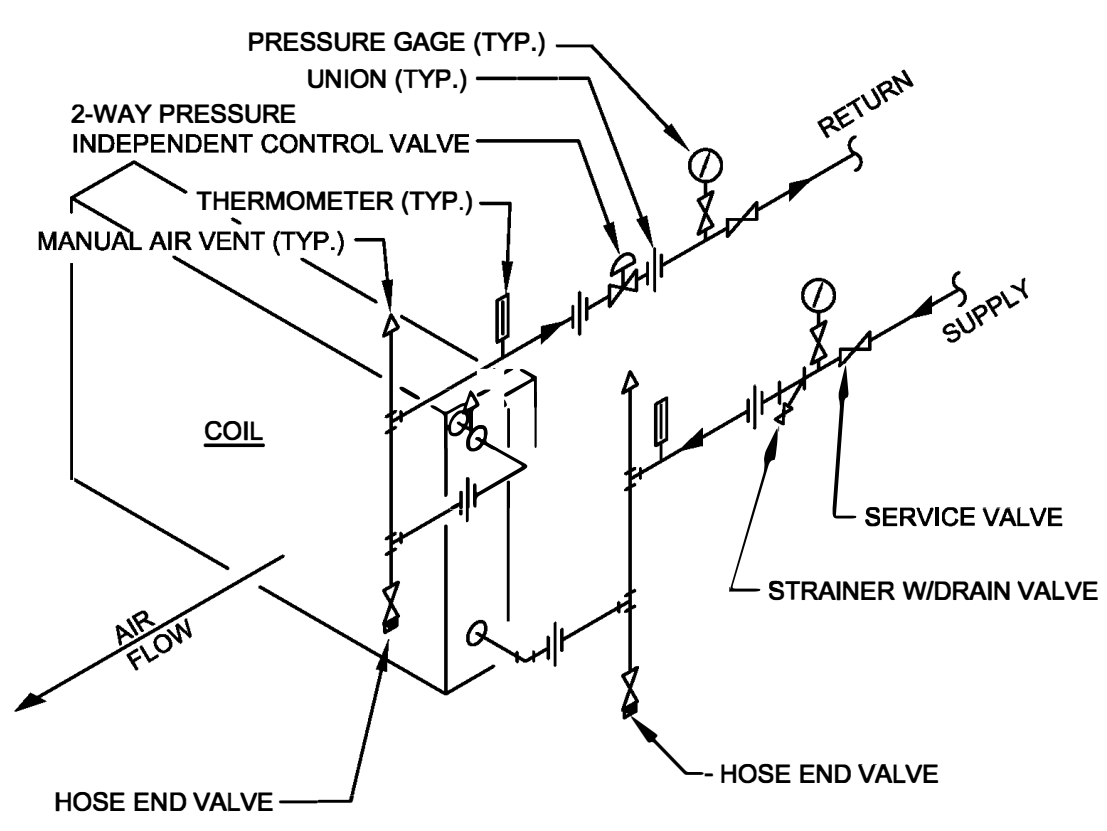
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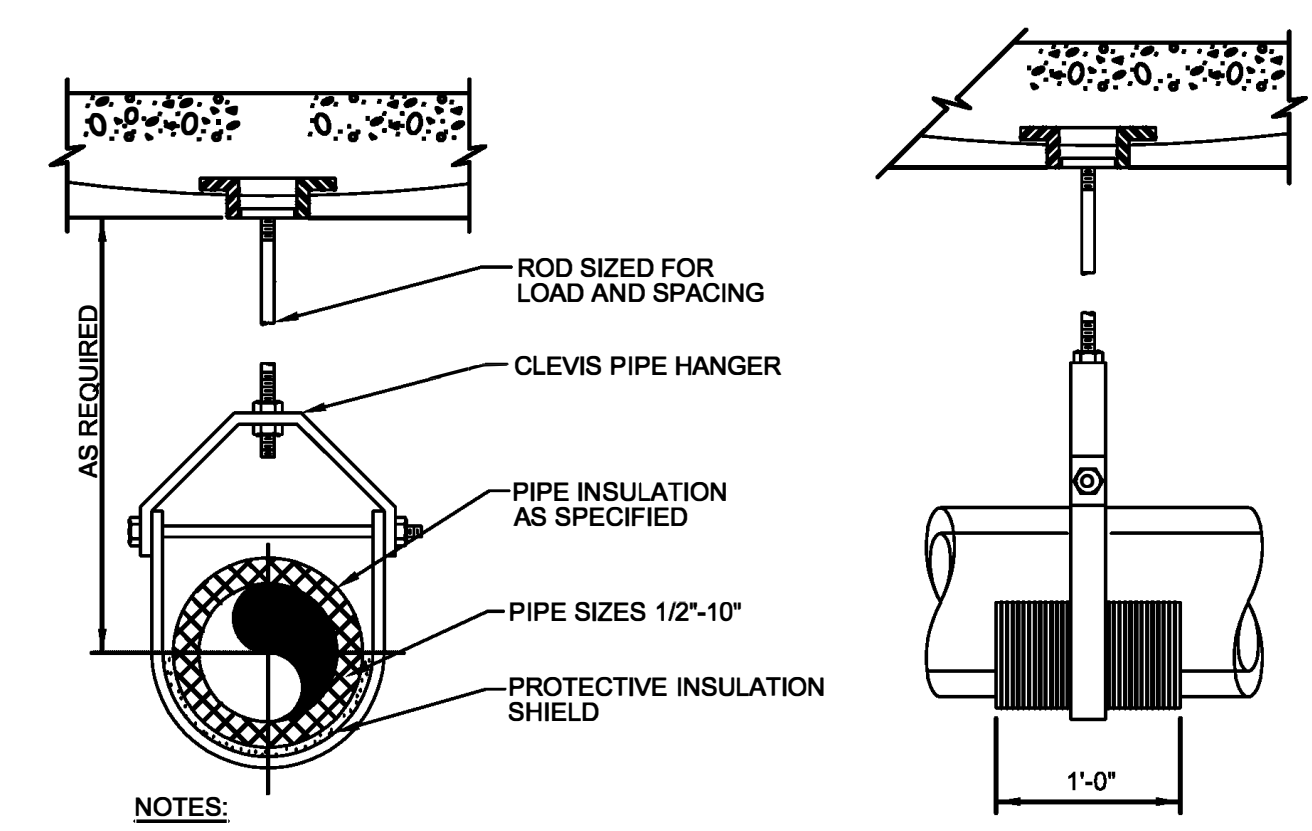
**NEW HOUSEKEEPING PAD**  
NO SCALE



**PIPE PENETRATION THRU WALL**  
NO SCALE

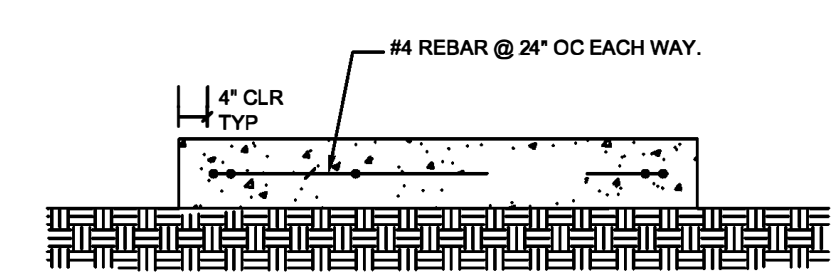


**CHILLED WATER COIL DETAIL**  
NO SCALE



NOTES:  
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

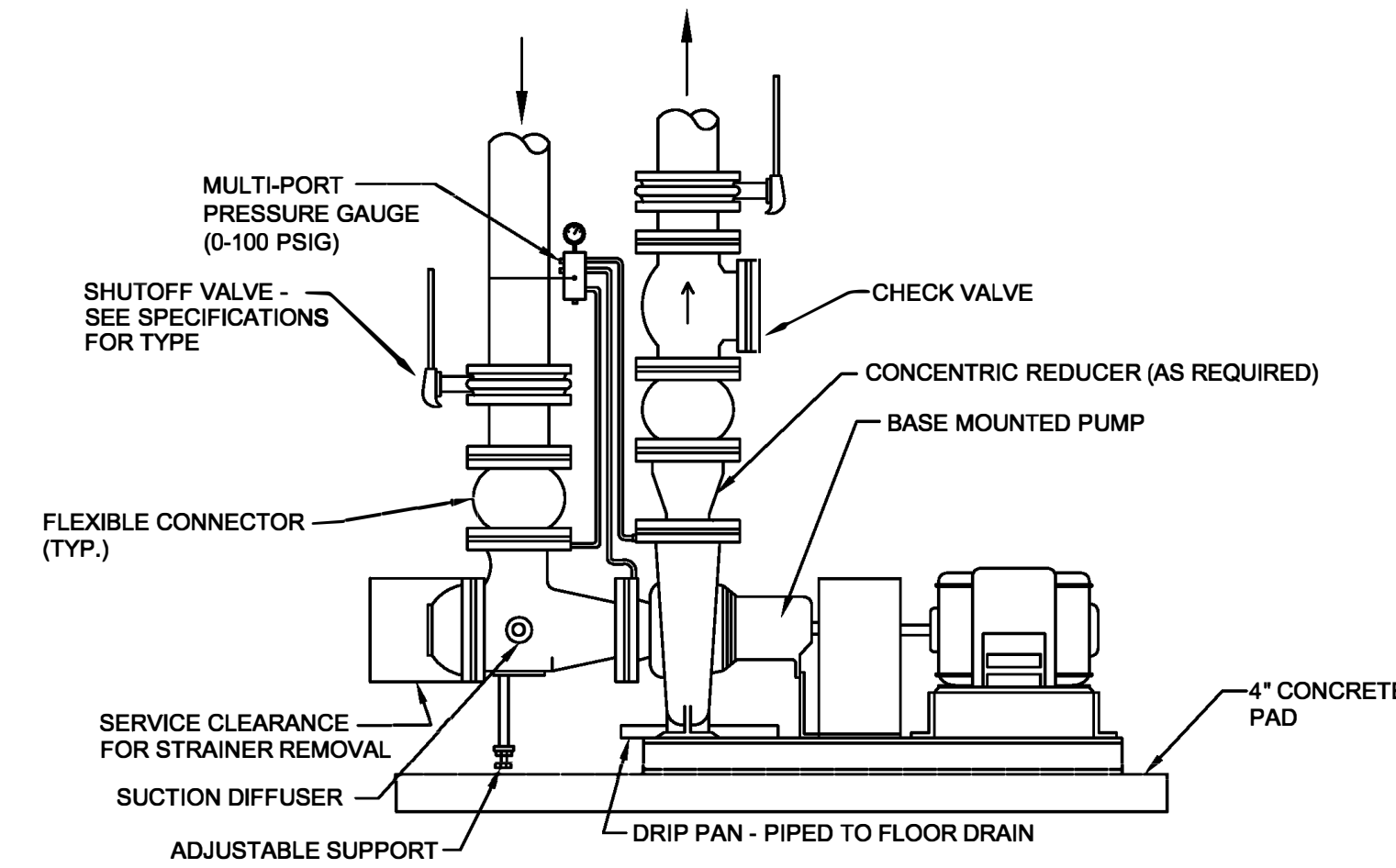


COORDINATE FINAL SIZE OF PAD WITH EQUIPMENT TO BE PROVIDED. PAD SHALL EXTEND 4 INCHES CLEAR OF THE EQUIPMENT.

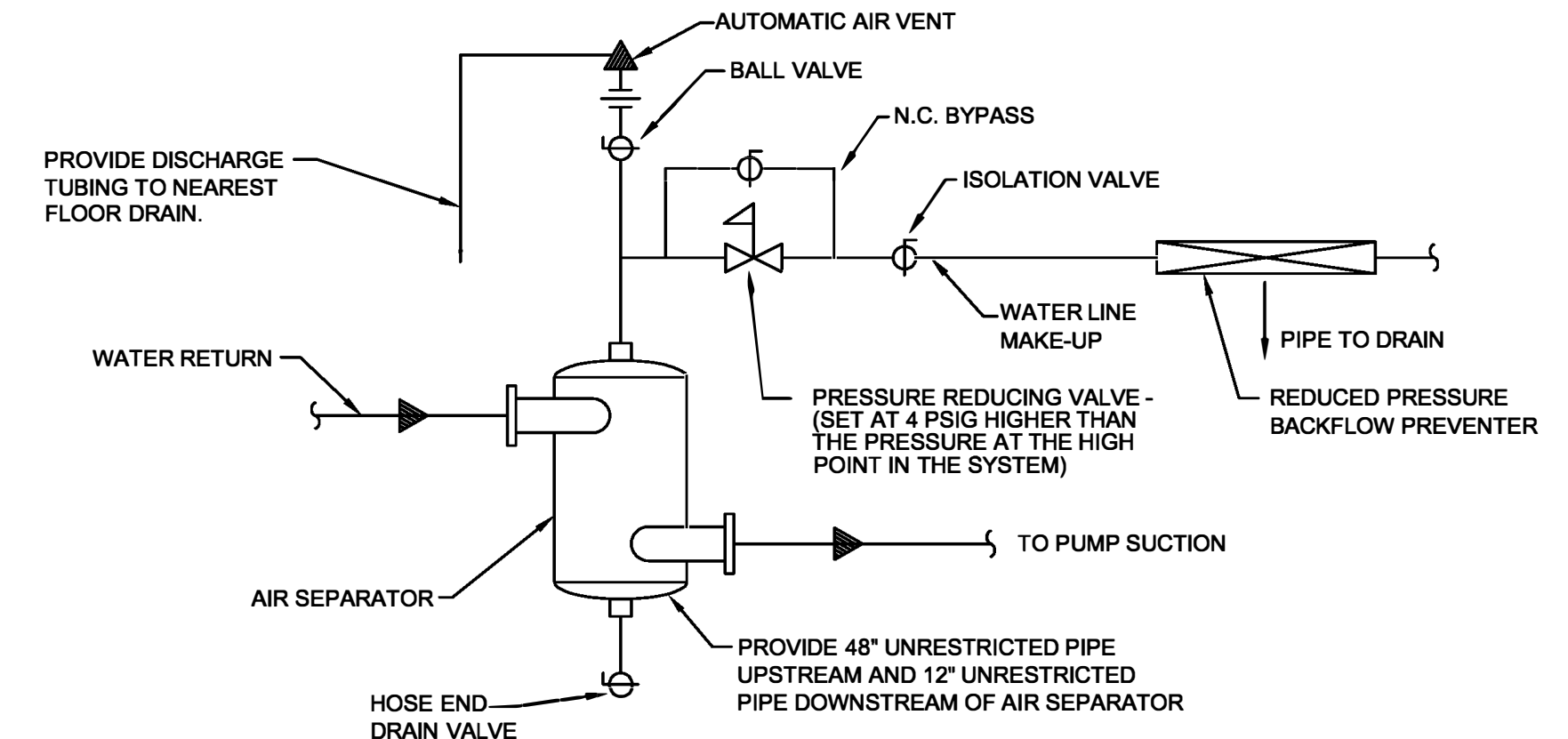
PAD MAY BE DOWELED INTO EXISTING ADJACENT PAD UTILIZING REBAR (#4) AND EPOXY

NOTES:  
CONCRETE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI CODE

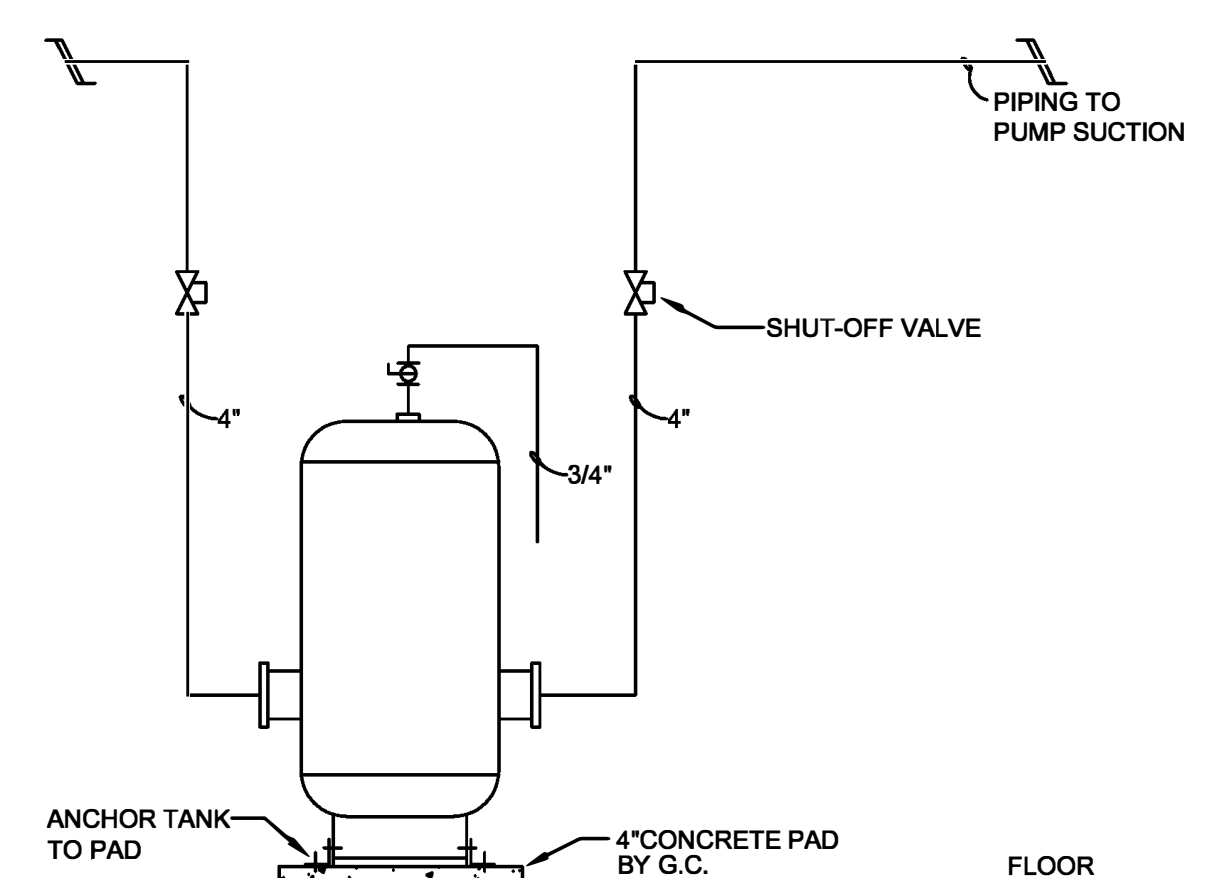
**INTERIOR EQUIPMENT PAD DETAIL**  
NO SCALE



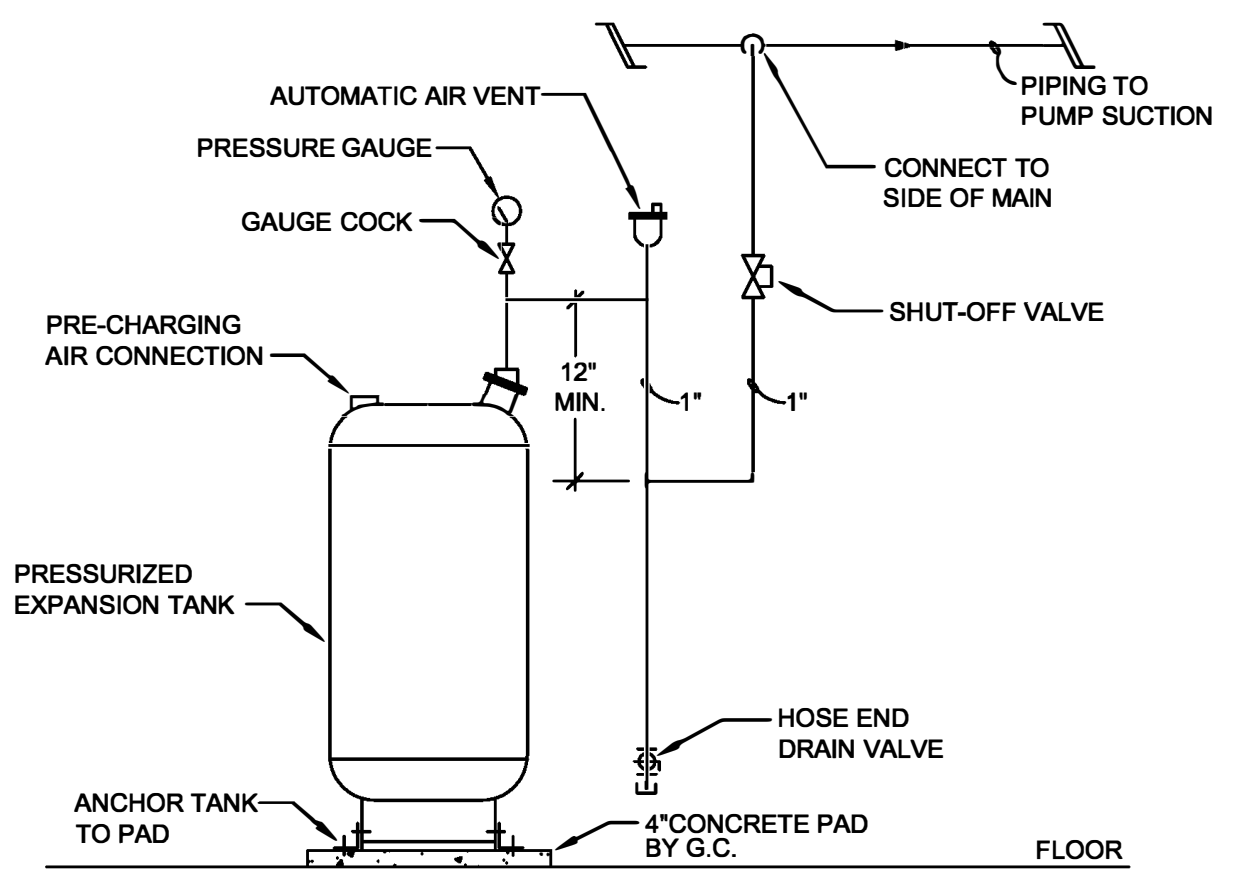
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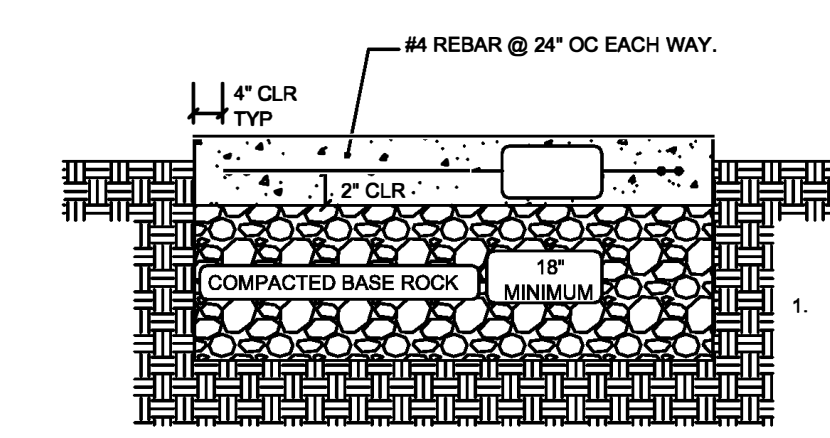
**AIR SEPARATOR DETAIL**  
NO SCALE



**BUFFER TANK DETAIL**  
NO SCALE



**EXPANSION TANK DETAIL**  
NO SCALE



COORDINATE FINAL SIZE OF PAD WITH EQUIPMENT TO BE PROVIDED. PAD SHALL EXTEND 4 INCHES CLEAR OF THE EQUIPMENT.

- NOTES:
- 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 ENTRAINMENT SHALL BE 4 TO 7% BY VOLUME. THE MIX SHALL HAVE 5 BAGS OF PORTLAND CEMENT TYPE-1 PER CUBIC YARD OF CONCRETE.
  - PAD SHALL BE POURED MONOLITHICALLY, WITH NO COLD JOINTS.
  - NO FOOTING IS TO BE EXCAVATED WITHOUT HAVING REINFORCING AND CONCRETE READY TO PLACE WITHIN THAT WORKING DAY.
  - 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.
  - TOP SURFACES OF CONCRETE SHALL HAVE A BROOM FINISH.
  - PAD 6" ABOVE GROUND.

**EXTERIOR EQUIPMENT PAD DETAIL**  
NO SCALE

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PROJECT TITLE:  
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Community Supervision  
Center  
1430 DOUBET ROAD  
FARMINGTON, MO

PROJECT # C2014-01  
Site #: 7009  
Asset #: 9327009001

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SHEET TITLE:  
**MECHANICAL  
DETAILS**

SHEET NUMBER:

**M-501**

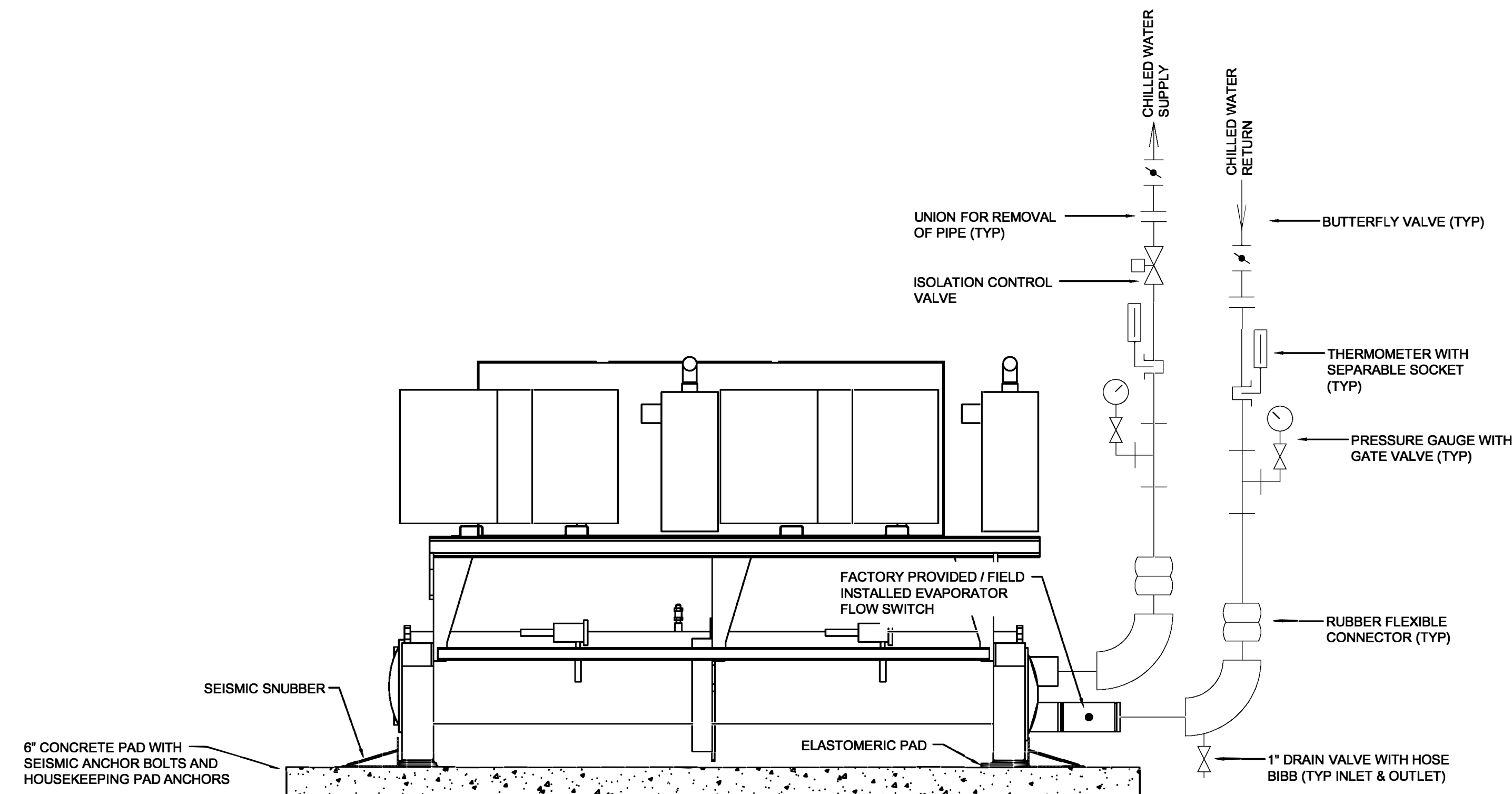


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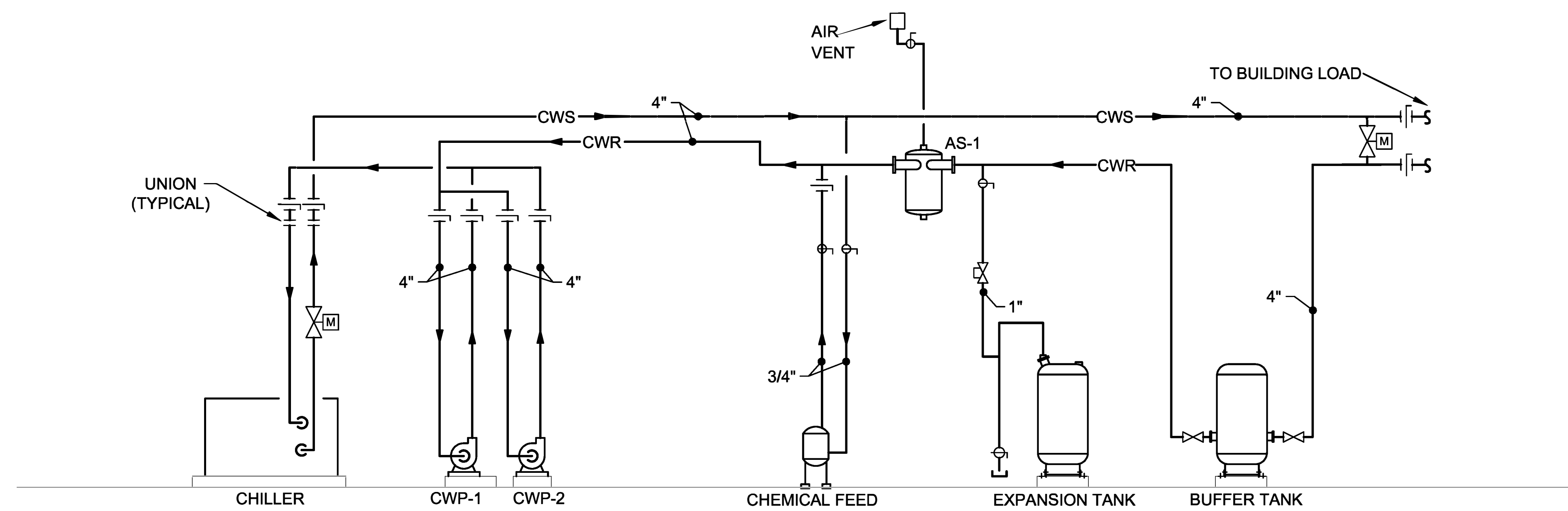
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**1 CHILLED WATER SCHEMATIC**  
NO SCALE



**CHILLED WATER PIPING SCHEMATIC**

**2 CHILLED WATER SCHEMATIC**  
NO SCALE

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SHEET TITLE:  
**CHILLED WATER  
SCHEMATIC**

SHEET NUMBER:

**M-502**

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SHEET TITLE:  
**MECHANICAL  
SCHEDULES**

SHEET NUMBER:

**M-601**

PAGE: 8 OF 13  
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CHILLER SCHEDULE																			
PLAN MARK	MANUFACTURER	MODEL NO.	CAPACITY			EVAPORATOR					COMPRESSOR			ELECTRICAL			FLUID PROPYLENE GLYCOL	NOTES	
			TONS	IPLV KW/TON	EER	WATER FLOW GPM	EWTF	LWTF	P.D. (FT. OF HD.)	MIN. WATER FLOW GPM	QTY	TYPE	RATED-LOAD AMPS	LOCKED-ROTOR AMPS	VOLT/PH	MCA			MOP
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

NOTES:  
 ① SINGLE POINT POWER CONNECTION WITH DISCONNECT.  
 ② 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.  
 ⑥ HIGH EFFICIENCY/PERFORMANCE.  
 ⑦ STANDARD COOLING APPLICATION.  
 ⑧ REFRIGERANT SERVICE VALVES  
 ⑨ FAN VFD CONTROL  
 ⑩ RATINGS BASED ON 30% POLYPROPYLENE

SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS

PRODUCT LISTED IS BASIS OF DESIGN ONLY

CHILLED WATER COIL																						
PLAN MARK	MANUFACTURER	MODEL	AIRFLOW	TOTAL CAPACITY MRH	SENSIBLE CAPACITY MRH	AIR TEMPERATURE		FACE VELOCITY	AIR PD (WG)	H2O TEMPERATURE		GPM	H2O PD (WG)	PROP. GLYCOL	ROWS	FPI	TUBE DIAMETER	TUBE MATERIAL	FIN MATERIAL	WEIGHT	DIMENSIONS	REMARKS
						EDB/EWB	LDB/LWB			EW	LWT											
CWC-1	MARLO	6W22-51-5609F-11.8-H-1.0-R-B	5910	269	170	82.1/69.1	55.0/54.3	490	0.5"	42	52	58	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	5900	269	170	82.1/69.1	55.0/54.3	490	0.5"	42	52	58	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	3900	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

NOTES:  
 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.

PUMP SCHEDULE											
PLAN MARK	MANUFACTURER	MODEL	TYPE	GPM	HEAD IN FT	MOTOR HP	PUMP RPM	ELECTRICAL VOLT/PH	WEIGHT (lbs)	REMARKS	
											CWP-1
CWP-2	TACO	2009D	CLOSE-COUPLED FOOT MOUNTED END SUCTION	160	40	5	1750	208/3	343	ALL	

NOTES:  
 ① VARIABLE SPEED DRIVE.  
 ② SUCTION DIFFUSER.  
 ③ HEAVY DUTY BASE PLATE.

SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS



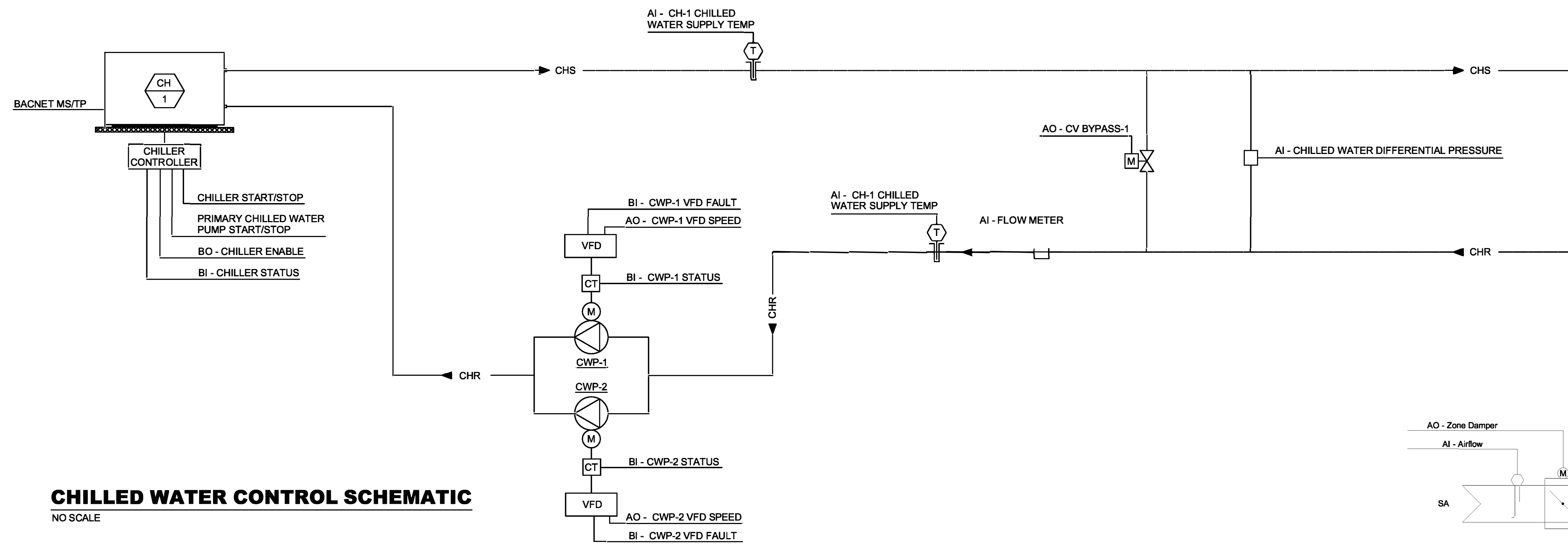


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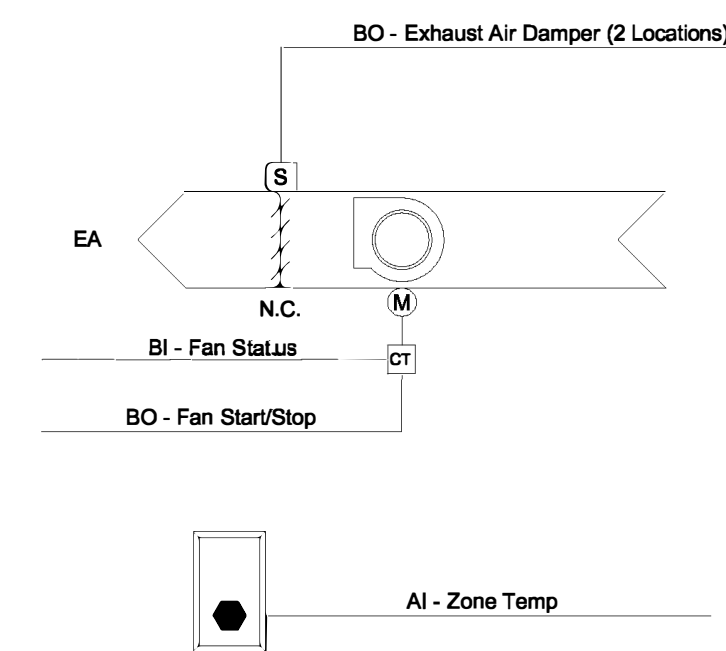
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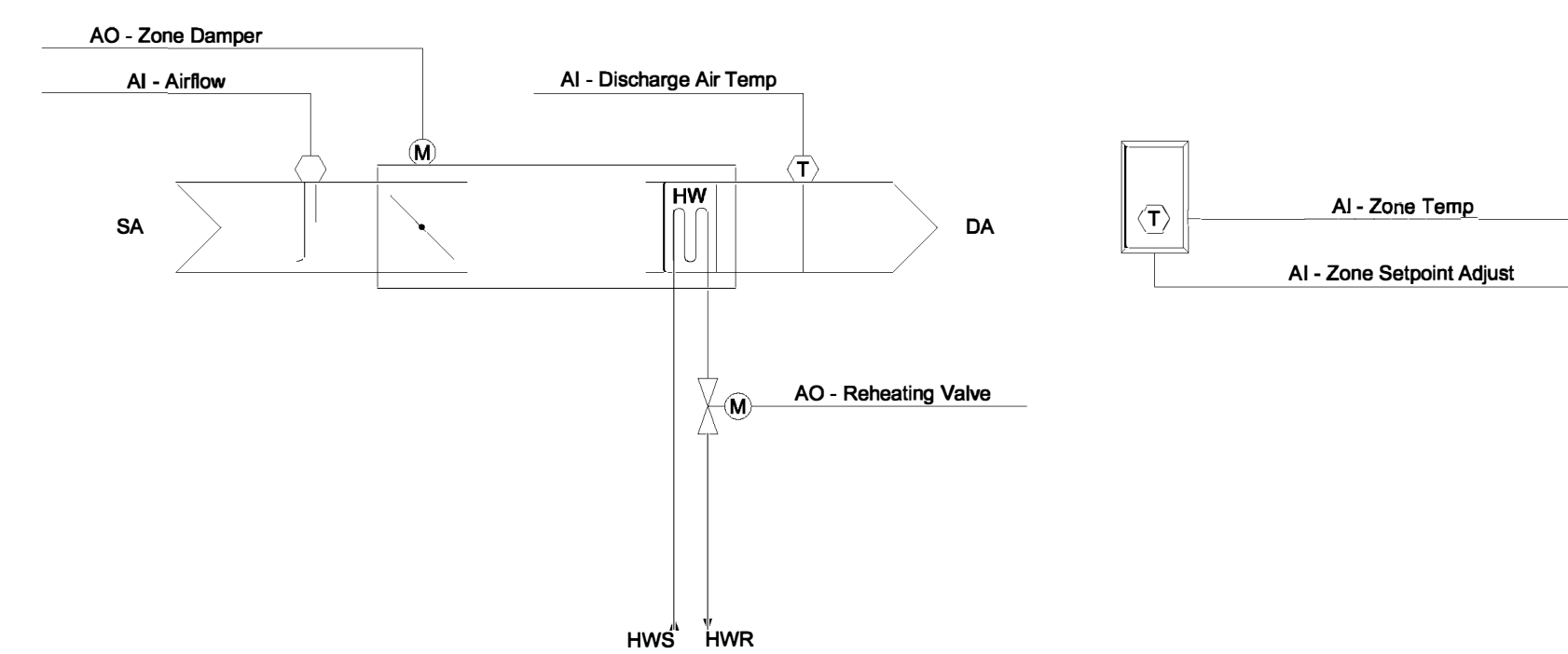
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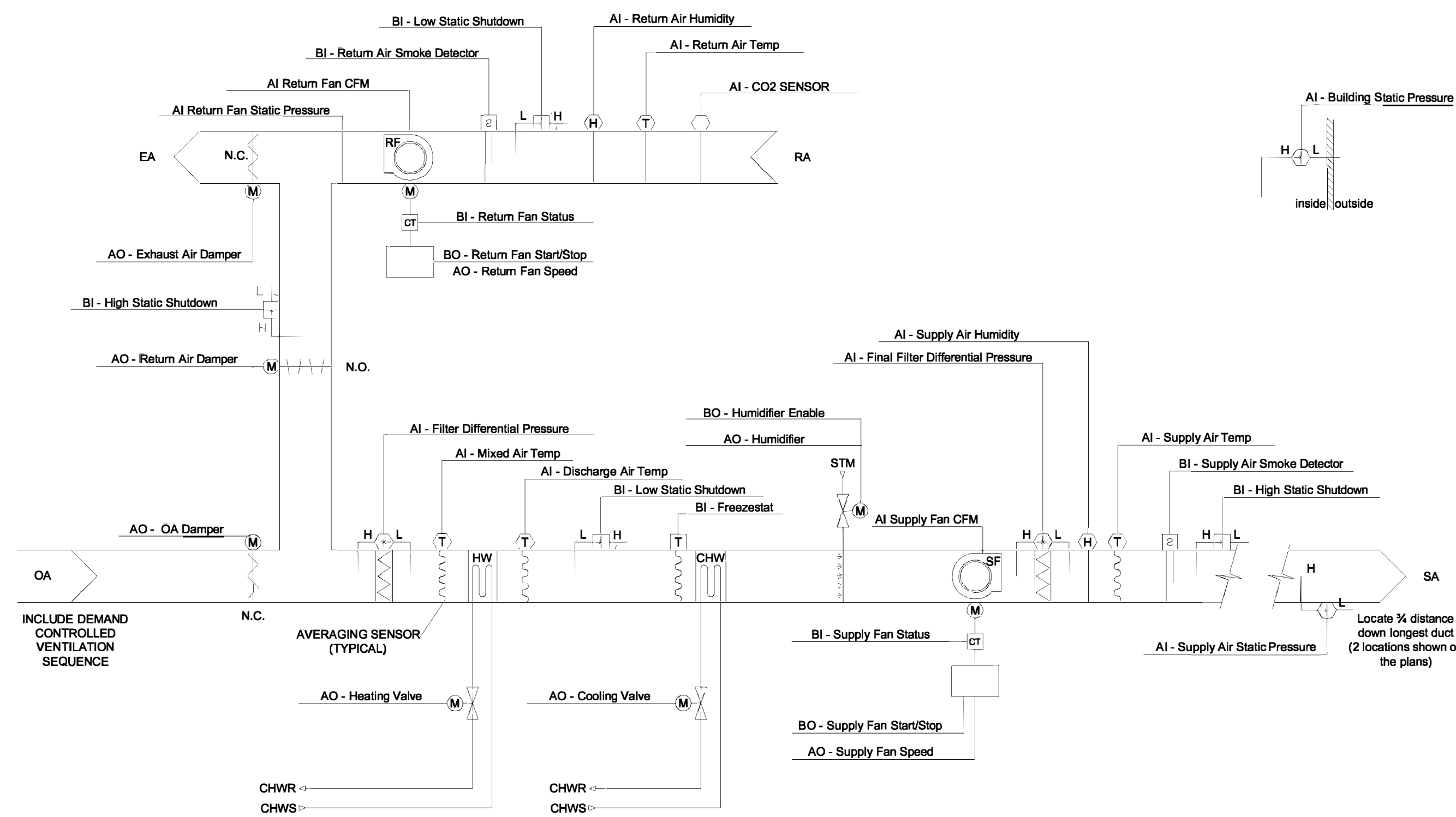
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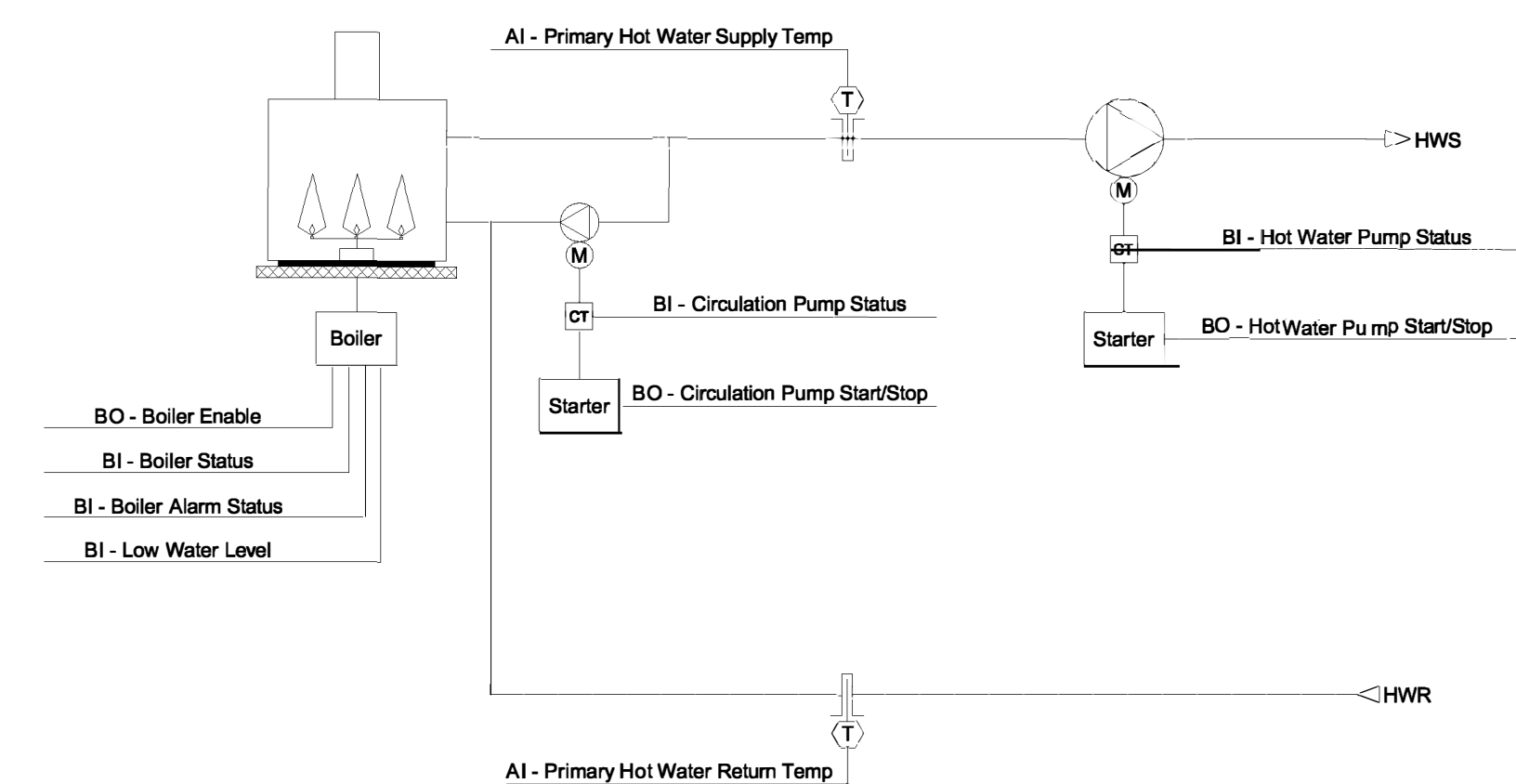
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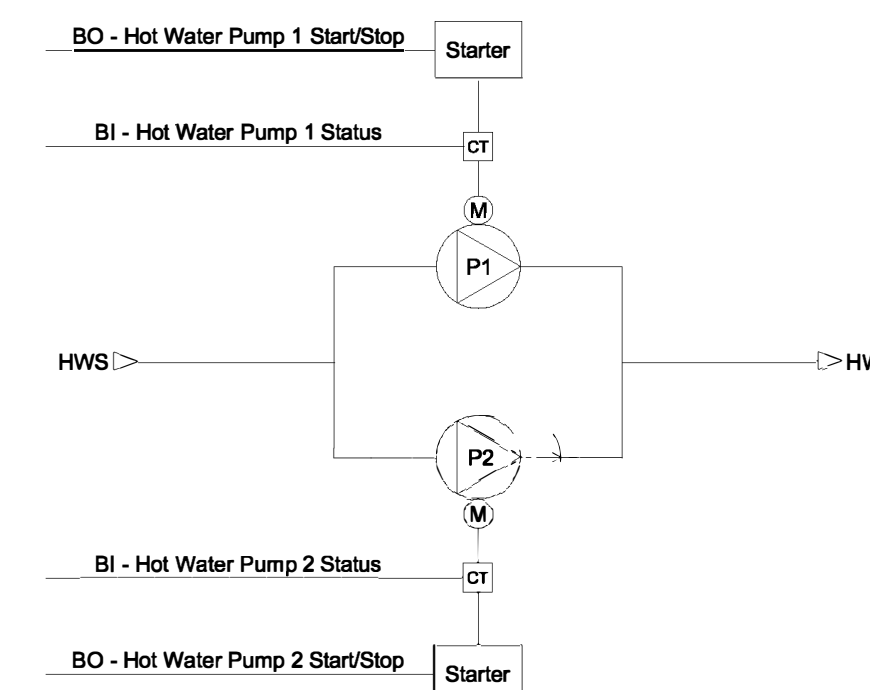
**VAV CONTROL SCHEMATIC**  
NO SCALE



**AHU CONTROL SCHEMATIC**  
NO SCALE



**BOILER CONTROL SCHEMATIC**  
NO SCALE



**HWP CONTROL SCHEMATIC**  
NO SCALE

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SHEET TITLE:  
**MECHANICAL  
CONTROLS**

SHEET NUMBER:

**M-701**

PAGE: 9 OF 13  
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## 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.

### JUNCTION AND PULL BOXES

- JUNCTION BOX
- PULL BOX

### WIRING PLANS

- CONDUIT RUN CONCEALED IN CEILING OR WALL CONSTRUCTION
- CONDUIT RUN IN FLOOR CONSTRUCTION OR UNDERGROUND
- CONDUIT RUN EXPOSED
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- FLEXIBLE CONDUIT
- CONDUIT CAPPED FOR FUTURE.
- EMERGENCY (LIFE SAFETY) CONDUIT SYSTEM
- CONDUIT SEAL
- CABLE TRAY
- BUSWAY
- HOMERUN TO PANEL OR DESTINATION NOTED
- HACHURES INDICATE NUMBER OF CONDUCTORS IN CONDUIT  
NOTE: LONG HACHURE - NEUTRAL CONDUCTOR  
SHORT HACHURE - HOT OR SWITCHED CONDUCTORS  
LONG HACHURE WITH DOT - GROUND CONDUCTOR  
LONG HACHURE WITH DOT & RETURN LINE - ISOLATED GROUND CONDUCTOR. WHEN HACHURES ARE NOT SHOWN AND WIRING IS FOR POWER OR LIGHTING CIRCUITS, PROVIDE HOT, NEUTRAL AND GROUND.  
WHEN FOR MULTIPLE CIRCUITS, PROVIDE NO. OF PHASE CONDUCTORS, NEUTRAL CONDUCTORS AND A GROUND CONDUCTOR. HACHURES ARE SHOWN AS A GUIDE AND MAY NOT BE EXACT COUNTS IN ALL CASES. PROVIDE WIRING REQUIRED BY THE CIRCUITING AND SWITCHING REQUIREMENTS FOR THE PARTICULAR CIRCUITS INVOLVED.

### LIGHTING FIXTURES

- LIGHTING FIXTURE (A - DESIGNATES FIXTURE TYPE  
1 - DESIGNATES CIRCUIT NUMBER  
a - DESIGNATES CONTROLLING SWITCH)
  - LIGHTING FIXTURE - EMERGENCY POWER
  - LIGHTING FIXTURE - CRITICAL BRANCH
  - LIGHTING FIXTURE - LIFE SAFETY BRANCH
  - WALL MOUNTED LIGHTING FIXTURE. HEIGHT AS NOTED.
  - RECESSED OR SURFACE LIGHTING FIXTURE. EMERGENCY, CRITICAL OR LIFE SAFETY. IF SHADED AS ABOVE.
  - WALL MOUNTED LIGHTING FIXTURE. EMERGENCY, CRITICAL OR LIFE SAFETY. IF SHADED AS ABOVE.
  - STRIP FIXTURE
  - STRIP FIXTURE. EMERGENCY POWER
  - BATTERY OPERATED EMERGENCY LIGHTING UNIT
  - EXTERIOR LIGHTING FIXTURE - POLE MOUNTED. TYPES AND DETAILS AS NOTED.
  - EXIT SIGN DOUBLE-SIDED FIXTURE. DIRECTIONAL ARROWS AS INDICATED.
  - EXIT SIGN SINGLE-SIDED FIXTURE. DIRECTIONAL ARROWS AS INDICATED.
- SHADING INDICATES FACE(S)

### POWER EQUIPMENT

- MOTOR - SEE EQUIPMENT DATA SCHEDULE FOR HORSEPOWER
- STARTERS (MANUAL, MAGNETIC & COMB. MAGNETIC WITH DISC.)
- MOTOR CONTROL CENTER
- SWITCHBOARD
- PANELBOARD
- SEQUENCE NUMBER
- TYPE  
L - LIGHTING  
P - POWER  
E - EMERGENCY/EQUIPMENT BRANCH  
L.S. - LIFE SAFETY BRANCH  
C - CRITICAL BRANCH  
X - X-RAY  
V - VOLTAGE  
H - 480V  
L - 240V OR 208/120V FLOOR
- CONTROL CABINET
- PIPE WITH ELECTRIC HEAT TRACING
- ELECTRIC HEATING EQUIPMENT
- TRANSFORMER
- UNINTERRUPTIBLE POWER SUPPLY SYSTEM
- DISCONNECT SWITCH. FUSED OR UNFUSED AS NOTED
- HANDHOLE
- MANHOLE
- ELECTRICAL SERVICE METER

### ABBREVIATIONS

- A.C.S. - ACCESS CONTROL SYSTEM
- A.F.F. - ABOVE FINISHED FLOOR
- ATS - AUTOMATIC TRANSFER SWITCH
- B.C. - BELOW CEILING
- C - CONDUIT
- CAM - CAMERA
- CB - CIRCUIT BREAKER
- CC - CONTROL CONTACTOR
- CCTV - CLOSED CIRCUIT TELEVISION
- CCW - COUNTER CLOCKWISE
- CW - CLOCKWISE
- DCU - DISTRIBUTED CONTROLLER UNIT
- DN - DOWN
- DP - DISTRIBUTION PANEL
- DR - DOCTORS REGISTER
- DT - DUSTTIGHT
- DWG - DRAWING
- E.C. - ELECTRICAL CONTRACTOR
- ELEC - ELECTRIC OR ELECTRICAL
- EMT - ELECTRICAL METALLIC TUBING
- ER - EXISTING RELOCATED
- ETR - EXISTING TO REMAIN
- EW - ELECTRIC WATER COOLER
- FA - FIRE ALARM
- FM - F/M MODEM
- F/O - FIBER OPTIC
- FS - FUSIBLE SWITCH
- G.C. - GENERAL CONTRACTOR
- GF - GROUND FAULT
- GFCI - GROUND FAULT CIRCUIT INTERRUPTER
- GRD - GROUND
- GRS - GALVANIZED RIGID STEEL
- HH - HANDHOLE
- ILSM - INTERIM LIFE SAFETY MEASURES
- IMC - INTERMEDIATE METAL CONDUIT
- I/O - INPUT/OUTPUT
- LAN - LOCAL AREA NETWORK
- LP - LIGHTING PANEL
- MATV - MASTER ANTENNA TELEVISION
- MC - METAL CLAD
- MCC - MOTOR CONTROL CENTER
- MCP - MOTOR CONTROL PANEL
- MH - MANHOLE
- MT - EMPTY CONDUIT
- NC - NURSE CALL
- NL - NIGHT LIGHT
- PA - PUBLIC ADDRESS
- PI - PORTABLE INTERFACE
- P.I.R. - PASSIVE INFRARED
- PP - POWER PANEL
- PR - PAIR
- PVC - POLYVINYL CHLORIDE CONDUIT
- R - RECESSED
- RF - RADIO FREQUENCY
- RGS - RIGID GALVANISED STEEL
- RT - RAINTIGHT
- SHLD - SHIELDED (AS IN CABLE)
- SWBD - SWITCHBOARD
- T - TELEPHONE
- TYP. - TYPICAL
- UNG - UNGROUNDED
- UPS - UNINTERRUPTIBLE POWER SUPPLY
- U.O.N. - UNLESS OTHERWISE NOTED
- VFD - VARIABLE FREQUENCY DRIVE
- VT - VAPORTIGHT
- WT - WATERTIGHT
- XP - EXPLOSION PROOF
- WP - WEATHER-PROOF

### ONE-LINE DIAGRAM SYMBOLS

- FUSIBLE SWITCH (SIZE/FUSE)
- DRAWOUT CIRCUIT BREAKER } 3 POLE UNITS U.O.N.
- CIRCUIT BREAKER (FRAME/TRIP)
- WATTMETER
- KILOWATT DEMAND METER
- KILOWATT HOUR METER
- AMMETER
- AMMETER SWITCH
- GROUND FAULT
- VOLTMETER
- VOLTMETER SWITCH
- MICROPROCESSOR BASED DIGITAL MONITOR
- MOTOR STARTER } 3 POLE UNITS U.O.N.
- CONTACTOR
- GENERATOR
- CURRENT TRANSFORMER
- VOLTAGE TRANSFORMER
- POWER TRANSFORMER
- GROUND BUS
- NEUTRAL BUS
- GROUND
- KEY-INTERLOCK
- CAPACITOR
- MOTOR OPERATED MEDIUM VOLTAGE LOAD INTERRUPTER SWITCH
- GAP TYPE SURGE ARRESTOR
- TRANSIENT VOLTAGE SURGE SUPPRESSOR
- ELECTRICAL SERVICE METER

### SWITCHES - LIGHTING CONTROL

- TYPICAL MOUNTING HEIGHT - 48" AFF
- SWITCHES - SINGLE POLE, 2 POLE, 3-WAY, 4-WAY
  - KEY SWITCHES - SINGLE POLE, 3-WAY, ETC.
  - SWITCH WITH PILOT LIGHT
  - COMBINATION SINGLE POLE SWITCH AND SINGLE RECEP.
  - MOMENTARY CONTACT SWITCH
  - LOW VOLTAGE SWITCH
  - DIMMER SWITCH
  - MANUAL MOTOR STARTER WITH PILOT LIGHT
  - WALL MOUNTED VACANCY SENSOR (MANUAL ON/AUTO OFF), DUAL TECHNOLOGY TYPE
  - WALL MOUNTED OCCUPANCY SENSOR (AUTO ON/AUTO OFF), DUAL TECHNOLOGY TYPE
  - DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR WITH WIDE ANGLE LENS
  - LIGHTING CONTROL POWER PACK

### RECEPTACLES

- TYPICAL MOUNTING HEIGHT - 18" AFF
- SPECIAL PURPOSE OUTLET AS NOTED
  - SINGLE RECEPTACLE OUTLET
  - DUPLEX RECEPTACLE OUTLET MOUNTED 8" ABOVE COUNTER
  - DUPLEX RECEPTACLE OUTLET MOUNTED 8" ABOVE COUNTER - GROUND FAULT TYPE
  - DUPLEX RECEPTACLE OUTLET
  - DUPLEX RECEPTACLE OUTLET - GROUND FAULT TYPE
  - DOUBLE DUPLEX RECEPTACLE OUTLET
  - DUPLEX RECEPTACLE OUTLET WITH ISOLATED GROUND
  - DUPLEX RECEPTACLE OUTLET WITH UNIVERSAL SERIAL BUS CHARGING PORTS
  - DUPLEX RECEPTACLE WITH ONE OUTLET SWITCHED
  - FLOOR BOX - SYMBOL DESIGNATES TYPE OF SERVICE
  - FLOOR BOX - ROUGH IN ONLY WITH BLANK COVER
  - COMBINATION DUPLEX RECEPTACLE AND TV OUTLET (SEE TV SYMBOL UNDER "SPECIAL SYSTEMS"). MOUNT 1'-3" A.F.F. U.O.N.

### DRAWING REFERENCES

- DETAIL NUMBER
- PLAN DETAIL REFERENCE TITLE
- DRAWING NUMBER
- KEYED NOTE DESIGNATION
- NORTH ARROW
- ROOM NUMBERS
- SECTION NUMBER
- SECTION REFERENCE TITLE
- DRAWING NUMBER

### GROUNDING SYMBOLS

- GROUND ROD WITH EXOTHERMIC CABLE CONNECTION
- GROUNDING CONDUCTOR
- BURIED GROUND CONDUCTOR

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CHECKED BY: CVH  
DESIGNED BY: ASK

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**ELECTRICAL  
SYMBOLS  
AND LEGEND**

SHEET NUMBER:

**E-001**

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SHEET TITLE:  
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DEMOLITION**

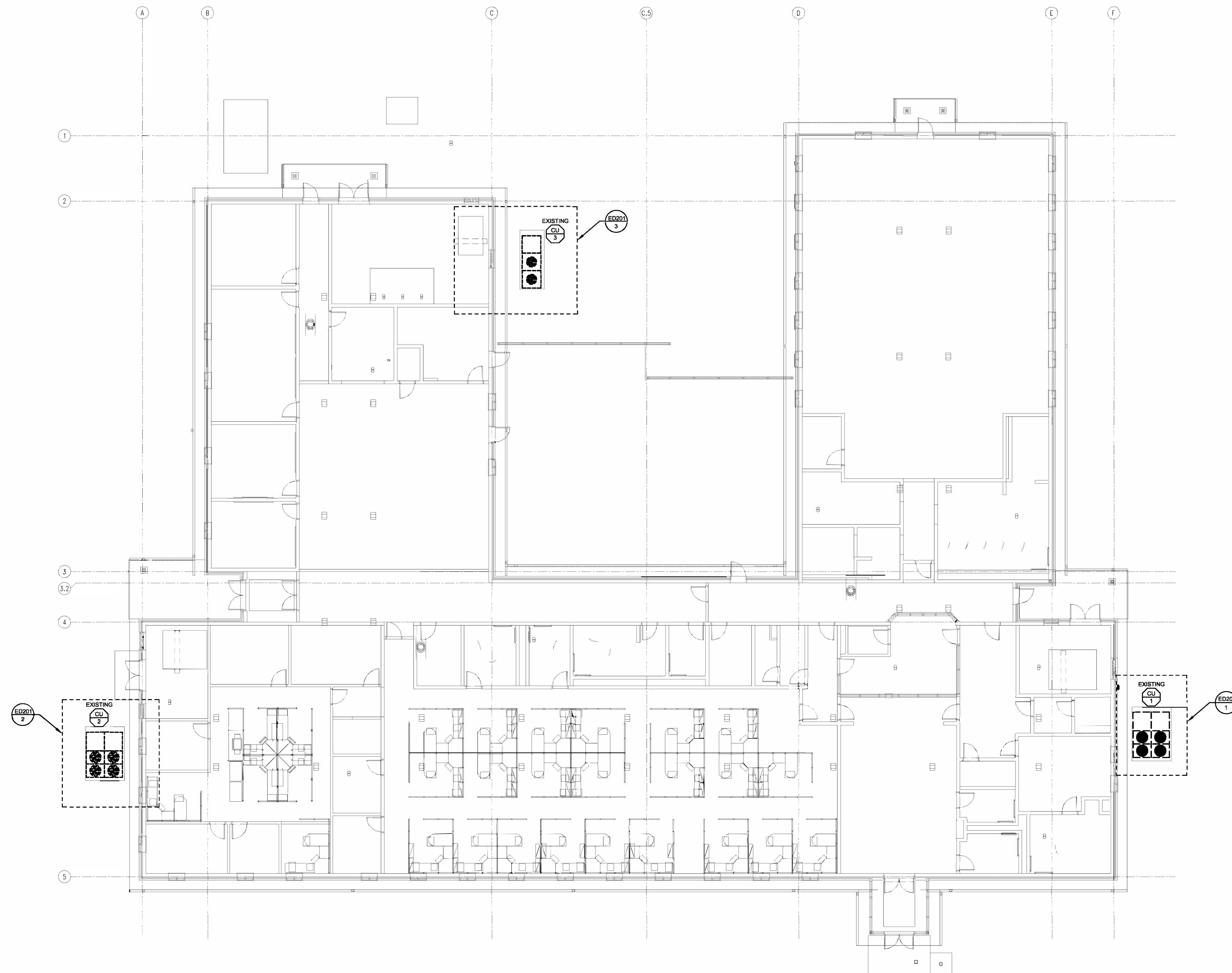
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**ED-101**

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**GENERAL NOTES**

1. REFER TO SHEET ED-201 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, RACEWAY, 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.
7. 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.



**ELECTRIC DEMOLITION FLOOR PLAN**  
SCALE: 3/32" = 1'-0"



PROFESSIONAL SEAL

**BRiC**  
PARTNERSHIP, LLC  
CONSULTING ENGINEERS

NOW PART OF

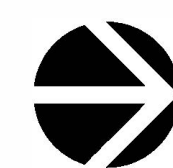
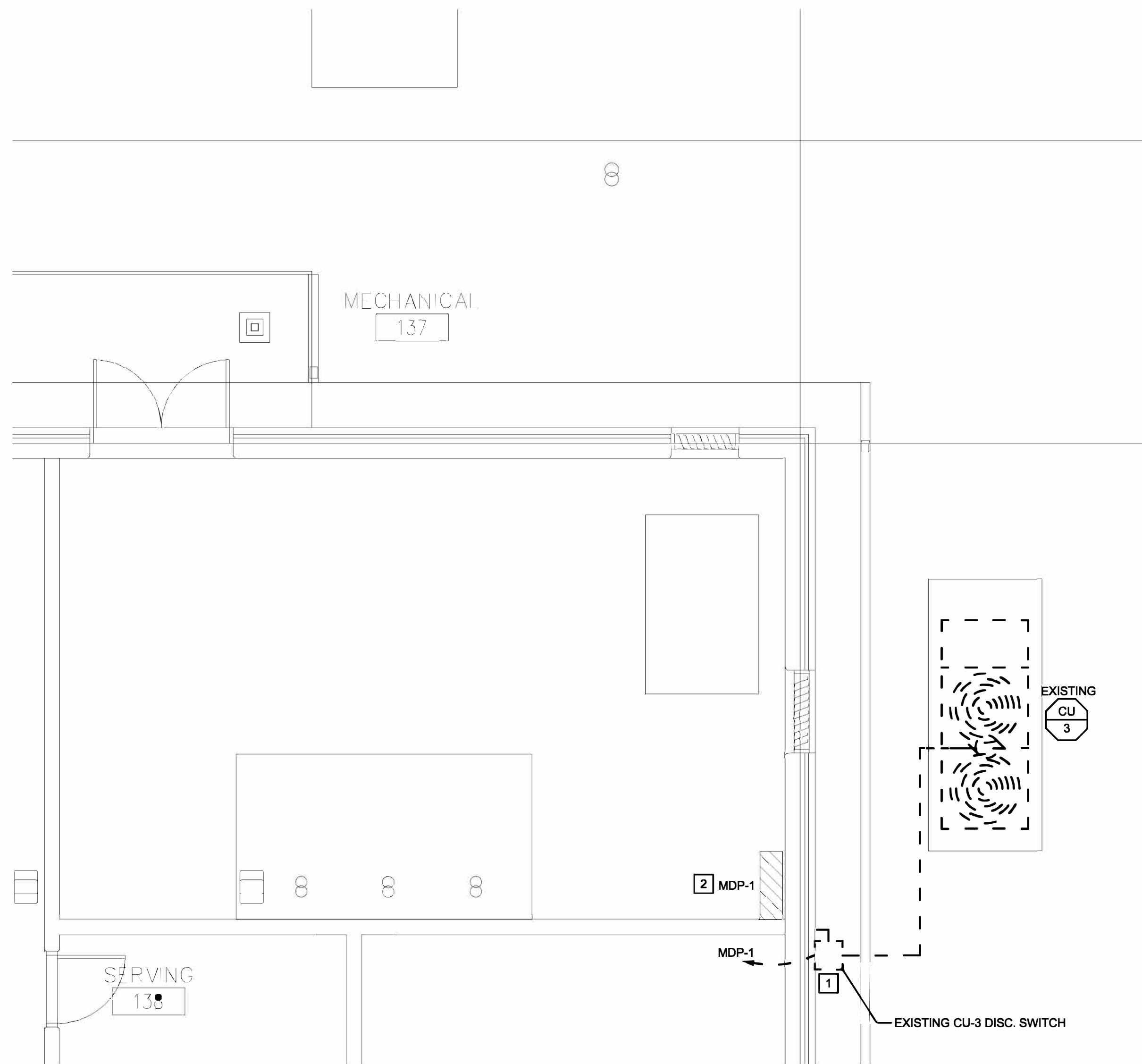
3701 S. LINDBERGH BLVD.  
SUITE 204  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

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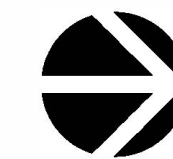
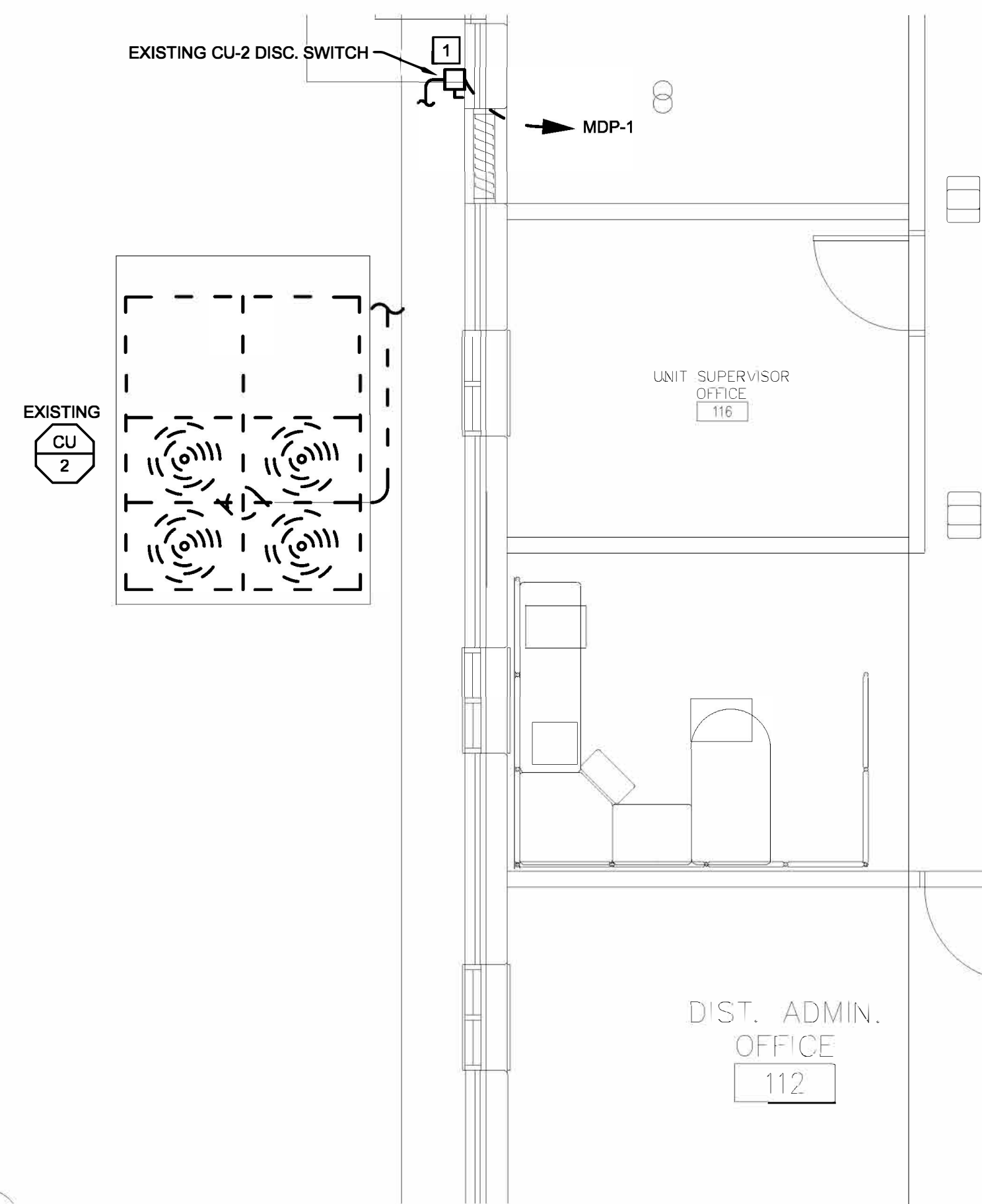
**KEYED NOTES**

- 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.
- 2 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".



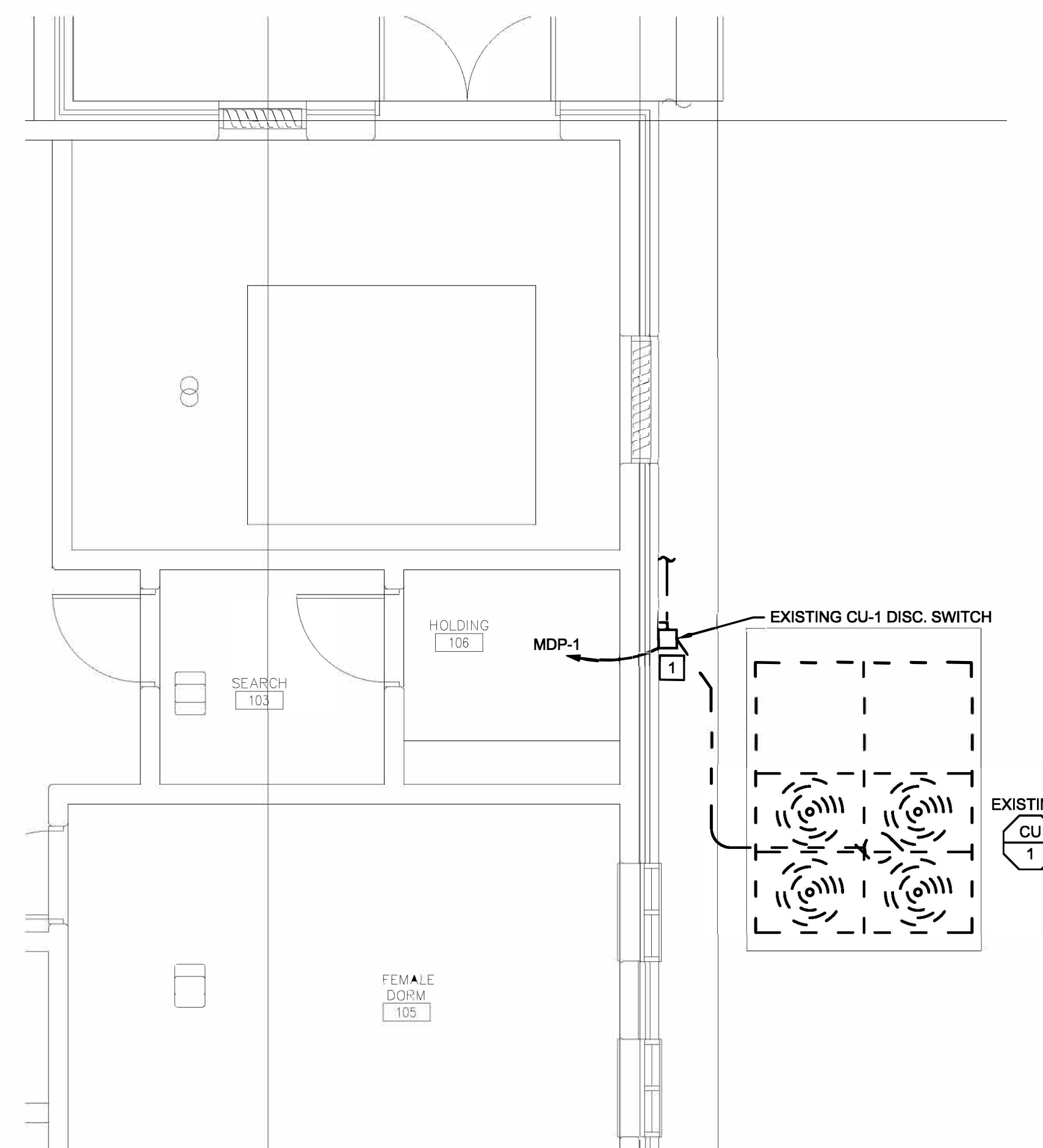
**3 - ENLARGED MECH RM - ELECTRICAL DEMOLITION**

SCALE: 1/4" = 1'-0"



**2 - ENLARGED PLAN - ELECTRICAL DEMOLITION**

SCALE: 1/4" = 1'-0"



**1 - ENLARGED PLAN - ELECTRICAL DEMOLITION**

SCALE: 1/4" = 1'-0"

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC & BAS UPGRADE  
Community Supervision  
Center

1430 DOUBET ROAD  
FARMINGTON, MO

PROJECT # C2014-01

Site #: 7009  
Asset #: 9327009001

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

ISSUE DATE: 12/22/2022

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: ASK  
CHECKED BY: CVH  
DESIGNED BY: ASK

SHEET TITLE:

**ENLARGED  
DEMO PLANS  
- ELECTRICAL**

SHEET NUMBER:

**ED-201**

PAGE: 12 OF 13  
12/22/2022





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**GENERAL NOTES**

- FOR FURTHER MECHANICAL INFORMATION, REFER TO SHEET M-601.
- FOR FURTHER ELECTRICAL INFORMATION, REFER TO SHEET E-501.
- 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 BELOW.

**KEYED NOTES**

- 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.
- 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.
- PROVIDE NEW 40 AMP FUSES IN TWO EXISTING SPARE FUSED SWITCHES IN PANEL MDP-1, FOR CWP-1 AND CWP-2.
- 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 MDP-1.

MARK	EQUIPMENT	LOCATION	FURNISH BY ①	MOTOR OR EQUIPMENT DATA			FED FROM	BRANCH CIRCUIT ③	DISCONNECT SWITCH AT EQUIPMENT				STARTER				REMARKS ⑦					
				HP/KVA ②	VOLTS/PHASE	INST BY/CONN BY			TYPE ④	NEMA ENCL. TYPE	SWITCH FUSE SIZE	FURNISH BY	INST BY/CONN BY	NEMA SIZE	NEMA ENCL. TYPE	TYPE ⑤		SWITCH FUSE SIZE	ACCESS. ⑥	FURNISH BY	CONN BY	CONTROL WIRING BY
CH-1	CHILLER	OUTDOORS	23	257 MCA	208/3	23/26	MDP-1	SEE E-101	-	3R	400A/300A	26	26	-	-	-	26	26	23	(-)		
CWP-1	PUMP	MECHANICAL ROOM 137	23	5 HP	208/3	23/26	MDP-1	SEE E-101	-	-	60A/40A	26	26	0	1	VFD	60A/40A	HOAP	26	26	23	(2)
CWP-2	PUMP	MECHANICAL ROOM 137	23	5 HP	208/3	23/26	MDP-1	SEE E-101	-	-	60A/40A	26	26	0	1	VFD	60A/40A	HOAP	26	26	23	(2)

① SPECIFICATION DIVISION NUMBER: DIVISION 22 - PLUMBING DIVISION 23 - MECHANICAL DIVISION 26 - ELECTRICAL

② HORSEPOWER (HP) IS SHOWN UNLESS AMPS(A), KILOWATTS(KW), OR MINIMUM CIRCUIT AMPS (MCA) CALLED OUT.

③ REFER TO FEEDER SCHEDULE WHEN THIS COLUMN CONTAINS A FEEDER DESIGNATION INSTEAD OF CONDUCTOR SIZE.

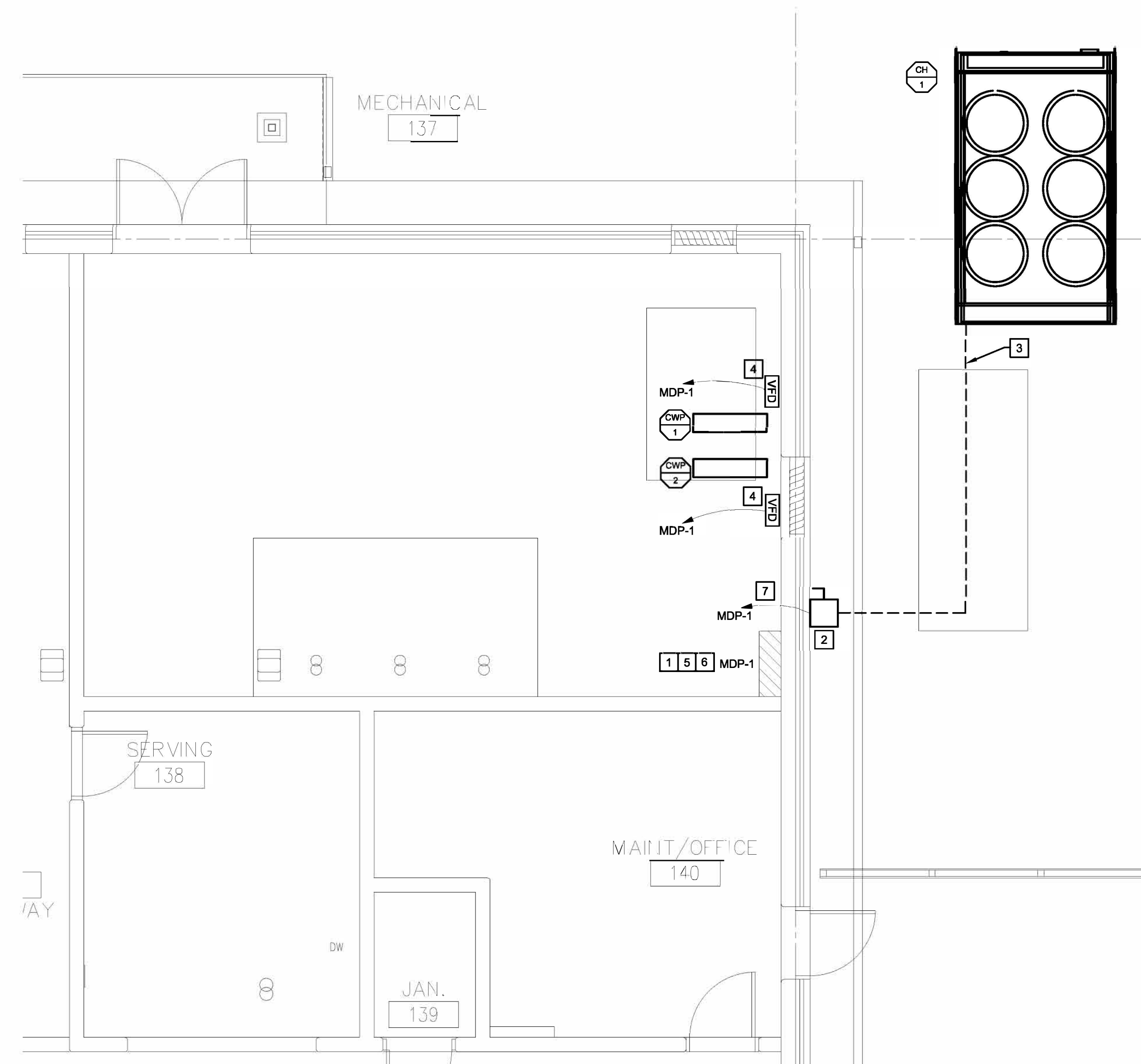
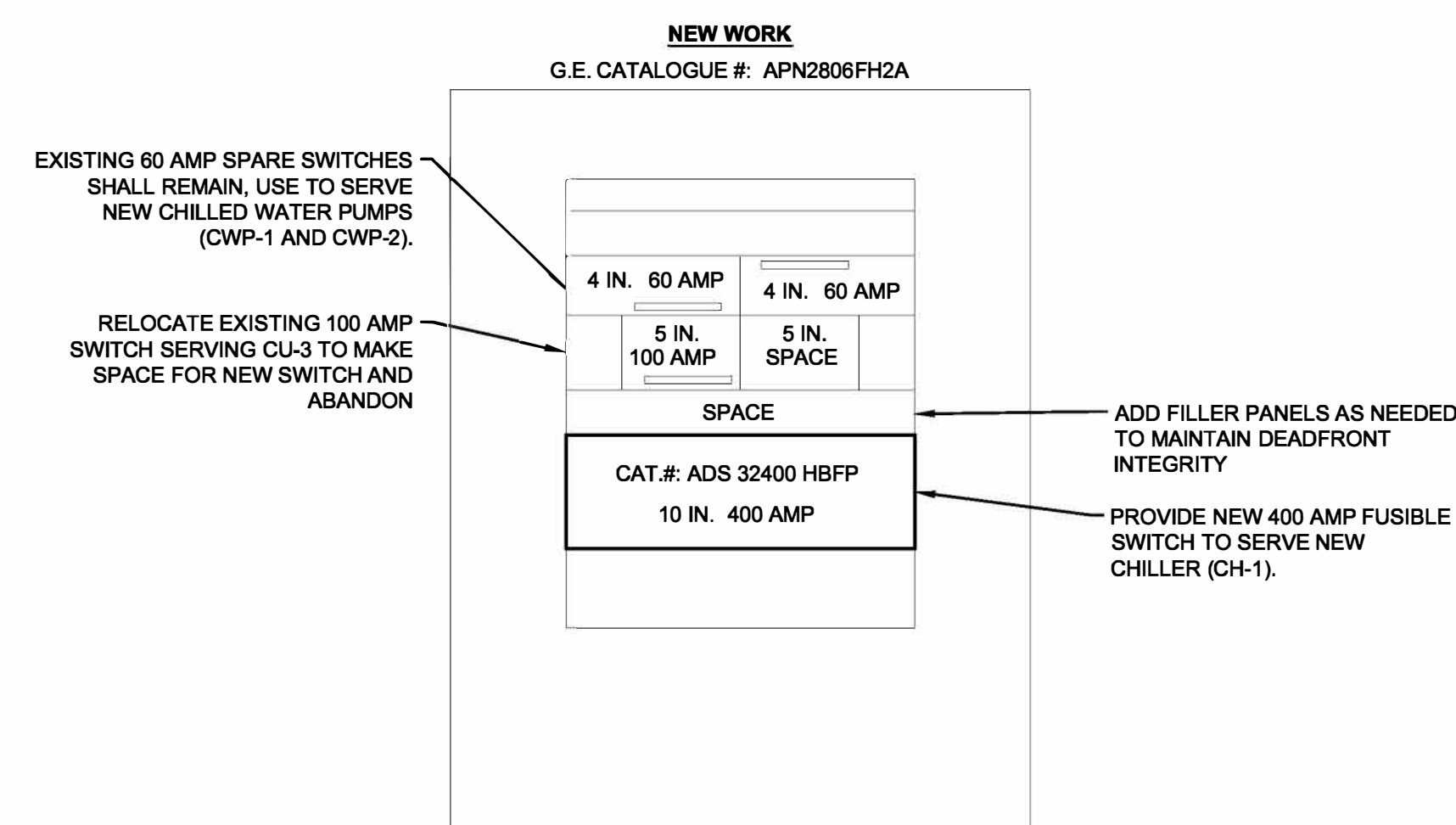
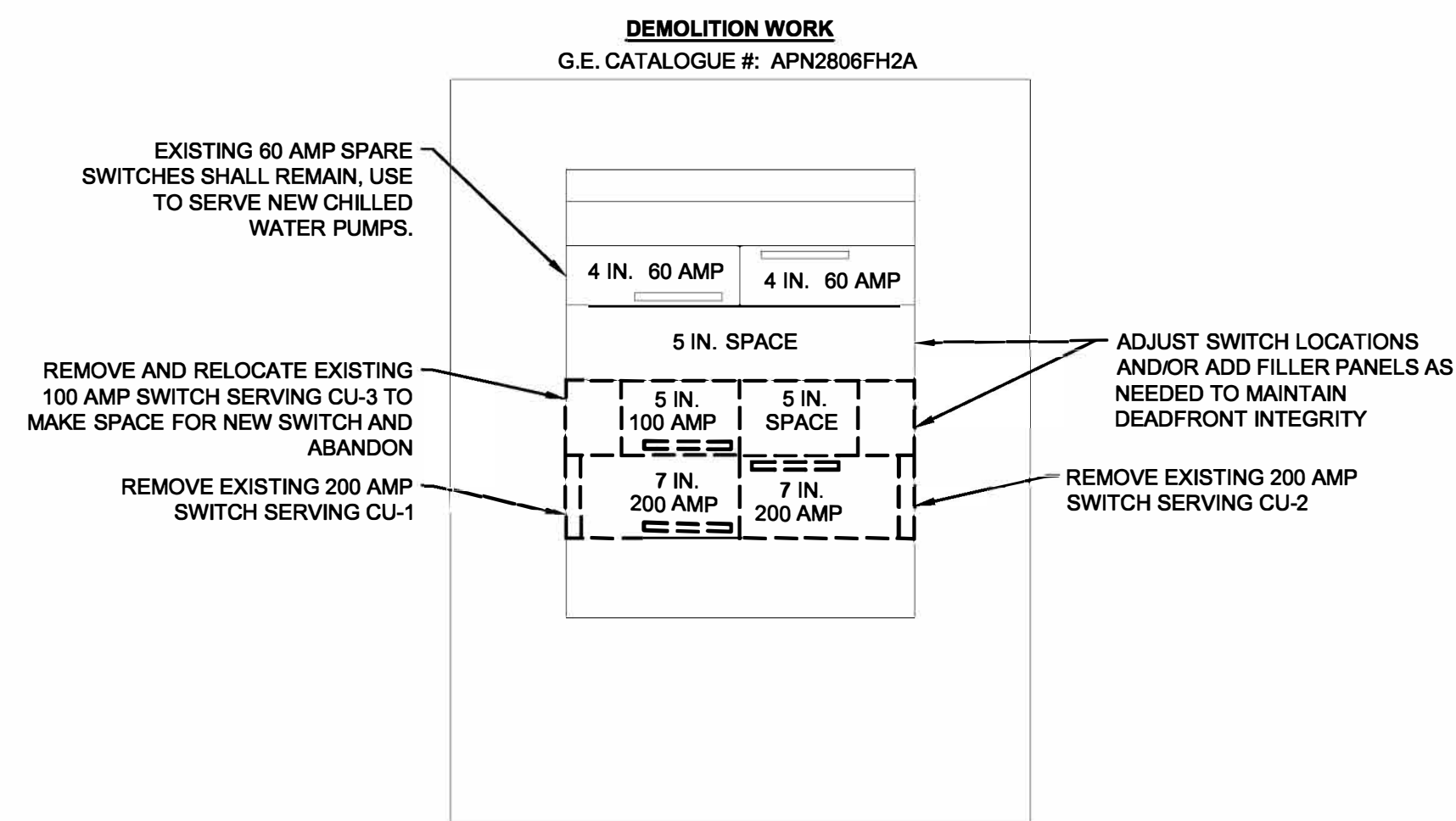
④ STARTER TYPE:  
COMB1 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH FUSED DISCONNECT SWITCH  
COMB2 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH UNFUSED DISCONNECT SWITCH  
COMB3 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH THERMAL MAGNETIC MOLDED CASE CIRCUIT BREAKER DISCONNECT  
COMB4 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH MAGNETIC ONLY MOLDED CASE CIRCUIT BREAKER DISCONNECT

FVNR - FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITHOUT DISCONNECT  
MAN - MANUAL STARTER WITH PILOT LIGHT  
SDS - STAR DELTA STARTER  
PWCP - PREWIRED CONTROL PANEL  
VFD - VARIABLE FREQUENCY DRIVE  
2S2W - 2 SPEED 2 WINDING  
2S1W - 2 SPEED SINGLE WINDING

⑤ ACCESSORIES:  
HOAP - HOA WITH PILOT LIGHT  
PB - START/STOP PUSH BUTTON (MOMENTARY CONTACT)

⑦ KEY TO REMARKS:  
(1) FIRE ALARM INTERLOCK  
(2) INTEGRAL DISCONNECT SWITCH  
(3) MOUNT DISCONNECT SWITCH ON EQUIPMENT HOUSING  
(4) INTEGRAL MOTOR STARTER  
(5) INTEGRAL CONTROLLER  
(6) VFD PROVIDED BY AHU MANUFACTURER

ALL MAGNETIC AND SOLID STATE STARTERS ARE TO BE EQUIPPED WITH AUXILIARY CONTACTS, PILOT LIGHTS AND FUSED CONTROL POWER TRANSFORMERS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



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



**ENLARGED MECH RM - ELECTRICAL**  
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DRAWN BY: ASK  
CHECKED BY: CVH  
DESIGNED BY: ASK

SHEET TITLE:  
**ENLARGED  
PLANS -  
ELECTRICAL**

SHEET NUMBER:

**E-101**