

ROCKLAND PSYCHIATRIC CENTER  
140 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

BMS REPLACEMENT - COOK CHILL PRODUCTION CENTER  
BID DOCUMENTS



OFFICE OF MENTAL HEALTH  
44 HOLLAND AVENUE  
ALBANY, NY 12229

Seal & Signature



MEP ENGINEER:



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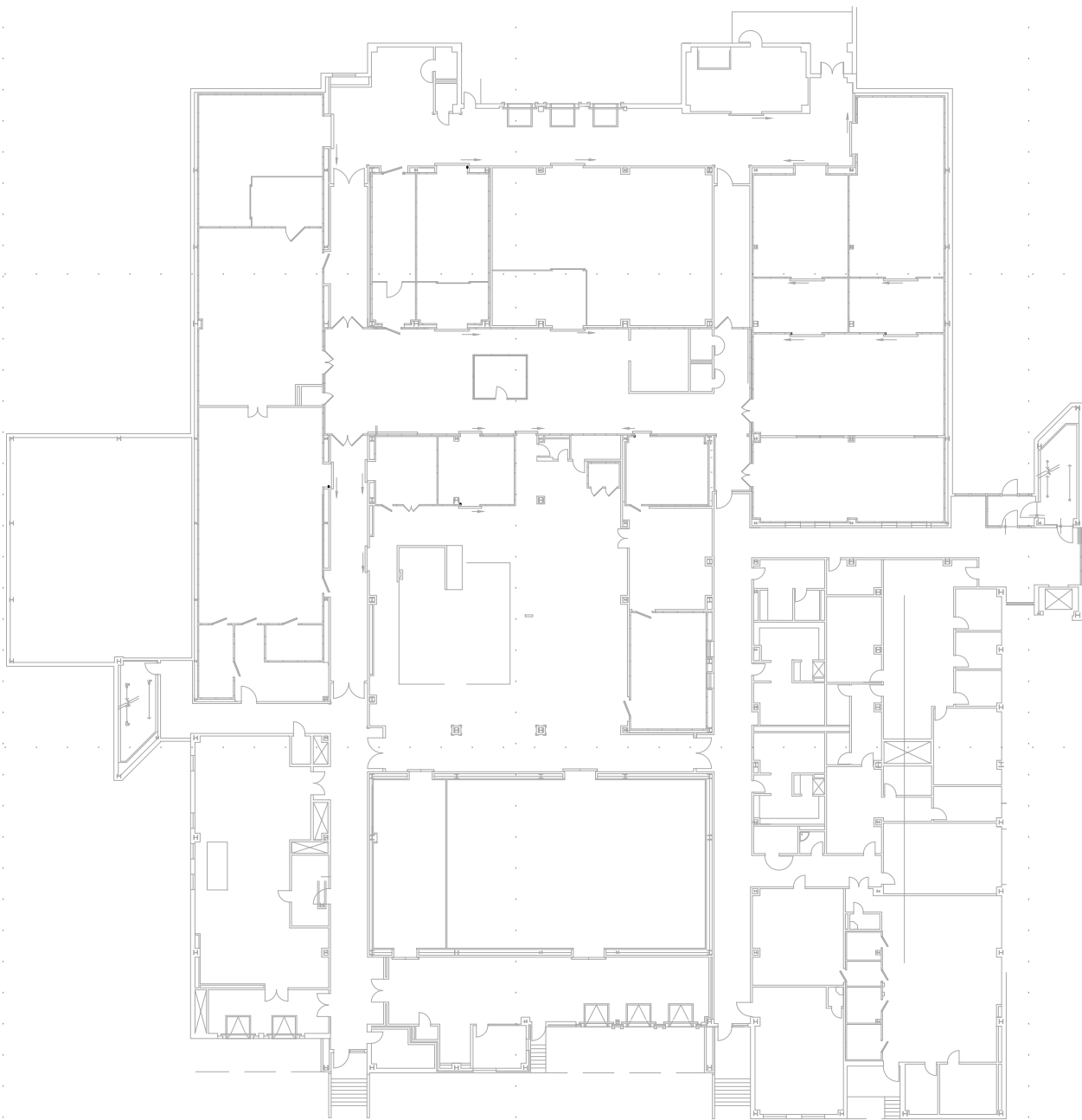
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LOCATION PLAN



SITE PLAN



ROCKLAND PSYCHIATRIC CENTER  
BMS REPLACEMENT

Date: 10/15/2021

BID DOCUMENTS

DASNY Project No: 360880



## HVAC GENERAL NOTES

### GENERAL NOTES

- THE CONTRACTOR SHALL VISIT AND INSPECT THE SITE AND SHALL ASCERTAIN CONDITIONS UNDER WHICH THE WORK MUST BE PERFORMED INCLUDING THE HANDLING OF MATERIALS, SECURITY, AND LIMITING FIELD DIMENSIONS. THE CONTRACTOR SHALL NOTIFY THE DESIGNER IF HE/SHE CANNOT COMPLY WITH ANY REQUIREMENT OF THESE DRAWINGS AND SPECIFICATIONS PRIOR TO CONTRACT SIGNING AND COMMENCEMENT OF WORK.
- ALL WORK SHOWN ON THE CONTRACT PLANS INCLUDING SCALED DRAWINGS ARE SHOWN SCHEMATICALLY. THE CONTRACTOR SHALL BE RESPONSIBLE TO ASCERTAIN ALL FIELD MEASUREMENTS AND VERIFICATION OF FIELD CONDITIONS PRIOR TO PERFORMING WORK. THE CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS REQUIRED BASED ON EXISTING CONDITIONS FOR PROPER INSTALLATION OF NEW WORK AT NO ADDITIONAL COST TO DASNY AND CCPC.
- IN GENERAL ALL PIPING, EQUIPMENT, DUCTWORK AND MATERIALS THAT ARE SHOWN 'LIGHT' ARE EXISTING TO REMAIN. ALL PIPING, EQUIPMENT, DUCTWORK AND MATERIALS SHOWN 'DARK', AND HATCHED ARE EXISTING TO BE REMOVED. ALL PIPING, EQUIPMENT, DUCTWORK AND MATERIALS SHOWN 'HEAVY' ARE NEW WORK.
- MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER CONSTRUCTION OF ANY PART OF THE WORK SHALL BE INCLUDED AS IF THEY WERE INDICATED IN THE DRAWINGS.
- THE CONTRACTOR SHALL LAY OUT HIS OWN WORK AND SHALL PROVIDE ALL DIMENSIONS REQUIRED FOR ALL TRADES.
- THE CONTRACTOR SHALL COORDINATE ALL WORK AND EXISTING CONDITIONS, AND SHALL MAKE EVERY EFFORT TO INSTALL NEW WORK WITHOUT RELOCATION OF EXISTING WORK.
- THE CONTRACTOR SHALL ENGAGE THE SERVICES OF VARIOUS MANUFACTURERS SUPPLYING ANY HVAC EQUIPMENT FOR THE PROPER STARTUP AND OPERATION OF THE HVAC SYSTEMS AND TRAINING OF THE OWNER'S PERSONNEL IN THE PROPER OPERATION AND SERVICING OF THE SYSTEM. TRAINING SHALL BE VIDEO TAPED BY CONTRACTOR TO THE SATISFACTION OF DASNY.
- THE CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS, TOOLS, EQUIPMENT, RIGGING, HOISTING, SCAFFOLDING SERVICES, ACCESSORIES AND ASSOCIATED WORK TO PERFORM THE WORK SHOWN ON THE DRAWINGS AND SPECIFICATIONS AND PROVIDE THE OWNER WITH COMPLETE AND FULLY OPERATIONAL SYSTEMS.
- WHEN WORKING IN AND AROUND THE EXISTING BUILDING, EXTREME CARE SHALL BE EXERCISED WITH REGARD TO PROTECTION OF THE EXISTING STRUCTURE AND MECHANICAL AND ELECTRICAL SERVICES WHICH WILL REMAIN. REPAIR, REPLACE OR RESTORE TO THE SATISFACTION OF THE OWNER AND ENGINEER ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF DEMOLITION AND/OR NEW WORK.
- ALL EXISTING CONSTRUCTION AND EQUIPMENT SHALL BE PROTECTED BY EACH CONTRACTOR DURING THE ENTIRE PERFORMANCE OF THEIR WORK. EXISTING AREAS DISTURBED OR DAMAGED BY CONTRACTORS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- ALL WORK TO BE PHASED TO ALLOW THE FACILITY TO REMAIN IN OPERATION. COORDINATE WITH COOK CHILL PRODUCTION CENTER (CCPC) FOR ALL WORK WHICH MAY CAUSE CONDITIONS TO IMPEDIE THE CONTINUOUS OPERATION OF THE FACILITY, SUCH AS VIBRATION, DUST, LOUD NOISE AND ODOR OR VAPOR PRODUCING OPERATIONS. IDENTIFY CONTROLS TO BE USED TO HANDLE CONDITIONS. COORDINATE WITH DASNY AND CCPC FOR ALL UTILITY SHUTDOWNS AND TESTING REQUIRED.
- ALL NECESSARY SHUTDOWNS REQUIRED TO PERFORM THIS WORK SHALL BE COORDINATED WITH DASNY AND CCPC. UPON RECEIPT OF APPROVAL, SHUTDOWNS SHALL BE PERFORMED DURING NORMAL WORKING HOURS, OR AS DIRECTED OTHERWISE BY THE OWNER AND SHALL BE ACCOMPLISHED AT NO ADDITIONAL COST. AT THE END OF EACH SHUTDOWN ALL SERVICES SHALL BE RESTORED SO THAT NORMAL USE OF THE UTILITIES CAN CONTINUE.
- FAN SHUTDOWN: DURING A FIRE ALARM EVENT, THE SYSTEM SHALL MAINTAIN CURRENT FIRE ALARM SET UP THROUGH EXISTING FIRE ALARM PANEL.
- ALL FIRE AND SMOKE DAMPERS SHOWN ON THE DRAWINGS ARE EXISTING TO REMAIN.
- EXISTING BASE BUILDING FIRE ALARM SYSTEM DEVICES ARE TO REMAIN AND KEPT OPERATIONAL DURING ALL STAGES OF THE PROJECT. ALL DEVICES SHALL BE PROPERLY PROTECTED.
- THE SITE SHALL BE KEPT IN SAFE, CLEAN AND WORKMANLIKE CONDITION. ALL CONSTRUCTION DEBRIS, INCLUDING, BUT NOT LIMITED TO, MORTAR, CONCRETE, RUBBLE, LATHING, TILE, PLASTER AND EARTH SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR AWAY FROM THE SITE.
- CLEAN UP OF DEBRIS AND DUST RESULTING FROM THE WORK SHALL BE DISPOSED OF AT THE END OF EACH WORK DAY. IF WORK IS PERFORMED OVER THE WEEKEND (FRIDAY 4:30PM UNTIL MONDAY AT 5:00AM) THEN DEBRIS IS REQUIRED TO BE REMOVED PRIOR TO MONDAY AT 5:00AM.
- TO REDUCE THE RISK OF CONTAMINATION OF THE COOK CHILL PRODUCTION AREA, THE CONTRACTOR SHALL WEAR DISPOSABLE HAIR COVERINGS AND GOWNS AT ALL TIMES WHEN WORK IS PERFORMED IN THE PRODUCTION AREA. PROTECTION IS TO MEET OWNER REQUIREMENTS.
- ALL NECESSARY CUTTING AND PATCHING IN FLOOR SLABS, WALLS, AND CEILINGS, AS REQUIRED TO COMPLETE THE WORK, SHALL BE PERFORMED BY THIS CONTRACTOR. RESTORE TO MATCH EXISTING CONDITIONS. THIS INCLUDES THE REPLACEMENT OF ANY WALLS, WINDOWS, DOORWAYS, OR OTHER APPURTENANCES WHOSE DEMOLITION OR PARTIAL REMOVAL IS REQUIRED FOR THE PURPOSES OF DELIVERY AND RIGGING OF EQUIPMENT.
- ALL NECESSARY CUTTING, PATCHING AND PENETRATIONS IN REFRIGERATED BOXES, AS REQUIRED TO COMPLETE THE WORK, SHALL BE PERFORMED BY THIS CONTRACTOR. CONTRACTOR SHALL SEAL ALL PENETRATIONS IN REFRIGERATED BOXES WITH SPECIFIED EXPANDABLE POLYURETHANE FOAM-BASED PRODUCT THAT CAN BE APPLIED IN LOW TEMPERATURES.
- ALL CONTRACTORS AND SUBCONTRACTORS SHALL NOTIFY DASNY IMMEDIATELY IF SUSPECT MOLD GROWTH IS DISCOVERED ON SURFACES TO BE IMPACTED DURING PROJECT. NO DISTURBANCE TO THESE SURFACES SHALL OCCUR UNTIL DASNY ADDRESSES THE SITUATION AND DETERMINES THE PROPER COURSE OF ACTION TO TAKE.
- PRIOR TO REMOVAL OF EXISTING CONTROLLERS, EXISTING CONTROL POINTS ARE TO BE MIGRATED TO NEW CONTROLLER. ALL PROGRAMMING, GRAPHICS, AND BACK END ELEMENTS TO BE IN PLACE PRIOR TO MIGRATION TO MINIMIZE DISRUPTION AND ANY CONTROL ISSUES.
- PRIOR TO TRANSFERRING CONTROL POINTS AND DECOMMISSIONING OF CONTROL PANELS CONTRACTOR SHALL COMMUNICATE WITH DASNY AND CCPC AND AND SCHEDULE AT LEAST 10 BUSINESS DAYS IN ADVANCE.
- CONTRACTOR TO COORDINATE WITH DASNY REGARDING ONGOING CONSTRUCTION PROJECTS AT THE FACILITY.

## PHASING PLAN

### GENERAL NOTES

THE PHASING OF THIS PROJECT SHOULD MINIMIZE THE IMPACT ON THE OCCUPIED SPACES. THE PROJECT WILL REQUIRE THE EQUIPMENT TO ALWAYS REMAIN OPERATIONAL AND RESPONSIVE TO SPACE NEEDS. IT IS RECOMMENDED THAT THE CAT6 ETHERNET NETWORK AND SUPERVISORY PANELS BE INSTALLED FIRST ONE CONTROLLER AT A TIME. THE NEW CAT6 ETHERNET CABLES WILL BE RUNNING PARALLEL TO THE EXISTING LAN NETWORK. ONCE THE SUPERVISORY PANELS ARE LIVE, THE FIELD EQUIPMENT SHOULD BE INTEGRATED AND CONNECTED TO THE SUPERVISORY INFRASTRUCTURE. ALL PROGRAMMING AND GRAPHICS FOR FIELD EQUIPMENT SHOULD BE DONE PRIOR TO TAKING EXISTING CONTROL PANELS OFFLINE. IDEALLY, THIS METHOD WILL PROVIDE ONLY A SHORT PERIOD OF LOSS TO TEMPERATURE CONTROL. PRIOR TO THE TRANSFER OF CONTROL POINTS CONTRACTOR NEEDS TO SCHEDULE WITH THE FACILITY AT LEAST 10 BUSINESS DAYS IN ADVANCE.

### GENERAL

- WORK THAT AFFECTS THE PRODUCTION KITCHEN CAN ONLY BE DONE DURING THE MONTHS OF JANUARY THROUGH OCTOBER.
- IF THE BEGINING OF CONSTRUCTION OCCURS DURING THE MONTHS OF NOVEMBER AND DECEMBER, THEN THE CONTRACTOR IS TO FOLLOW PHASE 3 INSTEAD OF PHASE 1 AND 2.
- AT NO TIME CAN THE PRODUCTION KITCHEN EQUIPMENT BE OFFLINE FROM 6:00AM – 4:30PM. THIS INCLUDES:
  - AC-1 AND HV-1
  - EF-1, EF-2, EF-3, EF-4, EF-24, EF-26, EF-27
  - KITCHEN REHEAT COILS
- THE FOLLOWING UNITS THAT SERVE THE TEST KITCHEN MUST REMAIN ONLINE WITH PRODUCTION KITCHEN EQUIPMENT DUE TO EF-7 OPERATING DURING FOOD PRODUCTION.
  - AC-2 AND HV-2
  - EF-7 AND EF-8
- THE FOLLOWING UNITS THAT SERVE THE WARE WASH MUST REMAIN ONLINE WITH PRODUCTION KITCHEN.
  - AC-4 AND RETURN FAN
  - EF-WW8(1) AND EF-WW8(2)
- THE FOLLOWING UNITS THAT SERVE THE FOOD PROCESSING SPACES REMAIN ONLINE WITH PRODUCTION KITCHEN.
  - AC-5

PHASE 1: (WORK TO BE PERFORMED FRIDAY 4:30PM UNTIL MONDAY 5:00AM)  
UNITS SHOULD BE OPERATIONAL BY MONDAY AT 5:00AM WHEN START UP FOR THE PRODUCTION KITCHEN BEGINS.

### PHASE 1A

- REPLACEMENT OF STEAM CONTROL VALVES AND ISOLATION VALVES FOR THE FOLLOWING UNITS:
  - AC-1, AC-2, AC-4, AC-5, HV-1, HV-2
- REPLACEMENT OF ICE WATER CONTROL VALVES AND ISOLATION VALVES FOR THE FOLLOWING UNITS:
  - AC-2 AND AC-5
- REPLACEMENT OF CHILLED WATER CONTROL VALVES AND ISOLATION VALVES FOR THE FOLLOWING UNITS:
  - AC-1 AND AC-4

### PHASE 1B

- REPLACEMENT OF DAMPER AND PNEUMATIC ACTUATORS WITH NEW DAMPER AND ELECTRIC ACTUATORS FOR THE FOLLOWING UNITS:
  - AC-2, AC-4, HV-2
- REPLACEMENT OF PNEUMATIC ACTUATORS ON DAMPERS WITH NEW ELECTRIC ACTUATORS FOR THE FOLLOWING UNITS:
  - AC-1, AC-5, HV-1
  - EF-1, EF-2, EF-3, EF-4, EF-24

### PHASE 1C

- REPLACEMENT OF (4) REHEAT COIL CONTROL VALVES AND ISOLATION VALVES WITHIN PRODUCTION KITCHEN.
- INSTALLATION OF COMBINATION SPACE TEMPERATURE AND HUMIDITY SENSORS FOR REHEAT COILS.
- INSTALLATION OF COMBINATION SPACE TEMPERATURE AND HUMIDITY SENSORS FOR MONITORING WITHIN PRODUCTION KITCHEN.
- INSTALLATION OF DIFFERENTIAL PRESSURE SENSORS WITHIN PRODUCTION KITCHEN.
- REPLACEMENT OF TEMPERATURE SENSORS FOR REFRIGERATED BOXES WITH COMBINATION TEMPERATURE AND HUMIDITY SENSORS.

PHASE 2 (WORK TO BE PERFORMED FRIDAY 4:30PM UNTIL MONDAY AT 5:00AM)  
UNITS SHOULD BE OPERATIONAL BY MONDAY AT 5:00AM WHEN START UP FOR THE PRODUCTION KITCHEN BEGINS.

### PHASE 2A

- REPLACEMENT OF STEAM CONTROL VALVES AND ISOLATION VALVES FOR THE FOLLOWING UNITS:
  - AC-3
- REPLACEMENT OF CHILLED WATER CONTROL VALVES AND ISOLATION VALVES FOR THE FOLLOWING UNITS:
  - AC-3
- REPLACEMENT OF DAMPER AND PNEUMATIC ACTUATORS WITH NEW DAMPER AND ELECTRIC ACTUATORS FOR THE FOLLOWING UNITS:
  - AC-3
- REPLACEMENT OF REHEAT COIL CONTROL VALVES AND ISOLATION VALVES IN THE OFFICE SPACES.
- INSTALLATION OF COMBINATION SPACE TEMPERATURE AND HUMIDITY SENSORS FOR REHEAT COILS.
- INSTALLATION OF COMBINATION SPACE TEMPERATURE AND HUMIDITY SENSORS FOR MONITORING WITHIN OFFICE SPACES.
- REPLACEMENT OF STEAM CONTROL VALVES AND ISOLATION VALVES ON HEAT EXCHANGERS HWC-2 AND HWC-2A.

PHASE 3 (WORK TO BE PERFORMED AT ANY PRE-ARRANGED TIME APPROVED BY CCPC)

### PHASE 3A

- REPLACEMENT OF PNEUMATIC DAMPER ACTUATORS WITH ELECTRIC ACTUATORS FOR THE FOLLOWING UNITS:
  - EF-9, EF-10, EF-11, EF-14, EF-15, EF-16
  - EF-17, EF-18, EF-19, EF-21, EF-22, EF-25
- REPLACEMENT OF STEAM CONTROL VALVES AND ISOLATION VALVES ON HEAT EXCHANGERS HWC-1 AND HWC-1A.

PHASE 4 (WORK TO BE PERFORMED FRIDAY 4:30PM UNTIL MONDAY AT 5:00AM)  
UNITS SHOULD BE OPERATIONAL BY MONDAY AT 5:00AM WHEN START UP FOR THE PRODUCTION KITCHEN BEGINS.

- REPLACEMENT OF VFD'S ON PAIR OF ICE WATER PUMPS.
- INSTALLATION OF STEAM METERS FOR MECHANICAL ROOM #1 AND MECHANICAL ROOM #2
- INSTALLATION OF ICE BUILD SENSOR.
- INSTALLATION OF VALVE ACTUATORS ON DHWH SYSTEM.

## SYMBOLS LIST

	MOTOR/ACTUATOR
	CURRENT TRANSDUCER
	AVERAGING TEMPERATURE SENSOR
	LIQUID FLOW SWITCH
	DIFFERENTIAL PRESSURE SENSOR
	PRESSURE SENSOR
	PRESSURE TRANSDUCER
	TEMPERATURE SENSOR
	TO REMAIN
	CAT 6 CABLE
	MSTP CABLE
	HEATING HOT WATER SUPPLY
	HEATING HOT WATER RETURN
	HIGH PRESSURE STEAM SUPPLY
	HIGH PRESSURE STEAM RETURN
	LOW PRESSURE STEAM
	LOW PRESSURE STEAM RETURN
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	ICE WATER SUPPLY
	ICE WATER RETURN
	FIRE DAMPER
	CONNECT TO EXISTING
	POINT OR DISCONNECT
	PREHEAT COIL
	COOLING COIL
	REHEAT COIL
	FREEZE/STAT
	SMOKE DETECTOR
	S.D.(E)
	CO2
	H
	T
	P
	COMBINATION TEMPERATURE/RELATIVE HUMIDITY SENSOR
	WALL MOUNTED TEMPERATURE SENSOR
	CARBON DIOXIDE SENSOR
	LEVEL SENSOR
	VARIABLE FREQUENCY DRIVE
	STATIC PRESSURE SENSOR
	PNEUMATIC CONTROL VALVE
	ELECTRONIC CONTROL VALVE
	SHUT OFF VALVE
	GATE VALVE
	MANUAL BALANCING VALVE
	CHECK VALVE
	STRAINER
	UNIONS
	STEAM TRAP
	AUTO AIR VENT W/ ISOLATION VALVE
	ANTI-SIPHON VACUUM BREAKER
	REHEAT COIL
	VOLUME DAMPER
	CFM VALUE
	FAN
	PUMP

	MOTOR/ACTUATOR
	CURRENT TRANSDUCER
	AVERAGING TEMPERATURE SENSOR
	LIQUID FLOW SWITCH
	DIFFERENTIAL PRESSURE SENSOR
	PRESSURE SENSOR
	PRESSURE TRANSDUCER
	TEMPERATURE SENSOR

## ABBREVIATION LIST

AHU	AIR HANDLER UNIT
AI	ANALOG INPUT
ALMS	ALARMS
AO	ANALOG OUTPUT
BI	BINARY INPUT
BO	BINARY OUTPUT
CCPC	COOK CHILL PRODUCTION CENTER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CP	CONTROL PANEL
CUH	CABINET UNIT HEATER
DAT	DISCHARGE AIR TEMPERATURE
DHW	DOMESTIC HOT WATER
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
(E)	EXISITING
EF	EXHAUST FAN
EMG	EMERGENCY
ERHC	ELECTRIC REHEAT COIL
FD	FIRE DAMPER
FD/AD	FIRE DAMPER W/ ACCESS DOOR
GEN	GENERATOR
HC	HEATING COIL
HPR	HIGH PRESSURE STEAM RETURN
HPS	HIGH PRESSURE STEAM SUPPLY
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
HX	HEAT EXCHANGER
IN W.G.	INCHES WATER GAUGE
I.W	ICE WATER
IWP	ICE WATER PUMP
IWR	ICE WATER RETURN
IWS	ICE WATER SUPPLY
LPR	LOW PRESSURE STEAM RETURN
LPS	LOW PRESSURE STEAM SUPPLY
MER	MECHANICAL EQUIPMENT ROOM
MIS	MISCELLANEOUS
MNT	MONITORING
(N)	NEW
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
RAT	RETURN AIR TEMPERATURE
RF	RETURN FAN
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
VFD	VARIABLE FREQUENCY DRIVE
VD	VOLUME DAMPER

NOTE: REFER TO THE BUILDING MANAGEMENT AND CONTROL SYSTEMS (BMS), MECHANICAL, AND ELECTRICAL SCHEMATIC DESIGN SPECIFICATIONS FOR OTHER REQUIREMENTS AND INFORMATION

BUILDING CODE ANALYSIS		
COOK CHILL PRODUCTION CENTER 145 OLD ORANGEBURG ROAD ORANGEBURG, NY 10962		
TOPIC	CODE PRESCRIPTIVE VALUE	CODE CITATION
PROVISION FOR COMPLIANCE METHOD	PRESCRIPTIVE COMPLIANCE METHOD	EBC CHAPTER 3
CLASSIFICATION OF WORK	ALTERATION – LEVEL 2	EBC CHAPTER 5
OCCUPANCY CLASSIFICATION	F-1	BC CHAPTER 3
CONSTRUCTION CLASSIFICATION	TYPE II-B	BC CHAPTER 6
MIXED OCCUPANCIES	1HR RATING	BC508.1 & EBC1401.6.16
INCIDENTAL USE OCCUPANCIES	1HR RATING	BC509.1 & EBC1401.6.19
FIRE RESISTIVE CONSTRUCTION	FIRE PARTITIONS: 1HR RATING	BC708
	PENETRATIONS: 1HR RATING	BC714
	FIRE RESISTANT JOINTS: COMPLIES	BC715
SEISMIC DESIGN CATEGORY	B	BC CHAPTER 16 & ASCE 7-10
RISK CATEGORY	II	BC CHAPTER 16 & ASCE 7-10
CONSTRUCTION SAFEGUARDS SHALL BE FOLLOWED IN ACCORDANCE WITH CHAPTER 15 OF THE EXISTING BUILDING CODE AND CHAPTER 33 OF THE FIRE CODE.		
THE NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE (UNIFORM CODE) TO INCLUDE:		
1. 2020 BUILDING CODE OF NEW YORK STATE 2. 2020 PLUMBING CODE OF NEW YORK STATE 3. 2020 MECHANICAL CODE OF NEW YORK STATE 4. 2020 FUEL CODE OF NEW YORK STATE 5. 2020 FIRE CODE OF NEW YORK STATE 6. 2020 PROPERTY MAINTENANCE CODE OF NEW YORK STATE 7. 2020 EXISTING BUILDING CODE OF NEW YORK STATE 8. 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE 9. 2017 NFPA 70 NATIONAL ELECTRIC CODE (NEC) 10. 2016 EDITION OF THE ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS ("ASHRAE 90.1-2016" AS AMENDED BY THE NEW YORK STATE)		

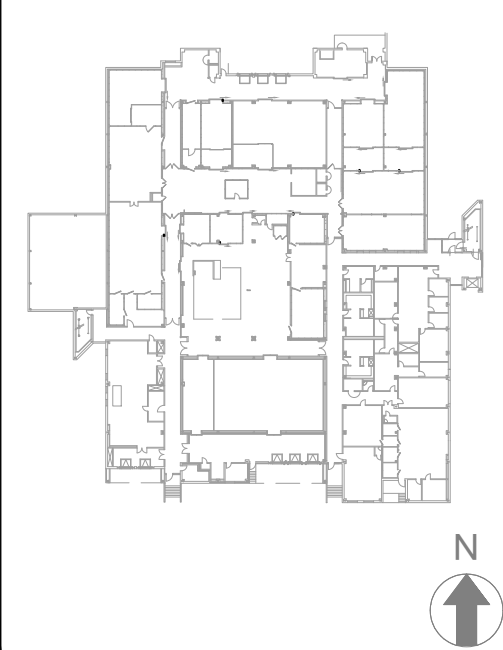
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(518) 862-0882

### Project Key



### REVISIONS

Rev No	Description	Date
1		
2		
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4		
5		
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7		
8		
9		
10		

### Client



44 HOLLAND AVENUE  
ALBANY, NY 12229

### Project Title

BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

### Drawing Title

MECHANICAL NOTES  
& SYMBOLS

### Phase

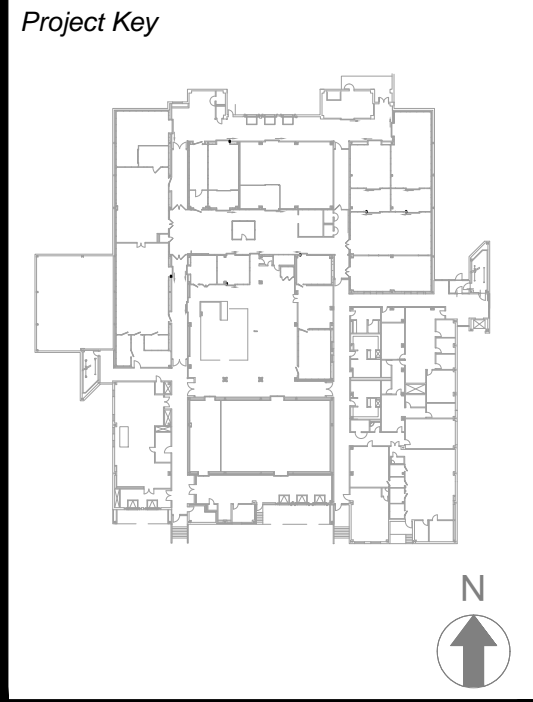
#### BID DOCUMENTS

Drawn By:	Checked By:	Date:
		10/15/2021

#### Seal & Signature

	DASNY Project No: <b>360880</b> Drawing Number <b>M-001</b> Drawing 2 of 30
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Rev No	Description	Date:
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Client

NEW YORK

STATE OF

OPPORTUNITY

Office of  
Mental Health

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Drawing Title

MECHANICAL NOTES  
& SYMBOLS  
CONTINUED

Phase

BID DOCUMENTS

Drawn By:

Checked By:

Date:  
10/15/2021

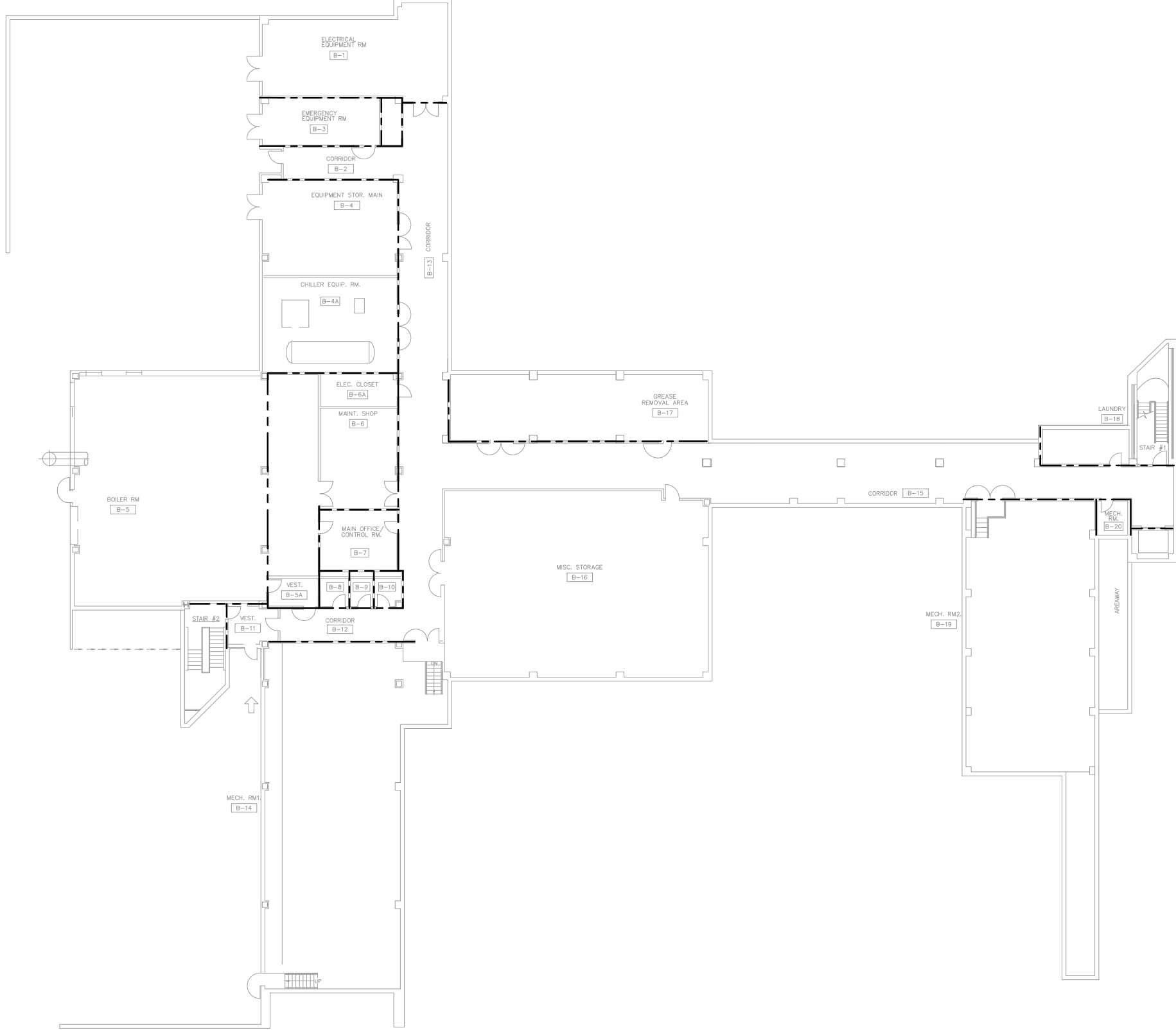
Seal & Signature

MICHAEL MCNAMARA

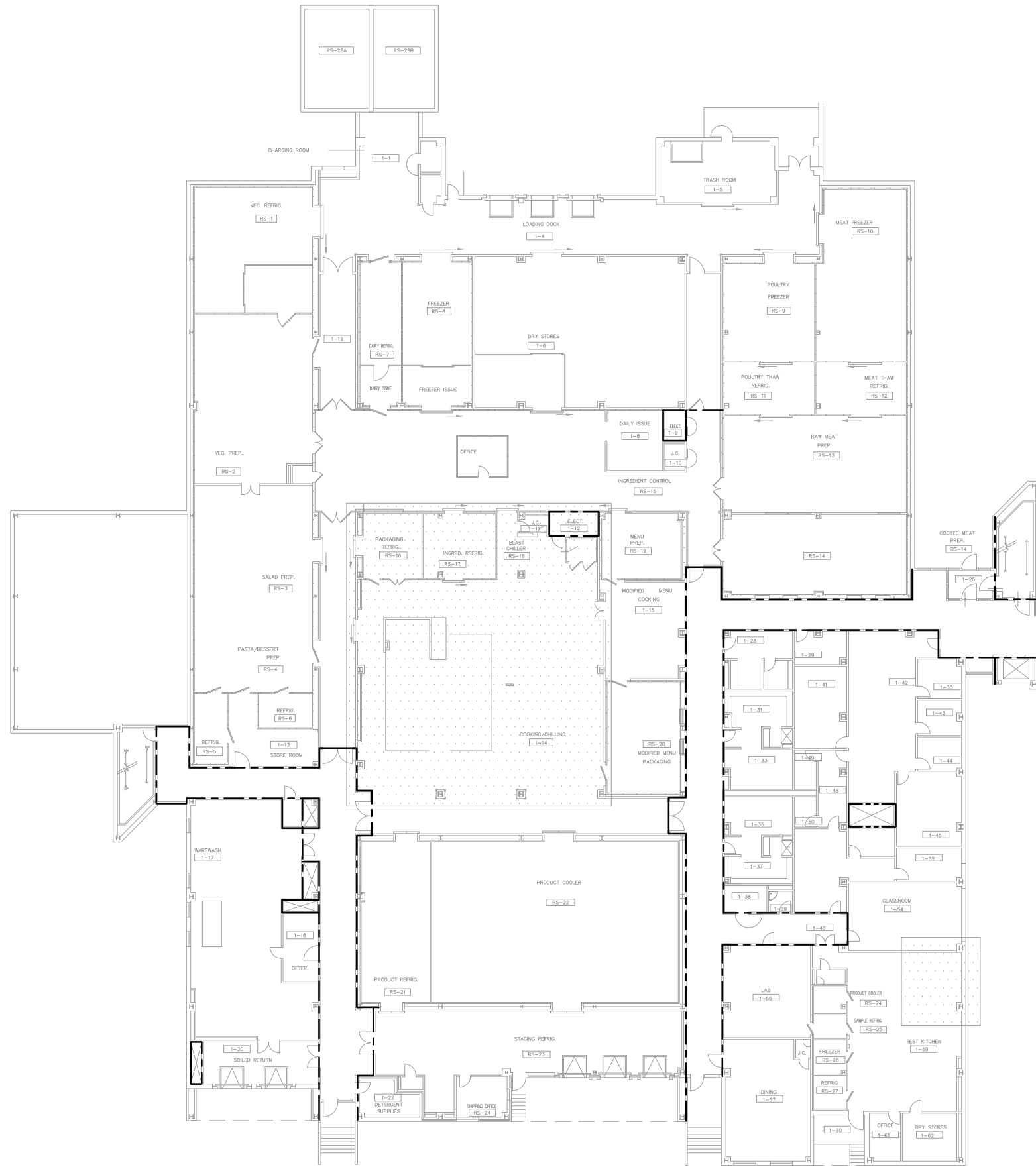
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REGISTERED PROFESSIONAL ENGINEER

DASNY Project No:  
360880  
Drawing Number  
M-002  
Drawing  
3 of 30



1 BASEMENT FIRE RATING DETAIL  
SCALE: NOT TO SCALE



2 FIRST FLOOR FIRE RATING DETAIL  
SCALE: NOT TO SCALE

FLOW METER SCHEDULE														
TAG	SERVICE	LOCATION	MODEL	MANUFACTURER	TYPE	METER SIZE (IN)	PIPE SIZE (IN)	MINIMUM UPSTREAM STRAIGHT PIPE LENGTH (IN)	MINIMUM DOWNSTREAM STRAIGHT PIPE LENGTH (IN)	PRESSURE	MIN. FLOW LBS/HR	MAX. FLOW LBS/HR	OPERATING FLOW LBS/HR	REMARKS
FM-1	LOW PRESSURE STEAM MER #1	BOILER ROOM	RIM20-VTP-S-L-D-AC-1B-P1-PNPTR-E	SPIRAX SARCO	TURBINE	2	8	80	40	10 PSI	517	8,270	6,300	
FM-2	LOW PRESSURE STEAM MER #2	CORRIDOR OF MER #2	RIM20-VTP-S-L-D-AC-1B-P1-PNPTR-E	SPIRAX SARCO	TURBINE	2	4	40	20	10 PSI	72	1,175	1,000	

NOTE:  
1. METER TO BE BACNET MSTP COMPATIBLE AND HAVE A PULSE OUTPUT TO INTEGRATE TO OMH WEAM SYSTEM.  
2. METER TO BE RETRACTABLE WITH ISOLATION VALVE.

LEGEND  
--- 1 HOUR FIRE RESISTANCE RATING  
---- 2 HOUR FIRE RESISTANCE RATING

CONTROL VALVE SCHEDULE									
TAG	AREA SERVED	FLOW (GPM)	MBH	PSIG	TOTAL LBS/HR	LINE SIZE (IN)	CV	TYPE	FLOW
CV-RHC-1	FIRST AID LOCKERS 1-28 & 1-31	0.70	6.60	34.67	—	3/4	0.12	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-2	UNIFORM ISSUE	0.20	1.70	34.67	—	3/4	0.03	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-3	WAITING CORRIDOR	2.80	27.60	34.67	—	3/4	0.48	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-4	OFFICE 1-42	1.40	13.80	34.67	—	3/4	0.24	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-5	OFFICES 1-30, 1-43, 1-44, 1-45, 1-52	2.70	27.00	34.67	—	3/4	0.46	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-6	CLASSROOM 1-54	1.80	18.20	34.67	—	3/4	0.31	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-7	CORRIDOR LOCKERS	1.20	11.90	34.67	—	3/4	0.20	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-8	LAB 1-55	0.90	9.20	34.67	—	3/4	0.15	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-9	OFFICES 1-61 & 1-62	0.20	1.80	34.67	—	3/4	0.03	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-10	DINING 1-57	1.70	17.00	34.67	—	3/4	0.29	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-11	CONFERENCE 1-41	0.60	6.20	34.67	—	3/4	0.10	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-12	MODIFIED MENU 1-15	3.40	34.60	34.67	—	1	0.58	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-14	PRODUCTION KITCHEN 1-4	5.40	71.80	34.67	—	1	0.92	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-15	PRODUCTION KITCHEN 1-4	5.40	71.80	34.67	—	1	0.92	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-16	PRODUCTION KITCHEN 1-4	5.40	71.80	34.67	—	1	0.92	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-17	PRODUCTION KITCHEN 1-4	5.40	71.80	34.67	—	1	0.92	2-WAY PROPORTIONAL	HYDRONIC
CV-RHC-18	RS-18	0.80	6.50	34.67	—	3/4	0.14	2-WAY PROPORTIONAL	HYDRONIC
CV-HWC-1	PERIMETER HEATING	—	—	2	420	2 1/2	25.50	2-WAY PROPORTIONAL	STEAM
CV-HWC-1A	PERIMETER HEATING	—	—	2	420	2 1/2	25.50	2-WAY PROPORTIONAL	STEAM
CV-HWC-2	REHEAT LOOP	—	—	2	320	3	19.7	2-WAY PROPORTIONAL	STEAM
CV-HWC-2A	REHEAT LOOP	—	—	2	320	3	19.7	2-WAY PROPORTIONAL	STEAM
CV-AC-1-1	HEATING COIL	—	—	2	1,295	4	79.6	2-WAY PROPORTIONAL	STEAM
CV-AC-1-2	HEATING COIL	—	—	2	1,005	4	61.8	2-WAY PROPORTIONAL	STEAM
CV-AC-1-3	COOLING COIL	240.00	—	8.67	—	5	81.51	2-WAY PROPORTIONAL	HYDRONIC
CV-AC-2-1	HEATING COIL	—	—	2	158	2	9.71	2-WAY PROPORTIONAL	STEAM
CV-AC-2-2	HEATING COIL	—	—	2	158	2	9.71	2-WAY PROPORTIONAL	STEAM
CV-AC-2-3	COOLING COIL	105.00	—	2.5	—	2 1/2	66.41	2-WAY PROPORTIONAL	HYDRONIC
CV-AC-3-1	HEATING COIL	—	—	2	105	2	6.45	2-WAY PROPORTIONAL	STEAM
CV-AC-3-2	COOLING COIL	86.00	—	2.6	—	3	53.33	2-WAY PROPORTIONAL	HYDRONIC
CV-AC-4-1	HEATING COIL	—	—	2	370	3	22.7	2-WAY PROPORTIONAL	STEAM
CV-AC-4-2	COOLING COIL	78.00	—	2.6	—	3	48.37	2-WAY PROPORTIONAL	HYDRONIC
CV-AC-5-1	HEATING COIL	—	—	2	34	1	2.09	2-WAY PROPORTIONAL	STEAM
CV-AC-5-2	HEATING COIL	—	—	2	21	1	1.29	2-WAY PROPORTIONAL	STEAM
CV-AC-5-3	COOLING COIL	11.00	—	3.03	—	1	6.32	2-WAY PROPORTIONAL	HYDRONIC
CV-HV-1-1	HEATING COIL	—	—	2	1,958	4	120	2-WAY PROPORTIONAL	STEAM
CV-HV-1-2	HEATING COIL	—	—	2	1,380	5	84.8	2-WAY PROPORTIONAL	STEAM
CV-HV-2-1	HEATING COIL	—	—	2	145	2	8.91	2-WAY PROPORTIONAL	STEAM
CV-HV-2-2	HEATING COIL	—	—	2	145	2	8.91	2-WAY PROPORTIONAL	STEAM

NOTE:  
1. CONTRACTOR TO VERIFY VALVE SIZES AND CV VALUES.  
2. INLET STEAM PRESSURE OF 8PSIG WAS USED TO CALCULATE STEAM VALVE CV.

Consultants:



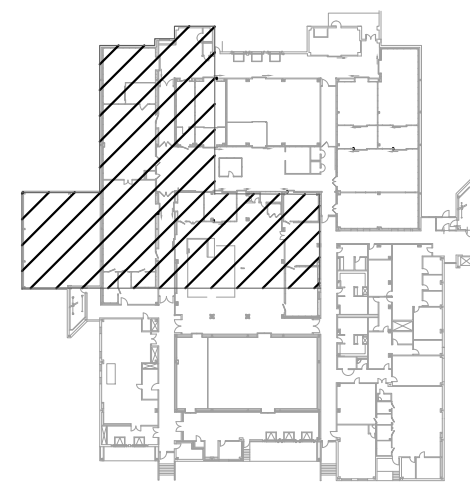
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Consulting Engineers  
129 West 27th Street  
New York, NY, 10001  
(212) 529-5969

292 Washington Ave Ext  
Albany, NY, 12203  
(518) 862-0882

KEYED DEMOLITION NOTES

- 1 DISCONNECT AND REMOVE CONTROLLERS, ENCLOSURES AND NETWORK WIRING. CONTROLLER TO BE REMOVED AFTER ALL EQUIPMENT CONTROL POINTS HAVE BEEN MIGRATED TO NEW CONTROLLER. NEW COMMUNICATIONS CABLING AND RACEWAYS SHALL BE INSTALLED PARALLEL TO EXISTING PRIOR TO REMOVING EXISTING CABLING AND WIRING.
- 2 DISCONNECT AND REMOVE PNEUMATIC SPACE TEMPERATURE SENSOR FOR REHEAT COILS. REMOVE PNEUMATIC POLY TUBING BACK ONE FOOT FROM WORK AREA AND PERMANENTLY CAP AND SEAL.
- 3 DISCONNECT AND REMOVE PNEUMATIC SPACE TEMPERATURE SENSOR. REMOVE PNEUMATIC POLY TUBING BACK ONE FOOT FROM WORK AREA AND PERMANENTLY CAP AND SEAL.
- 4 DISCONNECT AND REMOVE EXISTING PNEUMATIC DAMPER ACTUATOR AND P/E TRANSDUCERS. PROVIDE PERMANENT CAP ON PNEUMATIC LINE. LUBRICATE AND CLEAN MOVABLE PARTS ON DAMPER.
- 5 DISCONNECT AND REMOVE TWO 40 HP COMBINATION VFD WITH DISCONNECT SWITCH FROM ICE PUMPS.

Project Key



REVISIONS

Rev No	Description	Date:
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Client



44 HOLLAND AVENUE  
ALBANY, NY 12229  
Project Title  
BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title

MECHANICAL  
BASEMENT NORTH  
DEMOLITION  
PART PLAN

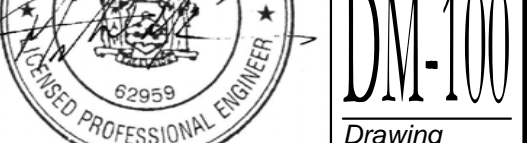
Phase

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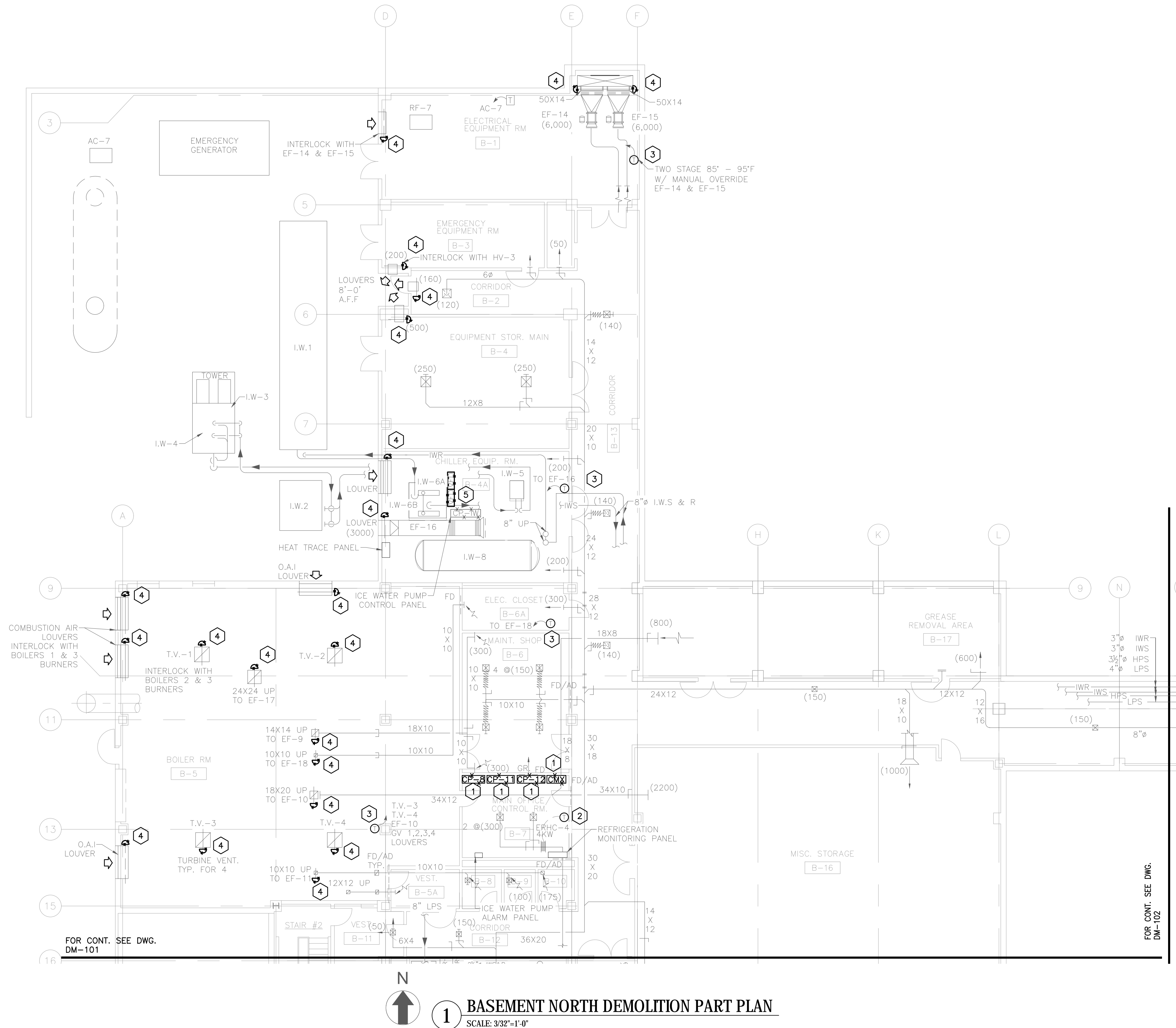
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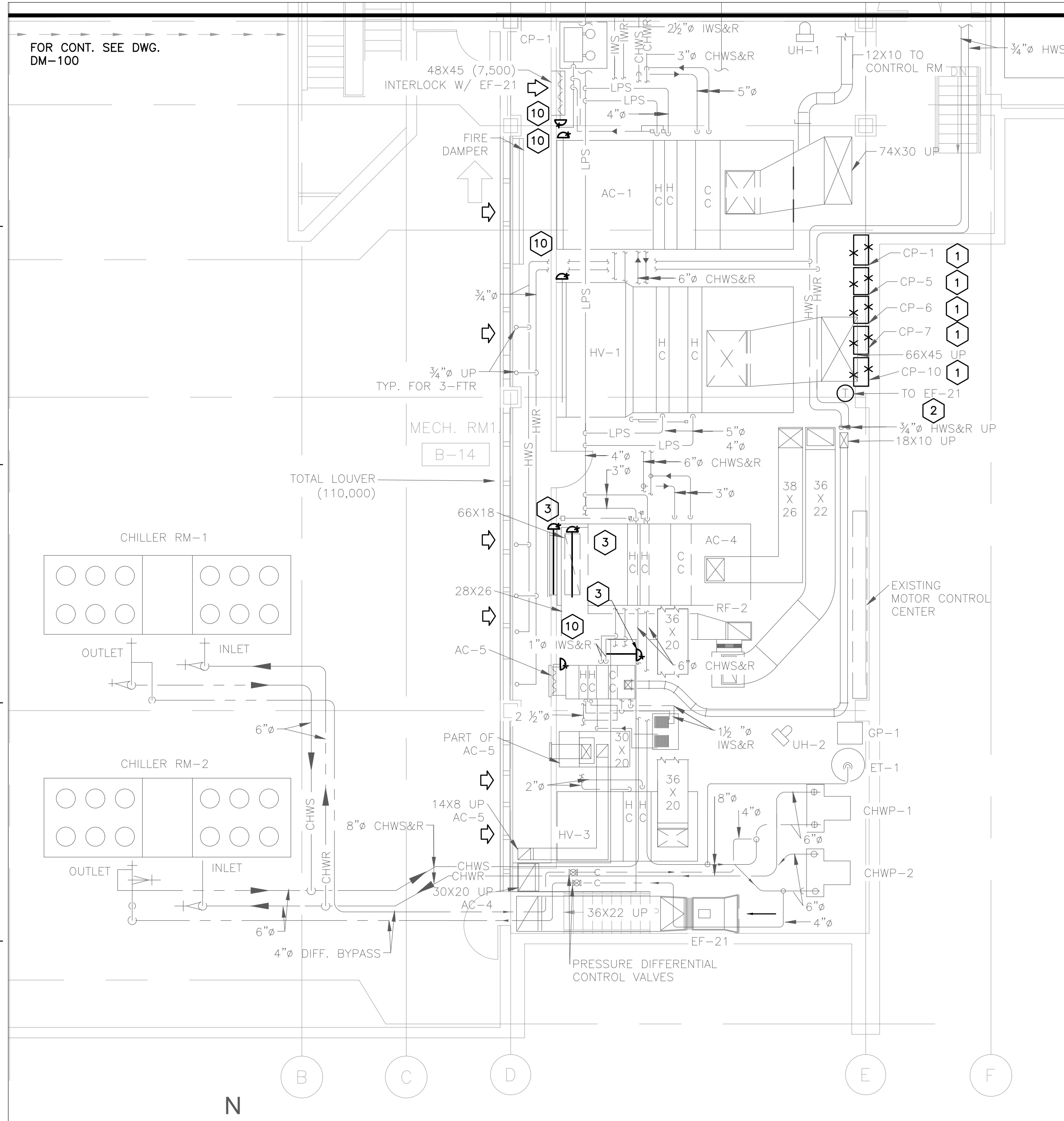
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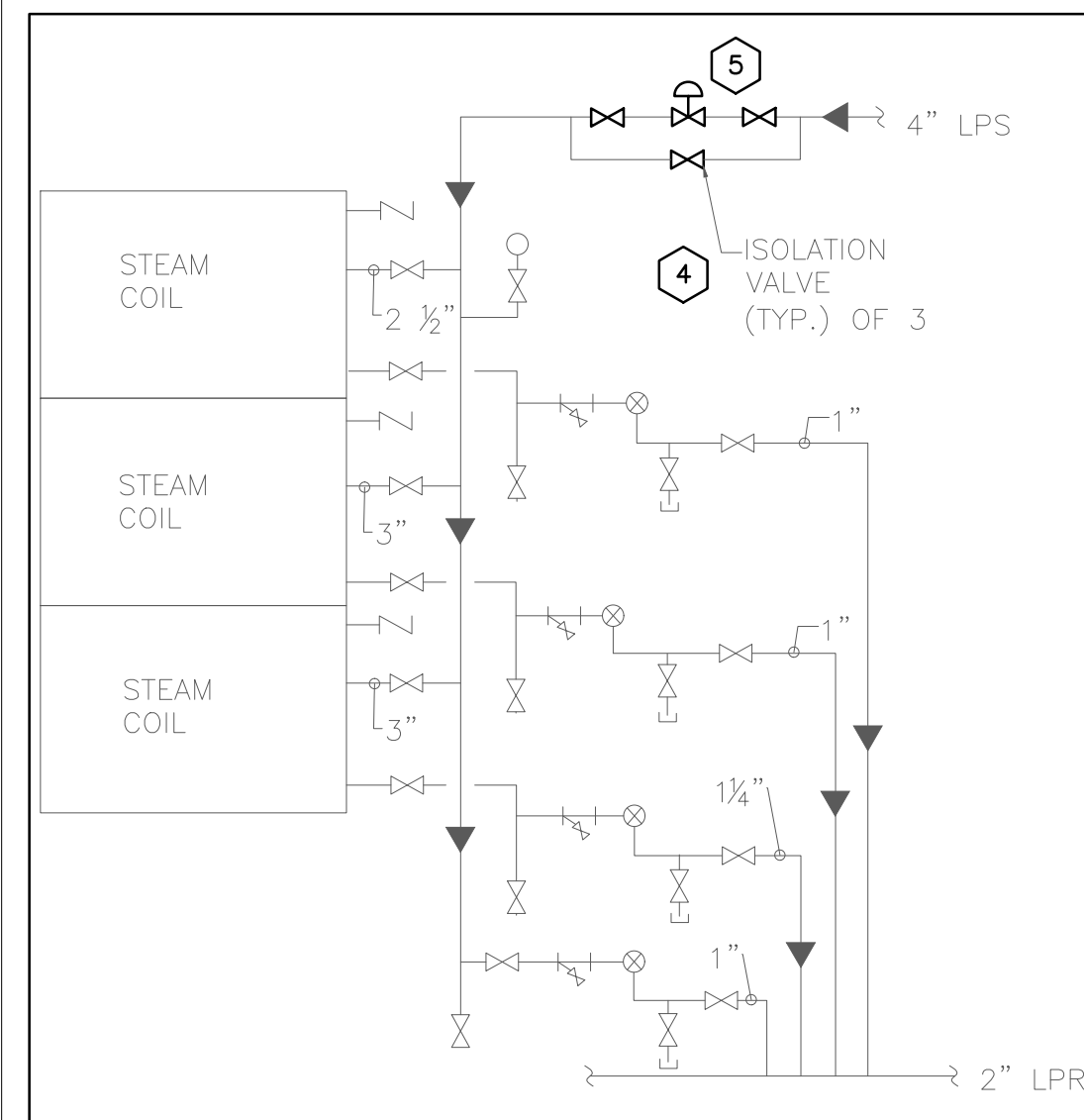
Drawing 4 of 30



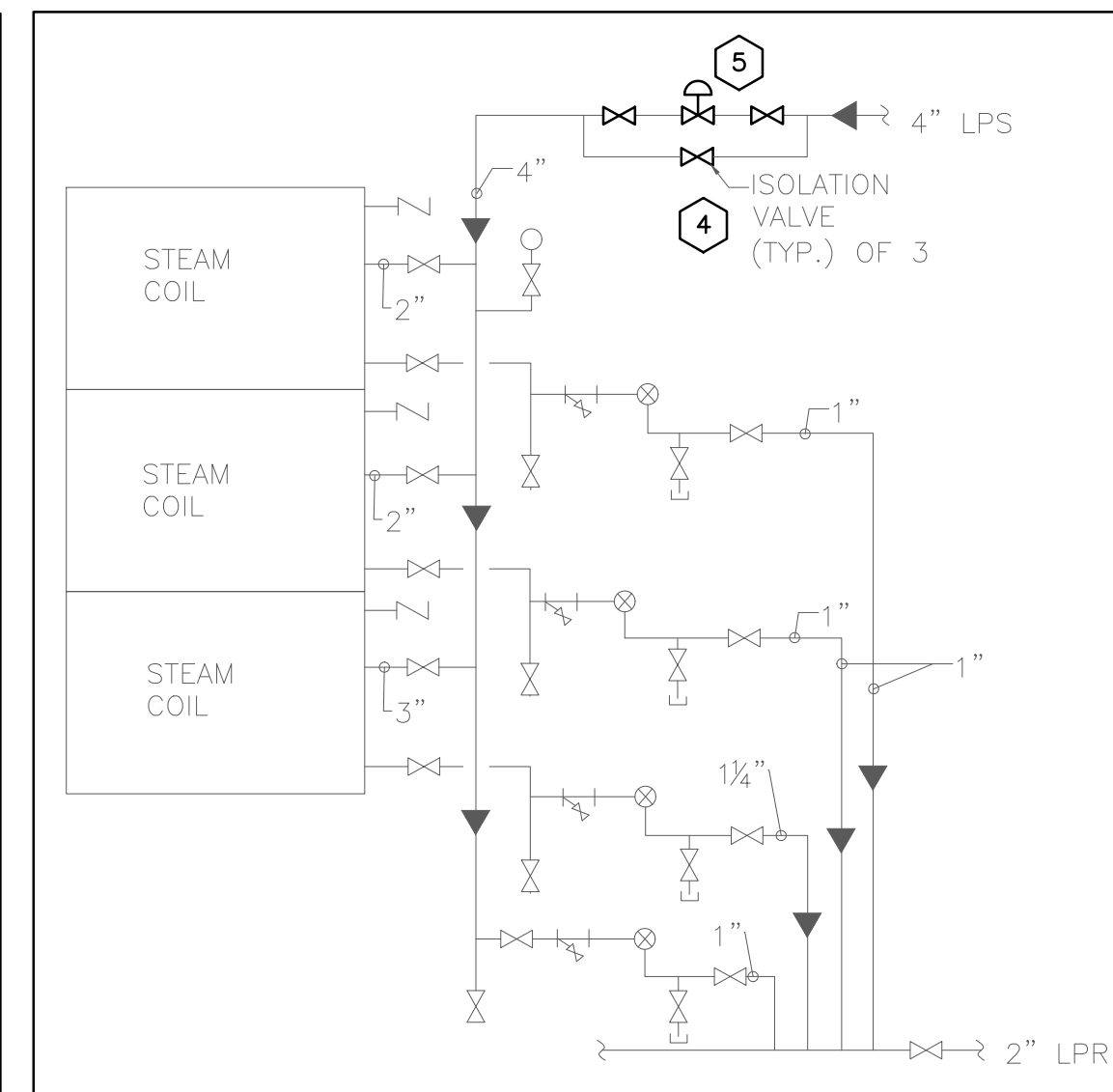




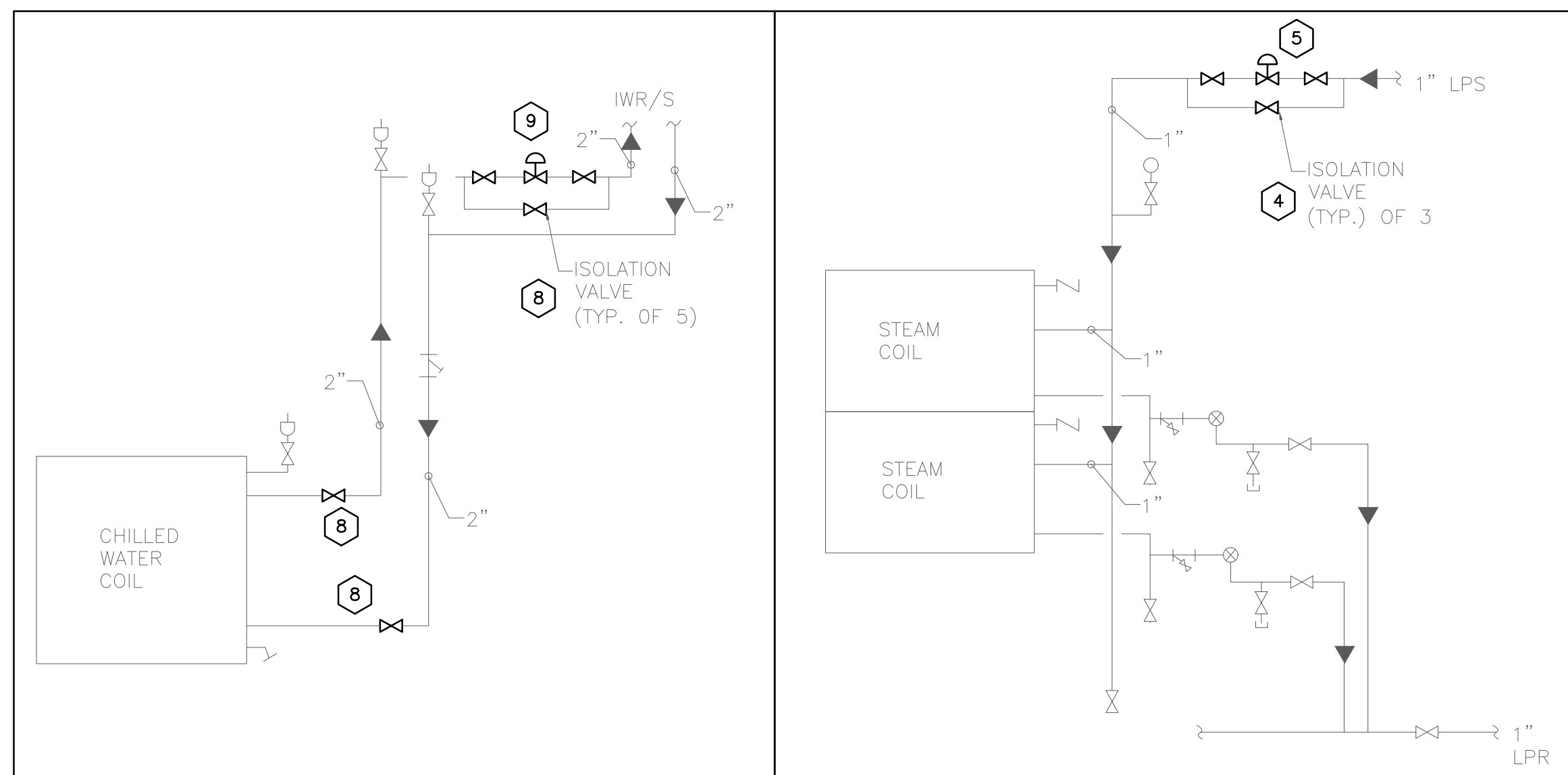
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SCALE: 1/8"=1'-0"



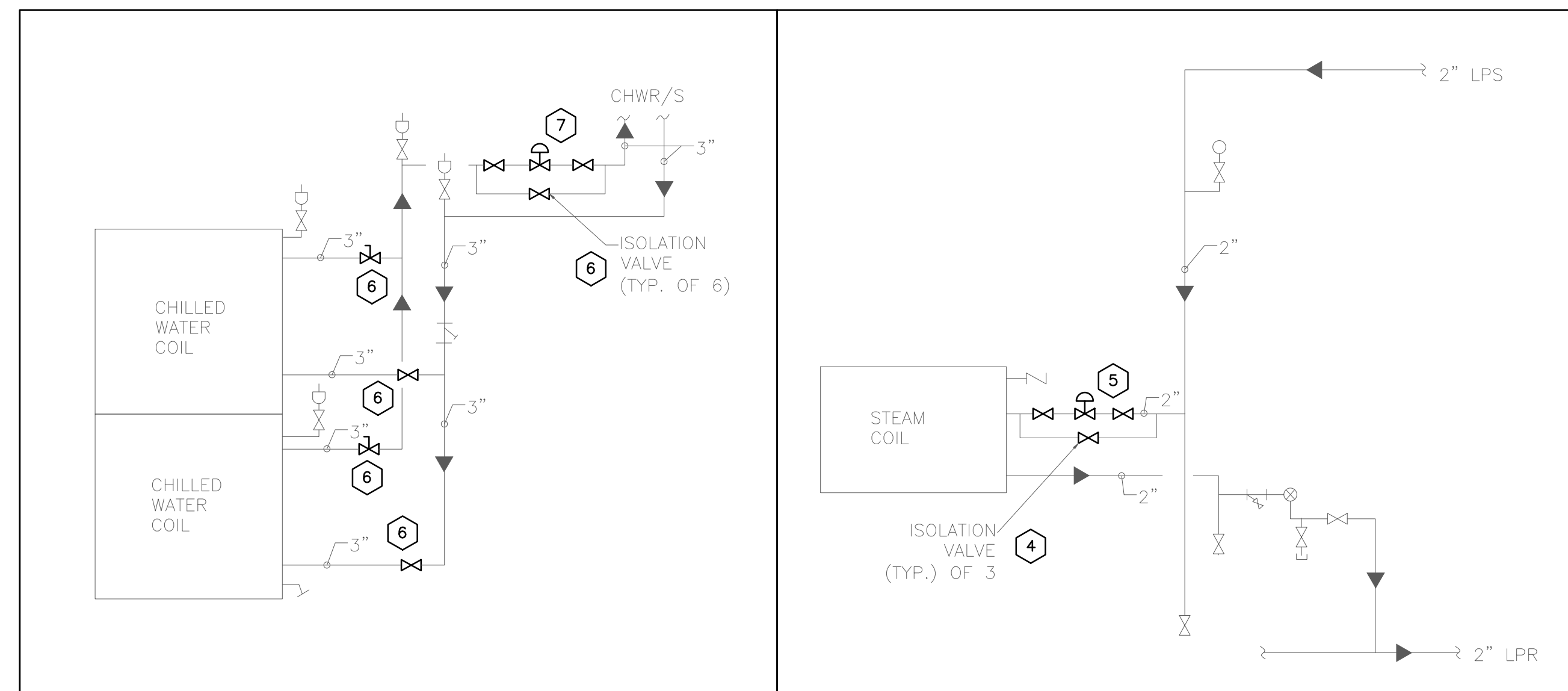
**2 HV-1 DEMOLITION COIL DETAILS**  
SCALE: NOT TO SCALE



**3 AC-1 DEMOLITION COIL DETAILS**  
SCALE: NOT TO SCALE



**4 AC-5 DEMOLITION COIL DETAILS**  
SCALE: NOT TO SCALE



**5 AC-4 DEMOLITION COIL DETAILS**  
SCALE: NOT TO SCALE

# KEYED DEMOLITION NOTES

- DISCONNECT AND REMOVE EXISTING CONTROLLERS, ENCLOSURES AND NETWORK WIRING. CONTROLLER TO BE REMOVED AFTER ALL EQUIPMENT CONTROL POINTS HAVE BEEN MIGRATED TO NEW CONTROLLER. NEW COMMUNICATIONS CABLING AND RACEWAYS SHALL BE INSTALLED PARALLEL TO EXISTING PRIOR TO REMOVING EXISTING CABLING AND WIRING.
- DISCONNECT AND REMOVE EXISTING PNEUMATIC TEMPERATURE SENSOR. REMOVE PNEUMATIC POLY TUBING BACK ONE FOOT FROM WORK AREA AND PERMANENTLY CAP AND SEAL.
- DISCONNECT AND REMOVE EXISTING DAMPER, PNEUMATIC ACTUATOR, AND P/E TRANSDUCER. PROVIDE PERMANENT CAP ON PNEUMATIC LINE.
- DISCONNECT AND REMOVE EXISTING ISOLATION VALVES FROM LPS PIPING SERVING AHU HEATING COILS AND HEAT EXCHANGERS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- ISOLATE LPS AND LPR PIPING UTILIZING NEW PAIR OF ISOLATION VALVES. DISCONNECT AND REMOVE PNEUMATIC CONTROL VALVE AND PROVIDE TEMPORARY CAPS AS NECESSARY ON ENDS OF PIPES REMAINING. REMOVE PNEUMATIC CONTROL LINE BETWEEN VALVE AND FORMER PNEUMATIC CONTROLLER.
- DISCONNECT AND REMOVE EXISTING ISOLATION VALVES FROM CHWS AND CHWR PIPING SERVING AHU COOLING COILS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- ISOLATE CHWS AND CHWS PIPING UTILIZING NEW PAIR OF ISOLATION VALVES. DISCONNECT AND REMOVE PNEUMATIC CONTROL VALVE AND PROVIDE TEMPORARY CAPS AS NECESSARY ON ENDS OF PIPES REMAINING. REMOVE PNEUMATIC CONTROL LINE BETWEEN VALVE AND FORMER PNEUMATIC CONTROLLER.
- DISCONNECT AND REMOVE EXISTING ISOLATION VALVES FROM IWS AND IWR PIPING SERVING AHU COOLING COILS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- ISOLATE IWS AND IWS PIPING UTILIZING NEW PAIR OF ISOLATION VALVES. DISCONNECT AND REMOVE PNEUMATIC CONTROL VALVE AND PROVIDE TEMPORARY CAPS AS NECESSARY ON ENDS OF PIPES REMAINING. REMOVE PNEUMATIC CONTROL LINE BETWEEN VALVE AND FORMER PNEUMATIC CONTROLLER.
- DISCONNECT AND REMOVE EXISTING PNEUMATIC DAMPER ACTUATOR AND P/E TRANSDUCER. PROVIDE PERMANENT CAP ON PNEUMATIC LINE. LUBRICATE AND CLEAN MOVEABLE PARTS ON DAMPER.

**NEW YORK**  
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**DASNY**

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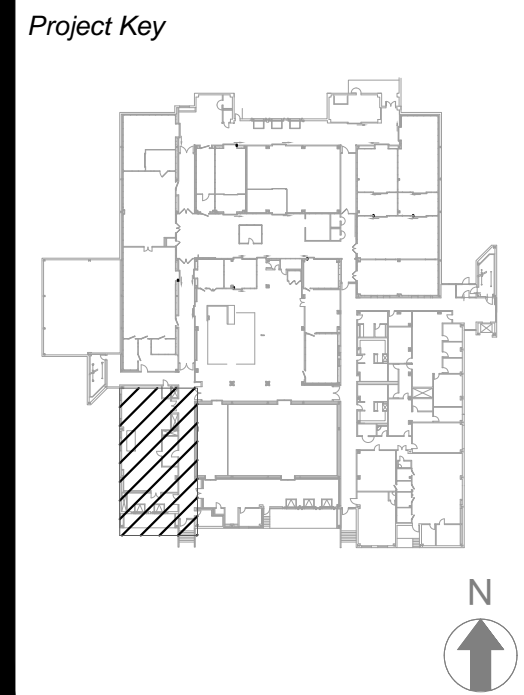
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(518) 862-0882



REVISIONS		
Rev No	Description	Date

**Client**

**Office of Mental Health**  
44 HOLLAND AVENUE  
ALBANY, NY 12229

**Project Title**

**BMS REPLACEMENT**  
**COOK CHILL PRODUCTION CENTER**  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

**Drawing Title**  
**MECHANICAL ROOM 1**  
**DEMOLITION**  
**PART PLAN**

**Phase**

**BID DOCUMENTS**

Drawn By: \_\_\_\_\_

Checked By: \_\_\_\_\_

Date: 10/15/2021

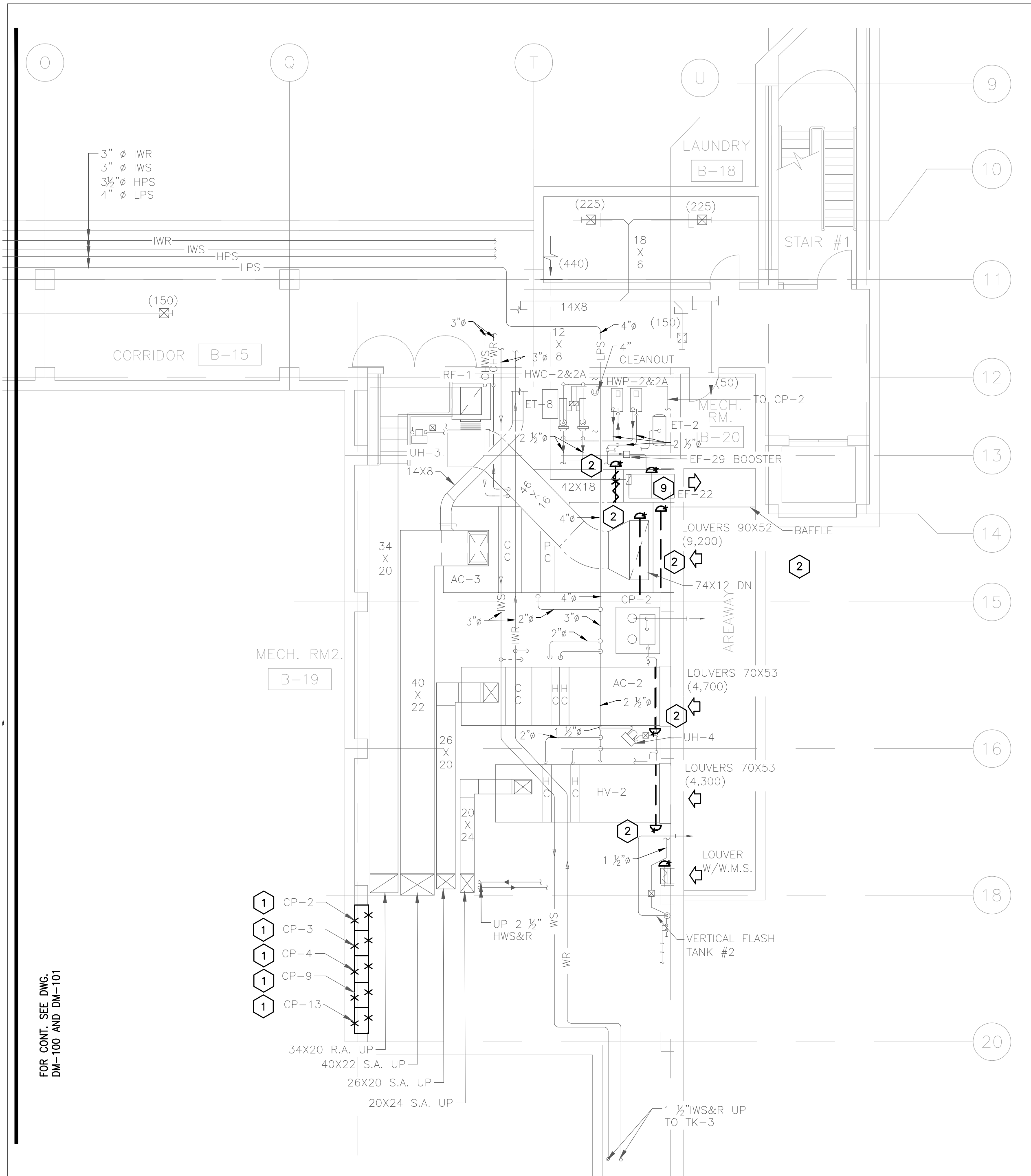
Seal & Signature

DASNY Project No: 360880

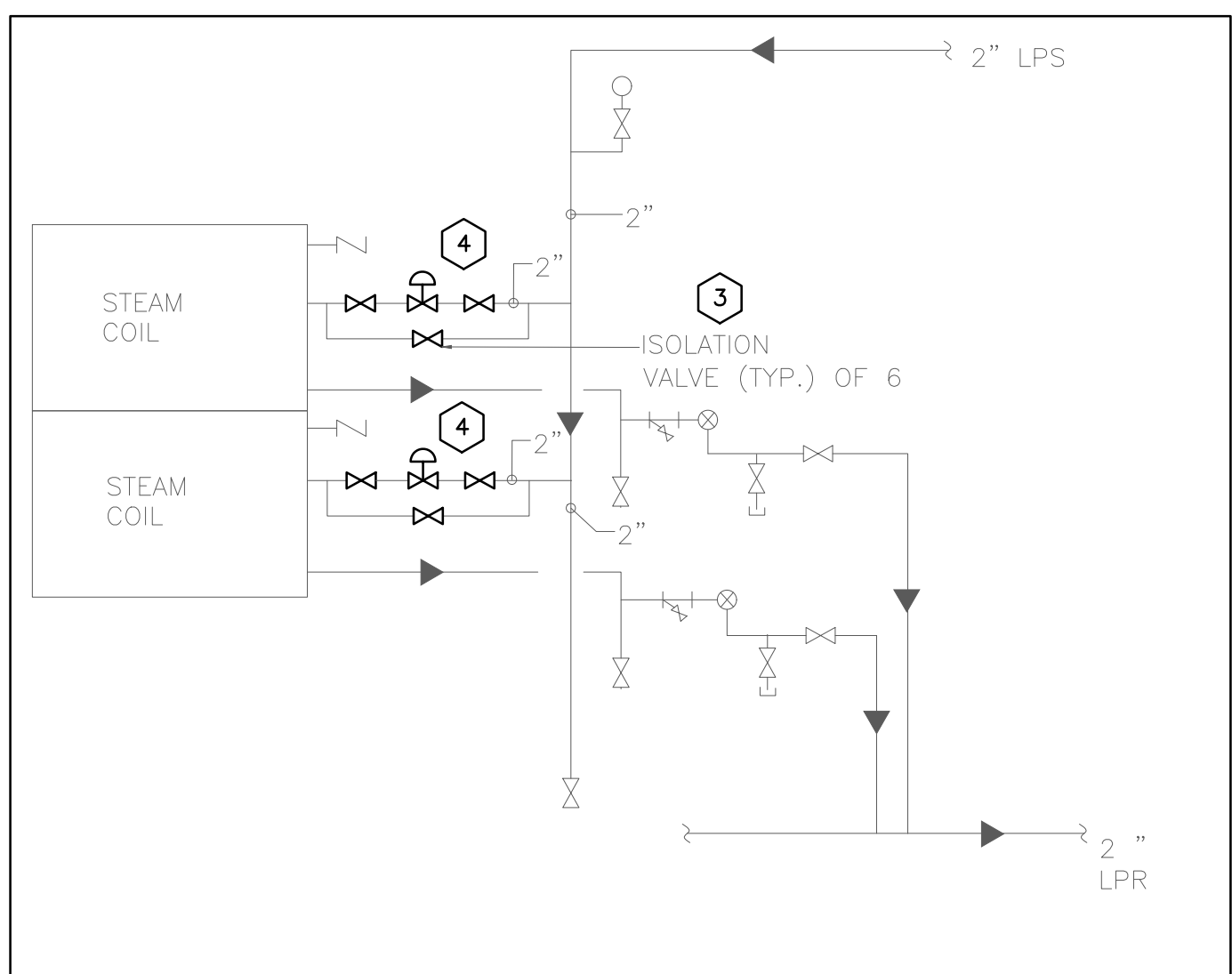
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Drawing 5 of 30

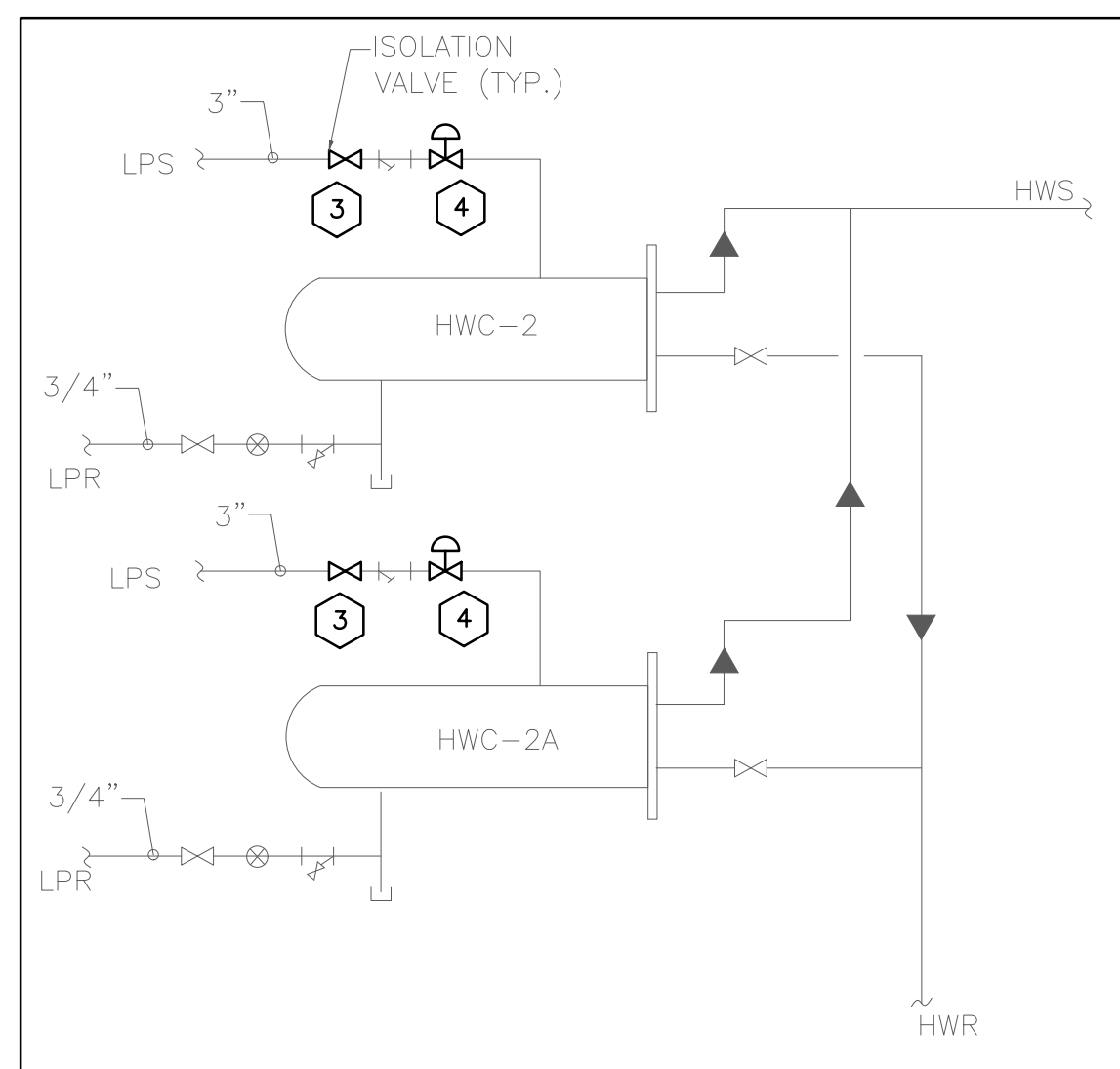




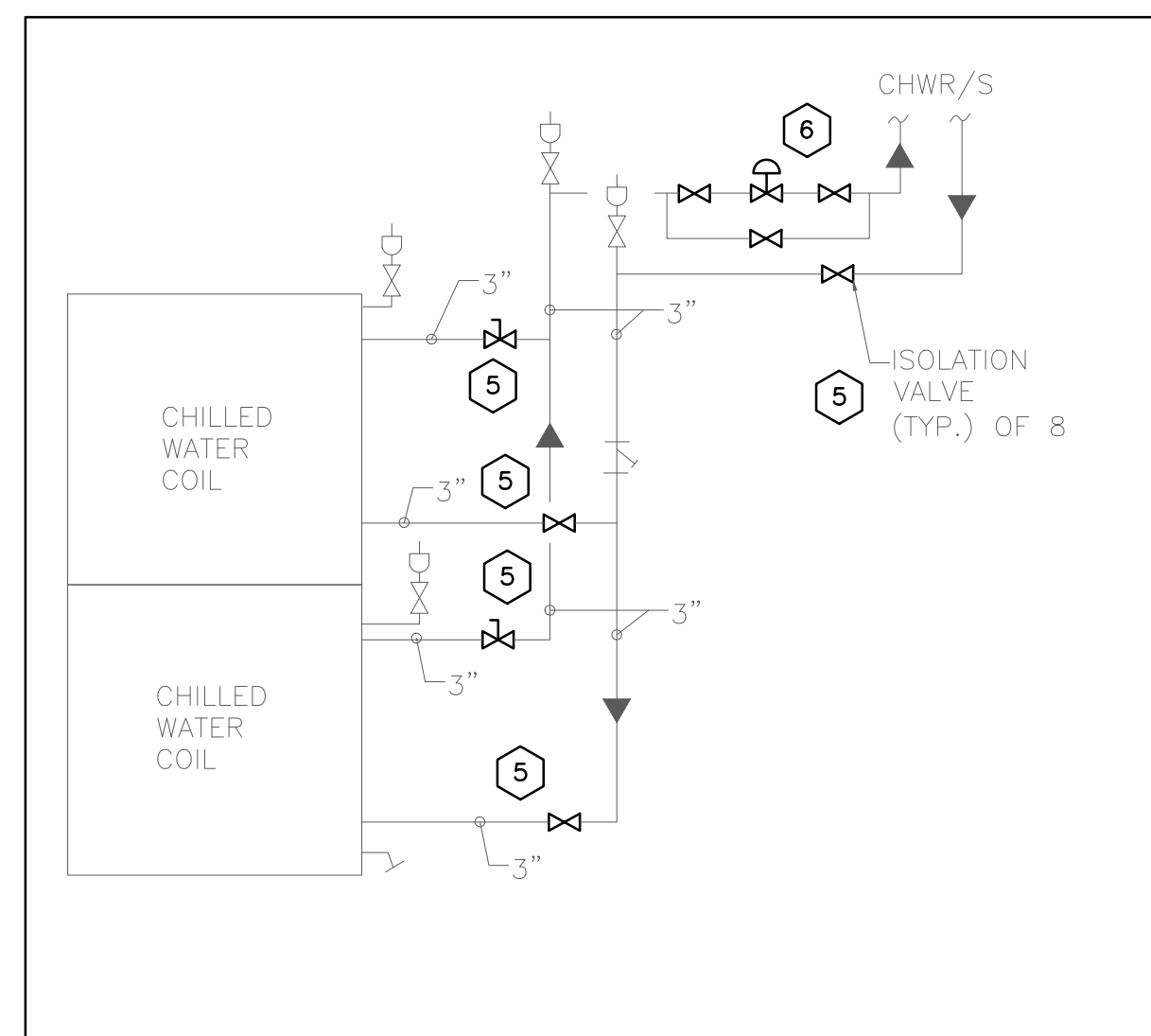
**1 MECHANICAL ROOM 2 DEMOLITION PART PLAN**  
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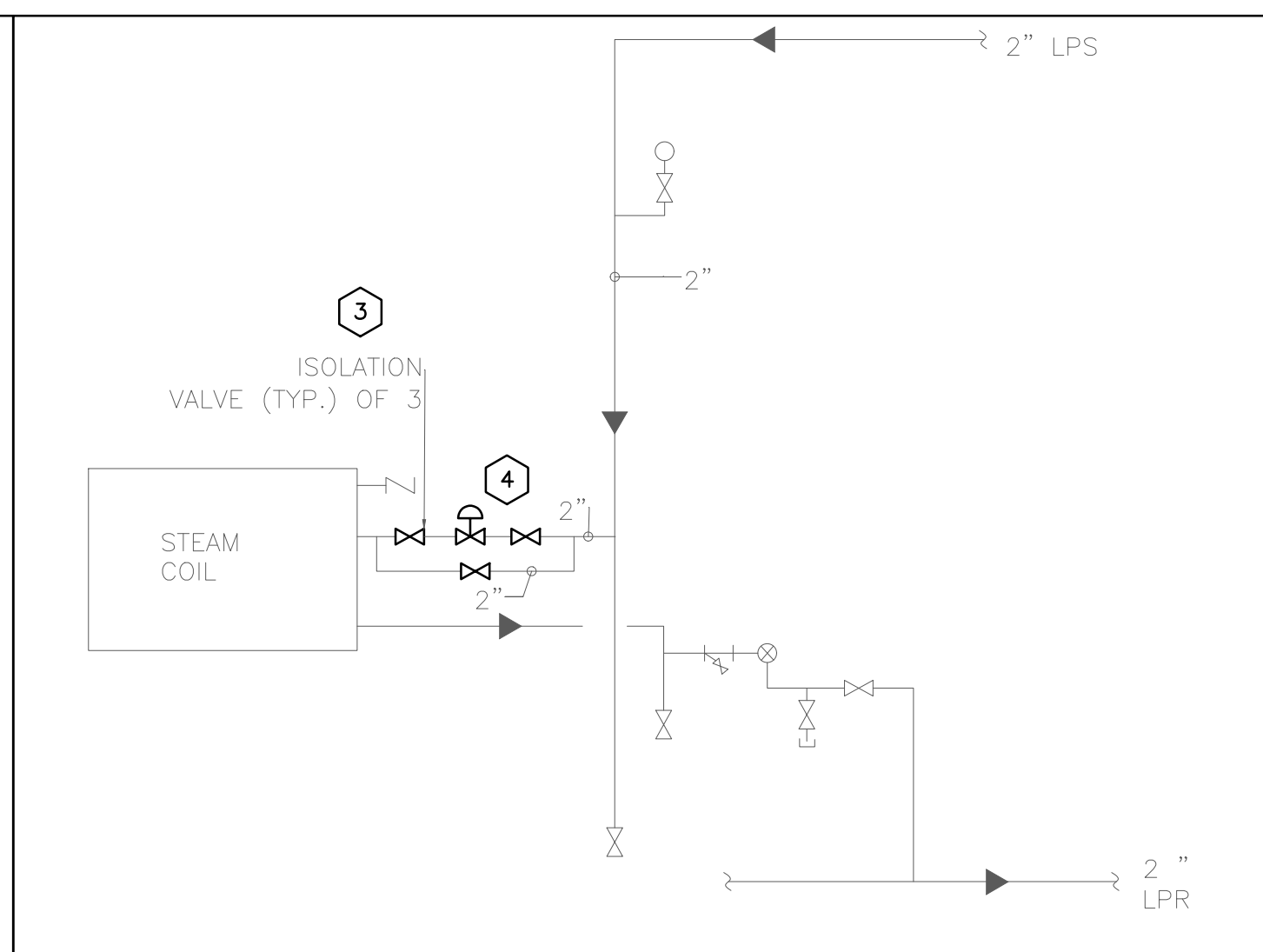
**3 HV-2 DEMOLITION COIL DETAILS**  
SCALE: NOT TO SCALE



**4 HWC-2&2A DEMOLITION COIL DETAILS**  
SCALE: NOT TO SCALE



**5 AC-3 DEMOLITION COIL DETAILS**  
SCALE: NOT TO SCALE



**2 AC-2 DEMOLITION COIL DETAILS**  
SCALE: NOT TO SCALE

#### KEYED DEMOLITION NOTES

- 1 DISCONNECT AND REMOVE EXISTING CONTROLLERS, ENCLOSURES AND NETWORK WIRING. CONTROLLER TO BE REMOVED AFTER ALL EQUIPMENT CONTROL POINTS HAVE BEEN MIGRATED TO NEW CONTROLLER. NEW COMMUNICATIONS CABLING AND RACEWAYS SHALL BE INSTALLED PARALLEL TO EXISTING PRIOR TO REMOVING EXISTING CABLING AND WIRING.
- 2 DISCONNECT AND REMOVE EXISTING DAMPER, PNEUMATIC ACTUATOR, AND P/E TRANSDUCERS. PROVIDE PERMANENT CAP ON PNEUMATIC LINE.
- 3 DISCONNECT AND REMOVE EXISTING ISOLATION VALVES FROM LPS PIPING SERVING AHU HEATING COILS AND HEAT EXCHANGERS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- 4 ISOLATE LPS AND LPR PIPING UTILIZING NEW PAIR OF ISOLATION VALVES. DISCONNECT AND REMOVE PNEUMATIC CONTROL VALVE AND PROVIDE TEMPORARY CAPS AS NECESSARY ON ENDS OF PIPES REMAINING. REMOVE PNEUMATIC CONTROL LINE BETWEEN VALVE AND FORMER PNEUMATIC CONTROLLER.
- 5 DISCONNECT AND REMOVE EXISTING ISOLATION VALVES FROM CHWS AND CHWR PIPING SERVING AHU COOLING COILS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- 6 ISOLATE CHWS AND CHWS PIPING UTILIZING NEW PAIR OF ISOLATION VALVES. DISCONNECT AND REMOVE PNEUMATIC CONTROL VALVE AND PROVIDE TEMPORARY CAPS AS NECESSARY ON ENDS OF PIPES REMAINING. REMOVE PNEUMATIC CONTROL LINE BETWEEN VALVE AND FORMER PNEUMATIC CONTROLLER.
- 7 DISCONNECT AND REMOVE EXISTING ISOLATION VALVES FROM IWS AND IWR PIPING SERVING AHU COOLING COILS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- 8 ISOLATE IWS AND IWS PIPING UTILIZING NEW PAIR OF ISOLATION VALVES. DISCONNECT AND REMOVE PNEUMATIC CONTROL VALVE AND PROVIDE TEMPORARY CAPS AS NECESSARY ON ENDS OF PIPES REMAINING. REMOVE PNEUMATIC CONTROL LINE BETWEEN VALVE AND FORMER PNEUMATIC CONTROLLER.
- 9 DISCONNECT AND REMOVE EXISTING PNEUMATIC DAMPER ACTUATOR AND P/E TRANSDUCERS. PROVIDE PERMANENT CAP ON PNEUMATIC LINE. LUBRICATE AND CLEAN MOVEABLE PARTS ON DAMPER.

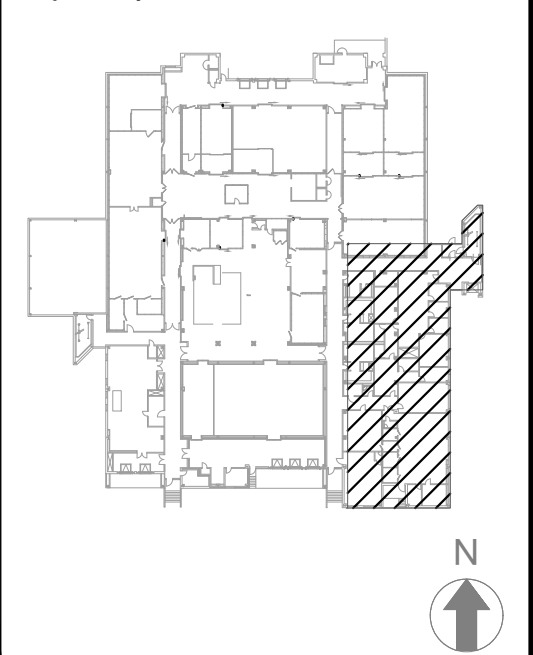
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(518) 862-0862

#### Project Key



#### REVISIONS

Rev No	Description	Date:

#### Client

NEW YORK STATE OF OPPORTUNITY **Office of Mental Health**  
44 HOLLAND AVENUE  
ALBANY, NY 12229

Project Title  
**BMS REPLACEMENT**  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

#### Drawing Title

**MECHANICAL ROOM 2  
DEMOLITION  
PART PLAN**

#### Phase

BID DOCUMENTS

Drawn By: Checked By: Date: 10/15/2021

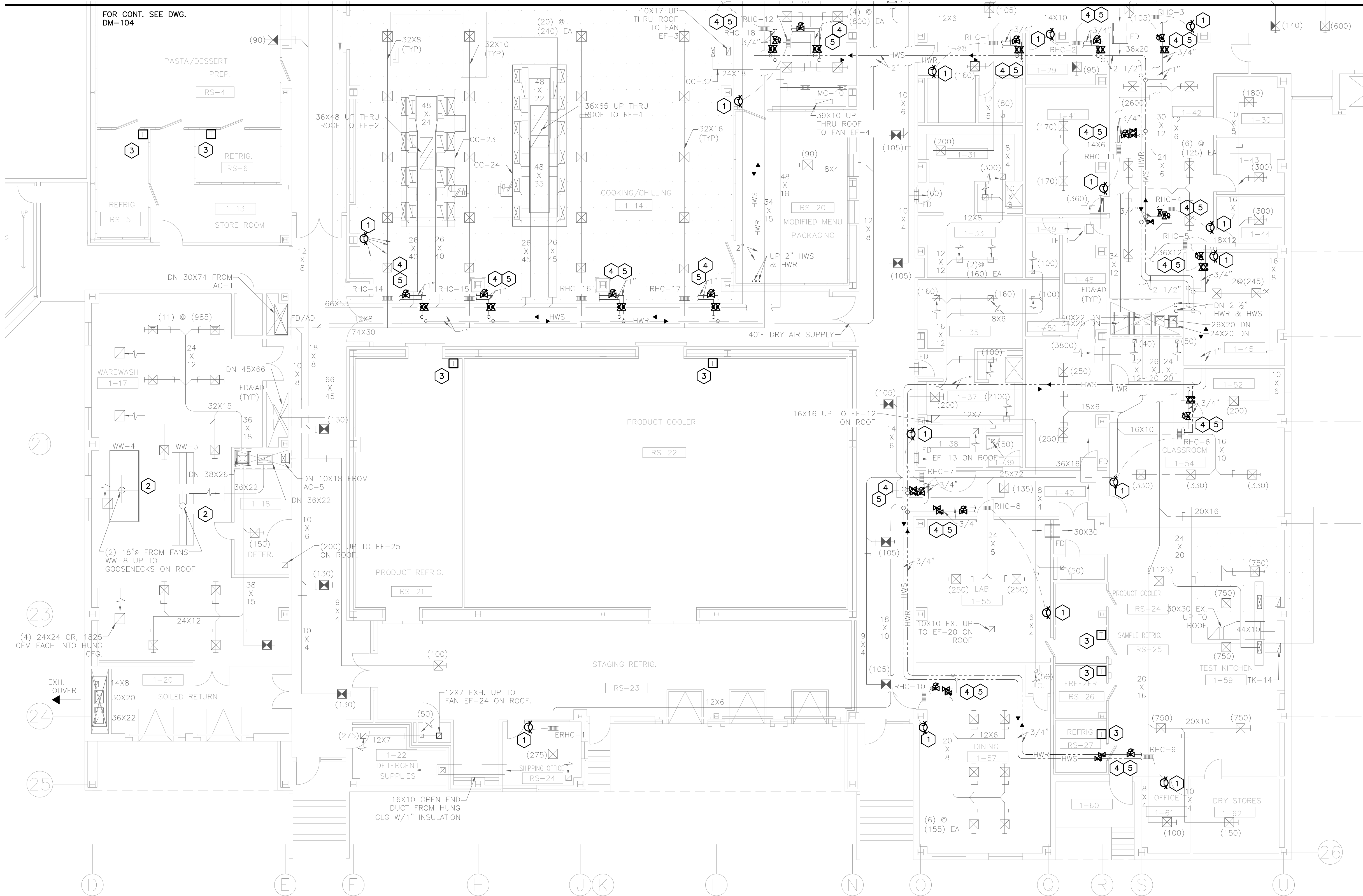
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Drawing Number

STATE OF NEW YORK  
MICHAEL MCNAMARA  
Professional Engineer  
DM-102

Drawing 6 of 30





# KEYED DEMOLITION NOTES

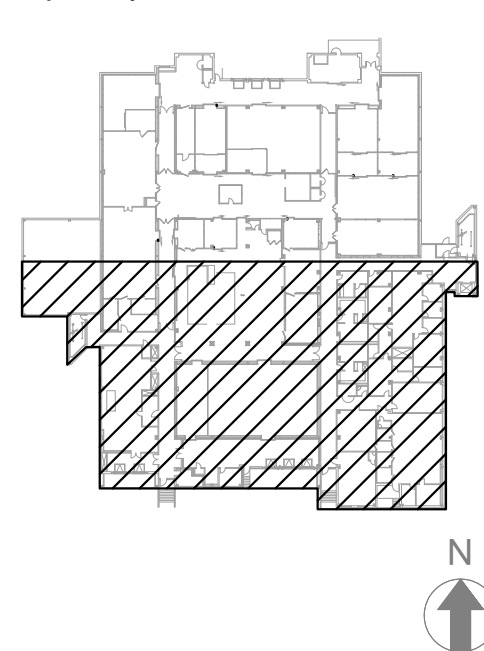
- DISCONNECT AND REMOVE PNEUMATIC SPACE TEMPERATURE SENSOR FOR REHEAT COILS. REMOVE PNEUMATIC POLY TUBING BACK ONE FOOT FROM WORK AREA AND PERMANENTLY CAP AND SEAL.
- DISCONNECT AND REMOVE EXISTING PNEUMATIC DAMPER ACTUATOR AND P/E TRANSDUCERS. PROVIDE PERMANENT CAP ON PNEUMATIC LINE. LUBRICATE AND CLEAN MOVABLE PARTS ON DAMPER.
- DISCONNECT AND REMOVE EXISTING REFRIGERATOR BOX TEMPERATURE SENSOR TYPICALLY FOUND MOUNTED NEAR THE CEILING.
- DISCONNECT AND REMOVE EXISTING PAIR OF ISOLATION VALVES FROM HWS AND HWR STEEL PIPING SERVING REHEAT COILS. AS NECESSARY ON ENDS OF PIPES REMAINING. REMOVE PNEUMATIC CONTROL LINE BETWEEN VALVE AND FORMER PNEUMATIC CONTROLLER.
- ISOLATE REHEAT COIL HWS AND HWR PIPING UTILIZING NEW PAIR OF ISOLATION VALVES. DISCONNECT AND REMOVE PNEUMATIC CONTROL VALVE AND PROVIDE TEMPORARY CAPS AS NECESSARY ON ENDS OF PIPES REMAINING. REMOVE PNEUMATIC CONTROL LINE BETWEEN VALVE AND FORMER PNEUMATIC CONTROLLER.

## Consultants:

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Consulting Engineers  
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New York, NY, 10001  
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(518) 862-0862

## Project Key



## REVISIONS

Rev No	Description	Date:

## Client

NEW YORK STATE OF OPPORTUNITY Office of Mental Health  
44 HOLLAND AVENUE  
ALBANY, NY 12229

## Project Title

BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

## Drawing Title

MECHANICAL  
FIRST FLOOR SOUTH  
DEMOLITION  
PART PLAN

## Phase

## BID DOCUMENTS

Drawn By: Checked By: Date: 10/15/2021

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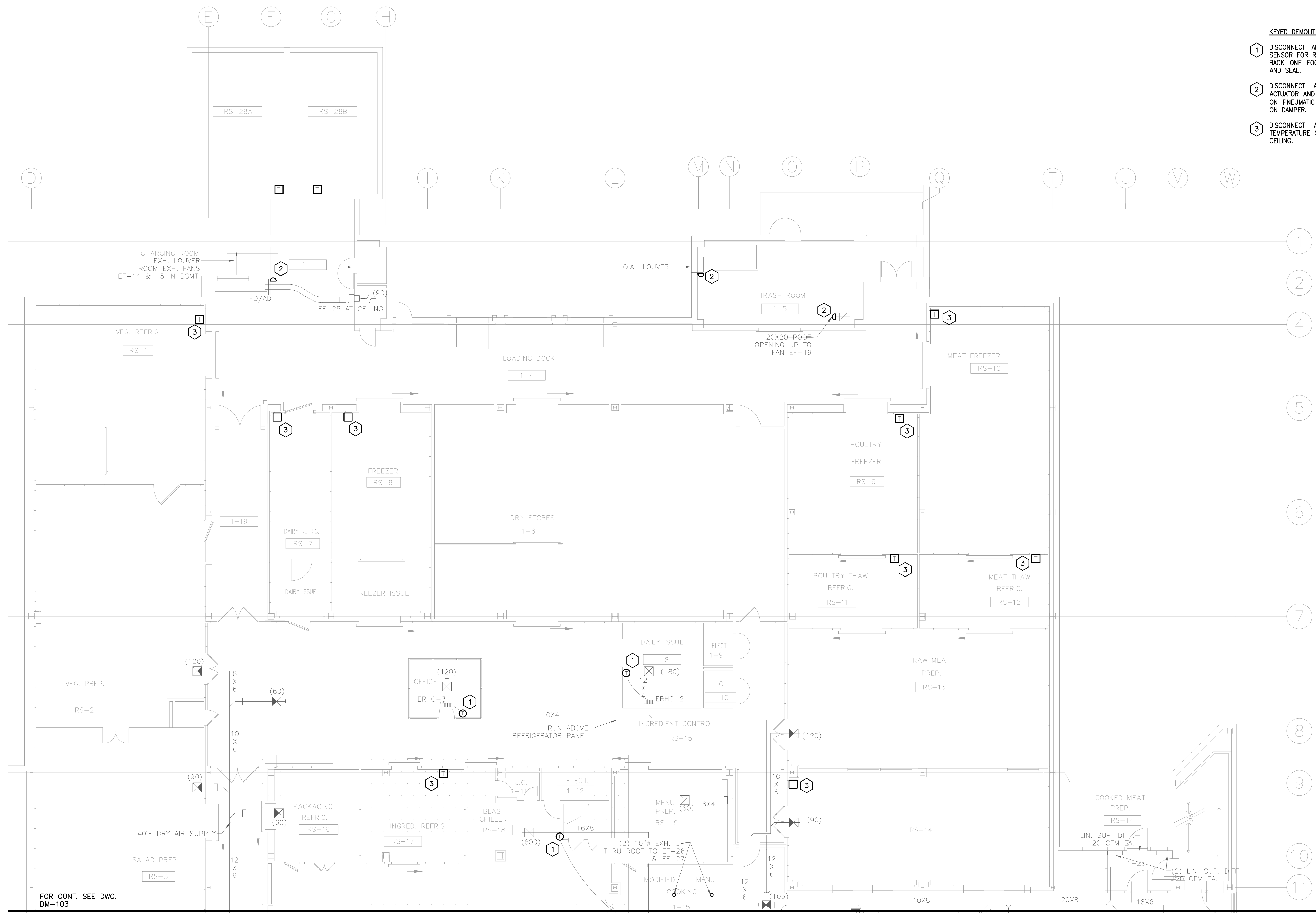
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STATE OF NEW YORK  
MICHAEL MCNAMARA  
2020 PROFESSIONAL ENGINEER  
DM-103  
Drawing 7 of 30

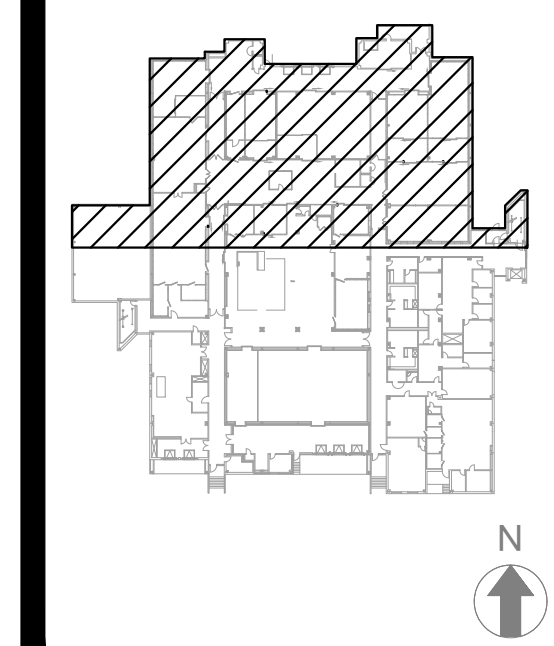


KEYED DEMOLITION NOTES

- 1 DISCONNECT AND REMOVE PNEUMATIC SPACE TEMPERATURE SENSOR FOR REHEAT COILS. REMOVE PNEUMATIC POLY TUBING BACK ONE FOOT FROM WORK AREA AND PERMANENTLY CAP AND SEAL.
- 2 DISCONNECT AND REMOVE EXISTING PNEUMATIC DAMPER ACTUATOR AND P/E TRANSDUCERS. PROVIDE PERMANENT CAP ON PNEUMATIC LINE. LUBRICATE AND CLEAN MOVABLE PARTS ON DAMPER.
- 3 DISCONNECT AND REMOVE EXISTING REFRIGERATOR BOX TEMPERATURE SENSOR TYPICALLY FOUND MOUNTED NEAR THE CEILING.



Project Key



REVISIONS

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Client

NEW YORK STATE OF OPPORTUNITY  
Office of Mental Health  
44 HOLLAND AVENUE  
ALBANY, NY 12229

Project Title

BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title

MECHANICAL  
FIRST FLOOR NORTH  
DEMOLITION  
PART PLAN

Phase

BID DOCUMENTS

Drawn By: Checked By: Date: 10/15/2021

Seal & Signature DASNY Project No: 360880

Drawing Number







KEYED DEMOLITION NOTES

- 1 DISCONNECT AND REMOVE EXISTING PNEUMATIC DAMPER ACTUATOR. PROVIDE PERMANENT CAP ON PNEUMATIC LINE. LUBRICATE AND CLEAN MOVEABLE PARTS ON DAMPER.

**NEW YORK**  
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(518) 862-0882

**Project Key**

**REVISIONS**

Rev No	Description	Date:
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**Client**

**NEW YORK**  
STATE OF  
OPPORTUNITY

**Office of  
Mental Health**  
44 HOLLAND AVENUE  
ALBANY, NY 12229

**Project Title**  
**BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER**  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

**Drawing Title**  
**MECHANICAL  
ROOF  
DEMOLITION  
PART PLAN**

**Phase**  
**BID DOCUMENTS**

**Drawn By:** **Checked By:** **Date:**  
10/15/2021

**Seal & Signature**

**STATE OF NEW YORK**  
**MICHAEL MCMANIS**  
82939  
LICENSED PROFESSIONAL ENGINEER

**DASNY Project No:**  
**360880**  
**Drawing Number**  
**DM-105**  
**Drawing**  
9  
**of**  
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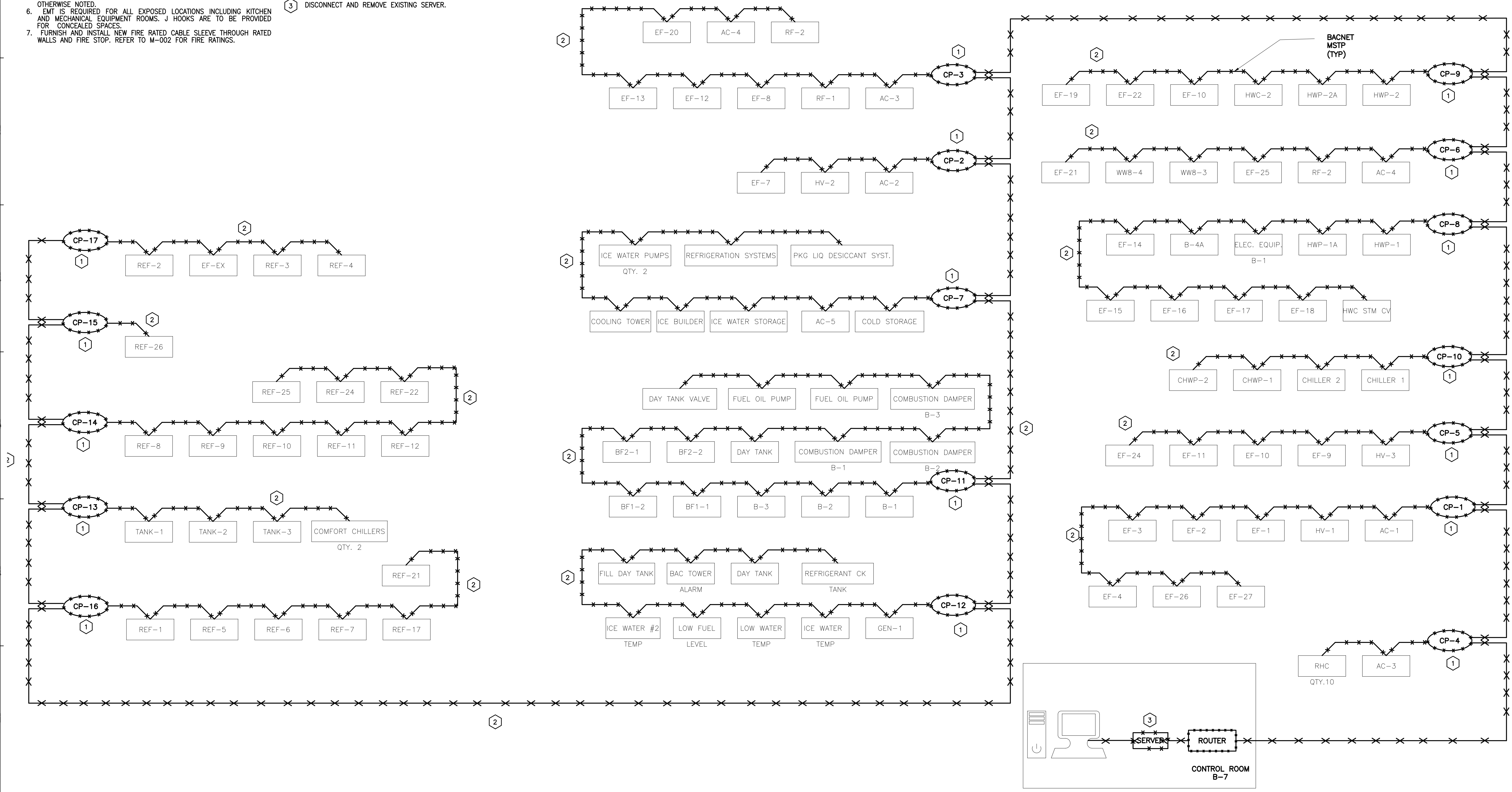


GENERAL NOTES

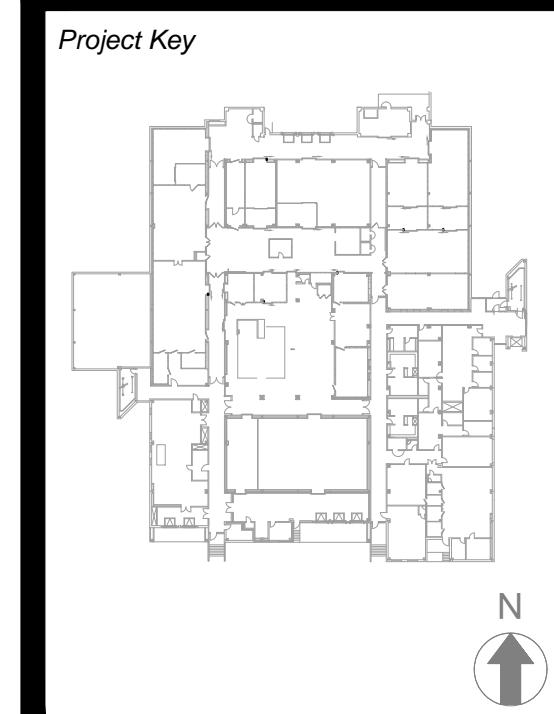
1. ALL PENETRATIONS THROUGH THE FLOOR TO BE SEALED AS IF FLOORS ARE 1-HR FIRE RATED.
2. IF THERE IS AN AIR PLENUM WITH NON-DUCTED SUPPLY, RETURN OR EXHAUST, CONTRACTOR IS TO PROVIDE PLENUM RATED CABLE. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING ROOMS: 1-17, 1-18, 1-24, 1-38, 1-41, 1-51 & 1-55.
3. PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
5. ALL SENSORS AND UNITARY CONTROLLERS TO REMAIN UNLESS OTHERWISE NOTED.
6. EMT IS REQUIRED FOR ALL EXPOSED LOCATIONS INCLUDING KITCHEN AND MECHANICAL EQUIPMENT ROOMS. J HOOKS ARE TO BE PROVIDED FOR CONCEALED SPACES.
7. FURNISH AND INSTALL NEW FIRE RATED CABLE SLEEVE THROUGH RATED WALLS AND FIRE STOP. REFER TO M-002 FOR FIRE RATINGS.

KEYED DEMOLITION NOTES

1. DISCONNECT AND REMOVE EXISTING CONTROLLERS WITHIN ENCLOSURE. CONTROLLER TO BE REMOVED AFTER ALL EQUIPMENT CONTROL POINTS HAVE BEEN MIGRATED TO NEW CONTROLLER. NEW COMMUNICATIONS CABLING AND RACEWAYS SHOULD BE INSTALLED PARALLEL TO EXISTING PRIOR TO REMOVING EXISTING CABLING AND WIRING.
2. DISCONNECT AND REMOVE EXISTING COMMUNICATION CABLING ONCE THE NEW CABLING IS INSTALLED AND ALL NEW CONTROLLERS ARE OPERATIONAL. DISCONNECT AND REMOVE EXISTING CONDUIT SERVING DEMOLISHED BMS SYSTEM IN EXPOSED AREAS UPON COMPLETION OF WORK.
3. DISCONNECT AND REMOVE EXISTING SERVER.



1 COMMUNICATION RISER DEMOLITION DIAGRAM  
SCALE: NTS



REVISIONS

Rev No	Description	Date
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Client  
NEW YORK STATE OF OPPORTUNITY  
Office of Mental Health  
44 HOLLAND AVENUE  
ALBANY, NY 12229

Project Title  
BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

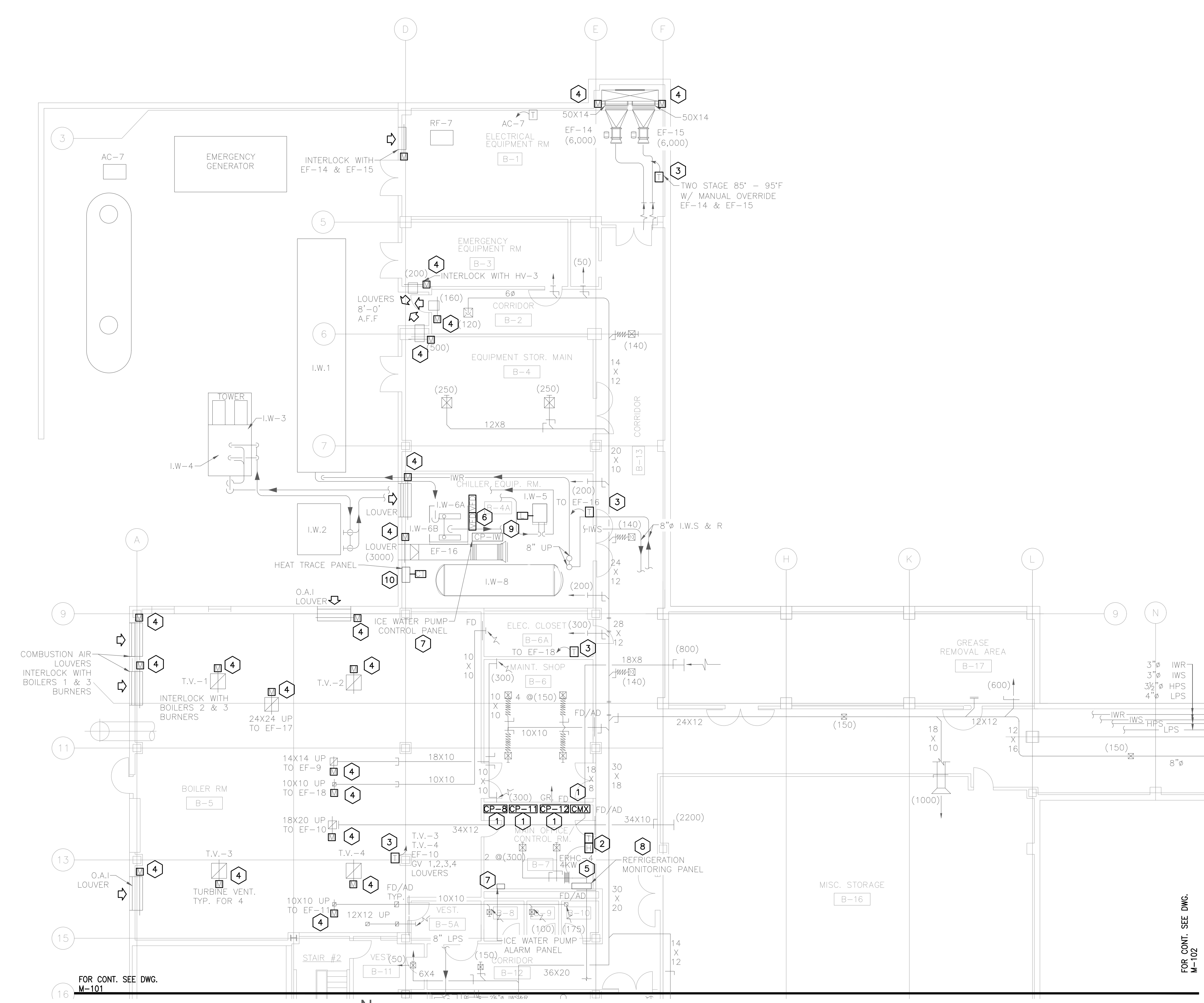
Drawing Title  
COMMUNICATION  
RISER DEMOLITION  
DIAGRAM

Phase  
BID DOCUMENTS

Drawn By: Checked By: Date: 10/15/2021

Seal & Signature  
MICHAEL MCNAMARA  
REGISTERED PROFESSIONAL ENGINEER  
360880  
Drawing Number  
DM-200  
Drawing 10 of 30





1 BASEMENT NORTH CONSTRUCTION PART PLAN  
SCALE: 1/8"=1'-0"

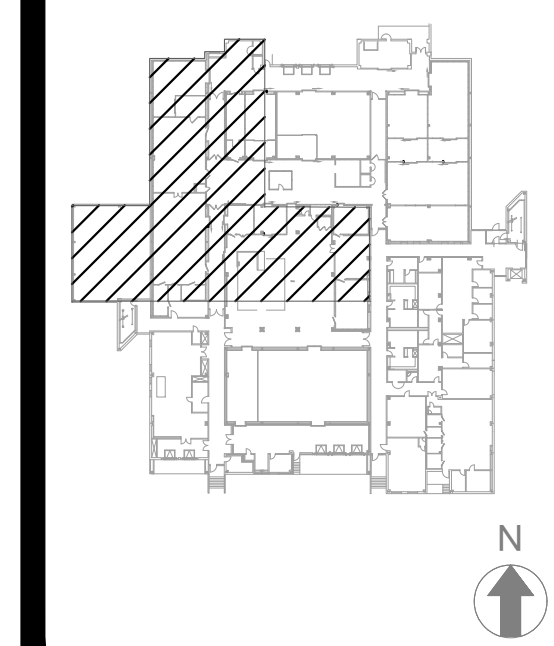
GENERAL NOTES

1. ALL PENETRATIONS THROUGH THE CEILING TO BE SEALED AS IF CEILING IS 1-HR FIRE RATED.
2. PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
3. FIRESTOPPING IS REQUIRED FOR ALL RATED PARTITIONS AS SHOWN ON DRAWING M-002.

KEYED CONSTRUCTION NOTES

1. FURNISH AND INSTALL NEW CONTROLLERS WITHIN NEW LOCKABLE ENCLOSURE WITH EXTRA SPACE FOR FUTURE CONTROLS EXPANSION. ALL EQUIPMENT PREVIOUSLY CONTROLLED BY CONTROLLER TO BE RECONNECTED TO NEW CONTROLLER AS INDICATED ON PLANS. CONTROLLER TO BE CONNECTED TO NEW BMS. CONTRACTOR TO PROVIDE SOFTWARE AND GRAPHICS FOR ALL EXISTING AND NEW CONTROL POINTS. ANY CABLES TO NETWORK PENETRATING MECHANICAL SHAFT WALL TO RUN THROUGH ASSOCIATED FIRE RATING CABLE SLEEVE. FIRE STOPPING TO BE INSTALLED AROUND ANY RACEWAY PENETRATIONS OF FIRE RATED CONSTRUCTION. REFER TO M-002 DRAWING FOR FIRE RATINGS.
2. FURNISH AND INSTALL NEW BLANK FACE DDC COMBINATION TEMPERATURE AND HUMIDITY SENSORS FOR CONTROL OF REHEAT COILS AT LOCATION OF PREVIOUS TEMPERATURE SENSORS. CONTRACTOR IS TO FURNISH AND INSTALL NEW ELECTRICAL BOX, WHERE REQUIRED AND INTEGRATE SENSORS TO THE BMS.
3. FURNISH AND INSTALL NEW BLANK FACE DDC TEMPERATURE SENSORS AT LOCATIONS OF PREVIOUS SENSORS. CONTRACTOR IS TO FURNISH AND INSTALL NEW ELECTRICAL BOX, WHERE REQUIRED AND INTEGRATE SENSORS TO THE BMS.
4. FURNISH AND INSTALL NEW ELECTRIC DAMPER ACTUATORS AND CONNECT TO EXISTING DAMPER SHAFT. ACTUATORS TO BE CONNECTED TO SAME CONTROLLER AS ASSOCIATED SYSTEM.
5. FURNISH AND INSTALL NEW NETWORK WIRING AND COMMUNICATION CABLEING TO INTEGRATE ELECTRIC REHEAT COIL TO NEW BMS. REFER TO CONTROLS POINTS LIST FOR CONTROL POINTS.
6. FURNISH AND INSTALL NEW COMBINATION VFDS WITH DISCONNECT SWITCH FOR TWO 40HP ICE PUMPS AND INTEGRATE TO NEW BMS.
7. FURNISH AND INSTALL NEW NETWORK WIRING AND COMMUNICATION CABLEING TO INTEGRATE CONTROL PANEL CP-IW AND ALARM PANEL FOR ICE WATER PUMP SYSTEM TO THE BMS. REFER TO OOS PROJECT J1435 AND COORDINATE WITH DASNY AND CCPC.
8. FURNISH AND INSTALL NEW NETWORK WIRING AND COMMUNICATION CABLEING TO INTEGRATE PARATEMP SYSTEM TO NEW BMS.
9. FURNISH AND INSTALL NEW LEVEL SWITCH, NETWORK WIRING, COMMUNICATION CABLEING AND SCHEDULING TO INTEGRATE ICE BUILD CONTROL POINTS.
10. FURNISH AND INSTALL NEW CURRENT TRANSDUCER, NETWORK WIRING AND COMMUNICATION CABLEING TO INTEGRATE HEAT TRACE PANEL TO THE BMS.

Project Key



REVISIONS

Rev No	Description	Date:

Client  
NEW YORK STATE OF OPPORTUNITY  
Office of Mental Health  
44 HOLLAND AVENUE  
ALBANY, NY 12229

Project Title  
BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title  
MECHANICAL  
BASEMENT NORTH  
CONSTRUCTION  
PART PLAN

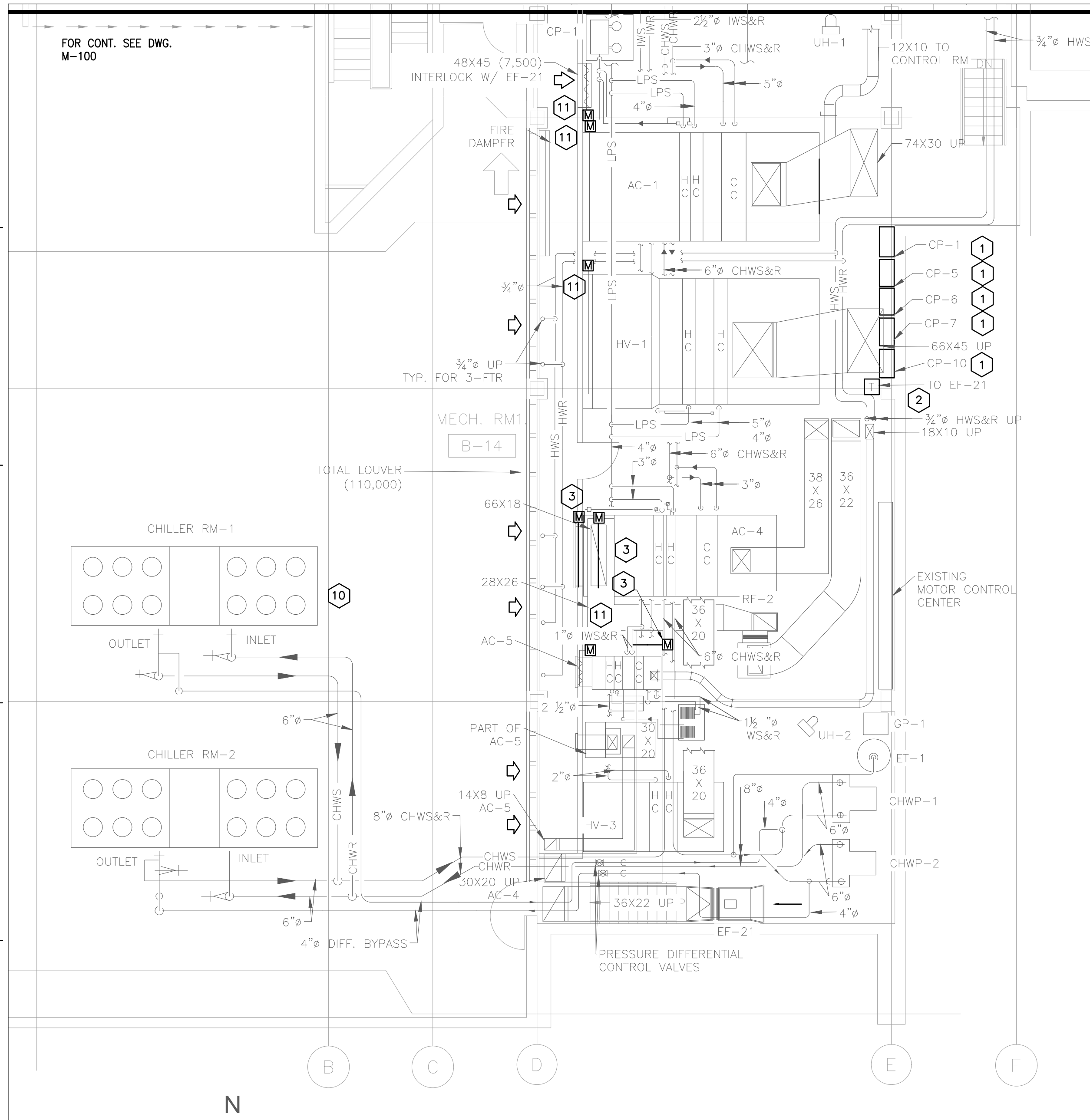
Phase

BID DOCUMENTS  
Drawn By:      Checked By:      Date: 10/15/2021

Seal & Signature  
DASNY Project No: 360880  
Drawing Number

STATE OF NEW YORK  
MICHAEL MCNAMARA  
29939  
LICENSED PROFESSIONAL ENGINEER  
M-100  
Drawing 11 of 30





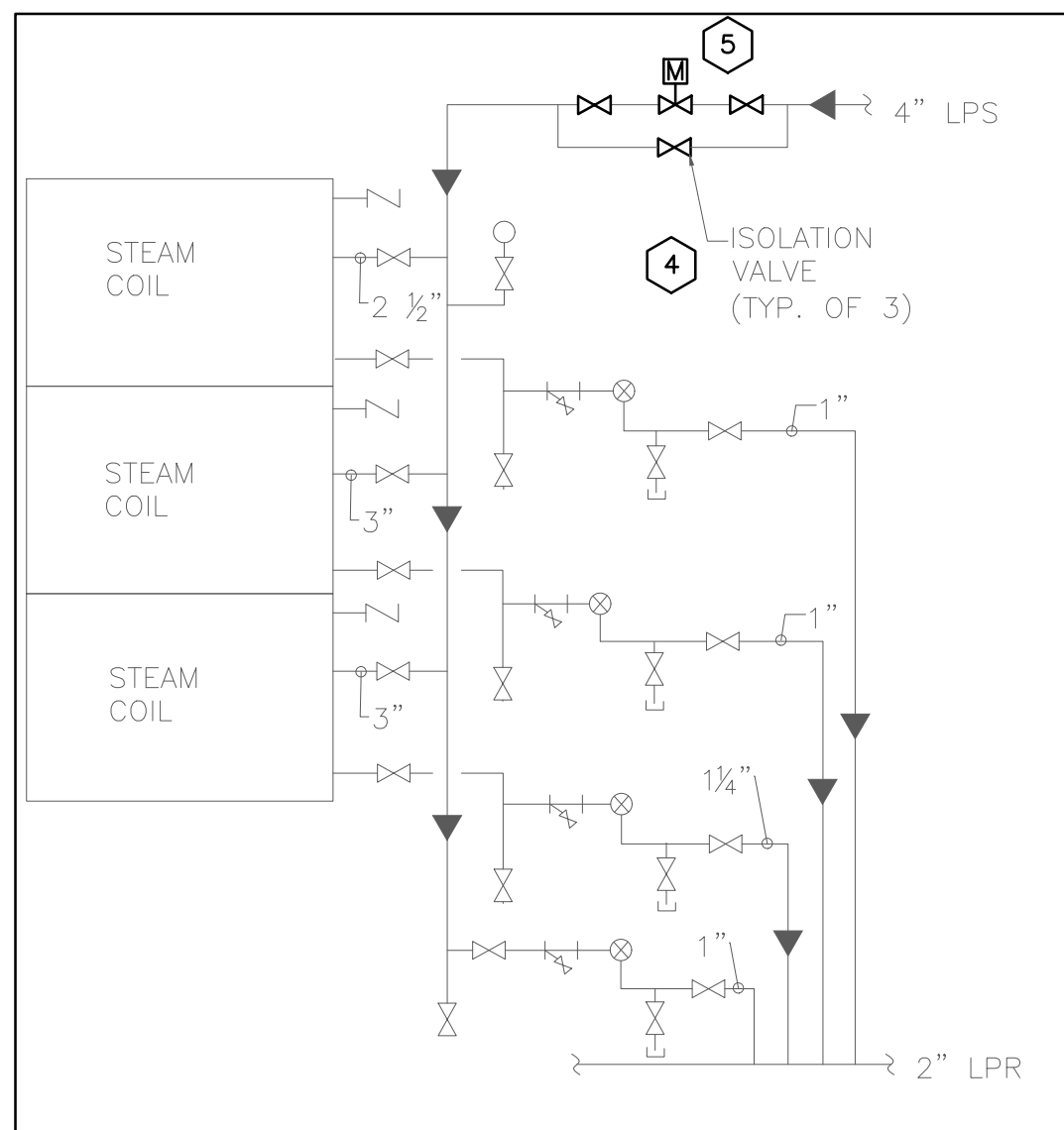
**1 MECHANICAL ROOM 1 CONSTRUCTION PART PLAN**  
SCALE: 1/8"=1'-0"

#### GENERAL NOTES

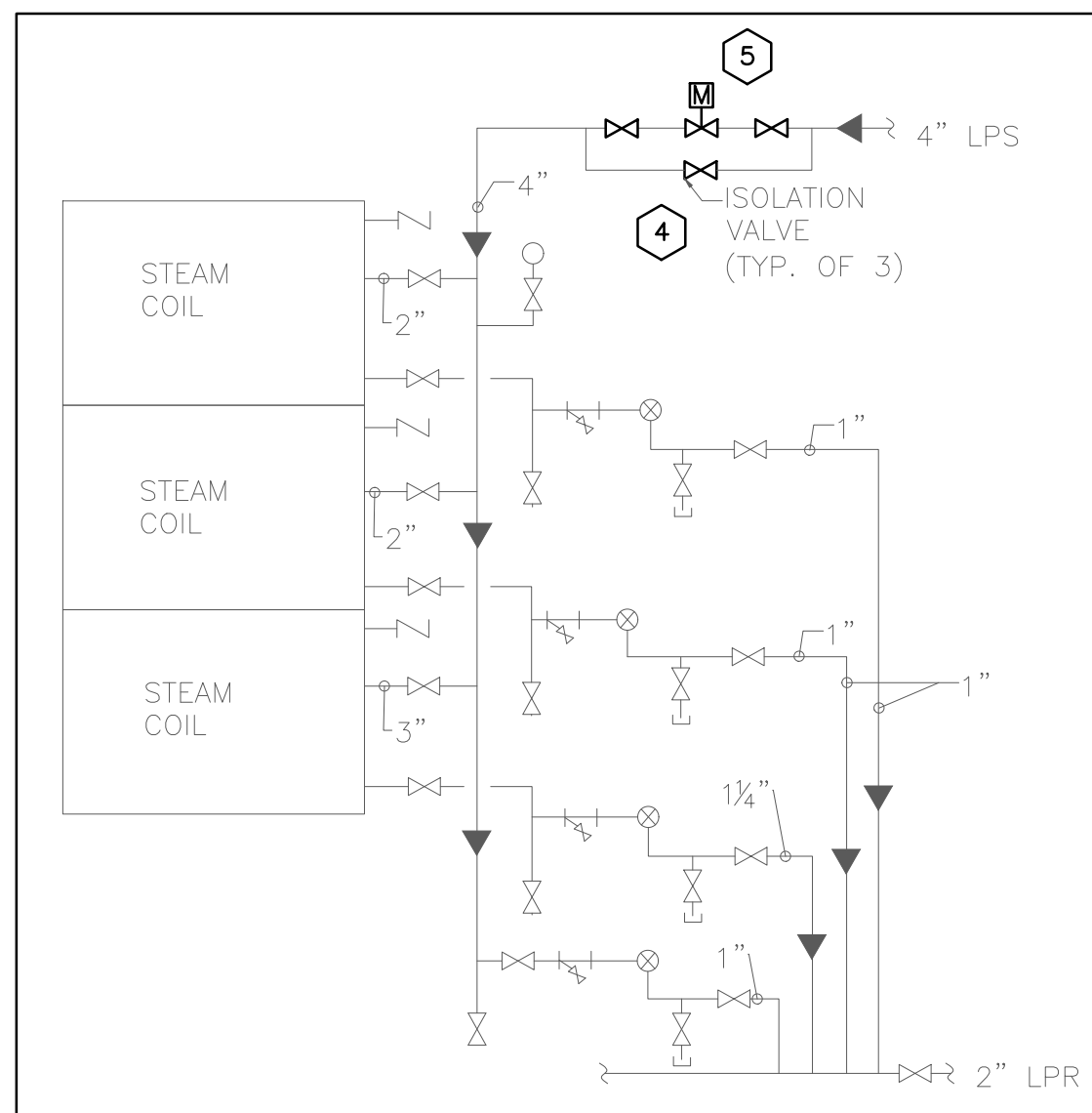
- ALL PENETRATIONS TO THROUGH THE CEILING TO BE SEALED AS IF CEILING IS 1-HR FIRE RATED.
- PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
- FIRESTOPPING IS REQUIRED FOR ALL RATED PARTITIONS AS SHOWN ON DRAWING M-002.

#### KEYED CONSTRUCTION NOTES

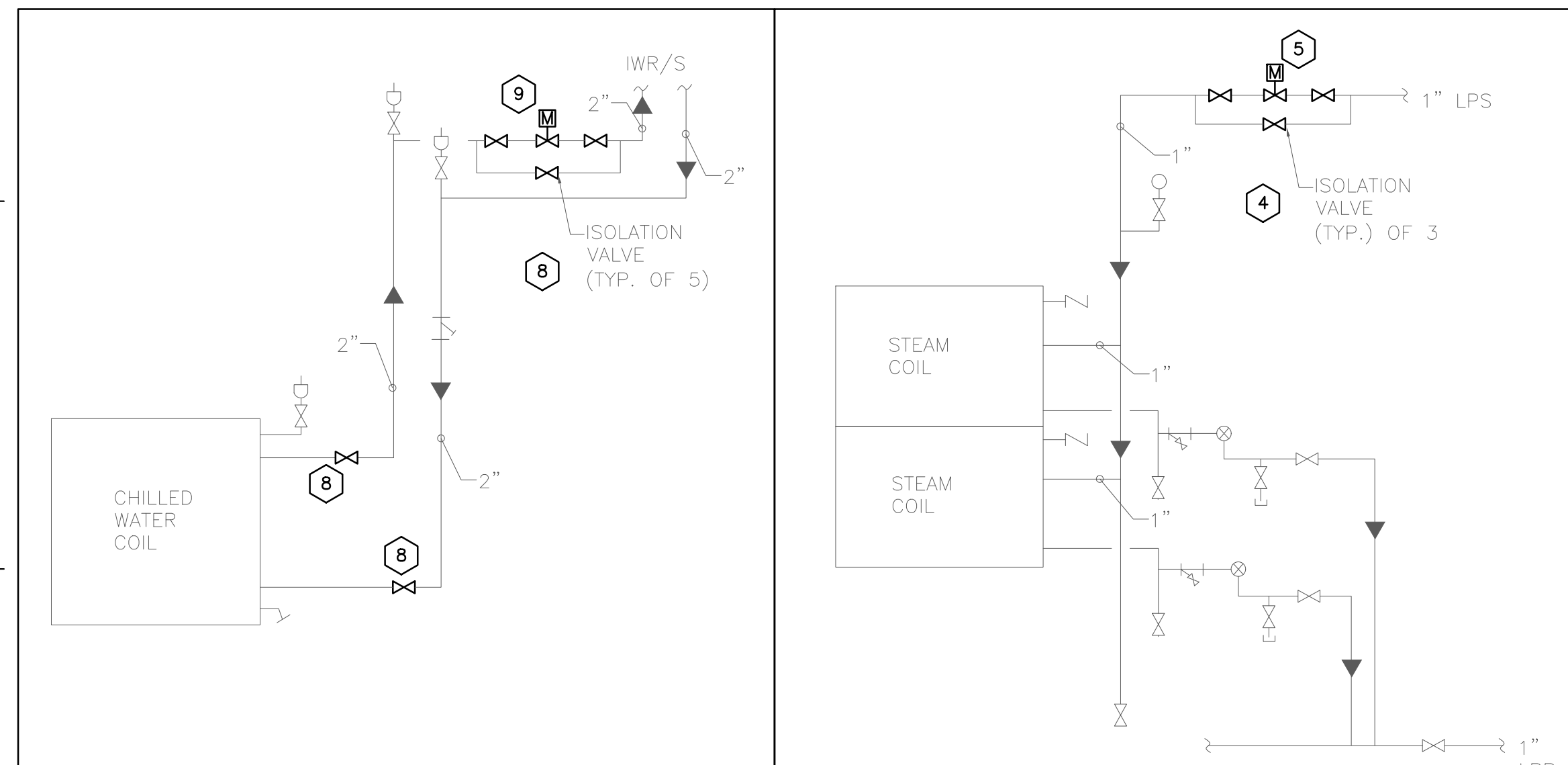
- FURNISH AND INSTALL NEW CONTROLLERS WITHIN NEW LOCKABLE ENCLOSURE WITH EXTRA SPACE FOR FUTURE CONTROLS EXPANSION. ALL EQUIPMENT PREVIOUSLY CONTROLLED BY CONTROLLER TO BE RECONNECTED TO NEW CONTROLLER AS INDICATED ON PLANS. CONTROLLER TO BE CONNECTED TO NEW BMS. CONTRACTOR TO PROVIDE SOFTWARE AND GRAPHICS FOR ALL EXISTING AND NEW CONTROL POINTS. ANY CABLES TO NETWORK PENETRATING MECHANICAL SHAFT WALL TO RUN THROUGH ASSOCIATED FIRE RATING CABLE SLEEVE. FIRE STOPPING TO BE INSTALLED AROUND ANY RACEWAY PENETRATIONS OF FIRE RATED CONSTRUCTION. REFER TO M-002 DRAWING FOR FIRE RATINGS.
- FURNISH AND INSTALL NEW BLANK FACE DDC TEMPERATURE SENSORS AT LOCATIONS OF PREVIOUS SENSORS. CONTRACTOR IS TO FURNISH AND INSTALL NEW ELECTRICAL BOX, WHERE REQUIRED AND INTEGRATE SENSORS TO THE BMS.
- FURNISH AND INSTALL NEW DAMPER AND ELECTRIC ACTUATOR IN LOCATION OF PREVIOUS DAMPER TO BE CONNECTED TO SAME CONTROLLER AS ASSOCIATED SYSTEM.
- FURNISH AND INSTALL NEW ISOLATION VALVES ON LPS SERVING AHU HEATING COILS AND HEAT EXCHANGERS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- FURNISH AND INSTALL NEW ELECTRIC ACTUATED 2-WAY STEAM CONTROL VALVE ON LPS PIPE SERVING HEATING COIL. RECONNECT TO SAME CONTROLLER AS ASSOCIATED SYSTEM. CONTRACTOR TO PROVIDE SOFTWARE AND GRAPHICS FOR ALL EXISTING AND NEW CONTROL POINTS. INSULATE ALL PIPING AND FITTINGS IN ACCORDANCE TO SPECIFICATION 230719. CONTRACTOR TO PROVIDE CONTROL WIRING, CONDUIT, AND OTHER CONTROL DEVICES.
- FURNISH AND INSTALL NEW ISOLATION VALVES ON CHWS AND CHWR SERVING AHU COOLING COILS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- FURNISH AND INSTALL NEW ELECTRIC ACTUATED 2-WAY HYDRONIC CONTROL VALVE ON CHWR PIPE SERVING COOLING COIL. RECONNECT TO SAME CONTROLLER AS ASSOCIATED SYSTEM. CONTRACTOR TO PROVIDE SOFTWARE AND GRAPHICS FOR ALL EXISTING AND NEW CONTROL POINTS. INSULATE ALL PIPING AND FITTINGS IN ACCORDANCE TO SPECIFICATION 230719. CONTRACTOR TO PROVIDE CONTROL WIRING, CONDUIT, AND OTHER CONTROL DEVICES.
- FURNISH AND INSTALL NEW ISOLATION VALVES ON IWS AND IWR SERVING AHU COOLING COILS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- FURNISH AND INSTALL NEW ELECTRIC ACTUATED 2-WAY HYDRONIC CONTROL VALVE ON IWR PIPE SERVING COOLING COIL. RECONNECT TO SAME CONTROLLER AS ASSOCIATED SYSTEM. CONTRACTOR TO PROVIDE SOFTWARE AND GRAPHICS FOR ALL EXISTING AND NEW CONTROL POINTS. INSULATE ALL PIPING AND FITTINGS IN ACCORDANCE TO SPECIFICATION 230719. CONTRACTOR TO PROVIDE CONTROL WIRING, CONDUIT, AND OTHER CONTROL DEVICES.
- CONTRACTOR TO PROVIDE EXTRA SPACE FOR ADDITIONAL CONTROLS POINTS THAT COULD BE ADDED DURING COMFORT CHILLER REPLACEMENT PROJECT. COORDINATE WITH DASNY AND CCPC.
- FURNISH AND INSTALL NEW ELECTRIC DAMPER ACTUATORS AND CONNECT TO EXISTING DAMPER SHAFT. ACTUATORS TO BE CONNECTED TO SAME CONTROLLER AS ASSOCIATED SYSTEM.



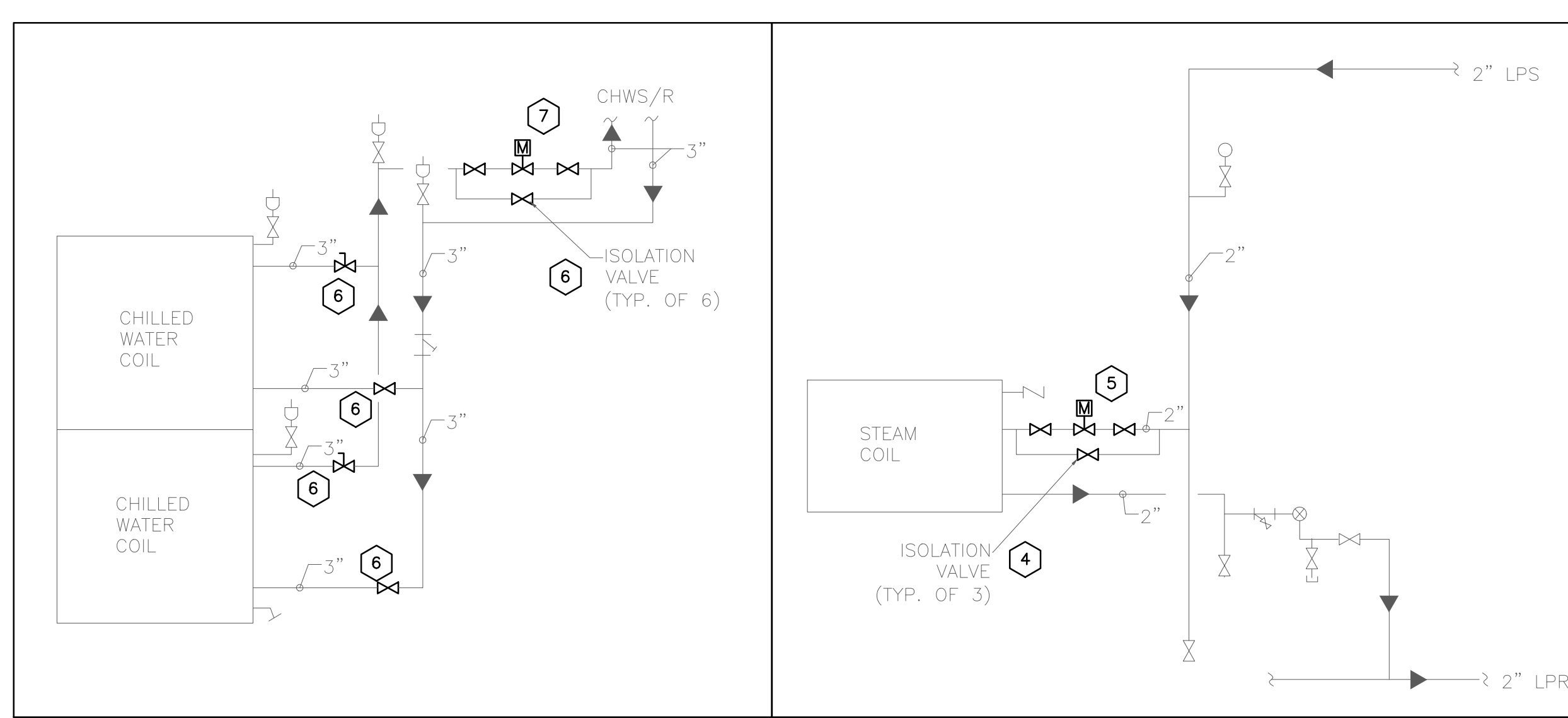
**2 HV-1 CONSTRUCTION COIL DETAILS**  
SCALE: NOT TO SCALE



**3 AC-1 CONSTRUCTION COIL DETAILS**  
SCALE: NOT TO SCALE



**4 AC-5 CONSTRUCTION COIL DETAILS**  
SCALE: NOT TO SCALE



**5 AC-4 CONSTRUCTION COIL DETAILS**  
SCALE: NOT TO SCALE

**NEW YORK STATE OF OPPORTUNITY** **DASNY**

515 Broadway, Albany, New York 12207-2964  
One Penn Plaza, 52 Floor, NY, NY 10119-0098  
539 Franklin Street, Buffalo, NY 14202-1109  
WWW.DASNY.ORG

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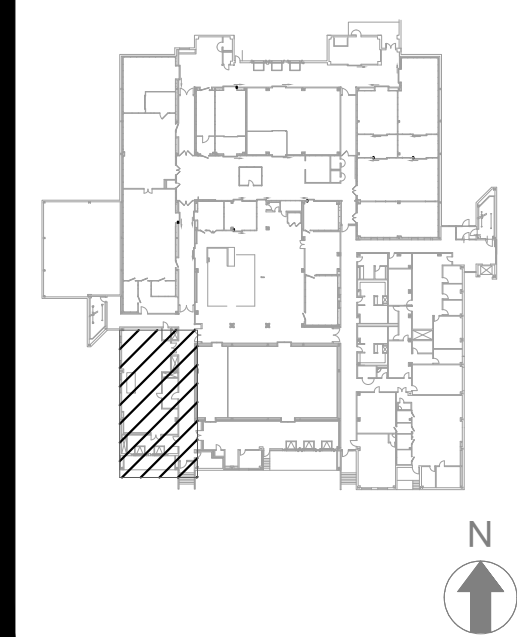
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**Consultants:**

**EME Group**  
Consulting Engineers  
129 West 27th Street  
New York, NY, 10001  
(212) 529-5969

292 Washington Ave Ext  
Albany, NY, 12203  
(518) 862-0862

#### Project Key



#### REVISIONS

Rev No	Description	Date

#### Client

**NEW YORK STATE OF OPPORTUNITY** **Office of Mental Health**  
44 HOLLAND AVENUE  
ALBANY, NY 12229

#### Project Title

**BMS REPLACEMENT**  
**COOK CHILL PRODUCTION CENTER**  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

#### Drawing Title

**MECHANICAL ROOM 1**  
**CONSTRUCTION**  
**PART PLAN**

#### Phase

#### BID DOCUMENTS

Drawn By: Checked By: Date: 10/15/2021

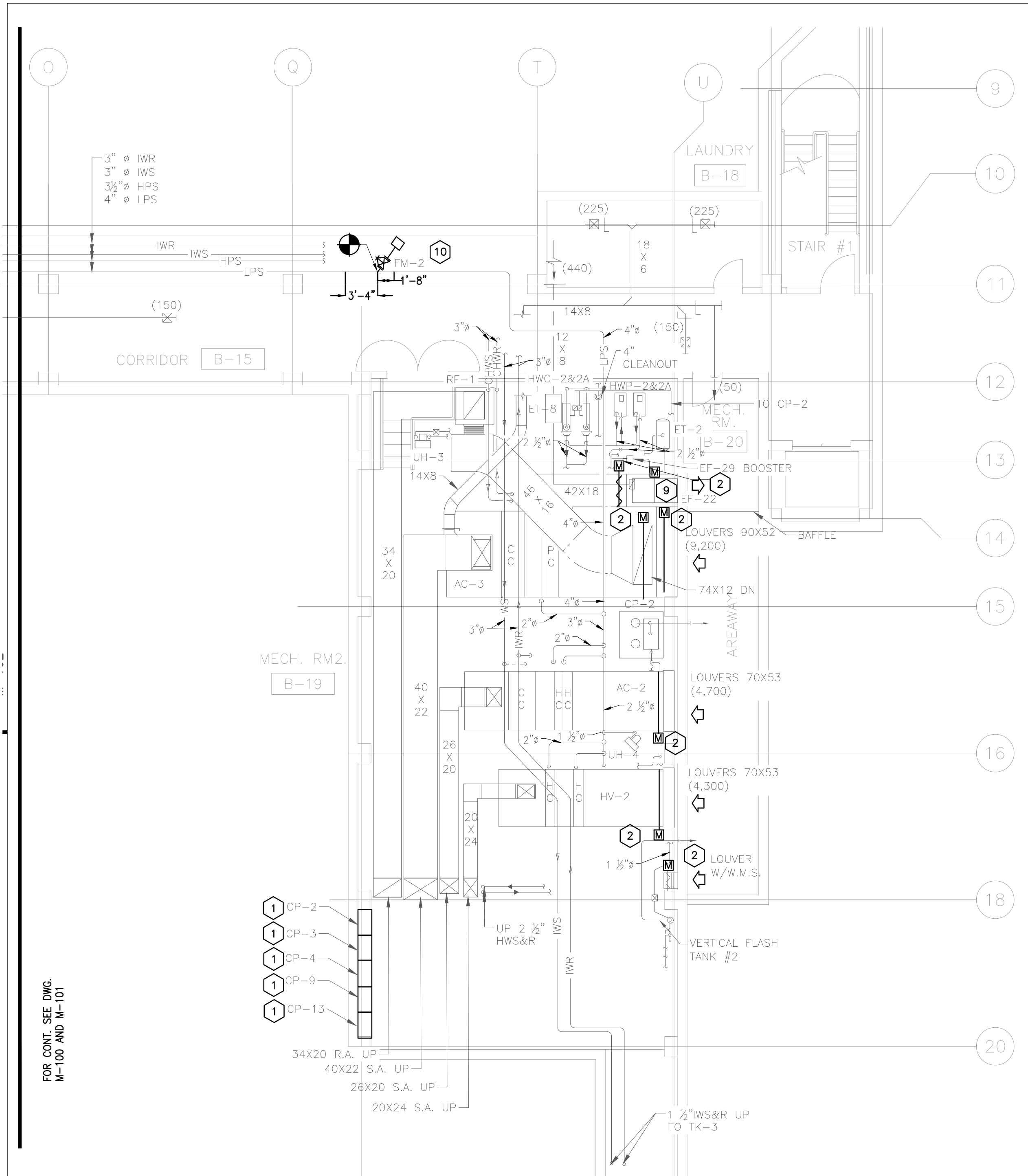
Seal & Signature DASNY Project No: 360880

Drawing Number



**M-101**  
Drawing 12 of 30





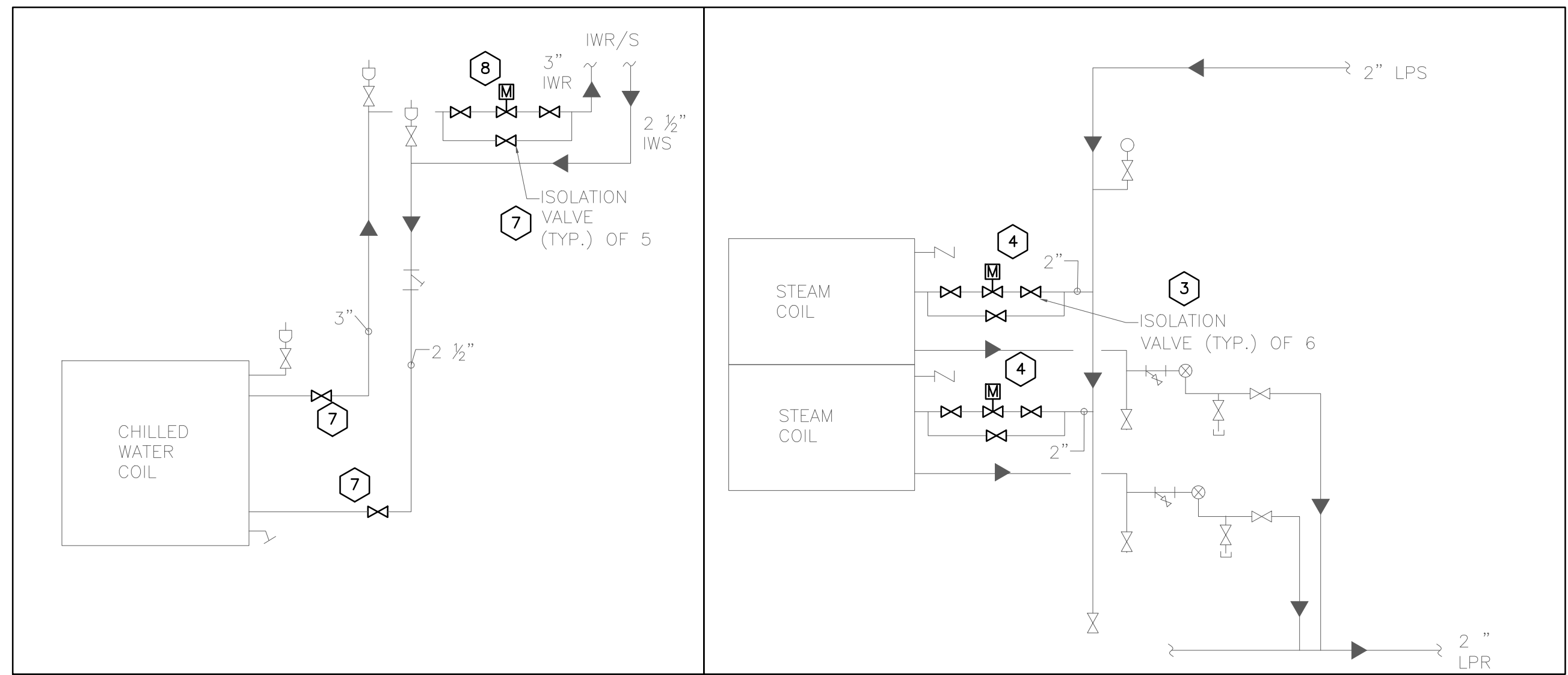
**1 MECHANICAL ROOM 2 CONSTRUCTION PART PLAN**  
SCALE: 1/8"=1'-0"

**GENERAL NOTES**

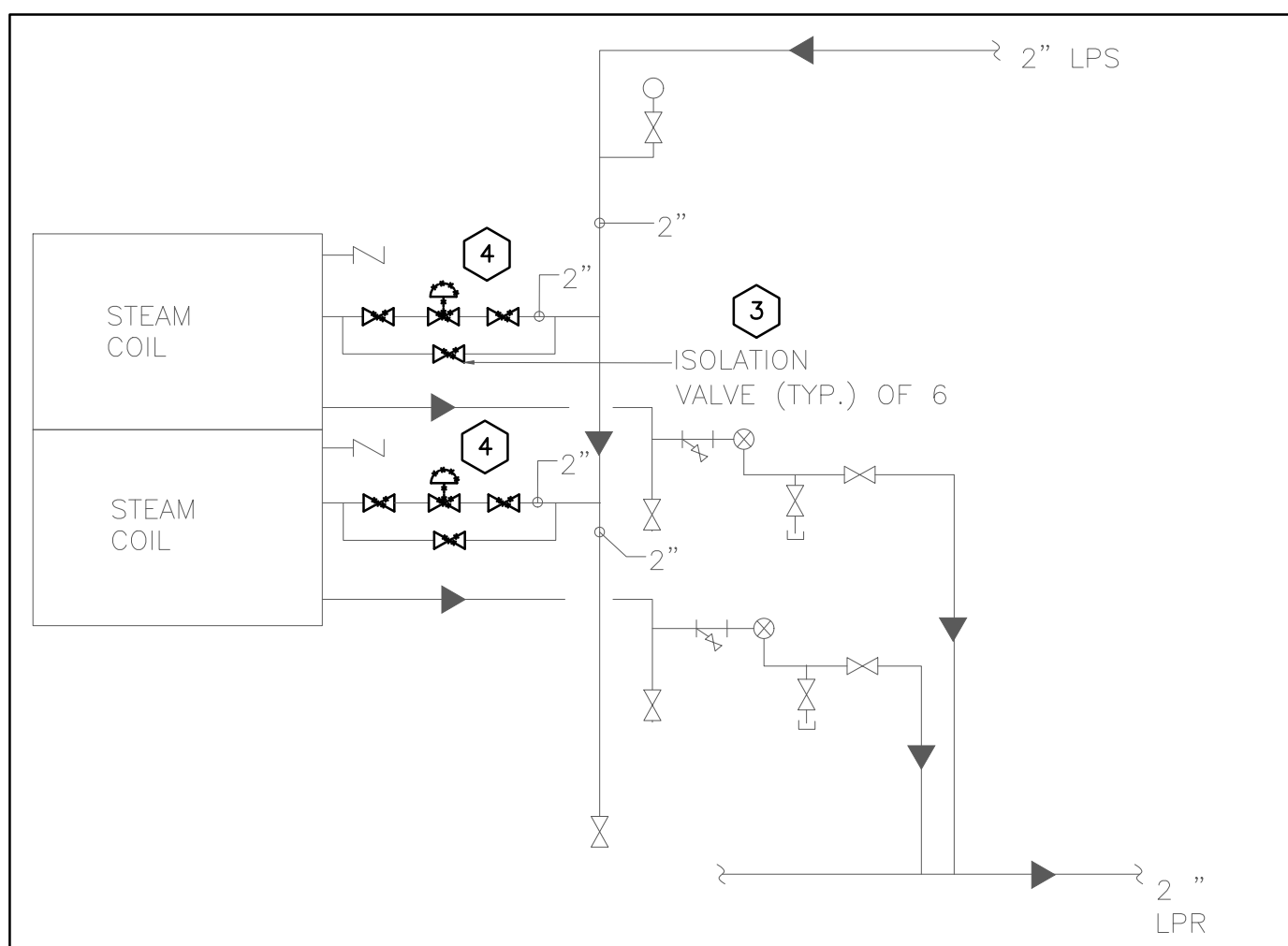
1. ALL PENETRATIONS TO THROUGH THE CEILING TO BE SEALED AS IF CEILING IS 1-HR FIRE RATED.
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3. FIRESTOPPING IS REQUIRED FOR ALL RATED PARTITIONS AS SHOWN ON DRAWING M-002.

**KEYED CONSTRUCTION NOTES**

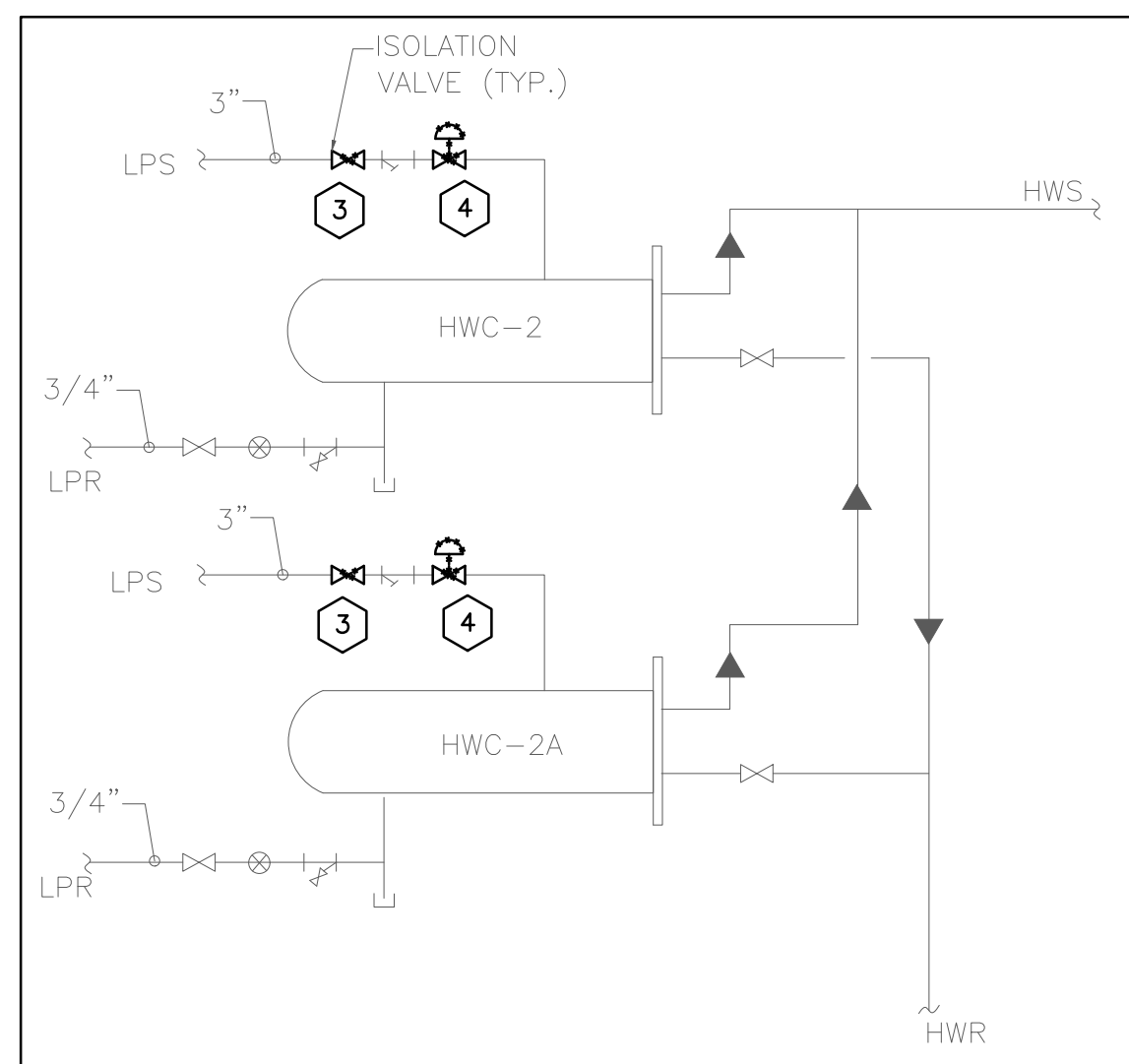
- 1 FURNISH AND INSTALL NEW CONTROLLERS WITHIN NEW LOCKABLE ENCLOSURE WITH EXTRA SPACE FOR FUTURE CONTROLS EXPANSION. ALL EQUIPMENT PREVIOUSLY CONTROLLED BY CONTROLLER TO BE RECONNECTED TO NEW CONTROLLER AS INDICATED ON PLANS. CONTROLLER TO BE CONNECTED TO NEW BMS. CONTRACTOR TO PROVIDE SOFTWARE AND GRAPHICS FOR ALL EXISTING AND NEW CONTROL POINTS. ANY CABLES TO NETWORK PENETRATING MECHANICAL SHAFT WALL TO RUN THROUGH ASSOCIATED FIRE RATING CABLE SLEEVE. FIRE STOPPING TO BE INSTALLED AROUND ANY RACEWAY PENETRATIONS OF FIRE RATED CONSTRUCTION. REFER TO M-002 DRAWING FOR FIRE RATINGS.
- 2 FURNISH AND INSTALL NEW DAMPER AND ELECTRIC ACTUATOR IN LOCATION OF PREVIOUS DAMPER TO BE CONNECTED TO SAME CONTROLLER AS ASSOCIATED SYSTEM.
- 3 FURNISH AND INSTALL NEW ISOLATION VALVES ON LPS SERVING AHU HEATING COILS AND HEAT EXCHANGERS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- 4 FURNISH AND INSTALL NEW ELECTRIC ACTUATED 2-WAY STEAM CONTROL VALVE ON LPS PIPE SERVING HEATING COIL. RECONNECT TO SAME CONTROLLER AS ASSOCIATED SYSTEM. CONTRACTOR TO PROVIDE SOFTWARE AND GRAPHICS FOR ALL EXISTING AND NEW CONTROL POINTS. INSULATE ALL PIPING AND FITTINGS IN ACCORDANCE TO SPECIFICATION 230719. CONTRACTOR TO PROVIDE CONTROL WIRING, CONDUIT, AND OTHER CONTROL DEVICES.
- 5 FURNISH AND INSTALL NEW ISOLATION VALVES ON CHWS AND CHWR SERVING AHU COOLING COILS. REFER TO M-001 FOR PHASING PLAN AND COIL AND DETAILS FOR QUANTITIES AND SIZES.
- 6 FURNISH AND INSTALL NEW ELECTRIC ACTUATED 2-WAY HYDRONIC CONTROL VALVE ON CHWR PIPE SERVING COOLING COIL. RECONNECT TO SAME CONTROLLER AS ASSOCIATED SYSTEM. CONTRACTOR TO PROVIDE SOFTWARE AND GRAPHICS FOR ALL EXISTING AND NEW CONTROL POINTS. INSULATE ALL PIPING AND FITTINGS IN ACCORDANCE TO SPECIFICATION 230719. CONTRACTOR TO PROVIDE CONTROL WIRING, CONDUIT, AND OTHER CONTROL DEVICES.
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- 9 FURNISH AND INSTALL NEW ELECTRIC DAMPER ACTUATORS AND CONNECT TO EXISTING DAMPER SHAFT. ACTUATORS TO BE CONNECTED TO SAME CONTROLLER AS ASSOCIATED SYSTEM.
- 10 FURNISH AND INSTALL NEW TURBINE STEAM FLOW METER WITH 2" GATE VALVE ON 4" LPS WITH A ROTATION OF 45 DEGREES TO ALLOW REQUIRED CLEARANCE OF METER. METER TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. A MINIMUM 10" DIAMETER UPSTREAM AND 5" DIAMETER DOWNSTREAM OF METER IS REQUIRED. (BASIS OF DESIGN SPIRAX SARCO RIM20). SEE DETAIL 3JM-106.



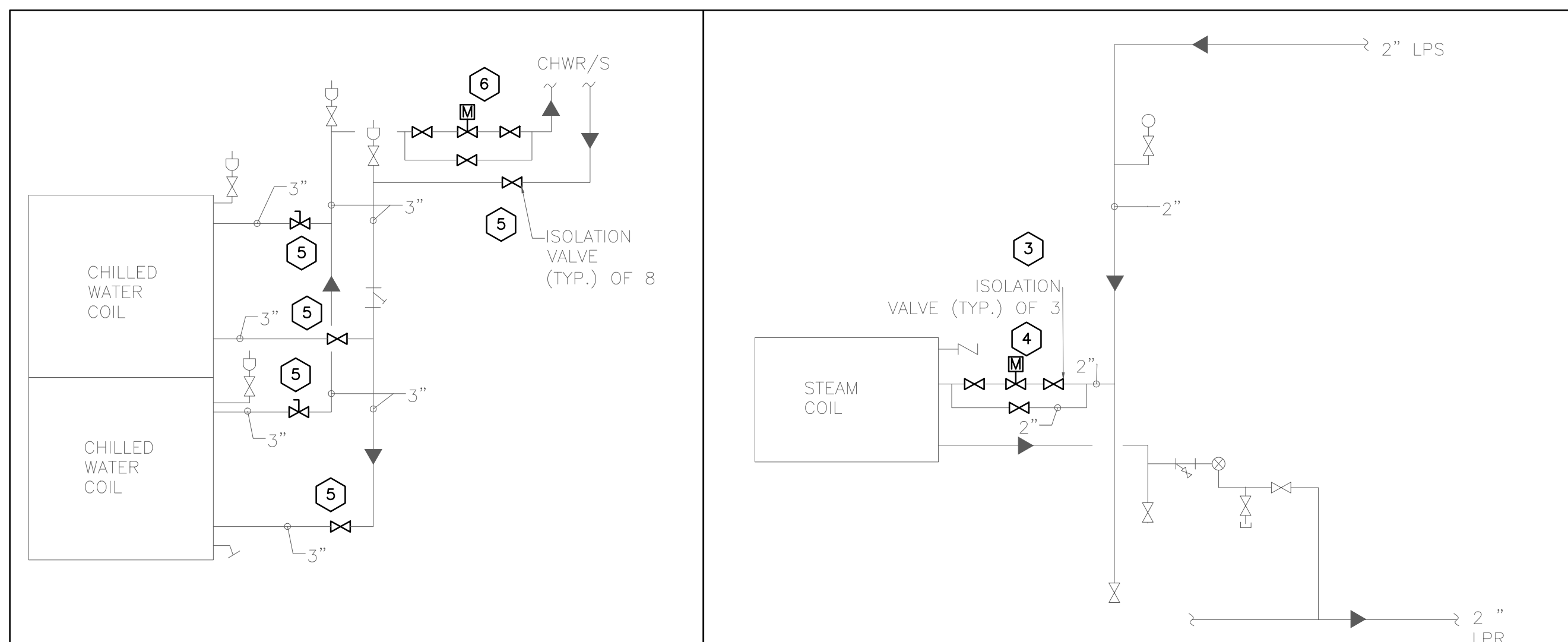
**2 AC-2 CONSTRUCTION COIL DETAILS**  
SCALE: NOT TO SCALE



**3 HV-2 CONSTRUCTION COIL DETAILS**  
SCALE: NOT TO SCALE



**4 HWC-2&2A CONSTRUCTION COIL DETAILS**  
SCALE: NOT TO SCALE



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SCALE: NOT TO SCALE

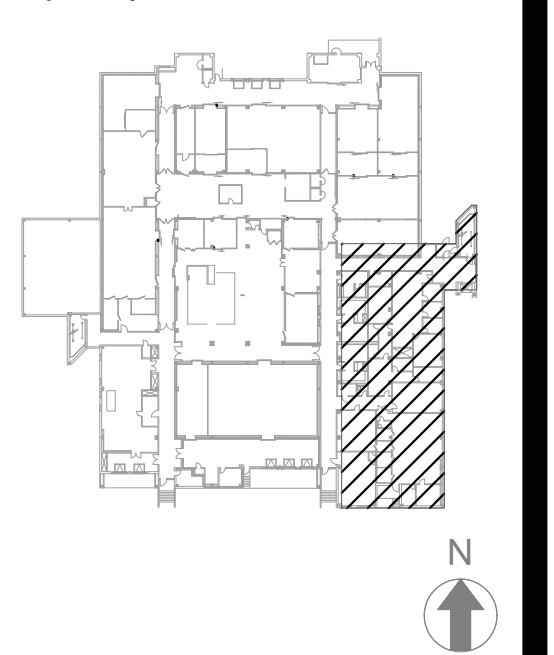
**Consultants:**



EME Group  
Consulting Engineers  
129 West 27th Street  
New York, NY, 10001  
(212) 529-5969

292 Washington Ave Ext  
Albany, NY, 12203  
(518) 862-0862

**Project Key**



**REVISIONS**

Rev No	Description	Date:

**Client**

NEW YORK STATE OF OPPORTUNITY  
Office of Mental Health  
44 HOLLAND AVENUE  
ALBANY, NY 12229

**Project Title**

**BMS REPLACEMENT**  
**COOK CHILL PRODUCTION CENTER**  
145 OLD ORANBURG ROAD  
ORANBURG, NY 10962

**Drawing Title**

**MECHANICAL ROOM 2**  
**CONSTRUCTION**  
**PART PLAN**

**Phase**

**BID DOCUMENTS**

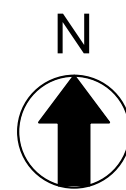
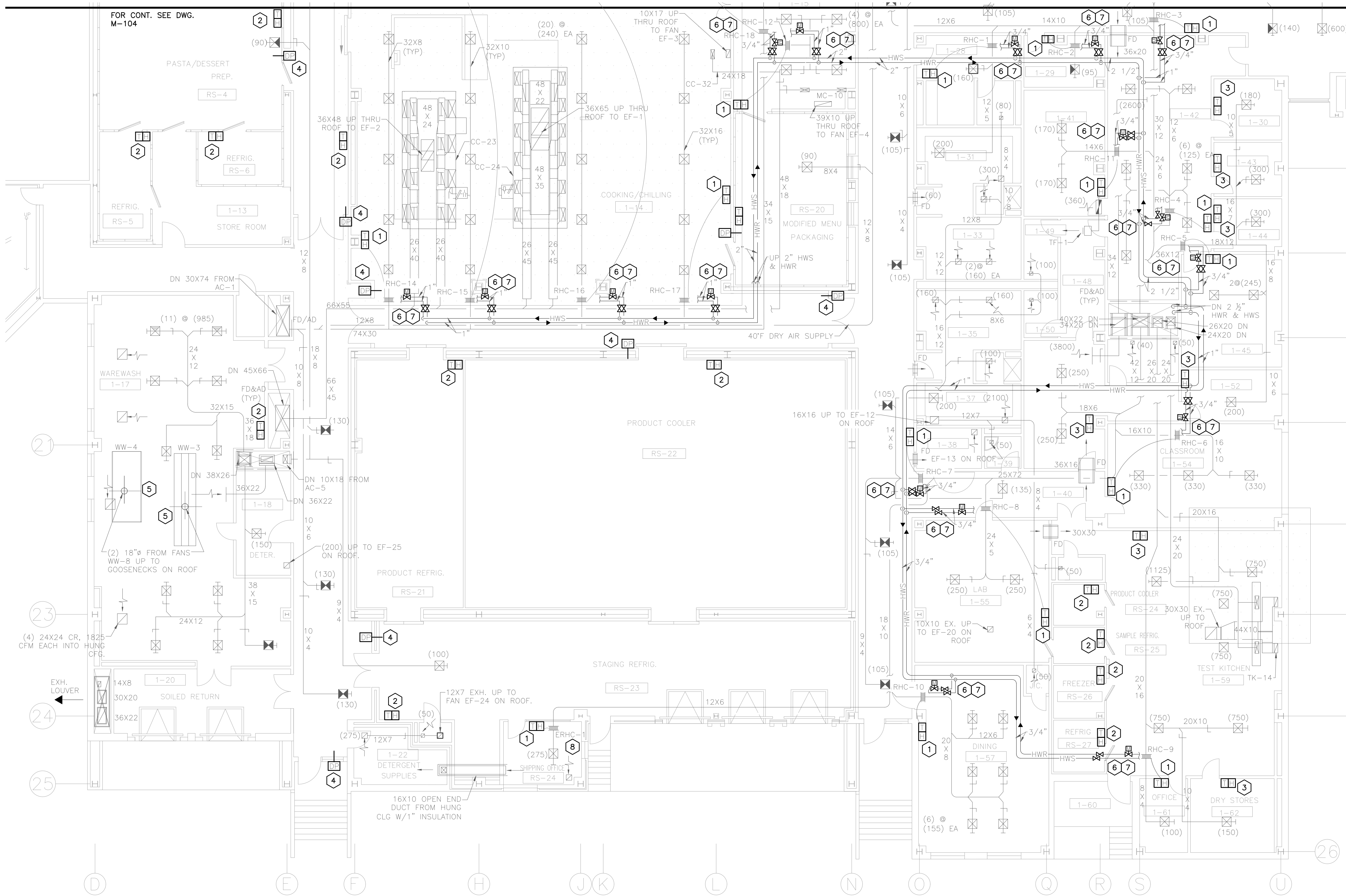
Drawn By:      Checked By:      Date: 10/15/2021

Seal & Signature      DASNY Project No: 360880

Drawing Number

**M-102**  
Drawing 13 of 30





1 1ST FLOOR SOUTH CONSTRUCTION PART PLAN  
SCALE: 3/32"=1'-0"

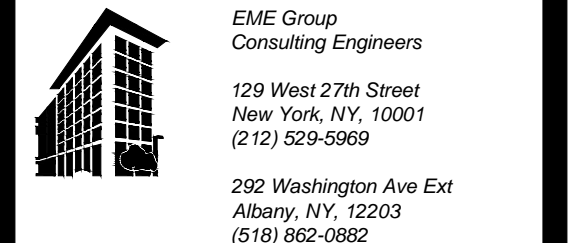
#### GENERAL NOTES

1. ALL PENETRATIONS TO THROUGH THE FLOOR TO BE SEALED AS IF FLOOR IS 1-HR FIRE RATED.
2. IF THERE IS AN AIR PLENUM WITH NON-DUCTED SUPPLY, RETURN OR EXHAUST CONTRACTOR TO PROVIDE PLENUM RATED CABLE. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING ROOMS: 1-17, 1-18, 1-24, 1-38, 1-41, 1-51 & 1-55
3. PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
4. FIRESTOPPING IS REQUIRED FOR ALL RATED PARTITIONS AS SHOWN ON DRAWING M-002.

#### KEYED CONSTRUCTION NOTES

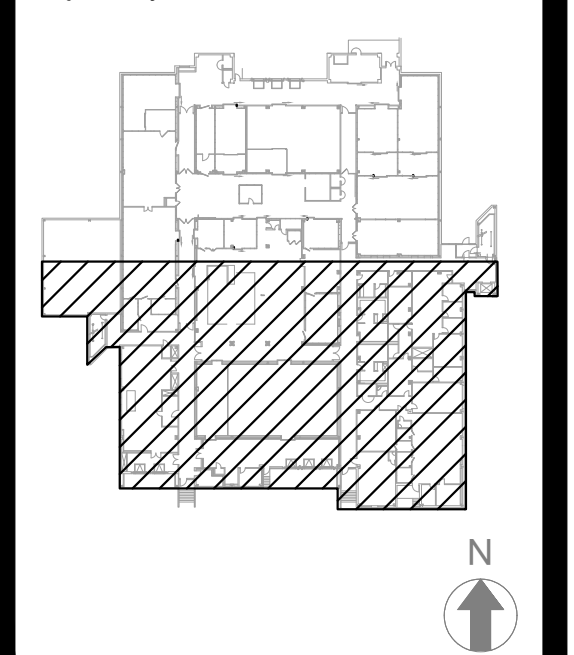
- 1 FURNISH AND INSTALL NEW BLANK FACE DDC COMBINATION TEMPERATURE AND HUMIDITY SENSORS FOR CONTROL OF REHEAT COILS AT LOCATION OF PREVIOUS TEMPERATURE SENSORS. CONTRACTOR IS TO FURNISH AND INSTALL NEW ELECTRICAL BOX, WHERE REQUIRED AND INTEGRATE SENSORS TO THE BMS.
- 2 FURNISH AND INSTALL NEW BLANK FACE DDC COMBINATION TEMPERATURE AND HUMIDITY SENSORS FOR MONITORING. SENSORS LOCATED IN REFRIGERATED BOXES TO BE RATED FOR LOW TEMPERATURES REQUIRED IN SPACE. CONTRACTOR IS TO FURNISH AND INSTALL NEW ELECTRICAL BOX, WHERE REQUIRED AND INTEGRATE SENSORS TO THE BMS.
- 3 FURNISH AND INSTALL NEW BLANK FACE DDC COMBINATION TEMPERATURE AND HUMIDITY SENSORS FOR MONITORING. SENSORS LOCATED IN OFFICE SPACES. CONTRACTOR IS TO FURNISH AND INSTALL NEW ELECTRICAL BOX, WHERE REQUIRED AND INTEGRATE SENSORS TO THE BMS.
- 4 FURNISH AND INSTALL NEW WALL MOUNTED DIFFERENTIAL PRESSURE SENSORS FOR MONITORING IN INDICATED LOCATIONS. SENSORS LOCATED IN REFRIGERATED BOXES TO BE RATED FOR LOW TEMPERATURES REQUIRED IN SPACE AND INTEGRATE SENSORS TO THE BMS.
- 5 FURNISH AND INSTALL NEW ELECTRIC DAMPER ACTUATORS AND CONNECT TO EXISTING DAMPER SHAFT. ACTUATORS TO BE CONNECTED TO SAME CONTROLLER AS ASSOCIATED SYSTEM.
- 6 FURNISH AND INSTALL TWO (2) NEW ISOLATION BALL VALVES ON HWS AND HWR STEEL PIPING SERVING REHEAT COILS.
- 7 FURNISH AND INSTALL NEW ELECTRIC ACTUATED 2-WAY HYDRONIC CONTROL VALVE ON HWR PIPING SERVING REHEAT COIL. INSULATE ALL PIPING AND FITTINGS IN ACCORDANCE TO SPECIFICATION 230719. CONTRACTOR TO PROVIDE CONTROL WIRING, CONDUIT, AND OTHER CONTROL DEVICES REQUIRED TO INTEGRATE REHEAT COIL TO THE BMS.
- 8 INTEGRATE ELECTRIC REHEAT COILS TO THE BMS AND PROVIDE GRAPHICS. REFER TO CONTROLS POINTS LIST FOR CONTROL POINTS.

#### Consultants:



292 Washington Ave Ext  
Albany, NY, 12203  
(518) 862-0882

#### Project Key



#### REVISIONS

Rev No	Description	Date:

#### Client



44 HOLLAND AVENUE  
ALBANY, NY 12229  
Project Title  
**BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER**  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

#### Drawing Title

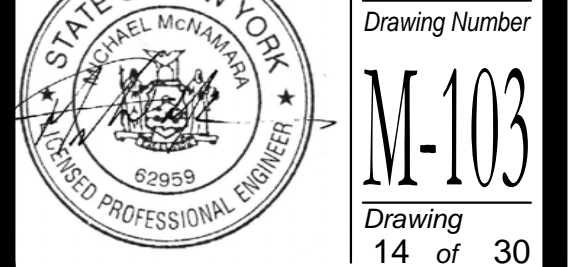
**MECHANICAL  
FIRST FLOOR SOUTH  
CONSTRUCTION  
PART PLAN**

#### Phase

#### BID DOCUMENTS

Drawn By:      Checked By:      Date: 10/15/2021

Seal & Signature      DASNY Project No: 360880  
Drawing Number



**M-103**  
Drawing 14 of 30



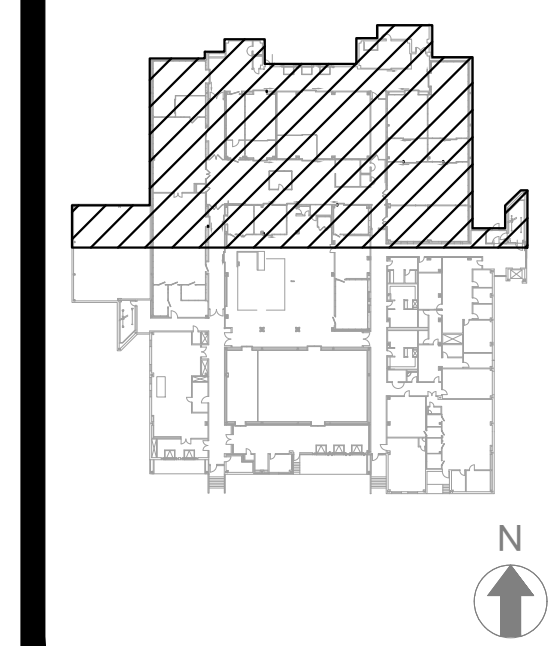
GENERAL NOTES

- ALL PENETRATIONS TO THROUGH THE FLOOR IS 1-HR FIRE RATED.
- IF THERE IS AN AIR PLENUM WITH NON-DUCTED SUPPLY, RETURN OR EXHAUST CONTRACTOR TO PROVIDE PLENUM RATED CABLE. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING ROOMS:  
1-17, 1-18, 1-24, 1-38, 1-41, 1-51 & 1-55
- PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
- FIRESTOPPING IS REQUIRED FOR ALL RATED PARTITIONS AS SHOWN ON DRAWING M-002.

KEYED CONSTRUCTION NOTES

- FURNISH AND INSTALL NEW BLANK FACE DDC COMBINATION TEMPERATURE AND HUMIDITY SENSORS FOR CONTROL OF REHEAT COILS AT LOCATION OF PREVIOUS TEMPERATURE SENSORS. CONTRACTOR IS TO FURNISH AND INSTALL NEW ELECTRICAL BOX, WHERE REQUIRED AND INTEGRATE SENSORS TO THE BMS.
- FURNISH AND INSTALL NEW BLANK FACE DDC COMBINATION TEMPERATURE AND HUMIDITY SENSORS FOR MONITORING. SENSORS LOCATED IN REFRIGERATED BOXES TO BE RATED FOR LOW TEMPERATURES REQUIRED IN SPACE. CONTRACTOR IS TO FURNISH AND INSTALL NEW ELECTRICAL BOX, WHERE REQUIRED AND INTEGRATE SENSORS TO THE BMS.
- FURNISH AND INSTALL NEW WALL MOUNTED DIFFERENTIAL PRESSURE SENSORS FOR MONITORING IN INDICATED LOCATIONS. SENSORS LOCATED IN REFRIGERATED BOXES TO BE RATED FOR LOW TEMPERATURES REQUIRED IN SPACE AND INTEGRATE SENSORS TO THE BMS.
- FURNISH AND INSTALL NEW ELECTRIC DAMPER ACTUATORS AND CONNECT TO EXISTING DAMPER SHAFT. ACTUATORS TO BE CONNECTED TO SAME CONTROLLER AS ASSOCIATED SYSTEM.
- INTEGRATE ELECTRIC REHEAT COILS TO THE BMS AND PROVIDE GRAPHICS. REFER TO CONTROLS POINTS LIST FOR CONTROL POINTS.
- FURNISH AND INSTALL NEW WEATHER STATION WITH CARBON DIOXIDE, HUMIDITY, TEMPERATURE AND PRESSURE SENSORS.
- FURNISH AND INSTALL PRESSURE SENSOR TO BE AVERAGED WITH OUTSIDE PRESSURE SENSOR. PRESSURE SENSOR TO BE LOCATED IN LOCATION TO BE CONTAINED AGAINST THE AFFECTS OF ENVIRONMENTAL DISTURBANCES.

Project Key



REVISIONS

Rev No	Description	Date

Client  
NEW YORK STATE OF OPPORTUNITY  
Office of Mental Health  
44 HOLLAND AVENUE  
ALBANY, NY 12229

Project Title  
BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

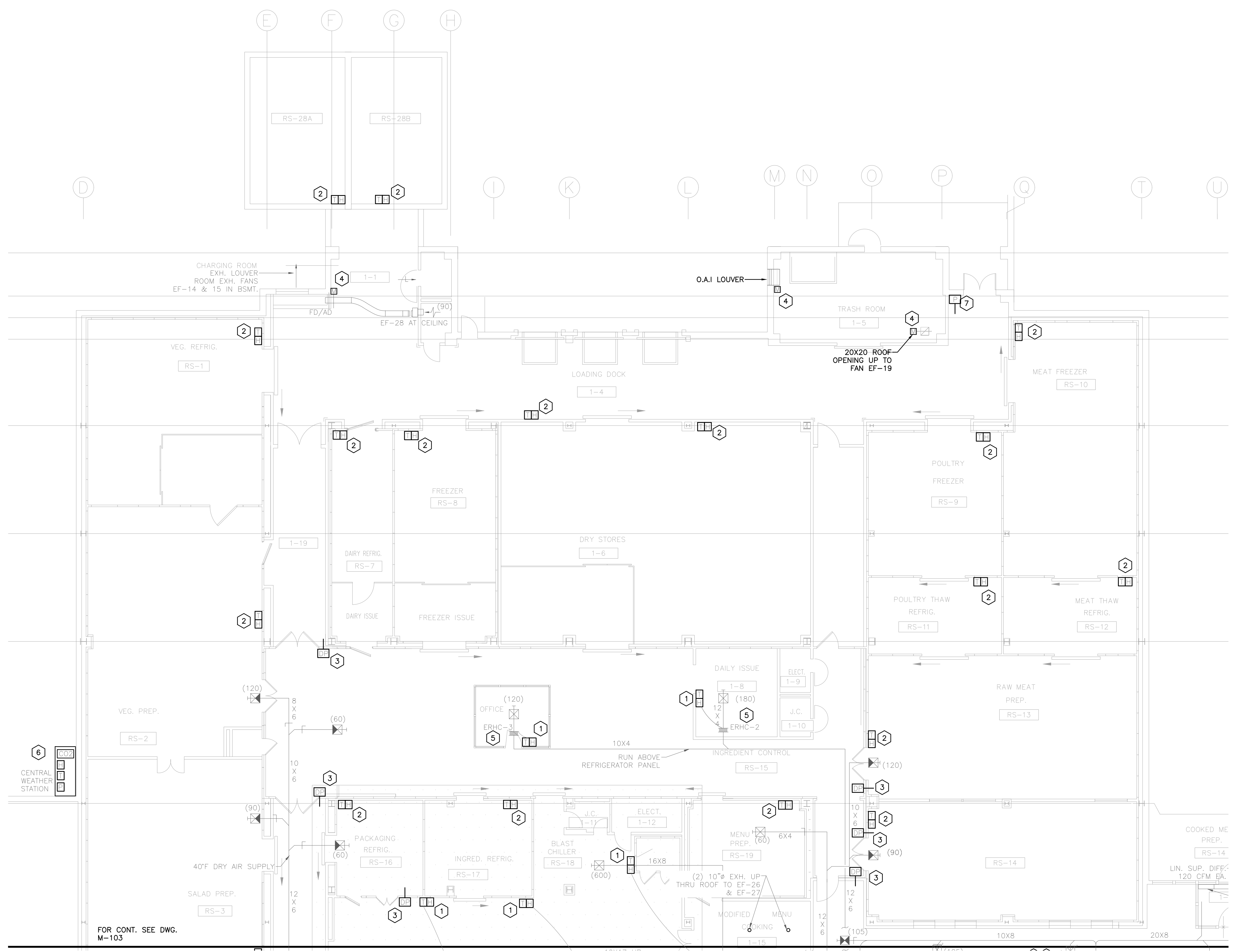
Drawing Title  
MECHANICAL  
FIRST FLOOR NORTH  
CONSTRUCTION  
PART PLAN

Phase  
BID DOCUMENTS

Drawn By:      Checked By:      Date: 10/15/2021

Seal & Signature      DASNY Project No: 360880

Drawing Number  
M-104  
Drawing 15 of 30



1 1ST FLOOR NORTH CONSTRUCTION PART PLAN  
SCALE: 3/32"=1'-0"

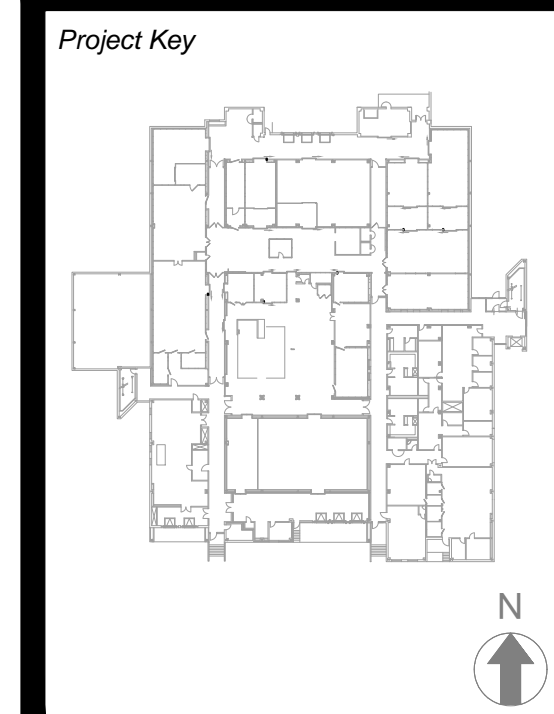


# GENERAL NOTES

- PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
- FIRESTOPPING IS REQUIRED FOR ALL RATED PARTITIONS AS SHOWN ON DRAWING M-002.

# KEYED CONSTRUCTION NOTES

- 1 FURNISH AND INSTALL NEW ELECTRIC DAMPER ACTUATORS AND CONNECT TO EXISTING DAMPER SHAFT. ACTUATORS TO BE CONNECTED TO SAME CONTROLLER AS ASSOCIATED SYSTEM.
- 2 INTEGRATE EXISTING DDC CONTROLLER FOR MAU-1 SYSTEM TO THE BMS FOR MONITORING.



REVISIONS		
Rev No	Description	Date:

Client



NEW YORK  
STATE OF  
OPPORTUNITY



Office of  
Mental Health

44 HOLLAND AVENUE  
ALBANY, NY 12229

Project Title  
BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title  
MECHANICAL  
ROOF  
CONSTRUCTION  
PART PLAN

Phase

BID DOCUMENTS

Drawn By: Checked By: Date: 10/15/2021

Seal & Signature DASNY Project No: 360880 Drawing Number M-105



STATE OF NEW YORK  
MICHAEL MCMANIS  
82939  
LICENSED PROFESSIONAL ENGINEER

Drawing 16 of 30

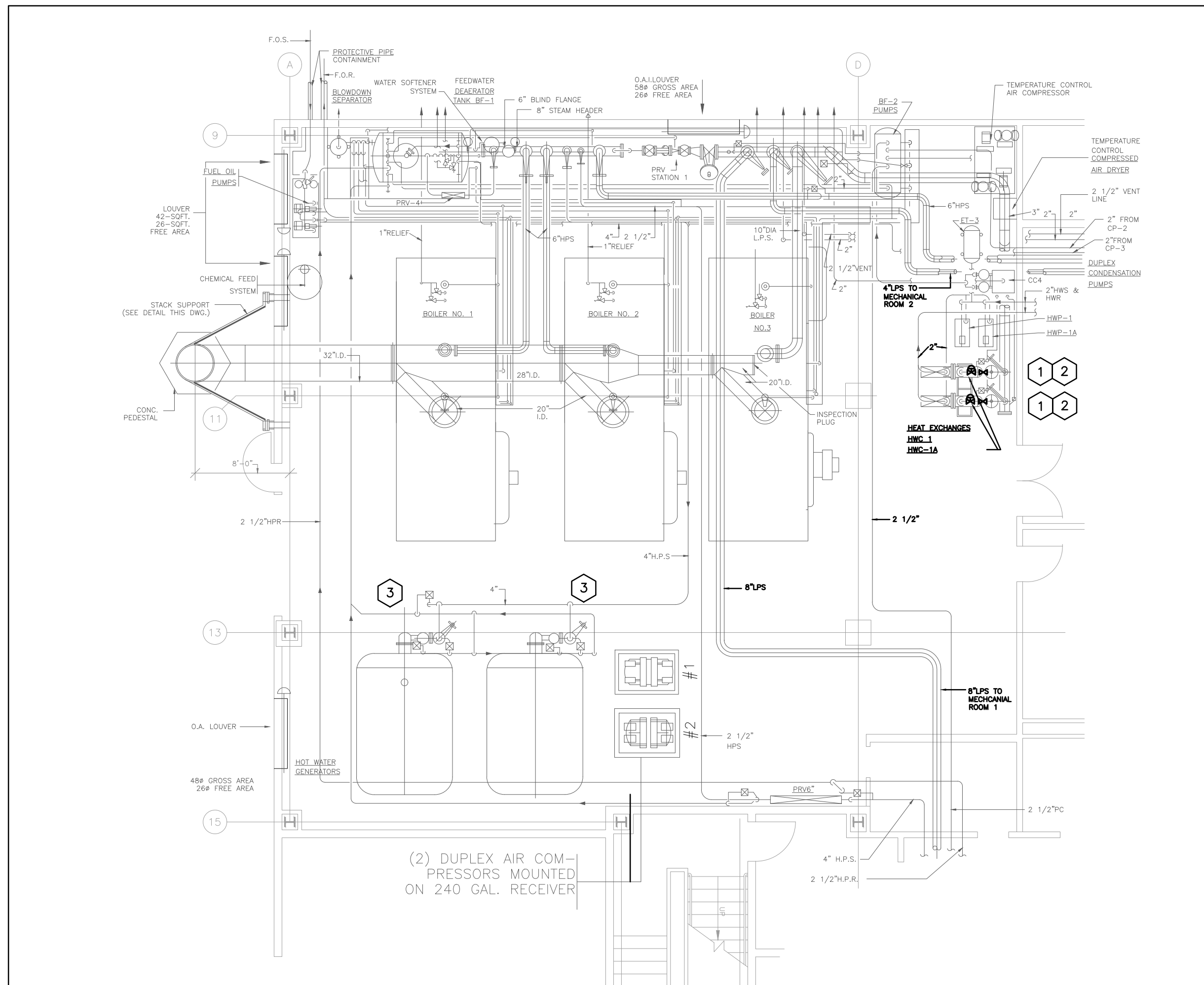




Consultants:



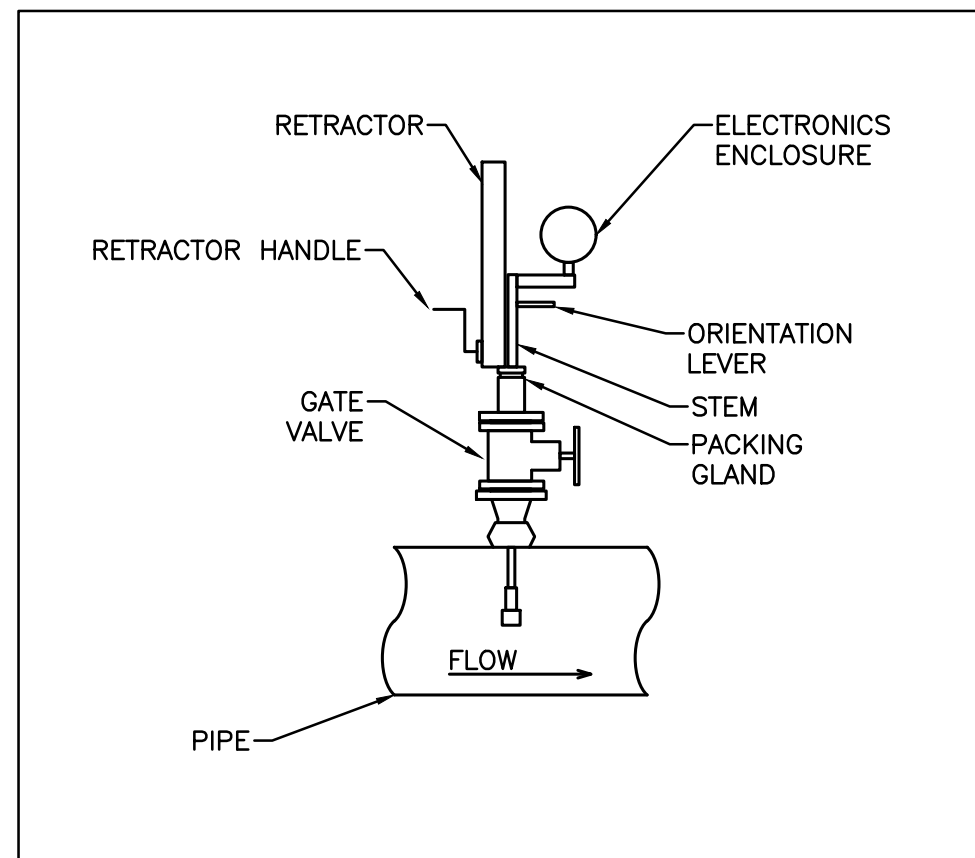
292 Washington Ave Ext  
Albany, NY, 12203  
(518) 862-0862



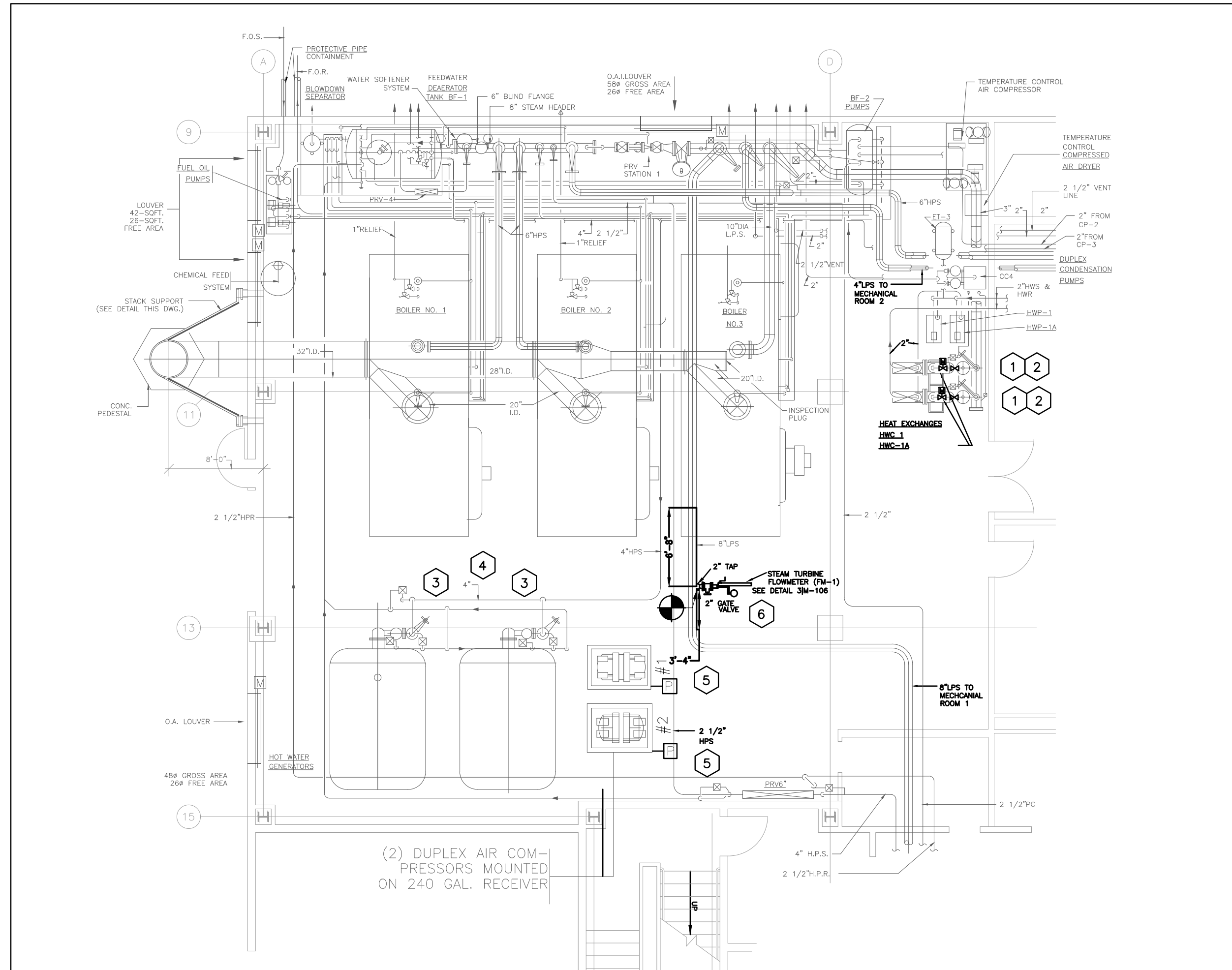
**1 BOILER ROOM DEMOLITION PART PLAN**  
SCALE: 1/8"=1'-0"

KEYED DEMOLITION NOTES

- 1 DISCONNECT AND REMOVE EXISTING ISOLATION VALVES FROM LPS PIPING SERVING HEAT EXCHANGERS HWC-1&1A. REFER TO M-001 FOR PHASING PLAN.
- 2 ISOLATE LPS AND LPR PIPING UTILIZING NEW PAIR OF ISOLATION VALVES. DISCONNECT AND REMOVE PNEUMATIC CONTROL VALVE AND PROVIDE TEMPORARY CAPS AS NECESSARY ON ENDS OF PIPES REMAINING. REMOVE PNEUMATIC CONTROL LINE BETWEEN VALVE AND FORMER PNEUMATIC CONTROLLER.
- 3 DISCONNECT AND REMOVE EXISTING PNEUMATIC VALVE ACTUATOR AND P/E TRANSDUCERS. PROVIDE PERMANENT CAP ON PNEUMATIC LINE. LUBRICATE AND CLEAN MOVEABLE PARTS ON DAMPER.



**3 TURBINE FLOWMETER DETAIL**  
SCALE: NTS



**2 BOILER ROOM CONSTRUCTION PART PLAN**  
SCALE: 1/8"=1'-0"

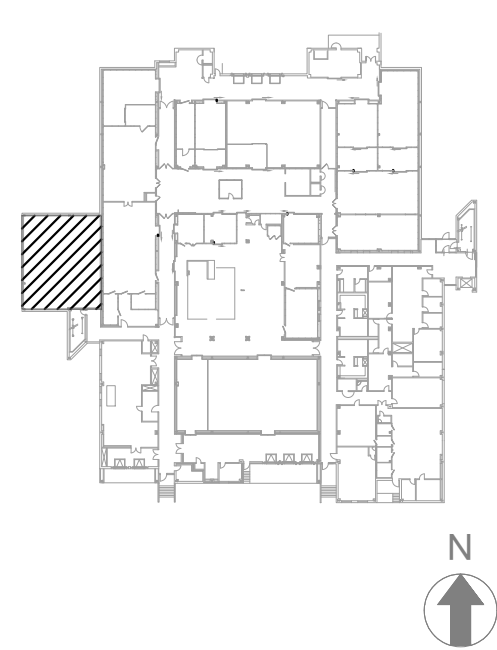
GENERAL NOTES

1. ALL PENETRATIONS TO THROUGH THE CEILING TO BE SEALED AS IF CEILING IS 1-HR FIRE RATED.
2. PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.

KEYED CONSTRUCTION NOTES

- 1 FURNISH AND INSTALL NEW ISOLATION VALVES ON LPS SERVING HEAT EXCHANGERS HWC-1&1A. REFER TO M-001 FOR PHASING PLAN.
- 2 FURNISH AND INSTALL NEW ELECTRIC ACTUATED 2-WAY STEAM CONTROL VALVE ON LPS PIPE SERVING HEAT EXCHANGER. RECONNECT TO SAME CONTROLLER AS ASSOCIATED SYSTEM. CONTRACTOR TO PROVIDE SOFTWARE AND GRAPHICS FOR ALL EXISTING AND NEW CONTROL POINTS. INSULATE ALL PIPING AND FITTINGS IN ACCORDANCE TO SPECIFICATION 230719. CONTRACTOR TO PROVIDE CONTROL WIRING, CONDUIT, AND OTHER CONTROL DEVICES.
- 3 FURNISH AND INSTALL NEW ELECTRIC VALVE ACTUATORS AND CONNECT TO EXISTING STEAM CONTROL VALVES ON DHW SYSTEM. ACTUATORS TO BE CONNECTED TO THE SAME PANEL AS ASSOCIATED UNIT. COORDINATE WITH DASNY AND CCPC. REFER TO OGS EMERGENCY DHW PROJECT.
- 4 FURNISH AND INSTALL REQUIRED CONTROLLER, NETWORK WIRING AND COMMUNICATION CABLEING FOR DHW SYSTEM TO INTEGRATE TO BMS.
- 5 FURNISH AND INSTALL PRESSURE SENSOR, REQUIRED CONTROLLER, NETWORK WIRING AND COMMUNICATION CABLEING FOR COMPRESSORS TO INTEGRATE TO BMS.
- 6 FURNISH AND INSTALL NEW TURBINE STEAM FLOW METER WITH 2" GATE VALVE ON 8" LPS. METER TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. A MINIMUM 10" DIAMETER UPSTREAM AND 5" DIAMETER DOWNSTREAM OF METER IS REQUIRED. (BASIS OF DESIGN SPIRAX SARCO RIM20)

Project Key



REVISIONS

Rev No	Description	Date:

Client



Project Title

**BMS REPLACEMENT**  
**COOK CHILL PRODUCTION CENTER**  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title

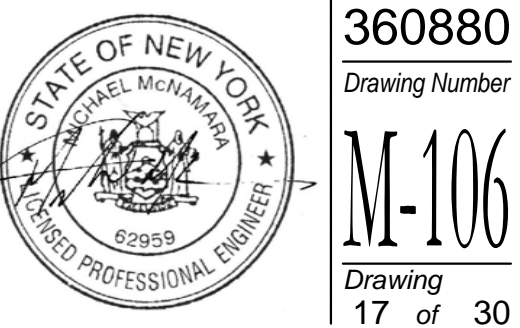
**MECHANICAL BOILER ROOM PART PLAN**

Phase

BID DOCUMENTS

Drawn By:	Checked By:	Date:
		10/15/2021

Seal & Signature



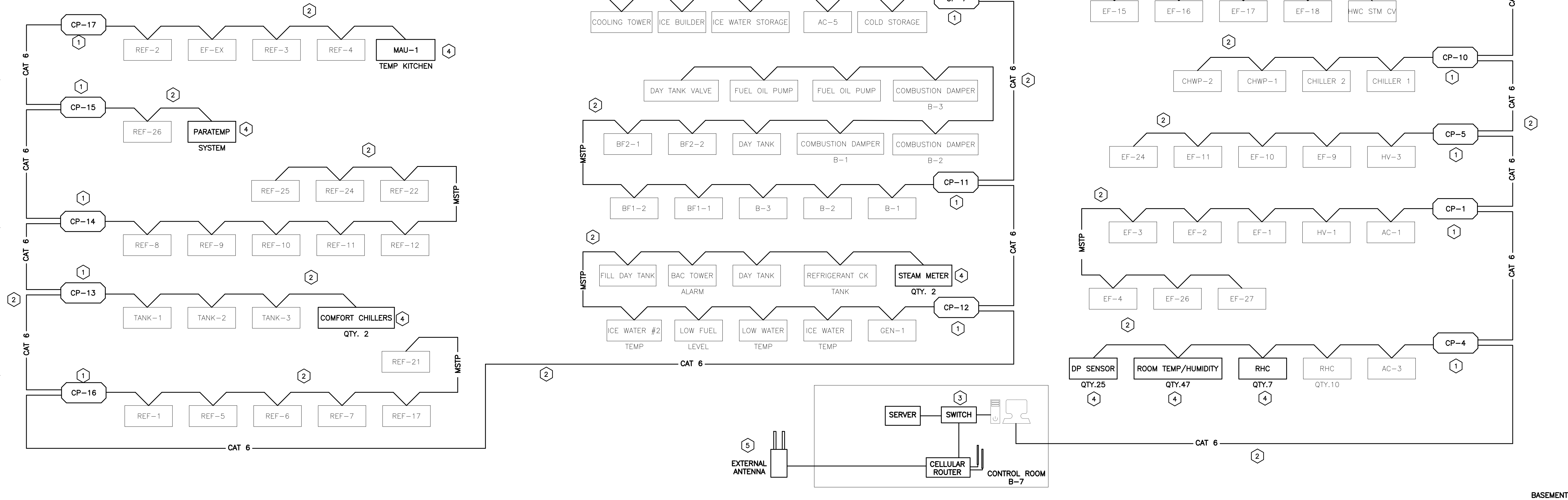


GENERAL NOTES

1. ALL PENETRATIONS THROUGH THE FLOOR TO BE SEALED AS IF FLOORS ARE 1-HR FIRE RATED.
2. IF THERE IS AN AIR PLENUM WITH NON-DUCTED SUPPLY, RETURN OR EXHAUST, CONTRACTOR IS TO PROVIDE PLENUM RATED CABLE. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING ROOMS: 1-17, 1-18, 1-24, 1-38, 1-41, 1-51 & 1-55
3. PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
4. THE CONTRACTOR IS TO INSTALL NEW CONTROLLERS ONE BY ONE WITHIN NEW ENCLOSURE. PRIOR TO REMOVAL OF EXISTING CONTROLLERS, EXISTING CONTROL POINTS ARE TO BE MIGRATED TO NEW CONTROLLER. ALL PROGRAMMING, GRAPHICS, AND BACK END ELEMENTS FOR EXISTING AND NEW CONTROL POINTS TO BE IN PLACE PRIOR TO MIGRATION TO MINIMIZE DISRUPTION AND ANY CONTROL ISSUES.
5. ANY TRANSFER OF CONTROL POINTS TO BE COMMUNICATED WITH THE FACILITY. ANY LARGE SCALE TRANSFER (DECOMMISSIONING OF OLD PANELS FOR MAIN EQUIPMENT) NEEDS TO BE COMMUNICATED AND SCHEDULED WITH THE FACILITY IN ADVANCE, WITH AT LEAST A 10 BUSINESS DAY NOTICE.
6. ALL SENSORS AND UNITARY CONTROLLERS TO REMAIN UNLESS OTHERWISE NOTED.
7. EMT IS REQUIRED FOR ALL EXPOSED LOCATIONS INCLUDING KITCHEN AND MECHANICAL EQUIPMENT ROOMS. J HOOKS ARE TO BE PROVIDED FOR CONCEALED SPACES.
8. INSTALL NEW FIRE RATED CABLE SLEEVE THROUGH RATED WALLS AND FIRE STOP. REFER TO M-002 FOR FIRE RATINGS.
9. CONTRACTOR TO PROVIDE DEVICES FOR EXPANDABILITY FOR FUTURE PROJECTS AS WELL AS PROGRAMING TO MODIFY SEQUENCE OF OPERATIONS.
10. PROVIDE ALL NECESSARY GRAPHIC PAGES INCLUDING BUT NOT LIMITED TO DP SENSORS AND TEMPERATURE AND RELATIVE HUMIDITY MONITORING.
11. CONTRACTOR TO PROVIDE CELLULAR ROUTER SIM CARD THROUGH CONSTRUCTION OF PROJECT. COORDINATE THE TRANSITION FROM THE CELLULAR ROUTER TO RESTRICTED USE CASE (RUC) WITH NYS OMH ITS. AFTER THE TRANSITION CONTRACTOR TO TURN OVER CELLULAR ROUTER TO CCPC.

KEYED CONSTRUCTION NOTES

1. FURNISH AND INSTALL NEW CONTROLLERS WITHIN NEW ENCLOSURE. PROVIDE ALL NEW NETWORK WIRING TO CONNECT UNITARY CONTROLLERS AND SENSORS TO THE NEW CONTROLLERS.
2. RUN NEW COMMUNICATION CABLEING AND NEW RACEWAY TO NEW CONTROLLERS PARALLEL TO EXISTING COMMUNICATION CABLEING.
3. FURNISH AND INSTALL NEW SERVER AND SWITCH IN THE WORK CONTROL OFFICE.
4. FURNISH AND INSTALL NEW CONTROLLERS, COMMUNICATION WIRING, PROGRAMMING, GRAPHICS, AND SCHEDULING REQUIRED TO INTEGRATE THE INDICATED SYSTEMS TO THE BMS. COORDINATE WITH DASNY AND CCPC AS THESE ARE ACTIVE PROJECTS.
5. FURNISH AND INSTALL NEW CELLULAR ROUTER AND EXTERNAL ANTENNA.



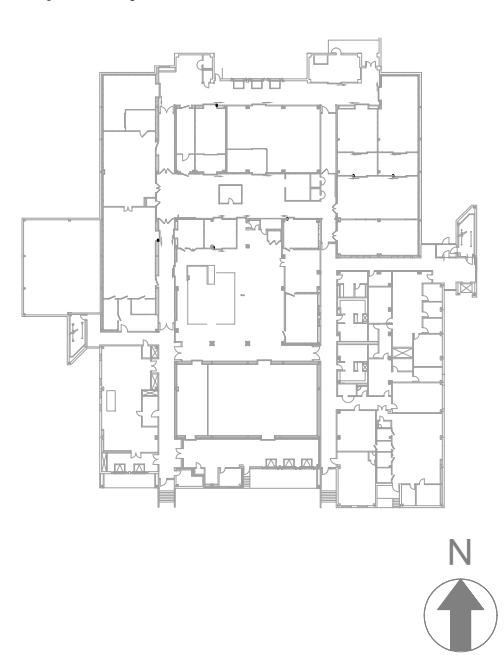
1 COMMUNICATION RISER CONSTRUCTION DIAGRAM  
SCALE: NTS

Consultants:



292 Washington Ave Ext  
Albany, NY, 12203  
(518) 862-0882

Project Key



REVISIONS

Rev No	Description	Date:

Client



Project Title  
**BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER**  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title

**COMMUNICATION  
RISER CONSTRUCTION  
DIAGRAM**

Phase

BID DOCUMENTS

Drawn By:      Checked By:      Date: 10/15/2021

Seal & Signature      DASNY Project No: 3608880

Drawing Number



**M-200**  
Drawing 18 of 30

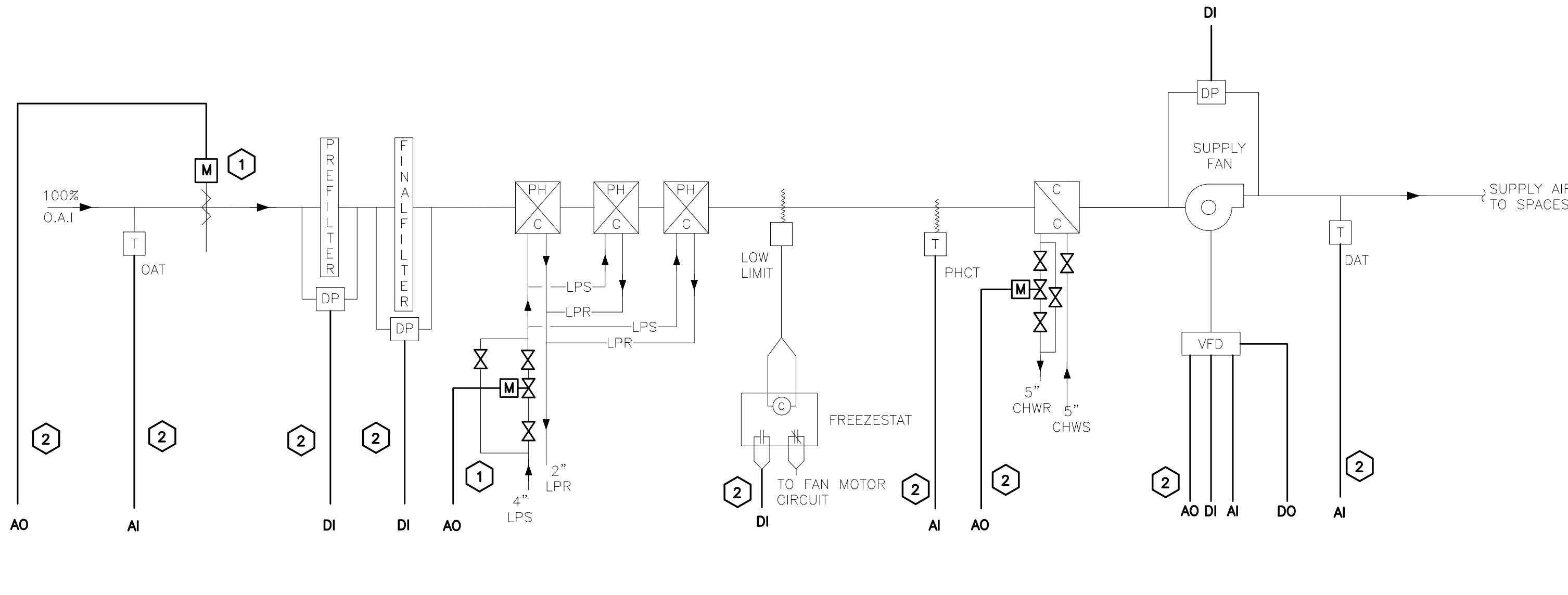


GENERAL NOTES

- ALL PENETRATIONS THROUGH THE FLOOR TO BE SEALED AS IF FLOORS ARE 1-HR FIRE RATED.
- IF THERE IS AN AIR PLENUM WITH NON-DUCTED SUPPLY, RETURN OR EXHAUST, CONTRACTOR IS TO PROVIDE PLENUM RATED CABLE. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING ROOMS: 1-17, 1-18, 1-24, 1-38, 1-41, 1-51 & 1-55
- PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING. ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
- ALL SENSORS AND UNITARY CONTROLLERS TO REMAIN UNLESS OTHERWISE NOTED.
- EMT IS REQUIRED FOR ALL EXPOSED LOCATIONS INCLUDING KITCHEN AND MECHANICAL EQUIPMENT ROOMS. J HOOKS ARE TO BE PROVIDED FOR CONCEALED SPACES.
- FURNISH AND INSTALL NEW FIRE RATED CABLE SLEEVE THROUGH RATED WALLS AND FIRE STOP. REFER TO M-002 FOR FIRE RATINGS.
- EXISTING SMOKE DETECTORS TO REMAIN AND MAINTAIN EXISTING FUNCTIONS AND SEQUENCES FOR FIRE ALARM.
- CONTRACTOR TO VERIFY IF FREEZESTATS ARE NORMALLY OPEN OR NORMALLY CLOSED.
- UNITS AC-1, HV-1, AND HV-3 BEING REPLACED BY OTHERS UNDER DIFFERENT PROJECT.
- NEW SPACE TEMPERATURE AND COMBINATION TEMPERATURE/HUMIDITY SENSORS ARE TO BE INSTALLED AS INDICATED ON FLOOR PLANS. REFER TO DRAWINGS M-100 THROUGH M-104 FOR LOCATIONS.
- PROVIDE ALL NECESSARY GRAPHIC PAGES INCLUDING BUT NOT LIMITED TO DP SENSORS AND TEMPERATURE AND RELATIVE HUMIDITY MONITORING.

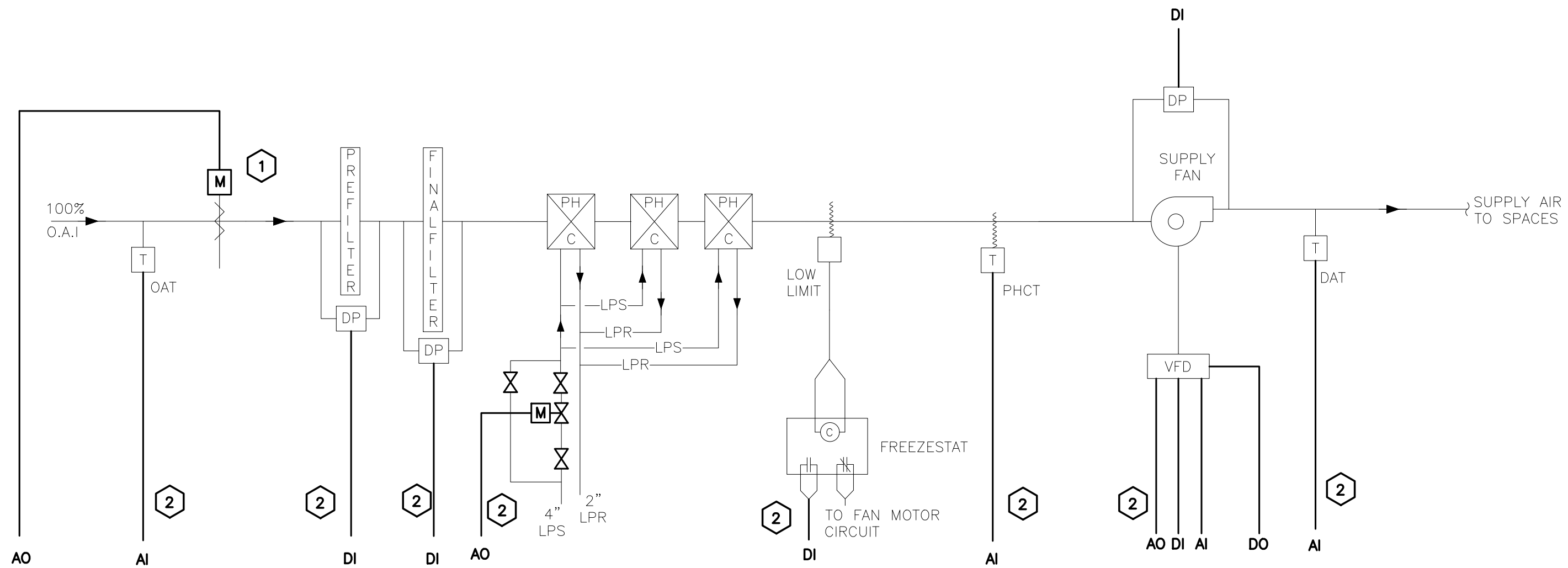
KEYED NOTES

- 1 FURNISH AND INSTALL NEW DAMPER ACTUATOR, PROVIDE NEW CONTROL WIRING, CONDUIT AND INTEGRATE TO NEW BMS.
- 2 FURNISH AND INSTALL REQUIRED CONTROLLER NETWORK WIRING AND COMMUNICATION CABLING TO INTEGRATE CONTROL POINTS TO THE NEW BMS.



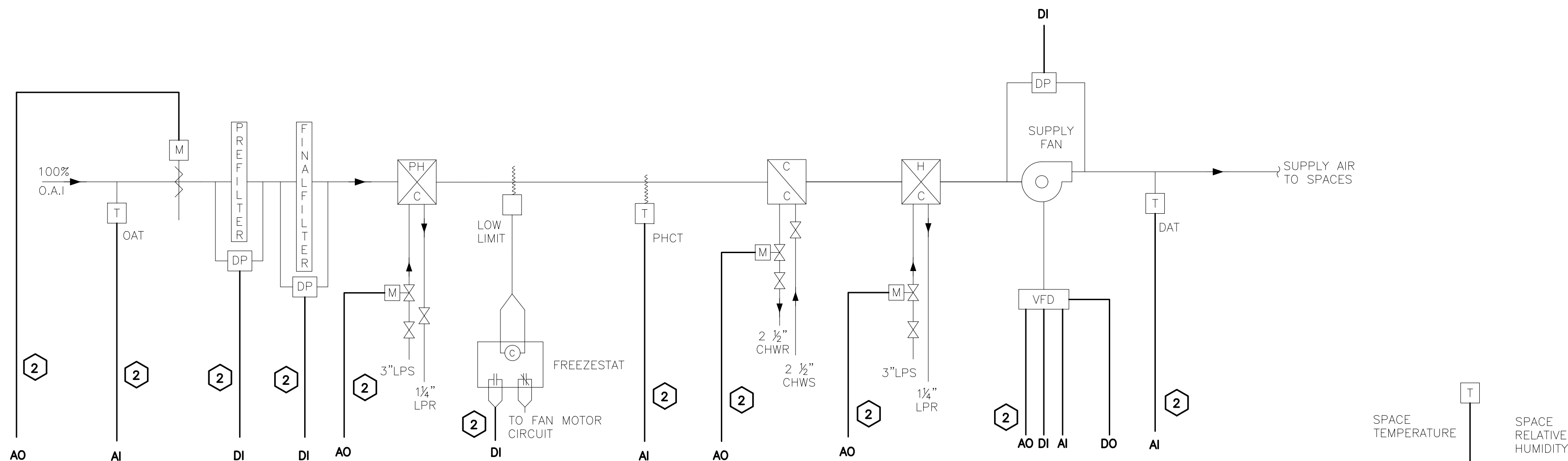
1 AC-1 CONTROL DIAGRAM

SCALE: NOT TO SCALE



2 HV-1 CONTROL DIAGRAM

SCALE: NOT TO SCALE



3 HV-3 CONTROL DIAGRAM

SCALE: NOT TO SCALE

TYPICAL AC-1 CONTROL POINTS					
TYPE	DESCRIPTION	UNITS	TREND	ALARM	
DI	AC-1 SUPPLY FAN PRESSURE SWITCH	ON/OFF	X	X	
AI	AC-1 SPACE TEMPERATURE	DEG	X	X	
AI	AC-1 PREHEAT DISCHARGE AIR TEMPERATURE	DEG	X	X	
AI	AC-1 OUTSIDE AIR TEMPERATURE	DEG	X	X	
DI	AC-1 PRE-FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X	
DI	AC-1 FINAL FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X	
AO	AC-1 OUTSIDE AIR DAMPER	%OPEN	X		
AI	AC-1 SUPPLY AIR TEMPERATURE	DEG	X	X	
DI	AC-1 FREEZE STAT LOW LIMIT SWITCH	ON/OFF		X	
DO	AC-1 SUPPLY FAN S/S RELAY	ON/OFF		X	
AO	AC-1 PREHEAT COIL STEAM VALVE	%OPEN	X		
AO	AC-1 COOLING COIL VALVE	%OPEN	X		
AI	AC-1 FAN SPEED FEEDBACK	% SPEED	X	X	
DI	AC-1 FAN COMMON ALARM	NORMAL/ALARM			X
AO	AC-1 FAN SPEED COMMAND	% SPEED	X	X	

TYPICAL HV-1 CONTROL POINTS					
TYPE	DESCRIPTION	UNITS	TREND	ALARM	
DI	HV-1 SUPPLY FAN PRESSURE SWITCH	ON/OFF	X	X	
AI	HV-1 OUTSIDE AIR TEMPERATURE	DEG	X	X	
DI	HV-1 PRE-FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X	
DI	HV-1 FINAL FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X	
DI	HV-1 FREEZE STAT LOW LIMIT SWITCH	ON/OFF		X	
AO	HV-1 OUTSIDE AIR DAMPER	%OPEN	X		
DO	HV-1 SUPPLY FAN S/S RELAY	ON/OFF		X	
AO	HV-1 PREHEAT COIL STEAM VALVE	%OPEN	X		
AI	HV-1 FAN SPEED FEEDBACK	% SPEED	X	X	
DI	HV-1 FAN COMMON ALARM	NORMAL/ALARM			X
AO	HV-1 FAN SPEED COMMAND	% SPEED	X	X	
AI	HV-2 SPACE TEMPERATURE	DEG	X	X	
AI	SUPPLY AIR TEMPERATURE	DEG	X	X	
AI	HV-2 SPACE TEMPERATURE	DEG	X	X	

TYPICAL HV-3 CONTROL POINTS					
TYPE	DESCRIPTION	UNITS	TREND	ALARM	
DI	HV-3 SUPPLY FAN PRESSURE SWITCH	ON/OFF	X	X	
AI	HV-3 SUPPLY AIR TEMPERATURE	DEG	X	X	
DI	HV-3 PRE-FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X	
DI	HV-3 FINAL FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X	
AO	HV-3 OUTSIDE AIR DAMPER	%OPEN	X		
DI	HV-3 FREEZE STAT LOW LIMIT SWITCH	ON/OFF		X	
AO	HV-3 PREHEAT COIL STEAM VALVE #1	%OPEN	X		
AO	HV-3 PREHEAT COIL STEAM VALVE #2	%OPEN	X		
AO	HV-3 COOLING COIL STEAM VALVE	%OPEN	X		
DO	HV-3 SUPPLY FAN S/S RELAY	ON/OFF		X	
AI	HV-3 COOLING DISCHARGE AIR TEMPERATURE	DEG	X	X	
AI	HV-3 BASEMENT SPACE TEMPERATURE	DEG	X	X	
AI	HV-3 BASEMENT SPACE HUMIDITY	RH	X	X	
AI	HV-3 FAN SPEED FEEDBACK	% SPEED	X	X	
DI	HV-3 FAN COMMON ALARM	NORMAL/ALARM			X
AO	HV-3 FAN SPEED COMMAND	% SPEED	X	X	
AI	HV-3 PREHEAT DISCHARGE AIR TEMPERATURE	DEG	X	X	
AI	HV-3 OUTSIDE AIR TEMPERATURE	DEG	X	X	

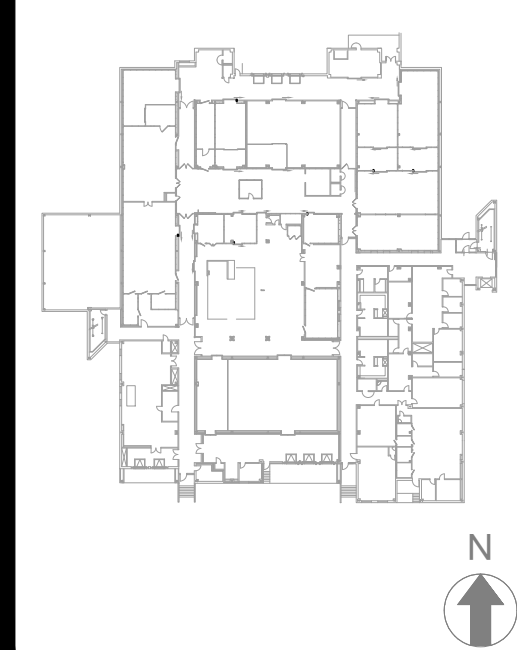
Consultants:



EME Group  
Consulting Engineers  
129 West 27th Street  
New York, NY, 10001  
(212) 529-5969

292 Washington Ave Ext  
Albany, NY, 12203  
(518) 862-0882

Project Key



REVISIONS

Rev No	Description	Date:
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Client



44 HOLLAND AVENUE  
ALBANY, NY 12229

Project Title

BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title

CONTROL DIAGRAMS  
PAGE 1 OF 4

Phase

BID DOCUMENTS

Drawn By: Checked By: Date: 10/15/2021

Seal & Signature DASNY Project No: 360880

Drawing Number M-300

Drawing 19 of 30

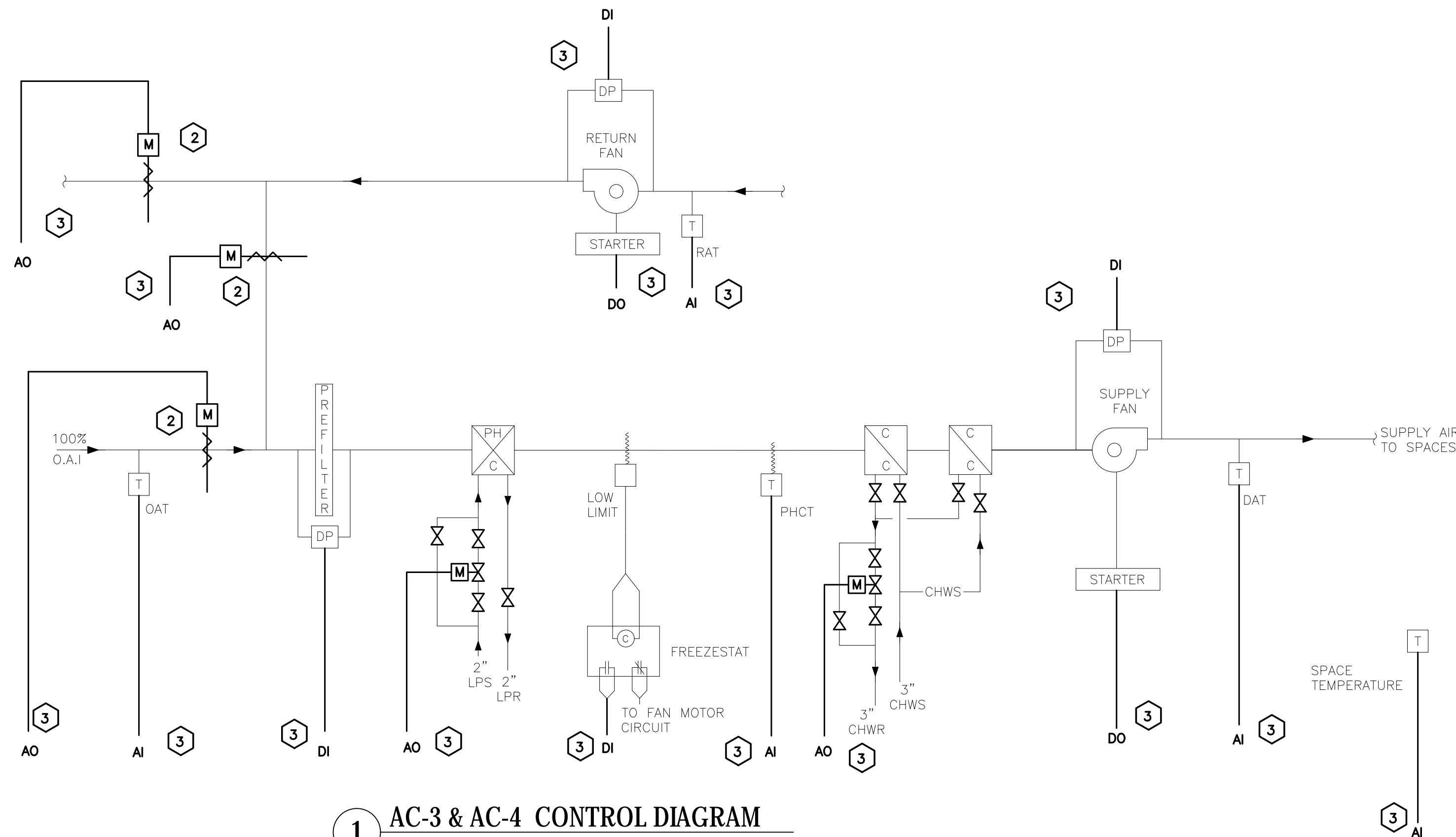


## GENERAL NOTES

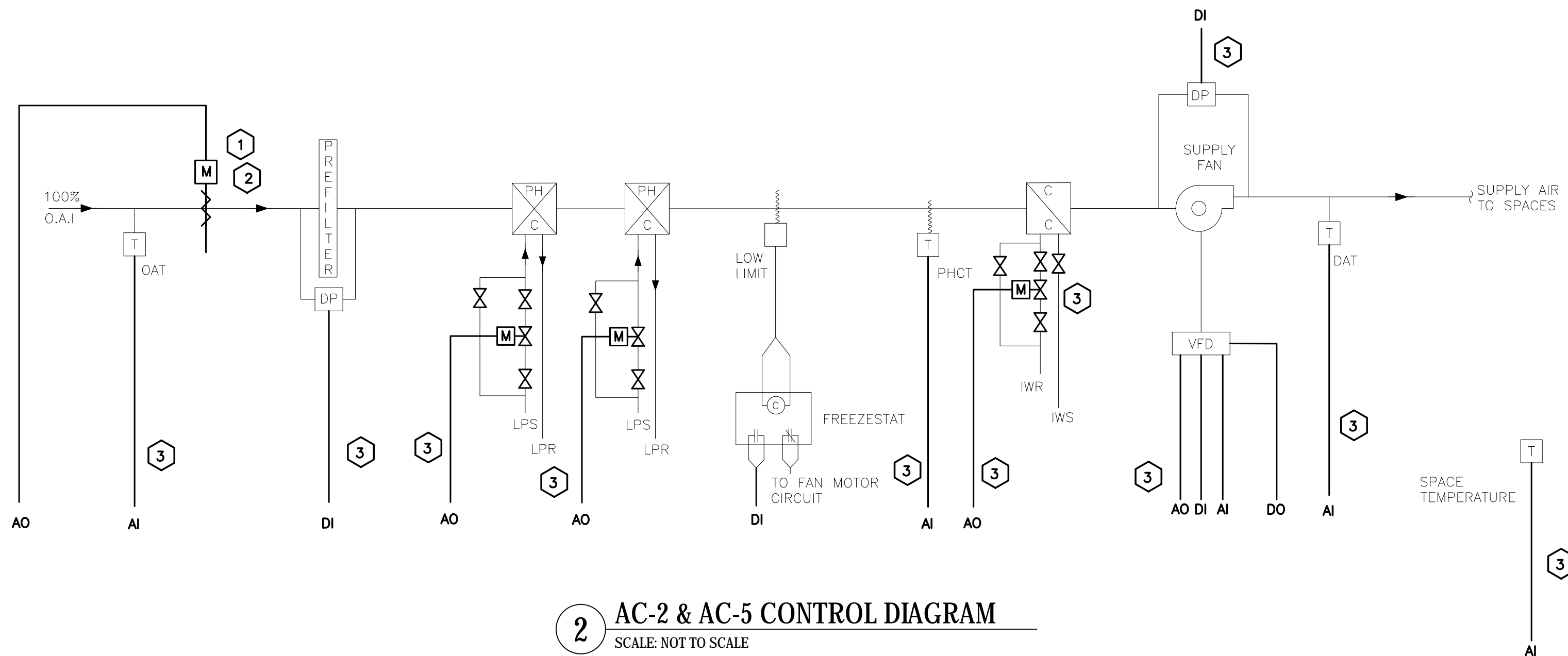
- ALL PENETRATIONS THROUGH THE FLOOR TO BE SEALED AS IF FLOORS ARE 1-HR FIRE RATED.
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1-17, 1-18, 1-24, 1-38, 1-41, 1-51 & 1-55
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- ALL SENSORS AND UNITARY CONTROLLERS TO REMAIN UNLESS OTHERWISE NOTED.
- EMT IS REQUIRED FOR ALL EXPOSED LOCATIONS INCLUDING KITCHEN AND MECHANICAL EQUIPMENT ROOMS. J HOOKS ARE TO BE PROVIDED FOR CONCEALED SPACES.
- FURNISH AND INSTALL NEW FIRE RATED CABLE SLEEVE THROUGH RATED WALLS AND FIRE STOP. REFER TO M-002 FOR FIRE RATINGS.
- EXISTING SMOKE DETECTORS TO REMAIN AND MAINTAIN EXISTING FUNCTIONS AND SEQUENCES FOR FIRE ALARM.
- CONTRACTOR TO VERIFY IF FREEZESTATS ARE NORMALLY OPEN OR NORMALLY CLOSED.
- NEW SPACE TEMPERATURE AND COMBINATION TEMPERATURE/HUMIDITY SENSORS ARE TO BE INSTALLED AS INDICATED ON FLOOR PLANS. REFER TO DRAWINGS M-100 THROUGH M-104 FOR LOCATIONS.
- PROVIDE ALL NECESSARY GRAPHIC PAGES INCLUDING BUT NOT LIMITED TO DP SENSORS AND TEMPERATURE AND RELATIVE HUMIDITY MONITORING.

## KEYED NOTES

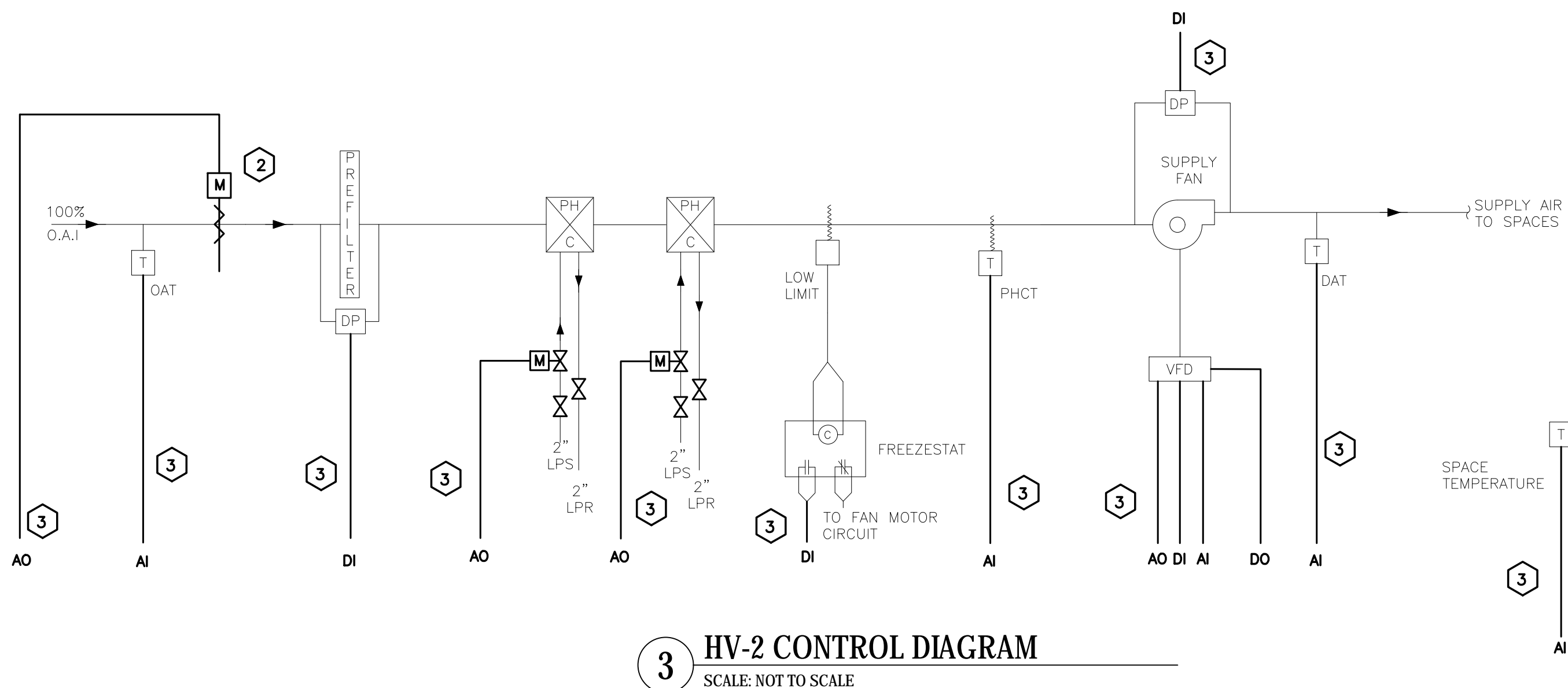
- FURNISH AND INSTALL NEW DAMPER ACTUATOR, PROVIDE NEW CONTROL WIRING, CONDUIT AND INTEGRATE TO NEW BMS. (ONLY APPLIES TO AC-5)
- FURNISH AND INSTALL NEW DAMPER AND ACTUATOR, PROVIDE NEW CONTROL WIRING, CONDUIT AND INTEGRATE TO THE NEW BMS.
- FURNISH AND INSTALL REQUIRED CONTROLLER NETWORK WIRING AND COMMUNICATION CABLING TO INTEGRATE CONTROL POINTS TO THE NEW BMS.



1 AC-3 & AC-4 CONTROL DIAGRAM  
SCALE: NOT TO SCALE



2 AC-2 & AC-5 CONTROL DIAGRAM  
SCALE: NOT TO SCALE



3 HV-2 CONTROL DIAGRAM  
SCALE: NOT TO SCALE

TYPICAL AC-2 CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	AC-2 SUPPLY FAN PRESSURE SWITCH	ON/OFF	X	X
AI	AC-2 SPACE TEMPERATURE	DEG	X	X
AI	AC-2 PREHEAT DISCHARGE AIR TEMPERATURE	DEG	X	X
AI	AC-2 OUTSIDE AIR TEMPERATURE	DEG	X	
DI	AC-2 FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X
AI	AC-2 SUPPLY AIR TEMPERATURE	DEG	X	X
DI	AC-2 FREEZE STAT LOW LIMIT SWITCH	ON/OFF		X
DO	AC-2 SUPPLY FAN S/S RELAY	ON/OFF		X
AO	AC-2 PREHEAT COIL VALVE #1	%OPEN	X	
AO	AC-2 PREHEAT COIL VALVE #2	%OPEN	X	
AO	AC-2 COOLING COIL VALVE	%OPEN	X	
AO	AC-2 OUTSIDE AIR DAMPER	%OPEN	X	
AI	AC-2 FAN SPEED FEEDBACK	% SPEED	X	X
DI	AC-2 FAN COMMON ALARM	NORMAL/ALARM		X
AO	AC-2 FAN SPEED COMMAND	% SPEED	X	X

TYPICAL AC-5 CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	AC-5 SUPPLY FAN PRESSURE SWITCH	ON/OFF	X	X
DI	AC-5 PACKAGED LIQUID STATUS PRESSURE SWITCH	ON/OFF	X	X
AI	AC-5 PREHEAT DISCHARGE AIR TEMPERATURE	DEG	X	X
AI	AC-5 SUPPLY AIR TEMPERATURE	DEG	X	X
AI	AC-5 OUTSIDE AIR TEMPERATURE	DEG	X	X
DI	AC-5 FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X
DI	AC-5 FREEZE STAT LOW LIMIT SWITCH	ON/OFF		X
AO	AC-5 OUTSIDE AIR DAMPER	%OPEN	X	
DI	AC-5 ICE PUMP ALARM RELAY	NORMAL/ALARM		X
DI	AC-5 BAC COMMON ALARM RELAY	NORMAL/ALARM		X
DI	AC-5 NIAGARA UNIT ALARM RELAY	NORMAL/ALARM	X	X
DO	AC-5 SUPPLY FAN S/S RELAY	ON/OFF		X
AO	AC-5 PREHEAT COIL STEAM VALVE #1	%OPEN	X	
AO	AC-5 PREHEAT COIL STEAM VALVE #2	%OPEN	X	
AO	AC-5 COOLING COIL VALVE	%OPEN	X	
DI	LOW TEMP CUT-OUT	NORMAL/ALARM	X	X
DI	SUMP PUMP LEVEL HIGH	NORMAL/ALARM		X
DI	DIALER STATUS ALARM	NORMAL/ALARM		X
DI	NIAGARA DEHUMIDIFICATION SYSTEM STATUS	ON/OFF		X

TYPICAL AC-3 CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	SUPPLY FAN PRESSURE SWITCH	ON/OFF		X
AI	SPACE TEMPERATURE (RM 1-45)	DEG	X	X
AI	PREHEAT DISCHARGE AIR TEMPERATURE	DEG	X	X
AI	MIXED AIR TEMPERATURE	DEG	X	X
DI	FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X
AI	SUPPLY AIR TEMPERATURE	DEG	X	X
DI	FREEZE STAT LOW LIMIT SWITCH	ON/OFF		X
DO	SUPPLY FAN S/S RELAY	ON/OFF		X
AO	PREHEAT COIL STEAM VALVE	%OPEN	X	
AO	COOLING COIL VALVE	%OPEN	X	
AO	MAX OA DAMPER	%OPEN	X	
AO	RETURN DAMPER	%OPEN	X	
AO	EXHAUST DAMPER	%OPEN	X	
DI	RETURN FAN PRESSURE SWITCH	ON/OFF		X
DO	RETURN FAN S/S RELAY	ON/OFF		X
AI	RETURN AIR TEMPERATURE	DEG	X	X
DI	AC SMOKE PURGE RELAY	NORMAL/ALARM		X

TYPICAL AC-4 CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
AI	AC-4 SPACE TEMPERATURE	DEG	X	X
AI	AC-4 MIXED AIR TEMPERATURE	DEG	X	X
AI	AC-4 PREHEAT DISCHARGE AIR TEMPERATURE	DEG	X	X
AI	AC-4 SUPPLY AIR TEMPERATURE	DEG	X	X
AI	AC-4 RETURN AIR TEMPERATURE	DEG	X	X
AI	AC-4 OUTSIDE AIR TEMPERATURE	DEG	X	X
DI	AC-4 SUPPLY FAN PRESSURE SWITCH	ON/OFF	X	X
DI	AC-4 FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X
DI	AC-4 FREEZE STAT LOW LIMIT SWITCH	ON/OFF		X
DO	AC-4 SUPPLY FAN S/S RELAY	ON/OFF		X
AO	AC-4 PREHEAT COIL STEAM VALVE	%OPEN	X	
AO	AC-4 COOLING COIL VALVE	%OPEN	X	
DI	AC-4 SMOKE PURGE RELAY	NORMAL/ALARM		X
AO	AC-4 MAX OA DAMPER	%OPEN	X	
AO	AC-4 EXHAUST DAMPER	%OPEN	X	
DI	RF-2 RETURN FAN PRESSURE SWITCH	ON/OFF	X	X
DO	RF-2 RETURN FAN S/S RELAY	ON/OFF		X
AO	RF-2 RETURN DAMPER	%OPEN	X	

TYPICAL HV-2 CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	HV-2 SUPPLY FAN PRESSURE SWITCH	ON/OFF	X	X
AI	HV-2 SPACE TEMPERATURE	DEG	X	X
AI	HV-2 PREHEAT DISCHARGE AIR TEMPERATURE	DEG	X	X
AI	HV-2 OUTSIDE AIR TEMPERATURE	DEG	X	X
DI	HV-2 FILTER STATUS PRESSURE SWITCH	NORMAL/ALARM	X	X
AI	HV-2 SUPPLY AIR TEMPERATURE	DEG	X	X
DI	HV-2 FREEZE STAT LOW LIMIT SWITCH	ON/OFF		X
DO	HV-2 SUPPLY FAN S/S RELAY	ON/OFF		X
AO	HV-2 PREHEAT COIL VALVE #1	%OPEN	X	
AO	HV-2 PREHEAT COIL VALVE #2	%OPEN	X	
AO	HV-2 OUTSIDE AIR DAMPER	%OPEN	X	
AI	HV-2 FAN SPEED FEEDBACK	% SPEED	X	X

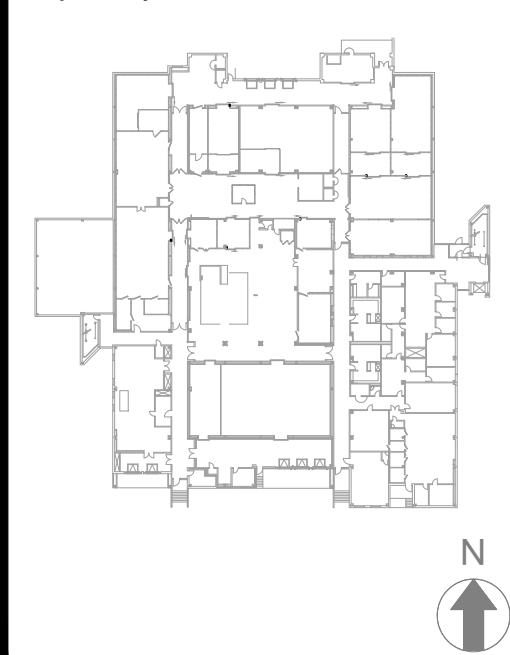
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## Project Key



## REVISIONS

Rev No	Description	Date
1		
2		
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10		

## Client

NEW YORK STATE OF OPPORTUNITY  
Office of Mental Health  
44 HOLLAND AVENUE  
ALBANY, NY 12229

Project Title  
BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

## Drawing Title

CONTROL DIAGRAMS  
PAGE 2 OF 4

## Phase

## BID DOCUMENTS

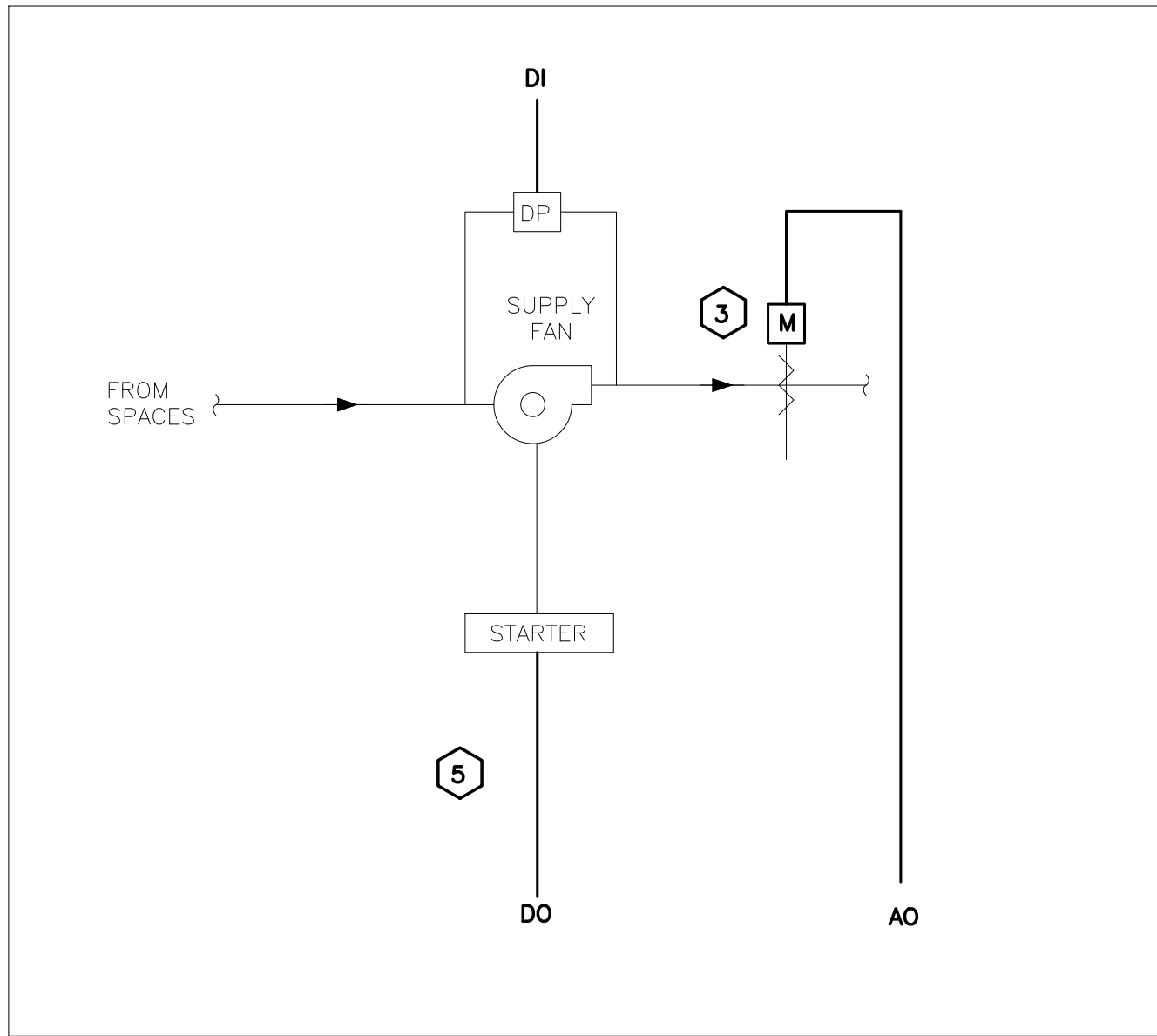
Drawn By: Checked By: Date: 10/15/2021

Seal & Signature DASNY Project No: 360880

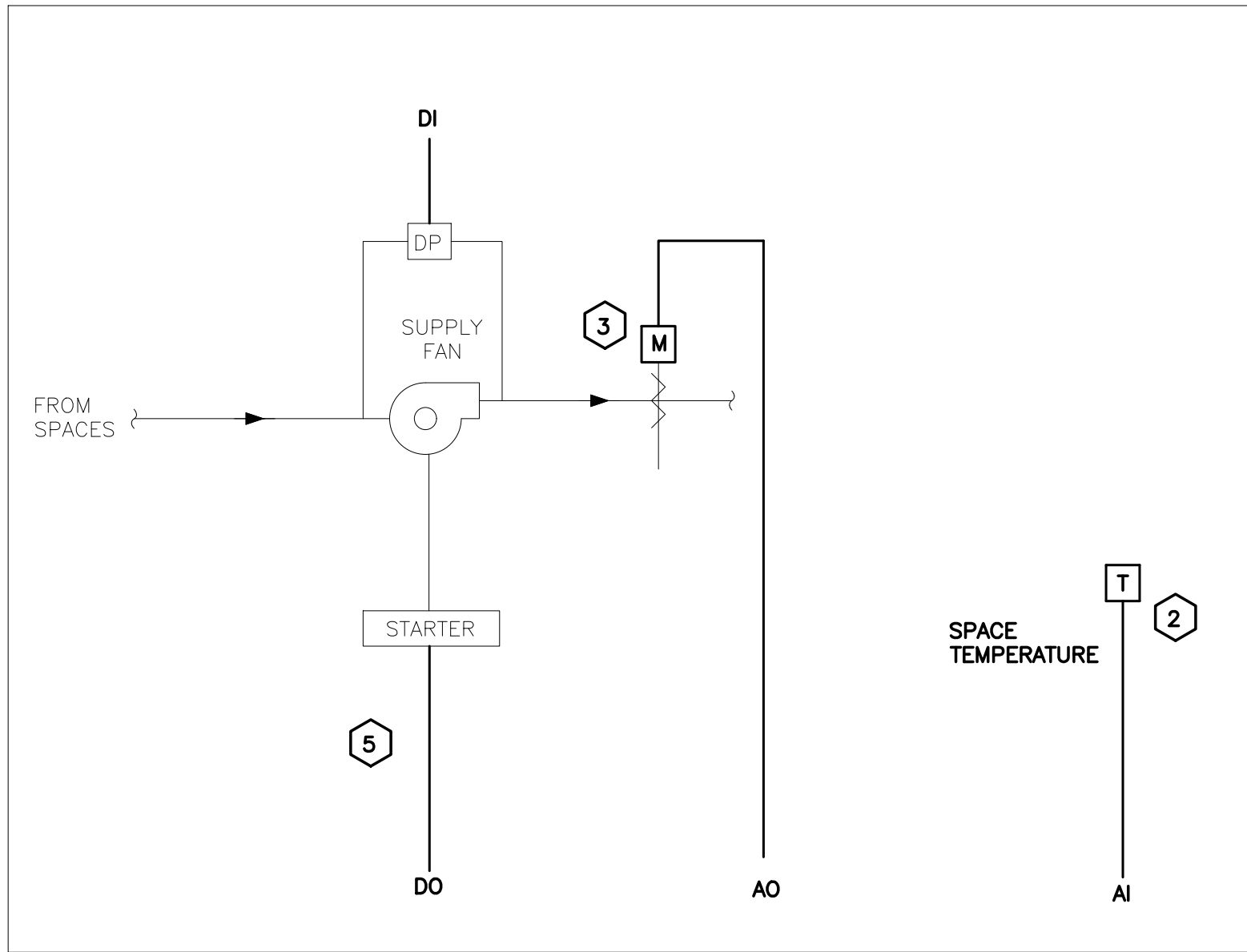
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Drawing 20 of 30

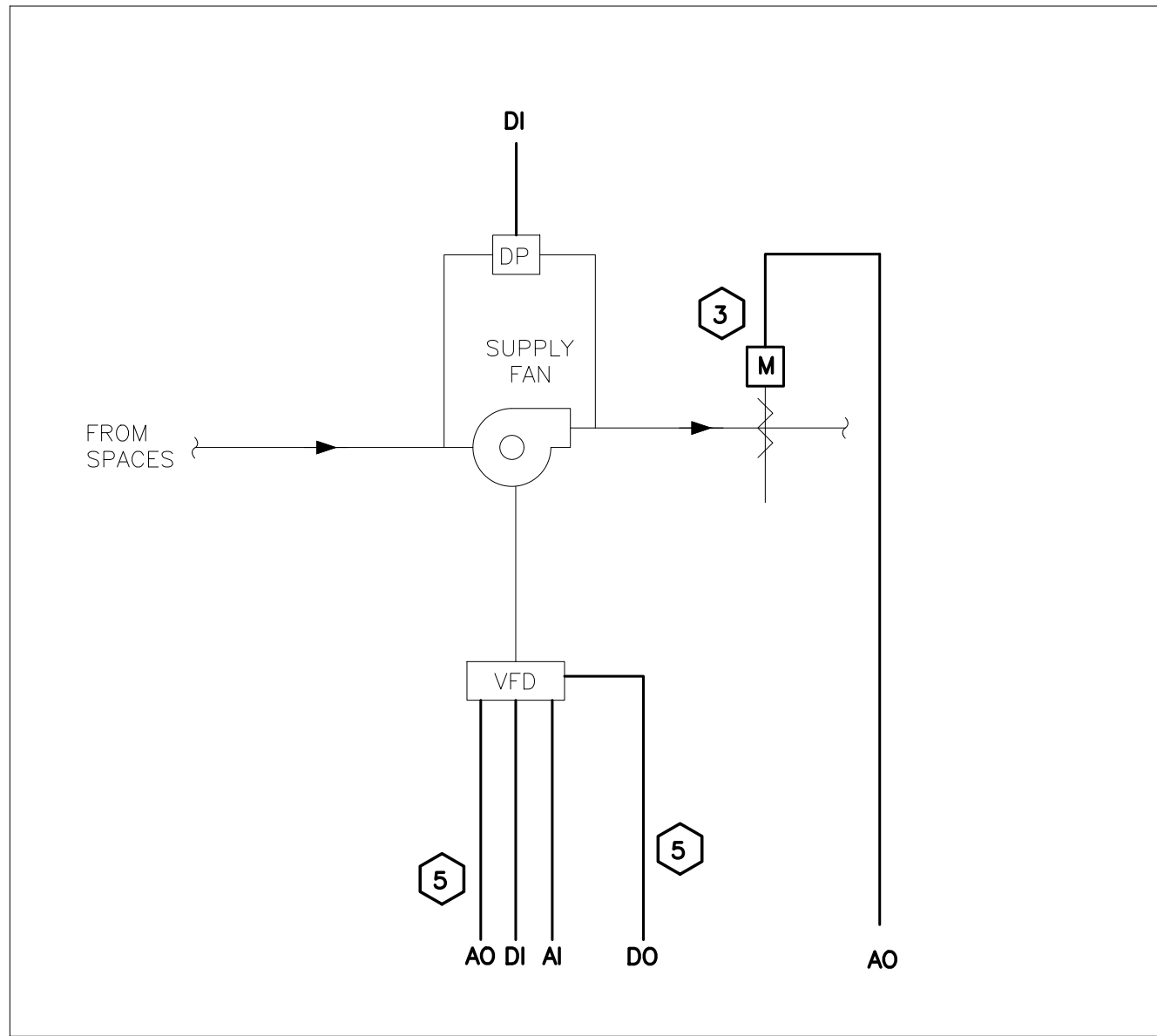




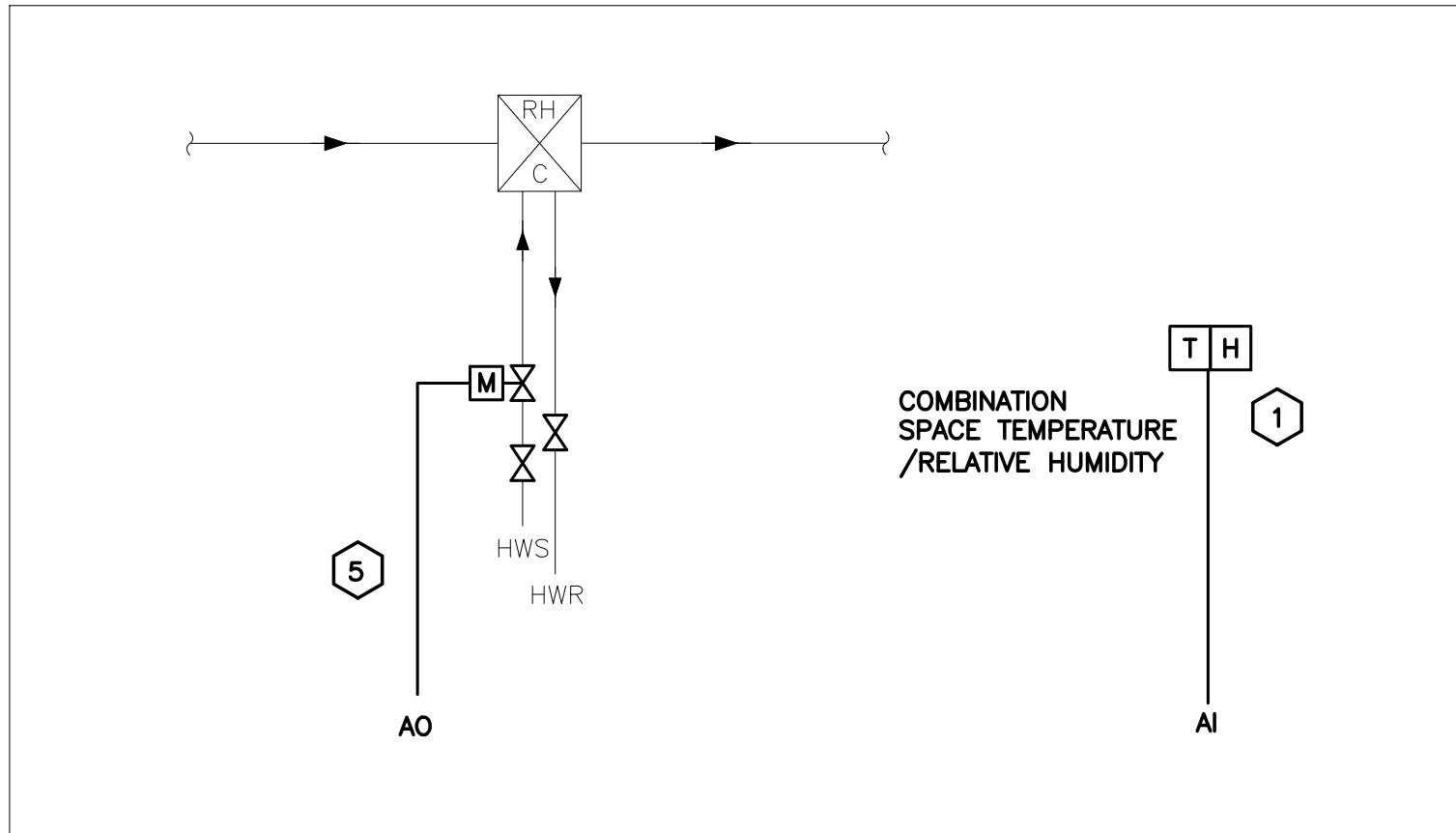
1 EF-25, WW8-3, WW8-4, EX-EF CONTROL DIAGRAM  
EF-7, EF-8, EF-9, EF-10, EF-12, EF-13, EF-19, EF-20, EF-24,  
SCALE: NOT TO SCALE



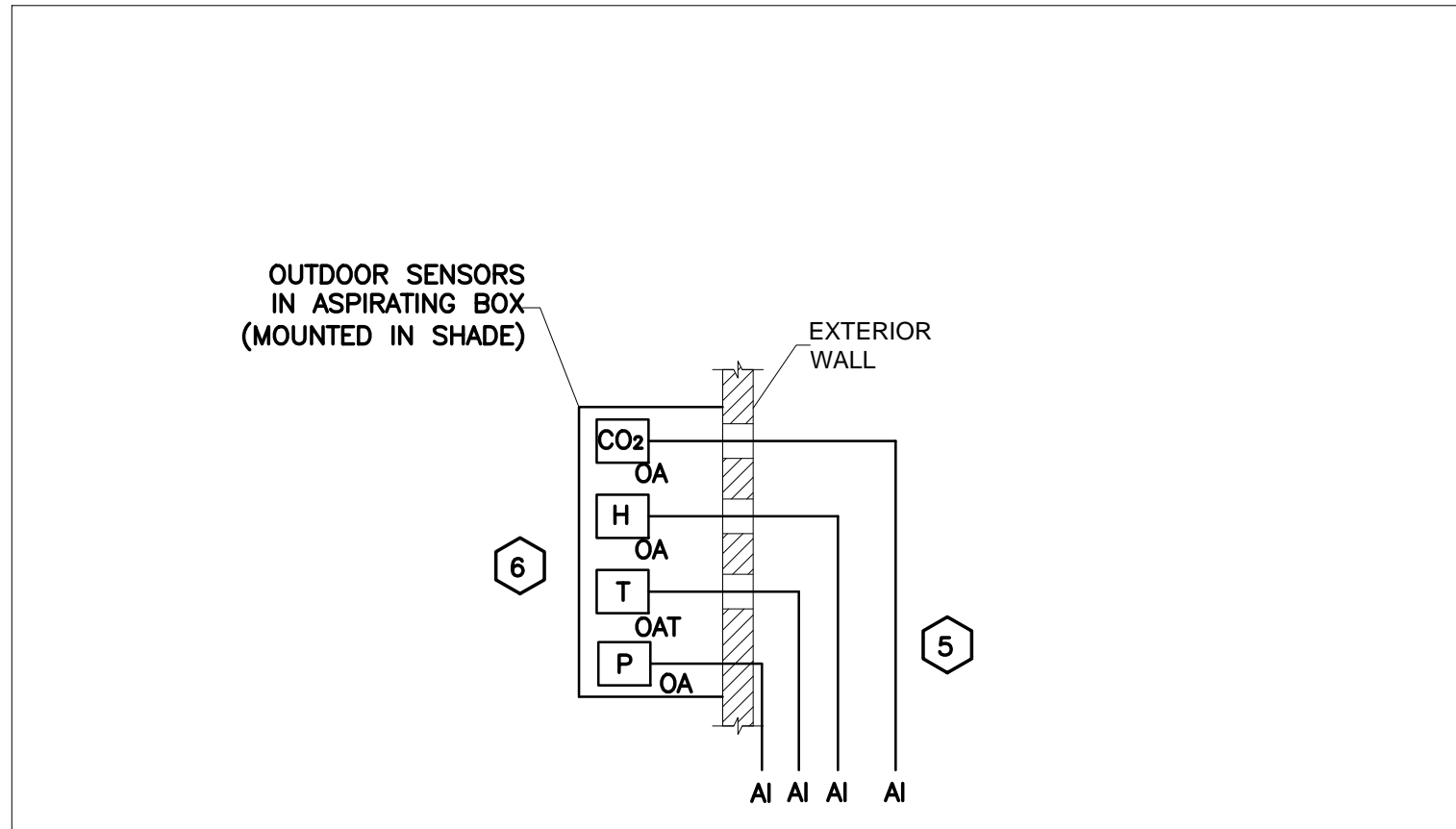
2 EF-16, EF-17, EF-18, EF-21, EF-22  
CONTROL DIAGRAM  
SCALE: NOT TO SCALE



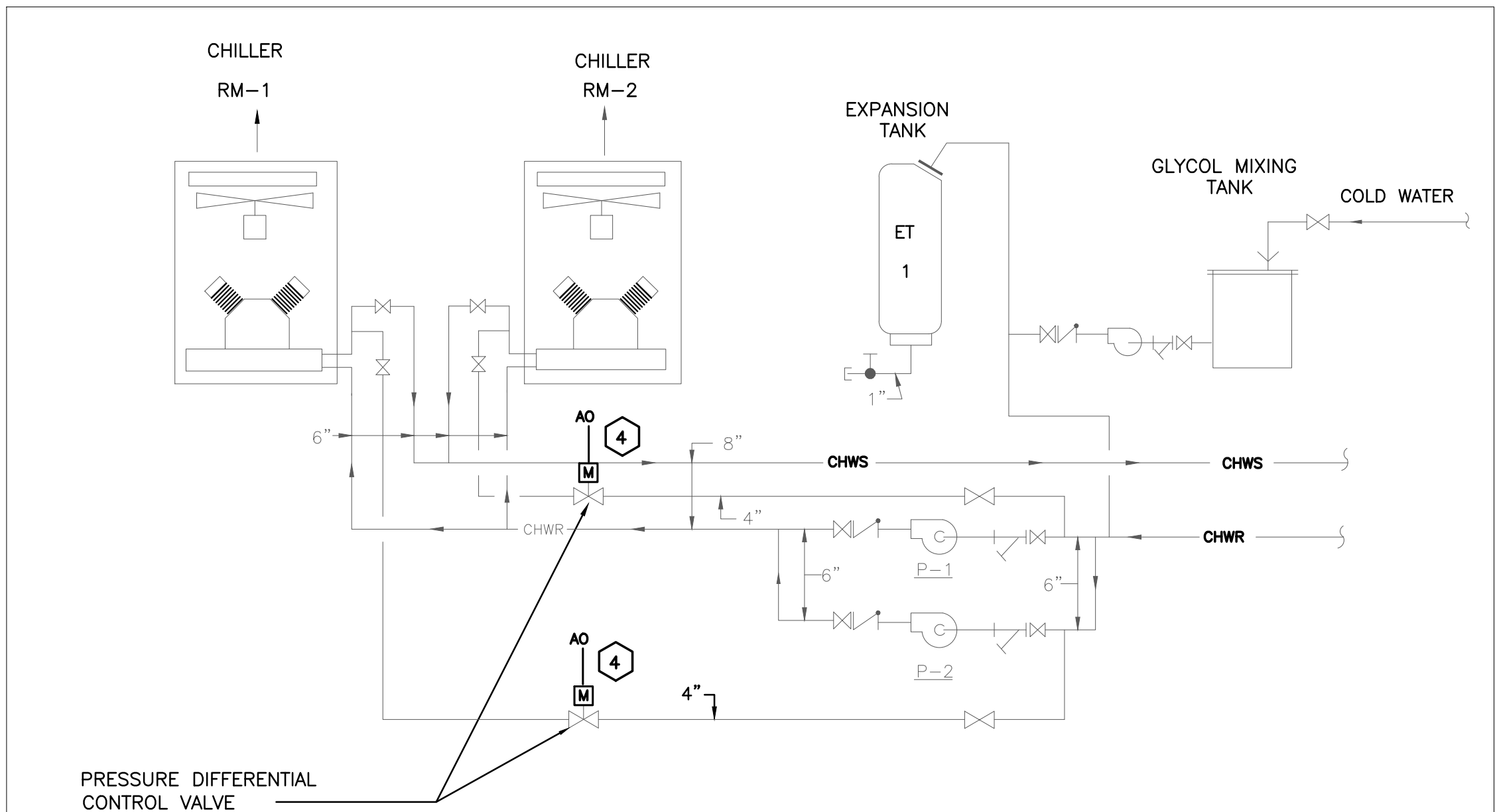
3 EF-1, EF-2, EF-3, EF-4  
CONTROL DIAGRAM  
SCALE: NOT TO SCALE



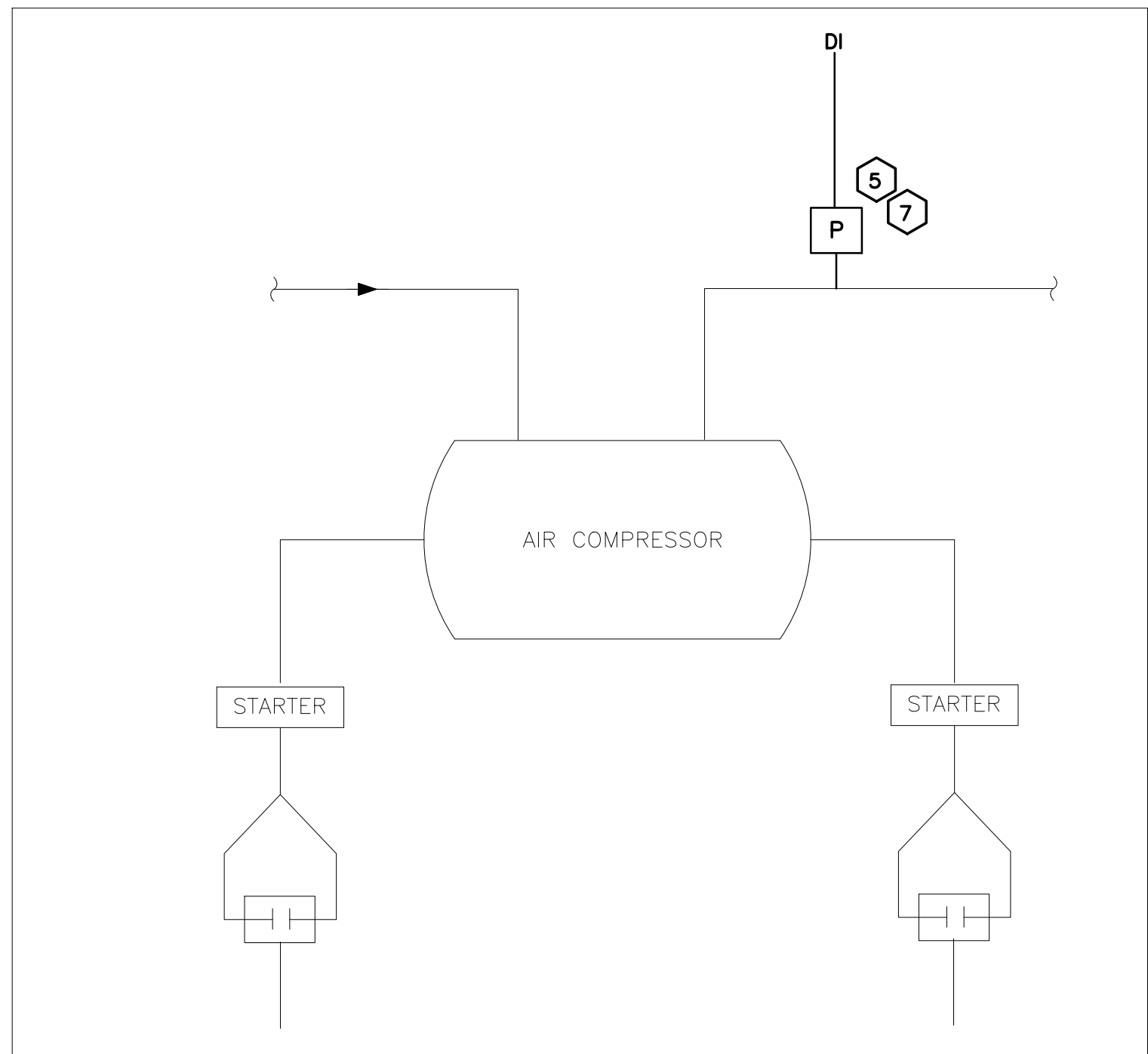
4 REHEAT COIL CONTROL DIAGRAM  
SCALE: NOT TO SCALE



5 CENTRAL WEATHER STATION CONTROL DIAGRAM  
SCALE: NOT TO SCALE



6 CHILLED WATER CONTROL DIAGRAM  
SCALE: NOT TO SCALE



7 TYPICAL AIR COMPRESSOR & AIR DRYER SYSTEM  
CONTROL DIAGRAM  
SCALE: NOT TO SCALE

#### GENERAL NOTES

1. ALL PENETRATIONS THROUGH THE FLOOR TO BE SEALED AS IF FLOORS ARE 1-HR FIRE RATED.
2. IF THERE IS AN AIR PLENUM WITH NON-DUCTED SUPPLY, RETURN OR EXHAUST, CONTRACTOR IS TO PROVIDE PLENUM RATED CABLE. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING ROOMS: 1-17, 1-18, 1-24, 1-38, 1-41, 1-51 & 1-55
3. PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
5. ALL SENSORS AND UNITARY CONTROLLERS TO REMAIN UNLESS OTHERWISE NOTED.
6. EMT IS REQUIRED FOR ALL EXPOSED LOCATIONS INCLUDING KITCHEN AND MECHANICAL EQUIPMENT ROOMS. J HOOKS ARE TO BE PROVIDED FOR CONCEALED SPACES.
7. FURNISH AND INSTALL NEW FIRE RATED CABLE SLEEVE THROUGH RATED WALLS AND FIRE STOP. REFER TO M-002 FOR FIRE RATINGS.
8. EXISTING SMOKE DETECTORS TO REMAIN AND MAINTAIN EXISTING FUNCTIONS AND SEQUENCES FOR FIRE ALARM.
9. REFERENCE DRAWINGS M-304 THROUGH M-306 FOR THE REQUIRED CONTROL POINTS LIST.
10. PROVIDE ALL NECESSARY GRAPHIC PAGES INCLUDING BUT NOT LIMITED TO DP SENSORS AND TEMPERATURE AND RELATIVE HUMIDITY MONITORING.

#### KEYED NOTES

- 1 FURNISH AND INSTALL NEW BLANK FACE COMBINATION TEMPERATURE/HUMIDITY SENSOR TO BE WALL MOUNTED AND CONNECTED TO ASSOCIATED SYSTEM CONTROLLER.
- 2 FURNISH AND INSTALL NEW BLANK FACE TEMPERATURE SENSOR TO BE WALL MOUNTED AND CONNECTED TO ASSOCIATED SYSTEM CONTROLLER.
- 3 FURNISH AND INSTALL NEW DAMPER ACTUATOR, PROVIDE NEW CONTROL WIRING, CONDUIT AND INTEGRATE TO THE NEW BMS.
- 4 FURNISH AND INSTALL NEW VALVE ACTUATOR, PROVIDE NEW CONTROL WIRING, CONDUIT AND INTEGRATE TO THE NEW BMS.
- 5 FURNISH AND INSTALL REQUIRED CONTROLLER NETWORK WIRING AND COMMUNICATION CABLE TO INTEGRATE CONTROL POINTS TO THE NEW BMS.
- 6 FURNISH AND INSTALL CENTRAL WEATHER STATION WITH CARBON DIOXIDE, HUMIDITY, TEMPERATURE AND PRESSURE SENSORS.
- 7 FURNISH AND INSTALL SENSOR TO INTEGRATE THE STATUS OF THE TWO AIR COMPRESSORS ONTO THE BMS.

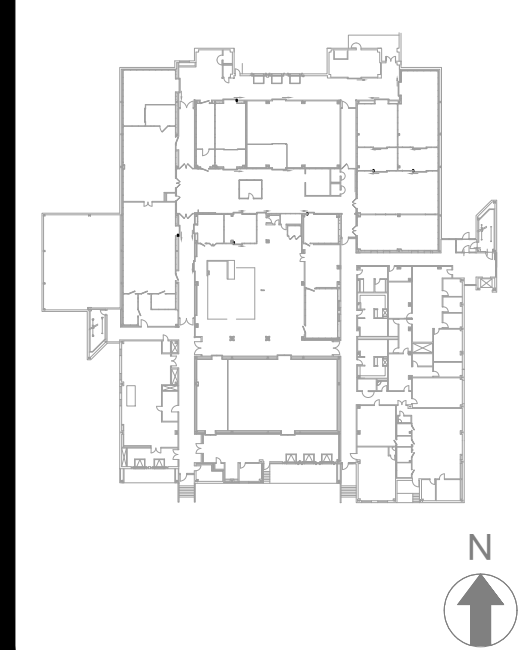
#### Consultants:



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#### Project Key



#### REVISIONS

Rev No	Description	Date:
1		
2		
3		
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6		
7		

#### Client

NEW YORK STATE OF OPPORTUNITY Office of Mental Health  
44 HOLLAND AVENUE  
ALBANY, NY 12229

#### Project Title

BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

#### Drawing Title

CONTROL DIAGRAMS  
PAGE 3 OF 4

#### Phase

BID DOCUMENTS

Drawn By: Checked By: Date: 10/15/2021

#### Seal & Signature

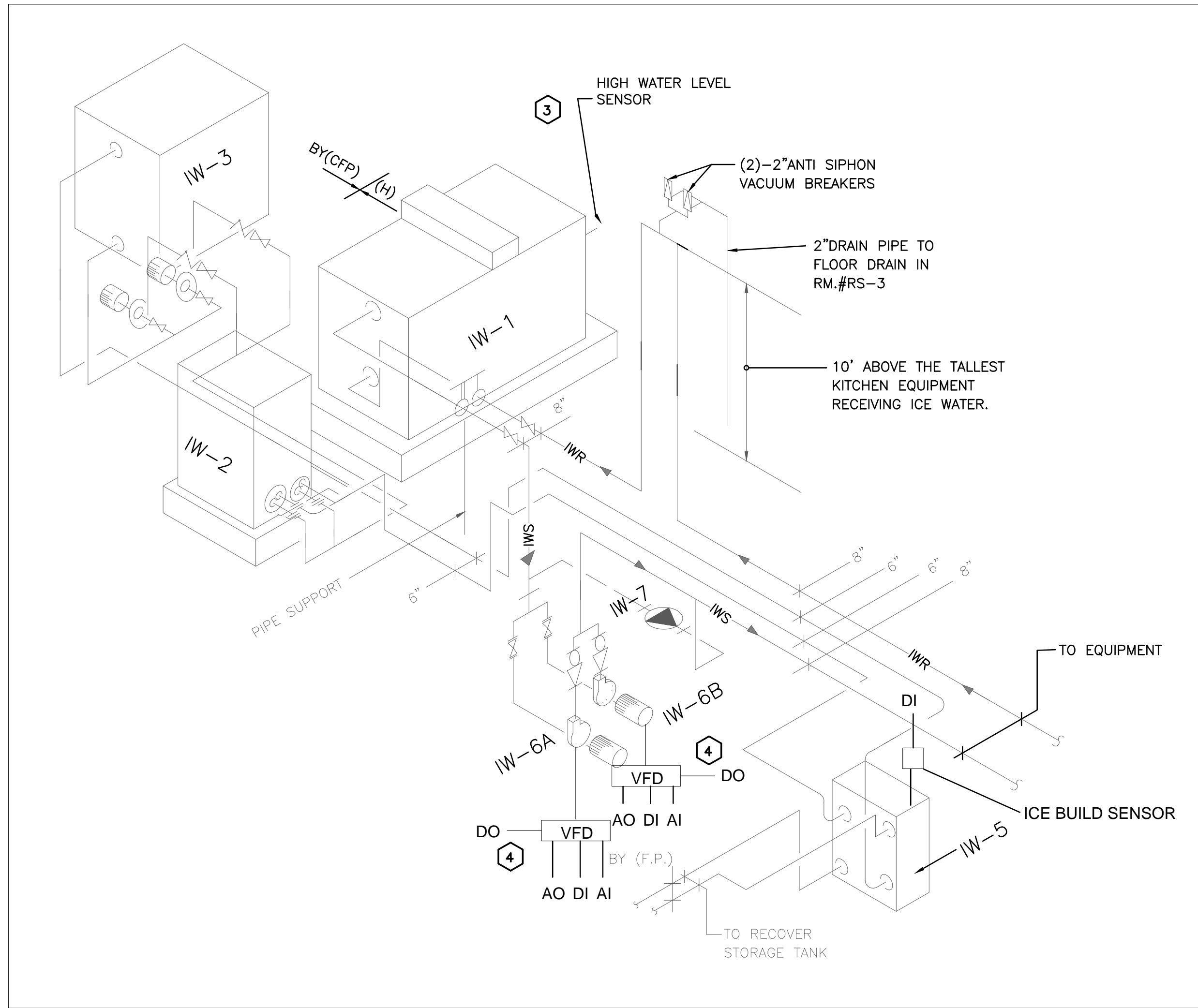
DASNY Project No: 360880

Drawing Number

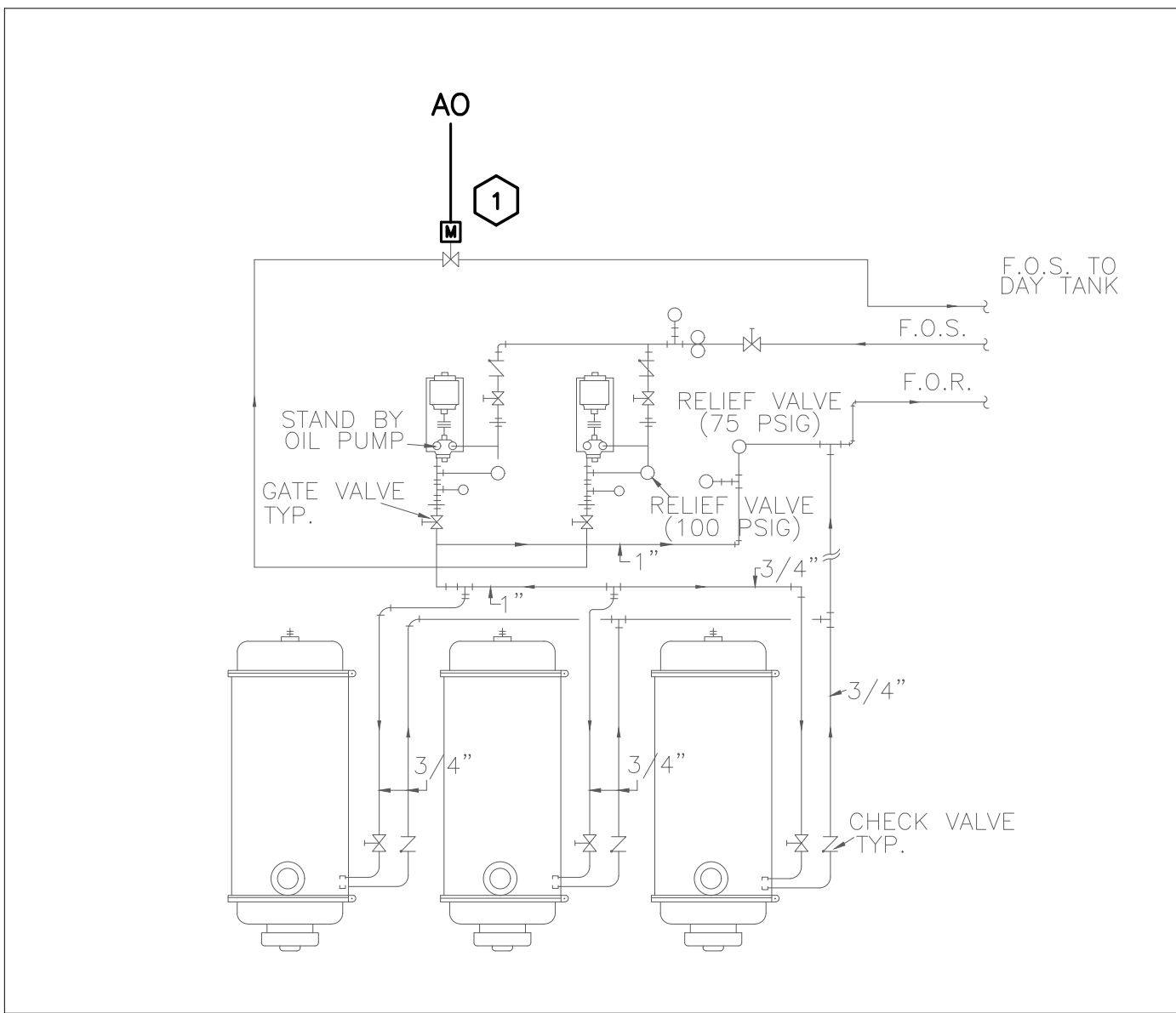
M-302

Drawing 21 of 30

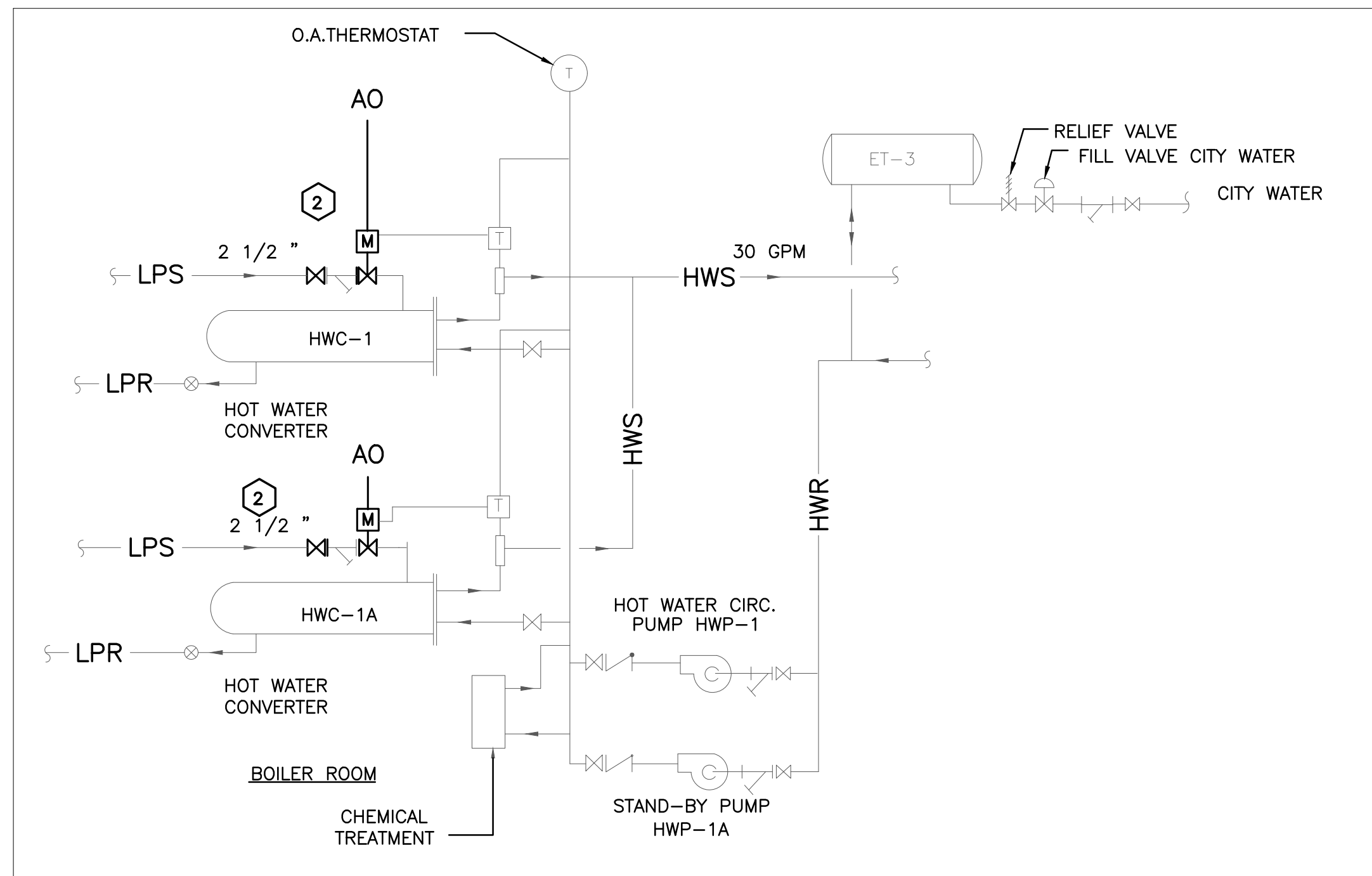




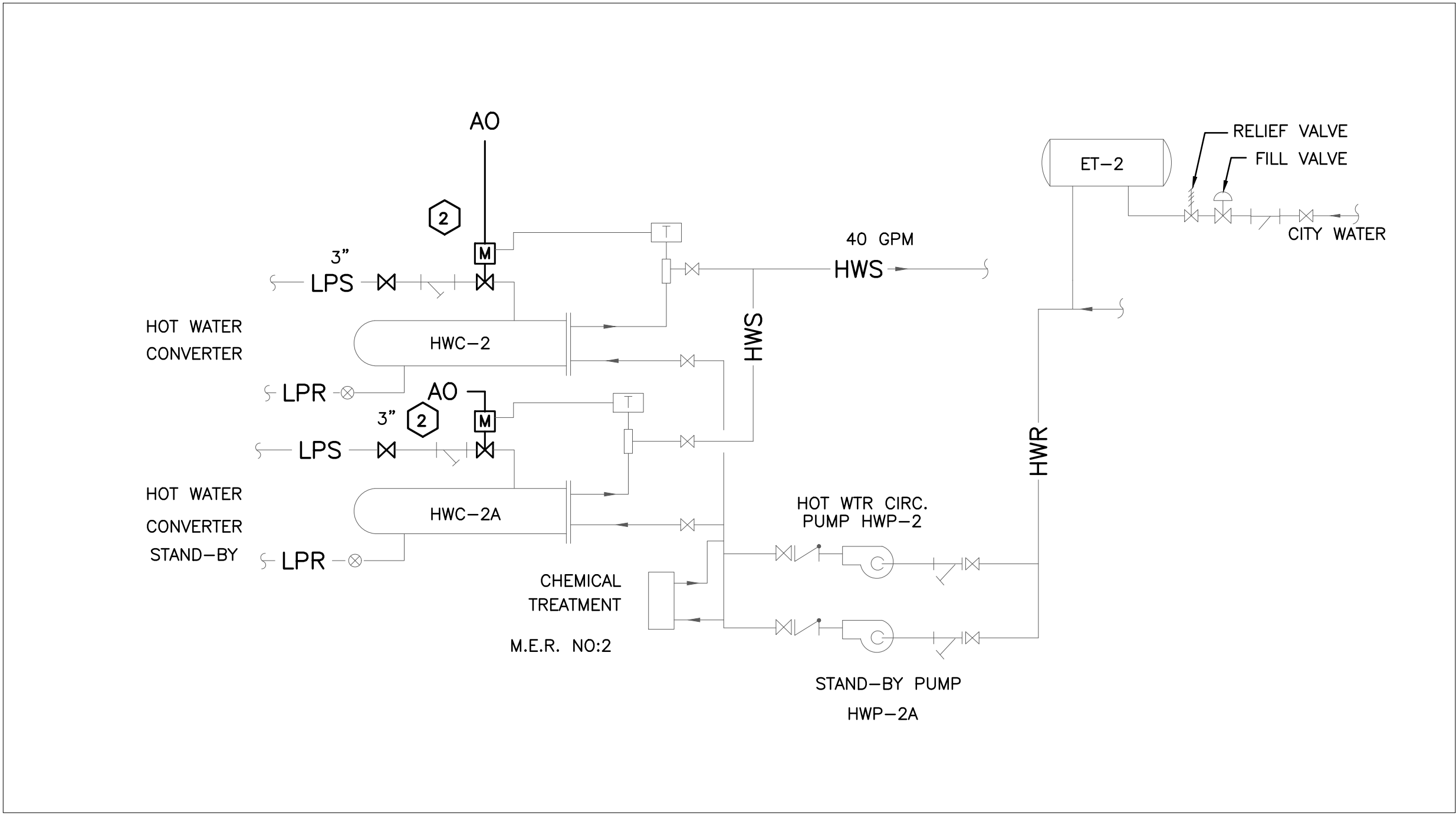
**1 ICE WATER SYSTEM CONTROL DIAGRAM**  
SCALE: NOT TO SCALE



**2 FUEL OIL CONTROL DIAGRAM**  
SCALE: NOT TO SCALE



**3 HEAT EXCHANGER CONTROL DIAGRAM (HWC-1 & HWC-1A)**  
SCALE: NOT TO SCALE



**4 HEAT EXCHANGER CONTROL DIAGRAM (HWC-2 & HWC-2A)**  
SCALE: NOT TO SCALE

#### GENERAL NOTES

- ALL PENETRATIONS THROUGH THE FLOOR TO BE SEALED AS IF FLOORS ARE 1-HR FIRE RATED.
- IF THERE IS AN AIR PLENUM WITH NON-DUCTED SUPPLY, RETURN OR EXHAUST, CONTRACTOR IS TO PROVIDE PLENUM RATED CABLE. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING ROOMS: 1-17, 1-18, 1-24, 1-38, 1-41, 1-51 & 1-55
- PHASING WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE OWNER AND THE PROPOSED PHASING ON M-001. CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR REVIEW AND APPROVAL BY DASNY, OMH/COOK CHILL FACILITY, AND EME. CONTRACTOR SHALL PROVIDE A SCHEDULE PER SPECIFICATION 013200 AND SCHEDULE SHALL BE CONSISTENT WITH APPROVED PHASING PLAN.
- ALL SENSORS AND UNITARY CONTROLLERS TO REMAIN UNLESS OTHERWISE NOTED.
- EMT IS REQUIRED FOR ALL EXPOSED LOCATIONS INCLUDING KITCHEN AND MECHANICAL EQUIPMENT ROOMS. J HOOKS ARE TO BE PROVIDED FOR CONCEALED SPACES.
- FURNISH AND INSTALL NEW FIRE RATED CABLE SLEEVE THROUGH RATED WALLS AND FIRE STOP. REFER TO M-002 FOR FIRE RATINGS.
- EXISTING SMOKE DETECTORS TO REMAIN AND MAINTAIN EXISTING FUNCTIONS AND SEQUENCES FOR FIRE ALARM.
- REFERENCE DRAWINGS M-304 THROUGH M-306 FOR THE REQUIRED CONTROL POINTS LIST.
- PROVIDE ALL NECESSARY GRAPHIC PAGES INCLUDING BUT NOT LIMITED TO DP SENSORS AND TEMPERATURE AND RELATIVE HUMIDITY MONITORING.

#### KEYED NOTES

- FURNISH AND INSTALL NEW VALVE ACTUATOR, PROVIDE NEW CONTROL WIRING, CONDUIT AND INTEGRATE TO THE NEW BMS.
- FURNISH AND INSTALL REQUIRED CONTROLLER NETWORK WIRING AND COMMUNICATION CABLE TO INTEGRATE CONTROL POINTS TO THE NEW BMS.
- FURNISH AND INSTALL SENSOR TO INTEGRATE THE ICE BUILD AND SCHEDULING ONTO THE BMS.
- FURNISH AND INSTALL REQUIRED NETWORK WIRING AND COMMUNICATION CABLE TO INTEGRATE 40 HP VFDS TO ICE WATER PUMP CONTROLLER AND INTEGRATE ONTO THE BMS.

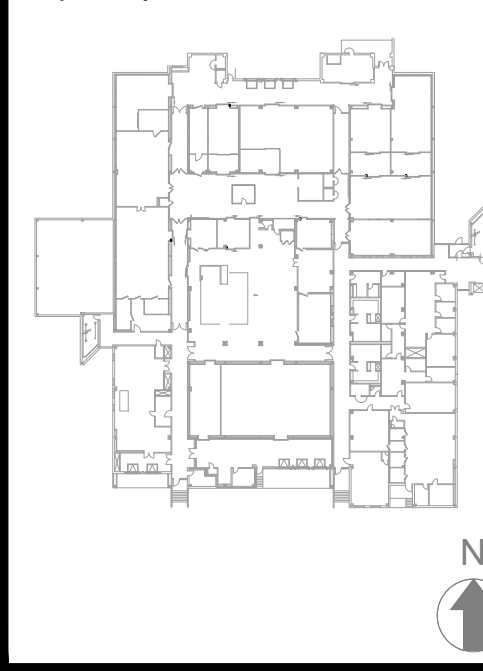
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#### Project Key



#### REVISIONS

Rev No	Description	Date:

#### Client



44 HOLLAND AVENUE  
ALBANY, NY 12229  
Project Title  
**BMS REPLACEMENT**  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

#### Drawing Title

**CONTROL DIAGRAMS**  
PAGE 4 OF 4

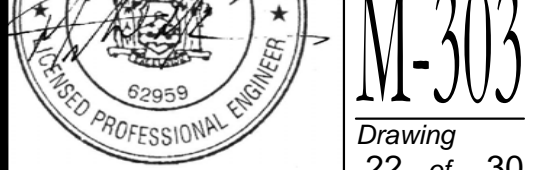
#### Phase

#### BID DOCUMENTS

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Seal & Signature      DASNY Project No: 360880

Drawing Number



**M-303**  
Drawing 22 of 30



TYPICAL EXHAUST FAN CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	EF-1 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-1 EXHAUST FAN S/S RELAY	ON/OFF		X
AI	EF-1 FAN SPEED FEEDBACK	% SPEED	X	X
DI	EF-1 FAN COMMON ALARM	NORMAL/ ALARM	X	X
AO	EF-1 FAN SPEED COMMAND	% SPEED	X	X
AO	EF-1 EXHAUST DAMPER	%OPEN	X	
DI	EF-2 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-2 EXHAUST FAN S/S RELAY	ON/OFF		X
AI	EF-2 FAN SPEED FEEDBACK	% SPEED	X	X
DI	EF-2 FAN COMMON ALARM	NORMAL/ ALARM		X
AO	EF-2 FAN SPEED COMMAND	% SPEED	X	X
AO	EF-2 EXHAUST DAMPER	%OPEN	X	
DI	EF-3 EXHAUST FAN PRESSURE SWITCH	ON/OFF		X
DO	EF-3 EXHAUST FAN S/S RELAY	ON/OFF		X
AI	EF-3 FAN SPEED FEEDBACK	% SPEED	X	X
DI	EF-3 FAN COMMON ALARM	NORMAL/ ALARM		X
AO	EF-3 FAN SPEED COMMAND	% SPEED	X	X
AO	EF-3 EXHAUST DAMPER	%OPEN	X	
DI	EF-4 EXHAUST FAN PRESSURE SWITCH	ON/OFF		X
DO	EF-4 EXHAUST FAN S/S RELAY	ON/OFF		X
AI	EF-4 FAN SPEED FEEDBACK	% SPEED	X	X
DI	EF-4 FAN COMMON ALARM	NORMAL/ ALARM	X	X
AO	EF-4 FAN SPEED COMMAND	% SPEED	X	X
AO	EF-4 EXHAUST DAMPER	%OPEN	X	
DI	EF-7 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-7 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-7 EXHAUST DAMPER	%OPEN	X	
DI	EF-8 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-8 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-8 EXHAUST DAMPER	%OPEN	X	
DI	EF-9 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-9 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-9 EXHAUST DAMPER	%OPEN	X	
DI	EF-10 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-10 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-10 EXHAUST DAMPER	%OPEN	X	
DI	EF-11 EXHAUST FAN PRESSURE SWITCH	ON/OFF		X
DO	EF-11 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-11 EXHAUST DAMPER	%OPEN	X	
DI	EF-12 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-12 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-12 EXHAUST DAMPER	%OPEN	X	
DI	EF-13 EXHAUST FAN PRESSURE SWITCH (RM 1-38)	ON/OFF	X	X
DO	EF-13 EXHAUST FAN S/S RELAY (RM 1-38)	ON/OFF		X
AO	EF-13 EXHAUST DAMPER (RM 1-38)	%OPEN	X	

TYPICAL EXHAUST FAN CONTROL POINTS CONTINUED				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
AI	EF-14 SPACE TEMPERATURE	DEG	X	X
DI	EF-14 EXHAUST FAN PRESSURE SWITCH	ON/OFF		X
DO	EF-14 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-14 EXHAUST DAMPER	%OPEN	X	
DI	EF-15 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-15 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-15 EXHAUST DAMPER	%OPEN	X	
AI	EF-16 SPACE TEMPERATURE	DEG	X	X
DI	EF-16 EXHAUST FAN PRESSURE SWITCH	ON/OFF		X
DO	EF-16 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-16 EXHAUST DAMPER	%OPEN	X	
AI	EF-17 SPACE TEMPERATURE	DEG	X	X
DI	EF-17 EXHAUST FAN PRESSURE SWITCH	ON/OFF		X
DO	EF-17 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-17 EXHAUST DAMPER	%OPEN	X	
AI	EF-18 SPACE TEMPERATURE	DEG	X	X
DI	EF-18 EXHAUST FAN PRESSURE SWITCH	ON/OFF		X
DO	EF-18 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-18 EXHAUST DAMPER	%OPEN	X	
DI	EF-19 EXHAUST FAN PRESSURE SWITCH	ON/OFF		X
DO	EF-19 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-19 EXHAUST DAMPER	%OPEN	X	
DI	EF-20 EXHAUST FAN PRESSURE SWITCH	ON/OFF		X
DO	EF-20 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-20 EXHAUST DAMPER	%OPEN	X	
AI	EF-21 SPACE TEMPERATURE	ON/OFF	X	X
DI	EF-21 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-21 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-21 EXHAUST DAMPER	%OPEN	X	
AI	EF-22 SPACE TEMPERATURE	DEG		X
DI	EF-22 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-22 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-22 EXHAUST DAMPER	%OPEN	X	
DI	EF-24 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	EF-24 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	EF-24 EXHAUST DAMPER	%OPEN	X	
DI	EF-25 EXHAUST FAN PRESSURE SWITCH (RM 1-18)	ON/OFF		X
DO	EF-25 EXHAUST FAN S/S RELAY (RM 1-18)	ON/OFF		X
AO	EF-25 EXHAUST DAMPER (RM 1-18)	%OPEN	X	
AO	LAB-EF EXHAUST FAN LOW SPEED ON RELAY	% SPEED	X	
AO	LAB-EF EXHAUST FAN HIGH SPEED ON RELAY	% SPEED	X	
AO	LAB-EF EXHAUST DAMPER	%OPEN	X	
DI	WW8-3 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	WW8-3 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	WW8-3 EXHAUST DAMPER	%OPEN	X	
DI	WW8-4 EXHAUST FAN PRESSURE SWITCH	ON/OFF	X	X
DO	WW8-4 EXHAUST FAN S/S RELAY	ON/OFF		X
AO	WW8-4 EXHAUST DAMPER	%OPEN	X	

MISC. CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	PRODUCTION AIR COMPRESSOR STATUS			
DI	AIR COMPRESSOR STATUS	ON/OFF		X
AI	CENTRAL OA TEMPERATURE	DEG	X	X
AI	CENTRAL OA HUMIDITY	RH		X
DI	ERCH-1 STATUS	ON/OFF		X
AI	ERCH-1 DISCHARGE TEMPERATURE	DEG	X	X
AI	ERCH-1 SPACE TEMPERATURE	DEG	X	X
AI	ERCH-1 SPACE HUMIDITY	RH		X
DI	ERCH-1 AMPARAGE	AMPS	X	
DI	ERCH-2 STATUS	ON/OFF		X
AI	ERCH-2 DISCHARGE TEMPERATURE	DEG	X	X
AI	ERCH-2 SPACE TEMPERATURE	DEG	X	X
AI	ERCH-2 SPACE HUMIDITY	RH	X	X
DI	ERCH-2 AMPARAGE	AMPS	X	
DI	ERCH-3 STATUS	ON/OFF		X
AI	ERCH-3 DISCHARGE TEMPERATURE	DEG	X	X
AI	ERCH-3 SPACE TEMPERATURE	DEG	X	X
AI	ERCH-3 SPACE HUMIDITY	RH	X	X
DI	ERCH-3 AMPARAGE	AMPS	X	
DI	ERCH-4 STATUS	ON/OFF	X	
AI	ERCH-4 DISCHARGE TEMPERATURE	DEG	X	X
AI	ERCH-4 SPACE TEMPERATURE	DEG	X	X
AI	ERCH-4 SPACE HUMIDITY	RH	X	X
DI	ERCH-4 AMPARAGE	AMPS	X	
DI	HEAT TRACE PANEL CURRENT TRANSDUCER	ON/OFF		X
DI	EXHAUST FAN PRESSURE SWITCH (ELEC. RM)	ON/OFF	X	X
DO	EXHAUST FAN S/S RELAY (ELEC. RM)	ON/OFF		X
AI	EXHAUST FAN SPEED FEEDBACK (ELEC. RM)	% SPEED	X	X
DI	EXHAUST FAN COMMON ALARM (ELEC. RM)	NORMAL/ ALARM		X
AO	EXHAUST FAN SPEED COMMAND (ELEC. RM)	NORMAL/ ALARM	X	X
AO	EXHAUST DAMPER (ELEC. RM)	% OPEN	X	
DI	ELE. EQUIP. RM TEMP OUT OF RANGE	NORMAL/ ALARM	X	X
DI	ELE. CLOSET TEMP OUT OF RANGE	NORMAL/ ALARM	X	X
DI	SUMP-EX PUMP PRESSURE SWITCH	ON/OFF	X	X
DI	SUMP-EX HIGH LEVEL ALARM RELAY	NORMAL/ ALARM	X	X
DO	SUMP-EX SEWER EJECTOR SOUTH RELAY	ON/OFF		X
DO	SUMP-EX SEWER EJECTOR NORTH RELAY	ON/OFF		X
DI	SUMP-EX SEWER EJECTOR HIGH LEVEL RELAY	NORMAL/ ALARM		X
DI	SUMP-EX PUMP PRESSURE SWITCH (RM B-14)	ON/OFF	X	X
DI	SUMP-EX HIGH LEVEL ALARM RELAY (RM B-14)	NORMAL/ ALARM		X
DI	REFRIGERANT CK TANK ALARM RELAY	NORMAL/ ALARM		X
DI	REFRIGERANT DIAL ALARM RELAY	NORMAL/ ALARM		X
DI	STEAM METER FOR MER #1	NORMAL/ ALARM	X	X
DI	STEAM METER FOR MER #2	NORMAL/ ALARM	X	X

TYPICAL REHEAT COIL CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
AI	RHC-1 SPACE TEMPERATURE	DEG	X	X
AI	RHC-1 SPACE HUMIDITY	RH	X	X
AO	RHC-1 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-2 SPACE TEMPERATURE	DEG	X	X
AI	RHC-2 SPACE HUMIDITY	RH	X	X
AO	RHC-2 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-3 SPACE TEMPERATURE	DEG	X	X
AI	RHC-3 SPACE HUMIDITY	RH	X	X
AO	RHC-3 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-4 SPACE TEMPERATURE	DEG	X	X
AI	RHC-4 SPACE HUMIDITY	RH	X	X
AO	RHC-4 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-5 SPACE TEMPERATURE	DEG	X	X
AI	RHC-5 SPACE HUMIDITY	RH	X	X
AO	RHC-5 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-6 SPACE TEMPERATURE	DEG	X	X
AI	RHC-6 SPACE HUMIDITY	RH	X	X
AO	RHC-6 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-7 SPACE TEMPERATURE	DEG	X	X
AI	RHC-7 SPACE HUMIDITY	RH	X	X
AO	RHC-7 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-8 SPACE TEMPERATURE	DEG	X	X
AI	RHC-8 SPACE HUMIDITY	RH	X	X
AO	RHC-8 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-10 SPACE TEMPERATURE	DEG	X	X
AI	RHC-10 SPACE HUMIDITY	RH	X	X
AO	RHC-10 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-11 SPACE TEMPERATURE	DEG	X	X
AI	RHC-11 SPACE HUMIDITY	RH	X	X
AO	RHC-11 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-12 SPACE TEMPERATURE	DEG	X	X
AI	RHC-12 SPACE HUMIDITY	RH	X	X
AO	RHC-12 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-14 SPACE TEMPERATURE	DEG	X	X
AI	RHC-14 SPACE HUMIDITY	RH	X	X
AO	RHC-14 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-15 SPACE TEMPERATURE	DEG	X	X
AI	RHC-15 SPACE HUMIDITY	RH	X	X
AO	RHC-15 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-16 SPACE TEMPERATURE	DEG	X	X
AI	RHC-16 SPACE HUMIDITY	RH	X	X
AO	RHC-16 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-17 SPACE TEMPERATURE	DEG	X	X
AI	RHC-17 SPACE HUMIDITY	RH	X	X
AO	RHC-17 REHEAT COIL HW VALVE	%OPEN	X	
AI	RHC-18 SPACE TEMPERATURE	DEG	X	X
AI	RHC-18 SPACE HUMIDITY	RH	X	X
AO	RHC-18 REHEAT COIL HW VALVE	%OPEN	X	



TEMP/HUMIDITY MONITORING REFRIGERATED BOXES CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
AI	RS-1 SPACE TEMPERATURE	DEG	X	X
AI	RS-1 SPACE HUMIDITY	RH	X	X
AI	RS-2 SPACE TEMPERATURE	DEG	X	X
AI	RS-2 SPACE HUMIDITY	RH	X	X
AI	RS-3 SPACE TEMPERATURE	DEG	X	X
AI	RS-3 SPACE HUMIDITY	RH	X	X
AI	RS-4 SPACE TEMPERATURE	DEG	X	X
AI	RS-4 SPACE HUMIDITY	RH	X	X
AI	RS-5 SPACE TEMPERATURE	DEG	X	X
AI	RS-5 SPACE HUMIDITY	RH	X	X
AI	RS-6 SPACE TEMPERATURE	DEG	X	X
AI	RS-6 SPACE HUMIDITY	RH	X	X
AI	RS-7 SPACE TEMPERATURE	DEG	X	X
AI	RS-7 SPACE HUMIDITY	RH	X	X
AI	RS-8 SPACE TEMPERATURE	DEG	X	X
AI	RS-8 SPACE HUMIDITY	RH	X	X
AI	RS-9 SPACE TEMPERATURE	DEG	X	X
AI	RS-9 SPACE HUMIDITY	RH	X	X
AI	RS-10 SPACE TEMPERATURE	DEG	X	X
AI	RS-10 SPACE HUMIDITY	RH	X	X
AI	RS-11 SPACE TEMPERATURE	DEG	X	X
AI	RS-11 SPACE HUMIDITY	RH	X	X
AI	RS-12 SPACE TEMPERATURE	DEG	X	X
AI	RS-12 SPACE HUMIDITY	RH	X	X
AI	RS-13 SPACE TEMPERATURE	DEG	X	X
AI	RS-13 SPACE HUMIDITY	RH	X	X
AI	RS-14 SPACE TEMPERATURE	DEG	X	X
AI	RS-14 SPACE HUMIDITY	RH	X	X
AI	RS-15 SPACE TEMPERATURE	DEG	X	X
AI	RS-15 SPACE HUMIDITY	RH	X	X
AI	RS-16 SPACE TEMPERATURE	DEG	X	X
AI	RS-16 SPACE HUMIDITY	RH	X	X
AI	RS-17 SPACE TEMPERATURE	DEG	X	X
AI	RS-17 SPACE HUMIDITY	RH	X	X
AI	RS-18 SPACE TEMPERATURE	DEG	X	X
AI	RS-18 SPACE HUMIDITY	RH	X	X
AI	RS-19 SPACE TEMPERATURE	DEG	X	X
AI	RS-19 SPACE HUMIDITY	RH	X	X
AI	RS-20 SPACE TEMPERATURE	DEG	X	X
AI	RS-20 SPACE HUMIDITY	RH	X	X
AI	RS-21 SPACE TEMPERATURE	DEG	X	X
AI	RS-21 SPACE HUMIDITY	RH	X	X
AI	RS-22 SPACE TEMPERATURE	DEG	X	X
AI	RS-22 SPACE HUMIDITY	RH	X	X
AI	RS-23 SPACE TEMPERATURE	DEG	X	X
AI	RS-23 SPACE HUMIDITY	RH	X	X
AI	RS-24 SPACE TEMPERATURE	DEG	X	X
AI	RS-24 SPACE HUMIDITY	RH	X	X
AI	RS-25 SPACE TEMPERATURE	DEG	X	X
AI	RS-25 SPACE HUMIDITY	RH	X	X
AI	RS-26 SPACE TEMPERATURE	DEG	X	X
AI	RS-26 SPACE HUMIDITY	RH	X	X
AI	RS-27 SPACE TEMPERATURE	DEG	X	X
AI	RS-27 SPACE HUMIDITY	RH	X	X
AI	RS-28B SPACE TEMPERATURE	DEG	X	X
AI	RS-28B SPACE HUMIDITY	RH	X	X
AI	RS-28A SPACE TEMPERATURE	DEG	X	X
AI	RS-28A SPACE HUMIDITY	RH	X	X

TEMP/HUMIDITY MONITORING CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
AI	1-4 CORRIDOR SPACE TEMPERATURE	DEG	X	X
AI	1-4 CORRIDOR SPACE HUMIDITY	RH	X	X
AI	1-6 SPACE TEMPERATURE	DEG	X	X
AI	1-6 SPACE HUMIDITY	RH	X	X
AI	1-8 SPACE TEMPERATURE	DEG	X	X
AI	1-8 SPACE HUMIDITY	RH	X	X
AI	1-15 SPACE TEMPERATURE	DEG	X	X
AI	1-15 SPACE HUMIDITY	RH	X	X
AI	1-14 SPACE TEMPERATURE	DEG	X	X
AI	1-14 SPACE HUMIDITY	RH	X	X
AI	1-17 SPACE TEMPERATURE	DEG	X	X
AI	1-17 SPACE HUMIDITY	RH	X	X
AI	1-19 CORRIDOR SPACE TEMPERATURE	DEG	X	X
AI	1-19 SPACE HUMIDITY	RH	X	X
AI	1-28 SPACE TEMPERATURE	DEG	X	X
AI	1-28 SPACE HUMIDITY	RH	X	X
AI	1-41 SPACE TEMPERATURE	DEG	X	X
AI	1-41 SPACE HUMIDITY	RH	X	X
AI	1-30 SPACE TEMPERATURE	DEG	X	X
AI	1-30 SPACE HUMIDITY	RH	X	X
AI	1-43 SPACE TEMPERATURE	DEG	X	X
AI	1-43 SPACE HUMIDITY	RH	X	X
AI	1-44 SPACE TEMPERATURE	DEG	X	X
AI	1-44 SPACE HUMIDITY	RH	X	X
AI	1-42 SPACE TEMPERATURE	DEG	X	X
AI	1-42 SPACE HUMIDITY	RH	X	X
AI	1-45 SPACE TEMPERATURE	DEG	X	X
AI	1-45 SPACE HUMIDITY	RH	X	X
AI	1-52 SPACE TEMPERATURE	DEG	X	X
AI	1-52 SPACE HUMIDITY	RH	X	X
AI	1-40 SPACE TEMPERATURE	DEG	X	X
AI	1-40 SPACE HUMIDITY	RH	X	X
AI	1-54 SPACE TEMPERATURE	DEG	X	X
AI	1-54 SPACE HUMIDITY	RH	X	X
AI	1-55 SPACE TEMPERATURE	DEG	X	X
AI	1-55 SPACE HUMIDITY	RH	X	X
AI	1-59 SPACE TEMPERATURE	DEG	X	X
AI	1-59 SPACE HUMIDITY	RH	X	X
AI	1-57 SPACE TEMPERATURE	DEG	X	X
AI	1-57 SPACE HUMIDITY	RH	X	X
AI	1-62 SPACE TEMPERATURE	DEG	X	X
AI	1-62 SPACE HUMIDITY	RH	X	X

DIFFERENTIAL PRESSURE MONITORING CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
AI	1-19 CORRIDOR DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	1-19 CORRIDOR DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	RS-4 DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	RS-17 DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	1-19 CORRIDOR DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	1-14 (PRODUCTION) DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	RS-22 DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	RS-23 DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	1-19 CORRIDOR DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	RS-20 DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	1-34 CORRIDOR DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	1-14 DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	RS-14 DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	RS-13 DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	1-15C CORRIDOR DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
AI	OUTDOOR PRESSURE SENSOR #1	IN. W.C.	X	X
AI	OUTDOOR AIR PRESSURE SENSOR #2	IN. W.C.	X	X

PERIMETER RADIATION LOOP CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	HWP-1 PUMP PRESSURE SWITCH	ON/OFF		X
DI	HWP-1A PUMP PRESSURE SWITCH	ON/OFF		X
AI	HWC-1 SUPPLY WATER TEMPERATURE	DEG	X	X
AI	HWC-1 OUTSIDE AIR TEMPERATURE	DEG	X	X
DO	HWP-1 PUMP S/S RELAY	ON/OFF		X
DO	HWP-1A PUMP S/S RELAY	ON/OFF		X
AO	HWC-1 STEAM VALVE	%OPEN	X	
AO	HWC-1A STEAM VALVE	%OPEN	X	
DI	HWC-1 STATUS	ON/OFF		X
DI	HWC-1A STATUS	ON/OFF		X

MAU-1 CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	MELINK SYSTEM STATUS	ON/OFF		X
DI	FREEZE STAT LOW LIMIT SWITCH	ON/OFF		X
DI	COOLING STAGE 1	ON/OFF		
DI	COOLING STAGE 2	ON/OFF		
DI	STEAM COIL CONTROL VALVE	% OPEN	X	
DI	STEAM COIL FACE & BYPASS DAMPER ACTUATOR	% OPEN	X	
DI	SUPPLY AIR TEMPERATURE	DEG	X	X
DI	OUTSIDE AIR TEMPERATURE	DEG	X	X
DI	ROOM SPACE TEMPERATURE	DEG	X	X

REHEAT COIL LOOP AND MISC. EQUIPMENT CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	HWP-2 PUMP PRESSURE SWITCH	ON/OFF		X
DI	HWP-2A PUMP PRESSURE SWITCH	ON/OFF		X
AI	HWP-2 SUPPLY WATER TEMPERATURE	DEG	X	X
DO	HWP-2 PUMP S/S RELAY	ON/OFF		X
DO	HWP-2A PUMP S/S RELAY	ON/OFF		X
AO	HWC-2 STEAM VALVE	%OPEN	X	
AO	HWC-2A STEAM VALVE	%OPEN	X	
DI	HWC-2 STATUS	ON/OFF		X
DI	HWC-2A STATUS	ON/OFF		X

GENERATOR CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	GEN-1 GENERATOR RUNNING RELAY	ON/OFF	X	X
DI	GEN-1 OVER CRANK ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 COMMON ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 LOW BATTERY ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 LOW FUEL LEVEL ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 LOW WATER TEMPERATURE ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 HIGH WATER TEMPERATURE ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 LOW OIL PRESSURE ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 FILL DAY TANK ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 OVER SPEED ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 DIAL OUT ALARM RELAY	NORMAL/ALARM	X	X
DI	GEN-1 DIAL OUT ALARM #2 RELAY	NORMAL/ALARM	X	X

Consultants:

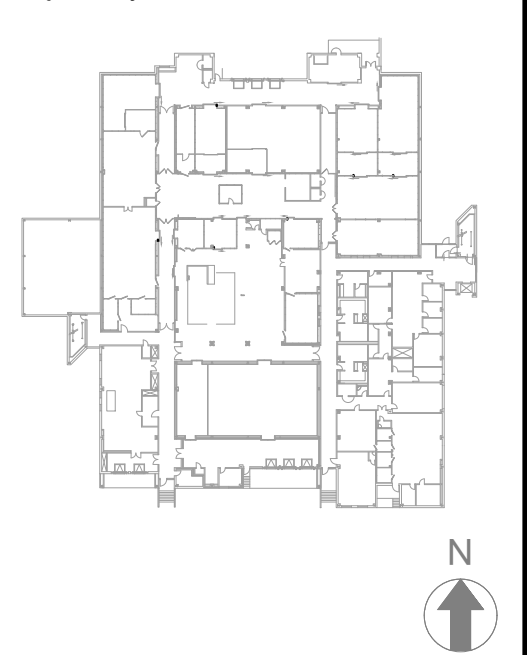


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Rev No	Description	Date:
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Client



44 HOLLAND AVENUE  
ALBANY, NY 12229  
Project Title  
**BMS REPLACEMENT**  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title

**CONTROL POINTS**  
PAGE 2 OF 3

Phase

BID DOCUMENTS

Drawn By: Checked By: Date: 10/15/2021

Seal & Signature DASNY Project No: 360880

Drawing Number



**M-305**  
Drawing  
24 of 30



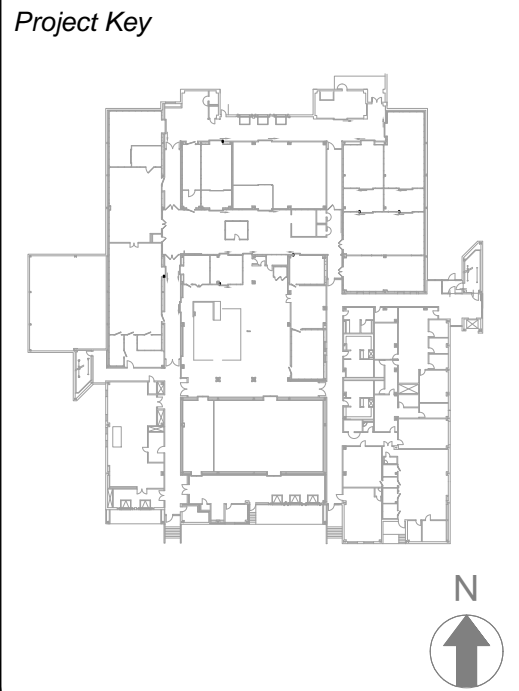
ICE CHILLER CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DO	CHWP-1 FAULT			X
DI	CHWP-1 START FAIL	NORMAL/ ALARM		X
DI	CHWP-1 PUMP PRESSURE SWITCH	ON/OFF		X
DO	CHWP-2 FAULT	NORMAL/ ALARM		X
DI	CHWP-2 START FAIL	NORMAL/ ALARM		X
DI	CHWP-2 PUMP PRESSURE SWITCH	ON/OFF		X
DO	CWP-1 FAULT	NORMAL/ ALARM		X
DI	CWP-1 START FAIL	NORMAL/ ALARM		X
DI	CWP-1 PUMP PRESSURE SWITCH	ON/OFF		X
DO	CWP-2 FAULT	NORMAL/ ALARM		X
DI	CWP-2 START FAIL	NORMAL/ ALARM		X
DI	CWP-2 PUMP PRESSURE SWITCH	ON/OFF		X
DI	COOLING TOWER STATUS PRESSURE SWITCH	ON/OFF		X
DI	TOWER LEVEL LOW	NORMAL/ ALARM		X
DO	TOWER FAN FAULT	NORMAL/ ALARM		X
DI	TOWER FAN START FAIL	NORMAL/ ALARM		X
DI	BAC TOWER ALARM RELAY	NORMAL/ ALARM	X	X
DI	CHILLER STATUS PRESSURE SWITCH	ON/OFF		X
DI	CHILLER DIFFERENTIAL PRESSURE SWITCH	IN. W.C.		X
DO	CHILLER FAULT	NORMAL/ ALARM		X
DI	CHLLER RUN FAIL	NORMAL/ ALARM	X	X
DI	REFRIGERANT LEAK	NORMAL/ ALARM	X	X
DI	B.A COMPRESSOR STATUS	ON/OFF	X	
DO	B.A COMPRESSOR FAULT	NORMAL/ ALARM		X
DI	B.A COMPRESSOR START FAIL	NORMAL/ ALARM		X
AI	CHW MER RETURN WATER TEMPERATURE	DEG	X	X
AI	CHW MER SUPPLY WATER TEMPERATURE	DEG	X	X
AI	CW MER RETURN WATER TEMPERATURE	DEG	X	X
AI	CW MER SUPPLY WATER TEMPERATURE	DEG	X	X
DI	CHW FLOW SWITCH	GPM	X	
AI	ICE WATER #2 TEMPERATURE	DEG	X	X
AI	ICE WATER TEMPERATURE	DEG	X	X
AO	BYPASS VALVE	% OPEN	X	X
DI	LT301 LEVEL HIGH	NORMAL/ ALARM	X	X
DI	HEADER PRESSURE	IN. W.C.	X	X
DI	ICE BUILD COMPLETE	NORMAL/ ALARM	X	X
DI	ICE BUILD LEVEL	NORMAL/ ALARM	X	X
DI	SMOKE ALARM	NORMAL/ ALARM		X

ICE WATER PUMP SYSTEM				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	IWP-6A STATUS	ON/OFF		X
DI	IWP-6B STATUS	ON/OFF		X
DO	IWP-6A START/STOP	ON/OFF		X
DO	IWP-6B START/STOP	ON/OFF		X
DO	IWP-7 START/STOP	ON/OFF		X
DI	IWP-6A FAIL	NORMAL/ ALARM	X	X
DI	IWP-6B FAIL	NORMAL/ ALARM	X	X
AI	EAST IWR TEMPERATURE (WTS-1)	DEG	X	X
AI	EAST IWS TEMPERATURE (WTS-2)	DEG	X	X
AI	SYSTEM RETURN TERMPERATURE (WTS-3)	DEG	X	X
AI	PUMP SUCTION TEMPERATURE (WTS-4)	DEG	X	X
AI	DIFFERENTIAL PRESSURE SENSOR	IN. W.C.	X	X
DI	FLOW SWITCH	GPM	X	X
AI	PRESSURE SENSOR	IN. W.C.	X	X

CHILLED WATER CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	CHWP-1 PUMP PRESSURE SWITCH	ON/OFF		X
DI	CHWP-2 PUMP PRESSURE SWITCH	ON/OFF		X
DI	CHILLER RM-1 STATUS PRESSURE SWITCH	ON/OFF		X
DI	CHILLER RM-2 STATUS PRESSURE SWITCH	ON/OFF		X
AI	CHILLER SYSTEM CHW SUPPLY WATER TEMPERATURE	DEG	X	X
AI	CHILLER SYSTEM CHW MER # 1 RETURN WATER TEMPERATURE	DEG	X	X
AI	CHILLER SYSTEM CHW MER # 2 RETURN WATER TEMPERATURE	DEG	X	X
DO	CHWP-1 PUMP S/S RELAY	ON/OFF		X
DO	CHWP-2 PUMP S/S RELAY	ON/OFF		X
AO	CHILLER-1 ISOLATION VALVE (RM B-14)	% OPEN	X	
AO	CHILLER-2 ISOLATION VALVE (RM B-14)	% OPEN	X	
DI	CHILLER-1 RESET OUTPUT	ON/OFF		X
DI	CHILLER-2 RESET OUTPUT	ON/OFF		X

CHILLED WATER TANK CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
AI	TANK-1 TANK PROBE TEMPERATURE	DEG	X	X
AI	TANK-1 TANK SUPPLY TEMPERATURE	DEG	X	X
AI	TANK-2 TANK PROBE TEMPERATURE	DEG	X	X
AI	TANK-2 TANK SUPPLY TEMPERATURE	DEG	X	X
AI	TANK-3 TANK PROBE TEMPERATURE	DEG	X	X
AI	TANK-3 TANK SUPPLY TEMPERATURE	DEG	X	X
DI	TANK-1 TANK PROBE STATUS	ON/OFF	X	
DI	TANK-1 TANK BYPASS STATUS	ON/OFF	X	
DI	TANK-2 TANK PROBE STATUS	ON/OFF	X	
DI	TANK-2 TANK BYPASS STATUS	ON/OFF	X	
DI	TANK-3 TANK PROBE STATUS	ON/OFF	X	
DI	TANK-3 TANK BYPASS STATUS	ON/OFF	X	

BOILER CONTROL POINTS				
TYPE	DESCRIPTION	UNITS	TREND	ALARM
DI	B-1 BOILER STATUS RELAY	ON/OFF	X	X
DI	B-1 FLAME FAILURE ALARM RELAY	NORMAL/ ALARM	X	X
DO	B-1 FUEL OIL SELECT RELAY	ON/OFF	X	
DO	B-2 BOILER STATUS RELAY	ON/OFF		X
DI	B-2 FLAME FAILURE ALARM RELAY	NORMAL/ ALARM	X	X
DO	B-2 FUEL OIL SELECT RELAY	ON/OFF	X	
DO	B-3 BOILER STATUS RELAY	ON/OFF	X	X
DI	B-3 FLAME FAILURE ALARM RELAY	NORMAL/ ALARM	X	X
DO	B-3 FUEL OIL SELECT RELAY	ON/OFF	X	
DI	FUEL-OIL-SYSTEM LOW GAS ALARM RELAY	NORMAL/ ALARM	X	X
DI	FUEL-OIL-SYSTEM POWER FAILURE RELAY	NORMAL/ ALARM		X
DI	FUEL-OIL-SYSTEM FUEL OIL ALARM RELAY	NORMAL/ ALARM	X	X
DI	BOILER #1 BFP-1 PUMP STATUS PRESSURE SWITCH	ON/OFF	X	X
DI	BOILER #1 BFP-1 PUMP STATUS PRESSURE SWITCH	ON/OFF	X	X
DI	BOILER #2 BFP-2 PUMP STATUS PRESSURE SWITCH	ON/OFF	X	X
DI	BOILER #2 BFP-2 PUMP STATUS PRESSURE SWITCH	ON/OFF	X	X
DI	FUEL-OIL-SYSTEM DAY TANK HIGH LEVEL ALARM RELAY	NORMAL/ ALARM	X	X
DI	FUEL-OIL-SYSTEM DAY TANK LOW LEVEL ALARM RELAY	NORMAL/ ALARM	X	X
AO	B-1 COMBUSTION DAMPER	%OPEN	X	
AO	B-3 COMBUSTION DAMPER	%OPEN	X	
DO	FUEL-OIL-SYSTEM FUEL OIL PUMP S/S RELAY	ON/OFF	X	
AO	FUEL-OIL-SYSTEM DAY TANK VALVE	%OPEN	X	
AI	DOMESTIC HOT WATER SUPPLY TEMPERATURE #1	DEG	X	X
AI	DOMESTIC HOT WATER SUPPLY TEMPERATURE #2	DEG	X	X
DO	CIRCULATOR PUMP STATUS #1	ON/OFF		X
DO	CIRCULATOR PUMP STATUS #2	ON/OFF		X
DO	HOT WATER RETURN PUMP STATUS #1	ON/OFF		X
DO	HOT WATER RETURN PUMP STATUS #2	ON/OFF		X
AO	STEAM VALVE #1	%OPEN	X	
AO	STEAM VALVE #2	%OPEN	X	
AI	STEAM PRESSURE SENSOR #1	PSI	X	X
AI	STEAM PRESSURE SENSOR #2	PSI	X	X



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






GENERAL NOTES:

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE (NEC), LOCAL JURISDICTION REQUIREMENTS, AND 2020 NYS BUILDING CODE.
2. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. THE WORK INDICATED ON THE ELECTRICAL DRAWINGS IS DIAGRAMMATIC AND IS INTENDED TO SHOW THE GENERAL ARRANGEMENT OF EQUIPMENT AND DESIGN INTENT. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS, SIZES AND LOCATION OF EQUIPMENT AND WIRING ARE SHOWN TO SCALE WHERE POSSIBLE, BUT MAY BE DISTORTED FOR CLARITY ON THE DRAWINGS. FINAL LOCATION OF OUTLETS AND EQUIPMENT SHALL BE AS APPROVED BY THE ARCHITECT. IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO SHOW ALL NECESSARY BENDS, OFFSETS, PULL BOXES AND OBSTRUCTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL HIS WORK TO CONFORM TO THE STRUCTURE, PRESERVING HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAN. CONTRACTOR MAY MAKE FIELD CHANGES TO THE DESIGN DOCUMENTS ONLY WHEN REQUESTING AND RECEIVING APPROVAL FROM THE ENGINEER. CONTRACTOR FIELD CHANGES SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.
4. WHERE INFORMATION IN DIFFERENT PARTS OF THE CONTRACT DOCUMENTS ARE INTERPRETED BY THE CONTRACTOR TO BE DUPLICATED, THE CONTRACTOR SHALL OBTAIN A WRITTEN APPROVAL OF HIS INTERPRETATION FROM THE ENGINEER BEFORE DELETING THE SCOPE OR WORK HE INTERPRETS AS BEING A DUPLICATION. IN THE ABSENCE OF SUCH WRITTEN APPROVAL, THE CONTRACTOR SHALL NOT EXCLUDE ANY ITEM SHOWN IN DIFFERENT PARTS OF THE CONTRACT. FOR EITHER CONTRACTOR'S INTERPRETATION OF DUPLICATION OR CONTRADICTION AS INDICATED ABOVE, THE OWNER'S DETERMINATION SHALL BE FINAL AND SHALL NOT ENTITLE THE CONTRACTOR TO ANY ADDITIONAL COMPENSATION.
5. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE FULL SET OF BID DOCUMENTS TO BE AWARE OF THE TOTAL SCOPE PRIOR TO SUBMITTING BID.
6. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH MECHANICAL AND OTHER TRADES FOR EXACT LOCATION OF ALL CONTROL DEVICES. LOCATION AS SHOWN ON THE ELECTRICAL PLANS ARE APPROXIMATE. ALL FINAL CONNECTIONS TO MOTOR TERMINALS SHALL BE DONE WITH A MINIMUM 18" OF LIQUID TIGHT FLEXIBLE CONDUIT USING THE APPROPRIATE FITTINGS. PROVIDE EXTERIOR GROUND WIRE WRAPPED AROUND FLEXIBLE CONDUIT WHERE REQUIRED BY CODE.
7. ALL NOTATIONS OF "SCALE:" ARE INTENDED AS APPROXIMATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO ASCERTAIN THE EXACT LOCATIONS OF ALL EQUIPMENT AND VERIFYING REQUIRED CLEARANCES.
8. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL LABOR AND MATERIALS REQUIRED TO PRODUCE COMPLETE AND WORKING SYSTEMS. HE SHALL FURNISH AND INSTALL COMPLETE WIRING FOR LIGHTING, POWER, HVAC EQUIPMENT, ETC.
9. PROVIDE A COMPLETE OPERABLE SYSTEM INSTALLED IN A WORKMANLIKE MANNER. OUTLINE DESCRIPTION AND EQUIPMENT DOES NOT LIMIT CONTRACTOR'S LIABILITY FOR THE INSTALLATION OF A COMPLETE OPERABLE SYSTEM.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD MEASUREMENTS AND VERIFICATION OF FIELD CONDITIONS PRIOR TO PERFORMING HIS WORK. ANY CHANGES IN WORK NECESSITATED BY FAILURE OF THIS CONTRACTOR TO COMPLY WITH THIS CONDITION SHALL BE UNDERTAKEN BY THIS CONTRACTOR AT HIS OWN EXPENSE.
11. ALL AREAS ABOVE PANELBOARDS SHALL BE FREE FROM WORK OF OTHER TRADES.
12. ARMORED CABLE SHALL NOT BE INSTALLED EXPOSED IN ELECTRIC CLOSETS, MECHANICAL ROOMS, ETC. EMT OR CONDUIT SHALL BE UTILIZED FROM ELECTRIC CLOSET TO FIRST RECEPTACLE OR LIGHT FIXTURES.
13. THE CONTRACTOR SHALL DO NECESSARY CUTTING, CHOPPING AND PATCHING FOR WORK UNDER THIS CONTRACT. ALL CHOPPING, ETC. SHALL BE PERFORMED AFTER HOURS AND COORDINATED WITH BUILDING MANAGEMENT.
14. WHERE APPLICABLE, ALL DEVICES GANGED TOGETHER SHALL BE MOUNTED UNDER A SINGLE COVER PLATE. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT, EQUIPMENT, VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE. CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
15. CONTRACTOR SHALL WARRANTY ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.
16. CONTRACTOR SHALL PROVIDE PROTECTION FOR THE OWNER AND CONSTRUCTION WORKERS IN AND AROUND THE CONSTRUCTION AREA. ADEQUATE BARRIERS SHALL BE PROVIDED TO EXERCISE CONTROL OF SAFE INGRESS AND EGRESS OF PREMISES. FIRE EXITS SHALL AT NO TIME BE BLOCKED.
17. ALL UNUSED MATERIALS AND DEBRIS SHALL BE LEGALLY REMOVED AND DISPOSED OF AWAY FROM THE PREMISES ON A DAILY BASIS.
18. CONTRACTOR SHALL PATCH, PAINT, AND RESTORE EXISTING SURFACES DAMAGED DURING THE COURSE OF THIS CONSTRUCTION TO PRE-EXISTING CONDITIONS OR BETTER.

19. ALL CONTROL WIRING ASSOCIATED WITH MECHANICAL EQUIPMENT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. NO LOW VOLTAGE WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS POWER WIRING.
20. FURNISH AND INSTALL WIRING FOR EQUIPMENT FURNISHED BY OTHERS AS SHOWN ON MECHANICAL AND/OR ELECTRICAL DRAWINGS. COORDINATE WITH OTHER TRADES FOR DETAILS OF INSTALLATION AND WIRING REQUIREMENTS.
21. MINIMUM SIZE OF CONTROLS CONDUIT SHALL BE ¾", AND TYPE SHALL BE RIGID GALVANIZED STEEL, UNLESS OTHERWISE NOTED. PROVIDE NYLON DRAG LINE AND CONDUIT CAP FOR ALL EMPTY CONDUITS.
22. ALL WIRING SHALL BE COPPER TYPE THHN/THWN AND MINIMUM SIZE SHALL BE #12AWG FOR LIGHTING & POWER CIRCUITS. ALL BRANCH CIRCUIT WIRING RATED AT 120V, 20A RUNS OVER 100' SHALL BE INCREASED TO #10AWG & #8AWG FOR RUNS OVER 175'. IN GENERAL, BRANCH CIRCUIT HOMERUN CONDUCTORS SHALL BE INCREASED ONE SIZE TO COMPENSATE FOR VOLTAGE DROP WHEN 120V CIRCUITING EXCEEDS 100 FEET.
23. ALL WIRE COLOR CODING SHALL BE AS PER CODE. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION FOR OVERLAP COLOR TAPING OF CONDUCTORS (MINIMUM LENGTH 6") IN ACCESSIBLE LOCATIONS. COLOR CODING, ONCE SELECTED, MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT.
24. PULL NO THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32°F (0°C). PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS AS REQUIRED BY CODE.
25. ALL COPPER MATERIALS, LUGS, COPPER BUS DETAILS/LUGS KITS AS REQUIRED FOR OVERSIZED FEEDERS, AND DEVICES REQUIRED TO COMPLETE CONTRACT WORK, BUT NOT SHOWN, INCLUDING MODIFYING NEW EQUIPMENT TO ACCEPT INCOMING AND OUTGOING CABLES SHALL BE FURNISHED AND INSTALL BY THE CONTRACTOR. CONTRACTOR TO PROVIDE ALL REQUIRED ELECTRICAL FINAL CONNECTIONS.
26. PULL AND JUNCTION BOXES WHERE INDICATED ON THE DRAWINGS, SHALL BE CONSIDERED SHOWN AT THEIR APPROXIMATE LOCATION. THE CONTRACTOR SHALL LOCATE THEM AS FIELD CONDITIONS DICTATE. ADDITIONAL PULL AND JUNCTION BOXES NOT SHOWN ON DRAWINGS SHALL BE PROVIDED WHERE REQUIRED BY APPLICABLE CODE PROVISIONS OR WHERE CALLED FOR BY FIELD CONDITIONS. PULL AND JUNCTION BOXES SHALL BE SURFACE TYPE IN UNFINISHED AREAS AND FLUSH TYPE IN FINISHED AREAS, AND ALL COVERS TO PULL & JUNCTION BOXES SHALL BE READILY ACCESSIBLE.
27. SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
28. IN UNFINISHED PORTIONS OF BUILDING SUCH AS BOILER ROOMS, FAN ROOMS, PIPE SPACES, ETC., LOCATIONS OF CONDUIT AND OUTLETS ARE APPROXIMATE AND SHALL CLEAR PIPING AND ALL OTHER CONSTRUCTION.
29. ALL EXPOSED NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT AND RACEWAYS SHALL BE GROUNDED. A SEPARATE GROUND CONDUCTOR SHALL BE RUN IN ALL CASES. ENSURE CONTINUITY OF THE GROUNDING CIRCUIT FROM THE SUPPLYING PANELBOARD GROUNDING BUS TO THE LOAD GROUND TERMINAL. THE RESISTANCE FROM THE SERVICE EQUIPMENT GROUND BUS TO ANY LOAD GROUND TERMINAL SHALL NOT EXCEED ONE OHM.
30. ALL EQUIPMENT SHALL HAVE COPPER CURRENT CARRYING PARTS INCLUDING GROUND BUS AND TERMINALS.
31. ALL OVERCURRENT PROTECTION DEVICES SHALL BE FULLY RATED. SERIES RATED COMBINATIONS WILL NOT BE ACCEPTED.
32. CONTRACTOR TO PROVIDE COMPLETE CIRCUIT TRACING WITH AMPERAGES AND EQUIPMENT SERVED BY EACH CIRCUIT FOR ENGINEERING REVIEW PRIOR TO BEGINNING OF CONSTRUCTION.
33. UPON COMPLETION OF ALL ELECTRICAL WORK, THE ELECTRICAL CONTRACTOR SHALL ADJUST AND TEST ALL CIRCUITS, RECEPTACLES, SWITCHES, LIGHTS, MOTORS AND ANY OTHER ELECTRICAL ITEMS INSTALLED. ANY DEFECTIVE ITEMS SHALL BE IMMEDIATELY REPAIRED OR REPLACED WITH NEW AND THAT PORTION OF THE SYSTEM RETESTED. ALL SUCH REMEDIAL WORK SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
34. COORDINATE WITH BUILDING MANAGER FOR ANY SERVICE INTERRUPTION OF EXISTING LIGHTING AND POWER PANELBOARDS AND GIVE NOTICE FIVE DAYS PRIOR TO ANY WORK.
35. EXISTING BASE BUILDING CORE DEVICES (LIGHTING, RECEPTACLES, ETC.) SHALL REMAIN ACTIVE. IF DEVICES HAVE BEEN DISCONNECTED BY DEMOLITION, DEVICES SHALL BE RECONNECTED AND RE-ENERGIZED UTILIZING SPARE CIRCUIT BREAKERS. ALL CORE DEVICES VISUAL TO TENANT SHALL BE REMOVED AND REPLACED WITH NEW DEVICES MATCHING PROJECT STANDARDS.
36. ELECTRICAL CONTRACTOR IS RESPONSIBLE OF COORDINATING ANY WORK INVOLVING THE ELECTRICAL UTILITY COMPANY.
37. ALL CONTRACTORS AND SUBCONTRACTORS SHALL NOTIFY DASNY IMMEDIATELY IF SUSPECT MOLD GROWTH IS DISCOVERED ON SURFACES TO BE IMPACTED DURING PROJECT. NO DISTURBANCE TO THESE SURFACES SHALL OCCUR UNTIL DASNY ADDRESSES THE SITUATION AND DETERMINES THE PROPER COURSE OF ACTION TO TAKE.
38. ALL WORK TO BE INSPECTING BY A THIRD PARTY ENTITY.

ELECTRICAL SYMBOL & ABBREVIATIONS LIST

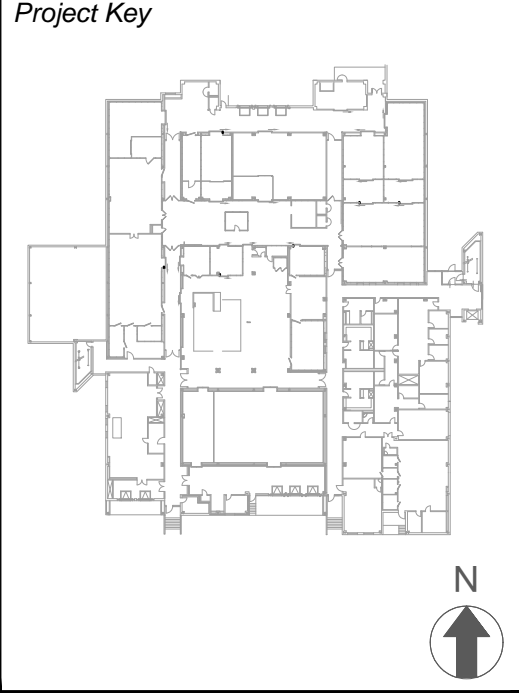
	JUNCTION BOX MOUNTED ON UNIT
RHC-XX 	EXISTING REHEAT COIL
PANEL "XX" 	EXISTING ELECTRICAL PANEL
PANEL "XX" 	NEW BMS CONTROL PANEL
	VARIABLE FREQUENCY DRIVE
	DIFFERENTIAL PRESSURE SENSOR
(E)	EXISTING EQUIPMENT
BMS	BUILDING MANAGEMENT & CONTROLS SYSTEM
	EXISTING EQUIPMENT TO BE DISCONNECTED AND REMOVED

515 Broadway, Albany, New York 12207-2964  
One Penn Plaza, 52 Floor, NY, NY 10119-0918  
539 Franklin Street, Buffalo, NY 14202-1109  
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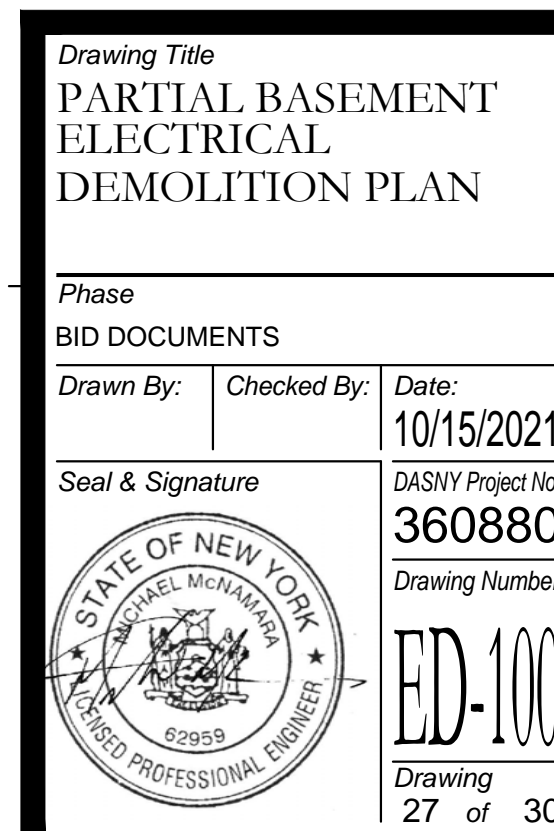
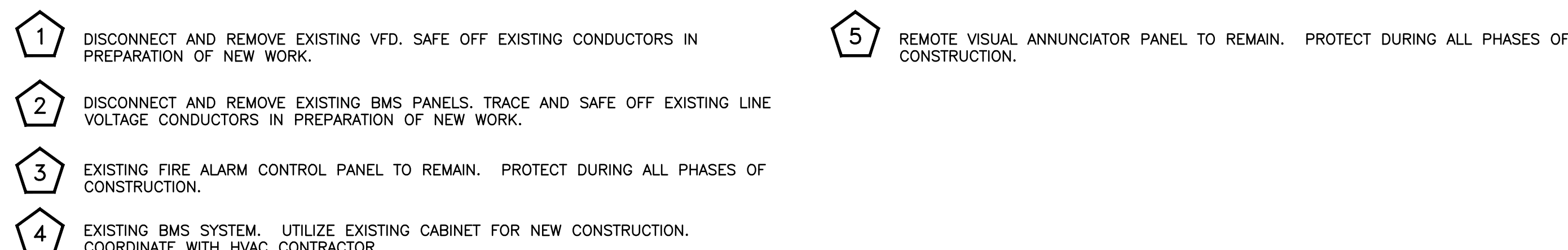
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Office of  
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ALBANY, NY 12229

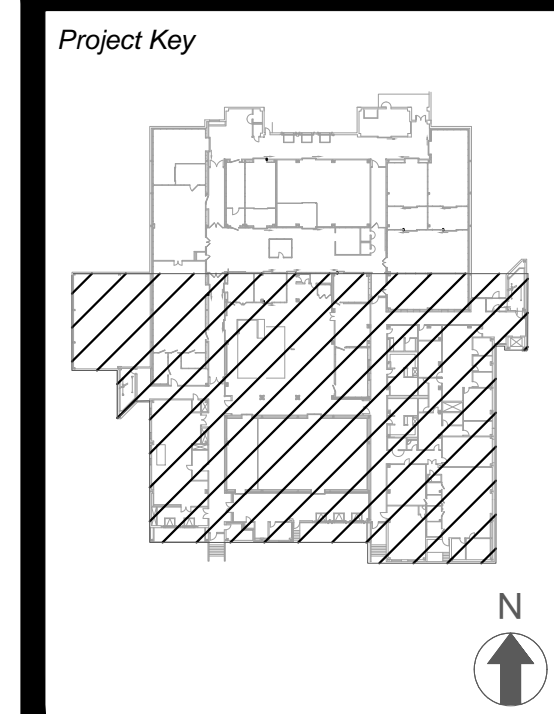
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COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title  
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GENERAL NOTES,  
SYMBOLS &  
ABBREVIATIONS LIST  
Phase  
BID DOCUMENTS  
Drawn By: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: 10/15/2021  
Seal & Signature  
  
DASNY Project No: 360880  
Drawing Number: E-001  
Drawing 26 of 30







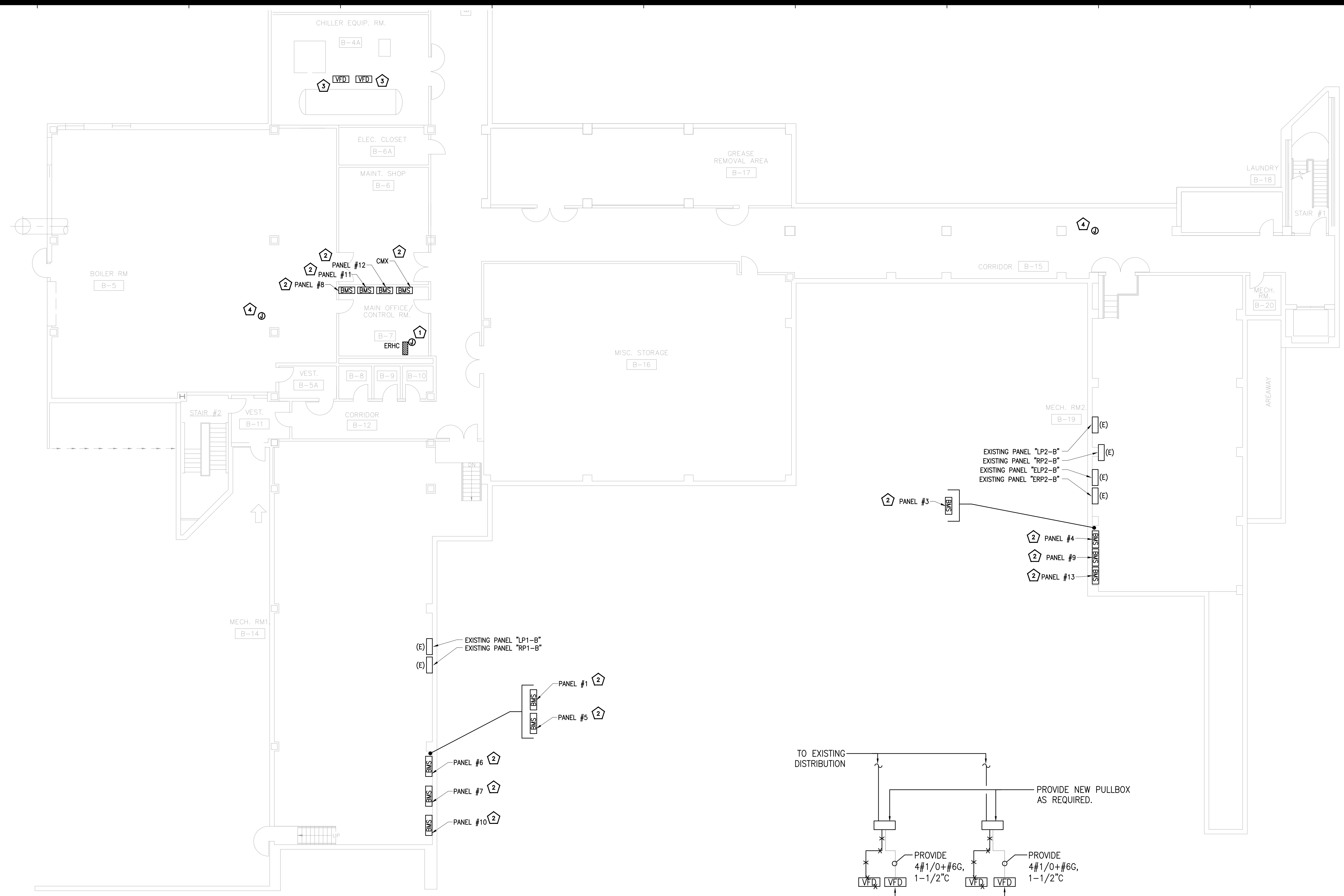


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NEW YORK STATE OF OPPORTUNITY | Office of Mental Health  
44 HOLLAND AVENUE  
ALBANY, NY 12229  
Project Title  
**BMS REPLACEMENT**  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title  
**PARTIAL BASEMENT ELECTRICAL PLAN**

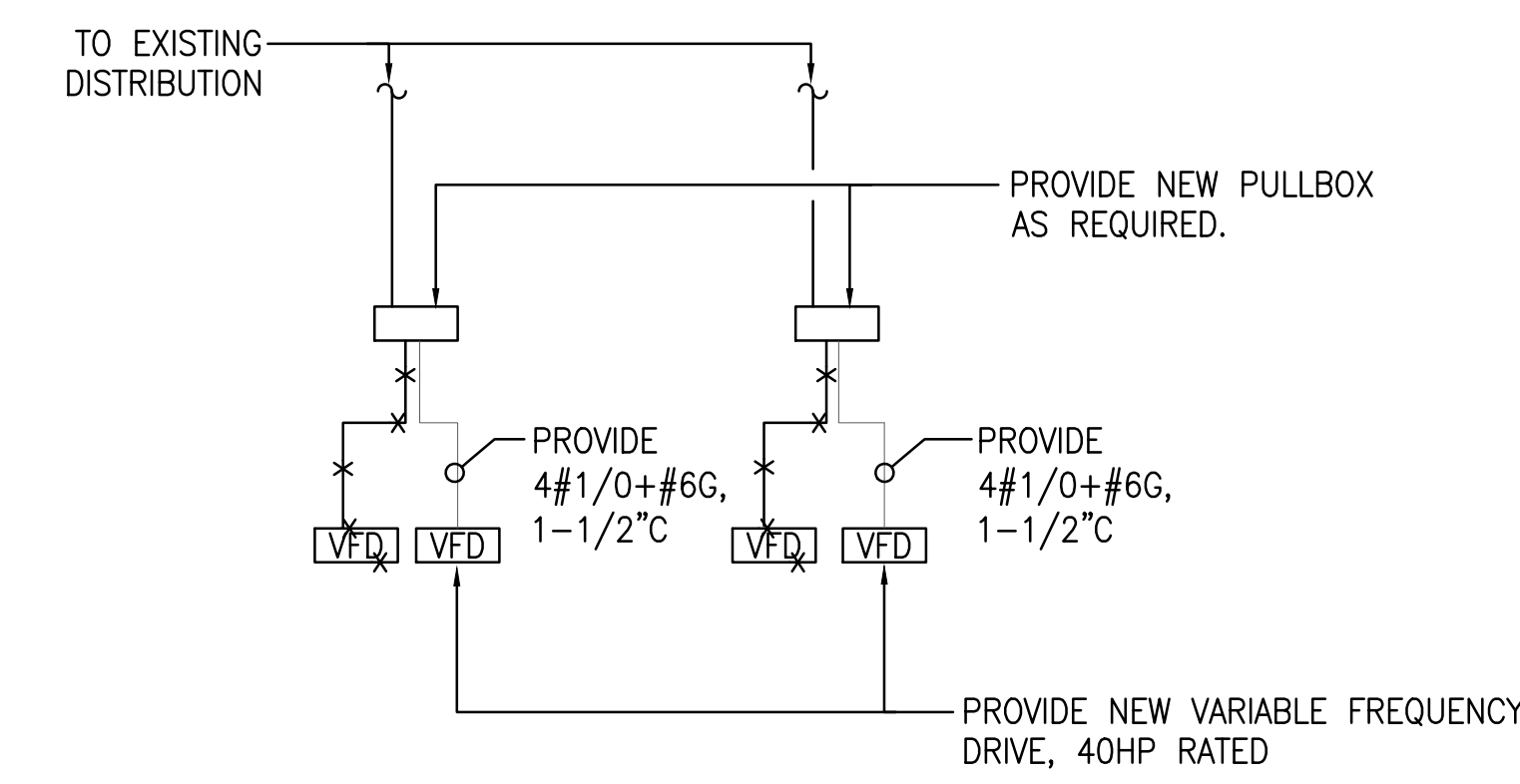
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		Drawing Number: E-100
		Drawing 28 of 30



1 PARTIAL BASEMENT ELECTRICAL PLAN  
SCALE: 3/32" = 1'-0"

GENERAL NOTES:  
1. REHEAT COILS ARE EXISTING TO REMAIN AND SHOWN FOR REFERENCE ONLY. REFER TO M-SERIES DRAWINGS FOR ADDITIONAL INFORMATION.

- CONSTRUCTION KEY NOTES:
- 1 PROVIDE 3/4" EMPTY CONDUIT (ELECTRICAL METALLIC TUBING TYPE) WITH DRAGLINE AND BUSHINGS AT BOTH ENDS. TERMINATE IN ROOM B-14 ABOVE BMS PANEL.
  - 2 UTILIZE EXISTING LINE VOLTAGE CIRCUIT PREVIOUSLY SAFED OFF TO POWER NEW UNIT.
  - 3 TERMINATE EXISTING CONDUCTORS TO NEW VARIABLE FREQUENCY DRIVES PURCHASED BY CONTROLS CONTRACTOR. REFER TO WIRING DIAGRAM FOR ADDITIONAL INFORMATION.
  - 4 UTILIZE FOR STEAM METER. PROVIDE POWER FROM NEAREST RECEPTACLE. PROVIDE 2#12 + 1#12G, 3/4" RIGID GALVANIZED STEEL CONDUIT.



2 VARIABLE FREQUENCY DRIVE WIRING DIAGRAM  
SCALE: NO SCALE





- GENERAL NOTES:**
1. REHEAT COILS ARE EXISTING TO REMAIN AND SHOWN FOR REFERENCE ONLY. REFER TO M-SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
- CONSTRUCTION KEY NOTES:**
- 1 PROVIDE 3/4" EMPTY CONDUIT (ELECTRICAL METALLIC TUBING TYPE) WITH DRAGLINE AND BUSHINGS AT BOTH ENDS. TERMINATE IN ROOM B-14 ABOVE BMS PANEL.

1 PARTIAL FIRST FLOOR ELECTRICAL PLAN-SOUTH  
SCALE: 3/32"= 1'-0"

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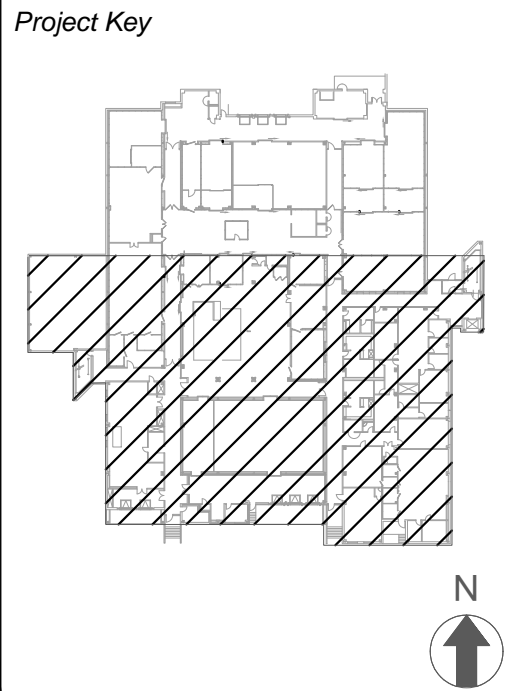
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**Client**

**NEW YORK STATE OF OPPORTUNITY** **Office of Mental Health**

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ALBANY, NY 12229

**Project Title**

**BMS REPLACEMENT COOK CHILL PRODUCTION CENTER**  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

**Drawing Title**

**PARTIAL FIRST FLOOR ELECTRICAL PLAN-SOUTH**

**Phase**

**BID DOCUMENTS**

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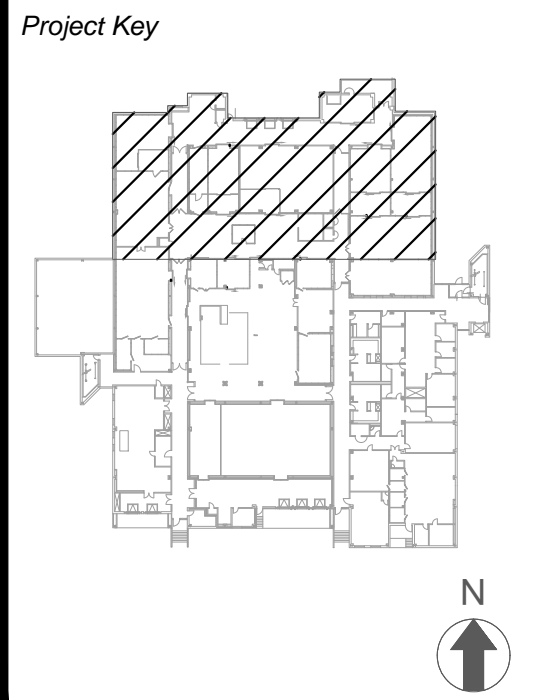
**STATE OF NEW YORK**  
MICHAEL MCNAMARA  
Professional Engineer  
00998

**DASNY Project No:**  
360880

**Drawing Number**


**E-101**  
Drawing 29 of 30






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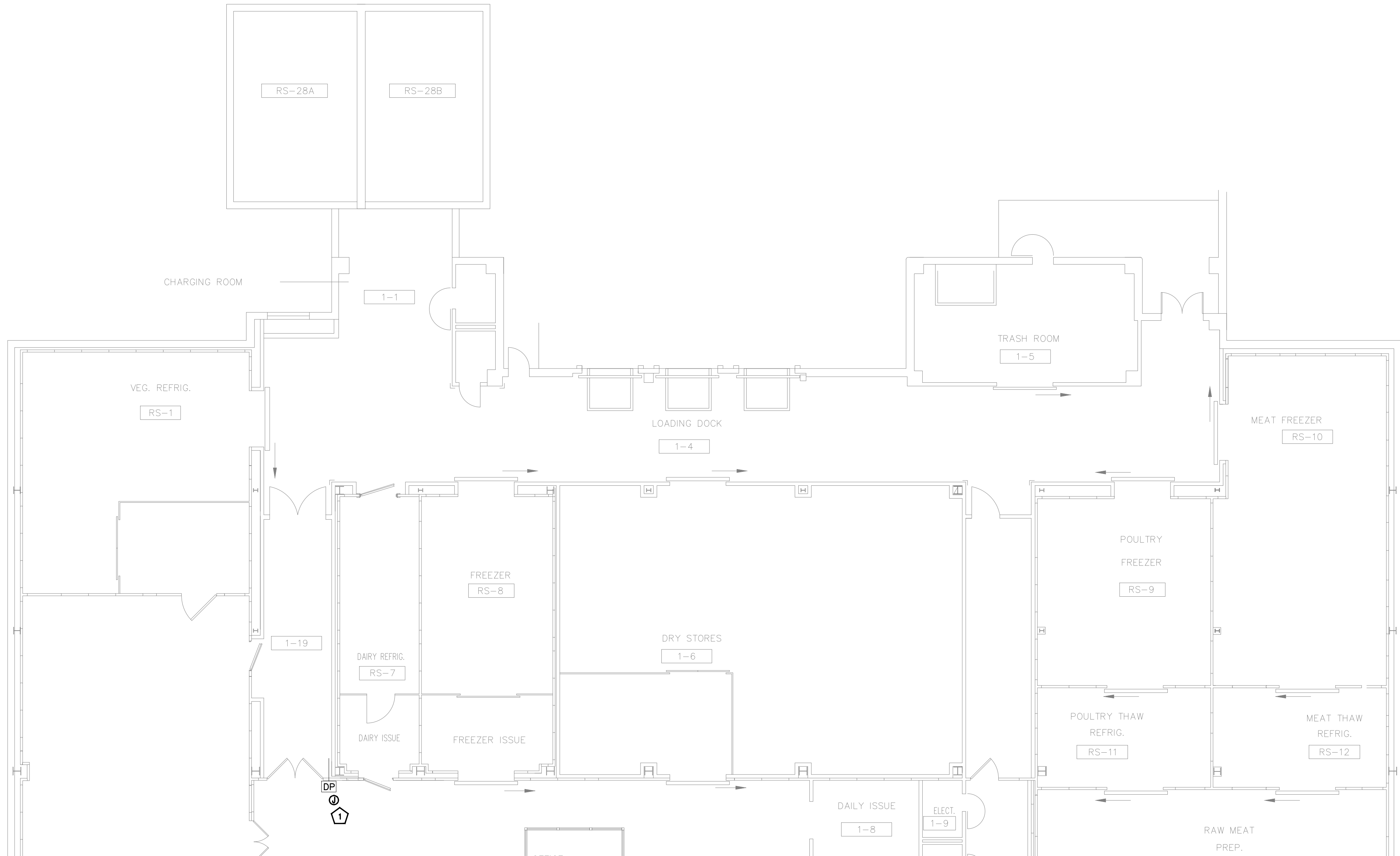
Project Title

**BMS REPLACEMENT  
COOK CHILL PRODUCTION CENTER**  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY 10962

Drawing Title

**PARTIAL FIRST FLOOR  
ELECTRICAL PLAN-  
NORTH**

Phase		
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1 PARTIAL BASEMENT ELECTRICAL PLAN-NORTH  
SCALE: 3/32"= 1'-0"

GENERAL NOTES:

1. REHEAT COILS ARE EXISTING TO REMAIN AND SHOWN FOR REFERENCE ONLY. REFER TO M-SERIES DRAWINGS FOR ADDITIONAL INFORMATION.

CONSTRUCTION KEY NOTES:

- 1 PROVIDE 3/4" EMPTY CONDUIT (ELECTRICAL METALLIC TUBING TYPE) WITH DRAGLINE AND BUSHINGS AT BOTH ENDS. TERMINATE IN ROOM B-14 ABOVE BMS PANEL.