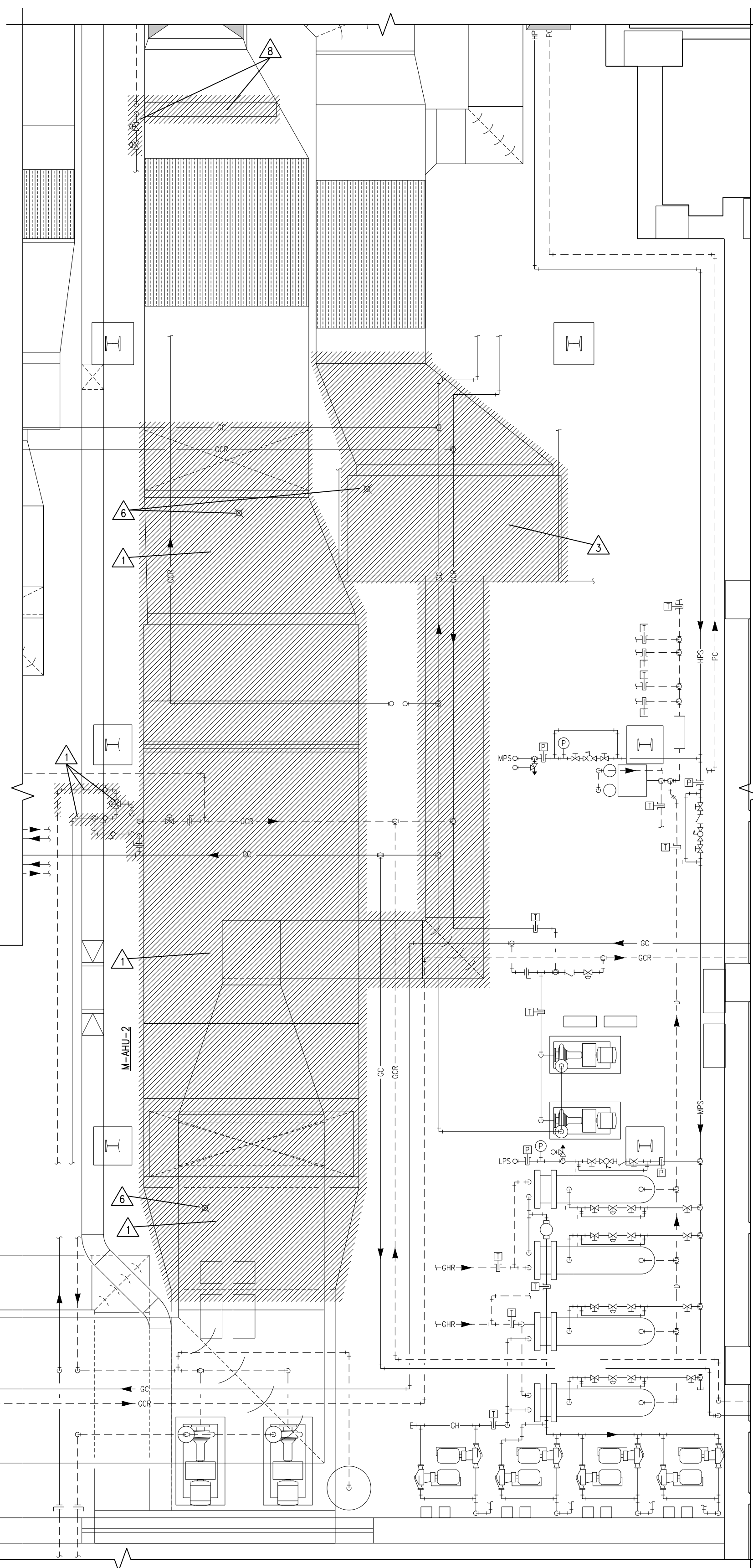
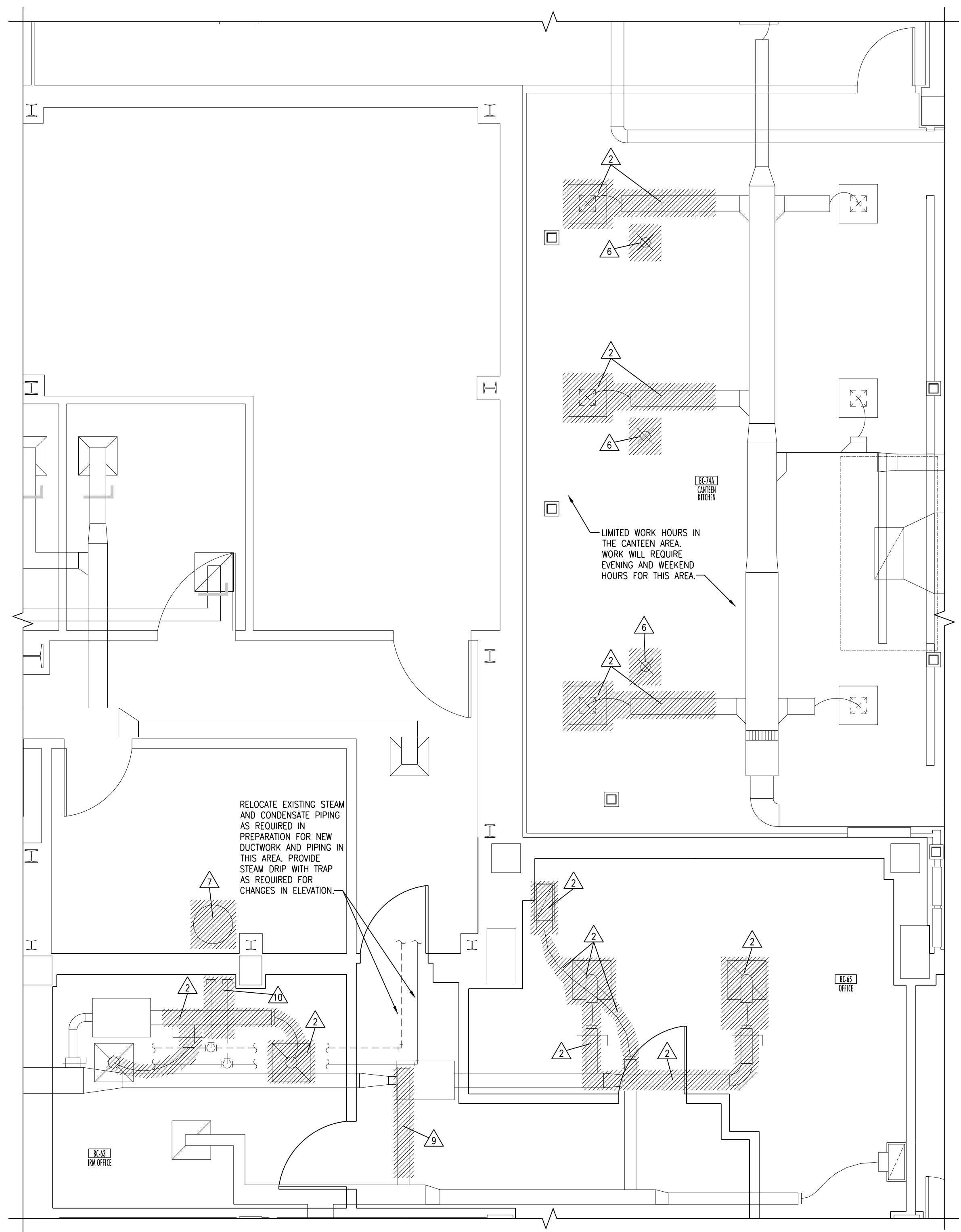


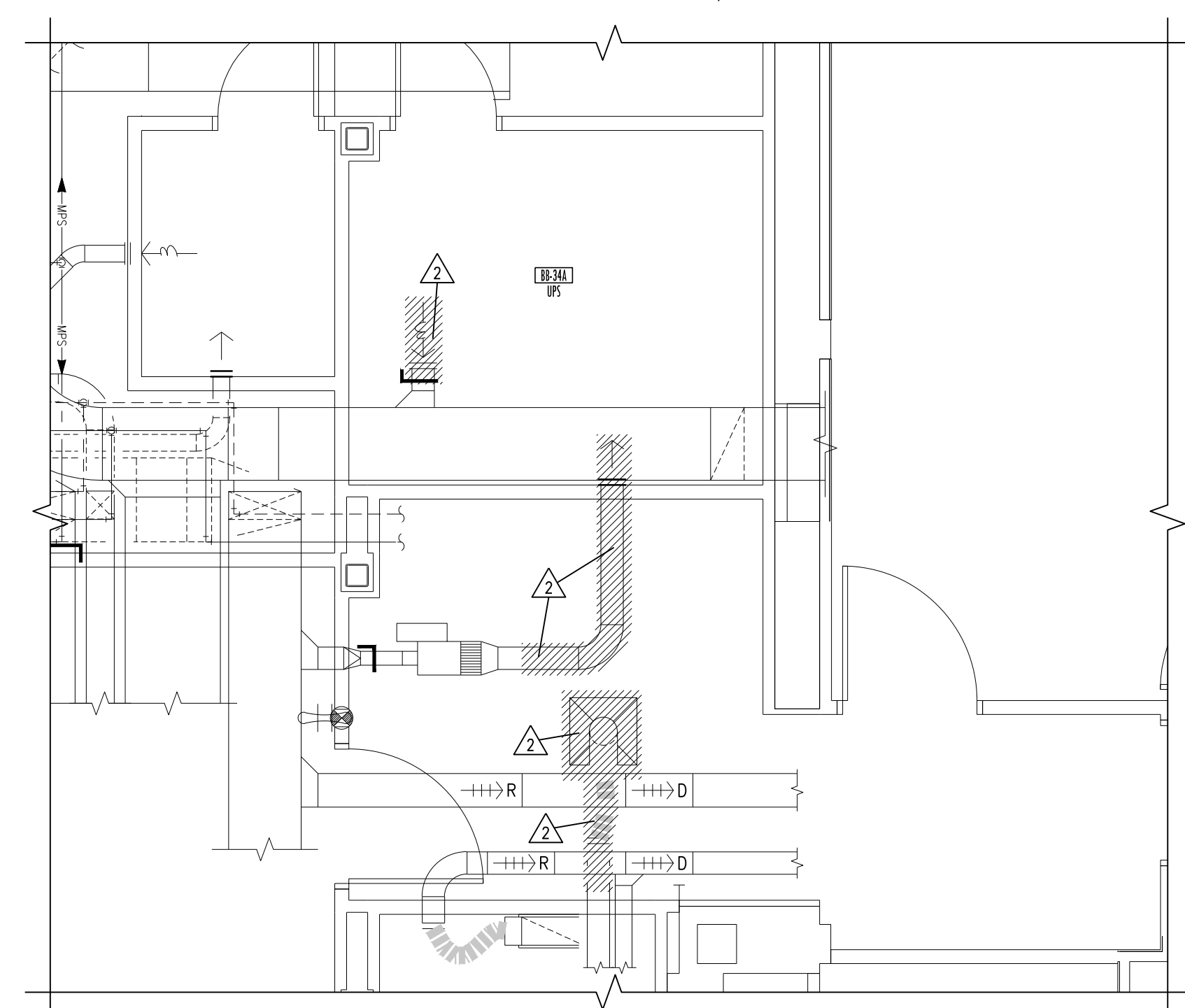
6 EXISTING LAYOUT PENTHOUSE DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



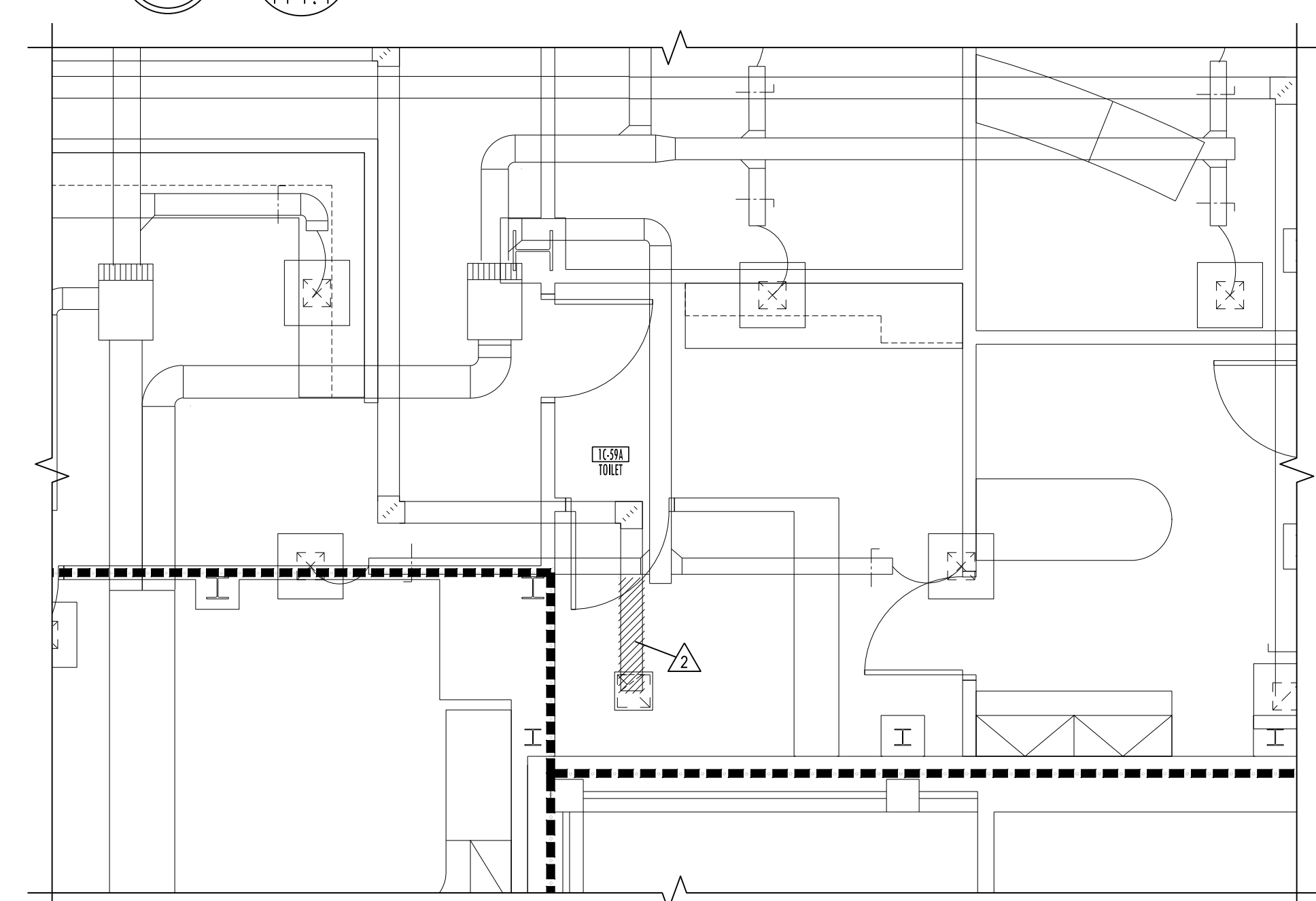
4 EXISTING LAYOUT BA-01 DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



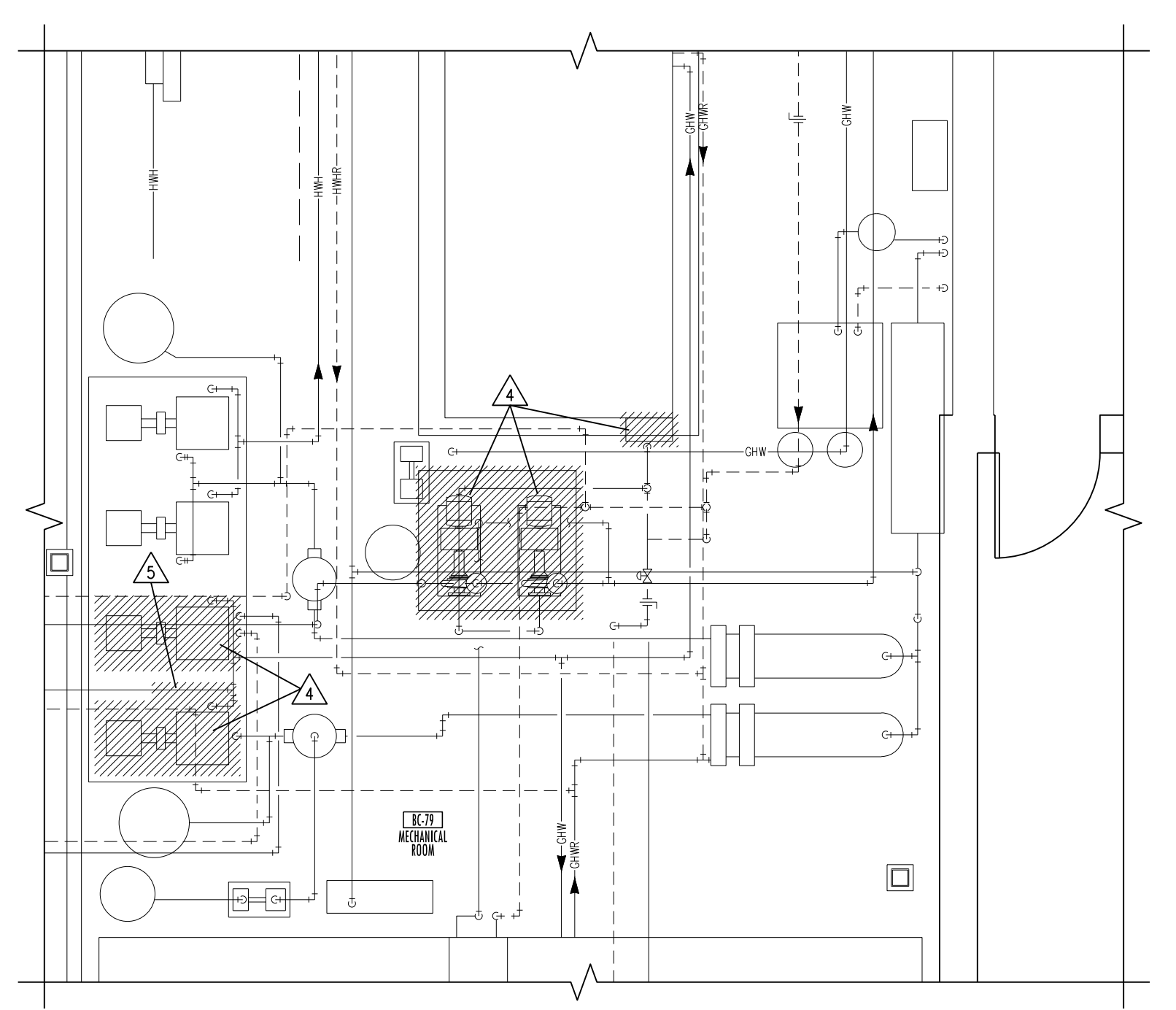
2 EXISTING LAYOUT BC-74A DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



5 EXISTING LAYOUT BB-34A DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



3 EXISTING LAYOUT IC-59A DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



1 EXISTING LAYOUT BC-79 DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

CANTEEN PHASING NOTES:

1. COMPLETE ALL WORK IN THE CANTEEN DURING EVENING, OVERTIME, OR WEEKEND HOURS IN CAREFUL COORDINATION WITH THE OWNER.
2. THE SPACES IN THE CANTEEN SHALL BE CLEANED AND READY FOR NORMAL OPERATION EACH MORNING AFTER EVENING WORK IS COMPLETE.
3. COORDINATE START OF WORK A MINIMUM OF 2 WEEKS AHEAD OF TIME WITH OWNER.
4. HEATING AND CHILLED WATER PUMP REPLACEMENT SHALL TAKE PLACE IN THE COOLING MONTHS AND HEATING MONTHS, RESPECTIVELY. ONLY REPLACE ONE HEATING PUMP AT A TIME TO MINIMIZE DOWNTIME OF HEATING SYSTEM.

AIR HANDLER PHASING NOTES:

1. ALL AIR HANDLER REPLACEMENTS SHALL BE PERFORMED IN APRIL/MAY OR SEPTEMBER/OCTOBER MONTHS IN CAREFUL COORDINATION WITH THE OWNER. PROVIDE A MINIMUM OF 2 WEEKS NOTICE PRIOR TO BEGINNING WORK.
2. FOR TEMPORARY AIR HANDLER OPERATION, PROVIDE A TEMPORARY FAN EQUAL TO THE UNIT AIRFLOW/HORSE POWER, AND HEPA FILTER TO BE MOUNTED TO THE SUPPLY DUCTWORK PRIOR TO REMOVING UNIT. REFER TO FLOOR PLANS FOR SUGGESTED TEMPORARY SUPPLY FAN LOCATION. FAN SHALL RUN CONTINUOUSLY. MAINTAIN THE MECHANICAL ROOM TEMPERATURE AT A MINIMUM OF 55 DEGREES AND MAXIMUM OF 70 DEGREES DURING ANY CHANGE OUT USING EXISTING HEATING UNITS OR TEMPORARY COOLING/HEATING UNITS. OUTSIDE AIR, RETURN AIR, RELIEF AIR, AND SUPPLY AIR DUCTS SHALL BE LEFT OPEN TO USE THE MECHANICAL ROOM AS A PLENUM.
3. ALL UNIT SHUTDOWN WORK SHALL BE COMPLETED DURING WEEKEND AND EVENING HOURS. REPLACEMENT OF UNIT SHALL BE COMPLETED AS QUICKLY AS POSSIBLE WITH MULTIPLE SHIFTS REQUIRED TO EXPEDITE WORK. ALL CONTROLS WORK THAT CAN BE COMPLETED BEFORE AND SHALL BE COORDINATED. WORK SHALL BE COMPLETED DURING SPRING, FALL, OR WINTER MONTHS.
4. DISASSEMBLE NEW AIR HANDLERS TO THEIR SMALLEST COMPONENTS AS REQUIRED TO FIT THROUGH EXISTING DOORS. TEMPORARILY REMOVE EXISTING MECHANICAL ROOM DOORS AS NECESSARY.

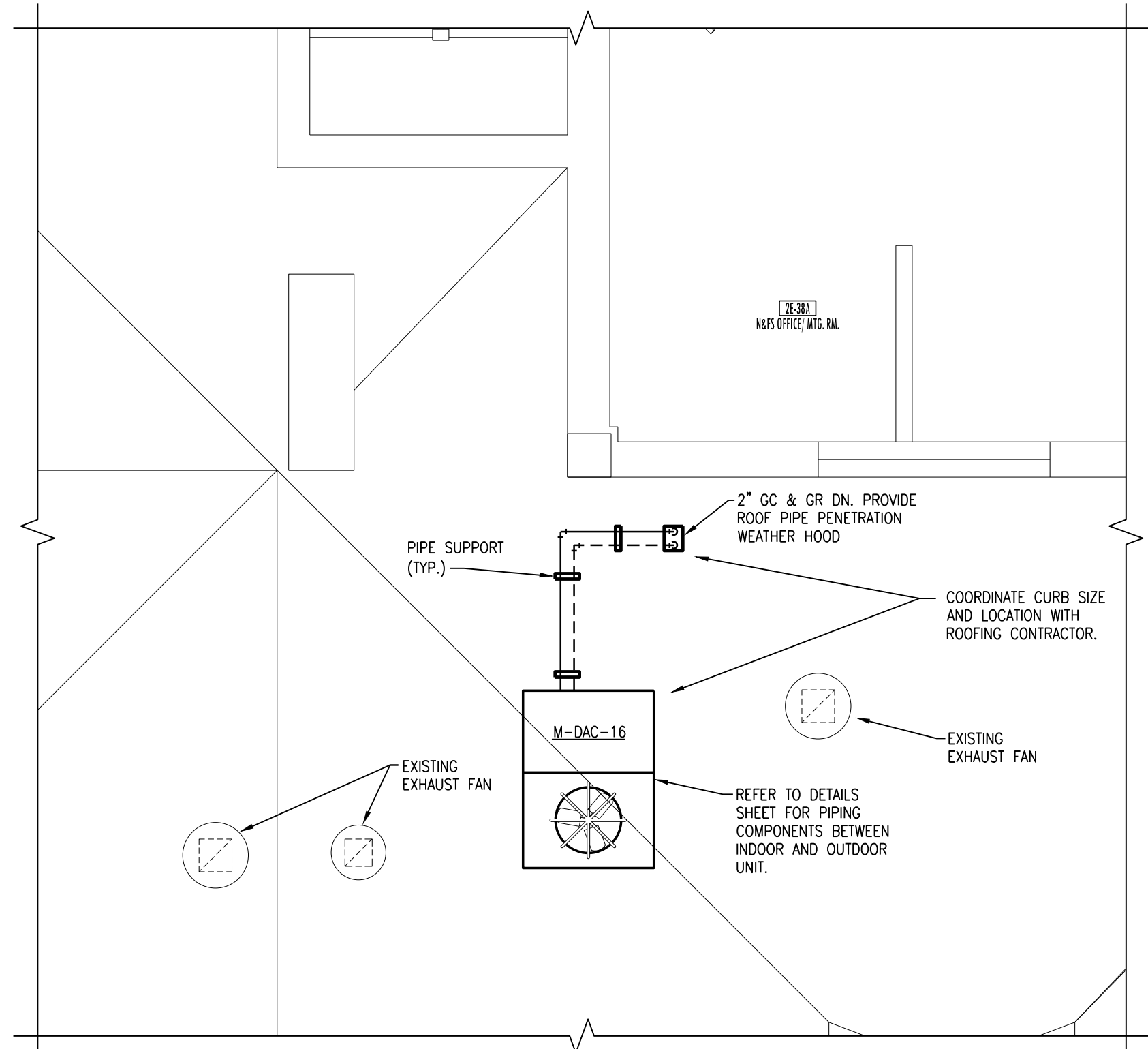
MECHANICAL DEMOLITION NOTES:

- A. DEMOLITION DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS. PROVIDE ADDITIONAL DEMOLITION AS REQUIRED BASED ON FIELD CONDITIONS.
- B. THIS CONTRACTOR SHALL OPEN ALL WALLS AND/OR CEILING FOR DEMOLITION OF EXISTING HVAC PIPING, DUCTWORK, EQUIPMENT, ETC. AS REQUIRED.
- C. THIS CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL HOLES/WALLS AND/OR CEILING FROM DEMOLISHED HVAC PIPING, DUCTWORK, EQUIPMENT, ETC. IN FLOORS, WALLS, AND CEILING TO MATCH EXISTING.
 - ⚠️ DISCONNECT AND REMOVE EXISTING AHU AND ALL ASSOCIATED DUCTWORK, HANGERS, PIPING, CONTROLS, VFD'S, STEEL RAIL, ETC. PREPARE REMAINING DUCTWORK AND PIPING FOR NEW CONNECTION.
 - ⚠️ DISCONNECT AND REMOVE EXISTING DUCTWORK AND ALL ASSOCIATED DIFFUSERS/GRILLES, HANGERS, DAMPERS, ETC. PREPARE REMAINING DUCTWORK FOR NEW CONNECTION.
 - ⚠️ DISCONNECT AND REMOVE EXISTING FAN AND ALL ASSOCIATED DUCTWORK, HANGERS, CONTROLS, VFD'S, ETC. RELOCATE COMPRESSED AIR LINE AS REQUIRED.
 - ⚠️ DISCONNECT AND REMOVE EXISTING PUMPS AND ALL ASSOCIATED VALVES, VFD'S, HANGERS, ETC. PREPARE REMAINING PIPING FOR RECONNECTION TO NEW PUMPS.
 - ⚠️ DISCONNECT AND REMOVE EXISTING PIPING INCLUDING ALL INSULATION, HANGERS, ETC. PREPARE REMAINING PIPING FOR RECONNECTION.
 - ⚠️ DISCONNECT AND REMOVE EXISTING SPRINKLER HEADS AND ALL ASSOCIATED PIPING, HANGERS, ET. IN AREAS WHERE EXISTING DUCTWORK IS BEING DEMO, PREPARE REMAINING PIPING FOR NEW CONNECTION.
 - ⚠️ DISCONNECT AND RELOCATE EXISTING FIRE PROTECTION TANK AND ALL ASSOCIATED PIPING, HANGERS, ACCESSORIES, ETC. PREPARE PIPING FOR NEW CONNECTION.
 - ⚠️ DISCONNECT AND REMOVE EXISTING HUMIDIFIER AND ALL ASSOCIATED STEAM AND CONDENSING PIPING, VALVES, CONTROLS, ETC. PREPARE REMAINING DUCTWORK FOR NEW CONNECTION.
 - ⚠️ DISCONNECT AND REMOVE EXISTING DUCTWORK AND ALL ASSOCIATED DIFFUSERS/GRILLES, HANGERS, DAMPERS, ETC. CAP DUCT BACK AT MAIN.
 - ⚠️ DISCONNECT AND REMOVE EXISTING PIPING INCLUDING ALL INSULATION, HANGERS, ETC. CAP PIPING BACK AT MAIN.

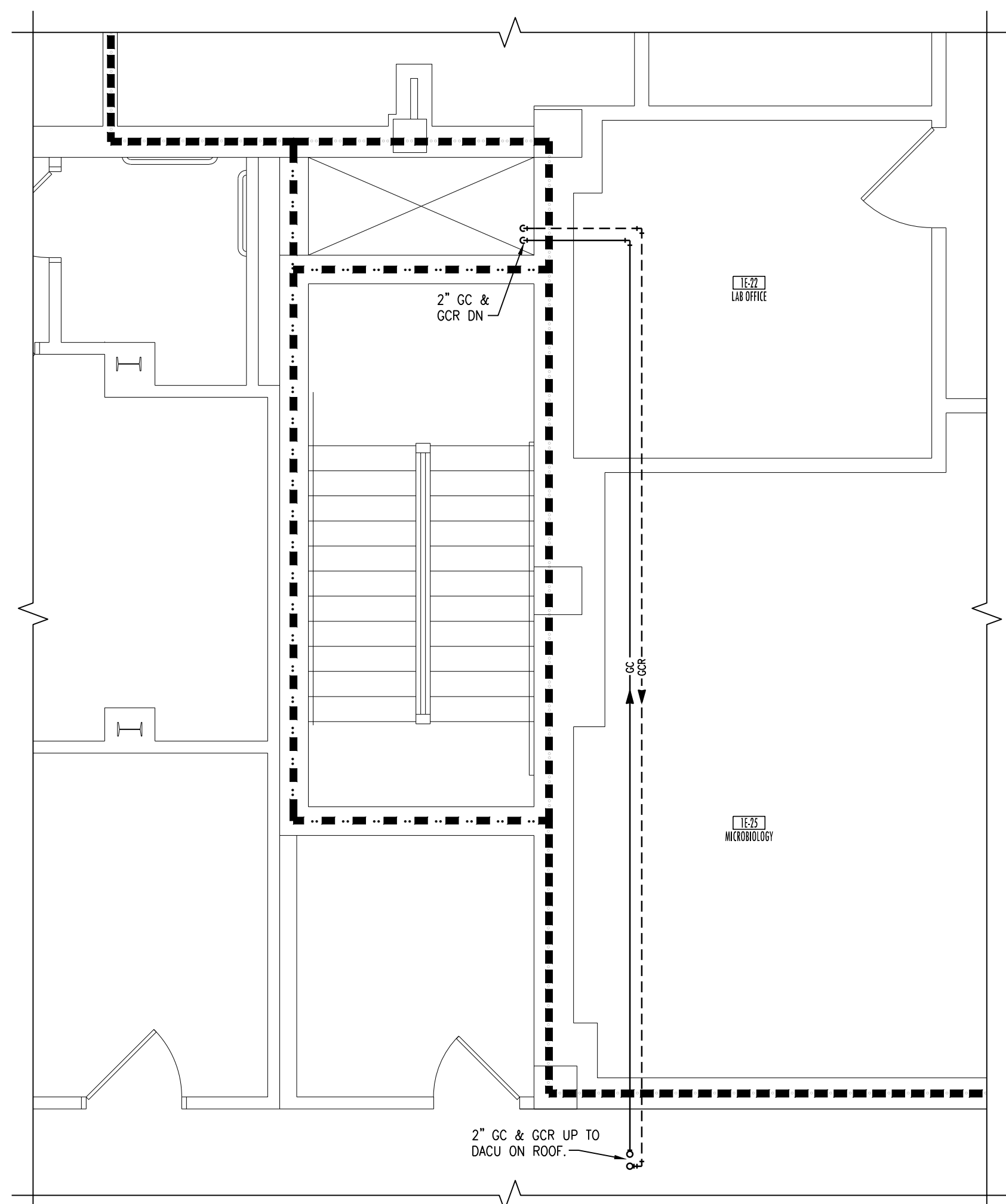


Drawing Title BASEMENT AND PENTHOUSE LARGE SCALE DEMOLITION PLANS		Project Title REPLACE OR UPGRADE HVAC SYSTEM COMPONENTS		Date SEPT. 14, 2016	
Project Phase PHASE 4		Contract No. VA263-P-218		Scale: AS SHOWN	
VA Project No. 437-13-111	Contract No. VA263-C-	Designed By JP	Checked By JP	Drawn By JF	Drawing No. H4.1
Building No. VAMC CAMPUS	AutoCAD File Name 202279-11411010	Location FARGO VA HEALTH CARE SYSTEM FARGO, NORTH DAKOTA		Dwg. 44 of 66	

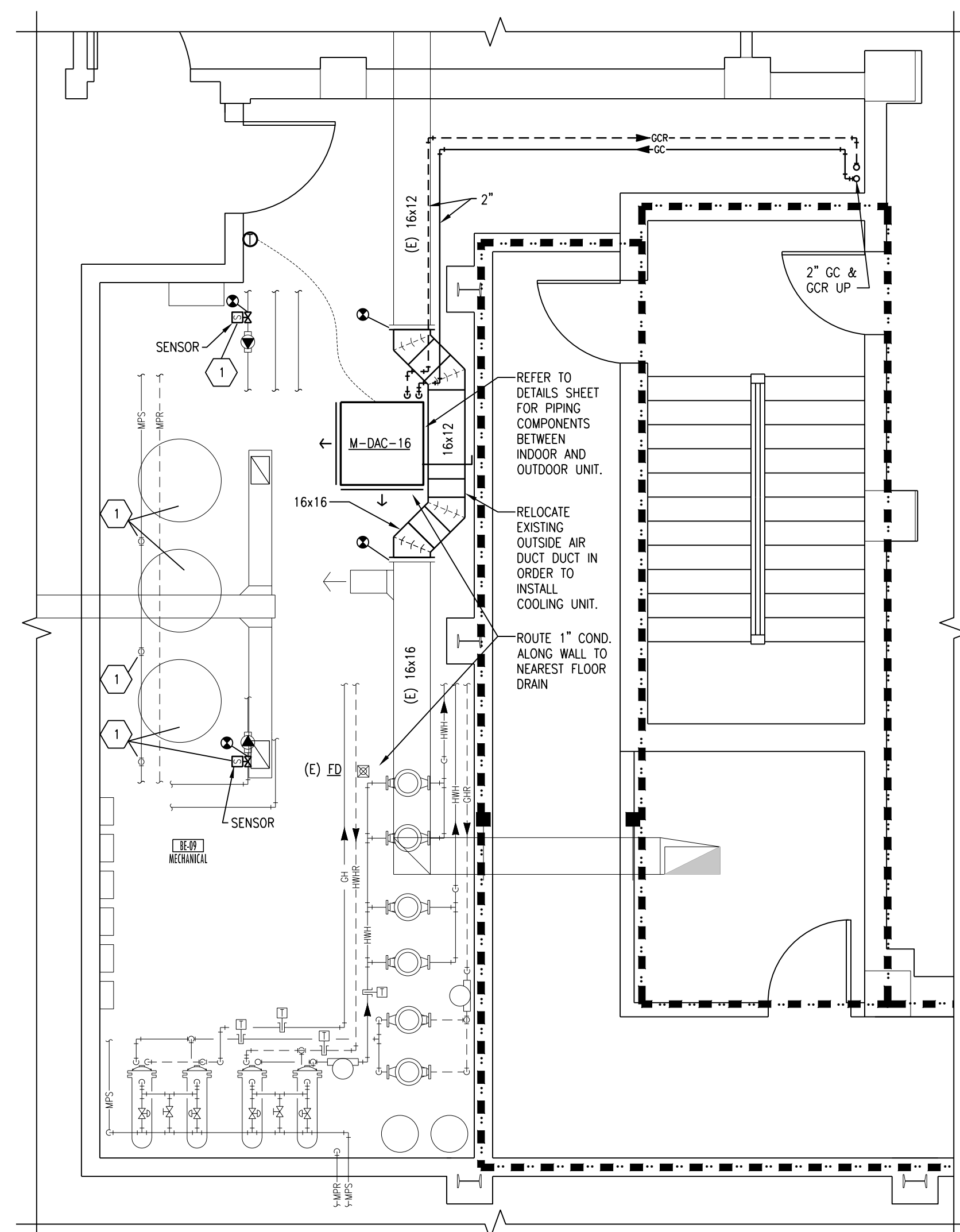
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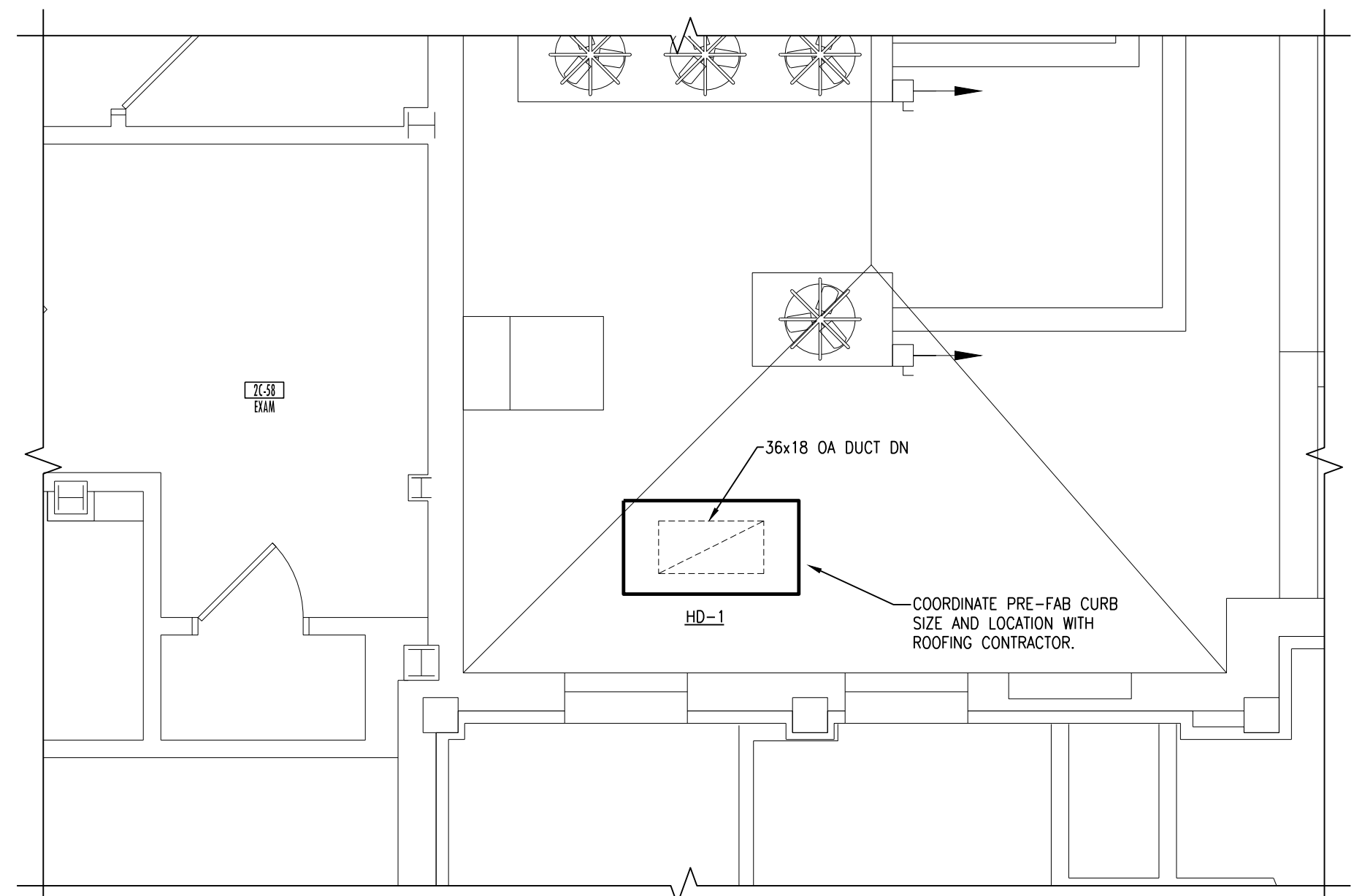
7 EXISTING LAYOUT FIRST FLOOR ROOF REMODELING PLAN
SCALE: 1/4" = 1'-0"



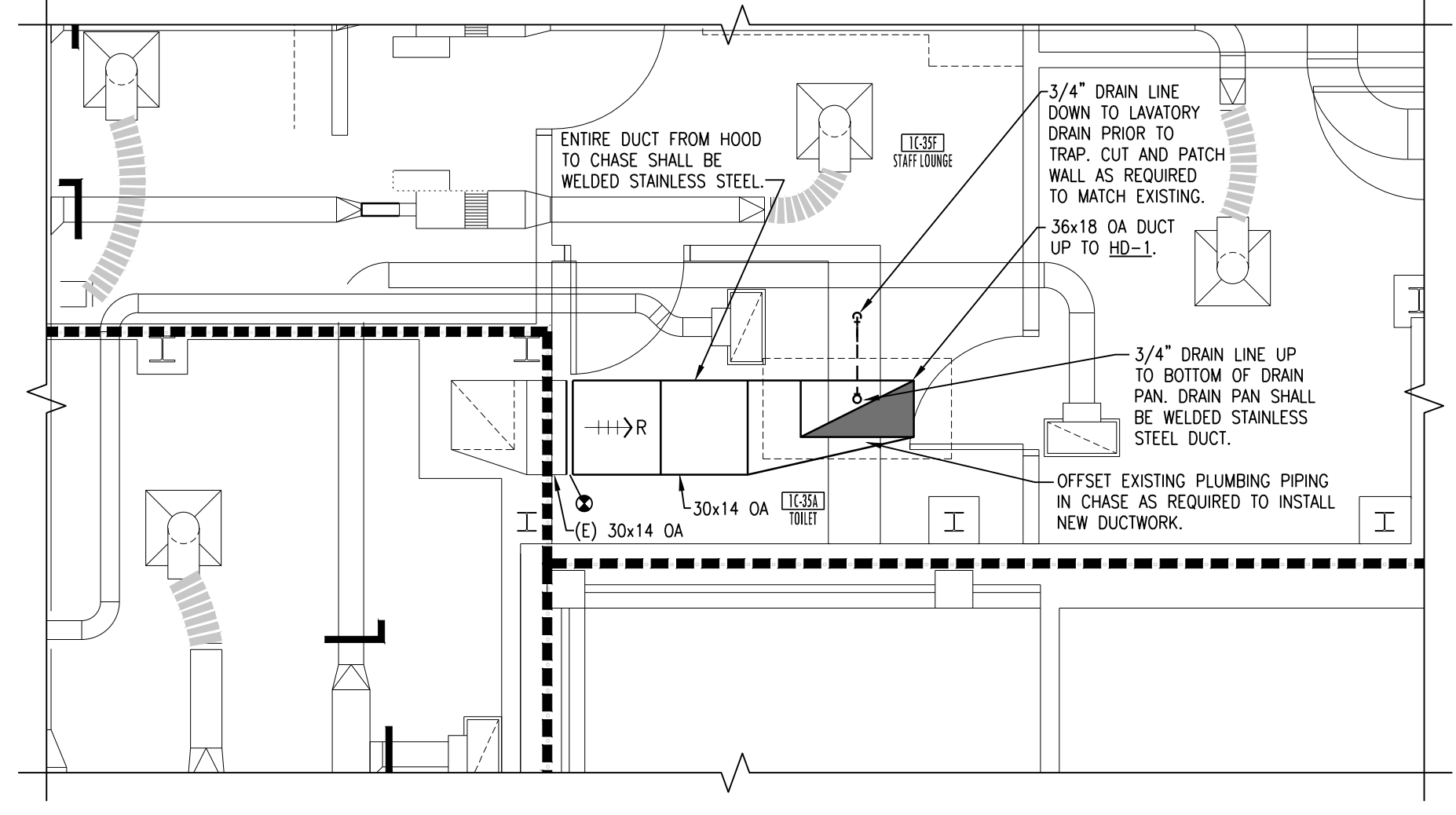
6 EXISTING LAYOUT FIRST FLOOR REMODELING PLAN
SCALE: 1/4" = 1'-0"



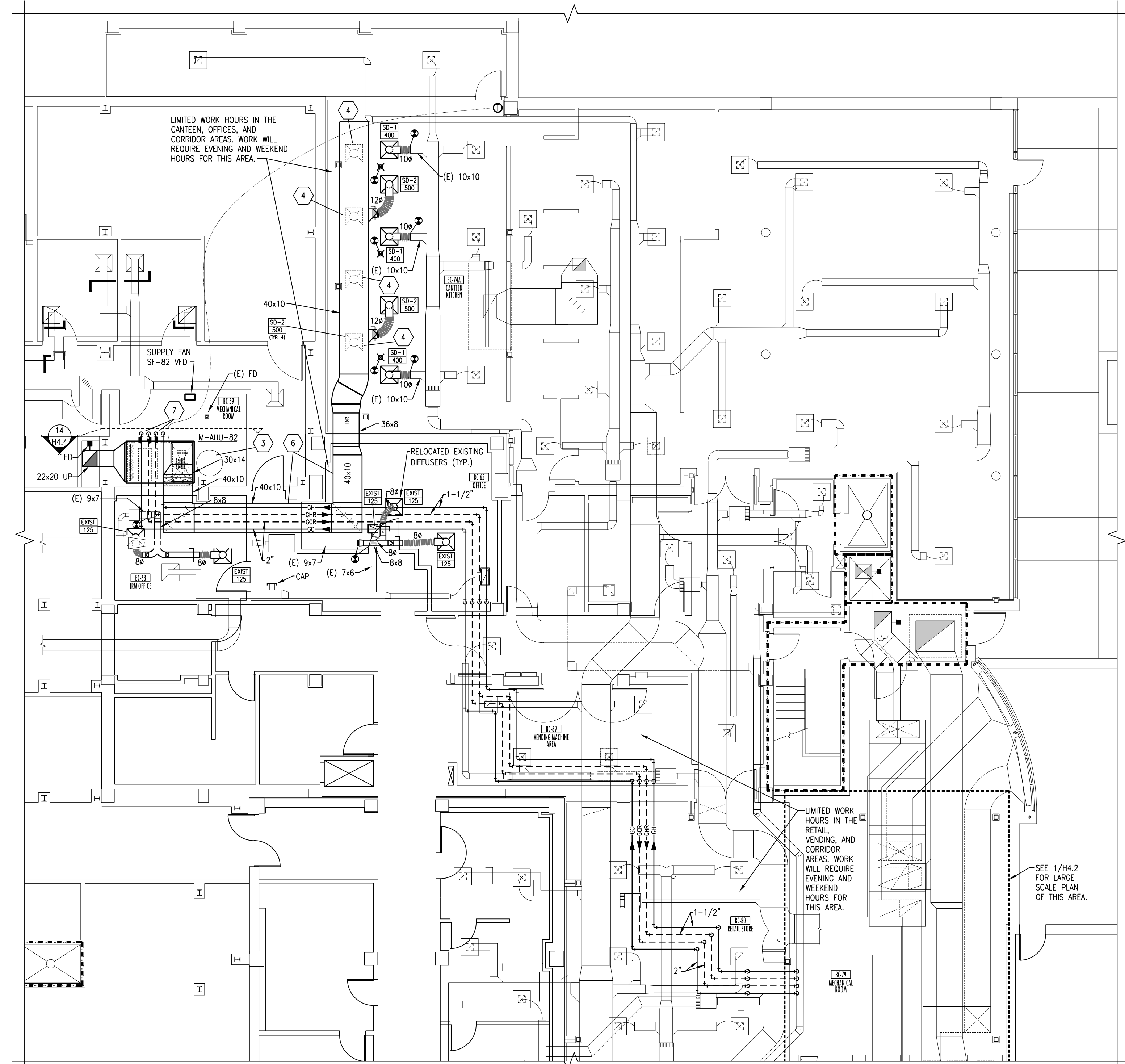
5 EXISTING LAYOUT BE-09 REMODELING PLAN
SCALE: 1/4" = 1'-0"



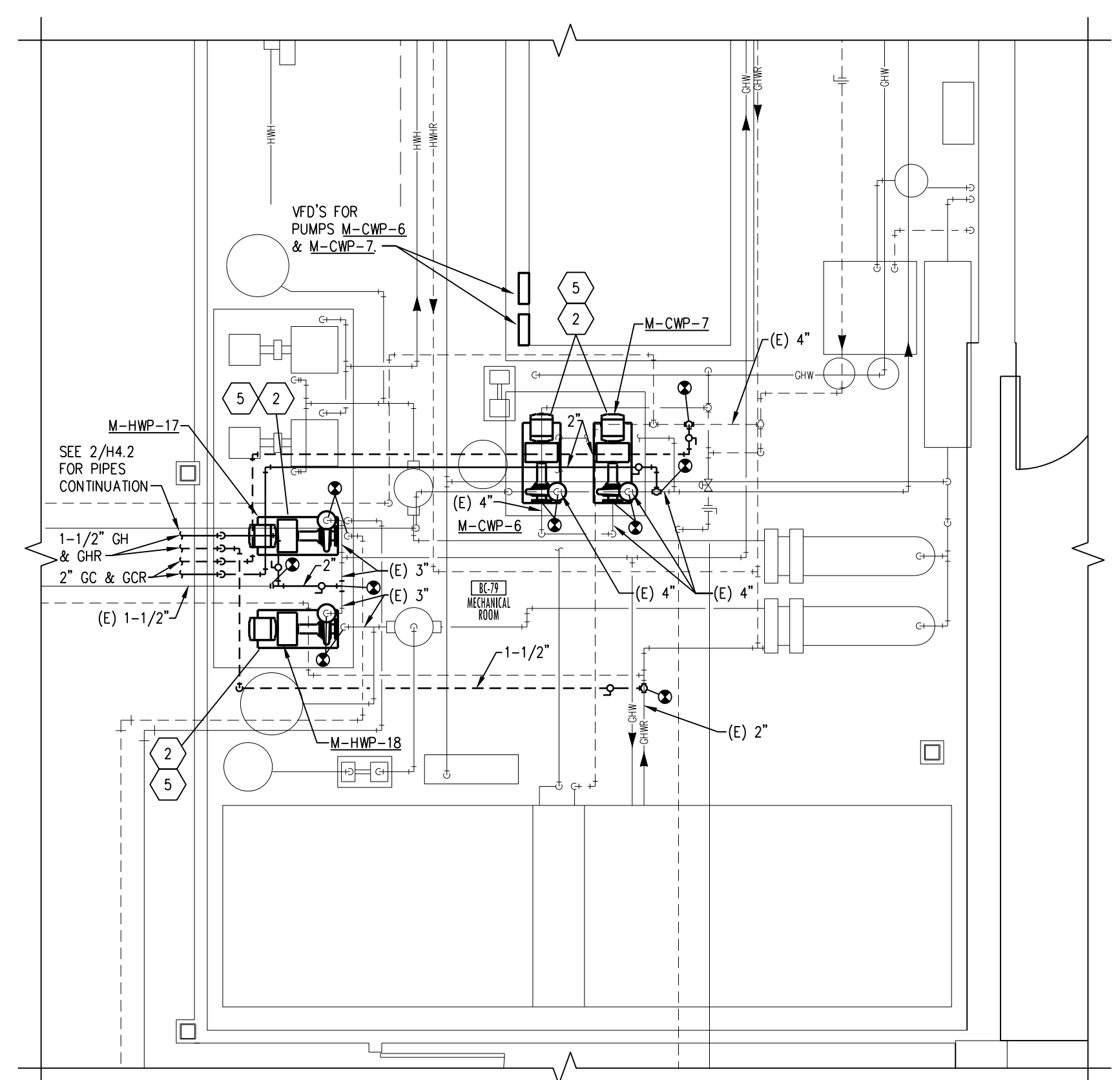
4 EXISTING LAYOUT FIRST FLOOR ROOF REMODELING PLAN
SCALE: 1/4" = 1'-0"



3 EXISTING LAYOUT 1C-58, 1C-59, & 1C-59A REMODELING PLAN
SCALE: 1/4" = 1'-0"



2 EXISTING LAYOUT BASEMENT REMODELING PLAN
SCALE: 1/8" = 1'-0"



1 EXISTING LAYOUT BC-19 REMODELING PLAN
SCALE: 1/4" = 1'-0"

- CANTEEN PHASING NOTES:**
1. COMPLETE ALL WORK IN THE CANTEEN DURING EVENING, OVERTIME, OR WEEKEND HOURS IN CAREFUL COORDINATION WITH THE OWNER.
 2. THE SPACES IN THE CANTEEN SHALL BE CLEANED AND READY FOR NORMAL OPERATION EACH MORNING AFTER EVENING WORK IS COMPLETE.
 3. COORDINATE START OF WORK A MINIMUM OF 2 WEEKS AHEAD OF TIME WITH OWNER.
 4. HEATING AND CHILLED WATER PUMP REPLACEMENT SHALL TAKE PLACE IN THE COOLING MONTHS AND HEATING MONTHS, RESPECTIVELY. ONLY REPLACE ONE HEATING PUMP AT A TIME IN ORDER TO MINIMIZE DOWNTIME OF HEATING SYSTEM.

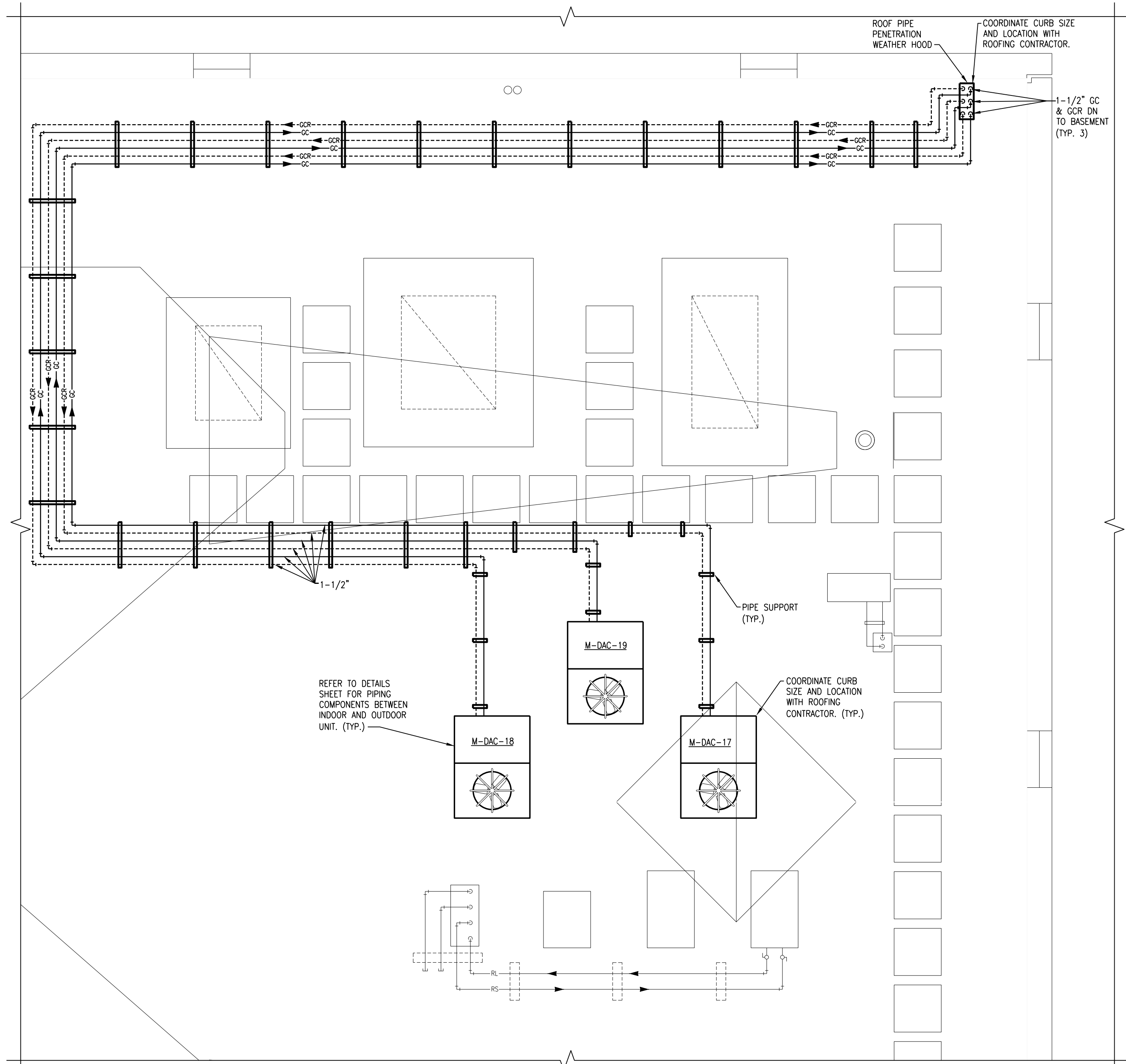
- MECHANICAL NOTES:**
- A. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.
 - B. COORDINATE ALL HVAC PIPING AND DUCTWORK INSTALLATION WITH GENERAL, PLUMBING, FIRE PROTECTION, AND ELECTRICAL CONTRACTORS. INSTALL ALL HVAC PIPING AND DUCTWORK AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISERS) TO KEEP HVAC PIPING AND DUCTWORK TIGHT TO THE STRUCTURE ABOVE AND INSTALLATION BY ALL TRADES. OFFSET HVAC PIPING AND DUCTWORK TO AVOID BEAMS.
 - C. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS AND/OR CEILINGS FOR INSTALLATION OF NEW HVAC PIPING AND VENTILATION DUCTWORK. EQUIPMENT, ETC. AS REQUIRED. PATCH WALLS AND/OR CEILINGS TO MATCH EXISTING.
 - D. MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL, CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.
 - E. ALL SHUT-OFF VALVES, CONTROL VALVES, STRAINERS, DAMPERS, ETC. SHALL BE INSTALLED IN ACCESSIBLE CEILINGS. VALVES SHALL BE LOCATED NOT MORE THAN 2 FEET ABOVE ACOUSTICAL CEILINGS.
 - F. PROVIDE 1/2" DRAIN VALVE AT ALL LOW POINTS OF EACH SYSTEM TO ENABLE COMPLETE DRAINAGE. PROVIDE 1/2" VENT VALVES AT ALL HIGH POINTS OF EACH SYSTEM TO ENABLE COMPLETE VENTING.
 - G. ALL OPEN ENDS OF DUCTS SHALL BE CAPPED AT THE END OF CONSTRUCTION EACH DAY.
 - H. ALL NEW PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE TO AVOID TRIPPING HAZARDS IN WALKWAYS BUT AT A HEIGHT TO REMAIN ACCESSIBLE. KEEP ALL EQUIPMENT ACCESS PATHS CLEAR.
 - I. ALL EXISTING DIFFUSERS, GRILLES, AND FLEX DUCTS AFFECTED BY CEILING REMOVAL AND RE-INSTALLATION SHALL BE TEMPORARILY SUPPORTED DURING CONSTRUCTION AND RE-INSTALLED AFTER CEILING WORK IS COMPLETE. ALL SPRINKLER ESCUTCHEONS SHALL BE REMOVED AND REINSTALLED AS REQUIRED FOR CEILING WORK.
1. PROVIDE DDC CONTROL INTERFACE FOR EXISTING ACCESS WATER HEADERS FOR CONNECTION TO EXISTING BAS FOR REMOTE INDICATION OF ALARMS AND MONITORING. REPLACE EXISTING STEAM VALVE WITH NEW ELECTRONIC VALVE AND ACTUATOR. PROVIDE PROTOCOL CARD FOR EACH MECHANICAL ROOM FOR ACCESS TO WATER HEATER INFORMATION. PROVIDE SENSORS IN RECIRCULATION PIPING FOR MONITORING PURPOSES. UPGRADE ONE WATER HEATER AT A TIME DURING NON-PEAK HOURS (E. NIGHTS AND WEEKENDS) FOR PHASING PURPOSES. REFER TO CONTROLS SHEET FOR CONTROL DIAGRAM.
 2. REPLACE EXISTING PUMPS AND RECONNECT TO EXISTING PIPING. PROVIDE PIPING MODIFICATIONS AND ENLARGED CONCRETE PUMP PAD AS REQUIRED FOR REPLACEMENT PUMPS.
 3. RELOCATE EXISTING FIRE PROTECTION TANKS, PIPING, AND ACCESSORIES AS REQUIRED TO MAKE ROOM FOR NEW AIR HANDLER, DUCTWORK, AND NEW PIPING. MINIMIZE DOWNTIME AND CAREFULLY COORDINATE RELOCATION OF EQUIPMENT WITH THE OWNER. WORK WILL REQUIRE FIRE WATCH OF EXISTING IT AND TELEPHONE SPACES DURING SYSTEM SHUTDOWN.
 4. PROVIDE HIGH EFFICIENCY TAKEOFF FROM THE BOTTOM OF THE DUCT WITH VOLUME DAMPER. PROVIDE FLEX DUCT DOWN TO THE SUPPLY DIFFUSER.
 5. RECONNECT EXISTING PUMP CONTROLS AS REQUIRED FOR PUMP REPLACEMENT. RELOCATE SENSORS AND WIRING AS REQUIRED. RE-BALANCE EXISTING SYSTEM SERVED BY PUMPS. SEE DETAILS SHEET FOR SCHEMATIC INFORMATION.
 6. SPLIT NEW 40x10 DUCT INTO TWO 20x10 DUCTS AS REQUIRED TO INSTALL ABOVE CEILING.
 7. PROVIDE 2-WAY CONTROL VALVES FOR HEATING AND COOLING COILS.

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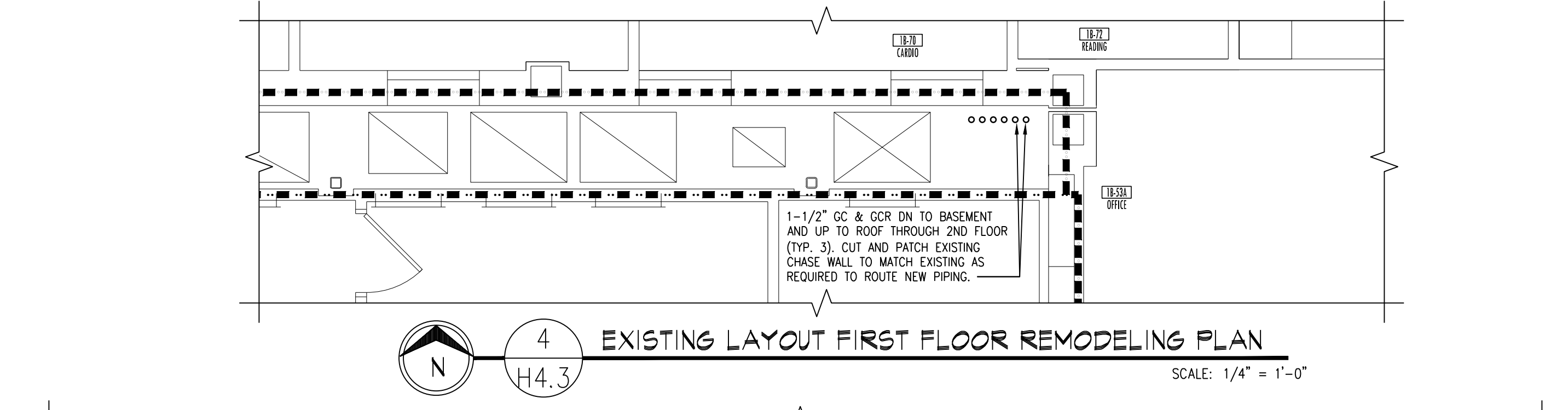


Drawing Title BASEMENT, FIRST FLOOR, SECOND FLOOR, AND PENTHOUSE LARGE SCALE REMODELING PLANS		Project Title REPLACE OR UPGRADE HVAC SYSTEM COMPONENTS		Date SEPT. 14, 2016
Project Phase PHASE 4		Scale AS SHOWN		Drawing No. H4.2
VA Project No. 437-19-111	Contract No. VA263-P-218 VA263-C-	Designed By JP	Checked By JP	
Building No. VAMC CAMPUS	AutoCAD File Name 202213-PH4.2.DWG	Location FARGO VA HEALTH CARE SYSTEM FARGO, NORTH DAKOTA		Dwg. 45 of 66

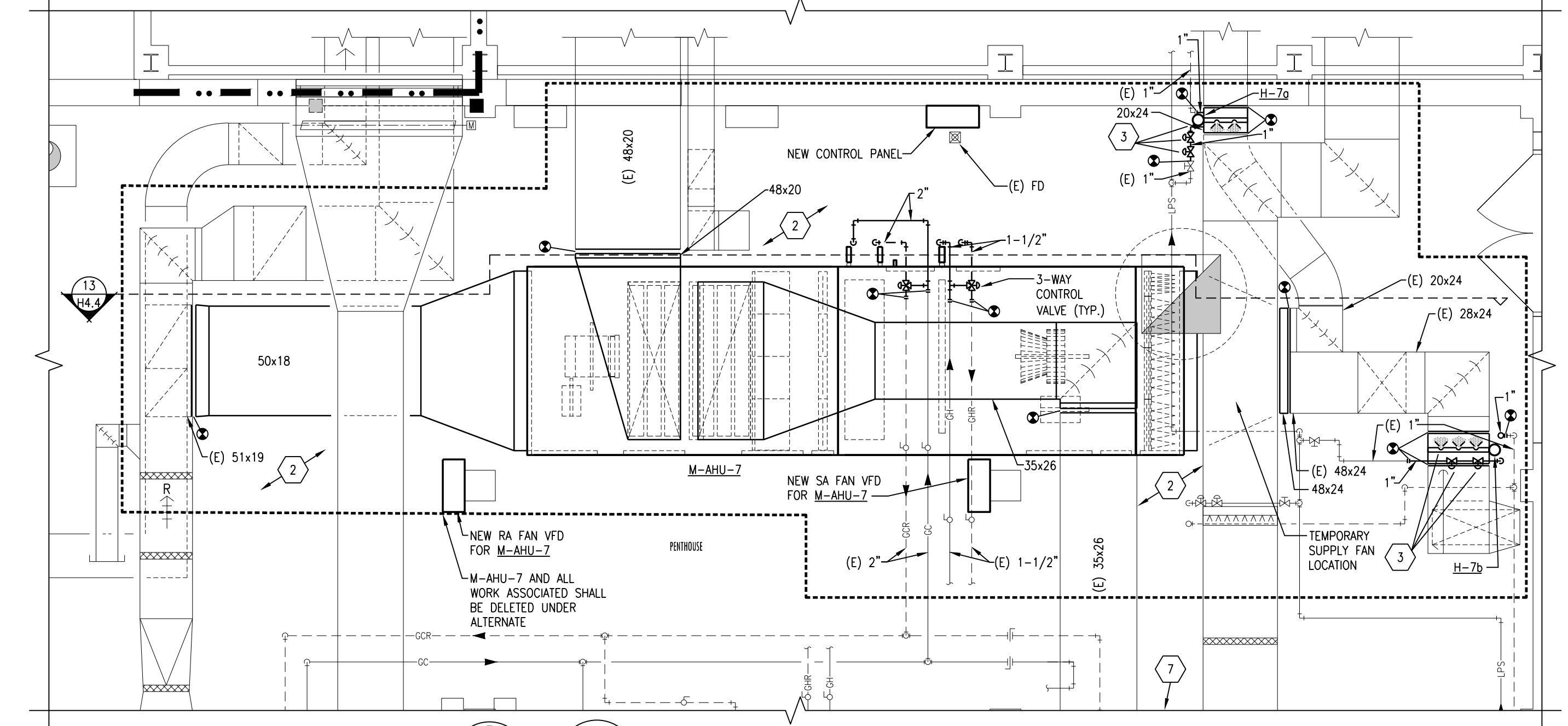
Department of Veterans Affairs



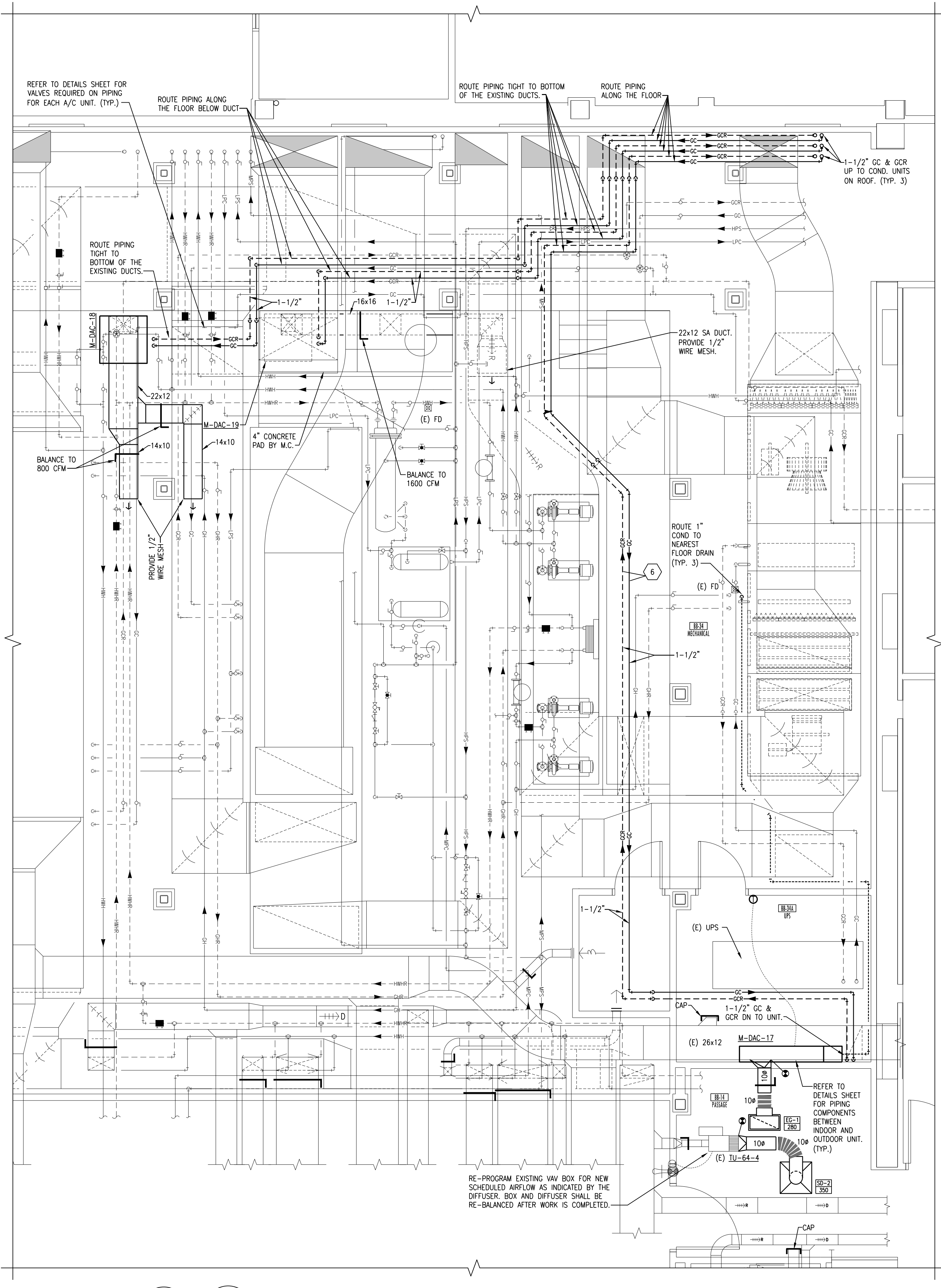
5 EXISTING LAYOUT PENTHOUSE REMODELING PLAN
SCALE: 1/4" = 1'-0"



4 EXISTING LAYOUT FIRST FLOOR REMODELING PLAN
SCALE: 1/4" = 1'-0"



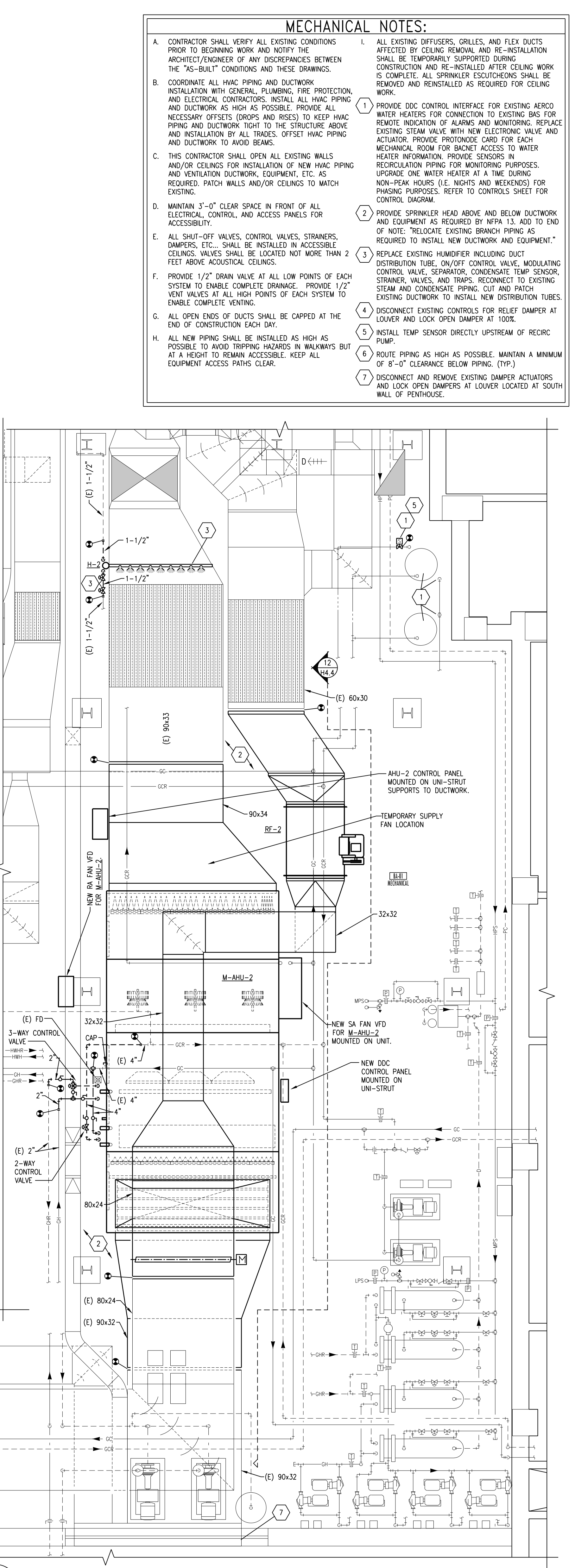
3 EXISTING LAYOUT PENTHOUSE REMODELING PLAN
SCALE: 1/4" = 1'-0"



2 EXISTING LAYOUT BB-34/BB-34A REMODELING PLAN
SCALE: 1/4" = 1'-0"

AIR HANDLER PHASING NOTES:

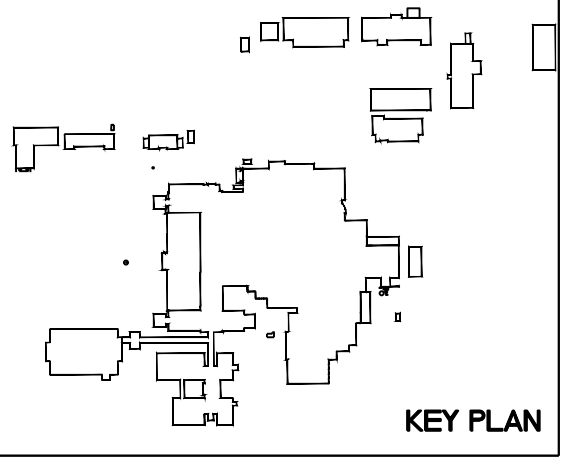
1. ALL AIR HANDLER REPLACEMENTS SHALL BE PERFORMED IN APRIL/MAY OR SEPTEMBER/OCTOBER MONTHS IN CAREFUL COORDINATION WITH THE OWNER. PROVIDE A MINIMUM OF 2 WEEKS NOTICE PRIOR TO BEGINNING WORK.
2. FOR TEMPORARY AIR HANDLER OPERATION, PROVIDE A TEMPORARY FAN EQUAL TO THE UNIT AIRFLOW/HORSE POWER, AND HEPA FILTER TO BE MOUNTED TO THE SUPPLY DUCTWORK PRIOR TO REMOVING UNIT. REFER TO FLOOR PLANS FOR SUGGESTED TEMPORARY SUPPLY FAN LOCATION. FAN SHALL RUN CONTINUOUSLY. MAINTAIN THE MECHANICAL ROOM TEMPERATURE AT A MINIMUM OF 55 DEGREES AND MAXIMUM OF 70 DEGREES DURING AHU CHANGE OUT USING EXISTING HEATING UNITS OR TEMPORARY COOLING/HEATING UNITS. OUTSIDE AIR, RETURN AIR, RELIEF AIR, AND SUPPLY AIR DUCTS SHALL BE LEFT OPEN TO USE THE MECHANICAL ROOM AS A PLENUM.
3. ALL UNIT SHUTDOWN WORK SHALL BE COMPLETED DURING WEEKEND AND EVENING HOURS. REPLACEMENT OF UNIT SHALL BE COMPLETED AS QUICKLY AS POSSIBLE WITH MULTIPLE SHEETS REQUIRED TO EXPEDITE WORK. ALL CONTROLS WORK THAT CAN BE COMPLETED BEFORE AND SHALL BE COORDINATED. WORK SHALL BE COMPLETED DURING SPRING, FALL, OR WINTER MONTHS.
4. DISASSEMBLE NEW AIR HANDLERS TO THEIR SMALLEST COMPONENTS AS REQUIRED TO FIT THROUGH EXISTING DOORS. TEMPORARILY REMOVE EXISTING MECHANICAL ROOM DOORS AS NECESSARY.



1 EXISTING LAYOUT BA-01 REMODELING PLAN
SCALE: 1/4" = 1'-0"

MECHANICAL NOTES:

1. ALL EXISTING DIFFUSERS, GRILLES, AND FLEX DUCTS AFFECTED BY CEILING REMOVAL AND RE-INSTALLATION SHALL BE TEMPORARILY SUPPORTED DURING CONSTRUCTION AND RE-INSTALLED AFTER CEILING WORK IS COMPLETE. ALL SPRINKLER ESCUTCHEONS SHALL BE REMOVED AND REINSTALLED AS REQUIRED FOR CEILING WORK.
2. PROVIDE DDC CONTROL INTERFACE FOR EXISTING AEROC WATER HEATERS FOR CONNECTION TO EXISTING BAS FOR REMOTE MONITORING OF ALARMS AND MONITORING. REPLACE EXISTING STEAM VALVE WITH NEW ELECTRONIC VALVE AND ACTUATOR. PROVIDE PROTOFORM CARD FOR EACH MECHANICAL ROOM FOR BUCKET ACCESS TO WATER HEATER INFORMATION. PROVIDE SENSORS IN RECIRCULATION PIPING FOR MONITORING PURPOSES. UPGRADE ONE WATER HEATER AT A TIME DURING NON-PEAK HOURS (E. NIGHTS AND WEEKENDS) FOR PHASING PURPOSES. REFER TO CONTROLS SHEET FOR CONTROL DIAGRAM.
3. PROVIDE SPRINKLER HEAD ABOVE AND BELOW DUCTWORK AND EQUIPMENT AS REQUIRED BY NFPA 13. ADD TO END OF NOTE: "RELOCATE EXISTING BRANCH PIPING AS REQUIRED TO INSTALL NEW DUCTWORK AND EQUIPMENT."
4. REPLACE EXISTING HUMIDIFIER INCLUDING DUCT DISTRIBUTION TUBE, ON/OFF CONTROL VALVE, MODULATING CONTROL VALVE, SEPARATOR, CONDENSATE TEMP SENSOR, STRAINER, VALVES, AND TRAPS. RECONNECT TO EXISTING STEAM AND CONDENSATE PIPING. CUT AND PATCH EXISTING DUCTWORK TO INSTALL NEW DISTRIBUTION TUBES. ENABLE COMPLETE VENTING.
5. DISCONNECT EXISTING CONTROLS FOR RELIEF DAMPER AT COVER AND LOCK OPEN DAMPER AT 100K.
6. INSTALL TEMP SENSOR DIRECTLY UPSTREAM OF RECIRC PUMP.
7. ROUTE PIPING AS HIGH AS POSSIBLE. MAINTAIN A MINIMUM OF 8'-0" CLEARANCE BELOW PIPING.
8. DISCONNECT AND REMOVE EXISTING DAMPER ACTUATORS AND LOCK OPEN DAMPERS AT COVER LOCATED AT SOUTH WALL OF PENTHOUSE.



Drawing Title BASEMENT, FIRST FLOOR, AND PENTHOUSE LARGE SCALE REMODELING PLANS		Project Title REPLACE OR UPGRADE HVAC SYSTEM COMPONENTS		Date SEPT. 14, 2016
Project Phase PHASE 4		Contract No. VA263-P-12B		Scale: AS SHOWN
VA Project No. 437-13-111	Contract No. VA263-C-	Designed By JP	Checked By JP	Drawn By JF
Building No. VAMC CAMPUS	AutoCAD File Name 202273-PL143.DWG	Location FARGO VA HEALTH CARE SYSTEM FARGO, NORTH DAKOTA		Drawing No. H4.3
				Dwg. 46 of 66

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