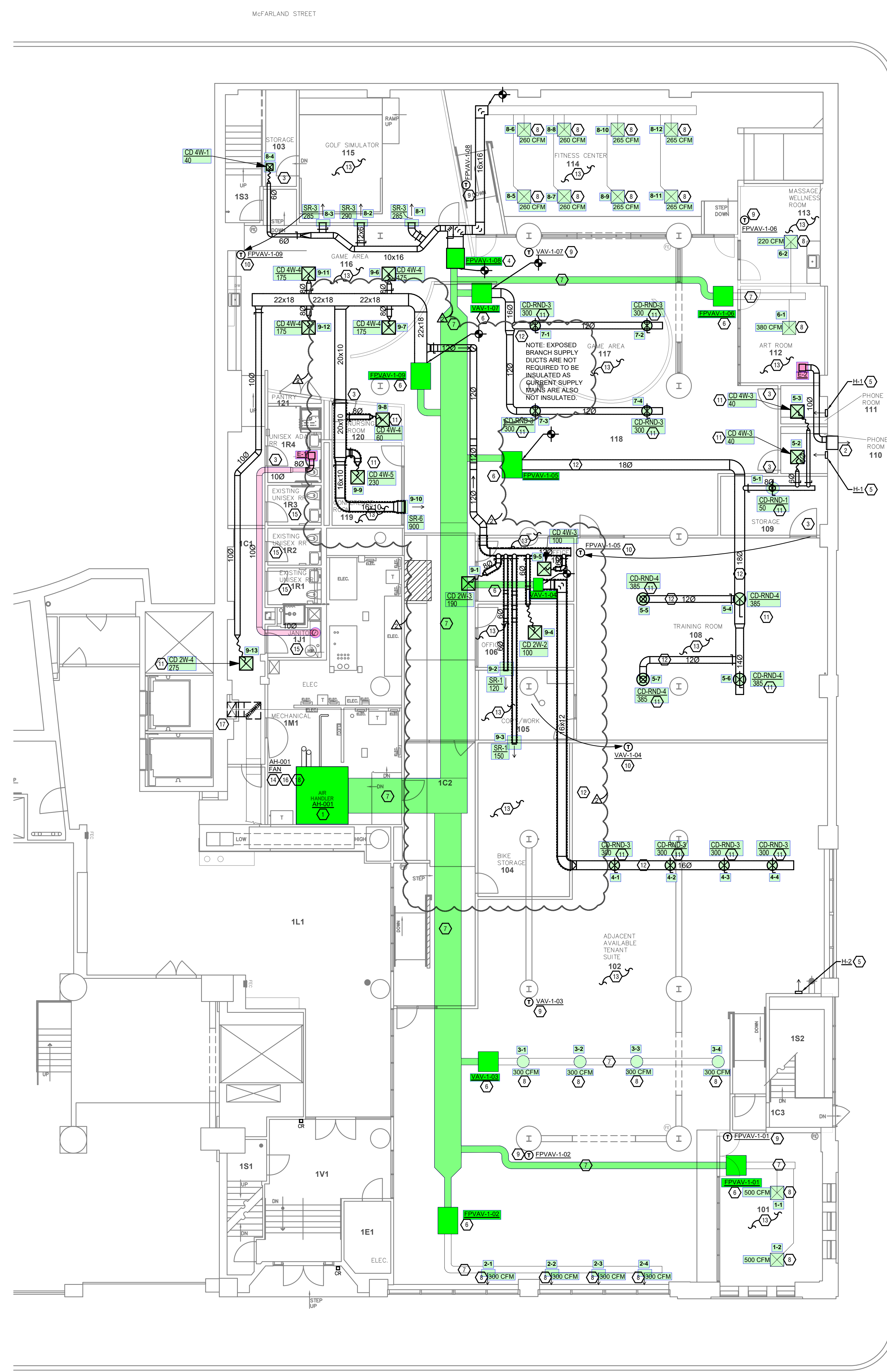


Project: Director's 10100 - 10100 10105 - The Quad - 302 W. 3rd Street Cincinnati, OH - Construction Documents 10105-M100-MECHANICAL-FLOOR-PLAN.dwg - EBS - Plot Date/Time: Sep 28, 2023 10:16am - By: Scott Silvey  
 THESE DRAWINGS AND SPECIFICATIONS ARE NOT AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMPLIANCE WITH APPLICABLE CODES, AND ARE INTENDED TO PROVIDE THE AUTHORITIES HAVING JURISDICTION WITH INFORMATION TO DETERMINE CODE COMPLIANCE. THE INSTALLING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MEANS, METHODS, AND MATERIALS USED IN CONSTRUCTION ARE INSTALLED IN ACCORDANCE WITH ANY CONTRACTUAL AGREEMENT THAT MAY EXIST WITH AN OWNER, CONSTRUCTION MANAGER, GENERAL CONTRACTOR, ETC.  
 EBS ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR THE COMPLIANCE OR CONDITION OF EXISTING EQUIPMENT AND WIRING.



1  
 M100  
 MECHANICAL FLOOR PLAN  
 SCALE: 1/8" = 1'-0"

SYMBOLS LEGEND - HVAC	
	THERMOSTAT
	LINE VOLTAGE THERMOSTAT
	REMOTE SENSOR
	CO2 SENSOR
	HUMIDISTAT
	CEILING DIFFUSER
	SIDE WALL GRILL
	RETURN WALL GRILL
	AIR FLOW DIRECTION
	DUCTWORK
	UNID DUCTWORK
	TYPICAL SUPPLY DUCT DN
	TYPICAL RETURN DUCT DN
	TYPICAL EXHAUST DUCT
	TURNING WYES
	FLEXIBLE DUCT, 8'-0" LONG MAX.
	TYPICAL ROUND DUCT DN
	ROUND DUCT UP
	DUCT SMOKE DETECTOR
	FIRE DAMPER
	MVD MANUAL VOLUME DAMPER
	MVD MOTOR OPERATED DAMPER
	ANNUNCIATOR PANEL
	DROPPED CEILING/SOFFIT
	DUCT CONTINUATION
	CONDENSATE PIPING
	CONNECTION POINT

- ### KEYED SHEET NOTES
- EXISTING AIR HANDLING UNIT TO REMAIN, AND BE REUSED IN THE NEW WORK. ALL DEMOLITION WORK IS NOT SHOWN. REMOVE ALL EXISTING HVAC NOT REUSED AS A PART OF THE NEW WORK. PROVIDE BELTS AND SHEAVES TO RE-BALANCE AIR FLOW RATES SHOWN IN SCHEDULES. MECHANICAL CONTRACTOR TO VERIFY WORKING CONDITION OF EXISTING EQUIPMENT AND PERFORM ROUTINE MAINTENANCE. CLEAN COILS. CHECK CHILLED WATER FLOW AND ELECTRICAL COMPONENTS. REPORT ANY DEFICIENCIES TO GENERAL CONTRACTOR.
  - ROUTE EXHAUST TO EXTERIOR WALL. PROVIDE LOUVER THROUGH EXISTING WALL, WITH INSULATED PLENUM, SLOPED TOWARDS THE OUTDOORS. SEE ARCHITECT AND CODE A.H.J. BEFORE PENETRATION. FOR EXACT LOCATION, MODEL, AND COLOR COORDINATION. ALL EXHAUST SHALL MEET THE FOLLOWING REQUIREMENTS:
    - 3' FROM PROPERTY LINE.
    - 3' FROM OPERABLE OPENINGS INTO BUILDING.
    - 10' FROM MECHANICAL AIR INTAKE.
  - UNDERCUT DOOR 1" FOR TRANSFER AIR. REFER TO KEYED SHEET NOTE #13.
  - RELOCATE FAN POWERED VAV BOX TO NEW LOCATION SHOWN. MODIFY FRONT END BUILDING AUTOMATION SYSTEM AS REQUIRED. BALANCE TO AIR FLOW RATE SHOWN (TOTAL OF ALL DOWNSTREAM AIR DEVICES).
  - PROVIDE HEATER. VERIFY LOCATION WITH ALL OTHER TRADES.
  - EXISTING TERMINAL UNIT TO REMAIN. BALANCE TO AIR FLOW RATE SHOWN (TOTAL OF ALL DOWNSTREAM AIR DEVICES).
  - EXISTING DUCTWORK TO REMAIN.
  - EXISTING AIR DEVICE TO REMAIN. BALANCE TO AIR FLOW RATE SHOWN.
  - EXISTING THERMOSTAT TO REMAIN.
  - RELOCATE THERMOSTAT AND MODIFY EXISTING BUILDING MANAGEMENT SYSTEM AS REQUIRED. COORDINATE FINAL LOCATION WITH ARCHITECT / OWNER PRIOR TO INSTALLATION. FOR THERMOSTATS INSTALLED ON EXPOSED BRICK WALLS, PROVIDE CONDUIT FOR THERMOSTAT WIRE. FOR THERMOSTATS INSTALLED ON EXTERIOR WALLS, INSULATE BACKSIDE OF THERMOSTAT. FOR THERMOSTATS IN COMMON AREAS, PROVIDE LOCKING COVER. COORDINATE BUILDING MANAGEMENT SYSTEM MODIFICATIONS WITH OWNER'S REPRESENTATIVE, AND SUB CONTRACT THE CURRENT VENDOR FOR THE EXISTING BUILDING MANAGEMENT SYSTEM.
  - PROVIDE NEW AIR DEVICE AND DUCTWORK. AIR DEVICE COLOR SHALL MATCH THE ADJACENT PAINTED DUCTWORK OR CEILING COLOR. COORDINATE LOCATION WITH LIGHTS, ALL OTHER TRADES, AND OWNER'S REPRESENTATIVE. BALANCE TO AIR FLOW RATE SHOWN.
  - IN EXPOSED CEILING AREAS, PROVIDE PAINT GRIP DOUBLE WALL INSULATED SPIRAL DUCT. COORDINATE EXACT LOCATION WITH ARCHITECT, LIGHTS, AND ALL OTHER TRADES.
  - PROVIDE TRANSFER DUCTS (MAXIMUM OF 250 FPM VELOCITY) AND GRILLES, AS REQUIRED TO TRANSFER ALL SUPPLY AIR IN THIS SPACE, BACK TO RETURN AIR OPENING ON EXISTING AIR HANDLING UNIT. PROVIDE DUCTS WITH SOUND ATTENUATION LINER. COORDINATE EXACT SIZE AND LOCATIONS WITH ARCHITECT AND OWNER'S REPRESENTATIVE.
  - BALANCE EXISTING FAN TO ACHIEVE AIR QUANTITIES SHOWN.
  - ROOM NOT IN SCOPE. EXHAUST SYSTEM TO REMAIN.
  - ROTATE FAN 90 MOTOR IS IN MECHANICAL ROOM. CHANGE OUT SPRING ISOLATORS AS NECESSARY TO HANDLE ANY OVERLOADING THAT MAY TAKE PLACE DUE TO EXTRA MOTOR WEIGHT SHIFTING THE CENTER OF GRAVITY.
  - REMOVE EXISTING OUTSIDE AIR DUCTWORK FROM 90 ELBOW DOWN TO DUCT AT THE FLOOR. REMOVE GRILLE AND MOTOR OPERATED DAMPER. ROTATE 90 ELBOW SO IT FACES INTO MECHANICAL ROOM.
  - PROVIDE NEW TIMECLOCK TO CONTROL FAN ON A TIME-OF-DAY SCHEDULE. FAN SHALL RUN DURING OCCUPIED HOURS WITH THE ABILITY TO MANUALLY OVERRIDE THE FAN ON/OFF.

### MECHANICAL SCOPE OF WORK

THE SCOPE OF THIS PROJECT IS TO MODIFY AND PROVIDE NEW HVAC TO AN EXISTING TENANT SPACE IN EXISTING BUILDING. REMOVE ALL EXISTING HVAC SYSTEMS AND ASSOCIATED ITEMS THAT ARE NOT REUSED IN NEW WORK.

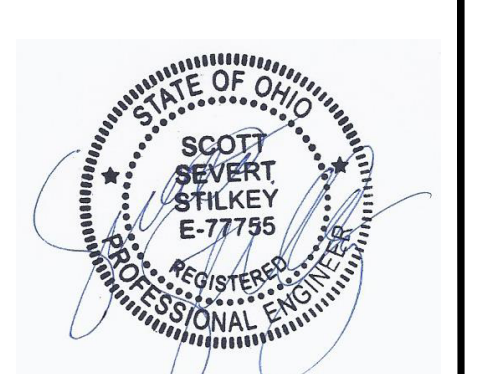
### CODES REFERENCED

- 2017 OHIO MECHANICAL CODE (2015 IMC)
- 2017 OHIO BUILDING CODE (2015 IBC)
- 2017 OHIO ENERGY CODE (99.1 ASHRAE 2010)

### HVAC DESIGN CONDITIONS

COOLING	HEATING
OUTDOOR: 93 DB / 75 WB	OUTDOOR: 0 DB
INDOOR: 74	INDOOR: 72

- ### GENERAL NOTES
- THE CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO COVER THE SCOPE OF THE WORK AND TO INDICATE THE GENERAL ARRANGEMENT AND APPROXIMATE SIZE AND LOCATION OF EQUIPMENT, DUCTS, PIPES, ETC. THEY ARE NOT INTENDED TO SHOW EVERY OFFSET, FITTING, AND COMPONENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL CONDITIONS AND DIMENSIONS. DO NOT SCALE THE DRAWINGS. CONTRACTOR TO VERIFY EXISTING SUPPLY AND RETURN DUCTWORK AND PIPING, SYSTEMS, SIZE, AND DUCT AND PIPE TYPE PRIOR TO MAKING CONNECTIONS.
  - FOR FULL SCHEDULES, SPECIFICATIONS, AND COMPLETE LISTING SEE SCHEDULES & SPECIFICATIONS SHEETS.
  - COORDINATE ROUTING OF ALL WORK WITH OTHER TRADES.
  - COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTIONS TO ALL MECHANICAL EQUIPMENT.
  - INSTALL ALL EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. MAINTAIN ALL CODE RECOMMENDED CLEARANCES FOR ACCESS AND MAINTENANCE.
  - REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS, AND FINAL FINISH DIFFUSER LOCATIONS.
  - MAINTAIN ALL CODE REQUIRED SERVICE CLEARANCES. FOLLOW CLEARANCE TO COMBUSTIBLE DISTANCE PER MANUFACTURER'S INSTRUCTIONS.
  - PROVIDE BACKCRAFT DAMPERS FOR ALL EXHAUST SYSTEMS AND EITHER LOUVER, BRICK VENT, OR CAPS AT ALL EXTERIOR BUILDING PENETRATIONS.
  - ROUTE ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK ABOVE DROP CEILING OR IN BULKHEADS. COORDINATE ROUTING WITH ARCHITECTURAL DRAWINGS. DUCTS SHALL BE RUN BELOW THE RATED FLOOR/CEILING. PROVIDE FIRE, SMOKE, AND FIRE / SMOKE RATED DAMPERS ON ALL PENETRATIONS TO RATED WALLS, CEILINGS, AND FLOORS. PROVIDE RADIATION DAMPERS ON ALL AIR DEVICES, FANS, ETC. THAT PENETRATE THE MEMBRANE OF THE RATED FLOOR/CEILING ASSEMBLY. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS.
  - ROUTE ALL AIR CONDITIONER CONDENSATE TO NEARBY FLOOR DRAIN. PROVIDE MINIMUM SLOPE OF 1/8" PER FOOT. SIZE CONDENSATE PER SECTION 307.2 OF THE OHIO MECHANICAL CODE.
  - PROVIDE AN APPROVED THROUGH PENETRATION FIRESTOP FOR ALL PIPING INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479. FIRESTOP SHALL HAVE A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCHES OF WATER AND SHALL HAVE AN F RATING OF NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE WALL OR FLOOR PENETRATED.
  - ANY EQUIPMENT THAT IS SUBSTITUTED SHALL FIT IN THE SPACE PROVIDED WITH ADEQUATE ROOM FOR SERVICING, INCLUDING SUBSTITUTE EQUIPMENT NAMED IN THE SPECIFICATIONS. SUBMIT A 1/4" SCALE DRAWING OF ALL EQUIPMENT SUBSTITUTED FOR APPROVAL PRIOR TO INSTALLATION, INCLUDING, BUT NOT LIMITED TO, STRUCTURAL AND ARCHITECTURAL IMPACT, CLEARANCE REQUIREMENTS AND UTILITY REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE ALL NEW ELECTRICAL AND PLUMBING REQUIREMENTS WITH THE ELECTRICAL AND PLUMBING CONTRACTORS.
  - PROVIDE ALL NECESSARY MODIFICATIONS TO BUILDING MANAGEMENT SYSTEM, CONTROL WIRING, ETC. PROVIDE COMPLETE CONTROL SYSTEM, AND LEAVE UNITS IN OPERATING CONDITION.
  - MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL BE LISTED AND LABELED AS HAVING A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723.
  - MECHANICAL CONTRACTOR TO VERIFY WORKING CONDITION OF EXISTING EQUIPMENT AND PERFORM ROUTINE MAINTENANCE. CLEAN COILS. CHECK REFRIGERANT LEVELS AND ELECTRICAL COMPONENTS. REPORT ANY DEFICIENCIES TO GENERAL CONTRACTOR.



### ISSUANCES

DATE	NO.	DESCRIPTION
02/17/2023	1	60% REVIEW
02/17/2023	2	90% REVIEW
02/24/2023	3	PERMIT
03/01/2023	4	BULLETIN 01
03/29/2023	5	BULLETIN 02

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DRAWN BY SRB	CHECKED BY SSS
PROJECT NO.: 10125	
SCALE: AS NOTED	
DATE: 02-24-2023	
DRAWING TITLE MECHANICAL FLOOR PLAN	
SHEET NO. <b>M100</b>	