

DATE	DESCRIPTION
07/19/23	FINAL COORDINATION
07/28/23	BID/PENIT DRAWINGS

KEYED NOTES

- PROVIDE CONDENSING GAS FURNACE AND LOCATE ON ANGLE IRON FRAME ABOVE CEILING. MOUNT FRAME TO STRUCTURE WITH BRACKET. THREE (3) VIBRATION ISOLATORS. ALL FILTER ACCESS TO BE ON THE SIDE OF FURNACE. ROUTE 2" COMBUSTION AIR INTAKE AND FLEX VENT TO CONDENSING UNIT THROUGH WALL. SIZE AND INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. LOCATE CONDENSING VENT KIT MINIMUM TEN FEET AWAY FROM AIR INTAKE AND EXHAUST VENTS AND PAINT TO MATCH WALL COLOR. ROUTE 1/2" CONDENSATE DRAIN LINE WITH TRAP TO FLOOR DRAIN. PROVIDE CONDENSATE PUMP AS REQUIRED. LOCATE CONDENSATE PUMP LOCATION WITH PLUMBING PLAN. FOR UNITS ABOVE CEILING, PROVIDE AUXILIARY DRAIN PAN WITH HIGH LEVEL ALARM UNDER FURNACE. IN ACCORDANCE WITH SECTION 307.3.3 OF IBC, HIGH LEVEL ALARM SHALL SHUT UNIT OFF UPON DETECTION OF CONDENSATE IN THE OVEYFLOW DRAIN PAN.
- EC TO FURNISH DUCT MOUNTED SMOKE DETECTOR AND PROVIDE COMPLETE REMOTE ANNUNCIATOR/TEST SWITCH. MC TO INSTALL SMOKE DETECTOR IN RETURN DUCT. PRIOR TO ANY OUTDOOR AIR CONNECTIONS, MC TO PROVIDE INTERLOCK WIRING BETWEEN SMOKE DETECTOR AND UNIT TO SHUT DOWN UNIT UPON DETECTION OF SMOKE. EC SHALL PROVIDE WIRING FOR FINAL CONNECTION TO CENTRAL FIRE ALARM SYSTEM, IF APPLICABLE, AND WIRING TO REMOTE ANNUNCIATOR/TEST SWITCH.
- PROVIDE THERMOSTAT AND MOUNT ON WALL 4 FEET A.F.F.
- PROVIDE COMBINATION THERMOSTAT, HUMIDISTAT AND CO2 SENSOR AND INSTALL ON WALL 4' A.F.F. CO2 SENSOR TO MODULATE OUTDOOR AIR DAMPER TO MAINTAIN MAXIMUM CO2 LEVELS OF 800 PPM, IN ACCORDANCE WITH SECTION 6.2.7 OF ASHRAE STANDARD 62.1.
- PROVIDE 1/2" GAS STEEL DUCT, WITH SEAMS WELDED LIQUID TIGHT, IN ACCORDANCE WITH SECTION 506.3 OF INTERNATIONAL MECHANICAL CODE AND SUPPLY DUCT AT 4' FT TOWARDS HOOD. PROVIDE CLEANOUT AT EVERY CHANGE OF DIRECTION, EVERY 20' HORIZONTALLY AND AS REQUIRED BY NFPA 96. PROVIDE 2 LAYERS OF 5/8" A53-1, OR EQUIVALENT, FIRE BARRIER DUCT WRAP ON EXHAUST DUCT BETWEEN HOOD AND ROOF.
- TYPE I HOOD WITH ANGLIUM FIRE SUPPRESSION SYSTEM FURNISHED BY KITCHEN CONSULTANT AND INSTALLED BY MECHANICAL CONTRACTOR. MAKE ALL DUCT CONNECTIONS AS INDICATED AND INSTALL HOOD AT 8'0" A.F.F. REFER TO HOOD DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE NEW EXHAUST FAN, CONTROLLED BY LIGHT SWITCH, AND ROUTE EXHAUST DUCTWORK TO FLUSH MOUNT LOUVERED FLAPPER GRILLE. PAINT GRILLE TO MATCH WALL COLOR.
- PROVIDE NEW EXHAUST FAN, CONTROLLED BY LIGHT SWITCH, AND ROUTE 6" EXHAUST DUCT TO EACH RESTROOM EXHAUST FAN AND COMBINE INTO AN 8" EXHAUST DUCT. PROVIDE FLUSH MOUNT LOUVERED FLAPPER GRILLE. PAINT GRILLE TO MATCH WALL COLOR.
- PROVIDE TRANSFER GRILLE AND MOUNT HIGH ON BOTH SIDES OF WALL.
- INTERNALLY LINE FIRST 10 FEET OF SUPPLY, OUTSIDE AIR, AND RETURN AIR DUCTWORK WITH JOHN'S SPRAL DUCTWORK TO PERMIT PAINT Drip CALVANIZED TO ALLOW FOR FIELD PAINTING. CLEAR INSIDE DIMENSIONS.
- PROVIDE RETURN GRILLE TO EACH PAINT DRIP CALVANIZED TO ALLOW FOR FIELD PAINTING.
- PROVIDE IN LINE DUCT HEATER AND INSTALL IN LOCATION INDICATED, IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- UNDERCUT DOOR 1" TO ALLOW FOR AIR TRANSFER INTO/OUT OF ROOM.
- 10"x14" LONG RETURN OVER WALL. BALANCE TO 320 CFM.
- PROVIDE NATURAL GAS UNIT HEATER WITH LINE MOUNTED THERMOSTAT. HEATER SHALL BE MOUNTED ON STRUCTURE OR WALL. SET THERMOSTAT TO 60°F (ADJUSTABLE). ROUTE FLEX UP THRU ROOF. TERMINATE WITH B-VENT CAP. REFER TO DETAIL 12 ON SHEET M-4 FOR ADDITIONAL INFORMATION. DUCT CONSTRUCTION CONTINUED ON SHEET M-2.
- PROVIDE WALL MOUNTED DIGITAL THERMOSTAT TO CONTROL ELECTRIC ROOM THERMOSTAT (EF-23) AND MOUNT ON WALL 4' A.F.F.
- PROVIDE 24" X24" INET WALL LOUVER, EQUIPMENT TO RESIST RFI-3750K, AND MOUNT HIGH ON WALL, COMPLETE WITH BIRDSCREEN. PROVIDE DUCTWORK PLENUM BOX BEHIND LOUVER AND SEAL WATER TIGHT.
- PROVIDE RETURN GRILLE AND INSTALL ON TOP OF RETURN DUCT. PROVIDE SHEET METAL AT END OF DUCT, SAME GAUGE AS DUCTWORK, AND SEAL AIR TIGHT.
- PROVIDE COMBINATION THERMOSTAT/HUMIDISTAT AND MOUNT ON WALL 4 FEET A.F.F.
- MOUNT AIR DEVICE ON TOP OF DUCT AND ANGLE TOWARDS CLEARSTORY GLAZING.
- PROVIDE NEW EXHAUST FAN, CONTROLLED BY WALL SWITCH, AND ROUTE EXHAUST DUCTWORK TO FLUSH MOUNT LOUVERED FLAPPER GRILLE. PAINT GRILLE TO MATCH WALL COLOR.
- PROVIDE WALL MOUNTED INFRARED ELECTRIC HEATER. INSTALL PER MANUFACTURER GUIDELINES.
- GAS WATER HEATER CONDENSING VENTS. REFER TO ROOF PLAN M-3 FOR CONTINUATION.
- ROUTE 1/2" WATER HEATER CONDENSING VENT KIT THROUGH WALL. SIZE AND INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS (FOR FOUR CONDENSING TERMINATIONS). LOCATE CONDENSING VENT KIT MINIMUM TEN FEET AWAY FROM HEATER AND EXHAUST VENTS AND PAINT TO MATCH WALL COLOR. COORDINATE WITH PLUMBING CONTRACTOR AND SHEET P-1.
- BLANK OFF PORTION OF AIR DEVICE AS SHOWN.

GENERAL NOTES

- THE DRAWINGS ARE DIAGRAMMATIC IN NATURE. EXACT LOCATIONS OF DEVICES AND ROUTING OF DUCTWORK SHALL BE DETERMINED BY CONTRACTOR'S COORDINATION WITH ALL OTHER TRADES AND FIELD DETERMINATION OF FINAL CONSTRUCTION DETAILS. MINOR ADJUSTMENTS TO DUCT ROUTING AND CONFIGURATION TO AVOID INTERFERENCE WITH OTHER TRADES SHALL BE INCLUDED IN CONTRACTOR'S PRICE. CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL IN WRITING FOR ANY MODIFICATIONS TO SYSTEM DESIGN PRIOR TO INSTALLATION.
- ALL EXPOSED MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND SUPPORTED IN A FIRST CLASS AND WORKMANLIKE MANNER. DUCTWORK SHALL RUN PARALLEL AND/OR PERPENDICULAR TO MAIN BUILDING STRUCTURE. ANY WORK THAT IS NOT CLASSIFIED AS WORKMANLIKE FASHION, IN THE ARCHITECT'S OPINION, SHALL BE REDONE AT THE CONTRACTOR'S EXPENSE.
- ALL DUCT JOINTS, SEAMS AND CONNECTIONS SHALL BE SECURELY FASTENED AND SEALED. DUCTS SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING TEN FEET. DUCT COVERINGS AND LININGS SHALL HAVE A FLAME-SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX NOT MORE THAN 50.
- PROVIDE VOLUME DAMPERS AT ALL ROUND BRANCH DUCT TAKE-OFFS THAT ARE ACCESSIBLE. PROVIDE TURNING VANES AT ALL 90 DEGREE SQUARE ELBOWS IN SUPPLY AIR DUCTS. PROVIDE 45 DEGREE HEE AT ALL RECTANGULAR SUPPLY AND RETURN BRANCH DUCT TAKE-OFFS.
- OUTDOOR AIR INTAKES SHALL BE 10'-0" MINIMUM AWAY FROM ANY EXHAUST AND PLUMBING VENT OUTLET.
- WIRE UP ALL LOW VOLTAGE (24V) THERMOSTATS.
- CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL PIPES, DUCTWORK, UNITS, ETC. WITH ALL OTHER TRADES AND SHIFT LOCATION OR OFFSET WHERE NECESSARY. PROVIDE TRANSITIONS IN DUCTWORK TO AVOID CONFLICT WITH EXISTING WORK AND OTHER STRUCTURE.
- CONTRACTOR SHALL COORDINATE ALL AIR DEVICES WITH ELECTRICAL AND ARCHITECTURAL REFLECTED CEILING PLANS.
- COORDINATE LOCATION OF ALL EXTERIOR LOUVER OR OUTLET WITH ARCHITECTURAL ELEVATION PLAN.
- COORDINATE ROOF WORK WITH BUILDING OWNER'S ROOFING CONTRACTOR TO ASSURE THAT THE ROOF WARRANTY IS NOT VOIDED.
- INSTALL DUCTWORK AS HIGH AS POSSIBLE.
- EXHAUST AIR DUCTS SHALL BE EQUIPPED WITH BACKDRAFT DAMPERS.
- ALL DUCT OPENINGS AND OTHER AIR DISTRIBUTION OPENINGS SHALL BE COVERED DURING CONSTRUCTION EXCEPT FOR TESTING AND INSPECTION.
- PROVIDE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND WARRANTIES (TWENTY YEAR GUARANTEE FOR EACH SYSTEM. OEM INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CFR TITLE 8, SECTION 5442 AND OTHER RELATED REGULATIONS.
- ALL DUCT ELBOWS SHALL BE LONG RADIUS OR MITERED.

HOOD AIR BALANCE REPORT

PRIOR TO THE HOOD FINAL INSPECTION, AN AIR BALANCE REPORT FOR THE HOOD WILL BE REQUIRED. THE REPORT SHALL INCLUDE THE MEASURED EXHAUST AIR QUANTITY (CFM), VELOCITY (FPM), MAKEUP AIR QUANTITY (CFM), OUTSIDE AIR (CFM) AND PRESSURE RELATIONSHIP BETWEEN THE SERVING AREA AND THE SALES AREA. THIS IS REQUIRED ON ALL HOODS.

ROOF PENETRATIONS

COORDINATE ROOF WORK WITH BUILDING OWNER'S ROOFING CONTRACTOR TO ASSURE THAT THE ROOF WARRANTY IS NOT VOIDED.

REGISTER DIRECTION NOTE

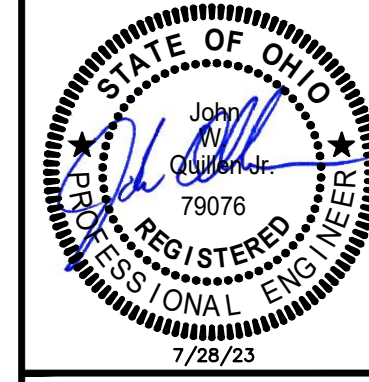
ALL REGISTERS OR GRILLES NEAR OPEN CASE REFRIGERATION SHALL BE INSTALLED IN SUCH A MANNER WHERE NO DIRECT AIRFLOW WILL BE BLOWN INTO CASES.

HVAC LEGEND

	DRAWING NOTE SYMBOL
	NEW RECTANGULAR DUCTWORK AND SIZE
	NEW ROUND DUCTWORK AND SIZE
	BALANCING/VOLUME DAMPER
	FLEX DUCT
	THERMOSTAT
	NEW SUPPLY AIR DIFFUSER AND CFM
	NEW PERFORATED SUPPLY AIR DIFFUSER AND CFM
	NEW RETURN GRILLE
	NEW EXHAUST FAN
	AIR FLOW DIRECTION
	SMOKE DETECTOR
	SUPPLY DUCT UP THROUGH ROOF
	RETURN/EXHAUST DUCT UP THROUGH ROOF
	MOTOR OPERATED DAMPER
	CHANGE IN ELEVATION

HVAC DESIGN CONDITIONS

COOLING	OUTDOOR = 92°FDB/74°FWB	HEATING	OUTDOOR = 1°FDB
	INDOOR = 72°FDB/50%RH		INDOOR = 70°FDB



© 2023 MARQUE ENGINEERING, LLC
 THE PLAN INDICATED UNDER THESE CONDITIONS AND THE ORIGINAL PRODUCTION OF THIS DRAWING IS THE PROPERTY OF MARQUE ENGINEERING, LLC. ANY REPRODUCTION OR USE OF THIS DRAWING FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF MARQUE ENGINEERING, LLC IS STRICTLY PROHIBITED. THE ARCHITECT'S AND ENGINEER'S RESPONSIBILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE SYSTEMS SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE AGENCIES.

MARQUE ENGINEERING
 2230 PARK AVE., STE. 100, CINCINNATI, OH 45206
 513.457.7131 • WWW.MARQUEENG.COM



DATE: 07/28/2023
 BY: Steve Michaels
 URL: Download Link

DOROTHY LANE MARKET
 7200 MASON-MONTGOMERY ROAD
 MASON, OH 45040

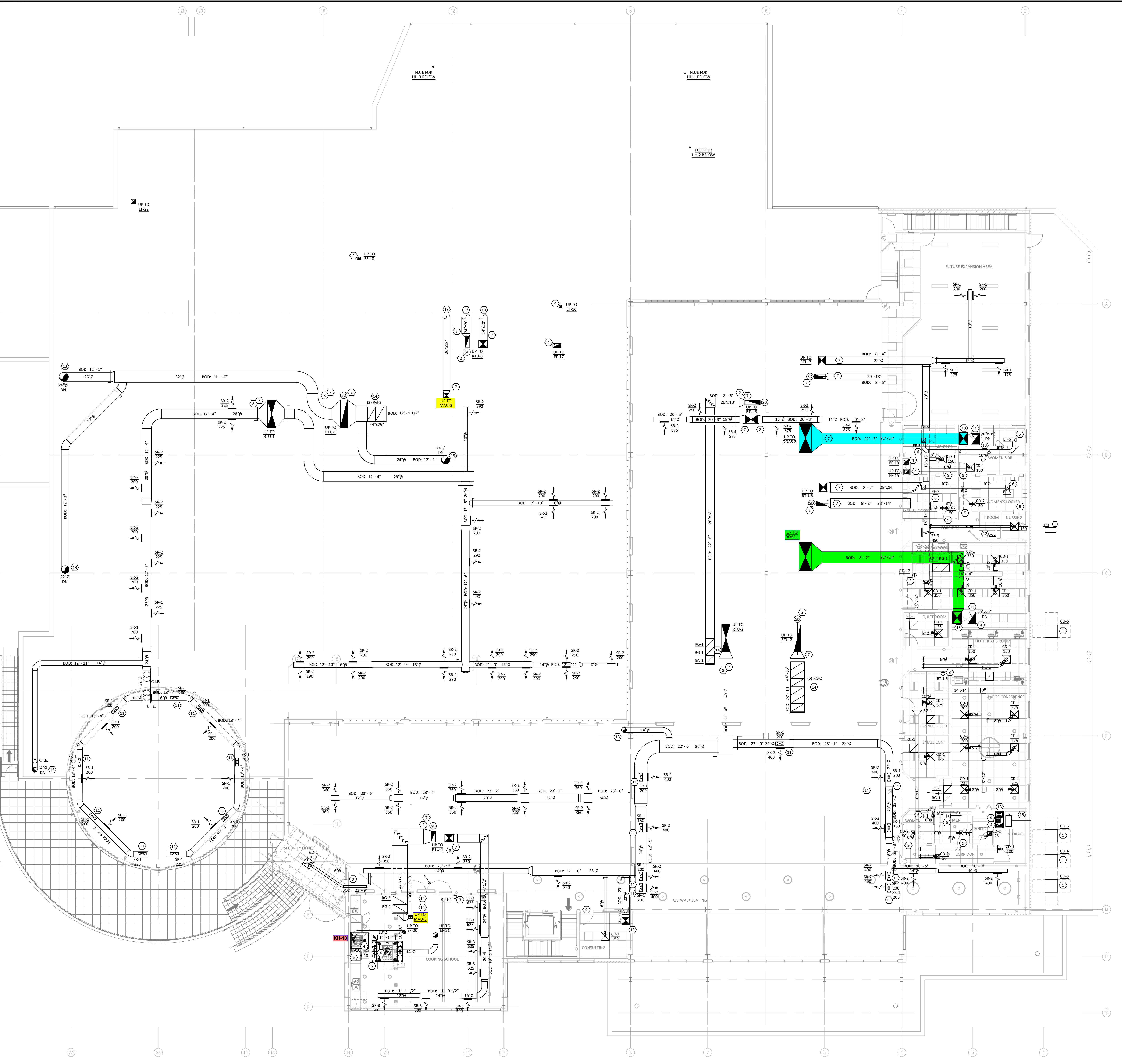


PROJECT NO. 56307
 PROJECT TITLE DLM MASON OHIO STORE
 DWG. TITLE

FIRST FLOOR PLAN

DWG. NO. M-1

FIRST FLOOR PLAN
 SCALE: 1/8" = 1' - 0" **1**



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

1

KEYED NOTES

1. PROVIDE CONDENSING UNIT/HEAT PUMP AND LOCATE ON ROOF ON ANVIL INTERNATIONAL HAYDON H-BLOCK, OR EQUIVALENT, ROOFTOP SUPPORT SYSTEM. COMPLETE WITH ROOF PAD. MAINTAIN UNIT MINIMUM REQUIRED SERVICE AND ARROW CLEARANCE. ROUTE REFRIGERANT LIQUID SUCTION LINES BETWEEN CONDENSING UNIT AND FURNACE COOLING COIL AND SEAL PENETRATIONS WEATHER TIGHT. PROVIDE PAVE OR EQUIVALENT. PIPE CURBS FOR ALL ROOF PENETRATIONS. ROUTE AND SIZE LINES AND ACCESSORIES PER MANUFACTURER'S GUIDELINES. PROVIDE A FULLY CHARGED SYSTEM AND INSULATE ALL REFRIGERANT PIPING WITH AMARLEX INSULATION.
2. EC TO FURNISH DUCT MOUNTED SMOKE DETECTOR AND PROVIDE COMPATIBLE REMOTE ANNUNCIATOR/TEST SWITCH. MC TO INSTALL SMOKE DETECTOR IN RETURN DUCT, PRIOR TO ANY OUTDOOR AIR CONNECTIONS. MC TO PROVIDE INTERFERE WRIBING BETWEEN SMOKE DETECTOR AND UNIT TO SHUT DOWN UNIT UPON DETECTION OF SMOKE. EC SHALL PROVIDE WIRING FOR FINAL CONNECTION TO CENTRAL FIRE ALARM SYSTEM, IF APPLICABLE, AND WIRING TO REMOTE ANNUNCIATOR/TEST SWITCH.
3. PROVIDE COMBINATION THERMOSTAT/HUMIDISTAT AND MOUNT ON WALL 4 FEET A.F.F.
4. PROVIDE 16 GA. STEEL DUCT WITH SEAMS WELDED LIQUID TIGHT, IN ACCORDANCE WITH SECTION 506.3 OF INTERNATIONAL MECHANICAL CODE AND SLOPE DUCT AT 1/8" TOWARDS HOOD. PROVIDE CLEANOUT AT EVERY CHANGE OF DIRECTION, EVERY 20' HORIZONTALLY AND AS REQUIRED BY NFPA 96. PROVIDE LAYERS OF 3/4" G.I. OR EQUIVALENT, FIRE BARRIER DUCT WRAP ON EXHAUST DUCT BETWEEN HOOD AND ROOF, AS AN OPTION TO ULTIMATE 16 GA. STEEL DUCT. PROVIDE CAPTIVE AIR MODEL, 1/4" ROUND OF GAUGE STAINLESS STEEL DOUBLE WALL DUCT SYSTEM.
5. TYPE I HOOD WITH ANGULAR FIRE SUPPRESSION SYSTEM FURNISHED BY KITCHEN CONSULTANT AND INSTALLED BY MECHANICAL CONTRACTOR. MAKE ALL DUCT CONNECTIONS AS INDICATED AND INSTALL HOOD AT 8' F.F. REFER TO HOOD DRAWINGS FOR ADDITIONAL INFORMATION.
6. PROVIDE NEW EXHAUST FAN, CONTROLLED BY LIGHT SWITCH, AND ROUTE EXHAUST DUCT OFF EACH RESTROOM EXHAUST FAN AND CORNING EXHAUST DUCT. ROUTE EXHAUST DUCTWORK TO MANUFACTURER'S STANDARD VENT CAP.
7. INTERNALLY LINE FIRST 10 FEET OF SUPPLY, OUTSIDE AIR, AND RETURN AIR DUCTWORK WITH JOHNS MANVILLE OR EQUIVALENT, 1 INCH THICK SPRACQUEITE FIBERGLASS DUCT LINER. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
8. ALL SPIRAL DUCTWORK TO BE PAINTED GRP GALVANNEZED TO ALLOW FOR FIELD PAINTING.
9. UNDERCUT DOOR 1" TO ALLOW FOR AIR TRANSFER INTO/OUT OF ROOM.
10. PROVIDE TRANSFER GRILLE AND MOUNT HIGH ON BOTH SIDES OF WALL.
11. MOUNT AIR DEVICE ON TOP OF DUCT AND ANGLE TOWARDS CLEARSTORY GLAZING.
12. PROVIDE WALL MOUNTED DUCTLESS SPLIT SYSTEM AND INSTALL IN LOCATION INDICATED. ROUTE CONDENSATE TO NEAREST APPROVED RECEIPTALS. PROVIDE CONDENSATE PUMP AS REQUIRED. PROVIDE WIRED THERMOSTAT TO CONTROL DUCTLESS SPLIT SYSTEM. MOUNT THERMOSTAT AT 4' AFF.
13. DUCT CONSTRUCTION CONTINUED ON SHEET M-1.
14. PROVIDE RETURN GRILLE AND INSTALL ON TOP OF RETURN DUCT. PROVIDE SHEET METAL AT END OF DUCT. SAME GAUGE AS DUCTWORK, AND OR PERPENDICULAR TO MAIN BUILDING STRUCTURE. ANY WORK THAT IS NOT DONE IN A FIRST-CLASS OR WORKMANLIKE FASHION, IN THE ARCHITECT'S OPINION, SHALL BE REDONE AT THE CONTRACTOR'S EXPENSE.
15. ROUTE 4" SNOW MELT BOILER CONCENTRIC VENT KIT THROUGH WALL. SIZE AND INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. LOCATE CONCENTRIC VENT AT MINIMUM 18" FEET AWAY FROM AIR INTAKE AND EXHAUST VENTS AND PAINT TO MATCH WALL COLOR. COORDINATE WITH PLUMBING CONTRACTOR AND SHEET P-2.

GENERAL NOTES

- A. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE. EXACT LOCATIONS OF DEVICES AND ROUTING OF DUCTWORK SHALL BE DETERMINED BY CONTRACTOR AFTER COORDINATION WITH ALL OTHER TRADES AND FIELD DETERMINATION OF FINAL CONSTRUCTION DETAILS. MINOR ADJUSTMENTS TO DUCT ROUTING AND CONFIGURATION TO AVOID CONFLICT WITH BUILDING STRUCTURE OR OTHER TRADES SHALL BE INCLUDED IN CONTRACTOR'S PRICE. CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL IN WRITING FOR ANY MODIFICATIONS TO SYSTEM DESIGN PRIOR TO INSTALLATION.
- B. ALL EXPOSED MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND SUPPORTED IN A FIRST-CLASS AND WORKMANLIKE FASHION. DUCTWORK SHALL RUN PARALLEL AND/OR PERPENDICULAR TO MAIN BUILDING STRUCTURE. ANY WORK THAT IS NOT DONE IN A FIRST-CLASS OR WORKMANLIKE FASHION, IN THE ARCHITECT'S OPINION, SHALL BE REDONE AT THE CONTRACTOR'S EXPENSE.
- C. ALL DUCT JOINTS, SEAMS AND CONNECTIONS SHALL BE SECURELY FASTENED AND SEALED. DUCTS SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING TEN FEET. DUCT COVERINGS AND LININGS SHALL HAVE A FLAME-SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX NOT MORE THAN 50.
- D. PROVIDE VOLUME DAMPERS AT ALL ROUND BRANCH DUCT TAKE-OFFS THAT ARE ACCESSIBLE. PROVIDE TURNING VANES AT ALL 90 DEGREE ELBOWS IN SUPPLY AIR DUCTS. PROVIDE 45 DEGREE HEE AT ALL RECTANGULAR SUPPLY AND RETURN BRANCH DUCT TAKE-OFFS.
- E. OUTDOOR AIR INTAKES SHALL BE 10'-0" MINIMUM AWAY FROM ANY EXHAUST AND PLUMBING VENT OUTLET.
- F. WIRE UP ALL LOW VOLTAGE (24V) THERMOSTATS.
- G. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL PIPES, DUCTWORK, UNITS, ETC. WITH ALL OTHER TRADES AND SHEET LOCATION OF ALL DEVICES WHERE NECESSARY. PROVIDE TRANSITIONS IN DUCTWORK TO AVOID CONFLICT WITH EXISTING DUCTWORK AND OTHER STRUCTURES.
- H. CONTRACTOR SHALL COORDINATE ALL AIR DEVICES WITH ELECTRICAL AND ARCHITECTURAL REFLECTED CEILING PLANS.
- I. COORDINATE LOCATION OF ALL EXTERIOR LOUVER OR OUTLET WITH ARCHITECTURAL ELEVATION PLAN.
- J. COORDINATE ROOF WORK WITH BUILDING OWNER'S ROOFING CONTRACTOR TO ASSURE THAT THE ROOF WARRANTY IS NOT VOIDED.
- K. INSTALL DUCTWORK AS HIGH AS POSSIBLE.
- L. EXHAUST AIR DUCTS SHALL BE EQUIPPED WITH BACKDRIFT DAMPERS.
- M. ALL DUCT OPENINGS AND OTHER AIR DISTRIBUTION OPENINGS SHALL BE COVERED DURING CONSTRUCTION EXCEPT FOR TESTING AND INSPECTION.
- N. PROVIDE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND WARRANTIES /WRITTEN GUARANTEE FOR EACH SYSTEM. O&M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR TITLE 8, SECTION 3342 AND OTHER RELATED REGULATIONS.
- O. ALL DUCT ELBOWS SHALL BE LONG RADIUS OR MITERED.

HOOD AIR BALANCE REPORT

PRIOR TO THE HOOD FINAL INSPECTION, AN AIR BALANCE REPORT FOR THE HOOD WILL BE REQUIRED. THE REPORT SHALL INCLUDE THE MEASURED EXHAUST AIR QUANTITY (CFM), VELOCITY (FPM), MAKEUP AIR QUANTITY (CFM), OUTSIDE AIR (CFM) AND PRESSURE RELATIONSHIP BETWEEN THE SERVING AREA AND THE SALES AREA. THIS IS REQUIRED ON ALL HOODS.

ROOF PENETRATIONS

COORDINATE ROOF WORK WITH BUILDING OWNER'S ROOFING CONTRACTOR TO ASSURE THAT THE ROOF WARRANTY IS NOT VOIDED.

REGISTER DIRECTION NOTE

ALL REGISTERS OR GRILLES NEAR OPEN CASE REFRIGERATION SHALL BE INSTALLED IN SUCH A MANNER WHERE NO DIRECT AIRFLOW WILL BE BLOWN INTO CASES.

RETURN AIR PLENUM

THE ENTIRE AREA ON EAST SIDE OF MEZZANINE AND ABOVE THE CEILING IS A RETURN AIR PLENUM. ALL WIRING SHALL BE PLENUM RATED OR IN CONDUIT. NO PVC PIPING IS ALLOWED, UNLESS UNWRAP OR EQUIVALENT. FIBERGLASS PLENUM INSULATION IS APPLIED TO THE PVC PIPE.

HVAC LEGEND

SYMBOL	DESCRIPTION
(1)	DRAWING NOTE SYMBOL
[Symbol]	NEW RECTANGULAR DUCTWORK AND SIZE
[Symbol]	NEW ROUND DUCTWORK AND SIZE
[Symbol]	BALANCING/VOLUME DAMPER
[Symbol]	FLEX DUCT
[Symbol]	THERMOSTAT
[Symbol]	NEW SUPPLY AIR DIFFUSER AND CFM
[Symbol]	NEW PERFORATED SUPPLY AIR DIFFUSER AND CFM
[Symbol]	NEW RETURN GRILLE
[Symbol]	NEW EXHAUST FAN
[Symbol]	AIR FLOW DIRECTION
[Symbol]	SMOKE DETECTOR
[Symbol]	SUPPLY DUCT UP THROUGH ROOF
[Symbol]	RETURN/EXHAUST DUCT UP THROUGH ROOF
[Symbol]	MOTOR OPERATED DAMPER
[Symbol]	CHANGE IN ELEVATION

HVAC DESIGN CONDITIONS

COOLING: OUTDOOR = 92°DB/74°FWB INDOOR = 72°DB/59°DBH	HEATING: OUTDOOR = 1°DB INDOOR = 70°FDB
---	---

DATE	DESCRIPTION
07/19/23	FINAL COORDINATION
07/28/23	ISSUE/PRINT DRAWINGS



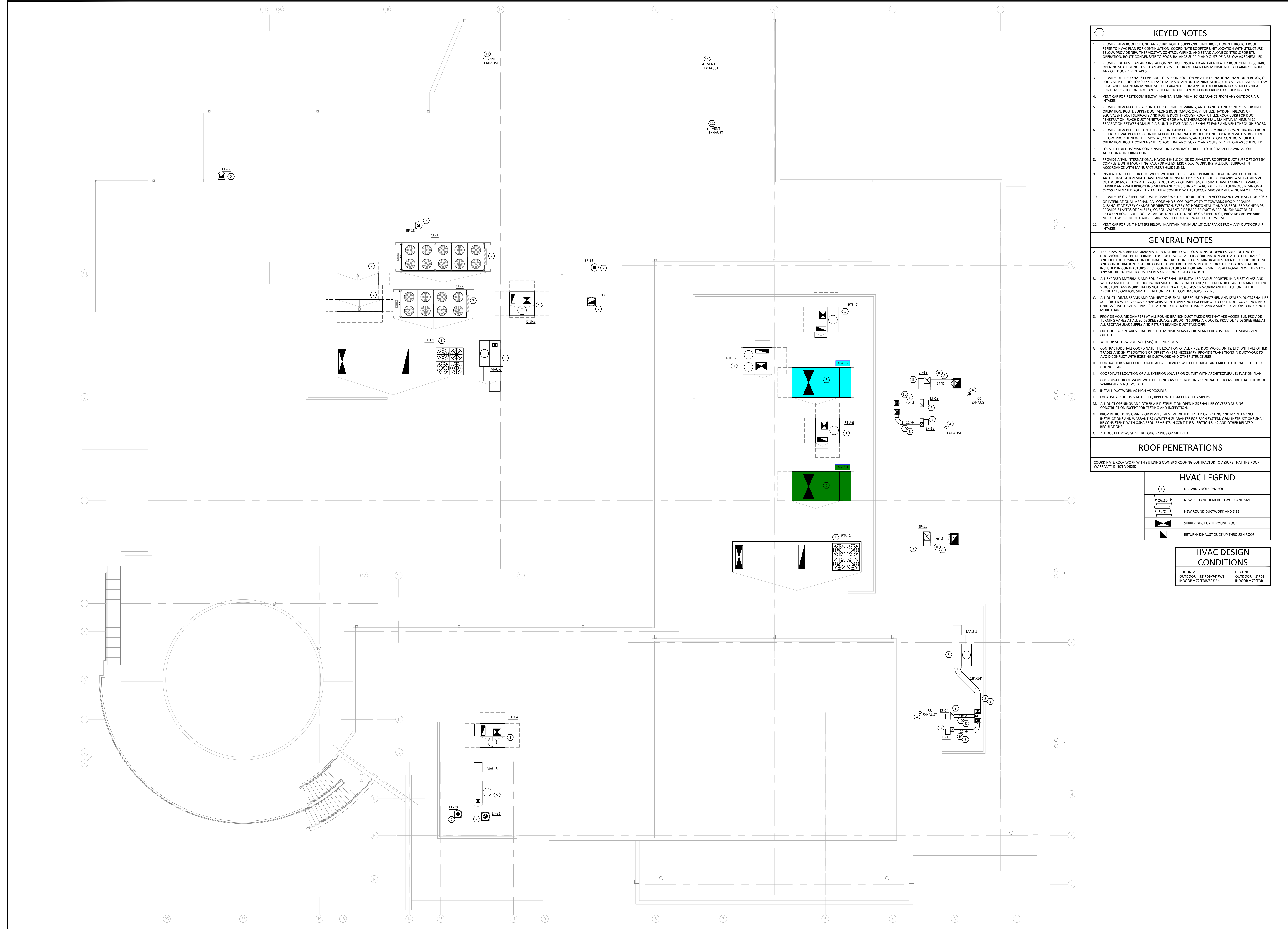
© 2023 MARQUE ENGINEERING, LLC
THE WORK SHOWN HEREIN UNDER THESE CONDITIONS IS THE ORIGINAL PROPERTY OF MARQUE ENGINEERING, LLC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE OR MODIFICATION OF THIS WORK WITHOUT THE WRITTEN PERMISSION OF MARQUE ENGINEERING, LLC IS PROHIBITED. THIS AGREEMENT SHALL BE KEPT WITH THE DRAWINGS AND SHALL BE UPDATED BY THE ENGINEER OF RECORD.

MARQUE ENGINEERING
2230 PARK AVE., STE. 100, CINCINNATI, OH 45206
513.457.7131 - WWW.MARQUEENG.COM

RECEIVED
DATE: 07/28/2023
BY: Steve Michalefs
Download Link

DOROTHY LANE MARKET
7400 MASON-MONTGOMERY ROAD
MASON, OH 45040

PROJECT NO. 56307
PROJECT TITLE DLM MASON OHIO STORE
DWG. TITLE MEZZANINE FLOOR PLAN
DWG. NO. M-2



KEYED NOTES

- PROVIDE NEW ROOFTOP UNIT AND CURB. ROUTE SUPPLY/RETURN DROPS DOWN THROUGH ROOF. REFER TO HVAC PLAN FOR CONTINUATION. COORDINATE ROOFTOP UNIT LOCATION WITH STRUCTURE BELOW. PROVIDE NEW THERMOSTAT, CONTROL WIRING, AND STAND ALONE CONTROLS FOR RTU OPERATION. ROUTE CONDENSATE TO ROOF. BALANCE SUPPLY AND OUTSIDE AIRFLOW AS SCHEDULED.
- PROVIDE EXHAUST FAN AND INSTALL ON 20" HIGH INSULATED AND VENTILATED ROOF CURB. DISCHARGE OPENING SHALL BE NO LESS THAN 40" ABOVE THE ROOF. MAINTAIN MINIMUM 10' CLEARANCE FROM ANY OUTDOOR AIR INTAKES.
- PROVIDE UTILITY EXHAUST FAN AND LOCATE ON ROOF ON ANNUL INTERNATIONAL HAYDON H-BLOCK OR EQUIVALENT. ROOFTOP SUPPORT SYSTEM. MAINTAIN UNIT MINIMUM REQUIRED SERVICE AND AIRFLOW CLEARANCE. MAINTAIN MINIMUM 10' CLEARANCE FROM ANY OUTDOOR AIR INTAKES. MECHANICAL CONTRACTOR TO CONFIRM FAN ORIENTATION AND FAN ROTATION PRIOR TO ORDERING FAN.
- VENT CAP FOR RESTROOM BELOW. MAINTAIN MINIMUM 10' CLEARANCE FROM ANY OUTDOOR AIR INTAKES.
- PROVIDE NEW MAKE UP AIR UNIT, CURB, CONTROL WIRING, AND STAND ALONE CONTROLS FOR UNIT OPERATION. ROUTE SUPPLY DUCT ALONG ROOF (MAU-1 ONLY). UTILIZE HAYDON H-BLOCK OR EQUIVALENT. DUCT SUPPORTS AND ROUTE DUCT THROUGH ROOF. UTILIZE ROOF CURB FOR DUCT PENETRATION. FLASH DUCT PENETRATION FOR A WEATHERPROOF SEAL. MAINTAIN MINIMUM 10' SEPARATION BETWEEN MAKEUP AIR UNIT INTAKE AND ALL EXHAUST FANS AND VENT THROUGH ROOFS.
- PROVIDE NEW DEDICATED OUTSIDE AIR UNIT AND CURB. ROUTE SUPPLY DROPS DOWN THROUGH ROOF. REFER TO HVAC PLAN FOR CONTINUATION. COORDINATE ROOFTOP UNIT LOCATION WITH STRUCTURE BELOW. PROVIDE NEW THERMOSTAT, CONTROL WIRING, AND STAND ALONE CONTROLS FOR RTU OPERATION. ROUTE CONDENSATE TO ROOF. BALANCE SUPPLY AND OUTSIDE AIRFLOW AS SCHEDULED.
- LOCATED FOR HUSSMAN CONDENSING UNIT AND RACKS. REFER TO HUSSMAN DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE ANNUL INTERNATIONAL HAYDON H-BLOCK OR EQUIVALENT. ROOFTOP DUCT SUPPORT SYSTEM. COMPLETE WITH MOUNTING PIG FOR ALL EXTERIOR DUCTWORK. INSTALL DUCT SUPPORT IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
- INSULATE ALL EXTERIOR DUCTWORK WITH RIGID FIBERGLASS BOARD INSULATION WITH OUTDOOR JACKET. INSULATION SHALL HAVE MINIMUM INSTALLED "R" VALUE OF 6.0. PROVIDE A SELF-ADHESIVE OUTDOOR JACKET FOR ALL EXPOSED DUCTWORK OUTSIDE. JACKET SHALL HAVE LAMINATED VAPOR BARRIER AND WATERPROOFING MEMBRANE CONSISTING OF A RUBBERIZED BUTYLDIENE RESIN ON A CROSS LAMINATED POLYETHYLENE FILM COVERED WITH STUCCO-EMBOSSED ALUMINUM-FOLY FACING.
- PROVIDE 16 GA. STEEL DUCT WITH SEAMS WELDED LEAD TIGHT, IN ACCORDANCE WITH SECTION 308.3 OF INTERNATIONAL MECHANICAL CODE AND SLOPE DUCT AT 1/4" FT TOWARDS HOOD. PROVIDE CLEANOUT AT EVERY CHANGE OF DIRECTION, EVERY 20' HORIZONTALLY AND AS REQUIRED BY NFPA 96. PROVIDE 2 LAYERS OF 16 GA. OR EQUIVALENT FIRE BARRIER DUCT WRAP ON EXHAUST DUCT BETWEEN HOOD AND ROOF AS AN OPTION TO UTILIZING 16 GA STEEL DUCT. PROVIDE CAPTIVE AIRE MODEL 10W ROUND 20 GAUGE STAINLESS STEEL DOUBLE WALL DUCT SYSTEM.
- VENT CAP FOR UNIT HEATERS BELOW. MAINTAIN MINIMUM 10' CLEARANCE FROM ANY OUTDOOR AIR INTAKES.

GENERAL NOTES

- THE DRAWINGS ARE DIAGNOSTIC IN NATURE. EXACT LOCATIONS OF DEVICES AND ROUTING OF DUCTWORK SHALL BE DETERMINED BY CONTRACTOR AFTER COORDINATION WITH ALL OTHER TRADES AND FIELD DETERMINATION OF FINAL CONSTRUCTION DETAILS. MINOR ADJUSTMENTS TO DUCT ROUTING AND CONFIGURATION TO AVOID CONFLICT WITH BUILDING STRUCTURE OR OTHER TRADES SHALL BE INCLUDED IN CONTRACTOR'S PRICE. CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL IN WRITING FOR ANY MODIFICATIONS TO THE DRAWINGS.
- ALL EXPOSED MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND SUPPORTED IN A FIRST-CLASS AND WORKMANLIKE FASHION. DUCTWORK SHALL RUN PARALLEL AND/OR PERPENDICULAR TO MAIN BUILDING STRUCTURE. ANY WORK THAT IS NOT DONE IN A FIRST-CLASS OR WORKMANLIKE FASHION, IN THE ARCHITECT'S OPINION, SHALL BE REDONE AT THE CONTRACTOR'S EXPENSE.
- ALL DUCT JOINTS, SEAMS AND CONNECTIONS SHALL BE SECURELY FASTENED AND SEALED. DUCTS SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING TEN FEET. DUCT COVERINGS AND LININGS SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX NOT MORE THAN 50.
- PROVIDE VOLUME DAMPERS AT ALL ROUND BRANCH DUCT TAKE-OFFS THAT ARE ACCESSIBLE. PROVIDE TURNING VANES AT ALL 90 DEGREE SQUARE ELBOWS ON SUPPLY AIR DUCTS. PROVIDE 45 DEGREE HEE AT ALL RECTANGULAR SUPPLY AND RETURN BRANCH DUCT TAKE-OFFS.
- OUTDOOR AIR INTAKES SHALL BE 10'-0" MINIMUM AWAY FROM ANY EXHAUST AND PLUMBING VENT OUTLET.
- WIRE UP ALL LOW VOLTAGE (24V) THERMOSTATS.
- CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL PIPES, DUCTWORK, ETC. WITH ALL OTHER TRADES AND SHIFT LOCATION OR OFFSET WHERE NECESSARY. PROVIDE TRANSITIONS IN DUCTWORK TO AVOID CONFLICT WITH EXISTING DUCTWORK AND OTHER STRUCTURES.
- CONTRACTOR SHALL COORDINATE ALL AIR DEVICES WITH ELECTRICAL AND ARCHITECTURAL REFLECTED CEILING PLANS.
- COORDINATE LOCATION OF ALL EXTERIOR LOUVER OR OUTLET WITH ARCHITECTURAL ELEVATION PLAN.
- COORDINATE ROOF WORK WITH BUILDING OWNER'S ROOFING CONTRACTOR TO ASSURE THAT THE ROOF WARRANTY IS NOT VOIDED.
- INSTALL DUCTWORK AS HIGH AS POSSIBLE.
- EXHAUST AIR DUCTS SHALL BE EQUIPPED WITH BACKDRAFT DAMPERS.
- ALL DUCT OPENINGS AND OTHER AIR DISTRIBUTION OPENINGS SHALL BE COVERED DURING CONSTRUCTION EXCEPT FOR TESTING AND INSPECTION.
- PROVIDE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND WARRANTIES (WRITTEN GUARANTEE FOR EACH SYSTEM. O&M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CEC TITLE 8, SECTION 5342 AND OTHER RELATED REGULATIONS.
- ALL DUCT ELBOWS SHALL BE LONG RADIUS OR MITERED.

ROOF PENETRATIONS

COORDINATE ROOF WORK WITH BUILDING OWNER'S ROOFING CONTRACTOR TO ASSURE THAT THE ROOF WARRANTY IS NOT VOIDED.

HVAC LEGEND

	DRAWING NOTE SYMBOL
	NEW RECTANGULAR DUCTWORK AND SIZE
	NEW ROUND DUCTWORK AND SIZE
	SUPPLY DUCT UP THROUGH ROOF
	RETURN/EXHAUST DUCT UP THROUGH ROOF

HVAC DESIGN CONDITIONS

COOLING:	HEATING:
OUTDOOR + 92°FDB/74°FWB	OUTDOOR + 1°FDB
INDOOR + 72°FDB/52°FWB	INDOOR + 72°FDB

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

DATE	DESCRIPTION
07/19/23	FINAL COORDINATION
07/28/23	BID/FINITE DRAWINGS

© 2023 MARQUE ENGINEERING, LLC
 ALL RIGHTS RESERVED UNDER FEDERAL COPYRIGHTS LAWS. THE ORIGINAL DRAWINGS AND INSTRUMENTS ARE THE PROPERTY OF MARQUE ENGINEERING, LLC. NO PART OF THIS DRAWING OR INSTRUMENTS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF MARQUE ENGINEERING, LLC. IF PLANS ARE NOT PRINTED FOR PERMIT REVIEW WITHIN 60 DAYS OF ISSUANCE, THEY WILL BE UPDATED BY THE ENGINEER OF RECORD.

MARQUE ENGINEERING
 2230 PARK AVE., STE. 100, CINCINNATI, OH 45206
 513-457-7131 - WWW.MARQUEENG.COM

CINTECH
 RECEIVED
 DATE: 07/28/2023
 BY: Steve Michalek
 Download Link

DOROTHY LANE MARKET
 7200 MASON-MONTGOMERY ROAD
 MASON, OH 45040

PROJECT NO. 56307
 PROJECT TITLE DLN MASON OHIO STORE
 DWG. TITLE ROOF PLAN
 DWG. NO. M-3