

**RTU-1
SUPPLY
BRANCH 1
2975 CFM**

**RTU-1
RETURN
BRANCH 1
2150 CFM**

**RTU-3
SUPPLY
BRANCH 1
2470 CFM**

**RTU-2
RETURN
BRANCH 2
180 CFM**

**RTU-1
SUPPLY
BRANCH 2
3195 CFM**

**RTU-3
RETURN
BRANCH 1
960 CFM**

**RTU-2
SUPPLY
BRANCH 1
1350 CFM**

**RTU-2
RETURN
BRANCH 1
2170 CFM**

**RTU-3
SUPPLY
BRANCH 2
1130 CFM**

**RTU-2
SUPPLY
BRANCH 2
1000 CFM**

MECHANICAL SYMBOLS LEGEND	
(T)	THERMOSTAT
(H)	HUMIDISTAT
(SD)	SMOKE DETECTOR
(S)	TEMPERATURE SENSOR
~	FLEXIBLE DUCT
(V)	VOLUME DAMPER
(M)	MOTORIZED DAMPER
(BD)	BACKDRAFT DAMPER
FD	FIRE DAMPER
(D)	CEILING SUPPLY AIR DIFFUSER
(R)	CEILING RETURN AIR GRILLE
(S)	SIDEWALL AIR DIFFUSER OR GRILLE
(N)	NEW DUCTWORK
(E)	EXISTING DUCTWORK
(D)	CONDENSATE DRAIN
(G)	GAS PIPING
(D)	PIPE TURNING DOWN
(U)	PIPE TURNING UP
(V)	BALL VALVE
(G)	GATE VALVE
(C)	CONNECTION OF NEW TO EXISTING
AFF	ABOVE FINISHED FLOOR
(S1)	AIR DEVICE #
(100)	CFM
S	S - SUPPLY
R	R - RETURN
E	E - EXHAUST

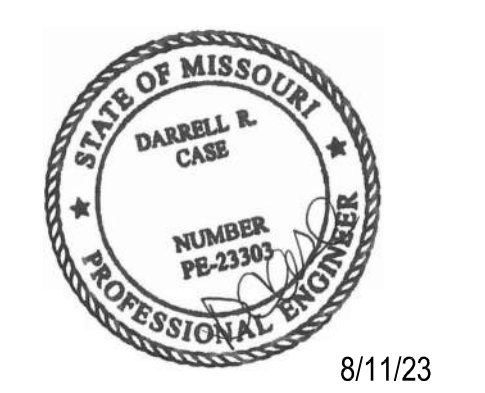
KEYED MECHANICAL NOTES

- SUPPLY AND RETURN DROPS FROM ROOFTOP UNITS. PROVIDE FLEXIBLE CONNECTORS FOR THE SUPPLY AND RETURN AIR DUCT CONNECTIONS. TRANSITION TO DUCT SIZES SHOWN. PROVIDE DUCT WORK AND AIR DISTRIBUTION DEVICES AS INDICATED ON THE PLAN. REFER TO EQUIPMENT SCHEDULES FOR ADDITIONAL REQUIREMENTS.
- CONTRACTOR TO VERIFY ORIENTATION OF EXISTING ROOFTOP UNITS AND LOCATION OF SUPPLY AND RETURN DROPS. NOTIFY TENANT'S ENGINEER WITH ANY QUESTIONS PRIOR TO BIDDING. NO EXTRAS OR CHANGE ORDERS SHALL BE GIVEN FOR CONTRACTOR'S FAILURE TO VERIFY SITE CONDITIONS PRIOR TO BIDDING.
- SUPPLY AND EXHAUST DROPS FROM ROOFTOP UNITS. PROVIDE FLEXIBLE CONNECTORS FOR THE SUPPLY AND RETURN AIR DUCT CONNECTIONS. TRANSITION TO DUCT SIZES SHOWN. PROVIDE DUCT WORK AND AIR DISTRIBUTION DEVICES AS INDICATED ON THE PLAN. REFER TO EQUIPMENT SCHEDULES FOR ADDITIONAL REQUIREMENTS.
- PROVIDE GALVANIZED STEEL DUCTWORK, SIZES AS NOTED ON DRAWINGS. ALL SIZES SHOWN ARE CLEAR INTERNAL DIMENSIONS. ALL NEW SUPPLY DUCTWORK ABOVE CEILING SHALL BE INSULATED WITH R-6 DUCT WRAP WITH VAPOR BARRIER.
- FURNISH AND INSTALL SEVEN-DAY PROGRAMMABLE THERMOSTATS WITH AUTO CHANGEOVER AND RELATED WIRING TO PROVIDE CONTROL OF MECHANICAL EQUIPMENT. MOUNT AT 48" AFF IN HM'S OFFICE. VERIFY PROPER OPERATION IN FIELD. COORDINATE TYPE AND FINAL LOCATION WITH OWNER.
- SMOKE DETECTOR BY ELECTRICAL CONTRACTOR IN EQUIPMENT RETURN AIR DUCTS TO MEET LOCAL CODE REQUIREMENTS. ELECTRICAL CONTRACTOR TO PROVIDE INTERLOCK WIRING TO DE-ENERGIZE ALL RTU'S AND ERV-1 UPON DETECTION OF SMOKE. COORDINATE WITH ELECTRICAL DRAWINGS.
- PROVIDE REMOTE TEMPERATURE AND HUMIDITY SENSORS, COMPATIBLE WITH CORRESPONDING THERMOSTATS. MOUNT 48" A.F.F. MULTIPLE SENSORS TO BE TEMPERATURE AVERAGING.
- NEW CEILING MOUNTED EXHAUST FAN (EF-1). FANS SHALL RUN CONTINUOUSLY TO MEET NFPA-99 REQUIREMENTS FOR MEDICAL GAS STORAGE. COORDINATE WITH ELECTRICAL CONTRACTOR. PROVIDE 6" EXHAUST DUCT WITH BACKDRAFT DAMPER, EXTEND THROUGH ROOF AND TERMINATE WITH GOOSENECK.
- PROVIDE WALL MOUNTED DUCTLESS MINI SPLIT UNIT. COORDINATE EXACT MOUNTING HEIGHT IN FIELD. INSTALL UNIT IN ACCORDANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS.
- ROUTE SUCTION AND DISCHARGE LINE SETS UP THROUGH ROOF TO CORRESPONDING CONDENSING UNIT. PROVIDE WITH 1" ELASTOMERIC INSULATION AND VAPOR BARRIER. INSTALL IN ACCORDANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE DUCTED MINI SPLIT FAN COIL. INSTALL UNIT ABOVE CEILING IN ACCORDANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS.
- ROUTE 3/4" COPPER CONDENSATE PIPING, PROVIDE WITH 1" INSULATION AND VAPOR BARRIER. SLOPE PIPING 1/4" PER FT TO TERMINATE INDIRECTLY ABOVE MOP SINK, PROVIDE WITH CONDENSATE PUMP ON DRAIN DISCHARGE AT UNIT.
- UNDER CUT DOOR 1" FOR PROPER TRANSFER AIR FLOW.
- PROVIDE 4" CRUSH RESISTANT ROUND ALUMINUM EXHAUST DUCT FOR DRYER WITH EXTERNAL WRAPPED INSULATION. VERIFY FLUE SIZE AND REQUIREMENTS WITH MANUFACTURER RECOMMENDATIONS. DUCTWORK SHALL BE SEALED PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE LOCATION WITH OTHER TRADES PRIOR TO INSTALLATION. TERMINATE THROUGH EXTERIOR WALL WITH DRYER VENT. PROVIDE UL FIRE STOP SYSTEM AT ALL WALL PENETRATIONS. PROVIDE CLEANOUTS AT ALL 90° BENDS. NO FLEX DUCT ALLOWED.
- MAXIMUM FIVE (5) FEET OF FLEXIBLE DUCT. ONLY ONE 90° ELBOW ALLOWED IN FLEXIBLE DUCTWORK.
- PROVIDE OUTSIDE AIR DUCTS FROM ERV-1 TO SERVE RTU-1 AND RTU-3. OA DUCTWORK SHALL BE INSULATED WITH R-6 DUCT WRAP WITH VAPOR BARRIER. PROVIDE NORMALLY CLOSED MOTORIZED DAMPER IN EACH OA DUCT. INTERLOCKED WITH ERV-1 SUPPLY FAN. DAMPERS TO OPEN DURING ERV-1 SUPPLY FAN OPERATION. BALANCE DAMPER TO CFM SHOWN ON PLAN.
- ROUTE FLUE/INTAKE FROM WATER HEATER, SIZED PER MANUFACTURER'S RECOMMENDATIONS, UP TO ROOF AND TERMINATE WITH CONCENTRIC VENT. TERMINATION MUST BE AT LEAST 10'-0" AWAY FROM ALL OUTDOOR AIR INTAKES. VERIFY EXACT ROUTING IN FIELD AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE NORMALLY OPEN MOTORIZED DAMPER IN MINI-SPLIT RETURN DUCT, INTERLOCKED WITH ERV-1 SUPPLY FAN. DAMPER TO CLOSE DURING ERV-1 SUPPLY FAN OPERATION.
- PROVIDE VAV DIFFUSER WITH FACTORY TEMPERATURE CONTROLLER. COORDINATE VAV DIFFUSER INSTALLATION WITH E.C. INSTALL ACCORDING TO ALL MANUFACTURER RECOMMENDATIONS.

MECHANICAL PLAN
SCALE: 3/16" = 1'-0"

#	Description	Date
1	FIRE DEPT.	09/19/2023
4	CLIENT REVISIONS	11/22/2023

These drawings/specifications are the property of Oculus Inc. They are intended for use on the project only. The user and registrant assume all responsibility for all other plans, specifications, estimates, reports or other documents or drawings relating to or intended to be used for any part or parts of the architectural or engineering project. Additionally, these drawings and specifications shall not be copied or reproduced in any form or by any means without the prior written consent of Oculus Inc. © 2023 Oculus Inc.



PERMIT SET
Client Approval

MECHANICAL FLOOR PLAN
Project # NVA22-PP01
Issue Date 8/24/23
Scale As Noted
Drawn by
Checked by

M-100