



MECHANICAL FLOOR PLAN
1/8" = 1'-0"

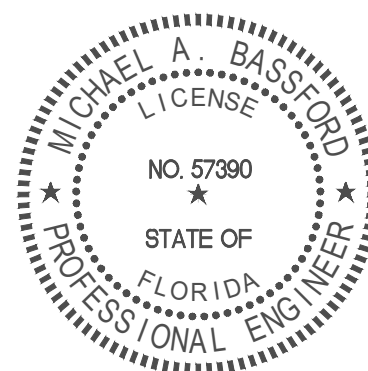
EXTERNAL DUCT NOTES

ALL OUTDOOR EXPOSED DUCTWORK SHALL BE 26 GAUGE GALVANIZED, DOUBLE WALL SHEET METAL EQUAL TO UNITED MCGILL "K-27", WITH MIN. R-8 INTERIOR INSULATION AND SEALED SEAMS AND JOINTS. THE CONTRACTOR SHALL PROVIDE ALL SHEET METAL DUCTWORK, HANGERS, AUX. SUPPORT STEEL, ETC. PROVIDE SOLID INTERIOR DUCT INSULATION LINER AND COAT WITH TWO COATS OF CORROSION-RESISTANT PAINT OR EQUIVALENT. PROVIDE OPTIONAL (OWNER'S DECISION) ALUMINUM OR STAINLESS STEEL CONSTRUCTION.

PLAN KEY NOTES

1	DUCT MOUNTED DISCHARGE AIR TEMPERATURE SENSOR, FIELD INSTALLED. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2	PAD MOUNTED CONDENSER UNIT TO BE LOCATED IN LANDSCAPED AREA. SEE DETAIL.
3	PROVIDE PROGRAMMABLE 2-STAGE THERMOSTAT WITH WEEKEND SETTINGS.
4	PROVIDE NEW DUCT SMOKE DETECTOR IN SUPPLY/RETURN DUCT. INTERLOCK WITH FIRE ALARM SYSTEM. AS MANUFACTURED BY SIMPLEX, MODEL 4098-9688 2 WIRE WITH CONNECTION TO FAN MOTOR AND AUDIO/VISUAL ALARM WITH REMOTE TEST STATION. SEQUENCE OF OPERATION: UPON DETECTION OF SMOKE PARTICLES, THE DETECTOR SENDS A SIGNAL TO STOP THE OPERATION OF THE RTU FAN AND THEN TO DEACTIVATE THE CONDENSING UNIT. THE DETECTOR CONCURRENTLY SENDS A SIGNAL TO ACTIVATE A REMOTE AUDIO AND STROBE TO ALERT OCCUPANTS OF A SMOKE EVENT.
5	PROVIDE WALL MOUNTED REMOTE TEST STATION FOR SMOKE DETECTOR.
6	CONNECT NEW 1-1/2" PVC INSULATED CONDENSATE LINE FROM AHU TO NEW CONDENSATE DRYWELL. VERIFY LOCATION WITH ARCHITECT AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
7	PROVIDE MINIMUM OF 10 FEET CLEARANCE BETWEEN EXHAUST OUTLET AND NEAREST OUTDOOR AIR INTAKE.
8	30"x18" WEATHER-PROOF LOUVER WITH BIRDSCREEN, GREENHECK MODEL #EHH-601D OR APPROVED EQUIVALENT. LOUVERS TO BE FACTORY PAINTED TO MATCH EXTERIOR WALL. MAINTAIN 10 FEET CLEARANCE BETWEEN OUTDOOR AIR INTAKE AND EXHAUST AIR DISCHARGE. NOTE: SEE ARCHITECTURAL ELEVATIONS FOR EXACT LOUVER LOCATIONS.
9	30"x18" WEATHER-PROOF LOUVER WITH BIRDSCREEN, GREENHECK MODEL #EHH-601D OR APPROVED EQUIVALENT. LOUVERS TO BE FACTORY PAINTED TO MATCH EXTERIOR WALL. MAINTAIN 10 FEET CLEARANCE BETWEEN OUTDOOR AIR INTAKE AND EXHAUST AIR DISCHARGE. NOTE: SEE ARCHITECTURAL ELEVATIONS FOR EXACT LOUVER LOCATIONS.
10	NEW REFRIGERANT LINES FROM NEW AIR HANDLING UNITS, ROUTED THROUGH WALL PENETRATION TO NEW PAD MOUNTED CONDENSING UNITS. REFRIGERANT LINES TO BE RUN INSIDE OF BUILDING WALLS. METAL EXTERIOR CHASES ARE NOT ALLOWED.
11	CEILING MOUNTED EXHAUST FAN WITH MOTION SENSOR.
12	CONNECT NEW 1-1/2" PVC INSULATED CONDENSATE LINE FROM AHU TO NEW CONDENSATE DRYWELL. SEE DETAIL.
13	CEILING MOUNTED EXHAUST FAN. PROVIDE METAL EXHAUST AIR DUCT TO WALL LOUVER. FAN TO BE INTERLOCKED WITH LIGHTS.
14	MOTORIZED DAMPER (RUSKIN CD-50) W/ ELECTRIC PROPORTIONAL DAMPER ACTUATOR (BELIMO-LF24-SR CONTROLLED BY AHU SUPPLY FAN MOTOR ACTIVATION. PROVIDE ACCESS DOOR. FBC-2020 13-409.1.ABC.3.3 OUTSIDE AIR DUCTS SHALL HAVE DAMPERS CAPABLE OF AUTOMATICALLY SHUTTING OFF DURING PREOCCUPANCY, BUILDING WARMUP, COOL DOWN, AND SETBACK. EXCEPTION 2 APPLIES TO UNITS WITH LESS THAN 300 CFM OF OUTDOOR AIR, WHERE NON-MOTORIZED DAMPERS (GRAVITY DAMPERS) ARE ACCEPTABLE.
15	CONNECT NEW 3/4" PVC INSULATED CONDENSATE LINE FROM AHU TO NEW CONDENSATE DRYWELL. SEE DETAIL.
16	WALL MOUNTED CO SENSOR FOR PROPORTIONAL DEMAND CONTROL VENTILATION. INTERLOCK WITH RTU MODULATING OUTDOOR AIR INTAKE AND PROPORTIONAL EXHAUST. AS MANUFACTURED BY ACOME ENGINEERING PRODUCTS, INC. UNISET MODEL UN-ECH.
17	NEW 40"x22" METAL SUPPLY AIR DUCT WITH 2" (R-8) INTERIOR INSULATION FROM OUTLET OF PACKAGED UNIT THRU WALL OPENING.
18	NEW 40"x22" METAL RETURN AIR DUCT WITH 2" (R-8) INTERIOR INSULATION FROM INLET OF PACKAGED UNIT THRU WALL OPENING. VERTICAL RISER TO BE RAISED 15 FEET ABOVE FINISHED FLOOR ABOVE STORAGE ROOM CEILING.
19	DUCTSOX BRAND PERFORATED FABRIC SUPPLY AIR DELIVER SYSTEM, MODEL SEDONA-XM, 20 ROW HANGING GALVANIZED CABLE, INLET ATTACHMENT AND ADJUSTABLE FLOW DEVICE (AFD). REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION. FABRIC COLOR TO BE SELECTED BY OWNER. CONTACT: HVAC ASSOCIATES, MARYBETH KINSLEY-SALES, (954) 783-4892, MARYBETH@HVAACFL.COM DUCTSOX SLOPE TO MATCH 1:12 PICK OF ROOF IN GYM.
20	DUCTSOX ADJUSTABLE FLOW DEVICE (AFD) IN FABRIC DUCT FOR AIR FLOW CONTROL. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.
21	PROVIDE 40"x22" METAL SUPPLY AIR DUCT UP FROM WALL PENETRATION TO 20' AFF FOR CONNECTION OF FABRIC DUCT SOX AIR DISTRIBUTION SYSTEM.
22	PROVIDE 40"x40" SIDEWALL MOUNTED RETURN AIR GRILLE TO SURFACE OF RETURN AIR DUCT.
23	NEW 30"x30" METAL RETURN AIR DUCT WITH 2" (R-8) INTERIOR INSULATION FROM INLET OF PACKAGED UNIT THRU WALL OPENING. RETURN DUCT TO SLOPE 1/8" PER FOOT FROM RTU DISCHARGE TO WALL PENETRATION FOR DRAINAGE.
24	NEW 40"x22" METAL RETURN AIR DUCT WITH 2" (R-8) INTERIOR INSULATION FROM WALL OPENING NEAR FLOOR LEVEL WITH VERTICAL RISER AT 8 FEET ABOVE FINISHED FLOOR TO AVOID AIR CONSTRICTION WHEN BLEACHERS RETRACTED.
25	PROVIDE 8"x8" SUPPLY AND RETURN AIR BRANCH DUCT OFF METAL RISER DUCT AT 10 FEET ABOVE FINISH FLOOR. PROVIDE DUCT MOUNTED SIDEWALL SUPPLY AND RETURN GRILLE AS SHOWN BELOW STORAGE ROOM CEILING.
26	PROVIDE DUCT MOUNTED INLINE IONIZER. SEE SCHEDULE ON SHEET M5.0.

1	SECTION 1 - 7500 CFM ISOTHERMAL THROW BASED ON TERMINAL VELOCITY OF 50, 100, & 150 FPM  SIZE 22 VENT AT 4:00 = 36'-6" 22'-6" 15' SIZE 10 VENT AT 5:00 = 21' 13' 8'-6" SIZE 10 VENT AT 7:00 = 21' 13' 8'-6" SIZE 22 VENT AT 8:00 = 36'-6" 22'-6" 15'
2	SECTION 2 - 7500 CFM ISOTHERMAL THROW BASED ON TERMINAL VELOCITY OF 50, 100, & 150 FPM  SIZE 22 VENT AT 4:00 = 36'-6" 22'-6" 15' SIZE 10 VENT AT 5:00 = 21' 13' 8'-6" SIZE 10 VENT AT 7:00 = 21' 13' 8'-6" SIZE 22 VENT AT 8:00 = 36'-6" 22'-6" 15'



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DATE FEBRUARY 23, 2022
SCALE AS NOTED
COMM. NO. 18-06
SHEET M-1