MECHANICAL NOTES

- 1. THIS CONTRACTOR SHALL EXAMINE ALL OTHER SPECIFICATIONS, DRAWINGS, AND ALL FEATURES ON SITE OF CONSTRUCTION WHICH MAY AFFECT HIS WORK AND SHALL BE GOVERNED BY THESE OTHER SPECIFICATIONS, INCLUDING THE GENERAL CONDITIONS AND PARTICULAR INSTRUCTIONS TO ALL BIDDERS AND SUPPLIERS.
- 2. ALL WORK SHALL BE EXECUTED AND INSPECTED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND/OR STATE CODES, LAWS, ORDINANCES, RULES AND REGULATIONS APPLICABLE TO THIS PARTICULAR CLASS OF WORK, & EACH CONTRACTOR SHALL INCLUDE IN HIS PRICE ALL APPLICABLE MATERIAL, TOOLS, LABOR, CHARGES, FEES, PERMITS, ROYALTIES, TAXES AND OTHER SIMILAR COSTS IN CONNECTION THEREWITH.
- 3. PRIOR TO FABRICATION OF DUCTWORK, CONTRACTOR SHALL EXAMINE AND VERIFY ALL CONDITIONS ABOVE AND BELOW THE CEILING WHICH MAY INTERFERE WITH THE DUCT SYSTEM AND NOTIFY THE ARCHITECT OF ANY CONFLICT ENCOUNTERED. CONTRACTOR SHALL PROVIDE ALL OFFSETS, ETC. WHICH MAY BE REQUIRED, WITHOUT ADDITIONAL COST TO THE OWNER.
- 4. ALL SHEETMETAL DUCT CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH "SMACNA" LOW PRESSURE DUCT CONSTRUCTION STANDARDS FOR DUCT DOWN STREAM OF BOXES & MEDIUM PRESSURE CONSTRUCTION STANDARDS FOR PRIMARY AIR DUCT.
- 5. ALL DUCTS SHALL BE SUPPORTED WITH 1" WIDE, 16 GAUGE
- NON-PERFORATED GALVANIZED STEEL BANDS.

 6. MAXIMUM LENGTH OF FLEXIBLE ROUND DUCT SHALL NOT EXCEED 3'-0"
- HORIZONTALLY, AT DIFFUSERS ONLY.
- ALL DUCT DIMENSIONS SHOWN ON PLANS ARE NET FREE AREA, INCREASE SHEETMETAL SIZE AS REQUIRED FOR INTERNAL INSULATION.
 ALL RECTANGULAR DUCTWORK SHALL BE INSULATED w/MINIMUM 1/2" .1
 1/2 LB. DENSITY INTERNAL DUCT LINE ON LOWER FLOORS, 1" ON TOP
- INSULATION W/FOIL BACK & ALL JOINTS LAPPED AND TAPED.

 9. ALL METAL DUCT SHALL BE GALVANIZED SHEET STEEL. ALUMINUM IS NOT ACCEPTABLE. GAUGE OF METAL AND CONSTRUCTION OF DUCT SHALL BE IN ACCORDANCE WITH SMACNA MEDIUM & LOW VELOCITY DUCT

FLOOR. ALL ROUND DUCTWORK SHALL HAVE MINIMUM 2" BLANKET TYPE

- 10. ALL WORK SHALL BE WARRANTED FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE BY ARCHITECT. LOSS OF REFRIGERANT SHALL BE DEEMED DUE TO DEFECTIVE MATERIAL OR WORKMANSHIP.
- 11. CONTRACTOR SHALL PROVIDE FLEXIBLE CONNECTIONS AT ALL DUCT CONNECTIONS TO HEATING AND AIR CONDITIONING EQUIPMENT AND SHALL PROVIDE VIBRATION ISOLATION ON ALL MECHANICAL EQUIPMENT PER EQUIPMENT MANUFACTURERS' RECOMMENDATIONS.
- 12. CONTRACTOR SHALL COORDINATE LOCATION OF ALL SUPPLY AND RETURN AIR REGISTERS, DUCTS, GRILLES AND DIFFUSERS WITH LIGHTING AND CEILING PATTERNS.
- 13. INSULATE TOP OF DIFFUSERS/REGISTERS WITH 3-1/2" THICK BATT INSULATION. SECURE INSULATION TO DIFFUSERS IN SIMILAR FASHION AS ROUND DUCT INSULATION.
- 14. ALL FIRE DAMPERS SHALL BE U.L. LISTED. PROVIDE ACCESS PANELS AS REQUIRED FOR SERVICE.15. PROVIDE ARCHITECT WITH COMPLETE SET OF TEST AND BALANCE OF AIR
- DISTRIBUTION SYSTEM DOCUMENTATION UPON COMPLETION OF INSTALLATION.

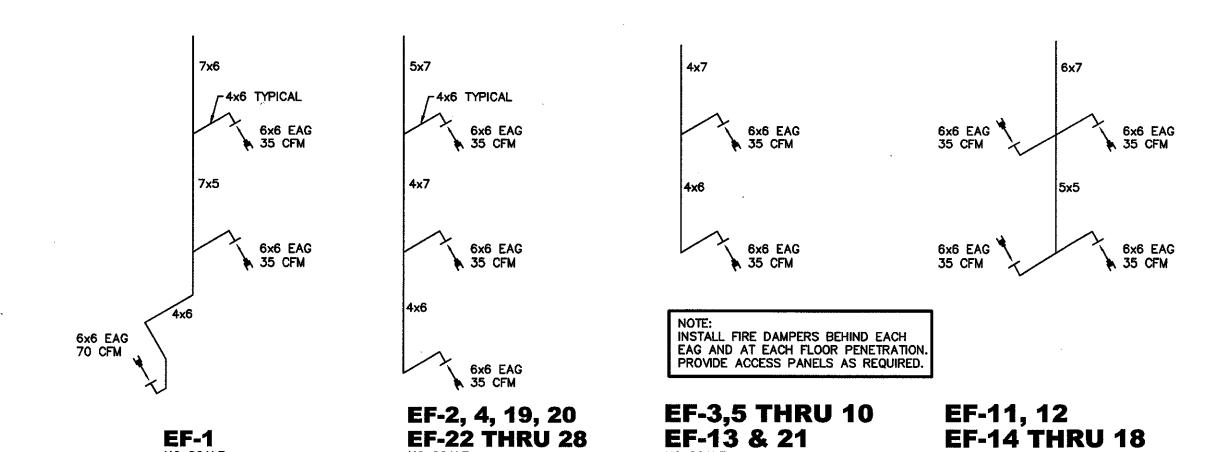
 16. CONTRACTOR SHALL FIRE STOP ALL PIPING PENETRATIONS OF FIRE,
- SMOKE, OR COMBINATION WALLS/PARTITIONS TO MEET THE LATEST NATIONAL BUILDING CODE REQUIREMENTS, SEE ARCH. SHT. A611.

 17. CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BIDDING TIME AND
- SHALL FAMILIARIZE HIMSELF W/ ALL EXISTING CONDITIONS.

 18. THERMOSTATS AND ALL CONTROL DEVICES SHALL BE MOUNTED 48" A.F.F.
- 18. THERMOSTATS AND ALL CONTROL DEVICES SHALL BE MOUNTED 48 A.F.
 19. PAINT INSIDE OF RETURN AIR DUCTS BLACK BEHIND ALL RETURN AIR GRILLES.
 20. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH
- ARCHITECTURAL DRAWINGS ALL FIRE RATED WALLS & CEILINGS AND SHALL FURNISH ALL FIRE DAMPERS/RADIATION DAMPERS REQUIRED.

 21. ALL DETAILS AND NOTES ON THESE DRAWINGS SHALL BE APPLIED TO ALL
- OF THE DRAWINGS FOR THIS PROJECT.

 22. COORDINATE WITH ELECTRICAL ALL OF THE POWER NEEDS, WIRING DEVICES ETC. AND FURNISH ALL ITEMS NOT FURNISHED UNDER THE ELECTRICAL.



MA	MAKE-UP AIR UNIT SCHEDULE																
		COOLING			HEATING	ELEC. HEATING			ELECTRIC DATA								
	MFR. & MODEL	TOTAL CFM	TOTAL COOLING	SENSIBLE COOLING	HEAT PUMP MBH	INPUT	FLA	E.S.P.	H.P.	FRPM	VOLTAGE	COMP. R.L.A.	EVAP FAN F.L.A.	COND FAN F.L.A.	M.C.A.	MAX. FUSE	WEIGHT
MUA-1	AAON RN-025-8-0-E60A-162	2870	272,910	138,000	214,400	45.1 KW	125.20	.75*	2.0	1170	208/3/60	2x48.1	7.5	3x5.4	166	175	3000

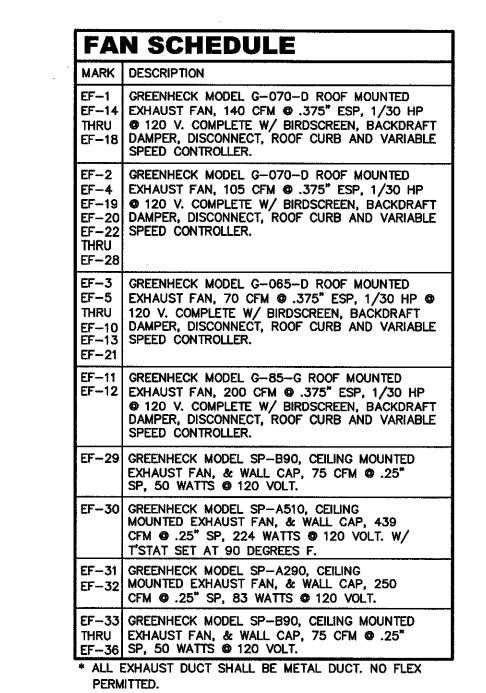
1. FACTORY ASSEMBLED, PIPED, WIRED AND TESTED AS A SINGLE PACKAGE.

UNITS SHALL INCLUDE A 100%%% OUTSIDE AIR HOOD WITH 2-POSITION MOTORIZED DAMPER.
 UNIT SHALL INCLUDE DUAL CIRCUIT COOLING, 2 COMPRESSOR CIRCUITS WITH INTERLACED-CIRCUIT DX COIL (HORIZONTAL SPLIT NO ACCEPTABLE.)

NO SCALE

- 4. UNIT SHALL INCLUDE REVERSE CYCLE HEAT PUMP HEATING WITH EMERGENCY ELECTRIC HEAT.
 5. UNIT SHALL INCLUDE HOT GAS BYPASS FOR COIL FROST PROTECTION AT LESS THAN AMBIENT
- DESIGN CONDITIONS. (FROST—STAT COMPRESSOR CYCLING NOT ACCEPTABLE).

 6. UNIT SHALL INCLUDE MODULATING HOT GAS REHEAT COIL FOR DEHUMIDIFICATION. (TWO POSITION)
- 6. UNIT SHALL INCLUDE MODULATING HOT GAS REHEAT COIL FOR DEHUMIDIFICATION. (TWO POSITION OR DEDICATED HEAT PUMP CIRCUITS NOT ACCEPTABLE).
- 7. UNIT SHALL INCLUDE SIGHT GLASS AND STAINLESS STÉEL DRAIN PAN.
 8. UNIT SHALL INCLUDE MANUAL RESET HIGH PRESSURE SWITCHES & AUTO RESET LOW PRESSURE
- 9. UNIT SHALL INCLUDE CONDENSER FAN CYCLING CONTROL.
- UNIT SHALL INCLUDE 2 INCH, 30% PLEATED FILTERS.
 CONTROLS: WATTMASTER/ORION VCMX CONTROLLER WITH AMBIENT DEWPOINT SENSOR; ELECTRONIC SEQUENCING OF COMPRESSORS, HEATING AND MODULATING HOT GAS RE—HEATING. THE INTENTION OF THIS UNIT IS TO PROVIDE CONTINUOUS DEHUMIDIFICATION OF OUTSIDE AIR WHILE ALSO PROVIDING TEMPERATURE CONTROL TO THE SPACE IT SERVES. IF THIS CAUSES COOLING IN THE SPACE, THE MODULATING HOT GAS REHEAT VALVE SHALL OPEN TO SATISFY THE CONDITIONED SPACE REQUIREMENT. FIELD MOUNTED CONTROLS SHALL INCLUDE A DUCT MOUNTED LEAVING AIR STAT AND A WALL MOUNTED STAT. ALL UNIT MOUNTED CONTROLS FOR COMPLETE OPERATION SHALL BE INSTALLED BY THE EQUIPMENT MANUFACTURER.
- 12. INTEGRAL NON-FUSED DISCONNECT SWITCH.
 13. INTEGRAL UNIT MOUNTED SMOKE DETECTOR.
- 14. FOAM INJECTION INSULATED DOUBLE WALL CONSTRUCTON.
- UNIT SHALL INCLUDE A 30" HIGH FACTORY ASSEMBLED AND INSULATED ROOF CURB/PLENUM.
 COMPRESSORS SHALL HAVE 5 YEAR WARRANTY (PARTS ONLY). 18.CONTACT GARY GORHAM GORHAM/SCHAFFLER, INC. FOR INFORMATION. PHONE 1-901-345-6000.



* ALL EXTERIOR WALL CAPS TO BE PVC.



Richard Molenaar

ARCHITECT



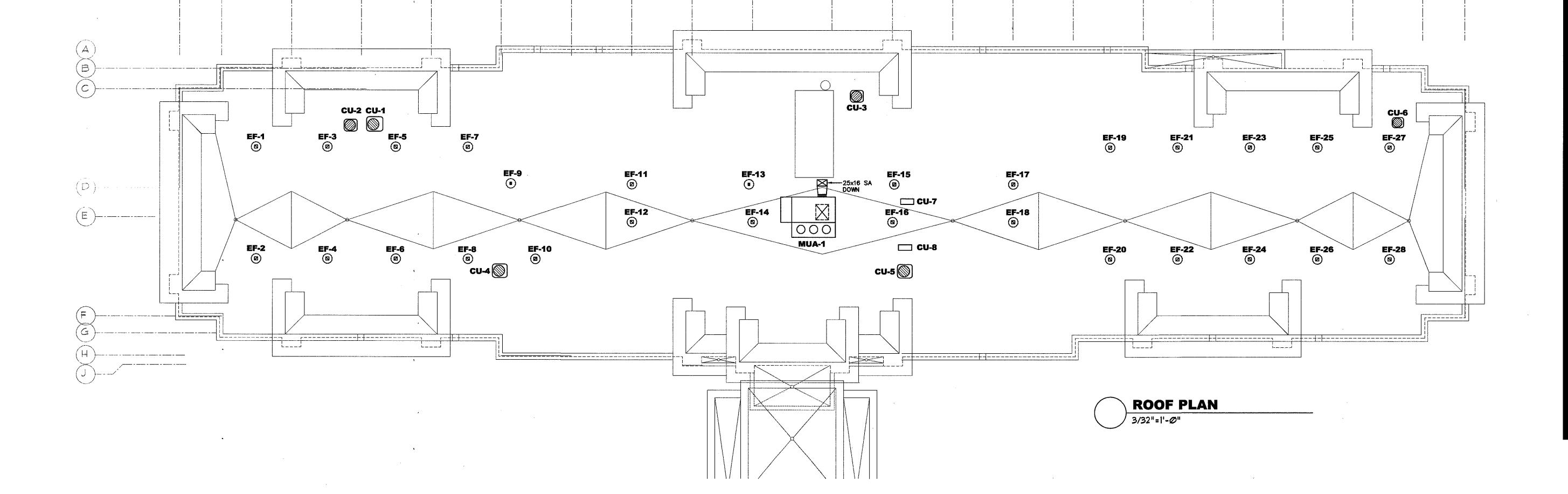
SHEET TITLE:
HVAC
ROOF PLAN SCHEDULES & DETAILS

PROJECT NO.
PROJ#

HECKED BY:

M10

LATEST REVISION:



(10)