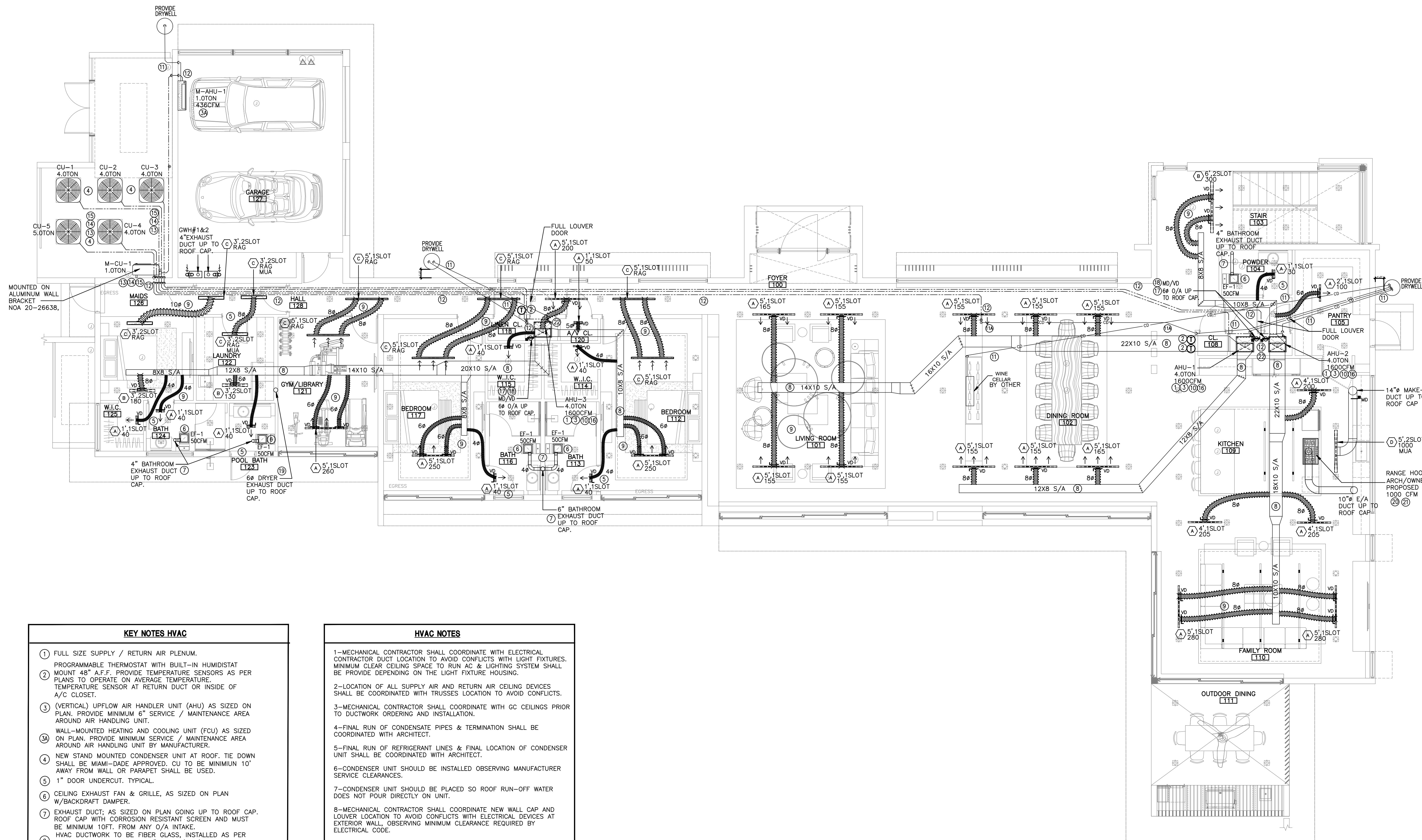




KEY NOTES HVAC

- FULL SIZE SUPPLY / RETURN AIR PLENUM. PROGRAMMABLE THERMOSTAT WITH BUILT-IN HUMIDISTAT MOUNT 48" A/F.F. PROVIDE TEMPERATURE SENSORS AS PER PLANS TO OPERATE ON AVERAGE TEMPERATURE. TEMPERATURE SENSOR AT RETURN DUCT OR INSIDE OF A/C CLOSET.
- (VERTICAL) UPFLOW AIR HANDLER UNIT (AHU) AS SIZED ON PLAN. PROVIDE MINIMUM 6" SERVICE / MAINTENANCE AREA AROUND AIR HANDLING UNIT.
- WALL-MOUNTED HEATING AND COOLING UNIT (FCU) AS SIZED ON PLAN. PROVIDE MINIMUM SERVICE / MAINTENANCE AREA AROUND AIR HANDLING UNIT BY MANUFACTURER.
- NEW STAND MOUNTED CONDENSER UNIT AT ROOF. TIE DOWN SHALL BE MIAMI-DADE APPROVED. CU TO BE MINIMUM 10' AWAY FROM WALL OR PARAPET SHALL BE USED.
- 1" DOOR UNDERCUT. TYPICAL.
- CEILING EXHAUST FAN & GRILLE, AS SIZED ON PLAN W/BACKDRAFT DAMPER.
- EXHAUST DUCT; AS SIZED ON PLAN GOING UP TO ROOF CAP. ROOF CAP WITH CORROSION RESISTANT SCREEN AND MUST BE MINIMUM 10FT. FROM ANY O/A INTAKE.
- HVAC DUCTWORK TO BE FIBER GLASS, INSTALLED AS PER SMACNA STANDARDS WITH 1.5" THICK (R-6) INSULATION FIRST FLOOR CEILING SPACE, 1.5" THICK (R-6) INSULATION WHEN RUNNING IN ATTIC SPACE, UNLESS NOTED OTHERWISE.
- FLEXIBLE INSULATED DUCTWORK WITH 1.5" FIBERGLASS INSULATION WITH FRK VAPOR BARRIER, CLASS I AIR DUCT, U.L. R-6.0 INSULATION. TYPICAL FIRST FLOOR CEILING.
- PROVIDE FLEXIBLE DUCT CONNECTION WITH AHU.
- CONDENSATE DRAIN LINE TO DRYWELL CONNECTION. 2" WHEN RUNNING UNDERGROUND.
- CONDENSATE DRAIN LINE RUNNING AT CEILING SPACE TO PARTITION WALL.
- REFRIGERANT PIPES RUNNING AT CEILING SPACE
- REFRIGERANT SUCTION LINE TO BE INSULATED WITH INSULATION HAVING A THERMAL RESISTIVITY OF AT LEAST R-4 AND HAVING AN EXTERNAL PERMEANCE NOT EXCEEDING 0.05 PERM WHEN TESTED IN ACCORDANCE WITH ASTM E96. PROVIDE UV COAT PROTECTION.
- REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING-TYPE TAMPER-RESISTANT CAPS OR SHALL BE OTHERWISE SECURED TO PREVENT UNAUTHORIZED ACCESS UNLESS THE PORTS ARE LOCATED INSIDE THE CONDENSING UNIT CABINET (FBCR-M1411.8)
- CONTRACTOR MUST VERIFY TOTAL REFRIGERANT PIPING LENGTH AND PIPING LIFT THAT IS NOT GREATER THAN THOSE VALUES RECOMMENDED BY MANUFACTURER. NOTIFY THE ENGINEER'S OFFICE WITH THIS SITUATION AND TO FIND THE BEST SOLUTION.
- PROVIDE AUXILIARY CONDENSATE DRAINPAN SYSTEM TO AHU, SEE DETAIL.
- 6"x DOUBLE WALL INSULATED R-8 SHEET METAL 22 GA. OUTSIDE AIR (O/A) DUCT, AS SIZED ON PLAN. O/A SHALL BE MINIMUM 10' AWAY FROM ANY EXHAUST OR VENT.
- PROVIDE MOTORIZED DAMPER MD TO O/A DUCTWORKS. THE MOTORIZED DAMPER OPEN WHILE THE A/C UNIT IS WORKING, AND RETURNING TO CLOSE POSITION WHEN CU IS OFF.
- DRYER EXHAUST (26 GAUGE MIN), WITHIN RECESSED DRYER VENT BOX, TERMINATING WITH ROOF CAP OR WALL CAP; NO SCREEN. DRYER EXHAUST DUCTS ENCLOSED IN WALL SHALL ALLOW THE INSTALLATION OF THE DUCT WITHOUT DEFORMATION.
- RANGE EXHAUST DUCT GALVANIZED SHEET METAL 26GA; AS SIZED ON PLAN TERMINATING WITH ROOF OR WALL CAP WITH BACK DRAFT DAMPER. PROVIDE CORROSION RESISTANT SCREEN.
- MOTORIZED DAMPER INTERLOCK WITH HOOD OPERATION. W/ ACCESS PANEL. CONTRACTOR MUST PROVIDE HOOD WITH CONTROL FOR M/A AND W/DAMPER.
- AC CLOSET AS A RETURN AIR PLENUM. NO COMBUSTIBLE MATERIAL INSIDE OF CLOSET. AC CLOSET DOOR AND AC CLOSET PLENUM SHALL MEET ASTM E-84, 25/50 FLAME/SMOKE DEVELOP MATERIAL.

HVAC NOTES

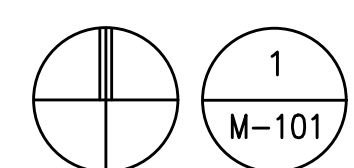
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR DUCT LOCATION TO AVOID CONFLICTS WITH LIGHT FIXTURES. MINIMUM CLEAR CEILING SPACE TO RUN AC & LIGHTING SYSTEM SHALL BE PROVIDE DEPENDING ON THE LIGHT FIXTURE HOUSING.
- LOCATION OF ALL SUPPLY AIR AND RETURN AIR CEILING DEVICES SHALL BE COORDINATED WITH TRUSSES LOCATION TO AVOID CONFLICTS.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH GC CEILINGS PRIOR TO DUCTWORK ORDERING AND INSTALLATION.
- FINAL RUN OF CONDENSATE PIPES & TERMINATION SHALL BE COORDINATED WITH ARCHITECT.
- FINAL RUN OF REFRIGERANT LINES & FINAL LOCATION OF CONDENSER UNIT SHALL BE COORDINATED WITH ARCHITECT.
- CONDENSER UNIT SHOULD BE INSTALLED OBSERVING MANUFACTURER SERVICE CLEARANCES.
- CONDENSER UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT.
- MECHANICAL CONTRACTOR SHALL COORDINATE NEW WALL CAP AND LOUVER LOCATION TO AVOID CONFLICTS WITH ELECTRICAL DEVICES AT EXTERIOR WALL, OBSERVING MINIMUM CLEARANCE REQUIRED BY ELECTRICAL CODE.
- CU MUST BE INSTALLED AT THE FFE OF THE HOUSE, ALL EQUIPMENT TO BE INSTALLED ABOVE FLOOD LEVEL.
- THE AC SYSTEM MUST BE TESTING AND BALANCE BY CERTIFY THIRD PART.
- PROVIDE INSULATION TO ALL EXHAUST AND MAKE UP AIR DUCTS WHEN RUNNING INSIDE A/C SPACE AND UNVESTED ATTIC.
- BACK DRAFT DAMPER TO BE INSTALLED TO ALL EXHAUST DUCT AT THE OUTLET LOCATION EITHER WALL CAP OR ROOF CAP

SCOPE OF WORK:

NEW AC SYSTEMS IN NEW HOUSE.
NEW AIR DISTRIBUTION, NEW EXHAUST FAN
AND DUCTWORK EXHAUST IN RESTROOM.

ENERGY CONSERVATION NOTES:

ALL HVAC EQUIPMENT SHALL BE EQUIPPED WITH PROGRAMMABLE THERMOSTAT TO ALLOW SYSTEM SHUT DOWN AFTER HOURS OF OPERATION. ALL LIGHTING HAS AFTER HOURS SHUT DOWN. ALL AC EQUIPMENT PROVIDE WITH OUTSIDE AIR MOTORIZED DAMPERS TO SHUT DOWN WHEN SPACE IS NOT USED.



MECHANICAL FIRST FLOOR PLAN

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

This item has been digitally signed and sealed by Amarilis Rodriguez, P.E. on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

arpe
Engineering Inc.
2020 Ponce de Leon Blvd., Suite 1002
Coral Gables, Florida 33134
Phone > 305 444 9809
Fax > 305 444 9827

Engineering Design
> Mechanical > Electrical
> Plumbing > Fire Protection
www.arpe-eng.com

Amarilis Rodriguez, P.E.
Date: 2023.12.12
Time: 16:01:40
Scale: 05'00"