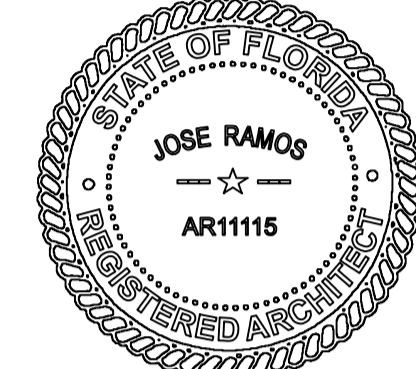




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SEAL: Jose Ramos  
Digitally signed by Jose Ramos  
Date: 2021.08.27 18:00:22 -0400

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PROJECT: QUANTUM ON THE BAY  
UNIT 212  
TENANT SPACE INTERIOR RENOV.  
1900 NORTH BAYSHORE DRIVE, UNIT 212  
MIAMI, FL 33132

DATE: 07/23/21

DRAWING TITLE: NOTES SCHEDULES  
DRAWN BY: ZM CHECKED BY: JR  
SCALE: AS NOTED

PROJECT NUMBER: 21189

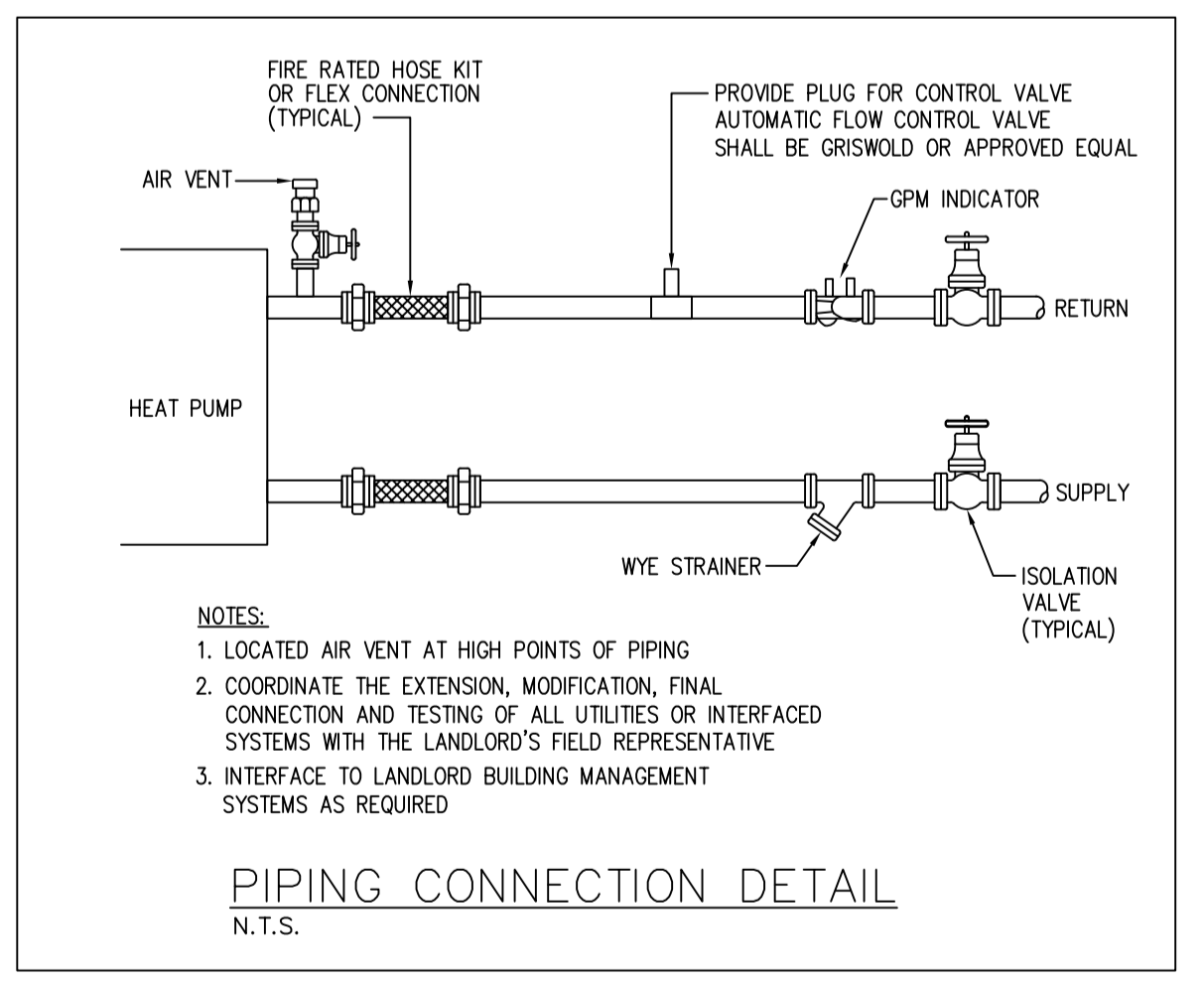
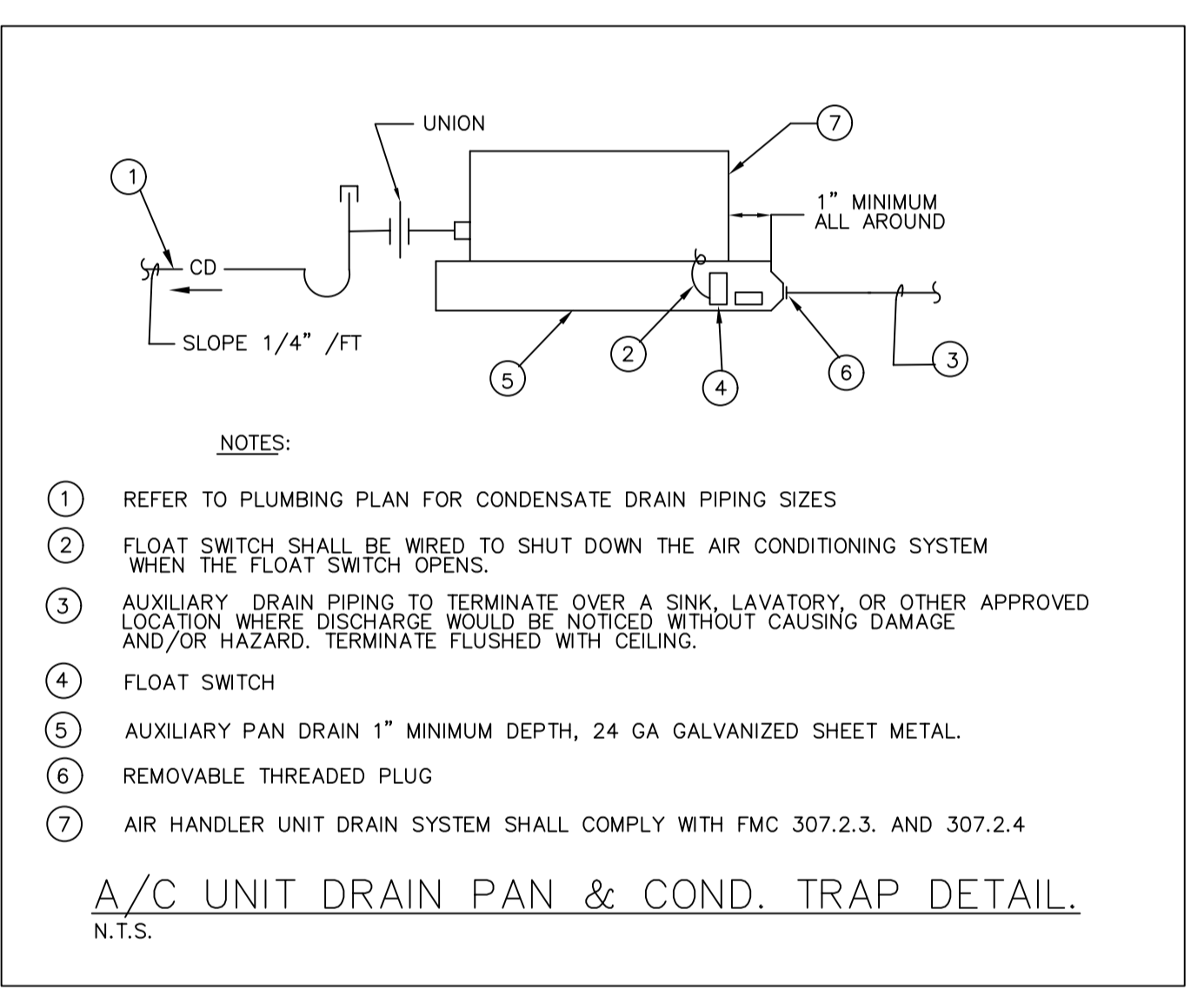
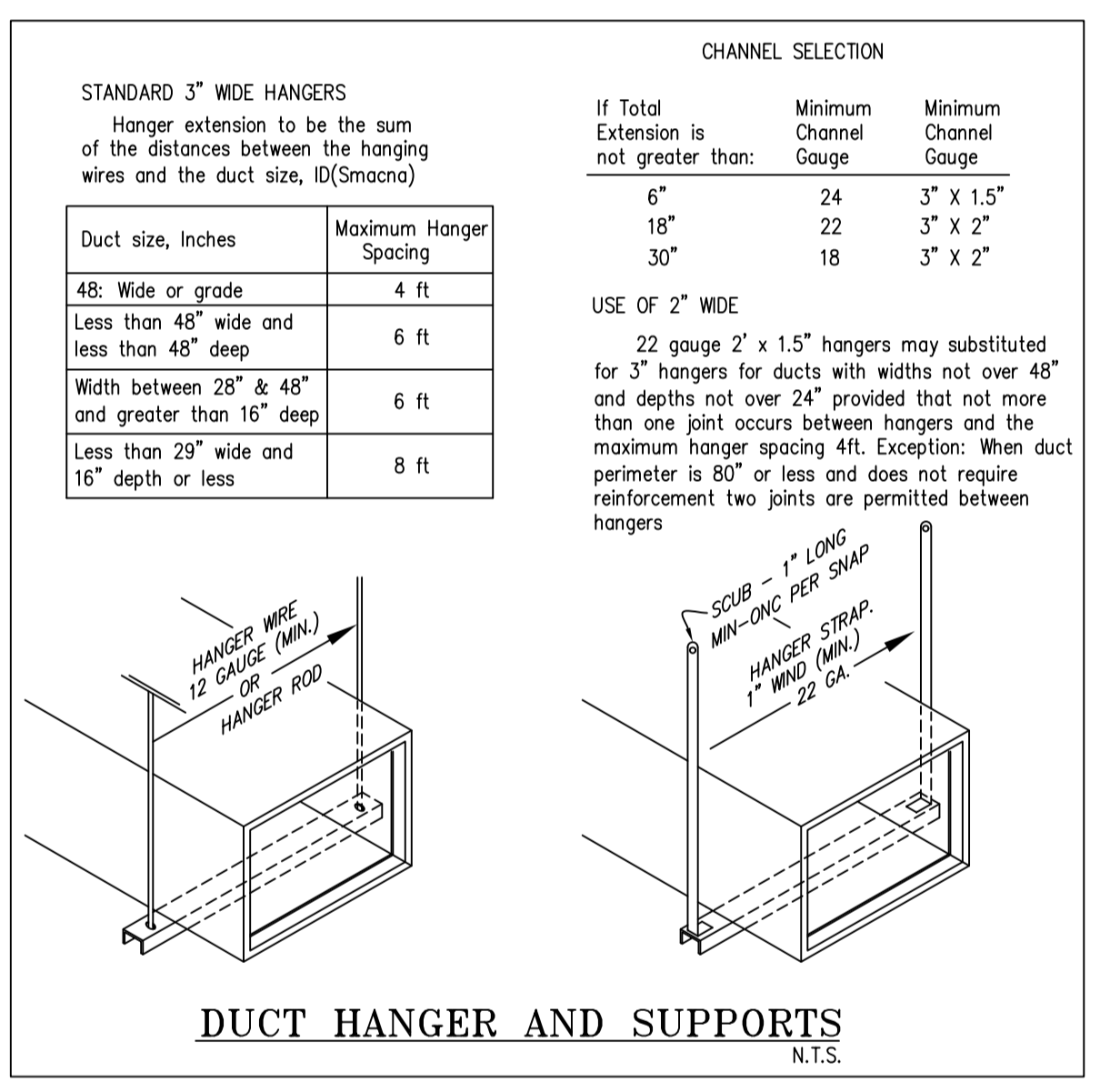
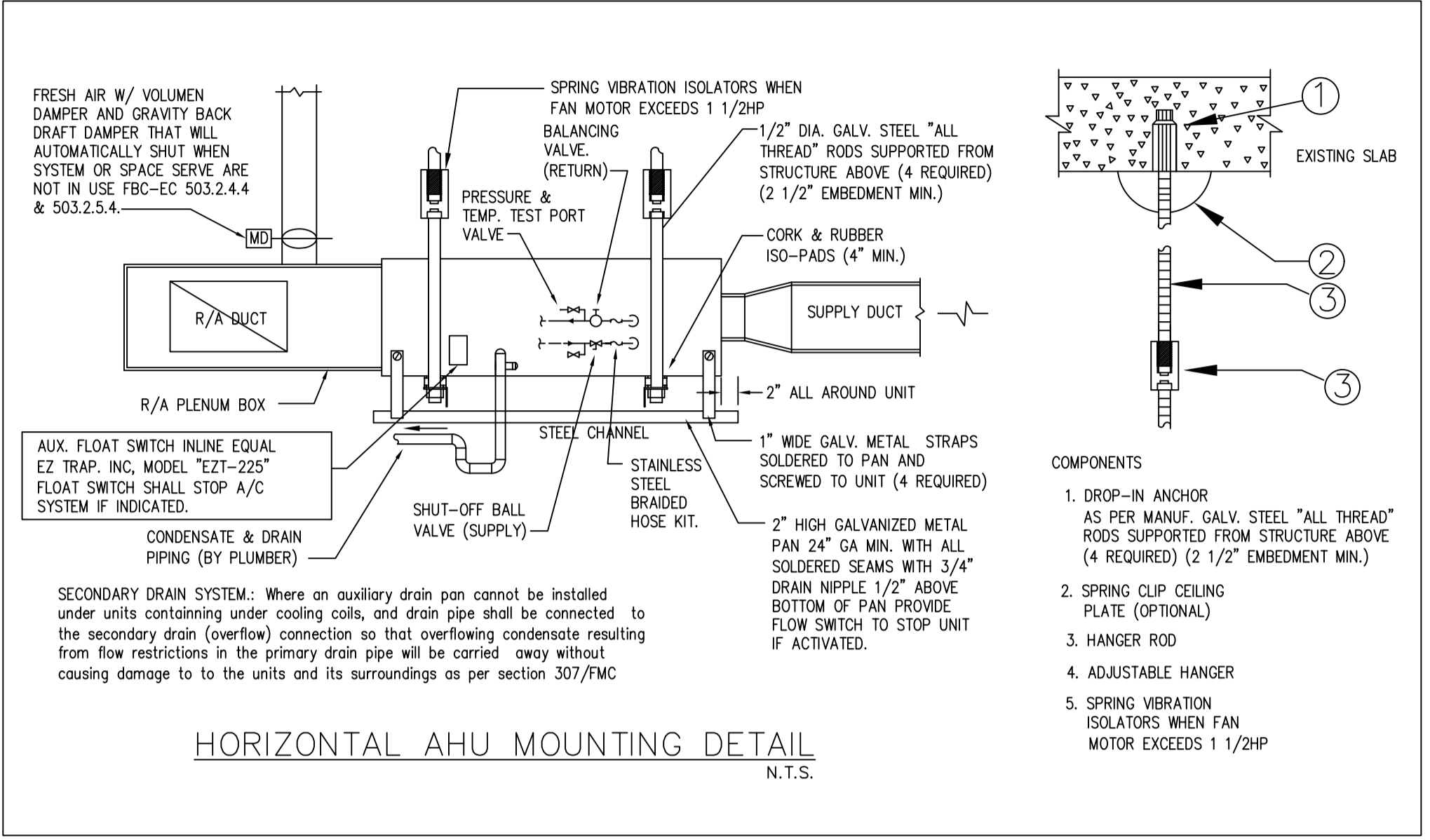
SHEET: M-601

### HVAC NOTES

- GENERAL
  - ALL WORK SHALL BE DONE in accordance with the Florida Building Code 2020 7TH Edition and with all applicable regulations.
  - DRAWINGS: Refer to all drawings for coordination of the HVAC work.
  - ARRANGE AND PAY for all permits licenses, inspections and tests. Obtain the required certificates and present to owner.
  - GUARANTEE: The completed installation shall be fully guaranteed against defective materials and/or improper workmanship for a minimum of one year for material and labor. Compressors shall be guaranteed for a period of five years.
  - As built drawings shall be submitted to owner at the completion of project.
- SHOP DRAWINGS: Contractors shall submit for approval, within 30 days after signing contract, a minimum of five copies of fully descriptive literature, including but not limited to: fans, air conditioning units, air outlets. No work shall proceed without approval of these submittals.
- DESIGN PARAMETERS:
  - Outdoor design temperature (Summer): 91°F DB and 79°F WB
  - Outdoor design temperature (Winter): 45°F
  - Indoor design temperature (Summer): 78°F DB
  - Indoor design temperature (Winter): 72°F DB
- ALL THERMOSTATS SHALL have heating mode maximum setting of 75 F, and cooling mode minimum setting of 70 F. The thermostat shall be arranged to prevent the simultaneous operation of heating and cooling.
- ELECTRICAL CONTROLS AND POWER WIRING: Under electrical contract.
- EQUIPMENT SPECIFIED BY manufacturer's number shall include all accessories, controls, etc., listed in the catalog as standard with the equipment. Optional or additional accessories shall be furnished as specified.
- MATERIALS:
  - PIPING:
    - CHWS AND CHWR piping: Schedule 40, Blacks steel per ASTM
    - HWS AND HWR piping: Schedule 40, Blacks steel per ASTM
    - LPS AND LPS piping: Schedule 40, Blacks steel per ASTM
  - Insulation:
    - CHWS AND CHWR piping: Provide 1/2" thick thermal insulation with built-in vapor barrier rated self-extinguishing (ASTM D1056)
    - PVC, Schedule 40. Insulate all condensate drain with 3/4" amolex. finished where exposed with 2 coats of white latex paint as manufacturer's instruction.
  - DUCTWORK:
    - All supply, return and exhaust air ductwork shall be of galvanized sheet metal construction, fabricated & installed as per latest edition of SMACNA "Low Pressure Duct Manual". Insulate supply air ductwork in concealed spaces with 1-1/2" thick fiberglass blanket insulation with foil vapor barrier (R-6.0 MIN.). For exterior ductwork shall be insulated with R-8.0 MIN. Exposed duct work finish shall be by mechanical contractor with previous approval by architecture and owner.
    - All exhaust ductwork shall be galvanized sheet metal duct not lighter than 26 gage.
    - All duct dimensions are clear inside dimensions.
    - Flexible insulated ductwork with 1 1/2" thick fiberglass insulation with FRK vapor barrier, class I air duct, U.L. R-6.0 MIN.
  - Provide metal round fittings with scoop at all flexible duct connection to supply duct.
  - TEST AND BALANCE: Contractor shall test and balance all ventilation and air conditioning systems. Submit four copies of Test and Balance Report to owner for approval.
  - CONTROLS: Air conditioning units shall be started and stopped thru individual thermostat. Individual thermostats shall start/stop supply fans and activate cooling/heating systems as selected.
  - Mechanical plans in general, are diagrammatic in nature, and are to be read in conjunction with arch. Plumbing, electrical and structural plans and shall be considered as one set of documents. Duct and piping offsets, bends and transitions will be required to provide and install a complete functional system and shall be provided by the contractor at no additional cost to the owner.
  - Contractor shall verify job conditions prior to ordering, fabrication or installation of materials or equipment. Notify architect/engineer of any conflicts before fabrication.

### A/C UNIT SCHEDULE

SELECTION DATA	AREA SERVED	SEE PLAN
CAPACITY STEPS	1	
EER	14.0	
REFRIGERANT TYPE/ LBS.	R-410A	
UNIT TAG	FC-1	
TENANT SERVE	SEE DWGS	
UNIT TYPE	HORIZONTAL FLOW	
MANUFACTURER	FHP	
MODEL	ECO36	
COIL TYPE	DX	
SUPPLY AIR FLOW (CFM)	1,200	
OUTSIDE AIR FLOW (CFM)	SEE TABLE	
MAX. AIR FACE VELOCITY (FPM)	500	
TOTAL COOLING CAPACITY (MBH)	33.51	
SENSIBLE COOLING CAPACITY (MBH)	25.05	
ENT. AIR TEMP. (DB/WB) (°F)	75/63	
LEAV. AIR TEMP. (DB/WB) (°F)	55/55	
EXTERNAL STATIC PRESSURE (E.S.P) (IN)	0.5	
COIL ROWS/ FPI	*	
FLUID FLOW (GPM)	9.0	
HEATING DATA		
HEAT PUMP, TOTAL CAPACITY, MBH	43.74	
COP	4.5	
FLTR DATA		
FILTER TYPE	THROWAWAY	
THICKNESS (IN)	1	
MIN. EFFICIENCY (ASHRAE) (%)	30	
ELECTRICAL DATA		
COMPRESSOR RLA / LRA	14.8 / 83.0	
BLOWER FLA / HP (AMP)	3.9 / 1/2	
MCA / MOCP (AMP)	22.4 / 35	
ELECTRICAL SERVICE (VOLT/PH/HZ)	208/230/1/60	
GEN. DATA		
OPERATING WEIGHT (LBS)	326	
DIMENSION (H x W x D) (IN)	22" X 54.5" X 19"	
CONDENSER WATER SIZE (IN, OUT) (IN)	3/4"	
NOTES	1-10	
NOTES AND ACCESSORIES:		
1. UNITS RATED IN ACCORDANCE WITH ARI STANDARDS 210/240 OR 360/270.		
2. PROVIDE WITH THERMAL EXPANSION VALVE, SIGHT GLASS, LIQUID LINE FILTER DRYER AND MULTI-USER SERVICE VALVES.		
3. PROVIDE HIGH AND LOW PRESSURE CONTROL AND OVER TEMPERATURE PROTECTION.		
4. PROVIDE 1 YEAR MANUFACTURER WARRANTY (PARTS AND LABOR) AND EXTENDED 5 YEARS COMPRESSOR WARRANTY PARTS ONLY.		
5. PROVIDE 1" THROWAWAY, MIN. 30% EFF. FILTER AND VIBRATION ISOLATION FOR AHU.		
6. PROVIDE INTERNAL SPRING ISOLATION FOR SUPPLY FAN.		
7. PROVIDE MOTOR OVERLOAD AND THERMAL PROTECTION.		
8. PROVIDE FACTORY MOUNTED STARTER AND DISCONNECTS SWITCH FOR HP.		
9. PROVIDE MIN. SEER AND COP AS SHOWN. NOTIFY ENGINEERING FOR ANY DISCREPANCIES COORDINATE PRIOR TO PURCHASING.		
10. VERIFY VOLTAGE AT FIELD AND REFER TO ELECTRICAL ENGINEERING PRIOR EQUIPMENT PURCHASING.		



### OUTSIDE AIR CALCULATIONS

(PER TABLE 403.3 MFBC 2020)

ZONE	AC EQUIPMENT	AREA SERVED	GROSS AREA (SQ.FT.) (A)	MAX. OCCUPANCY (P/1000 SQ.FT.) (B)	TOTAL NO. OF PEOPLE (QTY.) (C)	PEOPLE OUTDOOR AIR FLOW RATE IN BREATHING ZONE. (CFM/P) (D)	TOTAL CFM VENTILATION RATE. (REQ.) (E)=(C)x(D)	EXHAUST AIRFLOW RATE. (REQ.) (CFM/SQF) (F)	AREA OUTDOOR AIRFLOW RATE IN BREATHING ZONE. (CFM/SQF) (G)	TOTAL AREA OUTDOOR AIRFLOW IN BREATHING ZONE. (CFM) (H)=(A)x(G)	TOTAL CFM O/A PROVIDED (I)= E+H
ZONA 1	FC-1	RECEPTION	190 SF	30/1000	6	5 CFM/P	30	---	0.06	12	42
		THERAPY ROOMS AREA	396 SF	5/1000	3	5 CFM/P	15	---	0.06	24	39
		STAFF LOUNGE	90 SF	50/1000	5	5 CFM/P	25	---	0.06	6	31
		CORRIDOR	70 SF	---	---	---	---	---	0.06	5	5
TOTAL			746 SF		14 P						117 O/A
NOTES: * AS PER ARCH. BACKGROUND OR SPEC .											