

MECHANICAL SYMBOLS, LEGENDS

NOTE: THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS, ETC. ARE NECESSARILY USED ON THE DRAWINGS.

Table with 2 columns: PIPING and symbols. Includes symbols for condensate drain, auxiliary condensate drain, refrigerant liquid, refrigerant discharge, refrigerant suction, and existing piping.

HVAC EQUIPMENT & DUCTWORK

NOTE: ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS. SEE SECTION 15A 2-1 OF THE SPECIFICATION FOR DUCTWORK TO RECEIVE INSULATION OR LINER.

Table with 2 columns: HVAC EQUIPMENT & DUCTWORK and symbols. Includes symbols for existing ductwork, branch duct with damper, elbow with vanes, return/exhaust air duct, supply air duct, equipment with flexible duct connection, duct mounted smoke detector, fire damper, smoke damper, volume damper, motorized damper, backdraft damper, carbon dioxide sensor, humidity sensor, pull station, static pressure sensor, temperature sensor, and thermostat.

Table with 2 columns: ABBREVIATIONS and ABBREVIATIONS. Lists abbreviations for mechanical contractor, minimum, noise criteria, outside air, return air, supply air, smoke duct detector, to floor above, to floor below, typical, unless noted otherwise, with and without.

Table with 2 columns: STANDARD MOUNTING HEIGHTS and values. Lists mechanical thermostats (user adjustable) and controls (centerline) with mounting heights of 48 inches.

Table with 2 columns: ANNOTATION and symbols. Includes symbols for mechanical plan callout, mechanical equipment designation, connection point of new work, detail reference, and section cut designation.

2017 FLORIDA MECHANICAL CODE TABLE 403.3.1.1 VENTILATION SUMMARY

Large table with multiple columns: OCCUPANCY CATEGORY, PEOPLE, AREA OUTDOOR AIR RATE, CALCULATED OCCUPANCY DENSITY, ZONE OCCUPANCY OVERRIDE, PEOPLE EXPECTED TO OCCUPY THE ZONE, Rsp/Pz, Ra/Az, AREA - (Az), ZONE AIR DISTRIBUTION EFFECTIVENESS - Ez, BREATHING ZONE OUTDOOR AIRFLOW - (Vbz), ZONE OUTDOOR AIRFLOW - (Voz), ZONE PRIMARY AIRFLOW - (Vpz), PRIMARY OUTDOOR AIR FRACTION - (Zp), OCCUPANT DIVERSITY RATIO (D), UNCORRECTED OUTDOOR AIR INTAKE - (Vou), SYSTEM VENTILATION EFFICIENCY - Ev, CORRECTED OUTDOOR AIRFLOW - (Vot), PROVIDED OUTDOOR AIRFLOW - (Vot).

AIR HANDLER UNIT SCHEDULE (NATURAL GAS)

Table with columns: MARK, MANUFACTURER, MODEL, SUPPLY FAN, COOLING COIL, HEATING COIL, ELECTRICAL, APPROX. WEIGHT, NOTES. Row 1: AHU-1, TRANE, TUD2C0B0A9, 1,525 CFM, 0.80 ESP, 3/4 MIN. HP, 300 MIN. O/A (CFM), R-410A REFR. TYPE, 48.8 TC (MBH), 33.7 SC (MBH), 77.4 / 66.1 EAT (DB/WB), 56.7 LAT (DB), 4TXCC0090S3 MODEL, 80 INPUT (MBH), 64 OUTPUT (MBH), 80.0 XEFF, 120/1 V/PH, 12.9 MCA, 15 MOCP, 225 APPROX. WEIGHT (LBS.), A,B,C,D,E,F,G,H,I,J NOTES.

NOTES: A. EQUIPMENT COMPONENTS SHALL BE BY THE SAME MANUFACTURER. B. EQUIPMENT SIZED FOR 95° F AMBIENT TEMPERATURE. C. PROVIDE 1" HORIZONTAL THROWAWAY AIR FILTERS. D. PROVIDE IN HORIZONTAL CONFIGURATION. E. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT WITH OCCUPIED/UNOCCUPIED SETTINGS AND STAGED HEATING AND COOLING CAPABILITY AS REQUIRED FOR OPERATION OF AUXILIARY HEATING AND COOLING CONTROLS WITH A 5° DEADBAND. PROVIDE THERMOSTAT STAGED LOCK CAPABILITY. F. CONTRACTOR TO FURNISH AND INSTALL A SMOKE DETECTOR IN THE SUPPLY AIR DUCT. G. DISCONNECT SWITCH FURNISHED BY DIVISION 16 CONTRACTOR. H. PROVIDE WITH SPRING VIBRATION ISOLATION AND ALL-THREAD HANGING RODS. I. SPECIFIED FAN ESP DOES NOT INCLUDE LOSSES FOR DIRTY FILTERS. J. NO SUBSTITUTIONS ALLOWED.

HEAT PUMP CONDENSING UNIT SCHEDULE

Table with columns: MARK, SERVICE, MANUFACTURER, MODEL, NOMINAL CAPACITY, REFR. TYPE, TC, SC, MIN. NO. OF STAGES, SEER, MCA, MOCP, V/PH, NOTES. Row 1: HP-1, AHU-1, TRANE, 4TMM4048A3, 4, R-410A, 46.05, 31.11, 1, 14.0, 18, 30, 208/3, A,B,C,D,E,F,G,H,I,J NOTES.

NOTES: A. PROVIDE LOW AMBIENT CONTROL TO 30° F. B. EQUIPMENT SIZED FOR 95° F AMBIENT TEMPERATURE. C. CONTRACTOR SHALL VERIFY WITH EQUIPMENT SUPPLIER EXACT QUANTITY AND SIZE OF REFRIGERANT PIPING. D. PROVIDE LIQUID LINE FILTER DRYER AND SIGHT GLASS. E. PROVIDE CONCRETE HOUSEKEEPING PAD PER SPECIFICATIONS. F. DISCONNECT SWITCH FURNISHED BY DIVISION 16 CONTRACTOR. G. STARTERS FOR ALL MOTORS SHALL BE FURNISHED INTERNAL WITH UNIT. H. COORDINATE SIZE OF CONDUCTOR TERMINATION LUGS WITH CONDUCTOR SIZES SHOWN ON ELECTRICAL DRAWINGS. I. PROVIDE FACTORY APPLIED CORROSION RESISTANT PHENOLIC COATING FOR SEACOAST INSTALLATION. J. NO SUBSTITUTIONS ALLOWED.

GRILLE, REGISTER AND DIFFUSER SCHEDULE

Table with columns: MARK, MANUFACTURER, MODEL, FACE TYPE, MOUNTING LOCATION, FACE SIZE, MAX. NC, MAX. PRESS. DROP, NOTE. Rows include CS01, CS02, CRG1, CRG2, CRG3, CRG4.

NOTES: A. NECK SIZE SHOWN ON DRAWINGS. B. 4-WAY THROW PATTERN UNLESS OTHERWISE SHOWN ON DRAWINGS. C. BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS. D. BAKED ENAMEL FINISH, OFF WHITE. E. PROVIDE NECK FOR DUCT CONNECTION. F. FRAME TYPE TO MATCH CONSTRUCTION TYPE, COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.

FAN SCHEDULE

Table with columns: MARK, SERVICE, MANUFACTURER, MOUNTING, MODEL, CFM, ESP, DRIVE, MIN. HP, FAN RPM, V/PH, NOTES. Rows include EF-1 through SF-4.

NOTES: A. PROVIDE RUBBER SHEAR ISOLATION AND ALL-THREAD HANGING RODS. B. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH. C. PROVIDE FACTORY MOUNTED SPEED CONTROLLER. D. PROVIDE MANUFACTURER'S SPEC. LOADED BACKDRAFT DAMPER. E. MOUNT WALL MOUNTING BRACKET. F. PROVIDE WALL SWITCH AND COORDINATE HEIGHT WITH OWNER AND ARCHITECT. CYCLE FAN POWER OFF WITH WALL SWITCH. FAN SPEED CAN BE ADJUSTED WITH FULL CHAIN IF DESIRED. G. OSCILLATING. H. PROVIDE BACKDRAFT DAMPER BY GREENHECK, MODEL WD-330. I. INTERNAL THERMAL OVERLOAD PROTECTION.

UNIT HEATER SCHEDULE (NATURAL GAS)

Table with columns: MARK, MANUFACTURER, MODEL, MIN. INPUT, MIN. EFF., GAS VALVE TYPE, CFM, MOTOR HP, THROW, V/PH, APPROX. WEIGHT, NOTES. Rows include UH-1, UH-2.

NOTES: A. UNIT HEATER TO BE CEILING MOUNTED WITH BOTTOM OF UNIT AT 11" AFF AND 12" OFF CEILING. B. PROVIDE WITH WALL-MOUNTED PROGRAMMABLE HEATING ONLY THERMOSTAT WITH NIGHT SET BACK AND FREEZE PROTECTION CAPABILITY. C. PROVIDE MANUAL SUMMER/WINTER CHANGE-OVER SWITCH. D. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR CEILING MOUNTING. E. DISCONNECT SWITCH FURNISHED BY DIVISION 16 CONTRACTOR. F. PROVIDE ELECTRONIC OPERATED GAS CONTROL VALVE. G. NO SUBSTITUTIONS ALLOWED.

FOR ALL BIDDING QUESTIONS, CONTACT THE OWNER. DO NOT CONTACT THE ENGINEER.

BID PER PLANS - NO EQUALS OR SUBSTITUTIONS ALLOWED.

MECHANICAL SHEET INDEX

Table with columns: SHEET NO., SHEET DESCRIPTION. Rows include M-1.01, M-2.01, M-3.01, M-4.01.

GARAGE VENTILATION CALCULATIONS PER FMC 403.3

Table with columns: SPACE, OCCUPANCY CLASSIFICATION, REQUIRED EXH CFM/SF, AREA SQ. FT., EXH. AIRFLOW REQUIRED, EXH. AIRFLOW PROVIDED. Rows include TECHNICIAN AREA, REPAIR GARAGE.

ROOF VENTILATOR SCHEDULE

Table with columns: MARK, SERVICE, CFM, SP, THROAT SIZE, MODEL, ACCESSORIES. Row 1: GRV-1, RELIEF, 3400, 0.1, 30", GREENHECK IGRS 30, 1.

ACCESSORIES: 1. BRUSCREAK SLOPE ROOF CURB

Air System Sizing Summary for AHU-1

Table with columns: Air System Information, Sizing Calculations Information, Central Cooling Coil Sizing Data, Central Heating Coil Sizing Data, Supply Fan Sizing Data, Outdoor Ventilation. Includes values for CFM, MBH, tons, and various efficiency factors.

Air System Design Load Summary for AHU-1

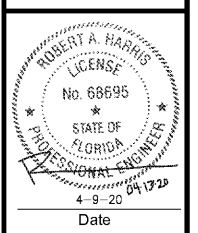
Table with columns: DESIGN COOLING, DESIGN HEATING. Includes sub-tables for ROOM LOADS and HEATING DATA AT DESIRED TEMPERATURES.



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Revisions

Table with 2 columns: Date, Description. Rows include 1/23/20 - Prototype Update, 4/1/20 - City Comments, 4/9/20 - T2 Client Rev.

Project No. 19-097

Drawn By: CLK

Date: 03/06/20

Sheet Title:

MECHANICAL SCHEDULES

Drawing No.

M-1.01



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