

AIR CONDITIONING SYSTEMS SCHEDULE

| AIR HANDLING UNIT OR APPROVED EQUAL | | | | | | | | | AIR-COOLED COND. UNIT OR APPROVED EQUAL | | | | SYSTEM | | | | | | | | |
|--|-----------------|-------|-----------|-----------------|------|---------|------------------|-------|--|------------|--------|--------------------|--------|---------------------|-------------|-------------|------------|--------------|------|------------------|-----------------|
| UNIT NO. | CAPACITY (TONS) | C.F.M | MCA/MOCP | E.S.P. IN H.2.0 | H.P. | HEATING | ELECTRIC HEATING | | MODEL NUMBER | COMPRESSOR | | R-410A REFRIG PIPE | | MODEL NO. | MOCP (AMPS) | CAPACITY | | ELEC. (V/PH) | SEER | ENTERING DB*/WB* | LEAVING DB*/WB* |
| | | | | | | | KW | STAGE | | M.C.A | L.R.A. | SUC. | LIQ. | | | TOTAL (MBH) | SENS (MBH) | | | | |
| AHU-1 | 5 | 1725 | 32.0/35.0 | 0.5 | 1 | - | 5 | 1 | LENNOX CBX32MV060 | 34.9 | - | 7/8 | 3/8 | LENNOX XC21-060-230 | 60 | 60.5 | 44.7 | 230/1 | 16.5 | 80.0/67.0 | 55.0/54.5 |

NOTES:
 1. ALL UNITS SHALL BE PROVIDED WITH THERMOSTATS.
 2. PROVIDE SPARE 1" FILTERS FOR EACH LENNOX UNIT.

EXHAUST FAN SCHEDULE

| LABEL | TYPE OF UNIT AREA SERVED | MANUFACTURER & MODEL NUMBER | CFM | SP | MOUNTING ARRANGEMENT | POWER (WATTS) | RPM | ELEC (V/PH) | REMARKS |
|-------|--------------------------|-----------------------------|-----|------|----------------------|---------------|-----|-------------|---------|
| EF-1 | BATHROOM | GREENHECK #CSP-A110 | 54 | 0.25 | IN CEILING | 7.5 | - | 115/1 | |

NOTES :
 1. FURNISH WITH MANUFACTURER PROVIDED SPEED CONTROLLER, ISOLATION HANGERS, BACKDRAFT DAMPER AND DISCONNECT SWITCH.
 2. ALL EXHAUST FANS TO BE CONTROLLED FROM BATHROOM LIGHT SWITCH.
 3. ALL EXHAUST OUTLETS THRU ROOF AND WALLS TO HAVE A RAINCAP AND INSECT SCREEN
 4. PROVIDE FAN SELECTION FOR A MAXIMUM NOISE GENERATION OF 1.5 SONES.

LEGEND

| | |
|---------|---|
| | NEW SUPPLY AIR, CEILING MOUNTED REGISTER REFER TO DETAIL CEILING MOUNTED REGISTER |
| | SIDE WALL DIFFUSER |
| | NEW RETURN GRILL, CEILING MOUNTED REGISTER REFER TO DETAIL |
| | SIDE WALL RETURN OR TRANSFER GRILL |
| | CEILING EXHAUST FAN |
| | NEW FLEXIBLE ROUND DUCT INSIDE DIMENSIONS |
| | ELBOW W/ TURNING VALVES |
| A X B # | X: AIR DEVICE TYPE # CFM AXB: NECK SIZE |
| | DIAMETER |
| | ROOM TEMPERATURE SENSOR/ THERMOSTAT. TYPE PROGRAMMABLE |
| | DOOR SWITCH |
| | ACTUATED DAMPER |
| AD | ACTUATED DAMPER |
| UC | UNDER CUT |
| RA | RETURN AIR |
| CFM | CUBIC FEET PER MINUTE |
| EF | EXHAUST FAN |
| | DUCT SMOKE DETECTOR |

AIR TERMINAL SCHEDULE

| TYPE | SERVICE | CFM RANGE | | SIZE | NECK | MANUFACTURER/MODEL |
|------|--------------------|-----------|------|--------|---------|--|
| | | MIN | MAX | | | |
| A | SUPPLY | 0 | 75 | 6x6 | 6" | HART & COOLEY #A5040B |
| | | 76 | 105 | 8x8 | 8" | |
| | | 106 | 155 | 10x10 | 10" | |
| | | 156 | 255 | 12x12 | 12" | |
| | | 256 | 360 | 14x14 | 14" | |
| B | RETURN/EXHAUST | 0 | 75 | 8x8 | 8" | HART & COOLEY #A5040B |
| | | 76 | 100 | 10x10 | 10" | |
| | | 101 | 200 | 12x12 | 12" | |
| | | 201 | 275 | 14x14 | 14" | |
| | | 256 | 360 | 14x14 | 14" | |
| C | RETURN/EXHAUST | 0 | 1200 | 48x8 | 16" | HART & COOLEY #A5040B |
| | | 361 | 1500 | 24x24 | 24"x12" | |
| D | LINEAR SLOT SUPPLY | 0 | 300 | 24"x3" | | PRICE AS230 FLOWBAR BORDER TYPE 22C WITH 3" SLOT |
| | | 301 | 750 | 72"x3" | | |

- SEE DETAIL SHEET(S) FOR ADDITIONAL INFORMATION
- PROVIDE ALL UNITS WITH OPPOSED BLADE DAMPERS
- DIFFUSER RUNOUT SIZE SHALL BE DIFFUSER NECK SIZE, UNLESS OTHERWISE NOTED ON PLANS
- ALL SUPPLY AIR DIFFUSER AIR THROW PATTERNS ARE 4-WAY UNLESS OTHERWISE INDICATED ON MECHANICAL PLANS
- PROVIDE SURFACE MOUNT HARDWARE IN ALL INACCESSABLE CEILING SYSTEMS
- PROVIDE LAY-IN MOUNT HARDWARE IN ALL SUSPENDED CEILING SYSTEMS
- PROVIDE FULL LENGTH PLENUM FOR SIDEWALL AND LINEAR SLOTS
- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF DIFFUSERS
- PROVIDE SELECTION BASED ON A MAXIMUM RADIATED NOISE OF NC-30

SPECIFICATIONS:

- FURNISH ALL LABOR, MATERIALS, EQUIPMENT, PERMITS FEES, INSPECTIONS, TESTS, INSURANCE, ETC., REQUIRED FOR THE COMPLETION OF THE AIR CONDITIONING SYSTEM, SHOWN ON THE DRAWINGS AND OR LISTED BELOW.
- LOW VELOCITY DUCTWORK SHALL BE R-6 (MIN.), 1 1/2" THICK, RIGID, FOIL FACED FIBERGLASS DUCT BOARD MAY BE USED IF INSTALLED IN STRICT ACCORDANCE WITH SMACNA STANDARDS. DUCT SIZES SHOWN ARE "AIRSIDE" DIMENSIONS. VERIFY EXACT LOCATION OF DUCT WITH RESPECT TO STRUCTURE BEFORE FABRICATION. MIXING AND/OR COLLECTION DUCT PLENUMS BEHIND AIR HANDLING EQUIPMENT SHALL BE LINED SHEET METAL. NO FIBERGLASS DUCTWORK WILL BE PERMITTED IN TOILET AREAS.
- LINE DUCT AND MIXING PLENUMS WHERE SHOWN WITH R-6 (MIN.), 1 1/2" THICK RIGID BOARD FIBERGLASS, VINYL COATED INSULATION ON THE AIR SIDE EQUAL TO JOHNS-MANVILLE "MICROTUX". INSTALL WITH FIRE RETARDANT ADHESIVE AND STIC-CLIPS AS PER MANUFACTURER'S RECOMMENDATIONS. NO DUCT LINING SHALL BE PERMITTED IN KITCHENS OR BATHROOMS.
- PROVIDE ACCESS PANELS IN ALL WALLS AND CEILINGS FOR ALL VALVES, DAMPERS, CONTROL DEVICES, ETC. ACCESS PANELS SHALL BE MILCOR FLUSH TYPE.
- INSULATION:
PIPING - CONDENSATE PIPING AND REFRIGERATION SUCTION PIPING SHALL BE INSULATED WITH 3/4" AMCOFLEX ("ELASTOMERRIC FOAM").
- ALL REGISTERS, GRILLES, DIFFUSERS, AND LOUVERS SHALL BE TITUS OR ARCHITECT APPROVED EQUIVALENT.
- TEMPERATURE CONTROL SHALL BE A ROOM THERMOSTAT FOR HEATING/COOLING WITH STAGES AS REQUIRED, INCLUDING A HEAT-OFF-COOL SWITCH AND A FAN ON-AUTO SWITCH IN SUB-BASE AS MANUFACTURED BY HONEYWELL OR APPROVED EQUIVALENT.
- CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING.
- FILTERS:
A. PROVIDE TWO SETS OF TEMPORARY FIBERGLASS THROWAWAY FILTERS OF THE SAME THICKNESS AS FINAL FILTERS FOR USE DURING CONSTRUCTION.
B. AIR CONDITIONING FAN COIL UNITS SHALL HAVE ONE INCH THICK THROWAWAY TYPE FIBERGLASS FILTERS.
C. PROVIDE TWO COMPLETE SETS OF FINAL FILTERS.
- GUARANTEES:
A. ALL COMPRESSOR MOTORS ON NEW EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL HAVE A 5 YEAR PRODUCT GUARANTEE FROM DATE OF START-UP.
B. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN 1 YEAR FROM DATE OF ACCEPTANCE.
- TESTING:
A. ALL REFRIGERANT HIGH SIDE PIPING TO 3GG PSIG. LOW SIDE TO 150 PSIG. AFTER TESTING EVACUATE SYSTEM TO 200 MICRONS WITH VACUUM PUMP. HOLD FOR 25 HOURS WITH PUMP OFF BREAK VACUUM WITH REFRIGERANT.
B. BALANCE AIR SYSTEM TO DELIVER QUANTITIES AT EACH OUTLET WITHIN 5 PERCENT USING A.A.B.C. PROCEDURES AND TESTS. SUBMIT AIR BALANCE TEST RESULTS FOR REVIEW PRIOR TO FINAL INSPECTION.
- VIBRATION ISOLATION: ALL EQUIPMENT AS PER MANUFACTURER RECOMMENDATIONS TO ELIMINATE ANY EQUIPMENT NOISE FROM BEING HEARD.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION AND IN STRICT COMPLIANCE WITH ALL APPLICABLE CODES AND STANDARDS.
- VERIFY ALL VOLTAGES WITH ELECTRICAL CONTRACTOR BEFORE ORDERING ANY EQUIPMENT.
- ELECTRIC HEATERS SHALL BE U.L. LISTED, BLAST COIL DESIGN AS PER N.E.C. COMPLETE WITH GALVANIZED STEEL FRAME SOLID TERMINAL BOX COVER AND TOTALLY ENCLOSED TERMINAL BOX. BRANCH FUSES FOR ALL ELEMENTS OVER 48 AMPS, AUTO RESET THERMAL CUT-OFF, HEAT LIMITERS, FUSED DISCONNECT. AIR FLOW PROVING DEVICE, CONTROL TRANSFORMER WHERE REQUIRED FOR 120V, FOR CONTROL VOLTAGE.
- VERIFY ALL DIMENSIONS WITH STRUCTURE PRIOR TO ANY FABRICATION OR INSTALLATION.
- SUBMIT SHOP DRAWINGS OF ALL MATERIALS AND EQUIPMENT FOR APPROVAL PRIOR TO FABRICATION.
- PRIOR TO COMMENCEMENT OF WORK, VERIFY MEASUREMENTS AT BUILDING SITE. SUBMIT DISCREPANCIES AND DIFFERENCES TO ARCHITECT-ENGINEER FOR CONSIDERATION AND DECISION BEFORE PROCEEDING.
- OBTAIN FULL INFORMATION REGARDING PECULIARITIES AND LIMITATIONS OF SPACE AVAILABLE FOR INSTALLATION OF THE EQUIPMENT AND MATERIALS UNDER CONTRACT, AND PROVIDE READY ACCESSIBILITY TO DAMPERS, VALVES, AND OTHER APPARATUS, INCLUDING ANY PART OF SYSTEM REQUIRED TO BE REACHED FOR MAINTENANCE AND OPERATIONS.
- PROVIDE AN ACCURATE LAYOUT, GRADES, AND ELEVATIONS, SET SLEEVES AND OPENINGS IN AMPLE TIME, AND TAKE PROPER PRECAUTIONS TO PROTECT WORK AND EQUIPMENT FROM DAMAGE.
- CUT ALL OPENINGS AND CHASES REQUIRED TO ACCOMMODATE THE WORK UNDER THIS DIVISION, AND REPAIR ALL FLOORS, WALLS, ETC. DAMAGED BY SUCH CUTTINGS. ALL WORK DONE UNDER THIS HEADING MUST CONFORM IN EVERY RESPECT TO FINISH AND QUALITY OF MATERIALS AND WORKMANSHIP OF THE INDUSTRY STANDARD.
- ALL REFRIGERANT PIPING SHALL BE TYPE "K" HARD COPPER, TOGETHER WITH WROUGHT COPPER SOLDER FITTINGS. JOINTS SHALL BE MADE WITH SILVER SOLDER OR "SILFOS". ALL CONDENSATE DRAIN PIPING TO BE SCHEDULE 40 TYPE II HIGH IMPACT PVC WITH SLIP JOINT FITTINGS OF THE SAME MATERIALS WITH AN APPROVED SOLVENT INSTALLED IN A MANNER RECOMMENDED BY THE FITTING MANUFACTURER.
- FLEXIBLE DUCT SHALL BE SELF-SUPPORTING ALUMINUM CONSTRUCTION WITH 1" THICK BLANKET TYPE INSULATION WITH EXTERIOR VAPOR BARRIER, HIGH PRESSURE TYPE AS MANUFACTURED BY CLEVEPAK CORPORATION. PROVIDE SPIN COLLAR WITH DAMPER AND EXTRACTOR AS MANUFACTURED BY CLEVEPAK CORPORATION. WHERE FLEXIBLE DUCT IS CONNECTED TO RECTANGULAR DUCTWORK.
- ALL EQUIPMENT SUPPORTS, PIPING SUPPORTS, DUCT SUPPORTS, AND ROOF PENETRATIONS SHALL BE DONE IN A MANNER ACCEPTABLE TO THE ARCHITECT/ENGINEER.
- ALL WORK SHALL BE IN ACCORDANCE WITH FLORIDA BUILDING CODE 2010 EDITION.