## LINETYPES LEGEND:

- NEW
- NEW – ON ROOF
- EXISTING
- EXISTING – ON ROOF
- DEMOLITION

## DUCTWORK LEGEND:

- DUCT (SINGLE LINE)
- DUCT (DOUBLE LINE)
- ROUND O/A OR S/A DOWN
- ROUND O/A OR S/A UP
- ROUND E/A OR R/A DOWN
- ROUND E/A OR R/A UP
- RECTANGULAR O/A OR S/A DOWN
- RECTANGULAR O/A OR S/A UP
- RECTANGULAR E/A OR R/A DOWN
- RECTANGULAR E/A OR R/A UP
- O/A OR S/A DIFFUSER
- E/A OR R/A GRILLE
- AIR DEVICE WITH FLEX DUCT CONNECTION
- AIR DEVICE WITH HARD DUCT CONNECTION
- FLEXIBLE CONNECTION TO EQUIPMENT
- DUCT BREAK/CONTINUATION
- MANUAL BALANCING DAMPER
- (M) MOTOR–OPERATED DAMPER
- (BD) BACKDRAFT DAMPER
- (F) FIRE DAMPER
- (FS) FIRE/SMOKE DAMPER
- (S) SMOKE DAMPER

## ANNOTATION LEGEND:

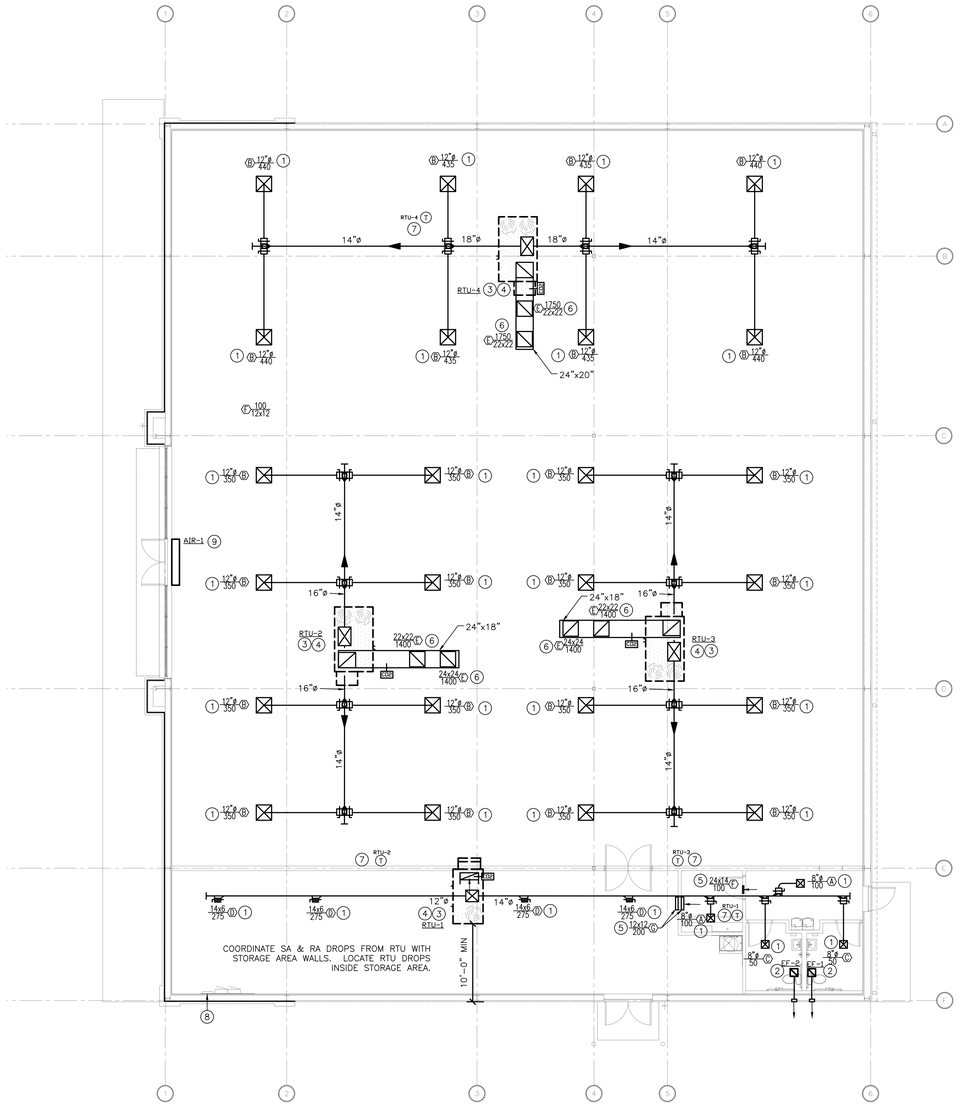
- ABC–1 EQUIPMENT / FIXTURE TAG
- (–) PLAN NOTE
- CONNECT TO EXISTING
- AIR FLOW DIRECTION
- SIZE / AIRFLOW (A) G/R/D TAG TYPE

## ABBREVIATIONS LEGEND:

| | |
|---|---|
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| AHU | AIR HANDLING UNIT |
| APD | AIR PRESSURE DROP |
| ATU | AIR TERMINAL UNIT |
| AV | ANALOG VIRTUAL |
| BAS | BUILDING AUTOMATION SYSTEM |
| BOD | BOTTOM OF DUCT |
| BOP | BOTTOM OF PIPE |
| CAV | CONSTANT AIR VOLUME |
| CFM | CUBIC FEET PER MINUTE |
| CFH | CUBIC FEET PER HOUR |
| CU | CONDENSING UNIT |
| DDC | DIRECT DIGITAL CONTROL |
| DN | DOWN |
| (E) | EXISTING |
| E | ELECTRONIC |
| E/A | EXHAUST AIR |
| EAT | ENTERING AIR TEMPERATURE |
| EF | EXHAUST FAN |
| EG | EXHAUST GRILLE |
| ESP | EXTERNAL STATIC PRESSURE |
| EWT | ENTERING WATER TEMPERATURE |
| FACP | FIRE ALARM CONTROL PANEL |
| FC | FAIL CLOSED |
| FCU | FAN COIL UNIT |
| FFA | FROM FLOOR ABOVE |
| FFB | FROM FLOOR BELOW |
| FIP | FAIL IN PLACE |
| FO | FAIL OPEN |
| FPI | FINS PER INCH |
| FPM | FEET PER MINUTE |
| FT.WG | FEET WATER GAUGE |
| GPM | GALLONS PER MINUTE |
| HC | HEATING CAPACITY |
| HP | HORSEPOWER |
| HUM | HUMIDIFIER |
| IFB | INTEGRAL FACE AND BYPASS |
| IN.WG | INCHES WATER GAUGE |
| LAT | LEAVING AIR TEMPERATURE |
| MAX | MAXIMUM |
| MBH | 1,000 BTUH |
| MIN | MINIMUM |
| NC | NOISE CRITERIA |
| O/A | OUTDOOR AIR |
| P | PNEUMATIC |
| P | PRESSURE |
| QTY | QUANTITY |
| R/A | RETURN AIR |
| RE/A | RELIEF AIR |
| REFR | REFRIGERANT |
| RF | RETURN FAN |
| RG | RETURN GRILLE |
| RH | REHEAT |
| RTU | ROOFTOP UNIT |
| S/A | SUPPLY AIR |
| SC | SENSIBLE COOLING CAPACITY |
| SD | SUPPLY DIFFUSER |
| STM | STEAM |
| TC | TOTAL COOLING CAPACITY |
| TFA | TO FLOOR ABOVE |
| TFB | TO FLOOR BELOW |
| TRA | TO ROOF ABOVE |
| TSP | TOTAL STATIC PRESSURE |
| VAV | VARIABLE AIR VOLUME |
| VEL | VELOCITY |
| VFD | VARIABLE FREQUENCY DRIVE |
| WPD | WATER PRESSURE DROP |

## MECHANICAL GENERAL NOTES:

- ALL MECHANICAL WORK SHALL CONFORM TO THE ARKANSAS MECHANICAL CODE AS ADOPTED BY THE CITY OF HAZEN, ARKANSAS
- COORDINATE MECHANICAL WORK WITH ALL OTHER PROJECT TRADES (E.G. ARCHITECTURAL, STRUCTURAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, ETC.).
- COORDINATE WITH ELECTRICAL CONTRACTOR FOR REQUIRED ELECTRICAL POWER WIRING. PROVIDE ALL CONTROL WIRING AND FINAL CONTROL DEVICE (E.G. THERMOSTATS).
- COORDINATE ALL AUDIO/VISUAL ALARMS REQUIRED WITH THE ELECTRICAL CONTRACTOR.
- FABRICATE AND INSTALL DUCTWORK PER SMACNA RECOMMENDATIONS FOR THE PRESSURE CLASSIFICATIONS ENCOUNTERED.
  - •• LOW PRESSURE SUPPLY AIR: +2.0 IN.WG
  - •• RETURN AIR: –1.0 IN.WG
  - •• EXHAUST AIR (DOWNSTREAM OF FAN): +1.0 IN.WG
- PROVIDE ALL CONDENSATE DRAINS FOR EQUIPMENT THAT GENERATES CONDENSATE. COORDINATE WITH PLUMBING CONTRACTOR.
- PROVIDE DUCT WRAP INSULATION FOR ALL ROUND AND RECTANGULAR SUPPLY AIR DUCTWORK. DUCT WRAP INSULATION SHALL BE 2" THICK, MINIMUM R–5.0 FIBERGLASS WITH VAPOR BARRIER.
- PROVIDE INTERNAL LINER INSULATION FOR ALL RECTANGULAR RETURN AIR DUCTWORK. INTERNAL LINER INSULATION SHALL BE A MINIMUM OF 1" THICK AND 1½ PCF FIBERGLASS, NEOPRENE COATED, AND ADHERED WITH AN APPROVED ADHESIVE WITH 100% COVERAGE AND STICK CLIPS ON 12" CENTERS. INTERNALLY LINED INSULATION SHALL MEET BACTERIOLOGICAL STANDARD ASTM C 665. DUCT DIMENSIONS SHOWN ON THE PLANS INDICATE THE FREE AREA DIMENSIONS. INCREASE SHEET METAL DIMENSIONS AS REQUIRED TO MEET FREE AREA DIMENSIONS WITH LINER INSTALLED.
- FLEXIBLE DUCTWORK SHALL HAVE 2" THICK, MINIMUM R–5,0 INSULATION. FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'–0" IN LENGTH FOR SUPPLY AIR APPLICATIONS AND 3'–0" IN LENGTH FOR RETURN AIR AND EXHAUST AIR APPLICATIONS.
- PROVIDE BALANCING DAMPERS IN DUCT TAKE–OFFS TO AIR DEVICES IN LAY–IN CEILINGS, IN THE NECKS OF AIR DEVICES IN GYP BOARD CEILINGS, AND IN THE NECKS OF SIDE WALL AIR DEVICES FOR PROPER AIR BALANCING.
- TOILET ROOM EXHAUST FANS SHALL BE AS SCHEDULED. PROVIDE A MINIMUM OF 75 CFM EXHAUST PER FLUSH FIXTURE.
- COORDINATE ALL REQUIRED ROOF PENETRATIONS WITH ROOFING CONTRACTOR TO AVOID ROOF WARRANTY CONFLICTS.
- VERIFY AVAILABLE SPACE ABOVE ALL CEILINGS PRIOR TO FABRICATION OR INSTALLATION OF ANY DUCTWORK. COORDINATE DUCT INSTALLATION WITH OTHER TRADES.
- ALL DIMENSIONS SHOWN ON PLAN ARE IN INCHES, UNLESS EXPLICITLY LABELED OTHERWISE.
- PROVIDE A COMPLETE TEST AND BALANCE BY A NEBB CERTIFIED TEST AND BALANCE AGENCY.
- PROVIDE ACCESS PANELS AND ADEQUATE CLEARANCE FOR ACCESS OF ALL EQUIPMENT, VALVES, DAMPERS AND DEVICES.
- ALL PENETRATIONS THROUGH EXTERIOR WALLS SHALL BE FLASHED AND COUNTERFLASHED IN A WATERPROOF MANNER. (COLOR TO MATCH EXTERIOR)
- ALL SUSPENDED MATERIALS AND EQUIPMENT SHALL BE INDIVIDUALLY SUPPORTED FORM THE BUILDING STRUCTURE. DO NOT SUSPEND ITEMS FROM THE CEILING OR ITS SUPPORT SYSTEM.
- INSTALL CONTROL DEVICES, INCLUDING THERMOSTATS AND SWITCHES 4'–0" ABOVE FINISHED FLOOR. PROVIDE THE REQUIRED DEVICES FOR ALL SYSTEM WHETHER LOCATED ON PLANS OR NOT.
- PROVIDE A 1 YEAR WARRANTY ON ALL EQUIPMENT AND A 5 YEAR WARRANTY ON ALL COMPRESSORS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL WALL CAPS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL PAINT ALL VENT CAPS. CONFIRM COLOR WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.




1 MECHANICAL HVAC PLAN
SCALE: 1/8" = 1'–0"

## MECHANICAL PLAN NOTES:

1. PROVIDE SUPPLY AIR DEVICE PER SCHEDULE WHERE SHOWN. COORDINATE FINISH WITH ARCHITECT AND OWNER. COORDINATE WITH REFLECTED CEILING PLAN.
2. PROVIDE EXHAUST FAN PER SCHEDULE. ROUTE 6"ø EXHAUST DUCT FROM EXHAUST FAN THROUGH WALL AS SHOWN. PROVIDE WALL PENETRATION AND VENT CAP EQUAL TO GREENHECK WC–6 WITH BUILT IN BIRDSCREEN AND BACKDRAFT DAMPER. LOCATE DISCHARGE AT MINIMUM OF 10'–0" FROM ANY BUILDING OPENINGS, OUTDOOR AIR INTAKES OR FIRE SEPARATIONS.
3. PROVIDE RTU, WITH CONTROLS AND ACCESSORIES FOR A FULLY FUNCTIONING SYSTEM. REFERENCE RTU SCHEDULE. LOCATE RTU WHERE SHOWN. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. DISCHARGE CONDENSATE DRAIN ON ROOF.
4. EXTEND SUPPLY AND RETURN AIR DROPS FROM RTU'S TO BELOW STRUCTURE. EXTEND SUPPLY DUCT HORIZONTALLY TO FEED THE ZONE IT SERVES. PROVIDE A RETURN AIR ELBOW FULL–SIZE OF RTU OPENING FOR PLENUM RETURN.
5. PROVIDE TRANSFER AIR GRILLE PER SCHEDULE. INSTALL TOP OF GRILLE 12" BELOW CEILING.
6. PROVIDE RETURN AIR DEVICE PER SCHEDULE. COORDINATE FINISH WITH ARCHITECT AND OWNER. PROVIDE BALANCING DAMPER IN TAKE OFF ABOVE ACCESSIBLE CEILING OR AT FACE OF DEVICE IN AN INACCESSIBLE CEILING.
7. CONTRACTOR TO PROVIDE STANDARD THERMOSTAT FOR INITIAL COMMISSIONING OF EQUIPMENT. LOCATE ON CEILING GRID/WALL/OR COLUMN AS SHOWN. PROVIDE WITH 50' EXTRA CONTROL WIRING. VENSTAR WILL REPLACE WITH THEIR THERMOSTAT AT TIME OF FAMILY DOLLAR UPFIT.
8. FUTURE ENERGY MANAGEMENT SYSTEM TO BE PROVIDED AT TIME OF FAMILY DOLLAR UPFIT.
9. LOCATE NEW AIR CURTAIN ON WALL WHERE SHOWN. INSTALL ACCORDING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS, MINIMUM 8'–0" AFF.

## SEQUENCES OF OPERATION:

ROOFTOP UNITS RTU–1, RTU–2, RTU–3, RTU–4:
UNIT SHALL OPERATE SUBJECT TO MANUFACTURER'S STANDARD SEQUENCES AND SAFETIES VIA FACTORY–INSTALLED CONTROLLER AND CONTROL DEVICES. THE 7–DAY PROGRAMMABLE THERMOSTAT SHALL PROVIDE RTU CONTROLLER WITH HEATING/COOLING COMMAND, OCCUPIED/UNOCCUPIED SCHEDULE, AND FAN CONTROL INPUTS.

SET POINTS:
- OCCUPIED MODE: 70°F HEATING, 75°F COOLING
- UNOCCUPIED MODE: 55°F HEATING, 85°F COOLING
- ECONOMIZER MODE ENABLE: O/A TEMPERATURE < 65°F

SUPPLY FAN CONTROL:
- OCCUPIED MODE: MUTLI–STAGE FAN SHALL OPERATE CONTINUOUSLY. FAN STAGE TO BE DETERMINED BY MANUFACTURER'S STANDARD SEQUENCE.
- UNOCCUPIED MODE: FAN SHALL CYCLE WITH HEATING AND COOLING COMMANDS.

OUTDOOR AIR DAMPER:
- OCCUPIED MODE: OUTDOOR AIR DAMPER SHALL OPEN TO SCHEDULED MINIMUM OUTDOOR AIR FLOW POSITION. OUTDOOR AIR DAMPER MINIMUM POSITION SHALL BE DETERMINED DURING TESTING AND BALANCING.
- DCV OCCUPIED MODE: OUTDOOR AIR DAMPER SHALL OPEN TO SCHEDULED DCV MINIMUM OUTDOOR AIR FLOW POSITION. DCV MINIMUM OUTDOOR AIR DAMPER POSITION SHALL BE DETERMINED DURING TESTING AND BALANCING.
- UNOCCUPIED MODE: OUTDOOR AIR DAMPER SHALL BE CLOSED, UNLESS UNIT IS IN COOLING MODE AND OUTDOOR AIR TEMPERATURES ARE SUITABLE FOR ECONOMIZER OPERATION.

### AIR CURTAIN SCHEDULE

| TAG | MANUFACTURER | MODEL | LOCATION | LENGTH | CFM | MOTOR HP | HEAT CAPACITY | ELECTRICAL | | | WEIGHT | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | V / PH | AMPS | MOCP | | |
| AIR-1 | POWERED AIRE | EVE-2-72 | FRONT ENTRY | 72" | 1968 | 1/4 HP (2) | NONE | 120 / 1 | 4.4 | 15 | 100 LBS | 1-9 |

NOTES:
A. UNIT SHALL MEET IECC BUILDING CODE WHICH ALLOWS AMCA CERIFIED AIR CURTAIN AS AN ALTERNATE TO VESTIBULES.
B. PROVIDE WITH MAGNETIC DOOR SWITCH FOR ACTIVATION. ONE PER EACH DOOR FOR TOTAL OF TWO.
C. PROVIDE WITH 24V TRANSFORMER AND BUILT-IN TIME DELAY RELAY.
D. PROVIDE WITH REMOTE MOUNTED VARIABLE SPEED SWITCH.
E. PROVIDE WITH UNIT MOUNTED NON-FUXED DISCONNECT SWITCH.
F. PROVIDE WITH CLEANABLE WIRE MESH FILTERS.
G. FINISH SHALL BE WHITE OR AS SELECTED BY ARCHITECT.
H. MOUNT BOTTOM OF AIR CURTAIN AT 7'-2" ABOVE FINISHED FLOOR.
I. SIR CURTAIN SHALL BE BY POWERED AIRE AS SCHEDULED OR APPROVED EQUAL.

### ROOFTOP UNIT SCHEDULE

| TAG | AREA SERVED | MANUFACTURER | SERIES | SUPPLY FAN | | | | O/A FLOW | | COOLING COIL (DX) | | | | | | | | | HEATING COIL (NATURAL GAS) | | | | | | ELECTRICAL | | | WEIGHT (LBS) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | FAN CONTROL | S/A FLOW (CFM) | MOTOR (BHP) | ESP (IN.WG) | MIN (CFM) | DCV MIN (CFM) | NOM TONS | REFR TYPE | TC (MBH) | SC (MBH) | EAT (°F DB) | EAT (°F WB) | LAT (°F DB) | LAT (°F WB) | MIN EFF (EER) | MIN EFF (SEER) | STAGES (QTY) | NOM INPUT (CFH) | HC (MBH) | EAT (°F DB) | LAT (°F DB) | MIN EFF (%) | STAGES (QTY) | V/PH | MCA | MOCP | | |
| RTU-1 | STORAGE | CARRIER | 48CE | CAV | 1,750 | 1.4 | 1.00 | 150 | 150 | 5 | R-410A | 54.9 | 38 | 74.4 | 63.6 | 53.0 | 52.0 | 12.5 | 16.1 | 1 | 110 | 88.0 | 55.0 | 101.3 | 80 | 2 | 208/3 | 31 | 45 | 821 | A-M |
| RTU-2 | WEST SALES | CARRIER | 48FCE | MSAV | 2,800 | 2.4 | 1.00 | 650 | 350 | 7.5 | R-410A | 84.5 | 63 | 78.5 | 67.1 | 53.0 | 52.0 | 11.2 | 15 IEER | 2 | 180 | 144.0 | 43.0 | 90.4 | 80 | 2 | 208/3 | 39 | 50 | 1,065 | A-M |
| RTU-3 | EAST SALES | CARRIER | 48FCE | MSAV | 2,800 | 2.4 | 1.00 | 650 | 350 | 7.5 | R-410A | 84.5 | 63 | 78.5 | 67.1 | 53.0 | 52.0 | 11.2 | 15 IEER | 2 | 180 | 144.0 | 43.0 | 90.4 | 80 | 2 | 208/3 | 39 | 50 | 1,065 | A-M |
| RTU-4 | SOUTH SALES | CARRIER | 48FCE | MSAV | 3,500 | 3.0 | 1.00 | 775 | 400 | 10 | R-410A | 115.7 | 86 | 78.2 | 66.9 | 53.0 | 52.0 | 11.0 | 15 IEER | 2 | 224 | 179.2 | 43.8 | 91.0 | 80 | 2 | 208/3 | 45 | 60 | 1,600 | A-M |

NOTES:
A. PROVIDE WITH CONTROLLER AND CONTROL DEVICES BY MANUFACTURER. REFER TO SEQUENCES OF OPERATION.
B. PROVIDE WITH MANUFACTURERS STANDARD 7-DAY PROGRAMMABLE THERMOSTAT.
C. PROVIDE WITH INTEGRATED ENTHALPY TYPE ECONOMIZER ASSEMBLY.
D. PROVIDE WITH MANUFACTURER'S BAROMETRIC RELIEF DAMPER.
E. PROVIDE WITH MANUFACTURER'S STANDARD INSULATED ROOF CURB WITH 1'-2" MINIMUM HEIGHT.
F. PROVIDE WITH DUCT-MOUNTED CARBON DIOXIDE SENSOR FOR DEMAND CONTROL VENTILATION (DCV) SEQUENCE.
G. PROVIDE WITH NON-POWERED WEATHER-PROOF DUPLEX RECEPTACLE.
H. PROVIDE WITH 2" THICK, MINIMUM MERV-8 FILTERS.
I. PROVIDE WITH FACTORY-MOUNTED RETURN AIR SMOKE DETECTOR.
J. PROVIDE WITH LOUVERED CONDENSER COIL GUARDS.
K. PROVIDE WITH FACTORY DISCONNECT SWITCH.
L. UNIT SIZED FOR 100°F AMBIENT CONDENSING TEMPERATURE.
M. UNIT PROVIDED WITH MULTISTAGE FAN COOLING SHALL BE PROVIDED WITH MULTISTAGE FAN CONTROL.

### GRILLES, REGISTERS AND DIFFUSERS

| TAG | SERVICE | MANUFACTURER | MODEL | MATERIAL | MOUNTING | FACE SIZE | MAX NC | MAX DP | NOTES |
|---|---|---|---|---|---|---|---|---|---|
| A | SUPPLY | METALAIRE | 5700 | ALUMINUM | LAY IN | 12x12 | 30 | 0.1 | A,B,C,F,G |
| B | SUPPLY | METALAIRE | 5700 | ALUMINUM | LAY IN | 24x24 | 30 | 0.1 | A,B,C,F |
| C | SUPPLY | METALAIRE | 5700 | ALUMINUM | SURFACE | SEE PLAN | 30 | 0.1 | A,B,C,F,G |
| D | SUPPLY | METALAIRE | V400D | ALUMINUM | DUCT | 12x12 | 30 | 0.1 | A,C,D,E,F,G |
| E | RETURN | METALAIRE | CC1 | ALUMINUM | LAY IN | 24x24 | 30 | 0.1 | C,F |
| F | TRANSFER | METALAIRE | DG DF | ALUMINUM | DOOR | SEE PLANS | 30 | 0.1 | C,F |
| G | TRANSFER | METALAIRE | RH | ALUMINUM | WALL | SEE PLANS | 30 | 0.1 | C,F |

NOTES:
A. NECK SIZE SHOWN ON PLANS.
B. 4 WAY THROW UNLESS INDICATED OTHERWISE ON PLANS.
C. BAKED ENAMEL FINISH, WHITE TO MATCH CEILING/WALL COLOR. VERIFY WITH ARCHITECT PRIOR TO ORDER.
D. FRONT BLADES PARALLEL TO HORIZONTAL DIMENSION. VERIFY WITH PLANS.
E. PROVIDE DOUBLE DEFLECTION BARS THAT ARE ADJUSTABLE.
F. FRAME TYPE TO MATCH CEILING/WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.
G. PROVIDE OPPOSED BLADE DAMPER THAT IS ADJUSTABLE FROM THE FACE OF THE DEVICE.

### FAN SCHEDULE

| TAG | MANUFACTURER | MODEL | MOUNTING | SERVES | CFM | ESP (IN) | MOTOR POWER | VOLTAGE | NOTES |
|---|---|---|---|---|---|---|---|---|---|
| EF-1 | GREENHECK | SP-B110 | CEILING | RESTROOM | 75 | 0.25 | 80 WATTS | 120/1/60 | ALL |
| EF-2 | GREENHECK | SP-B110 | CEILING | RESTROOM | 75 | 0.25 | 80 WATTS | 120/1/60 | ALL |

NOTES:
A. PROVIDE WITH MANUFACTURER'S STANDARD HANGING KIT AND CEILING MOUNT TRIM.
B. PROVIDE WITH DISCONNECT SWITCH.
C. PROVIDE WITH BACKDRAFT DAMPER.
D. PROVIDE WITH ROOF DISCHARGE CAP FOR EXHAUST THROUGH THE ROOF. COMBINE EXHAUST OF ALL EXHAUST FANS FOR A SINGLE DISCHARGE.
E. INTERLOCK FAN WITH ASSOCIATED RESTROOM LIGHT SWITCH

### OUTSIDE AIR CALCULATIONS

| TAG | OCCUPANCY CLASSIFICATION | AREA ($FT^2$) | OCCUPANTS (QTY) | $R_p$ (CFM/PERSON) | MIN OCCUPANT O/A (CFM) | $R_a$ ($CFM/FT^2$) | MIN AREA O/A (CFM) | MIN REQUIRED O/A (CFM) | PROVIDED |
|---|---|---|---|---|---|---|---|---|---|
| RTU-1 | STORAGE | 1185 | 0 | 0 | 0 | 0.12 | 142 | 142 | 150 |
| RTU-2 | SALES | 2780 | 42 | 7.5 | 315 | 0.12 | 334 | 649 | 650 |
| RTU-3 | SALES | 2780 | 42 | 7.5 | 315 | 0.12 | 334 | 649 | 650 |
| RTU-4 | SALES | 3260 | 49 | 7.5 | 367.5 | 0.12 | 391 | 759 | 775 |
| | | | | | | | | REQ'D | PROVIDED |
| CALCULATIONS PER ARKANSAS MECHANICAL CODE | | | | | | | | 2198 | 2,225 |

### HEAT LOSS SCHEDULE

| EXTERIOR FACE | AREA ($FT^2$) | U-VALUE | HEAT LOSS THROUGH SURFACE (MBH) | OUTSIDE AIR CFM | HEAT LOSS FROM OUTSIDE AIR (MBH) | HEAT LOSS (MBH) |
|---|---|---|---|---|---|---|
| EAST | 1385 | 0.042 | 5 | -- | -- | 5 |
| NORTH | 1720 | 0.042 | 6 | -- | -- | 6 |
| WEST | 1385 | 0.042 | 5 | -- | -- | 5 |
| SOUTH | 1720 | 0.042 | 6 | -- | -- | 6 |
| ROOF | 10587 | 0.033 | 32 | 2225 | 217 | 249 |
| INDOOR TEMPERATURE (DEGF): | 70 | | R-VALUE WALL: | 24 | TOTAL HEAT LOSS (MBH) | 272 |
| OUTDOOR TEMPERATURE (DEGF): | -20 | | R-VALUE ROOF: | 30 | HEAT PROVIDED (MBH) | 555 |
| CHANGE IN TEMPERATURE (DEGF): | 90 | | | | | |

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KS
PROFESSIONAL ENGINEER
10/11/2022

GREGORY P. GLADFELTER PE

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| Date | 10/11/2022 |
| Job Number | 20-002.72 |
| Drawn By | JMW |
| Checked By | GH |

Revisions

| Number | Date | Description |
|---|---|---|
| | | |

M1.0
MECHANICAL HVAC PLAN

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