MECHANICAL DUCTWORK AND INSULATION NOTES

DUCTWORK SHALL BE GALVANIZED SHEET METAL FABRICATED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA RECOMMENDATIONS. FIBERGLASS DUCTBOARD SHALL NOT BE USED AND WILL NOT BE ACCEPTED.

DUCTWORK SHALL BE INSULATED AS FOLLOWS:

INTERIOR RECTANGULAR DUCTWORK (EXPOSED IN THE SUPPORT AREA)
ALL INTERIOR RECTANGULAR SUPPLY AND RETURN DUCTWORK EXPOSED IN THE SUPPORT AREA SHALL PROVIDED WITH 1" LINER.
ALL CONCEALED DUCTWORK ABOVE LAY-IN CEILINGS (SALES AREA)
ALL CONCEALED DUCTWORK RUN ABOVE LAY-IN CEILING SHALL BE PROVIDED WITH 1" LINER.
ALL CONCEALED DUCTWORK ABOVE LAY-IN CEILINGS (OFFICE/HALL/RESTROOMS)
ALL CONCEALED DUCTWORK RUN ABOVE LAY-IN CEILING SHALL BE WRAPPED WITH 2" FIBERGLASS INSULATION.

INTERNAL INSULATION SHALL BE MINIMUM 1" THICK 1-1/2 PCF FIBERGLASS, NEOPRENE COATED, AND ADHERED WITH AN APPROVED ADHESIVE WITH 100% COVERAGE AND STICK CUPS ON 12" CENTERS. INTERNALLY LINED INSULATION SHALL MEET BACTERIOLOGICAL STANDARD ASTM C 665. SHEET METAL SIZES SHALL BE INCREASED ACCORDINGLY TO ALLOW FOR DUCT LINER.

MECHANICAL PLAN KEYED NOTES

1A EXISTING 4 TON PACKAGED ROOFTOP UNIT WITH GAS HEAT TO REMAIN. REPAIR/REPLACE DAMAGED CONDENSATE TRAP AND CONDENSATE PIPING AS REQUIRED. PROVIDE NEW SPLASH BLOCK. PROVIDE ADDITIONAL SUPPORT FOR CANTILEVERED ENDS OF HVAC UNIT SO THAT UNIT IS LEVEL. REPAIR/REPLACE/ADD FLASHING AS REQUIRED TO MAKE EXISTING INSTALLATION WEATHER TIGHT. MAIN SUPPLY AND RETURN DUCTWORK IS EXISTING TO REMAIN EXCEPT AS NOTED ON PLANS. PROVIDE CLEANING OF THE INTERIOR OF ALL EXISTING SUPPLY AND RETURN DUCTWORK THAT IS TO REMAIN. ALL SUPPLY DIFFUSERS INCLUDING FLEXIBLE DUCT RUN-OUTS SHALL BE REMOVED. PROVIDE ALL NEW SUPPLY DIFFUSERS AND FLEXIBLE DUCT RUN-OUTS AS SHOWN ON PLANS. REPLACE EXISTING RETURN DIFFUSERS AND RELOCATE TO NEW LOCATIONS AS SHOWN ON PLANS. CONTRACTOR SHALL PROVIDE ALL NEW CONTROLS AND DUCT SMOKE DETECTION AS INDICATED ON THE PLANS, SCHEDULES AND NOTES. PROVIDE COMPLETE TEST AND BALANCE PER AIR FLOWS AS SHOWN ON PLANS. BALANCE OUTSIDE AIR CFM TO QUANTITY AS SHOWN IN VENTILATION CALCULATIONS.

1B EXISTING PACKAGED ROOFTOP UNIT WITH GAS HEAT TO BE REPLACED WITH NEW PACKAGED ROOFTOP UNIT OF SAME CAPACITY. EXISTING ROOF CURB SHALL BE REUSED. PROVIDE AN "ADAPTA-CURB" TO MATE UP NEW ROOFTOP UNIT TO EXISTING ROOF CURB. PROVIDE NEW GAS CONNECTION. PROVIDE NEW CONDENSATE TRAP/PIPING AND SPILL ONTO SPLASH BLOCK. ALL EXISTING DUCTWORK AND DIFFUSERS SHALL BE REMOVED). CONTRACTOR SHALL PROVIDE ALL NEW DUCTWORK, DIFFUSERS, CONTROLS AND DUCT SMOKE DETECTION AS INDICATED ON THE PLANS, SCHEDULES AND NOTES. PROVIDE COMPLETE TEST AND BALANCE PER AIR FLOWS AS SHOWN ON PLANS. BALANCE OUTSIDE AIR CFM TO QUANTITY AS SHOWN IN VENTILATION CALCULATIONS.

1C DEMO EXISTING 5 TON PACKAGED ROOFTOP UNIT WITH GAS HEAT, CONDENSATE PIPING AND GAS PIPING. PROVIDE INSULATED CURB CAP OVER EXISTING ROOF CURB. SEAL AND MAKE WEATHER TIGHT. CONTRACTOR SHALL INSTALL NEW 4 TON HVAC UNIT IN NEW LOCATION. PROVIDE ROOF CURB COMPATIBLE WITH EXISTING METAL BUILDING ROOF. SEE DETAILS 3/M3 AND 4/M3. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INSTALLATION INFORMATION. UNIT LOCATIONS SHOWN ARE APPROXIMATE ONLY. FIELD COORDINATE FINAL LOCATION WITH STRUCTURAL DRAWINGS AND ACTUAL METAL BUILDING CONDITIONS. ROOF OPENINGS FOR DUCT DROPS SHALL BE CENTERED BETWEEN ROOF PURLINS. DUCT DROPS SHOULD NOT BE LOCATED DIRECTLY OVER ANY WALLS THAT EXTEND UP TO THE BOTTOM OF THE ROOF DECK. PROVIDE NEW GAS CONNECTION. PROVIDE NEW CONDENSATE TRAP/PIPING AND SPILL ONTO SPLASH BLOCK. CONTRACTOR SHALL PROVIDE ALL NEW DUCTWORK, DIFFUSERS, CONTROLS AND DUCT SMOKE DETECTION AS INDICATED ON THE PLANS, SCHEDULES AND NOTES. PROVIDE COMPLETE TEST AND BALANCE PER AIR FLOWS AS SHOWN ON PLANS. BALANCE OUTSIDE AIR CFM TO QUANTITY AS SHOWN IN VENTILATION CALCULATIONS.

2 CONTRACTOR SHALL PROVIDE DUCT SMOKE DETECTOR IN RETURN AIR DUCT (OR SUPPLY AIR DUCT IF REQUIRED BY LOCAL CODES). DUCT SMOKE DETECTOR SHALL BE WIRED TO AUDIO/VISUAL DEVICE AND TO SEPARATE REMOTE TEST STATION LOCATED ON COMMUNICATION BOARD. REFER TO 1/E4 FOR LOCATION OF REMOTE TEST STATION AND ADDITIONAL INSTALLATION DETAIL.

3 REMOTE SPACE TEMPERATURE SENSOR FURNISHED WITH EMS AND INSTALLED BY CONTRACTOR. SEE EM SHEETS FOR INSTALLATION DETAILS. FOR MOUNTING OF REMOTE SPACE TEMPERATURE SENSOR, REFER TO EMS DRAWING DOMINICO INSTALLATION INSTRUCTIONS.

4 ENERGY MANAGEMENT SYSTEM (EMS). EMS SHALL BE SUPPLIED BY FAMILY DOLLAR AND INSTALLED BY CONTRACTOR. SEE EM SHEETS FOR INSTALLATION DETAILS AND RESPONSIBILITIES.

5 HVAC UNIT CONTROLLER FURNISHED WITH EMS AND INSTALLED BY CONTRACTOR. MOUNT HVAC UNIT CONTROLLER ON COMMUNICATION BOARD. SEE DETAIL 1/E4 FOR EXACT MOUNTING LOCATION. SEE EM SHEETS FOR INSTALLATION DETAILS.

6 CO2 SENSOR FURNISHED WITH EMS AND INSTALLED BY CONTRACTOR. MOUNT CO2 SENSOR TO COLUMN. REFER TO EM SHEETS FOR INSTALLATION DETAILS AND DEMAND CONTROLLED VENTILATION SETUP INSTRUCTIONS. FIELD COORDINATE FINAL LOCATION WITH FD PROJECT MANAGER AND SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION.

7 EXISTING RETURN GRILLE TO BE RELOCATED AND REPLACED WITH NEW RETURN GRILLE AS SCHEDULED. BALANCE TO AIR QUANTITY AS SHOWN ON PLANS. EXTEND/MODIFY EXISTING DUCTWORK AS REQUIRED FOR RECONNECTION TO NEW RETURN GRILLE.

8 EXHAUST DUCT OUT TO HOODED WALL CAP. MOUNT EXHAUST DUCTWORK AS HIGH AS POSSIBLE.

9 REMOVE EXISTING GAS UNIT HEATER AND ALL ASSOCIATED GAS PIPING, FLUE VENT PIPING AND ROOF TERMINATION CAP. COORDINATE REPAIR OF ROOF OPENING WITH GENERAL CONTRACTOR.

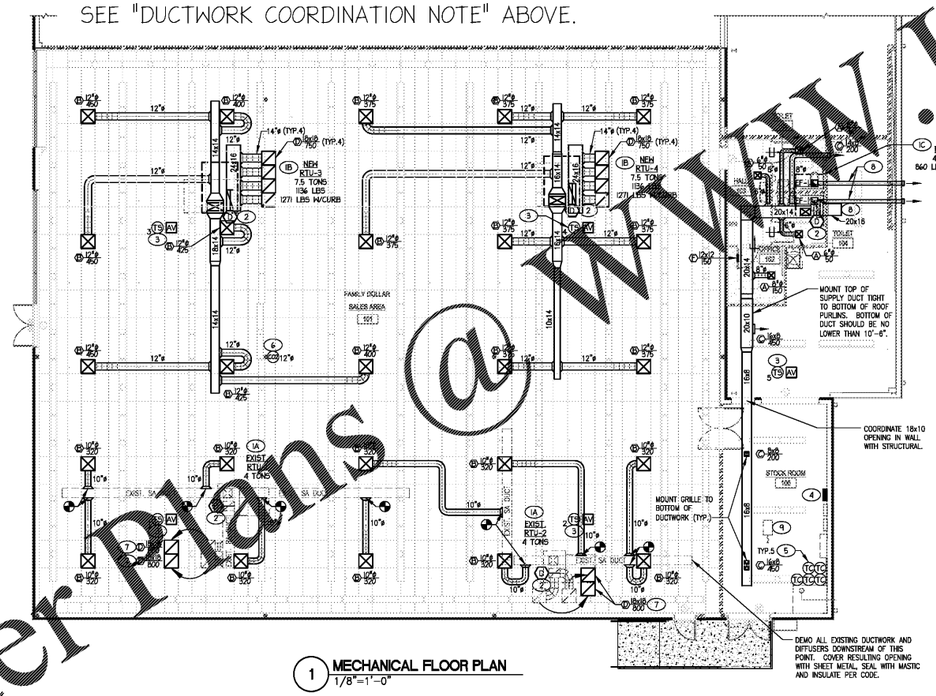
MECHANICAL LEGEND

- 18x14 — RECTANGULAR DUCT
- ø14 — ROUND METAL DUCT
- ø14 — FLEX/RIGID ROUND DUCT
- S 12 / R 10 — ELBOW WITH TURNING VANES
- VOLUME DAMPER
- SUPPLY TAP WITH VOLUME DAMPER
- SUPPLY TAP
- SUPPLY DIFFUSER/GRILLE
- RETURN REGISTER/GRILLE
- EXHAUST REGISTER/GRILLE
- VERTICAL SUPPLY DUCT
- VERTICAL RETURN DUCT
- VERTICAL EXHAUST DUCT
- EXHAUST DIFFUSER/GRILLE
- EM MECHANICAL EQUIPMENT TYPE XX
- CEILING EXHAUST FAN
- TC HVAC UNIT CONTROLLER
- TS REMOTE SPACE TEMPERATURE SENSOR
- D DUCT SMOKE DETECTOR. COORDINATE INSTALLATION RESPONSIBILITIES WITH ALL CONTRACTORS.
- CO2 CO2 SENSOR FURNISHED WITH EMS
- LOUVERED DOOR (SEE ARCHITECTURAL DRAWINGS)
- 1" DOOR UNDER CUT
- FD U.L. FIRE DAMPER
- AV AUDIO/VISUAL DEVICE TIED TO DUCT SMOKE DETECTOR. COORDINATE INSTALLATION RESPONSIBILITIES WITH ALL CONTRACTORS. RECESS IN CEILING GRID IN SALES AREA. SURFACE MOUNT TO BOTTOM OF JOIST IN STOCK ROOM.
- POINT OF CONNECTION TO EXISTING.

ALERT. THERE IS LIMITED SPACE ABOVE THE CEILING. SEE "DUCTWORK COORDINATION NOTE" ABOVE.

DUCTWORK COORDINATION NOTE:

FOR THE SALES AREAS, A NEW LAY-IN CEILING IS BEING INSTALLED AT 10'-6" AFF. BOTTOM OF SUPPLY AND RETURN DUCTWORK IN SALES AREA SHALL BE INSTALLED MINIMUM OF 10'-8" AFF. FOR THE STOCK ROOM AREA, ROOM WILL BE OPEN TO THE DECK. BOTTOM OF SUPPLY AND RETURN DUCTWORK IN STOCK ROOM SHALL BE INSTALLED 10'-6" AFF.
FOR THE HALL AND RESTROOMS, A CEILING IS BEING INSTALLED AT 8'-0" AFF. BOTTOM OF SUPPLY AND RETURN DUCTWORK SHALL BE RUN ABOVE CEILING TO ALLOW ADEQUATE ACCESS. IT IS THE RESPONSIBILITY OF CONTRACTOR TO FIELD COORDINATE DUCTWORK SIZES AND LAYOUT WITH EXISTING BUILDING CONDITIONS PRIOR TO FABRICATION AND INSTALLATION OF ANY DUCTWORK AND NOTIFY ARCHITECT/ENGINEER IMMEDIATELY OF ANY CONFLICTS/INTERFERENCES. CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS FOR RELOCATION OF ANY CONDUIT, BRACING, SPRINKLER PIPING, ETC. IN ORDER TO ALLOW DUCTWORK TO BE INSTALLED PER THE PLANS. CONTRACTOR SHALL PROVIDE OFFSETS/TRANSITIONS AS NECESSARY. CONTRACTOR MAY ALTER DUCTWORK SIZES IF NECESSARY AS LONG AS DUCTWORK CROSS-SECTIONAL AREA IS MAINTAINED.



1 MECHANICAL FLOOR PLAN
1/8"=1'-0"

MECHANICAL DEMOLITION NOTES:

RTU-1 AND RTU-2 ARE EXISTING TO REMAIN INCLUDING MAIN SUPPLY AND RETURN DUCTWORK. FOR RTU-1 AND RTU-2, ALL SUPPLY DIFFUSERS INCLUDING FLEXIBLE DUCT RUN-OUTS, AND RETURN DIFFUSERS SHALL BE REMOVED. CONTRACTOR SHALL REMOVE EXISTING ROOFTOP HVAC UNITS RTU-3,4 AND 5 ONLY. FOR RTU-3 AND RTU-4, EXISTING ROOF CURBS AND ROOF OPENINGS SHALL BE REUSED. FOR RTU-5, EXISTING CURB SHALL REMAIN AND SHALL BE COVERED WITH INSULATED CURB CAP. ALL DUCTWORK AND DIFFUSERS FOR RTU-3,4 AND 5 SHALL BE REMOVED. FOR ALL UNITS, ALL THERMOSTATS AND CONTROLS SHALL BE REPLACED WITH NEW AS SHOWN ON PLANS. REMOVE ALL EXISTING CEILING EXHAUST FANS AND DUCTWORK. REMOVE EXISTING GAS UNIT HEATER IN STOCK ROOM. SEAL, CAP OFF AND INSULATE RESULTING OPENINGS IN EXTERIOR WALLS OR ROOF. FIELD COORDINATE FINAL SCOPE OF DEMOLITION WORK WITH GENERAL CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.

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