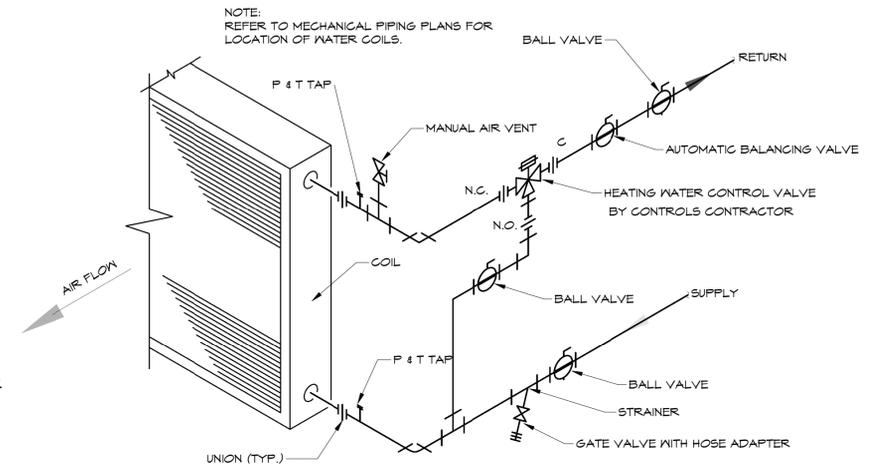


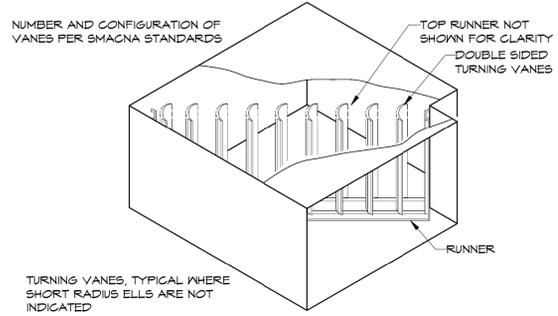
NOTE: INSTALL MINIMUM TWO ELBOWS FOR SOUND ATTENUATION.
(TYPICAL FOR ROOF MOUNTED EXHAUST FANS)

3 ROOF EXHAUST FAN DETAIL
NTS



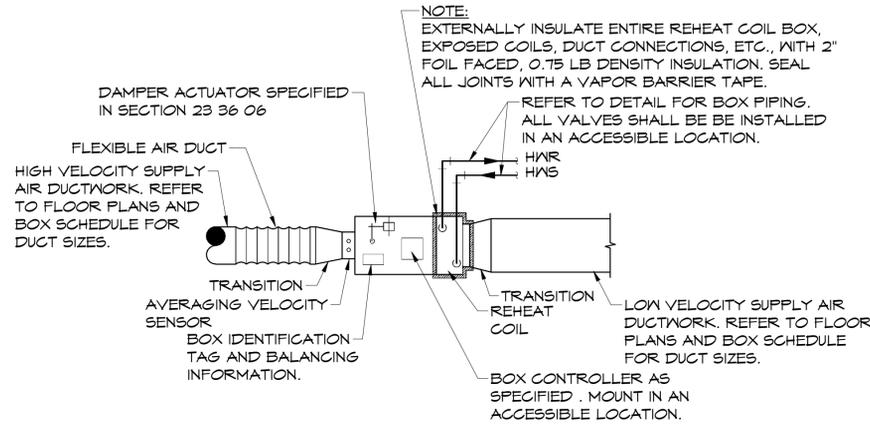
NOTE:
1. REFER TO MECHANICAL PIPING PLAN SHEETS FOR 3-WAY VALVE LOCATIONS.
2. ALL CONTROL VALVES TO BE PROVIDED BY CONTROLS CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.
3. ALL OTHER PIPING ACCESSORIES SHOWN ABOVE WILL BE PROVIDED AND INSTALL BY MECHANICAL CONTRACTOR.

6 HOT WATER COIL WITH 3 WAY VALVE DETAIL
NTS



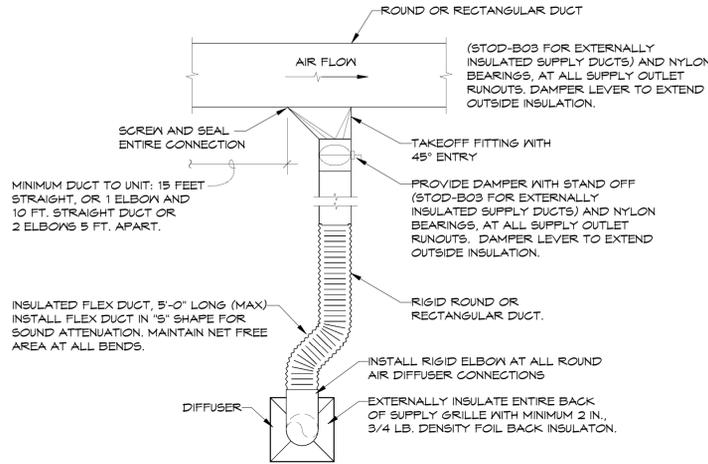
TURNING VANES, TYPICAL WHERE SHORT RADIUS ELLS ARE NOT INDICATED

2 TURNING VANE DETAIL
NTS

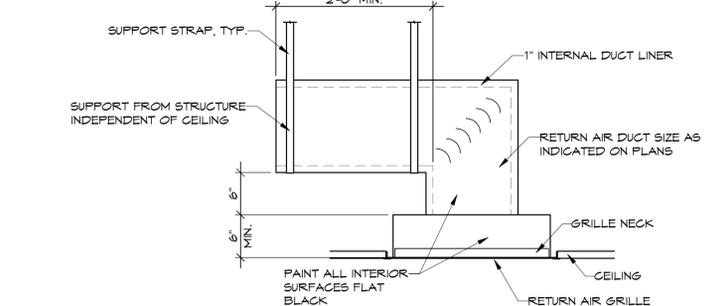


NOTE: EXTERNALLY INSULATE ENTIRE REHEAT COIL BOX, EXPOSED COILS, DUCT CONNECTIONS, ETC., WITH 2" FOIL FACED, 0.75 LB DENSITY INSULATION. SEAL ALL JOINTS WITH A VAPOR BARRIER TAPE.
REFER TO DETAIL FOR BOX PIPING. ALL VALVES SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION.
DAMPER ACTUATOR SPECIFIED IN SECTION 23 36 06
FLEXIBLE AIR DUCT
HIGH VELOCITY SUPPLY AIR DUCTWORK. REFER TO FLOOR PLANS AND BOX SCHEDULE FOR DUCT SIZES.
TRANSITION AVERAGING VELOCITY SENSOR
BOX IDENTIFICATION TAG AND BALANCING INFORMATION.
TRANSITION REHEAT COIL
LOW VELOCITY SUPPLY AIR DUCTWORK. REFER TO FLOOR PLANS AND BOX SCHEDULE FOR DUCT SIZES.
BOX CONTROLLER AS SPECIFIED. MOUNT IN AN ACCESSIBLE LOCATION.

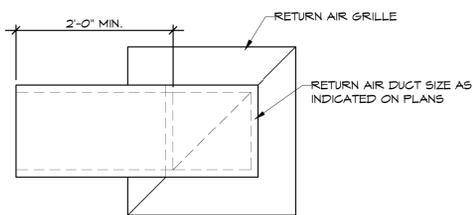
5 VAV BOX DETAIL WITH HOT WATER REHEAT
NTS



1 SUPPLY DUCT CONNECTION DETAIL
NTS



ELEVATION



PLAN

4 RETURN AIR GRILLE BOOT DETAIL
NTS

VAV TERMINAL UNIT WITH HOT WATER REHEAT SEQUENCE OF OPERATION:

MODE OF OPERATION:

THE UNIT MODE OF OPERATION SHALL BE EITHER OCCUPIED, UNOCCUPIED, OR MORNING WARMUP BASED ON A BUILDING AUTOMATION SYSTEM (BAS) SCHEDULE, AN OPERATOR OVERRIDE COMMAND FROM THE BAS, OR A TEMPORARY OCCUPANCY OVERRIDE SIGNAL FROM THE SPACE TEMPERATURE SENSOR. COMMANDS OR OVERRIDES FROM THE BAS SHALL TAKE PRIORITY OVER ANY LOCAL CHANGES MADE AT THE SPACE SENSOR.

OCCUPIED MODE:

THE SPACE TEMPERATURE SENSOR SHALL BE SET FOR A SINGLE COOLING SETPOINT WITH A HEATING SETPOINT DIFFERENTIAL OF 3°F. THE COOLING SPACE TEMPERATURE SETPOINT RANGE SHALL BE LIMITED BETWEEN 70°F AND 80°F. THE HEATING SPACE TEMPERATURE SETPOINT RANGE SHALL BE LIMITED BETWEEN 65°F AND 74°F.

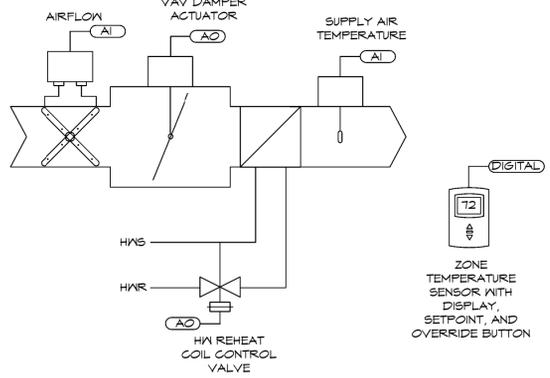
ON AN INCREASE IN SPACE TEMPERATURE ABOVE THE COOLING SETPOINT, THE UNIT AIR DAMPER SHALL MODULATE BETWEEN THE COOLING MINIMUM AND COOLING MAXIMUM AIRFLOW RATES TO MAINTAIN THE SPACE COOLING SETPOINT. AS THE SPACE TEMPERATURE FALLS BELOW THE COOLING SETPOINT, THE UNIT AIR DAMPER SHALL MODULATE TO MAINTAIN THE COOLING MINIMUM AIRFLOW RATE.

ON A DECREASE IN SPACE TEMPERATURE BELOW THE HEATING SETPOINT, THE UNIT AIR DAMPER SHALL MODULATE TO MAINTAIN THE SCHEDULED REHEAT AIRFLOW RATE AND THE HEATING WATER CONTROL VALVE SHALL MODULATE TO MAINTAIN THE SPACE HEATING SETPOINT.

UNOCCUPIED MODE:

DURING UNOCCUPIED MODE, THE UNIT SHALL OPERATE AS DESCRIBED IN THE OCCUPIED MODE WITH THE EXCEPTION THAT NO MINIMUM COOLING FLOW SHALL BE MAINTAINED SINCE VENTILATION IS NOT REQUIRED. DURING UNOCCUPIED OPERATION, THE SYSTEM SHALL BE SUBJECT TO THE UNOCCUPIED MODE HEATING AND COOLING SETPOINTS. THE UNOCCUPIED HEATING SETPOINT SHALL BE 65°F. THE UNOCCUPIED COOLING SETPOINT SHALL BE 80°F (ADJ.).

THE SPACE TEMPERATURE SENSOR SHALL BE EQUIPPED WITH A TEMPORARY OCCUPANCY OVERRIDE FEATURE THAT SHALL OVERRIDE THE SYSTEM INTO OCCUPIED MODE FOR A PERIOD OF 2 HOURS (ADJ.).



7 VAV CONTROL
NTS

NOTES:
REFER TO SHEET M1.1 FOR HVAC NOTES, LEGEND AND SCHEDULES
REFER TO SHEET M2.0 FOR HVAC DEMO PLANS
REFER TO SHEET M2.1 FOR HVAC PLANS.
REFER TO SHEET M3.1 FOR HVAC DETAILS.

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