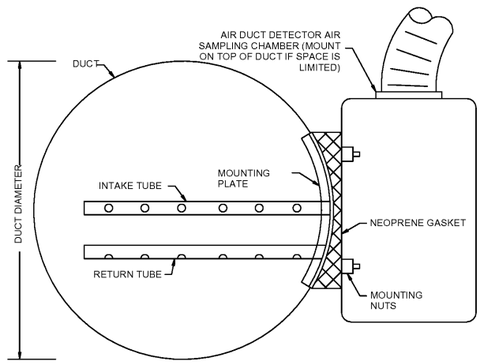
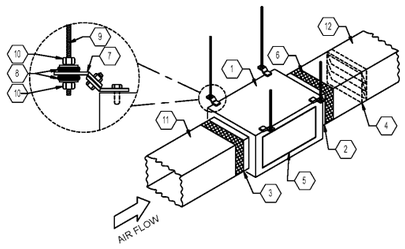


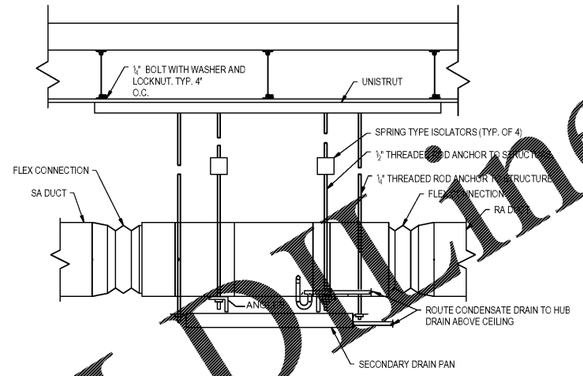
NOTES:
1. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. PROVIDE ACCESS DOOR AT SAMPLING TUBES.
3. PROVIDE NEW SMOKE DETECTORS IN SUPPLY DUCTWORK AND IN RETURN DUCTWORK PRIOR TO OUTSIDE AIR MIXING POINT. COORDINATE WITH BUILDING ALARM SYSTEM.

1 DUCT SMOKE DETECTOR INSTALLATION DETAIL
NOT TO SCALE

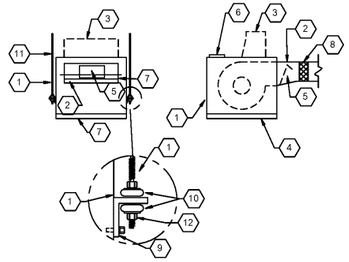


DETAIL NOTES:
1. GALVANIZED STEEL HOUSING
2. HORIZONTAL DISCHARGE COLLAR
3. HORIZONTAL INLET COLLAR
4. GRAVITY BACKDRAFT DAMPER
5. ACCESS PANEL (BOTH SIDES)
6. FLEXIBLE DUCT CONNECTOR
7. MOUNTING ANGLE BRACKET
8. VIBRATION ISOLATOR - TOP & BOTTOM
9. ALL THREADED HANGER ROD (TOTAL OF FOUR). SUPPORT FROM BUILDING PER FAN MANUFACTURER'S RECOMMENDATIONS.
10. NUT AND WASHER
11. INLET DUCT
12. DISCHARGE DUCT

2 INLINE CABINET FAN DETAIL
NOT TO SCALE



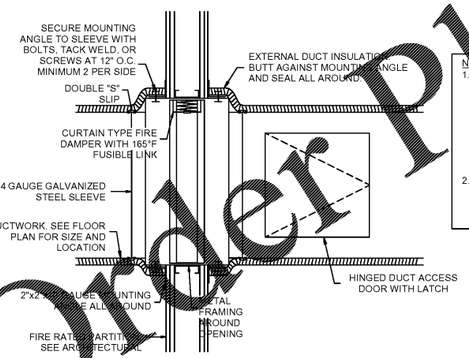
3 ABOVE CEILING BLOWER COIL UNIT DETAIL
DIAGRAMATIC



KEYNOTES:
1. GALVANIZED STEEL HOUSING
2. HORIZONTAL DISCHARGE DUCT CONNECTION
3. OPTIONAL VERTICAL DISCHARGE
4. CEILING GRILLE
5. BACKDRAFT DAMPER
6. EXTERNAL ELECTRICAL ACCESS COVER
7. REMOVABLE AIRTIGHT ACCESS PANEL
8. FLEXIBLE DUCT CONNECTOR
9. ADJUSTABLE MOUNTING FLANGE
10. VIBRATION ISOLATOR, TOP AND BOTTOM
11. 3/16" DIAMETER THREADED HANGER RODS, TOTAL OF FOUR, SUPPORT FROM BUILDING STRUCTURE
12. NUT AND WASHER, TOP AND BOTTOM

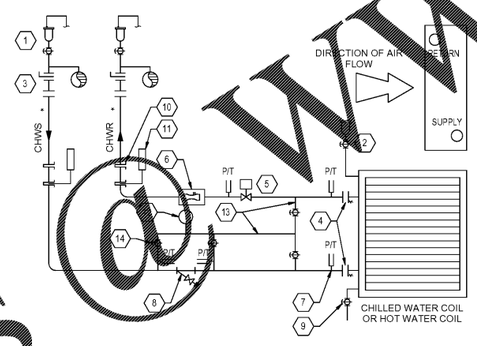
NOTE:
1. PROVIDE WALL CAP WITH ALUMINUM CONSTRUCTION, BUILT IN BACKDRAFT DAMPER AND BIRDSCREEN, AND BAKED ENAMEL FINISH.
2. PROVIDE WITH PAINTABLE WHITE CEILING GRILLE.
3. COORDINATE WALL CAP AND GRILLE COLOR WITH ARCHITECT.

4 CEILING CABINET EXHAUST FAN DETAIL
NOT TO SCALE



NOTES:
1. OPENING IN WALL SHALL BE MINIMUM 1/8" PER FOOT LARGER THAN OVERALL SIZE OF DAMPER AND SLEEVE ASSEMBLY. MAXIMUM OPENING SHALL NOT EXCEED 1/8" PER FOOT PLUS ONE INCH.
2. OPENING SHALL NOT BE LESS THAN 1/4" LARGER FOR ANY SIZE DAMPER AND SLEEVE ASSEMBLY.

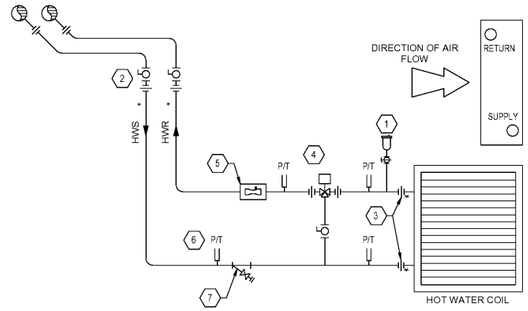
5 VERTICAL FIRE DAMPER IN WALL INSTALLATION DETAIL
NOT TO SCALE



COIL CONNECTION DIAGRAM DETAIL NOTES:
1. CHILLED WATER SUPPLY AND RETURN PIPING MATERIAL SHALL BE PER THE SPECIFICATIONS. INSTALL BOLTED FLANGES IN ALL LOCATIONS INDICATED AND ELSEWHERE WHERE REQUIRED FOR EASE OF SERVICE.
2. INSTALL 2-WAY CONTROL VALVE WITH ACTUATOR IN VERTICAL POSITION.
3. INSTALL P/T PORTS AND GAGE PIPING IN FORGED STEEL THREDOLETS OR REDUCING TEE. HALF COUPLINGS ARE NOT ALLOWABLE.
4. PROVIDE ALL VALVES, P/T PLUGS AND VENTURI MEASURING PORTS WITH EXTENDED STEMS TO ACCOMMODATE INSULATION THICKNESS.
5. INSTALL COIL COMPONENTS IN THE PHYSICAL RELATIONSHIP INDICATED WITH RESPECT TO THE COIL, AND TO EACH OTHER.
6. ARRANGE PIPING SUCH THAT THE ENTIRE COIL CONNECTION ASSEMBLY CAN BE REMOVED BY DISCONNECTING AT POINTS MARKED WITH AN ASTERISK (*) FOR COIL SERVICING. PIPING SHALL NOT INTERFERE WITH ACCESS TO ANY COMPONENT OF THE AIR HANDLING UNIT THAT REQUIRES SERVICE.
7. INSTALL COIL CONNECTION PIPING AND COMPONENTS IN EXACT PHYSICAL CONFIGURATION AND ROUTING INDICATED UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER AND THE OWNER.
8. INSTALL THERMOMETER AND PRESSURE GAGES FOR CLEAR READOUT VIEW FROM A SINGLE POSITION AT WORKING HEIGHT.
9. VALVES INDICATED FOR SHUTOFF SERVICE SHALL BE PROVIDED WITH ENGRAVED PHENOLIC TAG ON BRASS CHAIN INDICATING "NORMALLY OPEN SERVICE VALVE".
10. PROVIDE DIELECTRIC UNIONS AT ALL DISSIMILAR METAL PIPE CONNECTIONS.
11. PROVIDE COMBINATION TIGHT SHUTOFF VALVE AND BALANCING VALVE WITH MEMORY POSITIONING DEVICE AND P/T PLUGS. AFTER THE HYDRONIC TEST AND BALANCE HAS BEEN COMPLETED THE CONTRACTOR SHALL POSITION THE MEMORY STOP ON EACH VALVE TO PREVENT OPENING OF THE VALVE BEYOND THE FINAL BALANCE SETTINGS. PROVIDE WITH ENGRAVED PHENOLIC TAG ON BRASS CHAIN INDICATING "BALANCE VALVE. DO NOT MOVE MEMORY STOP. RETURN TO BALANCE SETTING".

6 TYPICAL CHILLED WATER COIL CONNECTION DIAGRAM RUNOUT PIPING SIZE 2" AND LARGER
NOT TO SCALE

DETAIL NOTES (#)
1. 1/2" AUTOMATIC AIR VENT WITH 1/4" AIR CHAMBER. SEE AUTOMATIC AIR VENT DETAIL.
2. 1/4" AUTOMATIC AIR VENT IN COIL HEADER WITH 4" AIR CHAMBER AND 1/4" BALL VALVE.
3. BUTTERFLY VALVE, ISOLATION SERVICE, FLANGED
4. SERVICE FLANGE.
5. 2-WAY PRESSURE INDEPENDENT FLOW CONTROL VALVE. CONNECT TO DDC.
6. CAST IRON MANUAL VENTURI WITH CALIBRATED BALANCING VALVE, FLANGED. INSTALL PER MFR RECOMMENDATIONS. SEE NOTE 11.
7. PRESSURE/TEMPERATURE PORT WITH EXTENDED NECK, TYPICAL.
8. CAST IRON Y-STRAINER, FLANGED. PROVIDE WITH BLOWDOWN VALVE, 3/4" HOSE BIB AND CAP.
9. 3/8" COPPER COIL DRAIN WITH BALL VALVE.
10. STAINLESS STEEL WELL FOR DDC TEMPERATURE TRANSMITTER. COORDINATE WITH CONTROLS CONTRACTOR. WELLS SHALL BE PROVIDED BY CONTROLS CONTRACTOR.
11. STAINLESS STEEL WELL FOR LIQUID-IN-GLASS THERMOMETER. 1/2" NPT, LENGTH TO SUIT INSTALLATION LOCATION AND PIPE SIZE. PROVIDE THERMOMETER'S STEM LENGTH TO SUIT PIPE DIAMETER. RANGE: 0° TO 120°F FOR CHILLED WATER, O° TO 250°F FOR HOT WATER.
12. PRESSURE GAUGE, 4-1/2" DIAL SIZE, LIQUID-FILLED. RANGE 0-100 PSI.
13. GAGE PIPING. 1/4" STAINLESS STEEL PIPING WITH ALL THREADED FITTINGS. PROVIDE WITH UNIONS AND 1/4" BALL VALVE AS REQUIRED.
14. 1/4" BALL VALVES SHALL BE STAINLESS STEEL WITH LATCH LOCK HANDLE.



DETAIL NOTES (#)
1. 1/4" MANUAL AIR VENT WITH 4" AIR CHAMBER AND 1/4" BALL VALVE.
2. BALL VALVE FOR ISOLATION SERVICE, SCREWED
3. SERVICE UNION.
4. 3-WAY CONTROL VALVE. CONNECT TO DDC.
5. MANUAL VENTURI WITH CALIBRATED BALANCING VALVE, SCREWED, INSTALL PER MFR RECOMMENDATIONS.
6. PRESSURE/TEMPERATURE PORT WITH EXTENDED NECK, TYPICAL.
7. BRONZE STRAINER, SCREWED. PROVIDE WITH BLOWDOWN VALVE.
8. DIELECTRIC UNION AT POINT OF CONVERSION FROM STEEL PIPE TO COPPER TUBING, TYPICAL.

7 TYPICAL HOT WATER COIL CONNECTION DIAGRAM RUNOUT FOR AIR TERMINAL UNITS (3-WAY VALVE)
NOT TO SCALE

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ALABAMA LICENSE NUMBER 2542
901 W. Garden St. Pensacola, FL 32502
P: 850.435.0000 F: 850.432.6631
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2701 1st Avenue S
Birmingham, AL 35233
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MECHANICAL DETAILS

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