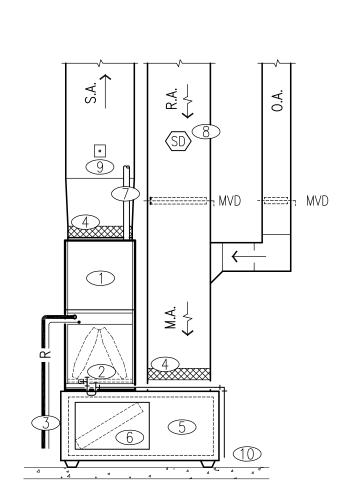


HANGER ROD. PRIME AND PAINT ALL METAL. -PROVIDE INSULATION SHIELD AND INSERT FOR ALL PIPING (8" MIN.) - INSULATION (VAPOR BARRIER TYPE IS REQUIRED FOR LOW - 1/2" DIA. HANGER RODS WITH TEMPERATURE PIPE) 36" MAX. SPACING ON EACH CHANNEL. PRIME AND PAINT ALL METAL. - PROVIDE HIGH COMPRESSIVE STRENGTH INSULATION (9 PCF 1" MAX.-MIN. DENSITY) UNDER INSULATION SHIELD - 1 5/8" 12 GAGE CHANNEL OR INSULATION SHIELD AT HANGER 2"x2"x1/4" ANGLE. PRIME AND PAINT ALL METAL. SIDE VIEW TRAPEZE HANGER ADJUSTABLE CLEVIS HANGER (TO 1000 LB. UNIFORM LOAD)

GALVANIZED STEEL HOUSING HORIZONTAL DISCHARGE DUCT CONNECTION OPTIONAL VERTICAL DISCHARGE BACKDRAFT DAMPER EXTERNAL ELECTRICAL ACCESS COVER REMOVABLE CEILING GRILLE CEILING CONSTRUCTION 8 FLEXIBLE DUCT CONNECTOR ADJUSTABLE MOUNTING FLANGE VIBRATION ISOLATOR, TOP AND BOTTOM 1) 3/16" DIAMETER THREADED HANGER RODS, TOTAL OF FOUR, SUPPORT FROM BUILDING STRUCTURE 12 NUT AND WASHER

TYPICAL PIPE HANGAR INSTALLATION DETAIL

CEILING EXHAUST FAN INSTALLATION DETAIL NOT TO SCALE



NOT TO SCALE

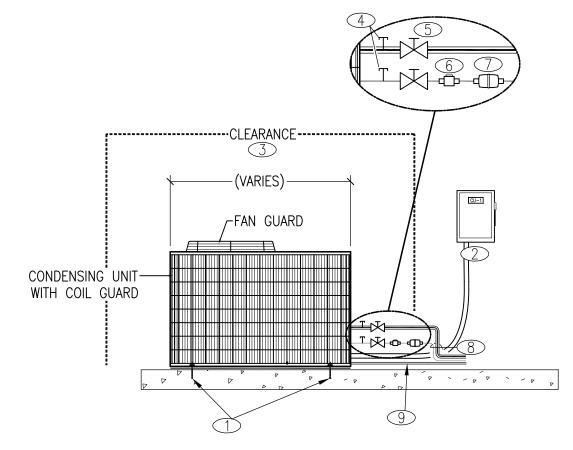
INSTALLATION DETAIL KEY NOTES:

- 1 AIR HANDLING UNIT AND MATCHING HEAT PUMP COIL. UNIT TO BE PROVIDED WITH ELECTRIC AUXILIARY HEATING COIL AND SINGLE POINT POWER CONNECTION. INSTALL UNIT IN ACCORDANCE TO MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. MAINTAIN CLEARANCE IN FRONT OF UNIT SUITABLE FOR REMOVAL OF AIR FILTERS.
- 2 CONDENSATE PIPING, TRAP AT UNIT AS SHOWN ON 'CONDENSATE DRAIN DETAIL' AND ROUTE TO FLOOR DRAIN IN MECHANICAL CLOSET. COORDINATE LOCATION OF DRAIN WITH PLUMBING CONTRACTOR.
- 3 REFRIGERANT PIPING SET AND CONTROL WIRING, ROUTE TO CORRESPONDING OUTDOOR UNIT AS SHOWN ON HVAC PLANS. SEE 'GENERAL HVAC NOTES', ALSO SEE 'REFRIGERANT PIPE MOUNTING
- 4 PLENUM SHALL HAVE TOP CONNECTION FOR RETURN AIR. PROVIDE FLEXIBLE DUCT CONNECTOR, TYPICAL OF SUPPLY AND RETURN DUCTS.
- 5 FOR VERTICAL AIR HANDLERS WITH A BOTTOM INTAKE AND TOP DISCHARGE AND A NOMINAL TONAGE OF 4-TONS OR LESS A FACTORY FABRICATED PLENUM BY MCDANIELS METALS IS REQUIRED. CONNECTION OF UNIT TO PLENUM SHALL BE AT FULL SIZE OF UNIT CONNECTION. PLENUM IS CONSTRUCTED WITH 1' THICK INSULATION AND HAS A MINIMUM FILTER SIZE OF
- 6 FILTER ACCESS DOOR DO NOT BLOCK WITH CONDENSATE PIPING. DOOR SHALL BE REMOVABLE WITHOUT THE USE OF TOOLS.
- APPROXIMATE LOCATION OF INCOMING ELECTRICAL SINGLE POINT POWER CONNECTION FOR FAN AND AUXILIARY ELECTRIC HEAT POWER.
- 8 INSTALL DUCT-MOUNTED SMOKE DETECTOR IN RETURN DUCT UPSTREAM OF OUTSIDE AIR DUCT CONNECTION. DETECTORS ARE FURNISHED BY DIVISION 16 CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR. INSTALL ON 2" RIGID BOARD INSULATION.
- 9 GLOBAL PLASMA SOLUTIONS BI-POLAR IONIZATION EQUIPMENT IN SUPPLY DUCTWORK. REFER TO AIR HANDLER SCHEDULE FOR SIZE. PROVIDE SECTION OF DUCTWORK AT DISCHARGE OF UNIT ADEQUATELY SIZED FOR INSTALLATION OF BI-POLAR IONIZATION TUBES. LOCATE AHU AND BI-POLAR IONIZATION TO ALLOW REMOVAL AND REPLACEMENT OF BIPOLAR IONIZATION TUBES.

NOT TO SCALE

10 PROVIDE 1" NEOPRENE ISOLATION PADS UNDERNEATH PLENUM.

16 GA. STAINLESS STEEL -COVER FOR REFRIGERANT REFRIGERANT PIPING PIPING. -PREINSULATED FLEXIBLE DUCT MAXIMUM 8 FEET IN LENGTH. MAINTAIN ONE DUCT DIAMETER SECURE COVER WITH 1/8" STAINLESS SECURE BASE USING 1/4"-(MINIMUM) TURNING RADIUS STEEL SHEET METAL SCREWS, 12" OC. STAINLESS STEEL LAG BOLTS AND -SHEET METAL BAND AND CONCRETE ANCHORS, 24" OC, BUTT INSULATION FIRMLY— AGAINST DIFFUSER BODY, MINIMUM 2 PER SIDE THREE #8 SHEETMETAL PULL VAPOR BARRIER DOWN SCREWS CONCRETE SLAB AND CLAMP WITH ←INSULATION ADHESIVE ALL AROUND -1" THICK BLANKET INSULATION. LAY OVER ENTIRE CEILING TILE GALVANIZED MOUNTING CHANNEL-BACK OF DIFFUSER BODY. WITH GALVANIZED FASTNERS REFRIGERANT PIPE COVER DETAIL - SQUARE CEILING DIFFUSER CEILING T-BAR NOT TO SCALE CEILING DIFFUSER INSTALLATION DETAIL



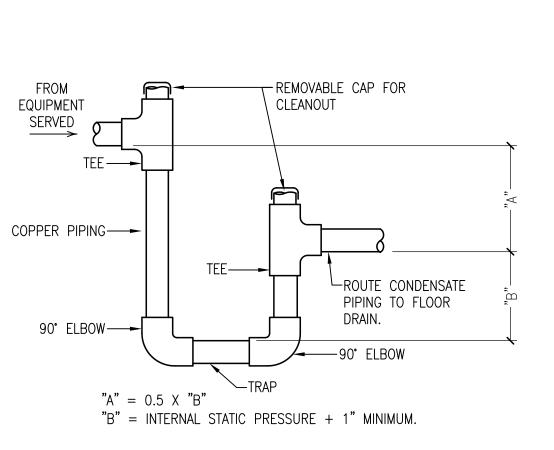
INSTALLATION DETAIL KEY NOTES:

CONDENSING UNITS AND HEAT PUMPS SHALL BE SECURELY ANCHORED TO THE CONCRETE WITH 1/4" TAPCON SCREWS (MINIMUM 4) THRU THE BASE OF THE UNIT PER 2004 FLORIDA MECHANICAL CODE REQUIREMENTS

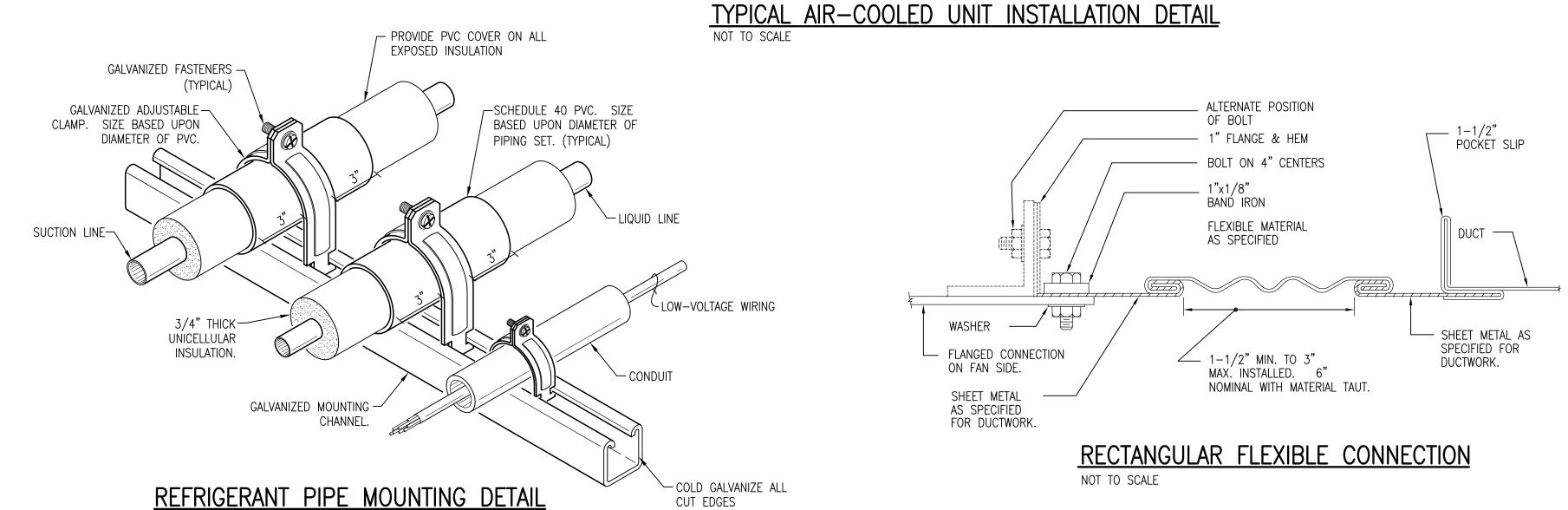
NOT TO SCALE

- 2 WEATHERPROOF DISCONNECT WITH LIQUID—TIGHT CONDUIT TO CONDENSING UNIT, SEE ELECTRICAL
- 3 VERTICAL AND HORIZONTAL CLEARANCES SHALL COMPLY WITH MANUFACTURER'S RECOMMENDATIONS.
- 4 REFRIGERANT GAUGE CONNECTION, TYPICAL FOR LIQUID LINE AND SUCTION LINE.
- 5 BACK-SEATED REFRIGERANT SERVICE VALVE, TYPICAL FOR LIQUID LINE AND SUCTION LINE.
- 6 SIGHT-GLASS WITH VISIBLE MOISTURE INDICATOR, EQUAL TO SPORLAN MODEL 'SA'. SIGHT GLASS SHALL BE VISIBLE, DO NOT COVER WITH INSULATION OR PROTECTIVE PIPE COVER.
- SEALED FILTER-DRYER, EQUAL TO SPORLAN MODEL '020'.
- (8) REFRIGERANT LIQUID LINE AND REFRIGERANT SUCTION LINE. SUCTION LINE SHALL BE INSULATED AND JACKETED - SEE 'GENERAL HVAC NOTES'.
- 9 CONDENSING UNIT CONTROL CONDUIT FOR INTERLOCK WITH THERMOSTAT OR BUILDING CONTROLS.

TYPICAL HEAT PUMP AIR HANDLER INSTALLATION DETAIL NOT TO SCALE



CONDENSATE DRAIN DETAIL NOT TO SCALE



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AA26000896

PROJECT: **5 CLASSROOM ADDITION**

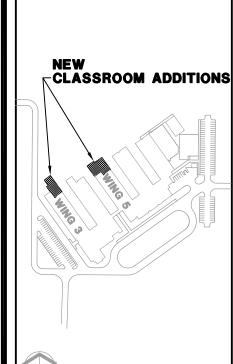
WEST NAVARRE INTERMEDIATE 1970 COTTON BAY LANE NAVARRE, FL 32566

JEHLE-HALSTEAD INC. 49 EAST CHASE STREET PENSACOLA, FL 32502

CRAFT & WEBSTER STRUCTURAL ENGINEERING, INC. 129 HIGHPOINT DRIVE GULF BREEZE, FL 32561

GULF BREEZE CONSULTING, INC. 139 EAST GOVERNMENT STREET PENSACOLA, FL 32502

ADAMS CONSULTING ENGINEERING, INC. 3 WEST GARDEN STREET - SUITE 382 PENSACOLA, FL 32502



WEST NAVARRE INTERMEDIATE No. | Revision/Issue | Date

KENNETH L. GONZALEZ ENGINEER OF RECORD

PE 61015

KM/JS

21118.03

09-06-11

09-09-11

KLG

DRAWN BY: CHECKED BY: PINDER-MARTIN ASSOCIATES, INC PROJECT #: REVIEW: PERMITTING:

RELEASE FOR BIDDING:

HVAC **DETAILS**

M2.0