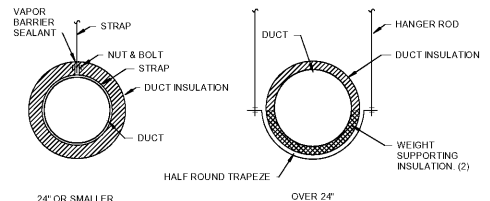


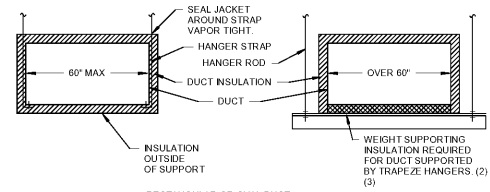
**RECTANGULAR OR OVAL DUCT**



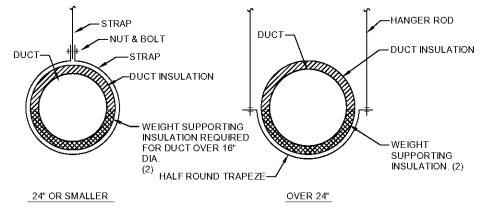
**ROUND DUCT**

NOTES:  
 (1) INSULATION AND JACKET MUST RUN CONTINUOUSLY BETWEEN DUCT AND DUCT SUPPORTS, EXCEPT ROUND DUCTS 24" OR SMALLER.  
 (2) REFER TO SPECIFICATION SECTION 20 0700 FOR WEIGHT-SUPPORTING INSULATION REQUIREMENTS.  
 (3) THIS DETAIL SHALL APPLY FOR DUCTS 60" AND SMALLER IF TRAPEZE HANGERS ARE USED.

**10 INSULATED DUCT SUPPORTS (FLEX GLASS FIBER INSUL TYPE-F)**



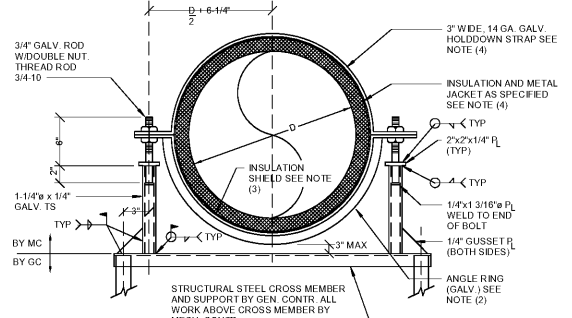
**RECTANGULAR OR OVAL DUCT**



**ROUND DUCT**

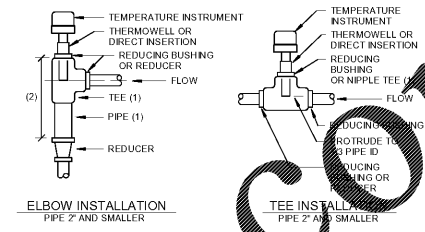
NOTES:  
 (1) INSULATION AND JACKET MUST RUN CONTINUOUSLY BETWEEN DUCT AND DUCT SUPPORTS.  
 (2) REFER TO SPECIFICATION SECTION 20 0700 FOR WEIGHT-SUPPORTING INSULATION REQUIREMENTS.  
 (3) THIS DETAIL SHALL APPLY FOR DUCTS 60" AND SMALLER IF TRAPEZE HANGERS ARE USED.

**11 INSULATED DUCT SUPPORTS (RIGID GLASS FIBER INSUL. TYPE-R)**



NOTES:  
 (1) PAINT ALL FIELD WELDED GALVANIZED COMPONENTS WITH ZINC PAINT AFTER WELDING.  
 (2) 1-1/2" x 1-1/2" x 1/4" FOR DUCTS SMALLER THAN 48" DIA., 2" x 2" x 1/4" FOR DUCTS 48"-60" DIA. AND 2-1/2" x 2-1/2" x 1/4" FOR DUCTS OVER 60" DIA.  
 (3) INSULATION SHIELD FOR INSULATED DUCT TO BE GALV. STEEL WITH FOLLOWING WIDTH & THICKNESS: 12" WIDE 16 GA. FOR DUCTS SMALLER THAN 36" DIA., 18" WIDE 16 GA. FOR DUCTS 36"-50" DIA. AND 24" WIDE 16 GA. FOR DUCTS OVER 50" DIA. TOP HALF TO OVERLAP MINIMUM 3" OF BOTTOM HALF. SEAL OVERLAP WITH VAPOR BARRIER MASTIC AND MINIMUM TWO 3" WIDE BANDS. REFER TO SPECIFICATION SECTION 20 0700 FOR WEIGHT-SUPPORTING INSULATION AT SUPPORT POINTS.  
 (4) FOR UNINSULATED ROUND METAL DUCTWORK USE 3" WIDE, 14 GA. HOLD DOWN STRAPS OF SAME MATERIAL AS DUCTWORK. FOR NON-METAL ROUND DUCTWORK, USE EITHER NON-METAL HOLD DOWN STRAP OF SIMILAR MATERIAL OR FITTED PIECE OF PROTECTIVE LINING USED ON METAL STRAP BETWEEN STRAP AND DUCT.

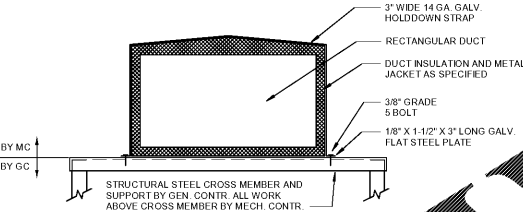
**4 DUCT PENETRATION THRU INTERIOR WALL (INSULATED DUCTS)**



NOTES:  
 (1) THIS DETAIL APPLIES FOR INSULATED DUCTS THRU WALL WHERE FIRE DAMPER IS NOT REQUIRED.  
 (2) WHERE WALL IS FIRE RATED, COMBINATION OF SEALANT, BACKING MATERIAL AND INSULATION SHALL MEET THIS RATING. REFER TO SPECIFICATION SECTION 20 0573 FOR FIRE STOPPING SYSTEM MANUFACTURERS.

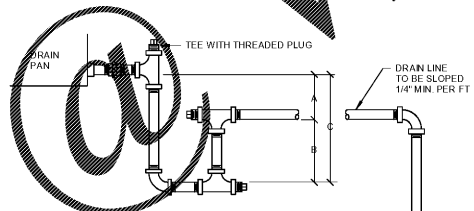
**1 TEMPERATURE INSTRUMENTS (THREADED PIPE)**

**7 DUCT SUPPORT - ROUND DUCT ON ROOF**



NOTES:  
 (1) PROVIDE SUFFICIENT PITCH AT TOP OF DUCT MAKING CENTER THE HIGHEST POINT TO PREVENT PUDDLING.

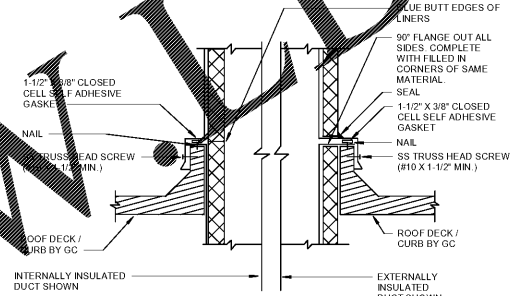
**8 DUCT SUPPORT - RECTANGULAR DUCT ON ROOF**



NOTES:  
 (1) FILL TRAP MANUALLY ON INITIAL START-UP.  
 (2) TRAP EACH COMPONENT DRAIN CONNECTION.  
 (3) PIPE SIZE SHALL BE 1-1/2" OR DRAIN PAN CONNECTION SIZE, WHICHEVER IS LARGER.  
 (4) DRAW-THRU UNITS BLOW-THRU UNITS  
 A = SP + 1"      A = 1/2"  
 B = 1/2 SP + 1/2"      B = SP + 1/2"  
 C = 1-1/2 SP + 1-1/2"      C = SP + 1"  
 SP TO BE MAXIMUM STATIC PRESSURE (SP) ON DRAIN PAN INCLUDING MAXIMUM FILTER PRESSURE DROP AND PRESSURE DROP OF FUTURE COMPONENTS OF UNIT IF APPLICABLE.  
 (5) RAISE COIL SECTION OR ENTIRE AIR HANDLING UNIT WITH STRUCTURAL MEMBERS OR STANDS TO PROVIDE PROPER TRAP HEIGHT.

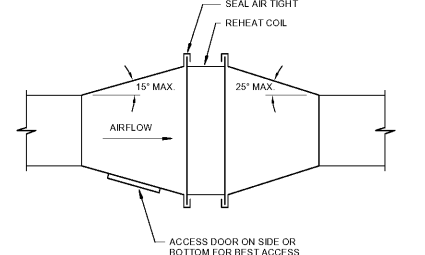
UNIT	A	B
AHU-1-6A	6 1/2"	3 1/4"

**9 COOLING COIL CONDENSATE DRAIN TRAP PIPING**

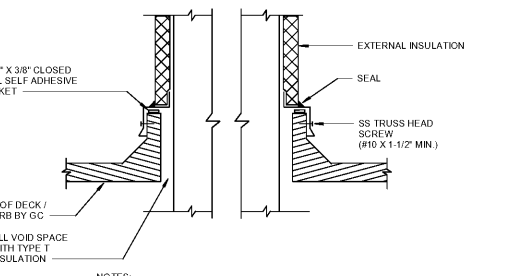


NOTES:  
 (1) CURB AND FLASHING BY GC UNLESS OTHERWISE SPECIFIED. SEE DETAIL 8/A801 FOR TYPICAL ROOF DETAIL AT SUPPORTS.

**5 DUCT PENETRATION THRU ROOF**

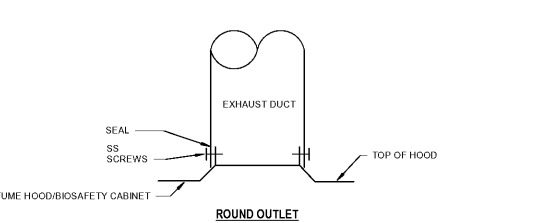
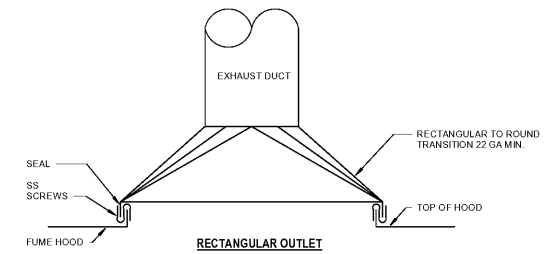


**2 REHEAT COIL DUCT CONNECTION**



NOTES:  
 (1) CURB AND FLASHING BY GC UNLESS OTHERWISE SPECIFIED. SEE DETAIL 8/A801 FOR TYPICAL ROOF DETAIL AT SUPPORTS.

**6 FUME HOOD/BSC EXHAUST DUCT PENETRATION THRU ROOF**



**3 FUME HOOD/BIOSAFETY CABINET OUTLET CONNECTION**

Order Plans

Revisions:	Date:

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 EXPIRES 12/31/2018

Office of Construction and Facilities Management  
 U.S. Department of Veterans Affairs

Drawing Title: **MECHANICAL DETAILS**  
 Phase: **CONSTRUCTION DOCUMENTS**  
 Approved: \_\_\_\_\_

Project Title: **RENOVATE PHARMACY CLEAN ROOM (USP 797)**  
 Location: **510 E. Stoner Ave. Shreveport, LA 71101**  
 Issue Date: **10/05/2017**  
 Checked: **KGF**  
 Drawn: **JBP**

Project Number: **667-17-108**  
 Building Number: **1**  
 Drawing Number: **M501**