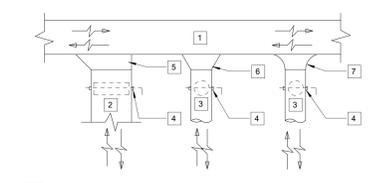


7 EXPOSED DUCT SUPPLY REGISTER DETAIL
 N.T.S.

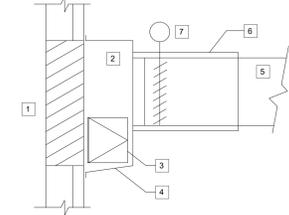
- 1 MAIN SUPPLY, RETURN OR EXHAUST DUCT (LOW OR MEDIUM PRESS.)
- 2 RECTANGULAR BRANCH TAKE-OFF DUCT (LOW OR MEDIUM PRESS.)
- 3 ROUND BRANCH TAKE-OFF DUCT (LOW OR MEDIUM PRESS.)
- 4 VOLUME DAMPER AS INDICATED ON PLANS
- 5 45 DEGREE ENTRY FITTING
- 6 CONICAL DUCT TAKE-OFF FITTING
- 7 BELLMOUTH DUCT TAKE-OFF FITTING



- NOTES:
 A. SPIN-IN DUCT TAKE-OFF FITTINGS MAY BE USED IN LIEU OF CONICAL OR BELLMOUTH FITTINGS ONLY WHERE MAIN DUCT DIMENSIONS ARE NOT SUFFICIENT TO ALLOW THE USE OF A CONICAL OR BELLMOUTH. SEAL ALL TAKE-OFF & OTHER DUCT FITTINGS AIR TIGHT AS PER SPEC. FABRICATE BRANCH DUCT TAKE-OFF FITTING PER LATEST EDITION OF SMACNA DUCT CONSTRUCTION MANUAL, AS INDICATED ON PLANS, OR AS DESCRIBED IN SPECIFICATION.
 B. FOLLOW SPECIFIED VERSION OF SMACNA STANDARD FOR ALL DUCT CONSTRUCTION.

1 BRANCH DUCTS DETAIL
 N.T.S.

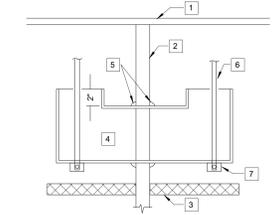
- 1 LOUVER
- 2 PLENUM 30" WIDE OR AS INDICATED
- 3 24" W x 30" H INSULATED/HINGED ACCESS DOOR
- 4 PITCH TO DRAIN THROUGH LOUVER
- 5 DUCTWORK
- 6 INSULATION AS APPLICABLE
- 7 MOTORIZED DAMPER WHERE SHOWN ON DRAWINGS



- NOTES:
 1. PLENUM IS FULL SIZE OF LOUVER. PROVIDE SHEETMETAL FLANGE ON ALL FOUR SIDES FOR CONNECTION TO THE LOUVER.
 2. PROVIDE WATER TIGHT SEALANT AT THE PLENUM AT BOTTOM AND SIDES.
 3. PLENUM IS MIN. 18 GA. PLENUM IS INSULATED UNO.

2 SHEETMETAL PLENUM FOR LOUVER DETAIL
 N.T.S.

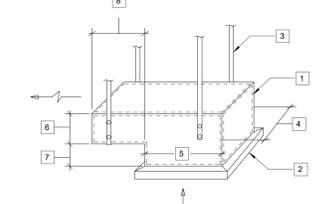
- 1 ROOF OR FLOOR
- 2 FULL HEIGHT PARTITION
- 3 CEILING
- 4 TRANSFER DUCT
- 5 SEAL PERIMETER OF DUCT BOTH SIDES OF PARTITION
- 6 SHEET METAL SUPPORT HANGER STRAP UP TO STRUCTURE
- 7 UNISTRUT TRAPEZE HANGER



- NOTES:
 1. SIZE INDICATED ON DRAWING

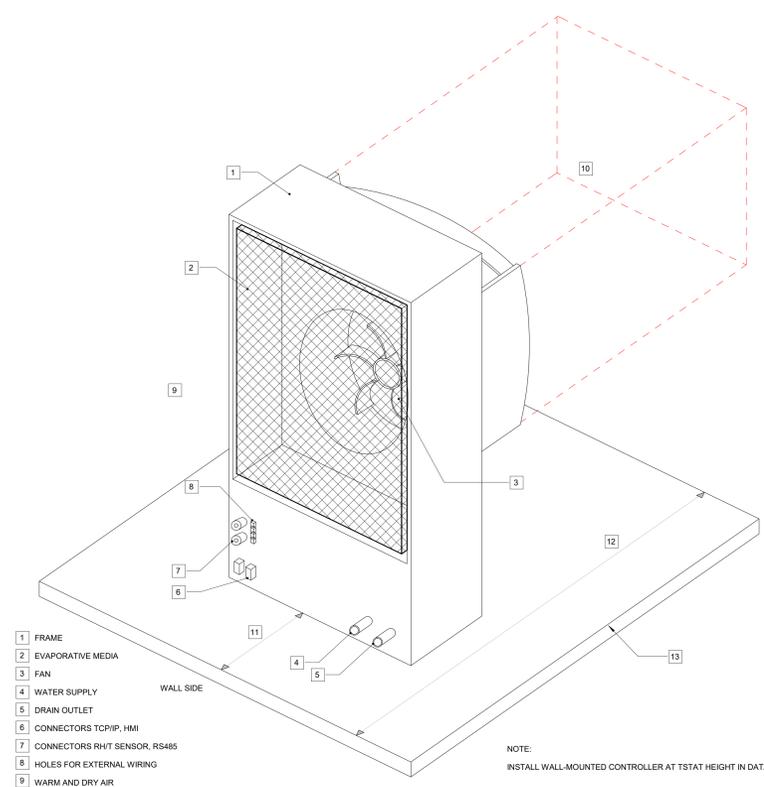
4 TRANSFER DUCT DETAIL - SOUND DAMPENING
 N.T.S.

- 1 SHEET METAL TRANSITION ELBOW WITH ACOUSTICAL DUCT LINING
- 2 CEILING RETURN GRILLE
- 3 SHEET METAL SUPPORT HANGER STRAP UP TO STRUCTURE (TYP)
- 4 DIMENSION OF GRILLE NECK
- 5 DIMENSION OF GRILLE NECK
- 6 DIMENSION = (2/3) x DIMENSION GIVEN BY NOTE #5.
- 7 6" MINIMUM
- 8 18" MINIMUM



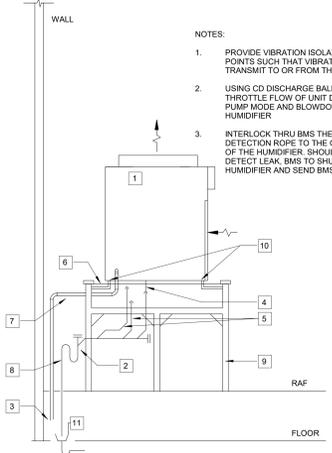
- NOTES:
 1. USE ACOUSTICAL BOOT IN OFFICE AREA AND ENTRANCE LOBBIES ONLY

5 NON-DUCTED RETURN GRILLES DETAIL
 N.T.S.

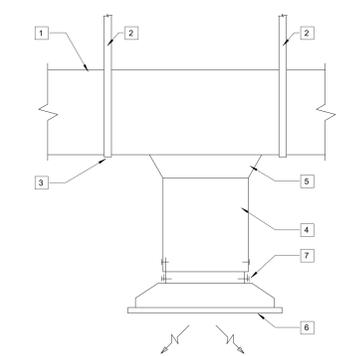


8 ELEVATED HUMIDIFIER DETAIL
 N.T.S.

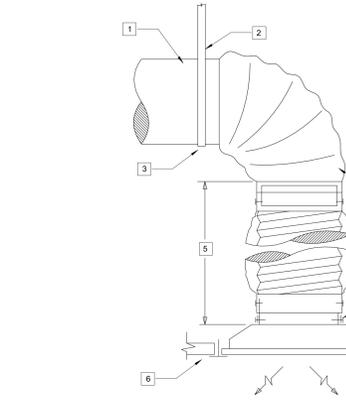
- 1 ADIABATIC HUMIDIFIER SUPPORTED BY DRAIN PAN. LOCATE SUCH THAT BOTTOM OF DRAIN PAN IS NOT AT AN ELEVATION WHICH POSSES A RISK OF BECOMING A HAZARD (NO HIGHER THAN 4' AFF)
- 2 ROUTE HUMIDIFIER PIPING SUCH THAT IT IS NOT LOCATED ABOVE ELECTRICAL DEVICES. IF CONDITIONS REQUIRE ROUTING CONDENSATE PIPING ABOVE ELECTRICAL DEVICES, PROVIDE DRAIN PANS BELOW PIPING AND ROUTE TO NEAREST FLOOR DRAIN
- 3 MAKE-UP WATER (SEE PLUMBING DRAWINGS) COORDINATE WITH MANUFACTURER FOR VALVE REQUIREMENTS, BACKFLOW AND PRESSURE, ETC.
- 4 CONDENSATE DRAIN PIPE TO NEAREST FLOOR DRAIN - PITCH 1/4 INCH PER FOOT
- 5 AUXILIARY DRAINS: PIPE TO NEAREST FLOOR DRAIN IN DEDICATED LINE. PROVIDE VISIBLE AIR GAP TO IDENTIFY WATER OVERFLOW CONDITION
- 6 GALVANIZED STEEL SECONDARY DRAIN PAN W/ LEAK DETECTION
- 7 BALL VALVE
- 8 DRAIN TO SANITARY WASTE PER PLUMBING PLANS
- 9 FLOOR MOUNTED STEEL STRUCTURE
- 10 VIBRATION ISOLATORS
- 11 FLOOR SINK WITH HALF GRATE. REFER TO PLUMBING SET FOR DETAIL



3 ADAIBATIC HUMIDIFIER DETAIL
 N.T.S.



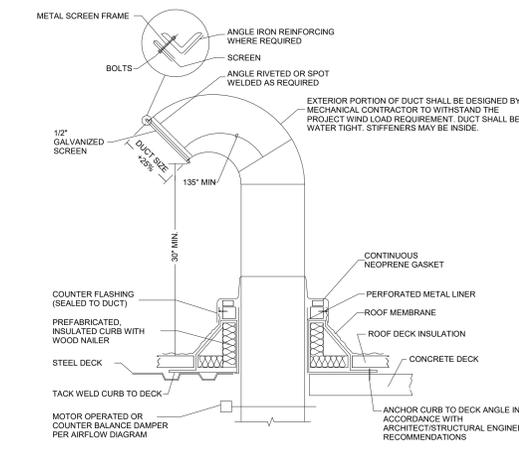
- 1 SUPPLY AIR DUCT
- 2 SECURE TO OVERHEAD CONSTRUCTION
- 3 DUCT STRAP PER SPECIFICATIONS
- 4 RIGID DUCT DOWN TO DIFFUSER. SIZE SHALL MATCH DIFFUSER NECK SIZE.
- 5 DUCT TAKE-OFF FITTING
- 6 SUPPLY AIR DIFFUSER
- 7 SHEET METAL SCREWS



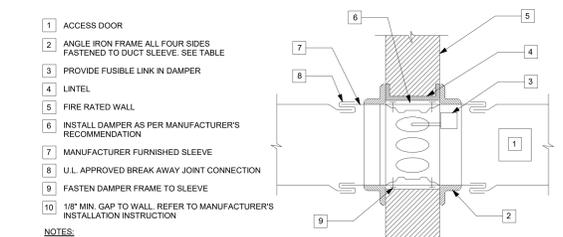
- 1 GSM DUCT
- 2 SECURE TO OVERHEAD CONSTRUCTION
- 3 DUCT STRAP PER SPECIFICATIONS
- 4 INSULATED FLEXIBLE DUCT (SEE SPECS.) SECURE TO DUCT & AIR OUTLET PER NOTE #1
- 5 3 DIAMETERS
- 6 T-BAR MOUNTED
- 7 SURFACE CEILING SUPPLY AIR DIFFUSER
- 8 SHEET METAL SCREWS

- NOTE:
 PEEL BACK JACKET & INSULATION. SECURE LINER TO AIR OUTLET & DUCT WITH CLAMP OR DRAW BAND POSITIONED BEHIND ROLL BEAD. APPLY SUITABLE DUCT SEALANT TO JOINT. REPLACE INSULATION AND JACKET OVER LINER & SECURE IN A SIMILAR FASHION.

6 SUPPLY DIFFUSER CONNECTION - FLEX AND RIGID DUCT DETAIL
 N.T.S.



10 GOOSENECK DETAIL
 N.T.S.



- 1 ACCESS DOOR
- 2 ANGLE IRON FRAME ALL FOUR SIDES FASTENED TO DUCT SLEEVE. SEE TABLE
- 3 PROVIDE FUSIBLE LINK IN DAMPER
- 4 LINTEL
- 5 FIRE RATED WALL
- 6 INSTALL DAMPER AS PER MANUFACTURER'S RECOMMENDATION
- 7 MANUFACTURER FURNISHED SLEEVE
- 8 U.L. APPROVED BREAK AWAY JOINT CONNECTION
- 9 FASTEN DAMPER FRAME TO SLEEVE
- 10 1/8" MIN. GAP TO WALL. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTION

- NOTES:
 1. DAMPER TO BE U.L. LABELED N.F.P.A. 90A AND BSA APPROVED.
 2. N.F.P.A. APPROVED INSTALLATION DETAILS TO BE PART OF SUBMISSION OF FIRE DAMPER FOR APPROVAL, WHICH SHALL MEET N.F.P.A. STANDARD 90A AND BSA APPROVED.
 3. DETAILS SHOWN ARE FOR FIRE DAMPER IN HORIZONTAL DUCTWORK. FOR DAMPERS IN VERTICAL DUCTWORK, DETAIL IS SIMILAR.
 4. ACCESS DOOR IS SHOWN IN SIDE OF DUCT.
 5. THIS DETAIL IS FOR GUIDE ONLY. INSTALL DAMPER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 6. RETAINING ANGLES MUST LAP STRUCTURAL OPENING 1" MIN. AND COVER CORNERS OF OPENINGS.

ANGLE IRON TABLE	
WALL OPENING	ANGLE SIZE
UP TO 54"	1 1/2" x 1 1/2" x 1/8"
55" TO 84"	3" x 2" x 3/16"
85" TO 120"	3" x 2" x 3/16"

9 FIRE DAMPER
 N.T.S.

ISSUES

4	1.23.2026	DESIGN DEVELOPMENT
---	-----------	--------------------

REVISIONS

--	--	--

kW Mission Critical Engineering
 Contact: K. DREWNOWSKI Phone: 601.451.2099
 Engineer: K. COOPER
 License #: 23015 Exp. Date: 00/00/0000

NOT FOR CONSTRUCTION
 Date: 12/12/2025

SERVERFARM
 Clarksville, AR

MECHANICAL DUCTWORK DETAILS

JOB SHEET US0049903.5614

M05-21