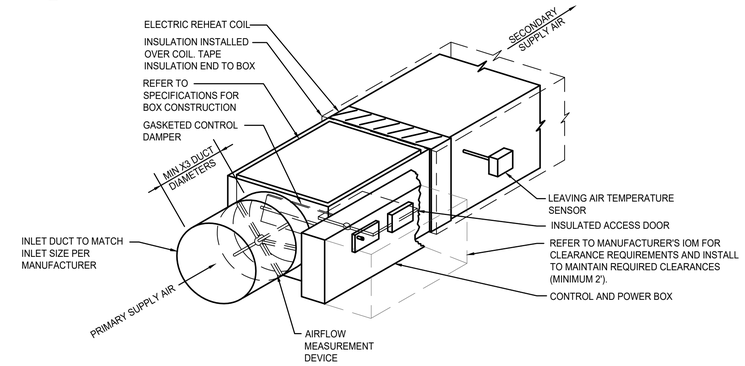


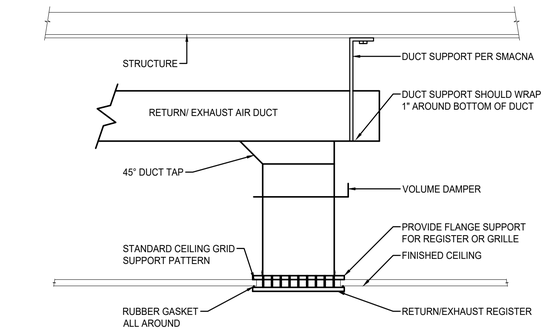
NOTE:
1. CONTRACTOR TO VERIFY TYPE OF DIFFUSER PRIOR TO PURCHASING TO DETERMINE IF SURFACE MOUNTED OR LAY-IN STYLE IS REQUIRED IN EACH LOCATION.
2. OFFSETS WITH FLEX DUCT SHALL NOT EXCEED 30 DEGREES AND SHALL BE GRADUAL. OFFSETS IN EXCESS OF 30 DEGREES SHALL BE HARD-DUCTED. GRADUAL 90 DEGREE OFFSET IS PERMITTED WHERE SPACE IS AVAILABLE.
3. FLEX DUCT SHALL NOT HAVE MORE THAN ½" SAG PER FOOT.
4. LENGTH OF FLEX DUCT SHALL NOT EXCEED 3'-0".
5. PROVIDE DUCT MOUNTED VOLUME DAMPER AS CLOSE TO MAIN DUCT AS POSSIBLE.
6. PROVIDE SINGLE BLADE DAMPERS UP TO 12" HIGH AND ON ROUND DUCT. PROVIDE MULTI BLADE DAMPERS ON ALL DUCTS OVER 12" HIGH PER SMACNA REQUIREMENTS.
7. PROVIDE LOCKING STYLE DAMPER HANDLE REGULATORS WITH HEXAGON NOT, DURO DYNE OR APPROVED EQUAL.

TYPICAL CEILING SUPPLY DIFFUSER DETAIL
SCALE: NOT TO SCALE



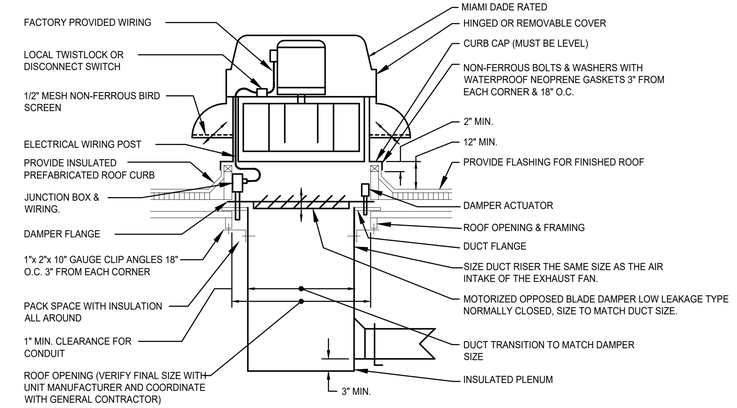
NOTE:
1. COMPLY WITH MANUFACTURER'S REQUIREMENTS FOR CLEARANCE TO CONTROL BOX.
2. PROVIDE LINED DUCTWORK 3FT PAST VAV DISCHARGE. REFER TO SPECIFICATIONS FOR LINED DUCTWORK CONSTRUCTION

2 TYPICAL VARIABLE AIR VOLUME TERMINAL UNIT DETAIL (VAV)
SCALE: NOT TO SCALE

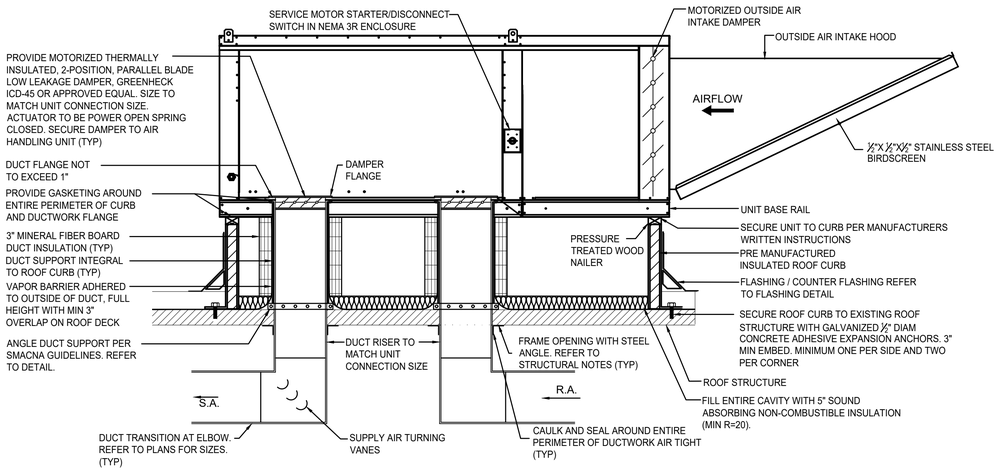


NOTE:
1. ALL BRANCH DUCT CONNECTIONS SHALL BE HARD DUCTED TO SQUARE NECKED GRILLS. NO SPIN ON COLLARS OR ROUND FLEXIBLE DUCTWORK SHALL BE ALLOWED.
2. CONTRACTOR TO VERIFY TYPE OF DIFFUSER PRIOR TO PURCHASING TO DETERMINE IF SURFACE MOUNTED OR LAY-IN STYLE IS REQUIRED IN EACH LOCATION.
3. PROVIDE DUCT MOUNTED VOLUME DAMPER AS CLOSE TO MAIN DUCT AS POSSIBLE.
4. PROVIDE SINGLE BLADE DAMPERS UP TO 12" HIGH AND ON ROUND DUCT. PROVIDE MULTI BLADE DAMPERS ON ALL DUCTS OVER 12" HIGH PER SMACNA REQUIREMENTS.
5. PROVIDE LOCKING STYLE DAMPER HANDLE REGULATORS WITH HEXAGON NOT, DURO DYNE OR APPROVED EQUAL.

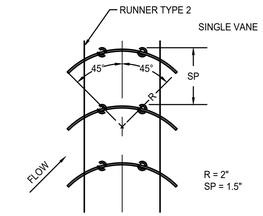
TYPICAL REGISTER CONNECTION
SCALE: NOT TO SCALE



ROOF MOUNTED DOWNBLAST EXHAUST FAN
SCALE: NOT TO SCALE

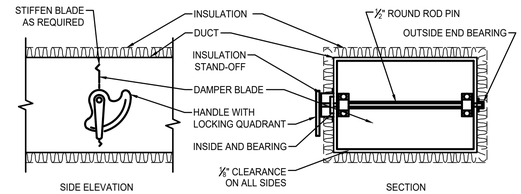


ROOF MOUNTED MAKE-UP AIR UNIT
SCALE: NOT TO SCALE



NOTE:
1. PROVIDE ON ALL RECTANGULAR SUPPLY ELBOWS

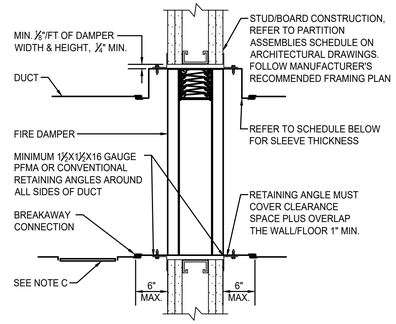
3 TURNING VANE DETAIL
SCALE: NOT TO SCALE



VOLUME DAMPER INSTALLATION DETAIL
SCALE: NOT TO SCALE

NOTES:

A. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
B. DETAIL SHOWS A SINGLE BLADE DAMPER. INSTALLATION SHALL BE SIMILAR FOR ROUND DAMPER AND MULTI-BLADE DAMPER



MINIMUM SLEEVE THICKNESS FOR FIRE DAMPERS			
TYPE OF DUCT TO SLEEVE CONNECTION	DUCT	DUCT DIMENSION	SLEEVE GAUGE
RIGID	ROUND RECTANGULAR	24" MAX. DIAMETER 36" MAXIMUM WIDTH OR 24" MAX. HEIGHT	16 (.060")
RIGID	ROUND RECTANGULAR	OVER 24" DIAMETER OVER 36" WIDTH OR OVER 24" HEIGHT	14 (.075")
BREAKAWAY (OR NO DUCT)	ROUND OR RECTANGULAR	12" WIDE AND UNDER 13"-30" WIDE 31"-54" WIDE 55"-84" WIDE 85" WIDE AND OVER	26 (.018") 24 (.024") 22 (.030") 20 (.036") 18 (.048")
NOTE: SLEEVE THICKNESS MUST NOT BE LESS THAN THE GAUGE OF THE CONNECTING DUCT.			

10 CURTAIN STYLE FIRE DAMPER DETAIL
SCALE: NOT TO SCALE

NOTES:

A. PROVIDED FOR GENERAL INSTALLATION GUIDANCE. ACTUAL INSTALLATION SHALL CONFORM TO MANUFACTURER'S INSTALLATION GUIDELINES IN ALL RESPECTS TO MAINTAIN UL RATING OF ASSEMBLY.
B. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF STUD FRAMING AROUND THE SLEEVE WITH OTHER TRADES. FOR WOOD CONSTRUCTION, WALL BOARD MUST COVER ALL WOOD STUD SURFACES.
C. ACCESS DOOR: MINIMUM SIZE 12x12. IF DUCT IS LESS THAN 14" WIDE, PROVIDE 24" LONG REMOVABLE DUCT SECTION, FLANGED, GASKETED AND SECURED WITH WING NUTS WITH 8x8 ACCESS INSPECTION DOOR. IF ASSEMBLY IS PROVIDED WITH FACTORY INSTALLED ACCESS DOOR, DAMPER SLEEVE SHALL BE 16" MAX. BEYOND THE EDGE OF THE RATED CONSTRUCTION.
C. FASTENERS SHALL BE MINIMUM #10 SCREWS SPACED 6" O.C. MAX. AND 2" MAX. FROM CORNERS SLEEVE ATTACHMENT AND MINIMUM 2 FASTENERS PER SIDE.
D. HORIZONTAL INSTALLATION IS SIMILAR.

BROWN AND CALDWELL
900 HAMMOND DRIVE, SUITE 500
ATLANTA, GA 30328

wendel

GEORGIA REGISTERED PE 033630 PROFESSIONAL ENGINEER RAYMOND F. JOHNSON, II

CONSTRUCTION DOCUMENTS
07/01/2026

NCWSA NEWTON COUNTY WATER & SEWERAGE AUTHORITY

NCWSA OFFICE ADDITION

REVISIONS

REV	DATE	DESCRIPTION
1	7/1/26	PERMIT SET

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: CJP
DRAWN: CJP
CHECKED: NBN
CHECKED:
APPROVED: RFJ

FILENAME
BC PROJECT NUMBER
CLIENT PROJECT NUMBER

MECHANICAL
DETAILS

DRAWING NUMBER
M201