HVAC DUCT SECURITY BARS DETAIL

NOTES FOR DESIGNER:

1. WHEN EDITING DETAIL TO SUIT PROJECT, ADD JOB SPECIFIC REQUIREMENTS AND DELETE ONLY THOSE PORTIONS THAT DO NOT APPLY. SEEK A VARIANCE FROM APPLICABLE REQUIREMENTS. CONTACT THE ESM MECHANICAL POC.
2. SECURITY BARS ARE REQUIRED WHEN DUCT IS GREATER THAN 96 SQ. INCHES AND MORE THAN 6 INCHES IN ITS SMALLEST DIMENSION.
3. IT IS PREFERRED TO LOCATE ACCESS DOOR IN SECURED AREA. PROVIDE ACCESS DOOR WITH LOCK HASP WHEN DOOR IS LOCATED IN NON SECURED AREA.

1. ANCHORAGE TO CONCRETE WALL OR SOLID BRICK, USE HILTI KWIK BOLT II EXPANSION ANCHORS 3/8" Ø (MIN.)
2. ANCHORAGE TO HOLLOW CONCRETE BLOCK, USE HILTI TOGGLE BOLT/CAST STEEL 1/2" Ø (MIN.)
3. ANCHORAGE TO METAL STUDS AND GYP. BOARD WALLS, USE CARBON STEEL THROUGH BOLT, 3/8" Ø (MIN.)
4. PROVIDE CARBON STRUCTURAL STEEL ANGLES, BARS & SHEETS PER ASTM A36
5. WELD PER AWS D1.1, STRUCTURAL STEEL

SCALE: NONE

1/4" TO 1/2" CLEARANCE
1/4" STEEL SLEEVE CONTINUALLY WELDED AT CORNERS OR SEAMS. SECURE ANGLES @ 4" O.C. MIN. ANGLES MUST LAP STRUCTURAL OPENING 3" MINIMUM

3 1/2" x 2 1/2" x 1/4" ANGLE FRAME CONTINUALLY WELDED AT CORNERS OR SEAMS. SECURE ANGLES @ 4" O.C. MIN. ANGLES MUST LAP STRUCTURAL OPENING 3" MINIMUM

3/16" STEEL SLEEVE CONTINUALLY WELDED AT CORNERS OR SEAMS. EXTEND +/- 3 1/2" EACH SIDE FROM WALL

1/2" Ø STEEL BARS AT 6" O.C. MAX. EACH WAY. WELD TO FRAME AND AT CROSS POINTS.

3 1/2" x 2 1/2" x 1/4" ANGLE FRAME CONTINUALLY WELDED AT CORNERS OR SEAMS. SECURE ANGLES @ 4" O.C. MIN. ANGLES MUST LAP STRUCTURAL OPENING 3" MINIMUM

1/2" Ø STEEL BARS AT 6" O.C. MAX. EACH WAY. WELD TO FRAME AND AT CROSS POINTS.

TYPICAL SITE PRODUCTION

TYP. 8" x 8" HINGED ACCESS DOOR

3/16" STEEL SLEEVE CONTINUALLY WELDED AT CORNERS OR SEAMS. EXTEND +/- 3 1/2" EACH SIDE FROM WALL