15845 – DUCTWORK SUPPORTS AND SLEEVES

A. DESIGN REQUIREMENTS

1. Suspend all ductwork properly supported from the building structure. The duct hanging system is composed of three elements: the upper attachment to the building, the hanger itself, and the lower attachment to the duct. Construct the attachments, hangers and supports for all ductwork in accordance with SMACNA Manual and standards.

B. INSTALLATION REQUIREMENTS

1. Support each duct independently.

2. Support ducts using metal hangers and brackets. Hangers shall have sufficient strength and durability and sufficient resistance to the corrosive effects of the atmosphere to which they will be exposed. Hangers shall not be used in direct contact with a dissimilar metal that would cause galvanic action in the hanger, duct, fastenings or structure.

3. Support vertical ducts securely at each floor level by continuous lengths of structural angles of a size at least equivalent to that for stiffening. The angles shall be fastened to the opposite sides of the duct and shall extend across the opening and bear upon the structure of slab on both sides of the opening.

4. Provide sections of ducts containing filters, coils or fans with metal framing and hangers of adequate strength to support such equipment.

5. Prime coat exposed steel hangers and supports.

6. Seal the space around the duct, where ducts pass through floor and walls, with non-combustible material to prevent the passage of flame and smoke.

7. Hangers, supports, anchors and guides for stainless steel duct are to be plastic coated where the support is in contact with the duct.

8. Duct Hanger to be support per New York City code (at minimum).

9. Multiple stacked ducts can be cradle hung with sufficiently sized angle iron and rods.

10. Rectangular ducts over 6 inches in width shall be hung with galvanized rods fastened to galvanized angles running under the duct. The duct shall not be secured to the hanger.

11. Provide inserts, fishplates and other methods recommended by SMACNA for supporting hangers. Do not use or submit power-actuated fasteners, expansion nails or pins for supporting duct hangers.

12. Provide supplementary steel as required to support ductwork.

C. EQUIPMENT REQUIREMENTS - SLEEVES AND SEALS
1. Install sleeves and seal and bare duct or insulated duct as specified herein and as shown in the details on the Drawings.

2. Above Grade Masonry Floors and Walls
   a. Duct Penetrations
      1) Provide structural support at floor opening as required, or for walls, provide steel lintel to support masonry above opening.
      2) Provide minimum No. 14 gauge galvanized sheet metal sleeves.
      3) Provide escutcheon on both sides.
      4) For insulated ducts, provide calcium silicate duct insulation through floor or wall opening.
      5) For fire-rated ducts, fill voids to full depth with intumescent fire stopping material as indicated.

3. Gypsum Board, Plaster or Wood Partitions
   a. Duct Penetrations
      1) Provide minimum No. 25 gauge galvanized steel stud header and support.
      2) Provide minimum No. 20 gauge galvanized steel sheet metal sleeves.
      3) Provide escutcheon on both sides.
      4) For insulated ducts, provide calcium silicate duct insulation through wall opening.
      5) For fire-rated ducts, fill voids to full depth with intumescent fire stopping material as indicated.

4. Floor Sleeves
   a. On dry floors, extend sleeve ½ - inch above floor.
   b. In mechanical equipment rooms, toilet rooms, kitchens, laboratories, etc., extend sleeve 1 inch above floor.

END OF SECTION