DUCTWORK FOR REMOVAL OF GREASE AND SMOKE LADEN VAPORS

PART 1- GENERAL

1.1 SUMMARY

A. Section Includes:

1. Ductwork for removal of grease and smoke laden vapors.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM E119-Fire Resistance Test.
2. ASTM E119-Fire Engulfment Test.
3. ASTM E814-Fire Rated Penetration Test.

B. National Fire Protection Association (NFPA):

1. NFPA 96 - Ventilation Control And Fire Protection Of Commercial Cooking Operations

1.3 QUALITY ASSURANCE

A. Comply with NFPA 96 unless otherwise indicated.

B. Must install duct in accordance to manufacturers listings and installation instructions.

1.4 WARRANTY

A. Listed grease duct shall have a limited lifetime warranty to begin at the date of installation.

PART 2- PRODUCTS

2.1 AVAILABLE MANUFACTURERS

A. Listed Double-Wall Insulated grease duct shall be model 4G manufactured by Metal-Fab, Inc.

2.2 LISTED DUCTWORK FOR REMOVAL OF GREASE AND SMOKE LADEN VAPORS

A. The grease duct shall be insulated double-wall factory –built type for use with type 1 kitchen hoods, as described in NFPA-96 for the transportation of air and grease-laden vapors from commercial cooking operation.

B. Product Description:

a. Zero Clearance Series 4G Grease Duct by Metal-Fab.

b. Factory prefabricated, double wall type, listed for venting of grease laden air from kitchen hoods requiring grease duct as described in NFPA 96.

c. Rated for continuous operation at 500 F and intermittent operation at 2000 F.

d. All components of the grease duct system shall be provided by the manufacturer to ensure the system meets the requirements of the listing including duct supports, guides, fittings, cleanouts, and expansion joints required to install the duct.

e. Grease duct shall conform to requirements of ASTM E119, 2-hour fire resistance rating and 3-hour fire engulfment with subsequent hose stream test, ASTM E814 3-hour Fire Stop Test, and shall be listed by the following agencies with the associated listed reports:

i. UL 1978 (File MH8251) - Grease Ducts for Restaurant Cooking Appliances.
ii. UL 2221 (File R15388) - Standard for Tests of Fire Resistive Grease Duct Enclosure Assemblies
iii. ICC-ES (ESR-2627)-ICC Evaluation of 4G tested per ICC-ES acceptance criteria AC-121
iv. BOCA (ER 96-37) - Zero Clearance to Combustibles Report.
v. ICBO (ER 5301) - Zero Clearance to Combustibles Report.
vi. SBCCI (PST & ESI Report No. 9666) - Zero Clearance to Combustibles Report.

f. The duct sections shall be constructed of an inner wall and an outer wall with ceramic fiber insulation between the walls. The inner wall shall be constructed of stainless steel, 0.035 inch thickness for sizes 6 to 36 inch diameters. The outer wall shall be constructed of aluminized steel, 304 or 316 stainless steel at a minimum 0.024 inch thickness. The duct shall include a 4" thickness of body soluble ceramic fiber insulation between the inner and outer walls. The duct wall assembly shall be tested and Listed at 0 inch clearance to combustibles.

PAR 3-EXECUTION

3.1 CONSTRUCTION OF FACTORY BUILT GREASE DUCT

A. Inner pipe joints shall be held together by means of formed vee bands and sealed with P080 Grease Duct Sealant.

B. Connection to the hood will be made with a round hood collar or a square-to-round transition.

C. Curb mounted fans will incorporate a fan adaptor plate

D. All construction and supporting of the kitchen ventilation system will be in accordance with Metal-Fab, Inc. installation instructions.

E. Store grease duct sections inside or covered adequately to protect from weather or accidental damage.