


<p>Fire Marshal's Office</p>  <p>Plan Review</p>	<p>Commercial Cooking Operations¹ – NFPA 96, 2017 CONTRACTOR MUST COMPLETE THIS FORM AND THE CHECKLIST</p> <p>Job Name: _____ Address: _____ Bldg: _____ Suite: _____ City: _____ Zip: _____ Applicant Name: _____ Phone: _____ Email: _____ Company Name: _____ Permit Number: _____ Copy of Plans in PDF <input type="checkbox"/> <input type="checkbox"/></p>
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The below is not an all-inclusive list - Plans must meet all 2017 NFPA 96 and Chapter 120- 3-3 Rules and Regulations of the Safety Fire Commissioner requirements. An explanation of all requirements is available upon request. Provide contact information for person responsible for completing the hood plan review form below:

Name: _____ Phone number: _____ Date: _____

Plans submitted are to depict hood and duct system as it will be installed (**Shop Drawings**). The plans are to include an aerial image of the roof or a roof plan, with markings showing where the exhaust fans, adjacent buildings, property lines, and air intakes are located.

Provide the Sheet Number or enter NA = Not applicable/Existing	SHEET #
PROVIDE A SYMBOL WITH THE CORRESPONDING CHECKLIST ITEM # ON THE DRAWING	
COMMERCIAL SYSTEM – HOOD	
1) Send checklist, hood drawings data sheets to SCFD.	
2) Wall details showing construction of wall behind hood detailed on plans.	
3) Hood height and ceiling height detailed on plans with ceiling to hood interface shown.	
4) Hood system components are to be separated 18" from combustible material, 3" from limited combustible material, 0" from non-combustible material or as detailed in listing. [4.2]	
a. Clearance reductions provided. [4.2.3]	
5) Protection provided on the wall from the bottom of the hood to the floor, or to the top of the non-combustible material extending to the floor. [4.2.4.3]	
6) Hood constructed of steel $\geq 0.048"$ (18 gauge) steel, $\geq 0.036"$ (20 gauge) stainless steel, or as listed. [5.1.1] *	
COMMERCIAL SYSTEM – DUCTS	
7) Ductwork is to be shown from the hood to exhaust location.	
a. Ducts shall not pass through fire walls. [7.1.1]	
b. Ducts shall lead directly to the exterior of the building [7.1.2]	
c. Ducts shall not be interconnected with any other building ventilation or exhaust systems. [7.1.3]	
d. Openings provided at the sides or tops of the duct, at changes in direction, and on every floor where entry is not provided. [7.3.1, 7.4.2.2] Unless access is provided from the duct entry or discharge. [7.3.3]	
8) Ducts are to be separated 18" from combustible material, 3" from limited combustible material, 0" from non-combustible material or as detailed in listing. [7.2]	
9) Clearance from duct or exhaust fan to interior surface of enclosure of combustible construction $\geq 18"$, enclosure of noncombustible or limited-combustible construction $\geq 6"$. [7.7.2.2]	
10) Ducts are to be constructed of carbon steel $\geq 0.060"$ (16 gauge) thickness or $\geq 0.048"$ (18 gauge) thick stainless steel. [7.5.1] *	
11) Note on plans: <i>Butt welded joints shall not be permitted.</i> [7.5.5.2]	
12) Exterior installations are to be separated 18" from combustible material, 3" from limited combustible material, 0" from non-combustible material or as detailed in listing. [7.6.3] *	
14) Duct enclosures in buildings < 4 stories in height are to be rated 1-hour minimum, ≥ 4 stories 2-hours minimum. [7.7.1.2]	
15) Openings in duct enclosure walls are protected by listed fire door assemblies with proper ratings [7.7.4.1]	
16) Multiple ducts in a single enclosure not permitted w/out AHJ approval. [7.7.5.2]	

EXHAUST FAN OPERATION	
17) A hood exhaust fan(s) shall continue to operate after the extinguishing system has been activated unless fan shutdown is required by a listed component of the ventilation system or by the design of the extinguishing system [8.2.3.1]	
18) The hood exhaust fan shall start upon activation of the extinguishing system if the exhaust fan and all cooking equipment served by the fan have been shut down, unless fan shutdown is required by a listed component of the ventilation system or by the listing of the extinguishing system. [8.2.3.2]	
19) The exhaust fan shall be provided with a means so that the fan is activated when any heat-producing cooking appliance under the hood is turned on [8.2.3.3]	
COMMERCIAL SYSTEM – ROOFTOP TERMINATIONS	
20) Exhaust discharge shown with a minimum 10’ horizontal clearance from outlet to adjacent buildings, property lines, and air intakes. (Plan to include dimensions) [7.8.2.1(1)]	
21) Exhaust discharge shown with a minimum 5’ horizontal clearance from outlet (fan housing) to any combustible structure. (Plan to include dimensions) [7.8.2.1(2)]	
22) Show location of exhaust and all air intakes. Maintain a vertical separation of 3’ when any air intakes within 10’ of exhaust outlet. (Plan to include dimensions) [7.8.2.1(3)]	
23) Grease collection device provided. [7.8.2.1(4)(5)(6)(7)]	
24) A hinged-up blast fan supplied with flexible weatherproof electrical cable and hold-open retainer, listed for the use, when: [7.8.2.1(8)]	
a. Fan attaches to the ductwork, that is a minimum 18” away from any roof surface, including roofing materials ran up the curbing. (Plan to include dimensions)	
b. Fan discharges at a minimum 40” from roof surface, including roofing materials ran up the curbing. (Plan to include dimensions)	
25) Other approved fans to meet the requirements of 7.8.2.1(2) and 7.8.2.1(3) and discharge is up away from the roof surface [7.8.2.1(9)]	
COMMERCIAL SYSTEM – WALL TERMINATIONS	
26) Wall terminations shall be arranged with or provided with the following properties:	
a. The termination shall be through a noncombustible wall with a minimum of 10’ of clearance from the outlet to adjacent buildings, property lines, grade level, combustible construction, electrical equipment or lines, and with the closest point of any air intake or operable door or window at or below the plane of the exhaust termination [7.8.3(1)]	
b. The closest point of any air intake or operable door or window above the plane of the exhaust termination shall be a minimum of 10’ in distance, plus 3” for each 1 degree from horizontal, the angle of degree being measured from the center of the exhaust termination to the center of the air intake or operable door or window. [7.8.3(2)]	
c. A wall termination in a secured area shall be permitted to be at a lower height above grade if acceptable to the authority having jurisdiction [7.8.3(3)]	
d. The exhaust flow shall be directed perpendicularly outward from the wall face or upward. [7.8.3(4)]	
e. All the ductwork shall be pitched to drain the grease back into the hood(s) or with a drain provided to bring the grease back into a container within the building or into a remote grease trap. [7.8.3(5)]	
f. A listed grease duct shall comply with Section 7.4; other ducts shall comply with Section 7.5. [7.8.3(6)]	
g. An approved fan shall meet the requirements of 7.8.3(5) and of 8.1.2 or 8.1.4. [7.8.3(7)]	
COMMERCIAL SYSTEM – AIR FLOW	
27) Air Velocity through the duct detailed to not be less than 500 feet per minute. [8.2.1.1] *	
COMMERCIAL SYSTEM – SOLID FUEL COOKING	
28) Spark arrester provided. [14.1.6 & 14.1.7]	
29) Exhaust system separated from all other exhaust systems. [14.3.3]	
30) Gas-operated equipment utilizing solid fuel for flavoring that meets all the following conditions shall not be required to have a separate exhaust system: [14.3.4]	
a. The solid fuel holder (smoker box) shall be listed with the gas-operated equipment.	
b. The solid fuel holder shall be located underneath the gas burners.	

c. Spark arresters conforming with 14.1.6 shall be provided.	
d. The maximum quantity of solid fuel consumed shall not exceed 1lb per hour per 100,000 Btu/hr of gas burner capacity	
e. The gas-operated equipment shall be protected by a fire suppression system listed for the equipment, including the solid fuel holder	
f. Gas-operated equipment with integral solid fuel holder(s) intended for flavoring, such as radiant char broiler(s), shall comply simultaneously with the requirements of ANSI/UL 300 that address the gas radiant char broiler(s) and mesquite wood char broiler(s)	
g. A fire suppression system nozzle(s) shall be installed to protect the solid fuel holder	
h. The fire suppression system shall be designed and installed to protect the entire cooking operation	
i. Each solid fuel holder shall be limited to a size 150in ³ , with no dimensions to exceed 20'	
j. A maximum of one solid fuel holder for each 100,000 Btu/hr, or portion thereof, of burner capacity shall be permitted.	
k. Solid fuel shall be immersed in water for a continuous period of at least 24 hours immediately prior to being placed in the cooking equipment.	
31) Makeup air systems serving solid fuel cooking operations shall be interlocked with the exhaust air system and powered, if necessary, to prevent the space from attaining a negative pressure while the solid fuel appliance is in operation [14.6.3]	
32) All solid fuel appliances with fire boxes of 5 cubic feet of volume or less are to be provided with minimum 2A rated water-type fire extinguisher or a 1.6-gallon wet chemical fire extinguisher listed for Class K fires per NFPA 10 in the immediate vicinity of the appliance with a maximum travel distance of 20 ft. [14.7.8]	
33) Solid fuel appliances with fireboxes exceeding 5ft ³ shall be provided with a fixed water pipe system with a hose in the kitchen capable of reaching the firebox, that produces a medium or fine mist at a minimum of 40psi at 5gpm [14.7.9]	
34) Solid fuel cooking appliances are to be installed on floors of noncombustible construction that extend 3' in all directions from the appliance unless the appliance is listed for a smaller clearance. [14.9.1.1]	
35) Where storage is in the same room as the solid fuel appliance or in the same room as the fuel-loading or clean-out doors, fuel storage shall not exceed a 1-day supply [14.9.2.1]	
36) Fuel shall not be stored above any heat-producing appliance or vent or closer than 3' to any portion of a solid fuel appliance constructed of metal or to any other cooking appliance that could ignite the fuel, unless the appliance is listed for less clearance to combustibles. [14.9.2.1, 14.9.2.3]	
37) Fuel shall not be stored in the path of the ash removal. [14.9.2.4]	
38) Where fuel is stored in the same building as the solid fuel appliance, fuel shall be stored only in areas with walls, floors, and ceilings of non-combustible construction a minimum 3' past the outside dimensions of the pile of stored material. [14.9.2.5]	
39) All fuel storage areas are required to be protected by automatic sprinkler installed per NFPA 13 or meet the requirements of 14.9.2.8.1 and 14.9.2.8.2. [14.9.2.8]	
40) Solid fuel shall be ignited with a match, an approved built-in gas flame, or other approved ignition source and shall not be ignited using combustible or flammable liquids [14.9.3.1, 14.9.3.2]	
41) A heavy metal container or cart (minimum 16 gauge) with a cover shall be provided for the removal of ash and shall not exceed a maximum 20-gallon capacity and shall easily pass through any passageway outside the building. [14.9.3.8]	

¹ The above is not an all-inclusive list; all applicable fire and life safety provisions must be met.

*Asterisk denotes that items can be addressed as noted on the plans in lieu of drawn detail.

Notes: _____

Reviewer: _____ Date: _____