# TYPE I and TYPE II HOOD SUBMITTAL CHECKLIST

## Required for any Commercial Kitchen Hood Application

## Submittal Requirements for 2020 Florida Mechanical Code

**This worksheet must be signed and sealed by the Registered Design Professional (RDP) and submitted along with the construction documents for the hood and grease duct under one permit application.**

**1. Project Address:** _____

**Name, Firm & Address of RDP completing form:** _____
FIRM NAME

_____
STREET ADDRESS CITY STATE ZIP

_____
SIGNATURE

**2. Established Use and Building History:**

Is this an existing restaurant, food processing are or food service area? ☐ Yes ☐ No
*If No, provide building permit number for Change of Use/Change of Tenant/ Interior Alternation:
Permit Number: _____

**3. Location of Exterior Ductwork and Mechanical Equipment:**

a. Is Ductwork or mechanical equipment located outside of building, other than rooftop? ☐ Yes ☐ No
*If yes, as per FBCM 501.3.1, ductwork/mechanical equipment must be a minimum of 10' from the property line.

b. Provide plan and elevation views showing ductwork, duct enclosure, hood, cooking surface, air supply, exhaust system and equipment support, including structural details.

**4. Type of Hood (2020 FBCM 507.1):**

a. For grease and smoke removal: Type I: _____Quantity (FSMC 507.2)
(i.e. deep fryer, char broilers, grill, ovens and sold-fuel appliances)

b. For steam, vapor, heat or order removal: Type II: _____Quantity
(i.e. steamer, soup kettle, dishwashers)
***Note: Hood should have a permanent, visible label identifying it as a Type II hood.***

c. Is hood for solid-fuel cooking equipment? ☐ Yes* ☐ No
*If yes, a separate exhaust system is required.

## 5. Type of Material and Gage (FBCM 506.3.1.1, 507.2.3, 507.3.1):

| TYPE I HOOD | | | | TYPE II HOOD | | | |
|---|---|---|---|---|---|---|---|
| | **Type of Material** | **Minimum Reqs.** | **Gage Proposed** | | **Type of Material** | **Minimum Reqs.** | **Gage Proposed** |
| **Duct & Plenum** | Galvanized Steel | | | **Duct & Plenum** | Refer to SMACNA | | |
| | Stainless Steel | 18 gage | | | | | |
| | Factory-built | Provide UL listing | | | | | |
| **Hood** | Galvanized Steel | 18 gage | | **Hood** | Galvanized Steel | 22 gage | |
| | Stainless Steel | 20 gage | | | Stainless Steel | 24 gage | |
| | Note – Black Iron is not in code. Submit Manufacturer & U.L. Listings FBCM 304 | | | | Copper | Not less than 24 ounces per square foot | |

## 6. Quantity of air exhausted through the hood (FBCM 507):

a. Canopy hoods shall extend a minimum of 6" beyond cooking surface on all open sides.

Type of hood proposed: ☐ Canopy ☐ Non-canopy

Proposed distance between lip of hood and cooking surface: Canopy_____ft. Non-canopy_____ft.
*4 ft. maximum allowed* *3 ft. maximum allowed*

b. Complete the following for a listed or unlisted hood as applicable:

I. Listed Hood (see FBCM Section 507.1 exception #1 and #2):

***Provide manufacturer's installation instructions and listing documents for listed hoods and grease ducts.***

Make and Model Number:_____Listed CFM:_____

II. Unlisted Hood – Complete the calculation using the table below:

Quantity of air = Lineal ft. of hood front X CFM from Table below:

_____ = _____ ***ft x*** _____ ***ft. =*** _____ ***CFM***
**QUANTITY OF AIR** **LINEAL FT OF HOOD FRONT** **CFM FROM TABLE BELOW**

**MINIMUM NET AIRFLOW FOR DIFFERENT TYPES OF UNLISTED HOOD (see 507.5)**

Identify the cooking appliances and circle the CFM applied. When any combination of cooking appliances is utilized under a single hood, the highest exhaust rate required by this table shall be used for the entire hood. For hoods that are listed and labeled under UL710 or UL710B, see FBCM 507.1 EX #1 and #2.

| | Hood Exhaust CFM Table | *CFM / lineal ft. of hood front |
|---|---|---|
| 1 ☐ | Extra heavy-duty cooking appliances (non-canopy hood not allowed): all solid-fuel appliances | |
| 2 ☐ | Heavy-duty cooking appliances: wok, broiler (gas or electric), gas burner range | |
| 3 ☐ | Medium-duty cooking appliances: conveyor pizza ovens, deep fryer, range (gas or electric), skillet | |
| 4 ☐ | Light-duty cooking appliances: gas and electric ovens, pasta cookers, steamers | |

**General Notes:**

1. All kitchen hoods and exhaust duct construction plans and this worksheet shall clearly convey and depict Code compliance.
2. Residential appliances to be used and installed in commercial buildings are permitted where approved for use in commercial applications and shall be protected by a Type I or Type II Hood as per the 2020 FBCM. See section 507.1.2.
3. Kitchen hoods shall also be known to comply with the 2020 FSECCC by matching the appropriate Energy Code compliance path with the 2020 FSECCC by using one of the below reference standards:
    a. 2020 FSECC Section 403.2.8
    b. ASHRAE 90.1 – 2016 Section 6.5.7.2

**7. Makeup Air (508)**

a. Applicant shall provide makeup air approximately equal to the exhaust. _____ CFM.
b. Makeup air system shall be electronically interlock with the exhaust system, such that the makeup air system will operate when the exhaust is in operation. Provide note on mechanical plans and indicate sheet #_____.
c. Makeup air shall be provided by a mechanical or gravity means of sufficient capacity. Window and door openings shall not be used for the purpose makeup air.

| Fan | | | Motorized Damper | | | |
|---|---|---|---|---|---|---|
| Make and Model: | | H.P. | Recommended air velocity, 500 fpm | | | |
| Static Pressure: | CFM in at | | Duct Area Requirement = CFM/500 fpm | CFM | /500 = | ft.² |
| Duct Dimension: | Area | | Duct Dimension Requirement = | | | |
| Air Velocity =CFM/area | CFM /area = FPM | | Eff. Damper Opening = | X = ft² | | |

**8. Exhaust Duct System (506.3.4): Design Minimum 500 Feet per Minute**

a. Applicant shall provide the specified air velocity in exhaust duct.

b. Duct Size_____ in. **x** _____in., duct area =____in x _____in. = _____ ft²

| Type of Hood | Air Velocity (FPM) | CFM/Duct Area (ft²) | Proposed Air Velocity |
|---|---|---|---|
| 1. Type I Req. 500 to recom. 2500 | _____/_____ | =_____ | =_____FPM |
| Type II Req. Min 500 CFM | _____/_____ | =_____ | =_____FPM |

2. Static Pressure Loss
Duct_____in.+ grease filter/extractor_____in. + other_____in. = Total_____in. of $H^2O$

3. Fan and motor shall be of sufficient capacity to provide the required air movement. Fan motor shall not be installed within ducts or under hood.
Fan make and model_____ HP_____
Static Pressure_____in. at_____ CFM

Note: If using a listed duct wrap, provide manufactures installation instructions and listing documents:

_____

**9. Exhaust Outlet Location (506.3.13)**

| Exhaust Outlet Location | | Minimum Required | Proposed |
|---|---|---|---|
| Exhaust outlet shall terminate above roof | Type I<br>Type II | | |
| Distance from same or adjacent building | Type I<br>Type II | | |
| Distance from above adjoining grade | Type I<br>Type II | | |
| Distance from property line | Type I<br>Type II | | |
| Distance from windows and doors | Type I<br>Type II | | |
| Distance from mechanical air intake | Type I<br>Type II | | |

**10. Duct Slop and cleanout Access (506.3.7, 506.3.8, 506.3.9):**

a. Horizontal duct up to 75' long: Minimum Slope ¼ in./ft. Proposed: _____ in./ft.
Horizontal duct more than 75' ling: Minimum Slope 1 in./ft. Proposed:_____ in./ft.
Total Proposed: _____ in./ft.

b. Tight-fitting cleanout doors shall be provided at every change in ductwork direction.

**11. Duct Enclosure (506.3.11) (507.2.7 Hoods within ceiling cannot use 506.3.11.2):**

a. Ducts penetrating ceiling, call or floor shall be enclosed in a duct enclosure asper sections 506.3.11.1, 506.3.11.2 and 506.3.11.3 Provide manufacture installation and test documents). Shaft enclosures shall unprotected openings are permitted as per FBCM Table 705.8.

| Number of Stories | Min Fire-Resistive Const. Of Enclosure | Proposed | Proposed Material & Construction |
|---|---|---|---|
| Less than 4 | 1 hour | **hr.** | |
| 4 or more | 2 hour | **hr.** | |

**Provide manufacturer's installation instructions and listing documents for exceptions**

a. Where no enclosure is provided, ducts shall have a clearance from combustible construction of not less than 18 inches. (506.3.11 and 506.3.6) Provided:_____ in.
b. Duct enclosures shall be sealed around the duct at the point of penetration and vented to the exterior through a weather-protected opening.
c. Duct enclosures shall serve only one kitchen exhaust duct (see multiple hood venting for exception)
d. Tight-fitting hinged access door shall be provided at each cleanout. Access enclosure doors shall have a fire-resistance rating equal to the enclosure. An approved sign shall be placed on the access door: **"ACCESS PANEL. DO NOT OBSTRUCT."**

**12. Multiple Hood Venting (506.3.5)**

a. Number of hoods vented by a single duct system: Proposed_____
   A single-duct system may serve more than one hood located in the same story of the building, provide that the interconnecting ducts do not penetrate any fire resistance rated construction and are located in adjoining rooms; and the grease duct system does not serve a solid fuel-fired appliance.
b. An unlisted hood outlet shall serve not more than a 12-foot section of hood.

**13. Additional Information – Type I Hood Only (507.2.5)(507.2.6)(507.2.8)(507.2.9)**

a. Grease filters shall be installed at a minimum 45 degrees angle and equipped with drip tray and gutter beneath lower edge of filters. Proposed:_____ degrees
b. Distance between lowest edge of grease filters and cooking surface of:
   Grill, fryer, exposed flame shall not be less than 2 ft. Proposed: _____ft.
   Exposed charcoal, charbroil shall not be less than 3 ft. Proposed: _____ft.
c. Type I hood shall have clearance from construction of:

| UNPROTECTED (Combustible Construction) | EXCEPTION |
|---|---|
| Hood min. required clearance of 18 in<br>Proposed:_____ in. | 1) Clearance shall not be required from gypsum wallboard attached to noncombustible structures provided that a smooth, cleanable, nonabsorbent and noncombustible material is installed between the hood and the gypsum or cementitious wallboard extending not less than 18 inches in all directions from the hood.<br>2) Hoods listed and labeled for reduce clearance UL710. |

a. Grease gutters shall drain to an approved collection receptacle that is fabricated, designed and installed to allow access for cleaning.
b. Hoods less than 12 inches from ceilings or walls shall be flashed solidly.
c. All joints and seams shall be made with continuous liquid-tight weld or braze made of the external surface of the duct system. Vibration insulation connector may be used provided it consists of noncombustible packing in a metal sleeve joint. (506.3.2, 506.3.2.4) Joints shall be smooth and accessible for inspection (506.3.2.5).
d. Exhaust fans used for discharging grease exhaust shall be positioned so that the discharge will not impinge on the roof. The fan shall provided with an adequate drain opening at the lowest point to permit drainage of grease to a suitable collection device. (506.5.3).
e. Up-blast fans serving Type I hoods and installed in a vertical or horizontal position shall be hinged, supplied with a flexible weatherproof electrical cable to permit inspections and cleaning and shall be equipped with a means to limit swing of the fan on its hinge. Ductwork shall extend 18 inches or more above roof surface. Exhaust outlet shall be not less than 40 inches above the roof surface (5063.13) (506.5.3)
f. Fire Suppression System shall be per NFPA Fire Code. Provide automatic shutoff for make-up air, exhaust system and appliances when suppression system is activated. Dependent on suppression agent and manufacture's requirements. Separate permit is required.
g. Performance test certificate of the hood system shall be provided to owner before final approval. Test shall verify property operation, the rate of exhaust makeup air, capture and containment performance of the exhaust at normal operating conditions. (507.6)

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