# -MECHANICAL EXHAUST VENTILATION-

*Provide the following information concerning mechanical exhaust hood and make-up air design. Plans showing elevated drawing of hood, make-up air, duct elbows & fans, and cooking equipment **must** be provided on a separate plan sheet.*

Facility Name: _____ Address: _____

Prepared By: _____ Company: _____ Date: _____

Contact Phone No. _____ Email: _____

A. COOKING EQUIPMENT & HOOD *Fill in cooking equipment & hood dimensions in feet in overhead view.*
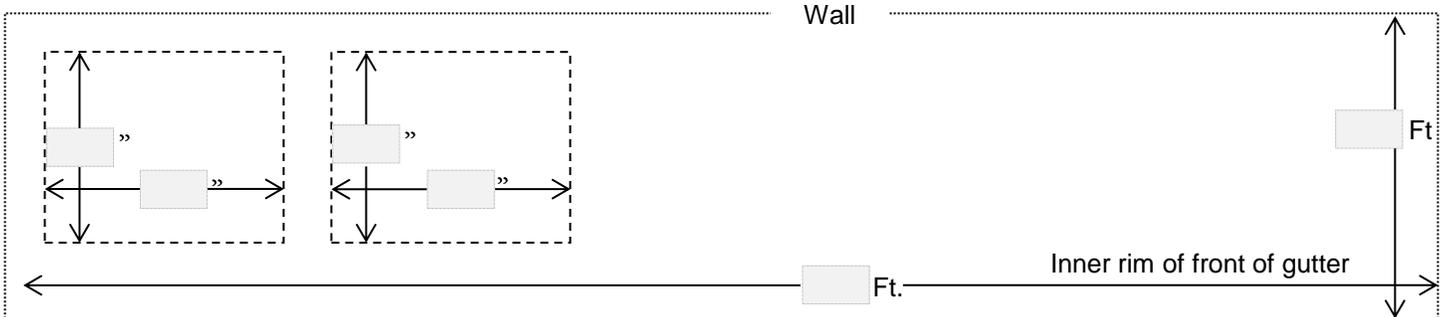
- Casters & quick disconnects strongly recommended - Specified? ☐ Yes ☐ No
- Hood long enough to allow ≥ 6" on sides of equipment ☐ Yes ☐ No
- Hood wide enough to allow ≥ 6" in front and back of equipment ☐ Yes ☐ No
- Canopy lip ≥ 6.5' above floor and ≤4' above cooking surface ☐ Yes ☐ No
- Canopy free of exposed horizontal electrical and Ansul lines ☐ Yes ☐ No
- Hood Material *(e.g., stainless steel, galvanized iron, etc…)* Please Specify: _____

B. HOOD TYPE & EXHAUST RATE in CFM

What kind of hood?	☐ Type I	☐ Type II	☐ NSF or UL Listed	Make	Model
Backshelf or Proximity Canopy (Island, double island, wall or corner)	*E.g., frying, pizza oven, griddling, charbroiling, etc...*	*E.g., dishwashing, some baking and steaming, etc…*			

Hood Opening: H(_____ft) x W(_____ft) = _____ ft^2 x _____Q*factor per UMC = _____**CFM** *(min req'd)*
Note: Unlisted Type 1 canopy hoods must follow UMC formulas for calculating minimum airflow (Q) based on cooking equipment categories.
(ie. Low Ex. Q = 75A or 50A; Medium Ex. Q = 100 A; High Ex. Q = 150A; and Solid Fuel Q = 200A or 300A)

Other Formula (Listed Hood): _____ = _____ **CFM** *(designed)*

C. FILTERS

Type: _____ Manufacturer: _____ Filter Velocity Rating: _____
Required Filter Area = Q (CFM) ÷ Filter Velocity (FPM) = FA ft^2

Size H_____ inches x W_____inches (# of Filters) _____xUseable filter area _____sq. ft.
= **Total filter area _____sq. ft.**

Required or Designed Exhaust Rate _____CFM ÷ _____sq. ft. (total filter area) = _____**FPM**

Filters, continued…

Baffle filter ideal FPM = 300, FPM between 250-350	☐ Yes	☐ No
Horizontal slot filter ideal FMP = 1000. FPM between 800-1200 ☐ N/A	☐ Yes	☐ No
FPM can be < or > above if this is a listed hood	☐ Yes	☐ No
Total of filter widths _____ must be < hood length.	☐ Yes	☐ No

D. DUCT

Duct dimensions: _____inches x _____ inches = _____ inches^2 ÷ 144 = _____**ft^2**
- *Hood greater than 12 ft long shows more than 1 exhaust outlet to main duct?*   ☐ Yes ☐ No ☐ N/A

Duct Velocity = _____CFM ÷ _____ft^2 = _____**FPM**
- *FPM is between 1500 and 2500*   ☐ Yes ☐ No ☐ N/A

E. STATIC PRESSURE & EXHAUST FAN

No. of elbows: _____   Static Pressure(SP): _____   Cleanout at each elbow? ☐ Yes ☐ No ☐ N/A

Exhaust Fan (Manufacturer/Model): _____   HP: _____

UL 762 Restaurant Application Specified for Type I? ☐ Yes ☐ No   Easily pulls CFM at SP? ☐ Yes ☐ No

F. FILTERED MAKE-UP AIR

Hood Exhaust Total: _____CFM ÷ 2000 CFM *(max per diffuser recommended)* = _____ Total No. of Diffusers

Next higher whole number: _____ Diffusers Recommended

Make-Up Air Fan (Manufacturer/Model): _____   HP: _____

Static Pressure (SP): _____ Supplies 95-100% of exhaust CFM at SP?	☐ Yes	☐ No
Make-up air on roof ≥ 10 ft. from exhaust	☐ Yes	☐ No
Make-up air diffusers ≥ from 10 ft. hood canopy	☐ Yes	☐ No
Exhaust and Make-up air interlocked	☐ Yes	☐ No
HVAC integrated with kitchen ventilation	☐ Yes	☐ No
Exhaust and Make-up air shall be equal for a non-listed hood	☐ Yes	☐ No
For compensating hoods, Make-up air must be minimum of 80% of the exhaust CFM	☐ Yes	☐ No
→ If yes, specify source of the remaining make-up air:		