Office of the Illinois
State Fire Marshal
"Partnering With the Fire Service to Protect Illinois"

TECHNICAL SERVICES DIVISION
Phone: 312-814-8960 Fax: 312-814-3459 E-mail: SFM.Techservices@illinois.gov

HOOD & DUCT SYSTEM AND HOOD EXTINGUISHING SYSTEM PLAN SUBMITTAL FORM

Plans, accompanied by this form, should be submitted to:

Office of the State Fire Marshal
Division of Technical Services
555 W. Monroe Street, Suite 1300N
Chicago, IL 60661

The hood and duct "system" consists of the hood, the duct, the exhaust fan, grease-removal devices and the fire suppression system. The OSFM plan review process addresses each of these separate subject areas. Each subject area will be reviewed and approved individually.

When only the suppression system an existing hood & duct system is being upgraded it is the responsibility of the owner and/or contractor to ensure that the existing hood & duct system is in compliance with the codes and standards applicable at the time of installation.

Property Information

Building Name :_____

Building Address: _____ **County:** _____

Owner's Name: _____

Owner's Address: _____

Owner's Phone: _____ **Fax:** _____ **E-Mail:** _____

Contractor/Designer Information

Company Name :_____

OSFM License #: _____

Company Address: _____

Contact Person (Designer): _____

Owner's Phone: _____ **Fax:** _____ **E-Mail:** _____

Note: If plans are forwarded by, or in the name of, the local fire chief, an address and telephone number should be provided indicating who can answer OSFM questions relative to the plans and to whom the plans should be returned to when review is completed.

Local Fire Department: _____

The Plans are for:

☐ Installation of a new hood, duct and suppression system
☐ Complete replacement of an existing hood, duct and suppression system.
☐ Replacement or remodeling of part of an existing system:
☐ Replacement of hood components
☐ Replacement of duct components
☐ Replacement of fire suppression components
☐ Conversion of an existing dry chemical suppression system to a liquid chemical system

Number of Stories (in the building)

☐ One ☐ Two ☐ Three ☐ Four ☐ > Four:

The System Being Submitted is Located on What Level:

☐ One ☐ Two ☐ Three ☐ Four ☐ > Four ☐ "High rise" (> 75 ft) Floor Level: _____

Occupancy Classification

☐ Ambulatory Health Care	☐ Detention and Correctional	☐ Residential Board and Care
☐ Assembly	☐ Hotel/Dormitory	☐ Storage
☐ Apartment Building	☐ Industrial	
☐ Business	☐ Lodging & Rooming House	
☐ Day Care Center	☐ Mercantile	
☐ Day Care Home	☐ One- and Two-Family Dwelling	

☐ Mixed Occupancy Classifications: _____

GENERAL

1. Are complete drawings provided showing the system installation, including the hood(s), exhaust duct(s), and appliances, along with the interface of the fire-extinguishing system, detectors, piping nozzles, fuel shutoff devices, agents storage container(s), and location of the manual actuation device(s)? If the system is being renovated complete drawings may not be necessary, but include enough detail to verify compatibility with existing equipment and compliance with applicable codes.	☐ **Yes** ☐ **No**
2. Will the owner be provided with a copy of the manufacturer's installation and maintenance manual for the hood system and extinguishing system?	☐ **Yes** ☐ **No** ☐ **N/A**
3. Will the hood and duct system and the hood suppression system installation be in agreement with the terms and listing and the manufacturer's instructions, verified by Product Data Sheets for: exhaust fans, suppression systems, automatic gas shutoff valves, and factory built hoods?	☐ **Yes** ☐ **No** ☐ **N/A**
4. Is a statement included with the submittal indicating that the system, including all kitchen equipment and appliance, will be installed in accordance with manufacturer's installation instructions?.	☐ **Yes** ☐ **No** ☐ **N/A**
5. Will the extinguishing system and hood system have an operational acceptance test in accordance with NFPA 96, NFPA 17A and the manufacturer's instructions?.	☐ **Yes** ☐ **No** ☐ **N/A**

THE SUPPRESSION SYSTEM ☐ N/A

1. Are working plans included for the required fire suppression system(s)?	☐ Yes	☐ No	
2. Are Product Data Sheets/Specifications as well as a complete design, installation and maintenance manual for the extinguishing system for the required fire suppression system(s) included in the submittal?	☐ Yes	☐ No	
3. Are fusible links indicated above each cooking appliance or within 12 inches of the entrance to the exhaust hood?	☐ Yes	☐ No	
4. Do the submitted plans indicate the distance from the nozzles to the cooking surface?	☐ Yes	☐ No	
5. Is at least one manual actuator provided for each system? (The readily accessible means for manual activation shall be located between 42 inches and 60 inches above the floor, be located in the path of exit or egress, and clearly identify the hazard protected. The manual means of activation shall also have operating instructions).	☐ Yes	☐ No	
6. Are automatic shut down devices for energy sources for the cooking equipment provided?	☐ Yes	☐ No	
7. Are the fuel and electric power supply resets by manual (not automatic) means?	☐ Yes	☐ No	
8. Will the system be connected to the building fire alarm system on a separate zone?	☐ Yes	☐ No	☐ N/A
9. Will discharge nozzles be located, installed or protected so that they are not subject to mechanical, environmental, or other conditions that could render them inoperative?	☐ Yes	☐ No	
10. Does the submittal indicate the type of pipe to be used in the system? (Galvanized pipe is prohibited).	☐ Yes	☐ No	
11. Are pipe penetrations of the hood and ducts liquid-tight?	☐ Yes	☐ No	
12. Is a fire extinguisher to be provided in the cooking area of a type that is compatible with the agent in the fixed suppression system?	☐ Yes	☐ No	
13. If fusible link method of activation is not used, is the type of detector or detection being used, including the location of the detectors, indicated in the submittal?	☐ Yes	☐ No	☐ N/A
14. Will a person or persons trained by the manufacturer test the system, document the tests, and have the test witnessed by the Office of the State Fire Marshal or the local authority if available?	☐ Yes	☐ No	
15. Do the submitted plans indicate the details of the system including the size, length and arrangement of connected piping and the description and location of nozzles so that the adequacy of the system can be determined? (Information shall be submitted pertaining to the location and function of detection devices, operating devices, auxiliary equipment, and electrical circuitry, if used).	☐ Yes	☐ No	
16. Does the system comply with UL 300 or another equivalent standard?	☐ Yes	☐ No	

THE HOOD AND VENTILATION COMPONENTS ☐ N/A

1. Are calculations included indicating that the exhaust is sufficient to provide capture and removal of grease laden cooking vapor?	☐ Yes	☐ No
2. Is the air velocity through any duct at least 500 ft. per minute?	☐ Yes	☐ No

3. Does the submittal indicate the source of the makeup air for the exhaust and appliances? ☐ **Yes** ☐ **No**

4. Are ventilation calculations provided indicating a near negative pressure, exceeding 0.02 inch water column (4.98 kPA)? ☐ **Yes** ☐ **No**

5. Is internally supplied air shut down upon suppression system activation? ☐ **Yes** ☐ **No** ☐ **N/A**

6. Does the submittal indicate the gage of steel, stainless steel or copper sheeting for the exhaust hood or does the submittal indicate that the hood assembly is listed? ☐ **Yes** ☐ **No**

DUCTS AND EXHAUST FANS ☐ N/A

1. Are Product Data Sheets provided for the exhaust fan being used for the grease hood? ☐ **Yes** ☐ **No**

2. Are details for the grease diverter shown? (Include the size of vertical outlet, length of duct and low point drain outlet). ☐ **Yes** ☐ **No** ☐ **N/A**

3. Do the working plans indicate the gage of the exhaust duct or indicate that the hood is listed? (A minimum of 16 gage for steel and 18 gage for stainless steel is required). ☐ **Yes** ☐ **No** ☐ **N/A**

4. Are Product Data Sheets provided for factory built commercial kitchen ducts? ☐ **Yes** ☐ **No** ☐ **N/A**

5. Are joints and seams made with a continuous liquid tight weld or braze on the external side of the duct system? ☐ **Yes** ☐ **No**

6. Is the method of supporting the duct indicated? (The supports must be of noncombustible material and designed to carry gravity and seismic loads). ☐ **Yes** ☐ **No**

7. Is the ductwork to be installed so grease cannot collect in any portion? ☐ **Yes** ☐ **No**

8. Are openings provided at the sides or at the top of the duct, whichever is more accessible, and at changes of duct direction? (Openings shall be protected by approved access panels). ☐ **Yes** ☐ **No** ☐ **N/A**

9. Does the submittal indicate the location of the grease ducts in relation to the building's structural and fire-rated assemblies (floor/ceiling assemblies, roof assemblies and wall assemblies)? Information shall be provided about any enclosures or the isolation of ducts as required by building codes and the penetration of rated assemblies. ☐ **Yes** ☐ **No**

10. Does the submittal indicate the location of access panels? ☐ **Yes** ☐ **No** ☐ **N/A**

11. Are access panels of the same material and thickness as the duct? Access panels shall have a gasket or sealant that is rated for 1500°F and shall be greasetight. Fasteners, such as bolts, weld studs, latches, or wing nuts, used to secure the access panels shall be carbon steel or stainless steel and shall not penetrate duct walls. ☐ **Yes** ☐ **No** ☐ **N/A**

12. Does the submittal include details showing rooftop terminations? (The clearance form the outlet to adjacent buildings, property lines, and air intakes should be provided; a hinged upblast fan with the ductwork extending a minimum of 18 inches above the roof surface and the fan discharging a minimum of 40 inches above the roof surface. Also, the ability to drain grease out of any traps should be indicated). ☐ **Yes** ☐ **No** ☐ **N/A**

13. Does the submittal include detailed drawings showing wall terminations? Also, the wall construction type, clearance from the outlet to adjacent buildings, property lines, grade level, combustible construction, electrical equipment or lines, and the closest point of any air intake or operable door or window at or below the plane of the exhaust termination should be indicated. The ductwork pitch and method to drain the grease should also be indicated. ☐ **Yes** ☐ **No** ☐ **N/A**

Are there any known exceptions to the requirements of the applicable NFPA Life Safety Code or NFPA 96 included in this planned project?

☐ **No**
☐ **Yes**

If "yes" please explain: _____

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Any other information that you feel may be pertinent to the OSFM's review of the submitted plans

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Signature of Submitter **Printed Name** **Date**