



**TOWN OF BRIGHTON**  
**Office of the Fire Marshal**  
 2300 Elmwood Avenue  
 Rochester, New York 14618  
 (585) 784-5220 Office  
 (585) 784-5207 Fax

## ***Kitchen Ventilation Hood Permit Application***

*Plan Submittals and Installation shall be in accordance with the requirements detailed and contained in the National Fire Protection Association (NFPA) Chapter 96 Standard-2008 Edition (Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations) and current manufacturer specifications*

**Make Checks Payable – Town of Brighton**

**Kitchen Ventilation Hood Installation Permit - \$50.00**

<b>Applicant &amp; Property Information</b>	Business Name						
	Address			Suite	City	State	Zip Code
	Telephone		Work Telephone		Email Address		
	<b>Property Owner or Mailing Address if different from above</b>						
	Name or DBA						
	Address			Suite	City	State	Zip Code
	Telephone		Work Telephone				
<b>Installation Company / Agent to Owner</b>	Name						
	Contact Name						
	Address			City	State	Zip Code	
	Telephone		Mobile Telephone		Work Telephone		
	Rochester Fire Department Extinguisher License #						

The undersigned represents that this application for a permit as described herein will be in accordance with all ordinances of the Town of Brighton and the Fire and Building Code of New York State and that any plans or specifications submitted with this application are the plans or specifications relating to this permit and no other.

**Refer to Kitchen Ventilation Hood Installation Plan Review and Permit Submittal Requirements**

Applicant Signature			Applicant Name (Print)			Application Date
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<b>Permit Number</b>	<b>Issue Date</b>	<b>New Expiration Date</b>	<b>Fee Paid</b>	<b>Check #</b>	<b>Receipt Number</b>	<b>Evacuation Plan Received</b>

# Kitchen Ventilation Hood Plan Review Checklist

## Purpose

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This information packet has been developed in an effort to provide the highest level of service to the residents and visitors within the Town of Brighton. The major goal plan reviews conducted by the Town of Brighton - Office of the Fire Marshal is to ensure the design of Kitchen Ventilation Exhaust Systems meet the minimum requirements of the adopted codes and ordinances. To meet this goal, the submitted plans and supporting documentation must contain the information needed to conduct a thorough review.

## Scope

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This packet outlines the minimum requirements set forth in the Fire Code of New York State, local amendments, and departmental policies and procedures as they relate to the installation of Kitchen Ventilation Exhaust Systems. This packet is not intended to provide an all-inclusive listing of submittal and inspections requirements, as it would be virtually impossible to cover all situations. To meet this goal, the submitted plans and supporting documentation must contain the information needed to conduct a thorough review.

## Administration

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A design engineer or licensed design professional will typically provide a preliminary design within the construction documents that will contain sufficient detail to identify the scope of the work and allow for competitive bidding. The design engineer's or licensed design professional's responsibilities include but are not limited to:

1. Evaluate the broad range of hazards and fire protection schemes required to develop a workable, integrated fire sprinkler solution.
2. Provide design documents as outlined in this guideline.
3. Review shop drawings and submittals to ensure conformance with design documents and applicable codes and standards.
4. Monitor the installation of fire protection systems and participate in their acceptance and commissioning.

## Construction Documents

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Fire Protection drawings and specifications prepared by the design engineer or licensed design professional and included in the bid documents constitute a 'preliminary design' and shall be sealed by the design engineer or licensed design professional of record registered in New York State as required by the New York State Department of Education Law.

This 'preliminary' design is a basis for bidding and may be referenced to herein as 'construction documents'. A basic understanding of hazard and occupancy classifications; and a working knowledge of fire protection codes and standards is expected from the design engineer or licensed design professional of record.

Construction Documents should comply as applicable with NFPA 17, NFPA 17A, NFPA 96, Fire Code of New York State and this guideline.

Details such as piping sizes and head locations are not required to be part of the Construction Documents. Such layouts when provided shall be denoted as being provided for general coordination and information only.

## Review and Approval of Shop Drawings and Hydraulic Calculations

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The following procedure for review and approval of working shop drawings is applicable and shall be included in the construction documents as necessary to ensure the Kitchen Ventilation Exhaust Hood Installation contractor understands their responsibility.

Working shop drawings can be produced by technicians, designers or contractors after successfully passing the "Restaurant Fire Suppression Systems Examination" administered by National Association of Fire Equipment distributors (NAFED) or International Codes Council (ICC). However, the working shop drawings, hydraulic calculations, and product data shall be reviewed and approved by the design professional or licensed design professional in responsible charge prior to submittal to the Office of the Fire Marshal.

Working Shop drawings shall include and be in accordance with working plan requirements of Chapter 904 of Fire Code of New York State and NFPA 17A.

Product data should include and identify all material, equipment, and accessory selections to be installed.

The Kitchen Ventilation Exhaust Hood contractor must provide all necessary materials and labor for a system fully compliant with all applicable NFPA requirements and the construction documents.

Any discrepancies should be brought to the attention of the Specifying Engineer or licensed design professional of record.

The Specifying Engineer or licensed design professional has primary responsibility for review and approval of fire suppression system working shop drawings and hydraulic calculations. The Specifying Engineer or licensed design professional review shall determine compliance with applicable codes and standards and the project contract documentation.

Accompanying the shop drawings shall be a stamp on the drawings or sealed letter from the design professional in responsible charge stating the shop drawings have been reviewed and have been found in general compliance to the design document(s).

If comments by the design engineer or licensed design professional are limited, the specifying engineer may, at their discretion, forward the shop drawings to the Office of the Fire Marshal in parallel with comment resolution by the fire sprinkler contractor.

All comments made by the specifying designer or licensed design professional shall be forwarded to the Office of the Fire Marshal with the review package including comments from previous review iterations, if any.

As noted above the documents outlining the design strategy must be stamped by the registered Engineer/Architect and the shop drawings and other supporting documents must bear a **SHOP DRAWING REVIEW** stamp indicating review and approval from the originating design engineer or licensed design professional.

Please review and familiarize yourself with all requirements listed in this document prior to your submittal.

Your compliance with these requirements will enable us complete the review process faster and more efficiently with less rejections due to improper submittals.

<b>SHOP DRAWING / SUBMITTAL REVIEW</b>	
<input type="checkbox"/> APPROVED	<input type="checkbox"/> APPROVE WITH CHANGES NOTED
<input type="checkbox"/> REVISE AND RESUBMIT	<input type="checkbox"/> REJECTED _____
SUBMITTAL WAS REVIEWED FOR DESIGN CONFORMITY AND GENERAL CONFORMANCE TO CONTRACT DOCUMENTS ONLY. THE SUBCONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING DIMENSIONS AT JOBSITE FOR TOLERANCE, CLEARANCE, QUANTITIES, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF HIS WORK WITH OTHER TRADES AND FULL COMPLIANCE WITH CONTRACT DOCUMENTS	
By: _____	Date: _____
ABC Construction Ltd Besttown, IA 12345	

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## General

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A "Worksheet for Commercial Cooking Hood & Exhaust System" must be completed and signed by the design professional. A separate worksheet is required for each hood being applied for.

Preferred Construction Documents Size - Sheet "D" 24" X 36" *(Chief Fire Marshal may approve other sizes by request)*

Copies shall all be the same size, drawn in indelible ink.

Sheets that are cut and pasted, taped, or that have been altered by any means (pen, pencil, marking pen, etc.) will not be accepted for plan check.

Plans that are not legible may be rejected as unacceptable for plan review purposes.

Distinguish new from existing equipment with "N" and "E" subscripts.

All Applicable codes: Ensure the current codes and editions are listed on the plans.

Authority Having Jurisdiction (Town of Brighton – Office of the Fire Marshal)

Scope of work: Brief project description as it pertains to your plan submittal.

## Drawing Requirements

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All drawings submitted for permit must contain, at minimum, the following information and details, based on the 2010 edition of Mechanical Code of New York State

Show the kitchen layout, showing the hood (with dimensions), location and type of cooking equipment, exhaust and supply duct systems, exhaust and supply air fans, fuel or electrical power supply, automatic fire extinguishing system and manual pull system activation location, means of egress, prep tables, cabinets, electrical control panels, fire alarm system activation and monitoring, and extra hazard fire extinguisher location.

A detail view: showing the canopy's overhang of the cooking surfaces, the location of the grease filters, and their distance to the cooking surface.

Specification of the material used for the hood and ductwork, including the type of joints.

Clearances of the hood and ductwork to any other building element must be clearly shown.

All ducts which penetrate a ceiling, a wall, or a floor, must be enclosed in a shaft assembly; full details of this shaft must be provided. If the shaft enclosure exception is being used, full details of the fire stop system must be provided. This requirement applies to all penetrations, whether or not the element penetrated has a fire resistance rating!

Details of the suppression systems interconnection with all gas and electric supplies are required.

For fuel fired equipment, details of the interconnection between exhaust system and fuel supply must be clearly shown.

Clean out locations must be clearly depicted.

All applications involving a vent termination, through an exterior wall, are required to show the location of the exhaust terminal, with scaled dimensions to the adjacent property line, adjacent building(s), and any window, door or air intake opening.

Applications involving terminations above a roof need to show terminal location, with clearances above the roof surface, distance to roof's edge, and clearance to any other rooftop equipment. These requirements shall also apply to the location of any make up air equipment.

Drawings must also include the following calculations, with all variables shown:

- 1) the hood's required capacity.
- 2) the designed air velocity within the duct system.

## Commercial Hood

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Cooking equipment used in processes producing smoke or grease laden vapors must be equipped with an exhaust system which includes a commercial hood, grease removal devices, an exhaust duct system, and an automatic fire extinguishing system. [MCNYS 507.1 and 507.2.1]

A commercial cooking exhaust hood is required for domestic cooking appliances used for commercial purposes. [MCNYS 507.2.3]

Provide a schedule for the cooking exhaust hood, hood manufacturer and model number, hood length and width, cfm ratings, and hood collar static pressure loss. [MCNYS 507.2.1]

The hood must be listed by a nationally recognized testing laboratory (U.L., ETL, etc.). Provide the following listing information on plans: online U.L. listing card/file and identify specific criteria for the system: model number, minimum exhaust cfm, maximum supply cfm, and maximum cooking surface temperature. [MCNYS 507.1]

The hood canopy must overhang or extend a horizontal distance of not less than 6 inches beyond the edge of the top horizontal surface of the appliance on all open sides (see Exception). The vertical distance between the front lower lip of the hood and the appliance must not exceed 4 feet. [MCNYS 507.12]

Show a scaled full height cross section of the hood with exhaust and supply duct systems. The exhaust hood must be installed with a clearance to combustibles (no wood) of not less than 18 inches (see Exception). [MCNYS 507.9] Show mounting height above finish floor. Include noncombustible hood mounting supports. [MCNYS 507.6]

Show new and existing cooking equipment layout. Identify fuel or electrical power supply for all equipment whether new, existing, or not in contract. Show electric shunt trip and gas solenoid shut off valve. [BCNYS 904.3]

Provide a kitchen area supply and exhaust air balancing schedule verifying that the total outdoor air supplied equals the volume removed. [MCNYS 403.1]

The hood exhaust fan must automatically activate whenever cooking operations occur (see Exception No. 3. MCNYS 507.1). [MCNYS 507.2.1.1]

Show that the automatic fire extinguishing system is connected to the building monitored fire alarm system. [FCNYS 907.13 and 907.14]

## Exhaust and Supply Fans

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Provide a schedule for the cooking hood exhaust and supply fans manufacturer, model numbers, cfm ratings and fan static pressure ratings. The exhaust fan must be listed for greasy atmosphere by a nationally recognized testing laboratory (U.L., etc.). [MCNYS 506.5.1 Exception]

Exhaust outlets:

Exhaust outlets that terminate at the roof must have the discharge opening not less than 40 inches above the roof surface. MCNYS 506.3.12.1]

Exhaust outlets must be located not less than 10 feet horizontally from parts of the same building, adjacent buildings, adjacent property lines, and intake openings into any building (see Exception for 5 feet clearances), and not less than 10 feet above the adjoining grade level. [MCNYS 506.3.12.3 and MCNYS 401.4]

Exhaust outlet may terminate through exterior walls where the discharge does not create a public nuisance or a fire hazard. Other exterior openings must not be located within 3 feet of such terminations. No exhaust outlets are permitted where protected openings are required by the BCNYS. [MCNYS 506.3.12.2]

Exhaust fans must be positioned so that the discharge does not impinge on the roof, other equipment, or appliance, or parts of the structure. [MCNYS 506.5.2]

## Exhaust Duct System

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Provide a table of static pressure losses for the elements of the exhaust duct system: collar, straight segments, and any change of direction. [MCNYS 506.3 & 506.3.4]

Exhaust ducts must be designed and sized to provide a minimum air velocity of 500 feet per minute. [MCNYS 506.3.4] Identify the largest cross section area of the duct system and provide calculations demonstrating how it meets 500 fpm.

Grease duct systems and exhaust equipment serving a kitchen hood must have a clearance to combustible construction. [MCNYS 506.3.6] Provide a scaled detail showing the necessary clearances for the exhaust duct system.

Minimum 18 inches clearance to combustible materials (no wood).

Minimum three inches to noncombustible construction and gypsum wallboard attached to noncombustible structures.

Listed and labeled factory built commercial kitchen grease ducts may be used to reduce clearance requirements. [MCNYS 506.3.6 Exception 1 & Section 302.1]

All sections of the exhaust duct system must be constructed and installed so that grease cannot collect in any portion of the duct and must slope not less than ¼ inch per foot (2 percent slope) toward either the hood or an approved grease reservoir unless the duct is tested and listed according to UL 1978. [MCNYS 506.3.7]

## Grease Ducts

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Must be constructed of steel not less than 0.055 inch (No. 16 Gage) in thickness or stainless steel not less than 0.044 inch (No. 18 Gage) in thickness (see Exception for listed grease duct). [MCNYS 506.3.1.1]

All seams, joints, and penetrations must have liquid tight external welds. [MCNYS 506.3.2]

Ducts exposed to the outside atmosphere must be protected against corrosion in an approved manner. [MCNYS 506.2]

A separate grease duct system must be provided for each hood (see Exceptions). [MCNYS 506.3.5]

A grease duct penetration through a fire resistance rated ceiling, wall, or floor must be protected by fire resistance rated shaft construction. Minimum clearances must be maintained between the grease duct and shaft enclosure. [MCNYS 506.3.10] See Exception 2 for UL 2221. Fire resistance rated access openings through the rated shaft must be provided at grease duct cleanouts. [MCNYS 506.3.11]

Any portion of grease duct having sections not provided with access from the duct entry or discharge must be provided with cleanout openings. [MCNYS 506.3.8 and 506.3.9] Show locations.

SECTION 1				DESIGN REQUIREMENTS			
How frequent will you be using kitchen cooking appliances?							
Once a week or less?				More than once a week?			
What type of cooking process will you be utilizing <span style="float: right;"><i>(Check all that apply)</i></span>							
Warming Food		Cooking food		Frying Food		Solid Fuel	
LP Gas		Natural Gas		Electric			
SECTION 2				TYPE OF HOOD			
Yes	No	N/A	"Type I" or "Type II" Hood(s)?				
			Type I Hood Collecting and removal of grease and smoke (507.2.1)				
			Type I Hood (Solid Fuel) - Collecting and removal of grease and smoke (Separate or "Independent" Hood Provided?) (506.3.5.4)				
			Type II Hood Collecting and removal of steam, vapor, heat, or odors. (507.2.2)				
<i>(Not required for: countertop electrically heated appliances such as: toasters, steam tables, popcorn poppers, hot dog cookers, coffee makers, rice cookers, egg cookers, and holding/warming oven.</i> <i>(Additional heat and moisture loads generated by such appliances shall be accounted for in the design of the HVAC System) (I507.2.2)</i>							
Manufacturer of Hood							
Manufacturer							
Make							
Model							
SECTION 3				STYLE OF EXHAUST HOOD			
Style of Exhaust Hood(s) <span style="float: right;"><i>Check all that apply</i></span>							
Wall Mounted Canopy		Single Island Canopy		Double Island Canopy			
Eyebrow		Back Shelf		Pass Over			
SECTION 4				LISTED & "LABELED" REQUIREMENTS			
Yes	No						
		Designed per UL 710 Standard Exhaust Hoods for Commercial Cooking Equipment?					
		Hood provided with an attached label, symbol, or other identifying mark of the "listed" organization engaged in product evaluation?					
		Hood "listing card" provided with application?					
		Detailed Information provided on Cooking Appliances provided				<i>(See Item # 8 below)</i>	
		If hood is not listed per UL 710 Standards,				<i>(Complete Section # 5 below)</i>	
SECTION 5				UNLISTED & UNLABELED HOOD REQUIREMENTS			
Yes	No	<i>(Skip this section if not applicable)</i>					
		Designed per 507.13 Requirements?					
		Detailed Information provided on Cooking Appliances "Duty Ratings"				<i>(Complete Section # 9)</i>	
SECTION 6				Size, Location, and Outlet requirements of Hood(s)			
Yes	No						
		Detailed Drawing provided in application?					
		6 inch hood "overhang" from cooking appliances provided? ( 507.12)					
		Amount of Linear Feet of Hood used in design, provided? _____ (feet)					
		Each "exhaust outlet" does not serve more than a 12 foot section of hood? (507.15)					
		Maximum Distance from Cooking Surface(s) to lip of hood, per manufacturer's instructions provided? _____(inches)					
<ul style="list-style-type: none"> <li>Canopy Hoods (4 feet maximum distance) (507.12)      Non Canopy Hoods (3 feet maximum distance) (507.14)</li> </ul>							
SECTION 7				Detailed Diagram of Cooking Equipment under hood & Appliance Type Information			
Yes	No	N/A					
			Detailed Drawings showing <b>location(s)</b> of Cooking Equipment under hood in application?				
			Detailed "Appliance Type" <b>specification sheets</b> "cut sheets" provided in submittal? <i>(Check all that apply)</i>				
		High heat appliance(s) (flue temp. less than 2,000 F.)					
		Medium heat appliance(s) (flue temp .more than 1,000 F., but less than 2,000 F.)					
		Low heat appliance(s) residential appliances (flue temp. Less than 1,000 F.)					
		Hood Front Face Length of Hood (in linear feet) "details" provided in Section 6?					
		Electric Cooking Equipment designed to UL 197 standards?					

			Gas Cooking Equipment designed to UL 795 or ANSI Z83 Standards?
			Wood Fired Cooking Equipment designed to UL 2162 Standards?
<b>SECTION 8</b>			<b>Appliance Duty Rating Classification(s)</b>
Yes	No	N/A	<i>("Listed" Hood Classification provided by Mfg) (507.13)</i>
			Extra Heavy Duty (Must have "separate" exhaust hood (per 506.2.3)
			Heavy Duty
			Medium Duty
			Light Duty
<b>SECTION 9</b>			<b>Appliance Duty Rating Classification(s) "ASHRAE Standard 154"</b>
Yes	No	N/A	
			<b>Extra Heavy Duty</b> (Solid Fuel Charcoal, Briquettes, or Wood) (Must have "separate" exhaust hood (506.2.3)
			<b>Heavy Duty</b> Electric & Gas Broilers, Electric & Gas Conveyor Boilers, Gas Open Burner Ranges (with or without oven), Electric & Gas Wok Ranges, Salamanders
			<b>Medium Duty</b> Electric & Gas Ranges (with or without oven), Electric & Gas riddles, Electric & Gas Fryers (including donut fryers), Electric & Gas Pasta Cookers, Electric & Gas Conveyor Pizza Ovens, Electric & Gas Rotisseries
			<b>Light Duty</b> Gas & Electric Ovens, Electric & Gas Steam <del>Kettles</del> Electric & Gas Steamers, Electric & Gas Cheesemelters.
<b>SECTION 10</b>			<b>Ductless Hoods</b>
Yes	No	N/A	<i>(Skip this section if not applicable)</i>
			Designed in accordance with UL 710B Standards?
			Listed Information provided in application?
			Manufacturer's information provided in application?
<b>SECTION 11</b>			<b>Hood Material and Gage</b>
Yes	No	N/A	<b>Type I Hoods</b>
			Minimum 20 Gage Stainless Steel, provided? ( 507.4)
			External hood joints, seams and penetrations welded, & sealed grease tight? (507.7.1)
			Internal hood joints, seams, penetrations, filter support frames and other appendages attached inside the hood sealed grease tight? (507.7.1)
Yes	No	N/A	<b>Type II Hoods</b>
			Minimum 24 Gage- Stainless Steel, provided? ( 507.5)
			Joints, seams, and penetrations water tight? (507.7.2)
<b>SECTION 12</b>			<b>Hood Supports (507.6)</b>
Yes	No	N/A	
			Type I Hoods secured in place by non combustible supports? (507.6)
			All hoods shall be adequate for the applied load of the hood, unsupported ductwork, and possible weight of personnel working in or on the hood? (507.6)
<b>SECTION 13</b>			<b>Hood Clearance to Combustible Materials (507.9)</b>
Yes	No	N/A	
			18 inches to combustible material, provided?
			A non combustible wall or panel, with a smooth, cleanable, and corrosion resistant surface, provided?
			0 inches to non combustible materials, detailed "installation specifications" provided with submittal?
<b>SECTION 14</b>			<b>Grease Filters (507.11 &amp; Table-507.11)</b>
Yes	No		
			Grease filters designed to meet UL 1046 Standards? (No Mesh Filters Permitted)
			Tight-Fitting & Readily Removable without the use of tools? ( 507.11.1)
			Drip tray provided beneath lower edge of filters and pitched to collect grease? ( 607.11.2)
			Grease gutters provided to allow access for cleaning? ( 507.8)
			Filters installed at an angle not less than 45 degrees from horizontal? ( 507.11.2)
			Drip tray provided beneath lower edge of filters and pitched to collect grease? (507.11.1)

SECTION 15			Suppression Piping Penetrations into Hood (507.7.1 & 509.1)
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Yes	No	
		Shall have liquid tight continuous external weld or be sealed by labeled device.

SECTION 16			"Compensating Hoods" make-up air delivered directly into Canopy Hood(s)
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Yes	No	N/A	"Fire Damper" Required for:
			Short Circuit (Internal Supply Make Up Air) Damper, provided?
			Air Curtain or Down Face Damper (Internal Supply MUA), provided?

SECTION 17			
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ALL answers checked "NO", must be provided with a detailed written narrative below:

DESIGN REQUIREMENTS FOR DUCTS			
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1. Duct size and requirement(s)			
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Yes	No	
		Duct size dimensions and locations shown on plans submitted?
		Not interconnected with any other building ventilation or exhaust system?( 506.3.5)
		Electrical wiring or wiring systems are not located within duct? (301.7)
		Designed per UL 1978 Standards? (304.1 & 506.3.1.1, Exception 1)
		Designed per manufacturer's instructions? ( 304.1)
		A copy of the "manufacturer's installation instructions" included in plan application ? ( 304.1)
		A copy of the "manufacturer's installation instructions" provided to owner or representative and available on the job site at the time of inspection ? (304.1)

2. Exhaust Duct Velocity <span style="float: right; color: red;">(Need Specifications on Exhaust Fan to calculate)</span>			
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Yes	No	
		Sized to meet 500 feet per minute (fpm) minimum requirements? (506.3.4)

3. Construction "Type I Ducts" (Not applicable for Type II Hoods)			
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Yes	No	
		.055 inch thick Steel (#16 manufacturer's standard gauge)? (506.3.1.1)
		.044 inch thick (# 18 gauge Stainless Steel)? (506.3.1.1)
		Listed and labeled per UL 1978? (506.3.1.1)
		Labeled grease ducts installed according to mfg. recommendation provided? (304.1)
		All portions of the duct "leak tight"? (I506.3.3.1)
		"Grease Duct Test Leakage Test" to be performed in the presence of Code Official? ( 506.3.3.1)
		Ducts exposed to outside atmosphere protected against corrosion (506.8.3)?
		Duct to hood joints designed per Code? (506.3.2.2)
		Duct bracing & support shall not penetrate duct walls? (506.9.1)

4. Duct(s) penetrating fire-resistive construction: ( 506.3.10)			
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Yes	No	N/A	
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			Interior Floor(s) greater than 2 stories shall be in fire rated shaft enclosures, with access openings on every floor?
			Exterior Wall penetrations allowed only in locations allowed as “unprotected openings” per the Building Code of New York State ?
			Ducts shall not pass through Vertical Fire Barrier Walls or Fire Walls, unless: <i>Protected by a shaft enclosure protected with a through penetration fire stop system (TPFS) in accordance with ASTM E 814 &amp; having a “F” and “T” rating equal to fire rating of the assembly? ( 506.3.10)</i> Having a “pre fabricated” grease duct enclosure in accordance with UL 2221, and being protected with a TPFS system in accordance with ASTM E 814 & having a “F” and “T”? (I506.3.10 )Will provide a copy of the “manufacturer’s installation instructions” and “listing” (Cut sheet) with application? ( 304.1)
			Hood shaft protection type if required circle one - (UL Blanket Wrap or One Hour Enclosure)

**5. Type I Duct(s) “Clearance to Combustibles”**

Yes	No	N/A	
			18 inches to combustible material? ( 506.4, 506.5.4, & 506.3.1.2)
			0 inches to noncombustible material? (Listed Duct Wrap) ( 506.3.1.2)
			Fire-resistance Duct Wrap Materials “Listings” & Manufacturers Installation Instructions” included with plan submittal? ( 304.1)
			Rated Shaft Enclosure provided? (506.3.10)

**6. Access Panel Openings for Inspection and Maintenance of Grease Ducts**

Yes	No	N/A	
			Same material and thickness as duct?
			Provided with “tight fitting” sliding or hinged doors? (506.3.11) Exhaust ducts in concealed locations, shall be indicated by permanent labels or tags installed in observable locations? (504.6.1)
			“Listed” Grease Tight Gasket and Sealant provided on openings? (506.3.8)
			Access doors shall not have fasteners that penetrate the duct, and operable without the use of a tool ? ( 506.3.8)
			To be installed according to mfg. instructions & copies of listing provided in application packet? (304.1)
			Sign posted on all access panels marked “Access Panel Do Not Obstruct”? ( 506.3.11)
			Horizontal Sections of Duct access panels spaced not more than 20 feet apart? (506.3.9) Vertical Sections, access panels provided at the top of the vertical riser, and at each floor level in multi-story buildings? (506.3.11)
			Access Panel(s) provided at each changes of direction?
			Minimum dimension of “side openings” shall be 12 inches on each side? If can’t provide minimum dimension, duct openings shall be located on the top of the duct (506.3.9)
			Cleanouts located on the top of duct, shall meet a minimum of 1 inch from the sides of the duct, and shall be readily accessible for maintenance? (506.3.9)
			At least one (1) 20 inches by 20 inches “opening” located where ductwork is large enough to allow entry of personnel, with adequate supports? ( 506.3.8.1)
			Cleanouts located on the side of ducts, shall be greater than 1.5 inches above bottom of the duct, and not closer than 1 inch to the top of the duct ? (506.3.9)

**7.Prevention of Grease Accumulation in horizontal ducts (Slope Requirements)(506.3.7)**

Yes	No	N/A	
			Slope of ¼ inch per lineal foot toward hood or approved grease reservoir?
			Greater than 75 feet horizontal length, Slope of 1 inch per lineal foot toward hood?

**8. ALL answers checked “NO”, must be provided with a detailed written narrative below:**

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**DESIGN REQUIREMENTS FOR EXHAUST FAN(S)**

Manufacturer	
Make	
Model	

**1. Listed and Labeled Fan**

Yes	No	
		Designed per UL 762 Standard Restaurant Exhaust Appliances? (1506.5.1)
		Equipment or materials has been attached a label, symbol, or other identifying mark of the organization engaged in product evaluation? (506.5)

**2. Hood Controls (Electrical)**

Yes	No	
		Make up fan(s) “ electrically interlocked” to operate whenever cooking operations occur and automatically controlled to start and operate simultaneously with exhaust system? (including “Kitchen” HVAC air supplied at no more than 20%) (507.2.1.1 & 508.1)
		Make up fan “interlocked” with fire suppression system to shut down when suppression system activates? (508.1)
		Exhaust fans continue to operate after the fire extinguishment system activates & supply fans serving exhaust hood assemblies with integrated supply air plenums shall be shut off with the fire <del>extinguishing</del> <del>equipment</del> activated.
		Is a Hood fire protection system activated horn /strobe warning device (s) provided in eating area? Type and Location (If the bldg. has a fire alarm system the hood system must actuate it) Fire Alarm (where required) is activated upon automatic or manual activation of suppression system? (IFCNYS 907.14)
		Gas and/or Electric Cooking Equipment located under hood shall shut down upon suppression activation (& shall require manual resetting prior to fuel or power restoration)? (FCNYS 904.11.2)

**3. Fan Selection**

Minimum “Exhaust Flow Requirements”

*(information required for each independent hood system)*

Yes	No	
		_____ CFM/ linear foot required (per listing provided by manufacturer, (507.13)
		Minimum Exhaust “Duct Velocity” Requirements (500 fpm)
		Actual Exhaust “Duct Velocity” per design _____ fpm.
		Listed Information “cut sheet” provided in application?
		Manufacturer’s installation instructions provided in application?

Minimum “Makeup Air Flow Requirements”. ( 508.1)

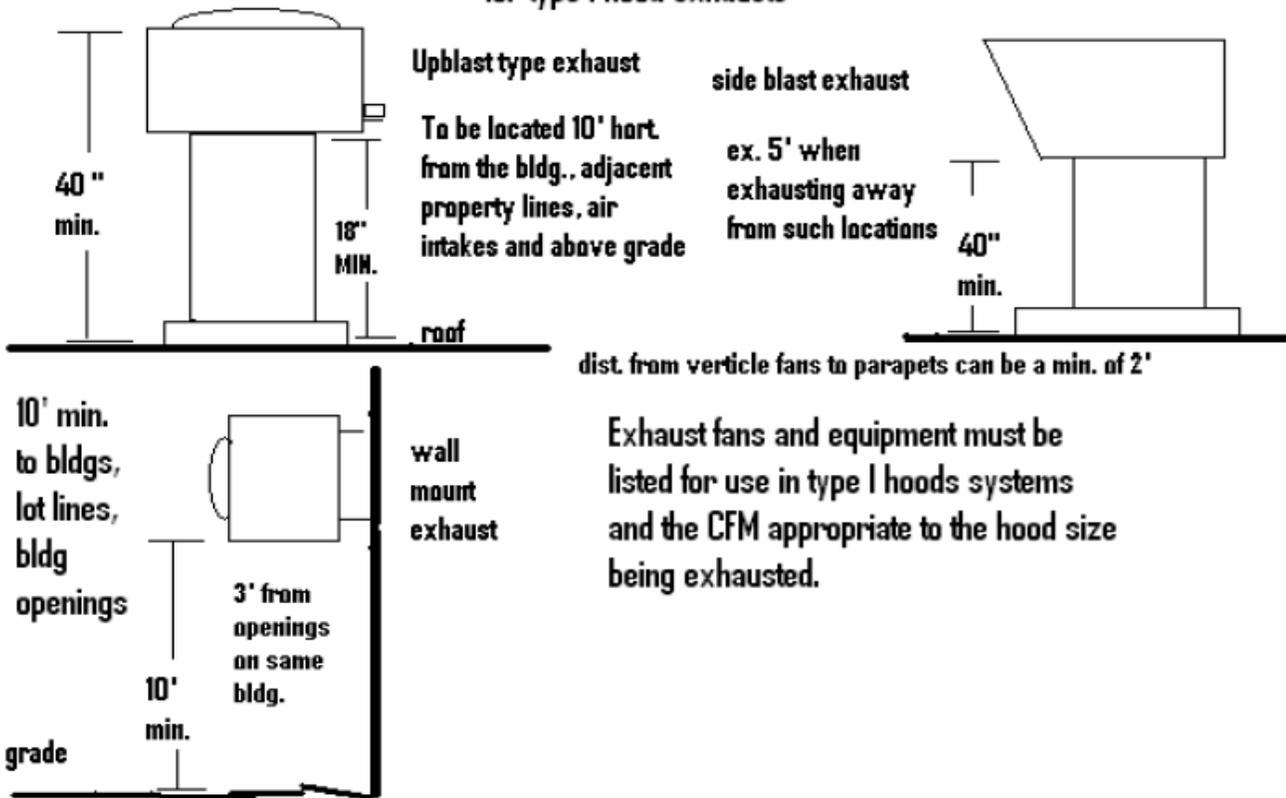
Yes	No	
		_____ CFM required (per listing provided by manufacturer)
		Maximum 20% of required CFM delivered through Kitchen HVAC, (“interlocked” to “automatically” operate during cooking operations).(505.2)
		Amount of make <del>up</del> supplied shall be approximately equal to the amount of exhaust air?
		Tempered Makeup air provided? (makeup air shall not exceed 10 degrees F conditioned space air)?

		(508.1.1) Exception: Short Circuit Make up air delivered within the hood cavity, need not be tempered, except as required per manufacturer's instructions.
<b>4. Termination of Fan</b>		
Yes	No	
		Roof top Termination? (If yes, Complete Section #5 below)
		Wall Termination? (If yes, Complete Section # 6 below)
<b>5. Rooftop Termination(s)</b>		
Yes	No	
		Exhaust Outlets terminate more than 40 inches above roof? (506.3.12.1)
		Exhaust Outlets terminations shall not be directed towards nor impinge on any structure? (506.3.12.3)
		Provided with a grease drain system to a rainproof collection container or remote grease trap? ( 506.5.2)
		Flexible weatherproof electrical cable to permit proper inspection and cleaning (506.5.3)
		Hinged Kit provided permit proper inspection and cleaning (506.5.3)
<b>Clearance(s)</b>		
Yes	No	
		Minimum 10 feet of horizontal clearance to:(506.3.12.3 & 508.1& 401.4) -Contiguous and/or adjacent buildings, property lines, and above adjoining grade level. - Air Intakes Openings : minimum of 10 feet horizontal & 3 feet above
		Minimum of 5 feet of clearance from: ( 506.3.12.3) Contiguous and/or adjacent buildings, air intakes, property lines, and above adjoining grade level, when exhaust outlet discharges away from such locations.
<b>Safe Access (306.5)</b>		
Yes	No	
		Equipment located on structures 16 feet in height or greater, require permanent ladders?
		Equipment located on sloped roofs" greater than 25 percent (3 in 12) at any height, are required to have a platform not less than 30 inches in any dimension and provided with guardrails not less than 42 inches above the platform? Access to equipment platforms shall not require walking on roofs have a slope greater than 33 percent (4 in 12)?
		Equipment located outside of roofline, shall be provided with safe access and work platform for service, repair, and maintenance
		A receptacle outlet shall be provided at or near the equipment (306.5.2)
<b>6. Wall Termination(s) (506.3.12.2)</b>		
Yes	No	
		Exhaust Outlets terminations shall not be directed towards nor impinge on any structure? (506.3.12.3)
		Provided with a grease drain system to a rainproof collection container or remote grease trap? (506.5.2)
		Hinged Kit provided permit proper inspection and cleaning (506.5.3)
		Flexible weatherproof electrical cable to permit proper inspection and cleaning (506.5.3)
<b>Clearance(s) ( 506.5.3.12)</b>		
Yes	No	
		Permitted where does not create public nuisance or fire hazard?
		Shall not be located where "protected openings" are required per BCNYS? openings (window, doors, HVAC)?

		Shall not be located within 3 feet of exterior
		Minimum 10 feet of horizontal clearance to: (506.3.12.3) - Contiguous and/or adjacent buildings, property lines, and above adjoining grade level.
<b>Air Intakes Openings : minimum of 10 feet horizontal &amp; 3 feet</b>		
Yes	No	
		Minimum of 5 feet of clearance from: (506.3.12.3) -Contiguous and/or adjacent buildings, air intakes, property lines, and above adjoining grade level, when exhaust outlet discharges away from such locations.
		Minimum of 3 feet of clearance of exterior openings (windows, doors)?
<b>Safe Access ( 306.5)</b>		
Yes	No	
		Equipment located outside of roofline, shall be provided with safe access and work surface for inspection and cleaning?
		A receptacle outlet shall be provided at or near the equipment (306.5.2)
<b>7. ALL answers checked "NO", must be provided with a detailed written narrative below</b>		

**ILLUSTRATION B**

**Roof and Wall fan locations  
for type I hood exhausts**



## Final Acceptance Testing

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The completed system shall be tested by trained personnel as required by the manufacturer's listed installation and maintenance manual. The tests shall determine that the system has been properly installed and will function as intended.

Your hood installation and fire protection system must be acceptance tested for the following per the 2010 Editions of the Fire and Mechanical Codes of New York State so that: the protection system is approved and consistent with the hazard type, the location and listing of all devices is correct, the operating instructions are posted, the alarm location and function; a fire extinguishing test per the NFPA requirement by type of system is done, a manual pull test, system interconnection to shut down fuel supply, a ventilation test per MCNYS 507.16, a capture test per MCNYS 507.16.1.

Capture and containment test by the permit holder shall verify capture and containment performance of the exhaust system. This field test shall be conducted with all appliances under the hood at operating temperatures, with all sources of outdoor air providing makeup air for the hood operating and with all sources of recirculated air providing conditioning for the space in which the hood is located operating. Capture and containment shall be verified visually by observing smoke or steam produced by actual or simulated cooking, such as with smoke candles, smoke puffers, etc.

***The simplest means of doing the performance test is using a T-T Puffer. Activate the puffer and use it to trace effluent around the entire perimeter of the hood, emitting smoke a few inches under the lower edges of the hood. If the smoke goes into the hood, it passes the test. If smoke goes out of the hood, adjustment is needed.***

A grease duct test prior to the use or concealment of any portion of a grease duct system, a leakage test shall be performed in the presence of the code official. The permit holder will be responsible to provide the necessary equipment and perform the test (bare bulb light test).

The installer shall certify within a written statement that the system has been installed in accordance with NFPA 96 and the approved plans and the manufacturer's listed installation and maintenance manual.

**Please read the information below and sign before submitting your application**

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Your application shall be deemed complete only if this checklist is completed and submitted along with the submittal package.

Submittals not accompanied by a checklist will not be accepted.

Accuracy of the submittal package, including this checklist, is the responsibility of the applicant.

Failure to submit an accurate submittal package will be considered an incomplete application by the Plan Reviewer. An incomplete submittal will result in a **HOLD**.

If work is found to have commenced without approved plans and/or a proper permit, this office reserves the right to shut down any/all portions of the entire project deemed necessary to inspect, investigate and confirm that work has been done.

When work for which a permit is required has been conducted without a permit or approval, a stop work is immediately posted and all permit **fees immediately double** upon proper application for plan review and due upon issuance of an new installation permit.

If any portion of the work performed is not clearly visible or readily accessible, you will be ordered to demolish, disassemble or remove any and all obstructions regardless of the cost incurred. Failure to comply will result in the suspension/revocation of any building or other permits related to the site.

In addition, it is understood that the installation of fire protection systems shall be made only by persons properly trained and qualified to install the specific fire protection system being provided. The installer shall certify to this authority that the installation is in complete agreement with the terms of the listing and manufacturer's instructions and/or approved design plan.

I hereby apply for a Fire Protection System permit and I acknowledge that the information above is complete and accurate; that the work will be in conformance with the ordinances and codes of the Town of Brighton and the Building/Fire Codes of New York State; that I understand this is not a permit but only an application for permit and construction work is not to start without a permit; that the work will be in accordance with the approved plans.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date