City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

PERMIT ISSUED
MAR 29 2011
CITY OF PORTLAND

Job No:	Date Applied:	CBL:	
2011-1773	03/08/2011	032 - - I - 041 - 001 - - - - -	
Location of Construction: 425 FORE ST	Owner Name: PLAZA GARAGE LLC COW	Owner Address: 100 COMMERCIAL ST PORTLAND, ME - MAINE 04101	Phone:
Business Name:	Contractor Name: HVAC Services	Contractor Address: 73 Bradley Dr, Westbrook, ME 04092	Phone:
Lessee/Buyer's Name:	Phone:	Permit Type: HVAC	Zone: B-3
Past Use: Restaurant – 5 Guys Burgers	Proposed Use: SAME: Restaurant – 5 Guys Burgers – to Add HVAC + Type 1 Hood	Cost of Work: 189000.00 Fire Dept: ✓ Approved w/ conditions ___ Denied ___ N/A Signature: Brandon (50)	CEO District: Inspection: Use Group: A-2 Type: HVAC of Type 1 Hood Signature: 3/28/11
Proposed Project Description: 425 Fore unit#1- HVAC + Type 1 Hood		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Lannie			

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building Permits do not include plumbing, septic or electrial work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
___ Shoreland	___ Variance	✓ Not in Dist or Landmark
___ Wetlands	___ Miscellaneous	✓ Does not Require Review
___ Flood Zone	___ Conditional Use	___ Requires Review
___ Subdivision	___ Interpretation	___ Approved
___ Site Plan	___ Approved	___ Approved w/Conditions
___ Maj ___ Min ___ MM	___ Denied	___ Denied
Date: OK 3/4/11	Date:	Date:

Given proximity to Historic District, applicant to explain particulars of any exterior work requiring Separate Review & Approval. 3/23/11 D. Anderson

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT ADDRESS DATE PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHON

32-8444

FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT
HEATING OR POWER EQUIPMENT

To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL FORE ST PHcl (5 Guys) Use of Building 032-I-41 Date

Name and address of owner of appliance PINE TREE STATE FIVE, LLC

34 West 95th St New York, NY 10025-6701

Installer's name and address HVAC SERVICES INC

73 Bradley Drive WESTBROOK ME 04092 Telephone 2078544822

Location of appliance:

- ☑ Basement
- ☐ Floor
- ☐ Attic
- ☒ Roof

Type of Fuel:

- ☒ Gas
- ☐ Oil
- ☐ Solid

Appliance Name:

U.L. Approved ☒ Yes ☐ No

Will appliance be installed in accordance with the manufacture's installation instructions? ☒ Yes ☐ No

IF NO Explain:

The Type of License of Installer:

- ☐ Master Plumber #
- ☐ Solid Fuel #
- ☐ Oil #
- ☒ Gas # PVT 1138
- ☐ Other

Type of Chimney:

- ☐ Masonry Lined
  Factory built N/A
- ☐ Metal
  Factory Built U.L. Listing # N/A
- ☒ Direct Vent
  Type PVC 90+ UL#

RECEIVED
MAR - 8 2011
Dept. of Building Inspections
City of Portland Maine

Type of Fuel Tank

- ☐ Oil
- ☒ Gas

Size of Tank N/A

Number of Tanks N/A

Distance from Tank to Center of Flame N/A **feet.**

Cost of Work: $ 37500 -

Permit Fee: $ 460

Approved

Fire:

Ele.:

Bldg.:

Approved with Conditions

☐ See attached letter or requirement

Inspector's Signature

Date Approved

Signature of Installer

White - Inspection Yellow - File Pink - Applicant's Gold - Assessor's Copy

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

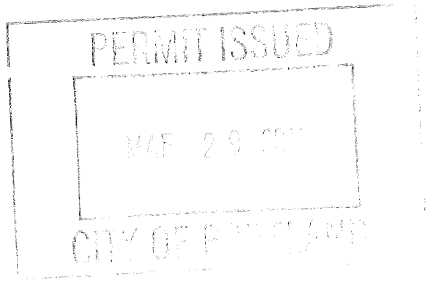
With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

1. Close In Elec/Plmb/Framing
2. Final at the completion of work

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCU0PIED.



PORTLAND MAINE

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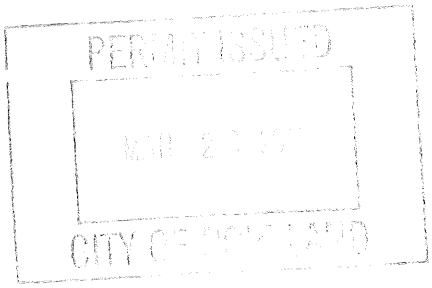
Director of Planning and Urban Development
Penny St. Louis

Job ID: 2010-12-170-CH OF USE **Located At:** 401 FORE **CBL:** 032 - - I - 041 - 001 - - - - -



Conditions of Approval:

Fire
HVAC-

1. Installation shall comply with City Code Chapter 10.
2. Installation shall comply with NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel–Burning Appliances*; NFPA 54, *National Fuel Gas Code*, NFPA 70, *National Electrical Code;* and the manufacturer's published instructions.
3. Kitchen Hood-
4. Installation shall comply with City Code Chapter 10.
5. Hood suppression system shall comply with NFPA 17A, 96, and UL 300. Activation of the suppression system shall activate the fire alarm system if available. A letter of compliance will be required at the time of final inspection stating: the date the system was tested for operation, fuel gas shut off, and fire alarm connection if applicable. The Class K fire extinguisher and proper signage should be located at the suppression system pull station.

Building

1. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.
2. Equipment must be installed in compliance per the manufacturer's
3. The installation must comply with the State of Maine Gas Regulations.
4. The installation shall comply with ASHRAE 62.1-2007.

#2011-1773 3/8/11 Heating

Job Summary Report
Job ID: 2010-12-170-CH OF USE

Job Type:	Change of Use Commercial	**Job Description:**	425 Fore unit#1	**Job Year:**	2010
Building Job Status Code:	Approved	**Pin Value:**	314	**Tenant Name:**	Five Guys Burger and Fries
Job Application Date:		**Public Building Flag:**	N	**Tenant Number:**	
Estimated Value:	189,000	**Square Footage:**			

Related Parties:

PLAZA GARAGE COW	*Property Owner*
P & P PLUMBING HEATING GAS - Steve Perry	*PLUMBING CONTRACTOR*
COREY ELECTRIC INC. - COREY INC	*ELECTRICAL CONTRACTOR*
STEPHEN J. PERRY - STEPHEN PERRY	*PLUMBING CONTRACTOR*
HVAC Services Inc. - HVAC Services Inc. HVAC Services Inc.	*MECHANICAL CONTRACTOR*
Wright Ryan Construction - Mike Barton	*GENERAL CONTRACTOR*

Job Charges

Fee Code Description	Charge Amount	Permit Charge Adjustment	Net Charge Amount	Payment Date	Receipt Number	Payment Amount	Payment Adjustment Amount	Net Payment Amount	Outstanding Balance

Location ID: 4778

Location Details

Alternate Id	Parcel Number	Census Tract	GIS X	GIS Y	GIS Z	GIS Reference	Longitude	Latitude
918885	032 I 041 001		M				-70.254325	43.656386

Location Type	Subdivision Code	Subdivision Sub Code	Related Persons	Address(es)
1				401 FORE STREET WEST

Location Use Code	Variance Code	Use Zone Code	Fire Zone Code	Inside Outside Code	District Code	General Location Code	Inspection Area Code	Jurisdiction Code
PARKING LOTS		DOWNTOWN BUSINESS					DISTRICT 2	CENTRAL BUSINESS DISTRICT

Structure Details

Structure: Loc id 000004777 Alt id 001254

Occupancy Type Code:

Business

Mercantile

Nightclub, Bars, Restaurants, Banquet Halls

Lonnie

User Defined Property	Value
Thermostat	0
Transformer 0 to 25	0
Transformer 25 to 200 KVA	0
Transformer Over 200 KVA	0
Transformer Over 200 KVA	1
Wall Ovens	0
Washing Machine	0
Water Heaters	0

Permit #: 20111508

Permit Data

Location Id	Structure Description	Permit Status	Permit Description	Issue Date	Reissue Date	Expiration Date
4778	Mixed use commercial	Initialized	Five Guys			

Inspection Details

Inspection Id	Inspection Type	Inspection Result Status	Inspection Status Date	Scheduled Start Timestamp	Result Status Date	Final Inspection Flag

Fees Details

Fee Code Description	Charge Amount	Permit Charge Adjustment	Permit Charge Adj Remark	Payment Date	Receipt Number	Payment Amount	Payment Adjustment Amount	Payment Adj Comment
Electric Commercial Permit Fee	$61.20			2/28/11	1566	$55.20		

Permit #: 20111773

Permit Data

Location Id	Structure Description	Permit Status	Permit Description	Issue Date	Reissue Date	Expiration Date
4778	Mixed use commercial	Initialized	HVAC Roof & Kitchen exhaust install owner package			

Inspection Details

Inspection Id	Inspection Type	Inspection Result Status	Inspection Status Date	Scheduled Start Timestamp	Result Status Date	Final Inspection Flag

Fees Details

Fee Code Description	Charge Amount	Permit Charge Adjustment	Permit Charge Adj Remark	Payment Date	Receipt Number	Payment Amount	Payment Adjustment Amount	Payment Adj Comment
HVAC Permit Fee	$400.00							

BECKER
STRUCTURAL ENGINEERS

March 4, 2011

Mr. Thomas E. Burrill
Wright-Ryan Construction, Inc.
10 Danforth Street
Portland, ME 04101

RE: Fore Street Garage – Five Guys Fit-up
WO 2520

Dear Tom,

At your request, Becker Structural Engineers, Inc. (BSE) has reviewed the existing structure of the Fore Street Parking Garage in Portland, ME for the proposed mechanical equipment for the *Five Guys Burgers* restaurant. Our review was limited to the capacity of the existing structure that would support the proposed equipment and the capacity of the drop in anchors proposed for the units suspended from the existing slabs.

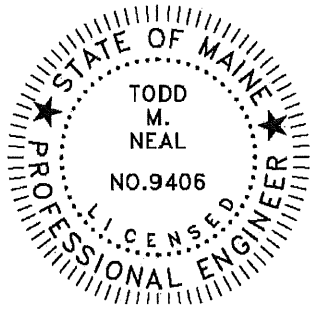
The fit-up for this tenant requires mechanical equipment to be suspended from the slab and/or beams of the first elevated garage deck. Additional equipment is to be placed on the roof of the electrical room near the ground level entrance and on the roof of the stair tower at Fore Street. Weights and locations of the proposed equipment were provided by Wright-Ryan Construction (WR).

Based on our analysis, it is our opinion that the existing structure of the first elevated garage deck, electrical room roof and stair tower roof can support the proposed equipment. Per our conversation on-site March 2, 2011 the 800 lb unit at the entrance to the space will be supported by a built up frame (by others) over the vestibule and not suspended from the existing structure.

The proposed equipment will be attached to the existing concrete deck with drop-in concrete anchors manufactured by Powers Fasteners. WR provided BSE with cut sheets and published capacities for the proposed anchors. We reviewed this information and determined that drop in anchor can support the equipment from the existing deck. Based on our review and analysis, it is our opinion that the anchors are adequate to support the proposed loads. All efforts shall be made to ensure that the holes drilled for these anchors do not hit or cut any prestressing strands or reinforcement in the existing slabs.

Should you require any additional information or need further clarification, please do not hesitate to contact us.

Sincerely,



Christopher G. Williams, E.I.

Todd M. Neal, P.E.
Vice President

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Lee Urban - Director of Planning and Development
Jeanie Bourke - Inspection Division Services Director

Kitchen Exhaust System Checklist and code Provisions

Dear Applicant,

The following is a checklist to assist you in filing for a permit for a Kitchen Exhaust system. The applicable Mechanical Code provisions have also been attached. Please complete this and submit job specific construction documents that demonstrate compliance with the attached information.

Type of System:

Type I ✓ Type II _____

Type I systems are systems that vent fryers, grills, broilers, ovens or woks.
Type II systems are systems that vent steamers and other non grease producing appliances.

Type of Materials:

Is the hood Stainless steel or other type of steel? Yes S/S If Other, what Type? _____

Is the duct work Stainless steel or other type of steel? Yes Blk Iron If Other, what type? _____

Thickness of the steel for the hood 16ga 430 SS

Thickness of the duct for the hood 16ga BI

Type of Hood and Duct Supports

thread rod

Type of seams and Joints welded

Grease Gutters provided? Yes

Hood Clearance reduction to Combustibles design /specs:

Yes

Duct Clearance reduction to Combustibles design /specs:

Yes - w/ 0 clearance wrap (2 layers)

Vibration Isolation System:

Yes,

Air Velocity within the duct system 1700 FPM

Grease accumulation prevention system:

Filters in hood w/ grease cups

Cleanouts every 10' + every elbow

Grease Duct enclosure Yes

Exhaust Termination Roof ✓ Wall

Fire Suppression System Factory installed + provided by tenant

Exhaust fan mounting and clearance from the roof / wall or Combustibles:

Yes

Exhaust fan distance from property lines 20' +

Exhaust fan distance from other vents or openings 50' plus

Exhaust fan distance from adjacent buildings 50' plus

Exhaust fan height above adjoining grade 50' plus

Hood Specs

Style of Hood Captive Aire model 3347 BD-2 wall mount

Type of Filter Captrate Solo SS construction

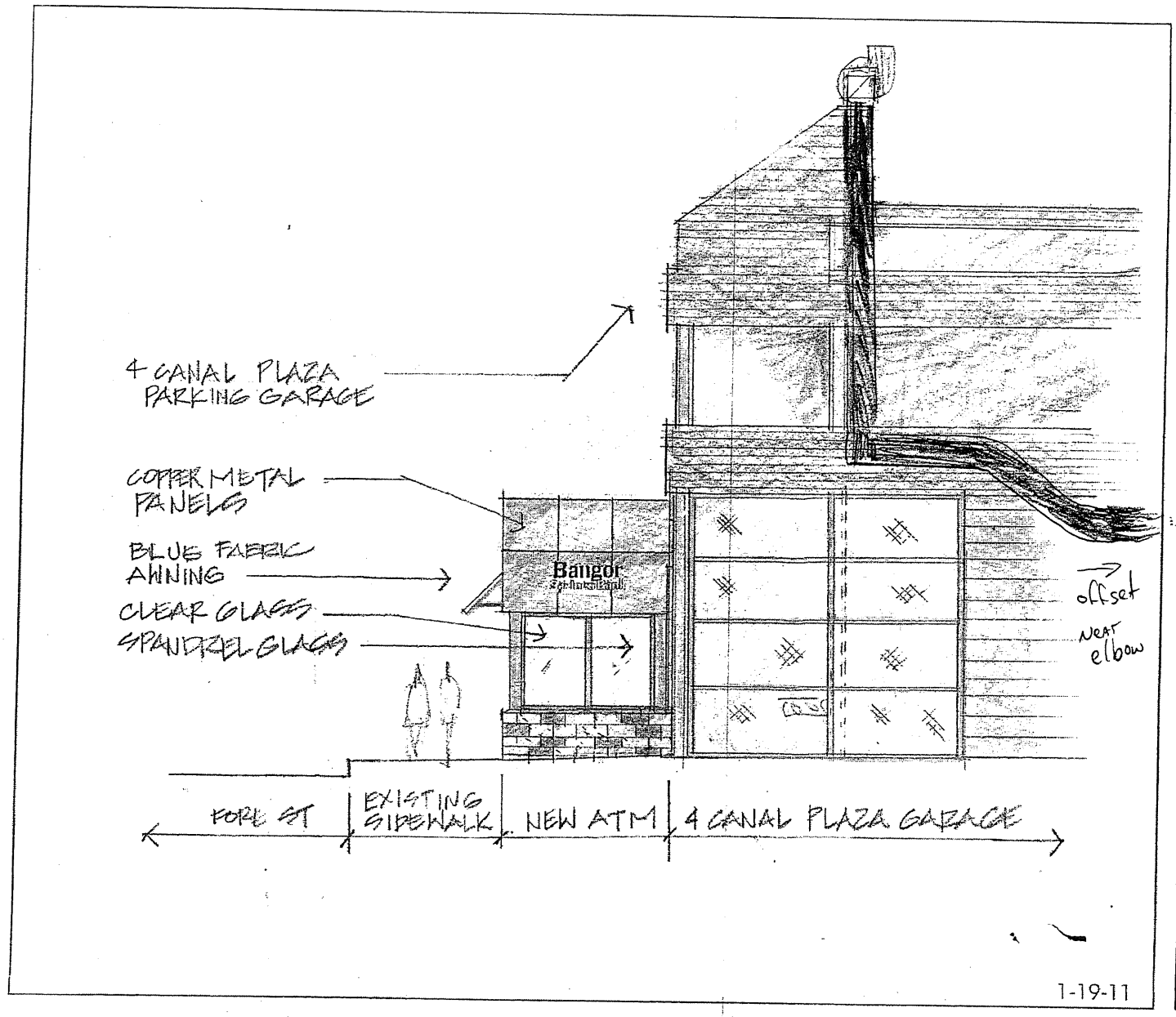
Height of filter above nearest cooking surface Approx 3' (scale from drw)

Capacity of hood CFM 3600

Make up Air system description and capacity

Gas fired Captive Aire 2,718 CFM

to plenum (factory) over cook line



ALPHA architects
17 CHESTNUT STREET
PORTLAND, ME 04101
PHONE: 207.761.9500
FAX: 207.761.9595
design@alphaarchitects.com

PRELIMINARY
NOT FOR CONSTRUCTION

BANGOR Savings Bank ATM
401 Fore Street
Portland ME 04101

JOB: 10146

ISSUE DATE	
PRELIM.	10-12-10
PBoard	Not Reqd
CD's	-
PRINT	1-19-11

G-2

This permit has HVAC and kitchen hood together. I'm not sure if they paid for both systems, and there isn't two separate reviews in the system for these, so I put the conditions for both onto this one permit.

Ben

SimplexGrinnell
20 Thomas Dr.
Westbrook, ME 04092
Tel: 207-842-6440

CERTIFICATE OF INSTALLATION

This system has been installed per NFPA 17A, NFPA 96 and Ansul's UL300 manual UL EX 3470, dated 7-1-09 as of the date(s) shown below.

Customer	**5 Guys Burgers & Fries**
Address	425 Fore St. Portland, ME 04101
Property inspected	(same)
Hazard location	(2) 9' hoods in kitchen over (4) fryers and (2) griddles
System location	Cylinder and controls inside top left hood panel (facing hood)
System Type	Ansul, R102 wet chemical per NFPA 17A & 96 & UL300.
System size	6-gallon (2 cylinders)
Remarks	A. Pre-piped by CaptiveAire, system includes: (2) 3-gallon cylinders, (11) discharge nozzles, (6) fusible link detectors, (1) pull station, (1) 2" mechanical gas shutoff valve and (1) micro-switch for supply air shutdown. (No fire alarm in tenant space.) B. System nozzles: (2) 1N nozzle for plenums, (2) 2W nozzle for ducts, (4) 230 nozzle for 4 fryers. (3) 260 nozzles for 2 griddles.
Installation date	March 29, 2011 (Final inspection 4/1/2011)
Next inspection due	Semi-annual: October 2011, April. 2012 etc.
Installed by	Roger Blanchette (Final inspection by Tim Hinman/Greg Wass)

DEAN & ALLYN, INC.

FIRE PROTECTION · SPECIAL HAZARD

32 LEWISTON ROAD • BLDG. 1C
P.O. BOX 709 • GRAY, ME 04039
TEL. 207/657-5646 FAX 207/657-5647

4-4-11

Wright Ryan Const
10 Danforth St
Portland Maine

Re: 5 Guys Burgers and Fries
245 Fore St
Portland Maine
Sprinkler Renovation

Gentlemen:
The recent sprinkler renovations in the above referenced tenant space were done in full compliance with NFPA #13, the State of Maine, and City of Portland sprinkler codes.

It was noted during our shut downs of the building sprinkler system that the system has no water flow alarms.

Harry King
Dean and Allyn, Inc.
207 233 9105

STATE OF MAINE - DEPARTMENT OF PUBLIC SAFETY
OFFICE OF STATE FIRE MARSHAL
45 COMMERCE DR STE 1
AUGUSTA, ME 04333-0001

Construction Permit

No. 19931

In accordance with the provisions of M.R.S.A. Title 25, Chapter 317, Sec.317 and Title 5, Section 4594-F, permission is hereby granted to construct or alter the following referenced building according to the plans hitherto filed with the Commissioner and now approved. No departure from application form/plans shall be made without prior approval in writing. Nothing herein shall excuse the holder of this permit for failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions.

Each permit issued shall be displayed at the site of construction.

Building: FIVE GUYS BURGERS AND FRIES
Location: 425 FORE ST, PORTLAND, ME 04101-4396
Owner: PINE TREE STATE FIVE, LLC.
Owner Address: 34 W 95TH ST, NEW YORK, NY 10025-6701

Occupancy Type: Assembly Class <300
Sprinkler System
No Fire Alarm System
Barrier Free
Construction Mode: Renovation
Protected Ordinary: Type III (211)
Final Number of Stories: 1

Permit Date: 03/24/2011 **Expiration Date:** 09/23/2011

John E Morris

COMMISSIONER OF PUBLIC SAFETY

Copy 2 - Architect

State of Maine
Department of Public Safety
Fire Sprinkler System Permit

9389

FIVE GUYS BURGERS AND FRIES

Located at: 425 FORE STREET
In the Town of: Portland
Occupancy/Use: RESTAURANT
Type of System: NFPA 13

Permission is hereby given to:

Dean & Allyn, Inc.
PO Box 709
Gray, ME 04039
Contractor License # **262**

to begin installation according to plans submittal approved by the Office of State Fire Marshal.
The submittal is filed under log # **2111037** , and no departure from the application submittal shall be made without prior approval in writing. This permit is issued under the provisions of Title 32, Chapter 20.
Nothing herein shall excuse the holder of this permit from failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions. This permit shall be displayed at the construction site or be made readily available.

This permit was issued on **1/31/2011** for a fee paid of **$100.00**

This permit will expire at midnight on ***Saturday, July 30, 2011***

The expiration date applies only if the installation has not begun by that date and no permission has been granted to extend the date. Once installation begins, then the permit is valid for however long it takes to complete the installation, assuming that the work is fairly continuous.

Anne H. Jordan
Commissioner

The type of Fire Department Connection and its location is to be according to the Local Fire Department

Within 30 days of the completion of a new fire sprinkler system or an addition to an existing fire sprinkler system, a fire sprinkler system contractor shall provide to the Licensing and Inspections Unit a copy of this permit signed and dated by the certified Responsible Managing Supervisor representing that the fire sprinkler system has been installed according to specifications of the approved plan to the best of the supervisor's knowledge, information, and belief. This requirement is part of the sprinkler law, and neglect of this duty is grounds to not renew the contractor's license to do work in the State of Maine. All renewed sprinkler licenses are good for two years and expire on a June 30th.

Job completed, tested and verified on date of _____

RMS for this job: Stewart Dana A.

RMS Signature: _____

Contractors Material and Test Certificate for Aboveground Piping

NATIONAL FIRE SPRINKLER ASSOCIATION, INC.

A. Procedure Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job. A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances. All "No" answers shall be explained in the Comments portion of this form.

Property Name: Five Guys Burgers Address: 245 Fore St. Portland Me Date: 3-25-11

B. Plans
1. Accepted by Approving Authorities (Names): STATE & LOCAL
2. Address:
3. Installation conforms to accepted plans ☑Yes ☐ No
4. Equipment used is approved ☑Yes ☐ No

C. Instructions
1. Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment ☐Yes ☑No
2. Have copies of the following been left on the premises:
   a. System components instructions ☐Yes ☑No
   b. Care and maintenance instructions ☐Yes ☑No
   c. NFPA 25 ☐Yes ☑No

D. Location of system - Supplies building(s): TENANT SPACE

E. Sprinklers

Make	Model	Year Made	Orifice	Quantity	Temperature
Tyco	TY-FRB	2011	1/2	27	155°

F. Pipe and Fittings
1. Type of Pipe: BLACK IRON
2. Type of Fittings: CAST IRON

G. Alarm Valve or Flow Indicator

Type	Make	Model	Max. Time to Operate Through Insp. Test
			NONE

H. Dry-Pipe Valve
Make, Model and Serial Number:

I. Quick Opening Device (Q.O.D.)
Make, Model and Serial Number:

J. Dry-Pipe System Operating Test Without Q.O.D.
1. Time to trip through test connection*:
2. Water pressure _____ psi. Air pressure _____ psi.
3. Trip point air pressure _____ psi.
4. Time water reached test outlet*: _____
5. Alarm operated properly ☐Yes ☐ No

K. Dry-Pipe System Operating Test With Q.O.D.
1. Time to trip through test connection*:
2. Water pressure _____ psi. Air pressure _____ psi.
3. Trip point air pressure _____ psi.
4. Time water reached test outlet*: _____
5. Alarm operated properly ☐Yes ☐ No

L. Deluge and Preaction Valves
1. Make & Model: _____
2. Operation: ☐ Pneumatic ☐ Electric ☐ Hydraulic
3. Piping and detecting media supervised ☐Yes ☐ No
4. Does valve operate from manual trip and/or remote control stations ☐Yes ☐ No
5. Is there an accessible facility in each circuit for testing ☐Yes ☐ No
6. Does each circuit operate supervision loss alarm ☐Yes ☐ No
7. Does each circuit operate valve release ☐Yes ☐ No
8. Maximum time to operate release: _____

M. Pressure Reducing Valve
1. Location and Floor: _____
2. Make and Model: _____
3. Setting: _____ Static Pressure: Inlet _____ psi, Outlet _____ psi
4. Residual Pressure (Flowing): Inlet _____ psi, Outlet _____ psi
5. Flow Rate: _____ gpm

N. Test Description
Hydrostatic: Hydrostatic tests shall be made at not less than 200 psi for two hours or 50 psi above static pressure in excess of 150 psi for two hours. Differential dry-pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped.
Pneumatic: Establish 40 psi air pressure and measure drop. Test pressure tanks at normal water level and air pressure and measure air pressure drop. In both cases, the pressure drop shall not exceed 1½ psi in 24 hrs.

O. Tests
1. All piping hydrostatically tested at 200 psi for — hours
2. Dry piping pneumatically tested N/A ☐ Yes ☐ No
3. Equipment operates properly ☑Yes ☐ No
4. Do you certify as the sprinkler contractor that additives and corrosive chemicals, sodium silicate or derivatives of sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks? N/A ☐ Yes ☐ No
5. Drain Test:
   a. Static pressure reading of gage located near water supply connection 100 psi.
   b. Residual pressure with valve in test connection open wide 90 psi.
6. Underground mains and lead in connections to risers flushed before connection made to sprinkler piping and verified by copy of form No. 13-U ☐ Yes ☐ No } N/A
7. Flushed by installer of underground piping ☐ Yes ☐ No }
8. If powder driven fasteners are used in concrete, has representative sample testing been satisfactorily completed? ☐ Yes ☐ No

P. Blank Testing Gaskets
1. Number used: — D —
2. Locations: _____
3. Number removed: _____

Q. Welded Piping - If welded piping was used in the system, complete the following:
1. Do you certify as the sprinkler contractor that welding procedures comply with the requirements of at least AWS B2.1 N/A ☐ Yes ☐ No
2. Do you certify that the welding was performed by welders qualified in compliance with the requirements of at least AWS B2.1 N/A ☐ Yes ☐ No
3. Do you certify that welding was carried out in compliance with a documented quality control procedure to insure that all discs are retrieved, openings in the pipe are smooth, slag and other welding residue are removed, and the internal diameters of piping are not penetrated N/A ☐ Yes ☐ No

R. Cutouts (Disks)
Do you certify that you have a control feature to ensure that all cutouts (disks) are retrieved? ☐ Yes ☐ No } N/A

S. Hydraulic Data Nameplate Provided ☐ Yes ☐ No }

T. Date left in service (with all control valves open):

U. Signatures
1. Name of sprinkler contractor: DEAN & ALLYN, INC.
2. Tests witnessed by:
   For property owner (Signed): _____
   Title: _____ Date: _____
   For sprinkler contractor (Signed): [signature]
   Title: Super Date: 3/30/11

V. Comments *(This section is for additional explanation and notes. All "No" answers must be explained here.)*

Relocated HEADS ON EXISTING
SYSTEM TO ACCEPT NEW C/G
LAYOUT.
SYSTEM CURRENTLY HAS NO FLOW
ALARMS OR MONITORING.
SYSTEM DOES HAVE A WATER
MOTOR ALARM GONG.

*Measured from the time the inspector's test connection is opened

☐ Check here if comments continue on the reverse side of this form

FS-ONE
High Performance Intumescent Firestop Sealant

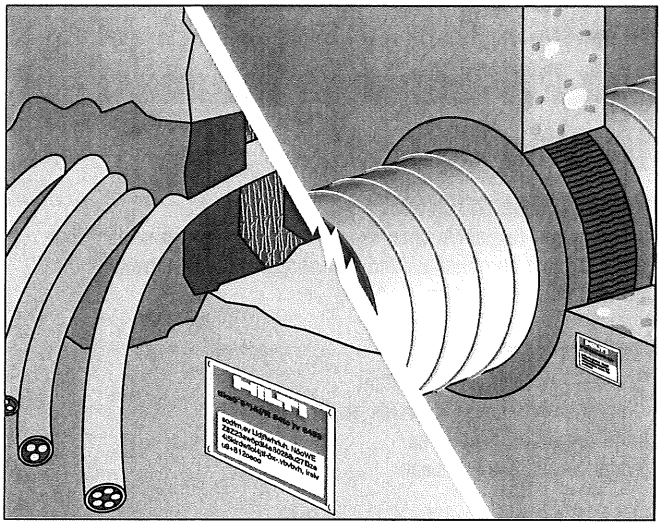
Product description
- Intumescent (expands when exposed to fire) firestop sealant that helps protect combustible and non-combustible penetrations for up to 4 hours fire rating

Areas of application
- Steel, copper and EMT pipes
- Insulated steel and copper pipes
- Cable bundles
- Closed or vented plastic pipes
- HVAC penetrations

For use with
- Concrete, masonry, drywall and wood floor assemblies
- Wall and floor assemblies rated up to 4 hours

Examples
- Sealing around plastic pipe penetrations in fire rated construction
- Sealing around combustible and non-combustible penetrations in fire rated construction

System advantage/Customer benefits
- Protects most typical firestop penetration applications
- Easy to work with and fast cleanup
- Can be repenetrated when laying new cables
- Can be painted



Internationally tested and approved

CLASSIFIED UL

FILL, VOID OR CAVITY MATERIALS
CLASSIFIED BY
UNDERWRITERS LABORATORIES, INC.
FOR USE IN TROUGH-PENETRATION
FIRESTOP SYSTEMS
SEE UL FIRE RESISTANCE DIRECTORY
66Y7

FM
APPROVED
For Penetration Fire Stops.
Consult the Factory Mutual Research Corporation Approval Guide.

FS-ONE
Intumescent Firestop Sealant

Ordering Description	Color	Package contents	Volume	Item No.
FS-ONE, tube	**red**	**10.1 oz. (300 ml)**	**18 in³**	**00259579**
FS-ONE, foil	**red**	**(Qty 20) 20.2 oz. (600 ml)**	**36 in³**	**00311387**
FS-ONE, pail	**red**	**5 Gallons (19 liter)**	**1155 in³**	**00259578**
CB 200 PI-300/310 ml Dispenser				**00055205**
600 ml Foil Dispenser				**00024669**

Material Safety Data Sheet

HILTI, INC.: P.O. Box 21148, Tulsa, OK 74121; Ph: 1 800 879 6000; Emergency No.: 1 800 879 4444

PRODUCT NAME: FS-ONE High Performance Intumescent Firestop Sealant

DESCRIPTION: One-part acrylic-based sealant

MSDS No.: 259
Revision No.: 008
Date: 05/19/99

INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	*CAS Number:*	*PEL:*	*TLV:*	*TEL:*
Calcium carbonate	01317-65-3	5 mg/m³ (T)	10 mg/m³ (T)	NE
Ammonium polyphosphate	68333-79-9	NE	NE	NE
Boron trioxide	01303-86-2	15 mg/m³ (R)	10 mg/m³	NE
Alkylphenolethersulfate, sodium salt	69011-84-3	NE	NE	NE
Talc	14807-96-6	20 mppcf	2 mg/m³	NE
Zinc oxide	01314-13-2	5 mg/m³ (T)	10 mg/m³	NE
Expandable graphite	12777-87-6	5 mg/m³ (T)	2 mg/m³ (T)	NE
Ethylene glycol	00107-21-1	NE	C:100 mg/m³ (A)	NE
Polybutene	09003-29-6	NE	NE	NE
Iron oxide	01309-37-1	10 mg/m³	5 mg/m³	NE
Glass filament	65997-17-3	NE	5 mg/m³ (T)	NE
Silicon dioxide	14808-60-7	0.05 mg/m³ (T)	0.1 mg/m³ (T)	NE

Abbreviations: PEL = OSHA Permissible Exposure Limit. TLV = ACGIH Threshold Limit Value. C = Ceiling. STEL = Short Term Exposure Limit. NE = None Established. NA = Not Applicable. (T) indicates "as total dust". (R) indicates "as respirable fraction". (A) indicates "as an aerosol". mppcf = million particles per cubic foot.

PHYSICAL DATA

Appearance:	Red paste.	Odor:	Odorless.
Vapor Density: (air = 1)	Not determined.	Vapor Pressure:	23mbar @ 20C / 68F
Boiling Point:	Not applicable.	VOC Content:	None.
Evaporation Rate:	Not applicable.	Solubility in Water:	Soluble.
Specific Gravity:	1.5	pH:	Notdetermined.

FIRE AND EXPLOSION HAZARD DATA

Flash Point:	Non-flammable.
Flammable Limits:	Not applicable.
Extinguishing Media:	Not applicable. Use extinguishing media as appropriate for surrounding fire.
Special Fire Fighting Procedures:	None known. Use a self-contained breathing apparatus when fighting fires involving chemicals.
Unusual Fire and Explosion Hazards:	None known. Thermal decomposition products can be formed.

REACTIVITY DATA

Stability:	Stable.
Hazardous Polymerization:	Will not occur.
Incompatibility:	Strong acids, peroxides, and oxidizing agents.
Decomposition Products:	Thermal decomposition can yield CO and CO2.
Conditions to Avoid:	None known.

HEALTH HAZARD DATA

Known Hazards:	None known.
Carcinogenicity:	IARC classifies crystalline silica (quartz sand) as Gp I based upon evidence among workers in industries where there has been long-term and chronic exposure (via inhalation) to silica dust; e.g. mining, quarry, stone crushing, refractory brick and pottery workers. This product does not pose a dust hazard; therefore, this classification is not relevant. Based upon the nature and intended use of this product, it does not pose an increased cancer risk to workers.

Underwriters Laboratories Inc.®

Northbrook, Illinois • (708) 272-8800
Melville, New York • (516) 271-6200
Santa Clara, California • (408) 985-2400
Research Triangle Park,
North Carolina • (919) 549-1400

CERTIFICATE OF COMPLIANCE

CERTIFICATE NUMBER: 211097 - R13240A
ISSUE DATE: October 21, 1997

Issued to: Hilti Construction Chemicals Inc.
5400 S. 122nd East Avenue
Tulsa, OK 74146 USA

Report Reference: R13240, February 14, 1997

This is to Certify that representative samples of: Fill, Void or Cavity Materials, one part Sealant designated as FS One (also identified as CP 612)

Have been investigated by Underwriters Laboratories Inc. in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 1479, Fire Tests of Through-Penetration Firestops;

UL 2079, Tests for Fire Resistance of Building Joint Systems.

Additional Information:

This material is a one part intumescent firestop sealant for use in through-penetration firestop systems. These sealants are Classified as "Fill, Void or Cavity Materials" for use in various Through-Penetration Firestop Systems as specified in Volume 2 of UL's Fire Resistance Directory.

Only those products bearing the UL Classification Marking should be considered as being covered by UL's Classification and Follow-Up Service.

The UL Classification Marking includes: the name "Underwriters Laboratories Inc."; the word "Classified"; a control number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of the product; and, the product category name (product identity) as indicated in the appropriate UL Directory.

LOOK FOR THE UL CLASSIFICATION MARKING ON THE PRODUCT

Engineer: Underwriters Laboratories Inc. Nikola Momcilovic

Review Engineer: Underwriters Laboratories Inc. A. M. Ramirez

2000-44C (6/92)

SimplexGrinnell BE SAFE.

RANGE HOOD SYSTEMS REPORT

20 Thomas Drive
Westbrook, ME 04092
P 207-842-6440 F 207-842-6430

Customer Fire Equipment Service
Address 425 Fore St
Portland ME
Attention
Phone ( )
Fax ( )

Date of Service	Time	AM	PM
3/30/11	3:30		✓

Annual	Semi-Annual	Recharge	Installation	Renovation	Other
			✓		

Location of System Cylinders: Left end Hood

Manufacturer	Model	Wet	Dry Chemical
Ansul	R-102	✓	

Cylinder Size (Master)	Cylinder Size (Slave)	Cylinder Size (Slave)
3G	3G	

Fuse Links 360°F	Fuse Links 450°F	Fuse Links 500°F	Other
Qty. 2	Qty.	Qty. 4	

Fuel Shut Off	Electric	Gas	Size
✓		Mech	2"

Serial Number	Last Hydro Test Date	Last Recharge Date
	2011/2011	

COOKING APPLIANCE SIZES (NOTE: List appliances from left to right and indicate nozzles used for each)

Plenum Size(s)			
(2) 9" PLENUMS			
Duct Size(s)			
(2) 10"X17" DUCTS	Fryer / Fryer / Fryer	/ Fryer / Grdl &	/ Grdl

1. All appliances properly covered w/correct nozzles ✓
2. Duct and plenum covered w/correct nozzles ✓
3. Check positioning of all nozzles ✓
4. System installed in accordance w/Mfg UL listing ✓
5. Hood/duct penetrations sealed w/weld or UL device ✓
6. Check if seals intact, evidence of tampering ✓
7. If system has been discharged, report same N/A
8. Pressure gauge in proper range (if gauged) N/A
9. Check cartridge weight (replace, if needed) new
10. Hydrostatic/6 year maintenance date 2023
11. Inspect cylinder and mount ✓
12. Operate system from terminal link ✓
13. Test for proper operation from remote ✓
14. Check operation of micro switch ✓
15. Check operation of gas valve ✓
16. Proper nozzle covers in place/clean nozzles ✓
17. Check fuse links and clean new
18. Replaced fusible links (record date here) 3/30/11
19. Check travel of cable nuts/S-hooks ✓
20. Piping and conduit securely bracketed ✓
21. Proper separation between fryers and flame ✓
22. Proper clearance—flame to filters ✓
23. Exhaust fan operating properly
25. All filters reinstalled ✓
25. Fuel shut-off in ON position ✓
26. Manual and remote set/seals in place ✓
27. Replace systems covers ✓
28. System operational and seals in place ✓
29. Slave system operational ✓
30. Clean cylinder and mount ✓
31. Fan warning sign on hood no
32. Personnel instructed in manual operation of system ✓
33. Proper hand portable extinguishers (K Class and ABC) ✓
34. Portable extinguishers properly serviced
35. Service and certification tag on system

NOTE DISCREPANCIES OR DEFICIENCIES

IMPORTANT NOTICE TO CUSTOMER

Customer acknowledges and agrees to the terms and conditions on the reverse side of this Range Hood Systems Report, agrees that the services have been completed to Customer's satisfaction and that the system is in good working order and repair, unless services performed were of a temporary nature, in which case Customer acknowledges that part of customer's system may have been bypassed or is otherwise inoperable until service can be completed.

CUSTOMER'S ATTENTION IS DIRECTED TO THE LIMITATION OF LIABILITY, WARRANTY, INDEMNITY AND OTHER CONDITIONS ON THE REVERSE SIDE.

TOTAL SERVICE	
TOTAL SALES	
LABOR or FRT or TRIP CHARGE	
GRAND TOTAL	

Acceptance of customer or customer's representative

Service Technician	Date	Time	AM	PM	Customer's Authorized Agent
	4/1/11				Bruce Morgan 4/1/11

FIDAL INSPECTION + TESTING

~~PAUL ANGELO~~
BRUCE MORGAN

CUSTOMERS AT TIME OF SERVICE

SERVICE AGREEMENT
General Terms and Conditions

1. **Limitation Of Liability; Limitations Of Remedy.** It is understood and agreed by the Customer that Company is not an insurer and that insurance coverage, if any, shall be obtained by the Customer and that amounts payable to Company hereunder are based upon the value of the services and the scope of liability set forth in this Service Request and are unrelated to the value of the Customer's property and the property of others located on the premises. Customer agrees to look exclusively to the Customer's insurer to recover for injuries or damage in the event of any loss or injury and that Customer releases and waives all right of recovery against Company arising by way of subrogation. Company makes no guaranty or Warranty, including any implied warranty of merchantability or fitness for a particular purpose that equipment or services supplied by Company will detect or avert occurrences or the consequences therefrom that the equipment or service was designed to detect or avert.

It is impractical and extremely difficult to fix the actual damages, if any, which may proximately result from failure on the part of Company to perform any of its obligations under this Service Request. Accordingly, Customer agrees that, Company shall be exempt from liability for any loss, damage or injury arising directly or indirectly from occurrences, or the consequences therefrom, which the equipment or service was designed to detect or avert. Should Company be found liable for any loss, damage or injury arising from a failure of the equipment or service in any respect, Company's liability shall be limited to an amount equal to the Service Request price (as increased by the price for any additional work) or where the time and material payment term is selected, Customer's time and material payments to Company. Where this Service Request covers multiple sites, liability shall be limited to the amount of the payments allocable to the site where the incident occurred. Such sum shall be complete and exclusive. If Customer desires Company to assume greater liability, the parties shall amend this Service Request by attaching a rider setting forth the amount of additional liability and the additional amount payable by the Customer for the assumption by Company of such greater liability, provided however that such rider shall in no way be interpreted to hold Company as an insurer. IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY DAMAGE, LOSS, INJURY, OR ANY OTHER CLAIM ARISING FROM ANY SERVICING, ALTERATIONS, MODIFICATIONS, CHANGES, OR MOVEMENTS OF THE COVERED SYSTEM(S) OR ANY OF ITS COMPONENT PARTS BY THE CUSTOMER OR ANY THIRD PARTY. COMPANY SHALL NOT BE LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO DAMAGES ARISING FROM THE USE, LOSS OF THE USE, PERFORMANCE, OR FAILURE OF THE COVERED SYSTEM(S) TO PERFORM. The limitations of liability set forth in this Service Request shall inure to the benefit of all parents, subsidiaries and affiliates of Company, whether direct or indirect, Company's employees, agents, officers and directors.

2. **Limited Warranty.** COMPANY WARRANTS THAT ITS WORKMANSHIP AND MATERIAL FURNISHED UNDER THIS SERVICE REQUEST WILL BE FREE FROM DEFECTS FOR A PERIOD OF NINETY (90) DAYS FROM THE DATE OF FURNISHING. Where Company provides product or equipment of others, Company will warrant the product or equipment only to the extent warranted by such third party. EXCEPT AS EXPRESSLY SET FORTH HEREIN, COMPANY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE SERVICES PERFORMED OR THE PRODUCTS, SYSTEMS OR EQUIPMENT, IF ANY, SUPPORTED HEREUNDER. COMPANY MAKES NO WARRANTY OR REPRESENTATION, AND UNDERTAKES NO OBLIGATION TO ENSURE BY THE SERVICES PERFORMED UNDER THIS SERVICE REQUEST, THAT COMPANY'S PRODUCTS OR THE SYSTEMS OR EQUIPMENT OF THE CUSTOMER WILL CORRECTLY HANDLE THE PROCESSING OF CALENDAR DATES BEFORE OR AFTER DECEMBER 31, 1999.

3. **Indemnity.** Customer agrees to indemnify, hold harmless and defend Company against any and all losses, damages, costs, including expert fees and costs, and expenses including reasonable defense costs, arising from any and all third party claims for personal injury, death, property damage or economic loss, including specifically any damages resulting from the exposure of workers to Hazardous Conditions whether or not Customer pre-notifies Company of the existence of said hazardous conditions, arising in any way from any act or omission of Customer or Company relating in any way to this Agreement, including but not limited to the Services under this Agreement, whether such claims are based upon contract, warranty, tort (including but not limited to active or passive negligence), strict liability or otherwise. Company reserves the right to select counsel to represent it in any such action.

4. **Hazardous Materials.** Customer represents that, except to the extent that Company has been given written notice of the following hazards prior to the execution of this Service Request, to the best of Customer's knowledge there is no:

- "permit confined space," as defined by OSHA,
- risk of infectious disease,
- need for air monitoring, respiratory protection, or other medical risk,
- asbestos, asbestos-containing material, formaldehyde or other potentially toxic or otherwise hazardous material contained in or on the surface of the floors, walls, ceilings, insulation or other structural components of the area of any building where work is required to be performed under this Service Request.

All of the above are hereinafter referred to as "Hazardous Conditions".

Company shall have the right to rely on the representations listed above. If hazardous conditions are encountered by Company during the course of Company's work, the discovery of such conditions shall constitute an event beyond Company's control and Company shall have no obligation to further perform in the area where the hazardous conditions exist until the area has been made safe by Customer as certified in writing by an independent testing agency, and Customer shall pay disruption expenses and re-mobilization expenses as determined by Company.

This Service Request does not provide for the cost of capture, containment or disposal of any hazardous waste materials, or hazardous materials, encountered in any of the Covered System(s) and/or during performance of the Services. Said materials shall at all times remain the responsibility and property of Customer. Company shall not be responsible for the testing, removal or disposal of such hazardous materials.

5. **Equipment Disconnections.** This represents Company's notice to you that the system(s)/device(s) listed on the face of this Service Request as temporarily or permanently disconnected are no longer in service and, thus, cannot detect, perform and/or report occurrences or transmit signals.

6. **General.** Unless otherwise specified, work shall be done between the hours of 8:00 AM and 5:00 PM, exclusive of Saturdays, Sundays and Company holidays. All work is subject to review and rebilling in accordance with the terms and conditions of Customer's agreement/contract with Company, if one is in effect. Company shall not be responsible for failure to render services due to causes beyond its control, including but not limited to material shortages, work stoppages, fires, civil disobedience or unrest, severe weather, fire or any other cause beyond the control of Company. Customer is aware that the Limitation of Liability and other provisions set forth in any existing agreement/contract, if one is in effect, or set forth above, apply to services performed and materials supplied. The terms of this Service Request shall govern notwithstanding any inconsistent or additional terms and conditions in any purchase order or other document submitted by Customer.

Signs and Symptoms of Exposure:	Possibly irritating upon contact with the eyes or upon repeated contact with the skin.
Routes of Exposure:	Dermal.
Medical Conditions Aggravated by Exposure:	Eye and skin conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes:	Immediately flush with plenty of water. Call a physician if symptoms occur.
Skin:	Immediately wipe off material and wash with soap and water. Material can adhere to the skin. If material has adhered to the skin, use an abrasive containing hand cleaner. If material does not come off, buff with a pumice stone.
Inhalation:	Move victim to fresh air if discomfort develops. Call a physician if symptoms persist.
Ingestion:	Seek medical attention. Do not induce vomiting unless directed by a physician. Never give anything by mouth to an unconscious person.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation:	General (natural or mechanically induced fresh air movements).
Eye Protection:	Not required, however, safety glasses should be worn in most industrial settings.
Skin Protection:	Avoid skin contact. Cloth gloves are suitable for hand protection.
Respiratory Protection:	None normally required. Where ventilation is inadequate to control vapors, use a NIOSH-approved respirator with organic vapor cartridges. Never enter a confined space without an appropriate air-supplied respirator.

PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storing Precautions:	Store in a cool, dry area preferably between 50° and 100° F. Keep from freezing. Do not store in direct sunlight. Avoid contact with the eyes or skin. Practice good hygiene; i.e. always wash thoroughly after handling and before eating or smoking. For industrial use only. Keep out of reach of children. Follow label/use instructions.
Spill Procedures:	Immediately wipe away spilled material before it hardens. Place in a container for proper disposal in accordance with all applicable local, state, or federal requirements.

REGULATORY INFORMATION

Hazard Communication:	This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200.
HMIS Codes:	Health 1, Flammability 0, Reactivity 0, PPE B
DOT Shipping Name:	Not regulated.
TSCA Inventory Status:	Chemical components listed on TSCA inventory.
SARA Title III, Section 313:	This product contains 1-5% ethylene glycol (CAS 107-21-1) and 1-5% zinc oxide (re: zinc compounds) which are subject to reporting under Section 313 of SARA Title III (40 CFR Part 372).
EPA Waste Code(s):	Not regulated by EPA as a hazardous waste.
Waste Disposal Methods:	Consult with regulatory agencies or your corporate personnel for disposal methods that comply with local, state, and federal safety, health and environmental regulations.

CONTACTS

Customer Service:	1 800 879 8000
Technical Service:	1 800 879 8000
Emergency:	1 800 879 4444
Health / Safety:	1 800 879 6000 Steve Gerrard (x6309) Jerry Metcalf (x6704)

The information and recommendations contained herein are based upon data believed to be correct; however, no guarantee or warranty of any kind expressed or implied is made with respect to the information provided.

FS-ONE
High Performance Intumescent Firestop Sealant

Product description

- Intumescent (expands when exposed to fire) firestop sealant that helps protect combustible and non-combustible penetrations for up to 4 hours fire rating

Product features

- Smoke, gas and water resistant
- Contains no halogen, solvents or asbestos
- High fire rating properties
- Water based, easy to clean

Tested in accordance with

- UL 1479
- ASTM E 814
- ASTM E 84

Technical Data

FS-ONE Intumescent Firestop

(at 73°F (23°C) and 50% relative humidity)

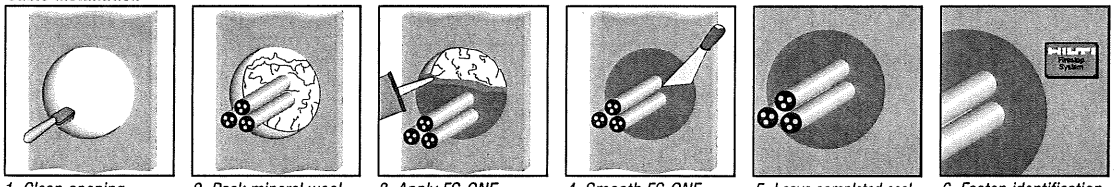
Chemical basis:	Water-based intumescent acrylic dispersion
Density:	Approx. 1.5 g/cm³
Color:	Red
Working time:	Approx. 20-30 min
Curing time:	Approx. 14-21 days
Shore A Hardness:	Approx. 35
Movement capability:	Approx. 5%
Intumescent Activation:	Approx 250°F (121°C)
Expansion rate (unrestricted):	Up to 3-5 times original volume
Temperature resistance (cured):	-40°F (-40°C) to 212°F (100°C)
Application temperature:	35°F (2°C) to 100°F (38°C)
Surface burning characteristics:	Flame Spread: 0
(ASTM E 84-96)	Smoke Development: 5
Sound transmission classification:	50
ASTM E 90-97	

Approvals

ICBO Evaluation Service, Inc.	Report No. 5071
California State Fire Marshal	Listing No. 1200:108
City of New York	MEA 326-96-M Vol. II

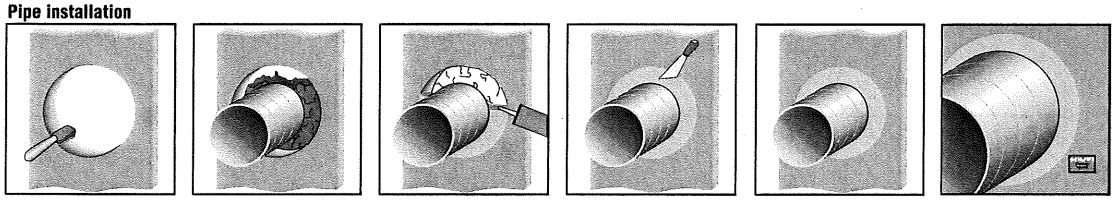
Installation instructions for FS-ONE

Cable installation



1. Clean opening. *2. Pack mineral wool. (If required)* *3. Apply FS-ONE.* *4. Smooth FS-ONE.* *5. Leave completed seal undisturbed for 48 hours.* *6. Fasten identification plate (if required).*

Pipe installation



1. Clean opening. *2. Pack mineral wool. (If required)* *3. Apply FS-ONE.* *4. Smooth FS-ONE.* *5. Leave completed seal undisturbed for 48 hours.* *6. Fasten identification plate (if required).*

Opening

1. Clean the opening. Surfaces to which FS-ONE will be applied should be cleaned of loose debris, dirt, oil, moisture, frost and wax. Structures supporting penetrating items must be installed in compliance with local building and electrical standards.

Application of firestop sealant

2. Install the prescribed backfilling material type and depth to obtain the desired rating (if required). Leave sufficient depth for applying FS-ONE.
3. Application of firestop sealant: Apply FS-ONE to the required depth in order to obtain the desired fire rating. Make sure FS-ONE contacts all surfaces to provide maximum adhesion. For application of FS-ONE use a standard caulking gun, foil pack gun, bulk loader and bulk gun. With FS-ONE buckets, Graco type sealant pumps may be used. (Contact pump manufacturer for proper selection).
4. Smoothing of firestop sealant: To complete the seal, tool immediately to give a smooth appearance. Excess sealant, prior to curing, can be cleaned away from adjacent surfaces and tools with water.
5. Leave completed seal undisturbed for 48 hours.
6. For maintenance reasons, a penetration seal could be permanently marked with an identification plate. In such a case, mark the identification plate and fasten it in a visible position next to the seal.

Notice about approvals

- Check that the penetration has been sealed according to the specified drawing in the UL Fire Resistance Directory or Hilti Firestop Manual. For further advice, please contact Hilti customer service. Refer to Hilti product literature and UL fire resistance directory for specific application details.

Not for use...

- High movement expansion joints
- Underwater
- On materials where oil, plasticizers or solvents may bleed i.e. impregnated wood, oil based seals, green or partially vulcanized rubber
- In any penetration other than those specifically described in this manual or the test reports

Safety precautions

- Before handling, read the product and Material Safety Data Sheet for detailed use and health information
- Keep out of reach of children
- Wear suitable gloves and eye protection

Storage

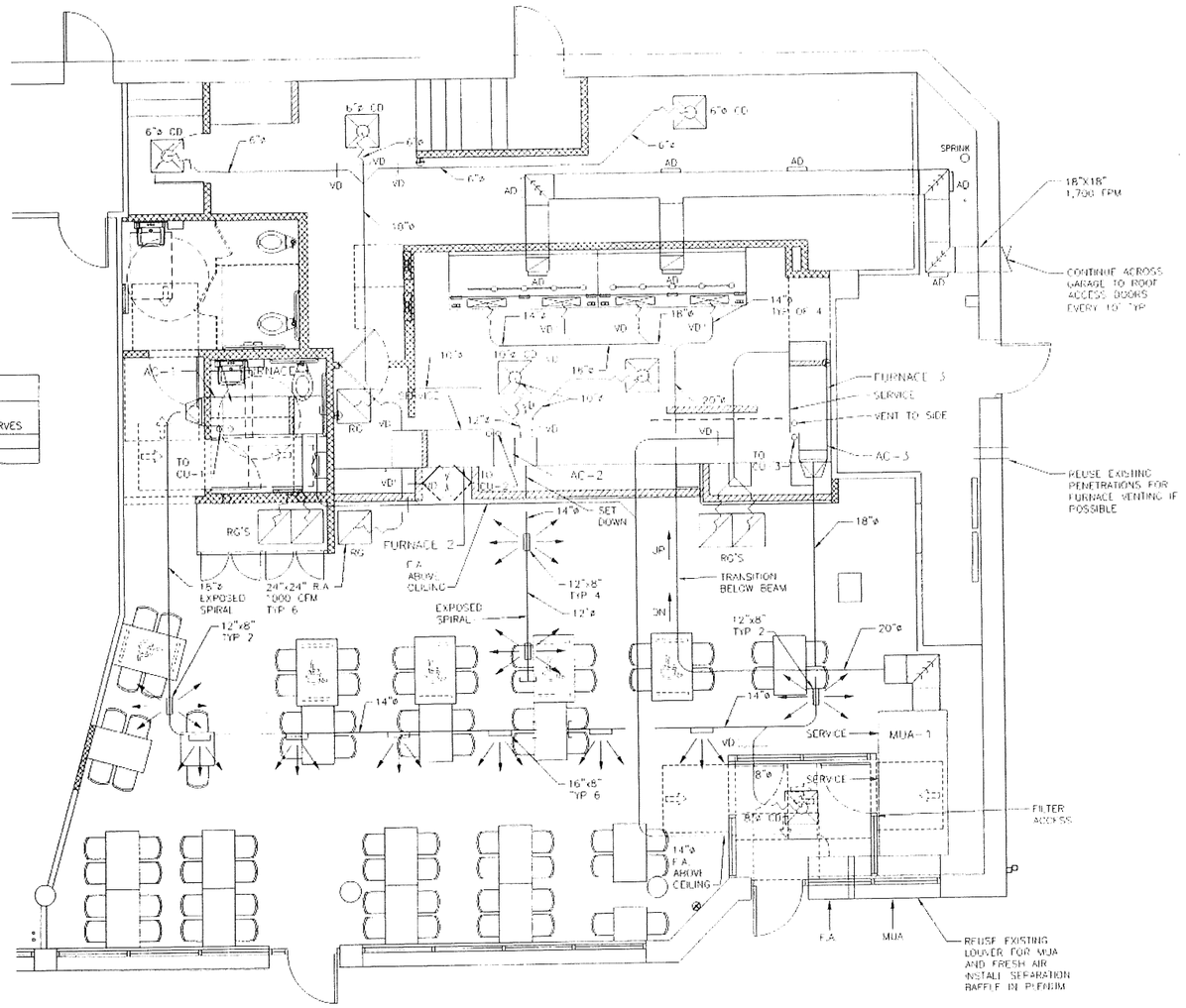
- Store only in the original packaging in a location protected from moisture at temperatures between 40°F (5°C) and 86°F (30°C)
- Observe expiration date on the packaging

AC / CU SCHEDULE

TAG	MFG	SIZE	INDOOR MODEL	OUTDOOR MODEL	COOLING BTU'S	ELECTRICAL	MAX FUSE	MCA	ACCESSORY	SERVES
1,2,3	TRANE	5 TON	4TXC060	4TTA3060A3	60,000	208 / 3PH	40	24		

FURNACE SCHEDULE

TAG	MANUFACTURER	MODEL #	BTU'S INPUT	CFM DESIGN	VOLTS	MCA	MAX FUSE
1,2,3	TRANE	TUH1C080	80,000	1,950	120 / 1PH	13.5	20



1 DUCTWORK – FLOOR PLAN
1/4" = 1'-0"

HVAC SERVICES, INC.
Design • Build • Install • Service
73 BRADLEY DRIVE
WESTBROOK, MAINE 04092
(207) 854-HVAC (4822)

REVISIONS	
NO	NOTES

PROJECT: FIVE GUYS FAMOUS BURGERS and FRIES PORTLAND, MAINE

SHEET TITLE: DUCTWORK – FLOOR PLAN & SCHEDULES

SCALE: 1/4"=1'-0" | DATE: 02-14-2011

DRAWN BY: AZ CADD DRAFTING SERVICES, INC. | SHEET No: M-1

CHECKED BY:

"AS BUILT" DATE:

HOOD INFORMATION

HOOD NO.	MODEL	LENGTH	MAX. COOKING TEMP.	TOTAL EXH. CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG.	CFM	S.P.	TOTAL SUP. CFM	SUPPLY PLENUM RISER(S) WIDTH	LENG.	CFM	S.P.	HOOD CONSTRUCTION	HOOD CONFIG. END TO END	ROW	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	3347 BD-2	9' 0.00"	600 Deg.	1800	10"	17"	1800	-1.026"	0					430 SS Where Exposed	LEFT	ALONE	YES	308 LBS
2	3347 BD-2	9' 0.00"	600 Deg.	1800	10"	17"	1800	-1.026"	0					430 SS Where Exposed	RIGHT	ALONE	YES	365 LBS
3	126 MISC-PSP	9' 0.00"	N/A	0					1359	10"	16"	679	0.129"	430 SS Where Exposed	ALONE	ALONE	NO	44 LBS
										10"	16"	679	0.129"					
4	126 MISC-PSP	9' 0.00"	N/A	0					1359	10"	16"	679	0.129"	430 SS Where Exposed	ALONE	ALONE	NO	44 LBS
										10"	16"	679	0.129"					

HOOD INFORMATION

HOOD NO.	FILTER(S) TYPE	QTY.	HEIGHT	LENGTH	LIGHT(S) QTY.	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	SWITCHES LOCATION
1	Captrate Solo	3	16"	16"	5	Incandescent	NO	Top Mount	Ansul R102	6 GAL.	32111002	1 Light 1 Fan	Verify
		3	16"	20"									
2	Captrate Solo	3	16"	16"	5	Incandescent	NO						
		3	16"	20"									

HOOD OPTIONS

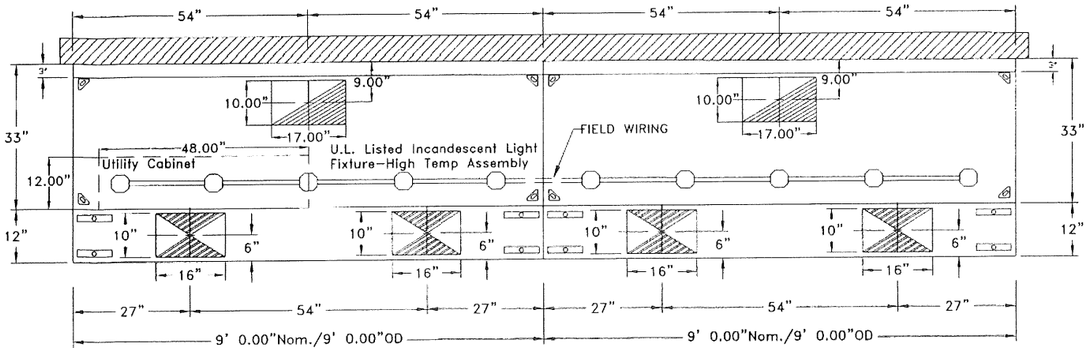
HOOD NO.	OPTION
1	FIELD WRAPPER 36.00" High Front, Left
	BACKSPLASH 67.00" High X 216.00" Long
	RIGHT/ LEFT QUARTER END PANEL 430 SS
	1-PINT GREASE CUP
	BALANCE DAMPER
2	FIELD WRAPPER 36.00" High Front, Right
	RIGHT/ LEFT QUARTER END PANEL 430 SS
	1-PINT GREASE CUP
	BALANCE DAMPER

IMPORTANT INSTALLATION NOTES:

- TOP MOUNT UTILITY CABINET WILL BE PRE-INSTALLED ON HOOD SERVING THE FRYERS. IF CEILING HEIGHT IS NOT 10' AFF CONTACT CAPTIVE-AIRE FOR REVISED DRAWINGS AND TO DETERMINE IF TOP MOUNT UTILITY CABINET IS POSSIBLE.
- DO NOT INSTALL QUARTER END PANELS BETWEEN HOODS

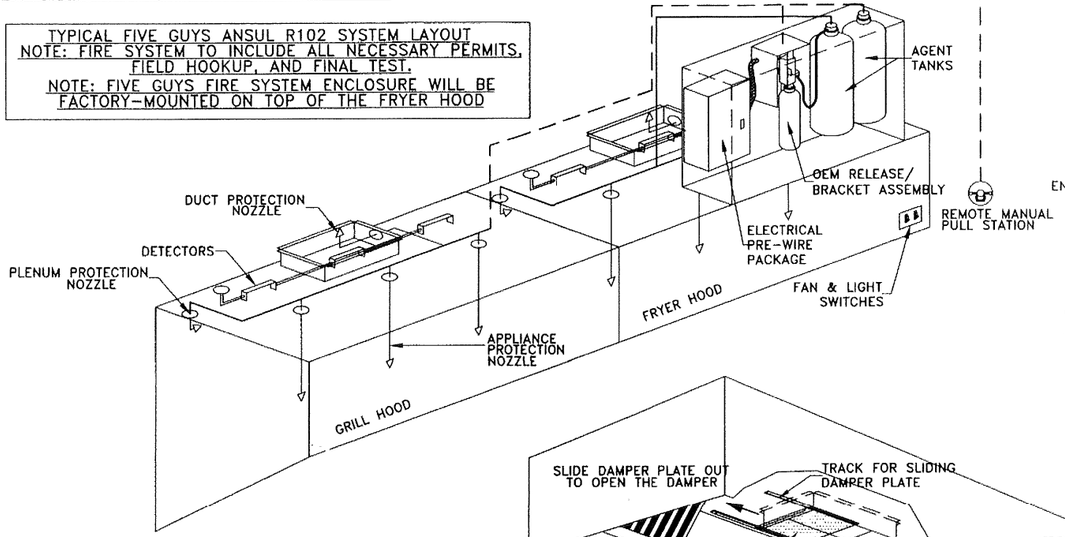
SCOPE OF WORK

HOOD(S): PROVIDED BY OWNER. INSTALLED BY GC.
FIRE SYSTEM(S): PROVIDED & INSTALLED BY OWNER.
EXHAUST FAN(S): PROVIDED BY OWNER. INSTALLED BY GC.
MAKEUP AIR UNIT(S): PROVIDED BY OWNER. INSTALLED BY GC.
ELECTRICAL CONTROL(S): PROVIDED BY OWNER. INSTALLED BY GC.
GC IS RESPONSIBLE FOR COMPLETE START-UP OF EXHAUST FANS AND MAKEUP AIR UNIT PER CAPTIVEAIRE OPERATION & INSTALLATION MANUAL

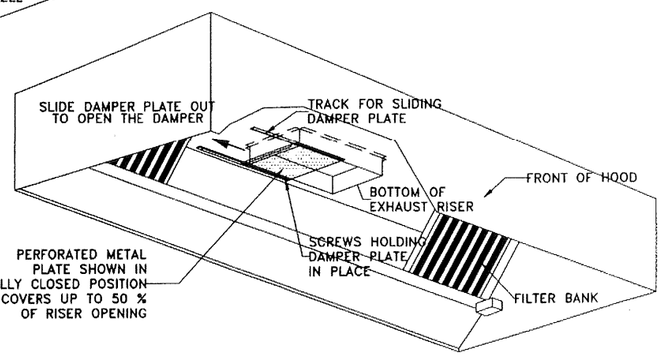


PLAN VIEW - Hood #1
9' 0.00" LONG 3347BD-2 WITH
FRONT PSP (SUPPLY PLENUM)

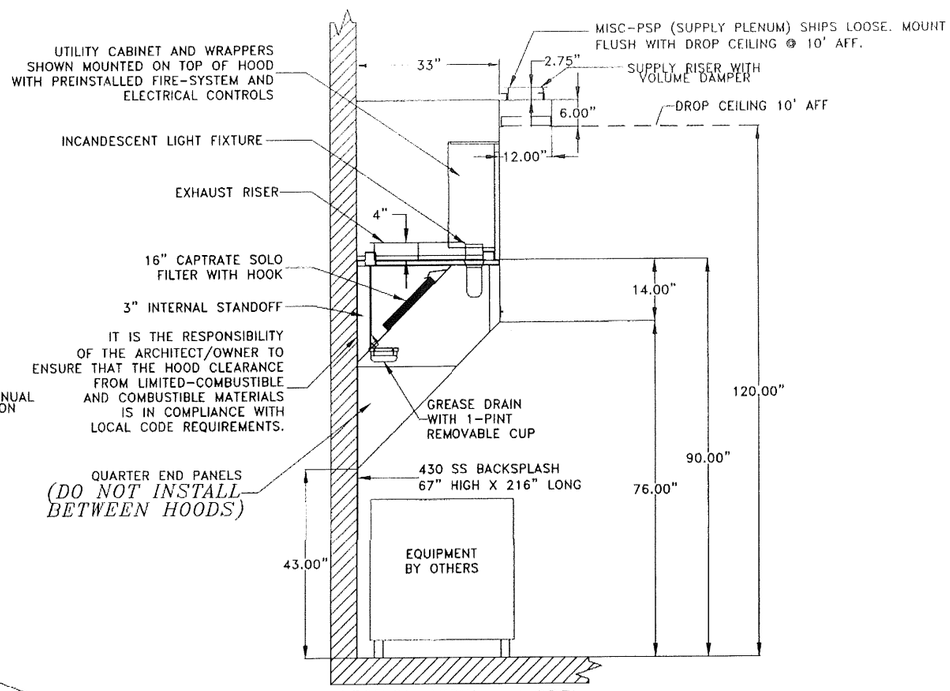
PLAN VIEW - Hood #2
9' 0.00" LONG 3347BD-2 WITH
FRONT PSP (SUPPLY PLENUM)



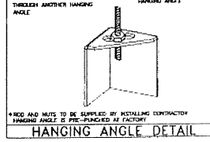
TYPICAL FIVE GUYS ANSUL R102 SYSTEM LAYOUT
NOTE: FIRE SYSTEM TO INCLUDE ALL NECESSARY PERMITS, FIELD HOOKUP, AND FINAL TEST.
NOTE: FIVE GUYS FIRE SYSTEM ENCLOSURE WILL BE FACTORY-MOUNTED ON TOP OF THE FRYER HOOD



BALANCING DAMPER DETAIL



SECTION VIEW - MODEL
3347BD-2 WITH
FRONT PSP (SUPPLY PLENUM)



HANGING ANGLE DETAIL

ETL LISTING DESCRIPTION BLOCK

THE CAPTIVE AIRE MODEL BD-2 HAS BEEN U.L. 710 TESTED, LISTED, AND APPROVED TO EXHAUST A MINIMUM OF 140 CFM PER LINEAR FOOT OVER 600 DEGREE COOKING EQUIPMENT

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH

NFPA #96
ETL SANITATION LISTED
ETL LISTED #3054804-001

FOR QUESTIONS, CONTACT:
CAPTIVE-AIRE SYSTEMS, INC.

STORES NORTH OF FAIRFAX, VA CONTACT
MARK PROFET
PHONE (800) 588-0891
FAX (302) 996-1795
EMAIL: REG3@CAPTIVEAIR.COM

STORES SOUTH OF FAIRFAX, VA CONTACT
JAYSON NEWMAN
PHONE (800) 419-1447
FAX (864) 684-8880
EMAIL: REG28@CAPTIVEAIR.COM

REVISIONS

	DESCRIPTION	DATE
1	REV2 ELEC/ HANG HEIGHT	1/26/2011
2		
3		
4		
5		

CAPTIVE-AIRE
MARYLAND OFFICE
7615A Oakland Mills Road, Columbia, MD 21046 PHONE (301) 490-6404 FAX (301) 490-6446
www.captiveaire.com

Five Guys
PORTLAND, ME (FORE STREET)

DATE: 12/6/2010

DWG.#: JOB_1259625

DRAWN BY: PAB-32

SCALE: NOT TO SCALE

SHEET NO. 1

EXHAUST FAN INFORMATION

FAN UNIT NO.	FAN UNIT MODEL #	TAG	CFM	S.P.	RPM	H.P.	ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS.)
1	BI20CARM		3600	3.00	1469	5.0	3	208	14.1	1549 FPM	449.40

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO.	FAN UNIT MODEL #	CFM	S.P.	RPM	INPUT BTUs	OUTPUT BTUs	TEMP RISE	INPUT GAS PRESSURE	GAS TYPE	H.P.	ø	VOLT	FLA	WEIGHT (LBS.)
2	A2-D.250-G15	2718	1.000	959	213422	196348	70 Deg F	7"-14" w.c.	Natural	2.000	3	208	6.0	857.98

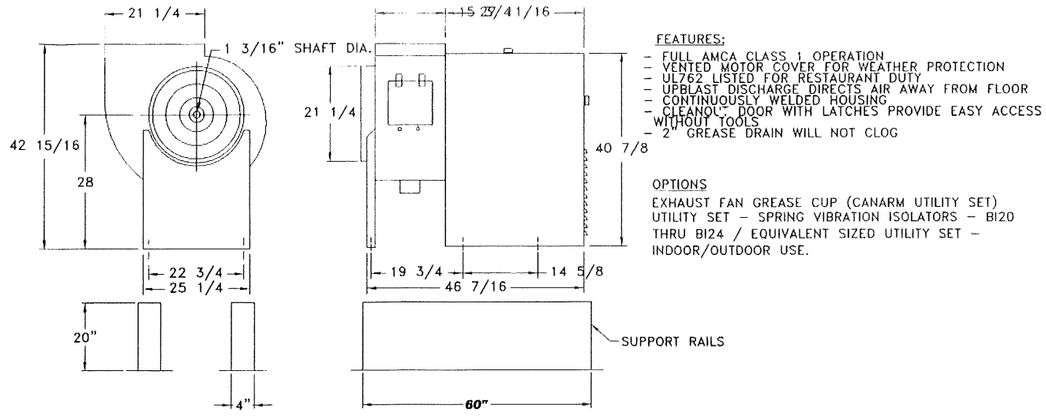
FAN OPTIONS

FAN UNIT NO.	OPTION (Qty. - Descr.)
1	1 - Grease Box
	1 - Utility set spring vibration isolators
2	1 - Inlet Pressure Gauge, 0-35"
	1 - Manifold Pressure Gauge, -5 to 15" wc
	1 - Low Fire Start
	1 - AC Interlock Relay - 24VAC Coil
	1 - DF 2 Indoor Hanging Option - Includes 2 HSA125 Hanging Spring Isolators per Uni-Strut

CURB ASSEMBLIES

NO.	ON FAN	SIZE
1	# 1	4.0"W x 60.0"L x 20.0"H

FAN #1 BI20CARM - EXHAUST FAN



FEATURES:
- FULL AMCA CLASS 1 OPERATION
- VENTED MOTOR COVER FOR WEATHER PROTECTION
- UL762 LISTED FOR RESTAURANT DUTY
- UPBLAST DISCHARGE DIRECTS AIR AWAY FROM FLOOR
- CONTINUOUSLY WELDED HOUSING
- CLEANOL DOOR WITH LATCHES PROVIDE EASY ACCESS WITHOUT TOOLS
- 2" GREASE DRAIN WILL NOT CLOG

OPTIONS

EXHAUST FAN GREASE CUP (CANARM UTILITY SET)
UTILITY SET - SPRING VIBRATION ISOLATORS - BI20 THRU BI24 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE.

SCOPE OF WORK

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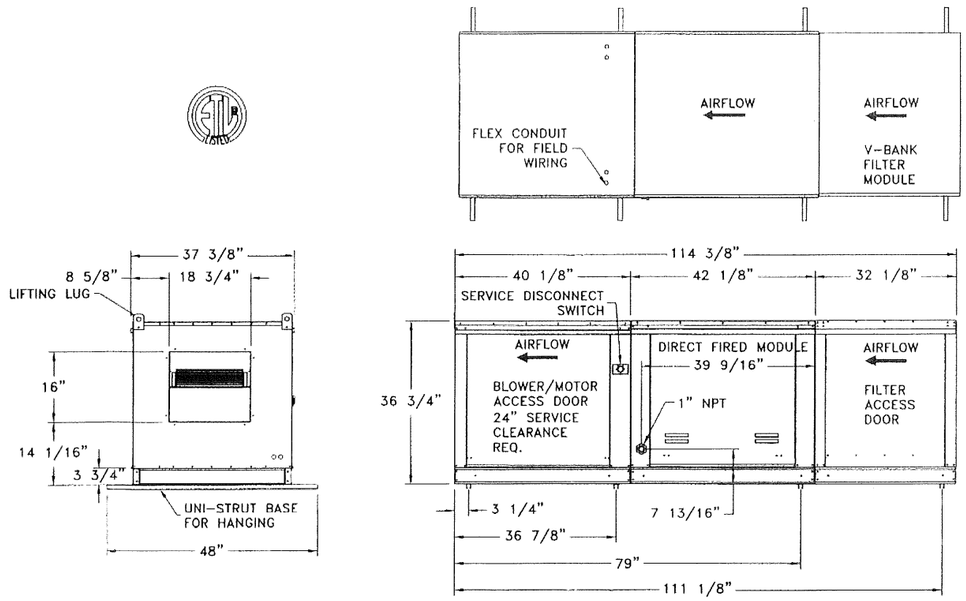
FAN #2 A2-D.250-G15 - HEATER
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" BLOWER
2. V-BANK EZ FILTERS - INDOOR
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE
5. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
6. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE
7. INDOOR HANGING CRADLE FOR THE SIZE 2 DIRECT FIRED UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED
8. COOLING INTERLOCK RELAY. 24VAC COIL. 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 20°F. TEMP. RISE = 70°F.
OUTPUT BTUs AT ALTITUDE OF 0.0 ft. = 196348
INPUT BTUs AT ALTITUDE OF 0.0 ft. = 213422
OUTPUT BTUs AT ALTITUDE OF 85 ft. = 196348
INPUT BTUs AT ALTITUDE OF 85 ft. = 213422



REVISIONS

DESCRIPTION REV#	DATE
1 ELEC./ HANG HEIGHT	1/26/2011

CAPTIVEAIRE
7615A Old Georgetown Road Bethesda, MD. 20814 PHONE: (301) 986-1575 FAX: (301) 986-1795 EMAIL: mail@captiveaire.com www.captiveaire.com
MARYLAND OFFICE

Five Guys
PORTLAND, ME (FORE STREET)

DATE: 12/6/2010
DWG.#: JOB_1259625
DRAWN BY: PAB-32
SCALE: NOT TO SCALE

SHEET NO. 2

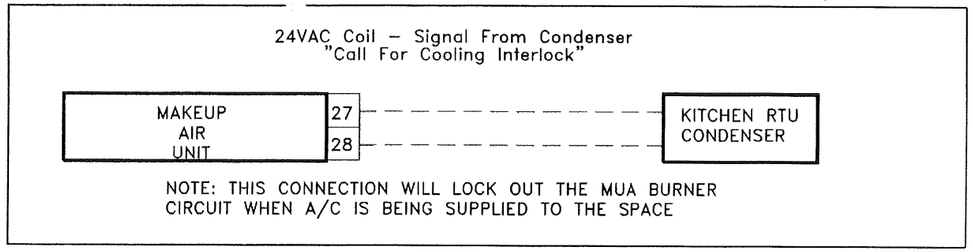
ELECTRICAL PACKAGE

NO.	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
			LOCATION	QUANTITY		TYPE	ø	H.P.	VOLT	FLA
1	31111002	Top Utility Cabinet	Face Mount (VERIFY)	1 Light 1 Fan	Exhaust in Fire	Exhaust	3	5.0	208	14.1
						Supply	3	2.0	208	6.0

SEQUENCE OF OPERATION – APPLIANCE INTERLOCK

- APPLIANCE RECEPTACLES INTERLOCK WITH HOOD CONTROLS TO MEET IMC 507.2.1.1
- APPLIANCE RECEPTACLES ENERGIZE WHEN HOOD CONTOL SWITCH IS ON, AND UNDER NORMAL CONDITIONS
- APPLIANCE RECEPTACLES DE-ENERGIZE WHEN HOOD CONTROL SWITCH IS OFF, OR IN FIRE CONDITION

MUA/ RTU INTERLOCK DETAIL (BY ELECTRICIAN)



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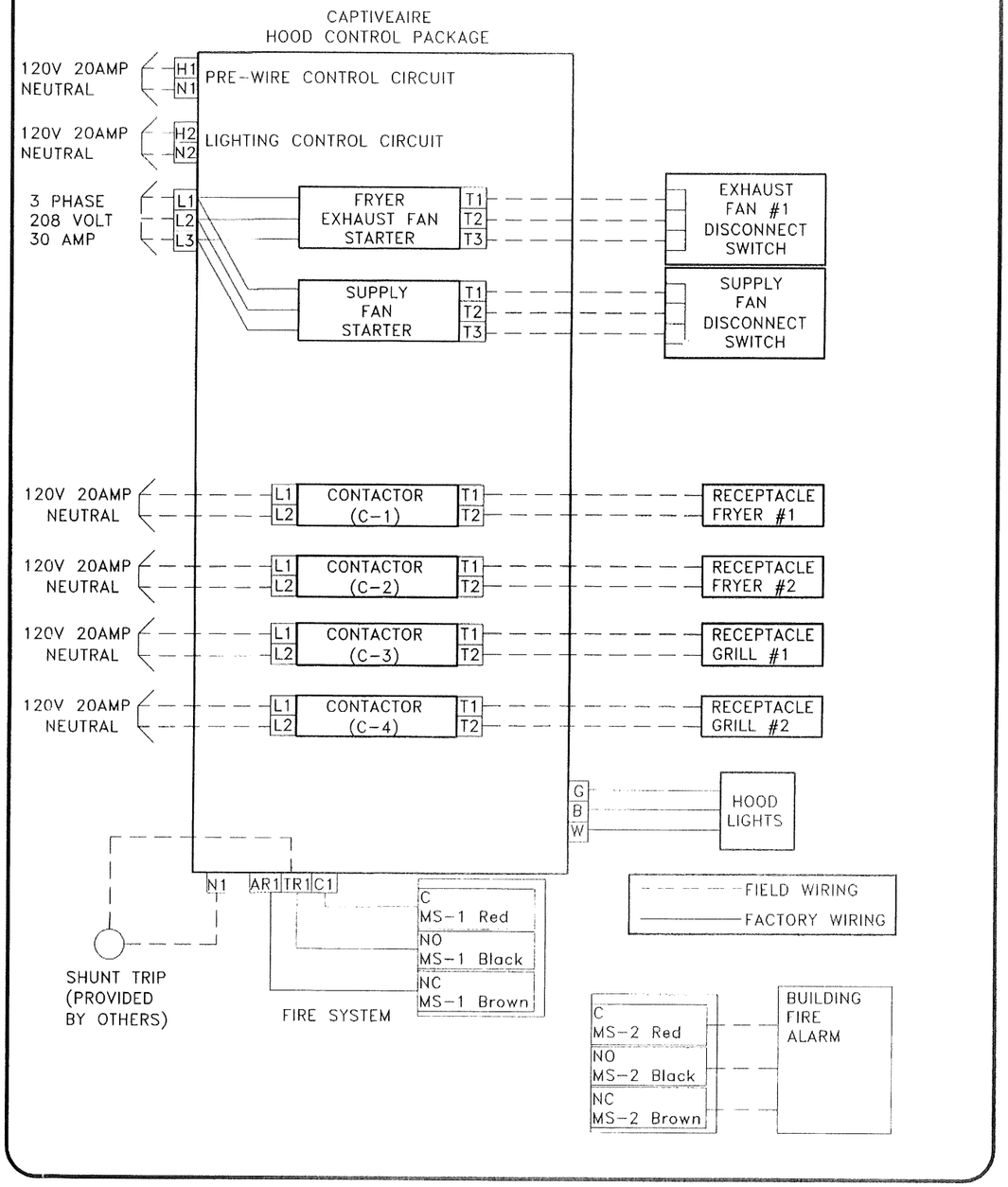
CONTROL PANEL INSTALLATION	JOB NAME	DATE
DRAWING NUMBER	JOB NUMBER	MODEL



REVISIONS

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CAPTIVEAIRE
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www.captiveaire.com

Five Guys
PORTLAND, ME (FORE STREET)

DATE: 12/6/2010
DWG.#: JOB_1259625
DRAWN BY: PAB-32
SCALE: NOT TO SCALE

SHEET NO. 3