

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT

This is to certify that SUSAN BERRY

Located At 160 UPPER A ST

Job ID: 2012-02-3216-HVAC

CBL: 088-K-016-001

has permission to Install new Mascott II boiler and 2 tanks

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

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.**

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 OCCUPIED.



PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Director of Planning and Urban Development
Penny St. Louis

Job ID: 2012-02-3216-HVAC

Located At: 160 UPPER A ST

CBL: 088- K-016-001

Conditions of Approval:

Fire

Installation shall comply with City Code Chapter 10.

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.

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2012-02-3216-HVAC	Date Applied: 2/6/2012	CBL: 088- K-016-001	
Location of Construction: 160 UPPER A ST, PEAKS IS	Owner Name: SUSAN BERRY	Owner Address: 3222 DESOTO ST NEW ORLEANS, LA 70119	Phone:
Business Name:	Contractor Name: TIMOTHY CARLAND PLBMG & HEATING	Contractor Address: 205 ALLEN AVE, PORTLAND MAINE 04103	Phone: 233-4926
Lessee/Buyer's Name:	Phone:	Permit Type: HVAC	Zone: IR-1
Past Use: Single Family Dwelling (rebuild after fire under #2011-08-2038)	Proposed Use: Same: Single Family Dwelling - to install new Mascott II boiler and 2-100 gal LP tanks	Cost of Work: \$9,000.00 Fire Dept: <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A Signature: <i>[Signature]</i> (58)	CEO District: Inspection: Use Group: R-3 Type: 50/HVAC Signature: <i>[Signature]</i>
Proposed Project Description: two 100 gallon propane tanks, PI		Pedestrian Activities District (P.A.D.)	

Permit Taken By: Gayle

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
<input type="checkbox"/> Shoreland <input type="checkbox"/> Wetlands <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Date: <i>ok</i> <i>[Signature]</i> Maj Min MM 2/6/12	<input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	<input checked="" type="checkbox"/> Not in Dist or Landmark <input type="checkbox"/> Does not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>[Signature]</i>

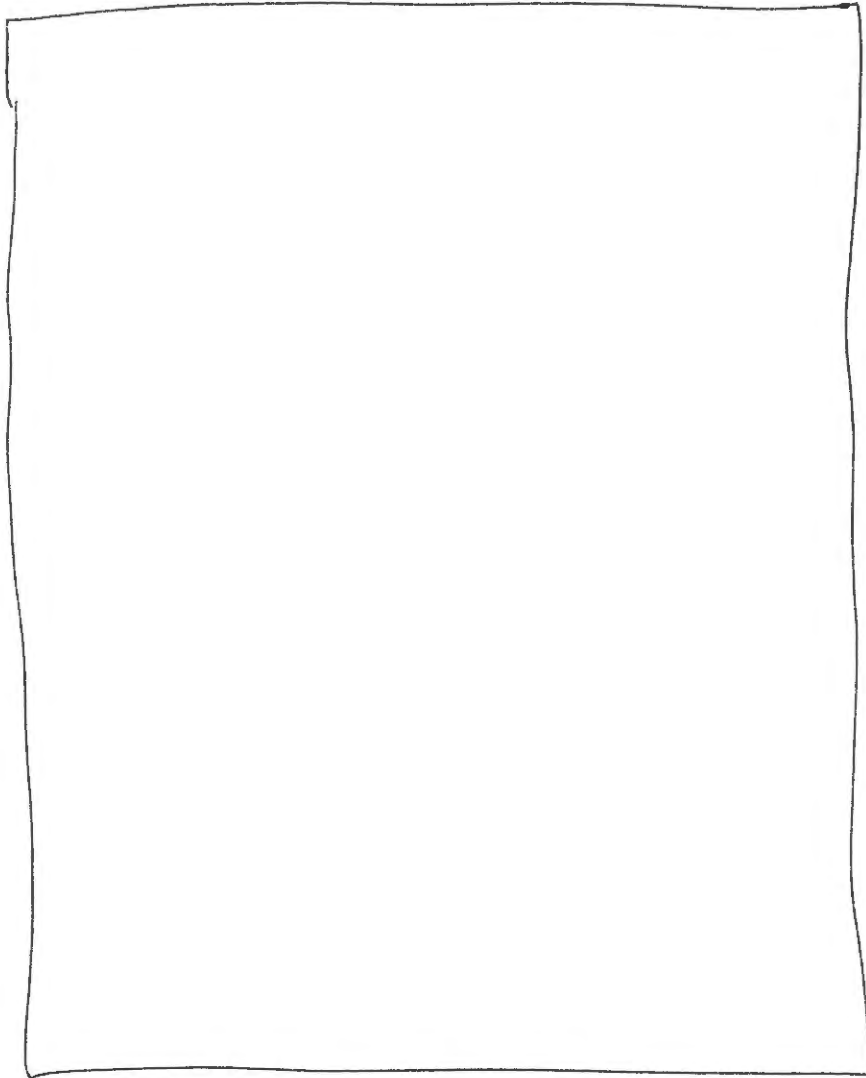
CERTIFICATION

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 application 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.

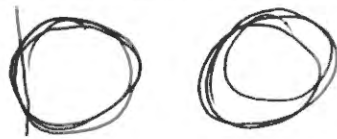
SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

160 Upper A Street
Peaks Island

front



side



back

tomb location

SECTION 3. Venting and Combustion Air

Laars Mascot II includes a standard CPVC vent/combustion air adapter. If field connections require use of PVC/CPVC vent materials, the installer must use proper adhesive to join CPVC and/or PVC pipe and fittings.

3.1 Combustion Air

Mascot II boilers and water heaters must have provisions for combustion and ventilation air in accordance with the applicable requirements for Combustion Air Supply and Ventilation in the National Fuel Gas Code, ANSI Z223.1; or in Canada, the Natural Gas and Propane Installation Code, CSA B149.1. All applicable provisions of local building codes must also be adhered to.

A Mascot II unit can take combustion air from the space in which it is installed, or the combustion air can be ducted directly to the unit. Ventilation air must be provided in either case.

3.1.1 Combustion Air from Room

In the United States, the most common requirements specify that the space shall communicate with the outdoors in accordance with method 1 or 2, which follow. Where ducts are used, they shall be of the same cross-sectional area as the free area of the openings to which they connect.

Method 1: Two permanent openings, one commencing within 12" (300mm) of the top and one commencing within 12" (300mm) of the bottom, of the

SIZE	HORIZONTAL INTAKE AND EXHAUST PVC VENT TERMINAL KITS		
	2" PVC		3" PVC
	Standard	Concentric CA008000	n/a
125	included	optional	contact Laars

Concentric vent terminal = 10 ft. pipe length.

Table 3a. PVC Vent Terminal Kits.

SIZE	CONCENTRIC ADAPTER	WALL TERMINAL	ROOF TERMINAL
125	3CGV-VC	3CGV-AD-LAARS	3CVG-HZC

Table 3b. Approved Stainless Steel Terminations and Adapters.

enclosure shall be provided. The openings shall communicate directly, or by ducts, with the outdoors or spaces that freely communicate with the outdoors. When directly communicating with the outdoors, or when communicating to the outdoors through vertical ducts, each opening shall have a minimum free area of 1 square inch per 4000 Btu/hr (550 square mm/kW) of total input rating of all equipment in the enclosure. When communicating to the outdoors through horizontal ducts, each opening shall have a minimum free area of not less than 1 square inch per 2000 Btu/hr (1100 square mm/kW) of total input rating of all equipment in the enclosure.

Method 2: One permanent opening, commencing within 12" (300mm) of the top of the enclosure, shall be permitted. The opening shall directly communicate with the outdoors or shall communicate through a vertical or horizontal duct to the outdoors or spaces that directly communicate with the outdoors and shall have a minimum free area of 1 square inch per 3000 Btu/hr (734 square mm/kW) of the total input rating of all equipment located in the enclosure. This opening must not be less than the sum of the areas of all vent connectors in the confined space.

Other methods of introducing combustion and ventilation air are acceptable, providing they conform to the requirements in the applicable codes listed above.

In Canada, consult local building and safety codes or, in absence of such requirements, follow CAN/CGA B149.

3.1.2 Ducted Combustion Air

The combustion air can be taken through the wall, or through the roof. When taken from the wall, it must be taken from out-of-doors by means of the LAARS horizontal wall terminal, shown in Table 3. See Table 2 to select the appropriate diameter air pipe. When taken from the roof, a field-supplied rain cap or an elbow arrangement must be used to prevent entry of rain water (see Figure 7).

Use ABS, PVC, CPVC or galvanized pipe for the combustion air intake (see Table 4), sized per Table 2. Route the intake to the boiler as directly as possible. Seal all joints. Provide adequate hangers. The unit must not support the weight of the combustion air intake pipe. Maximum linear pipe length allowed is shown in Table 2. Subtract 5 allowable linear ft. (1.5m) for every elbow used.

The connection for the intake air pipe is at the top of the unit (see Figure 2).

In addition to air needed for combustion, air shall also be supplied for ventilation, including air required for comfort and proper working conditions for personnel.

MATERIAL	INSTALLATION STANDARDS	
	UNITED STATES	CANADA
ABS	ANSI/ASTM D1527	Air pipe material must be chosen based upon the intended application of the boiler.
PVC, sch 40	ANSI/ASTM D1785 or D2665	
CPVC, sch 40	ANSI/ASTM F441	
Single wall galv. steel	26 gauge	

Table 4. Required Combustion Air Pipe Material.

3.2 Venting (Exhaust)

⚠ WARNING

Failure to use the appropriate vent material, installation techniques, glues/sealants could lead to vent failure causing property damage, personal injury or death.

⚠ WARNING

All venting must be installed according to this manual and any other applicable local codes, including but not limited to, ANSI Z223.1/NFPA 54, CSA B149.1, CSAB149.2 and ULC-S636. Failure to follow this manual and applicable codes may lead to property damage, severe injury, or death.

The flue temperature of the Mascot II changes dramatically with changes in operating water temperature. Therefore, it is necessary to assess the application of the boiler to determine the required certified vent class. If the Mascot II is installed in an application where the ambient temperature is elevated, and/or installed in a closet/alcove, CPVC or stainless steel material is required. If the system temperatures are unknown at the time of installation, stainless or CPVC material is recommended.

The Mascot II is a Category IV appliance and may be installed with PVC and CPVC that complies with ANSI/ASTM D1785 F441, or a stainless steel venting system that complies with UL 1738 Standard (see Table 5).

INSTALLATIONS IN CANADA require the use of venting material certified to ULCS636. All Gas vents connected to the Mascot II, plastic, stainless steel or otherwise must be certified to this ULC standard. Appropriate selection of vent material is very important for proper performance and safe operation of the Mascot II.

The flue temperature of the Mascot II changes dramatically with changes in operating water temperature. Therefore, it is necessary to assess the application of the boiler to determine the required certified vent class. If the Mascot II is installed in an application where the outlet water temperature exceeds 145°F, and/or installed in a closet, class IIB or higher vent material is required. If the system temperatures are unknown at the time of installation, class IIB or higher venting material is recommended.

IN CANADA all venting used must meet the following requirements:

1. ULC-S636 certified and marked
2. The first 3 feet of venting must be accessible for visual inspection.
3. All components used in the vent system must be from a certified manufacturer.
4. Vent system components must not be mixed with alternate manufacturers certified components and/or unlisted components.
5. The venting must be installed according to the vent manufacturers installation instructions.

The unit's vent can terminate through the roof, or through an outside wall.

See Table 2 to select the appropriate vent pipe diameter. Vent pipe must pitch upward, toward the vent terminal, not less than 1/4" per foot, so that condensate will run back to the Mascot II to drain. Route vent pipe to the heater as directly as possible. Seal all joints and provide adequate hangers as required in the venting system manufacturer's Installation Instructions. Horizontal portions of the venting system must be supported to prevent sagging and may not have any low sections that could trap condensate. The unit must not support the weight of the vent pipe. Please see Table 2 for proper diameter vs. length allowed.

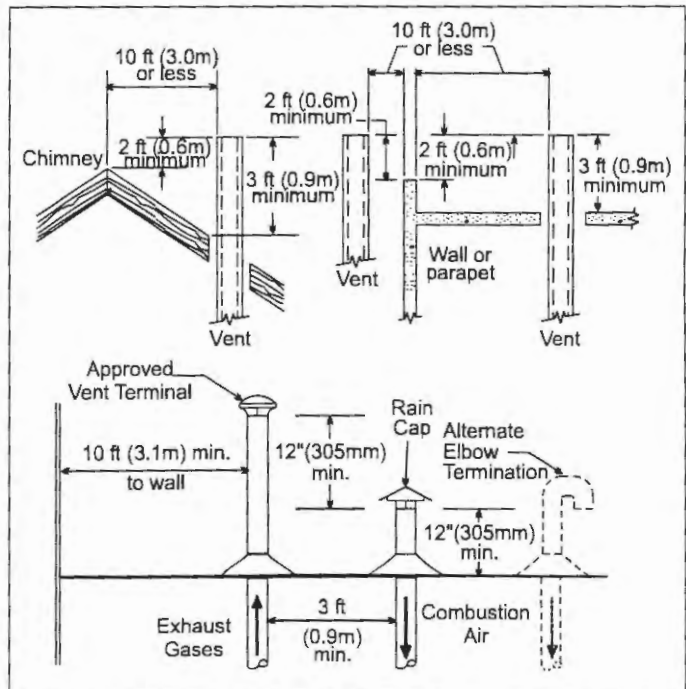


Figure 7. Combustion Air and Vent Through Roof.

INSTALLATION STANDARDS		
MATERIAL	UNITED STATES	CANADA
Stainless Steel	UL 1738	Venting must be ULC-S636 certified for use as venting material. The venting material must be chosen based upon the intended application of the boiler.
PVC, sch 40	ANSI/ASTM D178	
CPVC, sch 40	ANSI/ASTM F441	

Table 5. Required Exhaust Vent Material.



CITY OF PORTLAND, MAINE

Department of Building Inspections

Original Receipt

Feb 6 2017

Received from Tom-Cadland

Location of Work 100 Upper A St

Cost of Construction \$ _____ Building Fee: _____

Permit Fee \$ _____ Site Fee: _____

Certificate of Occupancy Fee: _____

Total: _____

Building (I1) Plumbing (I5) Electrical (I2) _____ Site Plan (U2) _____

Other HVAC

CBL: _____

Check #: 1034 Total Collected \$ 250.00

**No work is to be started until permit issued.
Please keep original receipt for your records.**

Taken by: Trayle

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy

Handwritten notes:
in
HVAC
2017 02 30 16
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