

Location of Construction: 70 Forest Ave		Owner: Young Men's Christian Association		Phone:		Permit No: 971162	
Owner Address:		Lessee/Buyer's Name:		Phone:		Business Name:	
Contractor Name: Johnson & Jordan		Address: P.O. Box 1505 18 Munsey Rd Scarborough, ME 04074 883-8345		Phone:		Permit Issued: OCT 24 1997	
Past Use: YMCA (1)		Proposed Use: Same		COST OF WORK: \$ 27,000.00		PERMIT FEE: \$ 155.00	
				FIRE DEPT. <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied		INSPECTION: Use Group: Type:	
Proposed Project Description: Install New Chimney				Signature: <i>[Signature]</i>		Signature:	
				PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		Zoning Approval: <i>[Signature]</i>	
				Action: Approved <input type="checkbox"/>		Special Zone or Reviews:	
				Approved with Conditions: <input type="checkbox"/>		<input type="checkbox"/> Shoreland	
				Denied <input type="checkbox"/>		<input type="checkbox"/> Wetland	
Permit Taken By: Mary Gresik		Date Applied For: 21 October 1997		Signature:		Date:	
						<input type="checkbox"/> Flood Zone	
						<input type="checkbox"/> Subdivision	
						<input type="checkbox"/> Site Plan maj <input type="checkbox"/> minor <input type="checkbox"/> mm <input type="checkbox"/>	

PERMIT ISSUED
OCT 24 1997
CITY OF PORTLAND

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 electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Zone: **R-7** CBL: **036-G-009-20**

Zoning Appeal

- Variance
- Miscellaneous
- Conditional Use
- Interpretation
- Approved
- Denied

Historic Preservation

- Not in District or Landmark
- Does Not Require Review
- Requires Review

PERMIT ISSUED WITH REQUIREMENTS

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 provisions of the code(s) applicable to such permit

Action:

- Approved
- Approved with Conditions
- Denied

SIGNATURE OF APPLICANT *[Signature]* **Don Harper** ADDRESS: DATE: **21 October 1997** PHONE:

Date: *[Signature]*

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE PHONE:

CEO DISTRICT **5**

COMMENTS

C13:43)

3-23-98 Project completed met Stan Bourke

Inspection Record

Type	Date
Foundation: _____	_____
Framing: _____	_____
Plumbing: _____	_____
Final: _____	_____
Other: _____	_____

BUILDING PERMIT REPORT

DATE: 10/23/97 ADDRESS: 70 Forest Ave
REASON FOR PERMIT: install chimney
BUILDING OWNER: Y m c A
CONTRACTOR: Johnson & Jordan
PERMIT APPLICANT: Don Hoyer APPROVAL: X/ XG ~~DENIED~~
USE GROUP R-1 BOCA 1996 CONSTRUCTION TYPE 2A

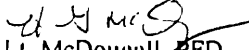
CONDITION(S) OF APPROVAL

1. This permit does not excuse the applicant from meeting applicable State and Federal rules and laws.
2. Before concrete for foundation is placed, approvals from the Development Review Coordinator and Inspection Services must be obtained. (A 24 hour notice is required prior to inspection)
3. Precaution must be taken to protect concrete from freezing.
4. It is strongly recommended that a registered land surveyor check all foundation forms before concrete is placed. This is done to verify that the proper setbacks are maintained.
5. Private garages located beneath habitable rooms in occupancies in Use Group R-1, R-2, R-3 or I-1 shall be separated from adjacent interior spaces by fire partitions and floor/ceiling assembly which are constructed with not less than 1-hour fire resisting rating. Private garages attached side-by-side to rooms in the above occupancies shall be completely separated from the interior spaces and the attic area by means of ½ inch gypsum board or the equivalent applied to the garage means of ½ inch gypsum board or the equivalent applied to the garage side. (Chapter 4 Section 407.0 of the BOCA/1996)
6. All chimneys and vents shall be installed and maintained as per Chapter 12 of the City's Mechanical Code. (The BOCA National Mechanical Code/1993).
7. Sound transmission control in residential building shall be done in accordance with Chapter 12 section 1214.0 of the city's building code.
8. Guardrails & Handrails: A guardrail system is a system of building components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level. Minimum height all Use Groups 42", except Use Group R which is 36". In occupancies in Use Group A, B, H-4, I-1, I-2 M and R and public garages and open parking structures, open guards shall have balusters or be of solid material such that a sphere with a diameter of 4" cannot pass through any opening. Guards shall not have an ornamental pattern that would provide a ladder effect. (Handrails shall be a minimum of 34" but not more than 38". Use Group R-3 shall not be less than 30", but not more than 38".)
9. Headroom in habitable space is a minimum of 7'6".
10. Stair construction in Use Group R-3 & R-4 is a minimum of 10" tread and 7 3/4" maximum rise. All other Use group minimum 11" tread, 7" maximum rise.
11. The minimum headroom in all parts of a stairway shall not be less than 80 inches. (6' 8")
12. Every sleeping room below the fourth story in buildings of use Groups R and I-1 shall have at least one operable window or exterior door approved for emergency egress or rescue. The units must be operable from the inside without the use of special knowledge or separate tools. Where windows are provided as means of egress or rescue they shall have a sill height not more than 44 inches (1118mm) above the floor. All egress or rescue windows from sleeping rooms shall have a minimum net clear opening height dimension of 24 inches (610mm). The minimum net clear opening width dimension shall be 20 inches (508mm), and a minimum net clear opening of 5.7 sq. ft.
13. Each apartment shall have access to two (2) separate, remote and approved means of egress. A single exit is acceptable when it exits directly from the apartment to the building exterior with no communications to other apartment units.
14. All vertical openings shall be enclosed with construction having a fire rating of at least one (1) hour, including fire doors with self closer's.
15. The boiler shall be protected by enclosing with (1) hour fire-rated construction including fire doors and ceiling, or by providing automatic extinguishment.
16. All single and multiple station smoke detectors shall be of an approved type and shall be installed in accordance with the provisions of the City's Building Code Chapter 9, Section 19, 920.3.2 (BOCA National Building Code/1996), and NFPA 101 Chapter 18 & 19. (Smoke detectors shall be installed and maintained at the following locations):
 - In the immediate vicinity of bedrooms
 - In all bedrooms

- In each story within a dwelling unit, including basements
In addition to the required AC primary power source, required smoke detectors in occupancies in Use Groups R-2, R-3 and I-1 shall receive power from a battery when the AC primary power source is interrupted. (Interconnection is required)

17. A portable fire extinguisher shall be located as per NFPA #10. They shall bear the label of an approved agency and be of an approved type.
18. The Fire Alarm System shall be maintained to NFPA #72 Standard.
19. The Sprinkler System shall maintained to NFPA #13 Standard.
20. All exit signs, lights, and means of egress lighting shall be done in accordance with Chapter 10 Section & Subsections 1023. & 1024. Of the City's building code. (The BOCA National Building Code/1996)
21. **No construction or demolition work shall begin until you have obtained permits for dumpsters or containers. A work Stop Order shall be issued if this requirement is not met.**
22. Section 25-135 of the Municipal Code for the City of Portland states, "No person or utility shall be granted a permit to excavate or open any street or sidewalk from the time of November 15 of each year to April 15 of the following year".
23. The builder of a facility to which Section 4594-C of the Maine State Human Rights Act Title 5 MRSA refers, shall obtain a certification from a design professional that the plans commencing construction of the facility, the builder shall submit the certification to the Division of Inspection Services.
24. This permit does not excuse the applicant from obtaining any license which may be needed from the City Clerk's office.
25. Ventilation shall meet the requirements of Chapter 12 Sections 1210. of the City's Building Code.
26. All electrical, plumbing and HVAC permits must be obtained by a Master Licensed holders of their trade.
27. All requirements must be met before a final Certificate of Occupancy is issued.
28. All building elements shall meet the fastening schedule as per Table 2305.2 of the City's Building Code. (The BOCA National Building Code/1996).
29. Ventilation of spaces within a building shall be done in accordance with the City's Mechanical Code (The BOCA National Mechanical Code/1993).
30. _____
31. _____
32. _____
33. _____
34. _____

P. Samuel Hoffses, Code Enforcement


cc: Lt. McDougall, PFD
Marge Schmuckal

Johnson & Jordan Inc.

P.O. Box 1585 Scarborough, Me. 04070
18 Mussey Rd. Scarborough, Me. 04074

Phone (207) 883-8345

Fax (207) 883-8619

Fax Transmittal

To: City of Portland From: Dick Dyer

Attn: Mary - Permits-Inspections Pages: 4

Project: SMCA Date: 10/21/97

Re: Chimney Specs CC:

Urgent For Review Please Comment Please Reply Please Recycle

Chimney Specs as Requested.

Chimney rises through chase
made of non combustible
masonry products.

Any questions please call

Thanks - Dick



INSTALLATION INSTRUCTIONS PIC

MODEL PIC CHIMNEY



This symbol on the nameplate means the product is listed by Underwriters Laboratories, Inc. and by Underwriters Laboratories of Canada.

A MAJOR CAUSE OF CHIMNEY RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (air spaces) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS CHIMNEY BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

IMPORTANT: DO NOT INSTALL CHIMNEY WITHOUT FIRST READING THESE INSTRUCTIONS VERY CAREFULLY.

Metal-Fab's Model PIC Chimney has been fully tested and listed by Underwriters Laboratories, Inc. and Underwriters Laboratories of Canada.

Chimneys installed in accordance with these installation instructions will comply with national safety standards and building codes.

This booklet contains complete information on details concerning dimensions, installation, clearances to combustibles, and use of non-combustible enclosures. For any additional construction information, refer to Model PIC parts catalog.

- BREECHING APPLICATIONS
- BOILER EXHAUST APPLICATIONS
- ENGINE/TURBINE EXHAUST APPLICATIONS
- GREASE DUCT APPLICATIONS

METAL-FAB, INC. ● P.O. BOX 1138 ● WICHITA, KANSAS 67201 ● (316) 943-2351

CHIMNEY ENVIRONMENT

It is suggested that a chimney being installed in a corrosive atmosphere be constructed of 316 stainless. 316 stainless is more resistant to corrosion and will add to life expectancy of the installation. The design engineer should make certain that chemicals containing halogen compounds will not contaminate combustion air supplied to the heating equipment.

Storage or use of chemicals, especially those containing chlorine or chlorides, in the vicinity of equipment or the presence of these substances in the fuel or combustion air supply may lead to early deterioration of the chimney. Chemicals which may cause attack on chimney materials are:

- chlorinated or halogenated dry cleaning solutions
- fluorocarbon refrigerants
- hydrochloric, sulphuric and other acids
- fluorocarbon aerosol propellants
- vinyl plastics when burned
- chlorine bleach and cleaning solutions
- titanium tetrachloride
- plating or etching baths and solutions

Any of these chemicals passing through the combustion process produce acids which can corrode heating equipment and the chimney.

If corrosion is found, an immediate investigation should be undertaken of the entire area. Any corrosive materials should be removed to avoid future problems. A contaminate-free atmosphere for combustion and ventilation air must be obtained. It may be necessary to pressurize the equipment room with its own air supply. Construction of separate walls may also be necessary. Any surface discoloration should be carefully studied as it may be caused by the fuel or corrosion of the low carbon steel used as connectors, or the breaching systems, or the equipment itself. Double wall stainless pipe sections are recommended if local atmosphere is high in pollution.

Whenever process cleaning or plating equipment is exhausted outdoors near a chimney, contaminants around the chimney should be suspect. Where local atmosphere is contaminated and the possibility of smoke blowing across the chimney exists, it is recommended that the surfaces be painted with a minimum of one base coat and one finish coat of heat resistant primer and paint in a light reflective color.

CLEARANCES — BOILERS AND ENGINES

CAUTION: DO NOT ENCLOSE IN A WOOD CHASE OR PASSAGEWAY OF COMBUSTIBLE MATERIAL.

These chimneys are NOT for use in one or two-family dwellings.

For appliances operating at continuous temperatures up to 1400°F where the chimney is installed in open rooms or fully ventilated areas on the same story as the equipment connected to it, it shall have a minimum clearance to combustibles as indicated in Table 1.

If the chimney passes through any story of a building above the heating appliances, which are connected to it, the chimney is to be enclosed in the upper stories with noncombustible construction that has a fire rating of equal or greater than one hour (refer to NFPA211).

The Metal-Fab Model PIC Chimney can penetrate a combustible roof by utilizing the roof support assembly (PICRSA) or ventilated roof thimble assembly (PICVTA). All other parts are for attachment to noncombustible construction (i.e. floor guides, wall guides, wall and plate supports).

TABLE 1 - PIC INSTALLATION CLEARANCES —
BOILERS AND ENGINES

	Operating Temperatures	
	1000°F Continuous	1400°F Continuous 1400°F Intermittent 1800°F Intermittent
Exterior		
Wood frame or combustible wall Sizes 6" through 48"	6 inches	10 inches
Noncombustible		
18" or less	2 inches	2 inches
Over 18"	4 inches	4 inches
Interior		
To wood or other combustibles 6" through 48"	10 inches	10 inches
Noncombustible chase	As necessary for installation and access. Refer to NFPA 211.	

The above figures represent air space, in inches, to surroundings.

NOTE: False ceilings are a potential hazard and require firestopping. Chimney passing through areas of ceiling and roof must be enclosed in noncombustible, one hour passageway.

CLEARANCES — GREASE DUCT

Refer to pages 17-19 of these instructions for information.

PART NUMBERS

These instructions identify major Model PIC parts by name or part number in the text and illustrations. Actual parts also carry a flue diameter size prefix, such as 24PIC30 for a 24 inch size insulated pipe section 30 inches long. Always include the size, and the letters "PIC" in the part number, to avoid possible confusion with other Metal-Fab product lines. For identification of the PIC components that are specific to grease duct, refer to pages 17-19.

U.S. Patent Nos. 4,720,125 and 4,781,402

USE AND INSTALLATION OF INDIVIDUAL PARTS:

These instructions comprise both general and specific requirements for all parts in the product line. Before specifying a design or beginning an installation, these instructions should all be carefully reviewed.

The Model PIC joint sealing system is designed for quick and easy installation: (1) Apply a continuous bead of the proper sealant to one of the flanges to be joined. (2) Join the two flanged ends of the pipe sections together. (3) Fill the channel of the flange band with proper sealant. (4) Install flange band around the flanges. (5) Secure the outer casing with the closure band. The pieces are then secure and air tight.

General Information

LISTINGS:

Metal-Fab Model PIC Chimney is "listed" by Underwriters Laboratories, Inc. (UL File No. MH8251) as "Building Heating Appliance Chimney" for continuous operation at 1000°F and intermittent operation (less than one hour) at 1400°F. For higher temperature applications, it is also "listed" as "1400°F Factory Built Chimney" for continuous operation at 1400°F and intermittent operation at 1800°F. PIC Chimney is "listed" by Underwriters Laboratories of Canada (ULC File No. CMH 1272) as a continuous operation "780°C Factory Built Chimney." PIC is also listed for grease duct applications to 2000°F. Model PIC Chimney is listed by UL (UL1738) for Category II, III and IV appliances. PIC is rated for 60 inches of water, internal pressure (2.16 psig). See Table 1 for clearances.

APPLICATIONS:

Model PIC Building Heating Appliance Chimneys are suitable for use with Building Heating Appliances, and other Low Heat Appliances as described in the Chimney Selection Chart of the National Fire Protection Association Standard No. 211, which produce exhaust flue gases at a temperature not exceeding 1000°F continuous. PIC Chimneys are also suitable for use as complete exhaust systems for Diesel Engines and Gas Turbines. The Model PIC product line is listed for higher heat applications where continuous temperatures are not in excess of 1400°F and where the intermittent maximums are less than 1800°F.

These chimneys are to be installed as required by NFPA for metal chimneys. They are not to be enclosed within combustible construction. An interior exhaust system is to be enclosed in a noncombustible fire resistive shaft of appropriate size and rating where the exhaust system extends through any story of a building above that in which the connected appliance is located. An unenclosed chimney may be placed adjacent to walls of combustible construction at the clearances specified (see clearances specified elsewhere in these instructions). Consult local authorities having jurisdiction.

Model PIC Chimneys are intended for use as complete systems connecting the appliance, engine, or duct to the outdoors, while operating under positive forced draft, negative induced draft, or neutral gravity flow internal pressure conditions.

The Model PIC pipe is ideally suited to this application because it is a circular cross section (low friction loss), double-wall, insulated high-strength to weight ratio design using high quality stainless steels.

Complete system size and capacity information can be obtained from Chapter 27 ASHRAE Handbook, Equipment Volume, or by contacting Metal-Fab, Inc., P.O. Box 1138, Wichita, Kansas 67201.

Refer to Metal-Fab Model PIC System Catalog for description of all necessary parts.

MULTI-ENGINE EXHAUSTS NOT RECOMMENDED

Where multiple engines are being considered, it is recommended that they not be connected into one common exhaust system. Exhaust gases tend to flow to cooler nonoperating engines, thereby causing formation of condensation. Consult with your engine representative before installation of series of engines in common exhaust.

To minimize back pressure in systems:

1. Provide correct pipe diameter and keep runs short with the least number of turns.
2. Ensure that exhaust system is properly supported, giving consideration to thermal expansion, and is isolated from vibration.
3. Provide proper condensation traps and drains.

EXPLOSION PROTECTION

The use of PIC fittings such as tees, wyes, and elbows should be kept at a minimum to reduce back pressure and accumulated unburnt fuels. When a change of direction is required in an engine exhaust system, materials used for direction changes must be reinforced to prevent damage if an explosion caused by ignition of unburnt fuels should occur. The reinforcement method consists of subassemblies attached to steel framing, either directly attached to building structure or designed in such a way as to bridge elbows and tees. For recommended procedures, see examples on page 8.

GREASE DUCT APPLICATIONS

The Model PIC product line is approved for grease duct applications, for operation to 2000°F. Refer to pages 17-19 of these instructions for information.

OPERATING PRECAUTIONS

CREOSOTE AND SOOT - Formation and Need for Removal

When wood is burned slowly, it produces tar and other organic vapors which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. If ignited, this creosote makes an extremely hot fire. For this reason the chimney should be inspected at least once every two months during the heating season to determine if a creosote or soot buildup has occurred. If creosote or soot has accumulated, it should be removed to reduce the risk of chimney fire.

A licensed or qualified chimney sweep should be contacted to clean the chimney.

Contact local building or fire officials about restrictions and installation inspection in your area.

For tee caps, adequate clearance is required around cleanouts to assume accessibility for removal of caps and products accumulated within the chimney.