City of Portland, Maine - Building or Use Permit Application

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

DEPT. OF BUILDING INSPECTIONS CITY OF PORTLAND, ME

AUG - 8 2005

RECEIVED

Permit No:	Issue Date:	CBL:
05-1046		343 C013001

Location of Construction:	Owner Name:	Owner Address:	Phone:
174 ALLEN AVE	CITY OF PORTLAND	389 CONGRESS ST	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Mechanical Services, Inc	400 Presumpscot St Portland	2077741531
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		HVAC	

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	CEO District:
Commercial/ PATHS	PATHS/ install a Trane Rooftop cooling only w/steam coils	$1,308.00	$143,000.00	5

FIRE DEPT: ☐ Approved ☐ Denied

Signature:

INSPECTION: Use Group: N/A Type: N/A

MECHANICAL PERMIT 8/8/05

Signature:

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: ☐ Approved ☐ Approved w/Conditions ☐ Denied

Signature: Date:

Permit Taken By:	Date Applied For:
ldobson	08/04/2005

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shoreland	☐ Variance	☐ Not in District or Landmark
☐ Wetland	☐ Miscellaneous	☐ Does Not Require Review
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Minor ☐ MM ☐	☐ Denied	☐ Dented
Date:	Date:	Date:

PERMIT ISSUED CITY OF PORTLAND

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

FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT
HEATING OR POWER EQUIPMENT

AUG - 8 2005
RECEIVED

343-C-13

To the INSPECTOR OF BUILDLNGS, 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 196 ALLEN AVENUE Use of Building SCHOOL Date 8/1/05

Name and address of owner of appliance PORTLAND PUBLIC SCHOOLS, 331 VERANDA STREET PORTLAND, ME 04103

Installer's name and address MECHANICAL SERVICES, INC; 400 PRESUMPSCOT STREET PORTLAND, ME 04103 Telephone 207-774-1531

Location of appliance:

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

Type of Fuel:

- O Gas
- ☒ Oil
- ☐ Solid

Appliance Name: TRANE ROOFTOP COOLING ONLY WITH STEAM COILS

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 # M520001782
- ☐ Gas #
- O Other

Type of Chimney:

- O Masonry Lined
  Factory built NONE
- O Metal
  Factory Built U.L. Listing # NONE
- ☐ Direct Vent
  Type NONE

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AUG 1 2005
DEPT. OF BUILDING INSPECTION
CITY OF PORTLAND, ME

Type of Fuel Tank

- ☐ Oil
- ☐ Gas

> EXISTING

Size of Tank

Number of Tanks

Distance from Tank to Center of Flame feet.

43000

1317 gal/oil

Approved

Fire:

Ele.:

Bldg.:

Signature of Installer Eric A Thomas

Approved with Conditions

☐ See attached letter or requirement

PERMIT ISSUED
AUG 10 2005
CITY OF PORTLAND

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

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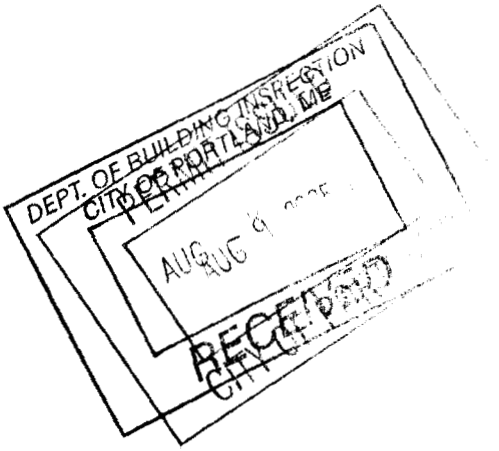
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		HVAC	

Proposed Use:	Proposed Project Description:
PATHS/ install a Trane Rooftop cooling only w/steam coils	nstall a Trane Rooftop cooling only w/steam coils

☑



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CITY OF PORTLAND, ME
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8/8/05 MECHANICAL PERMIT

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SIGNATURE OF APPLICANT | ADDRESS | DATE | PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE | DATE | PHONE

4/13/05
FROM DOUG'S EMAIL

DIVISION 15 MECHANICAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. The purpose of this outline specification is to obtain competitive design build quotations from contractors. The contractor shall assume full responsibility for the concept, design, and construction of their proposed system. Contractor shall have design drawings and specifications produced and stamped by ***a state*** licensed professional engineer.

B. The contractor shall include, as part of his proposal, a schematic layout of the proposed mechanical system, showing configuration and general parameters for the proposed system. This schematic layout shall be considered by the owner in his final selection of a contractor.

C. The intention of these contract documents is to call for finished work, fully tested and ready for operation. Any components or labor not mentioned in the contract documents but required for functioning systems shall be provided. Should there appear to be any discrepancies or questions of intent, the contractor shall refer the matter to the architect for decision before start of any related work.

D. The contractor shall include in his proposal, demolition for all existing mechanical equipment currently serving the space, which is not scheduled for re-use. Such equipment shall include but not necessarily be limited to controls, unit ventilators, grilles, piping, heating specialties and hangers. The Portland School Department shall retain the salvage rights on all removed equipment. Coordinate with the owner's representative for turning over the removed items. Specifically, the owner wishes to retain the unit ventilators, metal enclosures at radiation, and intake grilles, intact.

E. All work, materials, and equipment shall comply with the rules and regulations of all codes and ordinances of the local, state, and federal authorities.

F. All wiring shall be in accordance with the latest issue of the National Electrical Code. Where the edition enforced by the local authority contains more stringent requirements, the more stringent shall apply.

G. All work shall be scheduled and coordinated with the Construction Manager and other contractors to prevent delays to the work.

H. Secure and pay for all permits, fees, licenses, approvals, inspections, etc., required for the work. The City of Portland will require an HVAC construction permit for this project.

I. Provide Certificates of Inspection and Approval from all regulatory authorities having jurisdiction.

1.3 DESIGN SPECIFICATION INTENT

A. The purpose of this outline specification is to obtain competitive design-build quotations from qualified contractors. The contractor shall assume full responsibility for the concept, design, and construction of their proposed system.
Contractor shall provide design drawings and specifications produced and sealed by a state of Maine licensed professional engineer with specific experience in the field of Heating, Ventilating and Air Conditioning (WAC) systems for buildings.

1.4 CODE SUMMARY

A.	Building:	International Building Code 2003
B.	Mechanical:	As referenced in IBC 2003.
C.	Sprinkler:	Not **Applicable, this work shall be by others.**
D.	Plumbing:	Not Applicable
E.	Ventilation:	ASHRAE 62-2001 – Addendum N
F.	Energy:	ASHRAE 90.1-2001
G.	Seismic:	Comply with the requirements of IBC 2003

1.5 DESIGN CONDITIONS

A. Winter Outside: -11°F
B. Winter Inside: 72°F
C. Summer Outside: 83° F DB/70° F DB
D. Summer Inside: 75°F
E. Anticipated building occupancy:

Typical Office	1 Person
Bus. Dir. Office	2 People
Conference Rm #1	16 People
Superintendent's Office	2 People
Open Office Areas	Per Furniture Layout

Actual programming requirements for each space shall be coordinated with the Architect and Owner through the design phase of construction.

1.6 BUILDING ENVELOPE

A. The existing building envelope shall be maintained with respect to walls and windows, unless otherwise noted in the Architectural plans. The walls are uninsulated masonry and the windows are single glazed. The roof will also remain as is, with approximately 1" of fiberboard insulation, a gypsum deck, and a built up membrane. Batt insulation which is currently above the ceiling will be removed and not replaced.

1.7 HEATING, VENTILATING and AIR CONDITIONING SYSTEMS

A. General

1. Ventilating and Air Conditioning: Packaged rooftop HVAC units shall be utilized for ventilation and cooling. The units will incorporate Dx cooling coils. A minimum of four units shall be utilized, separating interior and perimeter zone exposure. Theses units, in general, shall be placed over non-occupied spaces wherever possible, such as corridors to minimize noise transmission to occupied spaces. Additionally, the units shall be placed with one side (minimum) over an existing beam, to minimize structural impact. Coordinate with other trades for roof penetration at the roof deck.
2. Heating: Steam heating coils shall be utilized to provide the main heating duties and shall be served by the existing steam heating plan. Provide all required steam and condensate piping to connect the new equipment to the existing plant.
3. Humidification: None.
4. Dehumidification: That which is inherent to mechanical cooling.
5. Overall Building Pressurization: positive.
6. Final Filtration : 30%
7. Max. Acceptable Indoor C02 level : 850 ppm
8. Max. Acceptable Noise level for occupied spaces: Nc 30.
9. Local exhaust to be provided at all copiers.
10. Ductwork will be furnished installed in accordance with SMACNA requirements. Both the supply and return system shall be ducted-no plenums. Central return locations are acceptable.
11. Insulation shall be provided at all new steam and condensate piping in accordance with ASHRAE 90.1 requirements.
12. Insulation shall be provided at all supply and return ductwork: Supply=2", Return=1 1/2". Provide vapor retarder at all duct insulation.
13. Steam and Condensate return Piping:

    (a) Steam Piping, NPS 2 and Smaller: Schedule 40 steel pipe, with threaded joints using Class 125 cast-iron fittings.

    (b) Steam Piping, NPS 2-1/2 through NPS 12: Schedule 40 steel pipe, with welded joints using Schedule 40 wrought-steel welding fittings and Class 150 wrought-steel flanges.

    (c) Condensate Piping, NPS 2 and Smaller: Schedule 80 steel pipe, with threaded joints using Class 125 malleable-iron fittings.

    (d) Condensate Piping, NPS 2-1/2 through NPS 12: Schedule 80 steel pipe, with welded joints using Schedule 80 wrought-steel welding fittings and Class 150 wrought-steel flanges.

    (e) All piping shall comply with the requirements of ASTM B 16.4.

14. Pipe Hangers:

    (a) Pipe Hanger and Support Installation: Comply with MSS SP-69 and MSS SP-89. Install hangers, supports, clamps, and attachments as required to properly support piping from building structure.

(b) The material in contact with the pipe shall be compatible with the piping material so that neither will have a deteriorating action on the other. Provide means of preventing dissimilar metal contact such as plastic coated hangers, copper colored epoxy paint, or non-adhesive isolation tape.

(c) Channel Support System Installation: Arrange for grouping of parallel runs of piping and support together on field-assembled channel systems. Field assemble and install according to manufacturer's written instructions.

(d) Install building attachments within concrete slabs or attach to structural steel. Space attachments within maximum piping span length indicated in MSS SP-69. Install additional attachments at concentrated loads, including valves, flanges, guides, strainers, and expansion joints, and at changes in direction of piping.

(e) Install hangers and supports complete with necessary inserts, bolts, rods, nuts, washers, and other accessories.

(f) Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.

(g) Load Distribution: Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.

(h) Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and so maximum pipe deflections allowed by ASME B31.9, "Building Services Piping," is not exceeded.

(i) Install hangers to provide a minimum of 1/2-inch space between finished covering and adjacent work.

(j) Do not support piping from other pipes, ductwork or other equipment that is not building structure.

15. Ductwork shall be supported in accordance with SMACNA standards.

B. Automatic Temperature Controls: A computerized, direct digital control (DDC) will be provided and shall be Seibe, by Maine Controls. This system shall interface seamlessly with the School Departments existing BAS. Provide a local area network connection for communication to the existing system. .
   1. Each packaged HVAC unit shall have factory supplied controls with the following features: heating / cooling set points with an adjustable dead-band, adjustment of the outside air for ventilation control, and economizer controls.
   2. Each air system will have local override capability for off-hours functions. An override button will convert the system to daytime mode for 2-hours (adjustable

time period programmable through the DDC system), with daytime heating / cooling set points.

C. Exhaust
   1. Photocopier areas to be exhausted during occupied hours, energized by the DDC system in accordance with the occupancy schedule of the adjacent air system. Exhaust fans will be ducted to the exterior roof.

END OF DIVISION 15 MECHANICAL