DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND



BUILDING PERMIT

This is to certify that JOHN STREET ASSOCIATES» ST

Located At 54 ST JOHN

Job ID: 2011-07-1802-HVAC

CBL: 070 - - A - 005 - 001 - - - - -

has permission to Install 3 sir handlers on roof

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 Enforgement 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.
- 1. Final sign off by the designing engineer shall be submitted upon completion of work stating the work was installed with the approved plans.

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: 2011-07-1802-HVAC

Located At: 54 ST JOHN

CBL: <u>070 - - A - 005 - 001 - - - - -</u>

Conditions of Approval:

Zoning

- 1. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
- 2. This permit is being issued with the condition that the units will meet the noise level standards outlined in section 14-252(a), and if the maximum decibel level is exceeded than action must be taken to bring the noise level to within the permissible level.

Fire

Installation shall comply with City Code Chapter 10.

Fuel-fired boilers shall be protected in accordance with NFPA 101, Life Safety Code.

NFPA 54, National Fuel Gas Code;

NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems;

NFPA 70, National Electrical Code; and the manufacturer's published instructions.

Building

- 1. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm HVAC systems, heating appliances, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
- 2. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.
- 3. Final sign off by the designing engineer shall be submitted upon completion of work stating the work was installed with the approved plans.

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2011-07-1802-HVAC	Date Applied: 7/27/2011		CBL: 070 A - 005 - 00	01		
Location of Construction: 54 ST JOHN ST (70)	Owner Name: ST JOHN STREET ASSOCIATES		Owner Address: PO BOX 4821 PORTLAND, ME - MAINE 04112			Phone:
Business Name:	Contractor Name: Sterling Refrigeration		Contractor Address: 600 Airport Boulevard, Suite 100, Morrisville, NC 27560			Phone: 919-388-037
Lessee/Buyer's Name:	Phone:		Permit Type: HVAC			Zone:
Past Use: Barber Foods Same - Barber Foods make up air handlers Proposed Project Description:		The state of the s		Approved W (u) Denied N/A	dehoùs	CEO District Inspection: Use Group: Type:
			Signature Carl			Signature
Barber Foods Roof top HVAC – Permit Taken By:				Zoning Approval		
		Special Zo	one or Reviews	Zoning Appeal	Historic Pr	eservation
 This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building Permits do not include plumbing, septic or electrial work. 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. 		Shoreland Wetlands Flood Zone Subdivision Site Plan Maj Min Date: Or Core	one ion Min _ MM I card. Lass HBM	Variance Miscellaneous Conditional Use Interpretation Approved Dented Date.	Not in Dist or Landmark Does not Require Review Requires Review Approved Approved w/Conditions Denied Date: ARM	Require Review Review w/Conditions
ereby certify that I am the owner of cowner to make this application as I application is issued, I certify that t enforce the provision of the code(s)	nis authorized agent and I agree the code official's authorized re	or that the prope to conform to	osed work is authorize all applicable laws of	this jurisdiction. In addition	, if a permit for wo	rk described in
GNATURE OF APPLICAN	T AI	DDRESS		DATE	-	PHONE

SIGNATURE OF APPLICANT



ING 2041-07-1802

FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT

1		
1		
1		
1		
1		

MAU=1 MAU=2 MAU=3	D ma - Dia Hours
To the INSPECTOR OF BUILDINGS, Portland, Me. The undersigned hereby applies for a permit to install	J MAKE HIE UNIONS
The undersigned hereby applies for a permit to install	If the following heating, cooking or power equipment in
accordance with the Laws of Maine, the Building Code of the	
Location / CBL 70 A 5 TOSTAGE Name and address of owner of appliance BARBER FOO	Use of Building Darber too Coale
Name and address of owner of appliance BARBER FOO	ds 12c
54 ST. JOHN STIKET PO	RTLAND MAINE 04102
Installer's name and address Stepling Re Frigerar	27560 Telephone 1-919-388-0372
WITE 100 MORRISVILLE, NC	<u>27560</u> Telephone <u>1-919-388-0372</u>
Location of appliance:	Type of Chimney:
☐ Basement ☐ Floor	☐ Masonry Lined
☐ Attic ☐ Roof	Factory built
Type of Fuel:	☐ Metal
Gas Oil Solid	Factory Built U.L. Listing #
0 1	racion bank one. Eisting "
Appliance Name: Crapco Units	☐ Direct Vent
U.L. Approved TYes TY No	TypeUL#
Will appliance be installed in accordance with the manufacture's	Type of Fuel Tank
installation instructions? Yes No	D Oil NASS Nameral GAS
	Gas Surren Alexand
IF NO Explain:	ExSIST:
	Type of Fuel Tank Oil NONE => NATURAL GAS Gas System Already Size of Tank NA
The Type of License of Installer:	Number of Tanks/\/A
☐ Master Plumber #	
□ Solid Fuel #	Distance from Tank to Center of Flame feet.
AAA) Gas # Mic. # PNT 1132	Cost of Work: \$ 2/1,000 -
[7]77) =	\$ 21000
(Dick Differ)	Permit Fee: § 70/1/
	Approved with Conditions
Approved	7 7 75
Fire:	Inspector's Signature Por Date Approved
Bldg.:	Ruiding nd W
M. I Wall	Inspector's Signature Date Approved
Signature of Installer / MMW/// Pythy Gol	<u> </u>
White - Inspection Yellow - File F	ink - Applicant's Gold - Assessor's Copy



BARBER FOODS

POST OFFICE BOX 4821 PORTLAND, MAINE 04112-4821

207-541-2800 FAX 207-772-3938 www.barberfoods.com

Brief Overview to Explain Project

The purpose of the project to allow for accelerated cleaning of the plant and reduce the condensation issues that need to be cleaned up:

In the first phase or permit request: three make up air handling units will be installed to allow for raising the air temperature during sanitation. These units will be used approximately 2 hours a day while the area is being sanitized. MAU unit one is a 900,000 BTU to be installed over the Prep area:

MAU unit two is a 700,000 BTU unit to be installed in PO2 area MAU unit three is a 700,000 BTU unit to be installed in PO3.

Each of these unit are self-contained and relative small in size. They will have a 480 volt feeder circuit run to them once they are installed.

Each of these units will be used for air improvement during sanitation. Refer to drawing for location on plant roof. Each will be installed on 8" x 8 "timbers to spread the load over an area that is safe to carry its weight. Refer to Structural Engineers report.

This will allow for split plant cleaning: In areas that we use curtains, we plan to enclose with walls and doors to better provide for air pressure differential. The

areas to be enclosed are all none load bearing walls and simply allow for better air control during saniation.

The second phase of this project will be to install a new air handler over the meat room. I will apply for a separate permit for this air handler.

Respectively Yours, Machael Mashing 81

Michael M. Cushing Sr.

Spear & Associates, LLC

July 21, 2011

E-MAIL LETTER

Mr. Mike Cushing Barber foods 54 St. John Street Portland, ME 04102

> Subject: Barber Foods Rooftop HVAC Units Portland, Maine

Dear Mike:

This is a follow up of our discussion regarding the four new air units to be installed over the roof of the existing Barber Foods facility.

The first air unit is to be installed on a new steel platform over the existing meat processing area at the south end of the building, tying into the existing columns below.

The next air unit is to be installed over the roof of the stuffing area on the east side of the building, again tying into the existing columns below.

The third and fourth air units will be installed on the roof joists of the two pack-out rooms on the north end of the building.

We have inspected all four areas and have calculated the new loads that the existing structures will receive. We have determined that the existing structures in all four areas have sufficient capacity to handle the new loads.

Please let me know if there are questions on this.

Sincerely

JC

SPEAR

John A. Spear, PE

CC: Eric Pugh

Ann Machado - Re: FW: Sound Data: Air Handling Units and Exhaust Fans and etc.

From: Lannie Dobson

To: Ann Machado; Mike Cushing

Date: 8/8/2011 1:54 PM

Subject: Re: FW: Sound Data: Air Handling Units and Exhaust Fans and etc.

Ann will be in on Monday. I have forwarded this e-mail to her. Thank you, Lannie Dobson

>>> Mike Cushing <mike_cushing@barberfoods.com> 8/8/2011 1:18 PM >>>

Lannie, here is the additional information on the 3 make up units and Air Handler 4. This will explain the decibel levels for all the units. The cover letter explains it fairly well. Would you please add this information to the permit requests and see that Ann gets a copy as she had some questions also.

Resp. MMC RECEIVED

AUG 1 5 2011

From: Eric Pugh [mailto:Eric@sterling-refrigeration.com]

Sent: Friday, August 05, 2011 3:09 PM

To: Mike Cushing

Subject: Sound Data: Air Handling Units and Exhaust Fans and etc.

Dept. of Building Inspections City of Portland Maine

In response to your request for Sound Pressure Level data for the Equipment associated with the revisions to the ventilation system:

Referencing Sterling Drawing 1108-900;

RE: Area Designated 1a, the Stuffing Prep Room

We intend to put the Exhaust Fan on top of the original old duct drop that is currently fed by the AHU-3 and terminates near column F.3/9.7.

The attached data sheet for Model 300-50 Greeheck shows its sound spectrum: 69 dBa 18.5 Sones is mean. (See PDF Attached).

RE: My Area 4; The Pack Out Area; Exhaust Fan to be installed near Column N/3.95

Exhaust Fan (same PDF att'd) is Model 420-50 and its mean values are 68 dBa and 18 Sones.

Those are manufacturers data for full speed operation "as delivered"; both of those fans maintain interior pressures utilizing VFD's.

For the semi-custom Air Handlers and Air Make Up units with insulated enclosures: none of the manufacturers have specific data for all the versions and options that can be supplied on a unit of a given air flow capacity.

The Air Make Up Units (New) AMU-1, 2, 3:

The HEPA-Filtered Heaters do not have any "exposed" noise data; the fans are contained in a double wall box insulated in the factory with full face filter banks on both intake and discharge. Frankly you have to touch these things to know if they are operating or not. You can't tell by sound alone...The Fan Data (Greenheck) at the selected speeds indicates 78 dBA but you would have to be inside the box to feel that. That specific number applies to AMU-1 (Stuffing Prep). AMU-2 and AMU-3 are lower sound pressure levels than that...

For the Refrigerated Air Handlers: New one being AHU-4

The prevailing mode is Process and the process fan is contained within the enclosure similar to above; they are in fact foamed in place urethane boxes with interior bulkheads and each wall is a considerable distance from the fan. The most intensive transmission would pass through the floor. Inside the unit on the Fan Discharge section: AHU-4's data would be 84 dBA for the Process Mode fan.

The Cleanup Mode exhausters are through the wall of the unit and discharge to the outside. These are VFD controlled according to interior building pressures.

For AHU-4 there are (2) such fans and their sum mean pressure level would be 90 dBA at full speed, both fans operating, measured from the discharge side, motor on the Intake side.

With the considered changes we are slowing the air flow on AHU-1 in both modes. Its exhaust fans will be operating at approximately 80% speed.; the fan motors are on the intake side. We do not have specific sound data ratings for those fans but typical vane axial performance would indicate a decrease in SPL of 5.5 dBA.

Each of the refrigerated air handlers are equipped with these exhaust fans. They are only active during most of the clean up and dry out process for each separate portion of the building. The cycle of these processes is such that the fans will not be at full speed at the same time. During the entire time they are active, the fans on the refrigeration condensers will be operating at reduced capacity so the total energy of that sound source will be reduced.

Disclaimer: This message is intended only for the use of the individual or entity to which it is addressed and may contain information which is privileged, confidential, proprietary, or exempt from disclosure under applicable law. If you are not the intended recipient or the person responsible for delivering the message to the intended recipient, you are strictly prohibited from disclosing, distributing, copying, or in any way using this message. If you have received this communication in error, please notify the sender and destroy and delete any copies you may have received.



EDF Make-up Air Systems



Direct Fired Make-Up Air And Heating Units With Or Without Cooling.

IARW. International Association of Refrigerated Warehouses





EVAPCO, Inc., founded in 1976, is a leading worldwide manufacturer of industrial refrigeration equipment. Over the years, EVAPCO has earned a reputation for reliability, dependability and unparalleled service. Our ongoing research and development program has lead to many product innovations, enabling us to provide the most advanced products in the industry-while at the same time helping our customers find solutions to difficult problems.

With a broad product line and extensive worldwide manufacturing, distribution and technical support systems, you can count on EVAPCO to meet your most demanding refrigeration needs.

Continuing our commitment to quality and innovation, the EVAPCO EDF Series Makeup Air Systems are specifically designed to supply, control and temper makeup air to your building with steam, hot gas or 100 percent efficient, direct-fired, natural gas burners. In addition, these systems can be incorporated with cooling coils to improve moisture and condensation control, and most important, employee comfort.

FEATURES

Complete Packaged Units

The EDF Series units are available in 13 physical sizes, with either a horizontal or vertical discharge. The series provides a complete range of air flow capacity utilizing forward curved blowers from 9" to 60" in diameter. Where practical shipping sizes allow, the units and accessories are shipped together as an assembly. When the physical size of the unit requires shipping the accessories separately, the unit is completely factory assembled prior to shipment.

All of the units have a rugged unitized base frame which provides the permanent support to the unit. Heavy gauge galvanized steel casings are standard providing a corrosion resistant interior and exterior.

Where curb mounting is required, the unitized base is fabricated complete with a built-in drip lip designed to fit over the full perimeter curb. When the unit is suspended, the base frame provides all of the support needed. Simply hang the unit with standard threaded rod and suspension eye bolts.

All EDF Series units are factory piped and wired at the factory. Each unit is thoroughly tested prior to shipment. These tests include a complete run and fire test with all accessories attached and all remote control devices temporally wired to the control circuits. The final test is to dielectrically test each wire in the unit. Installation of the units requires power, gas and duct work. If optional remote control devices are supplied, the devices are easily wired to the main control panel by utilizing the numbered terminals at both the main panel and the remote panel.

Safety First

EVAPCO Incorporated places safety as its' first priority in all products. The EDF Series is rated, and manufactured and tested in accordance with the nationally recognized standard for Direct Fired Heating Equipment. ANSI Z.83.18 and Z.83.4.

Ease of Installation

With all units, we furnish comprehensive installation, operation and maintenance manuals to ensure that the EDF unit is properly installed.

Gas Burner and Safety Controls

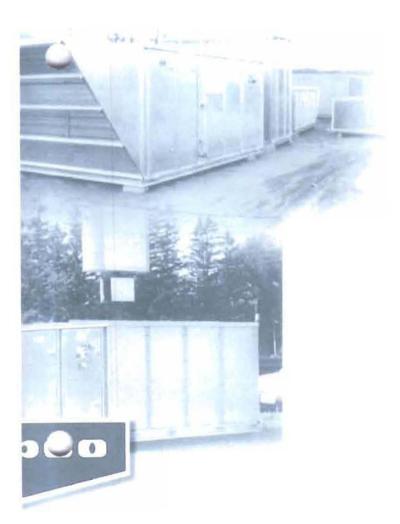
The EDF Series uses a specially designed raw gas burner that has virtually a 100% combustion efficiency. The units comes standard with a modulation turndown ratio of 30:1, so a unit with a 90° F temperature rise will have a low fire rate of 3 degrees. This modulation assures economical savings and provides comfortable air discharge temperature, no matter what the inlet temperature.



established, then the main automatic gas valves are allowed to open. Safety switches include manual reset high discharge temperatures, temperature and air flow proving. Additionally, electrical interlocks are provided for motor starting and optional inlet and discharge dampers.

Filtration Options

The unit is available with both a prefilter and a final filter option. The prefilter section is available with washable throwaway or 30%



pleated filters in a slide-in track. The final filter option is available with 95% cartridge or 99.97% HEPA absolute filters.

Cooling Coll Section

The EDF Series units can have an optional cooling coil section. This blow-thru section is available with ammonia, halocarbons, chilled water or glycol cooling coils. Ammonia coils are available with either a hot dipped galvanized steel or aluminum construction. The cooling coil section is a double wall, insulated section with drain pans under the cooling coil.

STANDARD FEATURES

- . Motor, drives and control panels contained within the unit.
- . Easily opened hinged access doors, on one side of the unit.
- · Lifting devices supplied for hoisting.
- · Flame observation port.
- Discharge air temperature controller mounted in the blower discharge
- 100% efficient burner with 30:1 turndown burner modulation.
- · Air pressure differential safety switch.
- Spark ignited intermittent gas pilot with electronic flame safety primary control.
- Unitized base frame and rugged all galvanized steel casing.
- · Factory pre-wired, pre-piped and fully tested prior to shipment.
- Motor sude adjustment base
- Variable pitched sheaves on 7.5 H.P. motors and smaller, and fixed sheaves on 10 H.P. motors and larger.
- · Quiet, efficient, high capacity, double inlet belt driven blower
- Long life, self-aligning pillow-block blower bearings.
- · Options for unit suspension or full perimeter roof curb mounting.
- Integral unit mounted safety and operating controls.
- Meets ANSI Z.83.18 and Z.83.4 standards.

OPTIONAL FEATURES

- Automatic two-positioned inlet or discharge dampers with safety interlock.
- Weatherproof fresh air inlet hood with bird screen.
- Permanent cleanable, throwaway or 30% pleated V-bank filter sections.
- . IRI or FM gas piping.
- Service platforms with OSHA approved railings.
- Remote automatic control stations.
- Provisions for one pound or higher gas pressures.
- · Totally enclosed fan cooled motors.
- · High efficiency motor.
- · Room temperature control.
- Audible horn alarm.
- · Double wall stainless steel supply air diffusers.
- · Full perimeter roof curbs.
- Extended lubrication lines.
- High efficiency, 95% or 99.97% HEPA final filter sections
- Blow-thru cooling coil sections.



EVAPCO-YOUR ONE SOURCE FOR QUALITY REFRIGERATION SYSTEM COMPONENTS.

Evaporative Condensers



Induced Draft Models



Forced Draft Models

Evaporators

-

Critical Process Air Units



Cooling Towers



Induced Draft Models



Forced Draft Models

Custom Recirculators & Vessels





Horizontal & Vertical Recirculators

EVAPCO...Taking Quality and Service to a Higher Level!

World Headquarters Research/Development Center

EVAPCO, Inc. PO Box 1300 Westminster MD 21158 USA Ph 410-756-2600 Fax 410-756-6450 E-mail evapco@evapco.com

Asia/Pacific Headquarters

EVAPCO ASIA, LTD. Unit | G/F. Cloud Nine 9 Plunkert's Road The Peak, Hong Kong S.A.R.

PR China Ph. (852) 2849-4100 Fax (852) 2849-5233 E-mail ktlonge@evapco.com

European Sales Offices

EVAPCO France S.A.R.L.

5 Rue des Carisiers F-91090 Lisses 2I, France Ph. (33) 1 6086-0508 Fax: (33) 1 6086-3990

EVAPCO Europe GmbH

Bovert 22 D-40670 Meerbusch, Germany Ph. (49) 2159-912367 Fax (49) 2159-912368 E-mail sturies@evapco.de

EVAPCO Manufacturing Facilities

EVAPCO East 5151 Allendale Lane Taneytown, MD 21787 USA Ph: 410-756-2600 Fave 410-756-4450

Fax: 410-756-6450 E-mail evapco@evapco.com

EVAPCO Midwest

1723 York Road Greenup, IL 62428 USA Ph: 217-923-3431 Fax: 217-923-3300 E-mail: evapco@rr1 net

EVAPCO West

1900 West Almond Avenue Madera, CA 93637 USA Ph 559-673-2207 Fax: 559-673-2378 E-mail: evapco@lightspeed.net

EVAPCO Iowa
Engineering & Sales.
285 18th St. S.E.
Owatonna, MN 55060
Ph: 507-446-8005
Fax 507-446-8239
E-mail: evapcomn@evapcomn.com
Plant
925 Quality Drive
Lake View. Iowa 51450 USA
Ph: 712-657-3223
Fax 712-657-3226
E-mail: evapcoia@netins.net

Refrigeration Valves & Systems

1520 Crosswind Dr. Bryan, TX 77808 USA Ph: 979-778-0095 Fax: 979-778-0030 E-mail rvs@mail.myriad.net

EVAPCO Europe, N.V.

Heersterveldweg 19 Industriezone. Tongeren-Oost 3700 Tongeren, Belgium Ph (32) 12-395029 Fax (32) 12-238527 E-mail evapco@pr.be

EVAPCO Europe, S.R.L.

Via Ciro Menotti 10, 1-20017 Passirana di Rho Milano, Italy Ph: (39) 02-939-9041 Fax: (39) 02-935-00840 E-mail evapco@tin it

EVAPCO Europe, S.R.L.

Via Dosso, 2 Piateda Sondrio, Italy 23020

Air EVAPCO (Ltd.)

92 Asma Fami Street, ARD El-Golf Heliopolis, Cairo, Egypt Ph. (202) 290-7481 Fax. (202) 290-0892 E-mail: manzlawi@egyptonline.com

EVAPCO S.A. (Pty.) Ltd.

18 Quality Road Isando 1600 Republic of South Africa Ph. (27) 11-392-6630 Fax (27) 11-392-6615 E-mail evaps of Euron co za

Beijing Hezhong-EVAPCO

Refrigeration Equipment Co., Ltd. Yan Qi Industrial Development District Huar Rou County Bening PR China Code 101407 Ph. (86) 10-6166-7238 Fax (86) 10-6166-7395 E-mail gbutters@evapco.com

Shanghai Hezhong · EVAPCO Refrigeration Co., Ltd.

855 Yang Tai Road Bao Shan Area, Shanghai PR. China Code 201901 Ph: (86) 21-5680-5298 Fax. (86) 21-5680-1545

Visit EVAPCO's Website at: http://www.evapco.com



Original Receipt

	7.	20 //		
Received from	ber Foul			
Location of Work	You be chine			
Cost of Construction \$_	Building Fee:			
Permit Fee \$_	Site Fee:			
Certificate of Occupancy Fee:				
	Total:	2170		
Building (IL) Plumbin	g (I5) Site	Plan (U2)		
Other				
CBL: 70 · 1 5	e			
Check #: 35219	Total Collected	52190		
No work is to be started until permit issued. Please keep original receipt for your records.				

Taken by:

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