

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 08-1412	Issue Date:	CBL: 016 J022001
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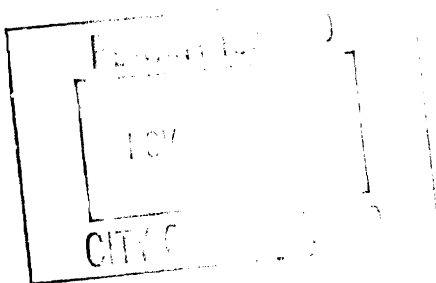
Location of Construction: 17 WATERVILLE ST	Owner Name: BOURDEAU KELLY J & JACOB	Owner Address: 17 WATERVILLE ST	Phone: 207-232-9182
Business Name:	Contractor Name:	Contractor Address:	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	Zone: R-6

Past Use: Single Family Home	Proposed Use: Single Family Home - Install Hotul Model 3TDIC-2 Wood Stove	Permit Fee: \$30.00	Cost of Work: \$900.00	CEO District: 1
Proposed Project Description: Install Hotul Model 3TDIC-2 Wood Stove		FIRE DEPT: <input type="checkbox"/> Approved <input checked="" type="checkbox"/> Denied <i>N/A</i>	INSPECTION: Use Group: R-3 Type: U <i>NEPA</i>	
		Signature:	Signature:	

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)	
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input checked="" type="checkbox"/> Denied	Signature: _____ Date: _____

Permit Taken By: lmd	Date Applied For: 11/04/2008	Zoning Approval	
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>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..</p>	<p>Special Zone or Reviews</p> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <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"/> Date: 11/4/08	<p>Zoning Appeal</p> <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:	<p>Historic Preservation</p> <input checked="" type="checkbox"/> Not in District 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: 11/04/08
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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 _____

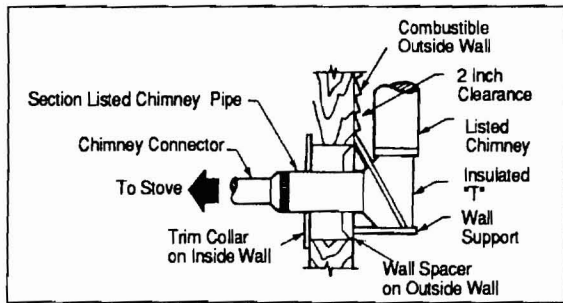


Figure 10

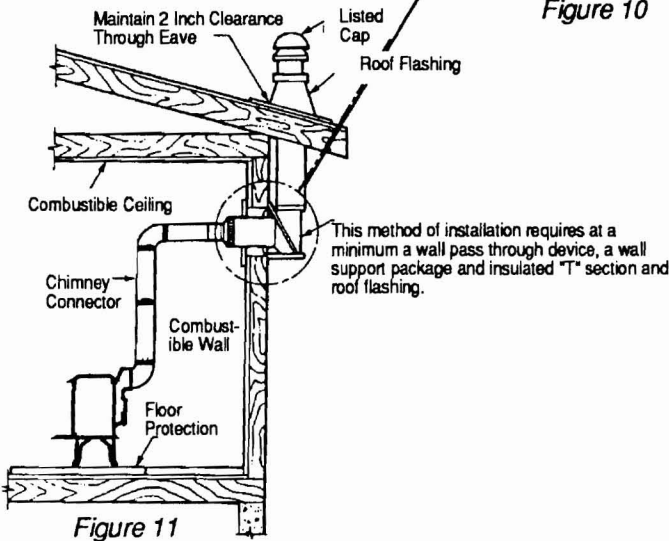


Figure 11

REMEMBER: Follow the manufacturer's installation instructions and maintain the manufacturer's specified clearance distances.

D. Clearances to Combustibles

Good planning for stove placement involves more than just insuring you have adequately protected combustible materials. It should also consider your comfort and convenience.

The radiant heat from your stove will warm its surroundings and, in turn, the air. Will the warm air from the stove freely rise and migrate to other areas of the house? Will the stove and hearth interrupt or disturb traffic patterns in the home? Is it convenient to bring wood to the stove? These are but a few of the questions you will want to ask when choosing a site for your stove.

A simple way to visualize the area required by the stove is to cut out a piece of newspaper the same size as the stove (17" x 22"). Place the newspaper on the floor and select the appropriate dimensions from the following sections on floor and wall protection.

Floor Protection

Your stove must be placed on a non-combustible surface which extends 8" beyond the sides and back of the stove and 18" in the front of the stove. This will result in an overall base which is 38" wide x 43" deep (Figure 12A). This is the minimum floor protector size. Floor protection must also be used under the stove pipe and extend 2" beyond either side of the pipe (12B).

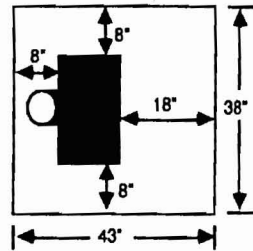


Figure 12A ✓

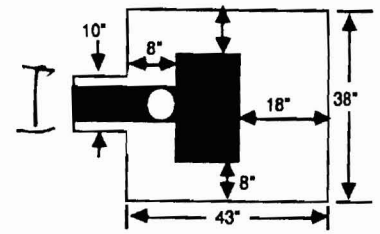


Figure 12B ✓

During laboratory testing, it was determined that the floor protector should be one layer of 3/8" non-combustible millboard or equivalent. You may decorate the millboard with a variety of ceramic tiles or bricks. All joints should be filled using only non-combustible materials.

A number of pre-manufactured floor protectors are also available. If you choose to use one of these, make sure that it has a safety listing mark on it. Never put any type of floor protection on top of carpeting.

Clearances

Safe distances must be maintained between the stove and combustible materials in its vicinity. A combustible is anything that can burn; and in the case of stove installations, these combustibles may not be visible. If you are not sure of the combustible nature of any material in the vicinity of your planned stove installation, you should check with your local fire officials. Remember that "fire resistant" materials are considered combustible; they are difficult to ignite, but they will burn.

If you have recently purchased a home which has a stove hearth in it that you plan to use, it is extremely important that the entire system is examined for safety. Many older homes have faulty chimneys, or previous owners may have covered combustible walls or studs with brick veneers. Heat is easily conducted through brick and could ignite unseen combustibles behind it.

Standard Installations

The Jøtul 3TDIC-2 can be top or rear vented from the same location by means of its reversible flue outlet. Figure 13 shows the clearances which must be maintained to combustible walls from the stove body.

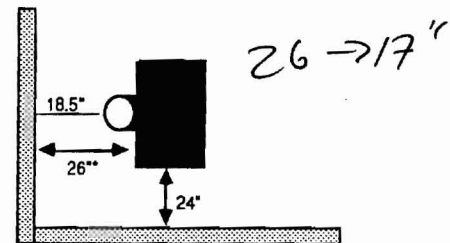


Figure 13.

* Clearances behind the stove can be reduced from 26" to 17" by using the Jøtul heat shield, part #950076, and Type E double wall air insulated chimney connector.

NFPA 211.9.5.1.2 Table
24 Gauge w/ 1" Vent.

Corner Installations

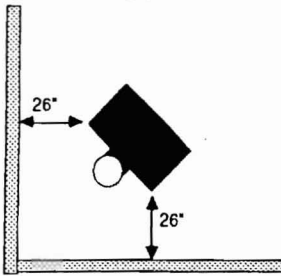


Figure 14A. Clearances to unprotected combustible walls.

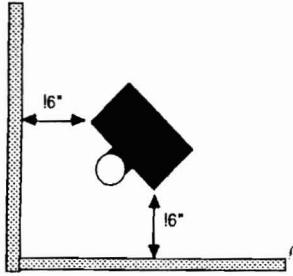


Figure 14B. Clearances to unprotected walls when using Jøtul heat shield, part 950076, and Type E double wall air insulated chimney connector.

Installation Accessories

Several manufacturers have developed installation accessories for wood and coal stoves. These accessories are generally intended to reduce the required clearances we have established during testing. If you choose to use any of these accessories, make sure they have been tested by an independent laboratory and carry that laboratory's testing mark. Make sure that the manufacturer's directions are followed.

The National Fire Protection Agency (N. F. P. A.) also publishes guidelines in their code, N.F.P.A. 211, for the construction of clearance reduction systems if you care to make your own floor and wall protectors. Your dealer should be able to explain N.F.P.A. 211 to you.

4. Assembling the stove

In order to prevent shipping damage, several parts of your stove have been removed and packed separately. These parts are:

- 4 - legs
- 1 - bottom heat shield
- 1 - ash/log retainer
- 1 - ash lip
- 1 - door handle

Assembly

1. Lift the top off of the stove and remove the top baffle and rear burn plate. Lay the stove on its front.
2. Attach the bottom heat shield and legs. The heat shield is sandwiched between the stove body and the legs. The channels on the sides of the heat shield are for storing the optional fireplace screen and should face the floor. Attach the legs using the four 6 x 25mm hex heat bolts and square washers.
3. Stand the stove up and bolt on the ash lip with the 6 x 16mm bolt.
4. Reinstall the rear burn plate and top baffle. The lip on the front edge of the top baffle slopes up.
5. Set the ash/log retainer into the groove provided in the front of the stove.
6. Place the insulated washer between the wooden knob and the door handle. Insert the long screw through the wooden knob and screw it into the handle.

Selecting Flue Outlets

The Jøtul 3TDIC-2 has a reversible flue outlet. To reverse outlet directions reach inside the outlet and unbolt the two bolts which hold the two halves together. This allows access to the two bolts which hold the back half of the outlet to the stove body. Unbolt the back half, remove it and turn it over to change positions. Re-bolt the back half into place and then put the front half back on with the two bolts.

5. Operation

Before building a fire in your new stove, please read the following section carefully.

This stove is designed to burn natural wood only. Higher efficiency and lower emissions generally result when burning air-dried seasoned hardwoods, as compared to softwoods or to green or freshly-cut hardwoods.

Do Not Burn:

- * Coal
- * Treated or Painted Wood
- * Garbage
- * Chemical Chimney Cleaners
- * Cardboard
- * Colored Paper
- * Solvents
- * Trash

Burning treated wood, garbage solvents, colored paper, chemical chimney cleaners, or trash may result in release of toxic fumes and may poison or render ineffective the catalytic combustor.

Burning coal, cardboard, or loose paper can produce soot or large flakes of char or fly ash that can coat the combustor, causing smoke spillage into the room and rendering the combustor ineffective.

Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this heater. Keep all such liquids far away from the heater while it is in use.

Wood Storage

When storing wood outside, it should be covered and stored off the ground to protect it from the elements. Make certain that the woodpile has good air circulation through it in order to promote drying to aid in the seasoning process.

To obtain the most benefit from the wood you burn, use only seasoned wood which has been cut and split for at least one year. Burning unseasoned or wet wood causes rapid development of creosote, while reducing the heat value of the wood being burned.

Creosote and Soot Formation And The Need For Removal

When wood is burned slowly, it produces tar and other organic vapors which combine with expelled moisture to form creosote. These creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. The creosote that accumulates in the flue is highly flammable and is the fuel of chimney fires. To

**17 Waterville Street
Portland, Maine 04101
Single Family Residence**

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WOOD STOVE

Jotul Model 3-TDIC-2

BTU - 10,900 to 30,600 btu/hr

Vent connection - 6-inch diameter

Ash pan assembly installed

Rear heat shield installed to reduce clearance requirements behind the stove

Install per Manufacturers recommendations and/or NFPA 211 recommendations, where applicable

Legs provide 8-inch clearance on the bottom of the unit non-including the ash pan

Stove dimensions 22" inch wide x 17-inch deep

CHIMNEY AND RELINER

~24"x18" brick chimney from existing house

Chimney flue is relined with a stainless steel liner which resists corrosion and is cleanable

6-inch diameter stainless reliner is along a wall (not corner)

Liner is cemented in place in the center of the ~24 inch dimension of the chimney

Base of chimney in basement installed on ground and was enhanced and sealed when purchased house

Chimney and liners extends above peak of roof

Minimum chimney clearance of 2-ft above peak and is estimated to be 6-8 feet tall above roof line.

Flue liner and chimney is capped and screened to keep out animals, birds and precipitation

Natural draft is being used

Chimney extends from basement to above the third floor so adequate chimney height is provided for draft non-combustible shield material provided at pass through of each floor

Chimney is vertical with no change in directions to provide good air flow

Install pipes and connectors so potential creosote would drain properly

ROOM

Large ~37' X ~13' 1st floor room with adequate floor space and make-up air

Connection is along a relatively flat wall

Non-combustible chimney will provided some of the clearance protection

The wall is 5/8" dry-wall and wood trim which will require protected behind the stove and near the pipe connection

Fire alarms are hard wired into the electrical system and are located in the room and adjacent room

A carbon monoxide detector is also present in the room.

FLOOR PROTECTION

Oak floor to be protected using millboard and stone pad per MFG recommendations

3/8 non-combustible mill board to be used per Mfg. recommendations and testing

3/4" minimum stone hearth placed over millboard (blue stone, granite, or slate slab or tiles) with potential joints mortared with high temperate cement grout

Proposed hearth is 40 3/4" x 58" and is greater than the Mfg recommended 38"x43" size

Proposed hearth is large enough to also provided adequate protection

under the vent pipe whereby 40 3/4" protections is provided versus 10" minimum required (6"+ 2"+2"=10")

Floor protection will be provide under the vent pipe to the wall behind the stove to wall

Over 9" is (>8" requirements) is provided on the sides of the stove to the edge of floor protection.

22-inches of protection (>18 inch Mfg. recommendation) is provided in front of the stove

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WALL AND COMBUSTIBLE CLEARANCE AND PROTECTION

The connector through the chimney is installed >30 inches (>18") from the ceiling

The connector is installed >30 inches from the floor.

The connector length to combustible materials will be shorted from 18-inches to an acceptable 6 inches per Table 9.5.1.2 of NFPA 211, the clearance to wall protection can be reduced 66% to 6-inches if 0.024-inch steel sheeting with ventilated air space is constructed.

Steel sheeting will be placed to the chimney and will provide allowable clearance from the vent pipe.

The actual clearances will be over 8-inches which is >6 inches per code

Distance to edge of metal heat shields from the vent pipe is a minimum of 18-inches.

Heat shields will use 24 gauge vented plates as shown on drawings and per NFPA 2111 with a minimum 1-inch gap on the side and top for required ventilation.

Non combustible connectors will not be placed directly behind the stove

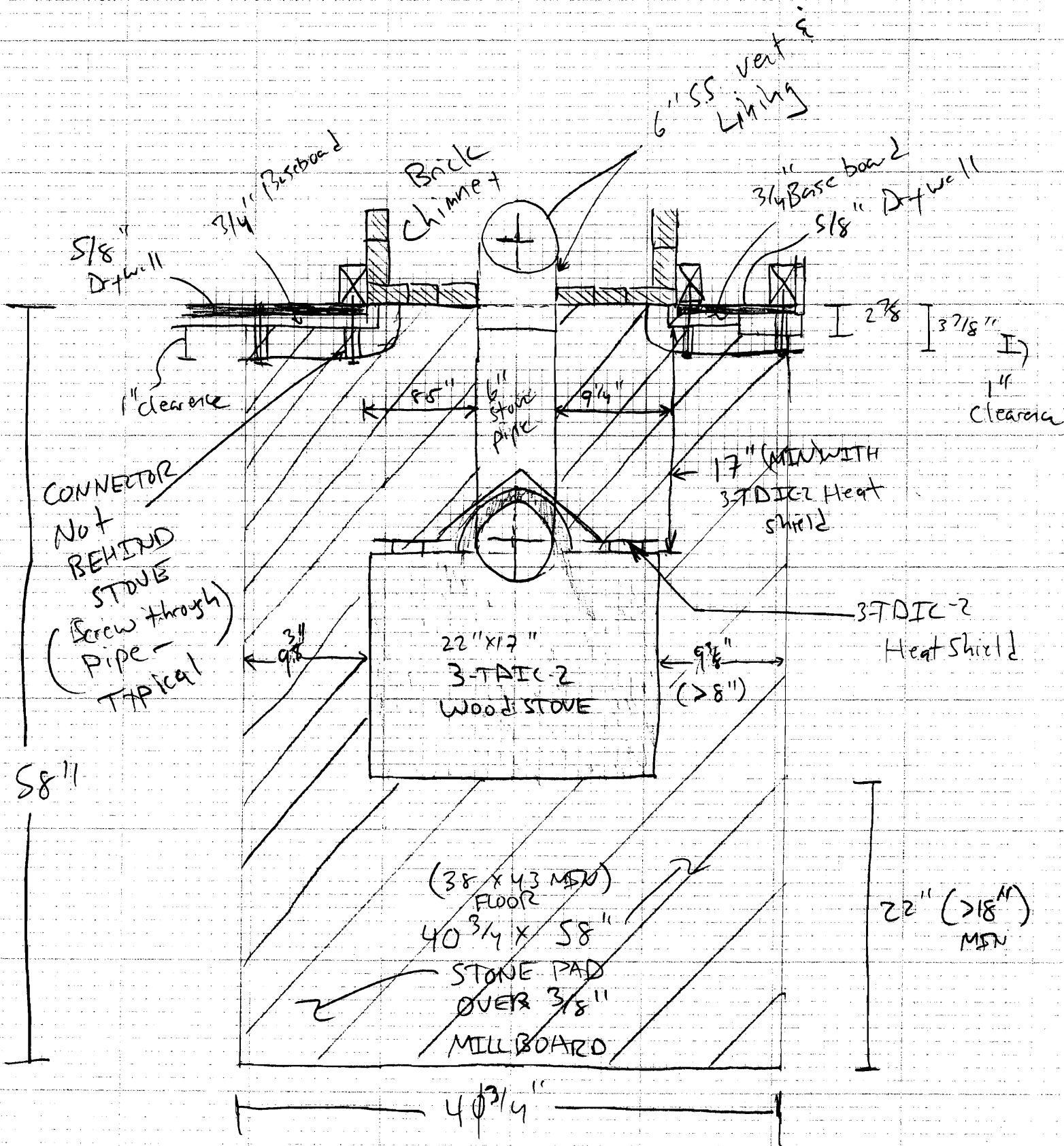
Anchors for the shield will be made of steel bolts and metal piping and will provide a minimum of 1-inch of clearanc

The connector maintains the minimum 1/4" per foot drop and only has one elbow in the line and thereby limiting potential obstructions

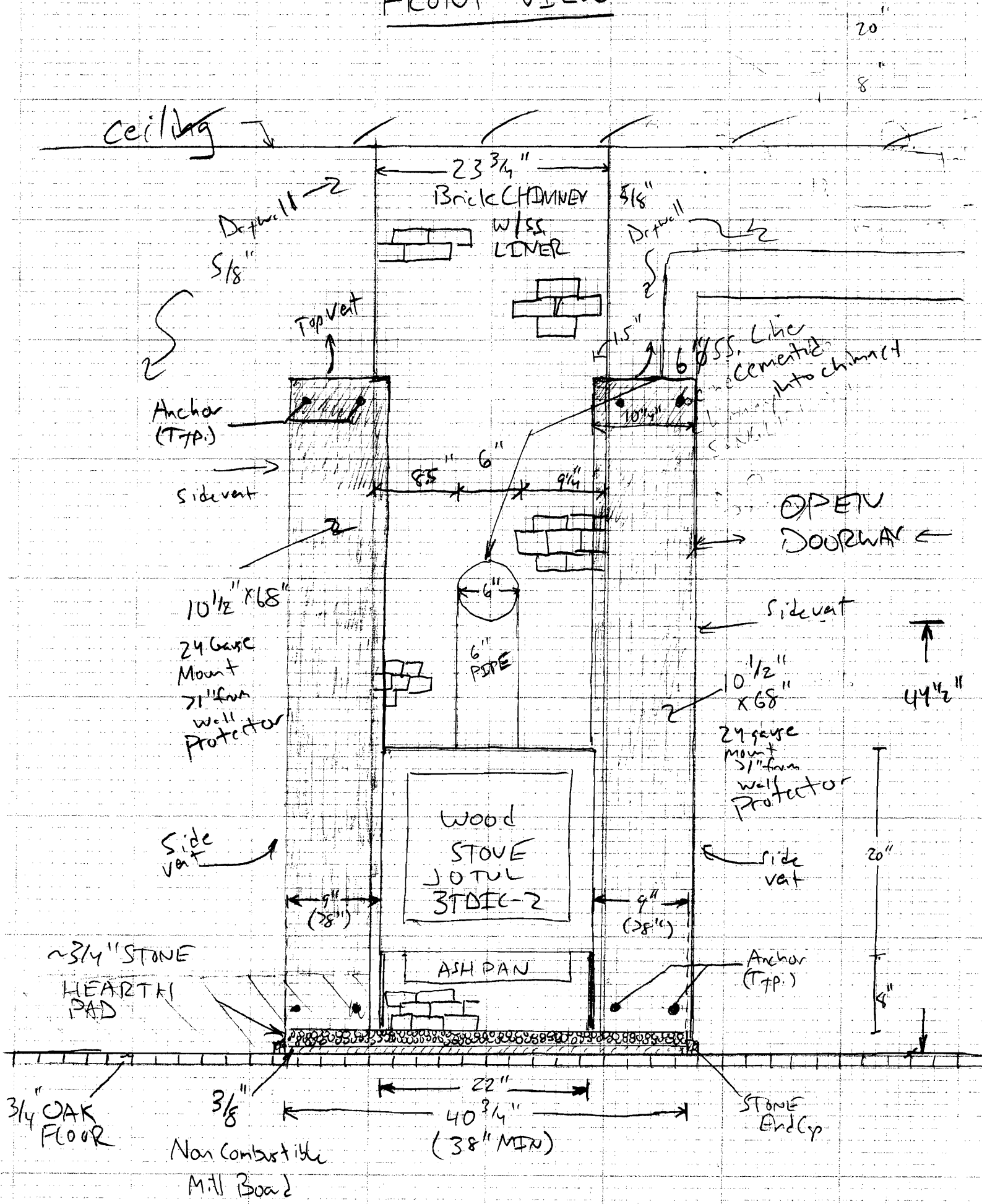
One elbow and two straight lengths less than 2-ft each will be used to connect to the reliner.

Sheet metals screws will hold the vent pipe in place.

TOP VIEW



FRONT VIEW



20"
8"

Ceiling

Dr. vent
5/8"

23 3/4"
Brick CHIMNEY
w/SS
LINER

5/8"
Dr. vent

Anchor
(TFP.)

Top vent

Side vent

6" SS. Liner
cemented
into chimney

OPEN
DOORWAY

10 1/2" x 68"
24 Gauge
Mount
21" flange
wall
Protector

6"
PIPE

Side vent

44 1/2"

10 1/2"
x 68"
24 gauge
mount
21" flange
wall
Protector

Side
vent

WOOD
STOVE
JOTUL
3TDIC-2

side
vent

20"

~3/4" STONE
HEARTH
PAD

ASH PAN

Anchor
(TFP.)

3/4" OAK
FLOOR

Non Combustible
M. H. Board

22"
40 3/4"
(38" MIN)

STONE
End Cap

BUILDING PERMIT INSPECTION PROCEDURES

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

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

 X **Final inspection required at completion of work.**

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.

Signature of Applicant/Designee

Date

Signature of Inspections Official

Date

11/27/08

11/24/08

City of Portland, Maine - Building or Use Permit

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Permit No: 08-1412	Date Applied For: 11/04/2008	CBL: 016 J022001
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Location of Construction: 17 WATERVILLE ST	Owner Name: BOURDEAU KELLY J & JACOB	Owner Address: 17 WATERVILLE ST	Phone: 207-232-9182
Business Name:	Contractor Name:	Contractor Address:	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	

Proposed Use: Singe Family Home - Install Hotul Model 3TDIC-2 Wood Stove	Proposed Project Description: Install Hotul Model 3TDIC-2 Wood Stove
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Dept: Zoning **Status:** Approved **Reviewer:** Tammy Munson **Approval Date:** 11/04/2008
Note: **Ok to Issue:**

Dept: Building **Status:** Approved with Conditions **Reviewer:** Tammy Munson **Approval Date:** 11/04/2008
Note: **Ok to Issue:**

1) The heating appliance/stove shall be installed, maintained and operated in accordance with the terms of the listing.