

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND BUILDING PERMIT



**This is to certify that**

FD & SONS PROPERTIES LLC /Freedom Fire Protection,  
Inc

**PERMIT ID:** 2013-00395

**Located at**

87 SKYLARK RD

**CBL:** 347 D001001

has permission to **install NFPA 13D sprinkler system.**

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 clsoed-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 procured prior to occupancy.

\_\_\_\_\_  
**Fire Prevention Officer**

\_\_\_\_\_  
**Code Enforcement Officer / Plan Reviewer**

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY  
THERE IS A PENALTY FOR REMOVING THIS CARD**

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND BUILDING PERMIT



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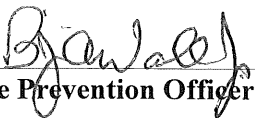
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(58)

Code Enforcement Officer / Plan Reviewer

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SCANNED

**City of Portland, Maine - Building or Use Permit Application**

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

Permit No: 2013-00395	Issue Date:	CBL: 347 D001001
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<b>Location of Construction:</b> 87 SKYLARK RD	<b>Owner Name:</b> FD & SONS PROPERTIES LLC	<b>Owner Address:</b> 87 SKYLARK RD PORTLAND , ME 04103		<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Freedom Fire Protection, Inc	<b>Contractor Address:</b> 209 Quaker Ridge Road Casco ME 04015		<b>Phone</b> (207) 627-4109
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Fire Suppression Water Based		<b>Zone:</b> R3
<b>Past Use:</b> Single Family	<b>Proposed Use:</b> Single Family	<b>Permit Fee:</b> <del>0</del> - \$100.00	<b>Cost of Work:</b> \$8,000.00	<b>CEO District:</b> 8
<b>Proposed Project Description:</b> SF Fire Sprinkler permit;		<b>FIRE DEPT:</b> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> N/A <i>3/26/13</i>		<b>INSPECTION:</b> Use Group: Type:
		Signature: <i>Bja. Jaf. (58)</i>		Signature:
		<b>PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)</b> Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: Date:		

<b>Permit Taken By:</b> bjs	<b>Date Applied For:</b> 02/27/2013	<b>Zoning Approval</b>		
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- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- 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..

**SCANNED**

<p><b>Special Zone or Reviews</b></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: <i>OK</i> <i>2/28/13</i> <i>ASU</i>	<p><b>Zoning Appeal</b></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><b>Historic Preservation</b></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: <i>ASU</i>
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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

**BUILDING PERMIT INSPECTION PROCEDURES**  
Please call 874-8703 (ONLY)  
or email: [buildinginspections@portlandmaine.gov](mailto: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.**

**REQUIRED INSPECTIONS:**

Final - Fire

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.

**City of Portland, Maine - Building or Use Permit**

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

<b>Permit No:</b> 2013-00395	<b>Date Applied For:</b> 02/27/2013	<b>CBL:</b> 347 D001001
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<b>Location of Construction:</b> 87 SKYLARK RD	<b>Owner Name:</b> FD & SONS PROPERTIES LLC	<b>Owner Address:</b> 87 SKYLARK RD	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Freedom Fire Protection, Inc	<b>Contractor Address:</b> 209 Quaker Ridge Road Casco	<b>Phone</b> (207) 627-4109
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Fire Sprinkler Systems	

<b>Proposed Use:</b> Single Family	<b>Proposed Project Description:</b> install NFPA 13D sprinkler system.
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**Dept:** Zoning      **Status:** Approved      **Reviewer:** Ann Machado      **Approval Date:** 02/28/2013  
**Note:**      **Ok to Issue:**

**Dept:** Fire      **Status:** Approved w/Conditions      **Reviewer:** Ben Wallace Jr      **Approval Date:** 03/21/2013  
**Note:**      **Ok to Issue:**

- 1) A warning sign, with minimum ¼ in. letters, shall be affixed adjacent to the main shutoff valve and shall state the following:  
Warning: The water system for this house supplies fire sprinklers that require certain flows and pressures to fight a fire. Devices that restrict the flow or decrease the pressure or automatically shut off the water to the fire sprinkler system, such as water softeners, filtrations systems, and automatic shut off valves, shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign.
- 2) The sprinkler system shall be installed in accordance with NFPA 13D.
- 3) A copy of the required state sprinkler permit with RMS signoff shall be provided prior to the final inspection.
- 4) All control valves shall be supervised in accordance with NFPA 13D. Pad locks shall only be installed on valves designed to be secured in the open position by pad lock.

101470

## One- or Two-family Fire Sprinkler Permit

If you or the property owner owes real estate or property taxes or user charges on any property within the city, payment arrangements must be made before permits of any kind are accepted.

Installation address: 87 Skylark Road, Portland Maine

Building owner: F. DiDonato & Sons Phone: 207-222-2015

Installer: Freedom Fire Protection, Inc. Phone: 207-627-4109

Total sq/ft of building floor space per unit: 2,982sq/ft  Single-family home  
or

Sq/ft of sprinklered floor space per unit: \_\_\_\_\_  Two-family home

Is this a multipurpose piping system? Y / N Sprinkler piping uses Pex? Y / N

Water supply:  Municipal Water  Well pump  Stored water  Other

Include electronic copy of approved State Sprinkler Permit plans:

Additional cost to the owner for the home fire sprinkler system for each dwelling unit minus costs necessary for domestic needs (See below): **A=** \$7,248.00

Attach cost breakdown:  A City plumbing permit has been pulled:

RECEIVED  
FEB 27 2013  
Dept. of Building Inspections  
City of Portland Maine

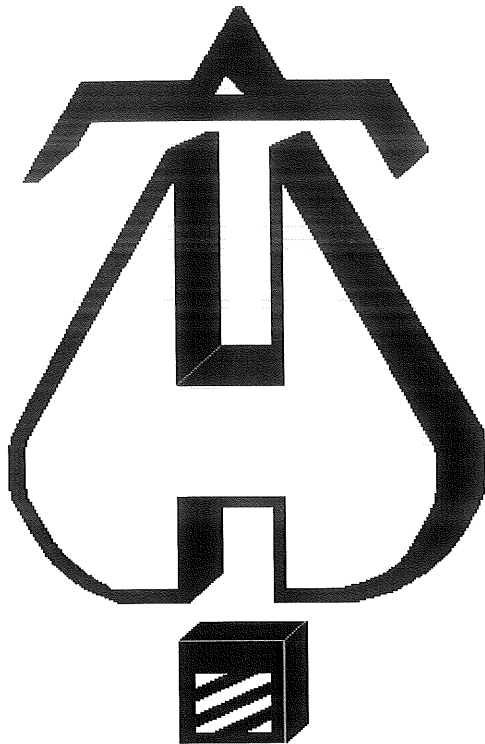
COST OF WORK: \$7,248.00  
(A times number of units)

NO FEE REQUIRED

Additional information and Frequently asked questions about home fire sprinkler systems may be found at

[www.portlandmaine.gov/fireprevention](http://www.portlandmaine.gov/fireprevention).

Sprinkler system cost must deduct costs that would have been incurred if the system did not provide sprinkler service. In a well pump system it would include the difference between the well pump to be installed and the one that would have been installed if there were no sprinkler demand on the system. Includes additional piping and valves that are required only because of NFPA Standard 13D, and not already required for domestic needs. Includes cost of sprinkler heads and additional installation costs.



... Fire Protection by Computer Design

FREEDOM FIRE PROTECTION INC.  
209 QUAKER RIDGE ROAD  
CASCO, MAINE 04015  
207-627-4109

Job Name : SKYLARK RANCH  
Building : 87 SKYLARK ROAD  
Location : PORTLAND, MAINE 04103  
System : #1 AREA #1  
Contract :  
Data File : SKYLARK RANCH HC.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - SKYLARK RANCH Date - 2/26/13  
 Location - PORTLAND, MAINE 04103  
 Building - 87 SKYLARK ROAD System No. - #1 AREA #1  
 Contractor - FREEDOM FIRE PROTECTION Contract No. -  
 Calculated By - MICHAEL NOBLIT Drawing No. - FP-2  
 Construction: (X) Combustible ( ) Non-Combustible Ceiling Height 8'-0"  
 OCCUPANCY - HOUSE

S Type of Calculation: (X)NFPA 13 Residential ( )NFPA 13R (X)NFPA 13D  
 Y Number of Sprinklers Flowing: ( )1 (X)2 ( )4 ( )  
 S ( )Other  
 T ( )Specific Ruling Made by Date  
 E  
 M Listed Flow at Start Point - 14 Gpm System Type  
 Listed Pres. at Start Point - 10.1 Psi (X) Wet ( ) Dry  
 D MAXIMUM LISTED SPACING 14' x 14' ( ) Deluge ( ) PreAction  
 E Domestic Flow Added - 0 Gpm Sprinkler or Nozzle  
 S Additional Flow Added - 0 Gpm Make TYCO Model LFII  
 I Elevation at Highest Outlet - 20'-6"Feet Size 1/2" K-Factor 4.4  
 G Note: Temperature Rating 155  
 N

Calculation Gpm Required 28.082 Psi Required 60.315 At Test  
 Summary C-Factor Used: Overhead 150 Underground 140

W Water Flow Test: Pump Data: Tank or Reservoir:  
 A Date of Test - 10/3/12 Rated Cap. Cap.  
 T Time of Test - @ Psi Elev.  
 E Static (Psi) - 74 Elev.  
 R Residual (Psi) - 0 Other Well  
 Flow (Gpm) - 1162 Proof Flow Gpm  
 S Elevation -

P Location:  
 P  
 L Source of Information: PORTLAND WATER DISTRICT  
 Y



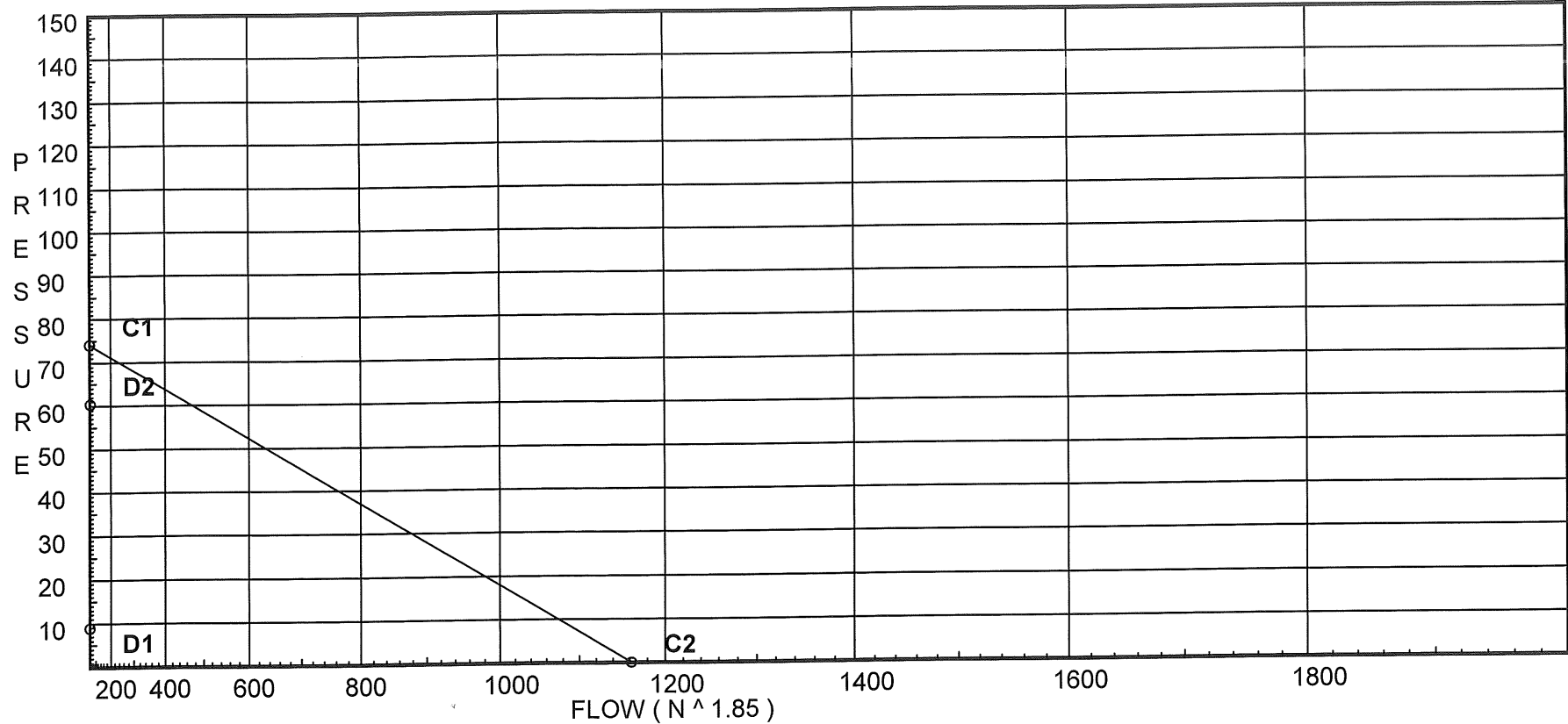
Water Supply Curve (C)

FREEDOM FIRE PROTECTION INC.  
SKYLARK RANCH

Page 2  
Date 2/26/13

City Water Supply:  
C1 - Static Pressure : 74  
C2 - Residual Pressure: 0  
C2 - Residual Flow : 1162

Demand:  
D1 - Elevation : 8.879  
D2 - System Flow : 28.082  
D2 - System Pressure : 60.315  
Hose ( Adj City ) : \_\_\_\_\_  
Hose ( Demand ) : \_\_\_\_\_  
D3 - System Demand : 28.082  
Safety Margin : 13.609



# Fittings Used Summary

FREEDOM FIRE PROTECTION INC.  
SKYLARK RANCH

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Date 2/26/13

Fitting Legend		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24	
Abbrev.	Name																					
E	90° Standard Elbow	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61	
T	90° Flow Thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121	
Zaa	Ames 2000B	Fitting generates a Fixed Loss Based on Flow																				

Pressure / Flow Summary - STANDARD

FREEDOM FIRE PROTECTION INC.  
SKYLARK RANCH

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Date 2/26/13

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
101	20.5	4.4	10.27	na	14.1	0.05	0.001	10.1
102	20.5	4.4	10.1	na	13.98	0.05	0.001	10.1
6	20.5		10.42	na				
5	11.5		17.73	na				
4	11.5		21.71	na				
3	11.5		24.47	na				
2	5.0		28.76	na				
1	5.0		33.9	na				
TEST	0.0		60.32	na				

The maximum velocity is 13.52 and it occurs in the pipe between nodes 1 and TEST

Final Calculations - Hazen-Williams

FREEDOM FIRE PROTECTION INC.  
SKYLARK RANCH

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Date 2/26/13

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
101 to 6	14.10 14.1	1.101 150 0.0356	1E	3.825 0.0 0.0	0.500 3.825 4.325	10.267 0.0 0.154	K Factor = 4.40 Vel = 4.75
	0.0 14.10					10.421	K Factor = 4.37
102 to 6	13.98 13.98	1.101 150 0.0351	2E	7.65 0.0 0.0	1.500 7.650 9.150	10.100 0.0 0.321	K Factor = 4.40 Vel = 4.71
6 to 5	14.10 28.08	1.049 120 0.2438	1T	5.0 0.0 0.0	9.000 5.000 14.000	10.421 3.898 3.413	Vel = 10.42
5 to 4	0.0 28.08	1.049 120 0.2438	1E	2.0 0.0 0.0	14.330 2.000 16.330	17.732 0.0 3.982	Vel = 10.42
4 to 3	0.0 28.08	1.38 120 0.0641	1E	3.0 0.0 0.0	39.916 3.000 42.916	21.714 0.0 2.752	Vel = 6.02
3 to 2	0.0 28.08	1.38 120 0.0641	1E	3.0 0.0 0.0	20.083 3.000 23.083	24.466 2.815 1.480	Vel = 6.02
2 to 1	0.0 28.08	1.38 120 0.0642	1E 1Zaa	3.0 0.0 0.0	6.500 3.000 9.500	28.761 4.533 0.610	* Fixed loss = 4.533 Vel = 6.02
1 to TEST	0.0 28.08	0.921 150 0.3041		0.0 0.0 0.0	60.000 0.0 60.000	33.904 8.166 18.245	* Fixed loss = 6 Vel = 13.52
	0.0 28.08					60.315	K Factor = 3.62