

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND

BUILDING PERMIT

This is to certify that
FREEDOM FIRE PROTECTION
209 QUAKER RIDGE RD
CASCO, ME 04015

For installation at
457 ISLAND AVE
SINGLE-FAMILY HOME

Job ID: 2012-03-3465-FAFS

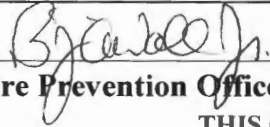
CBL: 090- P-004-001

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 Statutes 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

 (58)
Fire Prevention Officer

Code Enforcement 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.**

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.



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: 2012-03-3465-FAFS
install NFPA 13D sprinkler system

For installation at:
457 ISLAND AVE
SINGLE-FAMILY HOME

CBL: 090- P-004-001

Conditions of Approval:

Fire

The sprinkler system shall be installed in accordance with NFPA 13D. A compliance letter is required.

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.

Application requires State Fire Marshal approval.

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2012-03-3465-FAFS	Date Applied: 3/7/2012	CBL: 090- P-004-001	
Location of Construction: 457 ISLAND AVE., PEAKS ISLAND	Owner Name: KATHIE & TERRY SMITH	Owner Address: 201 WEST CLARK STREET, OXFORD, GA 30054	Phone:
Business Name:	Contractor Name: FREEDOM FIRE PROTECTION	Contractor Address: 209 QUAKER RIDGE RD CASCO MAINE 04015	Phone: 671-8639
Lessee/Buyer's Name:	Phone:	Permit Type: Fire Sprinkler	Zone: IR-2
Past Use: Single Family Dwelling	Proposed Use: Same: Single Family Dwelling -to install residential fire suppression system	Cost of Work: \$4,000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A Signature: <i>Bjork</i>	Inspection: Use Group: Type: Signature:
Proposed Project Description: Residential NFPA 13D		Pedestrian Activities District (P.A.D.)	

Permit Taken By: Brad	Zoning Approval		
<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 informatin may invalidate a building permit and stop all work.</p>	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetlands <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <input type="checkbox"/> Maj <input type="checkbox"/> Min <input type="checkbox"/> MM Date: <i>OK 3/8/12</i>	Zoning Appeal <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:	Historic Preservation <input checked="" type="checkbox"/> Not in Dist 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>S</i>
	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 appication 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

Entered 3/8/12 (Signature)



Water-Based Fire Suppression System 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.

IR-2

Installation address: 457 Island Ave. P.F. CBL: 2012-03-3465-FAPS
090 POOY

Exact location: (within structure) First & Second Floors

Type of occupancy(s) (NFPA & ICC): Residual NFPA 13D

Building owner: Kathie & Terry Smith

Managing Supervisor (RMS): Tim Vess License No: 348

Supervisor phone: 207/627-4109 E-mail: wwales@maine.rr.com

Installing contractor: Freedom Fire protection License No: 295

Contractor phone: 207671-8639 E-mail: wwales@maine.rr.com

The suppression work to be done will be: New: Renovation: Addition to existing system:

This is an amendment to an existing permit: Yes: NO: Permit no: _____

NFPA Standard this system is designed to: NFPA 13D Edition: 2010

*Non-NFPA systems are not approved for use within the City of Portland.

Download a new copy of this document from www.portlandmaine.gov/fire for every submittal. Attach all working documents and complete approved submittals as may be required by the State Fire Marshal's Office on electronic PDF's in addition to full sized plans.

Contractor shall verify location and type of all FDCs shall be approved in writing by the Fire Prevention Bureau.

COST OF WORK: \$3,360.00
PERMIT FEE: N/A
 (\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

(Signature)

Submit all information to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

Prior to acceptance of any fire protection system, a complete commissioning and acceptance test must be coordinated with all fire system contractors and the Fire Department, and proper documentation of such test(s) provided.

All installation(s) must comply with NFPA and the Fire Department Technical Standard(s).

RECEIVED
MAR 07 2012
Dept. of Building Inspections

Applicant signature: Walter Wale Date: March 06, 2012

Brad Saucier - NFPA 13D system question

From: Brad Saucier
To: Benjamin Wallace; Tiffany Bates
Date: 3/7/2012 11:34 AM
Subject: NFPA 13D system question
CC: Gayle Guertin; Lannie Dobson; Tammy Munson

RE: 457 Island ave permit came in for a new water-based fire suppression; Freedom Fire Protection stated there was no fee for this? Could I get some clarification?

Brad Saucier
Administrative Assistant
Inspections Division
City of Portland
(207) 874-8703

Freedom Fire Protection, Inc.

Over 30 Years of Fire Protection Experience

209 Quaker Ridge Rd. Casco, Maine 04015

Phone 207/627-4109 Fax 207/627-7340

March 07, 2012

Portland City Hall
Third Floor Room 315
Portland, Maine 04101

Attn: Lt. Benjamin Wallace Jr.

Ref: Kathie & Terry Smith
457 Island Ave.
Peaks Island, Maine

Subj: Fire Sprinkler Permit Review

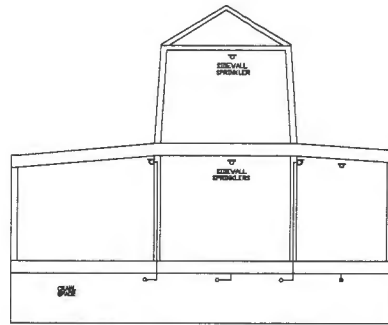
Lt. Wallace,

Enclosed please find for your review and comment the following sprinkler information.

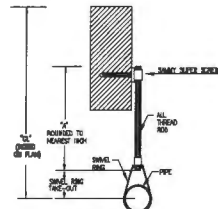
- Fire Suppression System Permit
- Full Size FFP Drawings FP-1
- 1 set of 8-1/2 x 11 PDF sprinkler plans.
- Hydraulic Calculations Area # 1
- CD-R disc with Drawing, Calculation Files

Regards,

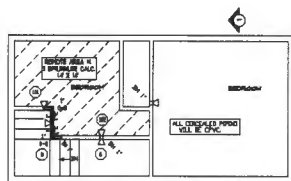
William W. Wales



SECTION VIEW
SCALE 1/8" = 1'-0"

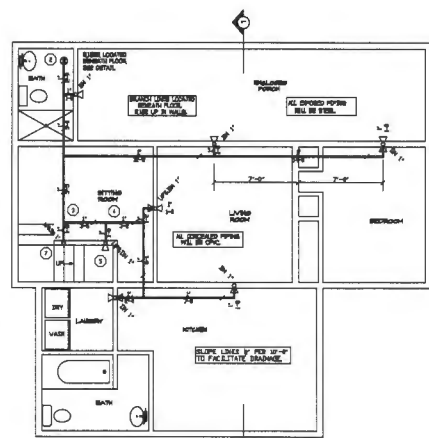


TYPE #10 HANGER
TO SCALE

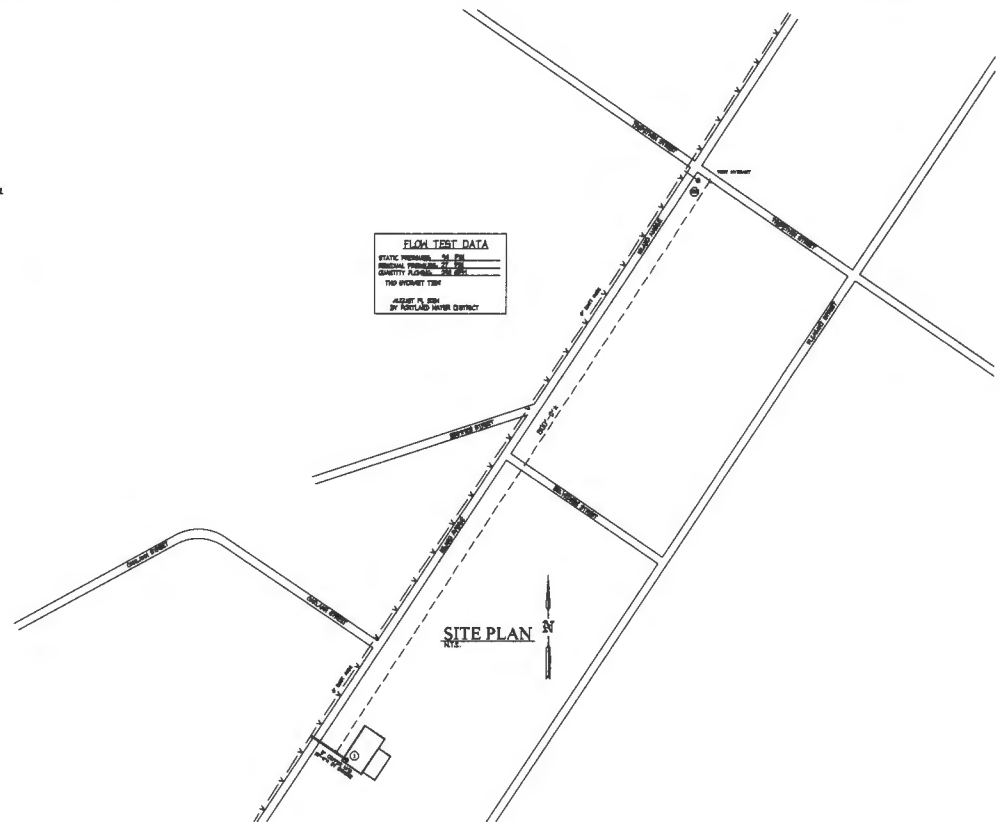


SECOND FLOOR FIRE PROTECTION
SCALE 1/8" = 1'-0"

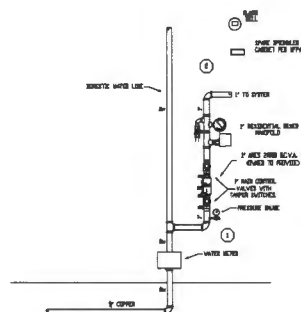
HYDRAULIC DESIGN	
SYSTEM	MAX. ALLOW.
TYPE #10	5 SPRINKLERS
PIPE SIZE	1 1/2" O.D.
PIPE WALL	3/16" O.D.
PIPE ALLENANCE	N/A
SPRINK. TYPE	DR. SPR.
SPR. K. FACTOR	5.6
K. FACTOR	5.6 K. F. 20



GROUND FLOOR FIRE PROTECTION
SCALE 1/8" = 1'-0"



SITE PLAN
SCALE 1/8" = 1'-0"



FIRE SPRINKLER RISER DETAIL
SCALE 1/4" = 1'-0"

FLOW TEST DATA	
STATIC PRESSURE	58.0 PSIG
RESIDUAL PRESSURE	57.0 PSIG
QUANTITY ALIGNED	28.1 GPM
TRIP POINT TEST	N/A

GENERAL NOTES

SYSTEM TO BE RECEIVED AND INSTALLED IN ACCORDANCE WITH NFPA-13A 2003. PIPE AND FITTINGS TO BE CONFORMANT OF BLACK IRON, SIZE 40 TYPE AND APPROVED BLACKWATER PLASTIC O.P.C. DESIGNER AND APPROVED TO BE USED WITH THIS STANDARD. ALL WARE TO BE SPACED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. THE SPECIES OF RESIDENTIAL SPRINKLER TO BE INSTALLED SHALL BE AS SPECIFIED BY OTHERS. SOME SPRINKLERS OF EACH TYPE SHALL BE PROVIDED PER NFPA 13A. SPRINKLERS MAY BE OMITTED FROM THE FOLLOWING:

- 1) BREAKERS WHERE THE AREA DOES NOT EXCEED 30 SQ. FT. AND THE WALLS AND CEILING, INCLUDING READING FIXTURES, ARE OF NON COMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIALS PROVIDING A 13 MINUTE THERMAL BARRIER.
- 2) CLOTHES CLOSET, LINEN CLOSET, AND PARTICES WITHIN THE DWELLING UNITS WHERE THE AREA OF THE SPACE DOES NOT EXCEED 24 SQ. FT. AND THE LEAF DIMENSION DOES NOT EXCEED 3 FT. AND THE WALLS AND CEILING ARE SURFACES WITH NON COMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIALS AS DEFINED BY NFPA.
- 3) ANY PORCHES, BALCONIES, CORRIDORS, AND STAIRS THAT ARE OPEN AND UNATTACHED.
- 4) ATTIC, MECHANICAL EQUIPMENT ROOMS, DRIVE, SPACES, FLOORING SPACES, ELEVATOR SHIFTS, AND OTHER CONCEALED SPACES THAT ARE NOT USED OR INTENDED FOR LIVING PURPOSES OR STORAGE.

MAINTENANCE OF THE SPRINKLER SYSTEM IS THE RESPONSIBILITY OF THE OWNER. PROTECTION OF THE SPRINKLER SYSTEM AGAINST FREEZING IS THE RESPONSIBILITY OF THE OWNER.

REVISIONS	NOTES	SPRINKLER TYPE	IDENTIFICATION NO.	K.F.	DISC.	MODEL	FINISH	CORNER	TEMP.	SYMBOL	QTY	STANDARD SYMBOLS	STANDARD SYMBOLS	INSPECTIONS
		DR. SPR. RESIDENTIAL IN-42	T1333H	TYPE	8. PRK/2	LFS	WHITE	LVT	133°	OC2	13	OC2	OC2	
TOTAL SPRINKLERS THIS DESIGN														

457 ISLAND AVENUE PEAKS ISLAND PORTLAND, MAINE 04108				JOB No.	30006
FREEDOM FIRE PROTECTION, INC. 209 QUAKER RIDGE ROAD CASCO, MAINE 04015				DATE	3/5/12
FIRE PROTECTION PLAN				DRAWN BY	JLM
SHEET No.				SCALE	AS NOTED
RESPONSIBLE MANAGING SUPERVISOR AND CONTRACTOR LICENSE NOS.				FP-10f1	



... Fire Protection by Computer Design

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

Job Name : 457 ISLAND AVENUE
Building : 457 ISLAND AVENUE, PEAKS ISLAND
Location : PORTLAND, MAINE 04108
System : #1 AREA #1
Contract :
Data File : 457 ISLAND AVENUE HC.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - 457 ISLAND AVENUE Date - 3/6/12
Location - PORTLAND, MAINE 04108
Building - 457 ISLAND AVENUE, PEAKS ISLAND System No. - #1 AREA #1
Contractor - FREEDOM FIRE PROTECTION Contract No. -
Calculated By - MICHAEL NOBLIT Drawing No. - FP-1
Construction: (X) Combustible () Non-Combustible Ceiling Height 8'-0"
OCCUPANCY - HOME

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 - 11.1 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 - 22'-0"Feet Size 1/2" K-Factor 4.2
G Note: Temperature Rating 155
N

Calculation Gpm Required 28.053 Psi Required 60.601 At Test
Summary C-Factor Used: Overhead 150 Underground 140

W Water Flow Test: Pump Data: Tank or Reservoir:
A Date of Test - 8/19/2004 Rated Cap. Cap.
T Time of Test - @ Psi Elev.
E Static (Psi) - 94 Elev.
R Residual (Psi) - 27 Other Well
Flow (Gpm) - 290 Proof Flow Gpm
S Elevation -

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

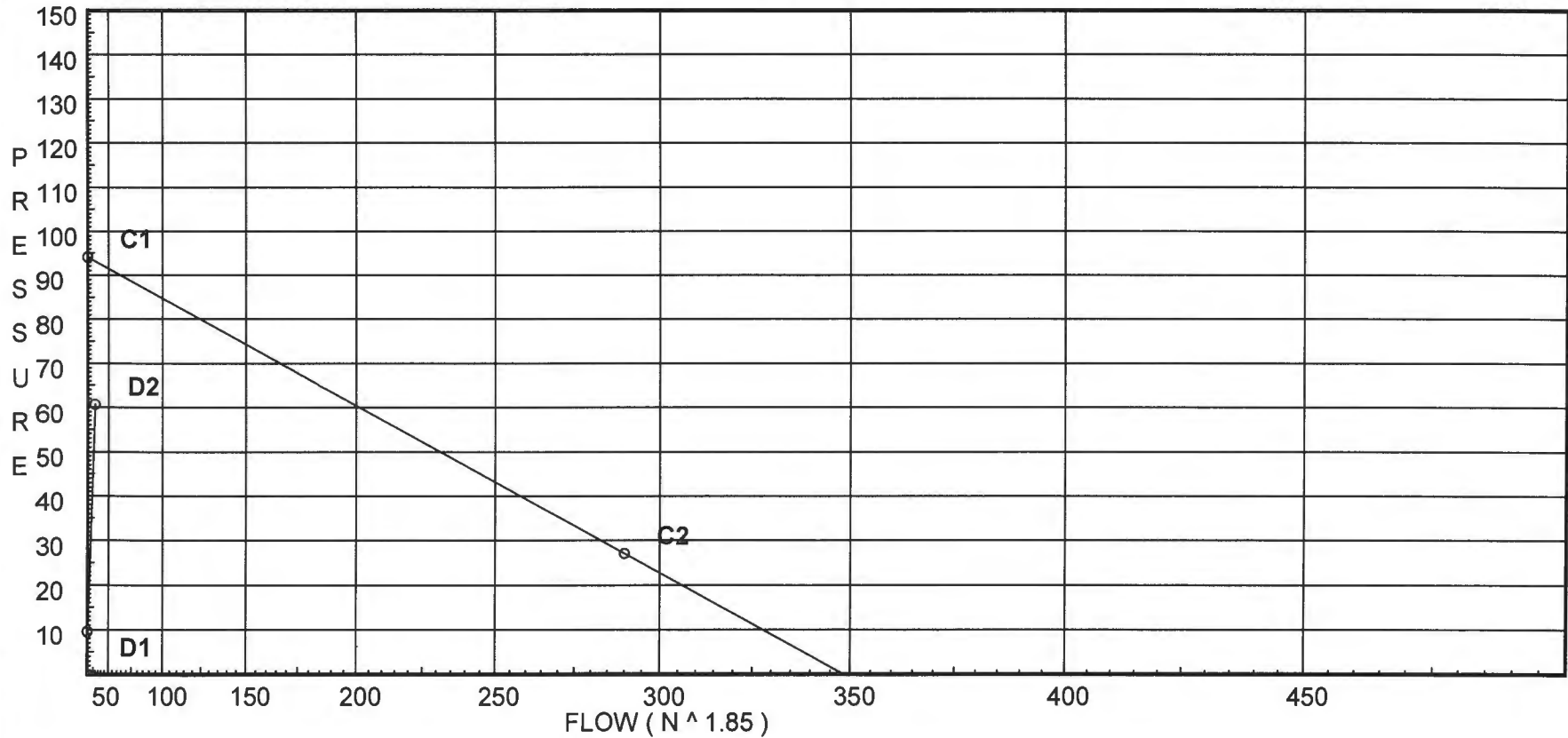
Water Supply Curve (C)

FREEDOM FIRE PROTECTION INC.
457 ISLAND AVENUE

Page 2
Date 3/6/12

City Water Supply:
C1 - Static Pressure : 94
C2 - Residual Pressure: 27
C2 - Residual Flow : 290

Demand:
D1 - Elevation : 9.528
D2 - System Flow : 28.0535
D2 - System Pressure : 60.601
Hose (Adj City) : _____
Hose (Demand) : _____
D3 - System Demand : 28.0535
Safety Margin : 32.509



Fittings Used Summary

FREEDOM FIRE PROTECTION INC.
457 ISLAND AVENUE

Page 3
Date 3/6/12

Fitting Legend																					
Abbrev.	Name	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
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.
457 ISLAND AVENUE

Page 4
Date 3/6/12

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
101	22.0	4.2	11.21	na	14.06	0.05	0.001	11.1
8	22.0		11.88	na				
7	4.0		20.45	na				
102	22.0	4.2	11.1	na	13.99	0.05	0.001	11.1
6	22.0		11.45	na				
5	4.0		20.22	na				
4	4.0		20.67	na				
3	4.0		20.9	na				
2	4.0		24.59	na				
1	0.0		31.05	na				
0	0.0		57.57	na				
TEST	0.0		60.6	na				

The maximum velocity is 20.64 and it occurs in the pipe between nodes 1 and 0

Final Calculations - Hazen-Williams

FREEDOM FIRE PROTECTION INC.
457 ISLAND AVENUE

Page 5
Date 3/6/12

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	14.06	1.101	4E 15.3	3.660	11.207		K Factor = 4.20
to		150	0.0	15.301	0.0		
8	14.06	0.0355	0.0	18.961	0.673		Vel = 4.74
8	0.0	1.101	1E 3.825	18.000	11.880		
to		150	0.0	3.825	7.796		
7	14.06	0.0354	0.0	21.825	0.773		Vel = 4.74
7	0.0	1.049	1T 5.0	1.660	20.449		
to		120	0.0	5.000	0.0		
3	14.06	0.0679	0.0	6.660	0.452		Vel = 5.22
	0.0						
	14.06				20.901		K Factor = 3.08
102	13.99	1.101	1T 9.563	0.500	11.100		K Factor = 4.20
to		150	0.0	9.562	0.0		
6	13.99	0.0352	0.0	10.062	0.354		Vel = 4.71
6	0.0	1.101	1T 9.563	18.000	11.454		
to		150	0.0	9.562	7.796		
5	13.99	0.0351	0.0	27.562	0.968		Vel = 4.71
5	0.0	1.049	1T 5.0	1.660	20.218		
to		120	0.0	5.000	0.0		
4	13.99	0.0673	0.0	6.660	0.448		Vel = 5.19
4	0.0	1.049	0.0	3.500	20.666		
to		120	0.0	0.0	0.0		
3	13.99	0.0671	0.0	3.500	0.235		Vel = 5.19
3	14.06	1.049	1E 2.0	13.166	20.901		
to		120	0.0	2.000	0.0		
2	28.05	0.2434	0.0	15.166	3.691		Vel = 10.41
2	0.0	1.049	1Zaa 0.0	3.000	24.592		
to		120	0.0	0.0	5.732		* Fixed loss = 4
1	28.05	0.2433	0.0	3.000	0.730		Vel = 10.41
1	0.0	0.745	1T 3.7	15.000	31.054		
to		150	1E 1.85	5.550	9.000		* Fixed loss = 9
0	28.05	0.8526	0.0	20.550	17.521		Vel = 20.64
0	0.0	6.16	0.0	800.000	57.575		
to		140	0.0	0.0	3.000		* Fixed loss = 3
TEST	28.05	0.0	0.0	800.000	0.026		Vel = 0.30
	0.0						
	28.05				60.601		K Factor = 3.60



CITY OF PORTLAND, MAINE

Department of Building Inspections

Original Receipt

3/7 / 2012

Received from Freedom Fire

Location of Work 457 Island Ave

Cost of Construction \$ _____ Building Fee: _____

Permit Fee \$ _____ Site Fee: _____

Certificate of Occupancy Fee: _____

Res MFA 13D
~~NO charge??~~ Total: _____

Building (I1) _____ Plumbing (I5) _____ Electrical (I2) _____ Site Plan (U2) _____

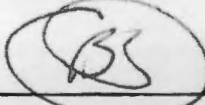
Other Water Based Fire

CBL: _____

?

Check #: _____ Total Collected \$ _____

**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