

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

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

Job No: 2012-05-3891-SF 2012-43575-FSS	Date Applied: 5/1/2012	CBL: 371- A-031-001	
Location of Construction: 20 BALLPARK DR	Owner Name: RISBARA BROS. CONSTRUCTION	Owner Address: PO BOX 485  SCARBOROUGH, ME 04070	Phone:
Business Name:	Contractor Name: Freedom Fire Protection	Contractor Address: 209 Quaker Ridge Rd., Casco, ME 04015	Phone:  (207) -627-4109
Lessee/Buyer's Name: Rick Holden	Phone:	Permit Type: FSS-Fire Supression System	Zone:  R-2
Past Use:  New single family	Proposed Use:  Same – new single family – install a fire suppression system	Cost of Work: 8000.00	CEO District:
		Fire Dept: 5/28/12 <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: Type:
		Signature: <i>[Signature]</i> (58)	Signature:
Proposed Project Description: Fire Suppression System		Pedestrian Activities District (P.A.D.)	

Permit Taken By:	<b>Zoning Approval</b>		
<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>	<b>Special Zone or Reviews</b> <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: OK 5/10/12 <i>APM</i>	<b>Zoning Appeal</b> <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:	<b>Historic Preservation</b> <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>ABM</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 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

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  
20 BALLPARK DR  
SINGLE-FAMILY HOME

Job ID: 2012-05-3891-SF

CBL: 371- A-031-001

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

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

SCANNED

## BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (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.**

### **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](http://www.portlandmaine.gov)

Director of Planning and Urban Development  
Penny St. Louis

**Job ID: 2012-05-3891-SF**  
**install NFPA 13D sprinkler system**

**For installation at:**  
**20 BALLPARK DR**  
**SINGLE-FAMILY HOME**

**CBL: 371- A-031-001**

## **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.

Entered 5/4/12 (35)

Parent 2012 - 05 - 3891 SF  
**One- or Two-family Fire Sprinkler Permit**

Child 202-43575

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: 20 BALL PARK LANE

Building owner: RICK HOLDEN Phone: 207-751-4018

Installer: FREEDOM FIRE PROTECTION Phone: 207-627-4109

Total sq/ft of building floor space per unit: 4000  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=** \_\_\_\_\_

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

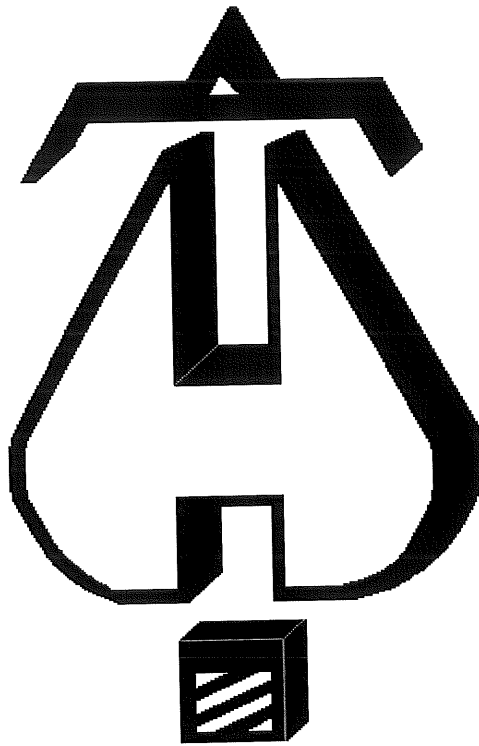
~~RECEIVED~~  
~~APR 27 2012~~  
~~Dept. of Building Inspections~~  
~~City of Portland Maine~~

COST OF WORK: 7,237.00  
(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).

RECEIVED  
MAY 04 2012  
Dept. of Building Inspections  
City of Portland Maine

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 : RICK HOLDEN RESIDENCE HC1  
Building : 20 BALLPARK LANE  
Location : PORTLAND, MAINE 04103  
System : #1 AREA #1  
Contract :  
Data File : Rick Holden Residence HC1.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - RICK HOLDEN RESIDENCE Date - 4/20/12  
 Location - PORTLAND, MAINE 04103  
 Building - 20 BALLPARK LANE 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'-3"  
 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 - 25'-7"Feet Size 1/2" K-Factor 4.4  
 G Note: Temperature Rating 155  
 N

Calculation Gpm Required 28.197 Psi Required 57.879 At Test  
 Summary C-Factor Used: Overhead 150 Underground 150

W Water Flow Test: Pump Data: Tank or Reservoir:  
 A Date of Test - 1/24/2012 Rated Cap. Cap.  
 T Time of Test - @ Psi Elev.  
 E Static (Psi) - 63 Elev.  
 R Residual (Psi) - 0 Other Well  
 Flow (Gpm) - 838 Proof Flow Gpm  
 S Elevation -

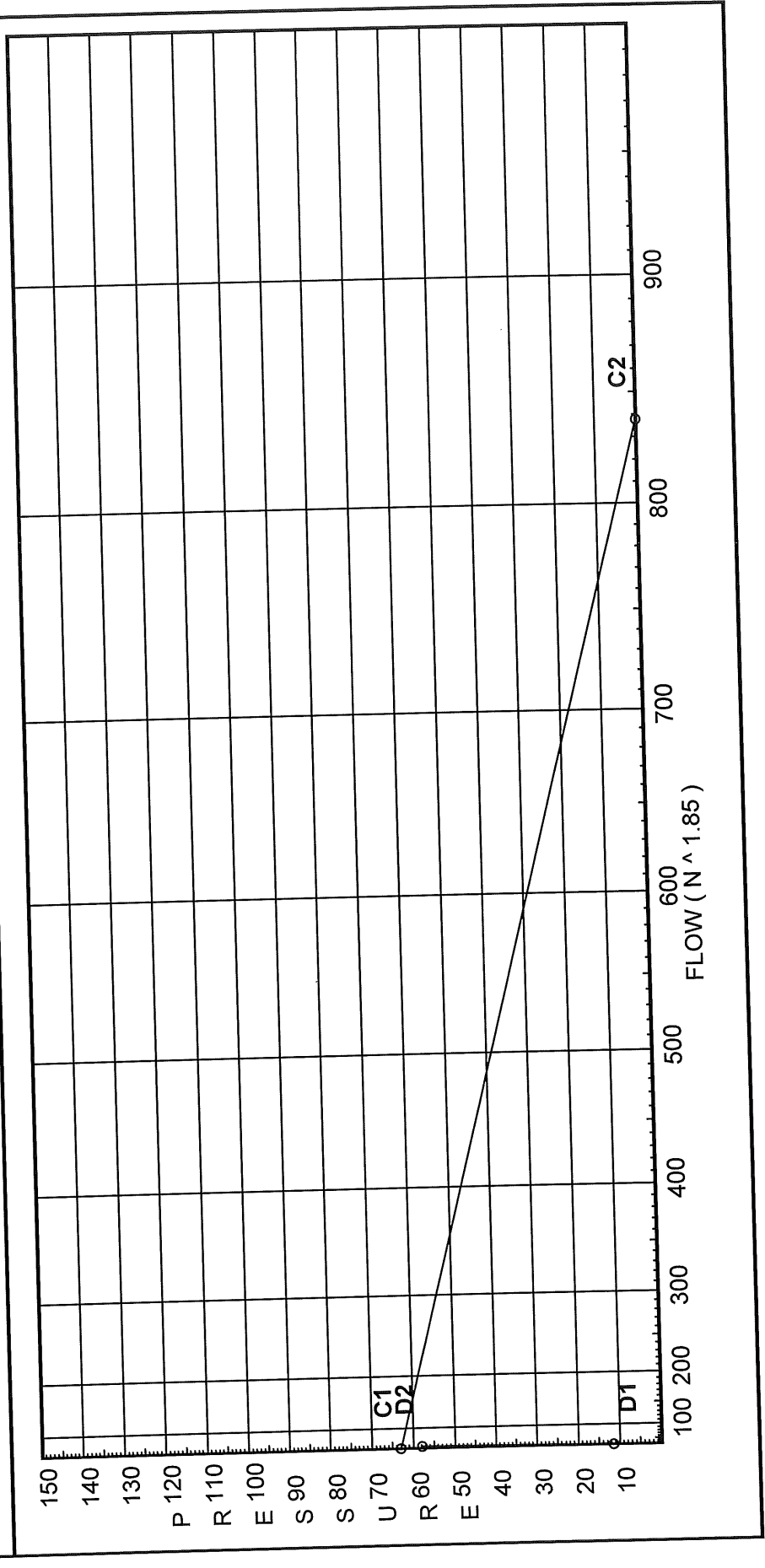
P Location:  
 P  
 L Source of Information: PORTLAND WATER DISTRICT  
 Y

Water Supply Curve (C)

FREEDOM FIRE PROTECTION INC.  
RICK HOLDEN RESIDENCE HC1

City Water Supply:  
 C1 - Static Pressure : 63  
 C2 - Residual Pressure: 0  
 C2 - Residual Flow : 838

Demand:  
 D1 - Elevation : 11.423  
 D2 - System Flow : 28.1969  
 D2 - System Pressure : 57.879  
 Hose (Adj City)  
 Hose (Demand)  
 D3 - System Demand : 28.1969  
 Safety Margin : 5.003





Fittings Used Summary

FREEDOM FIRE PROTECTION INC.  
 RICK HOLDEN RESIDENCE HC1

Fitting Legend Abbrev. Name	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
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.  
 RICK HOLDEN RESIDENCE HC1

Page 4  
 Date 4/20/12

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
101	26.375	4.4	10.1	na	13.98	0.05	0.001	10.1
102	26.375	4.4	10.44	na	14.21	0.05	0.001	10.1
9	26.375		10.45	na				
8	18.292		15.48	na				
7	18.292		18.94	na				
6	18.292		22.35	na				
5	18.292		22.9	na				
4	7.166		30.39	na				
3	7.166		33.91	na				
2	7.166		39.31	na				
1	0.0		47.35	na				
0	0.0		57.88	na				
TEST	0.0		57.88	na				

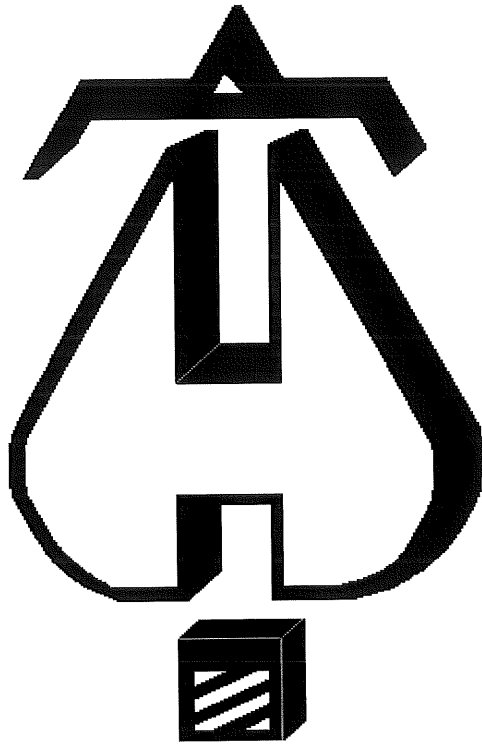
The maximum velocity is 10.47 and it occurs in the pipe between nodes 4 and 3

Final Calculations - Hazen-Williams

FREEDOM FIRE PROTECTION INC.  
RICK HOLDEN RESIDENCE HC1

Page 5  
Date 4/20/12

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	13.98	1.101	1T	9.563	0.500	10.100		K Factor = 4.40	
to		150		0.0	9.562	0.0			
9	13.98	0.0351		0.0	10.062	0.353		Vel = 4.71	
	0.0								
	13.98					10.453		K Factor = 4.32	
102	14.21	1.101		0.0	0.500	10.435		K Factor = 4.40	
to		150		0.0	0.0	0.0			
9	14.21	0.0360		0.0	0.500	0.018		Vel = 4.79	
9	13.99	1.101	1E	3.825	8.083	10.453			
to		150		0.0	3.825	3.501			
8	28.2	0.1285		0.0	11.908	1.530		Vel = 9.50	
8	0.0	1.101	1E	3.825	13.500	15.484			
to		150	1T	9.563	13.387	0.0			
7	28.2	0.1284		0.0	26.887	3.453		Vel = 9.50	
7	0.0	1.101	1T	9.563	17.000	18.937			
to		150		0.0	9.562	0.0			
6	28.2	0.1285		0.0	26.562	3.412		Vel = 9.50	
6	0.0	1.101	1E	3.825	0.500	22.349			
to		150		0.0	3.825	0.0			
5	28.2	0.1286		0.0	4.325	0.556		Vel = 9.50	
5	0.0	1.101	1T	9.563	11.166	22.905			
to		150		0.0	9.562	4.819			
4	28.2	0.1284		0.0	20.728	2.662		Vel = 9.50	
4	0.0	1.049	1T	5.0	9.330	30.386			
to		120		0.0	5.000	0.0			
3	28.2	0.2456		0.0	14.330	3.520		Vel = 10.47	
3	0.0	1.049	1E	2.0	20.000	33.906			
to		120		0.0	2.000	0.0			
2	28.2	0.2457		0.0	22.000	5.405		Vel = 10.47	
2	0.0	1.38	1Zaa	0.0	6.166	39.311			
to		120		0.0	0.0	7.637		* Fixed loss = 4.533	
1	28.2	0.0645		0.0	6.166	0.398		Vel = 6.05	
1	0.0	1.329	1E	2.375	120.000	47.346			
to		150	1T	4.75	7.125	4.000		* Fixed loss = 4	
0	28.2	0.0514		0.0	127.125	6.530		Vel = 6.52	
0	0.0	8.27	1T	55.354	250.000	57.876			
to		140		0.0	55.354	0.0			
TEST	28.2	0.0		0.0	305.354	0.003		Vel = 0.17	
	0.0								
	28.20					57.879		K Factor = 3.71	



... Fire Protection by Computer Design

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

Job Name : RICK HOLDEN RESIDENCE HC2  
Building : 20 BALLPARK LANE  
Location : PORTLAND, MAINE 04103  
System : #1 AREA #2  
Contract :  
Data File : Rick Holden Residence HC2.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - RICK HOLDEN RESIDENCE Date - 4/20/12  
Location - PORTLAND, MAINE 04103  
Building - 20 BALLPARK LANE System No. - #1 AREA #2  
Contractor - FREEDOM FIRE PROTECTION Contract No. -  
Calculated By - MICHAEL NOBLIT Drawing No. - FP-2  
Construction: (X) Combustible ( ) Non-Combustible Ceiling Height 7'-7"  
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 - 17 Gpm System Type  
Listed Pres. at Start Point - 12 Psi (X) Wet ( ) Dry  
D MAXIMUM LISTED SPACING 18 x 18 ( ) 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 - 7'-2"Feet Size 1/2" K-Factor 4.9  
G Note: Temperature Rating 155  
N

Calculation Gpm Required 34.745 Psi Required 58.157 At Test  
Summary C-Factor Used: Overhead 120 Underground 150

W Water Flow Test: Pump Data: Tank or Reservoir:  
A Date of Test - 1/24/2012 Rated Cap. Cap.  
T Time of Test - @ Psi Elev.  
E Static (Psi) - 63 Elev.  
R Residual (Psi) - 0 Other Well  
Flow (Gpm) - 838 Proof Flow Gpm  
S Elevation -

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

Water Supply Curve (C)

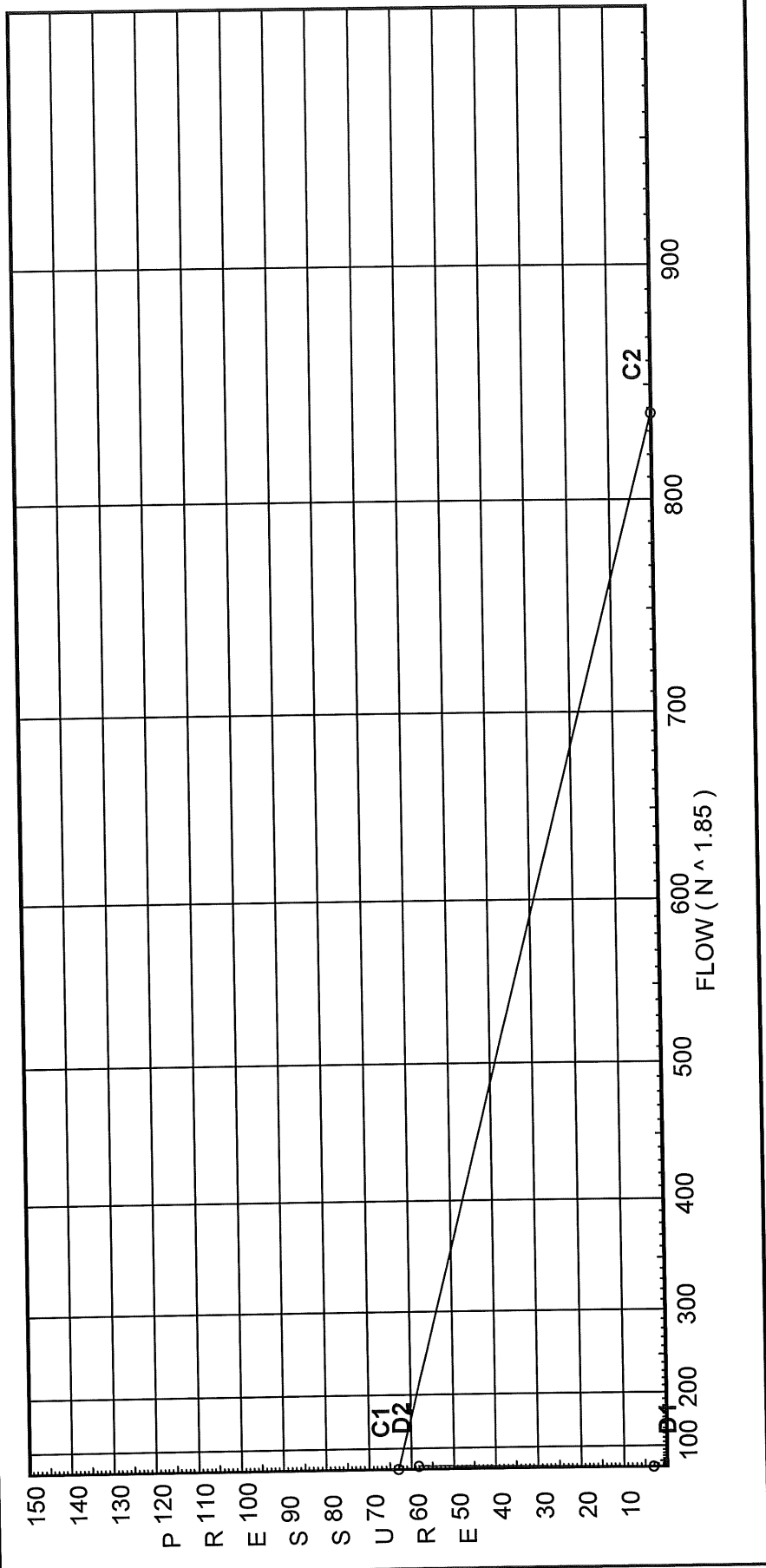
FREEDOM FIRE PROTECTION INC.  
 RICK HOLDEN RESIDENCE HC2

Demand:

D1 - Elevation	: 3.104
D2 - System Flow	: 34.7448
D2 - System Pressure	: 58.157
Hose (Adj City)	
Hose (Demand)	: 34.7448
D3 - System Demand	: 4.668
Safety Margin	

City Water Supply:

C1 - Static Pressure	: 63
C2 - Residual Pressure	: 0
C2 - Residual Flow	: 838



Fittings Used Summary

FREEDOM FIRE PROTECTION INC.  
 RICK HOLDEN RESIDENCE HC2

Fitting Legend Abbrev. Name	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
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.  
 RICK HOLDEN RESIDENCE HC2

Page 4  
 Date 4/20/12

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
202	7.166	4.9	12.0	na	16.97	0.05	0.001	12.0
201	7.166	4.9	13.15	na	17.77	0.05	0.001	12.0
10	7.166		18.27	na				
4	7.166		23.03	na				
3	7.166		28.21	na				
2	7.166		36.17	na				
1	0.0		44.54	na				
0	0.0		58.15	na				
TEST	0.0		58.16	na				

The maximum velocity is 12.9 and it occurs in the pipe between nodes 201 and 10



Final Calculations - Hazen-Williams

FREEDOM FIRE PROTECTION INC.  
 RICK HOLDEN RESIDENCE HC2

Page 5  
 Date 4/20/12

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
202 to 201	16.97	1.049 120	1E 2.0 0.0	10.000 2.000	12.000 0.0		K Factor = 4.90
201 to 10	16.97	0.0961	0.0	12.000	1.153		Vel = 6.30
201 to 10	17.77	1.049 120	1T 5.0 0.0	9.166 5.000	13.153 0.0		K Factor = 4.90
10 to 4	34.74	0.3615	0.0	14.166	5.121		Vel = 12.90
10 to 4	0.0	1.049 120	0.0 0.0	13.166 0.0	18.274 0.0		
4 to 3	34.74	0.3615	0.0	13.166	4.760		Vel = 12.90
4 to 3	0.0	1.049 120	1T 5.0 0.0	9.330 5.000	23.034 0.0		
3 to 2	34.74	0.3615	0.0	14.330	5.180		Vel = 12.90
3 to 2	0.0	1.049 120	1E 2.0 0.0	20.000 2.000	28.214 0.0		
2 to 1	34.74	0.3615	0.0	22.000	7.953		Vel = 12.90
2 to 1	0.0	1.38 120	1Zaa 0.0 0.0	6.166 0.0	36.167 7.791		* Fixed loss = 4.688
1 to 0	34.74	0.0952	0.0	6.166	0.587		Vel = 7.45
1 to 0	0.0	1.329 150	1E 2.375 1T 4.75	120.000 7.125	44.545 4.000		* Fixed loss = 4
0 to TEST	34.74	0.0756	0.0	127.125	9.609		Vel = 8.03
0 to TEST	0.0	8.27 140	1T 55.354 0.0	250.000 55.354	58.154 0.0		
TEST	34.74	0.0	0.0	305.354	0.003		Vel = 0.21
	0.0						
	34.74				58.157		K Factor = 4.56



*State of Maine*  
*Department of Public Safety*  
**Fire Sprinkler System Permit**



# **9985**

**RICK HOLDEN RESIDENCE**

Located at: 20 BALLPARK LANE  
 In the Town of: Portland  
 Occupancy/Use: HOME  
 Type of System: NFPA 13D

Permission is hereby given to:

**Freedom Fire Protection, Inc.**  
 209 Quaker Ridge Road  
 Casco, ME 04015  
 Contractor License # 295

to begin installation according to plans submittal approved by the Office of State Fire Marshal.  
 The submittal is filed under log # **2121173** , and no departure from the application submittal shall be made without prior approval in writing. This permit is issued under the provisions of Title 32, Chapter 20, Section 12004-I. Nothing herein shall excuse the holder of this permit from failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions. This permit shall be displayed at the construction site or be made readily available.

This permit was issued on **5/1/2012** for a fee paid of **\$25.00**

*This permit will expire at midnight on **Sunday, October 28, 2012***

The expiration date applies only if the installation has not begun by that date and no permission has been granted to extend the date. Once installation begins, then the permit is valid for however long it takes to complete the installation, assuming that the work is fairly continuous.

John E. Morris  
 Commissioner

*The type of Fire Department Connection and its location is to be according to the Local Fire Department*

Within 30 days of the completion of a new fire sprinkler system or an addition to an existing fire sprinkler system, a fire sprinkler system contractor shall provide to the Office of State Fire Marshal a copy of this permit signed and dated by the certified Responsible Managing Supervisor representing that the fire sprinkler system has been installed according to specifications of the approved plan to the best of the supervisor's knowledge, information, and belief. This requirement is part of the sprinkler law, and neglect of this duty is grounds to not renew the contractor's license to do work in the State of Maine. All renewed sprinkler licenses are good for two years and expire on a June 30th.

Job completed, tested and verified by date of \_\_\_\_\_

RMS for this job: Vess Timothy L.

RMS Signature: \_\_\_\_\_