

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

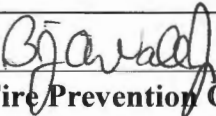
CBL: 371- A-031-001

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

58

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD



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: 2012-05-3891-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.

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> (SB) | Signature: |
| Proposed Project Description: Fire Suppression System | | Pedestrian Activities District (P.A.D.) | |
| Permit Taken By: | Zoning Approval | | |

| | Special Zone or Reviews | Zoning Appeal | Historic Preservation |
|--|--|---|---|
| 1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building Permits do not include plumbing, septic or electrical work. 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. | <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>AM</i> | <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: | <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>ABU</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 5/4/12 (135)

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 / Sprinkler piping uses Pex? Y /

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.

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.

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



... 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

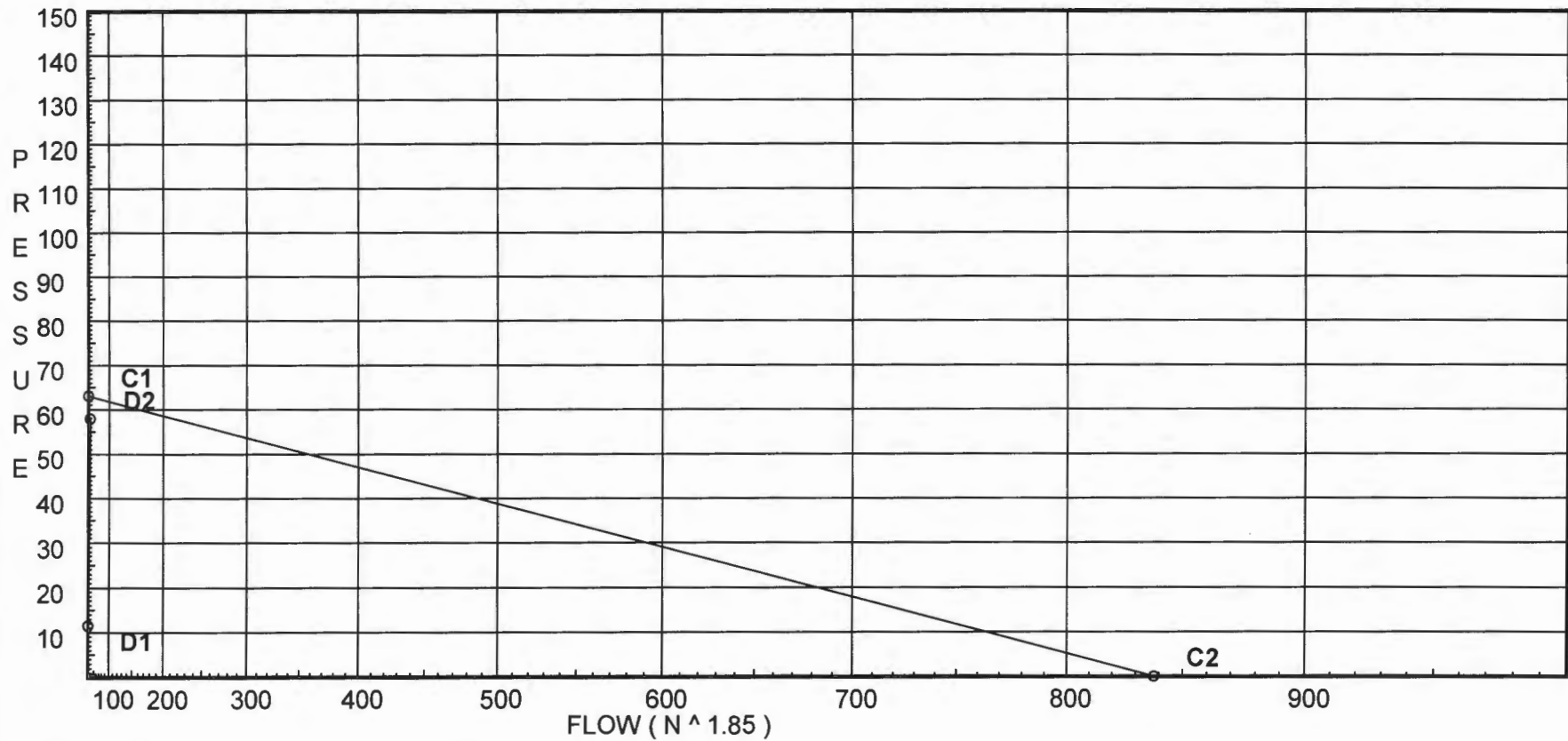
Water Supply Curve (C)

FREEDOM FIRE PROTECTION INC.
RICK HOLDEN RESIDENCE HC1

Page 2
Date 4/20/12

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

Page 3
 Date 4/20/12

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

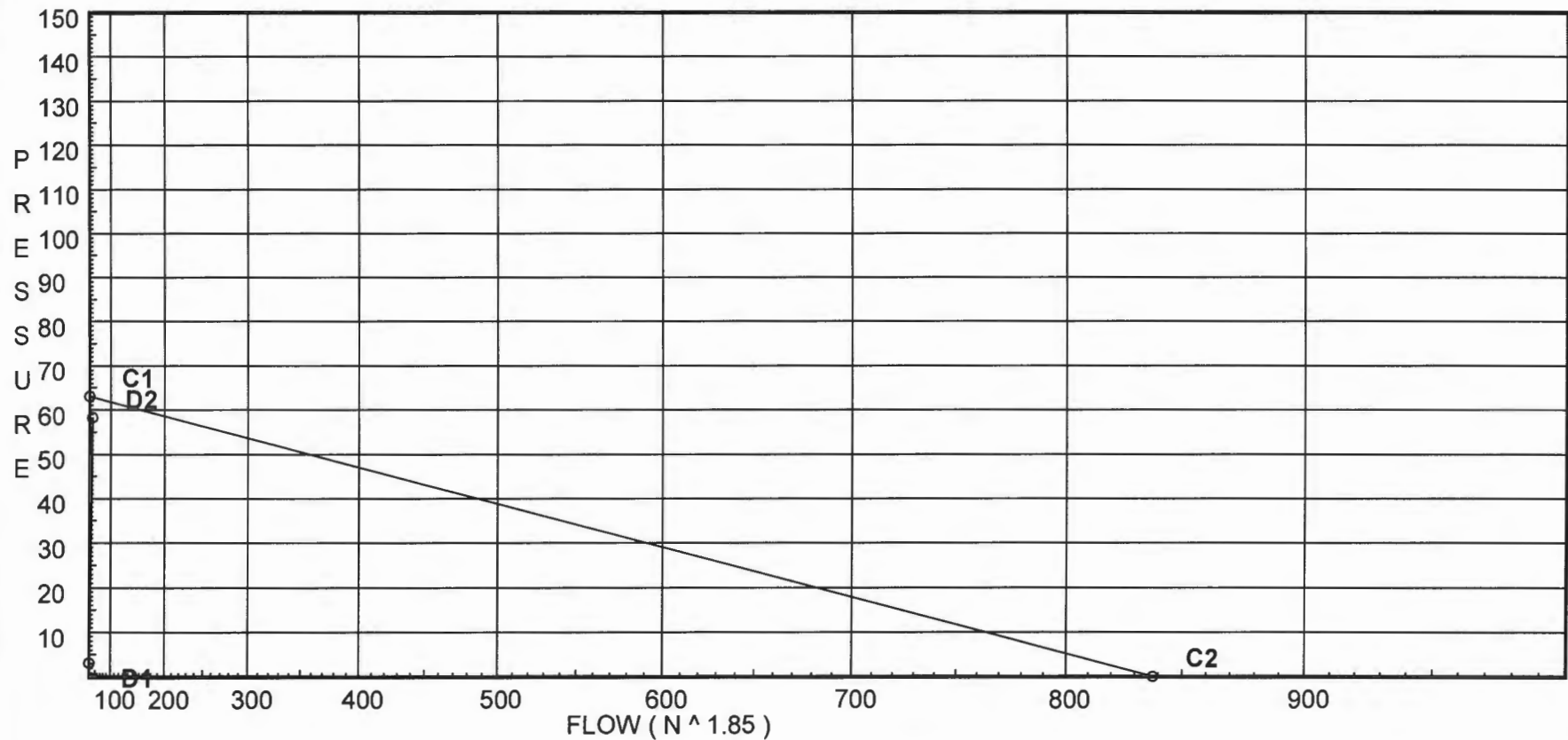
Water Supply Curve (C)

FREEDOM FIRE PROTECTION INC.
RICK HOLDEN RESIDENCE HC2

Page 2
Date 4/20/12

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

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



Fittings Used Summary

FREEDOM FIRE PROTECTION INC.
 RICK HOLDEN RESIDENCE HC2

Page 3
 Date 4/20/12

| Fitting Legend | | ½ | ¾ | 1 | 1¼ | 1½ | 2 | 2½ | 3 | 3½ | 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.
 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



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: _____