

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT

This is to certify that LACEY & ROBACK

Located At 201 CONGRESS ST

Job ID: 2011-02-462-MF 3-4

CBL: 013 - - M - 019 - 001 - - - -

has permission to install a supervised, automatic 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 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

B. J. Walden (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

SCANNED

City of Portland, Maine - Building or Use Permit Application
 389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2011-02-462-MF 3-4 #2011-2537	Date Applied: 4/13/2011	CBL: 013 - - M - 019 - 001 - - - - -
Location of Construction: 201 CONGRESS STREET	Owner Name: LACEY & TIMOTHY FLANAGAN	Owner Address: 201 CONGRESS ST PORTLAND, ME - MAINE 04103
Business Name:	Contractor Name: Timothy Vess @ Freedom Fire Protection	Contractor Address: 209 Quaker Ridge Rd., Casco, Maine 04015
Lessee/Buyer's Name:	Phone:	Permit Type: BLDG - Water-Based Fire Suppression system
Past Use: Three Residential Dwelling Units	Proposed Use: Same: Three Residential Dwelling Units - To install a water-based fire suppression system	Cost of Work: \$166,000.00
		Fire Dept: <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A
		Signature: <i>B. G. W. [Signature]</i>
Proposed Project Description: 201 Congress St - To install a water-based fire suppression system		Pedestrian Activities District (P.A.D.)
Permit Taken By: Lannie	Zoning Approval	

Special Zone or Reviews	Zoning Appeal	Historic Preservation
<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>4/13/11</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>[Signature]</i>

CERTIFICATION 4/13/11

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	PHON

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.**

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: 2011-02-462-MF 3-4

Located At: 201 CONGRESS ST

CBL: 013 - - M - 019 - 001 - - - -

Conditions of Approval:

Fire

Application requires State Fire Marshal approval.

Installation shall comply with City Code Chapter 10.

The sprinkler system shall be installed in accordance with NFPA 13R.

Sprinkler protection shall be maintained. Where the system is to be shut down for maintenance or repair, the system shall be checked at the end of each day to insure the system has been placed back in service.

The Fire Department will require Knox locking caps on all Fire Department Connections on the exterior of the building.

Installation of a sprinkler or fire alarm system requires a Knox Box to be installed per city ordinance.

This sprinkler system must be supervised by central station. A separate Fire Alarm Permit is required.

All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.

System acceptance and commissioning must be coordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.

Job Summary Report
Job ID: 2011-02-462-MF 3-4

2011-2537

Report generated on Apr 13, 2011 3:02:28 PM

Job Type: Multi-Family 3-4 **Job Description:** 201 Congress **Job Year:** 2011
Building Job Status Code: Approved **Pin Value:** 706 **Tenant Name:**
Job Application Date: **Public Building Flag:** N **Tenant Number:**
Estimated Value: 166,000 **Square Footage:**
Related Parties:
 LACEY ROBACK *Property Owner*
 CARON AND WALTZ - Caron & Waltz Caron & Waltz *ELECTRICAL CONTRACTOR*
 CHARLES S. BURNHAM - CHARLES BURNHAM *PLUMBING CONTRACTOR*
 Freedom Fire Protection - William Wales *FIRE ALARM INSTALLER*
 KR Stiffler Construction - Keith Stiffler *GENERAL CONTRACTOR*

Job Charges

Fee Code Description	Charge Amount	Permit Charge Adjustment	Net Charge Amount	Payment Date	Receipt Number	Payment Amount	Payment Adjustment Amount	Net Payment Amount	Outstanding Balance
Job Charges									

Location ID: 1684

Location Details									
Alternate Id	Parcel Number	Census Tract	GIS X	GIS Y	GIS Z	GIS Reference	Longitude	Latitude	
O08980	013 M 019 001	M					-70.250613	43.663949	
Location Type Subdivision Code Subdivision Sub Code Related Persons Address(es)									
1 201 CONGRESS STREET WEST									
Structure Details									
Location Use Code	Variance Code	Use-Zone Code	Fire Zone Code	Inside Outside Code	District Code	General Location Code	Inspection Area Code	Jurisdiction Code	
THREE FAMILY		NOT APPLICABLE			DISTRICT 1			EAST END	
Occupancy Type Code:									
Structure Type Code	Structure Status Type	Square Footage	Estimated Value	Address					
Three - Four Family Building	0			201 CONGRESS STREET WEST					
User Defined Property Value									
				Compactors	1				
				Dishwasher	1				

LANNIE - Not in Q



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.

Installation address: 201 Congress Street CBL: 13-M19

Exact location: (within structure) Basement, First, Second & Third Levels.

Type of occupancy(s) (NFPA & ICC): Apartments

Building owner: Lacey Flanagan

Managing Supervisor (RMS): Timothy 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: 207/627-4109 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: 13R Edition: 2007

*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: 18,730.00
PERMIT FEE: 120.00
 (\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)
RECEIVED
 APR 13 2011
 Dept. of Building Inspections
 City of Portland Maine

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).

Applicant signature: William Wales Date: 4/13/11

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

April 12, 2011

Portland City Hall
Third Floor Room 315
Portland, Maine 04101

Attn: Captain Keith Gautreau

Ref: 201 Congress Street Apt.
Portland, Maine 04101

Subj: Fire Sprinkler Permit Review

Captain Gautreau

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

- Fire Suppression System Permit
- Permit Fee Check
- Full Size FFP Drawings FP-1 & FP-2
- Discuss with Drawing & Calculation Files.
- Copy of The State Fire Marshal's Sprinkler Permit.

Regards,



William W. Wales



State of Maine
Department of Public Safety
Fire Sprinkler System Permit



9458

201 CONGRESS STREET

Located at: 201 CONGRESS STREET
 In the Town of: Portland
 Occupancy/Use: APARTMENTS
 Type of System: NFPA 13R

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 # **2111105**, 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 **4/9/2011** for a fee paid of **\$100.00**

*This permit will expire at midnight on **Thursday, October 06, 2011***

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

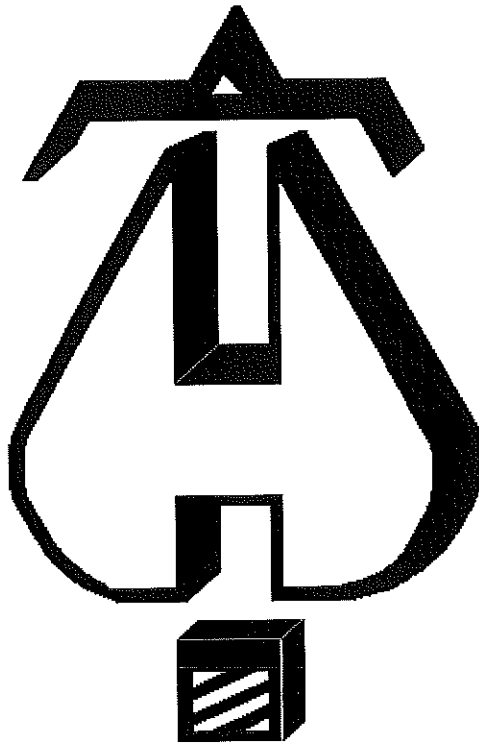
The type of Fire Department Connection and its location is to be according to the Local Fire Department

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: _____



... Fire Protection by Computer Design

RECEIVED

APR 13 2011

Dept. of Building Inspections
City of Portland Maine

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

Job Name : 201 CONGRESS STREET
Building : 201 CONGRESS STREET
Location : PORTLAND, MAINE 04101
System : #1 AREA #1
Contract :
Data File : 201 Congress Street HC1.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - 201 CONGRESS STREET Date - 4/1/11
 Location - PORTLAND, MAINE 04101
 Building - 201 CONGRESS STREET 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 9'-0"
 OCCUPANCY - APARTMENTS

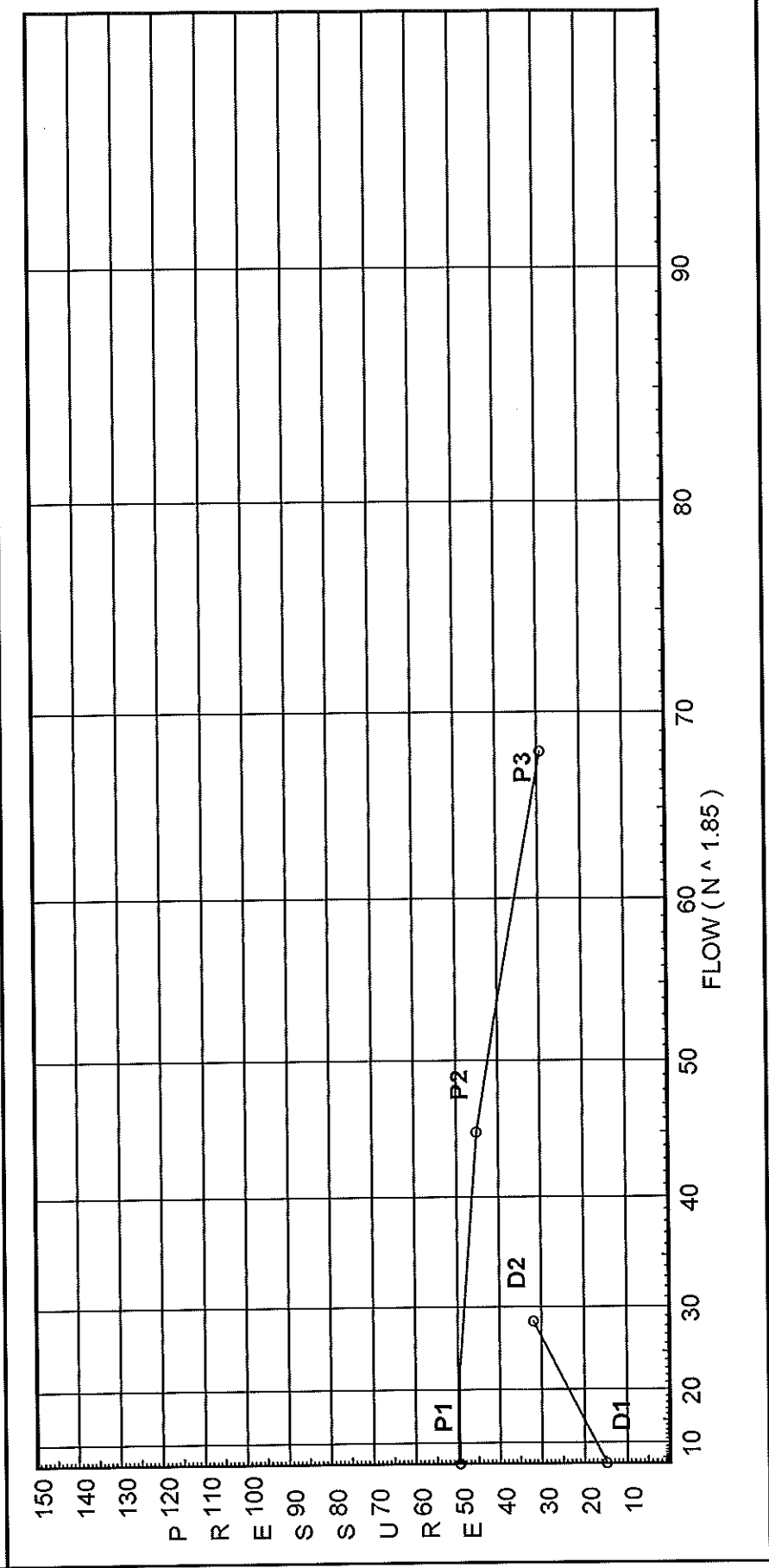
S Type of Calculation: (X)NFPA 13 Residential (X)NFPA 13R ()NFPA 13D
 Y Number of Sprinklers Flowing: ()1 (X)2 ()4 ()
 S ()Other
 T ()Specific Ruling Made by Date
 E
 M Listed Flow at Start Point - 14 Gpm System Type
 Listed Pres. at Start Point - 11.1 Psi (X) Wet () Dry
 D MAXIMUM LISTED SPACING 14 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 - 34' Feet Size 1/2" K-Factor 4.2
 G Note: Temperature Rating 155
 N

Calculation Gpm Required 28.464 Psi Required 31.795 At Test
 Summary C-Factor Used: Overhead 120 Underground

W Water Flow Test: Pump Data: Tank or Reservoir:
 A Date of Test - Rated Cap. 45 Cap.
 T Time of Test - @ Psi 45 Elev.
 E Static (Psi) - Elev.
 R Residual (Psi) - Other Well
 Flow (Gpm) - Proof Flow Gpm
 S Elevation -
 P Location:
 P
 L Source of Information:
 Y

Pump Data:
 P1 - Pump Churn Pressure : 49.5
 P2 - Pump Rated Pressure : 45
 P2 - Pump Rated Flow : 45
 P3 - Pump Pressure @ Max Flow : 29.25
 P3 - Pump Max Flow : 68

Demand:
 D1 - Elevation : 14.725
 D2 - System Flow : 28.4637
 D2 - System Pressure : 31.795
 Hose (Adj City)
 Hose (Demand) : 28.4637
 D3 - System Demand : 16.701
 Safety Margin



Fittings Used Summary

FREEDOM FIRE PROTECTION INC.
201 CONGRESS STREET

Fitting Legend Abbrev. Name	1/4	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
S Generic Swing Check Vlv	4	5	5	7	9	11	14	16	19	22	27	32	45	55	65	76	87	98	109	130
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

Pressure / Flow Summary - STANDARD

FREEDOM FIRE PROTECTION INC.
201 CONGRESS STREET

Page 4
Date 4/1/11

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
101	34.0	4.2	11.87	na	14.47	0.05	0.001	11.1
12	5.5		26.82	na				
102	34.0	4.2	11.1	na	13.99	0.05	0.001	11.1
10	14.0		21.58	na				
9	5.5		25.82	na				
8	5.5		26.59	na				
7	5.5		27.22	na				
6	5.5		27.4	na				
5	5.5		27.77	na				
4	5.5		28.15	na				
3	5.5		28.59	na				
2	5.5		28.96	na				
1	1.0		31.33	na				
TEST	0.0		31.8	na				

The maximum velocity is 5.37 and it occurs in the pipe between nodes 101 and 12

Final Calculations - Hazen-Williams

FREEDOM FIRE PROTECTION INC.
201 CONGRESS STREET

Page 5
Date 4/1/11

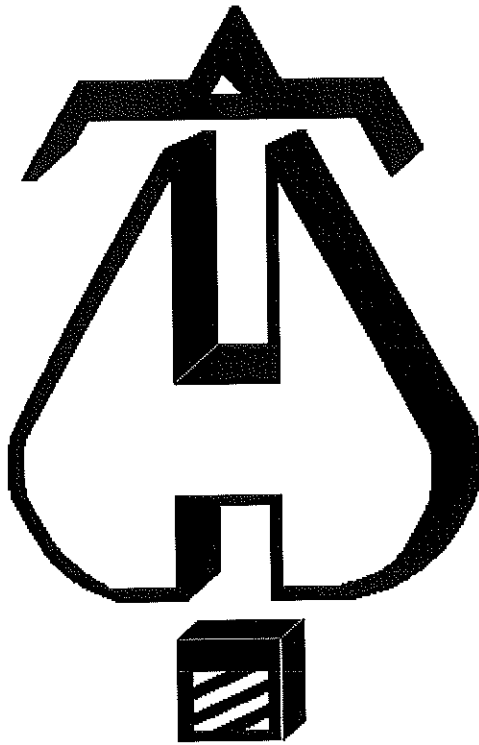
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
101	14.47	1.049	1E 2.0	29.500	11.871		K Factor = 4.20
to		120	1T 5.0	7.000	12.343		
12	14.47	0.0715	0.0	36.500	2.610		Vel = 5.37
12	0.0	1.049	1E 2.0	3.500	26.824		Vel = 5.37
to		120	0.0	2.000	0.0		
7	14.47	0.0716	0.0	5.500	0.394		
	0.0						
	14.47				27.218		K Factor = 2.77
102	13.99	1.049	1E 2.0	20.000	11.100		K Factor = 4.20
to		120	1T 5.0	7.000	8.662		
10	13.99	0.0672	0.0	27.000	1.815		Vel = 5.19
10	0.0	1.049	2E 4.0	4.330	21.577		Vel = 5.19
to		120	0.0	4.000	3.681		
9	13.99	0.0672	0.0	8.330	0.560		
9	0.0	1.049	1E 2.0	9.500	25.818		Vel = 5.19
to		120	0.0	2.000	0.0		
8	13.99	0.0672	0.0	11.500	0.773		
8	0.0	1.049	1T 5.0	4.330	26.591		Vel = 5.19
to		120	0.0	5.000	0.0		
7	13.99	0.0672	0.0	9.330	0.627		
7	14.47	1.61	0.0	6.000	27.218		Vel = 4.49
to		120	0.0	0.0	0.0		
6	28.46	0.0310	0.0	6.000	0.186		
6	0.0	1.61	0.0	11.660	27.404		Vel = 4.49
to		120	0.0	0.0	0.0		
5	28.46	0.0310	0.0	11.660	0.362		
5	0.0	1.61	0.0	12.330	27.766		Vel = 4.49
to		120	0.0	0.0	0.0		
4	28.46	0.0310	0.0	12.330	0.382		
4	0.0	1.61	1T 8.0	6.083	28.148		Vel = 4.49
to		120	0.0	8.000	0.0		
3	28.46	0.0311	0.0	14.083	0.438		
3	0.0	1.61	1E 4.0	8.166	28.586		Vel = 4.49
to		120	0.0	4.000	0.0		
2	28.46	0.0310	0.0	12.166	0.377		
2	0.0	1.61	1S 9.0	4.500	28.963		Vel = 4.49
to		120	0.0	9.000	1.949		
1	28.46	0.0310	0.0	13.500	0.419		
1	0.0	1.61	0.0	1.000	31.331		Vel = 4.49
to		120	0.0	0.0	0.433		
TEST	28.46	0.0310	0.0	1.000	0.031		
	0.0						

Final Calculations - Standard

FREEDOM FIRE PROTECTION INC.
201 CONGRESS STREET

Page 6
Date 4/1/11

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
	28.46				31.795			K Factor =	5.05



... Fire Protection by Computer Design

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

Job Name : 201 CONGRESS STREET HC2
Building : 201 CONGRESS STREET
Location : PORTLAND, MAINE 04101
System : #1 AREA #2
Contract :
Data File : 201 Congress Street HC2.WXF

HYDRAULIC DESIGN INFORMATION SHEET

Name - 201 CONGRESS STREET Date - 4/1/11
 Location - PORTLAND, MAINE 04101
 Building - 201 CONGRESS STREET 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 9'-0"
 OCCUPANCY - APARTMENTS

S Type of Calculation: (X)NFPA 13 Residential (X)NFPA 13R ()NFPA 13D
 Y Number of Sprinklers Flowing: ()1 ()2 (X)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 - 34' Feet Size 1/2" K-Factor 4.2
 G Note: Temperature Rating 155
 N

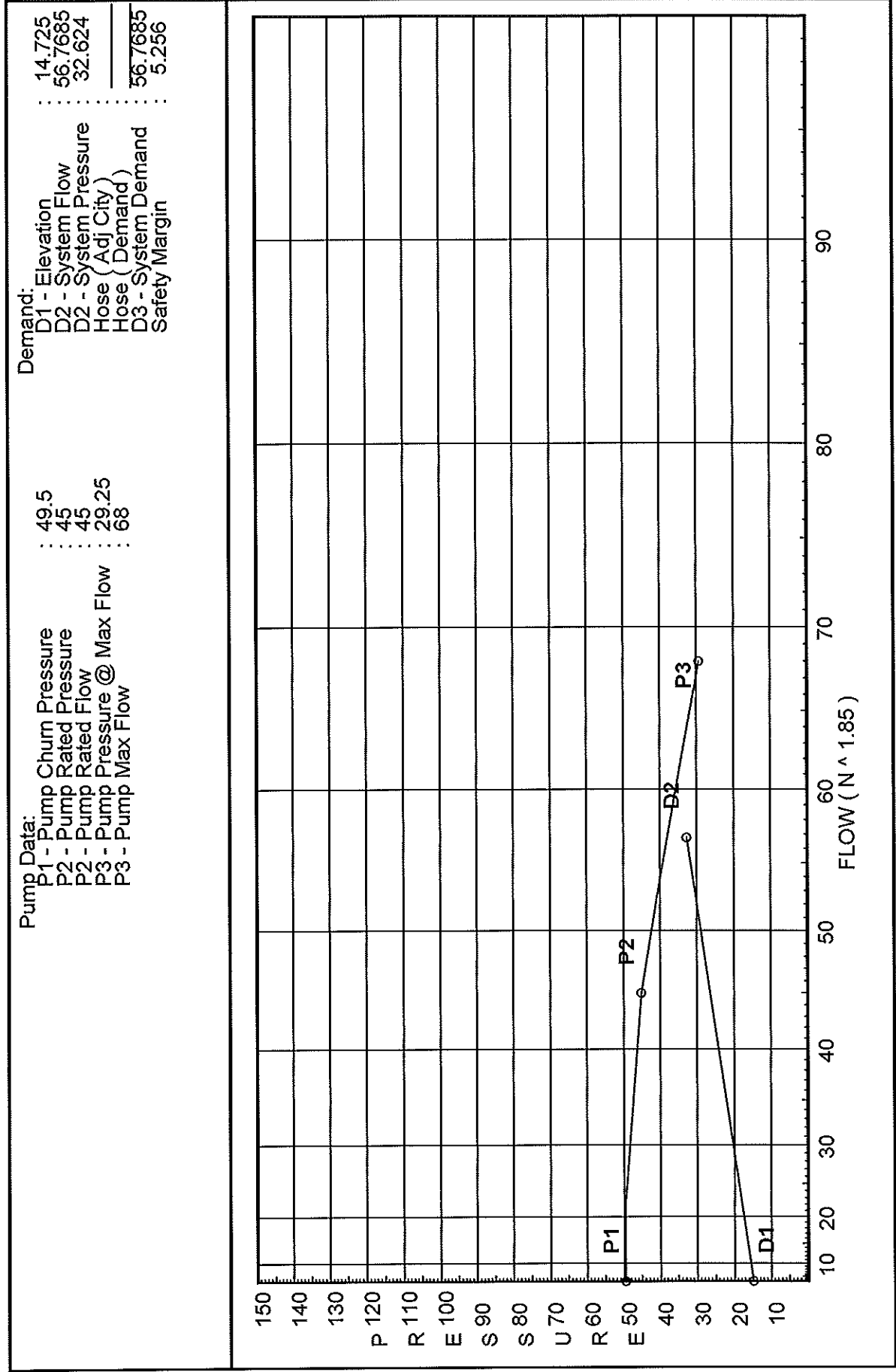
Calculation Gpm Required 56.768 Psi Required 32.624 At Test
 Summary C-Factor Used: Overhead 120 Underground

W Water Flow Test: Pump Data: Tank or Reservoir:
 A Date of Test - Rated Cap. 45 Cap.
 T Time of Test - @ Psi 45 Elev.
 E Static (Psi) - Elev.
 R Residual (Psi) - Other Well
 Flow (Gpm) - Proof Flow Gpm
 S Elevation -

P Location:
 P
 L Source of Information:
 Y

Water Supply Curve (C)

FREEDOM FIRE PROTECTION INC.
201 CONGRESS STREET HC2



Fittings Used Summary

FREEDOM FIRE PROTECTION INC.
201 CONGRESS STREET 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
S Generic Swing Check Vlv	4	5	5	7	9	11	14	16	19	22	27	32	45	55	65	76	87	98	109	130
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

Pressure / Flow Summary - STANDARD

FREEDOM FIRE PROTECTION INC.
201 CONGRESS STREET HC2

Page 4
Date 4/1/11

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
201	34.0	4.2	11.91	na	14.5	0.05	0.001	11.1
11	5.5		26.87	na				
202	34.0	4.2	11.49	na	14.24	0.05	0.001	11.1
203	34.0	4.2	11.18	na	14.04	0.05	0.001	11.1
204	34.0	4.2	11.1	na	13.99	0.05	0.001	11.1
6	5.5		25.9	na				
5	5.5		25.99	na				
4	5.5		26.37	na				
3	5.5		27.27	na				
2	5.5		28.63	na				
1	1.0		32.08	na				
TEST	0.0		32.62	na				

The maximum velocity is 8.95 and it occurs in the pipe between nodes 3 and 2

Final Calculations - Hazen-Williams

FREEDOM FIRE PROTECTION INC.
201 CONGRESS STREET HC2

Page 5
Date 4/1/11

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes *****
201 to 11	14.50 14.5	1.049 120 0.0718	1E 2.0 1T 5.0 0.0	29.500 7.000 36.500	11.911 12.343 2.619		K Factor = 4.20 Vel = 5.38	
11 to 3	0.0 14.5	1.049 120 0.0716	0.0 0.0 0.0	5.600 0.0 5.600	26.873 0.0 0.401		Vel = 5.38	
	0.0 14.50				27.274		K Factor = 2.78	
202 to 4	14.24 14.24	1.049 120 0.0694	1E 2.0 1T 5.0 0.0	29.500 7.000 36.500	11.490 12.343 2.533		K Factor = 4.20 Vel = 5.29	
	0.0 14.24				26.366		K Factor = 2.77	
203 to 5	14.04 14.04	1.049 120 0.0677	1E 2.0 1T 5.0 0.0	29.500 7.000 36.500	11.181 12.343 2.470		K Factor = 4.20 Vel = 5.21	
	0.0 14.04				25.994		K Factor = 2.75	
204 to 6	13.99 13.99	1.049 120 0.0672	1E 2.0 1T 5.0 0.0	29.500 7.000 36.500	11.100 12.343 2.453		K Factor = 4.20 Vel = 5.19	
6 to 5	0.0 13.99	1.61 120 0.0084	0.0 0.0 0.0	11.660 0.0 11.660	25.896 0.0 0.098		Vel = 2.20	
5 to 4	14.05 28.04	1.61 120 0.0302	0.0 0.0 0.0	12.330 0.0 12.330	25.994 0.0 0.372		Vel = 4.42	
4 to 3	14.23 42.27	1.61 120 0.0645	1T 8.0 0.0 0.0	6.083 8.000 14.083	26.366 0.0 0.908		Vel = 6.66	
3 to 2	14.50 56.77	1.61 120 0.1113	1E 4.0 0.0 0.0	8.166 4.000 12.166	27.274 0.0 1.354		Vel = 8.95	
2 to 1	0.0 56.77	1.61 120 0.1113	1S 9.0 0.0 0.0	4.500 9.000 13.500	28.628 1.949 1.503		Vel = 8.95	
1 to TEST	0.0 56.77	1.61 120 0.1110	0.0 0.0 0.0	1.000 0.0 1.000	32.080 0.433 0.111		Vel = 8.95	
	0.0 56.77				32.624		K Factor = 9.94	

Final Calculations - Standard

FREEDOM FIRE PROTECTION INC.
201 CONGRESS STREET HC2

Page 6
Date 4/1/11

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
-----------------------	--------------	----------------------	---------------------------	-------------------------	----------------	----------------	-------	-------	-------

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

July 28, 2011

Portland City Hall
Third Floor Room 315
Portland, Maine 04101

Atten. Captain Pirone

Ref: 201 Congress Street Apt.
Portland, Maine 04101

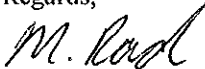
Subj: Sprinkler System Certification Letter

This letter is certification that sprinkler system was designed, calculated and installed at the above referenced location by Freedom Fire Protection, met the requirements of the National Fire Protection Association 13R standard.

Sprinkler permit # 9458 was issued by the State of Maine Fire Marshal's office.

The sprinkler system was left in service by Freedom Fire Protection on July 19, 2011.

Regards,



Mark Radziszewski