

# DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND BUILDING PERMIT



This is to certify that <u>FREEDOM FIRE PROTECTION</u> <u>209 QUAKER RIDGE RD</u> <u>CASCO, ME 04015</u> For installation at 10 ALTON ST

Job ID: 2012-06-4295-FAFS

CBL: 168- K-008-001

has permission to install Maine Life Safety 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

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





Strengthening a Remarkable City, Building a Community for Life . www.portlandmaine.gov

Director of Planning and Urban Development Penny St. Louis

Job ID: <u>2012-06-4295-FAFS</u> <u>install Maine Life Safety Sprinkler</u> <u>System</u> For installation at: <u>10 ALTON ST</u> CBL: 168- K-008-001

#### **Conditions of Approval:**

#### Fire

The sprinkler system shall be installed in accordance with the Maine Life Safety Sprinkler Standard. A signed compliance letter will be required.

A separate sprinkler permit and approval is required from the State Fire Marshal's Office.

Sprinkler supervision shall be provided in accordance with NFPA 101, *Life Safety Code*, and NFPA 72, *National Fire Alarm and Signaling Code*.

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 requires Knox locking caps on all Fire Department Connections on the exterior of the building.

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

City ordinance requires a Knox Box for all structures with a sprinkler or fire alarm system.

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

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

Job No: 2012-06-4295-FAFS	Date Applied: 6/20/2012		CBL: 168- K-008-001			
Location of Construction: 10 ALTON ST	Owner Name: ST. PETERS EPISCOPA	L CHURCH	Owner Address: 10 ALTON ST PORTLAND, ME 0		Phone:	
Business Name:	Contractor Name: FREEDOM FIRE PROTECTION		Contractor Addre 209 QUAKER RID		IAINE 04015	Phone: (207) -671-8639
Lessee/Buyer's Name:	Phone:		Permit Type: FAFS			Zone: R-3
Past Use:	Proposed Use:		Cost of Work: \$12,000.00			CEO District:
Church offices on the 1 <sup>st</sup> floor and one dwelling unit on the 2 <sup>nd</sup> floor Same: Church office dwelling unit – to in suppression system			Fire Dept: 7/3/12 Signature: BAG	Inspection: Use Group: Type: Signature:		
Proposed Project Description: WB fire suppression; multi unit			Pedestrian Activ		D.)	
Permit Taken By: Brad			I	Zoning Appr	oval	
<ol> <li>This permit application de Applicant(s) from meetin Federal Rules.</li> <li>Building Permits do not in septic or electrial work.</li> <li>Building permits are void within six (6) months of t False informatin may inva- permit and stop all work.</li> </ol>	g applicable State and nclude plumbing, if work is not started he date of issuance.	Special Zo Shorelan Wetlands Flood Zo Subdivis Site Plan Maj Date: OK	s one ion	Zoning Appea Variance Miscellaneous Conditional Us Interpretation Approved Denied Date:	Not in Di Does not Requires Approved	

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
			PULONIE

Entral 6/20/12



## 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.

\$ 2012-06-4295-FAFS
Installation address: 10 Alton Street CBL: 168 K008
Exact location: (within structure) Basement, 1st Floor, and 2nd Floor
Type of occupancy(s) (NFPA & ICC): Maine Life Safety Revised 2012 (Office/Apartment)
Building owner: Bethany House Parish ST Peters Episcopal Church
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: 207-671-8639 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: O NO Permit no:
NFPA Standard this system is designed to: Maine Life Saftey Edition: 2012
*Non-NFPA systems are not approved for use within the City of Portland. COST OF WORK: \$11,782.00
Download a new copy of this document from PERMIT FEE: \$140.00
www.portlandmaine.gov/fire for every submittal. Attach all working (\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)
documents and complete approved submittals as may be required by
the State Fire Marshal's Office on electronic PDF's in addition to RECEIVED
full sized plans. Contractor shall verify location and type of all FDCs shall be approved in writing by the Fire Prevention Bureau. Submit all information to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.
Contractor shall verify location and type of all FDCs shall
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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: Mark Radeinerschi Date: June 20, 2012



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**Receipts Details:** 

**Tender Information:** Check , Check Number: 17021 **Tender Amount:** 140.00

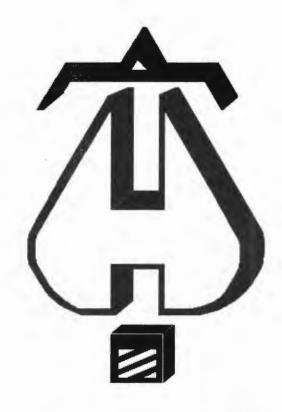
Receipt Header:

Cashier Id: bsaucier Receipt Date: 6/20/2012 Receipt Number: 45169

Receipt Details:

Referance ID:	6961	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	140.00	Charge Amount:	140.00
Job ID: Job ID: 201	2-06-4295-FAFS - WB fire suppression; multi unit	t	
Additional Comm	ents: 10 Alton St.		

Thank You for your Payment!



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... Fire Protection by Computer Design

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

Job Name : BETHANY HOUSE PARISH HC1 Building : 10 ALTON STREET Location : PORTLAND, MAINE 04103 System : #1 AREA #1 Contract : Data File : BETHANY HOUSE PARISH HC1.WXF

#### FREEDOM FIRE PROTECTION INC. BETHANY HOUSE PARISH HC1

Page 1 Date 6/14/12

#### HYDRAULIC DESIGN INFORMATION SHEET

Name - BETHANY HOUSE PARISH OFFICE Date - 6/14/12 Location - PORTLAND, MAINE 04103 Building - 10 ALTON STREET System No. - #1 AREA #1 Contractor - FREEDOM FIRE PROTECTION Contract No. -Calculated By - MICHAEL NOBLIT Dra Construction: (X) Combustible () Non-Combustible Drawing No. - FP-1 Ceiling Height 8'-6" OCCUPANCY - HOUSE Type of Calculation: ( )NFPA 13 Residential ()NFPA 13R ()NFPA 13D S Number of Sprinklers Flowing: ()1 ()2 ()4 (X)3 Y S (X) Other MAINE LIFE SAFETY 2012 Made by Т () Specific Ruling Date E Listed Flow at Start Point - 14 Gpm Listed Pres. at Start Point - 10.1 Psi System Type М (X) Wet () Dry () Deluge MAXIMUM LISTED SPACING 14 x 14 () PreAction D - 0 Gpm Ε Domestic Flow Added Sprinkler or Nozzle S Additional Flow Added - 0 Gpm Make TYCO Model LFII Ι Elevation at Highest Outlet - 25'-6"Feet Size 1/2" K-Factor 4.4 G Temperature Rating 155 Note: Ν

	culation mary	÷ .	uired 44.388 or Used:		-	aired 41. Ad 120	441	At Test Underground
W	Water Flo	ow Test:		Pump	Data:		1	Cank or Reservoir:
A	Date of 1	Test -		-	Cap.		Car	<b>.</b>
т	Time of 7	Test -		Psi	-	50	Ele	ev.
E	Static (1	Psi) -	E	lev.				
R	Residual	(Psi) -	Of	ther				Well
	Flow (Gpr	n) —					Pro	oof Flow Gpm
S	Elevation	1 –						
P	Location							
P								
L	Source of	f Informa	tion:					
Y								

#### Water Supply Curve (C)

FREEDOM FIRE PROTECTION INC.
BETHANY HOUSE PARISH HC1

Page 2 Date 6/14/12

					Pump Data: P1 - Pu P2 - Pu P2 - Pu P3 - Pu P3 - Pu	mp Churn Pres mp Rated Pres mp Rated Flow mp Pressure @ mp Max Flow	sure sure Max Flow	55 50 50 32.5 75	Demand: D1 - D2 - D2 - Hose Hose D3 - Safe	Demand: D1 - Elevation D2 - System Flow D2 - System Pressure Hose ( Adj City ) Hose ( Demand ) D3 - System Demand Safety Margin				
150						1								
140														
130														
5 120 E														
۲ <sup>110</sup>														
100														
90														
80 5 70 70														
260	P1													
50					P2									
40							<b>P3</b>							
30					-									
20														
10	D1													
L	10 20	30	4(	)	50 FLOW	60 /(N ^ 1.85)	70	80		90				

### Fittings Used Summary

FREEDOM FIRE PROTECTION INC. BETHANY HOUSE PARISH HC1															age 3 ate 6	3 5/14/12	2				
	Legend v. Name	1/2	3/4	1	1¼	1½	2	21⁄2	3	31/2	4	5	6	8	10	12	14	16	18	20	24
E F S T	90' Standard Elbow 45' Elbow Generic Swing Check Vlv 90' Flow Thru Tee	2 1 4 3	2 1 5 4	2 1 5 5	3 1 7 6	4 2 9 8	5 2 11 10	6 3 14 12	7 3 16 15	8 3 19 17	10 4 22 20	12 5 27 25	14 7 32 30	18 9 45 35	22 11 55 50	27 13 65 60	35 17 76 71	40 19 87 81	45 21 98 91	50 24 109 101	61 28 130 121

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#### Pressure / Flow Summary - STANDARD

#### FREEDOM FIRE PROTECTION INC. BETHANY HOUSE PARISH HC1

#### Page 4 Date 6/14/12

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.		
103	25.5	4.4	10.1	na	13.98	0.05	0.001	10.1		
102	25.5	4.4	10.47	na	14.24	0.05	0.001	10.1		
101	25.5	4.4	13.5	na	16.17	0.05	0.001	10.1		
7	25.5		15.4	na						
6	25.5		19.93	na						
5	25.5		21.95	na						
4	6.66		33.38	na						
3	6.66		34.48	na						
2	6.66		36.06	na						
1	0.0		40.84	na						
TEST	0.0		41.44	na						

The maximum velocity is 16.48 and it occurs in the pipe between nodes 101 and 7

#### Final Calculations - Hazen-Williams

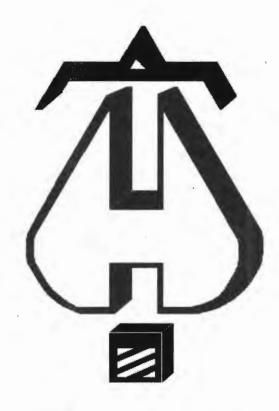
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#### FREEDOM FIRE PROTECTION INC. BETHANY HOUSE PARISH HC1

Page 5 Date 6/14/12

BETHAN	IY HOUSE	E PARISH H	IC1		Date 6/14/12			
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.		Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	****** Notes *****
103 to 102	13.98 13.98	1.049 120 0.0671	1T	5.0 0.0 0.0	0.500 5.000 5.500	10.100 0.0 0.369		K Factor = 4.40 Vel = 5.19
102 to 101	14.24	1.049 120 0.2461	1F 1T	1.0 5.0 0.0	6.330 6.000 12.330	10.469 0.0 3.034		K Factor = 4.40 Vel = 10.48
101 to 7	16.17 44.39	1.049 120 0.5688	1F	1.0 0.0 0.0	2.330 1.000 3.330	13.503 0.0 1.894		K Factor = 4.40 Vel = 16.48
7 to 6	0.0	1.38 120 0.1496		0.0 0.0 0.0	30.330 0.0 30.330	15.397 0.0 4.537		Vel = 9.52
6 to 5	0.0	1.38 120 0.1496	2E	6.0 0.0 0.0	7.458 6.000 13.458	19.934 0.0 2.013		Vel = 9.52
5 to 4	0.0 44.39	1.38 120 0.1496	1E	3.0 0.0 0.0	18.916 3.000 21.916	21.947 8.160 3.278		Vel = 9.52
4 to 3	0.0 44.39	1.38 120 0.1495	1T	6.0 0.0 0.0	1.330 6.000 7.330	33.385 0.0 1.096		Vel = 9.52
3 0 2	0.0 44.39	1.38 120 0.1496	1E	3.0 0.0 0.0	7.583 3.000 10.583	34.481 0.0 1.583		Vel = 9.52
2 0 1	0.0 44.39	1.38 120 0.1496	1S	7.0 0.0 0.0	5.660 7.000 12.660	36.064 2.884 1.894		Vel = 9.52
1 to TEST	0.0 44.39	1.38 120 0.1498	1E	3.0 0.0 0.0	1.000 3.000 4.000	40.842 0.0 0.599		Vel = 9.52
	0.0 44.39					41.441		K Factor = 6.90



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.... Fire Protection by Computer Design

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

Job Name : BETHANY HOUSE PARISH HC2 Building : 10 ALTON STREET Location : PORTLAND, MAINE 04103 System : #1 AREA #2 Contract : Data File : BETHANY HOUSE PARISH HC2.WXF

#### FREEDOM FIRE PROTECTION INC. BETHANY HOUSE PARISH HC2

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Page 1 Date 6/14/12

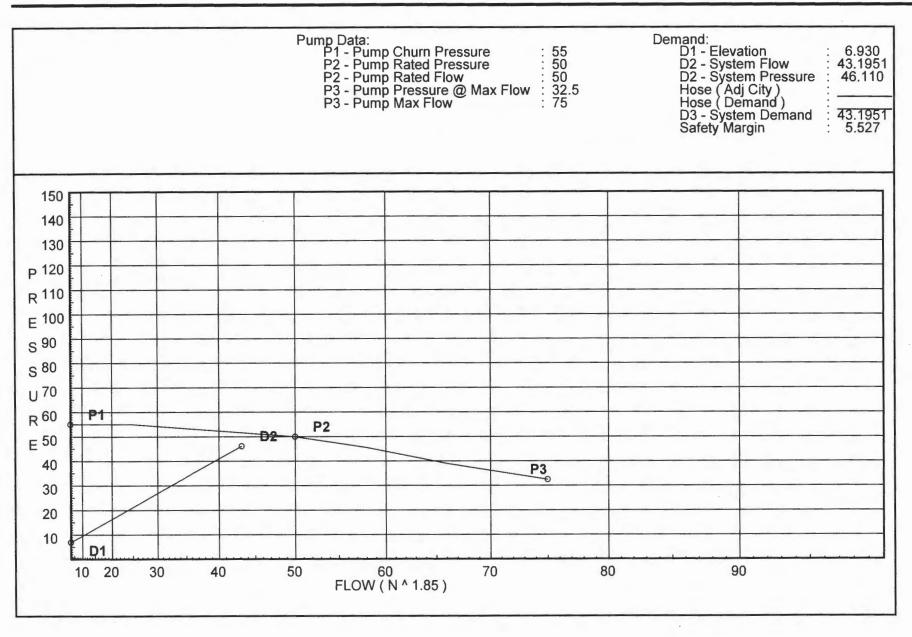
HYDRAULIC DESIGN INFO	DRMATION SHEET
Name - BETHANY HOUSE PARISH OFFICE Location - PORTLAND, MAINE 04103 Building - 10 ALTON STREET Contractor - FREEDOM FIRE PROTECTION Calculated By - MICHAEL NOBLIT Construction: (X) Combustible () Non-Cor OCCUPANCY - HOUSE	Date - 6/14/12 System No #1 AREA #2 Contract No Drawing No FP-1 nbustible Ceiling Height 8'-6"
S Type of Calculation: ( )NFPA 13 Resider Y Number of Sprinklers Flowing: ()1 S (X)Other MAINE LIFE SAFETY T ()Specific Ruling Ma E M Listed Flow at Start Point - 14 Gpm Listed Pres. at Start Point - 10.1 Psi D MAXIMUM LISTED SPACING 14 x 14 E Domestic Flow Added - 0 Gpm S Additional Flow Added - 0 Gpm I Elevation at Highest Outlet - 16'-0"Fee Note: N	<pre>( )2 ( )4 (X)3 ade by Date System Type (X) Wet ( ) Dry ( ) Deluge ( ) PreAction Sprinkler or Nozzle Make TYCO Model LFII</pre>
Calculation Gpm Required 43.195 Psi Requ Summary C-Factor Used: Overhea	
<pre>W Water Flow Test: Pump Data: A Date of Test - Rated Cap. T Time of Test - @ Psi E Static (Psi) - Elev. R Residual (Psi) - Other Flow (Gpm) - S Elevation - P Location: P L Source of Information:</pre>	

#### Water Supply Curve (C)

#### FREEDOM FIRE PROTECTION INC. BETHANY HOUSE PARISH HC2

Page 2

Date 6/14/12



#### Fittings Used Summary

#### FREEDOM FIRE PROTECTION INC. **BETHANY HOUSE PARISH HC2**

Date 6/14/12 Fitting Legend Abbrev. Name 1/2 3/4 11/4 11⁄2 21⁄2 31/2 E F 1 1 90' Standard Elbow 45' Elbow 4 S Generic Swing Check VIv 90' Flow Thru Tee Т 

Page 3

#### Pressure / Flow Summary - STANDARD

# FREEDOM FIRE PROTECTION INC. BETHANY HOUSE PARISH HC2

Page 4 Date 6/14/12

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
NU.			Actual		Actual			Neq.
201	16.0	4.4	10.84	na	14.49	0.05	0.001	10.1
202	16.0	4.4	11.2	na	14.72	0.05	0.001	10.1
203	16.0	4.4	10.1	na	13.98	0.05	0.001	10.1
24	16.0		11.24	na				
23	16.0		16.96	na				
22	16.0		21.73	na				
21	16.0		28.54	na				
20	16.0		32.49	na				
4	6.66		38.31	na				
3	6.66		39.35	na				
2	6.66		40.86	na				
	0.0		45.54	na				
EST	0.0		46.11	na				

The maximum velocity is 16.04 and it occurs in the pipe between nodes 24 and 23

#### Final Calculations - Hazen-Williams

#### FREEDOM FIRE PROTECTION INC. BETHANY HOUSE PARISH HC2

Page 5 Date 6/14/12

BETHANY HOUSE PARISH HC2							Date 6/14/12		
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft		ting or Iv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes *****	
201	14.49	1.049	1T	5.0	0.500	10.841		K Factor = 4.40	
.0 24	14.49	120 0.0716		0.0 0.0	5.000 5.500	0.0 0.394		Vel = 5.38	
	0.0					11 225		K Fostor - 4.22	
202	14.49 14.72	1.049		0.0	0.500	11.235 11.198		K Factor = $4.32$ K Factor = $4.40$	
to	14.72	120		0.0	0.0	0.0			
24	14.72	0.0740		0.0	0.500	0.037		Vel = 5.46	
	0.0 14.72					11.235		K Factor = 4.39	
203	13.98	1.049	3E	6.0	10.916	10.100		K Factor = $4.39$	
to		120		0.0	6.000	0.0			
24	13.98	0.0671	45	0.0	16.916	1.135		Vel = 5.19	
24 to	29.22	1.049 120	1E	2.0 0.0	8.583 2.000	11.235 0.0			
23	43.2	0.5409		0.0	10.583	5.724		Vel = 16.04	
23	0.0	1.049	2F	2.0	6.830	16.959			
to 22	43.2	120 0.5408		0.0 0.0	2.000 8.830	0.0 4.775		Vel = 16.04	
22	0.0	1.049		0.0	12.583	21.734			
to	10.0	120		0.0	0.0	0.0		10.04	
21	43.2	0.5408 1.38	2E	0.0 6.0	12.583 21.750	6.805 28.539		Vel = 16.04	
21 to	0.0	120	20	0.0	6.000	0.0			
20	43.2	0.1422		0.0	27.750	3.947		Vel = 9.27	
20	0.0	1.38	1E	3.0	9.500	32.486			
to 4	43.2	120 0.1422		0.0 0.0	3.000 12.500	4.045 1.777		Vel = 9.27	
4	0.0	1.38	1T	6.0	1.330	38.308			
to	40.0	120		0.0	6.000	0.0		$V_{ol} = 0.27$	
3 3	43.2 0.0	0.1423 1.38	1E	0.0 3.0	7.330 7.583	1.043 39.351		Vel = 9.27	
to	0.0	120		0.0	3.000	0.0			
2	43.2	0.1422		0.0	10.583	1.505		Vel = 9.27	
2	0.0	1.38 120	1S	7.0 0.0	5.660 7.000	40.856 2.884			
1	43.2	0.1423		0.0	12.660	1.801		Vel = 9.27	
1	0.0	1.38	1E	3.0	1.000	45.541			
TEST	42.2	120		0.0 0.0	3.000 4.000	0.0 0.569		Vel = 9.27	
TEST	43.2 0.0	0.1422		0.0	4.000	0.009		VGI - J.ZI	
	43.20					46.110		K Factor = 6.36	

FREEDOM FIRE PROTECTION INC. BETHANY HOUSE PARISH HC2								Page 6 Date 6/14/12		
Hyd. Ref.	Qa	Dia. "C"	Fitting or	Pipe Ftng's	Pt Pe	Pt Pv	******	Notes ******		
Point	Qt	Pf/Ft	Eqv. Ln.	Total	Pf	Pn				

CITY OF PORTLAND, MAINE Department of Building Inspections
<b>Original Receipt</b>
6/21 20/2
Received from Freedom Fire Potert
Location of Work 10 Alton Fire Supression
Cost of Construction \$ Building Fee:
Permit Fee         \$         Site Fee:
Certificate of Occupancy Fee:
Building (IL) Plumbing (I5) Electrical (I2) Site Plan (U2)
Other
CBL:
Check #: 17021 Total Collected \$ 140
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