

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND BUILDING PERMIT



This is to certify that TIM DAVIS PLUMBING & HEATING  
of 110 Rhode Island Ave, Lyman, ME 04002

For installation at 27 Dakota St

Job ID: 2011-07-1682-SF

CBL: 407- H-018-001

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

## 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: 2011-07-1682-SF**  
**install NFPA 13D sprinkler system**

**For installation at:**  
**27 DAKOTA ST**

**CBL: 407- H-018-001**

## **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.



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



# 9748

**27 Dakota St**

Located at: 29 Dakota  
In the Town of: Portland  
Occupancy/Use: House  
Type of System: NFPA 13D

Permission is hereby given to:

**Tim Davis Plumbing & Heating Inc.**  
PO Box 255  
Lyman, ME 04002  
Contractor License # 831

to begin installation according to plans submittal approved by the Office of State Fire Marshal.  
The submittal is filed under log # **2111415**, 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 **11/21/2011** for a fee paid of **\$75.00**

*This permit will expire at midnight on **Saturday, May 19, 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: Killeen Thomas J.

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

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

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

Job No: 2011-07-1682-SF #2011-13813 FAFS	Date Applied: 11/20/2011	CBL: 407- H-018-001	
Location of Construction: 27 DAKOTA ST	Owner Name: DIVERSIFIED PROPERTIES	Owner Address: 294 MAIN ST CUMBERLAND CTR, ME 04021	Phone:
Business Name:	Contractor Name: Tim Davis Plmbg & Heating Inc.	Contractor Address: 110 Rhode Island Ave., Lyman, ME 04002-6454	Phone: 324-5237
Lessee/Buyer's Name:	Phone:	Permit Type: FAFS	Zone: R-3
Past Use:  Newly constructed single family dwelling	Proposed Use:  Same: Single Family Dwelling - to install NFPA 13-D fire suppression system	Cost of Work:	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A Signature: <i>Bjornberg</i> (58)	Inspection: Use Group: Type:  Signature:
Proposed Project Description: instal fire suppression system		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Lannie		<b>Zoning Approval</b>	

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.

## Special Zone or Reviews

- ☐ Shoreland  
☐ Wetlands  
☐ Flood Zone  
☐ Subdivision  
☐ Site Plan

\_\_\_ Maj \_\_\_ Min \_\_\_ MM

Date:

12/13/11

**CERTIFICATION**

## Zoning Appeal

- ☐ Variance  
☐ Miscellaneous  
☐ Conditional Use  
☐ Interpretation  
☐ Approved  
☐ Denied

Date:

## Historic Preservation

- ☒ Not in Dist or Landmark  
☐ Does not Require Review  
☐ Requires Review  
☐ Approved  
☐ Approved w/Conditions  
☐ Denied

Date:

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



## 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.

R-3

2011-13813 child #A-  
Installation address: 27 Dakota St. CBL: 407-H-18  
Exact location: (within structure) Basement, 1st Flr, 2nd Flr  
Type of occupancy(s) (NFPA & ICC): Residential  
Building owner: Diversifion Properties  
Managing Supervisor (RMS): Thomas Killeen License No: 351  
Supervisor phone: 207-351-3159 E-mail: \_\_\_\_\_  
Installing contractor: Tia Davis Plumbing & Heating Inc License No: 831  
Contractor phone: 207-324-5237 E-mail: TDPHINC@yahoo.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: 9748  
NFPA Standard this system is designed to: NFPA 13-D 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](http://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:~~ \_\_\_\_\_

~~PERMIT FEE:~~ \_\_\_\_\_

~~(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)~~

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

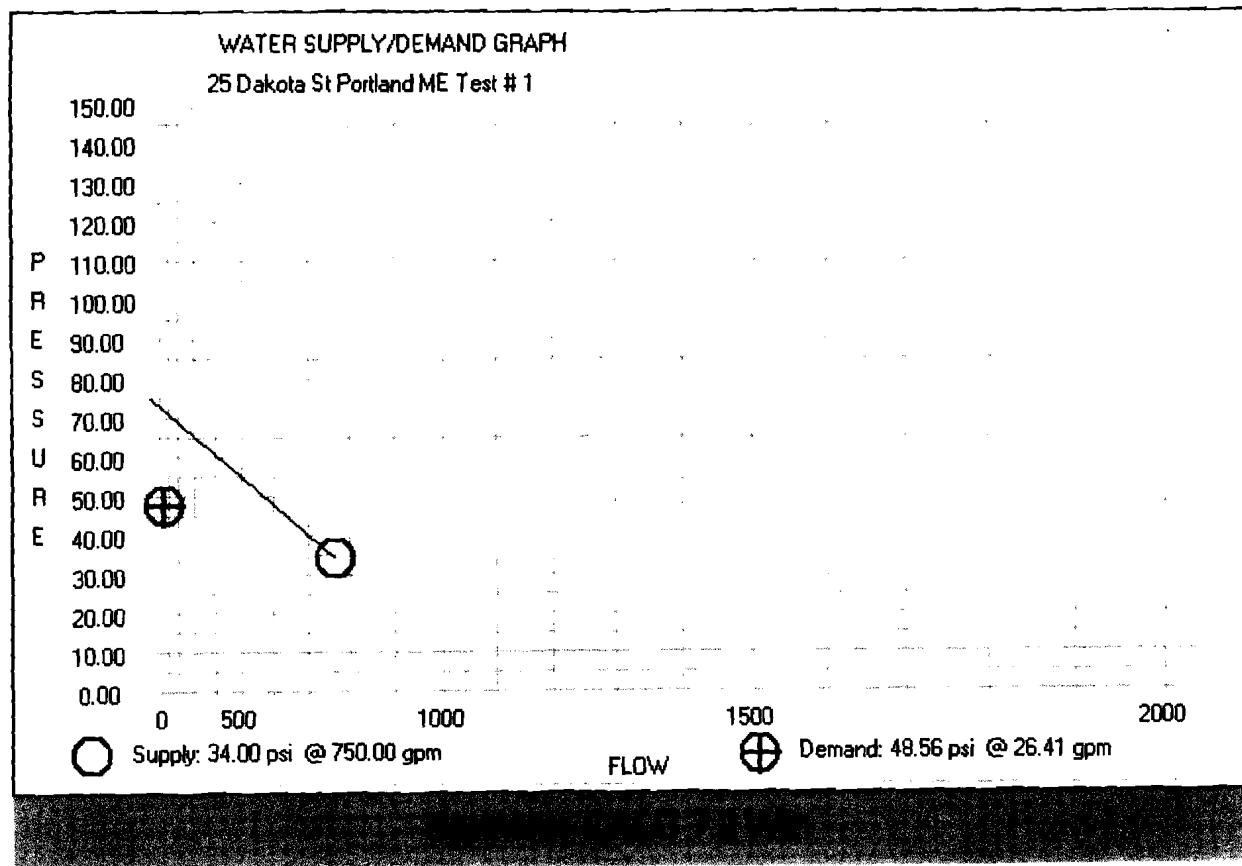
Prior to acceptance of any fire protection system, a complete commissioning and acceptance test must be coordinated with all fire system contractors and the Fire Department, and proper documentation of such test(s) provided.

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

Applicant signature: \_\_\_\_\_

Date: \_\_\_\_\_

11/20/11



25 Dakota St Portland ME Test # 1

PAGE 1

## HYDRAULIC CALCULATIONS AT SPECIFIED FLOW

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☐ TEST AREA 1    ☐ TEST AREA 2    ☐ TEST AREA 3    ☐ REMOTE AREA

Elevation of sprinklers = Elevation above water test.

REF. PT.	K	ELEV. ft	FLOW gpm	----- PRESSURE (psi) -----		
				Total	Velocity	Normal
101	4.90	28.00	13.41	7.49	0.00	7.49
102	4.90	28.00	13.00	7.04	0.00	7.04

THE SPRINKLER SYSTEM FLOW IS 26.41 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 0.00 gpm

☐ THE INSIDE HOSE    ☐ RACK SPKLR'S.    IS 0.00 gpm  
☐ YARD HYDT. FLOW

 THE FOLLOWING PRESSURES & FLOWS OCCUR  
 ---> AT REF. PT. 1 <---

STATIC PRESSURE	75.00 psi		
RESIDUAL PRESSURE	34.00 psi	AT	750.00 gpm
TOTAL SYSTEM FLOW	26.41 gpm		
AVAILABLE PRESSURE	74.92 psi	AT	26.41 gpm
OPERATING PRESSURE	48.56 psi	AT	26.41 gpm
PRESSURE REMAINING	26.35 psi		

THE ABOVE RESULTS INCLUDE 9.00 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☐ BACKFLOW PREVENTER    ☐ METER  
☐ DETECTOR CHECK VALVE    ☐ OTHER DEVICE



25 Dakota St Portland ME Test # 1

PAGE 2

FITTING Equivalent Length per NFPA 13 1994, 6-4.3  
 '-' Indicates Equivalent Length. 'T' Indicates Threaded Fitting  
 1=45 Elbow, 2=90 Elbow, 3='T'/Cross, 4=Butterfly Valve, 5=Gate Valve, 6=Swing Check Valve

FROM	TO	FLOW (gpm)	PIPE (ft)	FITS	EQV. (ft)	H-W C	PIPE TYPE	DIA. (in)	FRIC. (psi)	ELEV. (psi)	Pt Pv Pn	PRESSURE (psi) Pt Pv Pn	DIFF
1	2	26.41	75.00	23	12.02	150	16	1.528	0.023	0.000	48.56	46.56	2.00
2	3	26.41	12.00	22	21.62	150	1	1.049	0.144	3.467	46.56	29.26	13.83
3	4	26.41	4.00	33	10.01	150	9	1.109	0.110	0.000	29.26	27.73	1.54
4	5	26.41	19.00	332	17.03	150	9	1.109	0.110	0.000	27.73	23.78	3.95
5	6	26.41	6.00	356	13.43	150	9	1.109	0.110	0.000	23.78	21.64	2.14
6	7	26.41	20.00	33	10.01	150	9	1.109	0.110	8.667	21.64	9.69	3.29
7	8	26.41	4.00	3	5.01	150	9	1.109	0.110	0.000	9.69	8.70	0.99
8	9	26.41	4.00	3	5.01	150	9	1.109	0.110	0.000	8.70	7.71	0.99
9	101	13.41	2.00	3	5.01	150	9	1.109	0.031	0.000	7.71	7.49	0.22
9	10	13.00	11.00	3	5.01	150	9	1.109	0.029	0.000	7.71	7.24	0.47
10	102	13.00	2.00	3	5.01	150	9	1.109	0.029	0.000	7.24	7.04	0.21

A MAX. VELOCITY OF 9.8 ft./sec. OCCURS BETWEEN REF. PT. 2 AND 3

Sprinkler-CALC Release 7.2 Win  
 By Walsh Engineering Inc.  
 North Kingstown R.I. U.S.A.

## H Y D R A U L I C   C A L C U L A T I O N S

## C O V E R   S H E E T

25 Dakota St Portland ME Test # 1

## W A T E R   S U P P L Y

STATIC PRESSURE	(psi)	75
RESIDUAL PRESSURE	(psi)	34
RESIDUAL FLOW	(gpm)	750

## B O O S T E R   P U M P S

NUMBER OF BOOSTER PUMPS 0

## S P R I N K L E R S

MINIMUM FLOW PER SPRINKLER	(gpm)	13
MINIMUM PRESSURE PER SPRINKLER	(psi)	7.04

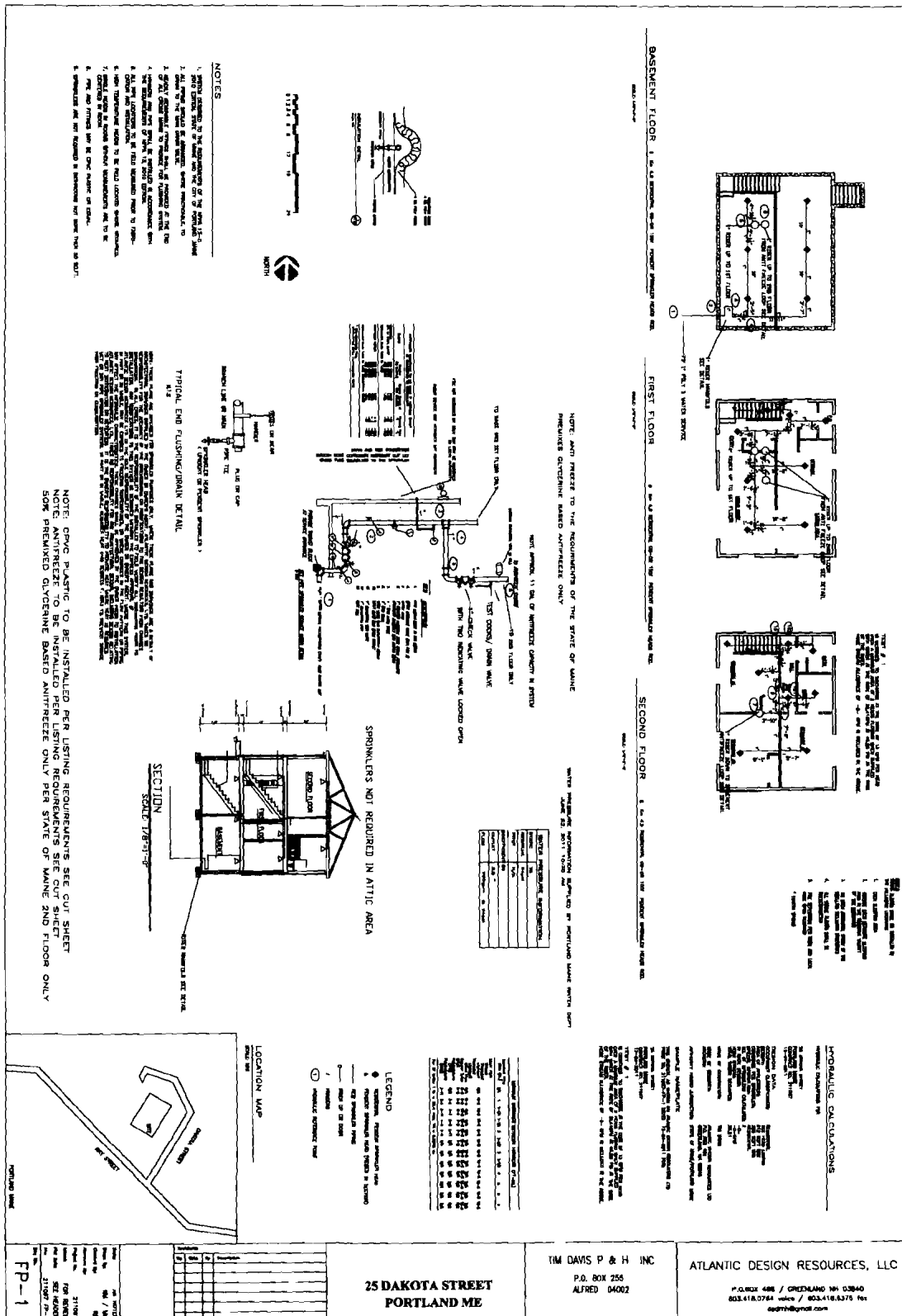
THIS SYSTEM OPERATES AT A FLOW OF 26.41 gpm AT A PRESSURE OF 46.56 psi  
AT THE BASE OF THE RISER (REF. PT. 2)

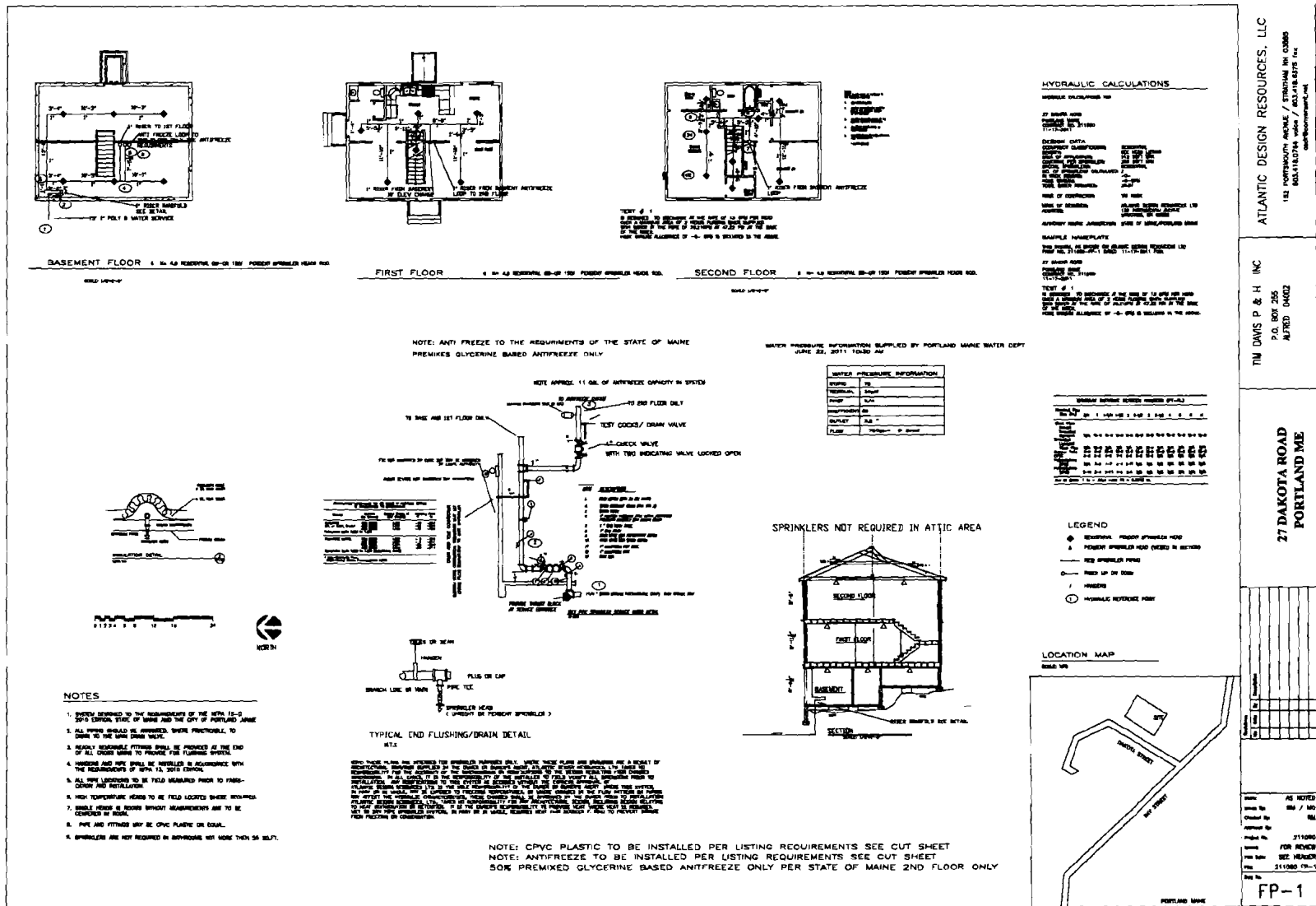
## PIPES USED FOR THIS SYSTEM

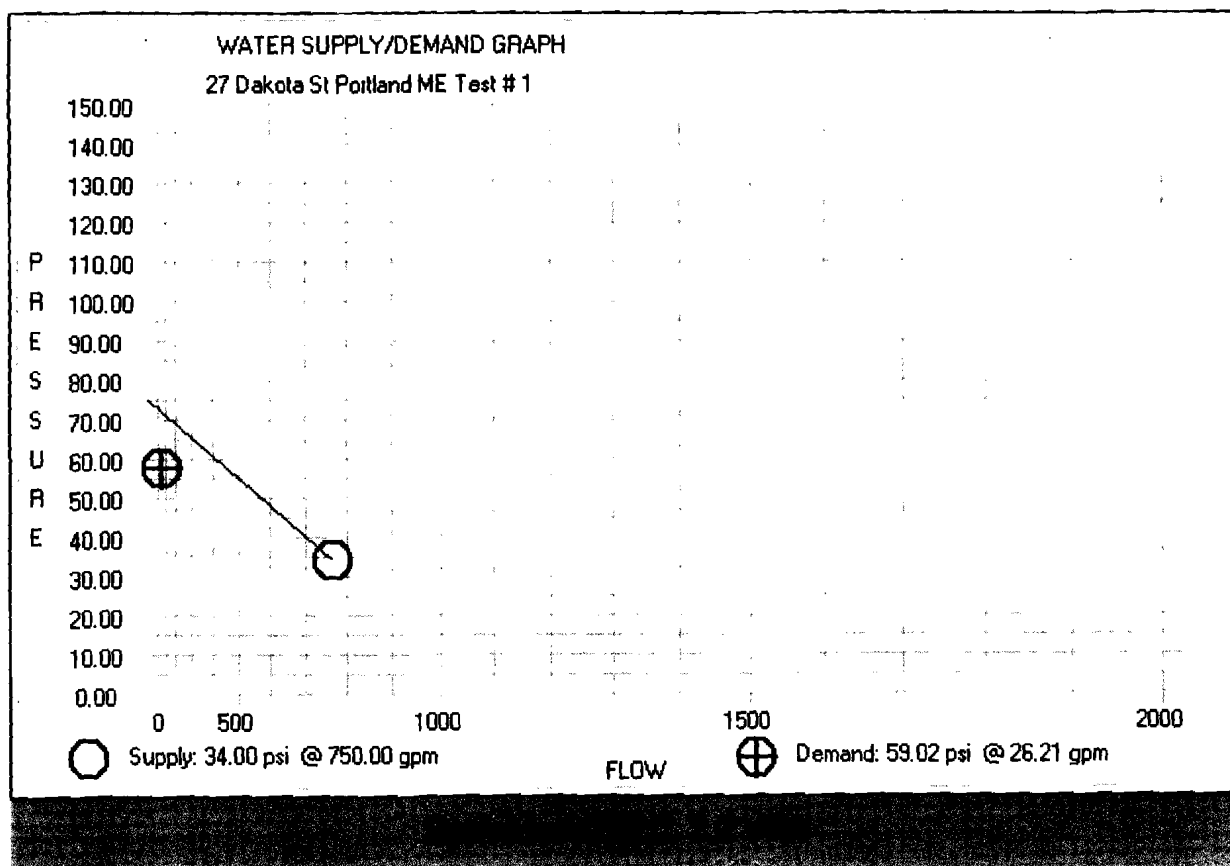
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016	POLYBUTYLENE
001	SCHEDULE 40
009	BLAZEMASTER CPVC









27 Dakota St Portland ME Test # 1

PAGE 1

## HYDRAULIC CALCULATIONS AT SPECIFIED FLOW

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☐ TEST AREA 1    ☐ TEST AREA 2    ☐ TEST AREA 3    ☐ REMOTE AREA

Elevation of sprinklers = Elevation above water test.

REF. PT.	K	ELEV. ft	FLOW gpm	----- PRESSURE (psi) -----		
				Total	Velocity	Normal
101	4.90	28.00	13.00	7.55	0.51	7.04
102	4.90	28.00	13.21	7.27	0.00	7.27

THE SPRINKLER SYSTEM FLOW IS 26.21 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 0.00 gpm

☐ THE INSIDE HOSE    ☐ RACK SPKLR'S.    IS 0.00 gpm  
☐ YARD HYDT. FLOW

 THE FOLLOWING PRESSURES & FLOWS OCCUR  
 ----> AT REF. PT. 1 <----

STATIC PRESSURE	75.00 psi		
RESIDUAL PRESSURE	34.00 psi	AT	750.00 gpm
TOTAL SYSTEM FLOW	26.21 gpm		
AVAILABLE PRESSURE	74.92 psi	AT	26.21 gpm
OPERATING PRESSURE	59.02 psi	AT	26.21 gpm
PRESSURE REMAINING	15.90 psi		

THE ABOVE RESULTS INCLUDE 9.00 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☐ BACKFLOW PREVENTER    ☐ METER  
☐ DETECTOR CHECK VALVE    ☐ OTHER DEVICE

27 Dakota St Portland ME Test # 1

PAGE 2

FITTING Equivalent Length per NFPA 13 1994, 6-4.3														
'-' Indicates Equivalent Length. 'T' Indicates Threaded Fitting														
1=45 Elbow, 2=90 Elbow, 3='T'/Cross, 4=Butterfly Valve, 5=Gate Valve, 6=Swing Check Valve														
FROM	TO	FLOW (gpm)	PIPE (ft)	FITS	EQV. (ft)	H-W C	PIPE TYPE	DIA. (in)	FRIC. (psi)	ELEV. (psi)	Pt Pv Pn	PRESSURE Pt Pv Pn	(psi) DIFF	
1	2	26.21	75.00	23	9.01	150	16	1.051	0.140	0.000	59.02	47.22	11.80	
2	3	26.21	12.00	22	356	21.62	150	1	1.049	0.142	3.467	47.22	29.99	13.76
3	4	26.21	18.00	33	10.01	150	9	1.109	0.108	0.000	29.99	26.96	3.03	
4	5	26.21	8.00	23	12.02	150	9	1.109	0.108	0.000	26.96	24.80	2.16	
5	6	26.21	2.00	356	13.43	150	9	1.109	0.108	0.000	24.80	23.14	1.66	
6	7	26.21	20.00	33	10.01	150	9	1.109	0.108	8.667	23.14	11.23	3.24	
7	8	26.21	5.00	3	5.01	150	9	1.109	0.108	0.000	11.23	10.14	1.08	
8	9	26.21	11.00	3	5.01	150	9	1.109	0.108	0.000	10.14	8.41	1.73	
9	101	26.21	3.00	3	5.01	150	9	1.109	0.108	0.000	8.41	7.55	0.87	
101	102	13.21	9.00	0	0.00	150	9	1.109	0.030	0.000	7.55	7.27	0.28	

A MAX. VELOCITY OF 9.73 ft./sec. OCCURS BETWEEN REF. PT. 2 AND 3

Sprinkler-CALC Release 7.2 Win  
 By Walsh Engineering Inc.  
 North Kingstown R.I. U.S.A.



# HYDRAULIC CALCULATIONS

## COVER SHEET

27 Dakota St Portland ME Test # 1

### WATER SUPPLY

STATIC PRESSURE (psi) 75  
RESIDUAL PRESSURE (psi) 34  
RESIDUAL FLOW (gpm) 750

### BOOSTER PUMPS

NUMBER OF BOOSTER PUMPS 0

### SPRINKLERS

MINIMUM FLOW PER SPRINKLER (gpm) 13  
MINIMUM PRESSURE PER SPRINKLER (psi) 7.27

THIS SYSTEM OPERATES AT A FLOW OF 26.21 gpm AT A PRESSURE OF 47.22 psi  
AT THE BASE OF THE RISER (REF. PT. 2)

### PIPES USED FOR THIS SYSTEM

\*\*\*\*\*  
016 POLYBUTYLENE  
001 SCHEDULE 40  
009 BLAZEMASTER CPVC

