

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT



This is to certify that

BROWN DAVID R & ALLISON K BROWN
JTS/Residential Fire Protection /Stan Camic

PERMIT ID: 2013-00127

Located at

25 LENNOX ST

CBL: 430 A007001

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 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 cloed-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 procured prior to occupancy.

Fire Prevention Officer

58

Code Enforcement Officer / Plan Reviewer

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
THERE IS A PENALTY FOR REMOVING THIS CARD**

PERMIT ID: 2013-00127

Located at: 25 LENNOX ST

CBL: 430 A007001

BUILDING PERMIT INSPECTION PROCEDURES
Please call 874-8703 (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.**

REQUIRED INSPECTIONS:

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.

City of Portland, Maine - Building or Use Permit

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

Permit No: 2013-00127	Date Applied For: 01/22/2013	CBL: 430 A007001
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Location of Construction: 25 LENNOX ST	Owner Name: BROWN DAVID R & ALLISON K	Owner Address: 25 LENNOX ST	Phone:
Business Name:	Contractor Name: Residential Fire Protection /Stan Ca	Contractor Address: 64 Daggett Hill Road Greene	Phone (207) 946-3474
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	

Proposed Use: Single Family	Proposed Project Description: install NFPA 13D sprinkler system.
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Dept: Zoning	Status: Approved	Reviewer: Marge Schmuckal	Approval Date: 01/23/2013
Note:			Ok to Issue: <input checked="" type="checkbox"/>
Dept: Fire	Status: Approved w/Conditions	Reviewer: Ben Wallace Jr	Approval Date: 02/25/2013
Note:			Ok to Issue: <input checked="" type="checkbox"/>
<p>1) The sprinkler system shall be installed in accordance with NFPA 13D.</p> <p>2) 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.</p> <p>3) A warning sign, with minimum ¼ in. letters, shall be affixed adjacent to the main shutoff valve and shall state the following: Warning: The water system for this house supplies fire sprinklers that require certain flows and pressures to fight a fire. Devices that restrict the flow or decrease the pressure or automatically shut off the water to the fire sprinkler system, such as water softeners, filtrations systems, and automatic shut off valves, shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign.</p> <p>4) A copy of the required state sprinkler permit with RMS signoff shall be provided prior to the final inspection.</p>			

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 2013-00127	Issue Date:	CBL: 430 A007001
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Location of Construction: 25 LENNOX ST	Owner Name: BROWN DAVID R & ALLISON K BROWN JTS	Owner Address: 25 LENNOX ST PORTLAND, ME 04103	Phone:
Business Name:	Contractor Name: Residential Fire Protection /Stan Camic	Contractor Address: 64 Daggett Hill Road Greene ME 04236	Phone (207) 946-3474
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	Zone: R3
Past Use: Single Family	Proposed Use: Single Family	Permit Fee: Waived \$80.00	Cost of Work: \$6,000.00
Proposed Project Description: SF Fire suppression; no charge		FIRE DEPT: 2/25/13 <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> N/A	INSPECTION: Use Group: Type:
		Signature: <i>[Signature]</i> (58)	Signature:
		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)	
		Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	
		Signature:	Date:

Permit Taken By: bjs	Date Applied For: 01/22/2013	Zoning Approval	
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<ol style="list-style-type: none"> This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building permits do not include plumbing, septic or electrical work. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.. 	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: <i>[Signature]</i> 1/23/13	Zoning Appeal <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:	Historic Preservation <input checked="" type="checkbox"/> Not in District 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>
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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

One- or Two-family Fire Sprinkler 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: 25 Lennox st

Building owner: Rush Brown Phone: 650-6204

Installer: Residential Fire Protection Phone: 946-3473

Total sq/ft of building floor space per unit: _____ 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=** 1

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

RECEIVED
22 2013
Dept. of Building Inspections
City of Portland Maine

COST OF WORK: <u>\$5544.00</u> (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.

HYDRAULIC DESIGN INFORMATION SHEET

Name - Brown Residence Date - 1-15-13
Location - 2nd Floor
Building - System No. - 1 of 1
Contractor - Residential Fire Protection Contract No. - C13003
Calculated By - JAL Drawing No. - 1 of 1
Construction: (X) Combustible () Non-Combustible Ceiling Height 7'-0"
OCCUPANCY - Residential

S Type of Calculation: ()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 - 13 Gpm System Type
Listed Pres. at Start Point - 7 Psi (X) Wet () Dry
D MAXIMUM LISTED SPACING 16 x 16 () Deluge () PreAction
E Domestic Flow Added - Gpm Sprinkler or Nozzle
S Additional Flow Added - Gpm Make Viking Model VK468
I Elevation at Highest Outlet - Feet Size K-Factor 4.9
G Note: Safety Margin: 6.670 Temperature Rating 155
N

Calculation Summary Gpm Required 26.634 C-Factor Used: Psi Required 79.275 Overhead 150 At Test Underground 150

W Water Flow Test: Pump Data: Tank or Reservoir:
A Date of Test - 3-2-12 Rated Cap. Cap.
T Time of Test - @ Psi Elev.
E Static (Psi) - 86 Elev.
R Residual (Psi) - 20 Other Well
Flow (Gpm) - 1221 Proof Flow Gpm
S Elevation - 0

P Location:
P
L Source of Information:
Y

Water Supply Curve (C)

RESIDENTIAL FIRE PROTECTION
Brown residence

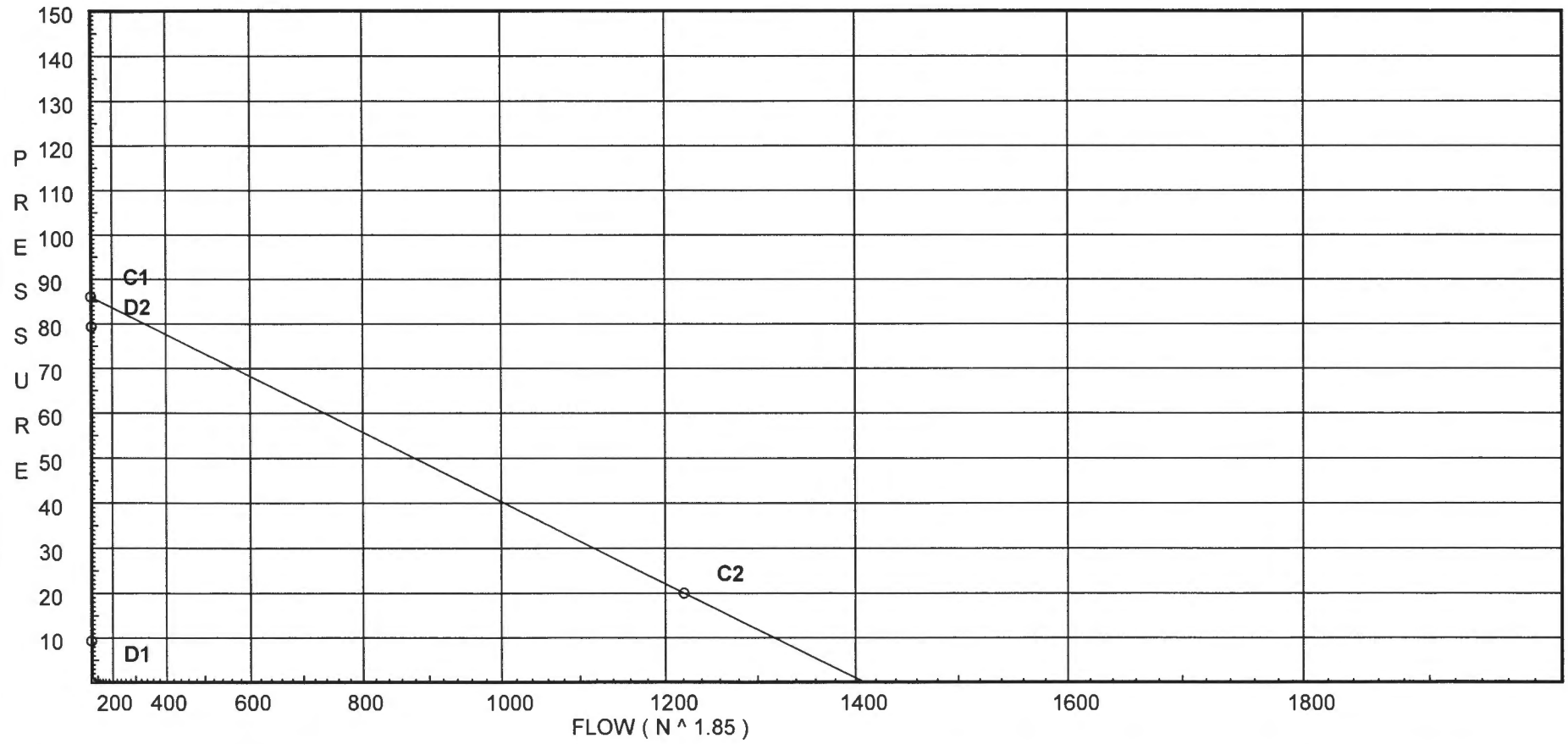
Page 2
Date 01-15-13

City Water Supply:

C1 - Static Pressure : 86
C2 - Residual Pressure: 20
C2 - Residual Flow : 1221

Demand:

D1 - Elevation : 9.312
D2 - System Flow : 26.6345
D2 - System Pressure : 79.275
Hose (Adj City) : _____
Hose (Demand) : _____
D3 - System Demand : 26.6345
Safety Margin : 6.670



Fittings Used Summary

RESIDENTIAL FIRE PROTECTION

Brown residence

Page 3
Date 01-15-13

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
G	Generic Gate Valve	0	0	1	1	1	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
N	CPVC 90' Ell Harvel-Spears	7	7	7	8	9	11	12	13	0	0	0	0	0	0	0	0	0	0	0	0
O	CPVC Tee - Branch	3	3	5	6	8	10	12	15	0	0	0	0	0	0	0	0	0	0	0	0
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
Y	Mechanical Tee	2	4	5	6	8	10.5	12.5	15.5	0	22	0	0	0	0	0	0	0	0	0	0
Zwb	Watts 009	Fitting generates a Fixed Loss Based on Flow																			

Pressure / Flow Summary - STANDARD

RESIDENTIAL FIRE PROTECTION
Brown residence

Page 4
Date 01-15-13

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
DRP	16.5	5.6	7.0	na	14.82	0.1	146	7.0
1	21.5	4.9	7.04	na	13.0	0.1	130	7.0
2	21.5	4.9	7.74	na	13.63	0.1	130	7.0
3	0.0		23.7	na				
4	0.0		23.7	na				
5	0.0		23.7	na				
10	0.0		22.4	na				
11	0.0		23.7	na				
TR	0.0		26.7	na				
BR	1.0		41.17	na				
UG1	0.0		79.27	na				
UG2	0.0		79.27	na				
TEST	0.0		79.27	na				

The maximum velocity is 19.6 and it occurs in the pipe between nodes BR and UG1

Final Calculations - Hazen-Williams

RESIDENTIAL FIRE PROTECTION

Brown residence

Page 5
Date 01-15-13

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	***** Notes *****
DRP to HD	14.82	0.874 150	1O 3.0 0.0	0.660 3.000	7.000 7.146		K Factor = 5.60
	14.82	0.1202	0.0	3.660	0.440		Vel = 7.93
	0.0 14.82				14.586		K Factor = 3.88
1 to 2	13.00	1.049 120	0.0 0.0	12.000 0.0	7.039 0.0		K Factor = 4.90
	13.0	0.0587	0.0	12.000	0.704		Vel = 4.83
2 to 10	13.63	1.049 120	5E 10.0 0.0	14.170 10.000	7.743 9.312		K Factor = 4.90
	26.63	0.2211	0.0	24.170	5.343		Vel = 9.89
	0.0 26.63				22.398		K Factor = 5.63
3 to 5	0.0	0.874 150	3N 21.0 0.0	5.500 21.000	23.698 0.0		Vel = 0
	0.0	0.0	0.0	26.500	0.0		Vel = 0
	0.0 0.0				23.698		K Factor = 0
4 to 5	0.0	0.874 150	3N 21.0 0.0	7.330 21.000	23.698 0.0		Vel = 0
	0.0	0.0	0.0	28.330	0.0		Vel = 0
5 to 11	0.0	1.101 150	2O 10.0 0.0	12.330 10.000	23.698 0.0		Vel = 0
	0.0	0.0	0.0	22.330	0.0		Vel = 0
	0.0 0.0				23.698		K Factor = 0
10 to 11	26.63	1.101 150	1O 5.0 0.0	6.250 5.000	22.398 0.0		Vel = 8.97
	26.63	0.1156	0.0	11.250	1.300		Vel = 8.97
11 to TR	0.0	1.101 150	1N 7.0 1O 5.0	14.000 12.000	23.698 0.0		Vel = 8.97
	26.63	0.1156	0.0	26.000	3.006		Vel = 8.97
TR to BR	0.0	1.049 120	1Zwb 0.0 1Y 5.0	5.000 14.000	26.704 10.267		* Fixed loss = 10.7
	26.63	0.2211	2E 4.0 1O 5.0	19.000	4.200		Vel = 9.89
BR to UG1	0.0	0.745 150	1T 3.7 1E 1.85	25.000 5.550	41.171 14.433		* Fixed loss = 14
	26.63	0.7745	0.0	30.550	23.662		Vel = 19.60
UG1 to UG2	0.0	6.16 140	1G 4.304 1T 43.037	150.000 47.341	79.266 0.0		Vel = 0.29
	26.63	0.0	0.0	197.341	0.006		Vel = 0.29
UG2 to TEST	0.0	6.16 140	2G 8.607 1T 43.037	40.000 51.644	79.272 0.0		Vel = 0.29
	26.63	0.0	0.0	91.644	0.003		Vel = 0.29
	0.0 26.63				79.275		K Factor = 2.99

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G Note: Safety Margin: 6.670 Temperature Rating 155
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E Static (Psi) - 86 Elev.
R Residual (Psi) - 20 Other Well
Flow (Gpm) - 1221 Proof Flow Gpm
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P Location:
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Water Supply Curve (C)

RESIDENTIAL FIRE PROTECTION
Brown residence

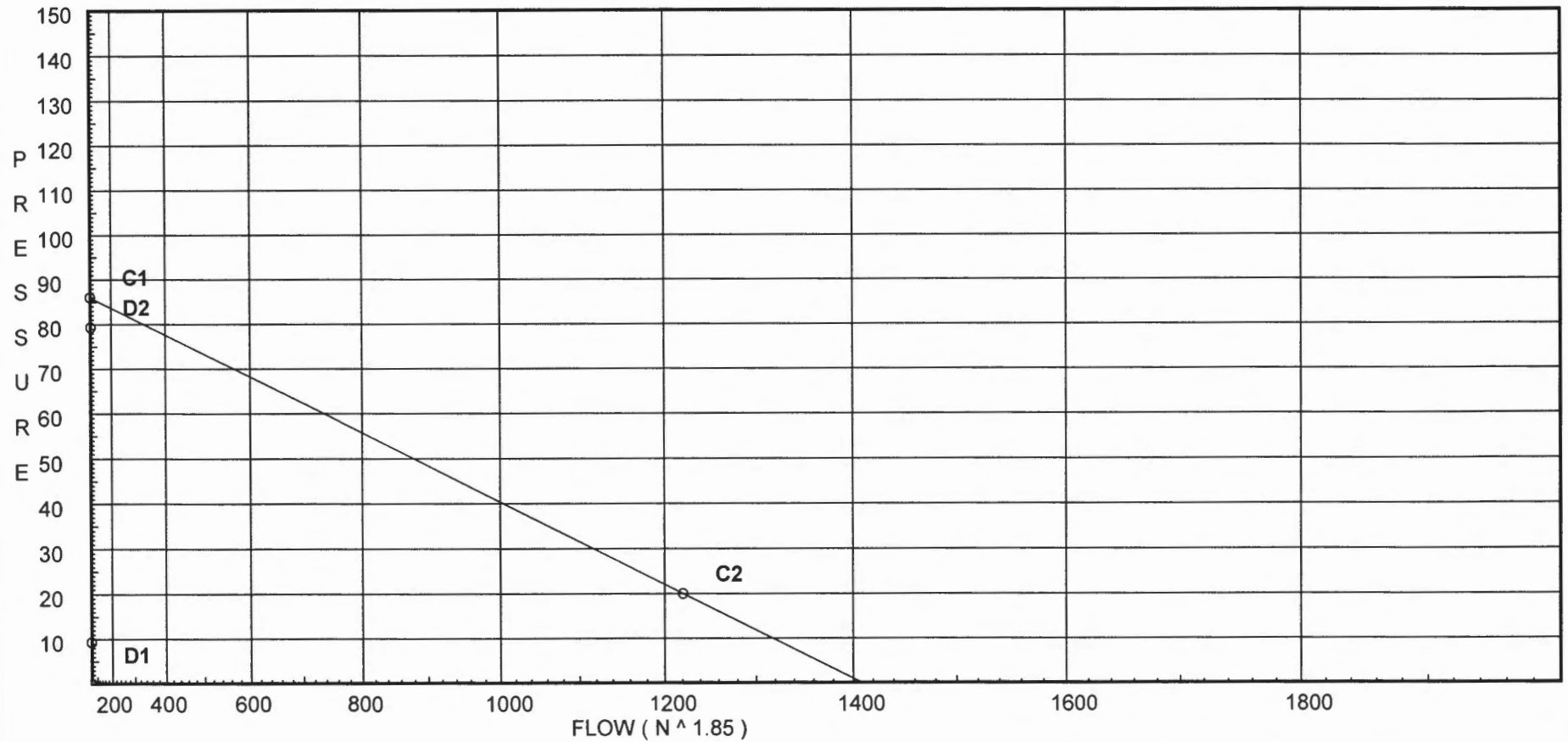
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Fittings Used Summary

RESIDENTIAL FIRE PROTECTION

Brown residence

Page 3
Date 01-15-13

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
G	Generic Gate Valve	0	0	1	1	1	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
N	CPVC 90'Ell Harvel-Spears	7	7	7	8	9	11	12	13	0	0	0	0	0	0	0	0	0	0	0	0
O	CPVC Tee - Branch	3	3	5	6	8	10	12	15	0	0	0	0	0	0	0	0	0	0	0	0
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
Y	Mechanical Tee	2	4	5	6	8	10.5	12.5	15.5	0	22	0	0	0	0	0	0	0	0	0	0
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