City of Portland, Maine - Building or Use Permit Application

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

Job No: 2011-05-1128-FAFS	Date Applied: 5/10/2011	CBL: 027 - - B - 002 - 001 - - - - -	
Location of Construction: 443 CONGRESS ST – 5th floor	Owner Name: **MARY J E CLAPP DEVS**	Owner Address: **443 CONGRESS ST** **PORTLAND, ME - MAINE 04101**	Phone:
Business Name:	Contractor Name: **High Tech Fire Protection**	Contractor Address:	Phone: **998-2551**
Lessee/Buyer's Name:	Phone:	Permit Type: **FIRE SYS WB - Fire Suppression Water Based**	Zone: **B-3**
Past Use: **Offices on 5th floor**	Proposed Use: **Same: Offices on 5th floor - To install sprinkler system**	Cost of Work: **$36,000.00**	CEO District:

Past Use:	Proposed Use:	Fire Dept: <u>/</u> Approved *w/conditions* ___ Denied ___ N/A Signature: *BJClWalk* (58)	Inspection: Use Group: Type: Signature:

Proposed Project Description: **443 Congress Street – Install sprinkler system**	Pedestrian Activities District (P.A.D.)

Permit Taken By: Gayle	**Zoning Approval**

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 electrial 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	**Zoning Appeal**	**Historic Preservation** *within*
___ Shoreland		___ Not in Dist or Landmark
___ Wetlands	___ Variance	___ Does not Require Review
___ Flood Zone	___ Miscellaneous	<u>___</u> Requires Review
___ Subdivision	___ Conditional Use	___ Approved
___ Site Plan	___ Interpretation	___ Approved w/Conditions
___ Maj ___ Min ___ MM	___ Approved	___ Denied *Any exterior work*
Date: *OK w/conditions* *5/24/11*	___ Denied Date:	Date: *requires A separate review & Approval*

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	PHON

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: __443 CONGRESS ST.__ CBL: __027 B002__

Exact location: (within structure) __5TH FLOOR__

Type of occupancy(s) (NFPA & ICC): __NFPA 13 - OFFICE SPACE__

Building owner: __JJR 443 CONGESS ST - C/O NORTHLAND ENTERPRISES - 1 CITY CENTER 4TH FL.__

Managing Supervisor (RMS): __273__ License No: __102__

Supervisor phone: __998-2551__ E-mail: __BSTHILAIRE@FAIRPOINT.NET__

Installing contractor: __HIGH TECH FIRE PROTECTION__ License No: __102__

Contractor phone: __998-2551__ E-mail: __BSTHILAIRE@FAIRPOINT.NET__

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: __NFPA 13__   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: __$ 36,000.00__
PERMIT FEE: __$ 380.00__
($10 PER $1,000 + $30 FOR THE FIRST $1,000)

PLEASE CALL FOR
OUR CREDIT CARD #
998-2551
THANKS BRYAM ST.HILAIRE

5/18 ✗

Linda will call
back w/ 1 credit
card #
6ay6
Second message

ions Department.
stem, a complete
rtment, and prop
nd the Fire Dep

5/23/11
Pd by CC
Today
5/23/11 66

ted with
Mail

High Tech Fire Protection

Po Box 156 Minot, Maine 04258-0156
Tel: 207-998-2551
Fax: 207-998-4187

To: Portland City hall
     389 Congress St Room 315
     Portland, ME. 04101

Letter of Transmittal

Date:	May 4, 2011	Job No.
Attention:		
Re:		

We are sending you ☐ Attached ☐ under separate cover Via ———————— the following items.

☐ Shop dwgs   ☐ Prints   ☐ Plans   ☐ Samples   ☐ Specifications

☐ Copy of letter   ☐ Change order   ☐ _____

Copies	Date	No.	Description
1		FP01	Fire Sprinkler Drawing
1			Hydraulic Calculation print out
1			State Fire Marshals Sprinkler Permit
1			City of Portland fire sprinkler permit application

These are Transmitted as checked below:

☐ For Approval   ☐ For your use   ☐ Return_____ Permit

☐ As requested   ☐ For review and comment   ☐ Return Approved Set

Comments:

   If you have any questions please call.

                    Thank You, Bryan St.Hilaire

RECEIVED

MAY 10 2011

Dept. of Building Inspections
City of Portland Maine

Signed: _____

Fire Sprinkler System Permit

9487

Clapp Building 5th Floor

Located at: 443 Congress St

In the Town of: Portland

Occupancy/Use: Office

Type of System: NFPA 13

Permission is hereby given to:

High Tech Fire Protection Co., Inc.

PO Box 156

Minot, ME 042580156

Contractor License #   **102**

to begin installation according to plans submittal approved by the Office of State Fire Marshal.
The submittal is filed under log # **2111141** , 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   **4/30/2011**   for a fee paid of **$100.00**

This permit will expire at midnight on   **Thursday, October 27, 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: Labonte Linda C.   RMS Signature:_____
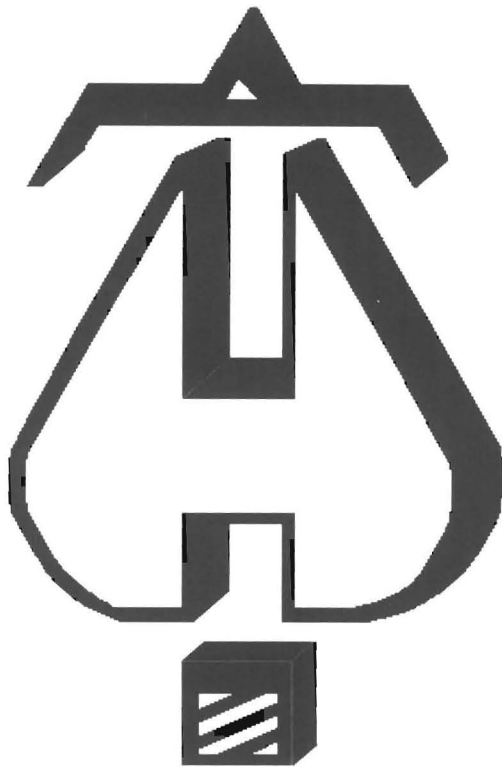
. . . Fire Protection by Computer Design

HIGH TECH FIRE PROTECTION
84 HACKETT MILLS ROAD
POLAND, ME 04274
998-2551

Job Name	Clapp Building 5th floor
Building	
Location	. 443 Congress St - Portland, ME
System	NFPA 13
Contract	
Data File	· 5th floor.wx1

Hydraulic Design Information Sheet

Name - Clapp Building 5th floor   Date - 4/26/2011
Location - 443 Congress St - Portland, ME
Building -   System No. - NFPA 13
Contractor - Development Services of NE   Contract No. -
Calculated By - High Tech Fire Protection   Drawing No. -
Construction: ( ) Combustible (X) Non-Combustible Ceiling Height - 8 ft
Occupancy - Office Space

S   (X) NFPA 13   (X) Lt. Haz.   Ord.Haz.Gp. ( ) 1 ( ) 2 ( ) 3   ( ) Ex.Haz.
Y   ( ) NFPA 231 ( ) NFPA 231C   ( ) Figure   Curve
S   Other
T   Specific Ruling   Made By   Date
E
M   Area of Sprinkler Operation - 900 SQ FT System Type   Sprinkler/Nozzle
      Density   - .1   (X) Wet   Make Globe
D   Area Per Sprinkler   - 196   ( ) Dry   Model GL 5601
E   Elevation at Highest Outlet - 50 FT   ( ) Deluge   Size 1/2"
S   Hose Allowance - Inside   -   ( ) Preaction   K-Factor 5.6
I   Rack Sprinkler Allowance   -   ( ) Other   Temp.Rat.155
G   Hose Allowance - Outside   - 100
N
      Note

Calculation Flow Required - 157 gpm Press Required - 50 psi
Summary   C-Factor Used: 120   Overhead   100   Underground

W   Water Flow Test: Pump Data: Tank or Reservoir:
A   Date of Test   - 8/2009   Cap. -
T   Time of Test   -   Rated Cap.-   Elev.-
E   Static Press   - 76   @ Press   -
R   Residual Press - 74   Elev.   -   Well
    Flow   - 2250   Proof Flow
S   Elevation   - 0
U
P   Location - Hydrant #460 - Congress St Portland
P
L   Source of Information - Portland Water Dist
Y

C   Commodity   Class   Location
O   Storage Ht.   Area   Aisle W.
M   Storage Method: Solid Piled   %   Palletized   %   Rack
M
          ( ) Single Row   ( ) Conven. Pallet   ( ) Auto. Storage   ( ) Encap.
S   R   ( ) Double Row   ( ) Slave Pallet   ( ) Solid Shelf   ( ) Non
T   A   ( ) Mult. Row   ( ) Open Shelf
O   C
R   K   Flue Spacing   Clearance:Storage to Ceiling
A   Longitudinal   Transverse
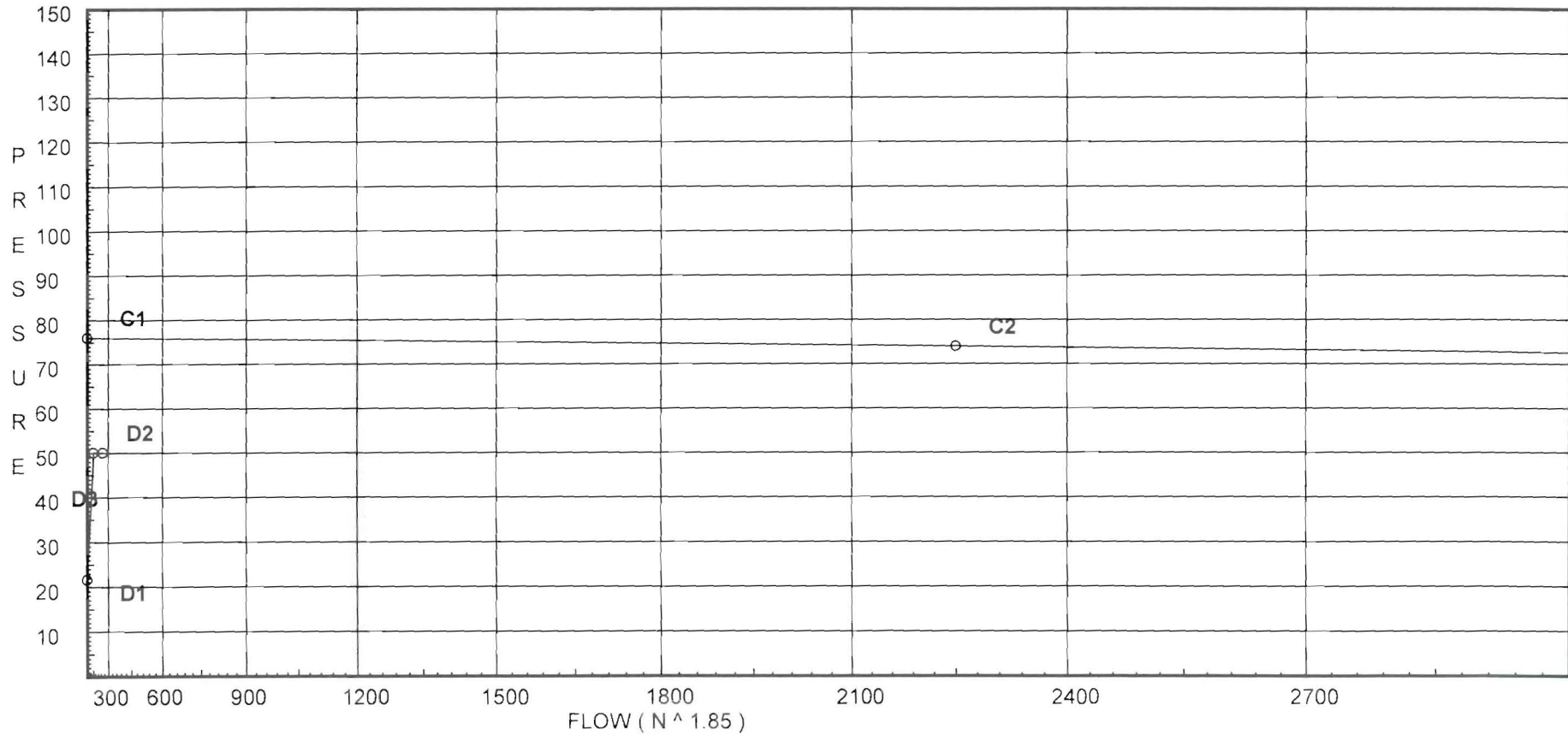G
E   Horizontal Barriers Provided:

Water Supply Curve (C)

City Water Supply:
- C1 - Static Pressure   76
- C2 - Residual Pressure: 74
- C2 - Residual Flow   2250

Demand:
- D1 - Elevation   21.655
- D2 - System Flow   . 157.51
- D2 - System Pressure   50.098
- Hose (Adj City)
- Hose (Demand)   100
- D3 - System Demand   . 257.51
- Safety Margin   25.866

Pressure vs. Flow chart. Y-axis "PRESSURE" from 10 to 150. X-axis "FLOW (N ^ 1.85)" from 300 to 2700. Points plotted: C1 at ~76, C2 at ~74, D2 at ~50, D3 at ~40, D1 at ~21.

Fittings Used Summary

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
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
Z	Generic Flow Switch	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61

Node No	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
50	50.0	5 6	12.25	na	19.6	0.1	196	7 0
51	50.0	5.6	12 03	na	19 43	0.1	150	7.0
52	50 0	5.6	12.39	na	19 71	0.1	168	7 0
53	50 0	5.6	12.03	na	19.42	0.1	10	7.0
55	50.0	5.6	12.77	na	20.01	0 1	168	7 0
56	50 0	5.6	12.28	na	19.63	0.1	168	7 0
57	50.0	5 6	12.13	na	19.51	0.1	168	7 0
58	50.0	5.6	13.02	na	20.2	0.1	196	7 0
A	50 0		13.63	na				
B	50 0		13.64	na				
C	50.0		13.78	na				
D	50.0		13.84	na				
E	50 0		13.87	na				
F	50.0		13.88	na				
G	50 0		13.94	na				
H	50.0		14.04	na				
I	50.0		14.24	na				
J	50 0		14.34	na				
500	50.0		18.07	na				
ZONE	10 0		43.93	na				
TOR	0 0		49 12	na				
BOR	0.0		49.47	na	100.0			
HOSE	0 0		49.63	na				
100	0.0		50.09	na				
TEST	0.0		50.1	na				

The maximum velocity is 13.83 and it occurs in the pipe between nodes 500 and ZONE

Final Calculations - Hazen-Williams

HIGH TECH FIRE PROTECTION
Clapp Building 5th floor

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
50	19.60	1.049	1E	2.0	4.000	12.250		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
A	19.6	0.1254		0.0	11.000	1.379		Vel = 7.28
	0.0							
	19.60					13.629		K Factor = 5.31
51	19.43	1.049	1E	2.0	6.000	12.033		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
B	19.43	0.1233		0.0	13.000	1.603		Vel = 7.21
	0.0							
	19.43					13.636		K Factor = 5.26
52	19.71	1.049	1E	2.0	4.000	12.390		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
C	19 71	0.1267		0.0	11.000	1.394		Vel = 7.32
	0.0							
	19.71					13.784		K Factor = 5.31
53	19.42	1.049	1E	2.0	8.000	12.031		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
F	19.42	0.1233		0.0	15.000	1.849		Vel = 7.21
	0.0							
	19.42					13.880		K Factor = 5.21
55	20 01	1.049	1E	2.0	2.000	12.771		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
G	20.01	0.1302		0.0	9.000	1 172		Vel = 7.43
	0.0							
	20.01					13.943		K Factor = 5.36
56	19.63	1.049	1E	2.0	7.000	12.283		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
H	19.63	0.1256		0.0	14.000	1.759		Vel = 7.29
	0.0							
	19.63					14.042		K Factor = 5.24
57	19.51	1.049	1E	2.0	10.000	12.132		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
I	19.51	0.1242		0.0	17.000	2.112		Vel = 7.24
	0.0							
	19.51					14.244		K Factor = 5.17
58	20.20	1.049	1E	2.0	3.000	13.017		K Factor = 5.60
to		120	1T	5.0	7.000	0.0		
J	20.2	0.1326		0.0	10.000	1.326		Vel = 7.50
	0 0							
	20.20					14.343		K Factor = 5.33
A	19.60	2.157		0.0	2.000	13.629		
to		120		0.0	0.0	0.0		
B	19.6	0.0035		0.0	2.000	0.007		Vel = 1.72
B	19.43	2.157		0.0	11.000	13.636		
to		120		0.0	0.0	0.0		
C	39.03	0.0135		0.0	11.000	0.148		Vel = 3.43
C	19.71	2.157		0.0	2.000	13.784		
to		120		0.0	0.0	0.0		
D	58.74	0.0285		0.0	2.000	0.057		Vel = 5.16

Hyd. Ref. Point	Qa / Qt	Dia. "C" / Pf/Ft	Fitting or Eqv	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
D	-43.85	2.157	1T	12.307	2.000	13.841		
to		120		0.0	12.307	0.0		
E	14.89	0.0022		0.0	14.307	0.032		Vel = 1.31
E	0.0	2.157		0.0	3.000	13.873		
to		120		0.0	0.0	0.0		
F	14.89	0.0023		0.0	3.000	0.007		Vel = 1.31
F	19.43	2.157		0.0	6.000	13.880		
to		120		0.0	0.0	0.0		
G	34.32	0.0105		0.0	6.000	0.063		Vel = 3.01
G	20.01	2.157		0.0	4.000	13.943		
to		120		0.0	0.0	0.0		
H	54.33	0.0248		0.0	4.000	0.099		Vel = 4.77
H	19.62	2.157	2E	12.307	80.000	14.042		
to		120		0.0	12.307	0.0		
500	73.95	0.0437		0.0	92.307	4.033		Vel = 6.49
	0.0							
	73.95					18.075		K Factor = 17.39
D	43.84	2.157	1T	12.307	12.000	13.841		
to		120		0.0	12.307	0.0		
!	43.84	0.0166		0.0	24.307	0.403		Vel = 3.85
!	19.51	2.157		0.0	3.000	14.244		
to		120		0.0	0.0	0.0		
J	63.35	0.0330		0.0	3.000	0.099		Vel = 5.56
J	20.20	2.157	1E	6.153	62.000	14.343		
to		120		0.0	6.153	0.0		
500	83.55	0.0548		0.0	68.153	3.732		Vel = 7.34
	0.0							
	83.55					18.075		K Factor = 19.65
500	157.51	2.157	2E	12.307	15.000	18.075		
to		120	1G	1.231	33.228	17.324		
ZONE	157.51	0.1769	1S	13.537	48.228	8.533		Vel = 13.83
			1Z	6.153				
ZONE	0.0	4.26	4E	52.668	80.000	43.932		
to		120		0.0	52.668	4.331		
TOR	157.51	0.0064		0.0	132.668	0.854		Vel = 3.55
TOR	0.0	4.26	1G	2.633	10.000	49.117		
to		120	1S	28.968	44.768	0.0		
BOR	157.51	0.0064	1Z	13.167	54.768	0.352		Vel = 3.55
BOR	100.00	6.14	1E	10.608	30.000	49.469		Qa = 100
to		100	1G	2.273	12.881	0.0		
HOSE	257.51	0.0038		0.0	42.881	0.162		Vel = 2.79
HOSE	0.0	6.14	1T	22.732	100.000	49.631		
to		100		0.0	22.732	0.0		
100	257.51	0.0038		0.0	122.732	0.463		Vel = 2.79
100	0.0	16.32	1T	87.173	30.000	50.094		
to		100		0.0	87.174	0.0		
TEST	257.51	0.0		0.0	117.174	0.004		Vel = 0.39
	0.0							

Final Calculations - Standard

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*******	Notes	******
	257.51				50.098		K Factor = 36.38		