Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BU[illegible]TION

PERMIT

Permit Number: 090792

Please Read Application And Notes, If Any, Attached

This is to certify that WESTBROOK DEVELOPME[illegible] CORP[illegible]/Dean & A[illegible]

has permission to Installation of a Sprinkler Syste[illegible]

AT 1251 CONGRESS ST CL[illegible] 186 A003001

provided that the person or persons, fi[illegible] or co[illegible]ation ac[illegible]pting this permit shall comply with all of the provisions of the Statutes of Ma[illegible]e and of the C[illegible]nces of the City of Portland regulating the construction, maintenance and use[illegible]f buildings and stru[illegible]ures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Not[illegible]ation o[illegible]spectio[illegible] must b[illegible] give[illegible]nd writt[illegible]permissi[illegible]procured befo[illegible]this bu[illegible]ng or p[illegible]hereof i[illegible] lath[illegible] or oth[illegible]sed-in. 2[illegible] HOU[illegible]NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. CAPT. K. Southern

Health Dept. _____

Appeal Board _____

Other _____

Department Name

Director - Building & Inspection Services

9/11/09

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Permit No:	Issue Date:	CBL:
09-0792	08/11/09	186 A003001

Location of Construction:	Owner Name:	Owner Address:	Phone:
1251 CONGRESS ST	WESTBROOK DEVELOPMENT	30 LIZA HARMON DR	207-657-5646
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Dean & Allyn Inc.	P.O. Box 709, 32 Lewiston Rd Gray	2076575646
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		Sprinkler Systems	Contract zone

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	CEO District:
St Patricks School Condominiums (#09-0514)	St Patricks School Condominiums - Installation of a Sprinkler System	$260.00	$24,000.00	3

FIRE DEPT: ☑ Approved ☐ Denied
*See Conditions
Signature: JCG

INSPECTION:
Use Group: R-2 Type: 5B
IBC-2003
IMC-2003
Signature:

Proposed Project Description:
Installation of a Sprinkler System

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)
Action: ☐ Approved ☐ Approved w/Conditions ☐ Denied
Signature: Date:

Permit Taken By:	Date Applied For:
lmd	07/24/2009

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 information may invalidate a building permit and stop all work..

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shoreland	☐ Variance	☑ Not in District or Landmark
☐ Wetland	☐ Miscellaneous	☐ Does Not Require Review
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Min ☐ MM ☐ Ok w/ condition Date: 7/30/09 ASM	☐ Denied Date:	☐ Denied Date: ASM

RECEIVED AUG 10 CITY

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

PORTLAND FIRE DEPARTMENT
Sprinkler Plan Review Request Form

JUL 24 2009

CBL #: _____

PROJECT NAME: St. Patrick School Condo

Fire Marshal's Permit No:

Physical Address: 1251 Congress St.
Portland, ME

Property Owner: _____ Phone No: _____
Mailing Address: _____ Fax No: _____
_____ Email: _____

Contractor Name: Dean & Allyn, Inc Phone: 207-657-5646
Address: 32 Lewiston Rd Fax No: 207-657-5647
Gray, ME 04039 Email: _____

Type of System: ☐ 13 ☐ 13D ☒ 13R ☐ Life Safety ☐

System Design: ☒ Wet ☐ Dry ☐ Pre-Action ☐ Deluge ☐

Number and Location of Zones: One

System Monitoring: ☒ Water Flow ☐ Tamper ☐ Low Air

All sprinkler plans must be reviewed and approved by the State Fire Marshal prior to submission to the Portland Fire Department.
All sprinkler systems must meet or exceed the requirements of NFPA and the Portland Fire Department Sprinkler Ordinance, Chapter 10.

Sprinkler plans, including all applicable hydraulic calculations, must be submitted.

Fire Department Use Only

Applicant: _____ Date: _____

Fire Chief: _____ Date: _____

FD HTE #: _____

City of Portland, Maine - Building or Use Permit

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

Permit No:	Date Applied For:	CBL:
09-0792	07/24/2009	186 A003001

Location of Construction:	Owner Name:	Owner Address:	Phone:
1251 CONGRESS ST	WESTBROOK DEVELOPMENT C	30 LIZA HARMON DR	207-657-5646
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Dean & Allyn Inc.	P.O. Box 709, 32 Lewiston Rd Gray	(207) 657-5646
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		Sprinkler Systems	

Proposed Use:	Proposed Project Description:
St Patricks School Condominiums - Installation of a Sprinkler System	Installation of a Sprinkler System

Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Ann Machado **Approval Date:** 07/30/2009

Note: **Ok to Issue:** ☑

1) This property shall remain fifteen residential condominiums under the conditions of the contract zone. All the conditions listed must be maintained through out the life of the approved use unless otherwise changed by the Planning Board. Any change of use shall require a separate permit application for review and approval.
2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Chris Hanson **Approval Date:** 08/11/2009

Note: **Ok to Issue:** ☑

1) Sprinkler system must meet the requirements of section 903 of the IBC 2003.
2) All penetratios through rated assemblies must be protected by an approved firestop system installed in accordance with ASTM 814 or UL 1479, per IBC 2003 Section 712.
3) All penetrations between dwelling units and dwelling units and common areas shall be protected with approved firestop materials, and recessed lighting/vent fixtures shall not reduce the (1 hour) required rating per Sec. 712 of IBC
4) Separate permits are required for any electrical, plumbing, sprinkler, fire alarm or HVAC or exhaust systems. Separate plans may need to be submitted for approval as a part of this process.

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Capt Keith Gautreau **Approval Date:** 08/07/2009

Note: **Ok to Issue:** ☑

1) 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.
2) The Fire alarm and Sprinkler systems shall be reviewed by a licensed contractor[s] for code compliance.
   Compliance letters are required.
3) The sprinkler system shall be installed in accordance with NFPA 13R.

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

__X__ Final inspection required at completion of work.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.

_____ _____

Signature of Applicant/Designee Date

_____ _____

Signature of Inspections Official Date

Mailed

CBL: 186 A003001 **Building Permit #:** 09-0792

General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: ST. PATRICKS SCHOOL CONDOMINIUMS 1251 CONGRESS ST.		
Total Square Footage of Proposed Structure	Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Chart# Block# Lot#	Owner:	Telephone:
Lessee/Buyer's Name (If Applicable)	Applicant name, address & telephone: DEAN & ALLYN INC 32 LEWISTON RD PO BOX 709 GRAY, MAINE 04039 PHN 207-657-5646	Cost Of Work: $ 24,000 — Fee: $ 260 — C of O Fee: $

Current legal use (i.e. single family) _____
If vacant, what was the previous use? _____
Proposed Specific use: _____
Is property part of a subdivision? _____ If yes, please name _____
Project description:

JUL 24 2009

Contractor's name, address & telephone: WESTBROOK HOUSING 30 LIZA HARMON DRIVE WESTBROOK, ME
Who should we contact when the permit is ready: JOHN CHAMPLIN
Mailing address: Phone: 657-5646

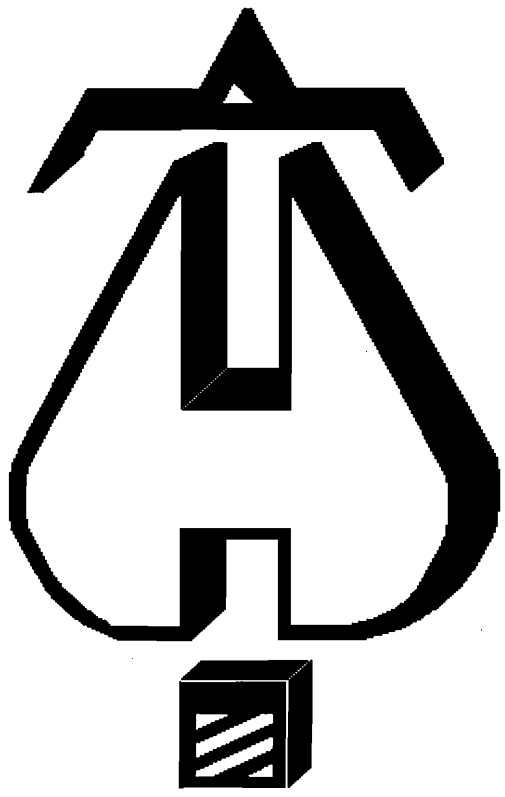
Please submit all of the information outlined in the Commercial Application Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant: John Champlin	Date: 7-22-09

This is not a permit; you may not commence ANY work until the permit is issued.



. . . Fire Protection by Computer Design

DEAN & ALLYN Inc.
PO BOX 709
32 LEWISTON ROAD
GRAY, MAINE 04039
207-657-5646

Job Name	:	ST. PATRICKS SCHOOL CODOMINIUMS
Building	:	2ND FLOOR DWELLING UNIT # 301
Location	:	1251 CONGRESS ST. PORTLAND MAINE
System	:	C887-2a
Contract	:	C09887
Data File	:	C887-2a.WXF

Computer Programs by Hydratec Inc. Route 111 Windham N.H. USA 03087

HYDRAULIC DESIGN INFORMATION SHEET

Name - ST PATRICKS SCHOOL CONDOMINIUMS Date - 7-17-09
Location - 1251 CONGRESS ST. PORTLAND MAINE
Building - 2ND FLOOR DWELLING UNIT # 301 System No. - C887-2a
Contractor - DEAN & ALLYN Contract No. - C09887
Calculated By - JOHN CHAMPLIN Drawing No. - 1 of 1
Construction: ( ) Combustible (X) Non-Combustible Ceiling Height 13'-9"
OCCUPANCY - RESIDENTIAL DWELLING UNIT

SYSTEM

Type of Calculation: ( )NFPA 13 Residential (X)NFPA 13R ( )NFPA 13D
Number of Sprinklers Flowing: ( )1 ( )2 (X)4 ( )
( )Other
( )Specific Ruling Made by Date

Listed Flow at Start Point - 17 Gpm
Listed Pres. at Start Point - 7 Psi
MAXIMUM LISTED SPACING 18 x 18
Domestic Flow Added - NA Gpm
Additional Flow Added - Gpm
Elevation at Highest Outlet - 36' Feet
Note:

System Type
(X) Wet ( ) Dry
( ) Deluge ( ) PreAction
Sprinkler or Nozzle
Make TYCO Model LFII
Size 3/8" K-Factor 4.9
Temperature Rating 155

Calculation Summary: Gpm Required 170.593 Psi Required 80.797 At Test
C-Factor Used: Overhead 120 Underground 140

WATER SUPPLY

Water Flow Test:		Pump Data:	Tank or Reservoir:
Date of Test	- 7-15-2009	Rated Cap.	Cap.
Time of Test	-	@ Psi	Elev.
Static (Psi)	- 97	Elev.	
Residual (Psi)	- 93	Other	Well
Flow (Gpm)	- 1984		Proof Flow Gpm
Elevation	- 6		

Location: HYDRANT # HYD01082 @ CONGRESS & WHITNEY AND
HYDRANT #HYD01410 @ CONGRESS & FRANCES
Source of Information: PORTLAND WATER DESTRICT

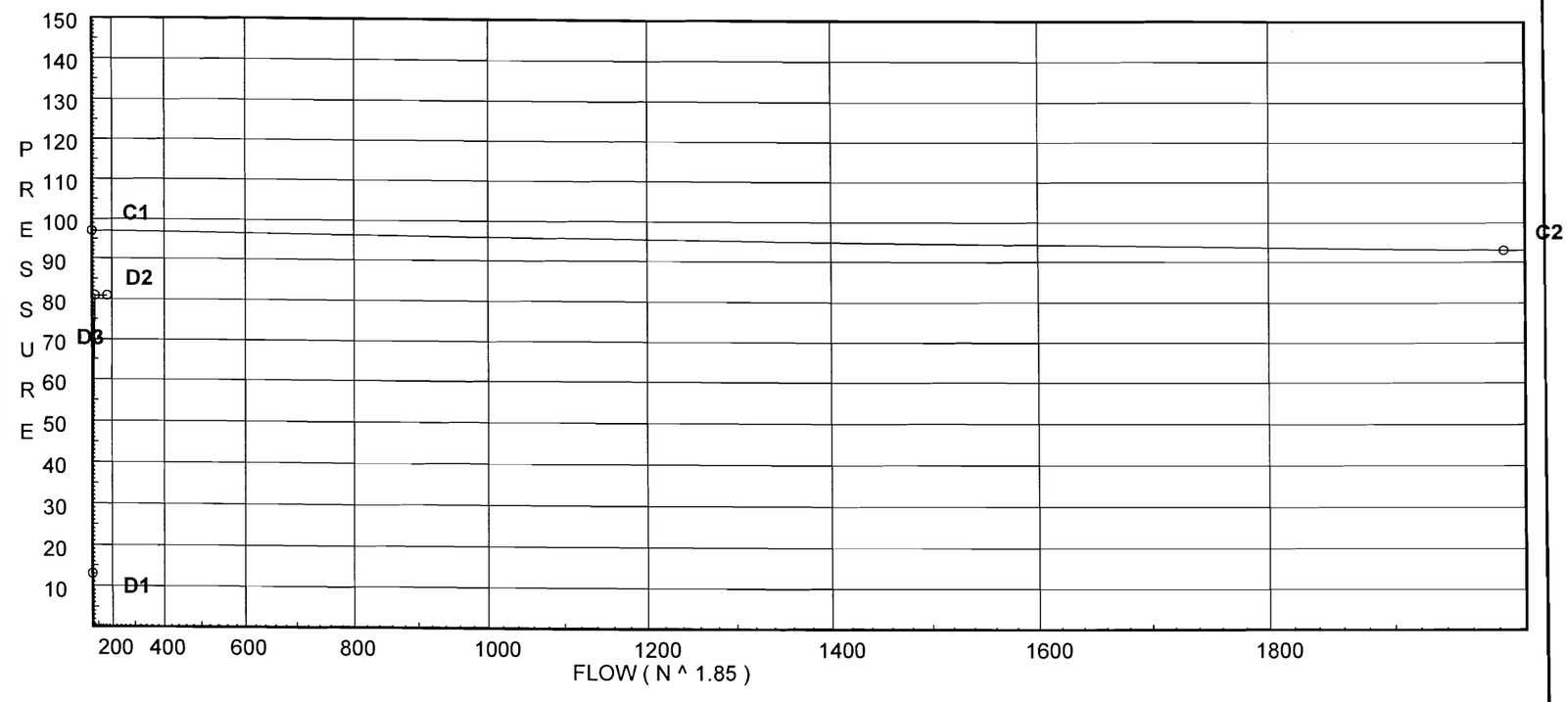
Water Supply Curve (C)

DEAN & ALLYN Inc.
ST. PATRICKS SCHOOL CODOMINIUMS

Date

City Water Supply:
C1 - Static Pressure : 97
C2 - Residual Pressure: 93
C2 - Residual Flow : 1984

Demand:
D1 - Elevation : 12.993
D2 - System Flow : 70.593
D2 - System Pressure : 80.797
Hose (Adj City) : _____
Hose (Demand) : 100
D3 - System Demand : 170.593
Safety Margin : 16.160



Fittings Used Summary

DEAN & ALLYN Inc.
ST. PATRICKS SCHOOL CODOMINIUMS

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
F	45' Elbow	1	1	1	1	2	2	3	3	3	4	5	7	9	11	13	17	19	21	24	28
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
Zaa	Ames 2000B	Fitting generates a Fixed Loss Based on Flow																			

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
1	36.0	4.9	12.0	na	16.97	0.05	324	12.0
2	36.0	4.9	13.3	na	17.87	0.05	324	12.0
AT	36.0		19.84	na				
3	36.0	4.9	12.64	na	17.42	0.05	324	12.0
4	36.0	4.9	14.0	na	18.33	0.05	324	12.0
BT	36.0		20.86	na				
A	35.5		20.7	na				
B	35.5		21.75	na				
C	35.5		41.51	na				
D	20.5		53.67	na				
E	8.0		63.25	na				
TR	7.5		74.05	na				
BR	0.0		83.3	na				
UG1	-5.0		85.55	na				
TST	6.0		80.8	na	100.0			

The maximum velocity is 15.14 and it occurs in the pipe between nodes B and C

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
1	16.97	1.049		0.0	13.500	12.000		K Factor = 4.90
to		120		0.0	0.0	0.0		
2	16.97	0.0961		0.0	13.500	1.297		Vel = 6.30
2	17.87	1.049	1T	5.0	13.000	13.297		K Factor = 4.90
to		120		0.0	5.000	0.0		
AT	34.84	0.3634		0.0	18.000	6.541		Vel = 12.93
AT	0.0	1.38	1T	6.0	0.750	19.838		
to		120		0.0	6.000	0.217		
A	34.84	0.0956		0.0	6.750	0.645		Vel = 7.47
	0.0							
	34.84					20.700		K Factor = 7.66
3	17.42	1.049		0.0	13.500	12.637		K Factor = 4.90
to		120		0.0	0.0	0.0		
4	17.42	0.1007		0.0	13.500	1.360		Vel = 6.47
4	18.33	1.049	1T	5.0	13.000	13.997		K Factor = 4.90
to		120		0.0	5.000	0.0		
BT	35.75	0.3812		0.0	18.000	6.861		Vel = 13.27
BT	0.0	1.38	1T	6.0	0.750	20.858		
to		120		0.0	6.000	0.217		
B	35.75	0.1001		0.0	6.750	0.676		Vel = 7.67
	0.0							
	35.75					21.751		K Factor = 7.67
A	34.84	1.38		0.0	11.000	20.700		
to		120		0.0	0.0	0.0		
B	34.84	0.0955		0.0	11.000	1.051		Vel = 7.47
B	35.75	1.38	1E	3.0	47.000	21.751		
to		120	1T	6.0	9.000	0.0		
C	70.59	0.3529		0.0	56.000	19.762		Vel = 15.14
C	0.0	1.61	2T	16.0	18.000	41.513		
to		120		0.0	16.000	6.496		
D	70.59	0.1666		0.0	34.000	5.664		Vel = 11.12
D	0.0	1.61	1E	4.0	13.000	53.673		
to		120	1T	8.0	12.000	5.414		
E	70.59	0.1666		0.0	25.000	4.165		Vel = 11.12
E	0.0	1.61	2E	8.0	37.500	63.252		
to		120	1F	2.0	26.000	0.217		
TR	70.59	0.1666	2T	16.0	63.500	10.577		Vel = 11.12
TR	0.0	2.067	1Zaa	0.0	4.500	74.046		
to		120		0.0	0.0	9.032		* Fixed loss = 5.784
BR	70.59	0.0493		0.0	4.500	0.222		Vel = 6.75
BR	0.0	4.1	1E	14.534	20.000	83.300		
to		140	1T	29.067	43.601	2.166		
UG1	70.59	0.0013		0.0	63.601	0.084		Vel = 1.72
UG1	0.0	6.16	1T	43.037	20.000	85.550		
to		140		0.0	43.037	-4.764		
TST	70.59	0.0002		0.0	63.037	0.011		Vel = 0.76

Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*******	Notes	******
	100.00						Qa = 100.00		
	170.59				80.797		K Factor = 18.98		

. . . Fire Protection by Computer Design

DEAN & ALLYN Inc.
PO BOX 709
32 LEWISTON ROAD
GRAY, MAINE 04039
207-657-5646

Job Name	:	ST PATRICKS SCHOOL CONDOMINIUMS
Building	:	LOWER LEVEL RESIDENTIAL STORAGE
Location	:	1251 CONGRESS ST, PORTLAND, MAINE
System	:	C887-LL
Contract	:	C09887
Data File	:	C887-LL.WXF

Computer Programs by Hydratec Inc.   Route 111   Windham N.H. USA 03087

Hydraulic Design Information Sheet

Name - ST PATRICKS SCHOOL CONDOMINIUMS — Date - 7-17-09
Location - 1251 CONGRESS ST, PORTLAND, MAINE
Building - LOWER LEVEL RESIDENTIAL STORAGE — System No. - C887-LL
Contractor - DEAN & ALLYN — Contract No. - C09887
Calculated By - JOHN CHAMPLIN — Drawing No. - 1 of 1
Construction: ( ) Combustible (X) Non-Combustible — Ceiling Height - 8'
Occupancy - RESIDENTIAL STORAGE ROOM

SYSTEM DESIGN

( ) NFPA 13 ( ) Lt. Haz. Ord.Haz.Gp. ( ) 1 ( ) 2 ( ) 3 ( ) Ex.Haz.
( ) NFPA 231 ( ) NFPA 231C ( ) Figure Curve
Other NFPA 13R SECTION 8.8.2 - ROOM 500 SQ. FT. OR LESS
Specific Ruling Made By Date

Area of Sprinkler Operation - 4 HEADS	System Type	Sprinkler/Nozzle
Density - .15	(X) Wet	Make TYCO
Area Per Sprinkler - 90	( ) Dry	Model TY-FRB
Elevation at Highest Outlet - 8	( ) Deluge	Size 1/2"
Hose Allowance - Inside -	( ) Preaction	K-Factor 5.6
Rack Sprinkler Allowance -	( ) Other	Temp.Rat.155
Hose Allowance - Outside - 100		

Note

Calculation Summary — Flow Required - 166.420 Press Required - 39.220
C-Factor Used: 120 Overhead 140 Underground

WATER SUPPLY

Water Flow Test:		Pump Data:		Tank or Reservoir:	
Date of Test	- 7-15-09			Cap. -	
Time of Test	-	Rated Cap.-		Elev.-	
Static Press	- 97	@ Press	-		
Residual Press	- 93	Elev.	-		Well
Flow	- 1984				Proof Flow
Elevation	- 6				

Location - HYDRANT # YD01082 2 CONGRESS & WHITNEY AND
HYDRANT # HYD01410 @ CONGRESS & FRANCES CT
Source of Information - PORTLAND WATER DISTRICT

COMMODITY STORAGE

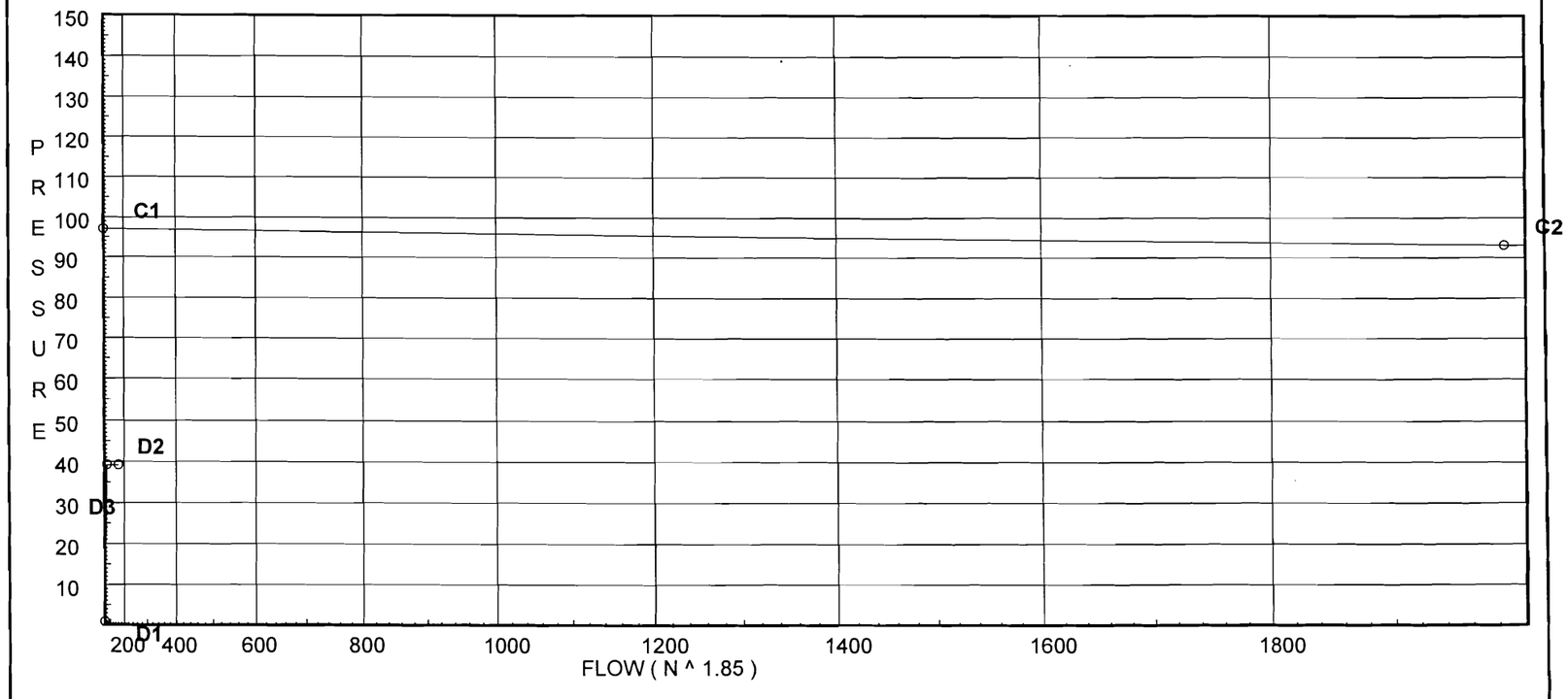
Commodity — Class — Location
Storage Ht. — Area — Aisle W.
Storage Method: Solid Piled % Palletized % Rack

( ) Single Row	( ) Conven. Pallet	( ) Auto. Storage	( ) Encap.
R ( ) Double Row	( ) Slave Pallet	( ) Solid Shelf	( ) Non
A ( ) Mult. Row		( ) Open Shelf	
C			
K Flue Spacing		Clearance:Storage to Ceiling	
Longitudinal		Transverse	

Horizontal Barriers Provided:

City Water Supply:
- C1 - Static Pressure : 97
- C2 - Residual Pressure: 93
- C2 - Residual Flow : 1984

Demand:
- D1 - Elevation : 0.866
- D2 - System Flow : 66.42
- D2 - System Pressure : 39.220
- Hose (Adj City) :
- Hose (Demand) : 100
- D3 - System Demand : 166.42
- Safety Margin : 57.740



Fittings Used Summary

DEAN & ALLYN Inc.
ST PATRICKS SCHOOL CONDOMINIUMS

Date

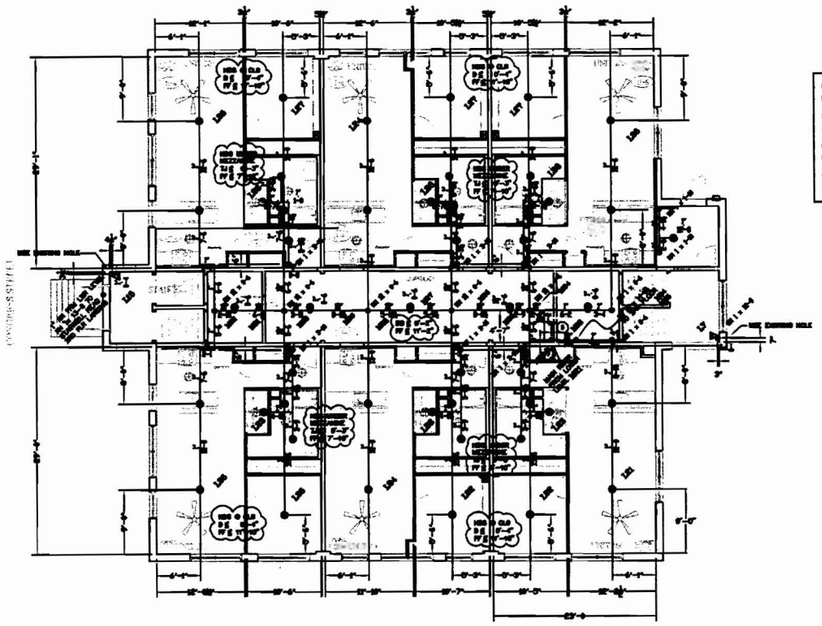
Fitting Legend

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
F	45' Elbow	1	1	1	1	2	2	3	3	3	4	5	7	9	11	13	17	19	21	24	28
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
Zaa	Ames 2000B	Fitting generates a Fixed Loss Based on Flow																			

Node No.	Elevation	K-Fact	Pt Actual	Pn	Flow Actual	Density	Area	Press Req.
H1	8.0	4.9	7.0	na	12.96	0.05	256	7.0
1	8.0	5.6	7.0	na	14.82	0.15	90	7.0
2	8.0	5.6	7.6	na	15.44	0.15	90	7.0
3	8.0	5.6	9.84	na	17.56	0.15	90	7.0
4	8.0	5.6	11.04	na	18.6	0.15	90	7.0
A	8.0		15.14	na				
E	7.5		22.6	na				
TR	7.5		32.35	na				
BR	0.0		41.72	na				
UG1	-5.0		43.96	na				
TST	6.0		39.22	na	100.0			

The maximum velocity is 14.25 and it occurs in the pipe between nodes 4 and A

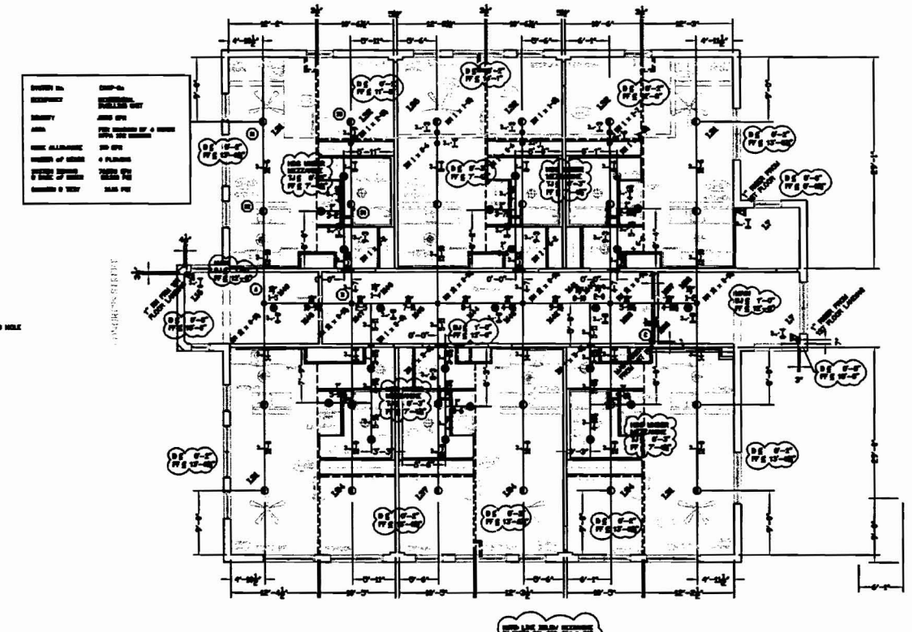
Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	******* Notes ******
H1	12.96	1.049	2E	4.0	1.500	7.000		K Factor = 4.90
to		120	1T	5.0	9.000	3.465		
5	12.96	0.0584		0.0	10.500	0.613		Vel = 4.81
	0.0							
	12.96					11.078		K Factor = 3.89
1	14.82	1.049		0.0	8.000	7.000		K Factor = 5.60
to		120		0.0	0.0	0.0		
2	14.82	0.0748		0.0	8.000	0.598		Vel = 5.50
2	15.43	1.049		0.0	8.000	7.598		K Factor = 5.60
to		120		0.0	0.0	0.0		
3	30.25	0.2798		0.0	8.000	2.238		Vel = 11.23
3	17.57	1.38		0.0	7.000	9.836		K Factor = 5.60
to		120		0.0	0.0	0.0		
4	47.82	0.1717		0.0	7.000	1.202		Vel = 10.26
4	18.60	1.38	1F	1.0	6.000	11.038		K Factor = 5.60
to		120	1T	6.0	7.000	0.0		
A	66.42	0.3152		0.0	13.000	4.098		Vel = 14.25
A	0.0	1.38	1T	6.0	17.000	15.136		
to		120		0.0	6.000	0.217		
E	66.42	0.3153		0.0	23.000	7.251		Vel = 14.25
E	0.0	1.61	3E	12.0	37.500	22.604		
to		120	2T	16.0	28.000	0.0		
TR	66.42	0.1488		0.0	65.500	9.748		Vel = 10.47
TR	0.0	2.067	1Zaa	0.0	8.000	32.352		
to		120		0.0	0.0	9.012		* Fixed loss = 5.764
BR	66.42	0.0441		0.0	8.000	0.353		Vel = 6.35
BR	0.0	4.1	1E	14.534	20.000	41.717		
to		140	1T	29.067	43.601	2.166		
UG1	66.42	0.0012		0.0	63.601	0.074		Vel = 1.61
UG1	0.0	6.16	1T	43.037	120.000	43.957		
to		140		0.0	43.037	-4.764		
TST	66.42	0.0002		0.0	163.037	0.027		Vel = 0.72
	100.00							Qa = 100.00
	166.42					39.220		K Factor = 26.57



First Floor Plan COLOR MARK: RED

● 47 1997 TYCO MODEL LFII RIH TY2234 RESIDENTIAL RECESSED PENDENT WHITE 1/2"X3/8" K=4.9

▶ 3 1997 TYCO MODEL LFII RIH TY2334 RESIDENTIAL HORIZONTAL SIDEWALL WHITE 1/2"X3/8" K=5.4

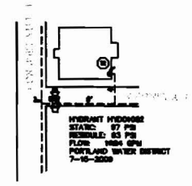


Second Floor Plan COLOR MARK: YELLOW

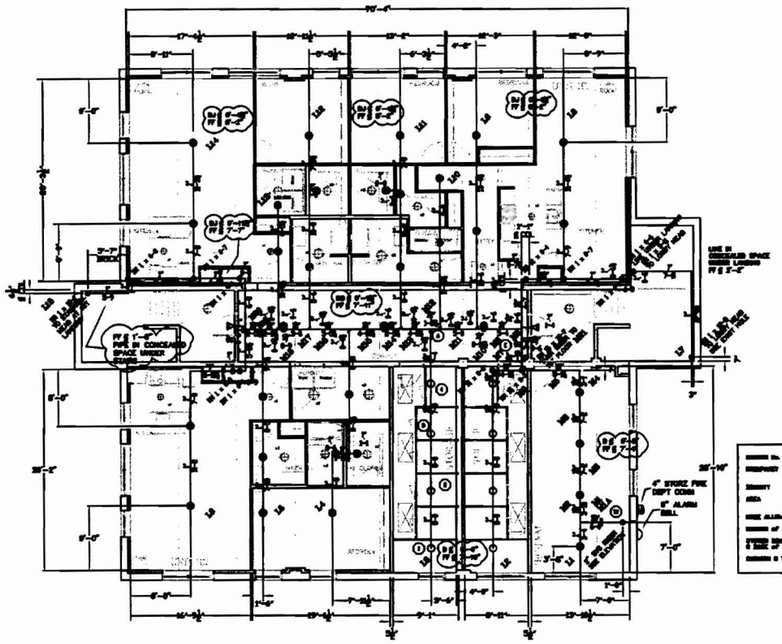
● 16 1997 TYCO MODEL LFII RIH TY2234 RESIDENTIAL RECESSED PENDENT WHITE 1/2"X3/8" K=4.9

◐ 24 1997 TYCO MODEL LFII RIH TY2234 RESIDENTIAL PENDENT ON LINE WHITE 1/2"X3/8" K=4.9

▶ 3 1997 TYCO MODEL LFII RIH TY2334 RESIDENTIAL HORIZONTAL SIDEWALL WHITE 1/2"X3/8" K=5.4



Site Plan
NO SCALE



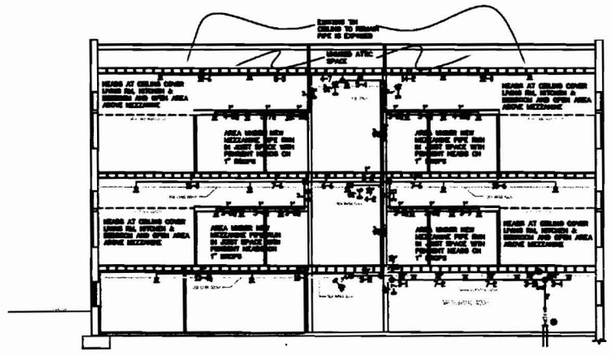
Lower Level Plan
DWELLING UNIT/CORRIDOR CEILING @ 7'-6"
HIGH BAYS/STORAGE AREA CEILING @ 17'-0"

● 23 1997 TYCO MODEL LFII RIH TY2334 RESIDENTIAL RECESSED PENDENT WHITE 1/2"X3/8" K=4.9

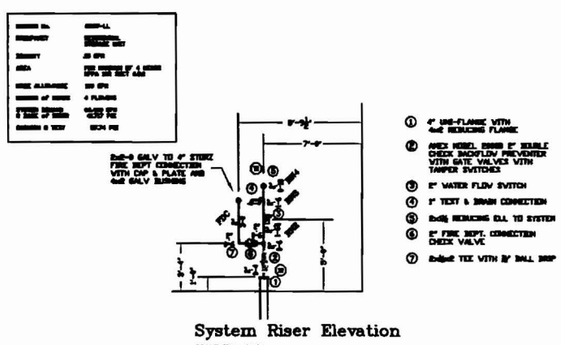
▶ 2 1997 TYCO MODEL LFII RIH TY2334 RESIDENTIAL HORIZONTAL SIDEWALL WHITE 1/2"X3/8" K=5.4

○ 6 1997 TYCO MODEL TY-FRB RIH TY3131 QUICK RESPONSE STANDARD SPRAY UPRIGHT BRASS 1/2"X1/2" K=5.6

● 4 1997 TYCO MODEL TY-FRB RIH TY3131 QUICK RESPONSE STANDARD SPRAY UPRIGHT BRASS 1/2"X1/2" K=5.6



Building Section
DARKEN WOOD FRAME & BRICK BUILDING CONVERTED INTO CONDOMINIUMS WITH NEW WOOD FRAME SHEET ROCK WALLS



System Riser Elevation
SCALE: 3/8" = 1'-0"

① 4" LNS-FLANGE WITH 4x6 REDUCING FLANGE

② AMES MODEL 6868B 6" DOUBLE CHECK BACKFLOW PREVENTER WITH GATE VALVES WITH TAMPER SWITCHES

③ 6" WATER FLOW SVITCH

④ 1" TEST & DRAIN CONNECTION

⑤ 6x4 REDUCING O.S. TO SYSTEM

⑥ 6" FIRE DEPT. CONNECTION CHECK VALVE

⑦ 6x6x4 TEE WITH 3/4" BALL DRIP

SYSTEM CLASSIFICATION

EXISTING SCHOOL BUILDING TO BE CONVERTED TO CONDOMINIUMS WITH NEW NFPA 13R WET SYSTEM. ALL DWELLING UNITS AND ADJOINING SPACES, CORRIDORS, STAIRWELLS TO BE COVERED PER NFPA 13R, WITH HEAD SPACING & PIPE SIZING PER HYDRAULIC CALCULATIONS PER HEAD LISTING WITH A MAXIMUM OF 4 HEADS FLOWING. HEAD SPACING & PIPE SIZING FOR LOWER LEVEL STORAGE AREA AND MECHANICAL ROOM PER NFPA 13 ORDINARY HAZARD GROUP I WITH A MAXIMUM HEAD SPACING OF 130 SQ. FEET AND A DENSITY OF .25 GPM WITH A MAXIMUM OF 4 HEADS FLOWING PER NFPA 13R SECTION 4.6.2

GENERAL NOTES

ALL GROOVE/GROOVE PIPE TO SHOWN "CUT"

ALL THREAD END PIPE TO SHOWN CENTER TO CENTER

ALL GROOVE END PIPE TO BLACK SCHEDULE 10

ALL THREAD END PIPE TO BLACK SCHEDULE 40

ALL GROOVE FITTINGS ARE DUCTILE OR MALLEABLE IRON

ALL THREAD FITTINGS ARE BLACK CAST IRON

ALL HANGERS ARE TOP BEAM CLAMPS & STEEL CONSTRUCTION OR "SWAY" SCREWHANGERS & WOOD CONSTRUCTION

ALL PIPE HUNG PER NFPA 13 2007 EDITION

ALL HEADS ARE RESIDENTIAL OR QUICK RESPONSE

IT IS THE OWNERS RESPONSIBILITY TO PROVIDE SUFFICIENT HEAT TO PREVENT FREEZING OF ANY WET PIPE

IT IS THE RESPONSIBILITY OF THE OWNER TO MAINTAIN 39" OF CLEARANCE BETWEEN THE SPRINKLER REFLECTOR AND THE TOP OF STORAGE.

LEGEND

- RESIDENTIAL PENDENT RIH 1" SNUP
- ◐ RESIDENTIAL PENDENT RIH LINE
- ○ UPRIGHT RIH LINE
- ● QUICK RESPONSE UPRIGHT RIH LINE
- ▶ RESIDENTIAL HORIZONTAL SIDEWALL
- ○ RISE OR DROP
- GROOVE COUPLING
- HYDRAULIC REFERENCE POINT
- HYDRAULIC REMOTE AREA
- CEILING MOUNT
- FFS FINISH FLOOR TO PIPE CENTERLINE
- BCS BECK TO PIPE CENTERLINE
- BJS BOTTOM OF JOIST TO PIPE CENTERLINE
- BBS BOTTOM OF BEAM TO PIPE CENTERLINE
- SURFACE LIGHT FIXTURE
- PENDENT LIGHT FIXTURE
- CEILING FAN

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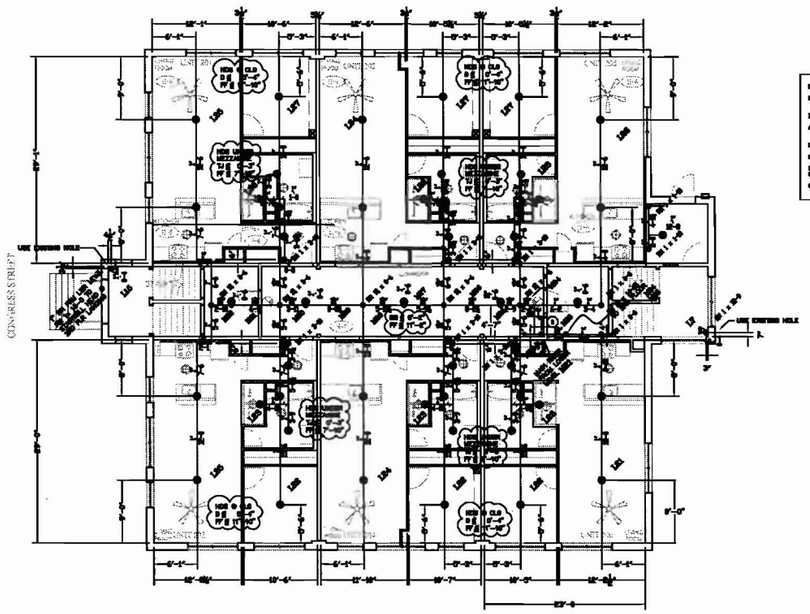
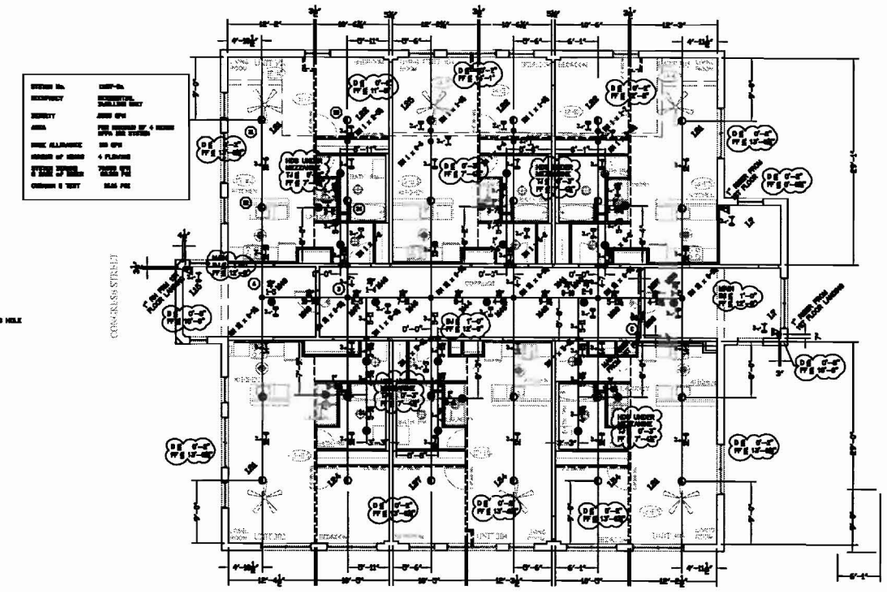
(207)657-6646 FAX:(207)657-6647

						ANNA A. STEWART NICET IV - 0864544	DRAWING TITLE: Reflected Ceiling Plan	REV. 0
					SCALE 1/8"=1'-0" APPROVED BY	SURVEYED BY JPC 7/13/99	JOB: Saint Patrick School Condominiums 1251 Congress Street Portland, Maine	JOB NUMBER 138
					//	DRAWN BY JPC 7/17/99		
					//	CHECKED BY XXX		SHEET NUMBER 138
					//	AT DEAN & ALLYN, INC		
					//	SCALE 1/8"=1'-0" U/N	CONTRACT WITH: VESTBROOK HOUSING VESTBROOK, MAINE	CONTRACT NO. C09887
		⑧ SUBMIT FOR APPROVAL	5/05/00		//	SHEET NO. 1 OF 1		
		REVISIONS	INIT					



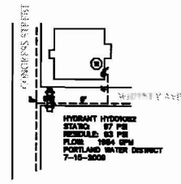
First Floor Plan COLOR MARK:RED

- (47) 155°F TYCO MODEL LFII SIN TY8234 RESIDENTIAL RECESSED PENDENT WHITE 1/2"X3/4" K=4.9
- ▶ (3) 155°F TYCO MODEL LFII SIN TY8334 RESIDENTIAL HORIZONTAL SIDEWALL WHITE 1/2"X3/4" K=4.4

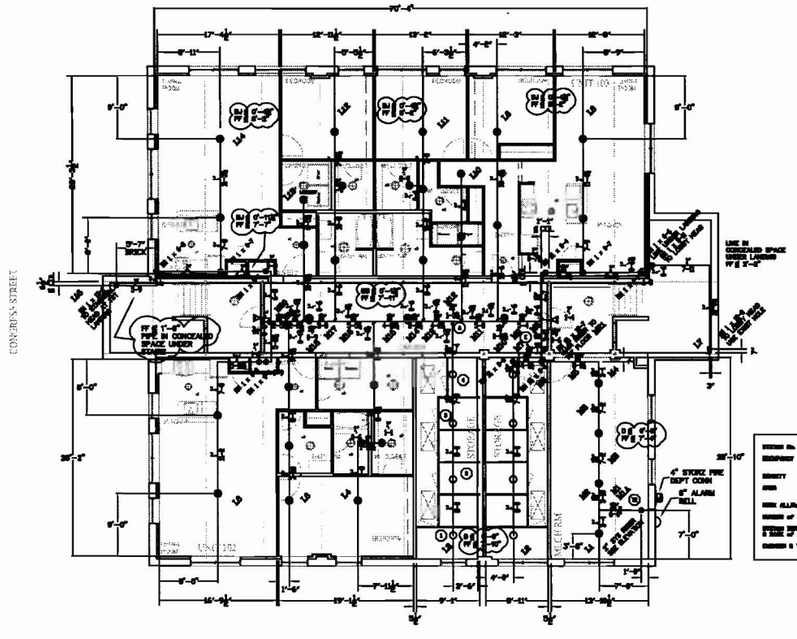


Second Floor Plan COLOR MARK:YELLOW

- (18) 155°F TYCO MODEL LFII SIN TY8234 RESIDENTIAL RECESSED PENDENT WHITE 1/2"X3/4" K=4.9
- (24) 155°F TYCO MODEL LFII SIN TY8234 RESIDENTIAL PENDENT ON LINE WHITE 1/2"X3/4" K=4.9
- ▶ (3) 155°F TYCO MODEL LFII SIN TY8334 RESIDENTIAL HORIZONTAL SIDEWALL WHITE 1/2"X3/4" K=4.4

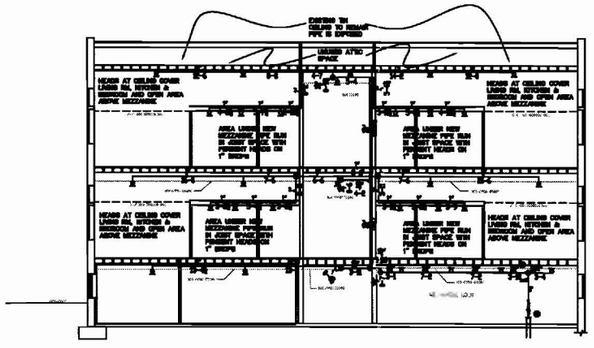


Site Plan
NO SCALE

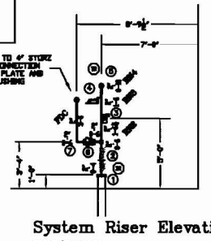


Lower Level Plan
DWELLING UNIT/CORRIDOR CEILING @ 7'-3"
MESH ROOM/STORAGE AREA CEILING @ 7'-11"

- (29) 155°F TYCO MODEL LFII SIN TY8234 RESIDENTIAL RECESSED PENDENT WHITE 1/2"X3/4" K=4.9
- ▶ (3) 155°F TYCO MODEL LFII SIN TY8334 RESIDENTIAL HORIZONTAL SIDEWALL WHITE 1/2"X3/4" K=4.4
- ○ (8) 155°F TYCO MODEL TY-FRB SIN TY3131 QUICK RESPONSE STANDARD SPRAY UPRIGHT BRASS 1/2"X1/2" K=5.5
- ● (4) 200°F TYCO MODEL TY-FRB SIN TY3131 QUICK RESPONSE STANDARD SPRAY UPRIGHT BRASS 1/2"X1/2" K=5.5



Building Section
EXISTING WOOD FRAME & BRICK BUILDING CONVERTED INTO CONDOMINIUMS WITH NEW WOOD FRAME SHEET ROCK WALLS



System Riser Elevation
SCALE 1/8" = 1'-0"

1. 6" LINE-FLANGE WITH 4x2 REDUCING FLANGE
2. AMES MODEL 8000SS 6" DOUBLE CHECK BACKFLOW PREVENTER WITH GATE VALVES WITH TAMPER SWITCHES
3. 2" WATER FLOW SWITCH
4. 1" TEST & DRAIN CONNECTION
5. 8x3/4 REDUCING O.L. TO SYSTEM
6. 6" FIRE DEPT. CONNECTION CHECK VALVE
7. 8x6x2 TEE WITH 1/4" BALL DRIP

SYSTEM CLASSIFICATION

EXISTING SCHOOL BUILDING TO BE CONVERTED TO CONDOMINIUMS WITH NEW NFPA 13R WET SYSTEM. ALL DWELLING UNITS AND ASSOCIATED SPACES, CORRIDORS, STAIRWELLS TO BE COVERED PER NFPA 13R, WITH HEAD SPACING & PIPE SIZING PER HYDRAULIC CALCULATIONS PER HEAD LISTING WITH A MAXIMUM OF 4 HEADS FLOWING. HEAD SPACING & PIPE SIZING FOR LOWER LEVEL STORAGE AREA AND MECHANICAL ROOM PER NFPA 13 ORDINARY HAZARD GROUP 1 WITH A MAXIMUM HEAD SPACING OF 130 SQ. FEET AND A DENSITY OF .10 GPM WITH A MAXIMUM OF 4 HEADS FLOWING PER NFPA 13R SECTION 4.6.2

GENERAL NOTES

ALL GROOVE/GROOVE PIPE IS SHOWN "CUT"

ALL THREAD END PIPE IS SHOWN CENTER TO CENTER

ALL GROOVE END PIPE IS BLACK SCHEDULE 10

ALL THREAD END PIPE IS BLACK SCHEDULE 40

ALL GROOVE FITTINGS ARE DUCTILE OR MALLEABLE IRON

ALL THREAD FITTINGS ARE BLACK CAST IRON

ALL HANGERS ARE TOP BEAM CLAMPS & STEEL CONSTRUCTION OR "SWAY" SIDEWINDERS & WOOD CONSTRUCTION

ALL PIPE HUNG PER NFPA 13 2007 EDITION

ALL HEADS ARE RESIDENTIAL OR QUICK RESPONSE

IT IS THE OWNERS RESPONSIBILITY TO PROVIDE SUFFICIENT HEAT TO PREVENT FREEZING OF ANY WET PIPE

IT IS THE RESPONSIBILITY OF THE OWNER TO MAINTAIN 18" OF CLEARANCE BETWEEN THE SPRINKLER DEFLECTOR AND THE TOP OF STORAGE

LEGEND

- RESIDENTIAL PENDENT ON 1" DROP
- ◐ RESIDENTIAL PENDENT ON LINE
- ○ UPRIGHT ON LINE
- ● 286 UPRIGHT ON LINE
- ▶ RESIDENTIAL HORIZONTAL SIDEWALL
- ⊙ RISER OR DROP
- ═ GROOVE COUPLING
- ○ HYDRAULIC REFERENCE POINT
- - - - - HYDRAULIC REMOTE AREA
- (CH) CEILING HEIGHT
- FF'S FINISH FLOOR TO PIPE CENTERLINE
- B'S BECK TO PIPE CENTERLINE
- BJ'S BOTTOM OF JOIST TO PIPE CENTERLINE
- BB'S BOTTOM OF BEAM TO PIPE CENTERLINE
- ● SURFACE LIGHT FIXTURE
- ◉ PENDENT LIGHT FIXTURE
- CEILING FAN

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(207)657-5648 FAX:(207)657-5647

				SCALE 1/16"=1'-0"		DANA A. STEVART NICET IV - 0064544		DRAWING TITLE	Reflected Ceiling Plan
				APPROVED BY	INIT.	SURVEYED BY	JPC 7/13/09	JOB	Saint Patrick School Condominiums
					//	DRAWN BY	JPC 7/17/09		1251 Congress Street
					//	CHECKED BY	XXX		Portland, Maine
					//	AT DEAN & ALLYN, INC			
		⑧ SUBMIT FOR APPROVAL	7/20/09		//	SCALE 1/8"=1'-0" U/N		CONTRACT WITH WESTBROOK HOUSING	
		REVISIONS	INIT.		//	SHEET NO. 1 OF 1		WESTBROOK, MAINE	

REV.	0
SHEET NO.	138
NO. OF SHEETS	138
CONTRACT NO.	C09887