



Symmes Maini & McKee Associates

PROJECT MINUTES

CAMBRIDGE, MA • MINNEAPOLIS, MN • ST. PAUL, MN

215-B-002  
 UNUM Correspondence  
 re new building  
 1997-1999

Project: UNUM HO3  
 Prepared by: Charles P. Urnek  
 Re: Preliminary Code Review  
 Distribution: Attendees, TC, JGS, WLD, RMC, EC (MF)

Project No.: 97094.00  
 Meeting Date: 12/11/97  
 Meeting No: 1

Attendees: P. Samuel Hoffses, Portland Building Inspector, KMJ, DCM, CPU

SMMA presented preliminary plans for the new UNUM building to Mr. Hoffses, along with a preliminary code analysis. Our discussion proceeded as follows:

Item #	Action	Discussion
1	Record	A unisex toilet will be permitted at the lobby.
2.	Record	The pedestrian walkway between HO2 and HO3 will not require a fire separation at HO2. Glass doors and additional sprinklers will be provided at that location.
3.	Record	The monumental stair in the atrium may not be used for egress.
4.	Record	The contract drawings must be submitted to the State Fire Marshall for approval.
5.	Record	Mr. Hoffses will require the architects affidavit at the time documents are submitted for the building permit.

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes.



UNUM.

January 14, 1998

Mr. Joseph E. Gray Jr., Director  
Planning & Urban Development  
389 Congress Street  
Portland, ME 04101

Re: HO3 Office Building

Dear Joe:

As you may know, the completion of our HO3 office building is an important component in UNUM's future business and space requirements. We must begin occupying the building in mid 1999. Substantial completion, therefore, must be attained by the end of May 1999.

To achieve this aggressive goal, construction must start as soon as DEP and Planning Board approvals are received and prior to construction documents being completed. It is our intention to work with the Building Inspections Department in anticipation that partial building permits will be issued.

Please let me know, at your earliest convenience, if there are procedures or conditions with which we must comply in order to secure these partial building permits.

Thanks in advance for your assistance.

Best regards,

Stewart P. McAllister  
Facility Project Manager

cc: Sarah Hopkins  
Mike Nugent  
Sam Hoffses  
Lt. Gaylen McDougall

UNUM CORPORATION  
2211 Congress Street  
Portland, Maine 04122  
207-770-2211

**From:** Sarah Hopkins  
**To:** LWA, KJB, NATALIE, JEG, SPH, AQJ, MAJ, NLK, AWL, G...  
**Date:** 1/22/98 1:15pm  
**Subject:** unum

Unum is expecting to begin work at their campus on outer Congress Street immediately after receiving their Planning Board approval (public hearing February 27). They will be looking for foundation/building permits right around that time. We should all meet to work out a list of what they will need to submit in order to receive these permits. How's Wed. Jan 28 at 2:00 in Joe's office.



UNUM.

## Facsimile Cover Sheet

**To:** Joe Gray  
**Company:**  
**Phone:**  
**Fax:** 756-8258

**From:** Ted Bernard  
**Phone:** 207-770-4027  
**Fax:** 207-770-4071

**Date:** 1/30/98  
**Pages including** 2  
**this cover page:**

**Comments:**



UNUM

HO III PROJECT  
City Interface Directory

Development Manager	Bill Hunt Northland Development Corp.	tel: 617-680-7216 fax: 617-964-1252
Contractor	David Beane Turner Construction Company	tel: 617-247-6400 fax: 617-437-0354
Architect / MEP Engineer	Joel Seeley Symmes Maini McKee Assoc.	tel: 617-520-9403 fax: 617-354-5758
Site Engineer	Will Conway Sebago Technics	tel: 207-856-0277 fax: 207-856-2206
Traffic Engineer	Dan Clarey Vanasse, Hangen & Brustlin	tel: 617-924-1770 fax: 617-924-2286

bill21A1101R204



Parking Consultants/  
Engineers, Inc.

#13  
AG4.2 Guards wrong.

Stair 2 ASG2.1 #7

Stair 4 ASG4.1

4" storz connection

Fire alarm scriptura report

February 19, 1998

Lieutenant McDougal  
Fire Department Headquarters  
380 Congress Street  
Portland, ME 04101

**Re: UNUM Parking Garage  
Code Issues  
Project No: 16-1170.00**

Dear Lieutenant McDougal:

Per our previous phone conversation, the following items were deemed acceptable:

- Parts of the dry standpipe system will be run underground. Walker will locate the standpipes according to the BOCA '96 code. These drawings will be available for review. *NFPA 88B (1995) 5-5 exception 2*
- The standpipe connections will be located on each floor level by the stairs, not on the intermediate landings.
- The slab-on-grade of the garage will be asphalt. *NFPA 88B (1995) 3-3.1*
- Pull stations will be located at each stair tower at each level.

The following items still need clarification:

- ✓ Per code, we plan on using a 2 1/2" connection for the standpipes. What thread type does Portland require? *National Pipe*
- ✓ Are there any particular local requirements you know of for an annunciator and horn strobe? *per NFPA 72 No local requirements*
- The floor area of level P2 is approximately 143,400 ft<sup>2</sup>. According to the BOCA National Building Code/1996, Section 406.4, this floor area requires a type of construction of at least 2A. Section 401.4.1 states that if all four sides are open there can be unlimited area. The UNUM Garage is open on all four sides on the top two levels; however, the lowest level is open on three sides since it is going to be built into a hill. Type 2A construction requires a fire resistance rating of 1 1/2 hours for floor construction including beams. All structural members, including double tees and beams, will meet or exceed this requirement. To fire rate the 1/2" wide joints between the double tees would be very costly. Since the stairtower and ramp creates an avenue to the floors above and below, fire rating the joints would not contain hot gasses and smoke

Lt. McDougal  
February 19, 1998  
Page 2

to one floor. Walker Parking requests a variance for this requirement, so we would not be required to fire rate the joints between tees and other structural members.

Attached is a copy of the Design Development Set. Someone from our office would be glad to accompany you for your inspection if you prefer. If you have any questions or concerns, do not hesitate to call Arthur G. Stadig or myself.

Sincerely,



Sean M. Donnelly  
Design Engineer

SMD/mm

cc: Sam Hoffses

Attachment

JA16-1170.00\CORRESPO\Finspelt.doc

**From:** Natalie Burns  
**To:** SH  
**Date:** 2/20/98 1:19pm  
**Subject:** unum -Reply

It won't mean anything to the Board. However, I hope UNUM won't ask us to issue a building permit before they complete DEP review. I suppose that we have to issue it if they have fulfilled all of their obligations to us, but anything they do will be entirely at their own risk if DEP wants changes.

**From:** MARK ADELSON  
**To:** SPH, SH  
**Date:** 2/20/98 2:57pm  
**Subject:** UNUM HO3

Joe has requested that we call Ted Bernard of Unum on Monday to get clear on his expectations for a building permit on Wednesday after the Planning Board reviews the site plan on Tuesday night. It will probably be foundation only to start with. There is still the question of DEP approval, will that effect our ability to issue any permits? We'll do this late morning or early afternoon on Mnday. Thanks, Mark A.



Symmes Maini & McKee Associates

CAMBRIDGE, MA • MINNEAPOLIS, MN

February 20, 1998

P. Samuel Hoffses  
Inspector of Buildings  
City of Portland Building Department  
389 Congress Street  
Portland, ME 04101

Re: UNUM HO3 Office Building and Site Development  
Foundation Permit

Portland, Maine  
SMMA No. 97094

Dear Mr. Hoffses:

The foundation has been designed to withstand the vertical and horizontal loads imposed by the base building structure.

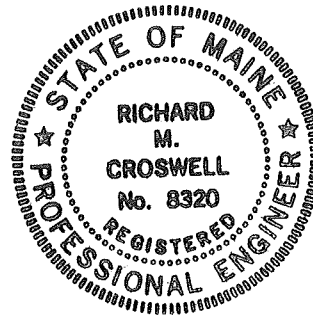
If you have any questions, please do not hesitate to call me.

Very truly yours,

Symmes Maini & McKee Associates

A handwritten signature in black ink that reads "Richard M. Crowell". The signature is written in a cursive, flowing style.

Richard M. Crowell, PE  
Project Structural Engineer



cc: 97094.08 (MF)

JGS/jgs/P:/97094/coresp/L-hoff01.doc

**From:** Sarah Hopkins  
**To:** JEG, AQJ, SPH, MAJ, NATALIE, MBA  
**Date:** 2/23/98 10:59am  
**Subject:** unum

I spoke with Linda K at DEP. She anticipates sending her recommendations up to Augusta either today or tomorrow. The permits may be signed as early as this week. She has told UNUM that they cannot begin construction until they get the permits. However, they may begin erosion control. The erosion control alone should keep them busy for a while. According to Sam (coorect me if I'm wrong, sam), Unum wil ask us for a foundation permit NEXT WEEK.

Mark, do you still want to call them today? I have an appointment from 2:00-4:00 so maybe before then.



***CITY OF PORTLAND***

**Inspection Services**

**389 Congress Street, Room 315**

**Portland, ME 04101**

**(207)874-8300**

**Fax: (207)874-8716**

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**Fax Transmission Cover Sheet**

*Date:* March 2, 1998

*To:* Sean Donnelly

*Fax #:* 617-350-5048

*Re:* UNUM parking garage

*From:* Lt. Mc Dougall

*Phone#:* 207-874-8300 X8712

*You should receive 2 page(s), including this cover sheet. If you do not receive all the pages, please call (207)874-8300. Thank you!*



I have reviewed the plans for your clarification.

- 1) Our standard thread for 2 1/2 connectinn is national thread pipe.
- 2) The state of Maine has adopted NFPA 72 for fire alarm systems.
- 3) I have reviewed NFPA 88A I find no exception to firerating the joints.

Inspection Services  
P. Samuel Hoffses  
Chief



Planning and Urban Development  
Joseph E. Gray Jr.  
Director

## CITY OF PORTLAND

March 2, 1998

I have reviewed the plans that you sent to me. The items which you requested that I review are as follows:

- 1) We use the national threads for our standard 2 1/2 connections
- 2) We reference NFPA 72 for annunciator and horn/strobes
- 3) The area of level P2 will have to be fire-rated

**NORTHLAND  
DEVELOPMENT**

2150 Washington Street  
Newton, Massachusetts 02162

Telephone - (617) 965-7100  
Telecopier - (617) 964-1252

March 2, 1998

P. Samuel Hofses  
Inspector of Buildings  
City of Portland  
389 Congress Street  
Portland, ME 04101

Re: UNUM HO III Project

Dear Mr. Hofses,

As development managers for the UNUM HO III Project, this letter will confirm that UNUM will be retaining the services of an inspection and testing firm to provide the required testing for structural steel, concrete and spray fireproofing. We will notify you when we have selected a Firm. Also, UNUM has retained the services of Haley and Aldrich to oversee the geotechnical work on the site.

If you have any questions or need further information, please feel free to call me.

Cordially,

NORTHLAND DEVELOPMENT CORPORATION



William J. Hunt, Jr.  
Vice President

cc: Stewart McAllister, UNUM  
David Beane, Turner  
John McLean, Northland Development Corporation

d/bill/portland030298

**To:** Kathleen Brown  
William Bray  
Tony Lombardo

**From:** Sarah Hopkins

**Date:** March 11, 1998

**Subject:** Unum Improvements

It looks like I may have to rescue a sick kid from daycare at lunchtime. Instead of bringing him to the meeting this afternoon and infecting all of you, I'll document the Planning Office comments:

- Turner Construction is hiring a subcontractor who will name the City on the Construction Bond to meet the requirements for a performance guarantee. We understand that we will get a chance to review this bond in the next week or two.
- We received a check for \$7,000 for the engineering and inspection fees to cover Jim Wendel's work. We did not receive a check for Public Works' fees. Has Public Works received any fees?
- I've asked Sebago to send over 7 sets of complete plans. Once I receive them, I will stamp them "approved" and send them around.

If you have any questions, please call me at home: 829-5688.

**NORTHLAND  
DEVELOPMENT**

2150 Washington Street  
Newton, Massachusetts 02162

Telephone - (617) 965-7100  
Telecopier - (617) 964-1252

April 3, 1998

Mr. P. Samuel Hoffses  
Inspector of Buildings  
City of Portland  
389 Congress Street  
Portland, Me. 04101

Re: UNUM HO-III Project Materials Testing / Inspection Services

Dear Mr. Hoffses:

UNUM Corporation will be contracting with S. W. Cole for all materials testing / inspection services for the above project.

S. W. Cole Engineering, Inc.  
Gray Plaza  
P. O. Box 378  
Gray, Me. 04039  
Paul Kohler  
Roger Domingo  
1-207-657-2866

The firm of Haley/Aldrich is currently contacted to perform all Geotechnical Testing services.

Haley/Aldrich Inc.  
500 South Borough Drive  
S. Portland, Me. 04106-6903  
Ken Recker  
1-207-772-5439

Sincerely,



John McLean  
Project Manager

cc: Bill Wright - TCCo  
Paul Rollins - TCCo  
Stu McAllister - UNUM  
Joel Seeley - SMMA  
Ken Recker - Haley/Aldrich  
Paul Kohler - S. W. Cole  
Bill Hunt

d:\John McLean \Portland Inspection Ltr

Inspection Services  
P. Samuel Hoffses  
Chief



Planning and Urban Development  
Joseph E. Gray Jr.  
Director

## CITY OF PORTLAND

24 April 1998

Turnt Construction Co.  
2199 Congress St.  
Portland, Me. 04102

Ref: Parking Garage ( S-2 , 2-A ) 2211 Congress ST.

Dear:Sir

Your application to construct a parking garage as per plans has been reviewed and a permit is herewith issued subject to the following requirement(s): This permit doesn't excuse the applicant from meeting applicable STATE and Federal laws.

NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTILL ALL REQUIREMENTS OF THIS LETTER IS MET.

### SITE PLAN REQUIREMENTS

Building Inspection : Approved Ms. Schmuckal  
Fire Dept. : Approved Lt. McDougall  
Planning Div. : Approved Sarah Hopkins  
Dev. Review Coordinator : J. Wendell

### BUILDING and FIRE CODE REQUIREMENTS

1. All site requirements must be completed before a certificate of occupancy can be issued..
  2. A complete list of all subcontractors shall be supplied to this office as soon as possible.
  3. Wheel guards shall be installed as per section 408.3.2 of the city's building.
  4. Opening limitation for stairs and guards shall be done in accordance with section 1021.3 of the city's building code
  5. Standpipes shall be install as per section 915.0 of the city's building.
  6. The Fire Dept. cooections is a Storz 4".
  7. A fire alarm acceptance report must be submitted to the Fire Dept. after completion.
- If you have any questions regarding these requirement(s), please do not hesitate to contact this office.

Sincerely,

  
P. Samuel Hoffses  
Chief of Inspection Services

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

April 29, 1998

UNUM Life Insurance Company of America  
2211 Congress Street  
Portland, ME 04122

Attention: Stu McAllister

**FAXED**  
4/29/98 11:11

Dear Stu:

Attached is a breakdown of John Madrid's \$14,174,000.00 estimate of the construction cost for the core/shell of the HO3 office building. Based on this cost, the building permit fee will be as follows:

1st \$1,000 of const. cost, the fee is:	\$25.00
For each \$1,000.00 of the remaining bldg. cost, the fee is:	\$ 5.00
1 X \$25.00 =	\$ 25.00
14,173 X \$5.00 =	<u>\$70,865.00</u>
Total Permit Cost =	\$70,890.00
Less Permit Fee previously paid =	<u>\$ 4,270.00</u>
Balance Due =	\$66,620.00

Please advise when a check made out to "City of Portland" will be available. As soon as it is ready, I will pick it up and submit it to the building department, along with the stamped 4/20/98 drawings that I received from SMMA yesterday.

Sincerely,  
TURNER CONSTRUCTION COMPANY

*WT Wright SAR*

William T. Wright  
Project Superintendent

cc: PER  
JRM  
DCB  
00163

*B/C John McLean via FAX.*

# TurnerMemo

To: Bill Wright / Scott Robbins

From: John Madrid

Office: Boston

Date: April 29, 1998

Re: **HO-3 Building Estimated Cost**

UNUM Life Insurance of America  
Building HO-3 & Parking Structure  
Portland, Maine

Below is the estimated cost for the construction of the core/shell of the HO-3 office building at the above site:

Demolition & Join To Old Work	\$ 46,000
Excavation & Foundation	\$ 955,000
Structure	\$ 2,907,000
Roofing	\$ 445,000
Exterior Wall	\$ 3,436,000
Interior Finishes & Partitions	\$ 1,192,000
Specialties	\$ 64,000
Vertical Transportation	\$ 439,000
Plumbing	\$ 497,000
Fire Protection	\$ 129,000
HVAC	\$ 3,046,000
Electrical	\$ 1,018,000
<b>TOTAL</b>	<b>\$14,174,000</b>

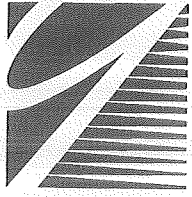
You should calculate your total building permit fee based on this amount then deduct the cost already paid for the foundation permit

JRM

cc: PER

JRM/jrm





YOUNGBLOOD CO., INC.

PLUMBING & HEATING

32 Ashland Street • Haverhill, MA 01830

(978) 373-5607 • FAX (978) 521-1572

April 29, 1998

Housing and Neighborhood Services Division  
389 Congress St.  
Portland, Me 04101

ATTN: MICHAEL J. NUGENT

RE : UNUM LIFE INSURANCE COMPANY

Dear Michael,

We have been selected as the plumbing contractor for UNUM's new office building. However at this time we have a contract for the under slab storm and sanitary piping only, not the above ground plumbing. The only fixture we are installing at this time is the floor drains, so that's all we have applied for on the permit. If this assumption is incorrect please feel free to call my office and we will correct it. Again any questions please feel free to call.

Sincerely,

David Youngblood

DY/jm

7/MAY/98 called left message



Symmes Maini & McKee Associates

CAMBRIDGE, MA • MINNEAPOLIS, MN

May 1, 1998

Mr. P. Samuel Hoffses  
Inspector of Buildings  
City of Portland  
389 Congress Street  
Portland, Maine 04101

Re: UNUM HO3  
Code Review

Portland, Maine  
SMMA No. 97094

Dear Mr. Hoffses:

Please accept my apology for not including our code review with the drawing submittal. I have enclosed a copy for your review. Please call me if you have any questions or need clarification of any items.

Very truly yours,

Symmes Maini & McKee Associates

A handwritten signature in cursive script, appearing to read "Charles P. Urnek".

Charles P. Urnek  
Senior Associate

cc: JGS, HSR (MF)

enclosures: Code Review

## UNUM HO3 - BUILDING CODE REVIEW

Building Code: BOCA 1996 (with city amendments)

Project: Proposed four story office addition containing approximately 300,000 sf of floor area and being approximately 62 feet high.

Construction Classification: Type 2A-Protected Noncombustible (Table 602)

Use Group: B-Business (304.0)

Allowable height and area: (Table 503)

Base Tabular area	34,200 sf
+ Street Frontage (506.2) 90% Open	+44,460 sf
+ Sprinklers (506.3)	+34,200 sf
Less Area Reduction (Table 506.4) 10%	-3,420 sf
Total Allowable Area:	109,440 sf ✓

Actual Floor Areas:

First Floor	87,400 sf
Second Floor	70,069 sf
Third Floor	70,069 sf
Fourth Floor	70,069 sf

Egress Requirements (Chapter 10)

Occupancy: B-Business-100 gross sf per person	
First Floor: Gross area 87,400sf ÷ 100 =	874 people ✓
Number of Exits: Required (Table 1010.2)	3 exits
Number of Exits: Provided	4 exits

Capacity of Exits: Required (Table 1009.2)  $874 \times .15 = 131.1''$

Capacity of Exits: Provided 180.0''

Second, Third and Fourth Floors: gross area 70,069 sf ÷ 100 = 701 People

Number of Exits: Required (Table 1010.2) 3 Exits

Number of Exits: Provided 3 Exits

Capacity of Exits: Required (Table 1009.2)  $701 \times .2$  (Stairs) 140.2''

Capacity of Exits: Provided 144''

Note: Actual anticipated occupancy is 1300 people total.

Maximum length of travel to an exit (Table 1006.5) 250'

Actual length of travel to an exit < 250'

Fire Protection

Full sprinkler system

Standpipes in stairwells

Fire wall between new and existing buildings ✓

Fire alarm system

*7 / MAY / 98*

## Unum Project Directory

<i>Division</i>	<i>Company</i>	<i>Contact</i>	<i>Phone/Fax Information</i>	
00000 Owner	<b>Unum Life Insurance Co.</b> 2211 Congress St Portland, ME 04122	<b>Ted Bernard</b> Stu McAllister Bernie Tanguay	Phone Fax	(207) 770-1841 (207) 770-1954
00000 Contractor	<b>Turner Construction Co. Office</b> 855 Boylston St Boston, MA 02116	<b>Dave Beane</b> Paul Rollins Dan Staveley	Phone Fax	(617) 247-5500 (617) 247-2883
00000 Contractor	<b>Turner Construction Co. Field</b> 2199 Congress St. Portland, ME 04102	<b>Bill Wright</b>	Phone Fax	(207) 773-1807 (207) 879-6031
00000 Architect	<b>Symmes Malni &amp; McKee Assoc</b> 1000 Massachusetts Avenue Cambridge, MA 02138	<b>Hank Ricciuti</b> Joel Seeley Richard Crosswell	Phone Fax	(617) 547-5400 (617) 354-5758
00000 Developer	<b>Northland Development</b> 2150 Washington St Newton, MA 02162	<b>John McLean</b> Bill Hunt	Phone Fax	(617) 966-7100 (617) 964-1252
00000 Site Engineers	<b>Sebago Technics</b> 12 Westbrook Common Westbrook, ME 04098-1339	<b>Will Conway</b> Shawn Franks	Phone Fax	(207) 856-0277 (207) 856-2206
00000 Parking Consultants	<b>Walker Parking Consultants</b> Stattler Office Building, Suite 1409 20 Park Plaza Boston, MA 02116	<b>Art Stadig, P.E.</b>	Phone Fax	(617) 350-5040 (617) 350-5048
02200 Earthwork	<b>Shaw Brothers Construction</b> 511 Lower Main St P.O. Box 69 Gorham, ME 04038	<b>Darren Shiers</b>	Phone Fax	(207) 839-2552 (207) 839-6239
03210 Concrete	<b>H.E Sergeant, Inc</b> 101 Berinloch Rd Stillwater, ME 04489	<b>Max Upton</b> Project Manager	Phone Fax	(207) 827-4435 (207) 827-6150
03210 Rebar	<b>Macfarlane Steel</b> Woodlawn Rd P.O. Box 142 Fryeburg, ME 04037	<b>Dennis Levasseur</b> Draftsman	Phone Fax	(207) 935-3531 (207) 935-3058
03210 Rebar Drafting	<b>Levasseur Drafting Service</b> 64 Old Orchard Rd, Saco, ME 04072	<b>Dennis Levasseur</b> Draftsman	Phone Fax	(207) 283-1376 (207) 282-1554
03450 Architectural Precast Conc.	<b>Betons Prefabriques</b> 840 Rue Bombardier Parc Industriel Alma (Quebec) G8B5W1	<b>Guy Bouchard</b> Project Manager	Phone Fax Cell	(418) 668-6161 (418) 668-4404 (514) 946-7576

05120  
Struct Steel

Civas Steel Company  
Riverside Drive  
Agusta, ME 04330  
P.O. Box 850  
Agusta, ME 04332

Bob Macklin  
Project Manager

Phone (207) 622-6141  
Fax (207) 622-2151

05120  
Steel Erect

Ajax Construction Co.  
2833 Victory Highway  
Harrisville, RI 02830

Larry Dorsey  
Project Manager

Phone (401) 765-6500  
Fax (401) 766-4420

06600  
Glass/Glazing

Ipswich Bay Glass Co., Inc.  
435 Boston St  
Topsfield, MA 01983

Dave Keyes  
Senior Project Mgr.

Phone (978) 887-8932  
Direct (978) 887-3411 x 134  
Fax (978) 887-3225

15000  
Plumbing

Youngblood Co, Inc  
32 Ashland St  
Haverhill, MA 01830

David Youngblood

Phone (978) 373-6607  
Fax (978) 621-1572

Inspection Services  
P. Samuel Hoffses  
Chief



Planning and Urban Development  
Joseph E. Gray Jr.  
Director

## CITY OF PORTLAND

SMMA  
1000 Massachusetts Avenue  
Cambridge, MA 02138

May 12, 1998

RE: UNUM HO3 project  
Portland, Maine  
Plan and specification review

The conditions and Code requirements shall be met on this project as follows, to comply with the City Electrical Code and NEC 1996.

1. No other equipment shall occupy the same room or space as electrical equipment i.e. including, but not limited to boiler equipment, HVAC, circulator pumps, water heaters, etc. All locations shall be approved by the electrical inspector prior to installation. The rooms shall include, but not limited to: #121, #120B, #129, #130, #213, #302, #313, #402, #413. These rooms shall not be used for storage of any kind.
2. Floor mount all secondary transformers. Provide proper clearances
3. All site electrical conduits shall be installed by the electrical contractor, including CMP utility conduits, site lighting and service lateral conduits.
4. Interior wiring shall be MC type cable or EMT conduit.
5. All low-voltage wiring shall be plenum fire rated wire.
6. All concrete or asphalt penetrations above grade shall be RIGID galvanized conduit.
7. All flexible metal conduit containing circuits over 20 AMPS shall have grounding bushings installed on both ends, or approved equal.
8. Electrical roof penetrations and roof top conduits shall be RIGID galvanized conduit.
9. Electrical permits shall be required for the following installations:
  - Electrical
  - Fire Alarm
  - Security, card access, security cameras
  - HVAC, EMS control work
10. All conduits in the parking garage areas, shall be RIGID galvanized conduit.

If you have any questions feel free to call this office, from 7:00-9:00 AM, or from 12:00-1:00 PM. My direct line is (207)874-8694.

Sincerely,

  
Michael A. Collins

cc: Sam Hoffses, Michael Nugent

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

13 May 1998

City of Portland  
Inspectional Services  
389 Congress Street  
Portland, ME 04101

*Attention: Samuel Hoffses*

Re: Drainage Pipe Test

Gentlemen:

As requested, please find attached a copy of Turner Construction Company's pipe test report # 6376-04 dated 5/13/98. Also, find attached a partial copy of drawing P1.1 showing the location of the drainage system tested.

The drainage system was capped full of water and sealed air tight at 12:15 pm with a head of 10 feet. The entire trench was left uncovered until approximately 1:40 pm. After visual inspection by James Jackson of Youngblood Plumbing and myself, we concluded the system was free of leaks and/or defects at approximately 2:00 pm.

Upon request of Mr. Hoffses the entire trench was inspected and the few rocks pointed out were removed before backfill occurred.

If you have any questions or comments regarding this matter, please do not hesitate to call this office at (207) 773-1807.

Very truly yours,



Shaun M. Lover  
Field Engineer

cc: WTW

18/MAY/98



Pipe test report # 6376 - 04

Subcontractor: Youngblood Plumbing

Date: 5/13/98

Time: 11:35 am. - filling started

Weather: Sunny, 60°F

Description of pipe tested:  
(water main, sewer, steam etc.) Drainage - Roof Drains

Size and type of pipe tested:  
(pvc, iron, etc) 6" - 12" Iron

Location of pipe tested: Interior HO3 (NORTH/NORTHWEST)

Reference plan #, spec # Pl.1 15/40-19

Type of test (air, water etc.) Water - Leaks and Defects

Pressure at start of test: N.A.

Pressure at end of test: N.A.

Pressure drop/fluid lost: No Fluid lost

Duration of test: 2 1/2 Hours until backfill

Additional information: Pipe completely filled/capped 12:15pm

Test passed/failed: Passed

Witnessed by:  
(name, company) - James Jackson - Youngblood  
James M. Jackson  
- Shaun Lover - Turner Const.  
Shaun Lover

\* Samuel Hoffses - (Chief of Insp. Services)  
visually inspected trench and witnessed  
partial filling

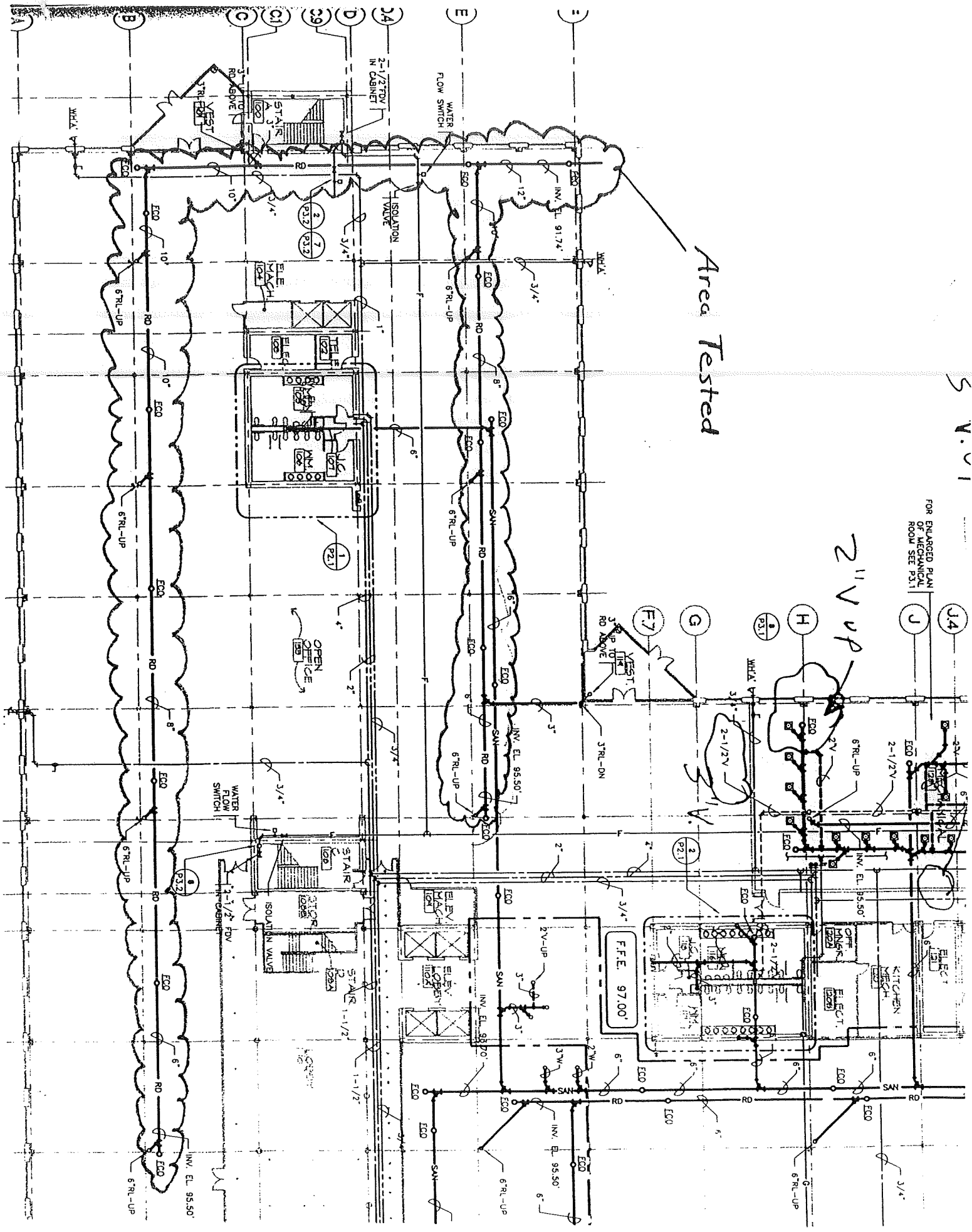


S.V.V.1

FOR ENLARGED PLAN  
OF MECHANICAL  
ROOM SEE P.3.1

2" V UP

Area Tested





Parking Consultants/  
Engineers, Inc.

May 13, 1998

Lieutenant McDougal  
Fire Department Headquarters  
380 Congress Street  
Portland, ME 04101

**Re: UNUM Parking Facility  
Code Issues  
Walker Project No: 16-1170.00**

Dear Lieutenant McDougal:

To follow our phone conversation we offer the following.

An outstanding issue we have with the garage is fire rating of the double tee joints. We have attached a copy of your March 2<sup>nd</sup> correspondence. We have also attached a copy of our March 9<sup>th</sup> correspondence to you clarifying that the 1996 BOCA allows for an exception of fire resistive joints in open parking structures.

Following this correspondence, we had a phone conversation. You had indicated that your disposition was unchanged and that the NFPA 88A does not allow an exception to the fire rated joint.

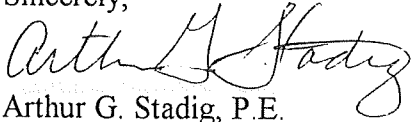
We have reviewed NFPA 88A. The parking structure meets the definition of open parking structure. In addition, the exception to Section 3-7.2 allows for open parking structures to be of Type II (000) construction. The parking structure is not more than 75 feet in height and the horizontal distance on any parking level to an open space exterior wall opening is less than the required 200 feet. We have attached a Table from NFPA 220 which is referenced by NFPA 88A. The Table indicates that there is zero fire rating requirements for Type II (000) construction.

Based on this analysis, the parking structure will meet the requirements of the State Building Code by providing a Type IIA floor system without rated joints. The parking structure will also meet NFPA 88A in that the floor system is not required to be rated per that document. Based on this, the joints in the double tee floor system do not need to be fire resistive or fire rated.

Lt. MacDougal  
May 13, 1998  
Page 2

We respectfully request that you review our interpretation. If you disagree or require further information or assistance, please call.

Sincerely,



Arthur G. Stadig, P.E.  
Chief Engineer

AGS/mm

Attachments

cc: Joel Seeley, SMMA  
John McLean, Northland Development  
Stewart McAllister, UNUM  
Sam Hoffses, City of Portland

J:\16-1170.00\CORRESPOL\MacDougal ltr05-08.doc

**CITY OF PORTLAND**

Inspection Services  
389 Congress Street, Room 315  
Portland, ME 04101  
(207)874-8300  
Fax: (207)874-8716

**Fax Transmission Cover Sheet**

---

*Date:* March 2, 1998

*To:* Sean Donnelly

*Fax #:* 617-350-5048

*Re:* UNUM parking garage

*From:* Lt. Mc Dougall

*Phone#:* 207-874-8300 X8712

*You should receive 2 page(s), including this cover sheet. If you do not receive all the pages, please call (207)874-8300. Thank you!*

I have reviewed the plans for your clarification.

- 1) Our standard thread for 2 1/2 connection is national thread pipe.
- 2) The state of Maine has adopted NFPA 72 for fire alarm systems.
- 3) I have reviewed NFPA 88A I find no exception to firecrating the joints.

WALKER PARKING CONSULTANTS  
Technical Memorandum

Page 1

Date: March 9, 1998  
To: Lt. McDougall  
Company: Fire Department Headquarters  
Address: Portland, ME  
Cc: Sam Hoffses, Portland Building Department  
Joel Seeley, SMMA

From: Art Stadig  
Project: UNUM Parking Facility  
Proj #: 16-1170.00

To follow a conversation with Lt. Thompson, we offer the following:

1. Thank you for a review of our drawings, and February 19 letter and your fax response on March 2. In your response, you have stated that NFP88a finds no exception to fire rating of joints. Since our memo, we have found Section 713.5 (see attached) of the 1996 BOCA. This section specifically indicates that joints within an open parking structure do not require fire rating.
2. Lt. Thompson also indicated that the State Fire Marshall's office does not need to review the plans since there is no sprinkler system and this is not high-rise construction. If there is any change from this requirement, please contact us and we will make necessary arrangements.
3. Please review the above with Sam Hoffses. If you have interpretations or further information different than the above, please contact us.

Please call me if you require any further assistance or information.

AGS/mm

11. A single floor opening containing a *stairway* which is not a required *means of egress* in an occupancy in Use Group B and complying with the following parameters:

- 11.1. The *stairway* does not connect more than six floor levels.
- 11.2. The *stairway* does not connect with an *exit access corridor*.
- 11.3. The *stairway* floor opening shall not exceed 160 square feet (15 m<sup>2</sup>).
- 11.4. The *stairway* floor opening shall be protected in the same manner as an *escalator* floor opening complying with Section 3011.2.
- 11.5. The building is equipped throughout with an approved *automatic sprinkler system* in accordance with Section 906.2.1.

713.4 Penetrations: All penetrations of a floor/ceiling assembly or the ceiling membrane of a roof/ceiling assembly shall be protected by a *shaft enclosure* that complies with Section 710.0. Where one-hour fire-resistance rated roof construction is required by Section 705.5, penetrations through the roof deck shall comply with Sections 714.2 through 714.2.6.5. Penetrations in other fire-resistance rated roof decks are permitted to be unprotected, provided that the structural integrity of the roof construction is maintained.

#### Exceptions

1. Penetrations within and through a floor opening permitted to be unenclosed by Section 713.3.
2. Penetrations through assemblies required to be fire-resistance rated and complying with Sections 714.2 through 714.2.6.5.
3. Penetrations through assemblies without a required fire-resistance rating and complying with Sections 714.3 through 714.3.2.

713.5 Joints: All materials utilized to protect *joints* in fire-resistance rated floor/ceiling and roof/ceiling assemblies shall comply with the requirements of Section 709.7. *Joints* made in or between fire-resistance rated assemblies shall be protected by a *fire-resistive joint system* designed and tested to resist the spread of fire for a time period not less than the required fire-resistance rating of the adjacent assemblies.

→ Exception: *Fire-resistive joint systems* are not required for *joints* in:

1. Floors within a single *dwelling unit*.
2. Floors where the *joint* is protected by a *shaft enclosure* that complies with Section 710.0.
3. Floors within an atrium that complies with Section 404.0 where the space adjacent to the atrium is included in the volume of the atrium for smoke control purposes.
4. Floors within a mall that complies with Section 402.0.
- 5. Floors within an open parking structure that complies with Section 406.0.
6. *Mezzanine* floors that comply with Section 505.0.
7. Roof decks, other than those required to have a 1-hour fire-resistance rating in accordance with Section 705.5.

provided that the structural integrity of the roof construction is maintained.

#### SECTION 714.0 PENETRATIONS

714.1 Fire-resistance rated wall assemblies: Penetrations of wall assemblies required to be fire-resistance rated in accordance with Sections 707.0, 709.0 or 711.0 shall comply with Sections 714.1.1 through 714.1.6.2. Penetrations of an *exit enclosure* shall also comply with Section 1014.11.2. The required fire-resistance rating of the wall assembly shall be determined in accordance with Section 704.1.1.

714.1.1 Noncombustible penetrations: Cables and wires without combustible jackets and noncombustible pipes, tubes, conduits and vents which penetrate a fire-resistance rated wall assembly shall be tested in accordance with ASTM E119 listed in Chapter 35 as part of a fire-resistance rated assembly, or shall be protected by an approved through-penetration firestop system in accordance with Section 714.1.3, or the annular space around the penetrating item shall be protected in accordance with Sections 714.1.4 and 714.1.4.1.

714.1.2 Combustible penetrations: Cables and wires with combustible jackets and combustible pipes, tubes, conduits and vents which penetrate an assembly shall be tested in accordance with ASTM E119 listed in Chapter 35 as part of a fire-resistance rated assembly, or shall be protected with a through-penetration firestop system in accordance with Section 714.1.3.

714.1.3 Through-penetration firestop system: The through-penetration firestop system shall be tested in accordance with ASTM E814 listed in Chapter 35 with a minimum positive pressure differential of 0.01 inch of water column (3 Pa). The penetration firestop system shall have an "F" rating of not less than the required rating of the assembly penetrated.


714.1.4 Annular space protection: Where permitted by Section 714.1.1 for noncombustible penetrating items, the annular space between the penetrating item and the fire-resistance rated assembly being penetrated shall be protected with material capable of preventing the passage of gases sufficient to ignite cotton waste when subjected to time-temperature fire conditions of ASTM Chapter 35, under a minimum positive pressure of 0.01 inch water column (3 Pa) at the 1 penetration for the time period equivalent to the fire-resistance rating of the assembly penetrated protected in accordance with Section 714.1.4.

714.1.4.1 Concrete or masonry wall assembly: Penetrations of concrete or masonry wall assembly shall be protected with a minimum 6-inch nominal diameter copper, iron tube, conduit or wires and cables with steel jackets. Penetrations shall be permitted provided that the maximum area of penetration shall not exceed 144 square inches (0.09 m<sup>2</sup>) and the penetration shall be protected with concrete, grout or mortar for the full depth of the assembly or the thickness required for the fire-resistance rating equivalent to the resistance rating of the assembly penetrated.

TYPES OF CONSTRUCTION

Table 3-1 Fire resistance ratings (in hours) for Type I through Type V Construction

	Type I		Type II			Type III		Type IV	Type V	
	443	332	222	111	000	211	200	2HH	111	000
<b>Exterior Bearing Walls -</b>										
Supporting more than one floor, columns, or other bearing walls.....	4	3	2	1	0 <sup>1</sup>	2	2	2		
Supporting one floor only.....	4	3	2	1	0 <sup>1</sup>	2	2	2		
Supporting a roof only.....	4	3	1	1	0 <sup>1</sup>	2	2	2		
<b>Interior Bearing Walls -</b>										
Supporting more than one floor, columns, or other bearing walls.....	4	3	2	1	0			2		
Supporting one floor only.....	3	2	2	1	0			1		
Supporting roofs only.....	3	2	1	1	0			1		
<b>Columns -</b>										
Supporting more than one floor, columns, or other bearing walls.....	4	3	2	1	0					
Supporting one floor only.....	3	2	2	1	0					
Supporting roofs only.....	3	2	1	1	0					
<b>Beams, Girders, Trusses &amp; Arches -</b>										
Supporting more than one floor, columns, or other bearing walls.....	4	3	2	1	0					
Supporting one floor only.....	3	2	2	1	0					
Supporting roofs only.....	3	2	1	1	0					
<b>Floor Construction</b>	3	2	2	1	0					
<b>Roof Construction</b>	2	1½	1	1	0					
<b>Exterior Nonbearing Walls</b>	0 <sup>1</sup>	0 <sup>1</sup>	0 <sup>1</sup>	0 <sup>1</sup>	0 <sup>1</sup>					

 Those members that shall be permitted to be of approved combustible material.

<sup>1</sup> See A-3-1 (Table).

<sup>2</sup> "H" indicates heavy timber members; see text for requirements.

arches, floors, and roofs, shall be of solid or laminated wood without concealed spaces and shall comply with the provisions of 3-4.2 through 3-4.6. In addition, structural members shall have fire resistance ratings not less than those specified in Table 3-1.

*Exception No. 1: Interior columns, arches, beams, girders, and trusses of approved materials other than wood shall be permitted, provided they are protected to provide a fire resistance rating of not less than 1 hr.*

*Exception No. 2: Certain concealed spaces shall be permitted by the exception to 3-4.4.*

3-4.2 Wood columns supporting floor loads shall be not less than 8 in. (203 mm) in any dimension; wood columns supporting roof loads only shall be not less than 6 in. (152 mm) in the smallest dimension and not less than 8 in. (203 mm) in depth.

3-4.3 Wood beams and girders supporting floor loads shall be not less than 6 in. (152 mm) in width and not less than 10 in. (254 mm) in depth; wood beams and girders and other roof framing, supporting roof loads only, shall be not less than 4 in. (102 mm) in width and not less than 6 in. (152 mm) in depth.

3-4.4 Framed or glued laminated arches that spring from grade or the floor line and timber trusses that support floor loads shall be not less than 8 in. (203 mm) in width or depth. Framed or glued laminated arches for roof construction that spring from grade or the floor line and do not support floor loads shall have members not less than 6 in. (152 mm) in width and not less than 8 in. (203 mm) in depth for the lower half of the member height and not less than 6 in. (152 mm) in depth for the upper half of the member height. Framed or glued laminated arches for roof construction that spring from the top of walls or wall abutments and timber trusses that do not support floor loads shall have members not less than 4 in. (102 mm) in width and not less than 6 in. (152 mm) in depth.

*Exception: Spaced members shall be permitted to be composed of two or more pieces not less than 3 in. (76 mm) in thickness when blocked solidly throughout their intervening spaces or where such spaces are tightly closed by a continuous wood cover plate not less than 2 in. (51 mm) in thickness, secured to the underside of the members.*

Splice plates shall be not less than 3 in. (76 mm) in thickness.

3-4.5 Floors shall be constructed of splined or tongue and grooved plank not less than 3 in. (76 mm) in thickness.



Inspection Services  
P. Samuel Hoffses  
Chief



Planning and Urban Development  
Joseph E. Gray Jr.  
Director

## CITY OF PORTLAND

13 May 1998

Turner Construction Co.  
2199 Congress St.  
Portland, Me. 04102

Ref: Office Building ( B , 2-A ) 2211 Congress ST. (C.L.B. 215-B-002 )

Dear: Sir

Your application to construct a office building as per plans has been reviewed and a permit is herewith issued subject to the following requirement(s): This permit doesn't excuse the applicant from meeting applicable STATE and Federal laws.

NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTILL ALL REQUIREMENTS OF THIS LETTER IS MET.

### SITE PLAN REQUIREMENTS

Building Inspection : Approved Ms. Schmuckal  
Fire Dept. : Approved Lt. McDougall  
Planning Div. : Approved Sarah Hopkins  
Dev. Review Coordinator : J. Wendell

### BUILDING and FIRE CODE REQUIREMENTS

1. All site requirements must be completed before a certificate of occupancy can be issued..
2. A complete list of all subcontractors shall be supplied to this office as soon as possible.
3. Please read and implement items listed on attached Portland Fire Dept. check list of conditions of approval..
4. Please read and implement items listed in Mr. Michael Collins letter dated 12 May 1998 to SMMA.
6. All penetrations in fire rated walls, ceilings and floors shall be done in accordance with sections 714.0 of the building code.
7. Special Inspections shall be done in accordance with section 1705.0 of the building code.
8. The State's Fire Marshall's Office shall review for accessibility.
9. All elevators shall be approved by the State's Bureau of Safety.
10. All plumbing shall be done in accordance with the State of Maine's Internal Plumbing Code.
11. Please read and implement items listed on the attached Building Permit Report.

If you have any questions regarding these requirement(s), please do not hesitate to contact this office.

Sincerely,

P. Samuel Hoffses  
Chief Building Inspector

cc: Lt. Mc Dougall  
M. Schmuckal  
S. Hopkins  
J. Wendell

**WALKER PARKING CONSULTANTS**  
**Technical Memorandum**

Page 1

<b>Date:</b>	May 19, 1998	<b>From:</b>	Art Stadig
<b>To:</b>	Lieutenant McDougal	<b>Project:</b>	UNUM Parking Facility
<b>Company:</b>	City of Portland Inspectional Services	<b>Proj #:</b>	16-1170.00
<b>Address:</b>	Portland, ME	<b>Re:</b>	Code Requirements
<b>Cc:</b>	Joel Seeley, SMMA John McLean, Northland Development Stewart McAllister, UNUM Sam Hoffses, City of Portland		

The purpose of this memo is to confirm our phone conversation on May 14, 1998 concerning fire rating of expansion joints and double tee joints in the supported floor system. After review of our May 13<sup>th</sup> letter to you and discussions with the state fire marshal, expansion joints and tee-to-tee joints do not require a fire rating within the parking facility.

Thank you for your time and considerations in reviewing these matters. If you have any further questions or needs, please call.

Post-It* Fax Note	7671	Date	5/20	# of pages	1
To:	Lieutenant McDougal	From:	Art Stadig		
Co./Dept:	City of Portland Inspector	Co.:	Walker-Boston		
Phone #		Phone #	(617) 350-5040		
Fax #	207-874-8266	Fax #	(617) 350-5048		

AGS/mm

\\walker\_bos\data\data\proj\16-1170.00\corresp\memo6.doc

20 Park Plaza, Suite 1409, Boston, MA 02116  
 Tele: (617) 350-5040 Fax: (617) 350-5048



**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

01 June 1998

City of Portland  
Inspectional Services  
389 Congress Street  
Portland, ME 04101

*Attention: Samuel Hoffses*

Re: Sanitary Pipe Test #6376-05

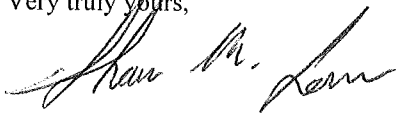
Gentlemen:

Please find attached a copy of Turner Construction Company's pipe test report # 6376-05 dated 6/1/98. Also, find attached a partial copy of drawing P1.1 showing the location of the sanitary system tested.

Upon request of Mr. Hoffses the entire trench was inspected for debris prior to backfill.

If you have any questions or comments regarding this matter, please do not hesitate to call this office at (207) 773-1807.

Very truly yours,



Shaun M. Lover  
Field Engineer

cc: WTW

Pipe test report # 6376 - 05

Subcontractor: Youngblood Plumbing

Date: 6/1/98

Time: 11:30 a.m. - Filling Complete

Weather: Sunny, 68°F

Description of pipe tested:  
(water main, sewer, steam etc.) Sanitary

Size and type of pipe tested:  
(pvc, iron, etc) 4" - 6" Iron

Location of pipe tested: Interior HO3 (see attached)

Reference plan #, spec # Pl.1 15140-19

Type of test (air, water etc.) Water - Leaks & Defects

Pressure at start of test: N.A.

Pressure at end of test: N.A.

Pressure drop/fluid lost: No Fluid lost

Duration of test: Pipe filled approx. 30 minutes

Additional information: \_\_\_\_\_

Test passed/failed: Passed

Witnessed by:  
(name, company) James Jackson - Youngblood  
James Jackson y.b.c.  
Shaun Lover - Turner Const.  
Shaun Lover

\* Samuel Hoffses - (Chief of Insp. Services)  
- visual inspection



**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

02 June 1998

City of Portland  
Inspectional Services  
389 Congress Street  
Portland, ME 04101

*Attention: Samuel Hoffses*

Re: Sanitary Pipe Test # 6376-06

Gentlemen:

Please find attached a copy of Turner Construction Company's pipe test report # 6376-06 dated 6/2/98. Also, find attached a partial copy of drawing P1.1 showing the location of the Roof Drain system tested.

If you have any questions or comments regarding this matter, please do not hesitate to call this office at (207) 773-1807.

Very truly yours,



Shaun M. Lover  
Field Engineer

cc: WTW

Pipe test report #

6376-06

Subcontractor:

Youngblood Plumbing

Date:

6/2/98

Time:

2:00 pm - Filling Complete

Weather:

cloudy, 62°F

Description of pipe tested:  
(water main, sewer, steam etc.)

Drainage - Roof Drains

Size and type of pipe tested:  
(pvc, iron, etc)

6" - 12" Iron

Location of pipe tested:

Interior HO3 (see attached)

Reference plan #, spec #

Pl.1 15140-19

Type of test (air, water etc.)

water - Leaks & Defects

Pressure at start of test:

N.A.

Pressure at end of test:

N.A.

Pressure drop/fluid lost:

No Fluid Lost

Duration of test:

Pipe filled approx 15 minutes

Additional information:

Test passed/failed:

Passed

Witnessed by:  
(name, company)

James Jackson - Youngblood

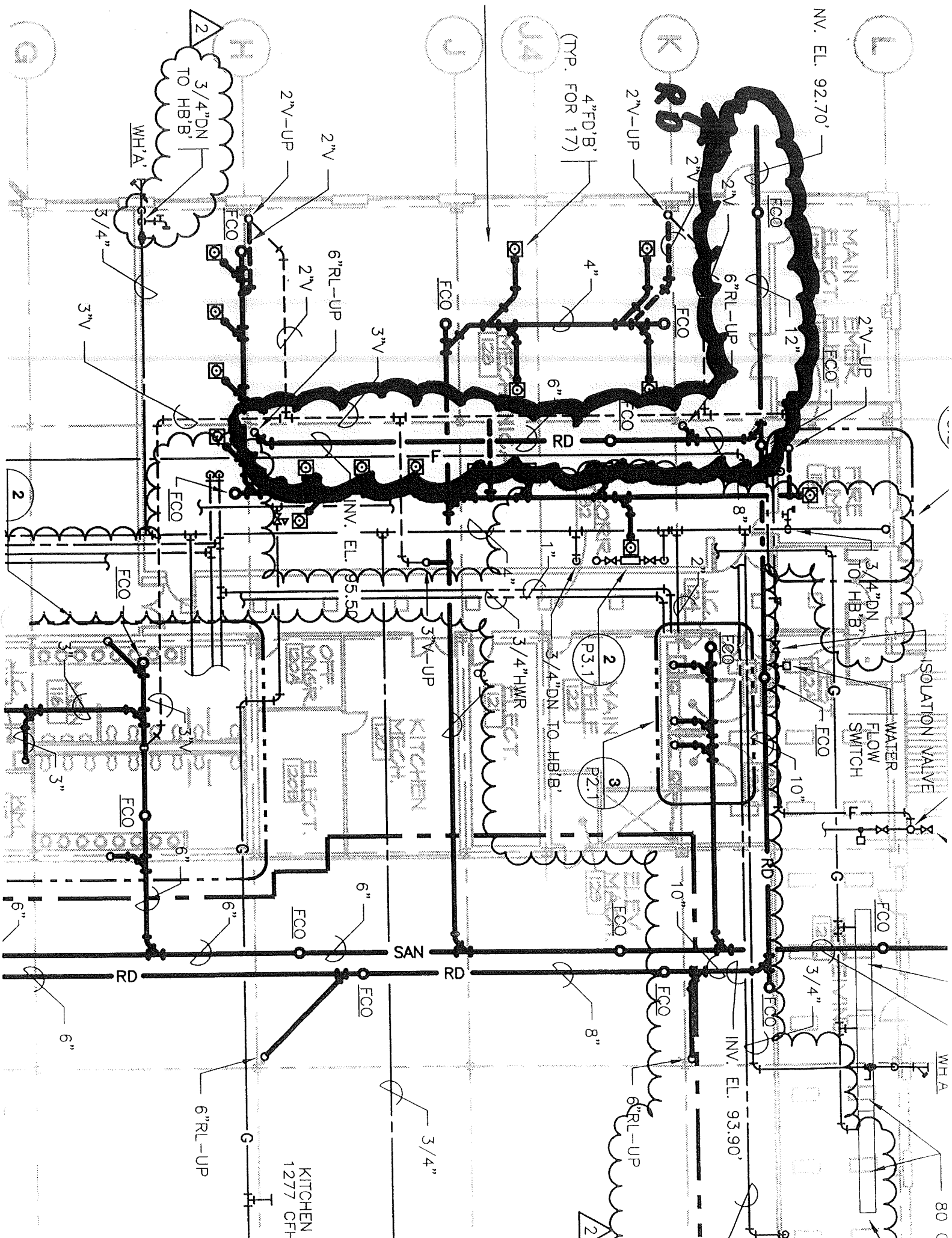
James Jackson - YBC  
(sub)

Shawn Lover - TCCo

Shawn Lover

\* Samuel Hoffses (Chief of Insp. Serv.)





NV. EL. 92.70'

MAIN ELECT. EL. ECO

ISOLATION VALVE

WATER FLOW SWITCH

WHA

80 C

INV. EL. 93.90'

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# Turner



## FAX TRANSMITTAL

TCCO/UNUM HO3  
2199 Congress Street  
Portland, ME 04122  
Tel: (207) 773 - 1807  
Fax: (207) 879 - 6031



# UNUM.

TO: SAM HOFFSES

COMPANY: BLDG. DEPT.

FROM: SCOTT ROBINS

DATE: 6-5-98

PAGES: 3  
(INCLUDING THIS COVER SHEET)

COMMENTS: UPDATED PROJECT DIRECTORY  
FOR UNUM HO3.

FAX NUMBER: ( ) 874 - 8716

Sheet1

## UNUM Project Directory

Division	Company	Contact	Phone / Fax Information
00000 Owner	<b>UNUM Life Insurance Co.</b> 2211 Congress St. Portland, ME 04122	Ted Bernard Stu McAllister Bernie Tanguay	Phone: (207) 770-1841 Fax: (207) 770-1954
00000 Contractor	<b>Turner Construction Co. Office</b> 855 Boylston St. Boston, MA 02116	Dave Bean Paul Rollins Sarah Wilcox	Phone: (617) 247-5500 Fax: (617) 247-2883
00000 Contractor	<b>Turner Construction Co. Field</b> 2199 Congress St. Portland, ME 04102	Bill Write	Phone: (207) 773-1807 Fax: (207) 879-6031
00000 Architect	<b>Symmes Maini &amp; McKee Assoc.</b> 1000 Massachusetts Ave Cambridge, MA 02138	Hank Ricciuti Joel Seeley Richard Crosswell	Phone: (617) 547-5400 Fax: (617) 354-5758
00000 Developer	<b>Northland Development</b> 2150 Washington St. Newton, MA 02182	John McLean Bill Hunt	Phone: (617) 965-7100 Fax: (617) 964-1252
00000 Site Engineers	<b>Sebago Technics</b> 12 Westbrook Common Westbrook, ME 04093-1339	Will Conway Shawn Franks	Phone: (207) 856-0277 Fax: (207) 856-2206
00000 Parking Consultants	<b>Walker Parking Consultants</b> Stater Office Building, Suite 1409 20 Park Plaza Boston, MA 02116	Art Stadig, P.E.	Phone: (617) 350-5040 Fax: (617) 350-5048
02200 Earthwork	<b>Shaw Brothers Construction</b> 511 Lower Main St. P.O. Box 69 Gorham, ME 04038	Darren Shiers	Phone: (207) 839-2552 Fax: (207) 839-6239
03210 Concrete	<b>H.E Sargent Inc.</b> Woodlawn Rd. P.O. Box 142 Fryeburg, ME 04037	Max Upton Project Mgr.	Phone: (207) 827-4436 Fax: (207) 827-6150
03210 Rebar Drafting	<b>Levasseur Drafting Services</b> 64 Old Orchard Rd. Saco, ME 04072	Dennis Levasseur Draftsman	Phone: (207) 283-1376 Fax: (207) 282-1654
03450 Architectural Precast Conc.	<b>Betons prefabriques du lac inc.</b> 840 Rue Bombadier Parc Industriel Alma (Quebec) G8B5W1	Guy Bouchard Project Mgr.	Phone: (418) 668-6161 Fax: (418) 668-4404 Cell: (614) 946-7576
Pkng. Garage Precast	<b>J.P. Carrara &amp; Sons, Inc.</b> Route 116 Middlebury, VT 05735	Paul Carrara President	Phone: (802) 386-6363 Fax: (802) 386-9010
05120 Struct. Steel	<b>Cives Steel Company</b> Riverside Drive Augusta, ME 04330 P.O. Box 850 Augusta, ME 04332	Bob Macklin Project Mgr.	Phone: (207) 622-6141 Fax: (207) 622-2151

## Sheet1

05120 Steel Erect.	<b>Ajax Construction Company</b> 2833 Victory Highway Parisville, RI. 02830	Bob Morel Project Mgr.	Phone: (401) 766-6500 Fax: (401) 766-4420
08900 Glass/Glazing	<b>Ipswich Bay Glass Co., Inc.</b> 435 Boston St. Topsfield, MA. 01983	Dave Keyes Senior Project Mgr.	Phone: (978) 887-8932 Direct: (978) 887-3411 x134 Fax: (978) 887-3225
15000 Plumbing	<b>Youngblood Co., Inc.</b> 32 Ashland St. Haverhill, MA. 01830	Dave Youngblood	Phone: (978) 373-5607 Fax: (978) 521-1572
01600 Electrical	<b>E.S. Boulos Company</b> 590 County Rd. Westbrook, ME. 04092	Tom Driscoll	Phone: (207) 464-3706 Fax: (207) 772-1833
Quality Control	<b>Haley &amp; Aldrich, Inc.</b> 500 South Borough Drive South Portland, ME. 04106-6903	Kenneth Recker, PE Vice President	Phone: (207) 772-5439 Fax: (207) 871-5999
03410 Conc. Erect.	<b>Concrete Structures Inc.</b> 769 Plain St. Suite H-1 Marshfield, MA. 02050	Gerald Kriegel President	Phone: (617) 837-1931 Fax: (617) 837-5272
05120 Steel Erect.	<b>R.L. Ryder Co., Inc.</b> 210 Pommogussett Rd. P.O. Box 236 Rutland, MA. 01543	Austin Pierson Owner	Phone: (508) 866-6310 Fax: (508) 866-2048
Conc. inspection	<b>S.W. Cole Engineering Inc.</b> Gray Plaza Gray, ME. 04039	Roger Domingo Deirdre Coltrera Terry-scheduling	Phone: (207) 657-2866 Fax: (207) 657-2840
Personal services	<b>Uncco Service Co.</b> UNUM 2211 Congress St. Portland, ME. 04122	Andre Hungerford	Phone: (207) 770-1803 Fax: (207) 770-1954 pgr: (207) 758-4295
	<b>Pine State Elevator</b>	Steve McDuffie Angus McDuffie	Phone: (207) 773-7206 Fax:
	<b>Optimum Building Systems</b> 12 Colby Rd. Litchfield, NH. 03052	Rene Theroux	Phone: (603) 424-2686 Fax: (603) 429-9407 Cell: (603) 566-4760 Pgr: (603) 596-2924
<b>Shaw Brothers Construction Sub Contractors:</b>			
site work	<b>Alpine Industries Inc.</b> P.O. Box 215 Hampden, ME. 04444	William McNutt	Phone: (207) 394-2700 Fax: Cell: (207) 745-1359
site work	<b>Maine Drilling &amp; Blasting</b> P.O. Box 1140 Gardiner, ME. 04345	Dick Rosenberg Safety Engineer	Phone: (207) 582-2338 Fax: (207) 582-8974
site work	<b>R.E. Chapman Co.</b> 30 No. Main St. West Boylston, MA. 01583	Richard Chapman President	Phone: (508) 835-6231 Fax:

Pipe test report # 6376-08

Subcontractor: Youngblood Plumbing

Date: 6/11/98

Time: 10:00 am

Weather: sunny, 70° F

Description of pipe tested:  
(water main, sewer, steam etc.) Sanitary

Size and type of pipe tested:  
(pvc, iron, etc) 4" - Iron

Location of pipe tested: Interior HO3 (Attached)

Reference plan #, spec # Pl.1 - 15140

Type of test (air, water etc.) Water - Leaks \* Defects

Pressure at start of test: N.A.

Pressure at end of test: N.A.

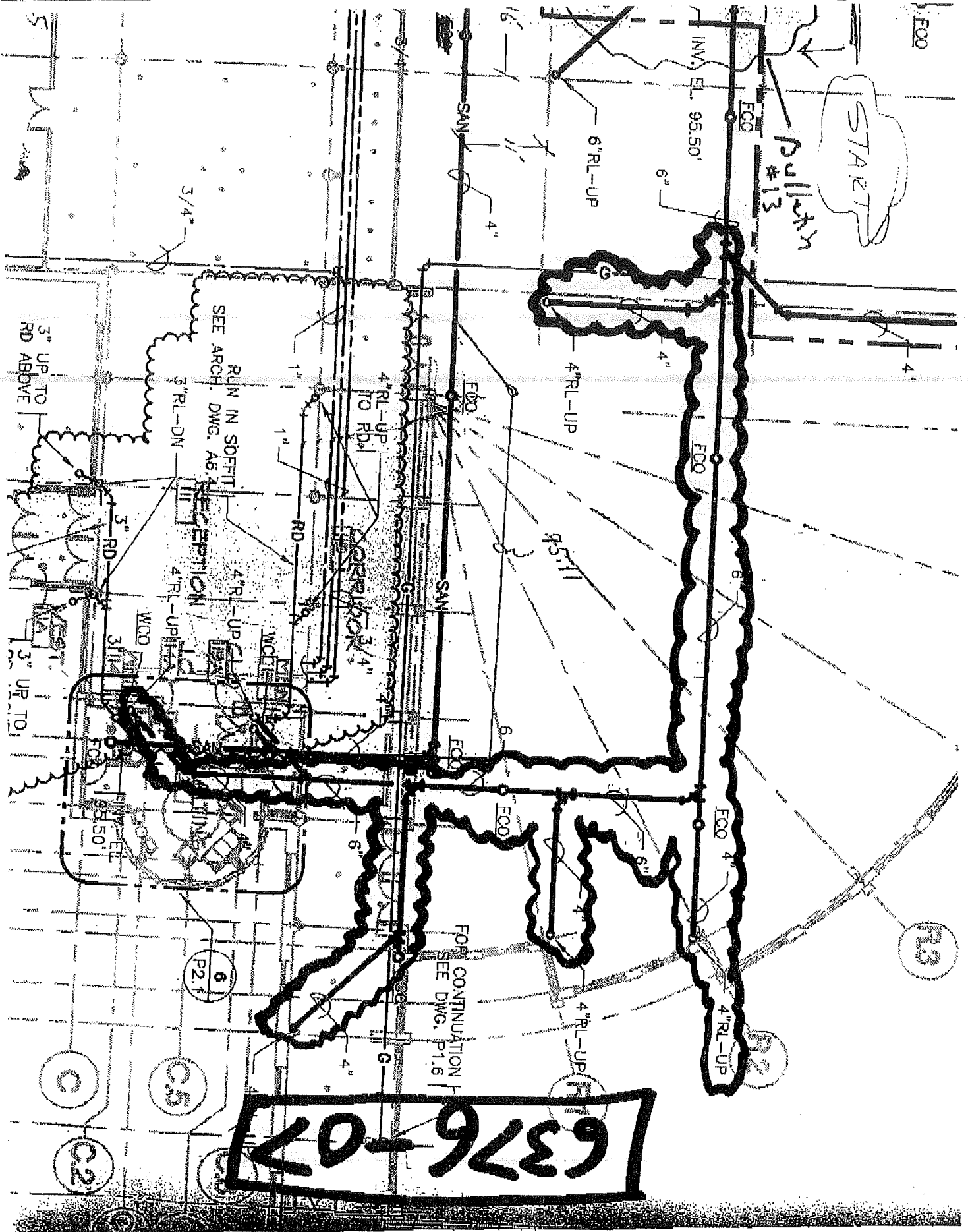
Pressure drop/fluid lost: No Fluid Lost

Duration of test: Pipe filled approx 30 minutes

Additional information: \_\_\_\_\_

Test passed/failed: Passed

Witnessed by:  
(name, company) James Jackson - Youngblood  
James Jackson - YBC  
Shawn Laver - TCC  
Shawn Laver - TCC  
\* Samuel Hof Eses - Chief Insp.



**6376-07**

FOR CONTINUATION  
SEE DWG. P.1.6

RUN IN SOFFIT  
SEE ARCH. DWG. A6.4

3" UP TO  
RD ABOVE

3" UP TO  
RD

INV. EL. 95.50'

INV. EL. 95.50'

INV. EL. 95.50'

6  
P2

C5

C

C2

R3

R2

R1

E00

E00

6"

6"RL-UP

4"

4"RL-UP

E00

SAM

E00

E00

4"

4"RL-UP

E00

6"

4"

4"RL-UP

R1

4"

C

4"RL-UP

3"

RD

4"RL-UP

3"

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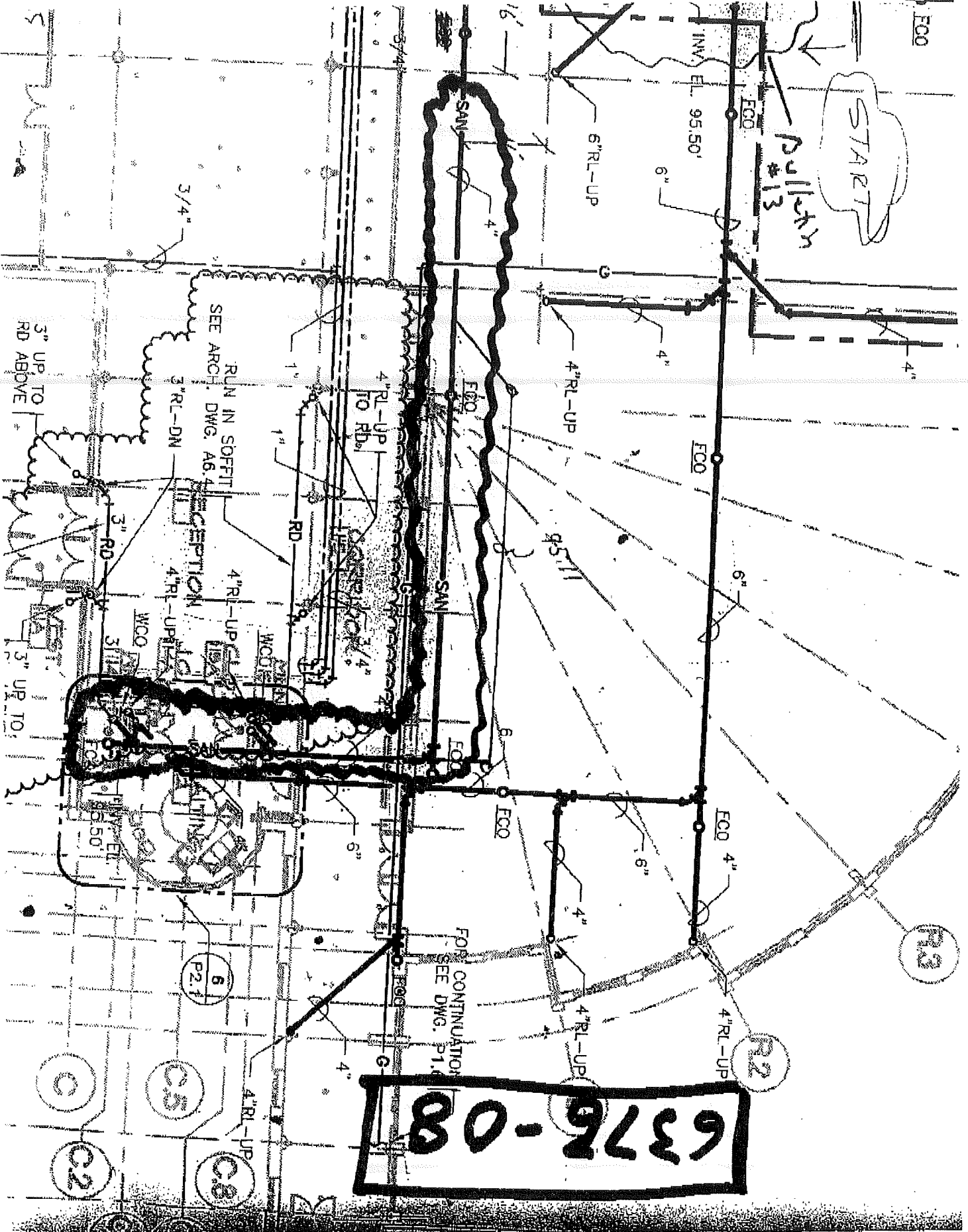
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6376-08

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

**Turner**

12 June 1998

City of Portland  
Inspectional Services  
389 Congress Street  
Portland, ME 04101

*Attention: Samuel Hoffses*

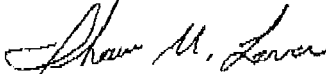
Re: Sanitary Pipe Test # 6376-07 & 08

Gentlemen:

Please find attached a copy of Turner Construction Company's pipe test report's # 6376-07 & 08 dated 6/11/98. Also, find attached a partial copy of drawing P1.1 showing the location of the Roof Drain system tested and the Sanitary system tested.

If you have any questions or comments regarding this matter, please do not hesitate to call this office at (207) 773-1807.

Very truly yours,



Shaun M. Lover  
Field Engineer

cc: Youngblood  
15140



Pipe test report # 6376-07

Subcontractor: Youngblood Plumbing

Date: 6/11/98

Time: 10:00 am

Weather: sunny, 70°F

Description of pipe tested:  
(water main, sewer, steam etc.) Roof Drain

Size and type of pipe tested:  
(pvc, iron, etc) 4"-6" Iron

Location of pipe tested: Interior HO3 (attached)

Reference plan #, spec # Pl.1 15140

Type of test (air, water etc.) water - Leaks & Defects

Pressure at start of test: N.A.

Pressure at end of test: N.A.

Pressure drop/fluid lost: No Fluid lost

Duration of test: Pipes filled approx. 30 minutes

Additional information:

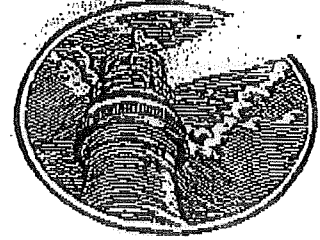
Test passed/failed: Passed

Witnessed by:  
(name, company) James Jackson - Youngblood  
James Jackson - YBC  
Shaun Lovar - TCCo  
Shaun Lovar  
\* Samuel Hoffes  
Chief of Insp. Services.

**Turner**

FAX TRANSMITTAL

TCCO/ UNUM HO3  
2199 Congress Street  
Portland, ME 04122  
Tel: (207) 773 - 1807  
Fax: (207) 879 - 6031



UNUM.

TO: Lt. G. McDougall  
Sam Hoffses

COMPANY: City of Portland

FROM: Nicole Record - Turner Construction Co.

DATE: 6-18-98

PAGES: 3  
(INCLUDING THIS COVER SHEET)

COMMENTS: Letter and sketch to Stu McAllister at UNUM  
regarding hydrant shutdown at HO-1.

FAX NUMBER: (207) 874 - 8716

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

June 18, 1998

Mr. Stu McAllister  
UNUM Life Insurance Co.  
2211 Congress Street  
Portland, ME 04122-0590

Dear Stu,

After a discussion with Lt. McDougall of the Portland Fire Department on June 15, 1998, it was concluded that the fire hydrant located between HO-I and the new Parking Garage site, does in fact, run on its own line and a shut down of this hydrant will not compromise the safety of the remaining cars in the HO-I North lot.

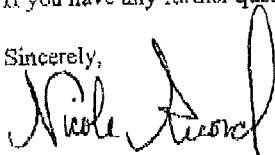
I have included a sketch of the above mentioned hydrant, as well as the two additional hydrants that will be used during the shut down. Please note the numbers of the hydrants listed below.

- 1) B44269
- 2) B4 - 4269
- 3) 1-100-0504

Turner will bag hydrant number 1 during shut down and the above information will be forwarded to Lt. McDougall per his request.

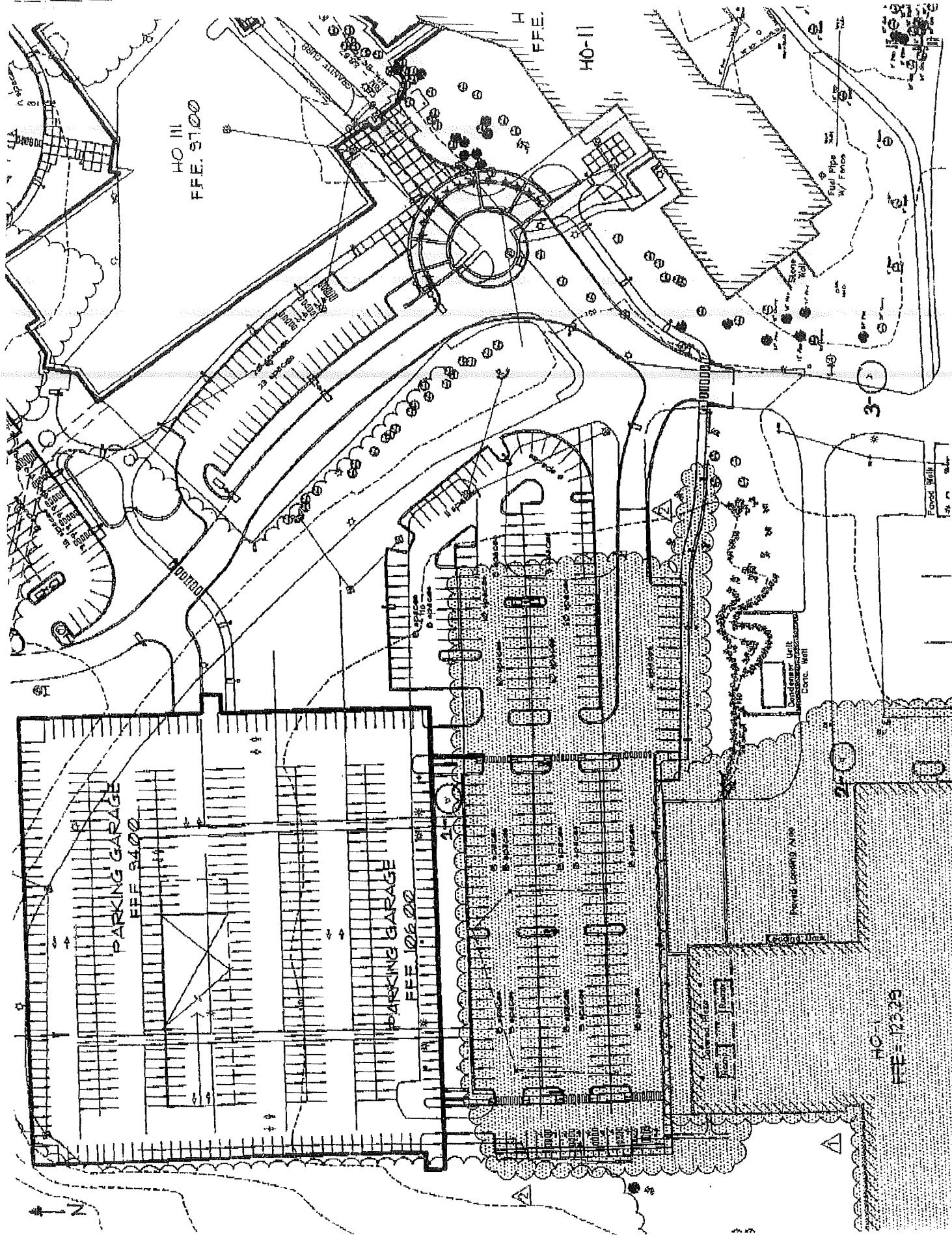
If you have any further questions regarding this matter, please feel free to contact me at 773 -1807.

Sincerely,



Nicole Record

cc: Lt. G. McDougall  
S. Hoffses

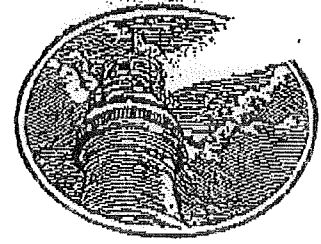


# Turner



## FAX TRANSMITTAL

TCCO/ UNUM HO3  
2199 Congress Street  
Portland, ME 04122  
Tel: (207) 773 - 1807  
Fax: (207) 879 - 6031



# UNUM.

TO: *SAM HOFFSES*

COMPANY:

FROM: *SCOTT ROBINS*

DATE: *7.3.98*

PAGES: *3*  
(INCLUDING THIS COVER SHEET)

COMMENTS:

*UPDATE OF PROJECT DIRECTORY  
FOR YOUR RECORDS.*

FAX NUMBER: ( ) 874 - 8716

JUL. 3, 1998 8:36AM

TURNER CONSTRUCTION

NO. 371

P. 3/3

Page 2

Prepared by Turner Construction Company 7/3/98

Middlebury, VT. 05735

05120 Struct. Steel	<b>Gives Steel Company</b> Riverside Drive Augusta, ME. 04330 P.O. Box 850 Augusta, ME. 04332	Bob Mecklin Project Mgr.	Phone: (207) 522-6141 Fax: (207) 522-2161
06120 Steel Erect.	<b>Ajax Construction Company</b> 2633 Victory Highway Warrenton, RI. 02880	Bob Morel Project Mgr.	Phone: (401) 765-3500 Fax: (401) 766-4420
08800 Glass/Glazing	<b>Ipswich Bay Glass Co., Inc.</b> 435 Boston St. Topsheld, MA. 01983	Dave Keyes Senior Project Mgr.	Phone: (978) 887-8932 Direct: (978) 887-3411 x134 Fax: (978) 887-3225
15000 HVAC	<b>Charles F. Blouin, Inc.</b> 203 New Zealand Road P.O. Box 2650 Seabrook, NH 03874	Joe Cullen President	Phone: (603) 474-3400 Fax: (603) 474-7118 Car: 617-683-7767
15000 Plumbing	<b>Youngblood Co., Inc.</b> 32 Ashland St. Haverhill, MA. 01830	Dave Youngblood	Phone: (978) 373-6607 Fax: (978) 521-1572
01600 Electrical	<b>E.G.oulos Company</b> 590 County Rd. Westbrook, ME. 04092	Tom Driscoll	Phone: (207) 464-3706 Fax: (207) 772-1833
	<b>Consolidated Electrical Services</b> 661 Pleasant Street Norwood, MA. 02062	Eli Florence Glenn Annesa	Phone: (800) 628-7110 Phone: (617) 760-7110 Fax: (617) 762-4508
Quality Control	<b>Malay &amp; Aldrich, Inc.</b> 600 Southborough Drive South Portland, ME. 04106-0803	Kenneth Recker, PE Vice President	Phone: (207) 772-5439 Fax: (207) 871-5998
03410 Conc. Erect.	<b>Concrete Structures Inc.</b> 760 Plain St. Suite H-1 Marshfield, MA. 02050	Gerald Kregel President	Phone: (617) 837-1931 Fax: (617) 837-5272
05120 Steel Erect.	<b>R.L. Ryder Co., Inc.</b> 210 Pomunogussett Rd. P.O. Box 236 Rutland, MA. 01643	Austin Pierson Owner	Phone: (508) 886-8310 Fax: (508) 866-2048
10820 Fireproofing	<b>New England Fireproofing Inc.</b> PO Box 418 Waterville, ME 04903	Paul Roy Robert Fox	Phone: (207) 872-0804 Fax: (207) 872-2538
Conc. Inspection	<b>S.W. Cole Engineering Inc.</b> Gray Plaza Gray, ME. 04039	Roger Domingo Dendra Colitera Terry-scheduling	Phone: (207) 657-2666 Fax: (207) 657-2640
13700 Security	<b>Eastern Security Systems</b> 685 Congress St. Portland ME. 04102	Dan Holt Jean Heath	Phone: (800) 310-5011 Phone: (207) 772-1171 Fax: (207) 772-7355
14240 Elevators	<b>Pine State Elevator</b> 230 Anderson St. Portland, ME 04101	Steve McDuffie Angus McDuffie	Phone: (207) 773-7206 Fax: (207) 773-4914
14240 Elevator Drilling	<b>R.E. Chapman Co.</b> 30 No. Main St. West Boylston, MA. 01583	Richard Chapman President	Phone: (508) 835-6231 Fax:

PHOTO

DICK ABBOT

DICK

781-646-0460

Prepared by Turner Construction Company 7/3/98

Page 1

**UNUM Project Directory**

Division	Company	Contact	Phone / Fax Information
00000 Owner	UNUM Life Insurance Co. 2211 Congress St. Portland, ME 04122	Ted Bernhard Stu McAllister Bernie Tanguay	Phone: (207) 770-1841 Fax: (207) 770-1884
00000 Contractor	Turner Construction Co. Office 855 Boylston St. Boston, MA 02116	Dave Beane Paul Rollins Sarah Wilcox	Phone: (617) 247-3500 Fax: (617) 247-2883
00000 Contractor	Turner Construction Co. Field 2199 Congress St. Portland, ME 04102	Bill Wright	Phone: (207) 773-1807 Fax: (207) 879-6031
00000 Architect	Symmes Maini & McKee Assoc. 1000 Massachusetts Ave Cambridge, MA 02138	Hank Rieckoff Joel Seeley Richard Crowell	Phone: (617) 547-5400 Fax: (617) 354-5788
00000 Developer	Northland Development 2150 Washington St. Newton, MA 02162	John McLean Bill Hunt	Phone: (617) 866-7100 Fax: (617) 864-1252
00000 Site Engineers	Sabago Technics 12 Westbrook Common Westbrook, ME 04095-1539	Will Conway Shawn Franks	Phone: (207) 856-0277 Fax: (207) 856-2206
00000 Parking Consultants	Walker Parking Consultants Stater Office Building, Suite 1409 20 Park Plaza Boston, MA 02118	Art Stadig, P.E.	Phone: (617) 350-5040 Fax: (617) 350-5048
02200 Earthwork	Shaw Brothers Construction 511 Lower Main St. P.O. Box 69 Gorham, ME 04038	Darren Shiers	Phone: (207) 839-2552 Fax: (207) 839-6239
<b>Shaw Brothers Construction Sub Contractors:</b>			
Carpentry	Optimum Building Systems 12 Colby Rd. Litchfield, NH 03052	Rene Theroux	Phone: (603) 424-2886 Fax: (603) 428-9407 Cell: (603) 666-4760 Pgr: (603) 596-2924
Tree removal	Alpina Industries Inc. P.O. Box 215 Hampden, ME 04444	William McNull	Phone: (207) 394-2700 Fax: (207) 745-1359 Cell:
Blasting	Maine Drilling & Blasting P.O. Box 1140 Gardiner, ME 04346	Dick Rosenberg Safety Engineer	Phone: (207) 582-2338 Fax: (207) 582-8974
03210 Concrete	H.E. Sargent Inc. 101 Bennoch Rd. P.O. Box 436 Stillwater, ME 04489	Max Upton Project Mgr.	Phone: (207) 827-4435 Fax: (207) 827-6150
03210 Rebar Drafting	Levasseur Drafting Services 64 Old Orchard Rd. Saco, ME 04072	Dennis Levasseur Draftsman	Phone: (207) 283-1376 Fax: (207) 282-1554
03450 Architectural Precast Conc.	Estons Prefabriques Du Lac, inc. 340, Bombardier, Parc Industriel Alma, Quebec, Canada G8B 5W1	Guy Bouchard Project Mgr.	Phone: (418) 868-8181 Phone: (800) 463-9816 Fax: (418) 668-4404 Cell: (614) 846-7578
Pkg. Garage Precast	J.P. Carrara & Sons, Inc. Route 116	Paul Carrara President	Phone: (802) 388-6363 Fax: (802) 388-9010



Parking Consultants/  
Engineers, Inc.

July 9, 1998

Mr. P. Samuel Hoffses  
Chief of Inspection Services  
City of Portland  
389 Congress Street, Room 315  
Portland, ME 04101

Re: UNUM Parking Facility  
Requirements for Construction Permit  
Walker Project No. 16-1170.00

Dear Sam:

To follow our recent conversation, we offer the following to meet the requirements as listed on the Building Permit for the Parking Facility at UNUM Campus. Item 3 of your letter dated April 24 (see attached) indicates that wheel guard shall be installed as per Section 408.3.2 of the City's building code. We have attached a copy of Section 408 and 406.0. Paragraph 406.1 indicates that the requirements of Section 408.0 for public garages are not required. However, Section 406.6 states that wheel guards shall be placed wherever required.

The entire perimeter of the parking structure at all supported levels is designed with a barrier wall system. The barrier wall is solid and made of precast concrete. The walls are designed for vehicle impact load of 10,000 lbs. ultimate. Based on our experience with parking structures, this is a better support system to protect both the people in vehicles, the building and people below the building. Therefore, wheel guards are not required. We feel that this is a practical solution and meets the intent of the code.

Please contact us if you disagree with our interpretation of these provisions. Please call if we can help in any way.

Best regards,

Arthur G. Stadig, P.E.  
Chief Engineer

AGS/mm  
Attachments

cc: Hank Ricciuti, SMMA  
John McLean, Northland Development  
Bill Wright, Turner Construction

J:\16-1170.00\CORRESPO\Hoffseslr07-07.doc



Inspection Services  
P. Samuel Hoffses  
Chief



Planning and Urban Development  
Joseph E. Gray Jr.  
Director

## CITY OF PORTLAND

24 April 1998

Tumrt Construction Co.  
2199 Congress St.  
Portland, Me. 04102

Ref: Parking Garage ( S-2 , 2-A ) 2211 Congress ST.

Dear:Sir

Your application to construct a parking garage as per plans has been reviewed and a permit is herewith issued subject to the following requirement(s): This permit doesn't excuse the applicant from meeting applicable STATE and Federal laws.

NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTILL ALL REQUIREMENTS OF THIS LETTER IS MET.

### SITE PLAN REQUIREMENTS

Building Inspection : Approved Ms. Schmuckal  
Fire Dept. : Approved Lt. McDougall  
Planning Div. : Approved Sarah Hopkins  
Dev. Review Coordinator : J. Wendell

### BUILDING and FIRE CODE REQUIREMENTS

1. All site requirements must be completed before a certificate of occupancy can be issued..
  2. A complete list of all subcontractors shall be supplied to this office as soon as possible.
  3. Wheel guards shall be installed as per section 408.3.2 of the city's building.
  4. Opening limitation for stairs and guards shall be done in accordance with section 1021.3 of the city's building code
  5. Standpipes shall be install as per section 915.0 of the city's building.
  6. The Fire Dept. coections is a Storz 4".
  7. A fire alarm acceptance report must be submitted to the Fire Dept. after completion.
- If you have any questions regarding these requirement(s), please do not hesitate to contact this office.

Sincerely,

  
P. Samuel Hoffses  
Chief of Inspection Services

Location of Construction: 2211 Congress St	Owner: UNUM	Phone:
Owner Address:	Lessee/Buyer's Name:	Business Name:
Contractor Name: Turner Construction Co	Address: 855 Boylston St Boston MA 02116	Phone: 617-247-6400
Past Use: Vacant Land	Proposed Use: Garage	PERMIT FEE: \$ 37,320.00
COST OF WORK: \$ 7,559,000		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied
Signature:		INSPECTION: Use Group: Type:
Signature:		Signature:
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		Signature:
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved with Conditions: <input type="checkbox"/> Denied		Date:
Signature:		Date:
Permit Taken By: Sherry Pinard	Date Applied For: April 13, 1998	

1. This permit application does not preclude the Applicant(s) from inspecting 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.

Turner Construction Co  
2199 Congress St  
Portland me 04102

**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 provisions of the code(s) applicable to such permit.

*William T. Wright*  
SIGNATURE OF APPLICANT

ADDRESS: PHONE: DATE:

William T. Wright  
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE

White-Permit Desk Green-Assessor's Canary-D.P.W. Pink-Public File Ivory Card-Inspector

Zone: CBL: 215-B-002  
Zoning Approval:  
Special Zone or Review  
 Shoreland  
 Wetland  
 Flood Zone  
 Subdivision  
 Site Plan maj  Minor

Zoning Appeal  
 Variance  
 Miscellaneous  
 Conditional Use  
 Interpretation  
 Approved  
 Denied

Historic Preservation  
 Not In District or Landm  
 Does Not Require Revi  
 Requires Review

Action:  
 Approved  
 Approved with Conditio  
 Denied

Date:

CEO DISTRICT

**405.6 Fire alarm system:** Where the lowest level of a structure is more than 60 feet (18288 mm) below the lowest *level of exit discharge*, the structure shall be equipped throughout with a fire alarm system in accordance with Section 918.0, including a voice/alarm signaling system installed in accordance with Section 918.9 and activated in accordance with Section 918.7.1.

**405.7 Public address:** Where a fire alarm system is not required by Sections 405.6 or 918.4, a public address system shall be provided which shall be capable of transmitting voice communications to the highest *level of exit discharge* serving the underground portions of the structure and all levels below.

**405.8 Standby power:** A standby power system of sufficient capacity and rating and conforming to the requirements of Section 2707.0 shall be provided.

**405.8.1 Fuel supply:** If the standby system is a generator set inside a structure, the system shall be located in a separate room enclosed with 2-hour fireresistance rated *fire separation assemblies*. System supervision with manual start and transfer features shall be provided at the central station.

**405.8.2 Capacity:** The standby system shall supply the following required systems:

1. Smoke exhaust system.
2. *Smokeproof enclosure*.
3. Fire pumps.
4. One elevator to serve all floors with the capability of transferring power to any elevator.
5. Emergency electrical system.

**405.9 Emergency power:** An emergency electrical system of sufficient capacity and rating and conforming to the requirements of Section 2706.0 shall be provided. The emergency system shall supply the following required systems:

1. Voice communication system.
2. Fire alarm system.
3. Fire detection systems.
4. Elevator car lighting.
5. *Means of egress* lighting and *exit* sign illumination.

**SECTION 406.0 OPEN PARKING STRUCTURES**

**406.1 General:** Open parking structures are those structures used for the parking or storage of passenger motor vehicles designed to carry not more than nine persons, wherein provision for the repair of such vehicles is not made and where the exterior walls of the structure have openings on not less than two sides. Open parking structures are not required to conform to Section 408.0 for *public garages*.

**406.1.1 Openings:** The exterior walls of the open parking structure shall have uniformly distributed openings on not less than two sides totaling not less than 40 percent of the building perimeter. The aggregate area of such openings in exterior walls in each level shall not be less than 20 percent of the total perimeter wall area of each level. Interior wall lines and column lines shall be at least 20 percent open with openings distributed to provide *ventilation*.

**Exception:** Openings are not required to be distributed over 40 percent of the building perimeter where the re-

quired openings are uniformly distributed over two opposing sides of the building.

**406.1.2 Separation:** Exterior walls containing openings shall have a *fire separation distance* of greater than 10 feet (3048 mm).

**406.2 Construction requirements:** Passenger vehicle structures shall be constructed of approved noncombustible materials throughout, including structural framing, floors, roofs and walls. Any enclosed room or space on the premises shall comply with the applicable requirements of this code.

**406.3 Fuel dispensing:** Areas where fuel is dispensed shall conform to the requirements of Section 408.4.

**406.4 Heights and areas:** *Heights* and *areas* of open parking structures shall not exceed the limitations specified in Table 406.4, except as provided for in Section 406.4.1. The *heights* and *areas* are subject to the increases indicated in Sections 504.0 and 506.0. The above height limitations permit parking on the roof.

**Table 406.4  
HEIGHT AND AREA LIMITATIONS FOR OPEN  
PARKING STRUCTURES**

Type of construction	Height <sup>a</sup>	Area (square feet) <sup>a</sup>
1A and 1B	Unlimited	Unlimited
2A	12 Stories — 120 feet	Unlimited
2B	10 Stories — 100 feet	50,000
2C	8 Stories — 85 feet	50,000

Note a. 1 foot = 304.8 mm; 1 square foot = 0.093 m<sup>2</sup>.

**406.4.1 Unlimited area:** Structures with all sides open shall be unlimited in *area* provided that the *height* does not exceed 75 feet (22860 mm). For a side to be considered open, the total area of openings along the side shall not be less than 50 percent of the exterior area of the side at each parking level and such openings shall be equally distributed along the length of each level. All portions of each parking level shall be within 200 feet (60960 mm) horizontally from an exterior wall opening on any permanent open space.

**406.5 Guards:** All open-sided floor areas shall be provided with a guard in accordance with Section 1021.0, except that in those structures wherein vehicles are hoisted to the desired level and placed in the parking space entirely by approved mechanical means, the guard is not required on the side of the parking levels adjacent to the space occupied by the hoisting and placing equipment.

**406.6 Wheel guards:** Wheel guards made of approved noncombustible material shall be placed wherever required.

**SECTION 407.0 PRIVATE GARAGES**

**407.1 General:** *Private garages* shall comply with the requirements of this section. All *private garages* not falling within the purview of Sections 407.3 through 407.9 and which are attached to or located beneath a building shall comply with the requirements of Section 313.0 for *public garages*.

**407.2 Definitions:** The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

**Garage, private:** A garage for four or less passenger motor vehicles, four or less single motor airplanes, or one commercial motor vehicle, without provision for repairing or servicing such vehicles for profit.

**407.3 Beneath rooms:** *Private garages* located beneath habitable rooms in occupancies in Use Group R-1, R-2, R-3 or I-1 shall be separated from adjacent interior spaces by *fire partitions* and floor/ceiling assemblies which are constructed with not less than a 1-hour fire-resistance rating. Wood structural members of the minimum dimensions specified in Section 2304.0 for Type 4 construction shall be acceptable without any further protection where a 1-hour fire-resistance rating is required.

**407.4 Attached to rooms:** *Private garages* attached side-by-side to rooms in occupancies in Use Group R-1, R-2, R-3 or I-1 shall be completely separated from the interior spaces and the *attic* area by means of 1/2-inch gypsum board or the equivalent applied to the garage side.

**407.5 Door sills:** The sills of all door openings between *private garages* and adjacent interior spaces shall be raised not less than 4 inches (102 mm) above the garage floor.

**407.6 Opening protectives:** The door opening protectives shall comply with one of the following.

1. 1 3/4-inch solid core wood door.
2. 1 3/4-inch solid or honeycomb core steel door.

**407.7 Fireblocking of concealed spaces:** Where a *garage* is connected to an occupancy in Use Group R-3 by a concealed space, such as a breezeway, that is of Type 5B construction and 10 feet (3048 mm) or greater in length, the junction of the *garage* and the concealed space shall be *fireblocked* to comply with Section 721.0.

**407.8 Means of egress:** Where living quarters are located above a *private garage*, the required *means of egress* facilities shall be separated from the garage area with 1-hour fire-resistance rated construction.

**407.9 Floor surface:** The *floor finish* of attached garages shall be of concrete or other approved noncombustible material.

## SECTION 408.0 PUBLIC GARAGES

**408.1 General:** *Public garages* shall comply with the applicable requirements of this section. Those portions of *public garages* where paint spraying is done shall comply with the requirements of Section 419.0.

**408.2 Definitions:** The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

**Garage, public:** A building or structure for the storage or parking of more than four passenger motor vehicles, motor-powered boats or private or commercial airplanes, or more than one commercial motor vehicle. Public garages shall be classified in one of the following groups according to their specific occupancies:

**Group 1:** A public garage occupied for the storage, parking, repairing or the painting of, or the dispensing of fuel to, motor vehicles.

**Group 2:** A public garage occupied exclusively for passenger vehicles that will accommodate not more than nine passengers.

**408.3 Construction:** All *Group 1 public garages* hereafter erected shall be classified as Use Group S-1 and all *Group 2 public garages* shall be classified as Use Group S-2; both shall conform to the *height* and *area* limitations of Table 503 except as specifically provided for herein.

**408.3.1 Sprinkler system:** All *public garages* shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 906.2.1:

1. Where any *fire area* exceeds 12,000 square feet (1116 m<sup>2</sup>);
2. Where the total area of all *fire areas* on all floors exceeds 24,000 square feet (2232 m<sup>2</sup>);
3. Where any *fire area* is more than three *stories above grade*; or
4. Where located beneath other use groups.

For the purposes of this section, a roof occupied for the parking or storage of motor vehicles shall not constitute a story.

**408.3.2 Roof storage of motor vehicles:** Where the roof of a building is occupied for the parking or storage of motor vehicles, such roof shall be provided with a parapet wall or a guard constructed in accordance with Section 1021.0, and with a wheel guard not less than 6 inches (152 mm) in height that is located so as to prevent any vehicle from striking the parapet wall or guard.

**408.3.3 Floor construction:** The *floor finish* of *public garages*, including airplane hangers, shall be of concrete or other approved nonabsorbent, noncombustible material.

**408.4 Fuel-dispensing areas:** Fuel-dispensing areas shall be located on the level nearest grade. *Public garages* with fuel-dispensing areas shall be completely separated from any other use group by *fire separation assemblies* having a minimum fire-resistance rating of 2 hours. The floors of the fuel-dispensing areas shall be graded to a floor drainage system such that any fuel spill or leak is contained within the area. The drainage system shall conform to the requirements of the plumbing code listed in Chapter 35. The fuel-dispensing area shall be equipped with an *automatic sprinkler system* in accordance with Chapter 9.

**408.4.1 Fuel-dispensing systems:** All fuel-dispensing and fuel storage systems shall conform to the requirements of the mechanical code listed in Chapter 35.

**408.5 Ventilation:** All *public garages* shall be *ventilated* in accordance with the mechanical code listed in Chapter 35. Fuel-dispensing areas shall be mechanically *ventilated*.

**408.6 Special hazards:** Any process conducted in conjunction with *public garages* which involves volatile *flammable* solvents shall be segregated or located in a detached building or structure, except as provided for in Section 418.0 for the storage and handling of gasoline and other volatile *flammables*. The quantity of *flammable liquids* stored or handled in *public garages* — except in underground storage tanks, in special enclosures where permitted in accordance with NFPA 30A and the fire prevention



Symes Maini & McKee Associates

CAMBRIDGE, MA • MINNEAPOLIS, MN • ST. PAUL, MN

TELEPHONE  
MEMORANDUM

Project:	UNUM HO3	Date:	07/15/98
Between:	Sam Hoffses (Bldg Official) and Richard Crowell	Project No.:	97094.00
Re:	Column anchor bolts	Tel. No.:	(207)-874-8703
Distribution:	Paul Rollins, Bill Wright - Turner; Deirdre Coltrera - S.W. Cole; Art Gallant - E.I.S.I.; HSR, JGS - SMMA (MF)		

Richard spoke with Sam about the requirements for the tightening of the nuts on the column anchor bolts. Richard stated that as the Structural Engineer of Record (SER) he has the following inspection requirements:

For typical (non-braced frame) columns all anchor bolts should be visually inspected to insure that they are tight to the base plate.

For braced frame columns all anchor bolts should be checked using a hand wrench to insure that they are tight to the base plate. Torque testing of the nuts is not required.

All anchor bolts should be inspected to verify that washers have been installed (including the plate washers at the braced frame columns) and that the nuts have full grip on the anchor bolts.

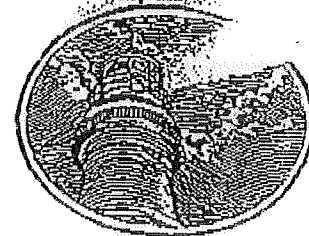
*Received  
22/July/98  
[Signature]*

**Turner**



FAX TRANSMITTAL

TCCO/UNUM HO3  
2199 Congress Street  
Portland, ME 04122  
Tel: (207) 773 - 1807  
Fax: (207) 879 - 6031



UNUM.

TO: SAM HOFFSES

COMPANY: CITY OF PORTLAND

FROM: DAVE VROMAN

DATE: 7/24/98

PAGES: 5  
(INCLUDING THIS COVER SHEET)

COMMENTS: PIPE TEST REPORT 7/24/98

CC. D. YOUNG BLOOD  
TURNER FILES

FAX NUMBER: ( 207 ) 874 - 8716

July 24, 1998

City of Portland  
Inspectional Services  
389 Congress Street  
Portland, ME 04101

Attention: Samuel Hoffses

Re: Sanitary Pipe Test # 6376-11

Gentlemen:

Please find attached, a copy of Turner Construction Company's pipe test report's # 6376-11 dated 7/24/98. Also, find attached a partial copy of drawing P1.1, and P2.2 showing the location of the Sanitary systems tested.

If you have any questions or comments regarding this matter, please do not hesitate to call this office at (207) 773-1807.

Very truly yours,



David Vroman  
Field Engineer

cc: David Youngblood  
WTW  
File: 15140

Pipe Test Report  
UNUM HO3 Project  
Portland, ME

Turner Construction Company  
2199 Congress St.  
Portland, ME. 04102

Pipe test report # 6376-11

Subcontractor: Youngblood Plumbing

Date: 7/24/98

Time: 11:00 AM

Weather: SWIMMY

Description of pipe tested: Sanitary  
(water main, sewer, steam etc.)

Size and type of pipe tested: 2" - 10" Cast Iron  
(pvc, iron, etc)

Location of pipe tested: Interior HO 3 (see attached sheets)  
East end Kitchen area +

Reference plan #, spec # P1.1, P2.2 - 15140

Type of test (air, water etc.) Water (leaks & Defects)

Pressure at start of test: N.A

Pressure at end of test: N. A

Pressure drop/fluid lost: NONE

Duration of test: 2 1/2 hrs TO FILL

Additional information: ---

Test passed/failed: PASSED

Witnessed by:  
(name, company)

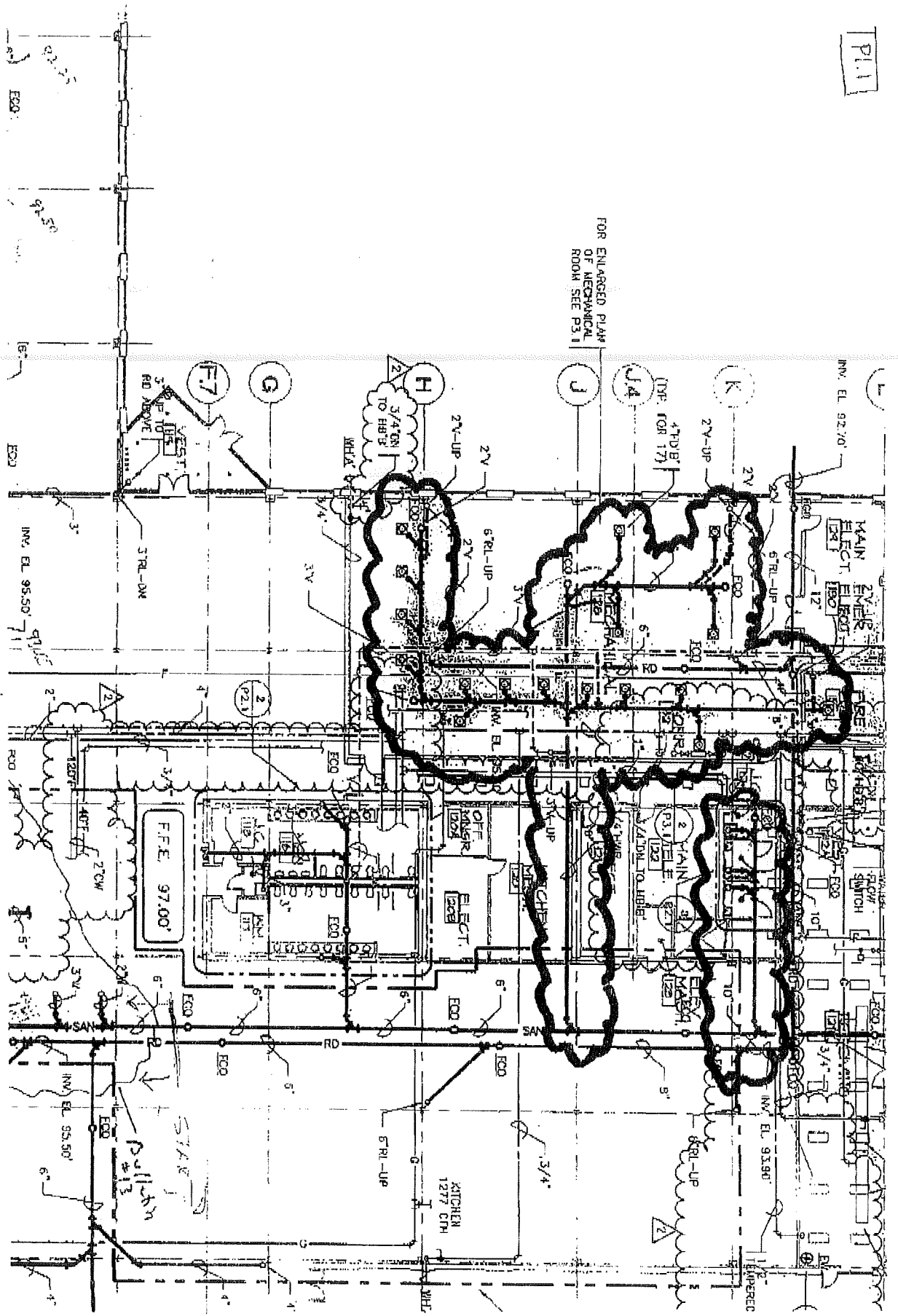
- 1) David Vroman TCCo.  
x [Signature]
- 2) Jim Jackson YBC.  
x [Signature]
- 3) Samuel Hoffses Chief Insp.  
[Signature]
- 4) \_\_\_\_\_  
x \_\_\_\_\_

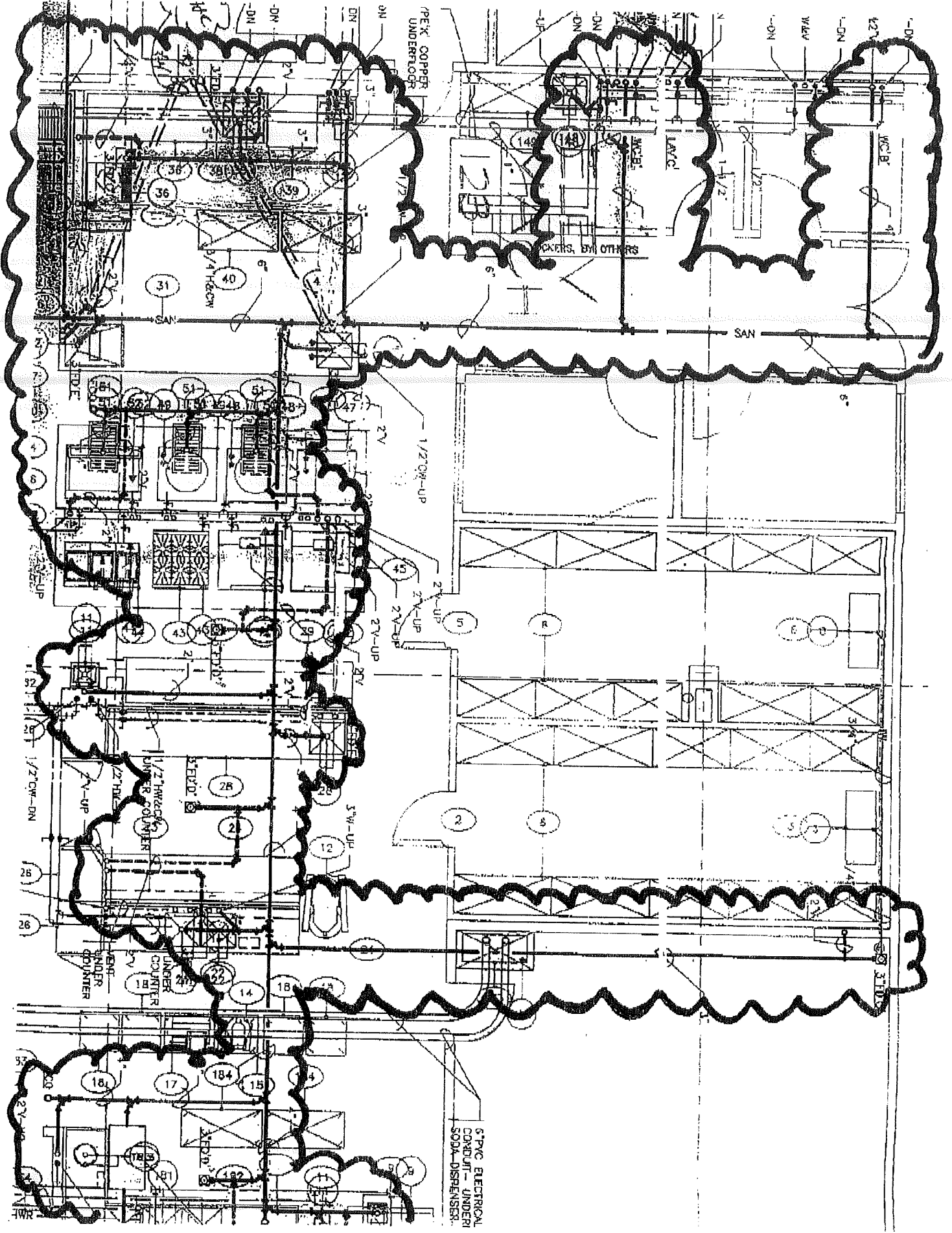
MIKE NUGENT  
OBSERVING TEST.



PL1

FOR ENLARGED PLAN  
OF MECHANICAL  
ROOM SEE P3.1





PEK. COPPER UNDERLOOR

5" PVC ELECTRICAL CONDUIT - UNDER SODA DISPENSERS.

1/2" THICK CONCRETE UNDER COMPUTER EQUIPMENT

1/2" THICK CONCRETE UNDER COMPUTER EQUIPMENT

EXPOS. BY OTHERS

STAIRS

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Inspection Services  
P. Samuel Hoffses  
Chief



Planning and Urban Development  
Joseph E. Gray Jr.  
Director

## CITY OF PORTLAND

SMMA  
1000 Massachusetts Avenue  
Cambridge, MA 02138

August 28, 1998

RE: UNUM HO3 TENANT FIT-UP ELECTRICAL PLAN REVIEW

- Add a GFCI WP receptacle @ EF #9, located on the roof.
- Add a GFCI WP receptacle @ EF #10, located on the roof.
  
- All motor driven equipment shall have a service disconnect located at the unit, and shall be sized properly to protect the motor it serves as per NEC 1996.
  
- All florescent strip fixtures mounted to any ceiling service, including suspended ceilings and hard wallboard ceilings shall comply with **ARTICLE 410-76(b) of NEC 1996**. A minimum of 1 1/2 inches shall be maintained between the fixture and the any ceiling with approved methods.
  
- All electrical installations shall first be approved by the electrical inspector.

Sincerely,

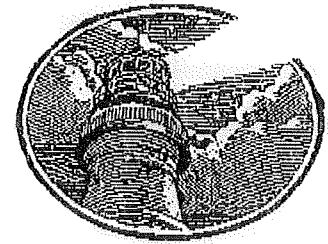
Michael A. Collins  
Chief Electrical Inspector  
City of Portland  
cc: P. Samuel Hoffses

# Turner

## FAX TRANSMITTAL



TCCO/ UNUM HO3  
2199 Congress Street  
Portland, ME 04122  
Tel: (207) 773 - 1807  
Fax: (207) 879 - 6031



# UNUM.

TO: SAM HOFFSES

COMPANY: CITY OF PORTLAND

FROM: D. VROMANI (TCCO)

DATE: 9/2/98

PAGES: 3  
(INCLUDING THIS COVER SHEET)

COMMENTS:

PIPE TEST 9/2/98

**FAX NUMBER:** (       ) 874-8746

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

September 2, 1998

City of Portland  
Inspectional Services  
389 Congress Street  
Portland, ME 04101

*Attention: Samuel Hoffses*

Re: Storm Line Pipe Test # 6376-13G

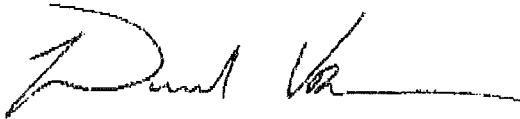
Gentlemen:

Please find attached, a copy of Turner Construction Company's pipe test report's # 6376-13G dated 9/2/98. Also, find attached a partial copy of drawing MG1.1 showing the location of the cast iron storm line tested.

If you have any questions or comments regarding this matter, please do not hesitate to call this office at (207) 773-1807.

Very truly yours,

David Vroman  
Field Engineer



cc: David Youngblood  
WTW  
File: 15140

Pipe Test Report  
UNUM HO3 Project  
Portland, ME

Turner Construction Company  
2199 Congress St  
Portland, ME. 04102

Pipe test report # 6376-13G

Subcontractor: Youngblood Plumbing

Date: 9/2/98

Time: 8:45 AM

Weather: Sunny, 65

Description of pipe tested: storm line  
(water main, sewer, steam etc.)

Size and type of pipe tested: 6" - 15" Cast Iron Pipe  
(pvc, iron, etc)

Location of pipe tested: Garage Site G Line

Reference plan #, spec # MG 1.1

Type of test (air, water etc.) Water (leaks & Defects)

Pressure at start of test: N.A

Pressure at end of test: N. A

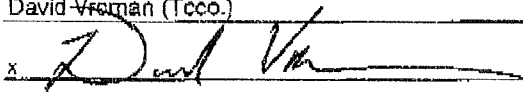
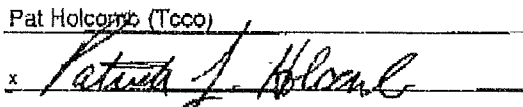
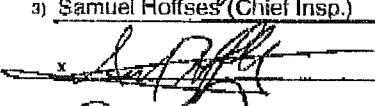
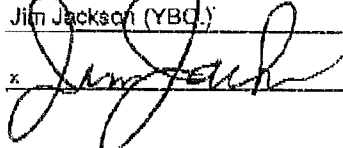
Pressure drop/fluid lost: NONE

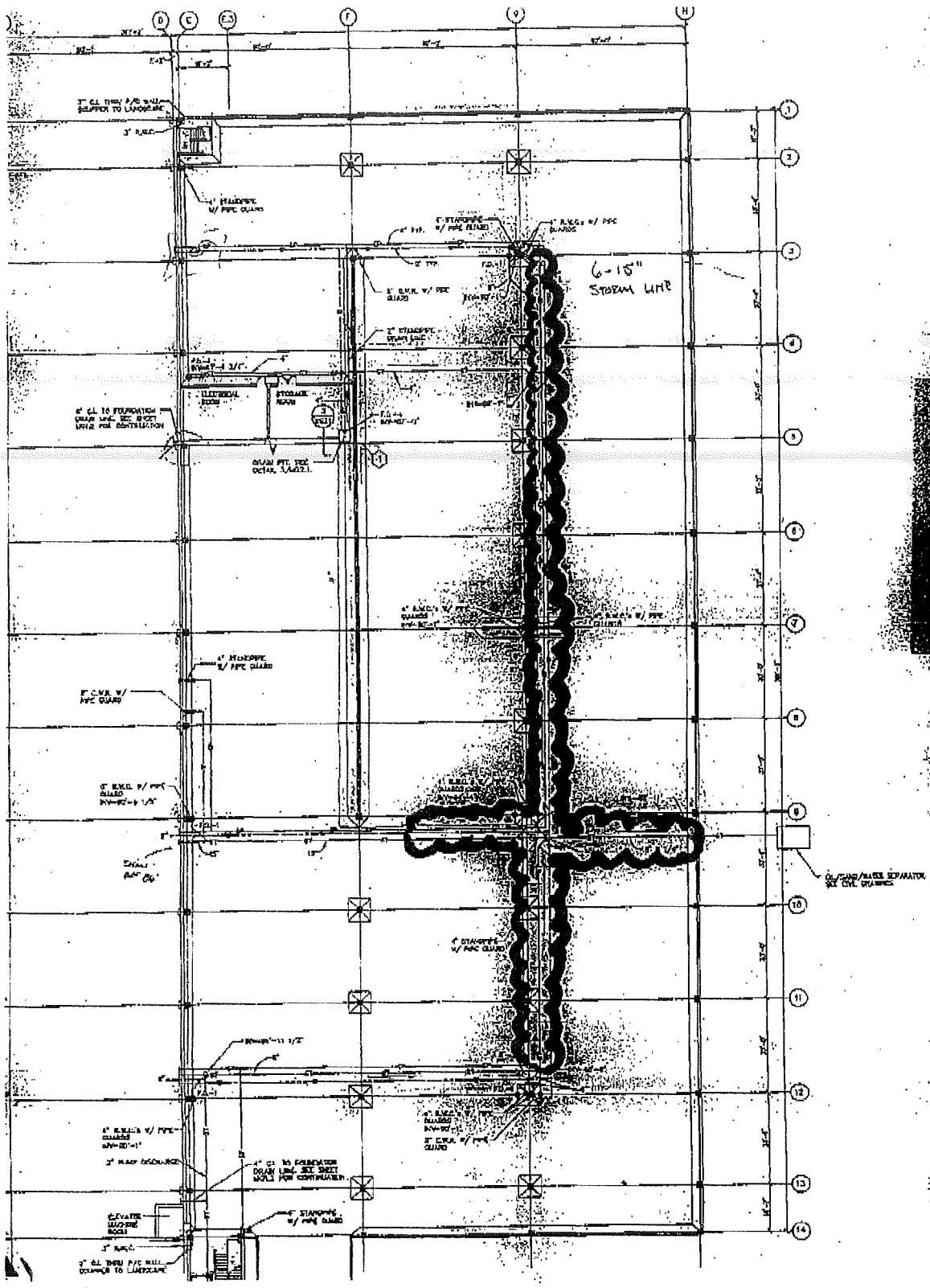
Duration of test: 2 HRS TO FILL

Additional Information: \_\_\_\_\_

Test passed/failed: PASSED

Witnessed by:  
(name, company)

- 1) David Vroman (Tcco.)  
x 
- 2) Pat Holcomb (Tcco)  
x 
- 3) Samuel Hoffses (Chief Insp.)  
x 
- 4) Jim Jackson (YBC.)  
x 



**Turner Construction Company**  
555 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

**Turner**

September 16, 1998

City of Portland  
Inspectional Services  
389 Congress Street  
Portland, ME 04101

Attention: Samuel Hoffses

Re: Sanitary Pipe Test # 6376-14G

Gentlemen:

Please find attached, a copy of Turner Construction Company's pipe test report's # 6376-14G dated 9/16/98. Also, find attached a partial copy of drawing MG 1.1 showing the location of the storm line tested.

If you have any questions or comments regarding this matter, please do not hesitate to call this office at (207) 773-1807.

Very truly yours,



Scott Robbins  
Project Superintendent

cc: David Youngblood  
WTW  
File: 15140



Pipe Test Report  
UNUM HO3 Project  
Portland, ME

Turner Construction Company  
2199 Congress St.  
Portland, ME 04102

Pipe test report #

6376-14G

Subcontractor:

Youngblood Plumbing

Date:

9/16/98

Time:

10:00 AM

Weather:

Sunny, 65

Description of pipe tested:  
(water main, sewer, steam etc.)

storm line

Size and type of pipe tested:  
(pvc, iron, etc)

6" - 15" Cast Iron Pipe

Location of pipe tested:

Garage Site

H LINE, E & F LINE, 9 LINE SOUTH OF D LINE

Reference plan #, spec #

MG 1.1

Type of test (air, water etc.)

Water (leaks & Defects)

Pressure at start of test:

N.A

Pressure at end of test:

N.A

Pressure drop/fluid lost:

—

Duration of test:

20 MIN.


Additional information:

Test passed/failed:

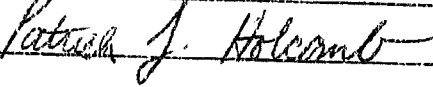
PASSED

Witnessed by:  
(name, company)

1) Scott Robins (Tccc.)

x 

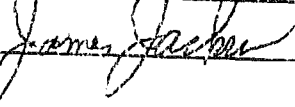
2) Pat Holcomb (Tccc)

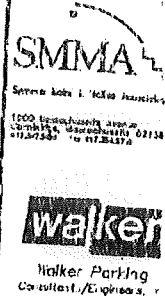
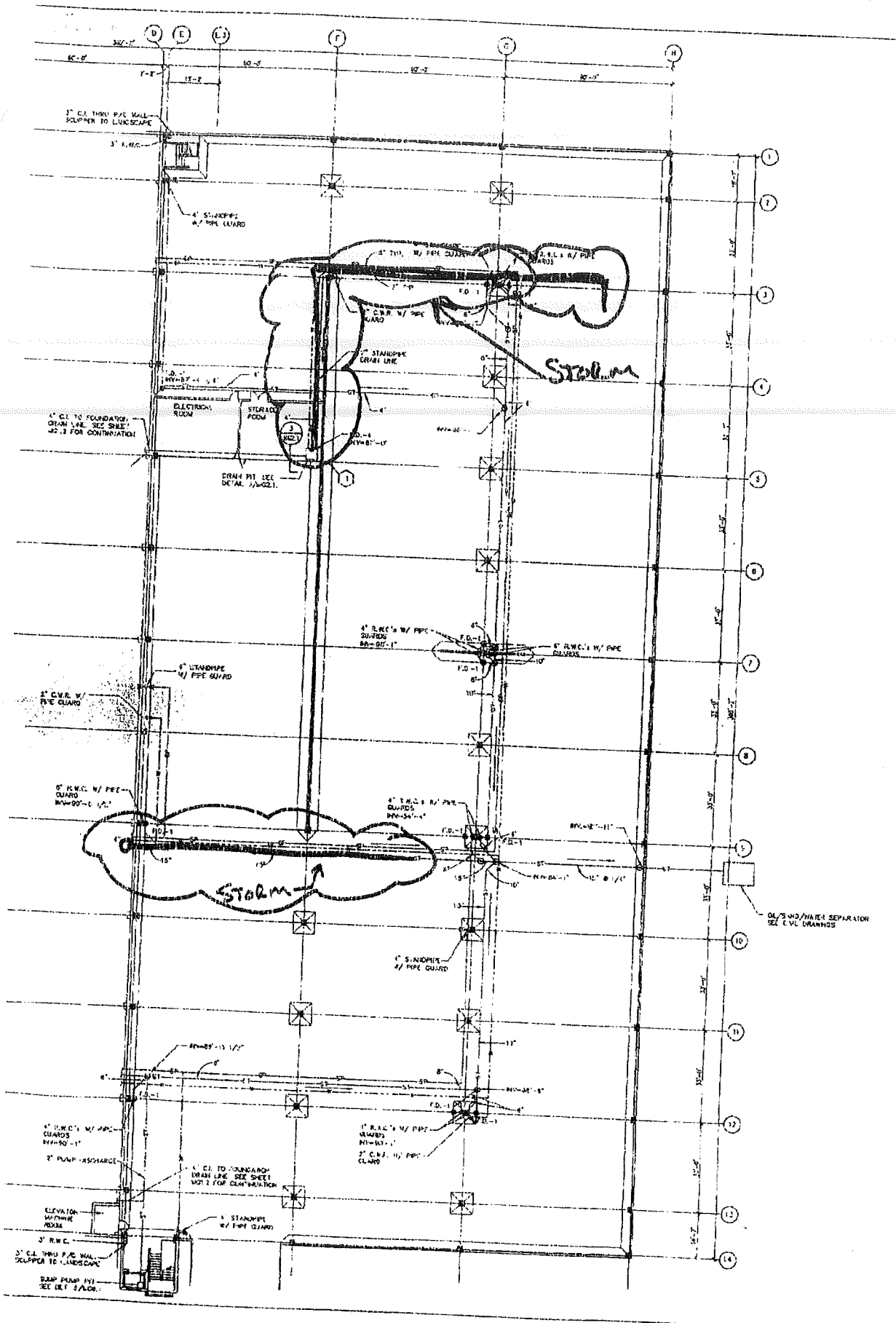
x 

3) Samuel Hoffses (Chief Insp.)

x

4) Jim Jackson (YBC.)

x 



OWNER REVIEW

NO.	DATE	REVISIONS

1. TO BE REVIEWED BY OWNER  
 2. TO BE REVIEWED BY ARCHITECT  
 3. TO BE REVIEWED BY MECHANICAL ENGINEER

W. DATE  
 REVISED

FROM LIFE INSURANCE  
 10-1  
 PORTLAND, MAINE

**PT TIER PLAN**

DATE: 03-22-98  
 SCALE: 1/8" = 1'-0"  
 DRAWN BY: RL  
 CHECKED BY: CRJ  
 PROJ. NO.:  
 PROJ. MGR.: JES  
 REV. NO.: 16-1170-003  
 OWNER: SMMA & WALKER ARCHITECTS, P.C. 187

**MG1.1**

ARCHITECTURE ENGINEERING PLANNING INTERIORS



Symmes Maini & McKee Associates

MEMORANDUM

CAMBRIDGE, MA • MINNEAPOLIS, MN

To:	Joel Seeley	Date:	09/25/98
From:	Don McWinnie <i>DCM</i>	Project No.	97091.01
Project:	Unum HIO3 - Tenant fit-up		
Re:	Building permit comments		
Distribution:	TC, RAE, KMJ, CPU, JNP(MF)		

Refer to Building Permit Report dated 8/24/98:

1. Comment #19 - The sprinkler system shall maintained to N.F.P.A. 13 Standard.

a. The sprinkler system for tenant fit-up has been designed and will be maintained in accordance with N.F.P.A. 13 Standard.

Refer to Portland Fire Department Review Document dated 8/24/98:

1. A 4" Storz fire department connection is required.

a. A 4" Storz fire department connection has been provided under the core/shell portion of this project.

ARCHITECTURE ENGINEERING ARCHITECTURAL PLANNING INTERIORS



Symmes Maini & McKee Associates

CAMBRIDGE, MA • WILMINGTON, MA

September 30, 1998

FAX to:  
Sam Hoffses - 207.871.8716  
John McLean - 617.964.1282  
Sam McAlister - 207.770.1951  
Paul Rollins - 617.546.2983

P. Samuel Hoffses  
Inspector of Buildings  
City of Portland Building Department  
389 Congress Street  
Portland, ME 04101

Re: UNUMHOB Office Building and Site Development  
Building Permit for HOB tenant fit-up

Portland, Maine  
SMMA No. 97094

Dear Mr. Hoffses:

Please find our response to the HOB Tenant Fit-up permit, issued 9/1/98 with attached reports. The attached reports are:

1. Building Permit Report
2. Portland Fire Department Report
3. Letter from Chief Electrical Inspector to SMMA, dated 8/28/98

Building Permit Report

- Comment 8 - Handrails and guardrails are included in the Core/Shell permit documents and are in accordance with requirements.
- Comment 10 - Stairs are included in the Core/Shell permit documents and are in accordance with requirements.
- Comment 17 - Fire extinguishers designed in accordance with NFPA 10.
- Comment 18 - Fire alarm system designed in accordance with NFPA 72.
- Comment 19 - See attached memorandum from Don McWhinnie, SMMA project fire protection engineer, dated 9/25/98.
- Comment 20 - Exit signs and lighting designed in accordance with BOCA 1996.
- Comment 29 - Ventilation designed in accordance with BOCA 1996.

Portland Fire Department

- Comments 2, 3, 4, 5, 6, 7 and 8 - Included in the Core/Shell permit documents and in are accordance with requirements.
- Comment 15 - See attached memorandum from Don McWhinnie, SMMA project fire protection engineer, dated 9/25/98.

Letter from Chief Electrical Inspector to SMMA, dated 8/28/98

See attached memorandum from Rafael Gursvich, SMMA project electrical engineer, dated 9/29/98.

P. Samuel Hoffes  
September 30, 1998

If you have any questions, please do not hesitate to call me

Very truly yours,

**Symmes Maini & McKee Associates**



Joel McLeary, AIA  
Project Manager

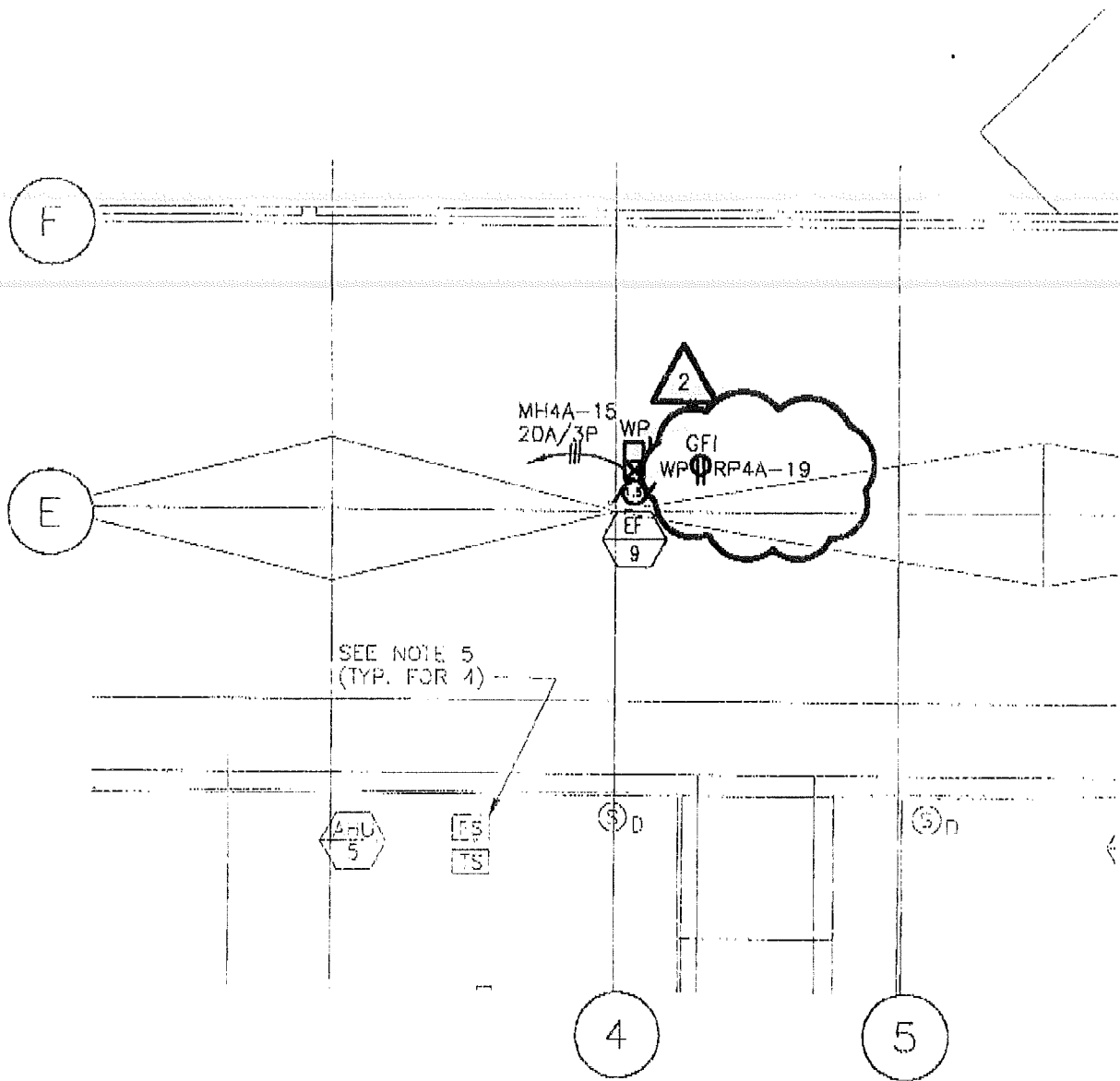
cc: 97094.03, JGS, KMJ, RG, DCM, HSR, John McLean - NDC, Stu McAllister - UNUM, Paul Rollins - Turner (MF)

[joel@igs/F:/97094/cvt/esp/1-10-101-1.doc](mailto:joel@igs/F:/97094/cvt/esp/1-10-101-1.doc)


■

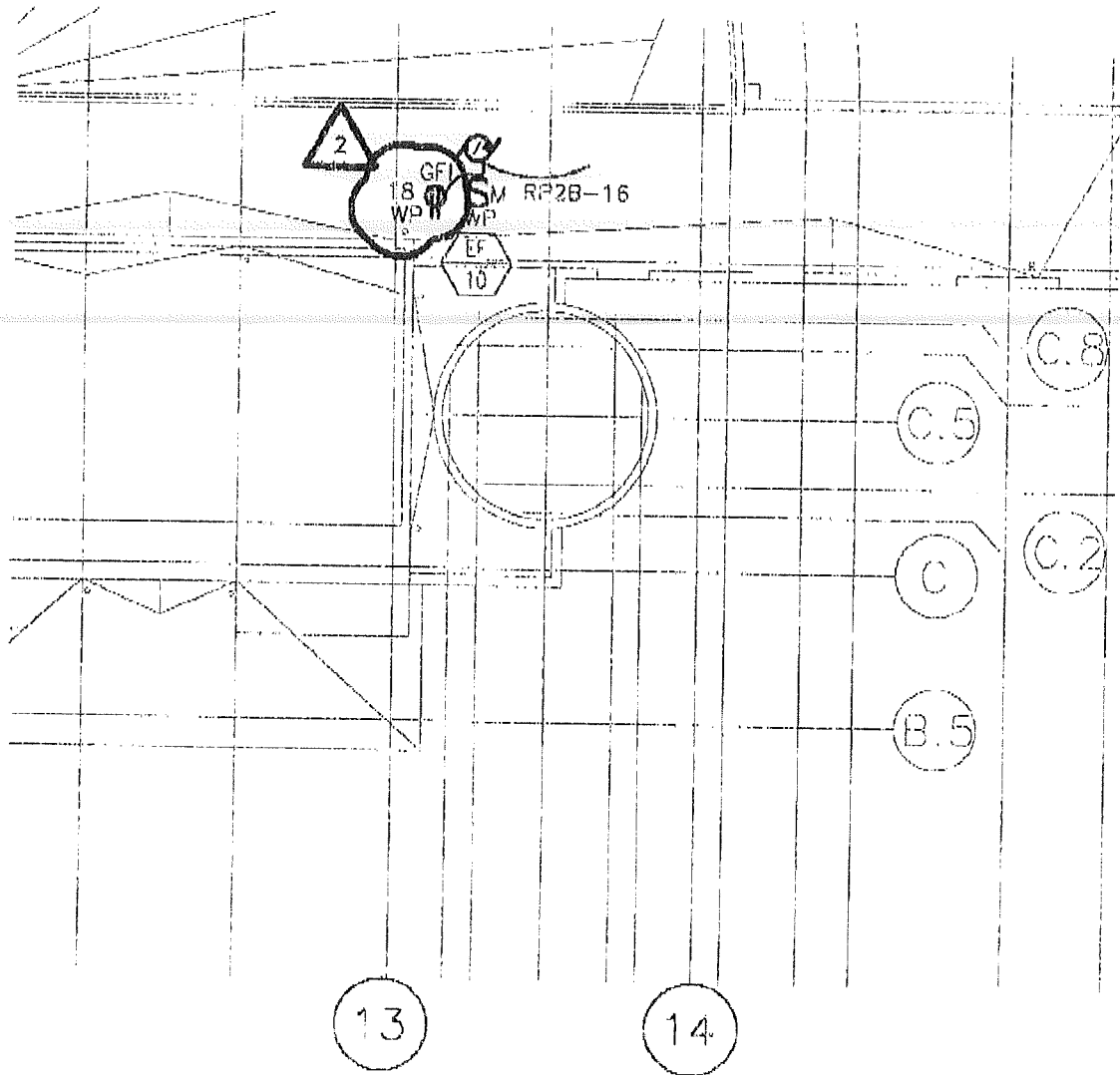
Symmes Maini & McKee Associates

Page 2




△ 09/23/98 REVISION

 Symmes Maini & McKee Associates Cambridge, MA	UNUM LIFE INSURANCE HO-3 PORTLAND, MAINE	DATE	9/23/98	SKE 43	
		SCALE	1/8" = 1'-0"		
REFERENCE DWG. FE2.4 ROOF PLAN		DR. BY	MZ	CK. BY	JOB NO. 97094.00



2 09/23/98 REVISION

 Symmes Maini & McKee Associates Cambridge, MA	UNUM LIFE INSURANCE HO-3 PORTLAND, MAINE	DATE 9/23/98	SKE 44
	REFERENCE DWG. FE2.4 ROOF PLAN	SCALE 1/8" = 1'-0"	

ARCHITECTURE ENGINEERING PLANNING INTERIORS



Symmes Maini & McKee Associates

MEMORANDUM

CAMBRIDGE MA • MINNEAPOLIS MN

To: Joel Seeley  
 From: Rafael Gurevich  
 Project: UNUM\_HIO-3 Fit-up  
 Re: Building Permit  
 Distribution: (ME)

Date: 09/29/98  
 Project No: 97001

I have reviewed the comments from City of Portland in reference to the above project, dated Aug.29, 1998 and confirm that electrical system design complies with the stated conditions of approval with the following exceptions:

1. Ground fault type receptacles will be provided on the roof at the exhaust fans EF-9 and EF-10. Electrical plan will be revised per attached sketches SKE43 and SKE44, dated 9/23/98.
2. Article 410-76(b) of National Electrical Code, 1996 edition does not apply to the surface mounted fluorescent fixtures installed on the gypsum board type ceiling.



**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

September 25, 1998

City of Portland  
Inspectional Services  
389 Congress Street  
Portland, ME 04101

*Attention: Samuel Hoffses*

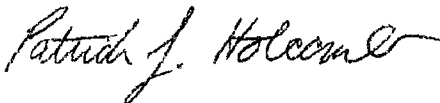
Re: Storm Line Pipe Test # 6376-15G

Gentlemen:

Please find attached, a copy of Turner Construction Company's pipe test report # 6376-15G dated 9/25/98. Also, find attached a partial copy of drawing MG1.2 showing the location of the 8" cast iron storm line tested.

If you have any questions or comments regarding this matter, please do not hesitate to call this office at (207) 773-1807.

Very truly yours,



Patrick J. Holcomb

cc: David Youngblood  
WTW  
File: 15140

6376-15G

**Subcontractor:** Youngblood Plumbing

**Date:** 9/25/98

**Time:** 11:30 am

**Weather:** Cloudy, 70

**Description of pipe tested:**  
(water main, sewer, steam etc.) Storm line

**Size and type of pipe tested:**  
(pvc, iron, etc) 8" cast iron pipe

---

**Location of pipe tested:** Garage site; south end/ 3&7 line

**Reference plan #, spec #** MG1.2

**Type of test (air, water etc.)** Water (leaks and defects)

**Pressure at start of test:** n.a.

**Pressure at end of test:** n.a.

**Pressure drop/fluid lost:** n.a.

**Duration of test:** 1 hour

**Additional information:**

**Test passed/failed:** passed

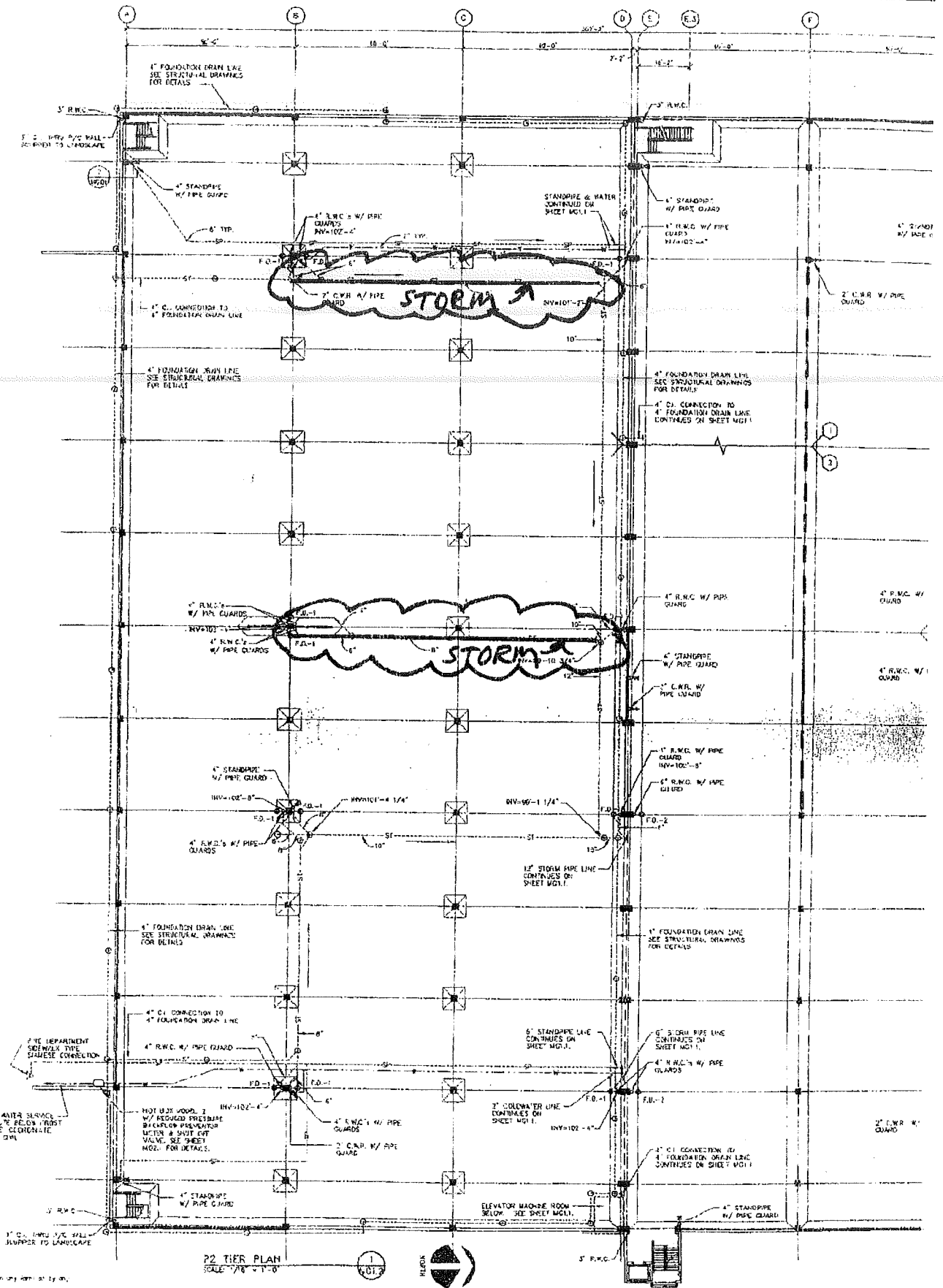
**Witnessed by:**  
(name, company)

1) Patrick Holcomb (Turner Construction)  
 *Patrick J. Holcomb*

2) Scott Robbins (Turner Construction)  
 *Scott Robbins*

3) Jim Jackson (Youngblood Co.)  
 *Jim Jackson*

MG  
1.2



P2 TIER PLAN  
SCALE: 1/8" = 1'-0"

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STATE OF MAINE  
DEPARTMENT OF PROFESSIONAL  
AND FINANCIAL REGULATION  
OFFICE OF LICENSING AND REGISTRATION  
PLUMBERS' EXAMINING BOARD  
35 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0035

ANGUS S. KING, JR.  
Governor

Anne L. Head  
Director  
Percy L. Brown Jr.  
Chair

Turner Construction Co.  
2199 Congress Street  
Portland, Me. 04102  
Attn: Scott Robbins

Dear Mr. Robbins,

On September 28, 1998 I made an inspection of the plumbing system at the new Unum complex located in Portland, Maine. The plumbing system is being installed by Youngblood Plumbing Co.

During the inspection I observed no violations of the Maine State Plumbing Code or any violations of the Plumbers' Examining Board Rules and Laws.

Thank you for your cooperation.

Sincerely,

Dana Tuttle  
Senior Plumbing Inspector

OFFICE PHONE: (207) 624-8639  
OFFICES LOCATED AT: 122 NORTHERN AVE.,  
GARDINER, MAINE



PRINTED ON RECYCLED PAPER

FAX: (207)624-8637

(HEARING IMPAIRED (207)624-8563)



Symmes Maini & McKee Associates

CAMBRIDGE, MA + MINNEAPOLIS, MN

September 30, 1998

P. Samuel Hoffses  
 Inspector of Buildings  
 City of Portland Building Department  
 389 Congress Street  
 Portland, ME 04101

FAX to:
Sam Hoffses - 207.874.8716 ✓
John McLean - 617.964.1252 ✓
Stu McAllister - 207.770.1954 ✓
Paul Rollins - 617.536.2883 ✓

Re: UNUM HO3 Office Building and Site Development  
 Building Permit for HO3 tenant Fit-up

Portland, Maine  
 SMMA No. 97094

Dear Mr. Hoffses:

Please find our response to the HO3 Tenant Fit-up permit, issued 9/1/98 with attached reports. The attached reports are:

1. Building Permit Report
2. Portland Fire Department Report
3. Letter from Chief Electrical Inspector to SMMA, dated 8/28/98

**Building Permit Report**

- Comment 8 - Handrails and guardrails are included in the Core/Shell permit documents and are in accordance with requirements.
- Comment 10 - Stairs are included in the Core/Shell permit documents and are in accordance with requirements.
- Comment 17 - Fire extinguishers designed in accordance with NFPA 10.
- Comment 18 - Fire alarm system designed in accordance with NFPA 72.
- Comment 19 - See attached memorandum from Don McWhinnie, SMMA project fire protection engineer, dated 9/25/98.
- Comment 20 - Exit signs and lighting designed in accordance with BOCA 1996.
- Comment 29 - Ventilation designed in accordance with BOCA 1996.

**Portland Fire Department**

- Comments 2, 3, 4, 5, 6, 7 and 8 - Included in the Core/Shell permit documents and in are accordance with requirements.
- Comment 15 - See attached memorandum from Don McWhinnie, SMMA project fire protection engineer, dated 9/25/98.

**Letter from Chief Electrical Inspector to SMMA, dated 8/28/98**

See attached memorandum from Rafael Gurevich, SMMA project electrical engineer, dated 9/29/98.

*RECEIVED  
 2001 98*

**FAXED**  
 9-30-98  
 RGS

P. Samuel Hoffses  
September 30, 1998

If you have any questions, please do not hesitate to call me.

Very truly yours,

**Symmes Maini & McKee Associates**

  
Joel Seeley AIA  
Project Manager

cc: 97094.08, JGS, KMJ, RG, DCM, HSR, John McLean - NDC, Stu McAllister - UNUM, Paul Rollins - Turner (MF)

JGS/jgs/P:/97094/coresp/L-hoff01.doc



Symmes Maini & McKee Associates

CAMBRIDGE, MA • MINNEAPOLIS, MN

MEMORANDUM

To: Joel Seeley  
From: Don McWhinnie *DCM*  
Project: Unum HO3 - Tenant fit-up  
Re: Building permit comments  
Distribution: TC, RAF, KMJ, CPU, JNP (MF)  
Date: 09/25/98  
Project No.: 97094.01

Refer to Building Permit Report dated 8/24/98:

1. Comment #19 - The sprinkler system shall maintained to N.F.P.A. 13 Standard.

a. The sprinkler system for tenant fit-up has been designed and will be maintained in accordance with N.F.P.A. 13 Standard.

Refer to Portland Fire Department Review Document dated 8/24/98:

1. A 4" Storz fire department connection is required.

a. A 4" Storz fire department connection has been provided under the core/shell portion of this project.



Symmes Maini & McKee Associates

CAMBRIDGE, MA • MINNEAPOLIS, MN

MEMORANDUM

To: Joel Seeley  
From: Rafael Gurevich  
Project: UNUM HO-3 Fit-up  
Re: Building Permit  
Distribution: (MF)

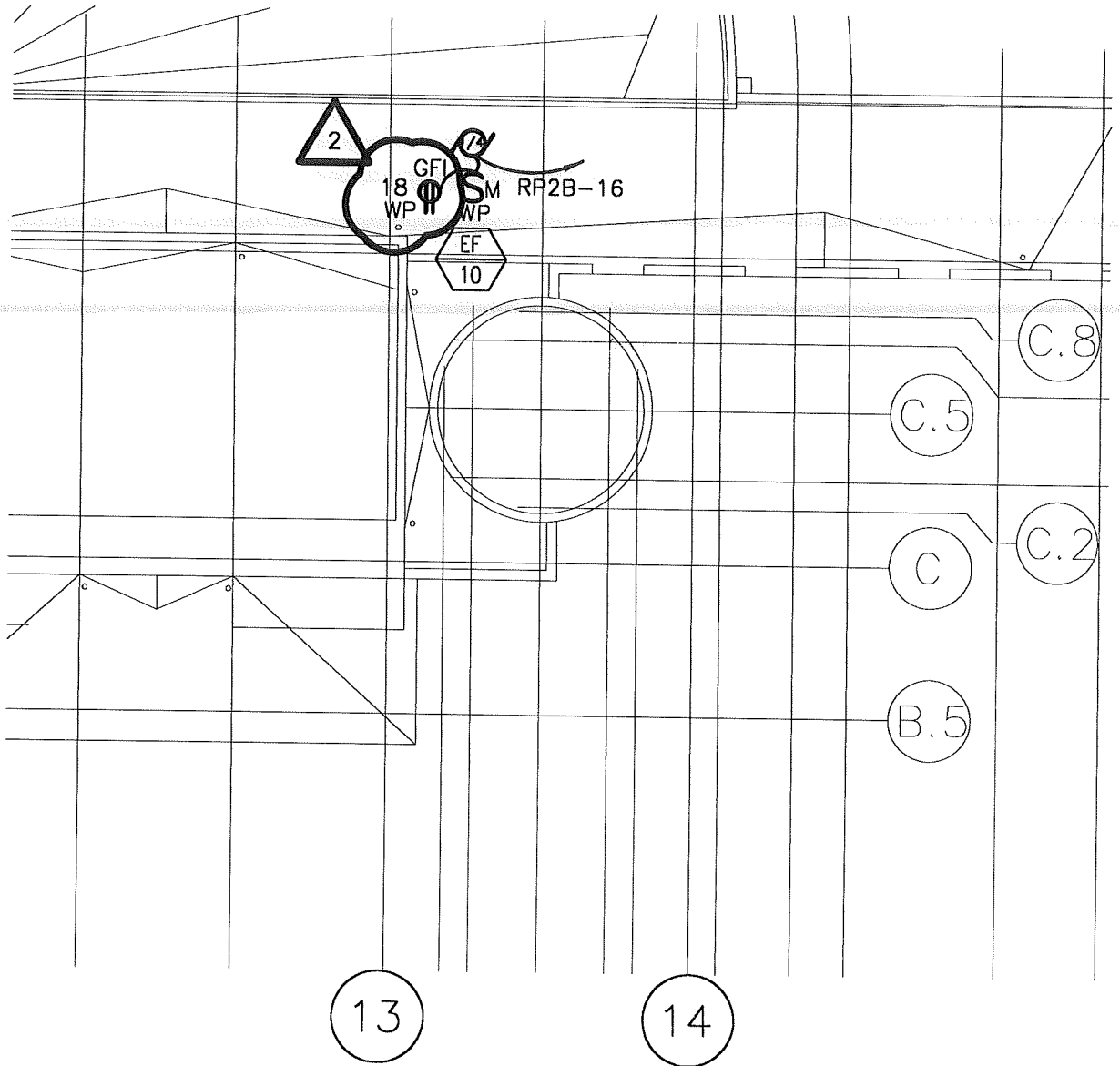
Date: 09/29/98  
Project No.: 97094

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I have reviewed the comments from City of Portland in reference to the above project , dated Aug.29,1998 and confirm that electrical system design complies with the stated conditions of approval with the following exceptions :

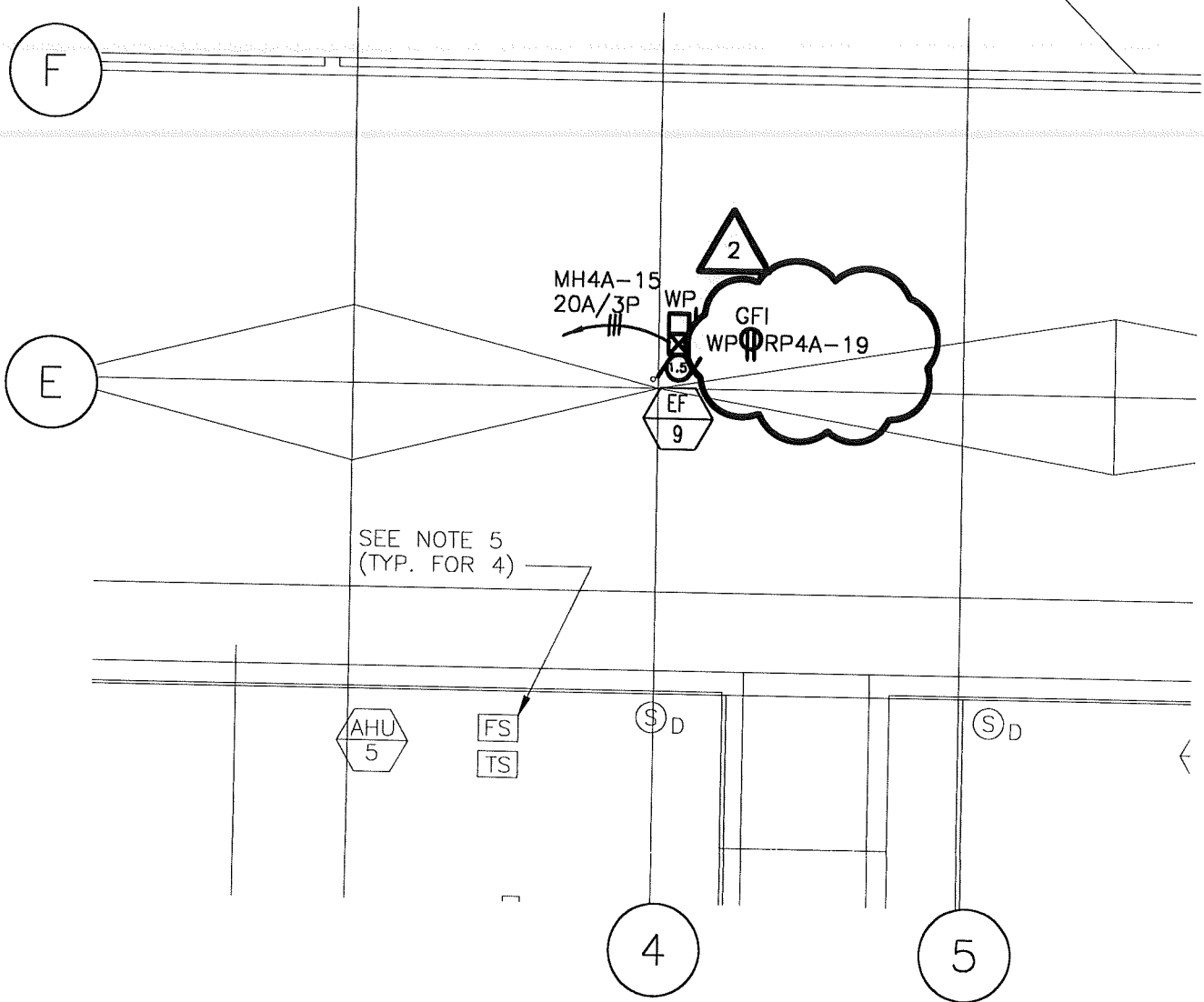
1. Ground fault type receptacles will be provided on the roof at the exhaust fans EF-9 and EF-10. Electrical plan will be revised per attached sketches SKE43 and SKE44, dated 9/23/98.
2. Article 410 -76(b) of National Electrical Code ,1996 edition does not apply to the surface mounted fluorescent fixtures installed on the gypsum board type ceiling.






△ 09/23/98 REVISION

 Symmes Maini & McKee Associates Cambridge, MA	UNUM LIFE INSURANCE HO-3 PORTLAND, MAINE REFERENCE DWG. FE2.4 ROOF PLAN	DATE	9/23/98	SKE 44	
		SCALE	1/8" = 1'-0"		
		DR. BY	MZ	CK. BY	JOB NO. 97094.00



△ 09/23/98 REVISION

 Symmes Maini & McKee Associates Cambridge, MA	UNUM LIFE INSURANCE HO-3 PORTLAND, MAINE		DATE	9/23/98	SKE 43
			SCALE	1/8" = 1'-0"	
	REFERENCE DWG. FE2.4 ROOF PLAN	DR. BY	MZ	CK. BY	JOB NO.

PLUMBING PIPING & SPECIALTIES TESTING

TEST REPORT NO: AST-1  
SUBCONTRACTOR: Youngblood  
COMPANY PERFORMING TEST: Youngblood

DATE: 10/6/98  
TIME: \_\_\_\_\_  
WEATHER: \_\_\_\_\_

1. SYSTEM DATA

SYSTEM: Storm Drainage  
CONTRACT DRAWINGS: \_\_\_\_\_  
P & ID DRAWINGS: \_\_\_\_\_  
INSTALLATION DRAWINGS: \_\_\_\_\_  
SIZE / TYPE OF PIPE TESTED: \_\_\_\_\_  
LOCATION OF PIPE TESTED: Underground Storm @ Garage (North)  
ADDITIONAL SYSTEM / LINE INFORMATION: \_\_\_\_\_

SPECIFICATION: 15140 TEST TYPE: 10' HEAD  
OPERATING PRESSURE (PSIG): \_\_\_\_\_  
SPECIFICATION TEST PRESSURE (PSIG): 10' HEAD  
TEST MEDIUM: Water

2. TEST APPARATUS

GAUGE TYPE: \_\_\_\_\_ NO. \_\_\_\_\_  
GAUGE RANGE: \_\_\_\_\_

LAST CALIBRATION DATE: \_\_\_\_\_  
NEXT CALIBRATION DATE: \_\_\_\_\_

3. TEST LEAKAGE / LIMITS

TIME TEST STARTED: 1:00 pm  
TIME TEST COMPLETED: 1:20 pm  
DURATION: 20 minutes

PRESSURE @ START (PSIG): 15' HEAD  
PRESSURE @ COMPLETION (PSIG): 15' HEAD  
PRESSURE DROP / RISE (PSIG): 0"

4. SYSTEM CHECKLIST

BEFORE TEST

- HIGH POINT VENTS INSTALLED?
- LINE VENTED BEFORE TEST?
- VALVE LINE-UP ATTACHED?
- VALVE POSITION VERIFIED?
- LOW-POINT DRAINS INSTALLED?

AFTER TEST

- SYSTEM DRAINED?
- SYSTEM AIR DRIED?
- TEMPORARY TEST MODS REMOVED?
- GAUGES REMOVED?
- VALVING RETURNED TO PROPER CONFIGURATION?

REMARKS: System tested several times, plugs kept blowing, due to too much head, actual head checked up to ± 25' until plugs blew.

PERFORMED BY: [Signature]

COMPANY: YOUNGBLOOD

TITLE: FOREMAN

DATE: 10/6/98

TCCo. WITNESS: [Signature]

DATE: 10/6/98

OWNER'S REPRES.: \_\_\_\_\_

DATE: \_\_\_\_\_

OWNER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

ENGINEER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

PLUMBING PIPING & SPECIALTIES TESTING

TEST REPORT NO: GST-2  
SUBCONTRACTOR: Youngblood  
COMPANY PERFORMING TEST: Youngblood

DATE: 10/8/98  
TIME: \_\_\_\_\_  
WEATHER: \_\_\_\_\_

1. SYSTEM DATA

SYSTEM: Storm drainage SPECIFICATION: 15140 TEST TYPE: 10' head  
CONTRACT DRAWINGS: \_\_\_\_\_ OPERATING PRESSURE (PSIG): \_\_\_\_\_  
P & ID DRAWINGS: \_\_\_\_\_ SPECIFICATION TEST PRESSURE (PSIG): 10' head  
INSTALLATION DRAWINGS: \_\_\_\_\_ TEST MEDIUM: water  
SIZE / TYPE OF PIPE TESTED: \_\_\_\_\_  
LOCATION OF PIPE TESTED: Underground storm @ garage (south)  
ADDITIONAL SYSTEM / LINE INFORMATION: \_\_\_\_\_

2. TEST APPARATUS

GAUGE TYPE: \_\_\_\_\_ NO. \_\_\_\_\_ LAST CALIBRATION DATE: \_\_\_\_\_  
GAUGE RANGE: \_\_\_\_\_ NEXT CALIBRATION DATE: \_\_\_\_\_

3. TEST LEAKAGE / LIMITS

TIME TEST STARTED: 2:00 PRESSURE @ START (PSIG): \_\_\_\_\_  
TIME TEST COMPLETED: 2:20 PRESSURE @ COMPLETION (PSIG): \_\_\_\_\_  
DURATION: 20 min PRESSURE DROP / RISE (PSIG): \_\_\_\_\_

4. SYSTEM CHECKLIST

BEFORE TEST

- HIGH POINT VENTS INSTALLED?
- LINE VENTED BEFORE TEST?
- VALVE LINE-UP ATTACHED?
- VALVE POSITION VERIFIED?
- LOW-POINT DRAINS INSTALLED?

AFTER TEST

- SYSTEM DRAINED?
- SYSTEM AIR DRIED?
- TEMPORARY TEST MODS REMOVED?
- GAUGES REMOVED?
- VALVING RETURNED TO PROPER CONFIGURATION?

REMARKS: extended system up 10' w/ PVC risers, filled entire system several times. Plugs at North kept blowing due to pressure > 25' head but dandy's were installed + upper system checked again

PERFORMED BY: Scott E. Mann COMPANY: YOUNGBLOOD

TITLE: FOREMAN DATE: 10/8/98

TCCo. WITNESS: Ed Dubois DATE: 10/8/98

OWNER'S REPRES.: \_\_\_\_\_ DATE: \_\_\_\_\_

OWNER'S WITNESS: \_\_\_\_\_ DATE: \_\_\_\_\_

ENGINEER'S WITNESS: \_\_\_\_\_ DATE: \_\_\_\_\_

PLUMBING PIPING & SPECIALTIES TESTING

TEST REPORT NO: GW-1  
SUBCONTRACTOR: YOUNGBLOOD CO.  
COMPANY PERFORMING TEST: YOUNGBLOOD

DATE: 9/23/98  
TIME: 3:00  
WEATHER: \_\_\_\_\_

1. SYSTEM DATA

SYSTEM: UNDERGROUND WATER  
CONTRACT DRAWINGS: \_\_\_\_\_  
P & ID DRAWINGS: \_\_\_\_\_  
INSTALLATION DRAWINGS: \_\_\_\_\_  
SIZE / TYPE OF PIPE TESTED: 2" Copper  
LOCATION OF PIPE TESTED: Garage Underground (North)  
ADDITIONAL SYSTEM / LINE INFORMATION: \_\_\_\_\_

SPECIFICATION: 15140 TEST TYPE: rough in  
OPERATING PRESSURE (PSIG): 45 psi  
SPECIFICATION TEST PRESSURE (PSIG): 60 psi > O.P.  
TEST MEDIUM: AIR

2. TEST APPARATUS

GAUGE TYPE: \_\_\_\_\_ NO. \_\_\_\_\_  
GAUGE RANGE: \_\_\_\_\_

LAST CALIBRATION DATE: \_\_\_\_\_  
NEXT CALIBRATION DATE: \_\_\_\_\_

3. TEST LEAKAGE / LIMITS

TIME TEST STARTED: 3:00 pm 9/23  
TIME TEST COMPLETED: 3:00 pm 9/24  
DURATION: 24 hr

PRESSURE @ START (PSIG): 100 psi  
PRESSURE @ COMPLETION (PSIG): 100 psi  
PRESSURE DROP / RISE (PSIG): 0

4. SYSTEM CHECKLIST

BEFORE TEST

- HIGH POINT VENTS INSTALLED?
- LINE VENTED BEFORE TEST?
- VALVE LINE-UP ATTACHED?
- VALVE POSITION VERIFIED?
- LOW-POINT DRAINS INSTALLED?

AFTER TEST

- SYSTEM DRAINED?
- SYSTEM AIR DRIED?
- TEMPORARY TEST MODS REMOVED?
- GAUGES REMOVED?
- VALVING RETURNED TO PROPER CONFIGURATION?

REMARKS: \_\_\_\_\_

PERFORMED BY: Scott E. Ann

COMPANY: YOUNGBLOOD

TITLE: FOREMAN

DATE: 9/24/98

TCCo. WITNESS: Ed Dubois

DATE: 9/24/98

OWNER'S REPRESENTATIVE: \_\_\_\_\_

DATE: \_\_\_\_\_

OWNER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

ENGINEER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

PLUMBING PIPING & SPECIALTIES TESTING

TEST REPORT NO: GW-2  
SUBCONTRACTOR: YOUNGBLOOD  
COMPANY PERFORMING TEST: YOUNGBLOOD

DATE: 10/1/98  
TIME: 8:00 am.  
WEATHER: \_\_\_\_\_

1. SYSTEM DATA

SYSTEM: UNDERGROUND WATER  
CONTRACT DRAWINGS: \_\_\_\_\_  
P & ID DRAWINGS: \_\_\_\_\_  
INSTALLATION DRAWINGS: \_\_\_\_\_  
SIZE / TYPE OF PIPE TESTED: 2" COPPER  
LOCATION OF PIPE TESTED: Underground Water (south)  
ADDITIONAL SYSTEM / LINE INFORMATION: \_\_\_\_\_

SPECIFICATION: 15140 TEST TYPE: rough in  
OPERATING PRESSURE (PSIG): 45 psi  
SPECIFICATION TEST PRESSURE (PSIG): 50 psi @ O.P.  
TEST MEDIUM: AIR

2. TEST APPARATUS

GAUGE TYPE: \_\_\_\_\_ NO. \_\_\_\_\_  
GAUGE RANGE: 0 - 200

LAST CALIBRATION DATE: \_\_\_\_\_  
NEXT CALIBRATION DATE: \_\_\_\_\_

3. TEST LEAKAGE / LIMITS

TIME TEST STARTED: 8:00 am 10/1  
TIME TEST COMPLETED: 8:00 am 10/2  
DURATION: 24 hrs.

PRESSURE @ START (PSIG): 100 psi  
PRESSURE @ COMPLETION (PSIG): 100 psi  
PRESSURE DROP / RISE (PSIG): 0

4. SYSTEM CHECKLIST

BEFORE TEST

- HIGH POINT VENTS INSTALLED?
- LINE VENTED BEFORE TEST?
- VALVE LINE-UP ATTACHED?
- VALVE POSITION VERIFIED?
- LOW-POINT DRAINS INSTALLED?

AFTER TEST

- SYSTEM DRAINED?
- SYSTEM AIR DRIED?
- TEMPORARY TEST MODS REMOVED?
- GAUGES REMOVED?
- VALVING RETURNED TO PROPER CONFIGURATION?

REMARKS: \_\_\_\_\_

PERFORMED BY: Sarker Khan

COMPANY: YOUNGBLOOD

TITLE: FOREMAN

DATE: 10/2/98

TCCo. WITNESS: Ed [Signature]

DATE: 10/2/98

OWNER'S REPRES.: \_\_\_\_\_

DATE: \_\_\_\_\_

OWNER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

ENGINEER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

**PLUMBING PIPING & SPECIALTIES TESTING**

TEST REPORT NO: GW-3  
SUBCONTRACTOR: Youngblood  
COMPANY PERFORMING TEST: Youngblood

DATE: 5/12/99  
TIME: \_\_\_\_\_  
WEATHER: \_\_\_\_\_

**1. SYSTEM DATA**

SYSTEM: Garage Water  
CONTRACT DRAWINGS: \_\_\_\_\_  
P & ID DRAWINGS: \_\_\_\_\_  
INSTALLATION DRAWINGS: \_\_\_\_\_  
SIZE / TYPE OF PIPE TESTED: 2" water  
LOCATION OF PIPE TESTED: Entire water system @ garage from hotbox to all valves  
ADDITIONAL SYSTEM / LINE INFORMATION: \_\_\_\_\_

SPECIFICATION: 15140 TEST TYPE: Finish  
OPERATING PRESSURE (PSIG): street pressure  
SPECIFICATION TEST PRESSURE (PSIG): \_\_\_\_\_  
TEST MEDIUM: water / visual leak

**2. TEST APPARATUS**

GAUGE TYPE: \_\_\_\_\_ NO. \_\_\_\_\_  
GAUGE RANGE: \_\_\_\_\_

LAST CALIBRATION DATE: \_\_\_\_\_  
NEXT CALIBRATION DATE: \_\_\_\_\_

**3. TEST LEAKAGE / LIMITS**

TIME TEST STARTED: \_\_\_\_\_  
TIME TEST COMPLETED: \_\_\_\_\_  
DURATION: \_\_\_\_\_

PRESSURE @ START (PSIG): \_\_\_\_\_  
PRESSURE @ COMPLETION (PSIG): \_\_\_\_\_  
PRESSURE DROP / RISE (PSIG): \_\_\_\_\_

**4. SYSTEM CHECKLIST**

**BEFORE TEST**

- HIGH POINT VENTS INSTALLED?
- LINE VENTED BEFORE TEST?
- VALVE LINE-UP ATTACHED?
- VALVE POSITION VERIFIED?
- LOW-POINT DRAINS INSTALLED?

**AFTER TEST**

- SYSTEM DRAINED?
- SYSTEM AIR DRIED?
- TEMPORARY TEST MODS REMOVED?
- GAUGES REMOVED?
- VALVING RETURNED TO PROPER CONFIGURATION?

REMARKS: 2 LEAKS FOUND; THEY WERE BOTH REPAIRED & RETESTED.  
NOTE: SAM HOFFSES WITNESSED FULL SYSTEM WORK OF MAY 10<sup>TH</sup>

PERFORMED BY: [Signature]

COMPANY: YOUNG BLOOD

TITLE: FOREMAN

DATE: 5/12/99

TCCo. WITNESS: [Signature]

DATE: 5/12/99

OWNER'S REPRES.: \_\_\_\_\_

DATE: \_\_\_\_\_

OWNER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

ENGINEER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

PLUMBING PIPING & SPECIALTIES TESTING

TEST REPORT NO: GST-3  
SUBCONTRACTOR: Youngblood  
COMPANY PERFORMING TEST: Youngblood

DATE: 5/18  
TIME: 7-1 pm  
WEATHER: \_\_\_\_\_

1. SYSTEM DATA

SYSTEM: Garage drainage  
CONTRACT DRAWINGS: \_\_\_\_\_  
P & ID DRAWINGS: \_\_\_\_\_  
INSTALLATION DRAWINGS: \_\_\_\_\_  
SIZE / TYPE OF PIPE TESTED: \_\_\_\_\_  
LOCATION OF PIPE TESTED: Entire Drain system of Garage except North level 3→2.  
ADDITIONAL SYSTEM / LINE INFORMATION: \_\_\_\_\_

SPECIFICATION: 15140 TEST TYPE: head test  
OPERATING PRESSURE (PSIG): \_\_\_\_\_  
SPECIFICATION TEST PRESSURE (PSIG): 10' head  
TEST MEDIUM: water

2. TEST APPARATUS

GAUGE TYPE: \_\_\_\_\_ NO. \_\_\_\_\_  
GAUGE RANGE: \_\_\_\_\_

LAST CALIBRATION DATE: \_\_\_\_\_  
NEXT CALIBRATION DATE: \_\_\_\_\_

3. TEST LEAKAGE / LIMITS

TIME TEST STARTED: 7 am  
TIME TEST COMPLETED: 1 pm  
DURATION: 6 hrs

PRESSURE @ START (PSIG): head test  
PRESSURE @ COMPLETION (PSIG): filled system.  
PRESSURE DROP / RISE (PSIG): \_\_\_\_\_

4. SYSTEM CHECKLIST

BEFORE TEST

- HIGH POINT VENTS INSTALLED?
- LINE VENTED BEFORE TEST?
- VALVE LINE-UP ATTACHED?
- VALVE POSITION VERIFIED?
- LOW-POINT DRAINS INSTALLED?

AFTER TEST

- SYSTEM DRAINED?
- SYSTEM AIR DRIED?
- TEMPORARY TEST MODS REMOVED?
- GAUGES REMOVED?
- VALVING RETURNED TO PROPER CONFIGURATION?

REMARKS: Entire system filled. Plugs weren't installed at drains @ level 2 north (no key), system was overflowing. 2N 3→2 to be tested when key arrives. Plugs removed due to excessive water @ 1:00

PERFORMED BY: Scott E. / hr

COMPANY: YOUNGBLOOD

TITLE: Foreman

DATE: 5/18/99

TCCo. WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

OWNER'S REPRES.: \_\_\_\_\_

DATE: \_\_\_\_\_

OWNER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_

ENGINEER'S WITNESS: \_\_\_\_\_

DATE: \_\_\_\_\_



PLUMBING PIPING & SPECIALTIES TESTING

TEST REPORT NO: GST-4  
SUBCONTRACTOR: Youngblood  
COMPANY PERFORMING TEST: Youngblood

DATE: \_\_\_\_\_  
TIME: \_\_\_\_\_  
WEATHER: \_\_\_\_\_

1. SYSTEM DATA

SYSTEM: Storm Drainage  
CONTRACT DRAWINGS: \_\_\_\_\_  
P & ID DRAWINGS: \_\_\_\_\_  
INSTALLATION DRAWINGS: \_\_\_\_\_  
SIZE / TYPE OF PIPE TESTED: \_\_\_\_\_  
LOCATION OF PIPE TESTED: Garage Storm Drainage North Rivers from 3rd → 2nd floor.  
ADDITIONAL SYSTEM / LINE INFORMATION: \_\_\_\_\_

SPECIFICATION: 15140 TEST TYPE: head  
OPERATING PRESSURE (PSIG): \_\_\_\_\_  
SPECIFICATION TEST PRESSURE (PSIG): 16' head  
TEST MEDIUM: Water

2. TEST APPARATUS

GAUGE TYPE: \_\_\_\_\_ NO. \_\_\_\_\_  
GAUGE RANGE: \_\_\_\_\_

LAST CALIBRATION DATE: \_\_\_\_\_  
NEXT CALIBRATION DATE: \_\_\_\_\_

3. TEST LEAKAGE / LIMITS

TIME TEST STARTED: \_\_\_\_\_  
TIME TEST COMPLETED: \_\_\_\_\_  
DURATION: \_\_\_\_\_

PRESSURE @ START (PSIG): \_\_\_\_\_  
PRESSURE @ COMPLETION (PSIG): filled system  
PRESSURE DROP / RISE (PSIG): \_\_\_\_\_

4. SYSTEM CHECKLIST

BEFORE TEST

- HIGH POINT VENTS INSTALLED?
- LINE VENTED BEFORE TEST?
- VALVE LINE-UP ATTACHED?
- VALVE POSITION VERIFIED?
- LOW-POINT DRAINS INSTALLED?

AFTER TEST

- SYSTEM DRAINED?
- SYSTEM AIR DRIED?
- TEMPORARY TEST MODS REMOVED?
- GAUGES REMOVED?
- VALVING RETURNED TO PROPER CONFIGURATION?

REMARKS: \_\_\_\_\_

PERFORMED BY: Scott Mason COMPANY: Youngblood Co.

TITLE: Foreman DATE: 5/27

TCCo. WITNESS: Ed Roberto DATE: 5/27

OWNER'S REPRESENTATIVE: \_\_\_\_\_ DATE: \_\_\_\_\_

OWNER'S WITNESS: \_\_\_\_\_ DATE: \_\_\_\_\_

ENGINEER'S WITNESS: \_\_\_\_\_ DATE: \_\_\_\_\_

PLUMBING PIPING & SPECIALTIES TESTING

TEST REPORT NO: GFP-2  
SUBCONTRACTOR: Eastern Fire Protection  
COMPANY PERFORMING TEST: Eastern Fire

DATE: 5/21/99  
TIME: 1:00  
WEATHER: \_\_\_\_\_

1. SYSTEM DATA

SYSTEM: Garage Fire Protection SPECIFICATION: 15140 TEST TYPE: Water/pressure  
CONTRACT DRAWINGS: M&S OPERATING PRESSURE (PSIG): Inlet pressure  
P & ID DRAWINGS: \_\_\_\_\_ SPECIFICATION TEST PRESSURE (PSIG): 225  
INSTALLATION DRAWINGS: \_\_\_\_\_ TEST MEDIUM: Water  
SIZE / TYPE OF PIPE TESTED: 6" mains w/ 4" risers  
LOCATION OF PIPE TESTED: Garage underground, risers  
ADDITIONAL SYSTEM / LINE INFORMATION: Entire garage sprinkler, including underground and risers

2. TEST APPARATUS

GAUGE TYPE: \_\_\_\_\_ NO. \_\_\_\_\_ LAST CALIBRATION DATE: \_\_\_\_\_  
GAUGE RANGE: \_\_\_\_\_ NEXT CALIBRATION DATE: \_\_\_\_\_

3. TEST LEAKAGE / LIMITS

TIME TEST STARTED: 1:00 PRESSURE @ START (PSIG): 225 psi  
TIME TEST COMPLETED: 3:00 PRESSURE @ COMPLETION (PSIG): 205 psi  
DURATION: 2 hrs PRESSURE DROP / RISE (PSIG): 20 psi

4. SYSTEM CHECKLIST

BEFORE TEST

- HIGH POINT VENTS INSTALLED?
- LINE VENTED BEFORE TEST?
- VALVE LINE-UP ATTACHED?
- VALVE POSITION VERIFIED?
- LOW-POINT DRAINS INSTALLED?

AFTER TEST

- SYSTEM DRAINED?
- SYSTEM AIR DRIED?
- TEMPORARY TEST MODS REMOVED?
- GAUGES REMOVED?
- VALVING RETURNED TO PROPER CONFIGURATION?

REMARKS: PER NFPA 24 LEAKAGE: 1/3 GAL  
ALLOWABLE LEAKAGE: 1 GAL.  
PER NFPA 24, ALLOWABLE LEAKAGE FOR UNDERGROUND IS 1 GALLON OF WATER (SEE ATTACHED). THIS TEST RESULTED IN < 1/3 GALLON

PERFORMED BY: [Signature] COMPANY: EASTERN FIRE

TITLE: FOREMAN DATE: 5/21/99

TCCO. WITNESS: [Signature] DATE: 5/21/99

OWNER'S REPRES.: \_\_\_\_\_ DATE: \_\_\_\_\_

OWNER'S WITNESS: \_\_\_\_\_ DATE: \_\_\_\_\_

ENGINEER'S WITNESS: \_\_\_\_\_ DATE: \_\_\_\_\_

A.I.N. E.V. 0015015

FAX 1-207-879-6031

REFERENCED PUBLICATIONS

24-13

8-9.3.2\* The amount of leakage in piping shall be measured at the specified test pressure by pumping from a calibrated container. For new pipe, the amount of leakage at the joints shall not exceed two quarts per hour (1.89 L/h) per 100 gaskets or joints irrespective of pipe diameter.

8-9.3.3\* The amount of allowable leakage specified in 8-9.3.2 may be increased by one fluid ounce per inch valve diameter per hour (30 ml/25 mm/h) for each metal seated valve isolating the test section. If dry barrel hydrants are tested with the main valve open, so the hydrants are under pressure, an additional five ounces per minute (150 ml/min) leakage is permitted for each hydrant.

8-9.3.4 Tests shall be made by the contractor in the presence of the authority having jurisdiction or the representative of the owner. The certificate shown in Figure A-8-9.1 is to be completed.

#### 8-9.4 Operating Test.

8-9.4.1 Each hydrant shall be fully opened and closed under system water pressure and dry barrel hydrants checked for proper drainage. Where fire pumps are available, this shall be done with the pumps running.

8-9.4.2 All control valves shall be fully closed and opened under system water pressure to ensure proper operation.

### Chapter 9 Referenced Publications

9-1 The following documents or portions thereof are referenced within this standard and shall be considered part of the requirements of this document. The edition indicated for each reference is the current edition as of the date of the NFPA issuance of this document.

9-1.1 **NFPA Publications.** National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 20, *Standard for the Installation of Centrifugal Fire Pumps*, 1990 edition

NFPA 22, *Standard for Water Tanks for Private Fire Protection*, 1987 edition

NFPA 1961, *Standard for Fire Hose*, 1992 edition

NFPA 1963, *Standard for Screw Threads and Gaskets for Fire Hose Connections*, 1985 edition

9-1.2 **AWWA Publications.** American Water Works Association, Inc., 666 West Quincy Avenue, Denver, CO 80235.

AWWA C104-90, *Cement Mortar Lining for Ductile Iron Pipe and Fittings for Water*

AWWA C105-88, *Polyethylene Encasement for Ductile Iron Piping for Water and Other Liquids*

AWWA C110-87, *Ductile Iron and Gray Iron Fittings, 3-in. Through 48-in., for Water and Other Liquids*

AWWA C111-90, *Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings*

AWWA C115-88, *Standard for Flanged Ductile Iron Pipe with Threaded Flanges*

AWWA C150-91, *Thickness Design of Ductile Iron Pipe*

AWWA C151-86, *Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds, for Water or Other Liquids*

AWWA C200-86, *Steel Water Pipe 6 in. and Larger*

AWWA C203-86, *Coal-Tar Protective Coatings and Linings for Steel Water Pipelines Enamel and Tape — Hot Applied*

AWWA C205-89, *Cement-Mortar Protective Lining and Coating for Steel Water Pipe 4 in. and Larger — Shop Applied*

AWWA C206-88, *Standard for Field Welding of Steel Water Pipe*

AWWA C207-86, *Standard for Steel Pipe Flanges for Waterworks Service — Sizes 4 in. Through 144 in.*

AWWA C208-83, *Dimensions for Fabricated Steel Water Pipe Fittings*

AWWA C300-89, *Reinforced Concrete Pressure Pipe, Steel Cylinder Type for Water and Other Liquids*

AWWA C301-84, *Prestressed Concrete Pressure Pipe, Steel-Cylinder Type, for Water and Other Liquids*

AWWA C302-87, *Reinforced Concrete Pressure Pipe, Non-Cylinder Type, for Water and Other Liquids*

AWWA C303-87, *Reinforced Concrete Pressure Pipe, Steel-Cylinder Type, Pretensioned, for Water and Other Liquids*

AWWA C400-80, *Standard for Asbestos-Cement Distribution Pipe, 4 in. Through 16 in., for Water and Other Liquids*

AWWA C401-83, *Standard Practice for the Selection of Asbestos-Cement Water Pipe*

AWWA C600-87, *Standard for the Installation of Ductile Iron Water Mains and Their Appurtenances*

AWWA C602-89, *Cement-Mortar Lining of Water Pipe Lines 4 in. and Larger in Place*

AWWA C603-90, *Installation of Asbestos-Cement Pressure Pipe*

AWWA C900-89, *Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. Through 12 in., for Water Distribution*

AWWA M11-89, *Steel Pipe — A Guide for Design and Installation.*

9-1.3 **ANSI Publication.** American National Standards Institute, 1430 Broadway, New York, NY 10018.

ANSI B16.1-75, *Standard for Cast-Iron Pipe Flanges and Flanged Fittings for 25, 125, 250 and 800 lb.*

# CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR UNDERGROUND PIPING

**PROCEDURE**

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY NAME UNUM HO III PARKING GARAGE DATE 5-20-99

PROPERTY ADDRESS 2199 CONGRESS ST. PORTLAND, ME. 04102

PLANS ACCEPTED BY APPROVING AUTHORITY(S) NAMES STATE FIRE MARSHAL

ADDRESS 397 WATER ST. GARDINER, ME. 04345

INSTALLATION CONFORMS TO ACCEPTED PLANS  YES  NO

EQUIPMENT USED IS APPROVED  YES  NO

IF NO, STATE DEVIATIONS

INSTRUCTIONS HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT  YES  NO

IF NO, EXPLAIN

HAVE COPIES OF APPROPRIATE INSTRUCTIONS AND CARE AND MAINTENANCE CHARTS BEEN LEFT ON PREMISES  YES  NO

IF NO, EXPLAIN

LOCATION SUPPLIES BLDGS. ENTIRE BLDG. STRUCTURE

UNDERGROUND PIPES AND JOINTS PIPE TYPES AND CLASS DICL 52 TYPE JOINT RETAINER

PIPE CONFORMS TO NFPA 3 STANDARD  YES  NO

FITTINGS CONFORM TO NFPA 13 STANDARD  YES  NO

IF NO, EXPLAIN

JOINTS NEEDING ANCHORAGE CLAMPED, STRAPPED, OR BLOCKED IN  YES  NO

ACCORDANCE WITH \_\_\_\_\_ STANDARD

IF NO, EXPLAIN

TEST DESCRIPTION **FLUSHING.** Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 400 GPM (1514 L/min) for 4-inch pipe, 600 GPM (2271 L/min) for 5-inch pipe, 750 GPM (2839 L/min) for 6-inch pipe, 1000 GPM (3785 L/min) for 8-inch pipe, 1500 GPM (5678 L/min) for 10-inch pipe and 2000 GPM (7570 L/min) for 12-inch pipe. When supply cannot produce stipulated flow rates, obtain maximum available.

**HYDROSTATIC.** Hydrostatic tests shall be made at not less than 200 psi (13.8 bars) for two hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.3 bars) for two hours.

**LEAKAGE.** New pipe laid with rubber gasketed joints shall, if the workmanship is satisfactory, have little or no leakage at the joints. The amount of leakage at the joints shall not exceed 2 qts. per hr. (1.89 L/h) per 100 joints irrespective of pipe diameter. The leakage shall be distributed over all joints. If such leakage occurs at a few joints the installation shall be considered unsatisfactory and necessary repairs made. The amount of allowable leakage specified above may be increased by 1 fl oz per in. valve diameter per hour (30 mL/25 mm/h) for each metal seated valve isolating the test section. If dry barrel hydrants are tested with the main valve open, so the hydrants are under pressure, an additional 5 oz per minute (150 mL/min) leakage is permitted for each hydrant.

NEW UNDERGROUND PIPING FLUSHED ACCORDING TO NFPA 24 STANDARD  YES  NO

BY (COMPANY) \_\_\_\_\_

IF NO, EXPLAIN

FLUSHING TESTS HOW FLUSHING FLOW WAS OBTAINED  PUBLIC WATER  TANK OR RESERVOIR  FIRE PUMP THROUGH WHAT TYPE OPENING  HYDRANT BUTT.  OPEN PIPE

LEAD-INS FLUSHED ACCORDING TO \_\_\_\_\_ STANDARD  YES  NO

BY (COMPANY) \_\_\_\_\_

IF NO, EXPLAIN

HOW FLUSHING FLOW WAS OBTAINED  PUBLIC WATER  TANK OR RESERVOIR  FIRE PUMP THROUGH WHAT TYPE OPENING  Y CONN. TO FLANGE & SPIGOT  OPEN PIPE

HYDROSTATIC TEST

225 PSI FOR 2 HOURS

YES  NO

LEAKAGE TEST

TOTAL AMOUNT OF LEAKAGE MEASURED  
1/3 GALS. 2 HOURS

ALLOWABLE LEAKAGE  
1 GALS. 2 HOURS

HYDRANTS

NUMBER INSTALLED \_\_\_\_\_ TYPE AND MAKE \_\_\_\_\_

ALL OPERATE SATISFACTORILY  
 YES  NO

CONTROL VALVES

WATER CONTROL VALVES LEFT WIDE OPEN IF NO, STATE REASON

YES  NO

HOSE THREADS OF FIRE DEPARTMENT CONNECTIONS AND HYDRANTS INTERCHANGEABLE WITH THOSE OF FIRE DEPARTMENT ANSWERING ALARM

YES  NO

REMARKS

DATE LEFT IN SERVICE \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SIGNATURES

NAME OF INSTALLING CONTRACTOR  
EASTERN FIRE PROTECTION

TESTS WITNESSED BY

FOR PROPERTY OWNER (SIGNED)

TITLE

DATE

FOR INSTALLING CONTRACTOR (SIGNED)

TITLE

DATE

PROJ SUPT.

5/24/99

FIRECD Supt

5-21-99

ADDITIONAL EXPLANATION AND NOTES



Symmes Maini & McKee Associates

CAMBRIDGE, MA • MINNEAPOLIS, MN

October 15, 1998

P. Samuel Hoffses  
Inspector of Buildings  
City of Portland Building Department  
389 Congress Street  
Portland, ME 04101

FAX to:  
Sam Hoffses - 207.874.8716 ✓  
John McLean - 617.964.1252 ✓  
Stu McAllister - 207.770.1954 ✓  
Paul Rollins - 617.536.2883 ✓

Re: UNUM HO3 Office Building and Site Development  
Building Permit for HO3 Tenant Fit-up

Portland, Maine  
SMMA No. 97094


Dear Mr. Hoffses:

It was a pleasure reviewing our response, dated 9/30/98 to the HO3 Tenant Fit-Up permit comment requirements, dated 8/29/98. We understand that the our response satisfies the comment requirements and no further action is required.

If you have any questions, please do not hesitate to call me.

Very truly yours,

Symmes Maini & McKee Associates

  
Joel Seeley, AIA  
Project Manager

cc: 97094.08, JGS, KMJ, RG, DCM, HSR, John McLean - NDC, Stu McAllister - UNUM, Paul Rollins - Turner (MF)

Received  
19/Oct/98

JGS/jgs/P:/97094/coresp/L-HOFF03.doc

FAXED  
10-15-98  
RGS

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

December 2, 1998

City of Portland  
Inspectional Services  
389 Congress Street  
Portland, ME 04101

*Attention: Samuel Hoffses*

RE: Gas Piping Test

Gentlemen:

Please find attached, a copy of Turner Construction Company's gas pipe test report # G1 for the UNUM Life Insurance HO-3 Project. The test was performed from 11/14/98 through 11/16/98. Also enclosed are partial copies of drawing plans P1.1 and P1.6, which show the location of the 6" gas main tested.

If you have any questions or comments regarding this matter, please do not hesitate to call this office at (207) 773-1807.

Sincerely,



Quiton Cooper  
Field Engineer - Turner Construction Company

cc: John Norris – Youngblood  
DCB  
John McLean – Northland  
Stu McAllister - UNUM  
file:

PLUMBING PIPING & SPECIALTIES TESTING

TEST REPORT NO: G1 DATE: 11/14 - 11/16/98  
SUBCONTRACTOR: YOUNGBLOOD TIME: 1:00 pm 11/16  
COMPANY PERFORMING TEST: YOUNGBLOOD WEATHER: 45°, sunny

1. SYSTEM DATA

SYSTEM: GAS MAIN SPECIFICATION: 15190 TEST TYPE: AIR  
CONTRACT DRAWINGS: \_\_\_\_\_ OPERATING PRESSURE (PSIG): 2 psi  
P & ID DRAWINGS: \_\_\_\_\_ SPECIFICATION TEST PRESSURE (PSIG): \_\_\_\_\_  
INSTALLATION DRAWINGS: \_\_\_\_\_ TEST MEDIUM: AIR  
SIZE / TYPE OF PIPE TESTED: 6" GAS  
LOCATION OF PIPE TESTED: H02, H03  
ADDITIONAL SYSTEM / LINE INFORMATION: TEST INCLUDES ALL H02 GAS PIPE, H03 MAINS (SOAPED EVERY JOINT). TEST DIDNT INCLUDE REGULATOR @ H02 - but WAS checked for leaks after tie in.

2. TEST APPARATUS

GAUGE TYPE: \_\_\_\_\_ NO. \_\_\_\_\_ LAST CALIBRATION DATE: \_\_\_\_\_  
GAUGE RANGE: 0 - 200 psi NEXT CALIBRATION DATE: \_\_\_\_\_

3. TEST LEAKAGE / LIMITS

TIME TEST STARTED: 11/14 @ 12:00 am PRESSURE @ START (PSIG): 95 psi  
TIME TEST COMPLETED: 11/16 @ 1:00 pm PRESSURE @ COMPLETION (PSIG): 95 psi  
DURATION: 2 days PRESSURE DROP / RISE (PSIG): 0 psi

4. SYSTEM CHECKLIST

BEFORE TEST

- HIGH POINT VENTS INSTALLED?
- LINE VENTED BEFORE TEST?
- VALVE LINE-UP ATTACHED?
- VALVE POSITION VERIFIED?
- LOW-POINT DRAINS INSTALLED?

AFTER TEST

- SYSTEM DRAINED?
- SYSTEM AIR DRIED?
- TEMPORARY TEST MODS REMOVED?
- GAUGES REMOVED?
- VALVING RETURNED TO PROPER CONFIGURATION?

REMARKS: \_\_\_\_\_

PERFORMED BY: Jim Jackson P.M. COMPANY: YOUNGBLOOD  
TITLE: FOREMAN DATE: \_\_\_\_\_  
TCCo. WITNESS: Ed Dubois DATE: 11/16/98  
OWNER'S REPRES.: \_\_\_\_\_ DATE: \_\_\_\_\_  
OWNER'S WITNESS: \_\_\_\_\_ DATE: \_\_\_\_\_  
ENGINEER'S WITNESS: \_\_\_\_\_ DATE: \_\_\_\_\_





Fire Department



Joseph E. Thomas, Jr.  
Chief of Department

CITY OF PORTLAND

March 11, 1999

Turner Construction  
Bill Wright  
2119 Congress Street  
Portland, Maine  
04102

Ref: propane tanks

Dear Sir,

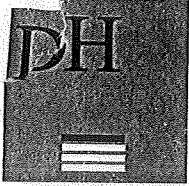
A permit shall be obtained for each installation of LP gas employing a container or an aggregate of interconnected containers of 2,000 gallons water capacity, and for each permanent installation.

Based on the above, The Portland Fire Department does not require a permit for your LP gas.

If you need further clarification please call me at 874-8405.

Sincerely,

Lt. Gaylen Mc Dougall  
Portland Fire Prevention Bureau



DeLUCA-HOFFMAN ASSOCIATES, INC.  
CONSULTING ENGINEERS

778 MAIN STREET  
SUITE 8  
SOUTH PORTLAND, MAINE 04106  
TEL. 207 775 1121  
FAX 207 879 0896

- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

## MEMORANDUM

**TO:** Sam Hoffses, Code Enforcement  
Sarah Hopkins, Senior Planner  
Bill Wright, Turner Construction

**FROM:** Jim Wendel, P.E. Development Review Coordinator

**DATE:** May 11, 1999

**RE:** Certificate of Occupancy-Parking Garage  
UNUM HO 3  
Outer Congress Street

---

A review of the site in response by the contractor for a certificate of occupancy for the parking garage has been completed. We offer the following comments:

1. In general, the site has been significantly completed; some landscape work is currently on-going; the site is in very good condition.
2. Vehicle access to the new parking garage from the existing campus is substantially complete. No issues were identified.

It is my opinion that a **temporary certificate of occupancy could be issued** assuming Code Enforcement has no outstanding issues.

## Parking garage

required provided that the handrail extends, at the required height, to a point directly above the top riser.

**5-2.2.4.6 Guard Details.**

(a) The height of guards required in 5-2.2.4.1 shall be measured vertically to the top of the guard from the surface adjacent thereto.

(b) Guards shall be at least 42 in. (107 cm) high.

*Exception No. 1 to (b): Existing guards within dwelling units shall be at least 36 in. (91 cm) high.*

*Exception No. 2 to (b): As provided in Chapters 8 and 9.*

*Exception No. 3 to (b):\* Existing guards on existing stairs shall be at least 30 in. (76 cm) high.*

(c)\* Open guards shall have intermediate rails or an ornamental pattern such that a sphere 4 in. (10.1 cm) in diameter shall not pass through any opening up to a height of 34 in. (86 cm).

*Exception No. 1 to (c): The triangular openings formed by the riser, tread, and bottom element of a guardrail at the open side of a stair shall be of such size that a sphere 6 in. (15.2 cm) in diameter shall not pass through the triangular opening.*

*Exception No. 2 to (c): In detention and correctional occupancies, in industrial occupancies, and in storage occupancies, the clear distance between intermediate rails measured at right angles to the rails shall not be more than 21 in. (53.3 cm).*

*Exception No. 3 to (c): Approved existing open guards.*

**5-2.2.5 Enclosure and Protection of Stairs.**

**5-2.2.5.1 Enclosures.** All inside stairs serving as an exit or exit component shall be enclosed in accordance with 5-1.3.2. All other inside stairs shall be protected in accordance with 6-2.4.

**Commentary**

*Exception: In existing buildings, where a two-story exit enclosure connects the story of exit discharge with an adjacent story, the exit shall be required only to be enclosed on the story of exit discharge and at least 50 percent of the number and capacity of exits on the story of exit discharge shall be independent of such enclosures.* **Commentary**

**5-2.2.5.2\* Exposures.** Where nonrated walls or unprotected openings enclose the exterior of a stairway and the walls or openings are exposed by other parts of the building at an angle of not more than 180 degrees, the building enclosure walls within 10 ft (3 m) horizontally of the nonrated wall or unprotected opening shall be constructed as required for stairway enclosures including opening protectives. Construction shall extend vertically from the ground to a point 10 ft (3 m) above the topmost landing of the stairs or to the roofline, whichever is lower.

*Exception No. 1: Existing stairways.*

*Exception No. 2: The fire resistance rating of the separation extending 10 ft (3 m) from the stairs shall not be required to be more than 1 hour with openings having a  $3/4$ -hr fire protection rating.*

**Commentary**

**5-2.2.5.3\* Usable Space.** There shall be no enclosed, usable space within an exit enclosure, including under stairs, nor shall any open space within the enclosure be used for any purpose that has the potential to interfere with egress.

#### A-5-2.2.4.1

**156**  
**37** Paragraph 5-2.2.4.1 requires guards along means of egress paths where there is a vertical drop of at least 30 in. (76 cm). This has particular implication on stairs that historically have required only handrails. Guards must be provided on any open sides of the stair. The minimum 42-in. (107-cm) high guard, in place of the minimum 34-in. (86-cm) handrail, is needed to prevent the 95 percentile male from falling over the rail upon striking the side of a stair. Although there are no firm data, there are sufficient anecdotal incidents to show the need for this requirement. See 5-2.2.4.6 for guard details—especially Exception No. 3 to 5-2.2.4.6(b) which permits existing guards on existing stairs to be a minimum of 30 in. (76 cm) high.

*Exception: Enclosed usable space shall be permitted under stairs provided the space is separated from the stair enclosure by the same fire resistance as the exit enclosure. Entrance to such enclosed usable space shall not be from within the stair enclosure. (See also 5-1.3.2.3.)*

**Commentary**

**5-2.2.5.4\* Stair Identification Signs.** Stairs serving five or more stories shall be provided with signage within the enclosure at each floor landing. The signage shall indicate the story, the terminus of the top and bottom of the stair enclosure, and the identification of the stair. The signage also shall state the story of, and the direction to, exit discharge. The signage shall be inside the enclosure located approximately 5 ft (1.5 m) above the floor landing in a position that is readily visible when the door is in the open or closed position.

**5-2.2.5.5 Egress Direction Signs.** Wherever an enclosed stair requires travel in an upward direction to reach the level of exit discharge, signs with directional indicators indicating the direction to the level of exit discharge shall be provided at each floor level landing from which upward direction of travel is required. Such signage shall be readily visible when the door is in the open or closed position.

*Exception No. 1: Where signs required by 5-2.2.5.4 are provided.*

*Exception No. 2: Stairs that extend not more than 1 story below the level of exit discharge where the exit discharge is clearly obvious.*

**5-2.2.6 Special Provisions for Outside Stairs.**

**5-2.2.6.1 Access.** Where approved by the authority having jurisdiction, outside stairs shall be permitted where leading to roofs of other sections of the building or an adjoining building, where the construction is fire resistive, where there is a continuous and safe means of egress from the roof, and where all other reasonable requirements for life safety are maintained. (See also 5-7.6.)

**5-2.2.6.2 Balconies.** Balconies to which egress doors lead shall be approximately level with the floor of the building.

*Exception: In existing buildings located in climates where balconies are subject to accumulation of snow or ice, one step, not more than 8 in. (20.3 cm), shall be permitted below the level of the inside floor.* **Commentary**

**5-2.2.6.3\* Visual Protection.** Outside stairs shall be arranged to avoid any impediments to the use of the stairs by persons having a fear of high places. For stairs more than three stories in height, any arrangement intended to meet this requirement shall be at least 4 ft (1.2 m) in height.

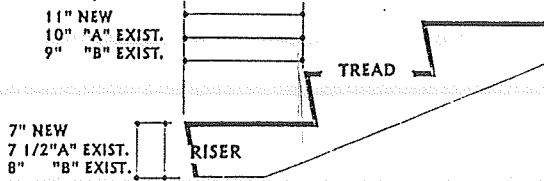
**5-2.2.6.4 Separation and Protection of Outside Stairs.** Outside stairs shall be separated from the interior of the building by walls with the fire resistance rating required for enclosed stairs with fixed or self-closing opening protectives. This construction shall extend vertically from the ground to a point 10 ft (3 m) above the topmost landing of the stairs or to the roofline, whichever is lower, and at least 10 ft (3 m) horizontally. **Commentary**

# STAIR CONSTRUCTION GUARD CONSTRUCTION

Stairs and guards are important components in the means of egress and proper design and construction will aid in occupants arriving at exits safely. The information contained in this sheet is a pictorial presentation to assist with the proper design of new and the reconstruction of existing components.

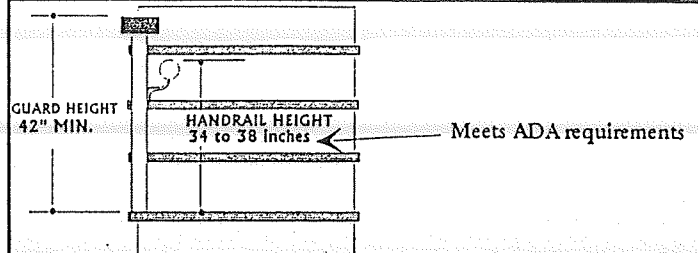
## RISER and TREAD

fig # 1



## STAIR DIMENSIONS

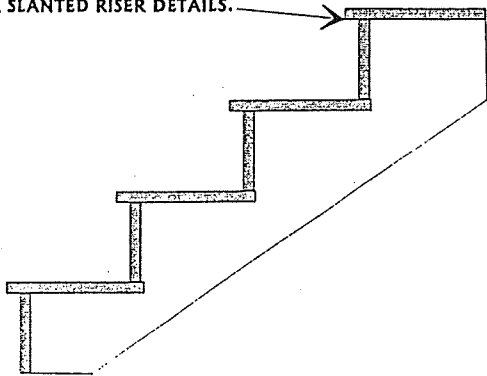
	NEW	CLASS A	CLASS B
MAX. RISER HEIGHT	7"	7 1/2"	8"
MIN. TREAD DEPTH	11"	10"	9"
MIN. WIDTH OF STAIR < 50 OCCUPANTS	36"	36"	36"
WITH 50 OR MORE OCCUPANTS	44"	44"	44"
IF USED FOR UPWARD AREA OF REFUGE	48"	48"	48"
MAX. VERTICAL HEIGHT BETWEEN LANDINGS	12'-0"	12'-0"	12'-0"



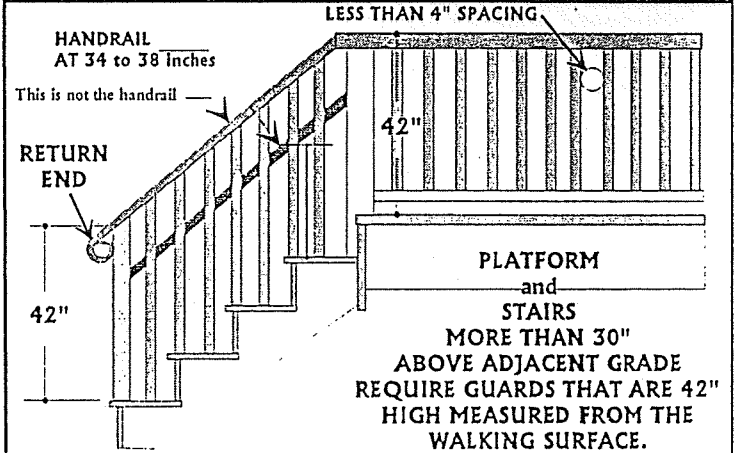
## STAIR NOSINGS

PERTRUDING NOSINGS ARE NOT ALLOWED ON NEW STAIRS. THEY FORM TRIPPING HAZARDS. SEE FIGURE 1 FOR SLANTED RISER DETAILS.

fig # 2



## GUARD HEIGHTS and BALUSTER SPACING



RISER HEIGHT MUST BE UNIFORM IN HEIGHT WITH NO VARIATION GREATER THAN 3/16". GREATER DIFFERENCES CAN CAUSE PEOPLE TO MISJUDGE AND STUMBLE WHILE ASCENDING AND DESCENDING A FLIGHT OF STAIRS.

FOR MORE DETAILS AND REQUIREMENTS SEE CHAPTER 5 OF THE NATIONAL FIRE PROTECTION ASSOCIATION 101 LIFE SAFETY CODE.

### NOTES:

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# PROTECTION PROFESSIONALS

P.O. Box 205, Portland, Maine 04112 (207) 775-5755

## INSPECTION AND TESTING FORM

Date: 5/24/99

<b>SERVICE ORGANIZATION</b>		<b>PROPERTY NAME (USER)</b>	
Name:	<u>Protection Professionals</u>	Name:	<u>Unum Parking Garage</u>
Address:	<u>139 Newbury Street</u>	Address:	<u>2211 Congress Street</u>
Representative:	<u>Douglas M. Hansen</u>	Owner Contact:	<u>Turner Construction Co. Bill Wright</u>
Telephone:	<u>207-775-5755</u>	Telephone:	<u>617-247-6400</u>
License No.:	<u>MC60016844</u>		

<b>MONITORING ENTITY</b>		<b>APPROVING AGENCY</b>	
Contact:	<u>City of Portland Fire Dept.</u>	Contact:	<u>Lt Gayland MacDougall</u>
Telephone:	<u>207-874-8300</u>	Telephone:	<u>207-874-8405</u>
Account Ref. No.:	<u>Master Box</u>		

<b>TYPE TRANSMISSION</b>	<b>SERVICE</b>
<input type="checkbox"/> McCulloh	<input type="checkbox"/> Weekly
<input type="checkbox"/> Multiplex	<input type="checkbox"/> Monthly
<input type="checkbox"/> Digital	<input checked="" type="checkbox"/> Quarterly
<input type="checkbox"/> Reverse Priority	<input type="checkbox"/> Semiannually
<input type="checkbox"/> RF	<input type="checkbox"/> Annually
<input type="checkbox"/> Other <u>Municipal System Master Box</u>	<input type="checkbox"/> Other _____

Panel Manufacturer: Simplex  
 Model No.: 4020-9601 Truealarm Addressable Control  
 Circuit Styles: \_\_\_\_\_  
 No. of Circuits: 8  
 Software Rev.: UNK  
 System Last Serviced: 5/99  
 Software or Configuration Last Revised: 5/99

### ALARM-INITIATING DEVICES AND CIRCUIT INFORMATION

QUANTITY	CIRCUIT STYLE	
<u>10</u>	_____	Manual Stations
<u>0</u>	_____	Ion Detectors
<u>12</u>	_____	Photo Detectors
<u>0</u>	_____	Duct Detectors
<u>0</u>	_____	Heat Detectors
<u>0</u>	_____	Waterflow Switches
<u>0</u>	_____	Supervisory Switches
_____	_____	Other: _____

### ALARM NOTIFICATION APPLIANCES AND CIRCUIT INFORMATION

QUANTITY	CIRCUIT STYLE	
_____	_____	Bells
_____	_____	Horns
_____	_____	Chimes
<u>12</u>	_____	Strobes/Horns
_____	_____	Speakers
_____	_____	Other: _____

No. of Alarm Indicating Circuits: 4 & 4 = 8

Are Circuits Supervised?  Yes  No





# PROTECTION PROFESSIONALS

P.O. Box 205, Portland, Maine 04112 (207) 775-5755

Page 2

## SUPERVISORY SIGNAL-INITIATING DEVICES AND CIRCUIT INFORMATION

QUANTITY	CIRCUIT STYLE	
0	_____	Building Temp.
0	_____	Site Water Temp.
0	_____	Site Water Level
0	_____	Fire Pump Power
0	_____	Fire Pump Running
0	_____	Fire Pump Auto Position
0	_____	Fire Pump or Pump Controller Trouble
0	_____	Fire Pump Running
0	_____	Generator in Auto Position
0	_____	Generator or Controller Trouble
0	_____	Switch Transfer
0	_____	Generator Engine Running
0	_____	Other: _____

### SIGNALING LINE CIRCUITS

Quantity and style of signaling line circuits connected to system:

Quantity: \_\_\_\_\_ Style(s): \_\_\_\_\_

### SYSTEM POWER SUPPLIES

Primary (Main): Nominal Voltage 120, Amps 15

Overcurrent Protection: Type CB, Amps 15

Location (Panel Number): EP

Disconnecting Means Location: Circuit Breaker EP

Secondary (Standby):

4 Storage Battery: Amp-Hr. Rating 6.2

Calculated capacity to operate system, in hours: \_\_\_\_\_ 24 \_\_\_\_\_ 60 \_\_\_\_\_

Engine-driven generator dedicated to fire alarm system: Has one but not dedicated

Location of fuel storage: Generator

### TYPE BATTERY

- Dry Cell  
 Nickel-Cadmium  
 Sealed Lead-Acid  
 Lead-Acid  
 Other: \_\_\_\_\_

Emergency or standby system used as a backup to primary power supply, instead of using a secondary power supply:

1 Emergency system described in NFPA 70, Article 700

\_\_\_\_\_ Legally required standby described in NFPA 70, Article 701

\_\_\_\_\_ Optional standby system described in NFPA 70, Article 702, which also meets the performance requirements of Article 700 and 701

### PRIOR TO ANY TESTING

NOTIFICATIONS ARE MADE	YES	NO	WHO	TIME
Monitoring Entity	x	<input type="checkbox"/>	<u>Dispatcher</u>	<u>4:00 P.M.</u>
Building Occupants	x	<input type="checkbox"/>	_____	_____
Building Management	x	<input type="checkbox"/>	_____	_____
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
AHJ (notified) of any impairments	<input type="checkbox"/>	x	_____	_____



# PROTECTION PROFESSIONALS

P.O. Box 205, Portland, Maine 04112 (207) 775-5755

Page 3

## SYSTEM TESTS AND INSPECTIONS

TYPE	VISUAL	FUNCTIONAL	COMMENTS
Control Panel	x	x	_____
Interface Eq.	x	x	_____
Lamps/LEDS	x	x	_____
Fuses	x	<input type="checkbox"/>	_____
Primary Power Supply	x	<input type="checkbox"/>	_____
Trouble Signals	x	<input type="checkbox"/>	_____
Disconnect Switches	x	<input type="checkbox"/>	<u>Municipal Loop not active</u>
Ground Fault Monitoring	x	<input type="checkbox"/>	_____
<b>SECONDARY POWER</b>			
TYPE	VISUAL	FUNCTIONAL	COMMENTS
Battery Condition	x	x	_____
Load Voltage		x	_____
Discharge Test		x	_____
Charger Test		<input type="checkbox"/>	<u>Not done</u>
Specific Gravity	<input type="checkbox"/>	<input type="checkbox"/>	<u>NA</u>
<b>TRANSIENT SUPPRESSORS</b>			<u>Not tested</u>
<b>REMOTE ANNUNCIATORS</b>			<u>One inspected, top deck stairwell</u>
<b>NOTIFICATION APPLIANCES</b>			
Audible	x	x	_____
Visual	x	x	<u>Missing one top deck</u>
Speakers	<input type="checkbox"/>	<input type="checkbox"/>	_____
Voice Clarity	<input type="checkbox"/>		_____

## INITIATING AND SUPERVISORY DEVICE TESTS AND INSPECTIONS

LOCATION & S/N	DEVICE TYPE	VISUAL CHECK	FUNCTIONAL TEST	FACTORY SETTING	MEAS. SETTING	PASS	FAIL
<u>Smoke Detectors</u>	<u>Photo</u>	x	x	<u>3.6% - 1.27</u>	_____	x	<input type="checkbox"/>
<u>Manual Pull Stations</u>	<u>Pull</u>	x	x	_____	_____	x	<input type="checkbox"/>
_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Smoke Detectors are used for elevator recall as is required under NFPA 72 3-8.14 Elevator Recall for Fire Fighter's Service but the Elevator Lobby areas are not heated and their use conflicts with NFPA 5-3.6.1.1 Smoke detectors shall be installed in areas where the normal ambient conditions are not likely to exceed the following range of environmental conditions.

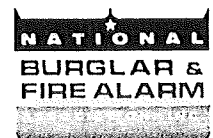
A A temperature of 100F or

B A relative humidity of 93% or

C An air velocity of 300 fpm

NFPA 72 1-5.5.2.4 Equipment shall be installed in locations where conditions do not exceed the voltage, temperature, and humidity limits specified in 1-5.5.1

We suggest that the AHJ provide guidance in this area.



# PROTECTION PROFESSIONALS

P.O. Box 205, Portland, Maine 04112 (207) 775-5755

Page 4

## Notification Appliances

The mounting heights are not on compliance with NFPA 72 6-3.5.2

Where combination audio/visual appliances are installed, the locations of the installed appliance shall be determined by the requirements of 6-4.4. Wall-mounted appliance shall have their bottoms at heights above finished floor of not less than 80 inches and no greater than 96 inches. The spacing of the visible notification units does not meet the intent of the code.

NFPA 6-4.4.1.1 Spacing shall be in accordance with figure 6-4.4.1.1 and tables 6-4.4.1.1(a) and (b). The separation between appliances shall not exceed 100 feet.

Average ambient sound levels at this location were not obtained due to this site not in use as a parking garage at testing time. Actual sound readings suggested to determine compliance as is suggested in NFPA A-6-3.2 The typical average ambient sound level for the occupancies specified in table A-6-3.2 are intended only for design guidance purposes. The typical average sound levels specified should not be used in lieu of actual sound level measurements.

Notification devices on the top deck are not installed with waterproof fittings, back boxes.

The manufactures recommendations should be followed for installations in exterior locations and NFPA require that equipment be listed for the purpose

We suggest that the AHJ provide guidance in these areas.

EMERGENCY COMMUNICATIONS EQUIP.	VISUAL	FUNCTIONAL	COMMENTS
Phone Set	<input type="checkbox"/>	<input type="checkbox"/>	_____
Phone Jacks	<input type="checkbox"/>	<input type="checkbox"/>	_____
Off-Hook Indicator	<input type="checkbox"/>	<input type="checkbox"/>	_____
Amplifier(s)	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tone Generator(s)	<input type="checkbox"/>	<input type="checkbox"/>	_____
Call-In Signal	<input type="checkbox"/>	<input type="checkbox"/>	_____
System Performance	<input type="checkbox"/>	<input type="checkbox"/>	_____



# PROTECTION PROFESSIONALS

P.O. Box 205, Portland, Maine 04112 (207) 775-5755

Page 5

INTERFACE EQUIPMENT	VISUAL	DEVICE OPERATION	SIMULATED OPERATION
<u>Elevator Recall Phase 1 &amp; Phase 2</u>	x	x	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SPECIAL HAZARD SYSTEMS</b>			
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Special Procedures: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Comments: Notification Devices not synchronized, distance between devices is so great that they do not presently need to be synchronized for ADA compliance but if additional devices are added to provide better notification coverage synchronization will be a issue.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

ON/OFF PREMISES MONITORING	YES	NO	TIME	COMMENTS
Alarm Signal	<input type="checkbox"/>	x	_____	_____
Alarm Restoral	<input type="checkbox"/>	x	_____	_____
Trouble Signal	<input type="checkbox"/>	x	_____	_____
Supervisory Signal	<input type="checkbox"/>	x	_____	_____
Supervisory Restoral	<input type="checkbox"/>	x	_____	_____

NOTIFICATIONS THAT TESTING IS COMPLETE	YES	NO	WHO	TIME
Building Management	x	<input type="checkbox"/>	<u>William Wright</u>	<u>7:00 PM</u>
Monitoring Agency	x	<input type="checkbox"/>	<u>Dispatcher</u>	<u>7:00 PM</u>
Building Occupants	<input type="checkbox"/>	x	_____	_____
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____

The following did not operate correctly: Horn Strobe top deck missing, Municipal Master Box disconnected and not tested for operation or supervision. System left in trouble as Municipal Master Box disconnected.

System restored to normal operation: Date: 5/24/99 Time: 6:45 PM Note Master Box not connected

**THIS TESTING WAS PERFORMED IN ACCORDANCE WITH APPLICABLE NFPA STANDARDS.**

Name of Inspector: Douglas M. Hansen

Date: 5/24/99

Time: 4:00 - 7:00 PM

Signature: Doug Hansen

Name of Owner or Representative: \_\_\_\_\_

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

Time: \_\_\_\_\_

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



**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

**Turner**

May 27, 1999

Mr. P. Samuel Hoffses  
Chief, Inspection Services  
City of Portland  
389 Congress Street  
Portland, ME 04101

RE: UNUM Parking Garage  
**Building Permit # 980401**

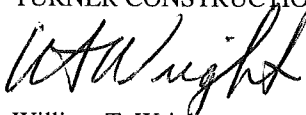
Dear Mr. Hoffses:

Attached are the following:

1. Letter from Walker Parking Consultants accepting the Fire Alarm Devices as installed.
2. Letter from UNUM accepting the Fire Alarm Devices as installed.
3. Letter and supporting sketches from Walker Parking Consultants accepting the 6" to 4" piping on the floor drains.

These items are being submitted in order to satisfy the requirements for a Certificate of Occupancy for the Parking Garage on the UNUM campus located at 2199 Congress Street, Portland, ME.

Sincerely,  
TURNER CONSTRUCTION COMPANY



William T. Wright  
Project General Superintendent

cc: Stu McAllister - UNUM  
Paul Rollins - TCCo  
Joe Gaiko - TCCo  
00063



UNUM®

May 27, 1999

Mr. William Wright  
Turner Construction

Dear Bill:

Based on the memorandum received from Art Stadig of Walker Parking Consultants, UNUM accepts the fire alarm devices installed in the UNUM Parking Garage.

Sincerely,

Stu McAllister

cc: Joe Gaoiko, Turner Construction  
John McLean, Northland Development

UNUM CORPORATION  
2211 Congress Street  
Portland, Maine 04122  
207-770-2211

**MEMORANDUM****WALKER**  
PARKING CONSULTANTS

PAGE 1 OF 1

DATE: 5/26/1999  
TO: Stu McAllister  
COMPANY: Unum Main Office, Investment Division  
ADDRESS: 2 Canal Plaza  
CITY/STATE: Portland, ME 04101  
CC:  
HARD COPY TO FOLLOW: Yes  
FROM: Arthur G. Stadig *Arthur Stadig*  
PROJECT NAME: UNUM Life Insurance Parking Structure  
PROJECT NUMBER: 16-1170.00  
SUBJECT: Fire Alarm System

WALKER PARKING CONSULTANTS  
20 Park Plaza, Suite 1111  
Boston, MA 02116Voice: 617.350.5040  
Fax: 617.350.5048  
www.walkerparking.com

Dear Stu,

Walker has reviewed the installed fire alarm system and find it acceptable. We feel it has been installed according to the drawings and specifications and will perform adequately. If you have any questions, do not hesitate to call.

**MEMORANDUM**



**WALKER**  
PARKING CONSULTANTS

PAGE 1 OF 1

DATE: 5/26/1999  
TO: → Joe Gaiko ←  
COMPANY: Turner Construction  
ADDRESS: UNUM Field Office - 2199 Congress Street  
CITY/STATE: Portland, ME 04122

WALKER PARKING CONSULTANTS  
20 Park Plaza, Suite 1111  
Boston, MA 02116

Voice: 617.350.5040  
Fax: 617.350.5048  
www.walkerparking.com

CC:

HARD COPY TO FOLLOW: Yes

FROM: Arthur G. Stadig *Arthur G. Stadig*  
PROJECT NAME: UNUM Life Insurance Parking Structure

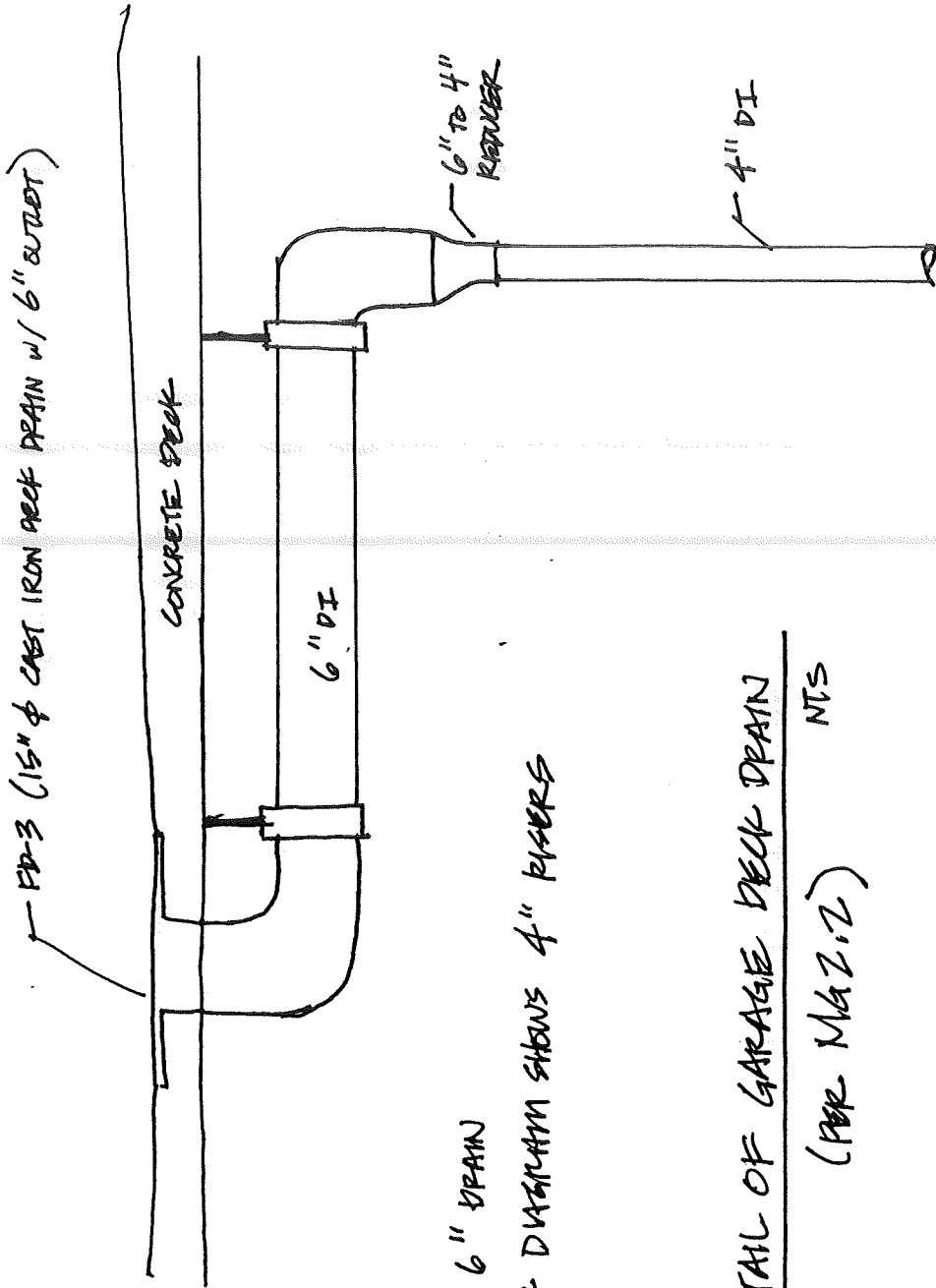
PROJECT NUMBER: 16-1170.00

SUBJECT:

Dear Joe,

Walker has reviewed the attached plumbing detail, specifically the size reduction of the 6" drain line into a 4" riser. We find this detail acceptable as shown. If you have any questions, please call.





ON M42.2

FD-3 SHOWS 6" DRAIN

DRAINAGE RISER DIAGRAM SHOWS 4" RISERS

DETAIL OF GARAGE DECK DRAIN

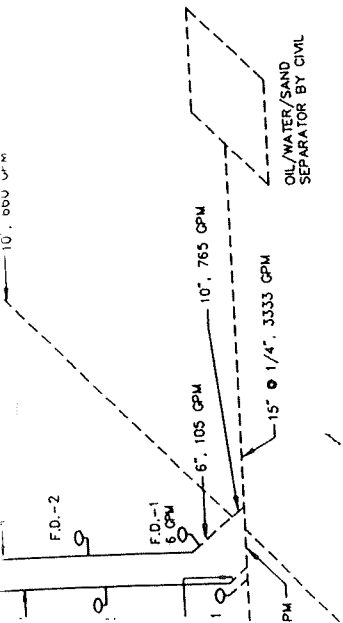
(PER M42.2)

NTS

TURNER FIELD SKETCH

FSK-198

5/24/98 B.E.P.



**NOTES:**

1. TOP TIER DRAINAGE CALCULATIONS ARE BASED ON 3.6 INCHES OF RAIN PER HOUR. COVERED TIER CONTRIBUTION IS BASED ON 50% OF THE OPEN WALL AREA TIMES THE TOP TIER RATE.
2. CLEAN OUTS ARE NOT SHOWN.

**DRAINAGE SCHEDULE**

TYPE	SIZE	MANUFACTURER	CATALOG NO.	REMARKS
F.D.-1	4"	ANCON	FD-340-4-5-6-8	12" DIA. HEAVY DUTY CAST IRON DECK DRAIN W/ VANDALPROOF DUCTILE IRON GRATE, SEDIMENT BUCKET & BACKWATER VALVE.
F.D.-2	4"	ANCON	FD-340-67-4-5-6	12" DIA. HEAVY DUTY CAST IRON DECK DRAIN W/ INTEGRAL FLOOR FLANGE, VANDALPROOF DUCTILE IRON GRATE & SEDIMENT BUCKET.
F.D.-3	6"	ANCON	FD-360-67-4-5-6	15" DIA. HEAVY DUTY CAST IRON DECK DRAIN W/ INTEGRAL FLOOR FLANGE, VANDALPROOF DUCTILE IRON GRATE & SEDIMENT BUCKET. (61 SQ. IN. GRATE FREE AREA)
F.D.-4	4"	ANCON	BV-600	DRAIN PIT SIDEWALL DRAIN/BACKWATER VALVE, W/ CAST IRON SECURED GRATE.
R.D.-1	3"	ANCON	RD-200	STAIRWELL ROOF DRAIN, CAST IRON BODY WITH COMBINED FLASHING CLAMP AND GRAVEL STOP, W/POLYETHYLENE DOME (35 SQ. IN. GRATE FREE AREA)

NAME \_\_\_\_\_ DATE \_\_\_\_\_

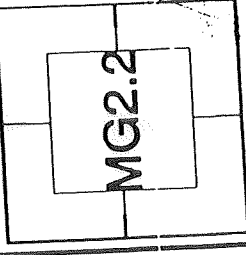
- 4 03-13-98 PROGRESS
- 3 03-27-98 BIDDING/CONSTRUCTION

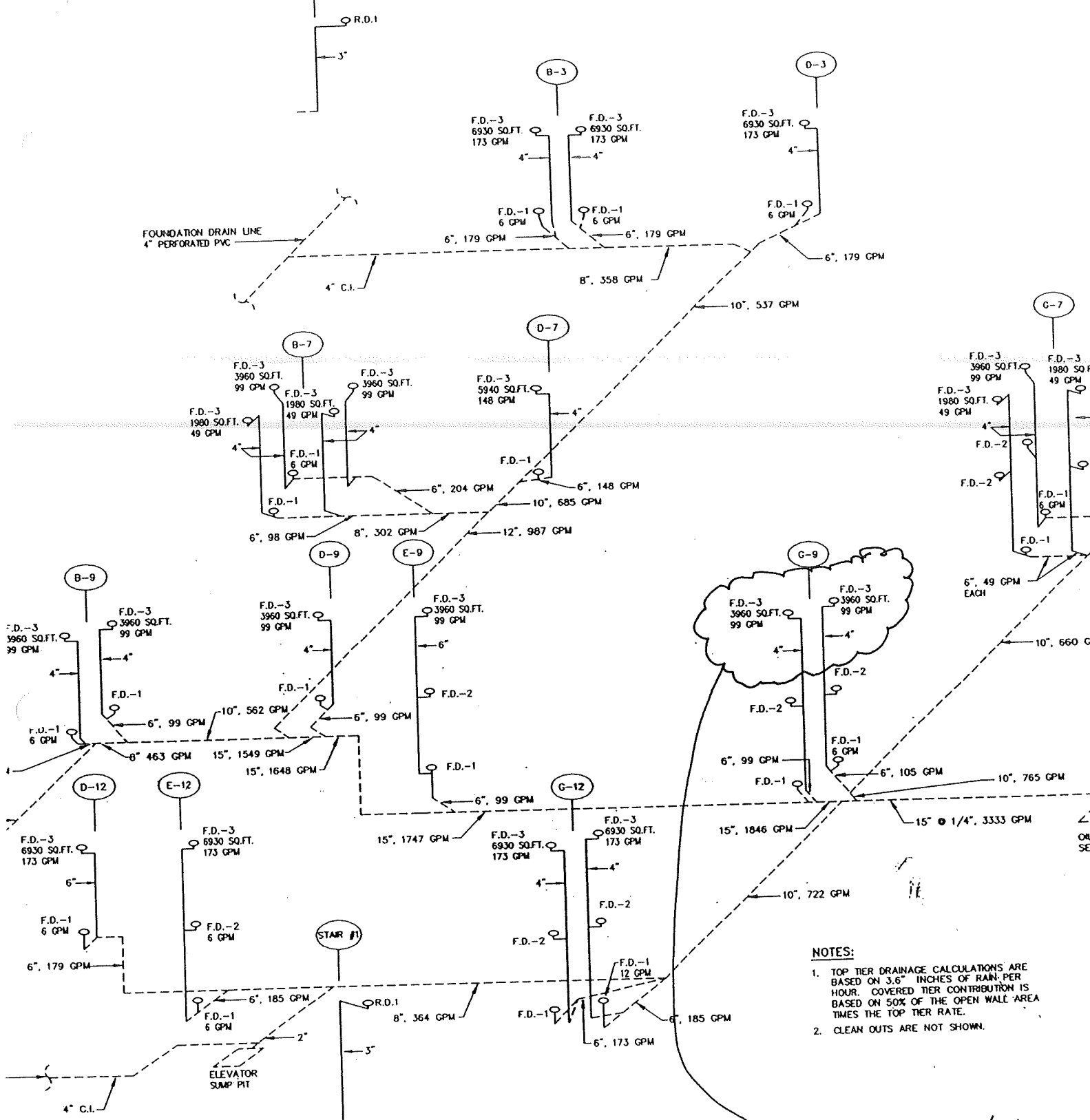
NO. \_\_\_\_\_ DATE \_\_\_\_\_

UNUM LIFE  
INSURANCE  
HO-3  
PORTLAND, MAINE

**RISER  
DIAGRAMS**

DATE 03-27-98  
SCALE NO SCALE  
DRAWN BY SUB  
CHECKED BY TEAM  
PROJ. ARCH. AGS  
PROJ. MGR. 18-1170.00  
JOB NO. 18-1170.00  
O STANLEY, WARR & MOORE ASSOCIATES, INC. 1997





- NOTES:**
1. TOP TIER DRAINAGE CALCULATIONS ARE BASED ON 3.6" INCHES OF RAIN PER HOUR. COVERED TIER CONTRIBUTION IS BASED ON 50% OF THE OPEN WALL AREA TIMES THE TOP TIER RATE.
  2. CLEAN OUTS ARE NOT SHOWN.

TYPICAL FD-3 W/ 4" RISER

**DRAINAGE RISER DIAGRAM**  
NO SCALE

1  
WG2.2

M62.2

T  
F  
F  
F  
F

# S.W. COLE

ENGINEERING, INC.  
GEOTECHNICAL CONSULTANTS

Six Liberty Drive, Bangor, ME 04401 TEL (207) 848-5714 FAX (207) 848-2403

Gray Plaza, P.O. Box 378, Gray, ME 04039 TEL (207) 657-2866 FAX (207) 657-2840  
 91 Water St., P.O. Box 220, Caribou, ME 04736 TEL (207) 496-1511 FAX (207) 496-1501  
 33 Londonderry Rd., #6, Londonderry, NH 03053 TEL (603) 437-9600 FAX (603) 437-9656  
 RR3 Box 7230, China Rd., Winslow, ME 04901 TEL (207) 873-4283 FAX (207) 873-4977

## CONCRETE COMPRESSION TEST

Project: UNUM Office Building

Job Number: 522

Date Received: 06/03/1999

Placement: Sidewalk - Westside H.0.3, Handicap Parking Area

Cylinders made by: MJG

Temperatures: F: Air: 65

Date Delivered: 06/03/1999

Concrete: 70

Date Made : 05/28/1999

Slump, in. 3 1/2

Design Strength, 28 days, psi: 4000

Air, % : 7.0

Client: Northland Development Corp

Supplier: Dragon

Mixer #: 113

Ticket #: 94100

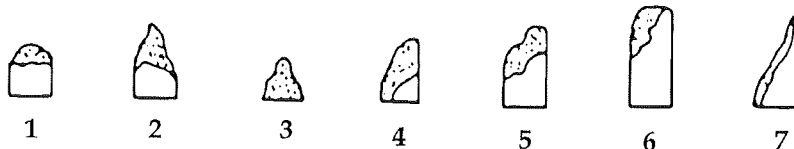
Load #: 1

Placement: (Cubic yards) 5

Aggregate Size: 3/4

Cylinder Designation	Date of Test	Age, Days	Type Break	Load (kips)	Strength (psi)
522-234A	06/04/1999	7	6	65.0	2300
522-234B	06/25/1999	28	6	86.0	3040
522-234C	06/25/1999	28	6	83.0	2940

522-234D / / 0 0.0 0



Remarks:

*Received  
28/June  
PS*

# S.W. COLE

ENGINEERING, INC.  
GEOTECHNICAL CONSULTANTS

Six Liberty Drive, Bangor, ME 04401 TEL (207) 848-5714 FAX (207) 848-2403

Gray Plaza, P.O. Box 378, Gray, ME 04039 TEL (207) 657-2866 FAX (207) 657-2840  
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RR3 Box 7230, China Rd., Winslow, ME 04901 TEL (207) 873-4283 FAX (207) 873-4977

## CONCRETE COMPRESSION TEST

Project: UNUM Office Building

Job Number: 522

Date Received: 05/01/1999

Placement:

Sidewalk - HO 1 Rear

Cylinders made by: DMC

Temperatures: F: Air: 60

Date Delivered: 05/01/1999

Concrete: 68

Date Made : 04/30/1999

Slump, in. 5

Design Strength, 28 days, psi: 4000

Air, % : 7.3

Client: Northland Development Corp

Supplier: Dragon

Mixer #: 152

Ticket #: 93457

Load #: 1

Placement: (Cubic yards) 9 +/-

Aggregate Size: 3/4

Cylinder Designation	Date of Test	Age, Days	Type Break	Load (kips)	Strength (psi)
522-220A	05/07/1999	7	6	74.0	2620
522-220B	05/28/1999	28	6	95.0	3360
522-220C	05/28/1999	28	6	93.0	3290
522-220D	06/25/1999	56	6	108.0	3820



1



2



3



4



5



6



7

Remarks:

*McCarty A*  
*285 / June / 99*

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

June 4, 1999  
UNUM HO-3 Project  
2199 Congress Street  
Portland, ME 04101

**Turner**

*Received  
7/June/89*

Joe Cullen, Bob Cameron

David Youngblood, John Norris

Brad Ellis, Bob Beauchesne, Brian Rouleau

Eli Florence, Glenn Annese, Larry Dostie

Joe Bradley, Rico DiDinato, Steve Melanson

Kevin Flynn, Mike Wentworth

Ted Abbett, Bill McDonald

Jean Heath, Larry Foley

Steve Grace

Steve Whittaker, Tom Loveitt

Charles P. Blouin, Inc.

Youngblood Co., Inc.

Eastern Fire Protection

Consolidated Electrical Services

E.S. Boulos Company

Engineered Systems

Air Flow Associates

Eastern Security

Headlight Audio-Visual

Canfield

Gentlemen:

This letter will serve as notification that we will be performing the following systems test and owner demonstrations at the UNUM-HO3 project, please arrange for the appropriate personnel, manufacturers representatives, and inspectors to be present for these tests and demonstrations. These demonstrations will be videotaped for future use. Please confirm with this office by 3:00 pm June 10<sup>th</sup>, 1999 as to the compliance with these dates. Turner Construction Company expects that all systems will be checked prior to being reviewed with the owner.

***SYSTEM***

***DATE***

***TIME***

**PLUMBING**

Domestic Water Heater & Water Systems  
Natural Gas Systems  
Storm Drainage  
Sanitary Drainage

June 21, 1999  
June 21, 1999  
June 21, 1999  
June 21, 1999

8:00 AM  
10:00 AM  
11:00 AM  
1:00 AM

FIRE PROTECTION

Sprinkler & Fire Pump June 23, 1999 8:00 AM

HVAC

Air Systems & Rooftop Units June 28, 1999 8:00 AM  
Chilled & Condenser Systems June 30, 1999 8:00 AM  
Hot Water & Glycol Hot Water Systems July 1, 1999 8:00 AM  
Steam Humidification System July 2, 1999 8:00 AM

BUILDING CONTROLS

Andover Controls DDC System (General) July 7, 1999 8:00 AM  
(DDC for all systems will be demonstrated with each building system on scheduled days)

ELECTRICAL

Power, Emergency Power & Lighting Distribution July 5, 1999 8:00 AM  
Fire Alarm July 8, 1999 8:00 AM  
Security System July 9, 1999 11:00 AM  
Soundmasking System July 9, 1999 9:30 AM  
Cafeteria Sound System July 9, 1999 8:00 AM  
Tele/Data System July 12, 1999 11:00 AM

Sincerely,



Ed Dubois  
Assistant Superintendent

cc: David Beane TCCo  
Bill Wright TCCo  
Joe Gaiko TCCo  
Paul Rollins TCCo  
John McLean Northland  
Stu McAllister UNUM  
Ray Keller UNUM  
Art Osgood UNUM  
Jeff Jameson UNUM  
John Fox UNUM  
Deb Morneau UNUM  
Sam Hoffsses City of Portland  
Lt. McDougall City of Portland  
Mike Collins City of Portland

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

June 4, 1999  
UNUM HO-3 Project  
2199 Congress Street  
Portland, ME 04101

# Turner

Joe Cullen, Bob Cameron

Charles P. Blouin, Inc.

David Youngblood, John Norris

Youngblood Co., Inc.

Brad Ellis, Bob Beauchesne, Brian Rouleau

Eastern Fire Protection

Eli Florence, Glenn Annese, Larry Dostie

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Joe Bradley, Rico DiDinato, Steve Melanson

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***SYSTEM***

***DATE***

***TIME***

**PLUMBING**

Domestic Water Heater & Water Systems  
Natural Gas Systems  
Storm Drainage  
Sanitary Drainage

June 21, 1999  
June 21, 1999  
June 21, 1999  
June 21, 1999

8:00 AM  
10:00 AM  
11:00 AM  
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FIRE PROTECTION

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Tele/Data System July 12, 1999 11:00 AM

Sincerely,



Ed Dubois  
Assistant Superintendent

cc: David Beane TCCo  
Bill Wright TCCo  
Joe Gaiko TCCo  
Paul Rollins TCCo  
John McLean Northland  
Stu McAllister UNUM  
Ray Keller UNUM  
Art Osgood UNUM  
Jeff Jameson UNUM  
John Fox UNUM  
Deb Morneau UNUM  
Sam Hoffsses City of Portland  
Lt. McDougall City of Portland  
Mike Collins City of Portland

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

June 4, 1999  
UNUM HO-3 Project  
2199 Congress Street  
Portland, ME 04101

# Turner

Joe Cullen, Bob Cameron	Charles P. Blouin, Inc.
David Youngblood, John Norris	Youngblood Co., Inc.
Brad Ellis, Bob Beauchesne, Brian Rouleau	Eastern Fire Protection
Eli Florence, Glenn Annese, Larry Dostie	Consolidated Electrical Services
Joe Bradley, Rico DiDinato, Steve Melanson	E.S. Boulos Company
Kevin Flynn, Mike Wentworth	Engineered Systems
Ted Abbett, Bill McDonald	Air Flow Associates
Jean Heath, Larry Foley	Eastern Security
Steve Grace	Headlight Audio-Visual
Steve Whittaker, Tom Loveitt	Canfield

Gentlemen:

This letter will serve as notification that we will be performing the following systems test and owner demonstrations at the UNUM-HO3 project, please arrange for the appropriate personnel, manufacturers representatives, and inspectors to be present for these tests and demonstrations. These demonstrations will be videotaped for future use. Please confirm with this office by 3:00 pm June 10<sup>th</sup>, 1999 as to the compliance with these dates. Turner Construction Company expects that all systems will be checked prior to being reviewed with the owner.

<i>SYSTEM</i>	<i>DATE</i>	<i>TIME</i>
PLUMBING		
Domestic Water Heater & Water Systems	June 21, 1999	8:00 AM
Natural Gas Systems	June 21, 1999	10:00 AM
Storm Drainage	June 21, 1999	11:00 AM
Sanitary Drainage	June 21, 1999	1:00 AM

FIRE PROTECTION

Sprinkler & Fire Pump June 23, 1999 8:00 AM

HVAC

Air Systems & Rooftop Units June 28, 1999 8:00 AM  
Chilled & Condenser Systems June 30, 1999 8:00 AM  
Hot Water & Glycol Hot Water Systems July 1, 1999 8:00 AM  
Steam Humidification System July 2, 1999 8:00 AM

BUILDING CONTROLS

Andover Controls DDC System (General) July 7, 1999 8:00 AM  
(DDC for all systems will be demonstrated with each building system on scheduled days)

ELECTRICAL

Power, Emergency Power & Lighting Distribution July 5, 1999 8:00 AM  
Fire Alarm July 8, 1999 8:00 AM  
Security System July 9, 1999 11:00 AM  
Soundmasking System July 9, 1999 9:30 AM  
Cafeteria Sound System July 9, 1999 8:00 AM  
Tele/Data System July 12, 1999 11:00 AM

Sincerely,



Ed Dubois  
Assistant Superintendent

cc: David Beane TCCo  
Bill Wright TCCo  
Joe Gaiko TCCo  
Paul Rollins TCCo  
John McLean Northland  
Stu McAllister UNUM  
Ray Keller UNUM  
Art Osgood UNUM  
Jeff Jameson UNUM  
John Fox UNUM  
Deb Morneau UNUM  
Sam Hoffsses City of Portland  
Lt. McDougall City of Portland  
Mike Collins City of Portland

**Turner Construction Company**  
855 Boylston Street, Boston, Mass. 02116  
Telephone (617) 247-6400

# Turner

June 16, 1999

Lt. Gaylen McDougall  
City of Portland Fire Department  
389 Congress Street  
Portland, ME 04101

Dear Lt. McDougall:

Confirming our conversation on site today, concerning fire department access to the 4" fire hose connection located on the east side of the HO-3 building. This 4" fire department connection is located behind a fence that surrounds the primary transformers and associated equipment in this area. The west face of the fence has an opening approximately twenty-four feet wide. As long as this twenty-four foot opening is not modified, it will allow access to the fire department connections, so that no additional gates or openings are required for this fence.

Sincerely,



W. T. Wright  
General Superintendent

cc: John McLean  
Stu McAllister  
Paul Rollins  
File 00099  
File 00163  
File 05500

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

**FAXED**

June 22, 1999  
UNUM HO-3 Project  
2199 Congress Street  
Portland, ME 04101

**Turner**

Joe Cullen, Bob Cameron

Charles P. Blouin, Inc.

David Youngblood, John Norris

Youngblood Co., Inc.

Brad Ellis, Bob Beauchesne, Brian Rouleau

Eastern Fire Protection

Eli Florence, Glenn Annese, Larry Dostie

Consolidated Electrical Services

Joe Bradley, Rico DiDinato, Steve Melanson

E.S. Boulos Company

Kevin Flynn, Mike Wentworth

Engineered Systems

Ted Abbett, Bill McDonald

Air Flow Associates

Jean Heath, Larry Foley

Eastern Security

Steve Grace

Headlight Audio-Visual

Steve Whittaker, Tom Loveitt

Canfield

Steve McDuffie, Angus McDuffie

Pine State Elevator

John Hubert

Barry Hyman

Phil Webster, Lisa Webster

P.R. Webster Landscaping

Joe St. Pierre

Jacob Licht

Gentlemen:

This letter will serve as notification that we will be performing the following systems test and owner demonstrations at the UNUM-HO3 project, please arrange for the appropriate personnel, manufacturers representatives, and inspectors to be present for these tests and demonstrations. These demonstrations will be videotaped for future use. Please confirm with this office as soon as possible to the compliance with these dates. Turner Construction Company expects that all systems will be checked prior to being reviewed with the owner.

<i>SYSTEM</i>	<i>DATE</i>	<i>TIME</i>
<b>FIRE PROTECTION</b>		
Sprinkler & Fire Pump	June 23, 1999	8:00 AM
<b>HVAC</b>		
Air Systems & Rooftop Units	June 28, 1999	8:00 AM
Chilled & Condenser Systems	June 30, 1999	8:00 AM
Hot Water & Glycol Hot Water Systems	July 1, 1999	8:00 AM
Steam Humidification System	July 2, 1999	8:00 AM
Infra-red Heating System	July 1, 1999	8:00 AM
<b>BUILDING CONTROLS</b>		
Andover Controls DDC System (General) (DDC for all systems will be demonstrated with each building system on scheduled days)	July 7, 1999	8:00 AM
<b>ELECTRICAL</b>		
Power, Emergency Power & Lighting Distribution (revised)	July 6, 1999	8:00 AM
Fire Alarm	July 8, 1999	8:00 AM
Security System	July 9, 1999	11:00 AM
Soundmasking System	July 9, 1999	9:30 AM
Cafeteria Sound System	July 9, 1999	8:00 AM
Tele/Data System	July 12, 1999	11:00 AM
AV (Projection Screen)	July 13, 1999	8:00 AM
<b>MISCELLANEOUS SYSTEMS</b>		
Dock Leveler	July 6, 1999	10:00 AM
Elevators	July 1, 1999	11:00 AM
Irrigation System	July 6, 1999	11:00 AM
Kitchen Equipment	July 7 & 8, 1999	3:00 PM

Sincerely,



Ed Dubois  
Assistant Superintendent

cc: David Beane TCCo  
Bill Wright TCCo  
Joe Gaiko TCCo  
Paul Rollins TCCo  
John McLean Northland  
Stu McAllister UNUM – Please distribute to all UNUM facilities/electrical  
Ray Keller UNUM  
Art Osgood UNUM  
Jeff Jameson UNUM  
John Fox UNUM  
Deb Morneau UNUM  
Sam Hoffses City of Portland  
Lt. McDougal City of Portland  
Mike Collins City of Portland

UNUM HO III FAX COVER SHEET

0-files

DATE: 7.7.99

11 pages attached - including cover sheet

Distribute to:

- Pam Hinkley / Ted Bernard  
(207) 770-4000
- Bernie Tanquay / Nick Desiderio  
(207) 770-1954
- Jim Gragnolati  
(803) 213-2390
- Stu McAllister/Sally E. - if appropriate, dist to: Ray K./Julie T./David B./  
John F./Deb M.  
(207) 770-1954
- Northland - John McLean / Bill Hunt  
(617) 964-1252
- SMMA - Joel Seeley / Hank Ricciuti / Tom Coffman > distribute. in-house, and to  
Cubellis, Pyramid, Walker, Colburn & Guyette, other consultants  
R. Crosswell / Phil Brooks / K. Jensen / R. Gurevich / D. McWhinnie  
(617) 354-5758
- Turner - Paul Rollins                      David Beane                      Bill Sowa                      Sarah Wilcox  
(617) 536-2883                      John Nidzgorski                      John Madrid
- Sebago - Will Conway (207) 856-2206
- Walker Parking - Art Stadig (617) 350-5048
- Cubellis & Associates - Claire Strugnell / Susan Packard (617) 338-0088
- Colburn & Guyette - Todd Guyette (781) 740-0170
- Pyramid Design - Larry Darlan (508) 429-0555
- Haley & Aldrich - Ken Recker (207) 871-5999
- S. W. Cole - Roger Domingo (207) 657-2840
- Turner Field Office - Bill Wright / All Staff / S. Robins / NTR / DEJ / DLN / EAD  
(207) 879-6031
- 
- 
- 

JRG

FROM: PAUL ROLLINS, Turner Construction Company

MESSAGE: SANDBLASTED & TEMPERED GLASS SUBMITTALS.  
5-060 - STAIR D APPROVED SUBMITTAL (NO SAMPLE OR ENG)  
5-045 - HOLLOW METAL GLAZING W/ DRAWINGS  
5-051 - WOODS FRAMES GLAZING W/ DRAWINGS.



*O → File*

<b>Turner Construction Company</b>		Transmittal No.: 05109904
<b>Transmission Of Drawings, Prints, Specifications, Etc.</b>		Date: May 14, 1999
Re: UNUM Life Insurance Company of America HO III	Job No. 6376	Submitted For/Status: Code
	1 - HO-3 Sitework, Core	
To <b>IPSWICH GLASS</b> 435 Boston St Topsfield, MA 01983 BP A5		Approval 1 Correction 2 Your Information 3 Your Quotation 4 Your Action 5 Construction 6 Fabrication 7 Review 8 Use 9 For Record 10 Approved A Approved As Noted AAN Reviewed E Not Approved NA Rejected R Revise & Resubmit RR
Gentlemen:	<b>Delivry</b>	
We Are Sending You Herewith	Teco Messenger <input type="checkbox"/>	
Submitted By:	Reciepients Messonger <input type="checkbox"/>	
	Express <input type="checkbox"/>	
	Mall <input type="checkbox"/>	
	Blue Printer <input type="checkbox"/>	

*file*

Submittal Specifications No.	Quantity	Drawing No.	Description	Code
6-080.1 08800	1		1/2" sandblasted glass- proposed for use at Stair D rail (represents 1/2" tempered)	A

Yours Truly,	File:	
Turner Construction Company	A5	Submittal Correspondence
	08800	
Copies To:		



**Symmes, Maini & McKee Associates Inc**  
 ARCHITECTS ENGINEERS PLANNERS  
 1000 MASSACHUSETTS AVENUE  
 CAMBRIDGE, MA 02138  
 TEL (617) 547-5400 FAX (617) 364-6768

# LETTER OF TRANSMITTAL

**CONTRACTOR'S ADDRESS:**

Turner Construction  
 855 Boylston St  
 Boston, MA 02110-

Attn: Paul Rollins

We are sending you:

SMMA PROJECT #: 97094.00

PROJECT: UNUM/HO3-Office Building

Specification Section: 08800

COPIES SENT	TYPE OF SUBMITTAL	DESCRIPTION	SUBMITTAL NUMBER	APPROVED	APPROVED AS CORRECTED	REUSE AND RESUBMIT	NOT APPROVED	NO ACTION	COPIES RETURNED
1	Samples	(5.060) 1/2" sandblasted glass - proposed for use @ Stair D rail (represents 1/2" tempered).	08800 47	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Received by SMMA

DATE 5/14/99 By: GRF

Technical Reviewer: HSR

DATE 5/14/99 By: HSR

Architect: HSR

DATE 5/14/99 By: HSR

We are returning to you the above

DATE 5/14 By: GRF

COPY TO: CONTRACTOR OWNER REVIEWER ARCHITECT FILE  
 COPIES SENT: ( ) ( ) ( ) ( ) ( )

SUBMITTAL NO: 97094.00

<b>Turner Construction Company</b>		Transmittal No.: 03239901
<b>Transmission Of Drawings, Prints, Specifications, Etc.</b>		Date: March 31, 1999
Re: UNUM Life Insurance Company of America HO III	Job No. 6376	Submitted For/Status: Code
	1 - HO-3 Sitework, Copy	
To	<p><del>IPSWICH GLASS</del>  <del>435 Boston St</del>  <del>Topsfield, MA 01983</del>  <del>BP A5</del></p> <p style="font-size: 2em; font-family: cursive;">file</p>	Approval 1
		Correction 2
		Your Information 3
		Your Quotation 4
		Your Action 5
		Construction 6
		Fabrication 7
		Review 8
		Use 9
		For Record 10
		Approved A
		Approved As Noted AAN
		Reviewed E
		Not Approved NA
		Rejected R
		Revise & Resubmit RR
Gentlemen:	<b>Delivery</b>	
We Are Sending You Herewith	Teco Messenger <input type="checkbox"/>	
Submitted By:	Recipients Messenger <input type="checkbox"/>	
	Express <input type="checkbox"/>	
	Mall <input type="checkbox"/>	
	Blue Printer <input type="checkbox"/>	

Submittal Specifications No.	Quantity	Drawing No.	Description	Code
5-045.1 08800	4		Glazing details at hollow metal frames.	A
Remarks: Black.				

Yours Truly,  <hr style="width: 80%; margin-left: 0;"/> Turner Construction Company	File: A5      Submittal Correspondence 08800
Copies To:	



**Symmes, Maini & McKee Associates Inc**  
 ARCHITECTS ENGINEERS PLANNERS  
 1000 MASSACHUSETTS AVENUE  
 CAMBRIDGE, MA 02138  
 TEL (617) 647-6400 FAX (617) 354-6768

# LETTER OF TRANSMITTAL

**CONTRACTOR'S ADDRESS:**

Turner Construction  
 855 Boylston St  
 Boston, MA 02110-

Attn: Paul Rollins

We are sending you:

SMMA PROJECT #: 97094.00

PROJECT: UNUM/HO3-Office Building

Specification Section: 08800

COPIES SENT	TYPE OF SUBMITTAL	DESCRIPTION	SUBMITTAL NUMBER	APPROVED	APPROVED AS CORRECTED	REVISE AND RESUBMIT	NOT APPROVED	NO ACTION	COPIES RETURNED
4	Shop Drawings	(5.045) Glazing details @ hollow metal frames.	08800 37	<input checked="" type="checkbox"/>					

*Had*

Received by SMMA

DATE 3/26/99 By: GRF

Technical Reviewer: HSR

DATE 3/29/99 By: Hyz

Architect: HSR

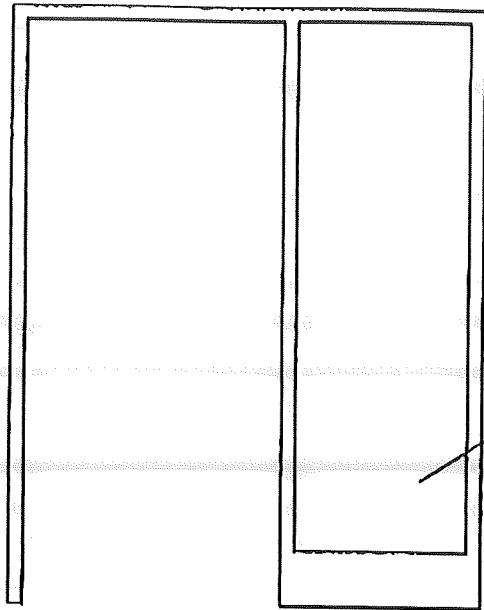
DATE 3/29/99 By: Hyz

We are returning to you the above

DATE \_\_\_\_\_ By: \_\_\_\_\_

COPY TO: CONTRACTOR OWNER REVIEWER ARCHITECT FILE  
 COPIES SENT: ( ) ( ) ( ) ( ) ( )

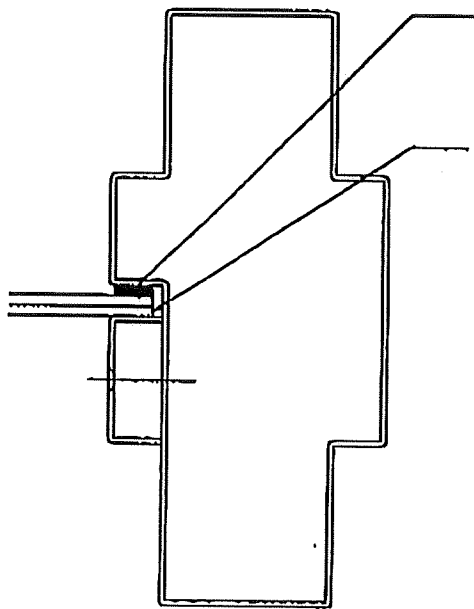
SUBMITTAL NO:



1ST. FL - 2 REQD.  
 2ND. FL - 8 REQD.  
 3RD. FL - 8 REQD.  
 4TH. FL - 8 REQD.

1/4" CLEAR TEMPERED GLASS

HOLLOW METAL ELEVATION - TYPE #2



1/8" NORTON NORSEAL V740 FOAM TAPE AS REQD.  
 ARCHITECT PLEASE ADVISE COLOR, GREY OR BLACK

1/4" CLEAR TEMPERED GLASS

Reviewed for general acceptance only.  
 The subcontractor is responsible for all dimensions, correct fabrication and accurate fit with the work of other trades.

Turner Construction Company

By PER Date 3.23

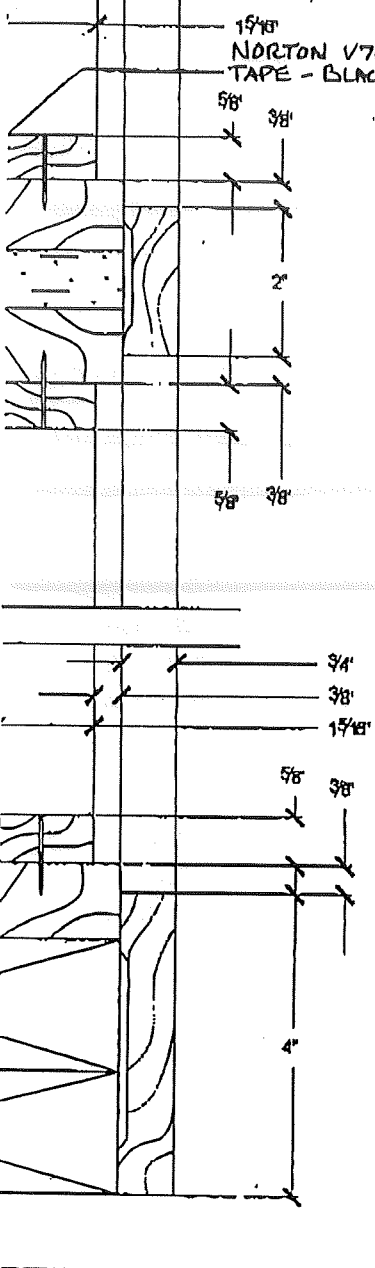
Submittal Number 5-045

TYPICAL HOLLOW METAL DETAIL

MATERIAL	IPSWICH BAY GLASS CO., INC. ROWLEY, MASSACHUSETTS (978) 948-6644				
FINISH					
THICKNESS / GAUGE					
QUANTITY / LENGTH					
PROJECT	UNUM PORTLAND MAINE	ARCHITECT	SMMA	DWG#	SK1
DWN. BY	SF	DATE:	3-19-99	SCALE	N.T.S.
				P.O.#	

<b>Turner Construction Company</b>		Transmittal No.: 04129901
Transmission Of Drawings, Prints, Specifications, Etc.		Date: April 29, 1999
Re: UNUM Life Insurance Company of America HO III Job No. 6376		
To  IPSWICH GLASS 435 Boston St Topsfield, MA 01983 BP A5	Submitted For/Status: Code Approval 1 Correction 2 Your Information 3 Your Quotation 4 Your Action 5 Construction 6 Fabrication 7 Review 8 Use 9 For Record 10 Approved A Approved As Noted AAN Reviewed E Not Approved NA Rejected R Revise & Resubmit RR	
Gentlemen: We Are Sending You Herewith	Delivery Teco Messenger <input type="checkbox"/> Recipients Messenger <input type="checkbox"/> Express <input type="checkbox"/> Mail <input type="checkbox"/> Blue Printer <input type="checkbox"/>	
Submitted By:		
<b>Submittal Specifications No.</b>	<b>Quantity</b>	<b>Drawing No. Description</b>
6-051.1 08800	41	Interior wood frame glazing.
		<b>Code</b> AAN

Yours Truly,  _____ Turner Construction Company	File: AS Submittal Correspondence 08800
Copies To:	



15 1/8"  
NORTON V740 FORM GLAZING  
TAPE - BLACK

**SHOP DRAWING SUBMITTAL #**  
**088 00 41**

APPROVED  NOT APPROVED  
 APPROVED AS CORRECTED  
 REVISE AND RESUBMIT

Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. It does not constitute an approval or certification and does not constitute a warranty or a representation that the contractor is not responsible for the quality of construction and for coordination of the work of all trades.

BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 SYMMES MAINT & MCKEE ASSOC., INC.  
 ARCHITECTS - ENGINEERS - PLANNERS  
 1008 MASSACHUSETTS AVENUE  
 CAMBRIDGE, MASSACHUSETTS 02108

NO EXCEPTION TAKEN  MAKE CORRECTIONS NOTED  
 REVISE AND RESUBMIT  REJECTED

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for: Dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of work with that of all other trades and the satisfactory performance of work.

CUBELLIS ASSOCIATES INC.  
 By: *Tom Sultan Provost* Date: 4/26/99

**Reviewed for general acceptance only.**  
 The subcontractor is responsible for all dimensions, correct fabrication and accurate fit with the work of other trades.

Turner Construction Company  
 By: PER Date: 4.12.99  
 Submittal Number 5.05

NO. 278  
 DATE: 05/28/99  
 CONCL. ESTIM. NAME: SH: 8/11  
 IP:

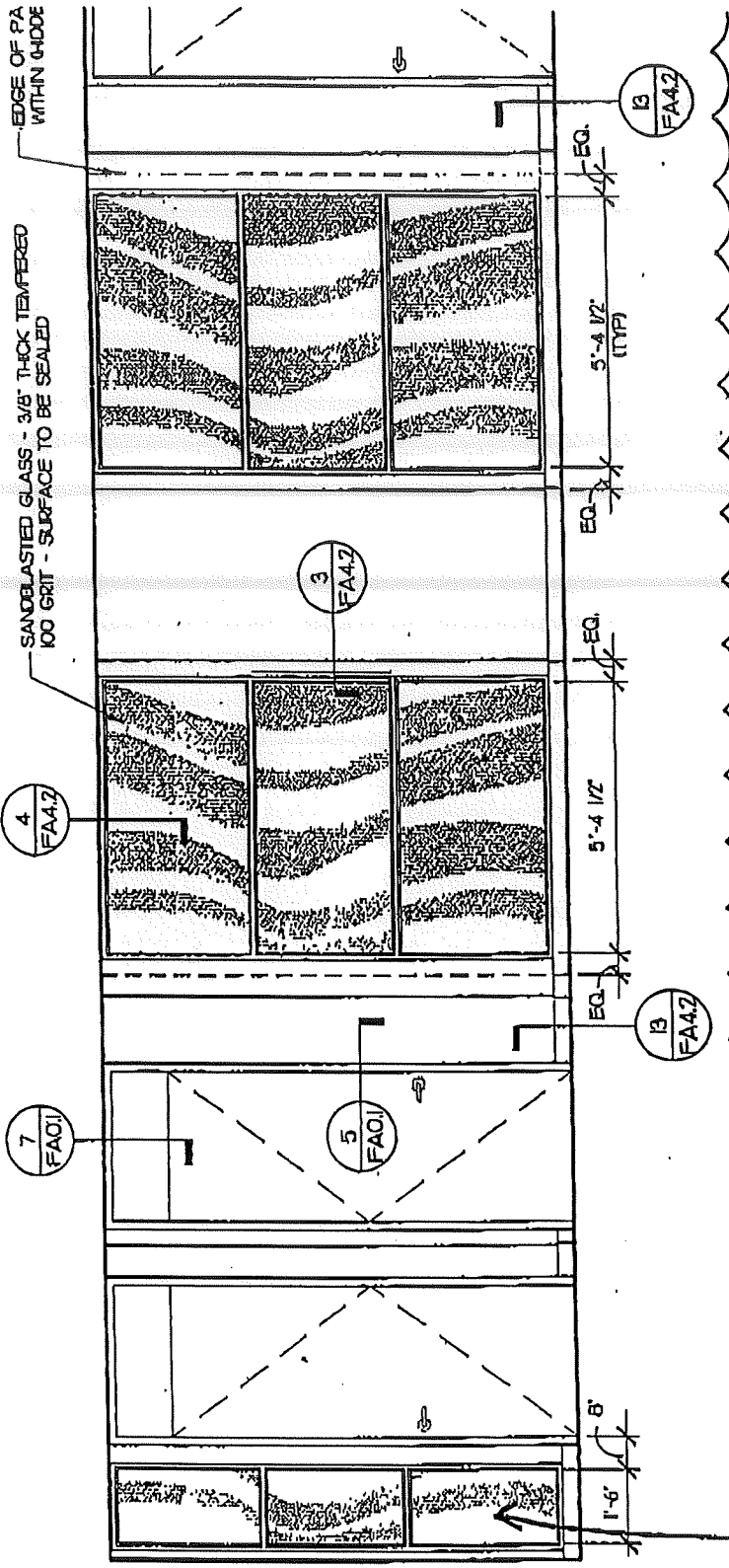
**IPSWICH BAY GLASS CO., INC.**  
 ROWLEY, MASSACHUSETTS  
 (978)948-6644

**PROJECT:** UNUM  
**ADDRESS:** PORTLAND, MAINE  
**ARCHITECT:** SHMA  
**CONTRACTOR:** TURNER CONSTRUCTION  
**DRAWN BY:** RANGER

JOB #: 99-000  
 SCALE: N.T.S.  
 DATE: 8-31-99

1005

DWG. # INT. WD. FRAMES



# PRESENTATION ROOM CORRIDOR

SIDEWIGHT  
 AT DOOR #101  
 SHOULD BE SIMILAR  
 TO THIS ONE

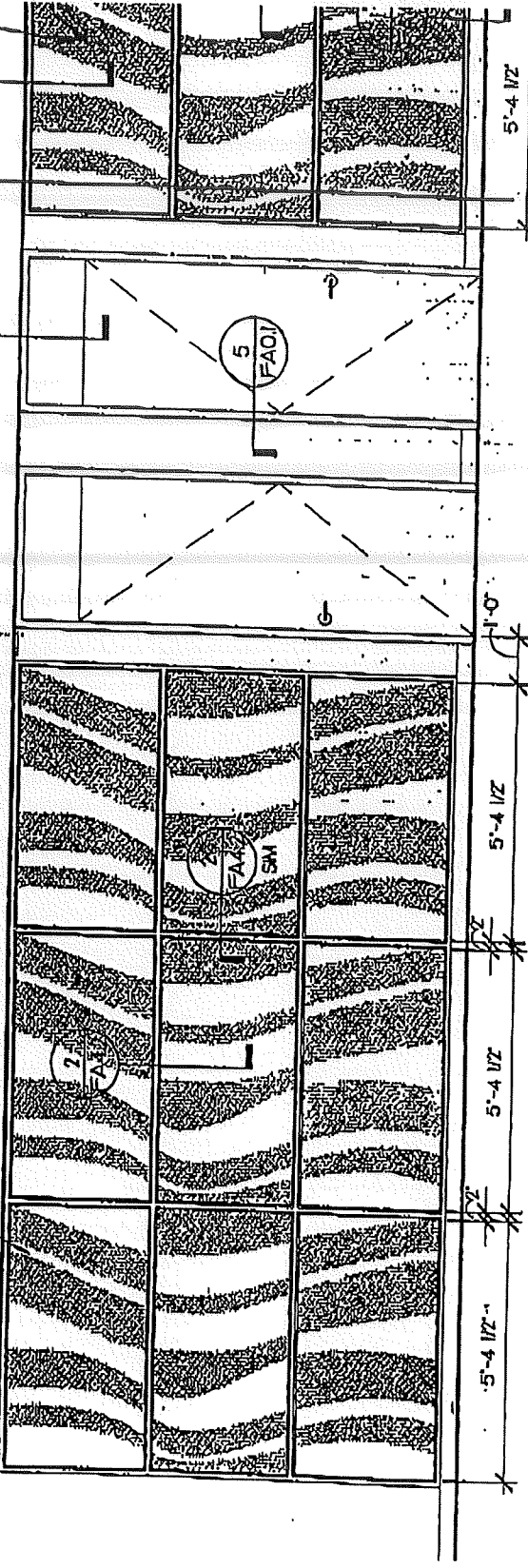
SANDBLASTED GLASS - 3/8" THICK TEMPERED 100 GRIT - SURFACE TO BE SEALED. CONTRACTOR TO OBTAIN



# PRESENTATION ROOM CORRIDOR

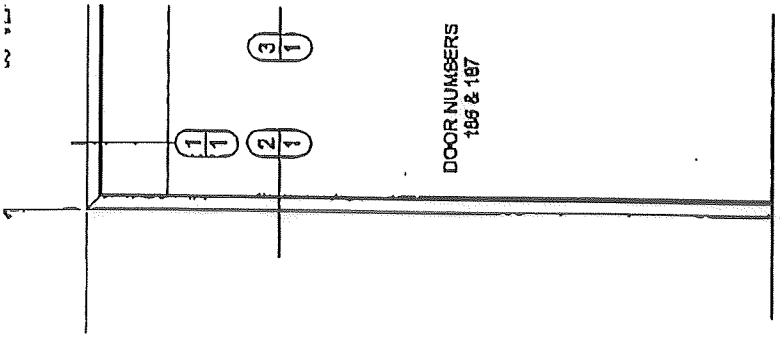
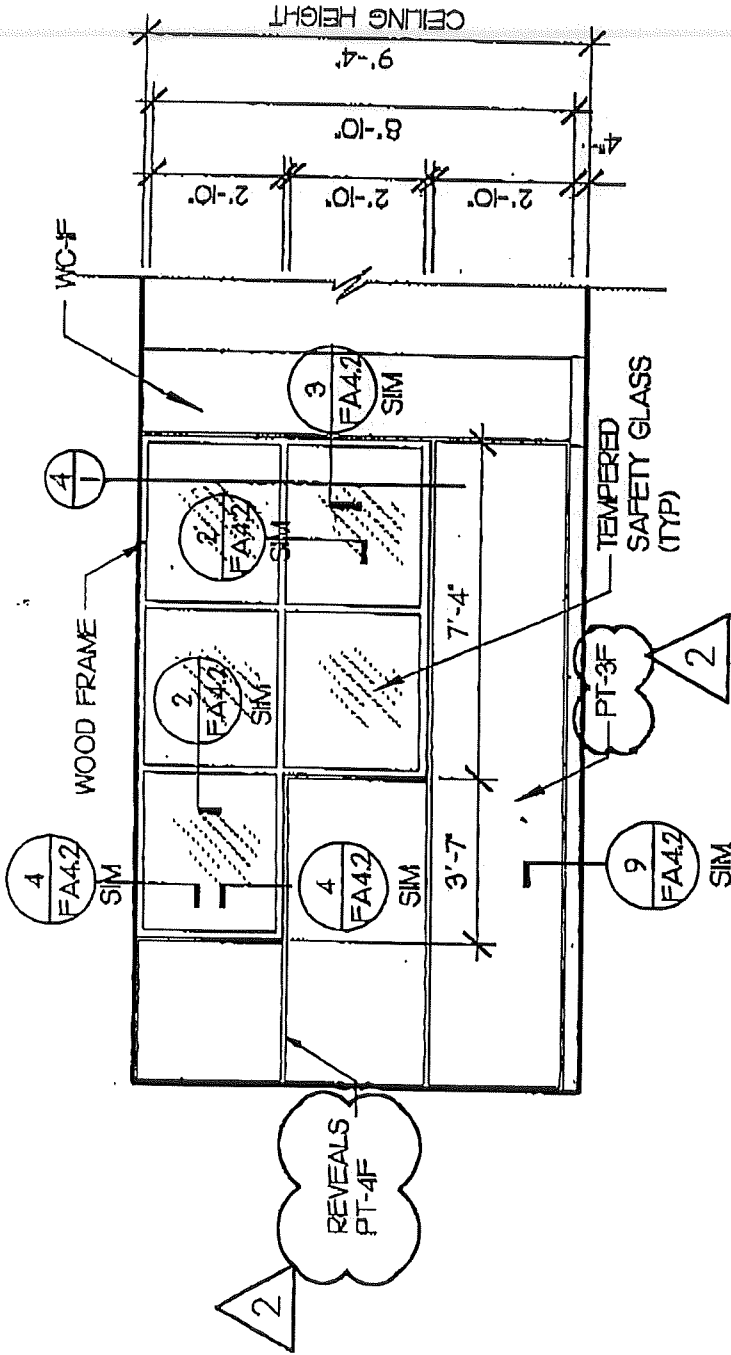
SIDEWIGHT  
AT DOOR #101  
SHOULD BE SIMILAR  
TO THIS ONE

SANDBLASTED GLASS - 3/8" THICK TEMPERED 100 GRIT -  
SURFACE TO BE SEALED. CONTRACTOR TO OBTAIN  
ELECTRONIC DRAWING FILE OF THIS PATTERN FROM ARCHITECT.



# PRESENTATION ROOM CORRIDOR

# CAFETERIA ELEVATION



3'-0" X 8'-0" DOOR WITH  
PANEL AND SILL

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

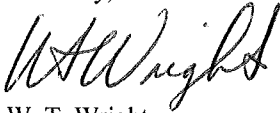
July 14, 1999

Mr. Sam Hoffses  
City of Portland  
389 Congress Street  
Portland, ME 04101

Dear Mr. Hoffses:

Attached please find an executed copy of the Certificate of Substantial Completion for the road improvements completed at Johnson Road and Congress Street. This Certificate of Substantial Completion has been signed by the City of Portland indicating their acceptance of the work completed at this location.

Sincerely,



W. T. Wright  
General Superintendent

cc: Paul Rollins  
File 00099  
File 00162  
File Offsite

# CERTIFICATE OF SUBSTANTIAL COMPLETION

AIA DOCUMENT G704

(Instructions on reverse side)

OWNER   
 ARCHITECT   
 CONTRACTOR   
 FIELD   
 OTHER

PROJECT: (Name and address) JOHNSON ROAD AND CONGRESS STREET ROAD IMPROVEMENTS Corner of Johnson Road and Congress Street Portland, ME 04122

PROJECT NO.: VHB PROJECT # 06025 SEBAGO PROJECT # 94621

CONTRACT FOR: CONTRACT DATE:

TO OWNER: (Name and address) City of Portland 389 Congress Street Portland, ME 04101

TO CONTRACTOR: (Name and address) UNUM Life Insurance Company Grondin Construction Company 2211 Congress Street Portland, ME 04122

DATE OF ISSUANCE: June 22, 1999

PROJECT OR DESIGNATED PORTION SHALL INCLUDE:

Road improvements on Johnson Road and Congress Street from Sta. 0+00 to 7+00 and Sta. 0+00 to 32+00 respectively as described by Vannese Hangen Brustlin and Sebago Technics contract documents dated July 23, 1998 and April 24, 1998 respectively

The Work performed under this Contract has been reviewed and found, to the Architect's best knowledge, information and belief, to be substantially complete. Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use. The date of Substantial Completion of the Project or portion thereof designated above is hereby established as

June 22, 1999 which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below:

No Exceptions

A list of items to be completed or corrected is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Sebago Technics / Vannese Hangen Brustlin  
 ARCHITECT BY James R. Seymour DATE 7-6-99

The Contractor will complete or correct the Work on the list of items attached hereto within \_\_\_\_\_ days from the above date of Substantial Completion.

Unum Life Insurance Company/Grondin Construction Company  
 CONTRACTOR BY James P. McAllister UNUM DATE 7/6/99

The Owner accepts the Work or designated portion thereof as substantially complete and will assume full possession thereof at \_\_\_\_\_ (time) on \_\_\_\_\_ (date).

City of Portland  
 OWNER BY Director of Public Works DATE 7-9-99

The responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work and insurance shall be as follows:

(Note—Owner's and Contractor's legal and insurance counsel should determine and review insurance requirements and coverage.)

Nothing herein is intended to release the contractor from any liability which may arise as a result of work performed negligently



**CAUTION:** You should use an original AIA document which has this caution printed in red. An original assures that changes will not be obscured as may occur when documents are reproduced.



Turner Construction Company  
 UNUM HO3 Project  
 Portland, ME  
 Contract No. 6376

Action/Status:  
 A - Work to be done  
 B - Work in progress  
 C - Architect/Engineer to check  
 D - Problem to be addressed  
 F - Accepted as is  
 W - Work Completed by UNUM  
 X - Work Complete

## UNUM - MASTER Work to Complete List

The failure to include any items on this list does not relieve the Subcontractor of the responsibility to complete all work in accordance with the contract documents

Item #	MEP	Zone	Floor	Room	Grid Line / Room #	Trade	Sub. Trade	System	Entered Date	Description of work to be completed	MADE BY	Status	INITIALS
2161		Off-Site			0+00-2+00	Grondin	Grondin		6/15/99	Complete Sidewalk, paving	TL	X	
2163		Off-Site			0+00-2+50 Johnson Rd.	Grondin	Grondin		6/15/99	Add length to shoulder 4'-6" along Brooklawn cemetery / add loam to slope / toe of wall	TL	X	
2160		Off-Site			11+50-16+00	Grondin	Grondin		6/15/99	Complete Sidewalk paving	TL	X	
2153		Off-Site			15+30 CB-7A	Grondin	Grondin		6/15/99	Trim inlet pipe @ CB 7A -- (too long)	TL	X	
2152		Off-Site			16+55 CB - 13B	Grondin	Grondin		6/15/99	Install Casco trap or equal in CB 13-B	TL	X	
2151		Off-Site			19+00	Grondin	Grondin		6/15/99	Stockyard cleanup perimeter brush/debris	TL	X	
2154		Off-Site			21+80 CB-11B	Grondin	Grondin		6/15/99	Cut rebar inside frame /CB	TL	X	
2156		Off-Site			23+40 CB-12B	Grondin	Grondin		6/15/99	Install throat at headstone into CB-12B	TL	X	
2155		Off-Site			23+75 CB-31	Grondin	Grondin		6/15/99	Cut rebar inside frame /CB	TL	X	
2150		Off-Site			26+23 23'LT	Grondin	Grondin		6/15/99	CB-32 Mud around inlet pipe from ex. DMH	TL	X	
2158		Off-Site			5-00+14+00 Edge R.O.W.	Grondin	Grondin		6/15/99	Brush / debris pickup	TL	X	
2144		Off-Site			ALL	Grondin	Grondin		6/16/99	Maintain Hydroseeded areas until grass has germinated	TL	A	
2148		Off-Site			ALL	Grondin	Grondin		6/15/99	Re-loam & Seed areas along sidewalks (TYP)	TL	X	
2159		Off-Site			ALL Catch Basins	Grondin	Grondin		6/15/99	Pump and clean all CB's	TL	X	
2142		Off-Site			Congress / Johnson Intersection	City of Portland / CMP	City of Portland / CMP		6/17/99	Switch Congress/ Johnson Intersection Controller to permanent power	TL	X	
2143		Off-Site			Congress / Johnson Intersection	City of Portland / CMP	City of Portland / CMP		6/18/99	Remove temp utility pole and line @ Congress / Johnson Intersection	TL	X	
2147		Off-Site			Congress / Johnson Intersection	Sebago	Sebago		6/15/99	4 ± granite monuments - Sebago Tech. to layout / install / restore area	TL	A	
2145		Off-Site			Johnson Rd/Congress Intersection	Grondin / Blue	Grondin / Blue		6/15/99	Paint Islands green	TL	X	
2146		Off-Site			Outer Congress/HO1 Entrance	S.W. Cole	S.W. Cole		6/15/99	Core test results / approval	TL	X	
2141		Off-Site			TYP.	City of Portland	City of Portland		6/16/99	Stripping of entire project	TL	X	
2149		Off-Site			TYP.	Grondin	Grondin		6/15/99	Install all signs, traffic direct. etc.	TL	X	
2157		Off-Site			TYP.	Grondin	Grondin		6/15/99	Caulk Misc. Curb Joints	TL	X	
2162		Off-Site			TYP.	Grondin	Grondin		6/15/99	Pave Driveway Entrances - misc. length of project	TL	X	

## MEMORANDUM

**TO:** Sam Hoffses, Code Enforcement  
Sarah Hopkins, Senior Planner  
Bill Wright, Turner Construction

**FROM:** Jim Wendel, P.E., Development Review Coordinator

**DATE:** July 15, 1999

**RE:** Certificate of Occupancy  
UNUM-HO III Expansion  
Congress Street

---

On July 14, 1999 a review of completion of the site improvements based on the site plan approval was completed. We offer the following comments:

It is my opinion that all the site improvements have been satisfactorily completed and a **permanent certificate of occupancy could be issued**, assuming Code Enforcement has no outstanding issues. For your information, see attached correspondence from Ross Cudjitz, who performed a third party inspection of the project as required in the MeDEP Site Location approval.

P.1  
0 → 02000  
CC: JRG  
0163  
00033  
PER

Ross A. Cudlitz, PE  
PO Box 794  
So. Freeport, Maine 04078

Engineering Assistance & Design (EA&D)  
Phone/Fax: 207 - 846 - 0839

Mr. Stewart McAllister, Facility Project Architect  
UNUM, S245  
2211 Congress Street  
Portland, Maine 04122 - 1260

7/7/99

RE: "1998 Capital Improvements HO-III" - Portland

Dear Stewart:

Pursuant with the agreement in force, Ross A. Cudlitz, visited the subject site on 7/7/99, as a final inspection for its compliance with Best Management Practices relative to stormwater and erosion control. Bill Wright, Turner, was present on the site walk. The following comments are a result of the site walk:

- There are no outstanding items associated within the scope of the Third Party Inspections that remain to be addressed.
- The entire site is either vegetated or stabilized as required by the approved plans.
- Temporary measures, such as silt fence, have been removed in all areas where vegetated cover is 85% or better.
- Based on what I can see on the surface, and Turners knowledge of the Contractors activities, all existing and new stormwater conveyance systems have been cleaned of accumulated sediment.

I would like to conclude my portion of this project by saying that the site Contractor, Shaw Brothers, did an excellent job at containing sediment on site and preventing impacts to on and off site resources. Working with Turner Construction has also been a pleasure. The site work is very attractive and all those involved should be proud of the finished product and the manner in which it was achieved.

Thank you for the opportunity to work with Unum. If you have any questions please do not hesitate to call.

Yours truly,

  
Ross A. Cudlitz, PE

cc: Linda Kokemuller, DEP  
Bill Wright, Turner  
Shaw Bros. Construction  
John McLean, Northland  
Shawn Frank, STI

# Turner Construction Company

855 Boylston Street, Boston, MA 02116

Tel. 617-247-6400

Fax 617-536-2883

**TRANSMITTAL**

**PROJECT:**

UNUM HO-3  
Contract # 6376

**TO:**

Sam Hoffses, Building Inspector

**COMPANY:**

City of Portland  
Planning and Urban Development  
390 Congress Street  
Portland, ME 04101  
P: (207) 874-8703  
F: (207) 874-8716

**DATE:**

7-6-99

**DESCRIPTION:**

UNUM HO-III Final design drawings and specifications, Affidavits from building architect, structural engineer, fire protection and electrical engineer.

**COMMENTS:**

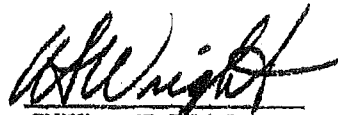
VIA - Turner Construction Hand Delivery.  
Please find enclosed the above referenced design documents regarding UNUM's HO-III. If you need any additional information please feel free to contact me directly. Thank you.

If enclosures are not as noted, kindly notify us at once.

**COPY TO:**

File

**SIGNED:**

  
William T. Wright





**Sebago Technics**  
*Engineering & Planning for the Future*

July 16, 1999  
97538

Mr. Joseph Gaiko  
Turner Construction Company, Inc.  
2199 Congress Street  
Portland, ME 04102

**Acceptance of Concrete Sidewalks, UNUM HO-III Site**

Dear Joe:

Per your request, I am writing to confirm acceptance of areas of concrete sidewalks where the compressive strength tested just lower than the required 4,000 psi. As proven by the compression test results, these areas improved considerably at 56 days (see attached reports). We have no concern with the construction of the sidewalks from a safety perspective.

Accordingly, we accept these areas as placed. If you require any additional information, please let me know.

Sincerely,

SEBAGO TECHNICS, INC.

William T. Conway, R.L.A.  
Vice President, Landscape Architecture

WTC:dif

cc: John McLean

Turner Construction Company  
 UNUM HO 3  
 Job # 6376

Sitework Concrete Pour Log													
DATE	TIME	TEMP	WEATHER	LOCATION	QUANTITY	TYPE	Sample #	7 day break	28 day break	28 day break	56day break	Date to Start Casting	56 day break on
4/30/99	9:30	65	sunny	HO 2 loading dock	8	4000	522-220	2620	3360	3290	3820	5/28/99	6/25/99
5/4/99	6:00		overcast to rain	HO 3 Main Entrance	22	4000	522-221	3840	4280	4390		6/1/99	6/29/99
5/6/99	10:30		overcast	HO 3 Main Entrance & Loading dock	24	4000	522-222	2970	4100	4070		6/3/99	7/1/99
5/7/99	11:00		overcast	HO 3 Main Entrance	8	4000	522-223	2860	3960	3930	4100	6/4/99	7/2/99
5/10/99	10:00	70	sunny	HO 3 Main Entrance	7	4000	522-224	2640	3540	3250	4070	6/7/99	7/5/99
5/11/99	10:00	70	sunny	HO 3 Main Entrance	6	4000	522-225	2830	3820	3860	4530	6/8/99	7/6/99
5/12/99	8:00	70	sunny	HO 3 Main Entrance	6	4000	522-226	3170	4000	4140		6/9/99	7/7/99
5/14/99	8:00	70	sunny	HO 3 Main Entrance	4	4000						6/11/99	7/9/99
5/17/99	7:00	70	sunny	HO 1 motorcycle pad	2	4000	522-227	3020	4140	4070		6/14/99	7/12/99
5/18/99	8:00	70	sunny	HO 3 North Entrance	3	4000	522-228	3010	4010	4000		6/15/99	7/13/99
5/20/99	8:00	70	overcast	HO 1 West Parking lot sidewalk	7	4000	522-229	3240	4100	4210		6/17/99	7/15/99
5/21/99	7:00	70		HO 1 West Parking lot sidewalk & North HO 3	10	4000	522-230	2940	3610	3590		6/18/99	7/16/99
5/28/99				HO 3 West HC Parking area		4000	522-234	2300	3040	2940	3150***	6/25/99	7/23/99
6/1/99				North HC Sidewalk		4000						6/29/99	7/27/99
6/2/99				North HC Sidewalk	10	4000	522-235	2940	3820	3820		6/30/99	7/28/99
6/3/99		80	sunny	North HC Sidewalk	7	4000	522-236	2990	3150	3250		7/1/99	7/29/99
6/4/99				sonotubes @ Transformer pad		4000						7/2/99	7/30/99
6/3/99	8:00	80	sunny	Off Site Jhonson Rd 1 ft wide strip	11	4000	522-237	2880	3570	3680		7/1/99	7/29/99
6/7/99				Plaza Entrance	6	4000	522-238	2970	3680	3680		7/5/99	8/2/99
6/8/99				Plaza Entrance	8	4000	522-239	2900	3820	3820		7/6/99	8/3/99
6/8/99				Plaza Entrance	5	4000	522-240	2850	3400	3500		7/6/99	8/3/99
6/9/99				Plaza Entrance	5	4000	522-241	2830	3430	3360		7/7/99	8/4/99
6/10/99												7/8/99	8/5/99
6/11/99												7/9/99	8/6/99
6/14/99												7/12/99	8/9/99
6/15/99				Deck Patio ( East Link)	4	4000	522-242	2720	3520	3400		7/13/99	8/10/99
6/16/99				Deck Patio ( East Link)	7	4000	522-243	2940	4030	3930		7/14/99	8/11/99
6/17/99				Deck Patio ( East Link)		4000	522-244	3290	3890	3930		7/15/99	8/12/99
6/18/99		85	sunny	Mechanical Room Door Pad		4000	522-245	3180	3820	3780		7/16/99	8/13/99

\*\*\* Broken at less than 56 days broken 7/9/99 (42 day break

**Turner Construction Company**  
855 Boylston Street, Boston, MA 02116  
Telephone (617) 247-6400

# Turner

July 19, 1999

Mr. Sam Hoffses  
City of Portland  
389 Congress Street  
Portland, ME 04101

Dear Mr. Hoffses:

Attached please find the following additional documentation related to the UNUM HO-III Building Project:

1. Two (2) affidavits from Sebago Technics certifying that the civil sitework and landscaping has been completed according to the construction contract documents
2. Temporary elevator certificates issued by the Elevator and Tramway Safety Board for the State of Maine for elevators Nos. 1, 2, 3, 4, 5, 6, and 7.
3. Copy of the NFPA-13 Contractor's Material and Test Certificates for above-ground piping, certifying that the fire protection system has been installed correctly. The certificate includes a Firepump Acceptance Test Report.

The above items are supplementary information submitted to you for Certificate of Occupancy for the HO-III building.

Sincerely,



W. T. Wright  
General Superintendent

cc: PER  
File 00099  
File 00163

CONSTRUCTION CONTROL AFFIDAVIT  
POST-CONSTRUCTION

Name of Building: HO3 Building for UNUM  
Project Location: Portland, ME  
Nature of Project: Office Building

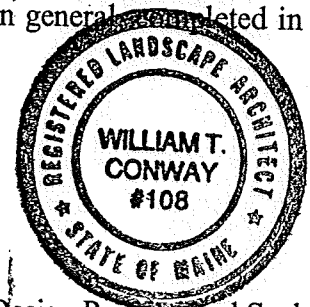
In accordance with BOCA National Building Code 1996,  
I, WILLIAM T. CONWAY, Registration No. 108 LANDSCAPE ARCH being  
a registered professional hereby certified that the following construction administration  
services:

ENTIRE PROJECT  ARCHITECTURAL  STRUCTURAL   
MECHANICAL  FIRE PROTECTION  ELECTRICAL   
OTHER: DIVISION 2 · SITE WORK

For the above named project were carried on by me, or by a representative directly  
supervised by me:

1. Review of shop drawings, samples and other submittals of the contractor  
as required by the construction contract documents as submitted for  
building permit, and approval for conformance to the design concept.

I further certify that to my professional opinion the work was, in general, completed in  
accordance with the documents approved for the building permit.



Design Professional Seal

William T. Conway  
SIGNATURE

SS: On this 13 day of July, 1999, AD before me, Charles L. Brown, Jr., a Notary Public, duly appeared, William T. Conway, being duly sworn, deposes  
and says that the above statements by him/hers are true.

Charles L. Brown Jr.  
(Notary Public)

My Commission expires: January 14, 2004

CONSTRUCTION CONTROL AFFIDAVIT  
POST-CONSTRUCTION

Name of Building: HO3 Building for UNUM  
Project Location: Portland, ME  
Nature of Project: Office Building

In accordance with BOCA National Building Code 1996,  
I, SHAWN M. FRANK, Registration No. 6396 PROF. ENGINEER being  
a registered professional hereby certified that the following construction administration  
services:

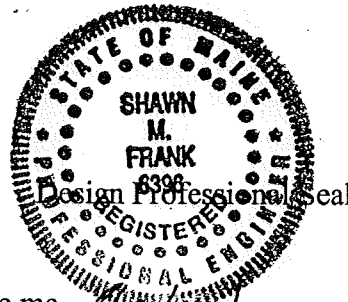
ENTIRE PROJECT  ARCHITECTURAL  STRUCTURAL   
MECHANICAL  FIRE PROTECTION  ELECTRICAL   
OTHER: DIVISION 2. SITE WORK

For the above named project were carried on by me, or by a representative directly  
supervised by me:

1. Review of shop drawings, samples and other submittals of the contractor  
as required by the construction contract documents as submitted for  
building permit, and approval for conformance to the design concept.

I further certify that to my professional opinion the work was, in general, completed in  
accordance with the documents approved for the building permit.

Shawn M. Frank  
SIGNATURE



SS: On this 13 day of July, 1999, AD before me, Shawn M. Frank,  
Brewer, Me., a Notary Public, duly appeared, Shawn M. Frank, being duly sworn, deposes  
and says that the above statements by him/her are true.

Charles A. Brewer  
(Notary Public)

My Commission expires: January 14, 2001



STATE OF MAINE  
 DEPARTMENT OF PROFESSIONAL  
 AND FINANCIAL REGULATION  
 ELEVATOR & TRAMWAY SAFETY BOARD  
 35 STATE HOUSE STATION  
 AUGUSTA, MAINE  
 04333-0035

ANGUS S. KING, JR.  
 GOVERNOR

ANNE L. HEAD  
 DIRECTOR

## TEMPORARY ELEVATOR CERTIFICATE

Registration Number: EL 35622

Expiration Date: 9-9-99

Registrant: UNUM #1

2211 Congress

PORTLAND, ME

Specific Location: HO-3

Type: PASSENGER

Speed: 190

Capacity: 3500

*Gene Elwell*  
 Signature of Inspector

7-9-99  
 Date

OFFICE PHONE: (207) 624-8615

OFFICES LOCATED AT: 122 NORTHERN AVE.,  
 GARDINER, MAINE



PRINTED ON RECYCLED PAPER

FAX: (207) 624-8637

(HEARING IMPAIRED) (207) 624-8563



STATE OF MAINE  
 DEPARTMENT OF PROFESSIONAL  
 AND FINANCIAL REGULATION  
 ELEVATOR & TRAMWAY SAFETY BOARD  
 35 STATE HOUSE STATION  
 AUGUSTA, MAINE  
 04333-0035

ANGUS S. KING, JR.  
 GOVERNOR

ANNE L. HEAD  
 DIRECTOR

# TEMPORARY ELEVATOR CERTIFICATE

Registration Number: EL 35623

Expiration Date: 9-9-99

Registrant: UNUM #2

2211 Congress

PORTLAND, ME

Specific Location: H0-3

Type: PASSENGER

Speed: 190

Capacity: 3500

*Gene Elwell*  
 Signature of Inspector

7-9-99  
 Date

OFFICE PHONE: (207) 624-8615

OFFICES LOCATED AT: 122 NORTHERN AVE.,  
 GARDINER, MAINE



FAX: (207) 624-8637

(HEARING IMPAIRED (207) 624-8563)



STATE OF MAINE  
 DEPARTMENT OF PROFESSIONAL  
 AND FINANCIAL REGULATION  
 ELEVATOR & TRAMWAY SAFETY BOARD  
 35 STATE HOUSE STATION  
 AUGUSTA, MAINE  
 04333-0035

ANGUS S. KING, JR.  
 GOVERNOR

ANNE L. HEAD  
 DIRECTOR

## TEMPORARY ELEVATOR CERTIFICATE

Registration Number: EL-35620

Expiration Date: 9-9-99

Registrant: UNUM #3

2211 Congress

PORTLAND, ME

Specific Location: HO-3

Type: PASSENGER

Speed: 190

Capacity: 3500

Gene Elwell  
 Signature of Inspector

7-9-99  
 Date

OFFICE PHONE: (207) 624-8615

OFFICES LOCATED AT: 122 NORTHERN AVE.,  
 GARDINER, MAINE



FAX: (207) 624-8637

(HEARING IMPAIRED (207) 624-8563)





STATE OF MAINE  
 DEPARTMENT OF PROFESSIONAL  
 AND FINANCIAL REGULATION  
 ELEVATOR & TRAMWAY SAFETY BOARD  
 35 STATE HOUSE STATION  
 AUGUSTA, MAINE  
 04333-0035

465 P02 JUL 12 '99 14:29

ANGUS S. KING, JR.  
 GOVERNOR

ANNE L. HEAD  
 DIRECTOR

TEMPORARY ELEVATOR CERTIFICATE

Registration Number: EL-35621

Expiration Date: 9-9-99

Registrant: UNUM #4

2211 Congress

PORTLAND, ME

Specific Location: H0-3

Type: PASSENGER

Speed: 190

Capacity: 3500

*Anne Head*  
 Signature of Inspector

7-9-99  
 Date

OFFICE PHONE: (207) 624-8615

OFFICES LOCATED AT: 122 NORTHERN AVE.,  
 GARDINER, MAINE



PRINTED ON RECYCLED PAPER

FAX: (207)624-8637

(HEARING IMPAIRED (207)624-8563)



STATE OF MAINE  
 DEPARTMENT OF PROFESSIONAL  
 AND FINANCIAL REGULATION  
 ELEVATOR & TRAMWAY SAFETY BOARD  
 35 STATE HOUSE STATION  
 AUGUSTA, MAINE  
 04333-0035

ANGUS S. KING, JR.  
 GOVERNOR

ANNE L. HEAD  
 DIRECTOR

TEMPORARY ELEVATOR CERTIFICATE

Registration Number: EL 35624

Expiration Date: 9-9-99

Registrant: UNUM #5

2211 Congress

PORTLAND, ME

Specific Location: HO-3

Type: PASSENGER

Speed: 190

Capacity: 3500

*Gene Elwell*  
 Signature of Inspector

7-9-99  
 Date

OFFICE PHONE: (207) 624-8615

OFFICES LOCATED AT: 122 NORTHERN AVE.,  
 GARDINER, MAINE



FAX: (207)624-8637

(HEARING IMPAIRED (207)624-8563)



STATE OF MAINE  
 DEPARTMENT OF PROFESSIONAL  
 AND FINANCIAL REGULATION  
 ELEVATOR & TRAMWAY SAFETY BOARD  
 35 STATE HOUSE STATION  
 AUGUSTA, MAINE  
 04333-0035

ANGUS S. KING, JR.  
 GOVERNOR

ANNE L. HEAD  
 DIRECTOR

## TEMPORARY ELEVATOR CERTIFICATE

Registration Number: EL 35625

Expiration Date: 9-9-99

Registrant: UNUM #6

2211 Congress

PORTLAND, ME

Specific Location: HO-3

Type: PASSENGER

Speed: 190

Capacity: 3500

*Gene Elwell*  
 Signature of Inspector

7-9-99  
 Date

OFFICE PHONE: (207) 624-8615

OFFICES LOCATED AT: 122 NORTHERN AVE.,  
 GARDINER, MAINE



FAX: (207)624-8637

(HEARING IMPAIRED (207)624-8563)



STATE OF MAINE  
 DEPARTMENT OF PROFESSIONAL  
 AND FINANCIAL REGULATION  
 ELEVATOR & TRAMWAY SAFETY BOARD  
 35 STATE HOUSE STATION  
 AUGUSTA, MAINE  
 04333-0035

ANGUS S. KING, JR.  
 GOVERNOR

ANNE L. HEAD  
 DIRECTOR

TEMPORARY ELEVATOR CERTIFICATE

Registration Number: 35619-EL

Expiration Date: 9-9-99

Registrant: UNUM #7

2211 Congress

PORTLAND, ME

Specific Location: HO-3

Type: PASSENGER

Speed: 190

Capacity: 5000

*Gene Elwell*  
 Signature of Inspector

7-9-99  
 Date

OFFICE PHONE: (207) 624-8615

OFFICES LOCATED AT: 122 NORTHERN AVE.,  
 GARDINER, MAINE



FAX: (207)624-8637

(HEARING IMPAIRED (207)624-8563)

# CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING

**PROCEDURE**

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

**PROPERTY NAME**

UNUM HO III BUILDING

**DATE**

6-28-99

**PROPERTY ADDRESS**

2199 CONGRESS ST. PORTLAND, ME. 04102

**PLANS**

ACCEPTED BY APPROVING AUTHORITY(S) NAMES

STATE FIRE MARSHAL

ADDRESS

397 WATER ST. GARDINER, ME 04345

INSTALLATION CONFORMS TO ACCEPTED PLANS

EQUIPMENT USED IS APPROVED

IF NO, EXPLAIN DEVIATIONS

YES  NO  
 YES  NO

**INSTRUCTIONS**

HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT

YES  NO

HAVE COPIES OF APPROPRIATE INSTRUCTIONS AND CARE AND MAINTENANCE CHARTS AND NFPA 13A BEEN LEFT ON PREMISES

YES  NO

**LOCATION OF SYSTEM**

SUPPLIES BLDGS.

ENTIRE BLDG. STRUCTURE

**SPRINKLERS**

MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING
CENTRAL	GB20-OR	99	3/4"	1025	135°
"	GB-OR	"	1/2"	293	155°
"	GB4-OR	"	1/2"	71	155°
"	GB-OR	"	"	7	200°

**PIPE AND FITTINGS**

PIPE CONFORMS TO NFPA 13 STANDARD  
FITTINGS CONFORM TO NFPA 13 STANDARD  
IF NO, EXPLAIN

YES  NO  
 YES  NO

**ALARM VALVE OR FLOW INDICATOR**

ALARM DEVICE			MAXIMUM TIME TO OPERATE THROUGH TEST PIPE	
TYPE	MAKE	MODEL	MIN.	SEC.
			OK	

**DRY PIPE OPERATING TEST**

	DRY VALVE			O.O.D.			ALARM OPERATED PROPERLY	
	MAKE	MODEL	SERIAL NO.	MAKE	MODEL	SERIAL NO.	YES	NO

IF NO, EXPLAIN

DELUGE & PREACTION VALVES	OPERATION <input type="checkbox"/> PNEUMATIC <input type="checkbox"/> ELECTRIC <input type="checkbox"/> HYDRAULIC							
	PIPING SUPERVISED <input type="checkbox"/> YES <input type="checkbox"/> NO				DETECTING MEDIA SUPERVISED <input type="checkbox"/> YES <input type="checkbox"/> NO			
	DOES VALVE OPERATE FROM THE MANUAL TRIP AND/OR REMOTE CONTROL STATIONS <input type="checkbox"/> YES <input type="checkbox"/> NO							
	IS THERE AN ACCESSIBLE FACILITY IN EACH CIRCUIT FOR TESTING <input type="checkbox"/> YES <input type="checkbox"/> NO IF NO, EXPLAIN							
	MAKE	MODEL	DOES EACH CIRCUIT OPERATE SUPERVISION LOSS ALARM		DOES EACH CIRCUIT OPERATE VALVE RELEASE		MAXIMUM TIME TO OPERATE RELEASE	
			YES	NO	YES	NO	MIN.	SEC.

**TEST DESCRIPTION**

**HYDROSTATIC:** Hydrostatic tests shall be made at not less than 200 psi (13.6 bars) for two hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for two hours. Differential dry-pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped.

**FLUSHING:** Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 400 GPM (1514 L/min) for 4-inch pipe, 600 GPM (2271 L/min) for 5-inch pipe, 750 GPM (2839 L/min) for 6-inch pipe, 1000 GPM (3785 L/min) for 8-inch pipe, 1500 GPM (5678 L/min) for 10-inch pipe and 2000 GPM (7570 L/min) for 12-inch pipe. When supply cannot produce stipulated flow rates, obtain maximum available.

**PNEUMATIC:** Establish 40 psi (2.7 bars) air pressure and measure drop which shall not exceed 1-1/2 psi (0.1 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop which shall not exceed 1-1/2 psi (0.1 bars) in 24 hours.

TESTS	ALL PIPING HYDROSTATICALLY TESTED AT <u>200</u> PSI FOR <u>2</u> HRS. IF NO, STATE REASON	
	DRY PIPING PNEUMATICALLY TESTED <input type="checkbox"/> YES <input type="checkbox"/> NO	
	EQUIPMENT OPERATES PROPERLY <input type="checkbox"/> YES <input type="checkbox"/> NO	
	<b>DRAIN TEST</b>	READING OF GAGE LOCATED NEAR WATER SUPPLY TEST PIPE: STATIC PRESSURE: _____ PSI
	RESIDUAL PRESSURE WITH VALVE IN TEST PIPE OPEN WIDE _____ PSI	
	Underground mains and lead in connections to system risers flushed before connection made to sprinkler piping.	
	VERIFIED BY COPY OF THE U FORM NO. 85B <input type="checkbox"/> YES <input type="checkbox"/> NO	OTHER EXPLAIN
	FLUSHED BY INSTALLER OF UNDERGROUND SPRINKLER PIPING <input type="checkbox"/> YES <input type="checkbox"/> NO	<u>UNDER GROUND TESTED &amp; FLUSHED BY OTHERS</u>

<b>BLANK TESTING GASKETS</b>	NUMBER USED <u>0</u>	LOCATIONS	NUMBER REMOVED
------------------------------	----------------------	-----------	----------------

WELDING	WELDED PIPING <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	IF YES ...
	DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT WELDING PROCEDURES COMPLY WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	DO YOU CERTIFY THAT THE WELDING WAS PERFORMED BY WELDERS QUALIFIED IN COMPLIANCE WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DO YOU CERTIFY THAT WELDING WAS CARRIED OUT IN COMPLIANCE WITH A DOCUMENTED QUALITY CONTROL PROCEDURE TO INSURE THAT ALL DISCS ARE RETRIEVED, THAT OPENINGS IN PIPING ARE SMOOTH, THAT SLAG AND OTHER WELDING RESIDUE ARE REMOVED, AND THAT THE INTERNAL DIAMETERS OF PIPING ARE NOT PENETRATED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	

<b>HYDRAULIC DATA NAMEPLATE</b>	NAMEPLATE PROVIDED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	IF NO, EXPLAIN
---------------------------------	--	----------------

**REMARKS**

DATE LEFT IN SERVICE WITH ALL CONTROL VALVES OPEN:

SIGNATURES	NAME OF SPRINKLER CONTRACTOR <u>EASTERN FIRE PROTECTION CO.</u>		
	TESTS WITNESSED BY		
	FOR PROPERTY OWNER (SIGNED) <u>[Signature]</u>	TITLE <u>Turner Construction Co.</u>	DATE <u>6/28/99</u>
	FOR SPRINKLER CONTRACTOR (SIGNED) <u>[Signature]</u>	TITLE <u>FIELD SUPT</u>	DATE <u>6-28-99</u>

ADDITIONAL EXPLANATION AND NOTES

20-52

CENTRIFUGAL FIRE PUMPS

PUMP ACCEPTANCE TEST DATA Refer to P & P F(A) - 512.12 & DS 3 - 7N

PROPERTY OF <b>UNUM</b>	INDEX NO.	DIST. OFFICE
ADDRESS <b>PORTLAND AIRPORT</b>	TESTED BY <b>PLTS</b>	DATE <b>4/12/99</b>
CITY <b>PORTLAND</b>	STATE <b>ME</b>	PLACO
SUBJECT		CONFERRER WITH <b>E.F.P.</b>

PUMP	SHAFT <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/> VERTICAL	MANUFACTURER <b>FEERLESS</b>	APPROVED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SHOP OR SERIAL NO. <b>221836</b>	MODEL OR TYPE <b>5AEFBN</b>
	RATED GPM <b>1000</b>	RATED HEAD-FT. (DIN) <b>65</b>	RATED RPM <b>8550</b>	SUCTION FROM <b>CITY</b>	TANK SIZE

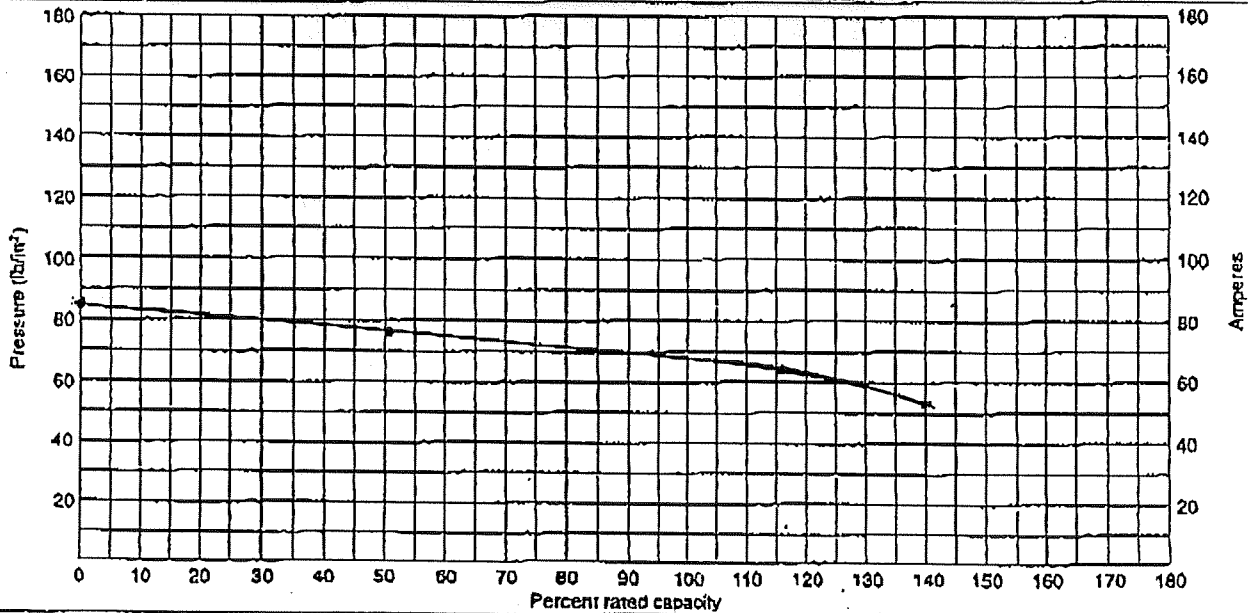
IF VERTICAL TYPE	VERTICAL DIST. DISCH. GAUGE TO WATER LEVEL	STATIC FT.	RIGHT-ANGLE GEAR DRIVE	MANUFACTURER	SHOP OR SERIAL NO.	APPROVED <input type="checkbox"/> YES <input type="checkbox"/> NO
		PUMPING FT.		MODEL OR TYPE		PERFORMANCE <input type="checkbox"/> SMOOTH <input type="checkbox"/> ROUGH

DRIVER	MANUFACTURER <b>VS</b>	APPROVED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SHOP OR SERIAL NO. <b>221886-01</b>	MODEL OR TYPE <b>FF5DS185</b>	RATED H.P. <b>50</b>	RATED RPM <b>3600</b>
	<input checked="" type="checkbox"/> ELECTRIC MOTOR	RATED VOLT. <b>460</b>	OPERATING VOLT. <b>490</b>	RATED FL AMPS <b>65</b>	AMPS AT 150% <b>63</b>	PHASE <b>3</b>
	<input type="checkbox"/> DIESEL ENGINE	<input type="checkbox"/> GASOLINE ENGINE	<input type="checkbox"/> GAS ENGINE	<input type="checkbox"/> STEAM TURBINE	<input type="checkbox"/> PRESS. GOVERNOR BUILT IN	<input type="checkbox"/> INDEPENDENT

CONTROLLER	MANUFACTURER <b>TORNATECH</b>	APPROVED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	START	STOP	JOCKEY PUMP
	SHOP OR SERIAL NO. <b>ATP46050</b>	MODEL OR TYPE <b>ATP</b>	<input type="checkbox"/> MANUAL <input type="checkbox"/> PRESS DROP <input type="checkbox"/> AUTO	<input type="checkbox"/> MANUAL <input type="checkbox"/> WATER FLOW <input type="checkbox"/> AUTO	<input type="checkbox"/> YES ON <input type="checkbox"/> NO OFF

SPEED RPM	DISCHARGE PRESSURE PSI	SUCTION PRESSURE PSI	NET HEAD PSI	STREAMS			GALLONS PER MINUTE	PERCENT OF RATED CAPACITY	VOLTS	AMPS	STEAM PRESSURE	
				NO.	SIZE	PITOT PRESSURE					THROTTLE	CHEST
3570	151	66	85				0	SHUT OFF	490	44.43.43		
3565	135	59	76	1	1 1/4	32	514	51%		49.47.47		
3553	110	46	64	2	1 1/4	38.44	1164	116%		59.55.58		
3548	83	30	53	5	1 1/4	32.30.20	1419	142%		66.63.63		

Readings marked (+) in suction column are heads above atmosphere, those marked (-) are lifts. For vertical shaft pumps omit suction pressure and net head readings.



Plot discharge pressure and net head curves for horizontal shaft pump. For vertical shaft pump, plot discharge pressure curve. For electric-driven pump, plot amperes curve also.

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(Courtesy of Factory Mutual Research Corp.)

Figure A-11-2.6.3(A) Pump acceptance test data.



EASTERN FIRE PROTECTION

P.O. Box 1390  
Kittyhawk Ave.  
Auburn, Me. 04210

PH # (207) 784-1507  
FAX # (207) 782-0566

LETTER OF TRANSMITTAL

DATE	5-25-99	JOB NO.	AN 2634
ATTENTION	ED DU BOIS		
RE:	UNUM HO III		

TO TURNER CONSTRUCTION

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings     Descriptive data     Hydraulic calculations  
 Copy of letter     Literature     \_\_\_\_\_

QUANTITY	DRAWING NO.	DATE	DESCRIPTION	STATUS
1			FLOW TEST REPORT	E
1			CERTIFIED TEST CURVES	E

Status code    A. Approved    D. Corrected & resubmitted  
                      B. Approved as noted    E. For your files  
                      C. Submitted for approval    F. Refer to remarks

Please return \_\_\_\_\_ copies each indicating your approval and/or comments.

REMARKS \_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_

COPY TO \_\_\_\_\_

SIGNED \_\_\_\_\_



**Pump Performance Test Report**

Client:	EASTERN FIRE PROTECTION	Location:	AUBURN ME
Date:	4 12 99	Tested by:	Dick Stearns

Pump Identification:				HORIZONTAL ELECTRIC FIRE PUMP, PEERLESS MOD. 5AEF8N S/N 221836			
Rated GPM	1000	Rated PSIG:	65	Rated PSIG @ 0%	84		
Rated GPM @ 150%	1500	PSIG @ 150%:	62	Rated Pump RPM:	3550		

Distance from the pumping water level to the center of the discharge gauge in FEET - Vertical Turbine Pumps										310.00 Feet	
Rated Pump RPM	As Tested Pump RPM	Test Discharge Pressure	Test Suction Pressure (+ or -)	Test Net Head (PSIG)	Nozzle Diameters	Nozzle "K"	Test Nozzle Pitot Pressure	Calculated Test Flow (GPM)	ACTUAL FLOW (GPM) (rpm corrected)	ACTUAL NET HEAD (PSIG) (rpm corrected)	Actual % of Rated Flow
3550	3570	151	66.00	85.00	1.75	0.97	0	0	0	84	0
"A" Leg Amperage		44	Voltage		490						
"B" Leg Amperage		43	Voltage		490						
"C" Leg Amperage		43	Voltage		490						

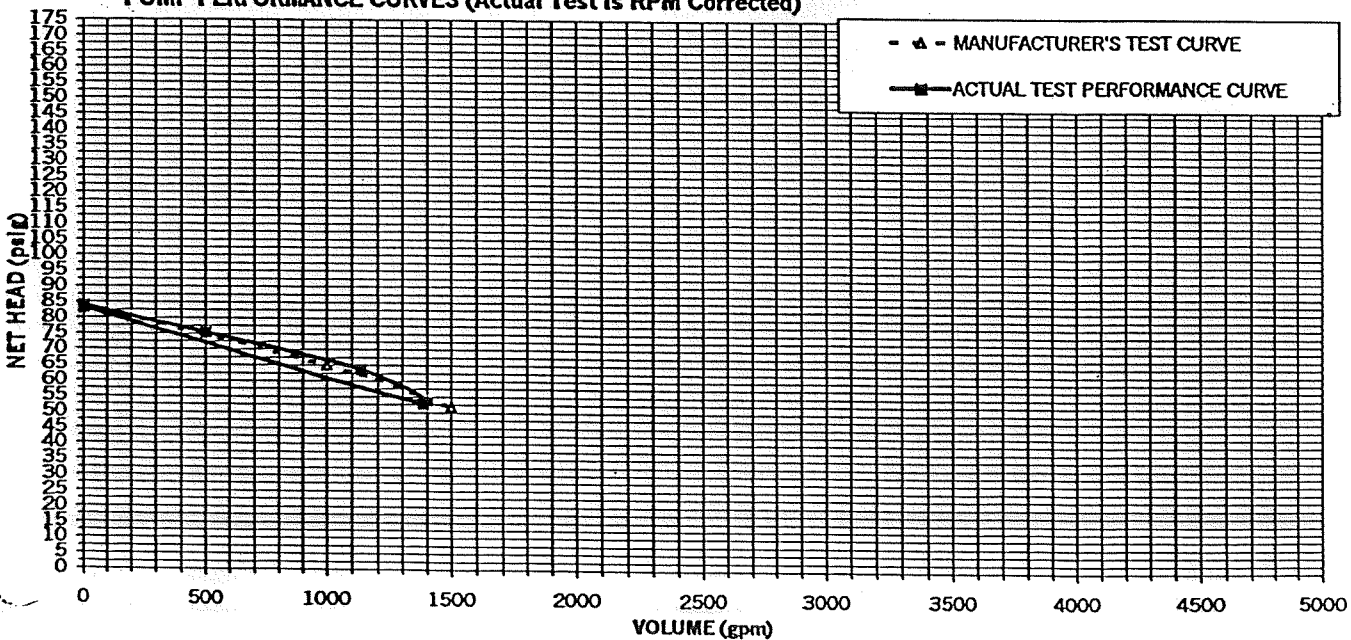
3550	3565	135	59.00	76.00	1.75	0.97	32	501	499		
"A" Leg Amperage		49	Voltage		490			0	0		
"B" Leg Amperage		47	Voltage		490			0	0		
"C" Leg Amperage		47	Voltage		490			0	0		
TOTAL								501	499	75	49.92%

3550	3553	110	46.00	64.00	1.75	0.97	44	588	587		
"A" Leg Amperage		59	Voltage		490			546	546		
"B" Leg Amperage		58	Voltage		490			0	0		
"C" Leg Amperage		58	Voltage		490			0	0		
TOTAL								1134	1133	64	113.31%

3550	3548	83	30.00	53.00	1.75	0.97	32	501	502		
"A" Leg Amperage		66	Voltage		490			485	486		
"B" Leg Amperage		63	Voltage		490			396	397		
"C" Leg Amperage		63	Voltage		490			0	0		
TOTAL								1383	1384	63	138.37%

3550	3548	83	0.00	83.00	1.75	0.97	30	0	0		
"A" Leg Amperage		63	Voltage		490			0	0		
"B" Leg Amperage		63	Voltage		490			0	0		
"C" Leg Amperage		63	Voltage		490			0	0		
TOTAL								0	0	83	0.00%

PUMP PERFORMANCE CURVES (Actual Test is RPM Corrected)



HYDRAULIC PERFORMANCE WARRANTY  
 GUARANTEED AT DESIGNATED POINT  
 ONLY AND IS CONTINGENT ON:  
 1. PROPER NPSH OR SUBMERGENCE AVAILABLE.  
 2. PROPER AND ADEQUATE FLOW TO PUMP  
 SUCTION.  
 3. FLUID FREE OF GAS, AIR AND ABRASIVE  
 MATTER.  
 4. IMPELLER WITH PROPER LATERAL  
 ADJUSTMENT (VERT. PUMP ONLY).

# Peerless Pump Company

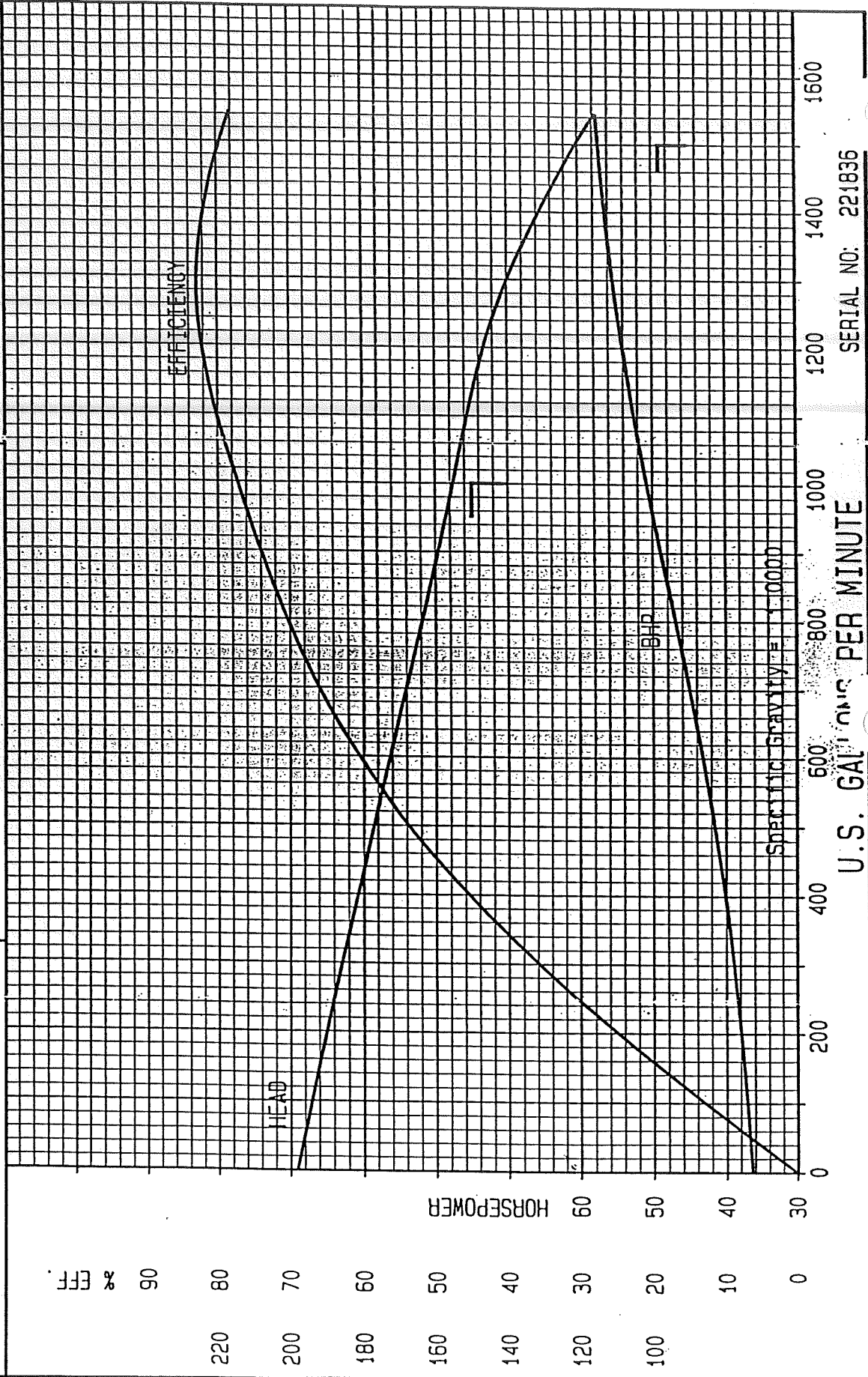
Indianapolis, IN 46207-7026

UNUM HO-3

PUMP PERFORMANCE

BY: JJJ DATE: 12-16-98

CURVE NO: C199209  
 PUMP MODEL: 5AEF8N  
 TEST NO: 199209  
 SHOP ORDER: 221836  
 STAGES: 1 RPM: 3550  
 IMPELLER: 2693816  
 IMP. DIA: 6.8



U.S. GALLONS PER MINUTE TEST CURVE SERIAL NO: 221836

CERTIFIED SHOP TEST CURVE