

January 28, 2010

Greg Shinberg
Shinberg Consulting LLC
477 Congress St.
Portland, ME 04101 - 3427

Re: Special Inspections Final Report
645 Congress St.
Portland, Maine

Letter of Transmittal

COPIES

2

DESCRIPTION

Special Inspections Final Report

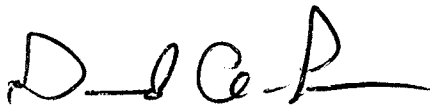
COMMENTS:

Greg – It is my understanding that I am to give both copies to Jeff Frye of Hardy Pond Builders who I understand will distribute them as necessary.

Thank you for giving us the opportunity to assist you with this project. Please let me know if you need anything else.

Regards,
David

Signed : _____



Final Report of Structural Special Inspections

Project: *Renovations to 645 Congress Street*
Location: *645 Congress Street; Portland Maine*
Owner: *Bayside Maine, LLC*

Structural Design Professional in
Responsible Charge: *David A. Price, PE / Price Structural Engineers, Inc.*

Date: *January 27, 2010*

To whom it may concern:

To the best of my information, knowledge and belief, the *Structural Special Inspections* required for this project have been performed and discovered discrepancies have been reported and resolved. Copies of statements, field reports, tests and inspections are included with this report.

Comments:

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Special Inspector

David A. Price, PE
Price Structural Engineers, Inc.

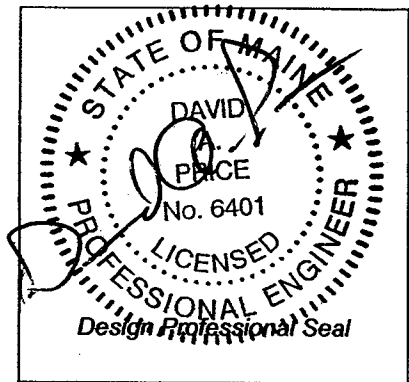
(type or print name)

DA Price

Signature

1/28/10

Date



Schedule of Structural Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Soils and Foundations | <input type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input checked="" type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input checked="" type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Structural Special Inspector	<i>Price Structural Engineers, Inc.</i>	<i>75 Farms Edge Road North Yarmouth, ME 04097 Tel : (207) 846-0099</i>
2. Inspection / Testing	<i>S.W. Cole Engineering</i>	<i>286 Portland Road Gray, ME 04039 Tel : (207) 657.2866</i>
3. Inspection / Testing	<i>Quality Assurance Labs Inc.</i>	<i>80 Pleasant Ave. South Portland, ME 04106 Tel : (207) 799-8911</i>

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category	B
Quality Assurance Plan Required (Y/N)	No

Description of seismic force resisting system and designated seismic systems:

The main building structure is braced using existing solid brick exterior shearwalls and existing plaster interior shear walls on existing wood framing. Shear walls occur in each orthogonal direction. The existing building is constructed with cast iron columns, steel beams, wood framed joists and a wood diaphragm. New structural steel braced frames are added at the ground floor level only, at the south wall only. A new concrete masonry shear-wall will be constructed in the basement below the new braced frame at the east end of the building.

Inspections and tests for the seismic resisting components are as indicated within the attached schedule and summarized as follows:

1. *Test compaction of foundation backfill below shearwalls.*
2. *Visually inspect reinforcement and test concrete at concrete foundations.*
3. *Visually Inspect reinforcement and test masonry at masonry shear walls.*
4. *Visually inspect structural steel member sizes, welding and bolting at structural steel framing.*
5. *Visually inspect fastener spacing and supports at wood framed areas adjacent to new steel bracing.*
6. *Visually inspect adhesive anchors at existing brick piers*

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust)	100 mph
Wind Exposure Category	C
Quality Assurance Plan Required (Y/N)	Yes

Description of wind force resisting system and designated wind resisting components:

The main building structure is braced using existing solid brick exterior shearwalls and existing plaster interior shear walls on existing wood framing. Shear walls occur in each orthogonal direction. New structural steel braced frames are added at the ground floor level only, at the south wall only. A new concrete masonry shear-wall will be constructed in the basement below the new braced frame at the east end of the building.

Inspections and tests for the wind resisting components are as indicated within the attached schedule and summarized as follows:

1. *Test compaction of foundation backfill below shearwalls.*
2. *Visually inspect reinforcement and test concrete at concrete foundations.*
3. *Visually Inspect reinforcement and test masonry at masonry shear walls.*
4. *Visually inspect structural steel member sizes, welding and bolting at structural steel framing.*
5. *Visually inspect fastener spacing and supports at wood framed areas adjacent to new steel bracing.*
6. *Visually inspect adhesive anchors at existing brick piers*

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS – ACWI	Associate Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
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International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

Soils and Foundations

Note: Where "periodic inspections" are performed and deficient items are located, additional inspections shall be performed so that extent of deficient areas can be determined and corrected.

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	<i>Agency #2 (PE/GE or Qualified Technician supervised by PE/GE)</i>	<i>Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.</i> <i>Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill</i>
2. Structural Fill	<i>Agency #2 (PE/GE or Qualified Technician supervised by PE/GE)</i>	<i>Verify material properties of crushed stone and structural fill adjacent to foundations and below footings</i> <i>Inspect placement, lift thickness and compaction of structural fill.</i> <i>Test density of each lift of fill by nuclear methods (ASTM D2922). Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557 adjacent to foundations and below footings.</i> <i>Verify extent and slope of fill placement.</i>

Cast-in-Place Concrete

Note: Where "periodic inspections" are performed and deficient items are located, additional inspections shall be performed so that extent of deficient areas can be determined and corrected.

Item	Agency # (Qualif.)	Scope
1. (a) Mix Design – Before Construction (b) Reinforcement Submittal	Agency #1 (PE/SE)	Review cement certificate of compliance as part of mix design submittal review. Review steel reinforcement submittal
2. Concrete Mix – During Construction	Agency #2 (ACI-CCI)	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
3. Reinforcement Installation	Agency #2 (ACI- CCI)	Inspect size, spacing, cover, positioning and grade of all reinforcing steel, including dowels for masonry walls. Reinforcement shall conform to stamped structural drawings in addition to what is indicated on reinforcement shop drawings. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
4. Formwork	Agency #2 (ACI- CCI)	Inspect formwork dimensions for compliance with foundation drawings. Verify that formwork does not contain debris or ice. Verify foundation wall control joint bondouts conform to G2/S3.0
5. Anchor Rods & Anchor Bolts & Adhesive Anchors	Agency #2 (ACI- CCI)	Inspect size, positioning and embedment of anchor rods/bolts and reinforcement anchorage dowels <u>Inspect concrete placement and consolidation around anchors</u>
6. Concrete Placement	Agency #2 (ACI- CCI)	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
7. Sampling and Testing of Concrete	Agency #2 (ACI- CFTT)	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
8. Curing and Protection	Agency #2 (ACI- CCI)	Inspect curing, cold weather protection and hot weather protection procedures.
9. Beam Pockets (F1/S5.2)	Agency #2 (ACI- CCI)	Inspect formwork, bolt layout and reinforcement per detail F1/S5.2 for beam pockets.

Structural Masonry

Note: Where "periodic inspections" are performed and deficient items are located, additional inspections shall be performed so that extent of deficient areas can be determined and corrected.

Item	Agency # (Qualif.)	Scope
1. (a) Grout Mix Design – Before Construction (b) Reinforcement Submittal	Agency #1 (PE/SE)	Review cement certificate of compliance as part of mix design submittal review. Review steel reinforcement submittal
2. Grout Mix – During Construction	Agency #2 (ACI- CFTT)	Review grout batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
3. Reinforcement Installation	Agency #2 (ACI- CCI)	Inspect reinforcing steel including both wire joint reinforcement and also deformed bar reinforcement. Inspect lap splices and dowels at wall intersections. Inspect size, spacing, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar lap splices. Verify that bars are adequately tied.
4. Concrete Block	Agency #2 (ACI- CCI)	Inspect masonry cores to be sure that hardened mortar does not block cells to be grouted. Verify inspection ports at bottom of vertically grouted cells Perform at least one prism test early in masonry installation to verify concrete block strength
5. Mortar	Agency #2 (ACI- CFTT)	Inspect field preparation of mortar including mortar components, mixing procedures and water content Inspect mortar installation procedure
6. Anchor Bolts and Adhesive Anchors	Agency #2 (ACI- CCI)	Inspect size, positioning and embedment of anchor rods/bolts and reinforcement anchorage dowels
7. Grout Placement	Agency #2 (ACI- CFTT)	Inspect placement of grout. Verify that grout conveyance and depositing avoids segregation or contamination. Verify that grout is properly consolidated. Inspect concrete placement and consolidation around anchors.
7. Sampling and Testing of Grout	Agency #2 (ACI-LTT)	Test grout compressive strength, slump, air-content, and temperature
8. Curing and Protection	Agency #2 (ACI- CCI)	Inspect curing, cold weather protection and hot weather protection procedures.
9. Grout all cores solid where masonry is below grade	Agency #2 (ACI- CCI)	Periodic inspections

Structural Steel

Note: Where "periodic inspections" are performed and deficient items are located, additional inspections shall be performed so that extent of deficient areas can be determined and corrected.

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification	Agency #3 (AWS-CWI)	Review documentation that shop fabricator is an AISC certified plant.
2. Steel Shop Drawings and Material Certification	Agency #1 (PE/SE)	Review Structural steel shop drawings and certificates of compliance as part of structural steel submittal.
3. Leveling Plates below columns	Agency #3 (AWS-ACWI)	Verify that Leveling plates have been grouted as specified prior to placing beams or columns
4. Anchor Rods and Bolts	Agency #3 (AWS-ACWI)	Verify that washers are in place as specified and that nuts are tight at all anchor bolts.
5. Structural Steel components	Agency #3 (AWS-ACWI)	Verify beams and columns have been placed at correct locations based on identification markings and beam depth (or column depth) dimensions.
6. Bolting	Agency #3 (AWS-ACWI)	<p>Inspect high strength bolt material markings for correct bolt type, diameter, storage in lubricated containers and installation / tightening of high-strength bolt.</p> <p>Verify that splines have separated from tension control bolts. Periodically verify proper tightening sequence.</p> <p>Continuously inspect placement of slip critical bolts and faying surfaces prior to bolt placement.</p>
8. Welding	Agency #3 (AWS-CWI)	<ul style="list-style-type: none"> • Visually inspect storage procedures of welding rods. • Review welding certificates of certified welders. • Verify MG-600 rods used at existing steel where specified • Continuously inspect field welding to existing steel with MG-600 electrodes for the first 4 hours(min) and periodic inspections thereafter provided contractor demonstrates adequate understanding of specified welding procedure requirements. • Visually inspect 100% of field welds at structural steel • Periodically pre-heat, post-heat and surface preparation between passes. • Field fillet welds larger than 5/16" or multi-pass welds shall be continuously inspected during weld placement.
8. Metal Deck	Agency #3 (AWS-CWI)	<p>Periodic weld inspection and side-lap fastening of floor deck.</p> <p>Periodic testing of welds.</p>

Rough Carpentry

Note: Where "periodic inspections" are performed and deficient items are located, additional inspections shall be performed so that extent of deficient areas can be determined and corrected.

Item	Agency # (Qualif.)	Scope
1. Framing size, spacing, alignment with truss centerlines, grade	<i>Agency #1</i> (PE/SE)	<i>Periodic Structural Observations</i>
2. Simpson Hangers- gap distance at hangers, nails (diameter, quantity), ZMAX finish at PT members,	<i>Agency #1</i> (PE/SE)	<i>Periodic Structural Observations</i>
3. Misc. Framing Details	<i>Agency #1</i> (PE/SE)	<i>Periodic Structural Observation</i>
4. Diaphragm Connections <ul style="list-style-type: none">• Anchors• Sheathing thickness• Fastener Size / Spacing• Framing @ Sheathing Edges• Stud Spacing• Sheathing material	<i>Agency #1</i> (PE/SE)	<i>Periodic Structural Observations</i>



New Hampshire
MATERIALS
LABORATORY, INC.
Your Problem Solving Partner

Test Report

April 22, 2009

Mr. David Price
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

File Number: 26342
P.O.#
Phone: 207-846-0099

Overview

Samples Received: (2) structural steel samples (645 Congress)
#2-Ground floor, double beam, old building 1893
#3-Ceiling @ elevator 5th floor 1897


Analysis Requested: Mechanical Testing per ASTM E8

Sample Disposition: Discard 30 days from date of report

Analysis Results:

	Sample Number	0.2% Yield (ksi)	Tensile (ksi)	Elongation (% in 4D)
1897 Bldg Ground Floor @ Congress St. double beam	2	38.8	64.7	30
1897 Bldg 5th Floor ceiling near elevator	3	42.8	63.2	30

Submitted by:


Timothy M. Kenney
Director of Laboratory Services

22 Interstate Drive
Somersworth, NH 03878-1209
800-334-5432 603-692-4110
603-692-4008 fax
lab@nhml.com www.nhml.com

QUALITY ASSURANCE LABORATORIES, INC.

NASHUA INDUSTRIAL PARK 13 PROGRESS AVENUE NASHUA, NEW HAMPSHIRE 03060 PH: 603-883-0796

*Over
Art
Gallea*

TENSILE TEST REPORT

COMPANY NAME Bayside, LLC LAB. TEST # LT-09-0516
 ADDRESS _____ QAL # 09-115
 CODE Client Info PROCEDURE NUMBER N/A WELDER TEST N/A
 WELDER NAME N/A WELDER STAMP N/A
 POSITION N/A FIXED N/A ROLL N/A TEST DATE 14 May 2009
 BASE METAL _____ GRADE _____ P# N/A TO P# N/A THICKNESS 0.413 to 0.363
 CURRENT _____ POLARITY _____ AMPS _____ VOLTAGE _____
 SIZE OF ELECTRODES _____ F. NUMBER _____ SFA N/A AWS _____

TENSILE TEST RESULTS

SPECIMEN	WIDTH	THICKNESS	AREA	ULTIMATE LOAD	ULTIMATE TENSILE STRENGTH	FAILURE
T-1	0.875	0.398	0.348	33,900 LBS	60,862 LBS	Old Mat'l BM

REMARKS

ON NDT TEST N/A
 ON ROOT BEND Acceptable (1 ea.) Note: substandard size specimen
 ON FACE BEND Acceptable (1 ea.) Note: substandard size specimen
 NICK BREAK TEST N/A
 NOTES: AN ALL MATERIAL SPECIMEN WAS BENT AND FOUND NO CRACKING OR INDICATIONS IN MATERIAL

WITNESSED BY: Jody Baudanza QAL, Nashua NH

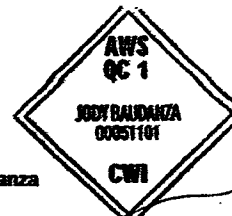
COMMENTS

THESE TEST STRAPS WERE PREPARED AND CUT IN ACCORDANCE WITH AWS D1.1, TESTED IN ACCORDANCE WITH CLIENT INFORMATION ONLY.

In witness whereof I have hereunto set my hand this
 14th day of May 2009

Quality Assurance Laboratories, Inc., Nashua NH

Inspected by: [Signature] J. Baudanza



*Specimen taken from
 645 Congress St., Portland
 2nd floor Framing adjacent
 to Congress St. sidewalk
 Bottom flange 15" steel beam
 located in 1897 bldg (beam
 was 20' east of center brick wall)*



New Hampshire
MATERIALS
LABORATORY, INC.

Your Problem Solving Partner

Test Report

February 26, 2009

Mr. David Price
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

File Number: 26142
P.O.#
Phone: 207-846-0099

Overview

Samples Received: (2) structural steel samples
Analysis Requested: Chemical composition
Sample Disposition: Discard 30 days from date of report

Both samples taken from Double S15 beams @ 2nd Floor along Congress Street (below 16" Flitch Brick)

West Building → *East Building*

Analysis Results

Element	Chemical Composition (Wt%)	
	(1893) Building 1 Old Section	(1897) Building 2 New Section
C	0.14	0.08
Mn	0.65	0.43
S	0.085	0.076
P	0.085	0.129
Si	0.05	0.02
Cr	0.01	0.01
Cu	0.01	0.01
V	0.01	0.02

Both samples are low carbon steels with elevated sulfur and phosphorus, which will increase the susceptibility to hot cracking. The tensile stress during solidification should be minimized. Normal butt joints should be beveled and normally beveled joints should have an increased bevel angle. The use of an electrode wire with high manganese content will promote the formation of manganese sulfide and minimize the tendency toward hot cracking.

Submitted by:

Timothy M. Kenney

Timothy M. Kenney
Director of Laboratory Services

22 Interstate Drive
Somersworth, NH 03878-1209
800-334-5432 603-692-4110
603-692-4018 fax
lab@nhml.com www.nhml.com



Quality Assurance Labs Inc.

NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES

80 PLEASANT AVENUE • SOUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7251



November 25, 2009

Shinberg Consulting
477 Congress Street
Portland, Maine 04101

Ref: 645 Congress Street

Attn: Greg Shinberg

Dear Sir,

On 11/19/09, a site visit was made to the 645 Congress Street Project for Structural Steel Inspection. The following items were inspected:

REAR ENTRY CANOPY

Clip Angle welds from canopy frame to existing beam structure on line F, 5.2 - 6.5. All welding was found to be IAW AWS D1.1 and applicable site DWGS.

Best Regards,
Art Gallant CWI# 90100091

Quality Assurance Labs Inc.

NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES
 80 PLEASANT AVENUE • SOUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7251

INSPECTION REPORT

CUSTOMER: SHINBERG CONSTRUCTION		PAGE 1 OF 1	
ADDRESS: 477 CONGRESS ST. PORTLAND, ME. 04101			
ATTENTION: GREG SHINBERG			
COPIES:			
PROJECT: RENOVATIONS @ 645 CONGRESS ST. - PORTLAND, ME.			
OWNER: BAYSIDE LLC			
CONTRACTOR: HARDY POND CONSTRUCTION			
JOB No.:	REPORT No.: QAL-09-1900	P. O. NUMBER:	DATES INSPECTED: 10 - 26 - 09

REMARKS

>>>>>> SITE VISIT TO PERFORM VISUAL INSPECTION OF ELEVATED SLAB AREA F4, 4.2 - 7.3 DECKING ATTACHMENTS :

> VISUAL INSPECTION OF ABOVE REF. AREA REVEALED 5/8" - 10" O/C PUDDLE WELDS PER DRAWING REQUIREMENTS. NOTE: APPROX. 20% OF DECKING AREA COVERED WITH CONSTRUCTION MATERIAL WHICH PREVENTED INSPECTION OF THIS AREA, HOWEVER, CONSISTENT QUALITY OF REMAINING DECK AREA AND PERSONAL HISTORY OF WELDING CONTRACTOR LEAVES LITTLE DOUBT THAT THIS COVERED AREA IS COMPLETE FOR PUDDLE WELDS.

END ITEMS ////

FAA REPAIR STATION NUMBER RX5R187N
METHOD(S), PROCESS(ES), PROCEDURE(S) MERCURY FREE

ADDITIONAL INFORMATION - SEE ATTACHED: SKETCH(ES) SUPPLEMENTARY SHEET(S) NDT REPORTS VIDEO

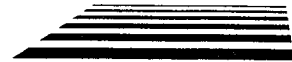
		SIGNATURES		DATE				
				LEVEL	M	D	Y	
INSPECTOR	M. Drew	CWI # 99050211	<i>Michael Drew</i>	ASNT	II	10	27	09
SUPERVISOR								



Quality Assurance Labs Inc.

NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES

80 PLEASANT AVENUE • SOUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7251



December 7, 2009

Shinberg Consulting
477 Congress Street
Portland, Maine 04101

Ref: 645 Congress Street
QAL-09-2128

Attn: Greg Shinberg

Dear Sir,

On 12/07/09, a site visit was made to the 645 Congress Street Project for Structural Steel Inspection. The following items were inspected:

COLUMN CONNECTIONS

Inspected column to base plate connections and column cap plate to existing beam connections on line "A". Connections at line A7.1 and A8.9 were rejected for excessive gap and poor weld profile as marked on column. The remainder of connections were found to be acceptable. All acceptable welding was found to be IAW AWS D1.1 and applicable site DWGS.

Best Regards,
Art Gallant CWI# 90100091



Quality Assurance Labs Inc.

NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES

80 PLEASANT AVENUE • SOUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7251



January 13, 2010

Shinberg Consulting
477 Congress Street
Portland, Maine 04101

Ref: 645 Congress Street
QAL-09-2152, 10-0057

Attn: Greg Shinberg

Dear Sir,

On 12/10/09, 12/11/09, 12/18/09, 12/24/09/ 1/6/10, 1/7/10 and 1/8/10 site visits were made to the 645 Congress Street Project for Structural Steel Inspection. The following items were inspected:

BOLTED CONNECTIONS

Inspected the standard bolted connections and the slip critical bolted connections on the 2nd floor framing on line "A" and Canopy bolts. The slip critical connections were verified with a torque wrench which was calibrated to a skidmore. All connections were IAW structural engineer's specifications.

WELDED CONNECTIONS

Inspected all welded connections to include Wind Bracing welds, Stiffner Plate welds, Spacer Plate welds, Beam to Column welds, Angle Support welds and canopy welds on line "A" and "B". All connections were found to be IAW AWS D1.1 and applicable site DWGS.

Best Regards,
Art Gallant CWI# 90100091

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 10/5/2009 **Time Cast:** 11:23 **Date Received:** 10/6/2009

Placement Location: WALLS: LINE G.1 - REAR ENTRANCE

Placement Method: DIRECT DISCHARGE

Placement Vol. (yd³): 14

Cylinders Made By: VLT

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR - GLENIUM

TEST RESULTS

Slump (in) (C-143):	Slump WR: 5 3/4	Load Number: 1
Air Content (%) (C-231):	Air WR: 6.2	Mixer Number: 177
Air Temp (°F): 63		Ticket Number: 3933186
Conc. Temp (°F) (C-1064): 67		Cubic Yards: 10
		Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-6A		4.00	12.57	10/12/2009	Lab	7	4	46.0	3660
995-6B		4.00	12.57	11/2/2009	Lab	28	4	62.6	4980
995-6C		4.00	12.57	11/2/2009	Lab	28	4	66.0	5250
995-6D				Hold	Lab				

Fracture Types



Cone



Cone and Split



Cone and Shear



Shear



Columnar

Remarks: Client Amended 11-2-09 jlw



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client BAYSIDE MAINE, LLC

Date 11/3/2009

PRICE STRUCTURAL ENGINEERING
DAVID PRICE
75 FARMS EDGE RD
NORTH YARMOUTH, ME 04097

Results Being Reported

CONCRETE CYLINDER COMPRESSION TEST - ASTM C39/AASHTO T22

Copy To:

BAYSIDE MAINE, LLC - GREG SHINBERG

HARDYPOND CONSTRUCTION - JEFF FRYE

Remarks: Mail

S. W. COLE ENGINEERING, INC.

BY: 

Roger E. Domingo



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client BAYSIDE MAINE, LLC

Date 11/2/2009

PRICE STRUCTURAL ENGINEERING
DAVID PRICE
75 FARMS EDGE RD
NORTH YARMOUTH, ME 04097

Results Being Reported

CONCRETE CYLINDER COMPRESSION TEST - ASTM C39/AASHTO T22

Copy To:

BAYSIDE MAINE, LLC - GREG SHINBERG

HARDYPOND CONSTRUCTION - JEFF FRYE

Remarks: Mail

S. W. COLE ENGINEERING, INC.

BY: 

Roger E. Domingo

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 8/21/2009 **Time Cast:** 10:30 **Date Received:** 8/25/2009
Placement Location: FOOTING ALONG A LINE BETWEEN COLUMN LINES 5.1 & 10 (INT BASEMENT)

Placement Method:

Placement Vol. (yd³): 16.5

Cylinders Made By: TA

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MIDRANGE

TEST RESULTS

Slump (in) (C-143): 6
Air Content (%) (C-231): 2
Air Temp (°F): 80
Conc. Temp (°F) (C-1064): 84

Load Number: 2
Mixer Number: 180
Ticket Number: 3932639
Cubic Yards: 8.5
Design (psi): 3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area (In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-1A		4.00	12.57	8/27/2009	Lab	6	4	37.0	2950
995-1B		4.00	12.57	9/18/2009	Lab	28	4	55.8	4440
995-1C		4.00	12.57	9/18/2009	Lab	28	4	55.4	4410
995-1D				Hold	Lab				

Fracture Types



1
Cone



2
Cone and Split



3
Cone and Shear



4
Shear



5
Columnar

Remarks: Client Amended 11-2-09 jlw



Report of Mortar Compressive Strength

ASTM C109

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Supplier: GAGNE - PRO MASONRY

PLACEMENT INFORMATION

Date Cast: 8/31/2009 **Time Cast:** 1:08 **Date Received:** 9/1/2009

Placement Location: CONGRESS STREET BASEMENT FRONT WALL

Placement Method: BY HAND

Placement Vol. (yd³):

Cylinders Made By: VLT

Aggregate Size (in): SAND 2 : 1

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures:

TEST RESULTS

Air Temp (°F): 68

Batch Number: 1

Mortar Temp (°F) (C-1064) 64

Mixer Number:

Ticket Number:

Design (psi): 1800

Cube Designation	Area(In)²	Date Of Test	Age (days)	Load (kips)	Strength (psi)
995-2A	4.00	9/7/2009	7	13.8	3450
995-2B	4.00	9/7/2009	7	14.6	3650
995-2C	4.00	9/7/2009	7	13.6	3400
995-2D	4.00	9/28/2009	28	18.5	4620
995-2E	4.00	9/28/2009	28	17.5	4380
995-2F	4.00	9/28/2009	28	17.0	4250

Remarks: Client Amended 11-2-09 jlw



Report of Grout Specimen Compressive Strength

ASTM C1019

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 8/31/2009 **Time Cast:** 1:15 **Date Received:** 9/2/2009

Placement Location: CONGRESS ST BASEMENT FRONT WALL

Placement Method: BY HAND

Placement Vol. (yd³):

Cylinders Made By: VLT

Aggregate Size (in): SAND + 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures:

TEST RESULTS

Slump (in) (C-143):

Batch Number: 1

Air Temp (°F): 68

Mixer Number:

Grout Temp (°F) (C-1064): 67

Ticket Number:

Design (psi): 3000

Specimen Designation	Area(In) ²	Date Of Test	Age (days)	Load (kips)	Strength (psi)
995-3A	10.97	9/7/2009	7	52.8	4810
995-3B	11.39	9/28/2009	28	72.6	6370
995-3C	10.97	9/28/2009	28	67.7	6170
995-3D					

Remarks: Client Amended 11-2-09 jlw

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING
 Project Number: 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 9/18/2009 **Time Cast:** 10:25 **Date Received:** 9/19/2009

Placement Location: PIERS ON A-LINE AT 8.9, 8.1, 7.1, 6.7, 5.1

Placement Method: PUMP

Placement Vol. (yd³): 6.5

Cylinders Made By: PJO

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: GLENIUM MID RANGE

TEST RESULTS

Slump (in) (C-143):	Slump WR: 5	Load Number: 1
Air Content (%) (C-231):	Air WR: 5.1	Mixer Number: 177
Air Temp (°F): 65		Ticket Number: 3933025
Conc. Temp (°F) (C-1064): 69		Cubic Yards: 6.5
		Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area (in ²)	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-4A		4.00	12.57	9/25/2009	Lab	7	4	50.2	4000
995-4B		4.00	12.57	10/16/2009	Lab	28	4	75.0	5970
995-4C		4.00	12.57	10/16/2009	Lab	28	4	77.0	6130
995-4D				Hold	Lab				

Fracture Types



1
Cone



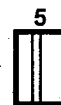
2
Cone and Split



3
Cone and Shear



4
Shear



5
Columnar

Remarks: Client Amended 11-2-09 jlw

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 9/23/2009 **Time Cast:** 2:25 **Date Received:** 9/25/2009

Placement Location: FOOTING: LINE 4.2, G.1 TO F.4 FOOTING: LINE G.1 TO F.4, 4.8 + 5.6 FOOTING: LINE 7.3, G.1 TO F.4. INTERIOR RAISED SLAB @ REAR ENTRANCE. *CONT. BELOW SEE REMARKS

Placement Method: DIRECT DISCHARGE **Placement Vol. (yd³):** 8

Cylinders Made By: VLT **Aggregate Size (in):** 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

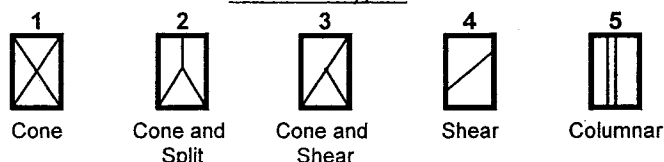
Admixtures: MRWR

TEST RESULTS

Slump (in) (C-143):	Slump WR: 3.5	Load Number: 1
Air Content (%) (C-231):	Air WR: 2.7	Mixer Number: 176
Air Temp (°F): 72		Ticket Number: 3933075
Conc. Temp (°F) (C-1064): 80		Cubic Yards: 8
		Design (psi): 3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area (in) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-5A		4.00	12.57	9/30/2009	Lab	7	4	40.4	3220
995-5B		4.00	12.57	10/21/2009	Lab	28	4	60.4	4810
995-5C		4.00	12.57	10/21/2009	Lab	28	4	62.2	4950
995-5D				Hold	Lab				

Fracture Types



Remarks: *STAIR FOOTING: OUTSIDE OF INTERSECTION LINES G.1 + 7.3 Client Amended 11-2-09 jlw

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC **Client Contract Number:**

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 10/9/2009 **Time Cast:** 12:50 **Date Received:** 10/12/2009

Placement Location: WALLS: LINE G.1, 4.8 TO 6 REAR ENTRANCE

Placement Method: DIRECT DISCHARGE

Placement Vol. (yd³): 14

Cylinders Made By: VLT

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR - GLENIUM

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 3.5

Load Number: 1

Air Content (%) (C-231): **Air WR:** 4.5

Mixer Number: 192

Air Temp (°F): 55

Ticket Number: 3933218

Conc. Temp (°F) (C-1064): 69

Cubic Yards: 10

Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area (in) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-7A		4.00	12.57	10/16/2009	Lab	7	4	50.0	3980
995-7B				11/6/2009	Lab	28			
995-7C				11/6/2009	Lab	28			
995-7D				Hold	Lab				

Fracture Types



1
Cone



2
Cone and Split



3
Cone and Shear



4
Shear



5
Columnar

Remarks: Client Amended 11-2-09 jlw



Letter of Transmittal

To: Bayside Maine, LLC. Attention: Greg Shinberg 477 Congress Street, Suite 102 Portland, ME 04101	Date: November 2, 2009 Project No: 09-0077.2 Subject: 645 Congress St. Portland, Maine
---	--

We are sending you: Attached Under Separate Cover

<input type="checkbox"/> Investigation Report	<input type="checkbox"/> Prints	<input type="checkbox"/> Samples
<input checked="" type="checkbox"/> Laboratory Test Report(s)	<input type="checkbox"/> Copy of Letter(s)	<input type="checkbox"/> Invoice
<input type="checkbox"/> Field Test Report(s)	<input type="checkbox"/> Specifications	<input type="checkbox"/> Other

Description: Concrete Construction Observation Report dated 10-29-09

These are transmitted as checked below:

<input checked="" type="checkbox"/> For your information	<input checked="" type="checkbox"/> For your use
<input checked="" type="checkbox"/> As requested	<input type="checkbox"/> Returned

Remarks:

Copy to:
David Price - Price Structural Engineering
Hardypond Construction- Jeff Frye

S. W. COLE ENGINEERING, INC.

BY: 
Roger E. Domingo
Construction Services Manager



Concrete Construction Observation Report

Project Name/Location:	645 Congress Street	Project No:	09-0077.2
Client/Client's Rep.:	Bayside Maine, LLC	Date:	10/29/09
Concrete Contractor:	A Plus Concrete	Sheet:	1 of 1
Placement Location:	Rear Entrance Slabs: line G.1, line 4.8 to 5.6 line G.1, line 5.6 to 7.3	SWCE Rep.:	PJO
Placement Type:	Footing <input type="checkbox"/> Wall <input type="checkbox"/> Column <input type="checkbox"/> Slab <input checked="" type="checkbox"/> Other <input type="checkbox"/>	Arrived at Site:	9:00am
		Left Site:	11:00am

<u>PRE PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Bar Size (diameter, length, bend and anchorage)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Location (# of bars, spacing, and cover)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Splicing (weld joint, overlap)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Stability (wiring, chairs, and spacers)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Concrete Blocks
Reinforcement free from mud, oil, rust, or other nonmetallic coatings	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Reinforcement appears in conformance to specifications	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Soil subgrade prepared in accordance with project specifications	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>	

<u>Referenced Drawings</u>	<u>Date</u>	<u>Page</u>	<u>Rev.</u>	<u>ASTM</u>	<u>GRADE</u>
Barker- Rear Entrance	7/10/09	RO1	7/15/09	A 615 <input checked="" type="checkbox"/>	40 <input type="checkbox"/> 50 <input type="checkbox"/> 60 <input checked="" type="checkbox"/>
Foundation Drawings	2/28/09	S2.0		A 616 <input type="checkbox"/>	75 <input type="checkbox"/>
		S4.1		A 617 <input type="checkbox"/>	
				A 706 <input type="checkbox"/>	A 775 Epoxy <input type="checkbox"/>

<u>CONCRETE PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Required mix used	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4000 psi, 3/4", MRWR
Placement and consolidation of concrete observed	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Concrete properly conveyed to all areas of placement	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tailgate
Depth of layer maximum limits not exceeded	Yes <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)	Yes <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Even layering around openings and embedments	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Removal of temporary ties and spacers	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

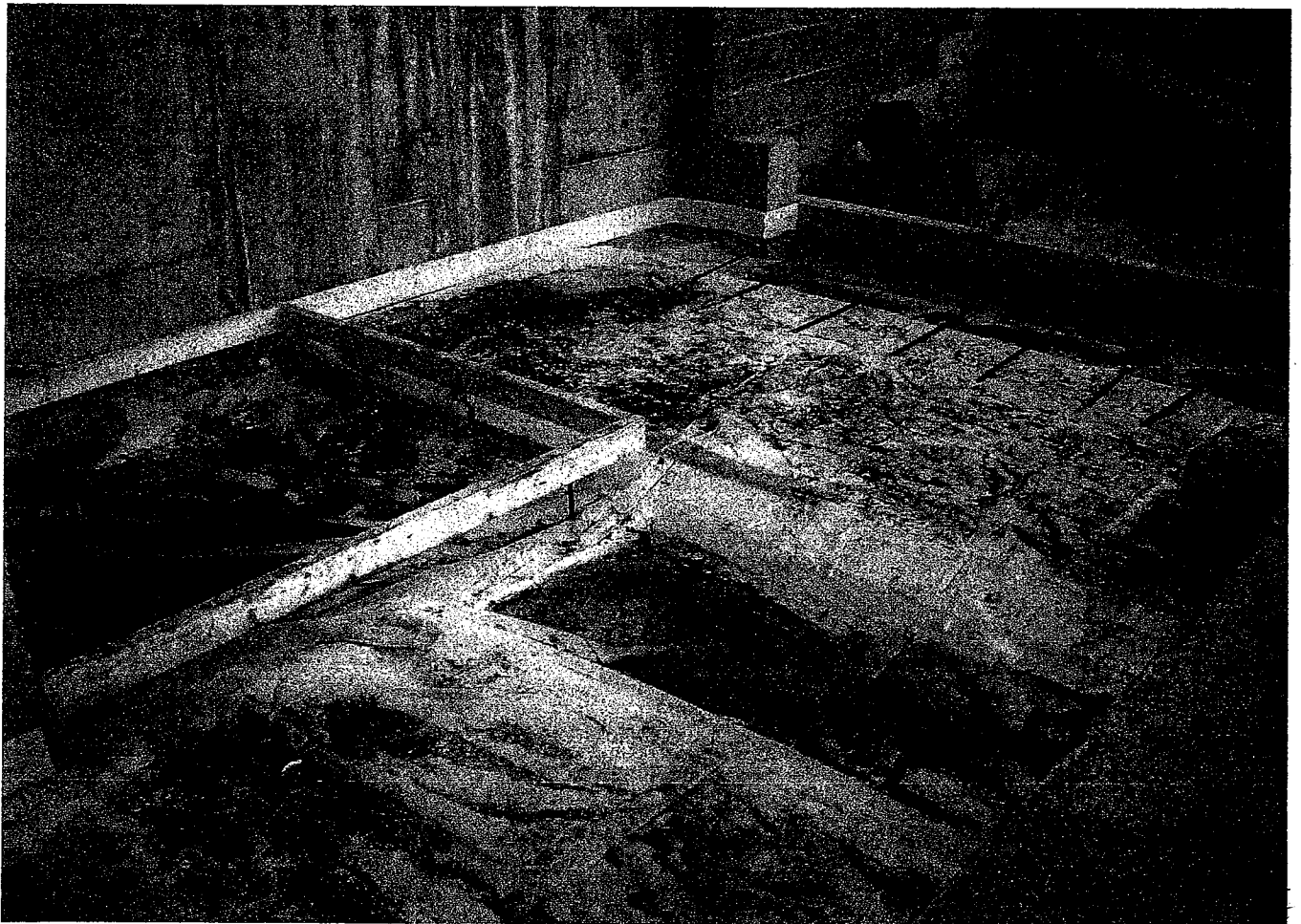
FIELD TESTING OF CONCRETE PERFORMED Yes No
 *CYLINDER SET NO: 995-8 ←refer to associated concrete test report

<u>POST PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Specified finish	Yes <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Trowel
Protection of surfaces from cracking due to rapid drying	Yes <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Proper curing procedures implemented	Yes <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

NON-CONFORMANCE ITEMS OBSERVED Yes No

Non-Conformance Item Description:
 Action Taken by SWCE:
 Person(s) Notified:

N/O = Not Observed
Notes: SWCE cast 4 cylinders. Slump: 4 1/2". Air 4.6%. Conc. temp 61°. Air temp 46°. Fibermesh and Pozzutec 20 2% added at batch plant.



Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: HARDYPOND CONSTRUCTION INC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 10/9/2009 **Time Cast:** 12:50 **Date Received:** 10/12/2009

Placement Location: WALLS: LINE G.1, 4.8 TO 6 REAR ENTRANCE

Placement Method: DIRECT DISCHARGE

Placement Vol. (yd³): 14

Cylinders Made By: VLT

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR - GLENIUM

TEST RESULTS

Slump (in) (C-143):	Slump WR: 3.5	Load Number: 1
Air Content (%) (C-231):	Air WR: 4.5	Mixer Number: 192
Air Temp (°F): 55		Ticket Number: 3933218
Conc. Temp (°F) (C-1064): 69		Cubic Yards: 10
		Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-7A		4.00	12.57	10/16/2009	Lab	7	4	50.0	3980
995-7B				11/6/2009	Lab	28			
995-7C				11/6/2009	Lab	28			
995-7D				Hold	Lab				

Fracture Types



1
Cone



2
Cone and Split



3
Cone and Shear



4
Shear



5
Columnar

Remarks:

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING Project Number: 09-0077.2

Client: HARDYPOND CONSTRUCTION INC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 9/18/2009 Time Cast: 10:25 Date Received: 9/19/2009

Placement Location: PIERS ON A-LINE AT 8.9, 8.1, 7.1, 6.7, 5.1

Placement Method: PUMP

Placement Vol. (yd³): 6.5

Cylinders Made By: PJO

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) Maximum (°F)

DELIVERY INFORMATION

Admixtures: GLENIUM MID RANGE

TEST RESULTS

Slump (in) (C-143):	Slump WR: 5	Load Number: 1
Air Content (%) (C-231):	Air WR: 5.1	Mixer Number: 177
Air Temp (°F): 65		Ticket Number: 3933025
Conc. Temp (°F) (C-1064): 69		Cubic Yards: 6.5
		Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-4A		4.00	12.57	9/25/2009	Lab	7	4	50.2	4000
995-4B		4.00	12.57	10/16/2009	Lab	28	4	75.0	5970
995-4C		4.00	12.57	10/16/2009	Lab	28	4	77.0	6130
995-4D				Hold	Lab				

Fracture Types


Cone



Cone and Split



Cone and Shear



Shear



Columnar

Remarks:



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client HARDYPOND CONSTRUCTION INC

Date 10/16/2009

PRICE STRUCTURAL ENGINEERING

75 FARMS EDGE ROAD
NORTH YARMOUTH, ME 04097

Results Being Reported

CONCRETE CYLINDER COMPRESSION TEST - ASTM C39/AASHTO T22

Copy To:

HARDYPOND CONSTRUCTION INC - JEFF FRYE

Remarks: MAIL

S. W. COLE ENGINEERING, INC.

BY: 

Roger E. Domingo

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2
Client: HARDYPOND CONSTRUCTION INC **Client Contract Number:**
General Contractor: **Concrete Supplier:** DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 9/23/2009 **Time Cast:** 2:25 **Date Received:** 9/25/2009
Placement Location: FOOTING: LINE 4.2, G.1 TO F.4 FOOTING: LINE G.1 TO F.4, 4.8 + 5.6 FOOTING: LINE 7.3, G.1 TO F.4. INTERIOR RAISED SLAB @ REAR ENTRANCE. *CONT. BELOW SEE REMARKS
Placement Method: DIRECT DISCHARGE **Placement Vol. (yd³):** 8
Cylinders Made By: VLT **Aggregate Size (in):** 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 3.5 **Load Number:** 1
Air Content (%) (C-231): **Air WR:** 2.7 **Mixer Number:** 176
Air Temp (°F): 72 **Ticket Number:** 3933075
Conc. Temp (°F) (C-1064): 80 **Cubic Yards:** 8
Design (psi): 3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area (in ²)	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-5A		4.00	12.57	9/30/2009	Lab	7	4	40.4	3220
995-5B		4.00	12.57	10/21/2009	Lab	28	4	60.4	4810
995-5C		4.00	12.57	10/21/2009	Lab	28	4	62.2	4950
995-5D				Hold	Lab				

Fracture Types



Cone



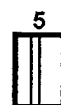
Cone and Split



Cone and Shear



Shear



Columnar

Remarks: *STAIR FOOTING: OUTSIDE OF INTERSECTION LINES G.1 + 7.3



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client HARDYPOND CONSTRUCTION INC

Date 10/21/2009

PRICE STRUCTURAL ENGINEERING

75 FARMS EDGE ROAD
NORTH YARMOUTH, ME 04097

Results Being Reported

CONCRETE CYLINDER COMPRESSION TEST - ASTM C39/AASHTO T22

Copy To:

HARDYPOND CONSTRUCTION INC - JEFF FRYE

Remarks: MAIL

S. W. COLE ENGINEERING, INC.

BY: _____

Roger E. Domingo

Report of Field Density

ASTM D6938

Project: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number: 09-0077.2

Client: HARDYPOND CONSTRUCTION INC

Field Density Test Results

Test #	Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID	Dry Density	Moisture Content Percent	Compaction Percent	Required Compaction
1	10/20/2009	TA	NEW REAR PEDESTRIAN WALKWAY	14"	12	11392G	115.0	3.3	97.2	95
2	10/20/2009	TA	NEW REAR PEDESTRIAN WALKWAY	14"	12	11392G	116.4	4.4	98.4	95

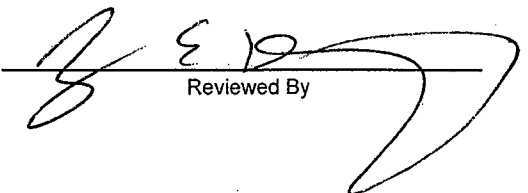
Laboratory Compaction Test Reference

Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density PCF	Optimum Moisture Content (%)	Comments
11392G	8/24/2009	Eastern Exc.	Sand	ASTM D-1557 Modified A	118.3	9.7	

Elevation Notes:

BFG- BELOW FINISH GRADE

Comments:



 Reviewed By

Letter of Transmittal

To: Bayside Maine, LLC. Attention: Greg Shinberg 477 Congress Street, Suite 102 Portland, ME 04101	Date: October 22, 2009 Project No: 09-0077.2 Subject: 645 Congress St. Portland, Maine
---	--

We are sending you: Attached Under Separate Cover

<input type="checkbox"/> Investigation Report	<input type="checkbox"/> Prints	<input type="checkbox"/> Samples
<input checked="" type="checkbox"/> Laboratory Test Report(s)	<input type="checkbox"/> Copy of Letter(s)	<input type="checkbox"/> Invoice
<input type="checkbox"/> Field Test Report(s)	<input type="checkbox"/> Specifications	<input type="checkbox"/> Other

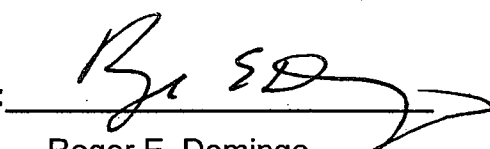
Description: Field Density Report dated 10-20-09

These are transmitted as checked below:

<input checked="" type="checkbox"/> For your information	<input checked="" type="checkbox"/> For your use
<input checked="" type="checkbox"/> As requested	<input type="checkbox"/> Returned

Remarks:

Copy to:
David Price - Price Structural Engineering
75 Farms Edge Road, N. Yarmouth 04097
Hardypond Construction- Jeff Frye

S. W. COLE ENGINEERING, INC.
BY: 
Roger E. Domingo
Construction Services Manager



Concrete Construction Observation Report

Project Name/Location:	645 Congress Street	Project No:	09-0077.2
Client/Client's Rep.:	City of Portland	Date:	10/9/09
Concrete Contractor:	JB Concrete	Sheet:	1 of 1
Placement Location:	Walls: line G.1, line 4.8 to 6 Rear entrance	SWCE Rep.:	VLT
Placement Type:	Footing <input type="checkbox"/> Wall <input checked="" type="checkbox"/> Column <input type="checkbox"/> Slab <input type="checkbox"/> Other <input type="checkbox"/>	Arrived at Site:	11:30am
		Left Site:	2:00pm

<u>PRE PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Bar Size (diameter, length, bend and anchorage)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	As required
Location (# of bars, spacing, and cover)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	As required
Splicing (weld joint, overlap)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Stability (wiring, chairs, and spacers)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Reinforcement free from mud; oil, rust, or other nonmetallic coatings	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Reinforcement appears in conformance to specifications	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Soil subgrade prepared in accordance with project specifications	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	As required

<u>Referenced Drawings</u>	<u>Date</u>	<u>Page</u>	<u>Rev.</u>	<u>ASTM</u>	<u>GRADE</u>
Barker-FND Walls Rear Entrance	7/10/09	RO1	7/15/09	A 615 <input checked="" type="checkbox"/>	40 <input type="checkbox"/> 50 <input type="checkbox"/> 60 <input checked="" type="checkbox"/>
				A 616 <input type="checkbox"/>	75 <input type="checkbox"/>
				A 617 <input type="checkbox"/>	
				A 706 <input type="checkbox"/>	A 775 Epoxy <input type="checkbox"/>

<u>CONCRETE PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Required mix used	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	4000 psi, 3/4", MRWR
Placement and consolidation of concrete observed	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Concrete properly conveyed to all areas of placement	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Direct Discharge
Depth of layer maximum limits not exceeded	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	N/A
Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Vibrated
Even layering around openings and embedments	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Removal of temporary ties and spacers	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	

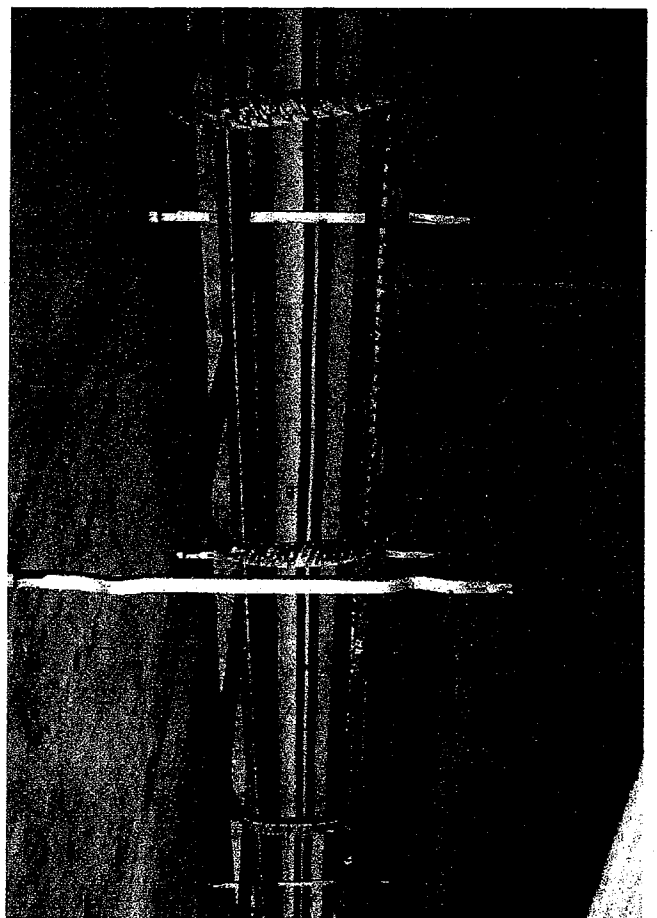
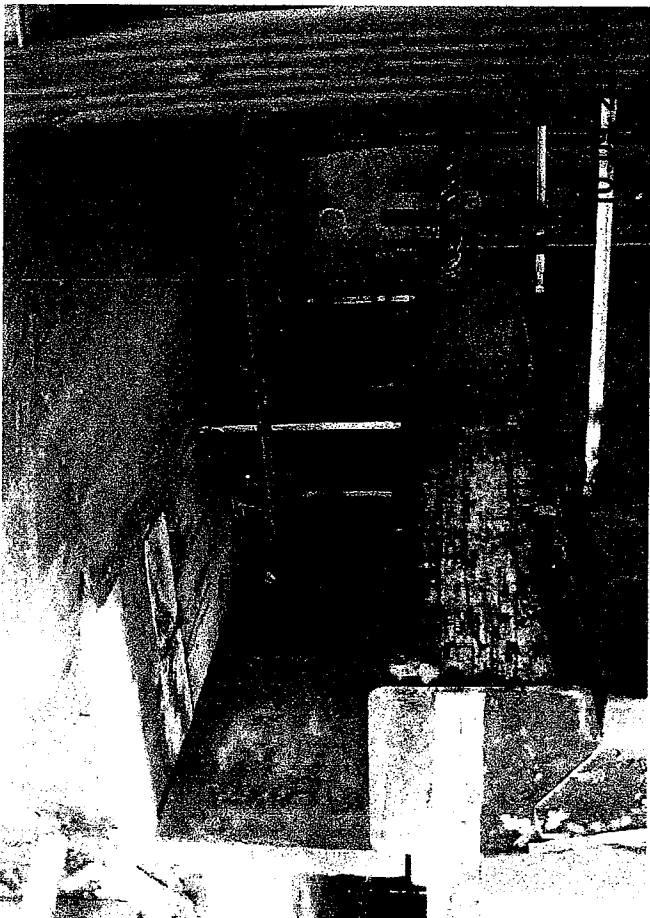
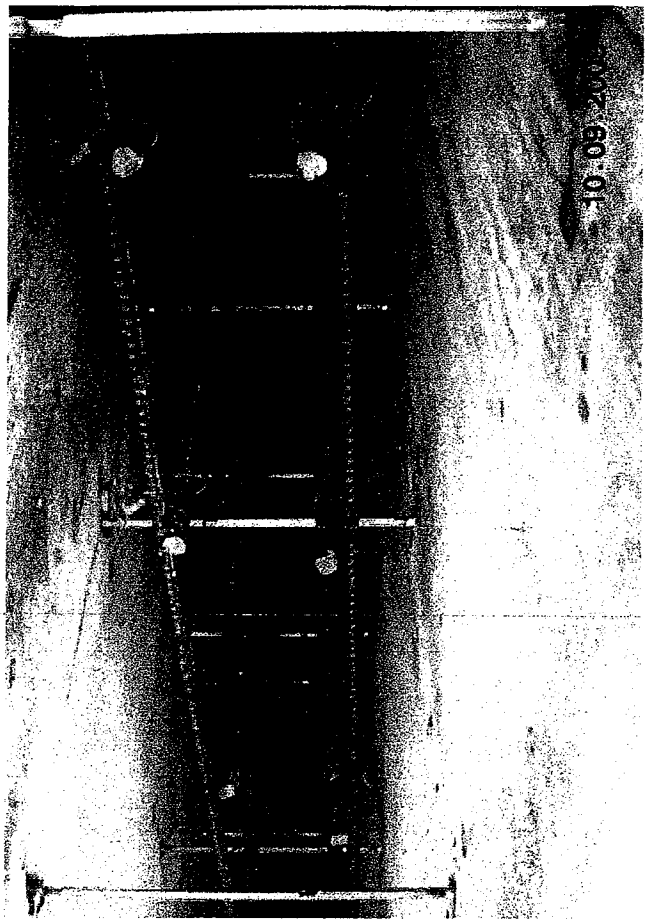
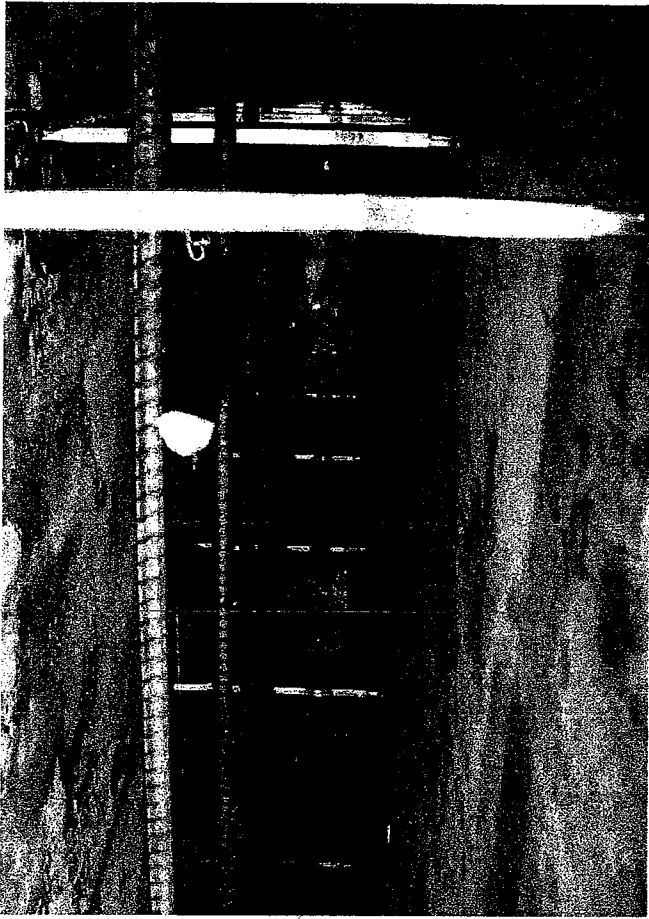
FIELD TESTING OF CONCRETE PERFORMED Yes No
 *CYLINDER SET NO: 995-7 ←*refer to associated concrete test report

<u>POST PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Specified finish	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Trowel
Protection of surfaces from cracking due to rapid drying	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>	
Proper curing procedures implemented	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>	

NON-CONFORMANCE ITEMS OBSERVED Yes No

Non-Conformance Item Description:
 Action Taken by SWCE:
 Person(s) Notified:

N/O = Not Observed
Notes: SWCE tested 1st load. Slump: 3 1/2". Air 4.5%. Conc. temp 69°. Air temp 55°. Rebar appeared to be installed within project specifications.





Letter of Transmittal

To: Bayside Maine, LLC. Attention: Greg Shinberg 477 Congress Street, Suite 102 Portland, ME 04101	Date: October 13, 2009 Project No: 09-0077.2 Subject: 645 Congress St. Portland, Maine
---	--

We are sending you: Attached Under Separate Cover

<input type="checkbox"/> Investigation Report	<input type="checkbox"/> Prints	<input type="checkbox"/> Samples
<input checked="" type="checkbox"/> Laboratory Test Report(s)	<input type="checkbox"/> Copy of Letter(s)	<input type="checkbox"/> Invoice
<input type="checkbox"/> Field Test Report(s)	<input type="checkbox"/> Specifications	<input type="checkbox"/> Other

Description: Concrete Construction Observation Report dated 10-9-09

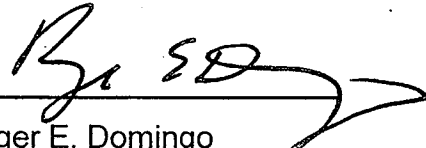
These are transmitted as checked below:

<input checked="" type="checkbox"/> For your information	<input checked="" type="checkbox"/> For your use
<input checked="" type="checkbox"/> As requested	<input type="checkbox"/> Returned

Remarks:

Copy to:
David Price - Price Structural Engineering
75 Farms Edge Road, N. Yarmouth 04097
Hardypond Construction- Jeff Frye

S. W. COLE ENGINEERING, INC.

BY: 
Roger E. Domingo
Construction Services Manager



S.W. COLE
ENGINEERING, INC.

• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

DAILY CONSTRUCTION REPORT

Project: 645 Congress Street Renovations

SWCE Project No.: 09-0077

Client: Bayside Maine, LLC

Date: 8-10-09

Client's Rep.: Greg Shinberg

Weather: Sunny, 80's.

Work in Progress: HardyPond Construction: Demolition.

Work Performed by SWC Rep.: Observed subgrade soils at excavations for proposed columns at building interior along A-line.

General Observations, Discussions, Etc: On site to perform follow-up observations of the excavations for the proposed interior A-line footings. In accordance with our recommendations, additional excavation had been performed since our last visit to removed the remaining loose fill soils and clean up the excavation edges. The exposed undisturbed dense native soils appear to be an acceptable bearing strata for the proposed foundations. It appeared that various drain configurations had been constructed along the interior of the existing foundation wall; some which appeared to have been brick channels were removed during the course of excavation and one that was a small diameter loose laid clay tile pipe (at A, 5.1) will remain in place per recommendations from the project structural engineer. We discussed with Hardy Pond the need to maintain and protect subgrade soils from damage due to ongoing construction activities. We understand that Hardy Pond will schedule inspection of reinforcing steel and concrete as construction progresses.

On Site: 12:00 – 12:30

Attachments: Photos

Sheet: 1 of 1

SWC Rep.: K. Gimpel

Rev. by: TJB

GRAY, ME OFFICE

286 Portland Road, Gray, ME 04039, Tel (207) 657-2866, Fax (207) 657-2840, (E) infogray@swcole.com, (I) www.swcole.com

The SWCE field representative is on-site at the request of our client to provide construction materials testing and to observe and document construction activities. The contractor has sole responsibility for schedule, site safety, methods, completeness and quality of the work.



• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

CONSTRUCTION OBSERVATION REPORT

Project: 645 Congress Street Renovations

SWCE Project No.: 09-0077

Client: Bayside Maine, LLC

Date: 8-26-09, 8-27-09

Client's Rep.: Greg Shinberg

Weather: Sunny, 80's.

Work in Progress: HardyPond Construction: Demolition and foundation excavation.

Work Performed by SWC Rep.: Observed subgrade at excavations for proposed concrete stairs exterior of G.1 line, wall and column footing along 4.2 line and at 4.2/G.1 lines; and wall footing between G.1 lines and north wall of existing Congress Street building.

General Observations, Discussions, Etc: The exposed subgrade at the bottom of footing elevation for the proposed concrete stairs on the exterior of G.1 line consists of undisturbed dense native glacial till and appears suitable for support of 3.0 ksf bearing pressure as given in the approved plans.

The exposed soils in the excavation for the proposed foundation wall along 4.2 line consists of a mixture of wet native and fill soils. The bottom of this excavation was several feet below the bottom of footing elevation for the proposed wall along 4.2 line. The footing of an existing retaining wall footing was encountered at the approximate location and elevation of the proposed column footing at G.1/4.2. Further excavation to remove fill soils and site visit for observations prior to placement of fill or concrete is recommended. The excavation between G.1 line and the exterior north wall of the existing Congress Street building revealed rubble fill and fill soils, relic concrete footings and slabs. Further excavation and removal of the relic footings will be required to observe subgrade beneath proposed foundations.

During discussions at the site with Dave Price and HardyPond, we understand Dave Price will provide direction for removal of the relic footings between G.1 and the exterior north wall ; and the conflict at G.1/4.2. We discussed with HardyPond the need to maintain and protect subgrade soils from damage due to ongoing construction activities and weather at the proposed concrete stair location.

On Site: 11:00 – 12:00 (8/26), 10:30-11:00 (8/27)

Attachments: Photos

Sheet: 1 of 1

SWC Rep.: R. Domingo

Rev. by: TJB

GRAY, ME OFFICE

286 Portland Road, Gray, ME 04039, Tel (207) 657-2866, Fax (207) 657-2840, (E) infogray@swcole.com, (I) www.swcole.com

The SWCE field representative is on-site at the request of our client to provide construction materials testing and to observe and document construction activities. The contractor has sole responsibility for schedule, site safety, methods, completeness and quality of the work.



Report of Field Density

ASTM D6938

Project: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number: 09-0077.2

Client: BAYSIDE MAINE, LLC

Field Density Test Results

Test #	Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID	Dry Density	Moisture Content Percent	Compaction Percent	Required Compaction
3	12/17/2009	VLT	1' OUTSIDE - LINE A MAIN ENTRANCE SIDEWALK SUBGRADES	-3" BFG	10	11392G	109.8	4.1	92.8	95
4	12/17/2009	VLT	RETEST OF TEST #3	-3" BFG	10	11392G	112.9	4.1	95.4	95

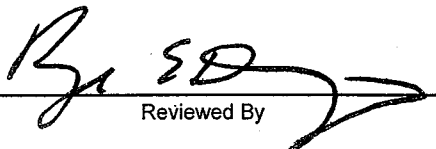
Laboratory Compaction Test Reference

Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density PCF	Optimum Moisture Content (%)	Comments
11392G	8/24/2009	Eastern Exc.	Sand	ASTM D-1557 Modified A	118.3	9.7	

Elevation Notes:

BFG - BELOW FINISH GRADE

Comments:


 Reviewed By



Concrete Construction Observation Report

Project Name/Location:	645 Congress Street	Project No:	09-0077.2
Client/Client's Rep.:	City of Portland	Date:	09/23/09
Concrete Contractor:	JB Concrete	Sheet:	1 of 1
Placement Location:	Footing: Lines G.1 to F.4 & 4.2 to 7.3. Stair footing outside int. of G.1 & 7.3. Interior raised slab.	SWCE Rep.:	VLT
Placement Type:	Footing <input checked="" type="checkbox"/> Wall <input type="checkbox"/> Column <input type="checkbox"/> Slab <input checked="" type="checkbox"/> Other <input type="checkbox"/>	Arrived at Site:	12:30pm
		Left Site:	3:00pm

<u>PRE PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Bar Size (diameter, length, bend and anchorage)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	As required
Location (# of bars, spacing, and cover)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	As required
Splicing (weld joint, overlap)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Stability (wiring, chairs, and spacers)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Reinforcement free from mud, oil, rust, or other nonmetallic coatings	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Reinforcement appears in conformance to specifications	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Soil subgrade prepared in accordance with project specifications	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	¾" crushed stone

<u>Referenced Drawings</u>	<u>Date</u>	<u>Page</u>	<u>Rev.</u>	<u>ASTM</u>	<u>GRADE</u>
Barker-FND Walls Rear Entrance	7/10/09	RO1		A 615 <input checked="" type="checkbox"/>	40 <input type="checkbox"/> 50 <input type="checkbox"/> 60 <input checked="" type="checkbox"/>
				A 616 <input type="checkbox"/>	75 <input type="checkbox"/>
				A 617 <input type="checkbox"/>	
				A 706 <input type="checkbox"/>	A 775 Epoxy <input type="checkbox"/>

<u>CONCRETE PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Required mix used	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	4000 psi, ¾", MRWR
Placement and consolidation of concrete observed	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Concrete properly conveyed to all areas of placement	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Direct Discharge
Depth of layer maximum limits not exceeded	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	N/A
Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Vibrated
Even layering around openings and embedments	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Removal of temporary ties and spacers	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>	

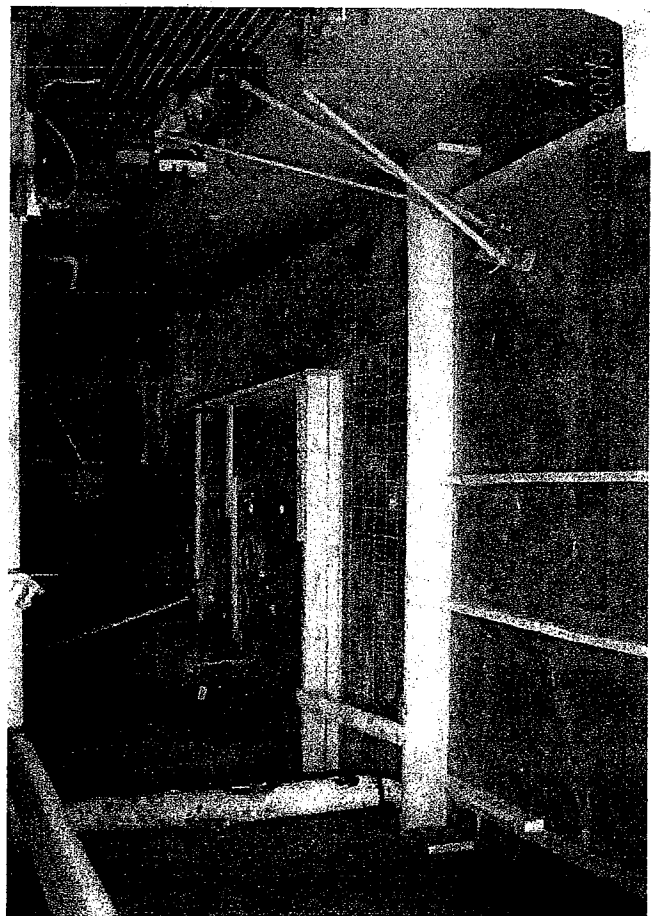
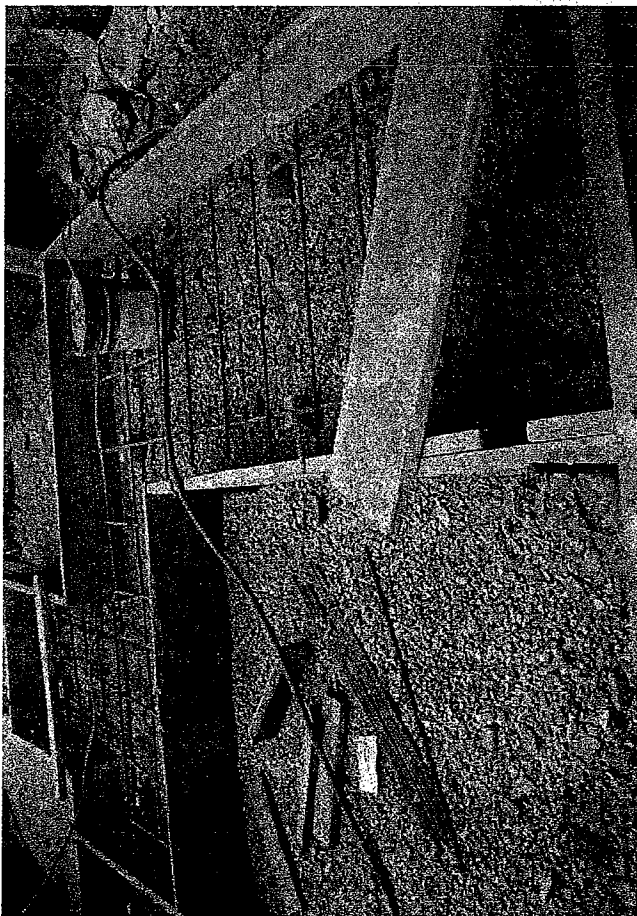
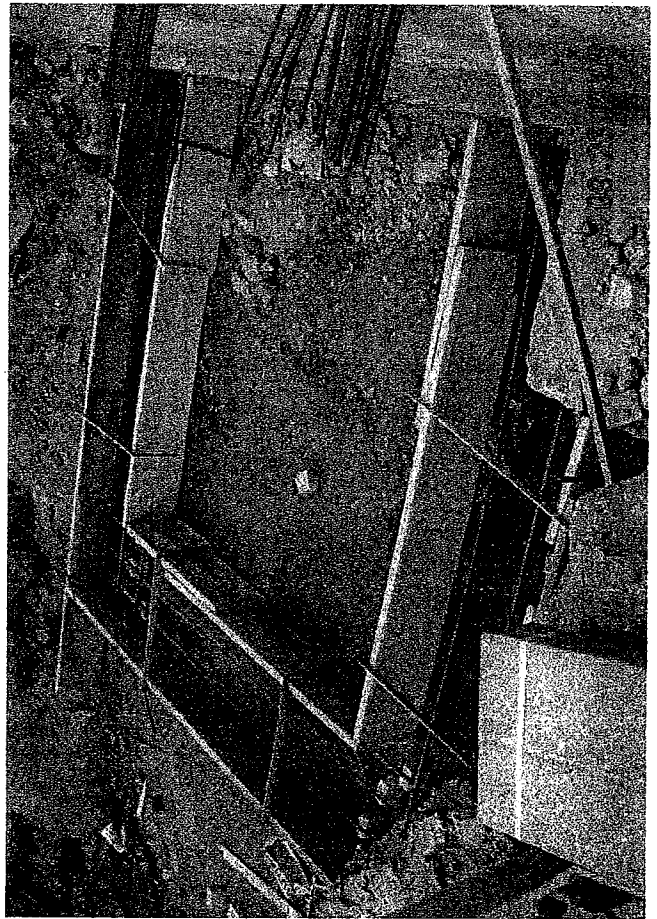
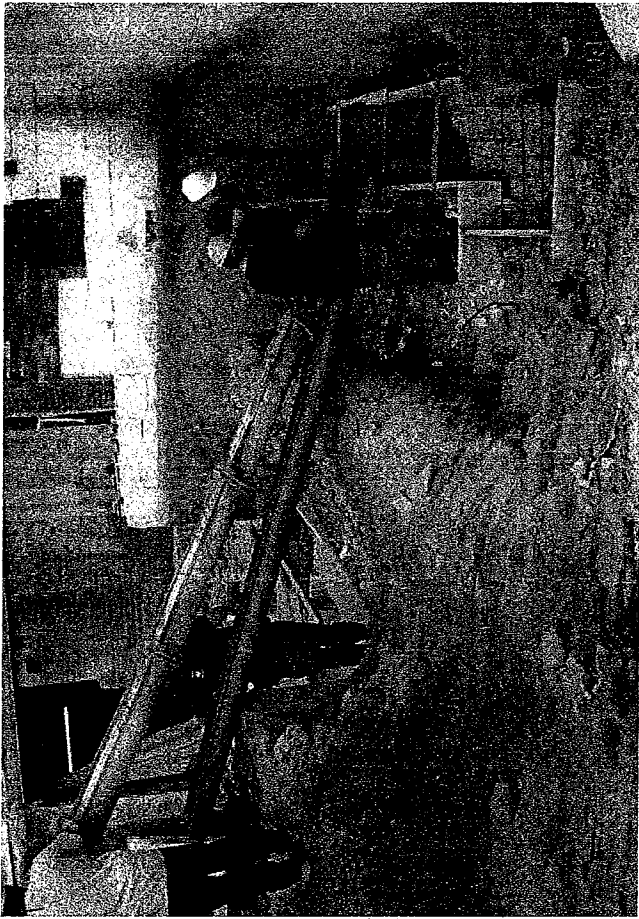
FIELD TESTING OF CONCRETE PERFORMED
 *CYLINDER SET NO: 995-5
 Yes No
 ←*refer to associated concrete test report

<u>POST PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Specified finish	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>	
Protection of surfaces from cracking due to rapid drying	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>	
Proper curing procedures implemented	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>	

NON-CONFORMANCE ITEMS OBSERVED
 Yes No

Non-Conformance Item Description:
 Action Taken by SWCE:
 Person(s) Notified:

N/O = Not Observed
Notes: Spec. book lists that there should be air in footings. Approved mix design submittal lists no -air in footing mix. Stair footings were located at the exterior of existing wall. Other footings were inside existing wall. SWCE confirmed with Engineer David Price and Hardy Pond that there was no air in the mix per phone conversation between Hardy Pond and David Price. See attached mix design submittal.





Letter of Transmittal

To: Bayside Maine, LLC. Attention: Greg Shinberg 477 Congress Street, Suite 102 Portland, ME 04101	Date: October 2, 2009 Project No: 09-0077.2 Subject: 645 Congress St. Portland, Maine
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We are sending you: Attached Under Separate Cover

<input type="checkbox"/> Investigation Report	<input type="checkbox"/> Prints	<input type="checkbox"/> Samples
<input checked="" type="checkbox"/> Laboratory Test Report(s)	<input type="checkbox"/> Copy of Letter(s)	<input type="checkbox"/> Invoice
<input type="checkbox"/> Field Test Report(s)	<input type="checkbox"/> Specifications	<input type="checkbox"/> Other

Description: Concrete Construction Observation Report dated 9-23-09

These are transmitted as checked below:

<input checked="" type="checkbox"/> For your information	<input checked="" type="checkbox"/> For your use
<input checked="" type="checkbox"/> As requested	<input type="checkbox"/> Returned

Remarks:

Copy to:
David Price - Price Structural Engineering
75 Farms Edge Road, N. Yarmouth 04097
Hardypond Construction- Jeff Frye

S. W. COLE ENGINEERING, INC.

BY: 
Roger E. Domingo
Construction Services Manager

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: HARDYPOND CONSTRUCTION INC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 9/23/2009 **Time Cast:** 2:25 **Date Received:** 9/25/2009
Placement Location: FOOTING: LINE 4.2, G.1 TO F.4 FOOTING: LINE G.1 TO F.4, 4.8 + 5.6 FOOTING: LINE 7.3, G.1 TO F.4. INTERIOR RAISED SLAB @ REAR ENTRANCE. *CONT. BELOW SEE REMARKS
Placement Method: DIRECT DISCHARGE **Placement Vol. (yd³):** 8
Cylinders Made By: VLT **Aggregate Size (in):** 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

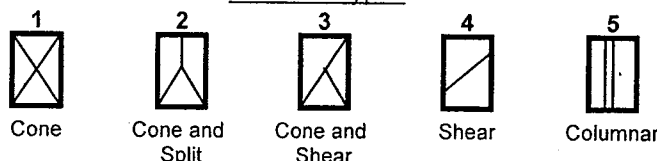
Admixtures: MRWR

TEST RESULTS

Slump (in) (C-143):	Slump WR: 3.5	Load Number: 1
Air Content (%) (C-231):	Air WR: 2.7	Mixer Number: 176
Air Temp (°F): 72		Ticket Number: 3933075
Conc. Temp (°F) (C-1064): 80		Cubic Yards: 8
		Design (psi): 3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-5A		4.00	12.57	9/30/2009	Lab	7	4	40.4	3220
995-5B				10/21/2009	Lab	28			
995-5C				10/21/2009	Lab	28			
995-5D				Hold	Lab				

Fracture Types



Remarks: *STAIR FOOTING: OUTSIDE OF INTERSECTION LINES G.1 + 7.3



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client HARDYPOND CONSTRUCTION INC

Date 9/30/2009

PRICE STRUCTURAL ENGINEERING
Attention: David Price
75 FARMS EDGE ROAD
NORTH YARMOUTH, ME 04097

Results Being Reported

CONCRETE CYLINDER COMPRESSION TEST - ASTM C39/AASHTO T22

Copy To:

HARDYPOND CONSTRUCTION INC - JEFF FRYE

Remarks: MAIL

S. W. COLE ENGINEERING, INC.

BY: 

Roger E. Domingo



Concrete Construction Observation Report

Project Name/Location: 645 Congress Street
Client/Client's Rep.: City of Portland
Concrete Contractor: JB Concrete
Placement Location: Walls: line G.1, line 7.3, stairway walls.
Placement Type: Footing Wall Column Slab Other

Project No: 09-0077.2
Date: 10/5/09
Sheet: 1 of 1
SWCE Rep.: VLT
Arrived at Site: 10:00am
Left Site: 12:00pm

PRE PLACEMENT OBSERVATIONS

Bar Size (diameter, length, bend and anchorage)
 Location (# of bars, spacing, and cover)
 Splicing (weld joint, overlap)
 Stability (wiring, chairs, and spacers)
 Reinforcement free from mud, oil, rust, or other nonmetallic coatings
 Reinforcement appears in conformance to specifications
 Soil subgrade prepared in accordance with project specifications

In Compliance	N/O	Comments
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	As required
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	As required
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	3/4" crushed stone

Referenced Drawings

Referenced Drawings	Date	Page	Rev.
Barker-FND Walls Rear Entrance	7/10/09	RO1	7/15/09
PSE	5/7/09	S3.0	

ASTM	GRADE
A 615 <input checked="" type="checkbox"/>	40 <input type="checkbox"/> 50 <input type="checkbox"/> 60 <input checked="" type="checkbox"/>
A 616 <input type="checkbox"/>	75 <input type="checkbox"/>
A 617 <input type="checkbox"/>	A 775 Epoxy <input type="checkbox"/>
A 706 <input type="checkbox"/>	

CONCRETE PLACEMENT OBSERVATIONS

Required mix used
 Placement and consolidation of concrete observed
 Concrete properly conveyed to all areas of placement
 Depth of layer maximum limits not exceeded
 Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)
 Even layering around openings and embedments
 Removal of temporary ties and spacers

In Compliance	N/O	Comments
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	4000 psi, 3/4", MRWR
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	Direct Discharge
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	N/A
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	Vibrated

FIELD TESTING OF CONCRETE PERFORMED

*CYLINDER SET NO: 995-6

POST PLACEMENT OBSERVATIONS

Specified finish
 Protection of surfaces from cracking due to rapid drying
 Proper curing procedures implemented

In Compliance	N/O	Comments
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	Trowel
Yes <input type="checkbox"/> No <input type="checkbox"/>	<input checked="" type="checkbox"/>	
Yes <input type="checkbox"/> No <input type="checkbox"/>	<input checked="" type="checkbox"/>	
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<input type="checkbox"/>	

NON-CONFORMANCE ITEMS OBSERVED


Non-Conformance Item Description:

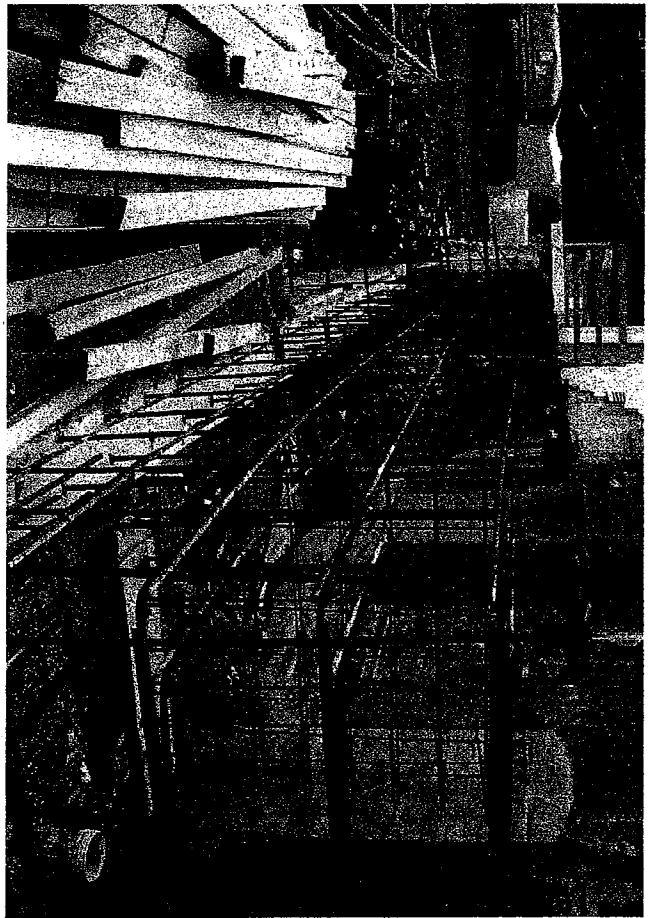
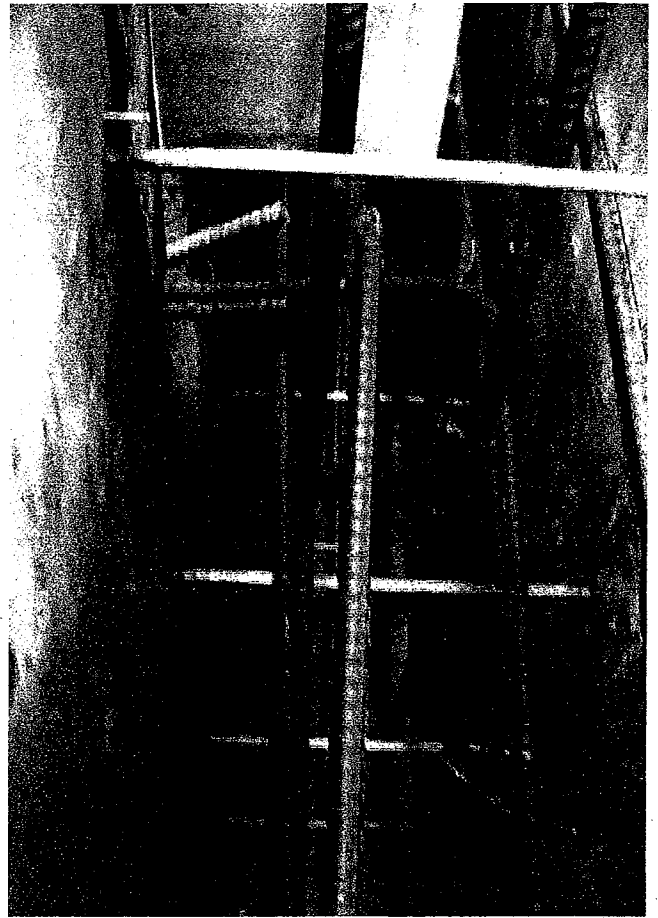
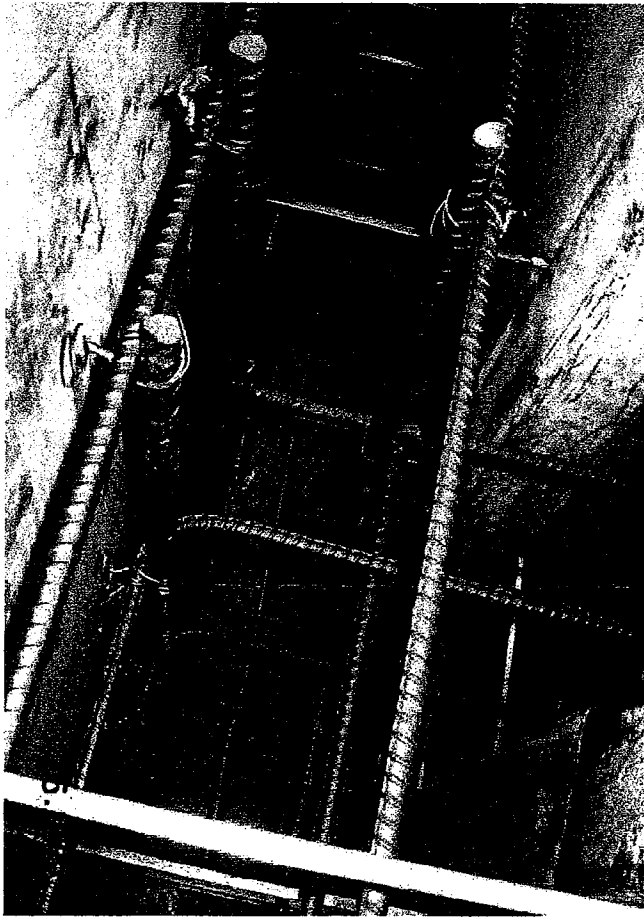
Action Taken by SWCE:

Person(s) Notified:

N/O = Not Observed

Notes: SWCE tested 1st load. Slump: 5 3/4". Air 6.2%. Conc. temp 67°. Air temp 63°. Rebar appeared to be installed within project specifications.

Reviewed By: 





S.W. COLE
ENGINEERING, INC.

• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

Letter of Transmittal

To:

Bayside Maine, LLC.
Attention: Greg Shinberg
477 Congress Street, Suite 102
Portland, ME 04101

Date:

October 8, 2009

Project No: 09-0077.2

Subject: 645 Congress St.
Portland, Maine

We are sending you:

Attached

Under Separate Cover

Investigation Report

Prints

Samples

Laboratory Test Report(s)

Copy of Letter(s)

Invoice

Field Test Report(s)

Specifications

Other

Description: Concrete Construction Observation Report dated 10-5-09

These are transmitted as checked below:

For your information

For your use

As requested

Returned

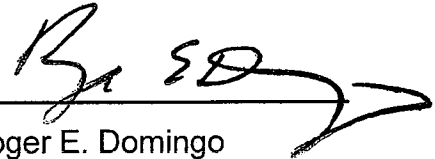
Remarks:

Copy to:

David Price - Price Structural Engineering
75 Farms Edge Road, N. Yarmouth 04097
Hardypond Construction- Jeff Frye

S. W. COLE ENGINEERING, INC.

BY:


Roger E. Domingo
Construction Services Manager



Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 10/9/2009 **Time Cast:** 12:50 **Date Received:** 10/12/2009

Placement Location: WALLS: LINE G.1, 4.8 TO 6 REAR ENTRANCE

Placement Method: DIRECT DISCHARGE

Placement Vol. (yd³): 14

Cylinders Made By: VLT

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR - GLENIUM

TEST RESULTS

Slump (in) (C-143):	Slump WR: 3.5	Load Number: 1
Air Content (%) (C-231):	Air WR: 4.5	Mixer Number: 192
Air Temp (°F): 55		Ticket Number: 3933218
Conc. Temp (°F) (C-1064): 69		Cubic Yards: 10
		Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-7A		4.00	12.57	10/16/2009	Lab	7	4	50.0	3980
995-7B		4.00	12.57	11/6/2009	Lab	28	4	75.6	6020
995-7C		4.00	12.57	11/6/2009	Lab	28	4	73.8	5870
995-7D				Hold	Lab				

Fracture Types



Cone



Cone and Split



Cone and Shear



Shear



Columnar

Remarks: Client Amended 11-2-09 jlw



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client BAYSIDE MAINE, LLC

Date 11/6/2009

PRICE STRUCTURAL ENGINEERING
DAVID PRICE
75 FARMS EDGE RD
NORTH YARMOUTH, ME 04097

Results Being Reported

CONCRETE CYLINDER COMPRESSION TEST - ASTM C39/AASHTO T22

Copy To:

BAYSIDE MAINE, LLC - GREG SHINBERG

HARDYPOND CONSTRUCTION - JEFF FRYE

Remarks: Mail

S. W. COLE ENGINEERING, INC.

BY: 

Roger E. Domingo



• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

09-0077.2

October 26, 2009

Bayside Maine, LLC
c/o Shinberg Consulting, LLC
Attention: Greg Shinberg
477 Congress Street, Suite 102
Portland, ME 04101

Subject: Brick Prism Testing
Proposed Building Renovations
645 Congress Street
Portland, Maine

Samples taken at basement

-DAP

Greg,

As requested, we have performed compressive strength tests on two brick and mortar prism samples delivered to our facility from the above mentioned project. The samples were prepared in our laboratory and tested to failure. The sample dimensions and description as tested as well as test results are shown in the table below.

Specimen	Joint Location	HxLxW (ins.)	Area (sq. ins.)	Load (kips)	Compressive Strength (psi)
F/4.5	2 horizontal 1 vertical	7 3/8 x 7 1/4 x 3 1/2	25.38	80.6	3180
A/3	2 horizontal 1 vertical	7 1/2 x 7 1/2 x 3 1/2	26.25	44.8	1710

Photographs of the specimens as received, prepared and tests are attached.

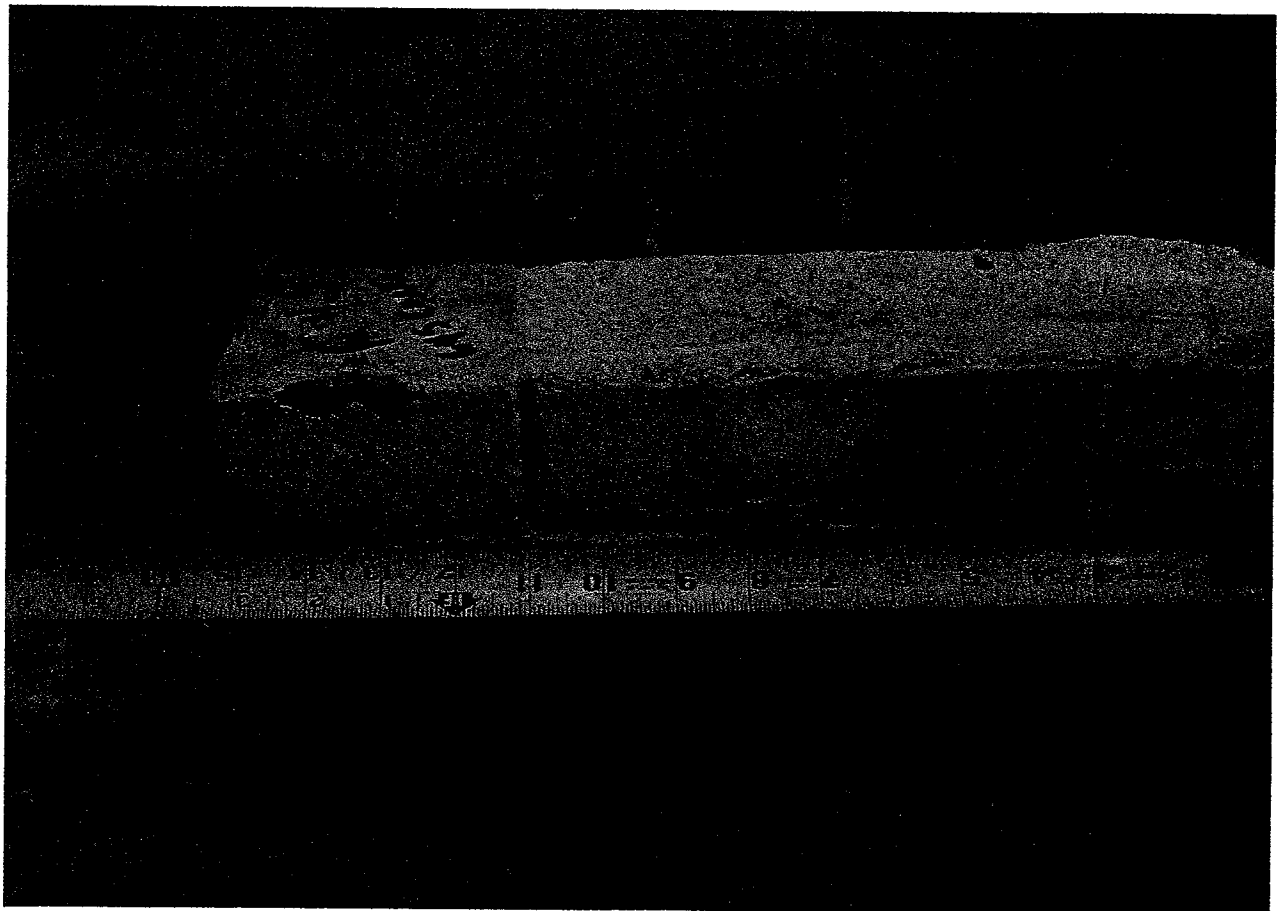
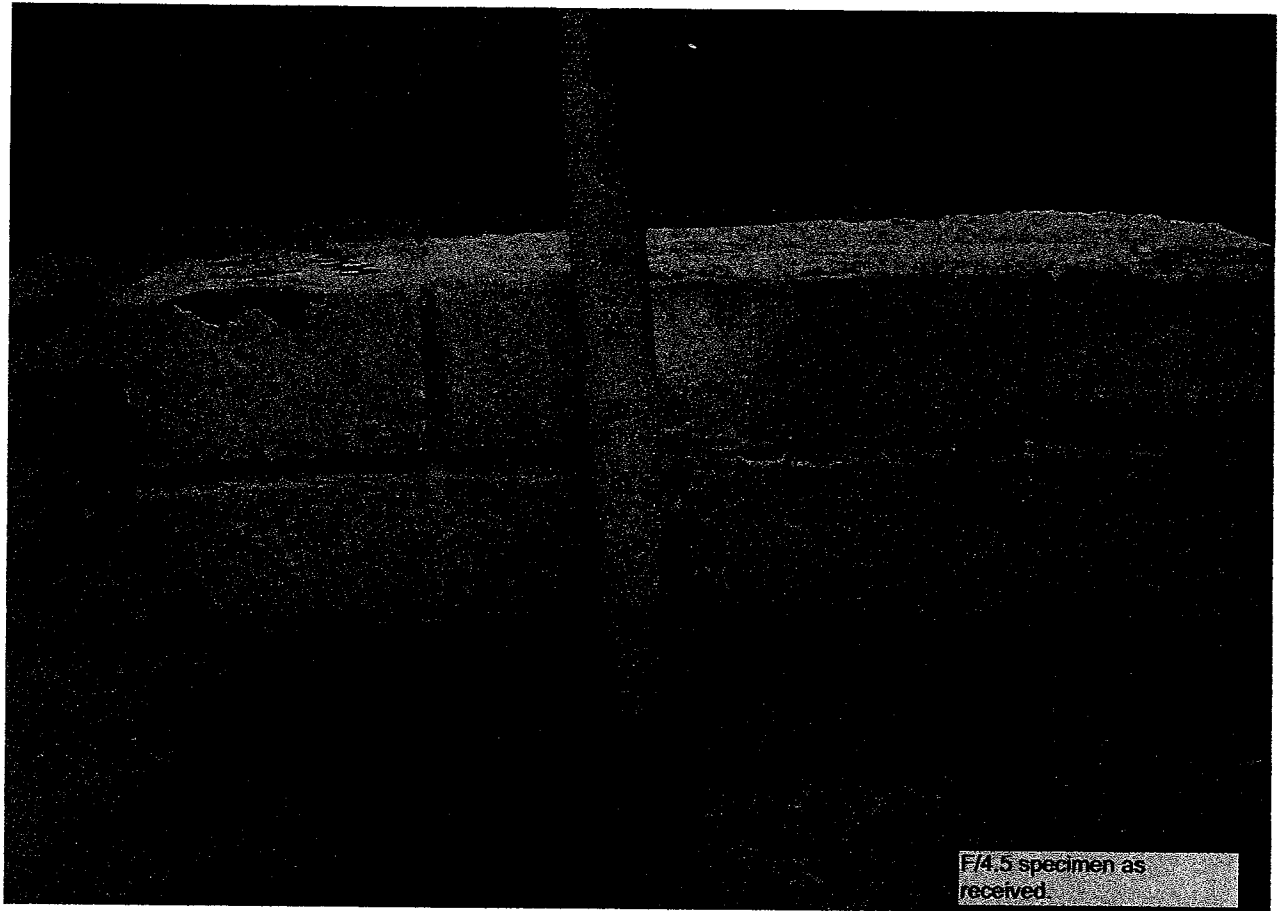
Please contact us if you have any questions regarding this report.

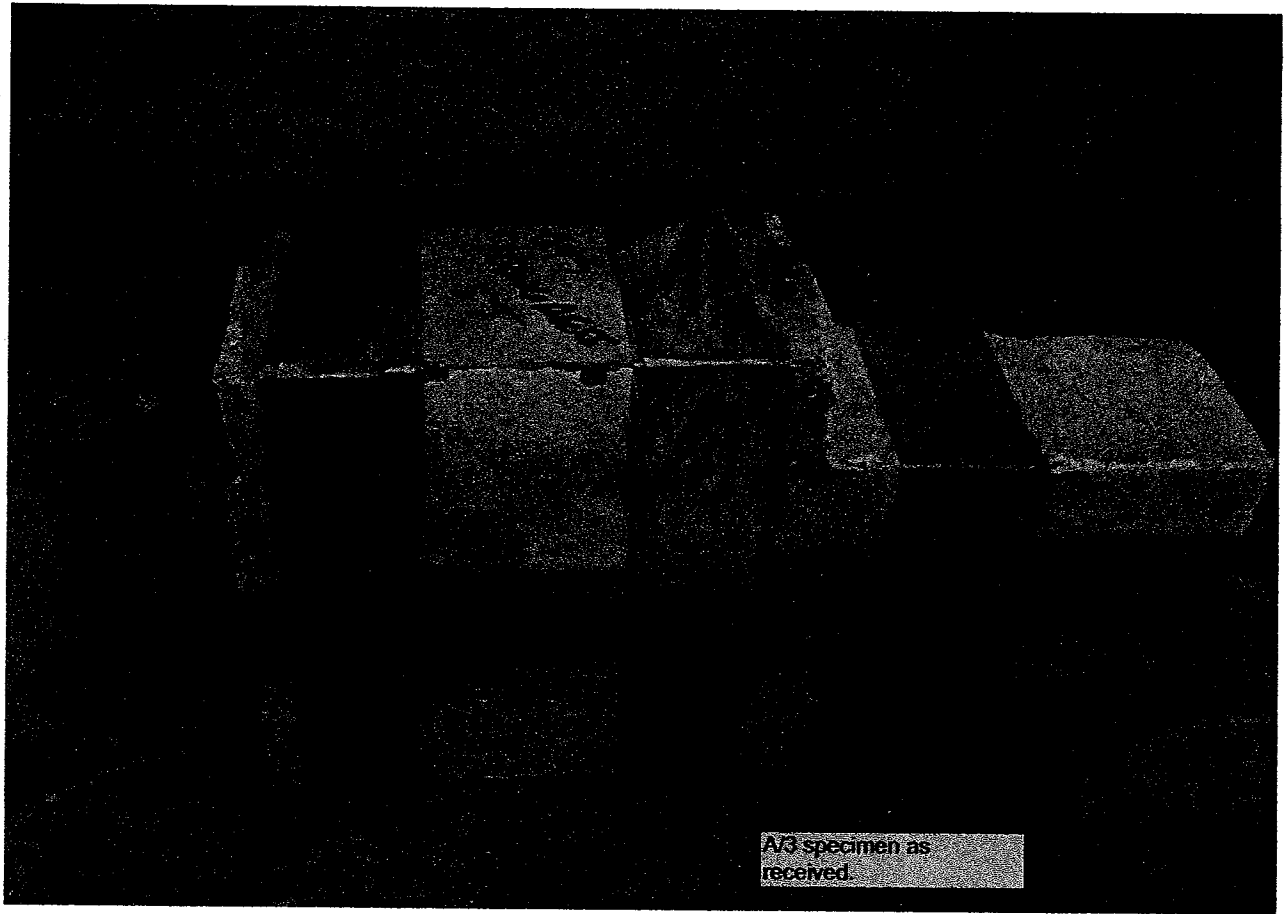
Respectfully,

S.W. COLE ENGINEERING, INC.

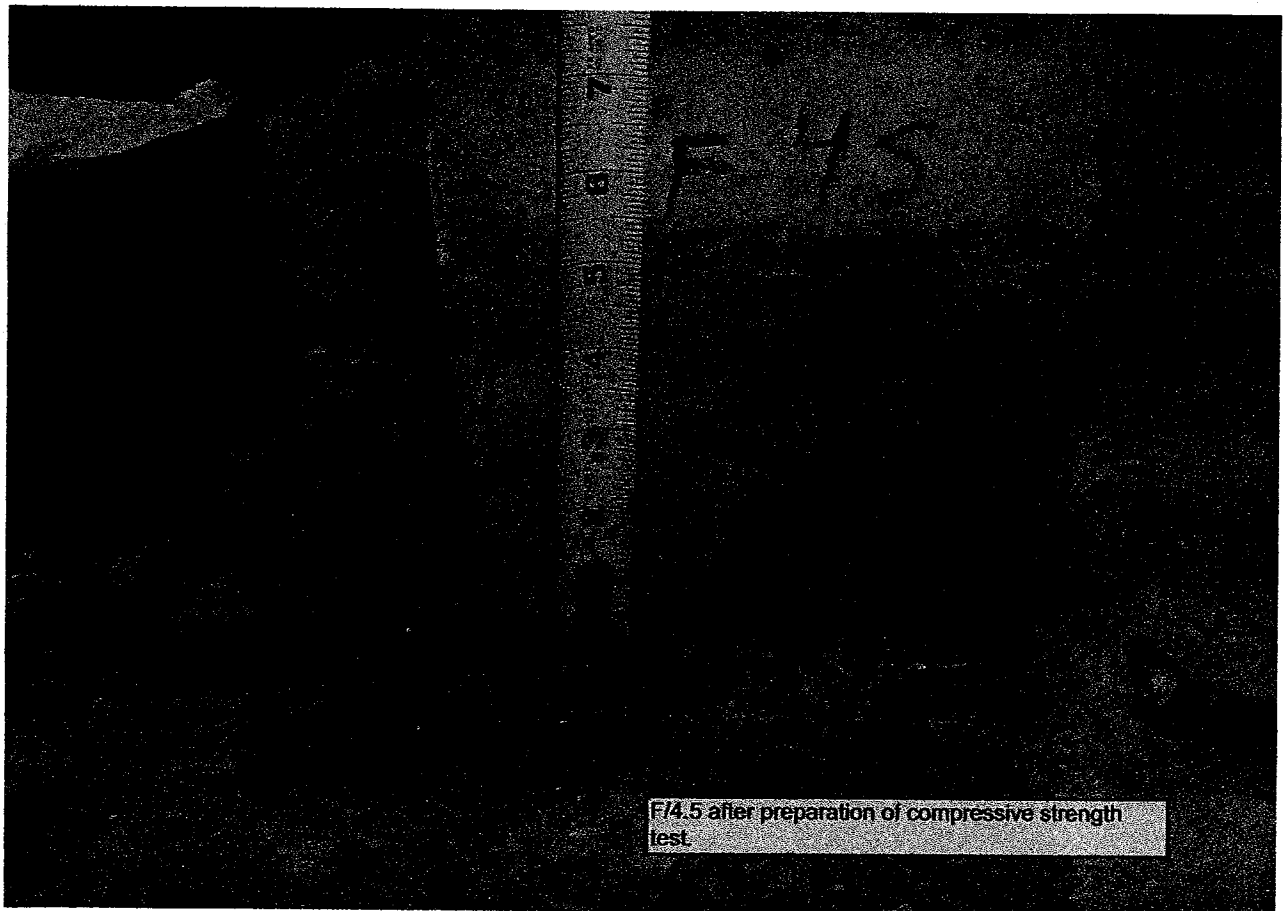
Roger E. Domingo
Construction Services Manager

C – Dave Price





A73 specimen as received



F/4.5 after preparation of compressive strength test

pricestructural

From: Roger Domingo [rdomingo@swcole.com]
Sent: Monday, October 26, 2009 12:44 PM
To: 'pricestructural'; 'Greg Shinberg'
Subject: 645 Congress Street Brick Prisms
Attachments: Brick Prisms Report.pdf

Please see attached test results.

Roger E. Domingo
Construction Services Manager

S. W. Cole Engineering, Inc.
286 Portland Road
Gray, ME 04039-9586

Phone: (207) 657-2866
Fax: (207) 657-2840
Cell: (207) 615-2762
E-mail: rdomingo@swcole.com



www.swcole.com

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10/26/2009



Rec'd 11/28/09

• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

DAILY CONSTRUCTION REPORT

Project: 645 Congress St.
Client: Bayside Maine, LLC.
Client's Rep.: Greg Shinberg

SWCE Project No.: 09-0077.2
Date: 11-18-09
Weather: Clear 50's.

Work Performed by SWC Rep.: Inspection of rebar installation at bearing pads located at line A from line 2.5 to 4.9.

General Observations, Discussions, Etc:

As scheduled by Hardy Pond Construction we made a site visit for the purpose of inspecting the rebar installed at bearing pads located at line A from line 2.5 to 4.9. Hardy Pond and SWCE reviewed the rebar designs listed on plans SK-S58 thru SK-S62 rev. 1 dated 10/31/09

SWCE observed epoxy coated rebar installed horizontally at the bearing pad located at the intersection of line A and 2.5. After a discussion of this observation with Hardy Pond representative David Norton. We were advised that the structural engineer David Price had given verbal authorization for Hardy Pond to make the following design changes: Install #7 epoxy coated bars horizontally as opposed to #8's at line A-2.5. At the same location Hardy Pond had also drilled and epoxied an extra row of vertical bars into the existing basement wall in order for horizontal bars to be tied to vertical bars. This change was made at each bearing pad along line A. Drill and epoxy vertical #5's instead of #6's at each bearing pad along line A. Drill and epoxy 9 #5's horizontally 12" deep into existing piers at intersection of line A and 4.2. Hardy Pond advised SWCE that Hilti HY20 epoxy was used to anchor the 9 #5's horizontally and that the drill holes were clean prior to the epoxy being applied at this location.

Hardy Pond identified that 3 #5 hook bars were not installed at the intersection of line A and 3.7. Hardy Pond will install the rebar at this location as required. We identified a clearance issue at the intersection of line A and 4.2. The clearance issue at this location was being corrected 11/18/09 by Hardy Pond.

Recommendations:

SWCE advised Hardy Pond that bedding pads at line A 3.7 and 4.2 will need to be re-inspected prior to concrete placement.

On Site: 12:00 to 1:00pm
Attachments: Photos
Sheet: 1 of 1

SWC Rep.: V. Terrell
Rev. by: RED

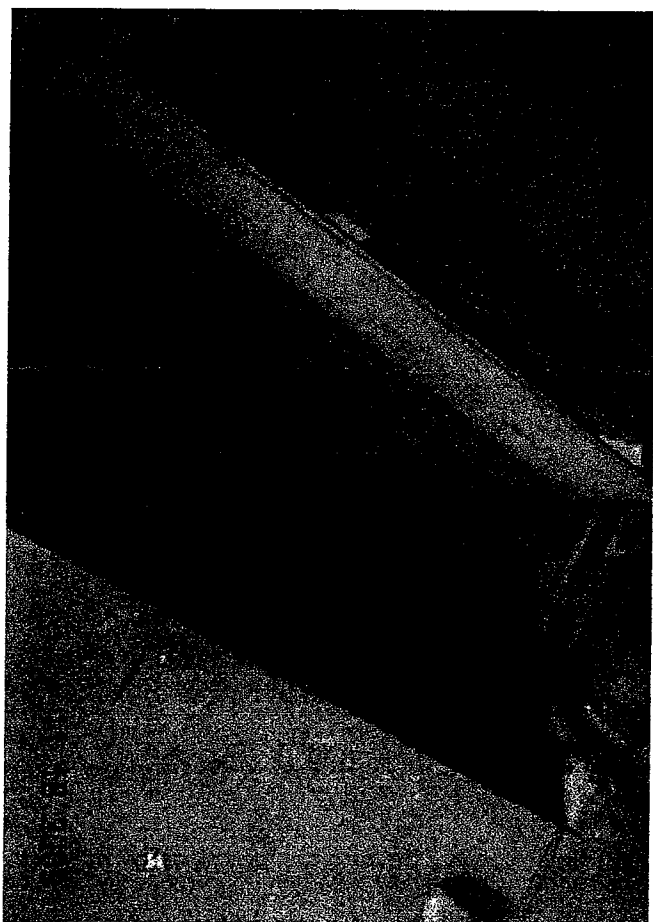
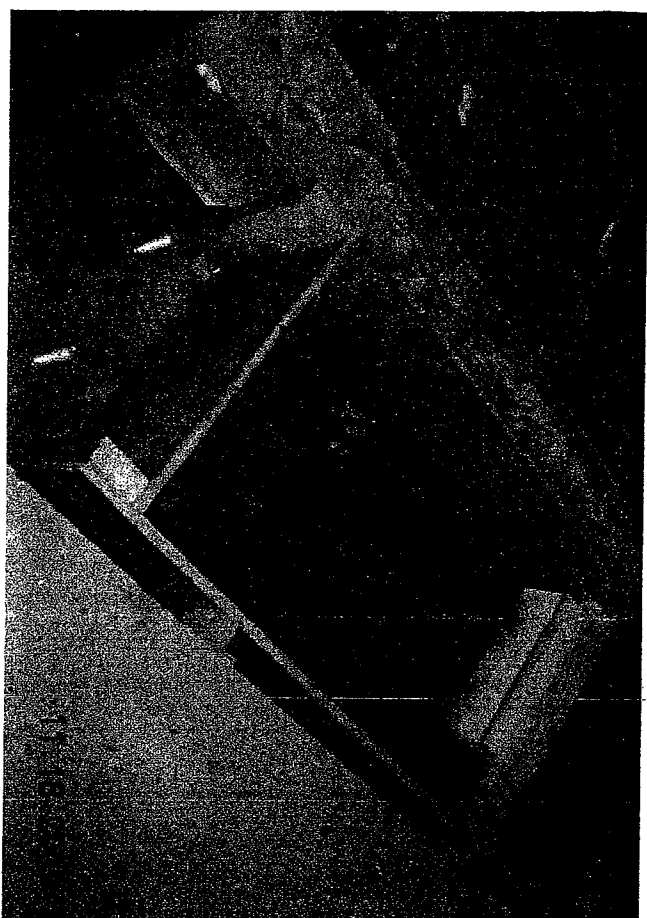
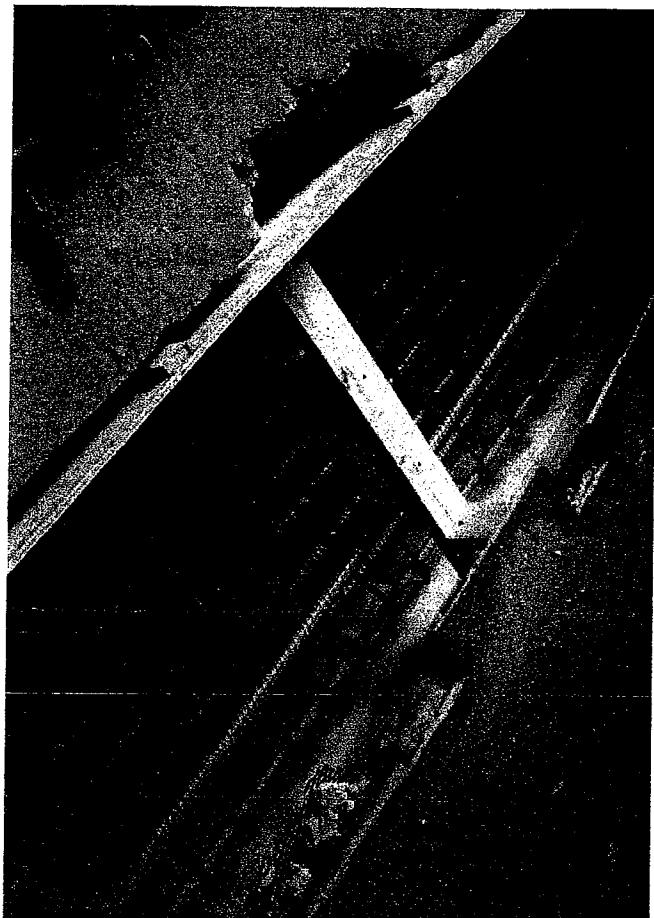
P:\2009\09-0077.2 M - Bayside Maine, LLC - Portland, ME - 645 Congress Street - Materials Testing - REDIDFR's\Rebar Insp. 11-18-09.doc

RED

GRAY, ME OFFICE

286 Portland Road, Gray, ME 04039, Tel (207) 657-2866, Fax (207) 657-2840, (E) infogray@swcole.com, (I) www.swcole.com

The SWCE field representative is on-site at the request of our client to provide construction materials testing and to observe and document construction activities. The contractor has sole responsibility for schedule, site safety, methods, completeness and quality of the work.





Letter of Transmittal

To:

Bayside Maine, LLC.
Attention: Greg Shinberg
477 Congress Street, Suite 102
Portland, ME 04101

Date:

November 23, 2009

Project No: 09-0077.2

Subject: 645 Congress St.
Portland, Maine

We are sending you:

Attached

Under Separate Cover

Investigation Report

Prints

Samples

Laboratory Test Report(s)

Copy of Letter(s)

Invoice

Field Test Report(s)

Specifications

Other

Description: Daily Construction Report dated 11-18-09

These are transmitted as checked below:

For your information

For your use

As requested

Returned

Remarks:

Copy to:

David Price - Price Structural Engineering

Hardypond Construction- Jeff Frye

S. W. COLE ENGINEERING, INC.

BY:


Roger E. Domingo

Construction Services Manager



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client BAYSIDE MAINE, LLC

Date 11/30/2009

PRICE STRUCTURAL ENGINEERING
DAVID PRICE
75 FARMS EDGE RD
NORTH YARMOUTH, ME 04097

Results Being Reported

CONCRETE CYLINDER COMPRESSION TEST - ASTM C39/AASHTO T22

Copy To:

BAYSIDE MAINE, LLC - GREG SHINBERG

HARDYPOND CONSTRUCTION - JEFF FRYE

Remarks: Mail

S. W. COLE ENGINEERING, INC.

BY: 

Roger E. Domingo

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 10/29/2009 **Time Cast:** 10:35 **Date Received:** 10/30/2009

Placement Location: G.1 4.8 - 5.6 (LOWER)
G.1 5.6 - 7.3 (UPPER)

Placement Method: TAILGATE

Placement Vol. (yd³): 9

Cylinders Made By: PJO

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: FIBERMESH, GLENIUM - MR, POSSUTEC 20 2%

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 4.5

Load Number: 1

Air Content (%) (C-231): **Air WR:** 4.6

Mixer Number: 190

Air Temp (°F): 46

Ticket Number: 3933399

Conc. Temp (°F) (C-1064): 61

Cubic Yards: 9

Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area (in) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-8A		4.00	12.57	11/5/2009	Lab	7	4	68.8	5480
995-8B		4.00	12.57	11/30/2009	Lab	32	4	82.8	6590
995-8C		4.00	12.57	11/30/2009	Lab	32	4	79.8	6350
995-8D				Hold	Lab				

Fracture Types



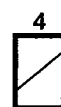
Cone



Cone and Split



Cone and Shear



Shear



Columnar

Remarks: Due to the holiday testing was moved to Monday 11-30-09

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 11/19/2009 **Time Cast:** 1:58 **Date Received:** 11/20/2009

Placement Location: BEARING PADS: LINE A, 2.5 TO 4.9

Placement Method: PUMP*

Placement Vol. (yd³): 9

Cylinders Made By: VLT

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR - GLENIUM

TEST RESULTS

Slump (in) (C-143):	Slump WR: 6.5	Load Number: 1
Air Content (%) (C-231):	Air WR: 5.8	Mixer Number: 177
Air Temp (°F): 50		Ticket Number: 3933590
Conc. Temp (°F) (C-1064): 67		Cubic Yards: 9
		Design (psi): 5000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-9A		4.00	12.57	11/30/2009	Lab	11	4	51.2	4080
995-9B				12/17/2009	Lab	28			
995-9C				12/17/2009	Lab	28			
995-9D				Hold	Lab				

Fracture Types



Cone



Cone and Split



Cone and Shear



Shear



Columnar

Remarks: Due to the holiday testing was moved to Monday 11-30-09

* NORTHEAST CONCRETE PUMPING

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 12/4/2009 **Time Cast:** 9:15 **Date Received:** 12/8/2009

Placement Location: INTERIOR PIER EAST SIDE OF BUILDING

Placement Method: BUCKET

Placement Vol. (yd³): 1.5

Cylinders Made By: TA

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR, GLENIUM 7500

TEST RESULTS

Slump (in) (C-143): 5

Load Number: 1

Air Content (%) (C-231): 5

Mixer Number: 177

Air Temp (°F): 48

Ticket Number: 393366

Conc. Temp (°F) (C-1064): 60

Cubic Yards: 1.5

Design (psi): 5000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area (in) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-10A		4.00	12.57	12/11/2009	Lab	7	4	47.4	3770
995-10B				1/1/2010	Lab	28			
995-10C				1/1/2010	Lab	28			
995-10D				Hold	Lab				

Fracture Types



Cone



Cone and Split



Cone and Shear



Shear



Columnar

Remarks:



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client BAYSIDE MAINE, LLC

Date 12/11/2009

PRICE STRUCTURAL ENGINEERING
DAVID PRICE
75 FARMS EDGE RD
NORTH YARMOUTH, ME 04097

Results Being Reported

CONCRETE CYLINDER COMPRESSION TEST - ASTM C39/AASHTO T22

Copy To:

BAYSIDE MAINE, LLC - GREG SHINBERG

HARDYPOND CONSTRUCTION - JEFF FRYE

Remarks: Mail

S. W. COLE ENGINEERING, INC.

BY: 

Roger E. Domingo



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client BAYSIDE MAINE, LLC

Date 1/4/2010

PRICE STRUCTURAL ENGINEERING
DAVID PRICE
75 FARMS EDGE RD
NORTH YARMOUTH, ME 04097

Results Being Reported

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BY: 

Roger E. Domingo

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 12/4/2009 **Time Cast:** 9:15 **Date Received:** 12/8/2009

Placement Location: INTERIOR PIER EAST SIDE OF BUILDING

Placement Method: BUCKET

Placement Vol. (yd³): 1.5

Cylinders Made By: TA

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR, GLENIUM 7500

TEST RESULTS

Slump (in) (C-143): 5

Load Number: 1

Air Content (%) (C-231): 5

Mixer Number: 177

Air Temp (°F): 48

Ticket Number: 393366

Conc. Temp (°F) (C-1064): 60

Cubic Yards: 1.5

Design (psi): 5000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-10A		4.00	12.57	12/11/2009	Lab	7	4	47.4	3770
995-10B		4.00	12.57	1/1/2010	Lab	28	4	83.6	6650
995-10C		4.00	12.57	1/1/2010	Lab	28	4	83.4	6640
995-10D				Hold	Lab				

Fracture Types



Cone



Cone and Split



Cone and Shear



Shear



Columnar

Remarks:



Project Name PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING

Project Number 09-0077.2

Project Manager ROGER DOMINGO

Client BAYSIDE MAINE, LLC

Date 1/6/2010

PRICE STRUCTURAL ENGINEERING
DAVID PRICE
75 FARMS EDGE RD
NORTH YARMOUTH, ME 04097

Results Being Reported

CONCRETE CYLINDER COMPRESSION TEST - ASTM C39/AASHTO T22

Copy To:

BAYSIDE MAINE, LLC - GREG SHINBERG

HARDYPOND CONSTRUCTION - JEFF FRYE

Remarks: Mail

S. W. COLE ENGINEERING, INC.

BY: _____

Roger E. Domingo

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - 645 CONGRESS STREET - MATERIALS TESTING **Project Number:** 09-0077.2

Client: BAYSIDE MAINE, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 12/30/2009 **Time Cast:** 1:20 **Date Received:** 12/31/2009

Placement Location: ENTRY SOG AT CONGRESS STREET

Placement Method: WHEEL BARROW

Placement Vol. (yd³): 14

Cylinders Made By: TA

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: FIBER
GLENIUM 7500
MICRO AIR

TEST RESULTS

Slump (in) (C-143): 5

Load Number: 2

Air Content (%) (C-231): 7.5

Mixer Number: 190

Air Temp (°F): 8

Ticket Number: 3934103

Conc. Temp (°F) (C-1064): 69

Cubic Yards: 7

Design (psi): 5000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area (in) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
995-11A		4.00	12.57	1/6/2010	Lab	7	4	47.6	3790
995-11B				1/27/2010	Lab	28			
995-11C				1/27/2010	Lab	28			
995-11D				Hold	Lab				

Fracture Types



1
Cone



2
Cone and Split



3
Cone and Shear



4
Shear



5
Columnar

Remarks:



Letter of Transmittal

To: Bayside Maine, LLC. Attention: Greg Shinberg 477 Congress Street, Suite 102 Portland, ME 04101	Date: January 7, 2010 Project No: 09-0077.2 Subject: 645 Congress St. Portland, Maine
---	---

We are sending you: Attached Under Separate Cover

<input type="checkbox"/> Investigation Report	<input type="checkbox"/> Prints	<input type="checkbox"/> Samples
<input checked="" type="checkbox"/> Laboratory Test Report(s)	<input type="checkbox"/> Copy of Letter(s)	<input type="checkbox"/> Invoice
<input type="checkbox"/> Field Test Report(s)	<input type="checkbox"/> Specifications	<input type="checkbox"/> Other

Description: Concrete Construction Observation Report dated 1-4-10

These are transmitted as checked below:

<input checked="" type="checkbox"/> For your information	<input checked="" type="checkbox"/> For your use
<input checked="" type="checkbox"/> As requested	<input type="checkbox"/> Returned

Remarks:

Copy to:
David Price - Price Structural Engineering
Hardypond Construction- Jeff Frye

S. W. COLE ENGINEERING, INC.

BY: 
Roger E. Domingo
Construction Services Manager



Concrete Construction Observation Report

Project Name/Location:	645 Congress Street	Project No:	09-0077.2
Client/Client's Rep.:	City of Portland	Date:	01/04/10
Concrete Contractor:	JB Concrete	Sheet:	1 of 1
Placement Location:	Congress St Entrance curb stop & wind bracing embedment	SWCE Rep.:	TBA
Placement Type:	Footing <input type="checkbox"/> Wall <input type="checkbox"/> Column <input type="checkbox"/> Slab <input checked="" type="checkbox"/> Other <input type="checkbox"/>	Arrived at Site:	12:00pm
		Left Site:	3:00pm

<u>PRE PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Bar Size (diameter, length, bend and anchorage)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	As required
Location (# of bars, spacing, and cover)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	As required
Splicing (weld joint, overlap)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Stability (wiring, chairs, and spacers)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Reinforcement free from mud, oil, rust, or other nonmetallic coatings	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Acceptable
Reinforcement appears in conformance to specifications	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Soil subgrade prepared in accordance with project specifications	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	

<u>Referenced Drawings</u>	<u>Date</u>	<u>Page</u>	<u>Rev.</u>	<u>ASTM</u>	<u>GRADE</u>
Barker	7/10/09	RO1	7/15/09	A 615 <input checked="" type="checkbox"/>	40 <input type="checkbox"/> 50 <input type="checkbox"/> 60 <input checked="" type="checkbox"/>
PSE	5/7/09	S3.0		A 616 <input type="checkbox"/>	75 <input type="checkbox"/>
				A 617 <input type="checkbox"/>	
				A 706 <input type="checkbox"/>	A 775 Epoxy <input type="checkbox"/>

<u>CONCRETE PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Required mix used	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	5000 psi, Fiber 3/4", MRWR
Placement and consolidation of concrete observed	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Gas Cylindrical Vibrator
Concrete properly conveyed to all areas of placement	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Direct Discharge
Depth of layer maximum limits not exceeded	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	N/A
Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Mechanically Consolidated
Even layering around openings and embedments	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Removal of temporary ties and spacers	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	

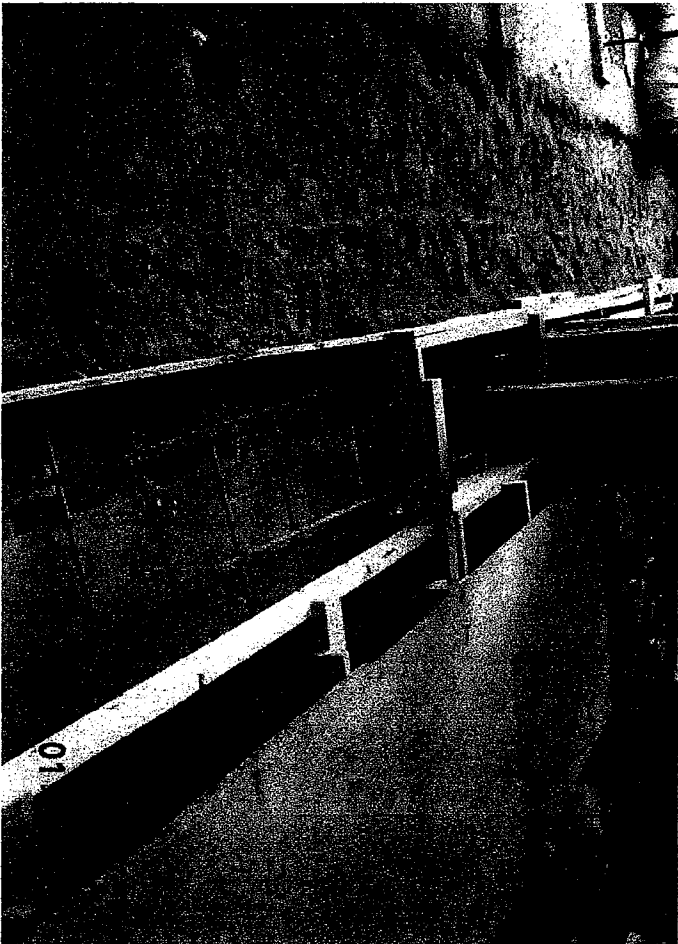
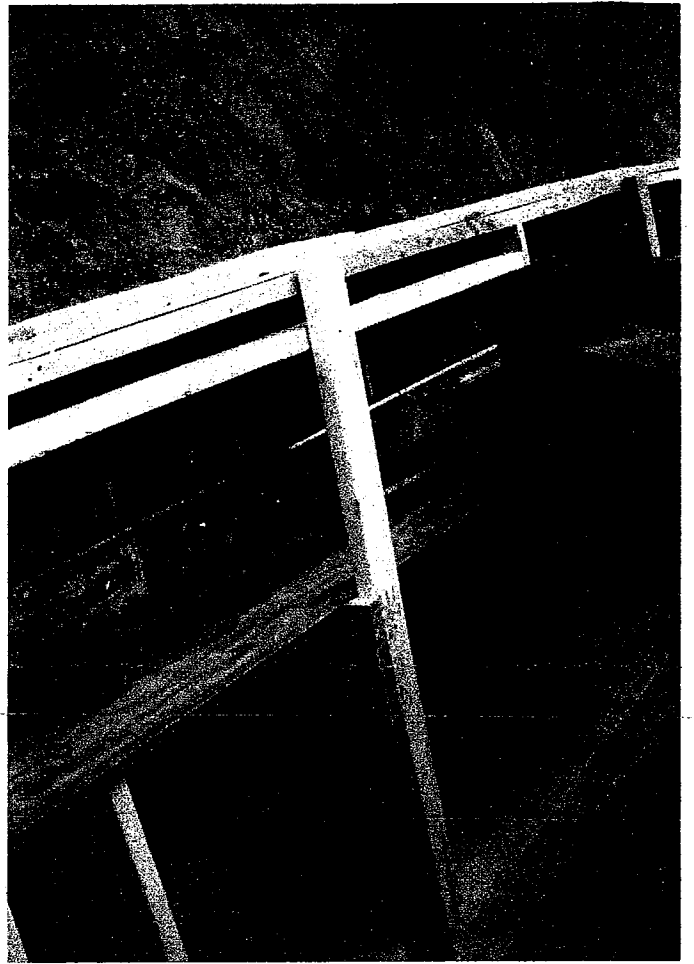
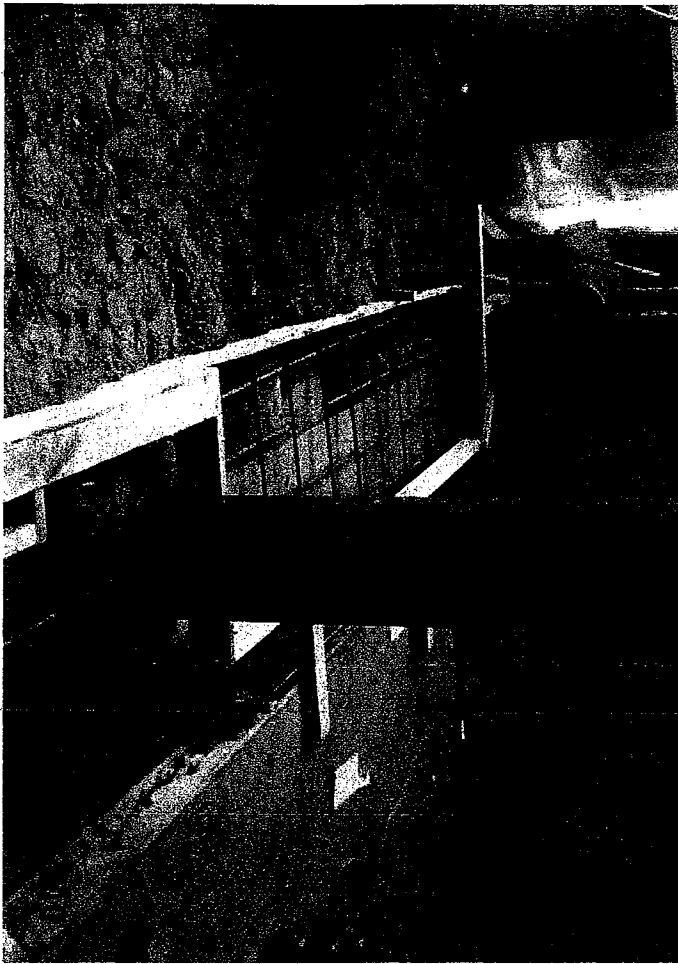
FIELD TESTING OF CONCRETE PERFORMED Yes No
 *CYLINDER SET NO: 995-12 ←*refer to associated concrete test report

<u>POST PLACEMENT OBSERVATIONS</u>	<u>In Compliance</u>		<u>N/O</u>	<u>Comments</u>
Specified finish	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	Trowel
Protection of surfaces from cracking due to rapid drying	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>	
Proper curing procedures implemented	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>	

NON-CONFORMANCE ITEMS OBSERVED Yes No

Non-Conformance Item Description: _____
 Action Taken by SWCE: _____
 Person(s) Notified: _____

N/O = Not Observed
Notes: SWCE tested 2nd load. Slump: 5. Air 7%. Conc. temp 64°. Air temp 38°. Reinforcing steel was observed to be in general compliance with the project documents.



FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: July 29, 2009
Time: 2:00 PM

Weather: Sunshine
Temperature: 70 deg. F.
Contractor: Hardy Pond ; MH Demolition
Site contact: Jeff Frye , Mark Hall

Project Items to be Observed:

Concrete Footing Preparations
Steel Column at Grid F/5.8
Masonry opening at 6th floor brick wall (RFI #8)
Attend weekly project meeting

Field Observations / Project Status:

1. Existing basement slab was sawcut for new footings before the geotechnical report regarding bearing capacity had been completed. The concern is that the final report may modify requirements at this area. See photo #1
2. Care must be provided by the contractor to be sure that the sub-base below footings is not disturbed. The contractor currently has roped off this area to prevent this from happening.
3. The steel column specified at grid F/5.8 was being installed at the time of the site visit. **It is not acceptable for the contractor to fabricate or install new materials without an approved submittal.** See "Items Needing Correction" below. Also see photos #2 and #3.
4. Contractor is reminded that welding new column to existing steel needs to be done in accordance with the approved welding procedure contained in the project specifications. Welding must be performed by AWS certified welders
5. A new lintel is needed at Door Number 601-D (6th Floor). See attached photo #4 (Response to RFI #8 to follow).
6. Mark Hall was installing the column at F/5.8 and asked for clarification of how to install the stiffener on the south side of the steel beam due to interference with existing wood ledger (reference detail G1/S5.4). See attached detail SK-S10
7. Mark Hall also asked about using plates to replace one line of bolts at the double channel reinforcement at the masonry pier (grid F/6) specified on Detail H1/S5.4. See attached detail SK-S11 for alternate installation option.

Items Needing Correction:

1. **STEEL COLUMN SUBMITTAL REQUIRED** - Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.

Corrective action taken:

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component, perform structural design or to provide exhaustive or continuous project review.

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Report prepared by: David A. Price, P.E.
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75 Farms Edge Road
North Yarmouth, ME 04097

Distribution (email): Greg Shinberg - Shinberg Consulting LLC
David Douglas, AIA - CWS Architects
Jeff Frye - Hardy Pond Construction
Steve Schuchert - CWS Architects
Ben Walter, AIA - CWS Architects



Photo # 1 – Sawcut slab at Basement (Grid A)

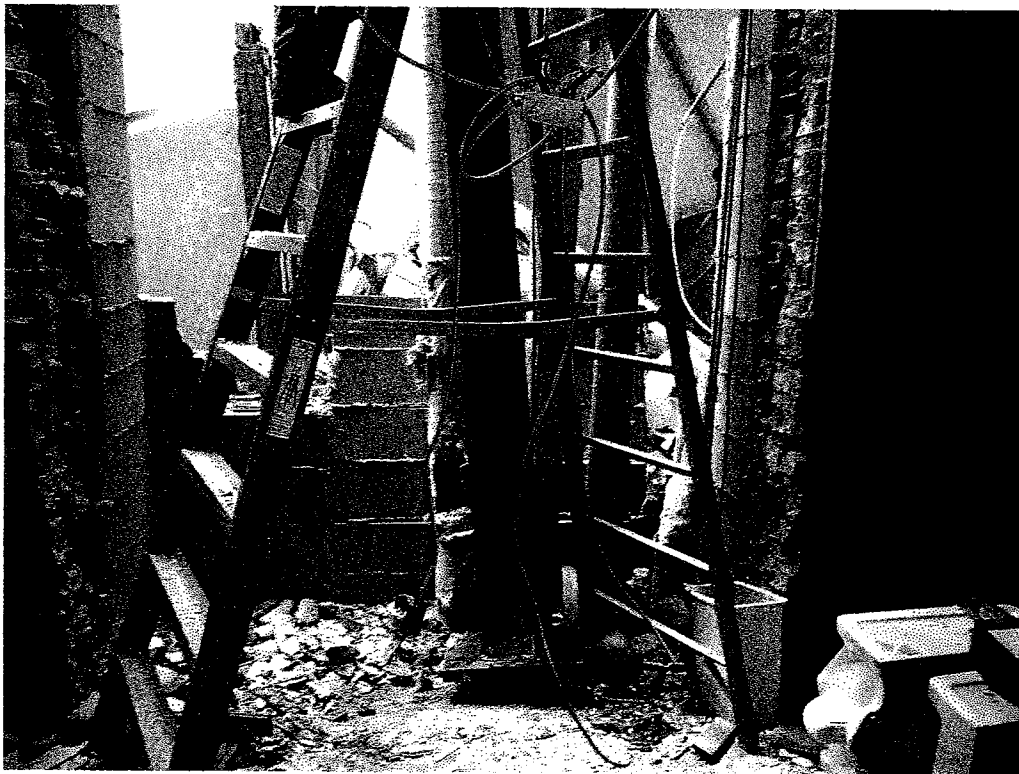
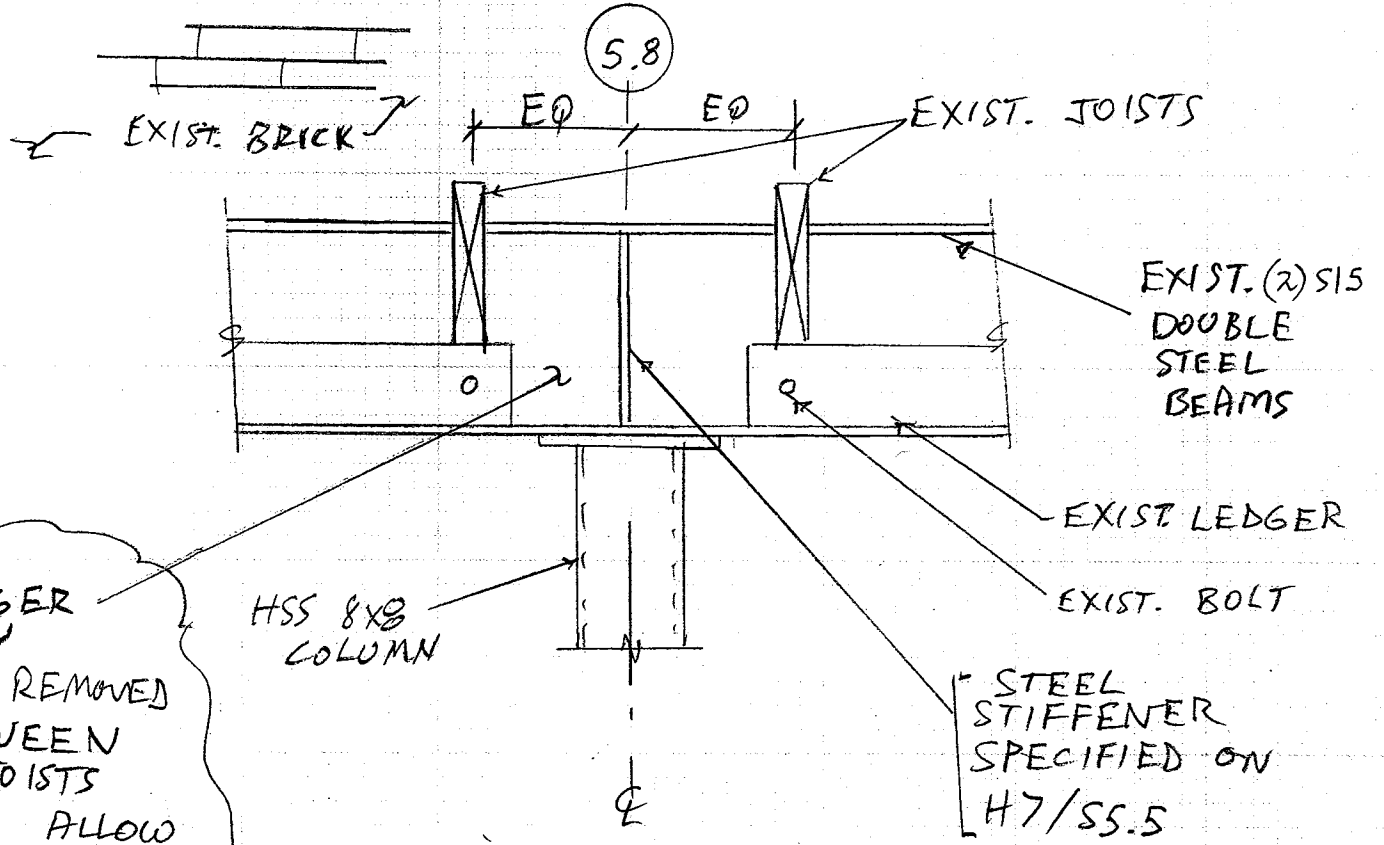


Photo # 2 - Installation of Column at Grid F/5.8 (1st Floor)



LEDGER MAY BE REMOVED BETWEEN JOISTS TO ALLOW NEW STEEL STIFFENER

ELEVATION @ GRID F

Note: See Detail G1/SS.4 for all other requirements.

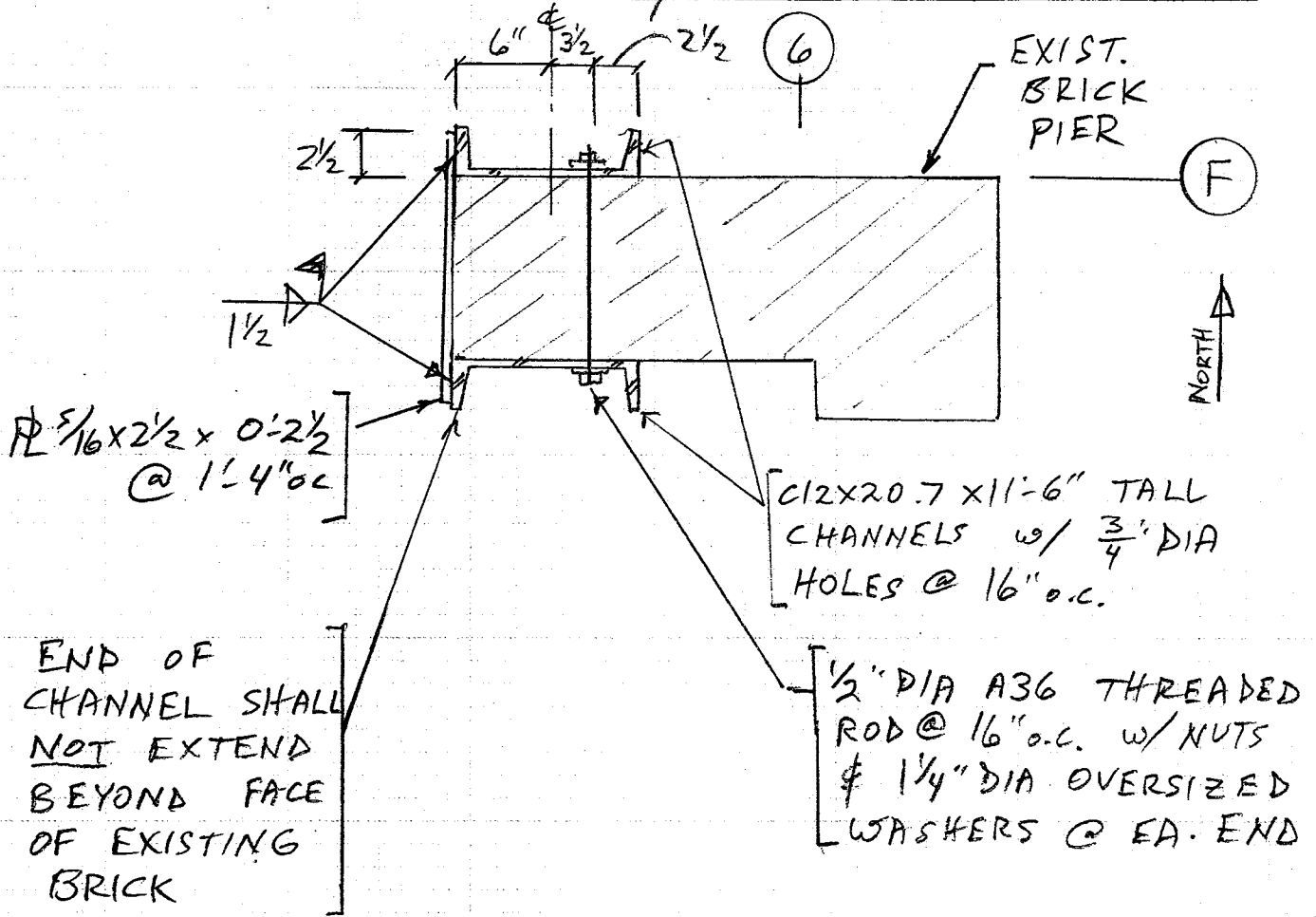
SK-S10 CLARIFICATION TO DETAIL G1/SS.4
NTS

Reference

Detail G1/SS.4
(Drawings Dated July 21, 2009)

Alternate Steel Channel Installation @ Grid 6/F
Reference Detail H1/SS.4

C12 channels may be installed as follows:



SK-S11 PLAN
 1" = 1'-0"

Note: See Detail H1/SS.4 for other requirements. Provide temporary shoring and bracing as necessary.

8/4/09 site visit

pricestructural

From: pricestructural [pricestructural@maine.rr.com]
Sent: Wednesday, August 05, 2009 9:11 AM
To: 'pricestructural'; fit@shinbergconsulting.com
Cc: gls@shinbergconsulting.com; bwalter@cwsarch.com; 'Jeff Frey'; 'Steve Schuchert'; 'art gallant'; 'Dave Douglass'
Subject: RE: Brief summary of 8/4/09 meeting notes

Felica - these are notes from yesterday's meeting (note that date has been corrected)

Thanks,
David

Brief Summary of 8/4/09 Meeting Notes

(Notes taken by David Price)

Meeting attended by: Jeff Frey, Mark Leasure, Steel erector, Stan (rigger), David Norton, Gus McBrady, David Douglas, David Price, Art Gallant, Greg Schinberg (briefly)

Notes:

1. Jeff asked David Price to briefly describe observations made of the existing conditions during the design process. David Price briefly described some of the existing framing that can now be observed: cast columns, steel beams, wood infill joists and wood decking. He also described testing that was done during the design process and Art Gallant's role in identifying a welding procedure. David also described how the original brick along Congress Street appears to be 16 inches thick, which is thicker than other parts of the building. Also, the original plaster appears to be cement based, which is heavier than gypsum base plaster. David re-emphasized what Greg Shinberg said previously, which is that there needs to be a "safety first" approach to the temporary shoring and bracing. David said that if necessary, it is acceptable to remove additional finishes to further expose the structure if the contractor's feel they need to do so to better understand existing conditions, framing and loads. Mark Leasure said that that is pretty much what they have already been doing over the last week or so.
2. Mark Leasure asked if the W16x100 beam specified is capable of supporting all the loads without composite action. David Price said, "No, the W16 x 100 beam is designed to act compositely with the existing steel beams above."
3. Art Gallant said that even though the weld procedure is now approved, each of the welders which are designated to weld to the existing steel must be certified for that procedure. Art said that if the welders are performing fillet welds, then the test is relatively straightforward. He said that it essentially consists of welding a plate (in accordance with the specified design procedure in this spec) to an existing steel beam and then hitting it with a hammer and bending it to see if the weld is sound. Art will need to be present when this test is performed and he will email the required plate sizes so that the welders can get certified. Art Gallant said that if full penetration welds are required then the testing is more complex.
4. David Price said that if it is useful it is fine with him if the structural steel is submitted in phases if it helps the project schedule. Gus McGrady later told David Price that this is fine with him also.
5. Regarding the recent survey identifying locations of existing materials, Greg Shinberg said that he has been in contact with Owen Haskell and they are finalizing their recent survey results which will be finished as soon as possible (possibly by August 5).
6. Greg said that dimensional layout of materials will be something that he and Hardy Pond will work out together.
7. The group went outside to look at the back of the building where Mark Hall has finished the demolition of the building connecting to the building to be renovated.
8. The new steel columns at grid F/5.8 does not appear to have adequate bearing underneath since David Norton said there were existing pipes going through the brick wall at that area. David Price said that these pipes need to be removed and all of the voids need to be infilled with brick, mortared solid.
9. David Douglas recommended that the pile of debris be removed so that this area can be better reviewed.
10. After the meeting, David Price, Art Gallant, David Norton and Mark Leasure further discussed the project.
11. David Norton said that there is an exposed steel beam embedded within the existing brick wall at the northeast corner

8/5/2009

(Grid F, east end near grid 10), which is now an exterior wall. He said he has several issues like this, such as the concrete ramp in the basement near the demising wall, and was considering what is the best way to proceed. David Price said if he has questions that he should send these in as written "RFI's" so that both the questions and the responses can become part of the job record.

12. David Price said to David Norton that it may be useful to have Owen Haskell (surveyor) come out and install some benchmarks to help the contractor establish clear work points in the field.

Regards,
David

David A. Price, PE
President
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(Tel) 207-846-0099
(Fax) 207-846-1633

8/5/2009

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: Aug. 5, 2009
Time: 2:00 PM

Weather: Sunshine
Temperature: 70 deg. F.
Contractor: Hardy Pond
Site contact: Jeff Frye , David Norton (HP)
Dave Douglas (CWS)

Project Items to be Observed:

Back of building (demolition nearing completion)
Brick piers at basement
Attend weekly project meeting

Field Observations / Project Status:

1. Existing building at back has now been removed (photo #1). Top of existing concrete foundation wall which is to be used to support proposed entry structure has been damaged. Hardy Pond will propose a solution.
2. It can be seen that the new column at gridline F/5.8 does not have adequate bearing underneath, since there is a hole in the brick wall underneath the column (photo #2). This will need to be filled with solid masonry to provide adequate bearing (reference RFI # 11).
3. David Norton and I looked at existing brick pier in basement at grid A/8.1 to see if it could remain in place since he said it would help them with temporary shoring if it could. I said the two key items are whether the existing pier interferes with the new CMU pier and also what happens at the footing. He said he would send in an RFI regarding this (reference RFI # 12-R).
4. David Norton and I looked at the existing pier at grid A/ 7, on the west side where the new pier at grid A/6.7 is to be installed. The issue pertains to the note on drawing H1/S2.1 at this area indicating removal of 8 inches from the west side of the existing pier at grid A/7. Prior to construction this appeared to be necessary so that the new column at A/6.7 was fully supported by the proposed new CMU pier. However, now that demolition of the surrounding existing brick has been completed I said to Dave Norton that the existing 8 inches should not be removed from the west side of the existing pier at grid A/7 since the existing brick is sound at this area and it will be fine for the new column to be supported by both the existing brick pier and the new CMU pier (the top of the new pier matches the top of the existing pier) .
5. During the meeting Bill Bennett said he would provide cut sheets with dimensions and operating weights for revised equipment on the roof.

Items Needing Correction:

1. **STEEL COLUMN SUBMITTAL REQUIRED** - Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.

Corrective action taken:

General:

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Jeff Frye, Dave Norton - Hardy Pond Construction
Steve Schuchert - CWS Architects
Ben Walter, AIA - CWS Architects



Photo # 1 – Elevation at back wall (view looking South at grid F, near grid 6)



Photo # 2 – Existing window below new column and F/5.8 will need to have solid masonry infill.

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: Aug. 12, 2009
Time: 2:00 PM

Weather: Overcast
Temperature: 70 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)

Project Items to be Observed:

Front Entrance slab options
Review existing conditions at the back of building

Field Observations / Project Status:

1. David Norton requested that we discuss possible alternative connections of the wood interior first floor system where it attaches to the proposed front entrance slab at the first floor (reference Detail C8/S3.3 and Detail F5/S3.3). We discussed several different possibilities, including bolting a continuous pressure-treated ledger to the CMU wall and supporting the existing floor joists to the ledger using galvanized joist hangers. I said that if he would like to make a revision to the details as shown then it is important that he send it in as an RFI and I will review it. In any case, Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU basement wall centerline relative to the centerline of the new wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement to minimize problems.
2. Footings below existing brick piers along Grid line A are visible at some locations (See photo #5).
3. The support of the existing bay window at the back of building (second floor, grid F/4 .6) has been compromised by recent demolition of the concrete slab which supported the bay window. The original wood framing that supported the east side of the bay window was removed to accommodate the concrete slab and now neither the framing nor slab exists at the east side of the window (See photo #1). Access to review the existing wood framing from above was not available. The original wood framing which supported the bay window at the second floor, appears to have been encased inside the brick wall (See photo #2). Dimensions were taken of the existing framing at accessible areas.
4. The existing CMU wall assembly (near the existing dumpster exterior wall adjacent to gridline F/4.5) has collapsed; it was reported that this occurred during the demolition process (See photo #3). It does not appear that the CMU was grouted at this area which is part of the reason the collapse occurred. Since the structure is needed for the new rear entry, repair details are needed. (See response to RFI #10-R for repair details issued for pricing).
5. Excavation has now exposed an existing 8 inch un-grouted CMU foundation wall at grid 4.8 which was intended to support the entrance slab at the rear entry. The foundation wall is cracked, appears to be unreinforced and is not adequately connected to the 12 in CMU foundation at grid F.4 (see photo # 4). See response to RFI #10-R for repair details issued for pricing.
6. David mentioned that Tim Dube will be doing the field welding for Hardy Pond.

Items Needing Correction:

1. **STEEL COLUMN SUBMITTAL REQUIRED** - Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.

2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement.

Corrective action taken:

General:

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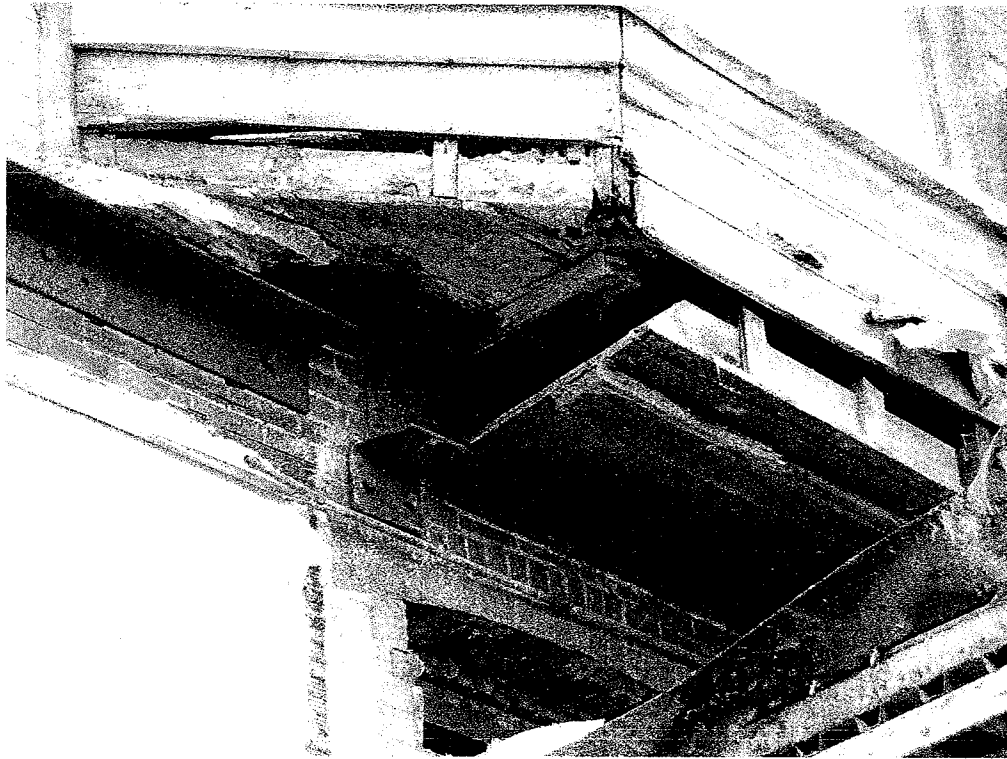


Photo # 1 – Damaged support of existing second-floor bay window at grid F/4.8



Photo # 2 – Wood framing below existing second-floor bay window at grid F/4.8 mortared into existing brick.



Photo # 3 - Collapsed CMU assembly at grid F.4 / 4.5



Photo # 4 - Existing ungrouted 8" CMU foundation at grid 4.8 (rear entry)



Photo # 5 – Existing brick column and footing in basement at grid A./8 (shown at center).



Photo # 6 – View looking South at the existing double steel beams embedded below second floor brick wall

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: Aug. 21, 2009
Time: 2:00 PM

Weather: Overcast
Temperature: 70 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)

Project Items to be Observed:
Review of Grid A new footings

Field Observations / Project Status:

1. Concrete for new footings at gridline A in basement was being placed at the time of the site visit (see photo #1). Reinforcement had been checked prior to concrete placement with comments as noted below.
2. Concrete was being pumped into the basement.
3. S. W. Cole was on site performing testing.
4. Depth of footing and reinforcement at revised spread footing located at grid A/8.1 appeared to be in general conformance with update specified in RFI 12-R. Bottom mat reinforcement steel had to be lowered.
5. Reinforcement and depth of other spread footings at piers appeared to be in general conformance with design documents.
6. Reinforcement and depth of strip footings below CMU walls appeared to be in general conformance with design documents.
7. Contractor requested that the #5 dowels needed for connection to the CMU wall above be "wet-set" (installed immediately after concrete has been placed) to reduce labor cost in tying off rebar. I said that this is acceptable as long as the rebar is located in the right position and at the right depth. Contractor must monitor the dowels to be sure they don't move (see photo #2).
8. David Norton requested that the new footing located at grid A/2.5 have the dowels anchored using epoxy after he cores holes (he does not currently have the dowels at the job site for this location). I said that this is acceptable at this location only since forces are lower at this location.
9. Contractor is boring holes in exterior back wall (grid line F) for ventilation duct work which appeared to be in conformance with previously approved locations (see photo #3).
10. Installation of scaffolding at Congress Street elevation is nearing completion (see photo #4).

Items Needing Correction:

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2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement.

Corrective action taken:

General:

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Photo # 1

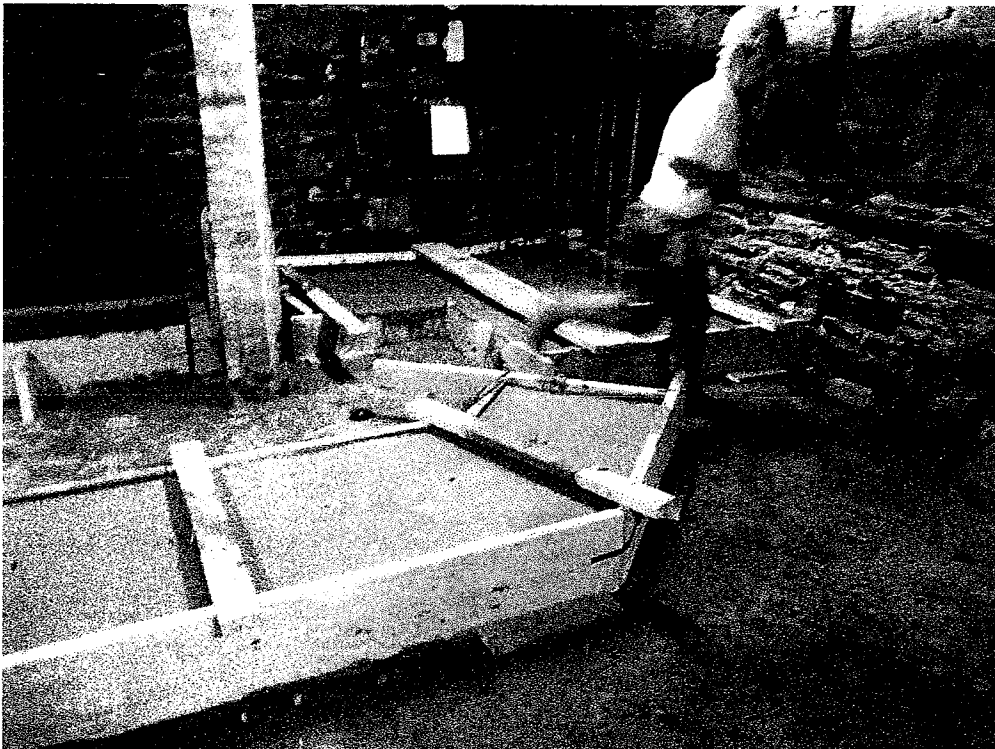


Photo # 2



Photo # 3



Photo # 4

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: Aug. 27, 2009
Time: 10:00 AM

Weather: Overcast
Temperature: 70 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)

Project Items to be Observed:
Existing Rear Entry Foundation
Existing ceiling above first floor

Field Observations / Project Status:

1. Large existing footings at the rear entry were discovered during excavation which appear to interfere with the proposed new footings. I obtained dimensions of the existing footings at accessible areas (interior portions of the foundation wall only).
2. David Douglas and I performed a low-level survey using a level gun to obtain approximate existing rear entry foundation elevations at areas not yet surveyed by Owen Haskell.
3. Existing spread footing exists adjacent to foundation wall at grid G.1/4.2 and modification to the design documents may be required at this area (see photo #1).
4. Existing spread footings adjacent to the first entry foundation wall may also require modification to footings previously designed (see photo #2). The large spread footings below the existing concrete wall appear to be approximately 7' x 7' x 16".
5. Roger Domingo of SW Cole, and I discussed existing soil bearing at the rear entry. Roger recommended infilling with compacted crushed stone at areas which are currently over excavated below new footings and I said I agreed with his recommendation.
6. Severe damage was done to the top of the existing concrete wall along grid line G.1 during demolition. The worst area appears to occur at G.1/4.8 (see photo #3).
7. The existing wood ceiling suspended to the bottom of the second floor joists at the five-story part of the building (grids 5 -10) have some areas where the wood ceiling is pulling away from the bottom of the existing joists. Workmen were in the process of lifting the ceiling as much as possible and re-anchoring the ceiling to the joists above using 3/16" diameter x 10- inch long threaded fasteners and 3" diameter washers. Workman were unclear as to the maximum spacing of the fasteners (see photo #4). Due to the potential hazard of the ceiling pulling away I said that the average spacing of the fasteners should be 24 inches on center in each direction (average) at areas where there is any space between the bottom of the joist and the the wood ceiling. At areas where there is no gap, the spacing could be at approximately 48 inches on center (average) in each direction.
8. An existing 12" wood joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. I said to remove the pipe and bolt a 48" inch long pressure treated 2x 12 sister to the existing joist so that it could be reconnected to the existing steel beam. Bolts should be (2) 1/2" diameter bolts at 10 inches on center (total of 8 bolts).
9. I requested that David Norton verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.

Items Needing Correction:

1. **STEEL COLUMN SUBMITTAL REQUIRED** - Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate

sizes, hole diameters, etc.) must also be included.

2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement.
3. The existing wood ceiling suspended to the bottom of the second floor joists at part of the building (grids 5 -10) has some areas where the wood ceiling is pulling away from the bottom of the existing joists. Re-anchor the ceiling to the joists using 3/16" diameter x 10- inch long threaded fasteners and 3" diameter washers. Due to the potential hazard of the ceiling pulling away, spacing of the fasteners should be 24 inches on center (average) in each direction at areas where there is any space between the bottom of the joist and the wood ceiling. At areas where there is no gap, the spacing can be at approximately 48 inches on center (average) in each direction.
4. An existing 12" joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. Remove the pipe and bolt a 48" inch long pressure treated 2x 12 sister to the existing joist and reconnect it to the existing steel beam (connection to be similar to that of existing adjacent joists). Bolts should be (2) 1/2" diameter bolts at 10 inches on center (total of 8 bolts).
5. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.

Corrective action taken:

General:

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Report prepared by: David A. Price, P.E.
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Photo # 1 – View looking southwest at existing wall footing adjacent to dumpster concrete wall (approximate grid location G.1/4.2) – note interfering footing at right side.



Photo # 2 – Existing first entry foundations and footings (view looking east)



Photo # 3 – View looking north at grade 4.8 - note significant damage to top of existing concrete wall located at grade G.1/4.8 (occurred during demolition).

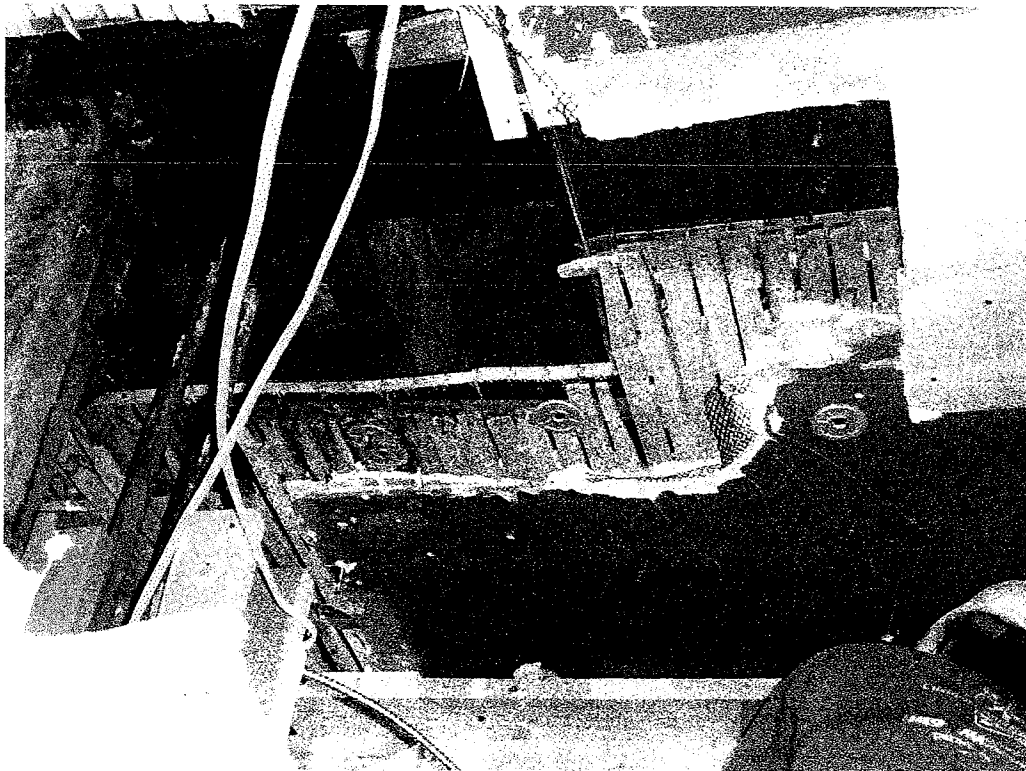


Photo # 4 – Existing ceiling above ground floor, located near grid D/8. anchors being added to reconnect wood ceiling to joists above

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: Sept. 1, 2009
Time: 10:00 AM

Weather: Partly sunny
Temperature: 68 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)
Jed Taft (Hardy Pond)

Project Items to be Observed:

Rear entry foundation
Revised rooftop HVAC locations
Openings for proposed vertical duct chases
Basement masonry status

Field Observations / Project Status:

1. Contractor has removed some of the smaller strip footings that interfere at the rear entry. Contractor had installed drainage stone and it appears to conform to requirements specified by S. W. Cole.
2. The over excavated area adjacent to the existing concrete wall next to the trash compactor has now been infilled with drainage stone (see photo #1).
3. The mechanical contractor (Jeff Yankowsky) has recommended that the location of the rooftop HVAC unit be changed from what was previously specified by the mechanical engineer to a new location. The new location will be just to the east of the existing column located at gridline D/8 (see photo #2). Access was provided so that the top of the existing column at D/8 (and beams at the column) could be observed verifying that adequate support is provided. I asked if existing roof rafters would need to be cut in order to allow the passage of duct work and the mechanical contractor said that he is able to locate the HVAC unit so that existing roof rafters would not be cut.
4. For the record, the size of the double roof beams at the column at grid B/8 were 10 inches deep and had flange widths of 4.5 inches by 3/8 inches (at the tip of the flange).
5. Afterward I met with Jed Taft to discuss the new chases required for the vertical ductwork extending within the building. Jed mentioned that vertical chases will be required at two locations and should be approximately 24"x24". We reviewed the proposed locations at several floor levels and it was clear that new modifications to the existing framing would be needed to accommodate the opening (see photo #3). Jed said that he will look at whether are not a smaller clear opening size can be used, possibly by modifying the profile of the ductwork.
6. Jed said that he will review the vertical chase requirements further and let me know if any of the existing framing has to be cut. I said that if the framing does need to be cut, we will need to identify the span of the existing framing so that the loads can be calculated and a repair detail can be provided.
7. David Norton and I reviewed the new 8 inch thick masonry which has been placed between gridlines A/9 and A/10 in the basement. The masonry has been placed with a bond beam at 4 feet above the footing. The #5 vertical dowels extending out of the bond beams do not extend far enough to satisfy the lap splice requirements. John Breton (mason) said that the reason is that the low headroom above does not allow the dowel to be any longer. I said that it was fine with me if the bond beam was placed at 4 feet above the floor instead of above the footing as long as the proper lap splice was provided for all of the future masonry walls. John said that should work fine.
8. Reinforcement for the concrete piers and grid line A in the basement appears to conform with project requirements (see photo #4). Note that concrete piers are used instead of masonry per RFI # 19.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement.
3. The existing wood ceiling suspended to the bottom of the second floor joists at part of the building (grids 5 -10) has some areas where the wood ceiling is pulling away from the bottom of the existing joists. Re-anchor the ceiling to the joists using 3/16" diameter x 10- inch long threaded fasteners and 3" diameter washers. Due to the potential hazard of the ceiling pulling away, spacing of the fasteners should be 24 inches on center (average) in each direction at areas where there is any space between the bottom of the joist and the wood ceiling. At areas where there is no gap, the spacing can be at approximately 48 inches on center (average) in each direction.
4. An existing 12" joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. Remove the pipe and bolt a 48" inch long pressure treated 2x 12 sister to the existing joist and reconnect it to the existing steel beam (connection to be similar to that of existing adjacent joists). Bolts should be (2) 1/2" diameter bolts at 10 inches on center (total of 8 bolts).
5. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
6. Hardy Pond will notify Price Structural Engineers where existing floor framing has to be modified to accommodate vertical chases for vertical ductwork (this work is currently being reviewed by Jed Taft).

Corrective action taken:

General:

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Photo # 1 – Compacted stone at grid G.1/4.2 as recommended by S. W. Cole engineers



Photo # 2 – Revised relocation of rooftop HVAC (shown by yellow marking on roof) located over column

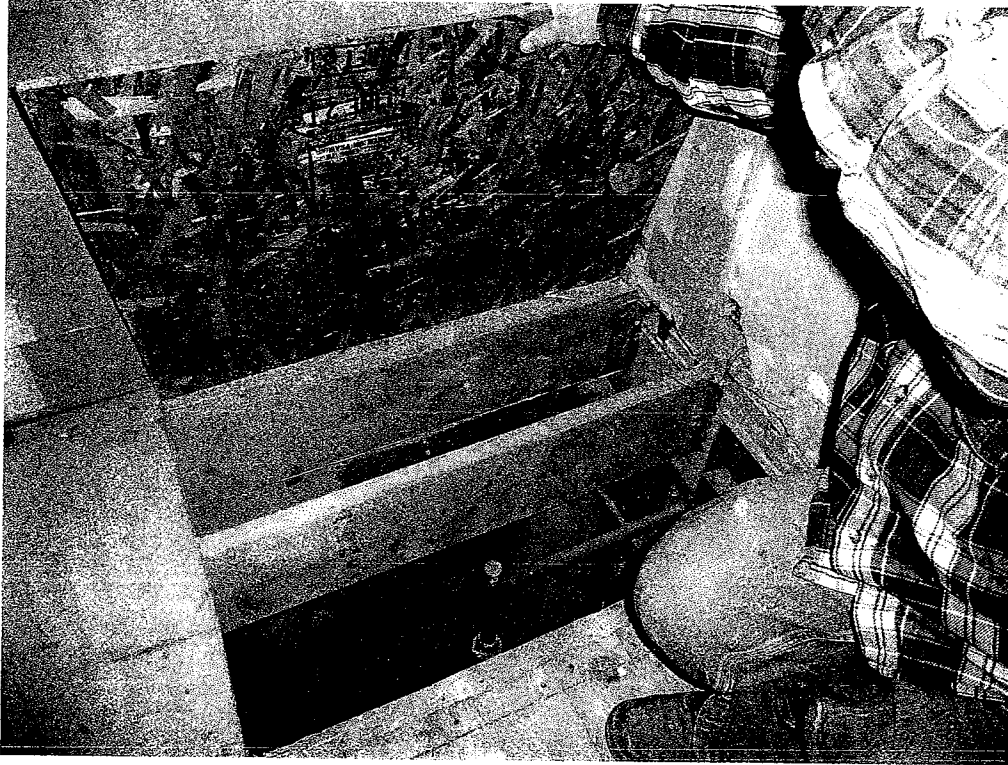


Photo # 3 – Proposed location of vertical ductwork chase (revised framing required due to interference)

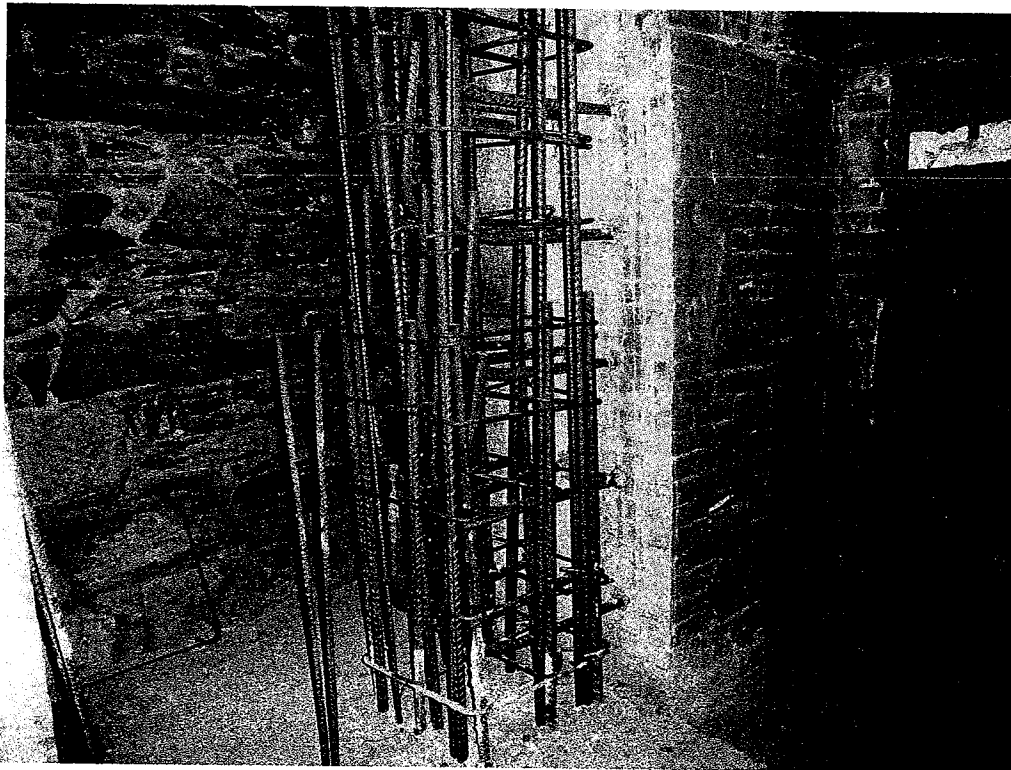


Photo # 4 – Reinforcement for new concrete piers in basement at Grid A (note dowels into the existing brick)

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: Sept.4, 2009
Time: 10:00 AM

Weather: Partly sunny
Temperature: 68 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)

Project Items to be Observed:

Installed CMU
HSS 6"x2" steel tubes at Congress Street Bay windows

Field Observations / Project Status:

1. John Breton Masonry installed the 8" CMU shear wall up to 4' above finish floor at grid A/9 to A/10 (see photo #1). Some of the vertical dowels for the lap splice to the upper part of the wall are a few inches less than what is required. John said this is because the footing sits above the slab and to put the bond beam at 4' above the footing means that the proper length dowels literally cannot be installed due to restriction of 1st floor overhead. I said that it is ok to put bond beam one course down on other walls since the lap splice is critical on the remaining walls.
2. John Breton Masonry is infilling the large hole in the basement below the proposed column to be installed at grid F/7 (see photo #2). The new CMU has dowels connecting it to the brick foundation walls.
3. Dave Norton said that Hardy Pond would like to change the proposed new column at first floor grid F/7 from a 16" x 16" CMU pier to a steel column since the steel would help with the temporary shoring at this area also. Dave said that he is passing on what Mark Leasure had indicated. I said that may be fine if it will facilitate the temporary shoring and that the next step is for Hardy Pond to send this in as an RFI for review of concept. (See RFI #26).
4. Double beams at second floor at grid F/5 to F/10 were field measured as 15" deep with a 5.75" wide flange.
5. Art Gallant was on site and he had two samples of existing structural steel (taken from the bottom flange or the existing double beams along second floor at grid F/6.5). The steel will be used for testing the contractor's welder for the welding procedure developed specifically for this project. Since only one welder is being tested and it is only for fillet welds, only one sample will be needed and the second can be used as a back up if needed.
6. Contractor is installing HSS 6"x2" tubes at Congress Street brick wall face for the new balcony windows (see photo #3). Dave Norton and I discussed possible options, including epoxying with Hilti Hy-150, since there appears to be several areas where the ½" diameter thru – bolts at 24" on center cannot be installed due to interferences in the existing brick wall.
7. There appears to be a problem at some areas at the second floor grid "A" diaphragm to brick wall connector angles (see photo #4 and Detail E2/S5.5). The issue is that the existing wood floor diaphragm does not extend all the way to the brick wall and therefore the proposed angles will not have a large enough horizontal leg to reach the wood floor diaphragm. I suggested that one way to fix it is to order angles with a 5" horizontal leg. Dave Norton said that is what he will do.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement.

3. The existing wood ceiling suspended to the bottom of the second floor joists at part of the building (grids 5 -10) has some areas where the wood ceiling is pulling away from the bottom of the existing joists. Re-anchor the ceiling to the joists using 3/16" diameter x 10- inch long threaded fasteners and 3" diameter washers. Due to the potential hazard of the ceiling pulling away, spacing of the fasteners should be 24 inches on center (average) in each direction at areas where there is any space between the bottom of the joist and the wood ceiling. At areas where there is no gap, the spacing can be at approximately 48 inches on center (average) in each direction.
4. An existing 12" joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. Remove the pipe and bolt a 48" inch long pressure treated 2x 12 sister to the existing joist and reconnect it to the existing steel beam (connection to be similar to that of existing adjacent joists). Bolts should be (2) 1/2" diameter bolts at 10 inches on center (total of 8 bolts).
5. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
6. Hardy Pond will notify Price Structural Engineers where existing floor framing has to be modified to accommodate vertical chases for vertical ductwork (this work is currently being reviewed by Jed Taft).
7. There appears to be a problem at some areas at the second floor grid "A" diaphragm to brick wall connector angles (see photo #4 and Detail E2/S5.5). The issue is that the existing wood floor diaphragm does not extend all the way to the brick wall and therefore the proposed angles will not have a large enough horizontal leg to reach the wood floor diaphragm. I suggested that one way to fix it is to order angles with a 5" horizontal leg. Dave Norton said that is what he will do.

Corrective action taken:

General:

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Photo # 1 – Four foot tall 8” CMU at basement grid A/8 to A/10

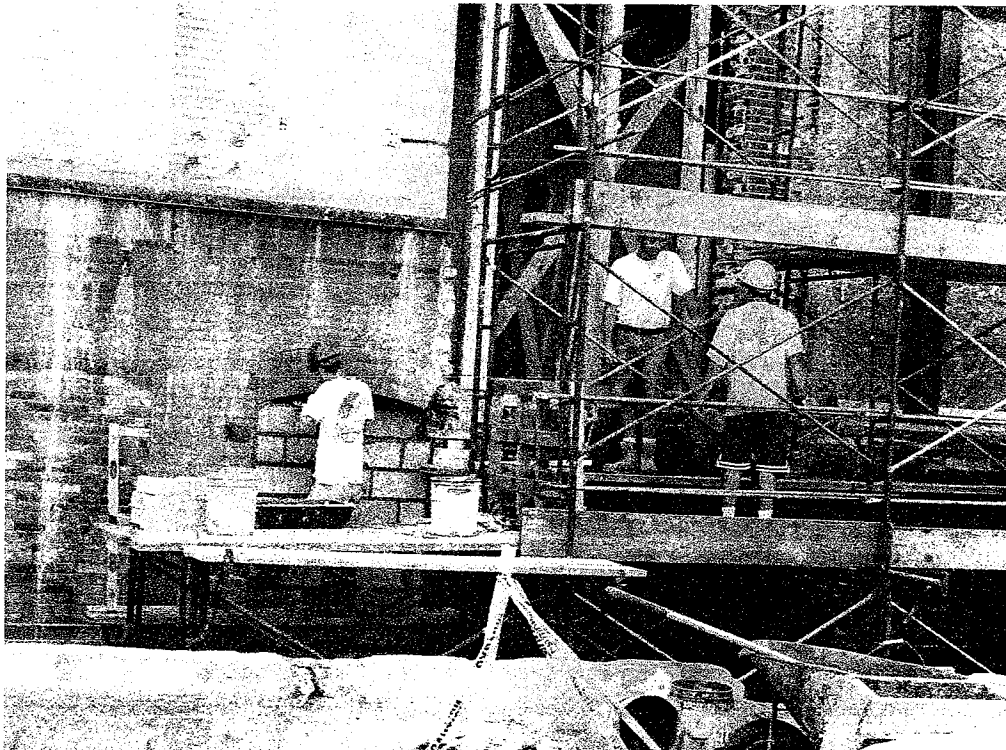


Photo # 2 – Infill of existing hole in basement brick foundation wall at grid F/7

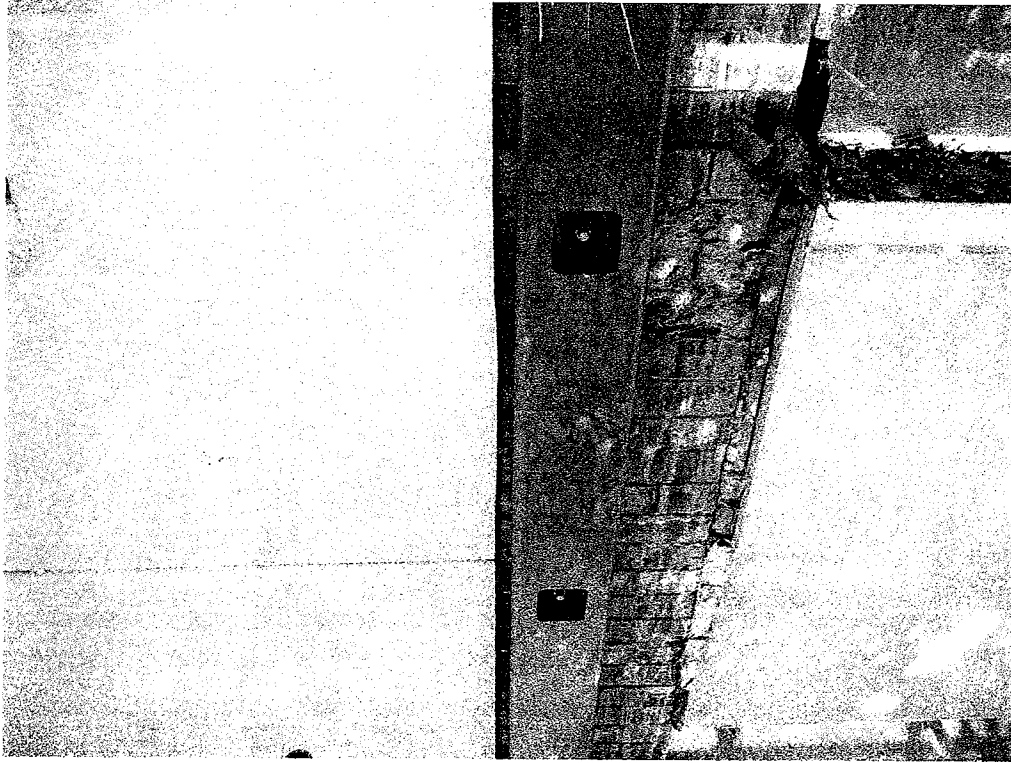


Photo # 3 – Steel tubes HSS 6"x2" bolted to front of building for new bay windows on Congress Street.



Photo # 4 - L3x3 steel angle connecting 2nd floor diaphragm to existing brick

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: Sept. 9, 2009
Time: 10:00 AM

Weather: Partly sunny
Temperature: 68 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)

Project Items to be Observed:

HSS 6"x2" steel tubes for Congress Street Bay windows
Basement Lintel at back of building

Field Observations / Project Status:

1. The installation of the HSS 6"x2" steel tubes used for support of the new bay windows (Congress Street) appears to be nearing completion.
2. The steel tubes are mounted directly to the face of the existing brick wall, which required removing the existing cementitious coating previously placed on the brick.
3. The steel tubes are secured to the brick wall by means of 1/2" diameter threaded rods extending through the brick wall with 3"x3" steel washers on each side. The threaded rods are spaced at 24 inches on center.
4. All threaded rods have been installed, except at one location. This location was at the 4th floor level at grid A/5.2. I pointed this out to David Norton and he called me the next day and said that the threaded rod had been installed.
5. There appears to be seven locations where threaded rod extending through the brick wall could not be used and had to be replaced with threaded rods anchored to the brick using Hilti HY-150 adhesive. I spoke with David Norton and he said that these were embedded into the brick wall approximately 10 to 12 inches. The seven locations are at all 6 of the top of tube locations between gridline 2 and gridline 4.8 (see photo #1). The other location, which was marked on the tube, was at the 5th floor level at grid A/5.6.
6. The continuous cold form 12 gauge x 16 inch deep channels at each end of the proposed bay windows are screwed to the steel tubes at some locations (see photo #2).
7. The tarp has been removed at the back of the building and exposed an existing lintel in the basement, which is severely corroded (see photo #3 and #4). The location of the lintel is at approximately grid F/5.2 in the basement and the lintel will need to be replaced with a new steel lintel. Details for the new steel lintel are shown on sketches SK-S33, SK-S34 and SK-S35 which were issued as part of a subsequent field order with other revisions at the rear entry.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be installed or "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, end plates, and whether the column was fabricated with a composite section, must be included in the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond needs to reevaluate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that the location of the centerline of the CMU wall in the basement

3. The existing wood ceiling suspended to the bottom of the second floor joists at part of the building (grids 5 -10) has some areas where the wood ceiling is pulling away from the bottom of the existing joists. Re-anchor the ceiling to the joists using 3/16" diameter x 10- inch long threaded fasteners and 3" diameter washers. Due to the potential hazard of the ceiling pulling away, spacing of the fasteners should be 24 inches on center (average) in each direction at areas where there is any space between the bottom of the joist and the wood ceiling. At areas where there is no gap, the spacing can be at approximately 48 inches on center (average) in each direction.
4. An existing 12" joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. Remove the pipe and bolt a 48" inch long pressure treated 2x 12 sister to the existing joist and reconnect it to the existing steel beam (connection to be similar to that of existing adjacent joists). Bolts should be (2) 1/2" diameter bolts at 10 inches on center (total of 8 bolts).
5. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
6. Hardy Pond will notify Price Structural Engineers where existing floor framing has to be modified to accommodate vertical chases for vertical ductwork (this work is currently being reviewed by Jed Taft).
7. There appears to be a problem at some areas at the second floor grid "A" diaphragm to brick wall connector angles (see photo #4 and Detail E2/S5.5). The issue is that the existing wood floor diaphragm does not extend all the way to the brick wall and therefore the proposed angles will not have a large enough horizontal leg to reach the wood floor diaphragm. I suggested that one way to fix it is to order angles with a 5" horizontal leg. Dave Norton said that is what he will do.

Corrective action taken:

General:

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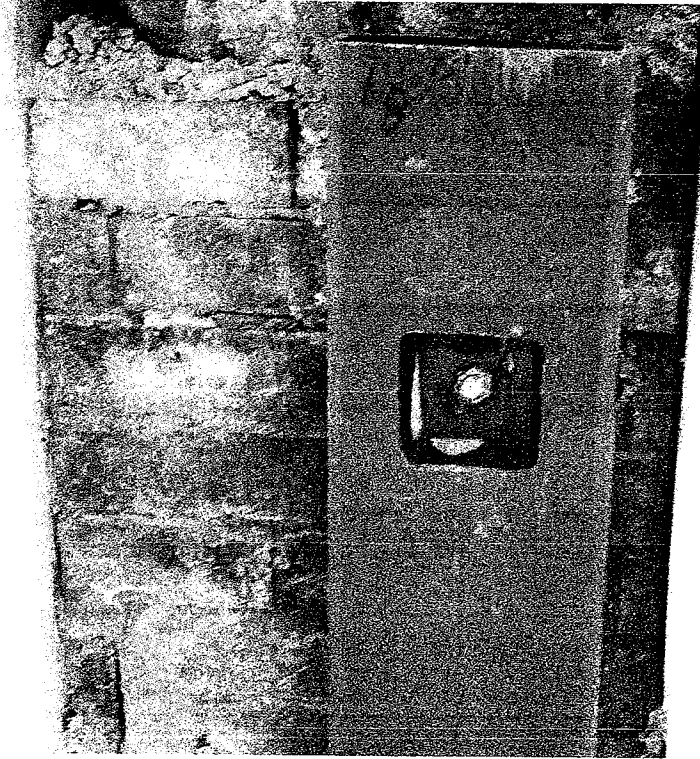


Photo # 1 – HSS 6"x2" steel tubes mounted to face of the brick at Congress Street elevation for bay windows. Note that this is one of seven locations where the epoxy adhesive used.

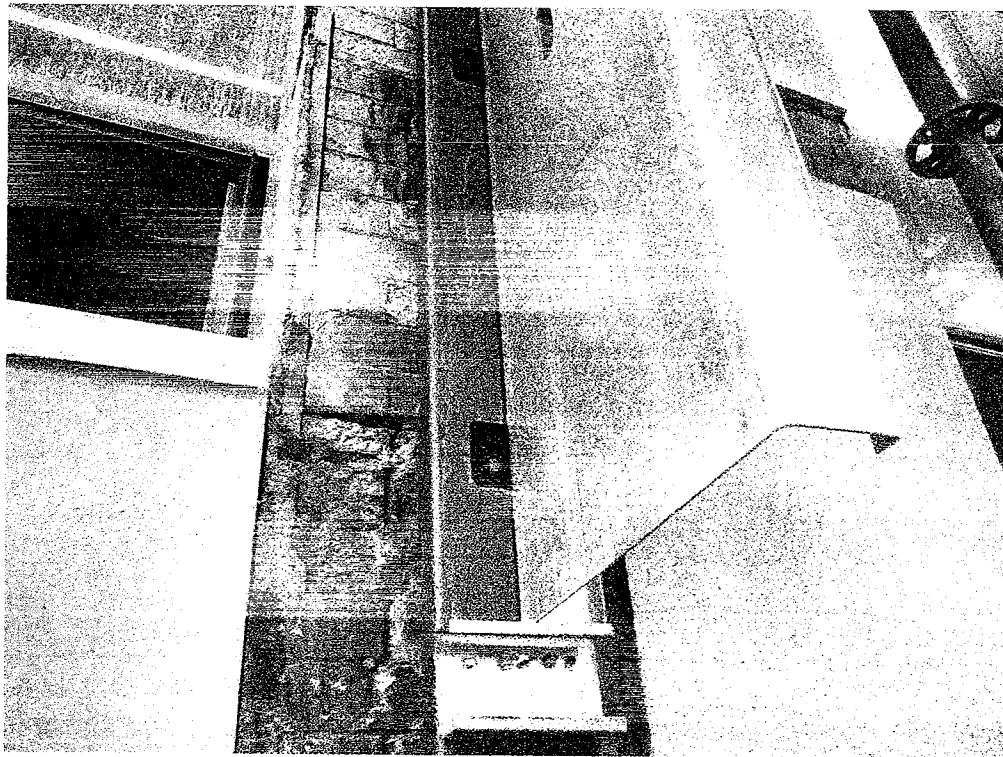


Photo # 2 – Cold form 12 gauge x 16" deep continuous cold form channel screwed to steel tubes

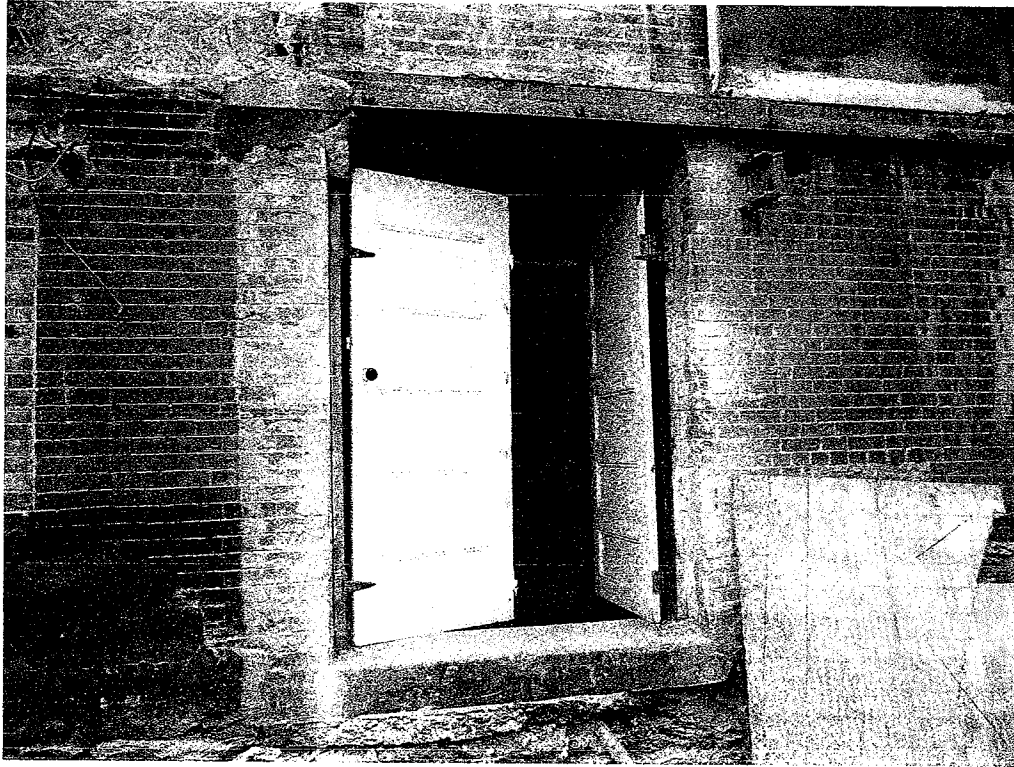


Photo # 3 – Existing lintel above basement door at grid F/5.2

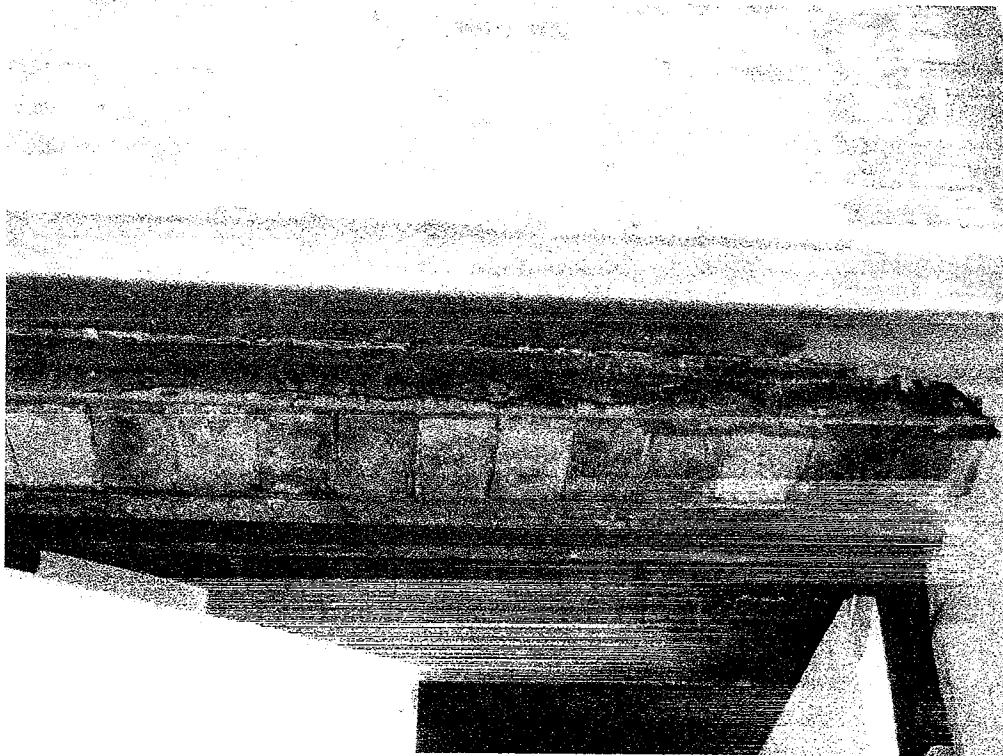


Photo # 4 - Note severe corrosion at existing lintel above basement door at grid F/5.2

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: Sept. 18, 2009
Time: 8:00 AM

Weather: Partly sunny
Temperature: 68 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)
Jed Taft (Hardy Pond)

Project Items to be Observed:

Concrete Placement at Grid A Basement Piers

Field Observations / Project Status:

1. Final preparations being made for placement of concrete piers in basement along grid A , for piers at grids 5.1, 6.7, 7.1, 8.1 and 8.9.
2. There needs to be a steel plate with welded studs embedded in the CMU wall at grids 7.1 and 8.9. David said that the plate will be completely embedded in the adjacent CMU wall at grid 8.9 but that the plate extends partially onto the pier at 7.1. This complicates the placement of concrete at grid 7.1 since it reduces the opening at the top through which concrete can be installed.
3. The anchor bolts at grids 7.1 and 8.9 are over 3 feet long and the contractor asked if these could be "wet-cast" since the bolt template (contractor's name Joel Brown) . I said no because they are too long and too critical.
4. At grid 8.9, the contractor provided a large enough opening in the wood bolt template for concrete to be placed so these bolts could be secured in place prior to concrete placement (see photo #1).
5. At grid 7.1 , however, this was not possible since the embedded plate with Nelson studs also limited access for the concrete to be placed. Therefore, I instructed the contractor to place the bolts where they needed to be with the template to verify that there was no interference with rebar below or other materials. Once this was verified I said it was acceptable to partially move the bolts so the concrete could be placed and then put them back in their proper position provided the contractor was certain that he could do this successfully which he said he was able to do (see photo #2).
6. A serious concern at the concrete placement was that the contractor was in the process of placing the concrete without having the proper project documentation at this area. RFI #19 is the request the contractor had submitted to replace the previous CMU piers with concrete piers but the contractor was neither aware of the corresponding requirements (rebar dowels at the top of the piers) nor was he able to locate the RFI in his records. Eventually the RFI was located but in the future the contractor must establish the necessary steps and jobsite procedures to be sure that he has the current requirements when installing permanent materials to prevent an extremely serious problem.
7. The sidewalk at the back of the building (grid F.1/9.5) is undermined as a result of the demolition at this area (see photo #3). As a result, the contractor has sawcut the slab at a distance of 7'-0" from the northeast corner of the building (grid F/10). The sawcut is approximately 8'5" from the edge of the slab where the undermined area has occurred (see photo #4).
8. The bent plate angle at the 2nd floor diaphragm connection along grid A (between grid 5 and 10) has been replaced. There was a problem at some areas at the second floor grid "A" diaphragm to brick wall connector angles (see Detail E2/S5.5). The issue was that the existing wood floor diaphragm did not extend all the way to the brick wall and therefore the proposed angles did not have a large enough horizontal leg to reach the wood floor diaphragm. This has been fixed using angles with a 5" horizontal leg which is screwed into both the existing floor and the new blocking underneath with screws at 4" on center. The vertical leg is screwed into the existing brick with Tapcon anchors as specified (see photo #5).
9. The specified blocking below the 2nd floor diaphragm connection at Grid A is now in place (see photo #6).
10. The existing back bay window on the second floor near grid F/4.8 will need additional support. A portion of the floor was removed which clearly shows that the existing joists were embedded in the existing brick (see photo #7). Jed and I discussed that a small area of additional floor still needs to be removed near the north east corner of the bay window before repair details can be completed.
11. The installation of the cold form framing is nearing completion at the Congress street bay windows. Short joists still need to be installed at the windows (see photo #2).

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement.
3. The existing wood ceiling suspended to the bottom of the second floor joists at part of the building (grids 5 -10) has some areas where the wood ceiling is pulling away from the bottom of the existing joists. Re-anchor the ceiling to the joists using 3/16" diameter x 10- inch long threaded fasteners and 3" diameter washers. Due to the potential hazard of the ceiling pulling away, spacing of the fasteners should be 24 inches on center (average) in each direction at areas where there is any space between the bottom of the joist and the wood ceiling. At areas where there is no gap, the spacing can be at approximately 48 inches on center (average) in each direction.
4. An existing 12" joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. Remove the pipe and bolt a 48" inch long pressure treated 2x 12 sister to the existing joist and reconnect it to the existing steel beam (connection to be similar to that of existing adjacent joists). Bolts should be (2) 1/2" diameter bolts at 10 inches on center (total of 8 bolts).
5. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
6. Hardy Pond will notify Price Structural Engineers where existing floor framing has to be modified to accommodate vertical chases for vertical ductwork (this work is currently being reviewed by Jed Taft).
7. The contractor must establish the necessary steps and jobsite procedures to be sure that he has the current requirements when installing permanent materials.

Corrective action taken:

1. There was a problem at some areas at the second floor grid "A" diaphragm to brick wall connector angles (see Detail E2/S5.5). The issue was that the existing wood floor diaphragm did not extend all the way to the brick wall and therefore the proposed angles did not have a large enough horizontal leg to reach the wood floor diaphragm. This has been fixed using angles with a 5" horizontal leg which is screwed into both the existing floor and the new blocking underneath with screws at 4" on center. The vertical leg is screwed into the existing brick with Tapcon anchors as specified.

General:

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Price Structural Engineers Inc. shall not, during such visits or as a result of any observations of construction, supervise, direct or have control over Contractor's work nor shall Price Structural Engineers Inc. have authority over or responsibility for the equipment, means, methods, techniques or procedures by the Contractor or health and safety precautions in programs incident to the work of the Contractor. Price Structural Engineers Inc. does not assume responsibility for Contractor's failure to comply with laws, rules, regulations or codes or the Contractor's failure to furnish and perform their work in accordance with the construction documents and does not guarantee the performance of the construction contract by the Contractor.

Report prepared by: David A. Price, P.E.
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Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
David Douglas, AIA - CWS Architects
Jeff Frye, Dave Norton, Jed Taft - Hardy Pond Construction
Steve Schuchert - CWS Architects
Ben Walter, AIA - CWS Architects



Photo #1 – Conc. Pier@ Bsmt Grid A/8.9 (Photo rotated 90 deg.)



Photo #2 – Conc. Pier@ Bsmt Grid A/7.1 (Photo rotated 90 deg.)

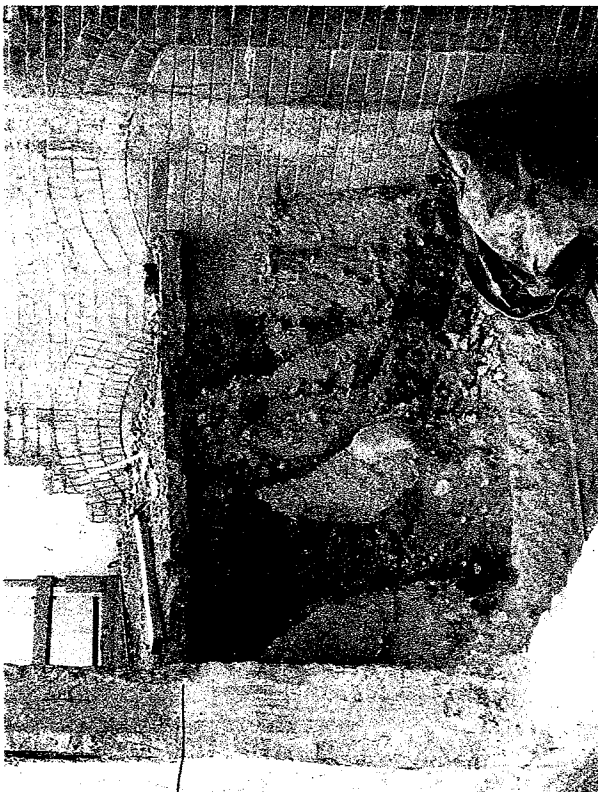


Photo #3 – Grid F.1/9.5, undermined slab (Photo rotated 90 deg.)

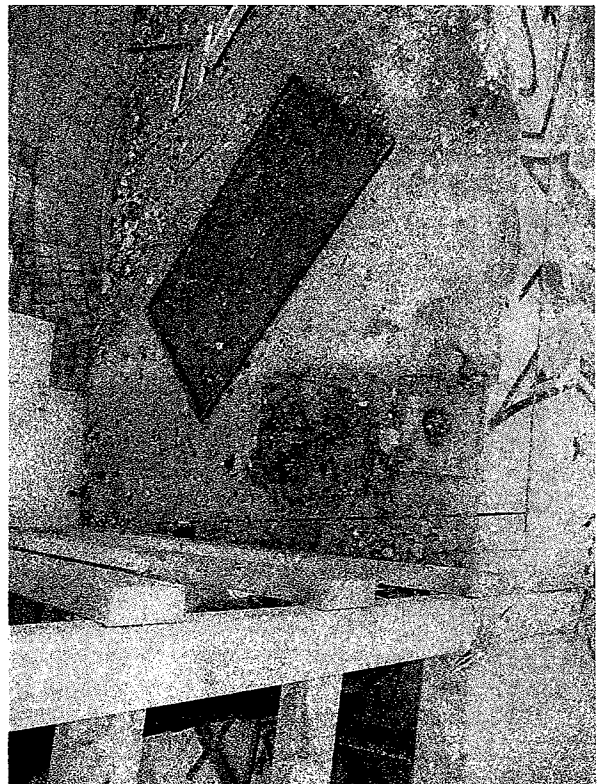


Photo #4 – Grid F.1/9.5 sawcut slab (Photo rotated 90 deg.)



Photo #5 - 2nd Floor Grid A Diaphragm Angle (Photo rotated 90 deg.) Photo #6 - Blocking @ 2nd Floor Grid A (Photo rotated 90 deg.)



Photo #7 - 2nd Floor Grid F/4.8 Exg. Joist (Photo rotated 90 deg.) Photo #8 - Grid A Window Cold Form (Photo rotated 90 deg.)

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: Sept.28, 2009
Time: 11:00 AM

Weather: Partly sunny
Temperature: 68 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)
Jeff Frye (Hardy Pond)

Project Items to be Observed:

- Structural Steel status meeting
- Observe construction at masonry openings
- Observe reinforcement for new walls at Back Entrance

Field Observations / Project Status:

1. **URGENT** - I have a serious concern that the temporary shoring process is inadequate. At several areas in the building demolition of existing masonry load bearing walls was being performed by Hardy Pond with no temporary shoring whatsoever (see attached photos #1 and #8). When I asked Mark Leasure if he had reviewed these areas for adequate shoring he said he had not been notified by the contractor that the demolition was going to be performed. I said to Jeff Frye that it is required that Mark Leasure specify shoring requirements prior to demolition and Jeff said he would take care of it. Since Mark was on site the workmen stopped until Mark reviewed the situation. When I spoke with Mark the next day he said temporary shoring had been installed at several areas under his direction.
2. Structural Steel status meeting with Jeff Frye, David Norton, Gus McBrady, Bob Hills (McBrady), David Douglas, Leo and Mark Leasure. During the meeting we discussed the review comments on the marked up shop drawings that were submitted for review on Friday, September 25. Also, it was discussed how any remaining questions that the steel fabricator had would be addressed to get all questions answered as soon as possible. Bob mentioned that the previous AR2 drawing (at the grid A area) had been returned to the steel fabricator but that their questions had not all been answered. I asked Bob to re-issue that drawing and Jeff said he will send a courier to get it and will then make sure that all of the questions are answered.
3. I mentioned that RFI #26 had been submitted requesting that a steel column at grid F/7 be used instead of the masonry column since it would accommodate temporary shoring loads. I said that I had responded on the RFI that it would be fine for Mark Leasure to design the steel column to facilitate the temporary shoring as long as some required parameters were included (listed on the RFI). The main thing is that before the contractor started fabricating or purchasing the steel, I wanted to review Mark's stamped calculations and details.
4. During the meeting Jeff said that Hardy Pond had been performing some checks at the back entrance and the top of existing steel that the surveyor had identified may be off by possibly as much as 5 inches. Jeff called the surveyor and they arrived in about 15 minutes to check their previous measurements. The concern that everyone expressed was that all of the approved submittals, field orders, steel piecemark drawings and related documents were all based on the previous survey. If the original survey was wrong then all these documents need to be revised.
5. It was later revealed that the survey was approximately 4 inches off since the surveyor measured to the top of the steel angle welded to the side of the beam instead of the top of the steel beam.
6. During the meeting David Norton said that someone other than Tim Dube would be doing the welding to the existing steel beams. I later called Art Gallant to verify if this was correct and he confirmed that it was his understanding that the gentlemen who originally developed the welding procedure for the project would be doing the field welding himself. His name is Andrew Falkner, and Art said that he thought he lived in Standish. I asked Art to take excellent care of the two existing steel samples that were taken previously in case we needed another welder to get certified and he said he would do that.
7. Reinforcement for foundation walls at the Rear Entry is mostly installed. Footings and reinforcement at acceptable areas appear to be in general agreement with the structural documents (see Photos #2,3, 4 and 6).
8. There is a severely spalled existing concrete wall near grid location F.4/9.5 adjacent to the sidewalk at the northeast corner of the building. This area of the wall will be exposed when construction is complete and although the existing wall appears to be structurally adequate I recommend that the spalled portion of the existing concrete be sawcut and removed (see photo #5). This is necessary so that it is not left as an

- unsightly condition when the project is complete. Therefore, the contractor needs to ^{get} be a price to sawcut the wall and verify with the owner prior to proceeding with the sawcut.
9. Mike Bisson was briefly on site from SW Cole to review the conditions at the back entrance.
 10. The basement concrete piers placed at grid A previously appears to have fairly good consolidation of concrete (see photo #11). Dave Norton said he used 4000 psi concrete for the piers.
 11. The cold-form exterior soffit along grid 10 appears to be in general conformance with the project requirements (see photo #12). Gage of steel framing and sizes of anchors could not be confirmed.
 12. I met with John Breton (mason) to review the status of new masonry lintels. Jed Taft had told me during the last site visit that he as going to send in an RFI for these lintels but I never received it so the mason is proceeding without design details for the lintels. The mason must not proceed with lintel installation unless he has approved design details for new lintels. I reviewed the small lintels he has installed so far as noted below.
 13. The lintel at basement grid F.5/2.5 (see photo #7) appears to be sound. John said he installed it with a double angle LL4"x3.5"x5/16" and then put a grouted bond beam above it that had (2) #6 rebar. The clear opening was 3'-4" and the lintel is not heavily loaded.
 14. John also rebuilt the masonry bearing at both ends of the beam located at grid F.3/2.5 (see photo #9, # 10) to support the existing beam. The existing beam has not been checked but the rebuilt bearing points appear to be sound.
 15. John was in the process of preparing for lintel installation at grid G.8/2.3 (see photo #8). Because the clear opening is wider and there is also a steel beam bearing at the midspan of the lintel I told John he must wait until I provide design details before installing the lintel. Also, see discussion regarding temporary shoring described above.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement.
3. The existing wood ceiling suspended to the bottom of the second floor joists at part of the building (grids 5 - 10) has some areas where the wood ceiling is pulling away from the bottom of the existing joists. Re-anchor the ceiling to the joists using 3/16" diameter x 10- inch long threaded fasteners and 3" diameter washers. Due to the potential hazard of the ceiling pulling away, spacing of the fasteners should be 24 inches on center (average) in each direction at areas where there is any space between the bottom of the joist and the wood ceiling. At areas where there is no gap, the spacing can be at approximately 48 inches on center (average) in each direction.
4. An existing 12" joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. Remove the pipe and bolt a 48" inch long pressure treated 2x 12 sister to the existing joist and reconnect it to the existing steel beam (connection to be similar to that of existing adjacent joists). Bolts should be (2) 1/2" diameter bolts at 10 inches on center (total of 8 bolts).
5. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.

6. The contractor must establish the necessary steps and jobsite procedures to be sure that he has the current requirements when installing permanent materials.
7. It is required that Mark Leasure specify shoring requirements prior to demolition being performed.
8. There is a severely spalled existing concrete wall near grid location F.4/9.5 adjacent to the sidewalk at the northeast corner of the building. This area of the wall will be exposed when construction is complete and although the existing wall appears to be structurally adequate I recommend that the spalled portion of the existing concrete be sawcut and removed (see photo #5). This is necessary so that it is not left as an unsightly condition when the project is complete. Therefore, the contractor needs to be a price to sawcut the wall and verify with the owner prior to proceeding with the sawcut. JL
9. Jed Taft had told me during the last site visit that he as going to send in an RFI for basement lintels but I never received it so the mason is proceeding without design details for the lintels. The mason must not proceed with lintel installation unless he has approved design details for new lintels.

Corrective action taken:

1. Jed Taft said he verified that the existing floor framing does not need to be modified to accommodate vertical chases for vertical ductwork.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

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Jeff Frye, Dave Norton, Jed Taft – Hardy Pond Construction
Mark Leasure PE - MFL Engineering / Hardy Pond
Steve Schuchert - CWS Architects
Ben Walter, AIA - CWS Architects



Photo # 1 Lack of Shoring @ 1st Floor Grid F/3.6

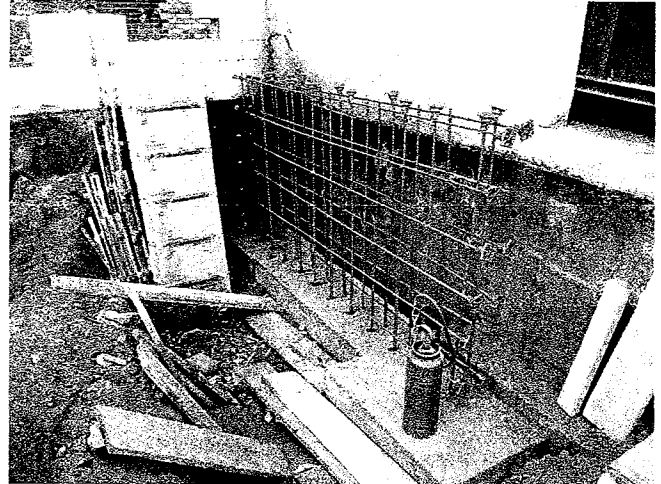


Photo # 2 – Reinf. @ Grid G.1 / 4.2 wall (looking south)

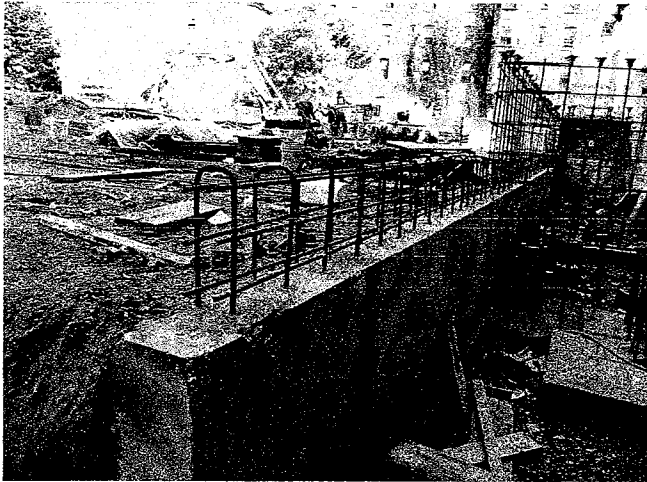


Photo # 3 Hairpins @ Rear entry Grid G.1/4.8

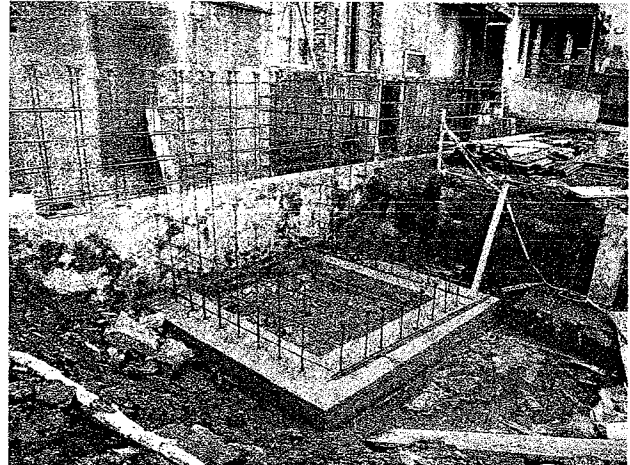


Photo # 4 – Reinf. @ rear sidewalk / stair (looking south)



Photo # 5 Spalled Exist. wall @ Rear Sidewalk



Photo # 6 – Reinf. @ rear retaining wall fig. (Grid F.4/5.2)



Photo # 7 Basement Lintel @ Grid F.5/2.5 (Looking North)

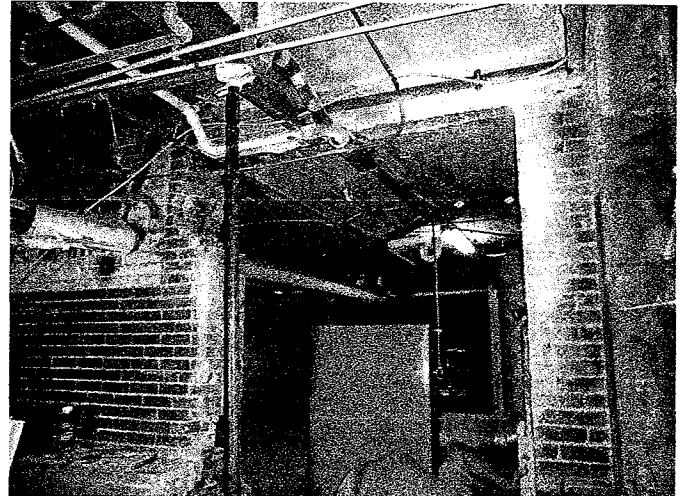


Photo # 8 - No shoring @ Bsmt Brick Opening (Grid G.8/2.3)

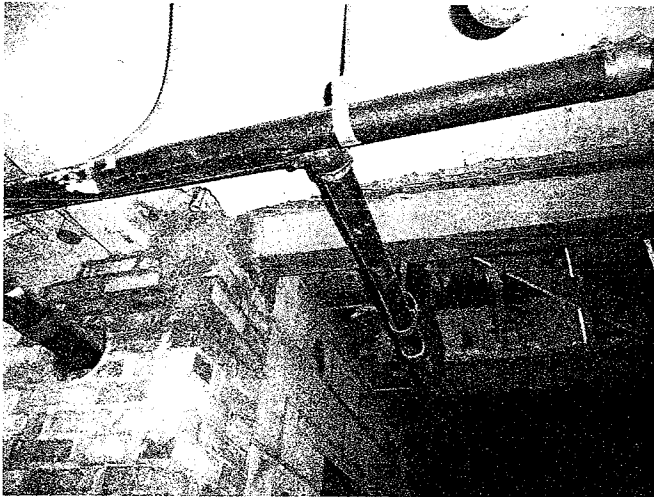


Photo # 9 Rebuilt Bearing @ Grid F.3/2.5 (Looking East)



Photo # 10 - Rebuilt Bearing @ Grid F.3/2.5 (Looking NE)



Photo # 11 Concrete Pier @ Grid A/7.1 (Looking SW)



Photo # 12 - Cold Form Braced Soffit @ Grid 10

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: October 2, 2009
Time: 10:00 AM

Weather: Partly sunny
Temperature: 60 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)

Project Items to be Observed:

- Formwork at back entrance
- Measurements at Revised Front Entrance
- Wood Floor Infill

Field Observations / Project Status:

1. Formwork for back entrance foundations is installed at approximately half the required walls (see photo #1). Reinforcement appears to be as specified. Installation of waterstops also appears to be as specified and tarps were in place to prevent waterstops from exposure to moisture. It was observed that there is not a 2x4 key at the construction joint and so Dave Norton said he will make sure that this is installed prior to concrete placement.
2. Mason is beginning installation of CMU walls at grid F.4/4.5.
3. The owner has requested that the existing column at grid A/6 not be removed as originally planned since it will facilitate shoring and assist with the project schedule. Therefore existing conditions were observed at this area for the revisions to the design.
 - a) Grid A/5 (see photo #2) – Existing double beams bear 7” on a brick column
 - b) Grid A/6 (see photo #3) – Existing double beams have spliced joint with centerline of splice occurring at the 15” column centerline (column appears to be cast iron). It appears that the existing crown molding can be removed.
 - c) Grid A/7 (see photo #4) - Existing double beams have spliced joint with centerline of splice occurring at 15.5” to the west the 15” column centerline (column appears to be cast iron). Large splice plate observed to be on the inside faces of both beams.
4. Dave Norton and I discussed infilling the existing wood 1st floor at several small areas near grid F/3. I said it would be acceptable to use a pressure treated 2x12 ledger bolted to the adjacent masonry with (2) ½” diameter galvanized bolts at 16” on center and then infill with pressure treated joists at 16” on center. Joist hangers and nails need to be hot dip galvanized due to the pressure treated lumber. At one location, located at grid F.4/2.6, it would be acceptable to notch the joists to accommodate the existing cantilevered slab at that area (see attached sketch from contractor at end of this report). Bolts have not yet been added and need to be installed.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered “approved” until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were “finished to bear” (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement.

3. The existing wood ceiling suspended to the bottom of the second floor joists at part of the building (grids 5 - 10) has some areas where the wood ceiling is pulling away from the bottom of the existing joists. Re-anchor the ceiling to the joists using 3/16" diameter x 10- inch long threaded fasteners and 3" diameter washers. Due to the potential hazard of the ceiling pulling away, spacing of the fasteners should be 24 inches on center (average) in each direction at areas where there is any space between the bottom of the joist and the wood ceiling. At areas where there is no gap, the spacing can be at approximately 48 inches on center (average) in each direction.
4. An existing 12" joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. Remove the pipe and bolt a 48" inch long pressure treated 2x 12 sister to the existing joist and reconnect it to the existing steel beam (connection to be similar to that of existing adjacent joists). Bolts should be (2) 1/2" diameter bolts at 10 inches on center (total of 8 bolts).
5. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
6. It is required that Mark Leasure specify shoring requirements prior to demolition being performed or at other areas which in his opinion appear to be structurally unstable during construction.
7. Add (2) 1/2" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas not yet completed.

Corrective action taken:

1. There is a severely spalled existing concrete wall near grid location F.4/9.5 adjacent to the sidewalk at the northeast corner of the building. I discussed this with Greg Shinberg and he said he will add patching as necessary if this becomes necessary.
2. Additional shoring has been installed. It is my understanding that this is under the direction of Mark Leasure, the contractor's engineer.

General:

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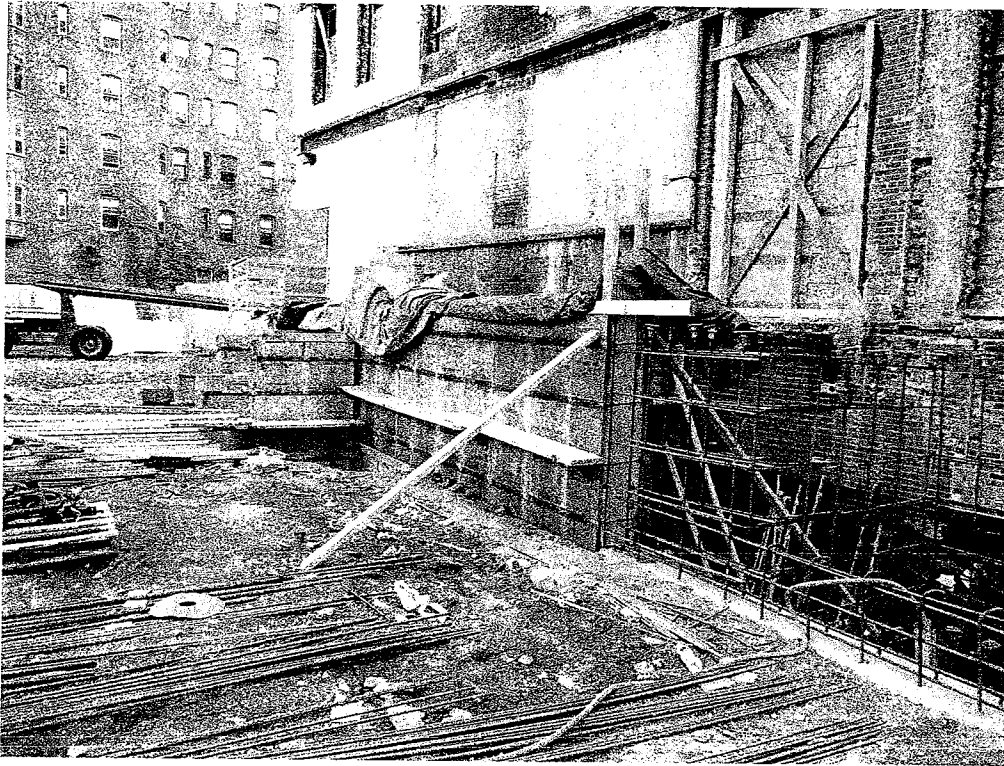


Photo # 1 – Formwork at back entrance.

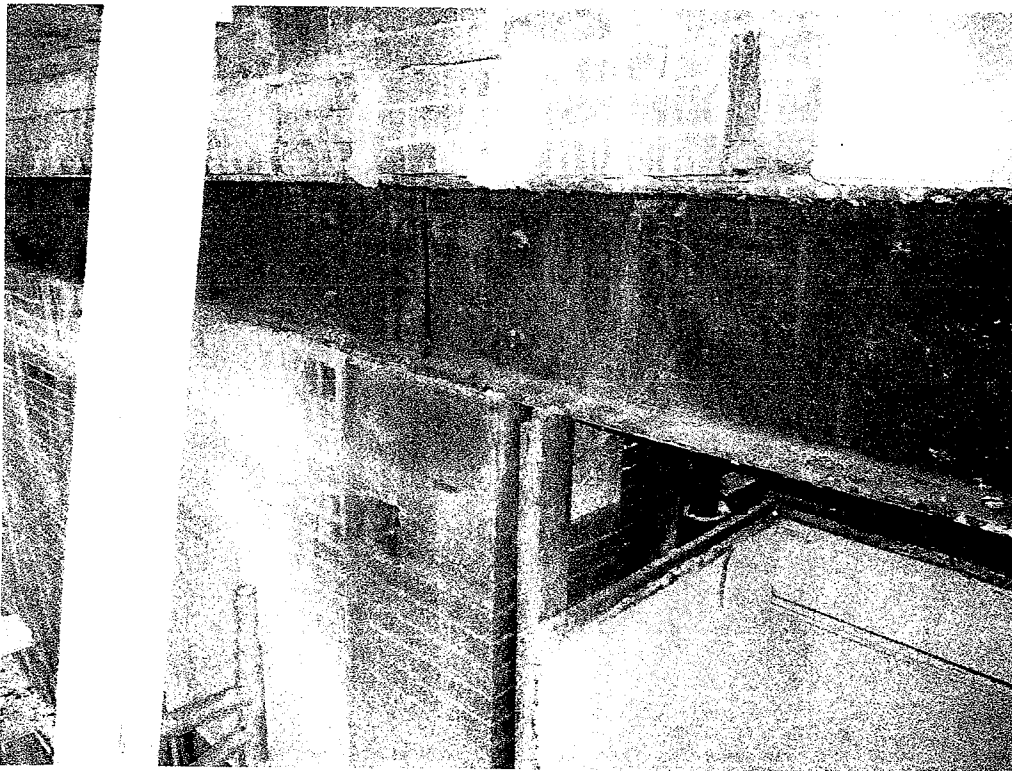


Photo # 2 – View looking north at existing steel beams located at grid A/5.

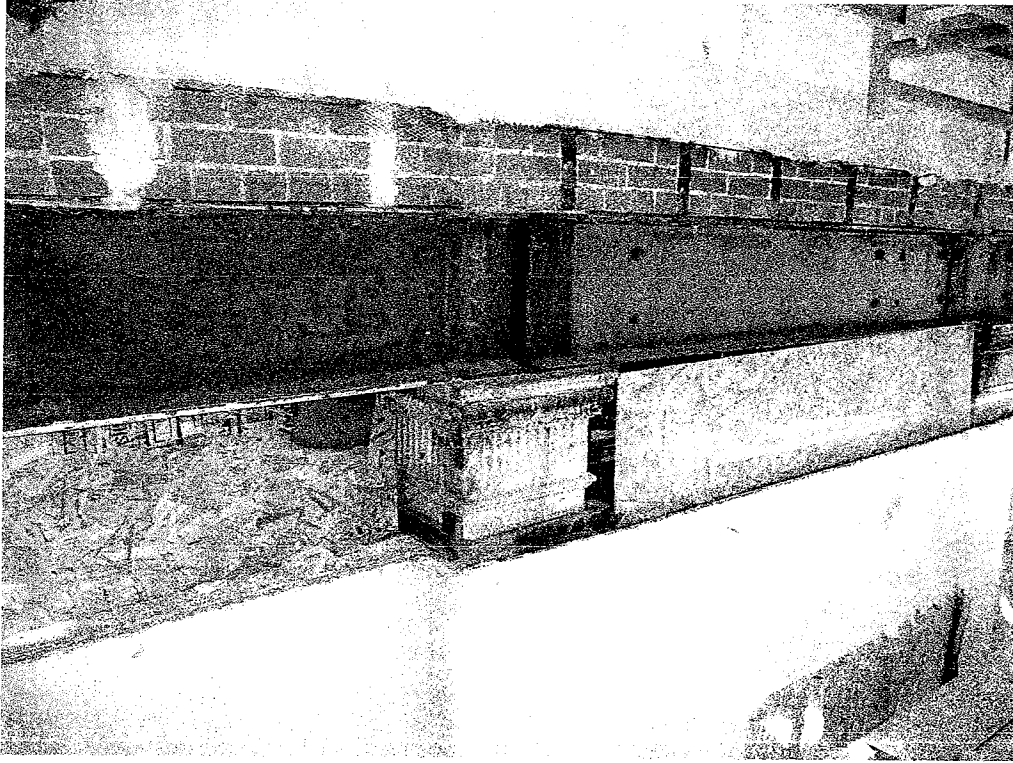


Photo # 3 - View looking north at existing steel beams located at grid A/6.

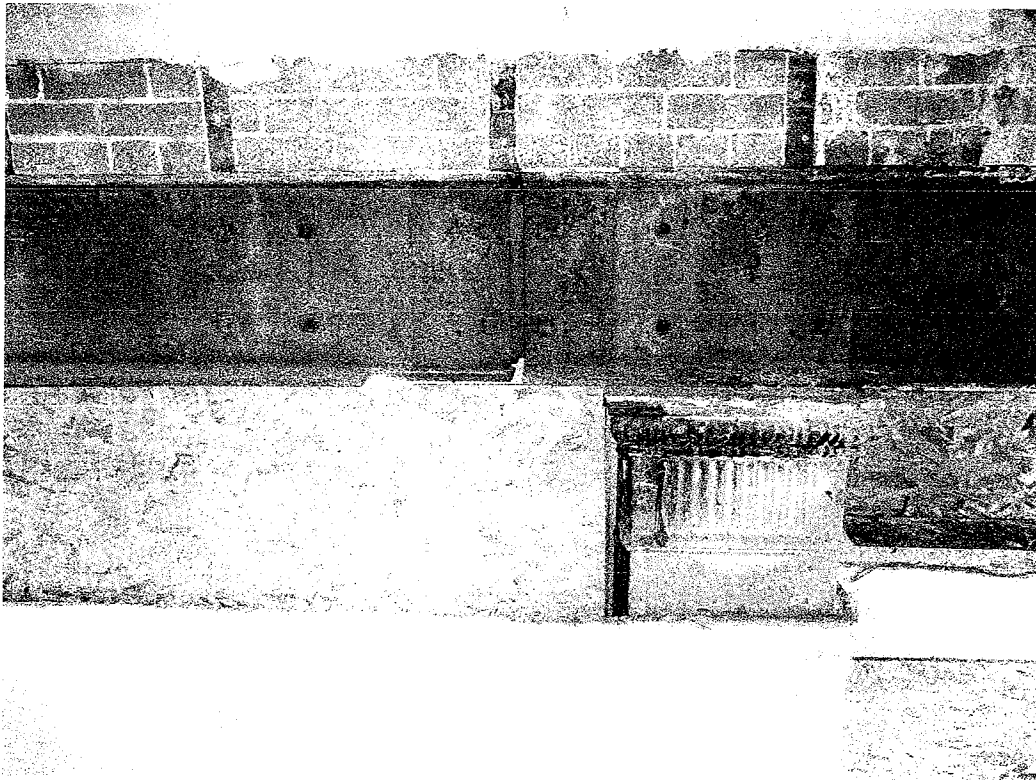
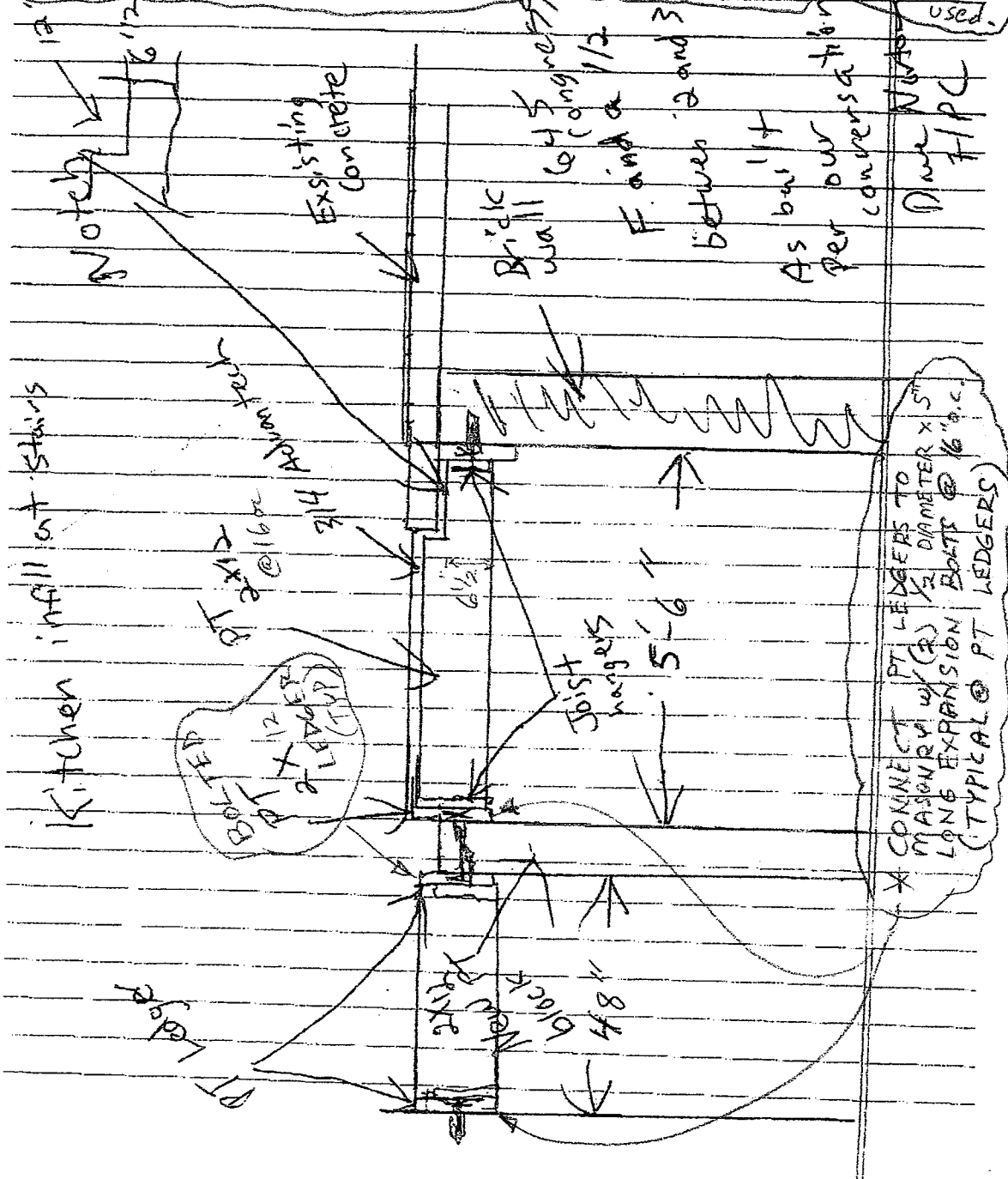


Photo # 4 - View looking north at existing steel beams located at grid A/7. Note that splice is located 15.5" west of column centerline and that splice plate is on the inside face of the beam.

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This detail is acceptable at other floor in-fill areas between masonry walls provided span does not exceed 6'-0", use 2x1/2 PT @ 16" o.c. and LUS 28-ZMAX hangers are used.



FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: October 7, 8, 2009
Time: 11:00 AM

Weather: Partly sunny
Temperature: 60 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond)

Project Items to be Observed:

- Repaired areas
- Back entry Foundation

Field Observations / Project Status:

1. An existing 12" joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. The pipe has been removed and a 48" inch long pressure treated 2x 12 sister has been bolted to the existing joist reconnect it to the existing steel beam (see photo #1).
2. An opening in the existing west wall of the boiler room has been made in the existing brick wall at the basement grid line G.7 / 2.3 (see photo #2). The new lintel consists of (3)L4x4x5/16" angles supporting the 12" thick brick wall. This is sufficient since immediately above the lintel is an existing steel wide flange beam lintel embedded in the brick and the brick above that is arched above the opening. New concrete and masonry piers bearing directly on the existing foundation wall were also installed.
3. Forms were stripped from the back entrance foundations and the integrity of the exposed surfaces looks good, without excessive honeycombing. Steel reinforcement dowels extending from the top of the walls were observed as specified (See photos #3 and #4) and concrete keys were also observed. The existing key at grid G.1/6.0 is too wide since it does not allow as much concrete at each side of the key as is normally provided. It is too late to change this existing condition.
4. Embedded beam pockets at the back entrance foundation appear to be installed as specified.
5. David Douglas and I discussed drilling multiple large holes in an existing boiler room wall. The wall requested by the plumber is an existing 24" wide CMU wall which currently supports an existing 8 foot lintel (see photo #5). Later, David said that the plumber decided go with a different alternative.
6. On October 8, the contractor requested making an adjustment to the bracing bay at grid A/4.1 in order to reduce the potential temporary shoring requirements. See photo #6 for conditions at the foundation wall below the area being considered. Field measurements were taken at this area identifying locations of the existing pipe extending through the wall. Re-pointing of the existing foundation wall at this area will be necessary and the design will be detailed in sketches.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the

basement.

3. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
4. It is required that Mark Leasure specify shoring requirements prior to demolition being performed or at other areas which in his opinion appear to be structurally unstable during construction.
5. Add (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas not yet completed.

Corrective action taken:

1. An existing 12" joist supporting the second floor was discovered to be sawcut approximately 8 inches at one end to make room for a pipe and therefore did not have adequate connection to the steel beam at grid 8/D. The pipe has been removed and a 48" inch long pressure treated 2x 12 sister has been bolted to the existing joist reconnect it to the existing steel beam (see photo #1).
2. The existing wood ceiling suspended to the bottom of the second floor joists at part of the building (grids 5 - 10) has some areas where the wood ceiling is pulling away from the bottom of the existing joists. Re-anchoring of the ceiling to the joists using 3/16" diameter x 10- inch long threaded fasteners and 3" diameter washers has been performed.

General:

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Report prepared by: David A. Price, P.E.
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
David Douglas AIA - CWS Architects
Jeff Frye, Dave Norton, Jed Taft - Hardy Pond Construction
Mark Leasure PE - MFL Engineering / Hardy Pond
Steve Schuchert - CWS Architects
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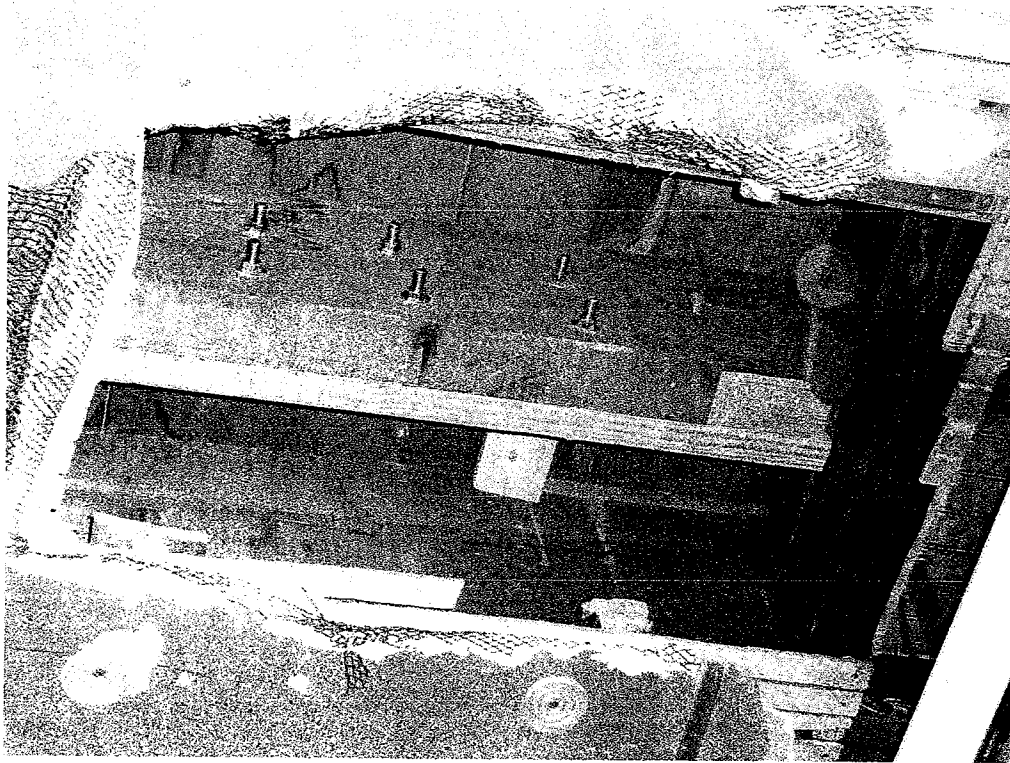


Photo # 1 Reinforcement of an existing joist connection to the steel beam at grid 8/D

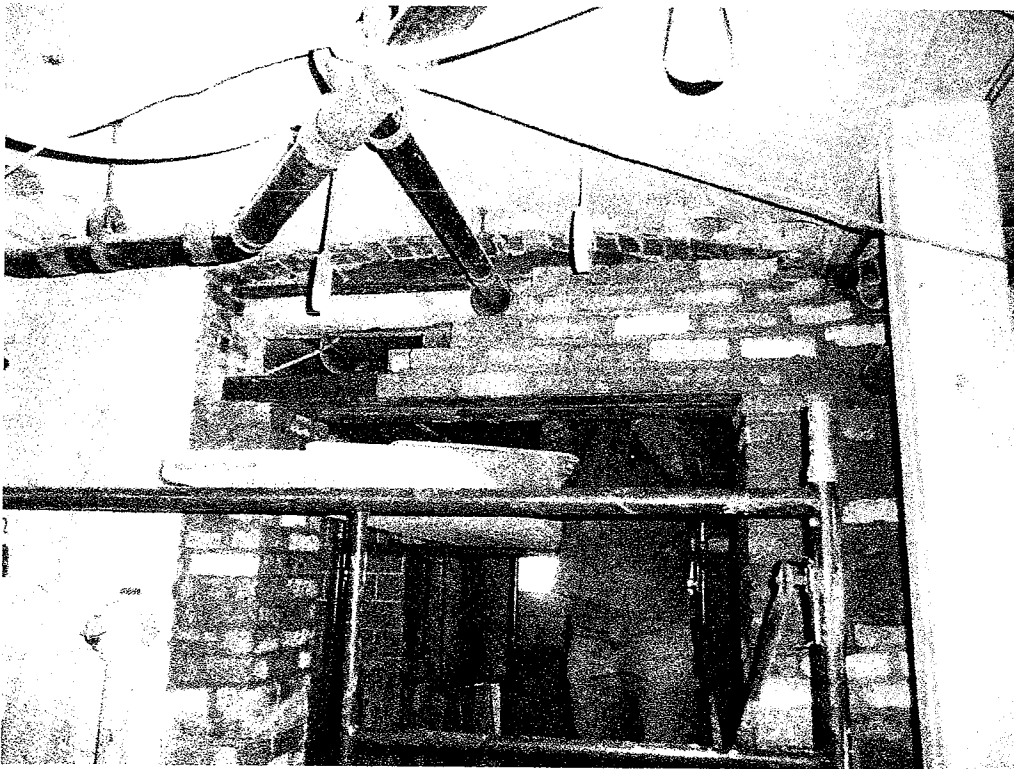


Photo # 2 – New lintel at grid 2.3/G.7 in basement.

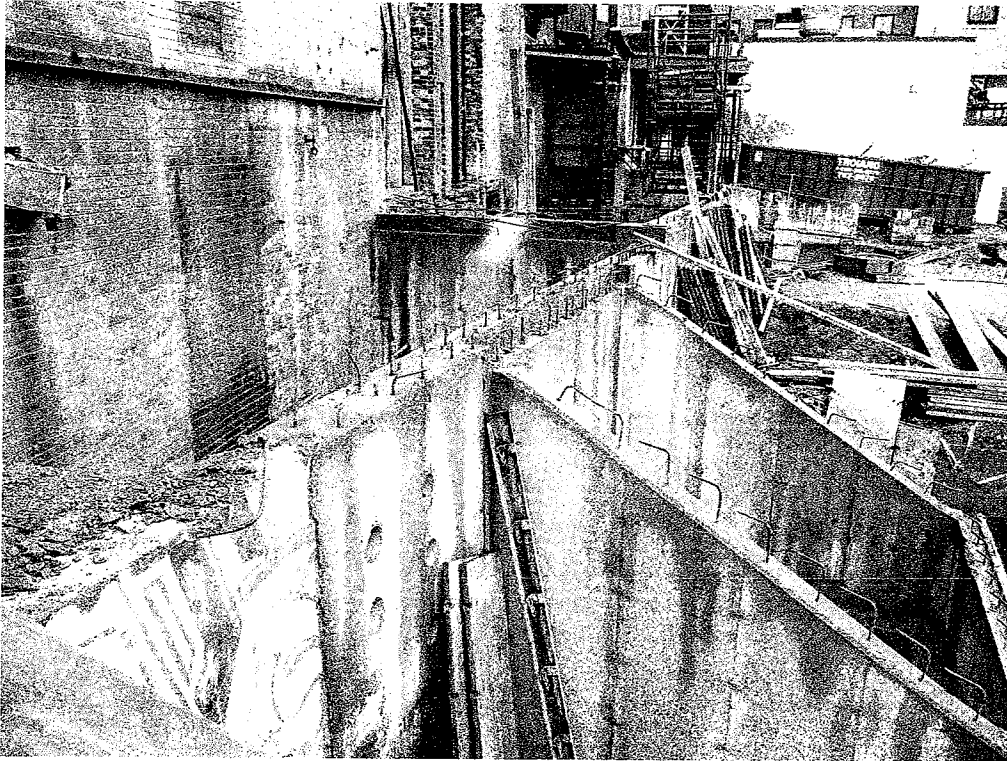


Photo # 3 – Back entrance foundation wall. Note sleeves in wall adjacent to stairs.

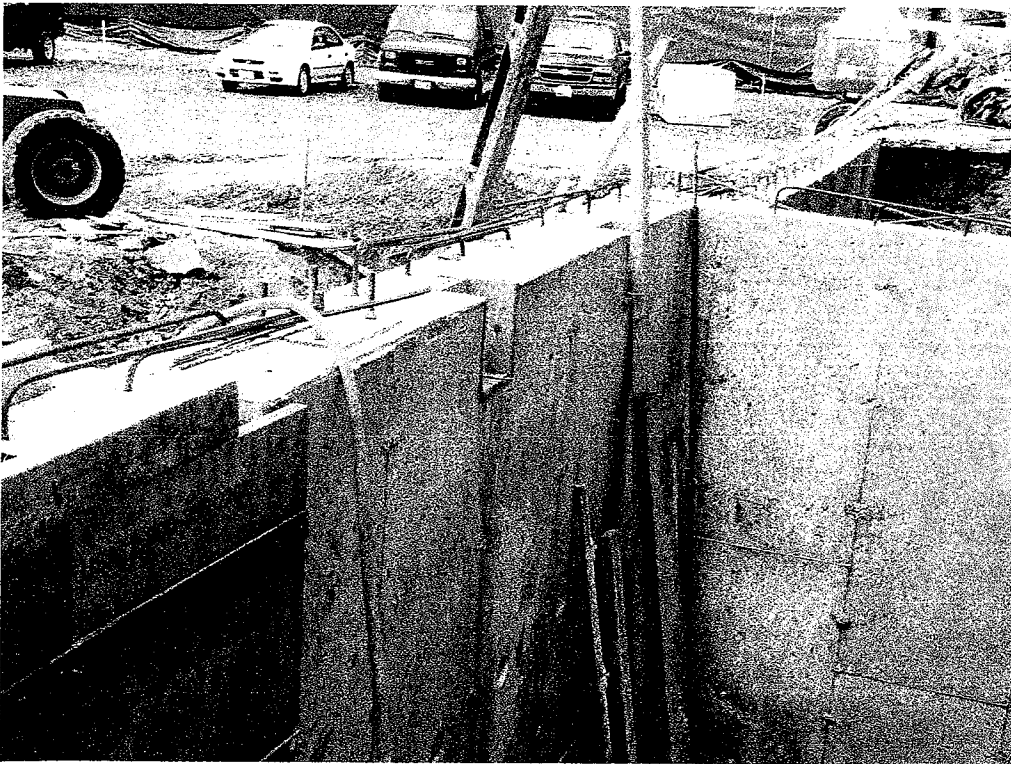


Photo # 4 - Back entrance foundation wall. Note beam pocket and dowels at top of foundation wall.

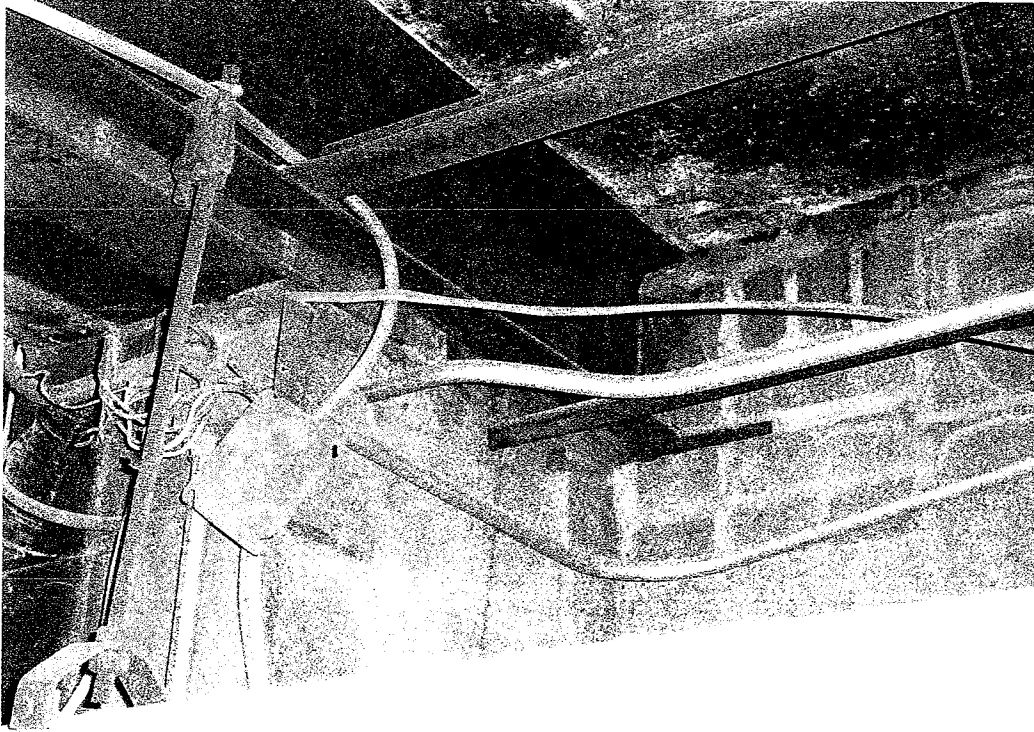


Photo # 5 Existing CMU wall at end of lintel previously considered for core drilling.

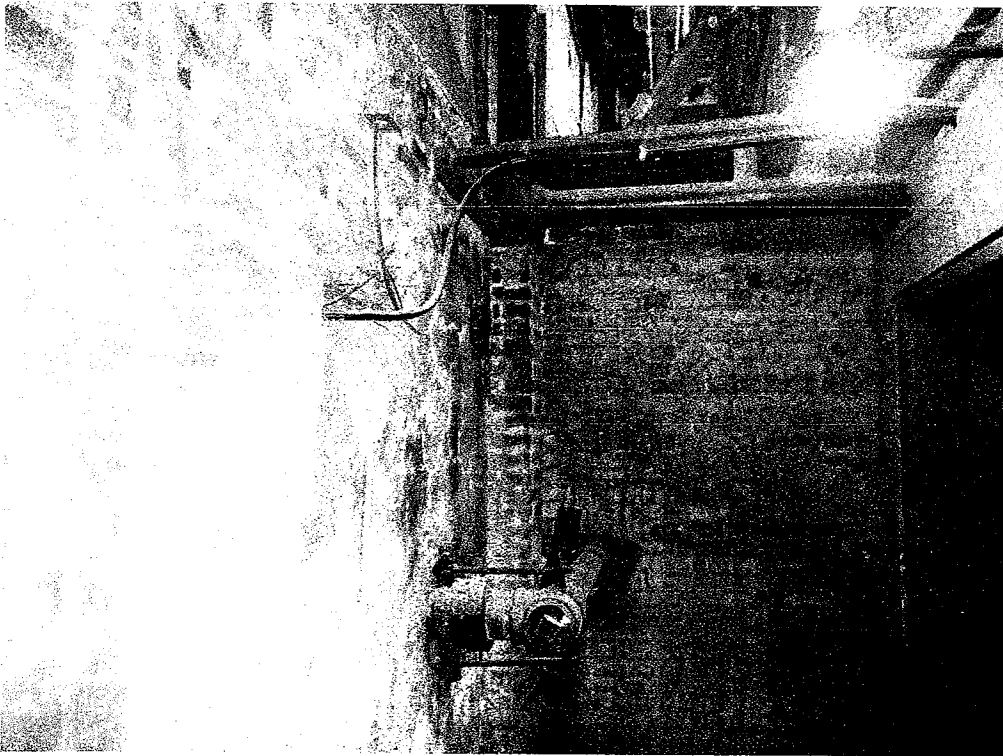


Photo # 6 Existing foundation wall at grid A/4.1.

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: October 14, 2009
Time: 12:30 PM

Weather: Partly sunny
Temperature: 60 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond);
Jeff Yankowsky (Mech. Subcontractor)
Steve Perry (piping contractor)

Project Items to be Observed:

- RFI #32 - Pipe Openings at Existing Load Bearing Walls

Field Observations / Project Status:

1. I met with Jeff Yankowsky and Steve Perry to review locations of cored holes for piping through existing concrete and masonry walls. Jeff said that he is working with Bennet engineering regarding layout of mechanical materials.
2. Jeff said that he needs guidance with regard to piping openings in addition to the locations that are indicated in RFI #32 so we decided it was best to meet on site to discuss.
3. I said that because all of the sleeve locations proposed by Jeff and Steve are in load bearing walls, the sleeves need to be round to minimize load concentrations in the wall. Also, the proposed locations had to adjusted slightly to avoid concentrated loads in the wall, such as occur below columns or beams.
4. Jeff said that he would prefer to use cast iron round sleeves at locations where piping is cored through existing masonry and concrete walls. I said that would be fine as long as the sleeves were mortared solid.
5. See attached "Cored Piping Sleeve – Layout Plan" and the corresponding elevations A, B, C that are attached with this report.
6. During the site visit it was also observed that the first floor steel beam located between grid E/2.5 to F/2.5 does not have adequate bearing at grid F/2.5 due to the presence of existing pipes underneath (see photo #4 in basement). The pipes are no longer needed so after temporary shoring is installed, the pipes must be removed and the masonry bearing repaired by the project mason. Other areas of the existing masonry wall on grid F basement wall between grids F/2 and F/3 also need to be repaired. Later, I mentioned the shoring concern to David Norton and Mark Leasure and it is my understanding that temporary shoring has now been provided.
7. David Norton said that he has been adding 2x12 sisters to existing first floor joists that appear to be compromised prior to installing sheetrock at the bottom of the joists.
8. Also during the site visit, the balcony window flooring at the second floor (grid F/4.8) was removed under the direction of Jed Taft. I recommended that temporary shoring be placed at this area as well since the existing support appeared to be compromised.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.

2. Hardy Pond needs to coordinate the support of the wood interior first floor system at the front entrance (east of grid A/5) with the floor finish requirements, the adjacent exterior concrete slab requirements, CMU basement wall coursing and the position of the CMU Wall centerline relative to the centerline of the wall above. It is important that this coordination be completed prior to assembly of the CMU wall in the basement.
3. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
4. Add (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas not yet completed.
5. Cast iron round sleeves at locations where piping is cored through existing masonry and concrete walls need to be mortared solid at the exterior perimeter to provide adequate support in the wall (including at interior portion of wall).
6. During the site visit it was also observed that the first floor steel beam located between grid E/2.5 to F/2.5 does not have adequate bearing at grid F/2.5 due to the presence of existing pipes underneath (see photo #4 in basement). The pipes are no longer needed so after temporary shoring is installed, the pipes must be removed and the masonry bearing repaired by the project mason. Other areas of the existing masonry wall on grid F basement wall between grids F/2 and F/3 also need to be repaired. Later, I mentioned the shoring concern to David Norton and Mark Leasure and it is my understanding that temporary shoring has now been provided.

Corrective action taken:

- 1.

General:

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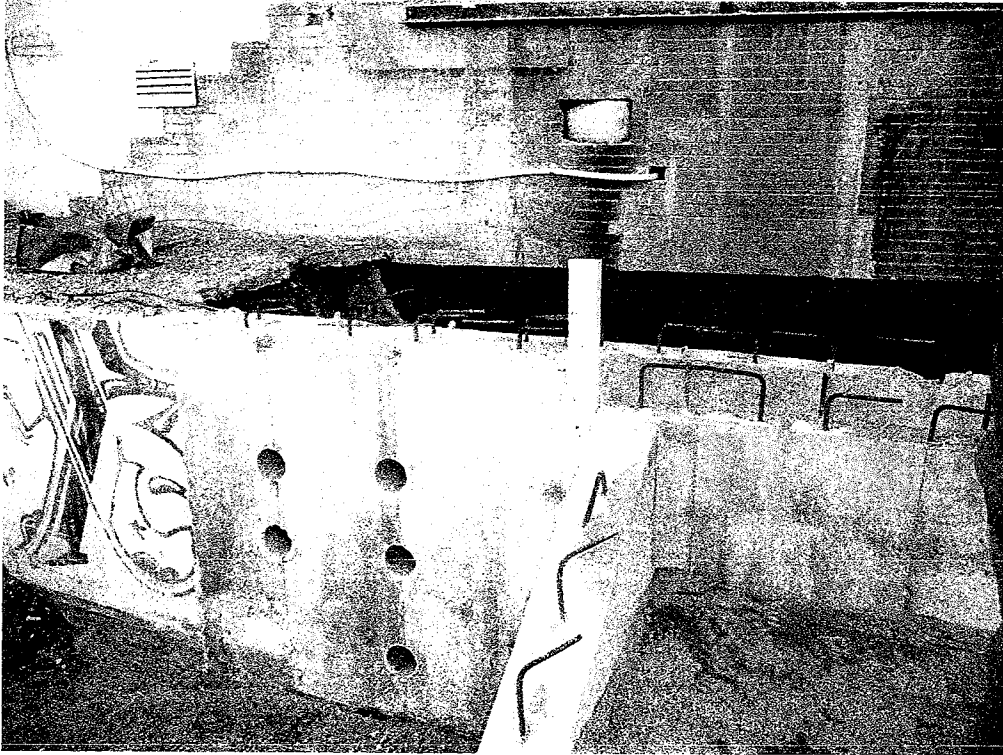


Photo # 1 – Existing (5) 6” diameter sleeves (New sleeves will align with existing – see attached Elevation A-A)

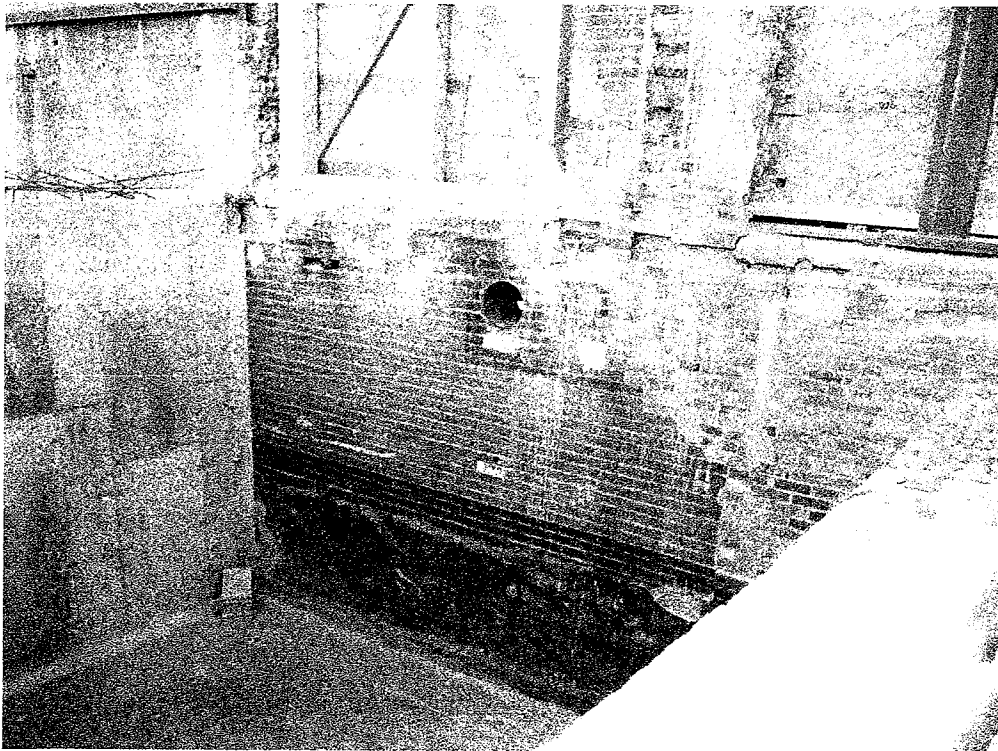


Photo # 2 – Existing 10” diameter sleeve at grid F (see attached elevation A-A)

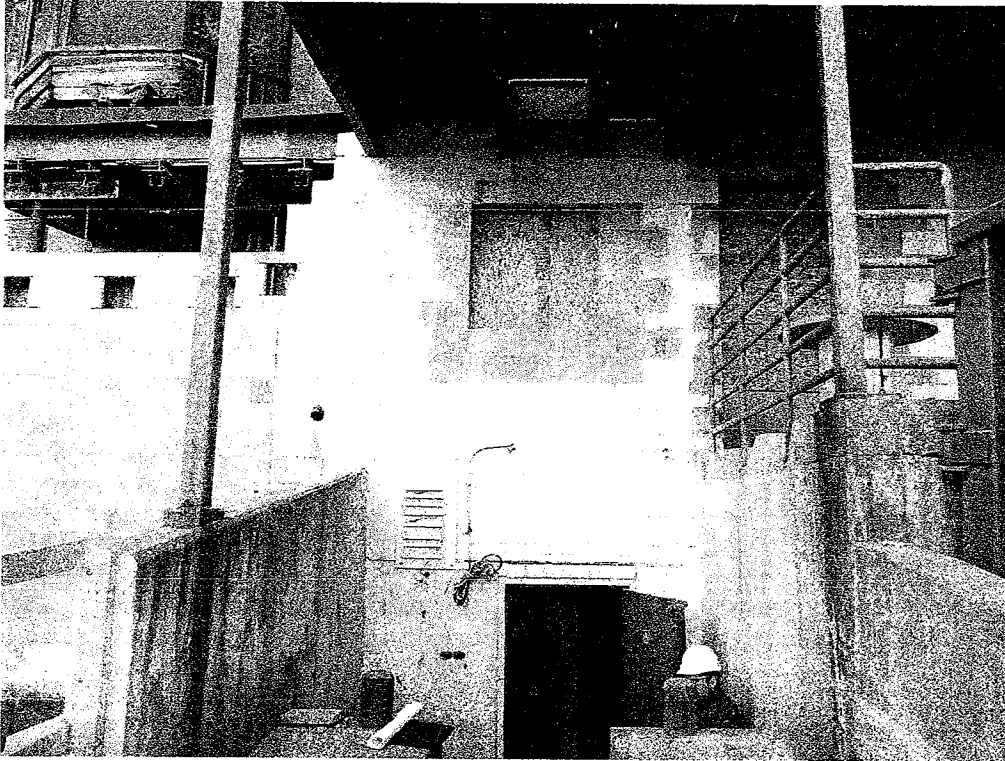


Photo # 3 - Elevation looking south at grid F.4 (see attached elevation C-C)

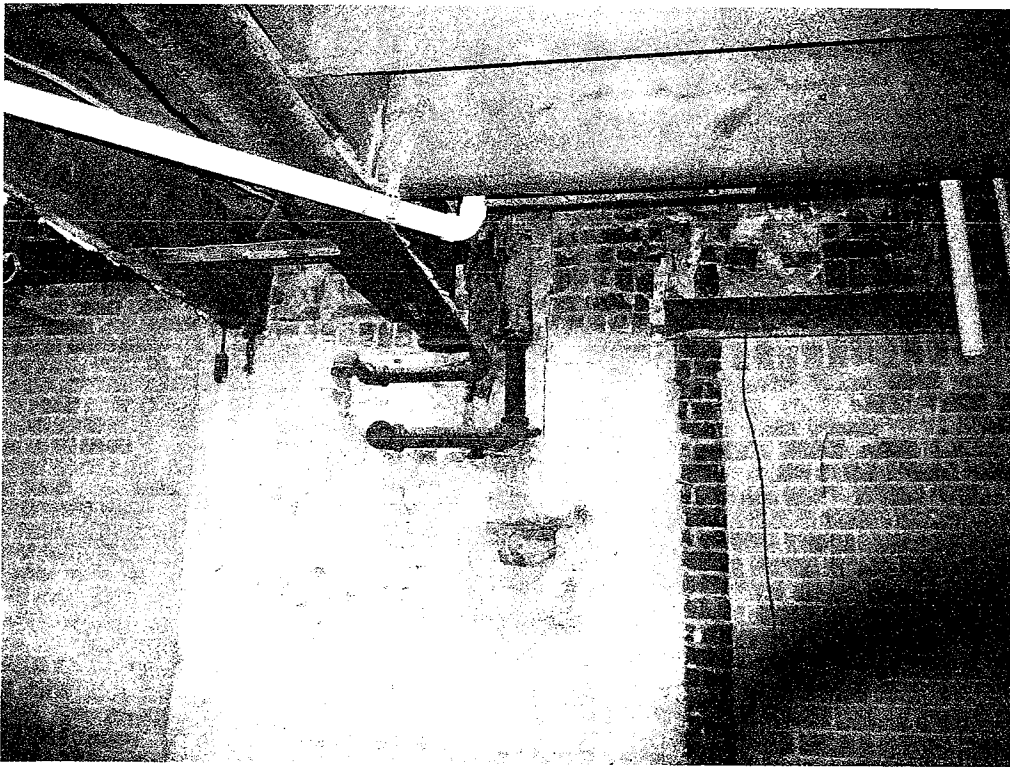
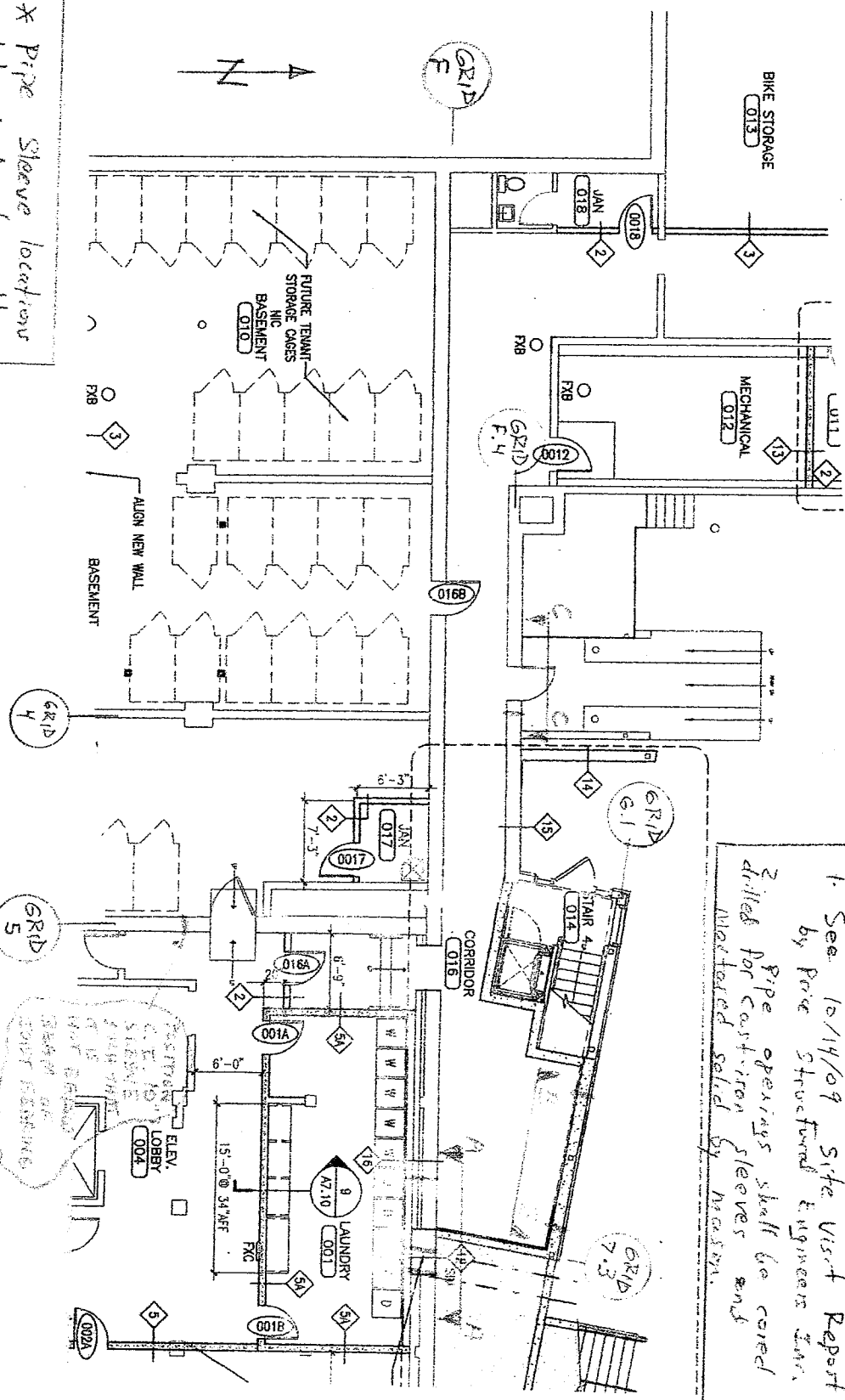


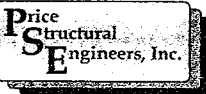
Photo # 4 Existing pipes to be removed prior to restoring bearing below beam.

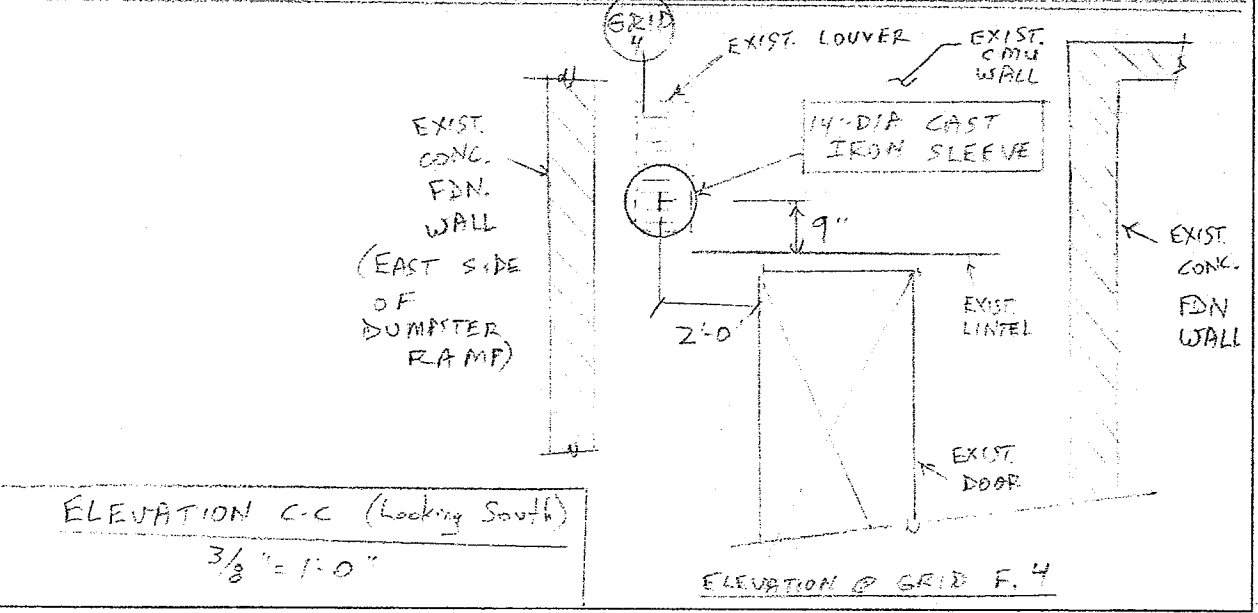
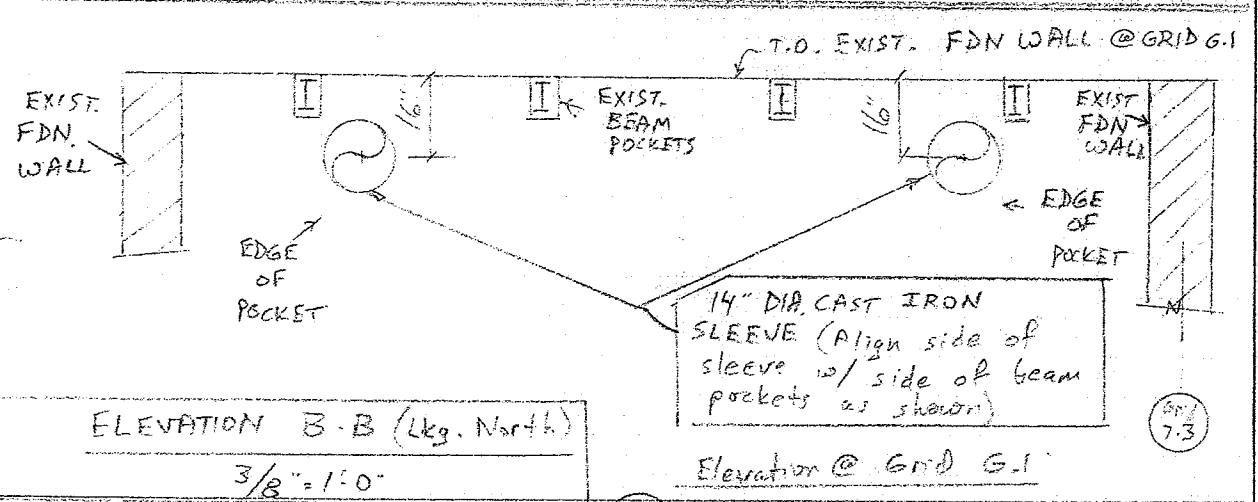
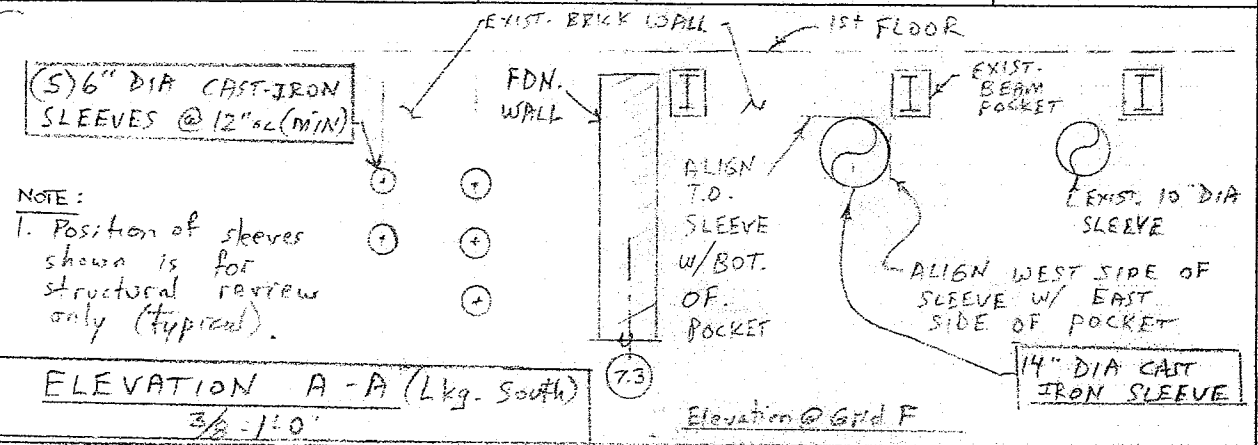
* Pipe Sleeve locations determined by others.

CORED PIPING SLEEVES @ EXISTING WALLS - LAYOUT PLAN
 - FIRST FLOOR PART PLAN
 NTS
 (Reference A1.01)



NOTE:
 1. See 10/14/09 Site Visit Report by Price Structural Engineers Inc.
 2. Pipe openings shall be cored drilled for cast-iron sleeves and mortared sealed by mason.

 75 Farms Edge Road North Yarmouth, ME 04097 Tel: 207-846-0099 Fax: 207-846-1633	Project: 645 Congress	10/14/09 Report
	Subject: Layout of Piping Sleeves	Sheet: of
	Date: 10/14/09	Job #: 139-08
	Designed by: DAP	Checked by:



FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: October 15, 2009
Time: 10:00 AM

Weather: Partly sunny
Temperature: 55 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond);

Project Items to be Observed:

- Review status of structural steel
- Main Entrance Framing

Field Observations / Project Status:

1. A jobsite meeting was convened to discuss status of structural steel. See meeting notes prepared by Felicia Teach. A brief summary is as follows:
 - It was decided that since the bar joists at the back entrance have a long lead time that they should be replaced with W12 beams to expedite schedule. Details for the W12 connections would be similar to previously issued details. McBrady will provide a submittal for the W12 beams that are to replace the joists and for the other steel framing that is associated with this change. This submittal needs to be reviewed and approved prior to fabrication of materials.
 - Hardy Pond forwarded Field Order #12 to McBrady during the meeting so they can update their shop drawings at the main entrance.
 - It was also decided that to expedite the schedule that 1.5" / 20 gage form deck specified at the back entrance first floor slab would be used in place of the previously specified form deck. McBrady provided a submittal for Price Structural Engineers to review for the form deck. This has since been reviewed and "approved as corrected".
 - Hardy Pond would like to move column A/2.5 to facilitate shoring and will submit an RFI pertaining to this request (see RFI #33).
 - Mark Leasure will provide a stamped submittal for the proposed HSS steel column he recommends at grid A/7 which will facilitate shoring and can be used as a permanent support for the structure.
 - Mark Leasure will provide a stamped temporary shoring plan with associated details.
 - David Price will provide details for the modification to the grid A/4 bracing (reference Detail D5/S5.4) which was requested by Hardy Pond to facilitate construction sequence at this area.
2. After the meeting Hardy Pond exposed the top of the existing foundation wall at grid A/2.5 and found it to be 1'-10" wide.
3. Also after the meeting Jeff Frye, Greg Shinberg, John Breton and David Price reviewed the requirements at areas which have not yet been completed with regard to masonry construction. One important area is at the grid A location which will be needed to support structural steel.
4. Construction at the main entrance first floor area was also discussed. See attached Revised Section F5/S3.3 which shows construction requirements at the main entrance (grid A/5.5) and interface with existing 12" joists. This Detail replaces the previous section F5/S3.3.
5. I met with John Breton (mason) to discuss lintel at Grid F/ 9.8. A new steel lintel needs to be installed above the existing 36" man-door at grid F/9.8 with a minimum of 8" bearing at each end to support the existing brick wall above. The lintel shall be either a W6x16 or W6x15.
6. To adequately support the proposed steel column at grid A/5.9, install additional # 5 dowels at 8" on center into the existing brick pier and add additional pier vertical reinforcement into the new 12"CMU at grid A/5.9 to support the steel column anticipated at this area. The column should also have 3/8" diameter closed ties at 8" on center surrounding the (4)#5 vertical bars per the attached detail SK-S57.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. See attached Revised Section F5/S3.3 which shows construction requirements at the main entrance (grid A/5.5) and interface with existing 12" joists. This Detail replaces the previous section F5/S3.3.
3. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
4. Add (2) 1/2" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas not yet completed.
5. Cast iron round sleeves at locations where piping is cored through existing masonry and concrete walls need to be mortared solid at the exterior perimeter to provide adequate support in the wall (including at interior portion of wall).
6. During the site visit it was also observed that the first floor steel beam located between grid E/2.5 to F/2.5 does not have adequate bearing at grid F/2.5 due to the presence of existing pipes underneath (see photo #4 in basement). The pipes are no longer needed so after temporary shoring is installed, the pipes must be removed and the masonry bearing repaired by the project mason. Other areas of the existing masonry wall on grid F basement wall between grids F/2 and F/3 also need to be repaired. Later, I mentioned the shoring concern to David Norton and Mark Leasure and it is my understanding that temporary shoring has now been provided.
7. A new steel lintel needs to be installed above the existing 36" man-door at grid F/9.8 with a minimum of 8" bearing at each end to support the existing brick wall above which is currently not supported adequately. The lintel shall be either a W6x16 or W6x15.
8. To adequately support the proposed steel column at grid A/5.9, install additional # 5 dowels at 8" on center into the existing brick pier and add additional pier vertical reinforcement into the new 12" CMU at grid A/5.9 to support the steel column anticipated at this area. The column should also have 3/8" diameter closed ties at 8" on center surrounding the (4)#5 vertical bars per the attached detail SK-S57.

Corrective action taken:

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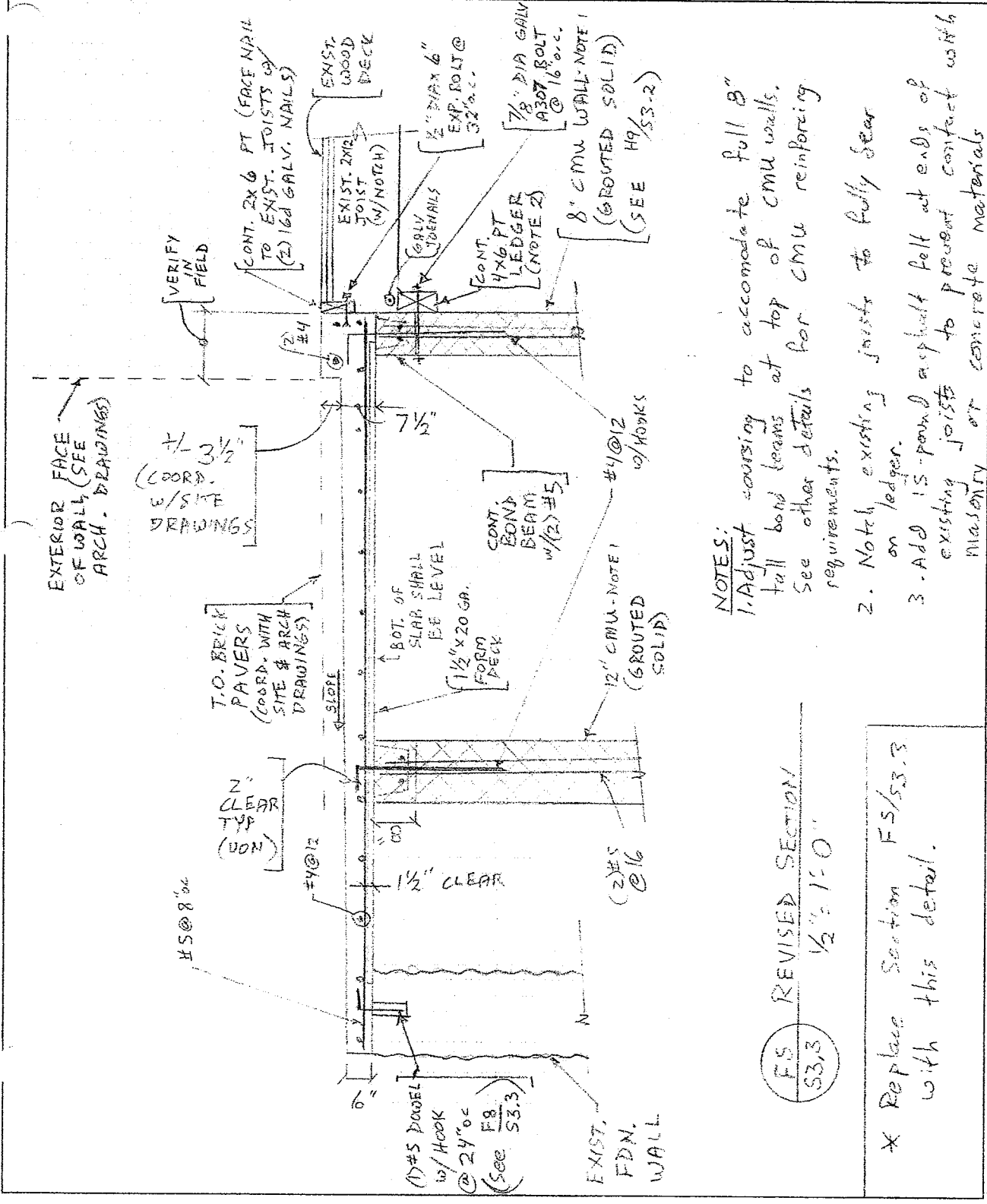
Report prepared by: David A. Price, P.E.
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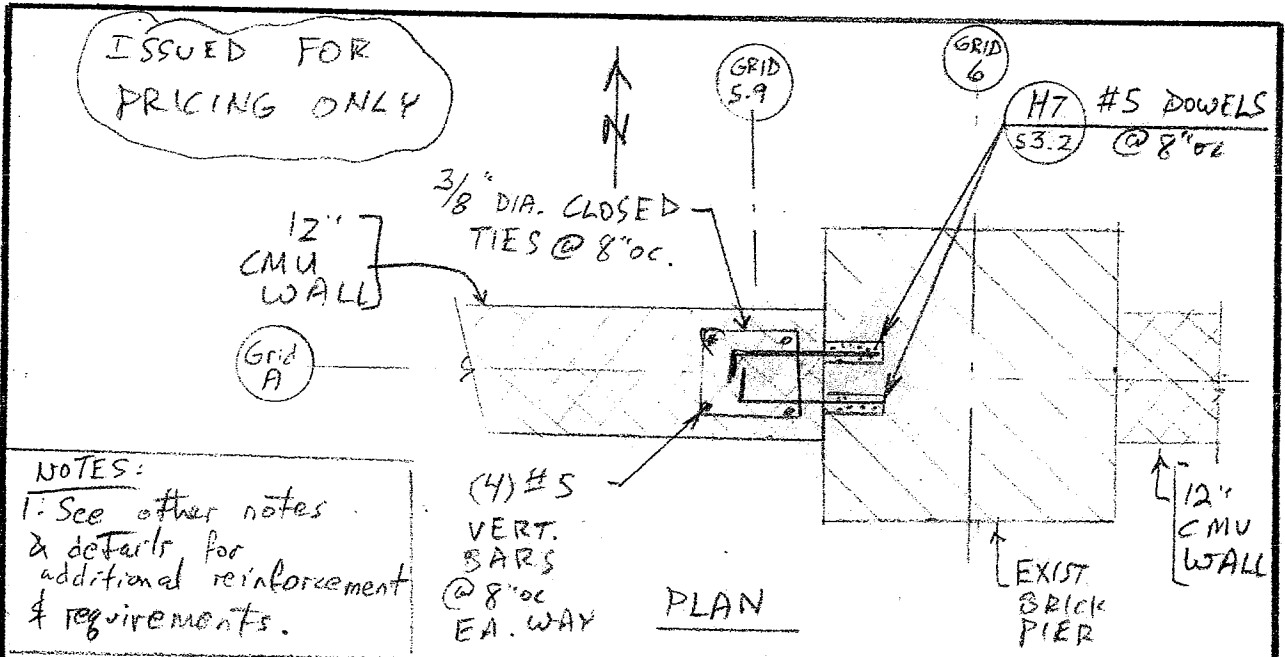
Project: 645 Congress	Sheet: 1 of 1
Subject: Revised Detail	Job #: 130-08
Date: 10/15/09	Checked by:
Designed by: DAV	



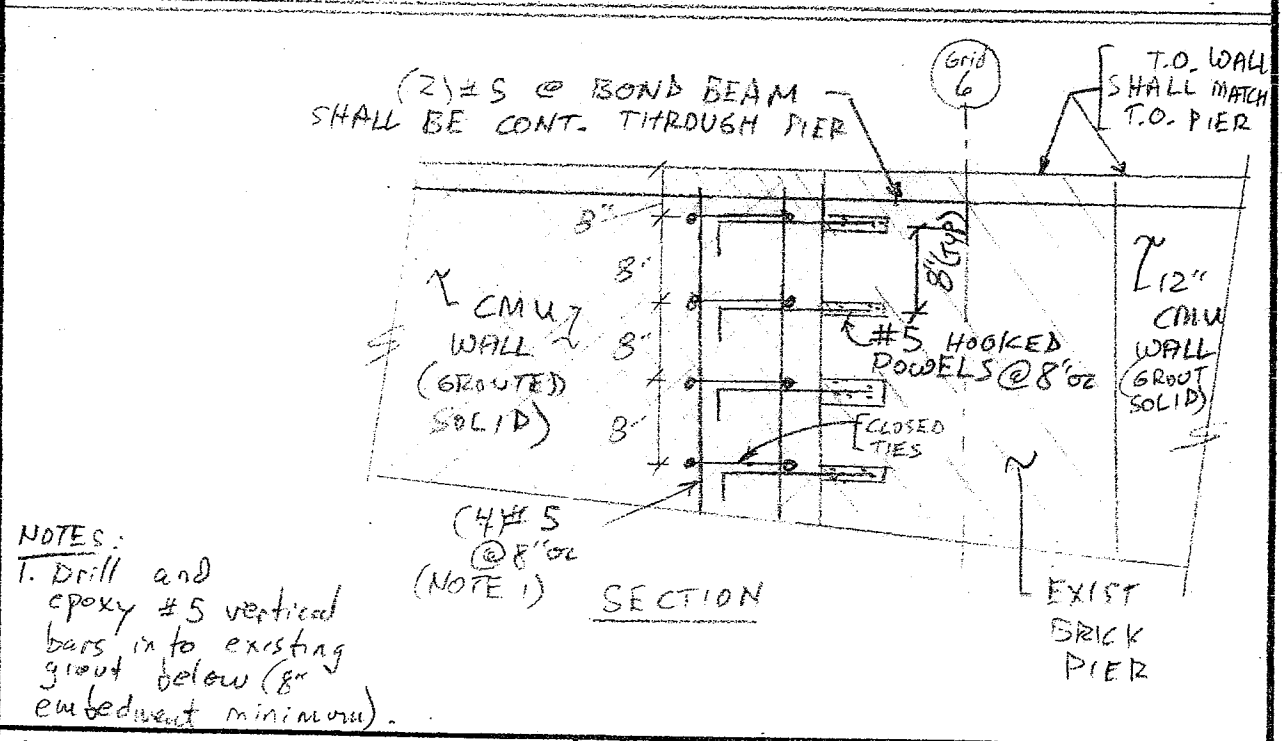
NOTES:
 1. Adjust coursing to accommodate full 8" tall bond beams at top of CMU walls. See other details for CMU reinforcing requirements.
 2. Notch existing joists to fully bear on ledger.
 3. Add 15-pound asphalt felt at ends of existing joists to prevent contact with masonry or concrete materials.

FS REVISED SECTION
 1/2" = 1'-0"
 FS 53.3

* Replace Section FS/53.3 with this detail.



NOTES:
 1. See other notes & details for additional reinforcement & requirements.



NOTES:
 1. Drill and epoxy #5 vertical bars in to existing grout below (8" embedment minimum).

<p>PRICE STRUCTURAL ENGINEERS, INC. 75 Farms Edge Road North Yarmouth, Maine 04097 tel: (207) 846-0099 fax: (207) 846-1633</p>	CLIENT: CWS Architects	SK-S57
	PROJECT: RENOVATIONS TO 645 CONGRESS ST.	
	DATE: 10-15-09	
	BY: D. PRICE	

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: October 21, 2009
Time: 11:00 AM

Weather: Partly sunny
Temperature: 55 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond);

Project Items to be Observed:

- Measure Existing Foundation at grid A/2.5
- Review general status

Field Observations / Project Status:

1. The top portion of both sides of the existing foundation wall was exposed at grid A/2.5. It appears that the foundation wall is 1' – 10" wide. Later, Dave Norton called and said that after driving a probe at the exterior of the wall face he was able to confirm that the wall is not battered but appears to be essentially plumb.
2. Exterior scaffolding is still in place at the Congress Street side of the building. This may limit or complicate the installation of foundation repairs at the grid line A foundation areas (see Photo #1).
3. Steel reinforcement and footing is already in place for the grid A/2.5 pier (see Photo #2).
4. Installation of structural steel is beginning at the rear entry (see Photo #3). The steel lintel at grid F/5.5 has been installed and appears to conform to project requirements. Temporary shoring was in place while the lintel was being installed.
5. It appears that there is a piece of plywood below the new column F/5.8 bearing which must to be removed since it severely limits the capacity of the column (see Photo #3). Also this column still has not been grouted.
6. The existing basement beam that needed to have the repaired bearing now has existing piping removed and the bearing repaired (see Photo #4).
7. Work is proceeding at the grid A/5.5 main entrance in that the existing floor is being removed. The workman were reminded that the location of where the existing joists are cut is important so that the existing joists can be used to bear on the new masonry foundation wall at this area (see Photo #5).
8. Preparations are being made that the rear entry so that the structural steel floor framing can be installed and the elevated slab placed. Anchor bolts for columns appear to be placed correctly (see Photo #6).
9. Further review of the existing conditions at the grid A/2.5 was made after the site visit. David Norton said that Hardy Pond field measured the location of the centerline of the existing foundation wall and found that the centerline of the foundation wall does not align with the centerline of the existing double steel beams above (grid A). He said that they have determined that the centerline of the double steel beams is approximately 8.5" to 9" south of the north face of the foundation wall.
10. Based on the 1'-10" wall, the eccentricity of the proposed A/2.5 column bearing on the wall (since foundation wall centerline and grid A do not align), the lack of the wall batter and the existing soft mortar at the existing foundation wall, the proposed foundation pad supporting the new column at grid A/2.5 will need to be re-designed to conform to these existing conditions.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.

3. Add (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas not yet completed.
4. Cast iron round sleeves at locations where piping is cored through existing masonry and concrete walls need to be mortared solid at the exterior perimeter to provide adequate support in the wall (including at interior portion of wall).
5. A new steel lintel needs to be installed above the existing 36" man-door at grid F/9.8 with a minimum of 8" bearing at each end to support the existing brick wall above which is currently not supported adequately. The lintel shall be either a W6x16 or W6x15.
6. To adequately support the proposed steel column at grid A/5.9, install additional # 5 dowels at 8" on center into the existing brick pier and add additional pier vertical reinforcement into the new 12" CMU at grid A/5.9 to support the steel column anticipated at this area. The column should also have 3/8" diameter closed ties at 8" on center surrounding the (4)#5 vertical bars per the attached detail SK-S57.
7. Stamped calculations with details for temporary shoring and bracing at Grid A have not yet been submitted for review. This submittal needs to be completed prior to performing demolition of existing load-bearing materials at this area.
8. The column at grid F/5.8 has not yet been grouted beneath the baseplate. This needs to be completed as soon as possible. Also, there is existing plywood embedded in the brick below the baseplate which must be removed and replaced with concrete masonry mortared solid to ensure adequate bearing at this location.

Corrective action taken:

1. The first floor steel beam located between grid E/2.5 to F/2.5 did not have adequate bearing at grid F/2.5 due to the presence of existing pipes underneath (see previous site visit report). The pipes were removed and the masonry bearing repaired by the project mason. Other areas of the existing masonry wall on grid F basement wall between grids F/2 and F/3 in the basement also were repaired.

General:

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Jeff Frye, Dave Norton, Jed Taft - Hardy Pond Construction
Mark Leasure PE - MFL Engineering / Hardy Pond

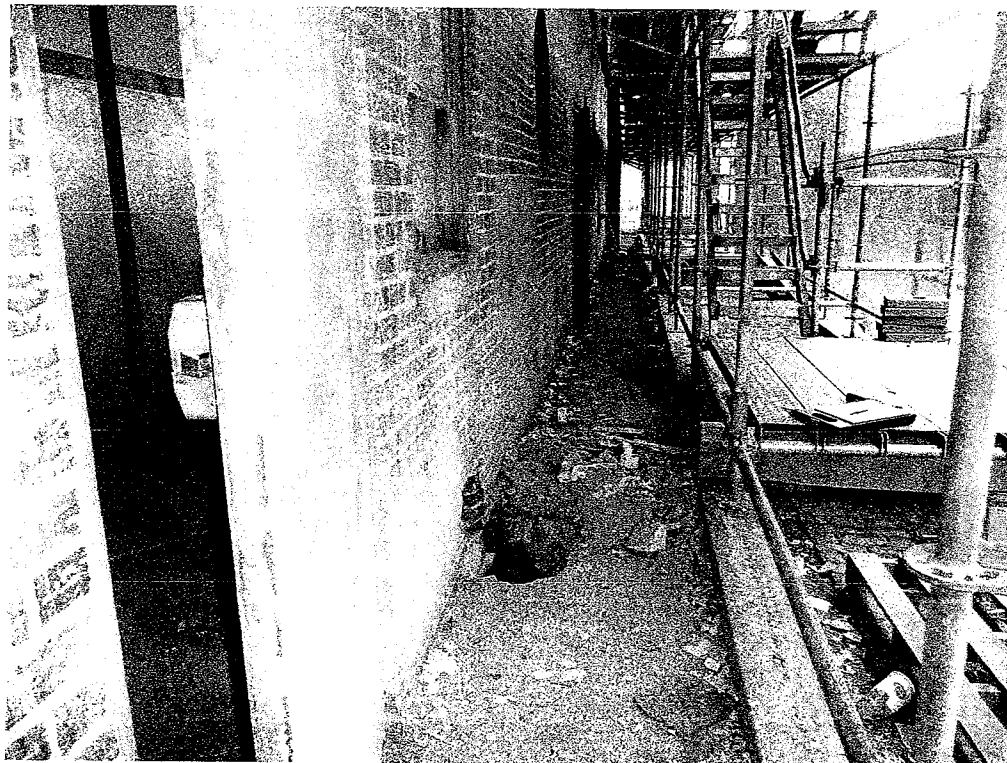


Photo # 1 – Opening at bottom of brick wall permitted access to measure existing foundation profile.

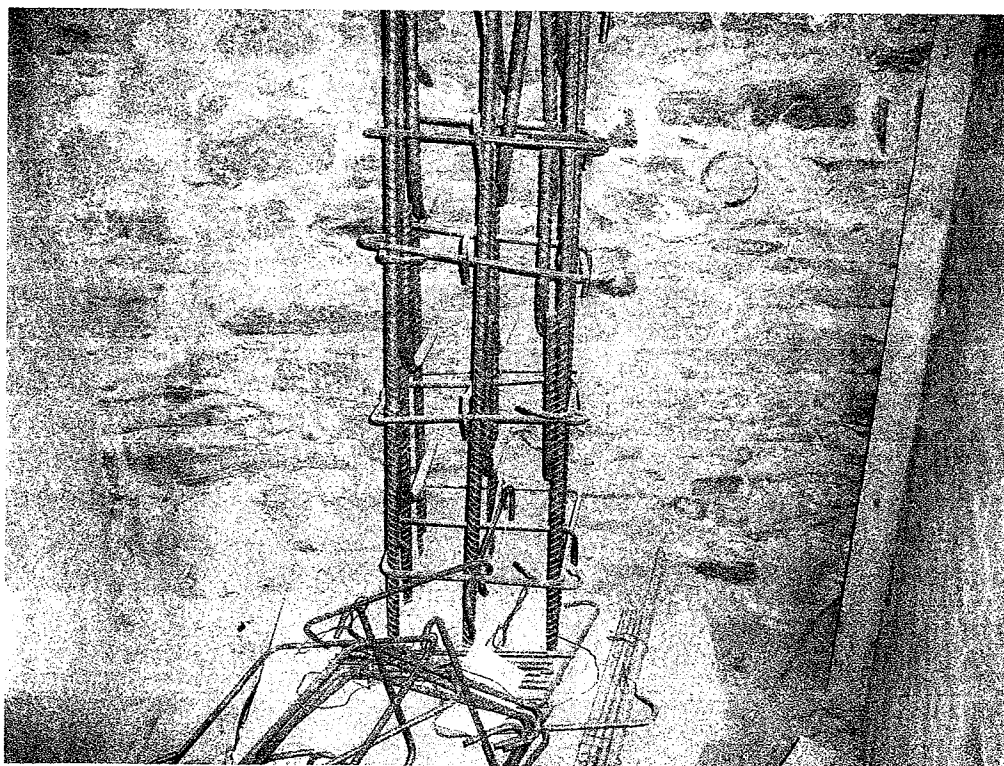


Photo # 2 – Steel reinforcement already in place for concrete pier at grid A/2.5

Exist
plywood
remove!

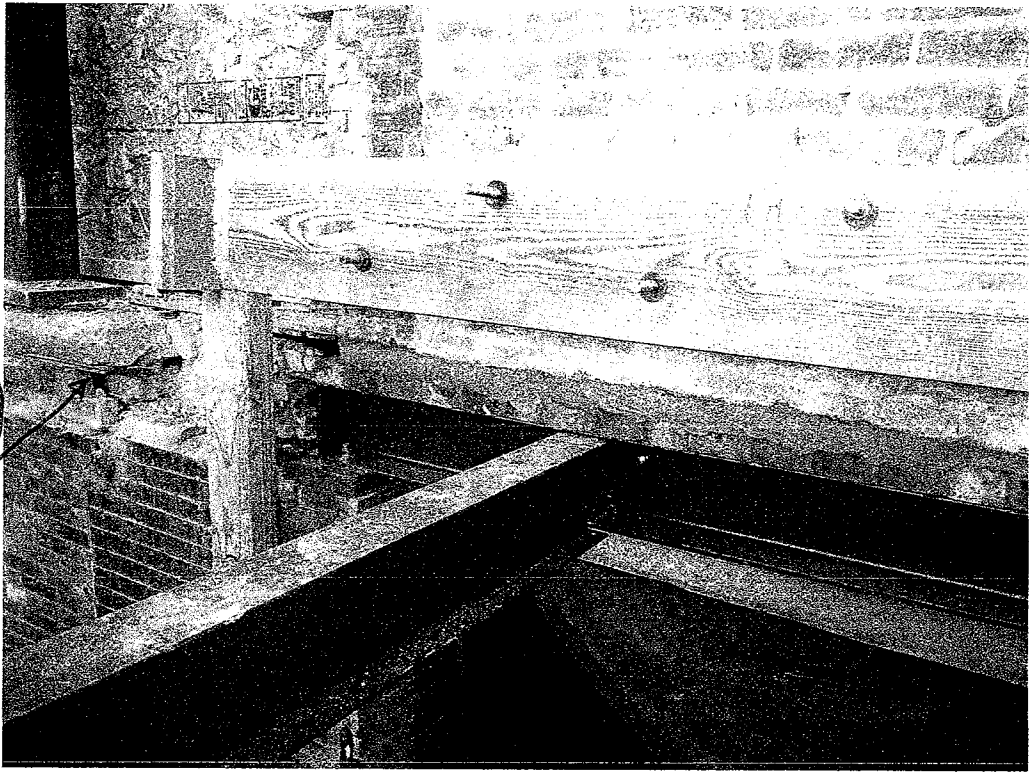


Photo # 3 – Structural steel lintel above door at basement grid F/5.4. Note plywood below existing F/5.8 column at upper left corner of photo.



Photo # 4 – Bearing below existing steel basement beam at grid F/2.5 has been repaired.

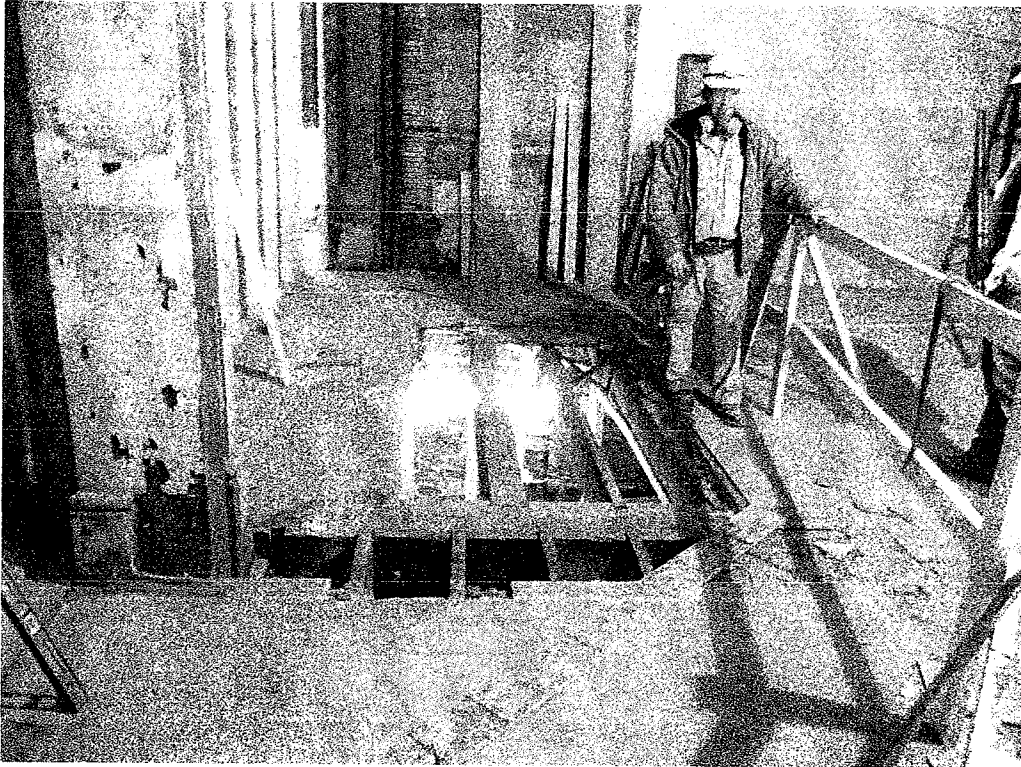


Photo # 5 – Work progressing for construction of main entrance at grid A/5.5.

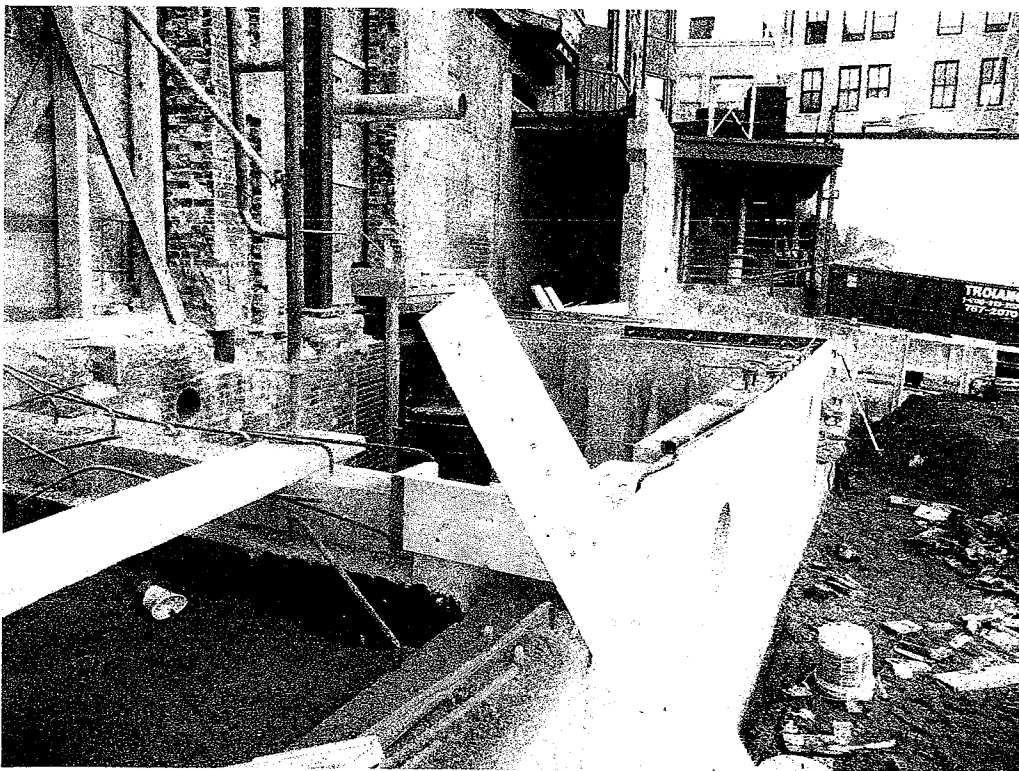


Photo # 6 – Preparations being made for installation of structural steel floor framing and elevated slab.

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: October 26, 2009
Time: 1:00 PM

Weather: Partly sunny
Temperature: 40 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond);

Project Items to be Observed:

- Review status of Front Entrance Framing
- Review back entrance
- Existing Back balcony framing

Field Observations / Project Status:

1. David Norton and I discussed construction issues pertaining to the draft of Field Order #17.
2. Carpenters are modifying the existing floor at the grid A.5/9.5 area. Double joists are being installed as specified to accommodate the sloped floor in this area (see photo #1).
3. Due to the existing pockets in the first floor beam spanning between grids A/9 to B/9 the carpenters have installed a continuous pressure treated 2x12 to the existing beam and connected double joist hangers to the 2x12. The pressure treated 2x12 needs to be bolted to the existing beam with (2) 3/4" diameter threaded rods at 12" on center using nuts and washers typical at each end of the threaded rods (see photo #2).
4. Structural steel beams were in place and the pockets mortared solid as specified (see photo # 3). Metal deck was installed and it was reported that the deck welds were already inspected by QAL.
5. Preparations were made for the placement of the elevated slab at the rear entrance, including reinforcement mesh in slab (see photo # 4).
6. The concrete slab was placed (a few days after this site visit) and concrete blankets were installed to prevent the cold from harming the fresh concrete (see photo # 5).
7. The question was raised as to whether the existing sloped back balcony floors are structurally unstable due to decay in the existing framing. A section of the existing floor was removed by Jed Taft to examine the floor framing at grid F/4. It was found that the framing concept was poor but that decay was not observed (see photo #6). The cantilevered joists are 2x10's and are only cantilevered approximately 24". They bear on a 12" wide brick wall and then have a mortised 2"x2" tenon into the interior joist. In addition, the floor boards are parallel to the joists which provide additional bending capacity at the connection. The rotation was due to the gaps in the original and it seems apparent that they are stable at the present time.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
3. Add (2) 1/2" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas not yet completed.

4. Cast iron round sleeves at locations where piping is cored through existing masonry and concrete walls need to be mortared solid at the exterior perimeter to provide adequate support in the wall (including at interior portion of wall).
5. A new steel lintel needs to be installed above the existing 36" man-door at grid F/9.8 with a minimum of 8" bearing at each end to support the existing brick wall above which is currently not supported adequately. The lintel shall be either a W6x16 or W6x15.
6. To adequately support the proposed steel column at grid A/5.9, install additional # 5 dowels at 8" on center into the existing brick pier and add additional pier vertical reinforcement into the new 12"CMU at grid A/5.9 to support the steel column anticipated at this area. The column should also have 3/8" diameter closed ties at 8" on center surrounding the (4)#5 vertical bars per the attached detail SK-S57.
7. Stamped calculations with details for temporary shoring and bracing at Grid A have not yet been submitted for review. This submittal needs to be completed prior to performing demolition of existing load-bearing materials at this area.
8. The column at grid F/5.8 has not yet been grouted beneath the baseplate. This needs to be completed as soon as possible. Also, there is existing plywood embedded in the brick below the baseplate which must be removed and replaced with concrete masonry mortared solid to ensure adequate bearing at this location.
9. Due to the existing pockets in the first floor beam spanning between grids A/9 to B/9 the carpenters have installed a continuous pressure treated 2x12 to the existing beam and connected double joist hangers to the 2x12. The pressure treated 2x12 needs to be bolted to the existing beam with (2) 3/4" diameter threaded rods at 12" on center using nuts and washers typical at each end of the threaded rods.
10. Due to the existing pockets in the first floor beam spanning between grids A/9 to B/9 the carpenters have installed a continuous pressure treated 2x12 to the existing beam and connected double joist hangers to the 2x12. The pressure treated 2x12 needs to be bolted to the existing beam with (2) 3/4" diameter threaded rods at 12" on center using nuts and washers typical at each end of the threaded rods.
11. Grid "A" - 2nd floor beams splices specified by Detail H4/S5.5 not yet installed.

Corrective action taken:

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

Price Structural Engineers Inc. shall not, during such visits or as a result of any observations of construction, supervise, direct or have control over Contractor's work nor shall Price Structural Engineers Inc. have authority over or responsibility for the equipment, means, methods, techniques or procedures by the Contractor or health and safety precautions in programs incident to the work of the Contractor. Price Structural Engineers Inc. does not assume responsibility for Contractor's failure to comply with laws, rules, regulations or codes or the Contractor's failure to furnish and perform their work in accordance with the construction documents and does not guarantee the performance of the construction contract by the Contractor. It is understood that this report will be reviewed by the contractor and that any items in this report which are inaccurate or misunderstood will be brought to the attention of Price Structural Engineers immediately.

Report prepared by: David A. Price, P.E.
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
David Douglas AIA, Ben Walter AIA, Steve Schuchert - CWS Architects
Jeff Frye, Dave Norton, Jed Taft - Hardy Pond Construction
Mark Leasure PE - MFL Engineering / Hardy Pond

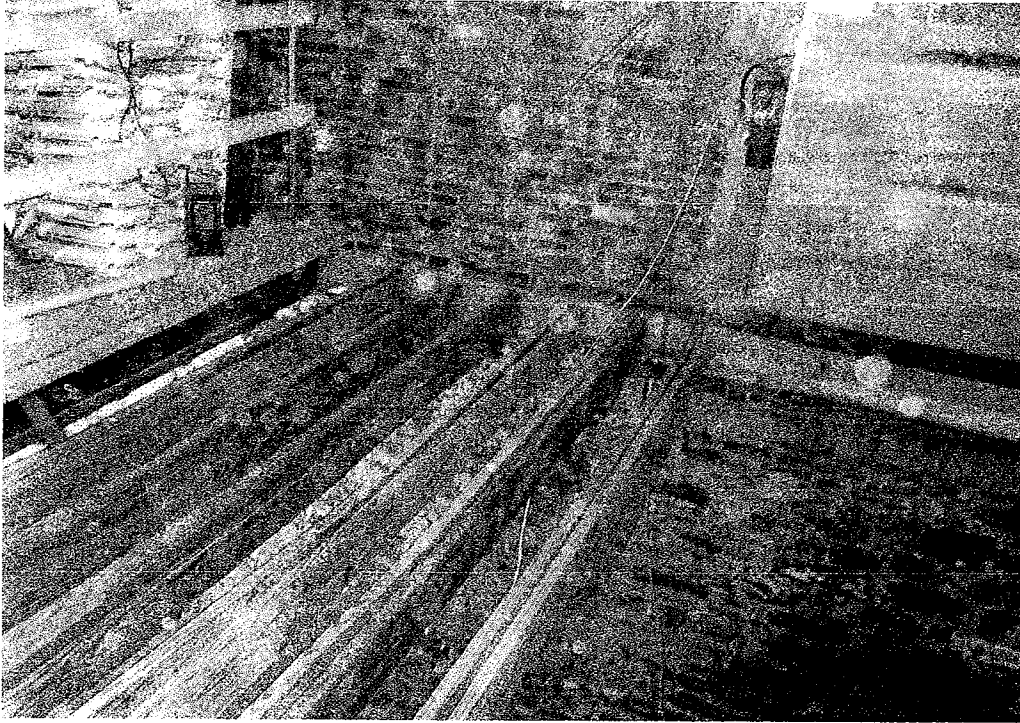


Photo # 1 – Sloped joist framing at First Floor Entrance (Grid A.5/9.5).



Photo # 2 – Double joists at 1st Floor Grid a.5/9.5. Header must be bolted to existing beam.

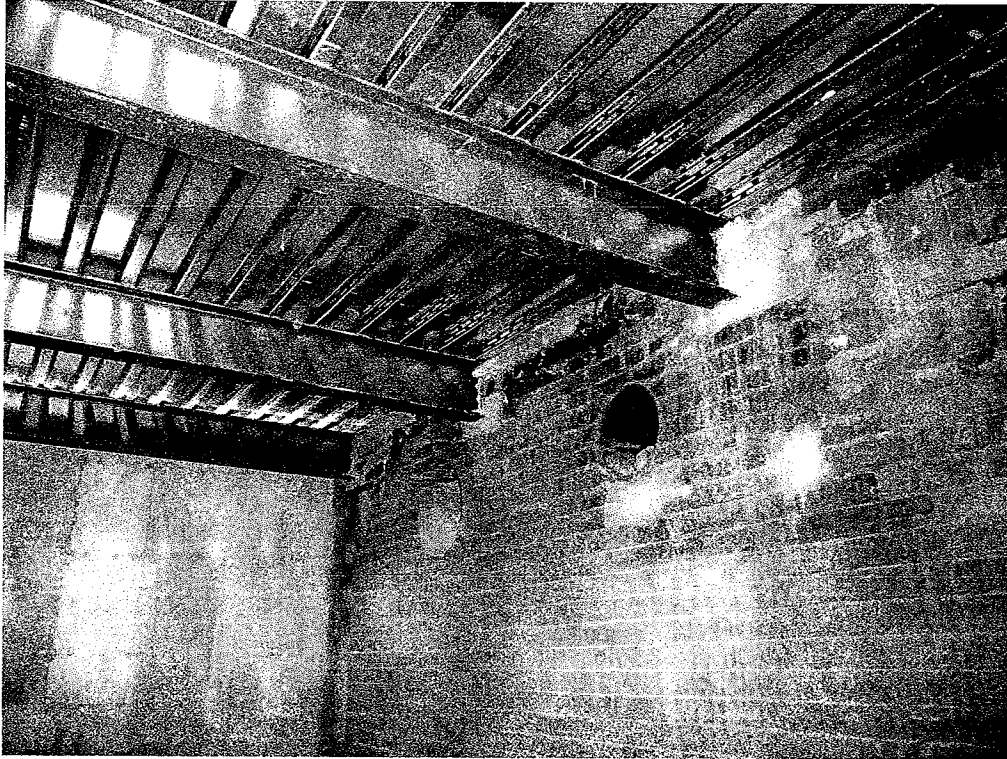


Photo # 3 – Steel beams at Rear entrance with beam pockets mortared solid.

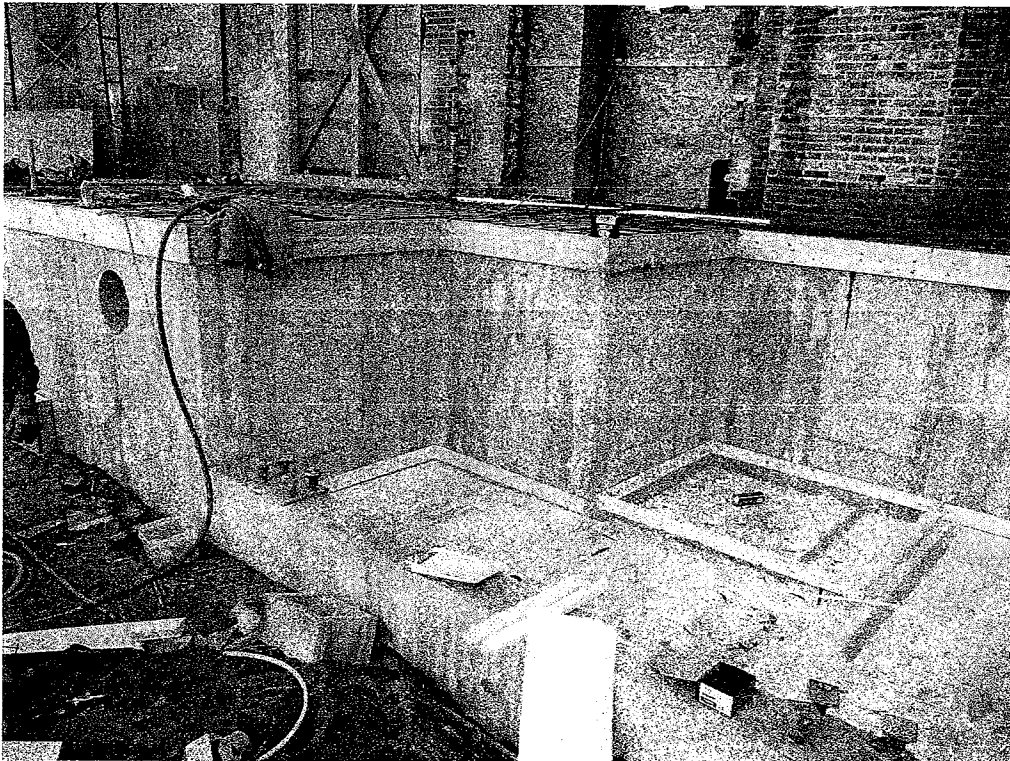


Photo # 4 – Rear entrance elevated deck ready for concrete.

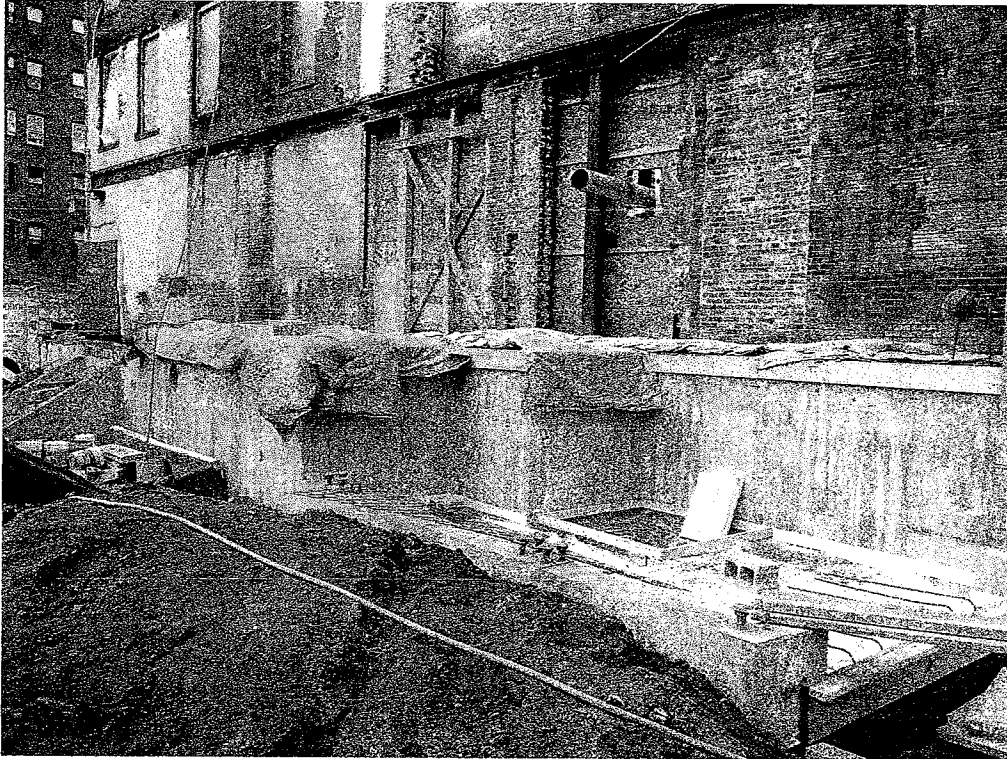


Photo # 5 - Concrete blankets used to protect freshly placed slab during cold weather (photo taken on 10/29/09).

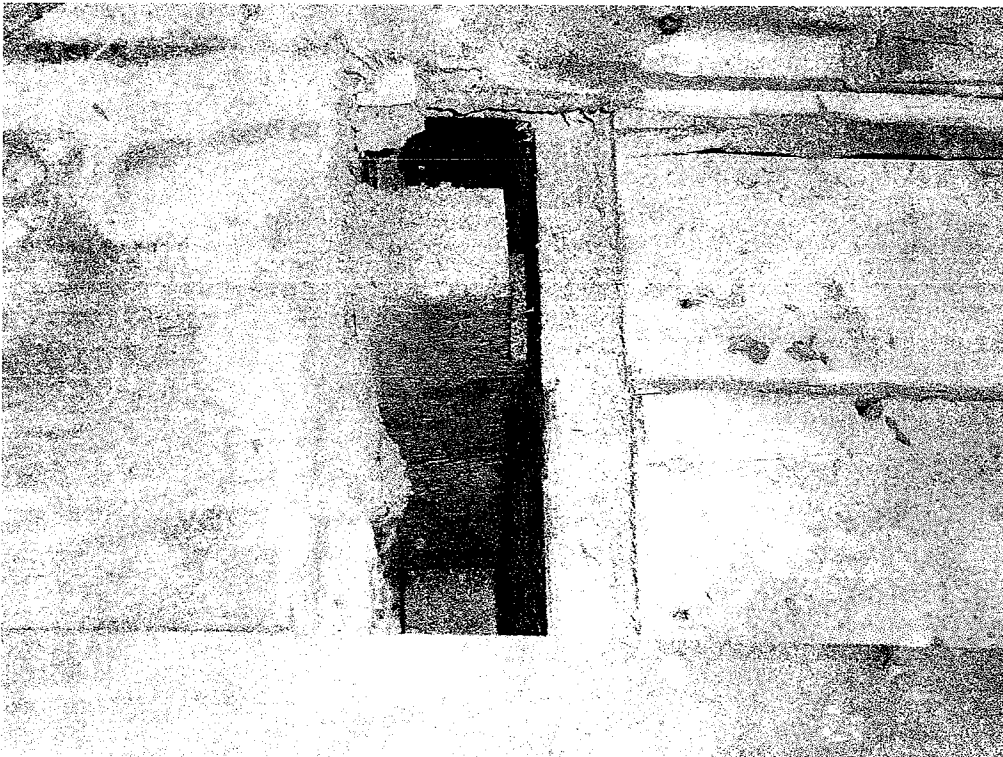


Photo # 6 – View looking down at grid F/4 - 4th flr mortise / tenon existing connection, typical at back entrance balconies (photo taken on 10/29/09)

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: November 9, 2009
Time: 3:00 PM

Weather: Partly sunny
Temperature: 40 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond); Jed Taft;
Jeff Yankowski (P & P)

Project Items to be Observed:

- Coring of existing foundations for piping / louver
- Review status of Grid A foundations
- Review status of rear entry construction

Field Observations / Project Status:

1. I met with Jeff Yankowski of P&P Plumbing to discuss hole locations for new iron sleeves extending through the existing foundation wall. The first was at gridline F/4 (reference drawing S1.2 for project grid locations) and Jeff said he would like to install (2) 5" diameter sleeves at 12" on center and neither sleeve would be below the bearing of the new W8 steel beams at this area. I said this was fine.
2. Jeff also said that he needed to install (5) new 3" diameter iron sleeves in the existing foundation wall in the grid F/6 region. I said that this is acceptable however there are several column bearing points above that must be avoided. I said that as long as no portion of a new sleeve was within 12 inches of a column face above (either brick or steel column) then that would be an acceptable guideline since the sleeve diameters were small.
3. Jeff also said that he needs to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Breton, the project mason, said that he can install (2) L4x4x5/16" double angle lintels above for the new opening. I said this would be fine since the existing solid masonry wall above will not induce large loads on the new lintel due to arching action above.
4. Two temporary steel columns have been installed at grid line A. The first is at grid A/2.3 and the second is at grid A/2.7. These temporary columns bear on steel base-plates which in turn are supported by non-shrink grout.
5. The existing brick column at grid A/2.6 has been removed and the new steel columns on each side are supporting the existing double steel beams above.
6. The new temporary steel column located approximately at grid A/2.3 (see photo #1) appears to have lost part of the non-shrink grout from underneath the north-east corner of the base-plate. This portion of the grout needs to be replaced to restore adequate bearing below this column.
7. David Norton and I discussed the foundation pads and beams that will be installed on top of the existing stone foundation wall at grid line A (see photo #2). To maintain the specified depth of the bearing pad or concrete beam on the foundation wall David said he will have to remove stone that will require filling voids below the bearing pad bottom of concrete elevation. David asked if he could just fill these voids with concrete. I said that that is definitely not acceptable. Instead, the voids in the existing Grid A stone wall that are below the specified bottom of concrete bearing elevation specified for the concrete pads and concrete beams (see structural sketches specified for concrete items on the grid A foundation wall) must be infilled with new brick that is mortared solid so as to provide a level bearing surface for the new concrete beams and bearing pads.
8. The concrete footing that will support the 2'x2' pier at grid A/4.2 was installed (see photo #3).
9. The concrete footing that will support the 12" masonry wall at grid A/3.7 was installed (see photo #4). A wall was necessary due to the existing adjacent piping that is designated to remain at this area.

10. Structural steel framing designated for the Rear Entry structure has been delivered to the project site (see photo #5).
11. During the site visit David Norton gave me a 3 copies of the structural steel shop drawings that are for the new steel materials between grid A/2 and A/10. These shop drawings are currently being reviewed.
12. The concrete steps and the concrete sidewalk at the rear entry have been installed and the workmanship appears to be adequate (see photo #6).
13. The structural steel column at grid F/7 has been installed and the lintel over the wall opening at this area has also been installed. Due to cleaning of masonry above with muriatic acid it was not possible to perform close observations at this area at the time of the site visit.
14. Regarding the exterior landscaping site walls (see civil / site drawings), John Breton (mason) said that he was told by the general contractor and the project owner that they do not want to install a new foundation wall as specified on the project documents since the landscaping site walls are going to be demolished in 5 years for a new structure at this area. Therefore John's masons have located the existing foundation wall that had been used to support the previous building located at this area and are constructing the new landscaping walls on top of the existing foundation walls (see photo #8). At the time of the site visit the existing foundation walls were exposed and the masons were installing vertical reinforcing bars into the existing foundation walls.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
3. Add (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas not yet completed.
4. Cast iron round sleeves at locations where piping is cored through existing masonry and concrete walls need to be mortared solid at the exterior perimeter to provide adequate support in the wall (including at interior portion of wall).
5. A new steel lintel needs to be installed above the existing 36" man-door at grid F/9.8 with a minimum of 8" bearing at each end to support the existing brick wall above which is currently not supported adequately. The lintel shall be either a W6x16 or W6x15.
6. To adequately support the proposed steel column at grid A/5.9, install additional # 5 dowels at 8" on center into the existing brick pier and add additional pier vertical reinforcement into the new 12"CMU at grid A/5.9 to support the steel column anticipated at this area. The column should also have 3/8" diameter closed ties at 8" on center surrounding the (4)#5 vertical bars per the attached detail SK-S57.
7. The column at grid F/5.8 has not yet been grouted beneath the baseplate. This needs to be completed as soon as possible. Also, there is existing plywood embedded in the brick below the baseplate which must be removed and replaced with concrete masonry mortared solid to ensure adequate bearing at this location.
8. Due to the existing pockets in the first floor beam spanning between grids A/9 to B/9 the carpenters have installed a continuous pressure treated 2x12 to the existing beam and connected double joist hangers to

- the 2x12. The pressure treated 2x12 needs to be bolted to the existing beam with (2) 3/4" diameter threaded rods at 12" on center using nuts and washers typical at each end of the threaded rods.
9. Due to the existing pockets in the first floor beam spanning between grids A/9 to B/9 the carpenters have installed a continuous pressure treated 2x12 to the existing beam and connected double joist hangers to the 2x12. The pressure treated 2x12 needs to be bolted to the existing beam with (2) 3/4" diameter threaded rods at 12" on center using nuts and washers typical at each end of the threaded rods.
 10. The 2nd floor beam splices specified by Detail H4/S5.5 for the grid A beams have not yet been installed.
 11. Jeff Yankowski of P&P Plumbing said that he needs to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Breton, the project mason, said that he will install (2) L4x4x5/16" double angle lintels above for the new opening.
 12. The new temporary steel column located approximately at grid A/2.3 (see photo #1 of 11/9/09 site visit report) appears to have lost part of the non-shrink grout from underneath the north-east corner of the base-plate. This portion of the grout needs to be replaced to restore adequate bearing below this column.
 13. The voids in the existing Grid A stone wall that are below the specified bottom of concrete bearing elevation specified for the concrete pads and concrete beams (see structural sketches specified for concrete items on the grid A foundation wall) must be in-filled with new brick that is mortared solid so as to provide a level bearing surface for the new concrete beams and bearing pads on the grid A foundation wall.

Corrective action taken:

1. Stamped calculations with details for temporary shoring and bracing at Grid F and Grid A prepared by the professional engineer retained by the contractor have been submitted for the project record.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

Price Structural Engineers Inc. shall not, during such visits or as a result of any observations of construction, supervise, direct or have control over Contractor's work nor shall Price Structural Engineers Inc. have authority over or responsibility for the equipment, means, methods, techniques or procedures by the Contractor or health and safety precautions in programs incident to the work of the Contractor. Price Structural Engineers Inc. does not assume responsibility for Contractor's failure to comply with laws, rules, regulations or codes or the Contractor's failure to furnish and perform their work in accordance with the construction documents and does not guarantee the performance of the construction contract by the Contractor. It is understood that this report will be reviewed by the contractor and that any items in this report which are inaccurate or misunderstood will be brought to the attention of Price Structural Engineers immediately.

Report prepared by: David A. Price, P.E.
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
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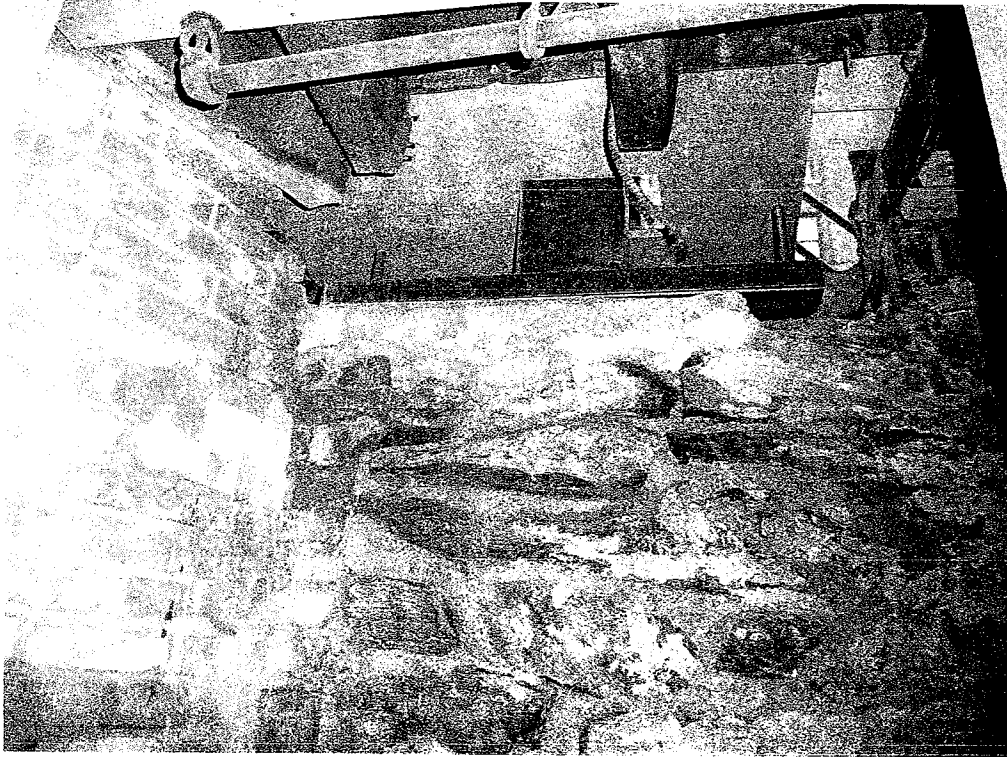


Photo # 1 – Base plate at temporary column A/2.3 (one of two temporary columns each side of grid A/2.5)

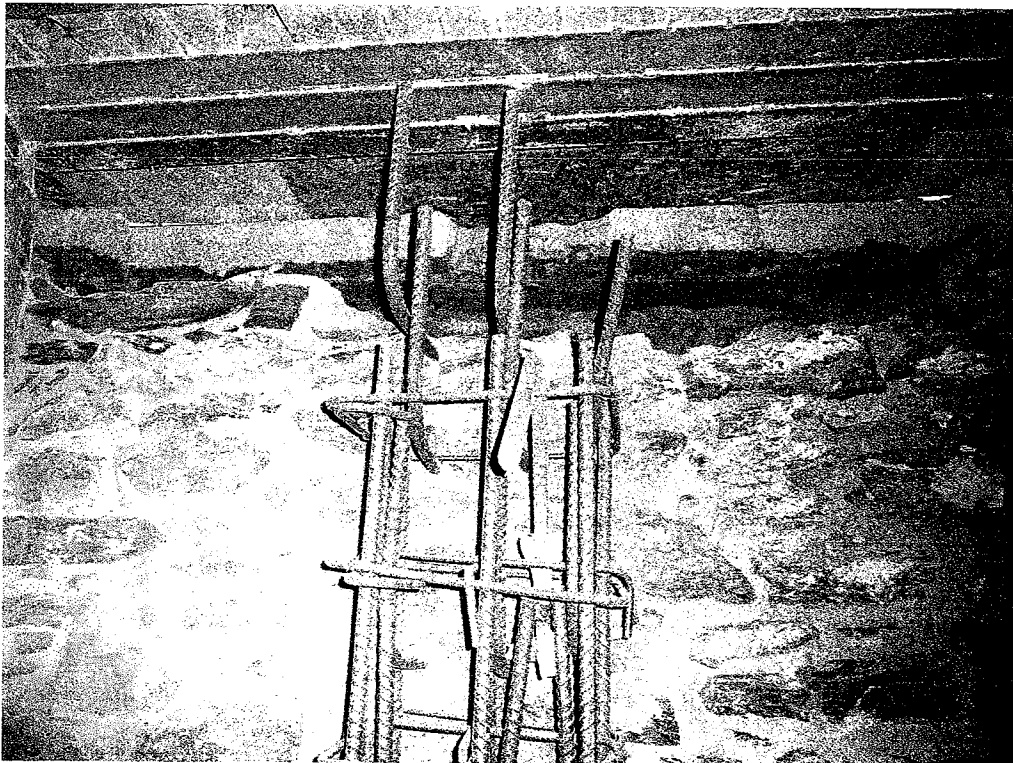


Photo # 2 – Demolition of top of existing stone foundation at Grid A/2.5, Note existing column A/2.6 removed.

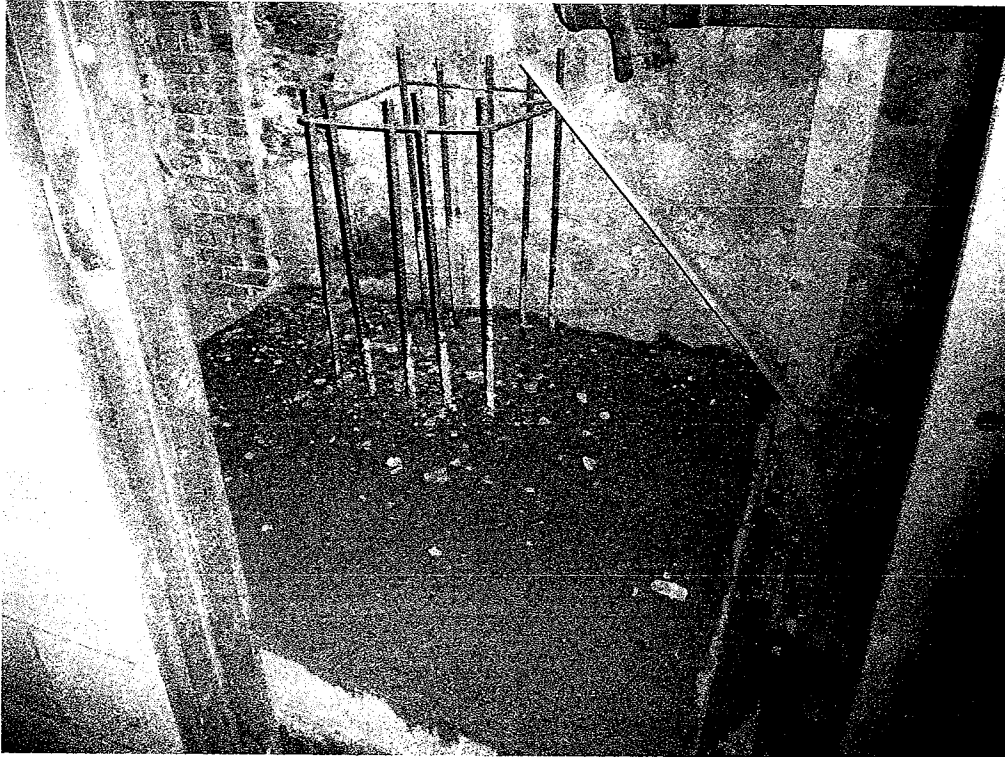


Photo # 3 – New Concrete footing adjacent to A/4.2 foundation

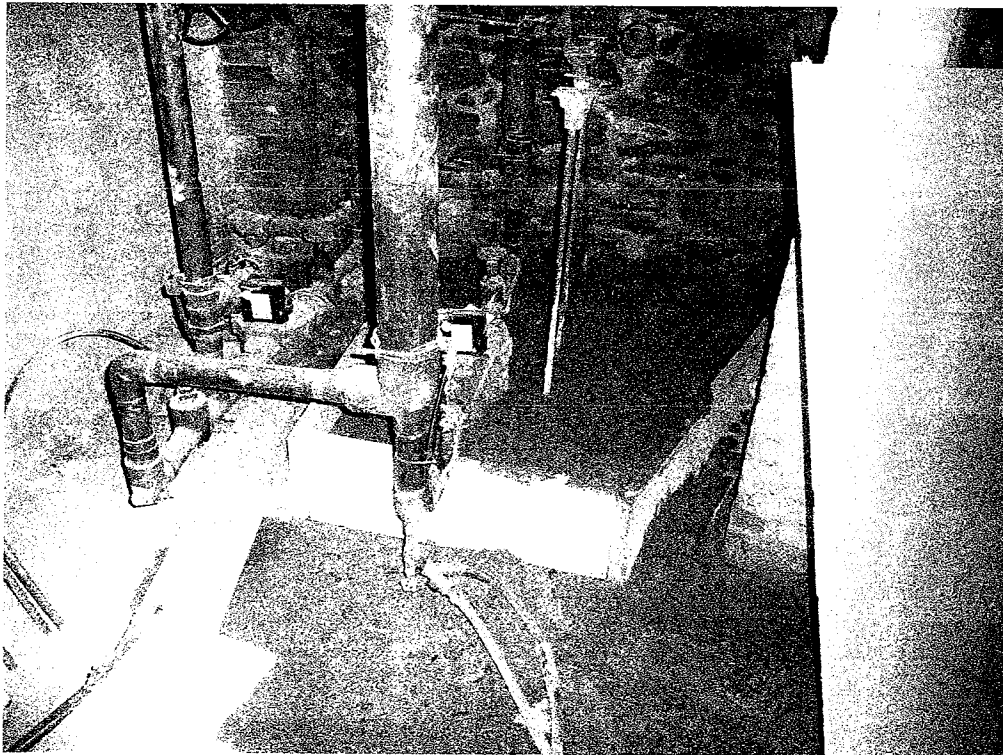


Photo # 4 – New concrete footing for short CMU wall adjacent to Grid A/3.7

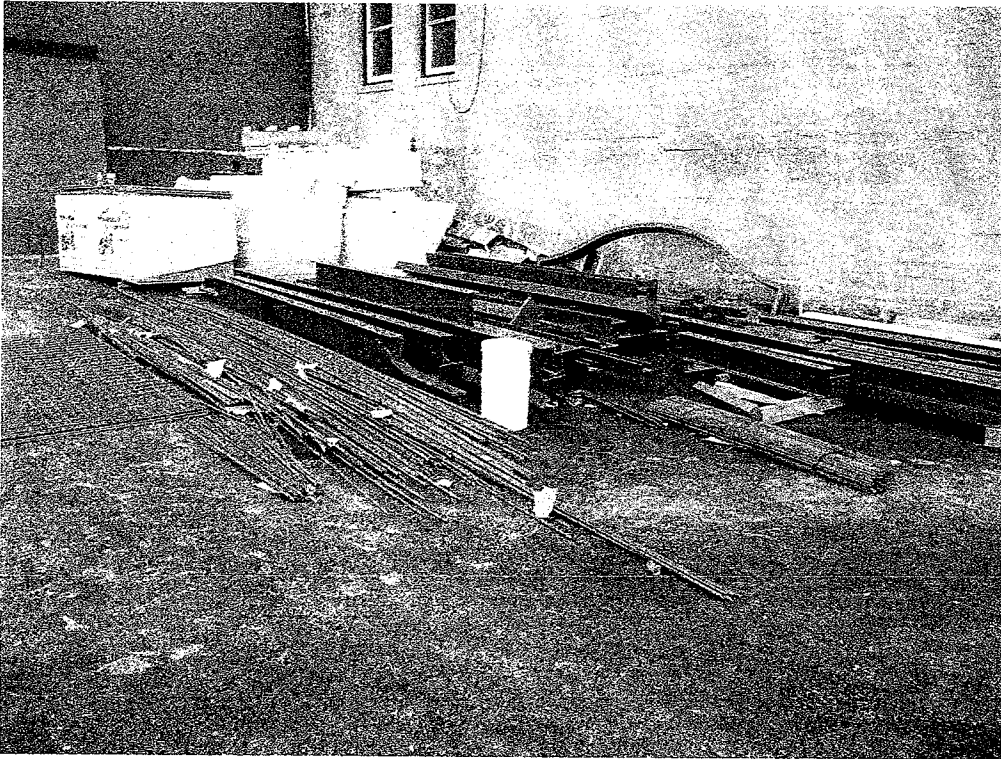


Photo # 5 – Structural steel for Rear Entry delivered to the project site.

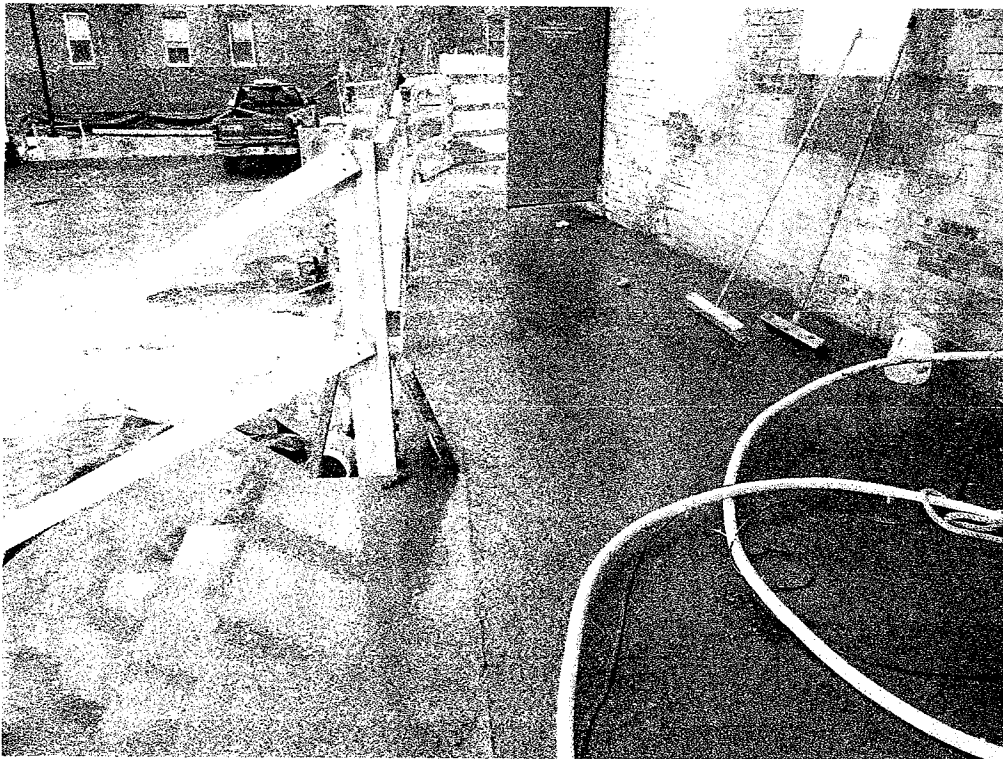


Photo # 6 – Rear entry concrete steps and sloped sidewalk installed.

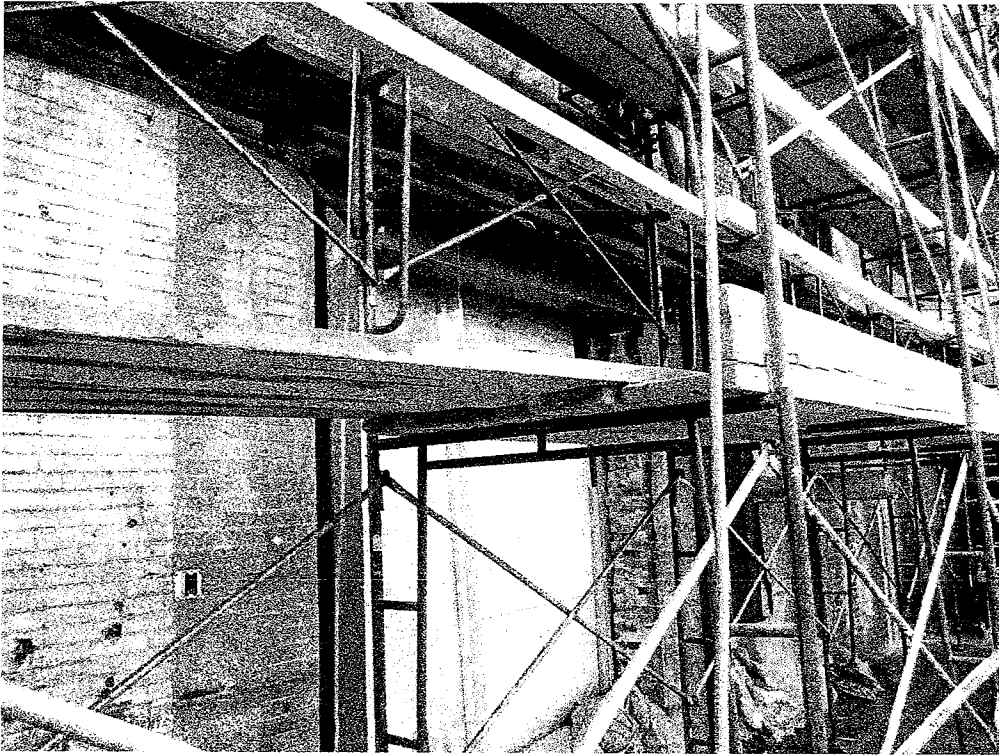


Photo # 7 – Grid F/7 steel column and steel lintel beam installed.

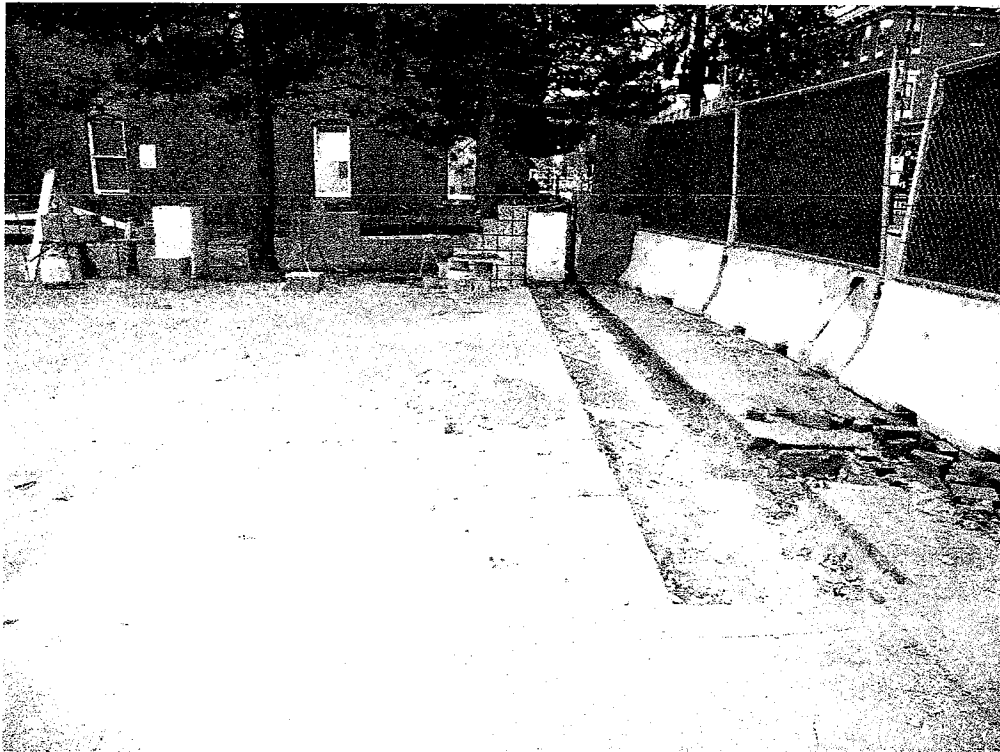


Photo # 8 – Exterior site landscape wall to be supported on existing building foundation

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: November 13, 2009
Time: 10:00 PM

Weather: Partly sunny
Temperature: 50 deg. F.
Contractor: Hardy Pond
Site contact: David Norton (Hardy Pond); Jed Taft;

Project Items to be Observed:

- Rear Entry Structural Steel
- Review status of Grid A foundations

Field Observations / Project Status:

1. Installation of Structural steel at the back entrance was in progress at the time of the site visit.
2. Steel erectors were tack welding new steel to existing steel only in preparation for final welding to the existing steel. Erectors said that all final welding to existing steel would be performed by the welder who is certified for the specific weld procedure for this project. Currently, the only person who is certified is Andy Faulkner (Cornish Maine).
3. One of the cantilevered beams at the rear entry steel over the entrance does not align with the curved channel. It was discussed that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive.
4. Erectors said that the installation is proceeding smoothly and did not have questions at the present time.
5. The steel beams designated to be installed in beam pockets appeared to be installed per plans and specifications.
6. Preparation of concrete grade beams at the grid A foundation wall was continuing.
7. At grid line A/2.5, the bearing width at some areas was 22" x 5.5", so the contractor said he would widen it to 6" as specified.
8. The rebar for the grade beam at Grid A/2.3 is in position but the bottom of concrete is clearly at an elevation that is too high. This grade beam needs to be lowered and the reinforcement bars set at the proper position before placing concrete. It was reported later that the grade beam and reinforcement were lowered to the correct position and this work would be inspected by S.W. Cole prior to concrete placement.
9. The contractor requested an alternate installation at grid A/4.2 using Adhesive dowels since it was difficult to obtain the bearing on brick as originally specified. See RFI 34 for alternate method of installation at this area.

Items Needing Correction:

1. Steel Column at grid F/5.8 was fabricated without an approved submittal. The column cannot be considered "approved" until the corresponding submittal has been provided to the architect for review and approval is obtained. Critical items, including whether the ends of the column were "finished to bear" (Drawing S1.1, Note 23) in accordance with AISC requirements, member sizes, weld sizes and whether the column was fabricated by a welder currently certified by AWS must be included as part of the submittal. All fabrication dimensions (plate sizes, hole diameters, etc.) must also be included.
2. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional

mechanical loads.

3. Add (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas not yet completed.
4. Cast iron round sleeves at locations where piping is cored through existing masonry and concrete walls need to be mortared solid at the exterior perimeter to provide adequate support in the wall (including at interior portion of wall).
5. A new steel lintel needs to be installed above the existing 36" man-door at grid F/9.8 with a minimum of 8" bearing at each end to support the existing brick wall above which is currently not supported adequately. The lintel shall be either a W6x16 or W6x15.
6. To adequately support the proposed steel column at grid A/5.9, install additional # 5 dowels at 8" on center into the existing brick pier and add additional pier vertical reinforcement into the new 12" CMU at grid A/5.9 to support the steel column anticipated at this area. The column should also have 3/8" diameter closed ties at 8" on center surrounding the (4)#5 vertical bars per the attached detail SK-S57.
7. The column at grid F/5.8 has not yet been grouted beneath the baseplate. This needs to be completed as soon as possible. Also, there is existing plywood embedded in the brick below the baseplate which must be removed and replaced with concrete masonry mortared solid to ensure adequate bearing at this location.
8. Due to the existing pockets in the first floor beam spanning between grids A/9 to B/9 the carpenters have installed a continuous pressure treated 2x12 to the existing beam and connected double joist hangers to the 2x12. The pressure treated 2x12 needs to be bolted to the existing beam with (2) 3/4" diameter threaded rods at 12" on center using nuts and washers typical at each end of the threaded rods.
9. Due to the existing pockets in the first floor beam spanning between grids A/9 to B/9 the carpenters have installed a continuous pressure treated 2x12 to the existing beam and connected double joist hangers to the 2x12. The pressure treated 2x12 needs to be bolted to the existing beam with (2) 3/4" diameter threaded rods at 12" on center using nuts and washers typical at each end of the threaded rods.
10. The 2nd floor beam splices specified by Detail H4/S5.5 for the grid A beams have not yet been installed.
11. Jeff Yankowski of P&P Plumbing said that he needs to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Breton, the project mason, said that he will install (2) L4x4x5/16" double angle lintels above for the new opening.
12. The new temporary steel column located approximately at grid A/2.3 (see photo #1 of 11/9/09 site visit report) appears to have lost part of the non-shrink grout from underneath the north-east corner of the base-plate. This portion of the grout needs to be replaced to restore adequate bearing below this column.
13. The voids in the existing Grid A stone wall that are below the specified bottom of concrete bearing elevation specified for the concrete pads and concrete beams (see structural sketches specified for concrete items on the grid A foundation wall) must be in-filled with new brick that is mortared solid so as to provide a level bearing surface for the new concrete beams and bearing pads on the grid A foundation wall.
14. The rebar for the grade beam at Grid A/2.3 is in position but the bottom of concrete is clearly at an elevation that is too high. This grade beam needs to be lowered and the reinforcement bars set at the proper position before placing concrete.

15. One of the cantilevered beams at the rear entry steel over the entrance does not align with the curved channel. It was discussed that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive.

Corrective action taken:

1. It was reported that some of the above items were corrected however there was insufficient time to verify the corrections so they will be reviewed during a future site visit.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

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Report prepared by: David A. Price, P.E.
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
David Douglas AIA, Ben Walter AIA, Steve Schuchert - CWS Architects
Jeff Frye, Dave Norton, Jed Taft – Hardy Pond Construction

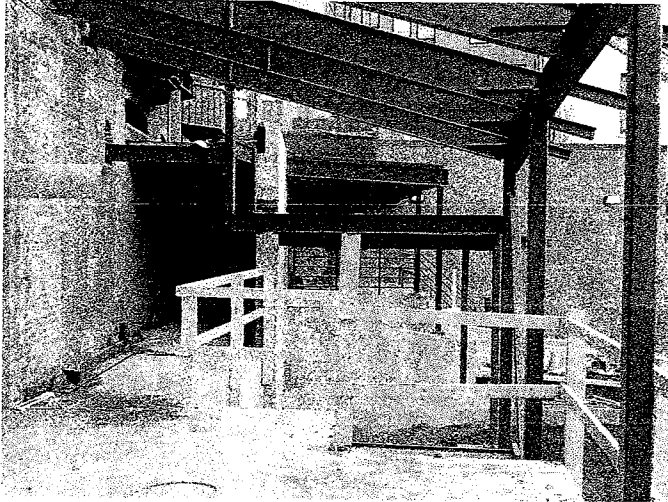


Photo # 1 – Structural Steel at Back Entrance (installation in progress)

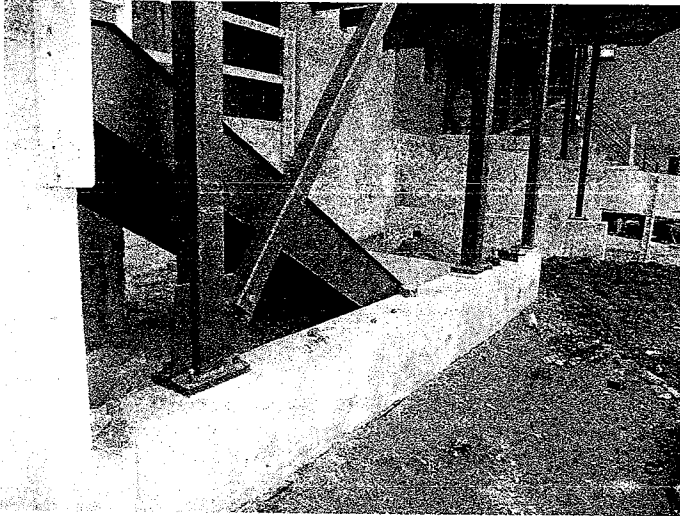


Photo # 2 – Structural Steel at Back Entrance (installation in progress)

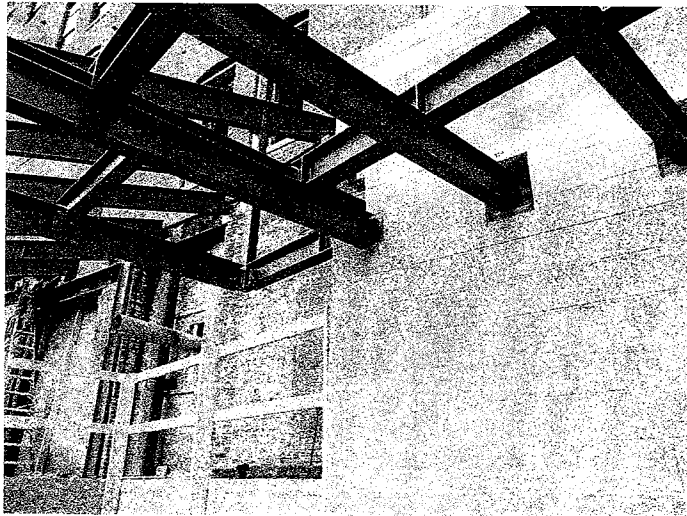


Photo # 3 – Structural Steel at Back Entrance (installation in progress)

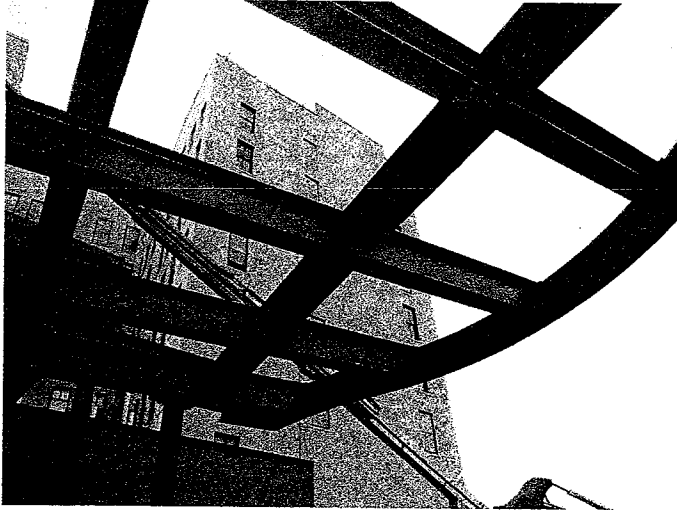


Photo # 4 – Structural Steel at Back Entrance

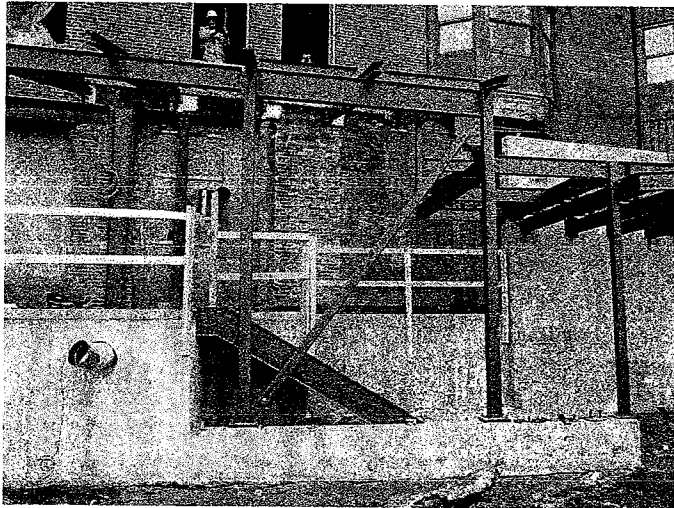


Photo # 5 – Structural Steel at Back Entrance

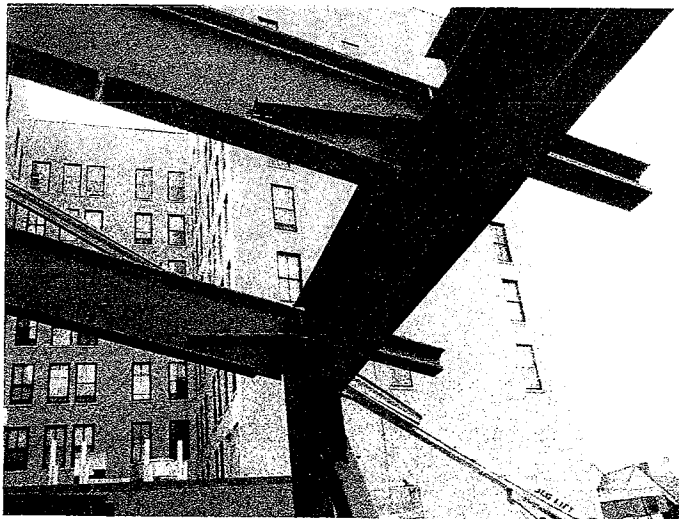


Photo # 6 – Structural Steel at Back Entrance

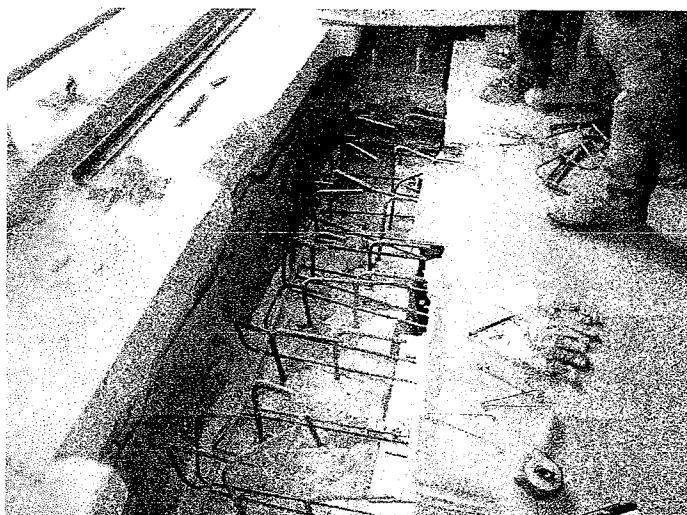


Photo # 7 - Preparation for Concrete Grade Beam at Grid A/2.5

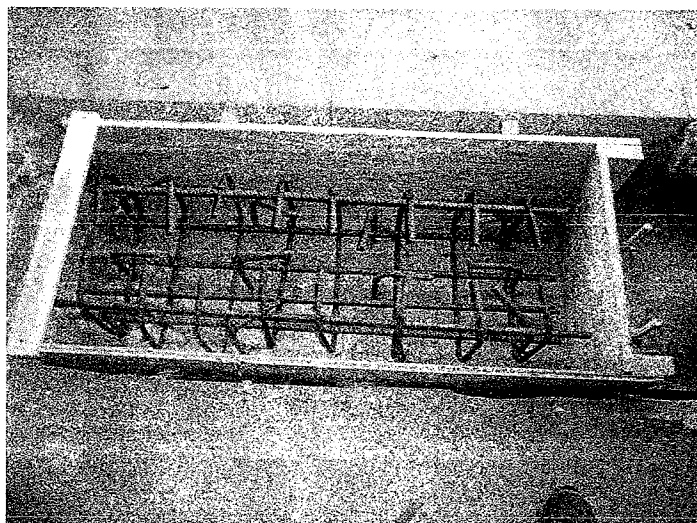


Photo # 8 - Preparation for Concrete Grade Beam at Grid A/2.9

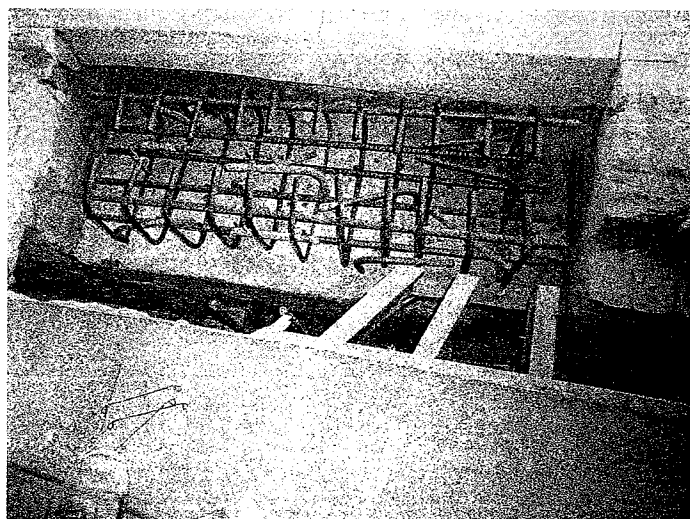


Photo # 9 - Preparation for Concrete Grade Beam at Grid A/3.2

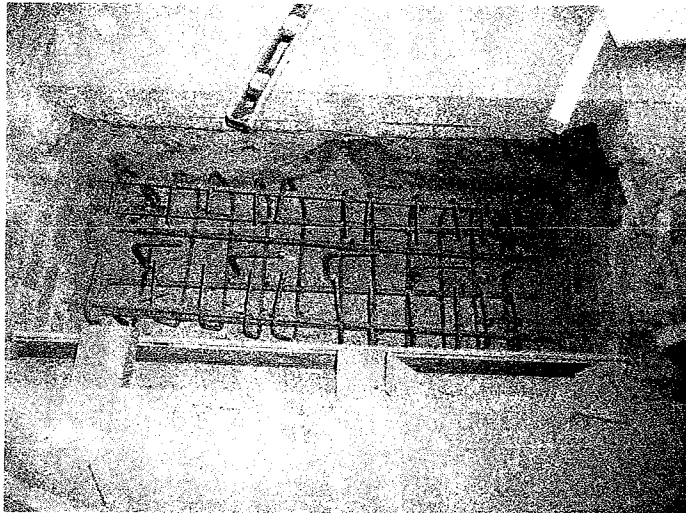


Photo # 10 - Preparation for Concrete Grade Beam at Grid A/3.7



Photo # 11 - Preparation for Concrete Grade Beam at Grid A/4.2



Photo # 12 - Preparation for Concrete Grade Beam at Grid A/4.9

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.

Location: Portland, ME

Date: November 24, 2009

Time: 11:30 PM

Weather: Partly sunny

Temperature: 50 deg. F.

Contractor: Hardy Pond

Site contact: David Norton (Hardy Pond); Jed Taft;

Project Items to be Observed:

- "Items Needing Correction"

Field Observations / Project Status:

1. Rear entry cold form framing being installed along with wall sheathing (see photo #1 and #3). Installation appears to conform with approved shop drawing at this area.
2. The column at grid F/5.8 has been grouted beneath the baseplate and anchor bolt installed (see photo #2). Also, the existing plywood embedded in the brick below the baseplate was reported as being removed and replaced with concrete masonry mortared solid to ensure adequate bearing at this location.
3. Cast iron round sleeves at locations where piping and ducts have been cored through existing masonry and concrete walls have been mortared solid (see photo #4).
4. Previously, the rebar for the grade beam at Grid A/2.3 was in position but the bottom of concrete was at an elevation that was too high. This grade beam position was lowered and appears to be at the correct elevation.
5. It was reported that the voids in the existing Grid A stone wall (Grid A2.5 – A/4.9) that are below the specified bottom of concrete bearing elevation specified for the concrete pads and concrete beams (see structural sketches specified for concrete items on the grid A foundation wall) were in-filled so as to provide a level bearing surface for the new concrete beams and bearing pads on the grid A foundation wall.
6. Concrete piers at gridline A column foundations between A/2.5 and A/4.2 have been installed and appeared to be installed as specified. PVC utility sleeves were necessary at grid A/4.2 (see photo #5). CMU wall at grid A/3.7 not yet installed.
7. Due to the existing pockets in the first floor beam spanning between grids A/9 to B/9 the carpenters have installed a continuous pressure treated 2x12 to the existing beam and connected double joist hangers to the 2x12. The pressure treated 2x12 has been bolted to the existing beam with (2) 3/4" diameter threaded rods at 12" on center using nuts and washers typical at each end of the threaded rods. The nuts on the rods still need to be tightened (see photo #6).
8. The 2nd floor beam splices specified by Detail H4/S5.5 for the grid A beams have not yet been installed. This was discussed during the site visit along with options on how to make the installation more straight forward.
9. David Norton said that the required (2) 1/2" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. The areas were covered by finishes and could not be observed directly. David Norton said he will provide photos verifying this work has been done.
10. One of the cantilevered beams at the rear entry steel over the entrance does not align with the curved channel. It was discussed with David Norton that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive (see photo #7).

11. The new temporary steel column located approximately at grid A/2.3 (see photo #1 of 11/9/09 site visit report) appeared to have lost part of the non-shrink grout from underneath the north-east corner of the base-plate. This portion of the grout has been replaced.
12. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this (see photo #8).
13. The 4 x 6 PT ledger required to support the existing joists at the primary front entrance (see detail F5/S3.3, issued on October 19, 2009) appears to be installed correctly, however, there is one bolt missing which needs to be installed.
14. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. Roland (Hardy Pond) said each existing joist was connected to new LVL with (4) Timberlock screws and new joists were installed constructed of ripped 2x12PT to match existing joist depth. Joists bear on existing brick wall at one end of cantilever. Roland said that to resist tension load at top of connection to LVL that he will install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Jed said they will provide photos of completed work.
15. There was a brief meeting with Jeff Frye, Ben Walter and David Douglas regarding slab placement at the primary front entrance. Jeff said that he may prefer to place the slab with a cold joint at gridline A. I said that it is critical that if he chooses this direction that he submit this as an RFI since it will be necessary to include water tightness provisions at the cold joint to prevent water from coming through the joint.

Items Needing Correction:

1. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
2. A new steel lintel needs to be installed above the existing 36" man-door at grid F/9.8 with a minimum of 8" bearing at each end to support the existing brick wall above which is currently not supported adequately. The lintel shall be either a W6x16 or W6x15.
3. The nuts on the rods still need to be tightened (see photo #6) at the first floor beam spanning between grids A/9 to B/9.
4. Jeff Yankowski of P&P Plumbing said that he needs to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Breton, the project mason, said that he will install (2) L4x4x5/16" double angle lintels above for the new opening.
5. One of the cantilevered beams at the rear entry steel over the entrance does not align with the curved channel. It was discussed with David Norton that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive (see photo #7).
6. Due to the existing pockets in the first floor beam spanning between grids A/9 to B/9 the carpenters have installed a continuous pressure treated 2x12 to the existing beam and connected double joint hangers to the 2x12. The pressure treated 2x12 has been bolted to the existing beam with (2) 3/4" diameter threaded rods at 12" on center using nuts and washers typical at each end of the threaded rods. The nuts on the rods still need to be tightened (see photo #6).

7. David Norton said that the required (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. David Norton said he has photos confirming this work and will provide them to PSE.
8. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this (see photo #8).
9. The 4 x 6 PT ledger required to support the existing joists at the primary front entrance (see detail F5/S3.3, issued on October 19, 2009) appears to be installed correctly, however, there is one bolt missing which needs to be installed.
10. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. To resist tension load at top of connection to LVL, install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Provide photos of completed work.

Corrective action taken:

1. The column at grid F/5.8 has been grouted beneath the baseplate and anchor bolt installed (see photo #2). Also, the existing plywood embedded in the brick below the baseplate was reported as being removed and replaced with concrete masonry mortared solid to ensure adequate bearing at this location.
2. Cast iron round sleeves at locations where piping has been cored through existing masonry and concrete walls has been mortared solid (see photo #4).
3. Steel Column at grid F/5.8 was fabricated without an approved submittal. Visual review of the column and base plate appear to be in conformance with the drawings. Mark Hall, the original fabricator, stated that the column was fabricated in accordance with project specifications including meeting milling requirements at column ends (conversation occurred prior to the site visit).
4. David Norton said that the required (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. The areas were covered by finishes and could not be observed directly. David Norton said he has photos confirming this work and will provide them to PSE.
5. To adequately support the proposed steel column at grid A/5.9, it was reported that additional # 5 dowels at 8" on center into the existing brick pier and additional pier vertical reinforcement into the new 12" CMU at grid A/5.9 have been completed to support the steel column anticipated at this area. The column was reported as having 3/8" diameter closed ties at 8" on center surrounding the (4)#5 vertical bars per the attached detail SK-S57.
6. The new temporary steel column located approximately at grid A/2.3 (see photo #1 of 11/9/09 site visit report) appeared to have lost part of the non-shrink grout from underneath the north-east corner of the base-plate. This portion of the grout has been replaced.
7. It was reported that the voids in the existing Grid A stone wall that are below the specified bottom of concrete bearing elevation specified for the concrete pads and concrete beams (see structural sketches specified for concrete items on the grid A foundation wall) were in-filled so as to provide a level bearing surface for the new concrete beams and bearing pads on the grid A foundation wall.
8. Previously, the rebar for the grade beam at Grid A/2.3 was in position but the bottom of concrete was at an elevation that was too high. This grade beam position was lowered and now appears to be at the correct elevation.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

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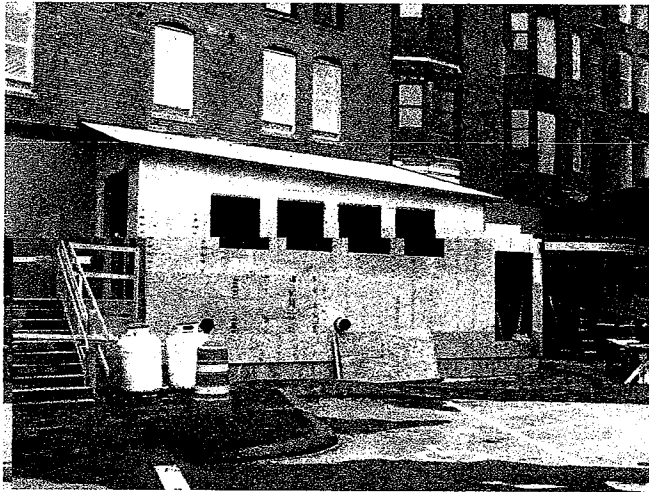


Photo # 1 – Back entrance exterior wall studs and sheathing being installed.



Photo # 2 – Column F/5.8 non- shrink grout below base plate and anchor bolts.

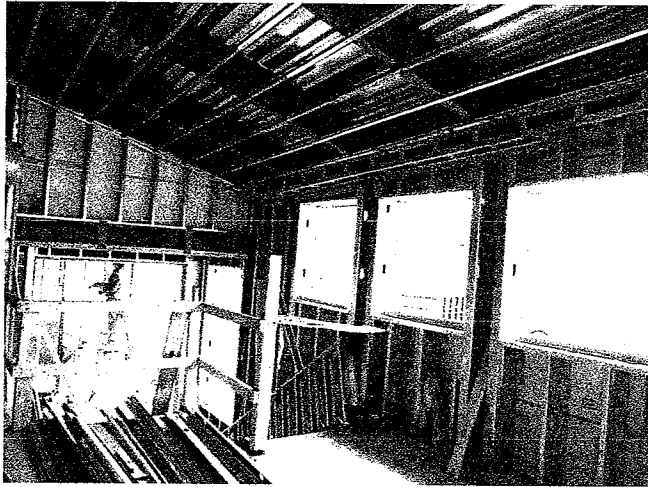


Photo # 3 – Rear entry interior framing

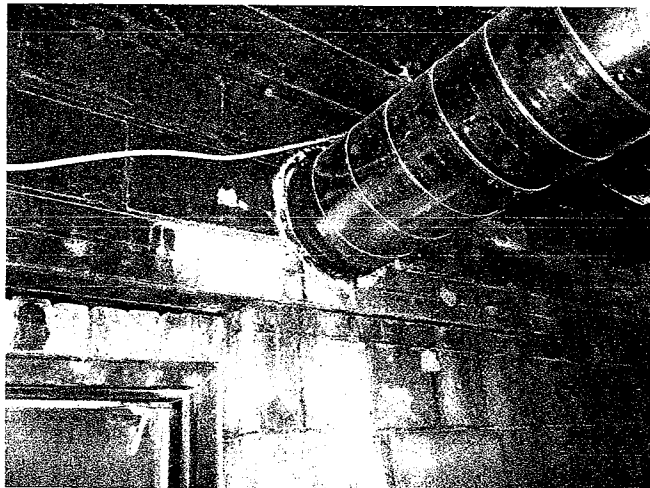


Photo # 4 – Duct penetrations with grouted sleeves.

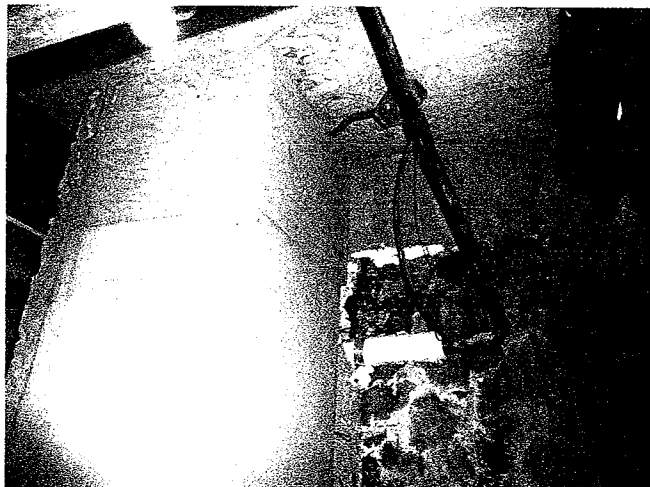


Photo # 5 – Concrete pier at grade A/4.2, note sleeves for utilities.

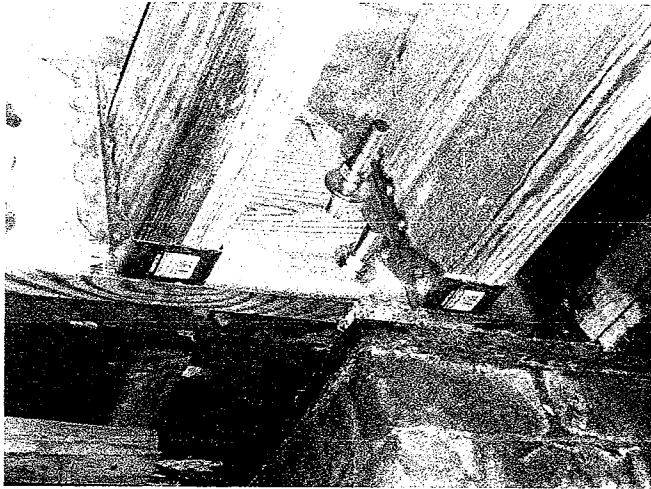


Photo # 6 – Bolts connecting ledger at entrance grid B/9 not yet tightened.

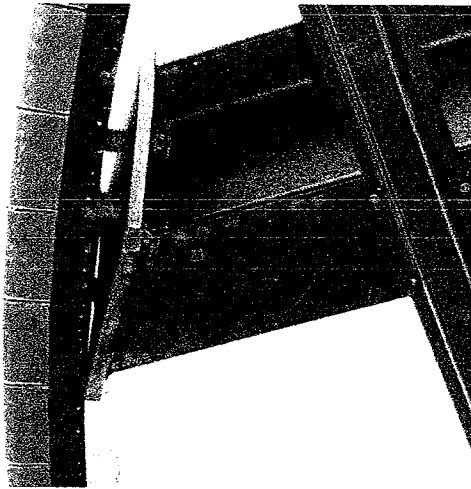


Photo # 7- Rear entrance steel framing requires welded plate at gap.



Photo # 8- Installation of cold form clips at bottom of wood joists not yet completed.

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

<u>Project:</u>	645 Congress St.	<u>Weather:</u>	Partly sunny
<u>Location:</u>	Portland, ME	<u>Temperature:</u>	50 deg. F.
<u>Date:</u>	November 30, 2009	<u>Contractor:</u>	Hardy Pond
<u>Time:</u>	2:30 PM	<u>Site contact:</u>	David Norton; John Wallace

Project Items to be Observed:

- New Grid A columns at ground floor level

Field Observations / Project Status:

1. Steel columns were being erected by John Wallace, the erector working with Tim Duby welding.
2. John said that based on his layout dimensions, there is an interference installing the new columns between grid line A/5.1 and A/5.9 (see photo #1). The issue was that the dimensions provided by the GC to the fabricator did not include sufficient clearance to allow for existing base plates at existing columns. Several options were proposed and discussed during the site visit.
3. John said that the interference distance was 5.75 inches. I said that it was acceptable to trim the new base plate at column A/5.1 by 3.5 inches and that there would still be adequate bearing (see photo #4). David Norton said he would provide temporary shoring as necessary so that an additional 2.25 inches of brick would be removed at grid A/5 (the photo #3). The A/5 base plate would not be modified and no bearing below the existing A/5 column would be removed. It was decided that this was the most practical way to resolve the interference. Shortening the new beam between grid line A/5.1 and A/5.9 was rejected as a possibility because of the complex re-fabrication of the beam required at each end.
4. John said that the columns A/ 2.5, A/ 2.9, A/ 3.2, A/ 3.7, A/ 4.2 and A/4.9 were installed without any issues. John said that he took special precautions to be certain the bond-out pockets within the concrete bearing pads were fully filled with non-shrink grout and that there were no voids within the grout underneath base plates.

Items Needing Correction:

1. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
2. A new steel lintel needs to be installed above the existing 36" man-door at grid F/9.8 with a minimum of 8" bearing at each end to support the existing brick wall above which is currently not supported adequately. The lintel shall be either a W6x16 or W6x15.
3. The nuts on the rods still need to be tightened (see photo #6) at the first floor beam spanning between grids A/9 to B/9.
4. Jeff Yankowski of P&P Plumbing said that he needs to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Breton, the project mason, said that he will install (2) L4x4x5/16" double angle lintels above for the new opening.
5. One of the cantilevered beams at the rear entry steel over the entrance does not align with the curved channel. It was discussed with David Norton that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive (see photo #7).

6. David Norton said that the required (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. David Norton said he has photos confirming this work and will provide them to PSE.
7. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this (see photo #8).
8. The 4 x 6 PT ledger required to support the existing joists at the primary front entrance (see detail F5/S3.3, issued on October 19, 2009) appears to be installed correctly, however, there is one bolt missing which needs to be installed.
9. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. To resist tension load at top of connection to LVL, install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Provide photos of completed work.

Corrective action taken:

- 1.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

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Jeff Frye, Dave Norton, Jed Taft - Hardy Pond Construction
Art Gallant - Quality Assurance Labs



Photo # 1 Looking South at Grid A floor opening at Main Entrance



Photo # 2 – Existing cast-iron column and masonry pier at A/5.9.

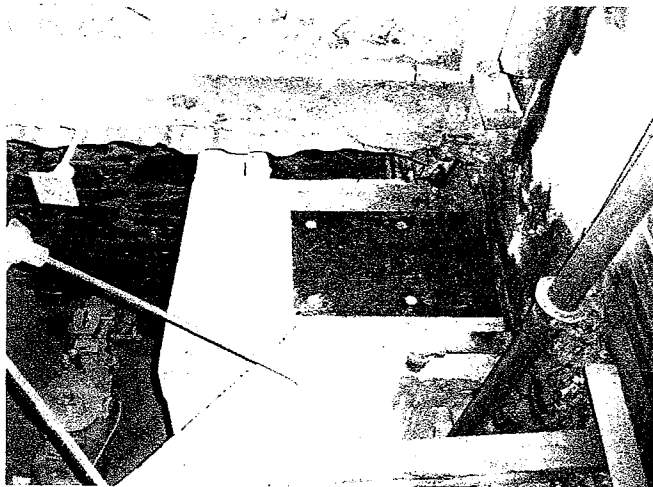


Photo # 3 – New concrete pier and leveling plate at grade A/5.1

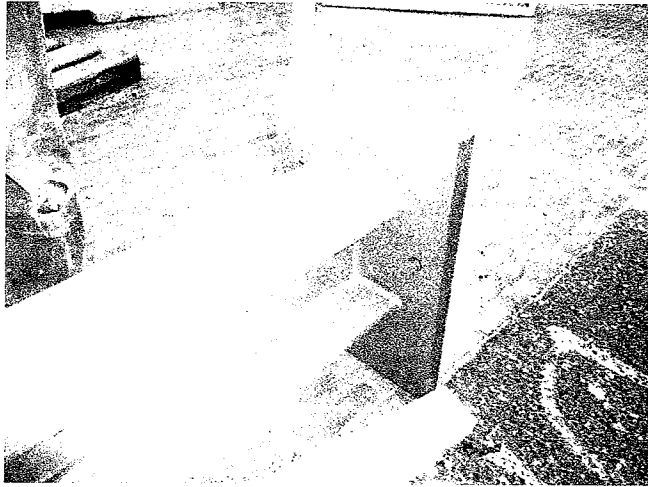


Photo # 4 – Column A/5.1 base plate

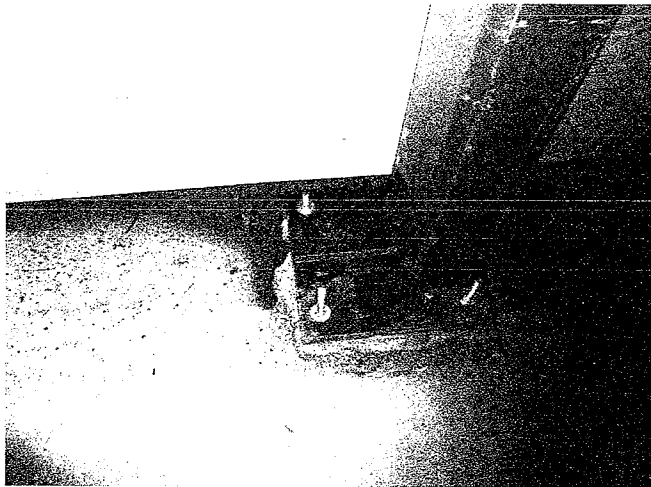


Photo # 5 - Column A/2.5 base plate



Photo # 6 - Column A/5.9 base plate

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: December 2, 2009
Time: 12:30 PM

Weather: Partly sunny
Temperature: 40 deg. F.
Contractor: Hardy Pond
Site contact: David Norton; John Wallace

Project Items to be Observed:

- Grid A/5.9 Existing Pier Mis-alignment
- Items to be corrected

Field Observations / Project Status:

1. John Wallace said that the centerline of the existing concrete block masonry support intended to be below the column at grid A/5.9 is approximately 7 inches off of gridline A. The 12" wide support was constructed 7 inches too far south of gridline A.
2. John said that he has finalized his layout at this area and identified the centerline of grid A/5.9 with a permanent mark on the masonry. John said his measurement include provisions for the existing base plate below the existing cast-iron column at grid A/6.
3. To provide adequate support to the new column at A/5.9, a new concrete pier is needed adjacent to the existing masonry support. Furthermore, a new concrete cap also is needed on the pier since support for the new steel column will be provided by not only the new cast in place concrete but also the existing concrete block and existing brick. The new concrete cap will extend over all three of these supports to distribute the necessary bearing load to each support.
4. Structural details for the new concrete pier and cap were subsequently issued as SK-S73, SK-S74, SK-S75 and SK-S76 after the site visit. These sketches were first issued directly to the contractor by email so that he could stay with the proposed construction schedule and later they were issued as a field order.
5. A new 6" steel lintel beam has been installed above the existing 36" man-door at grid F/9.8 to support the existing brick wall above which previously was not supported adequately. (see photo #6).
6. David Norton said that he is in the process of making preparations for welding stiffeners to existing steel beams as specified on the project documents. There is an interference with the continuous wood ledger. Therefore, at these locations, toenail the joists directly to the wood ledger on both sides of the joists. Then remove a portion of the existing wood ledger as specified in SK-S10 issued previously (see 7/29/09 site visit report). In some cases, David said that some of the stiffeners interfere with both the ledger and the existing wood joist which bears on the continuous wood ledger of the steel beam. At these locations, it is acceptable to place the steel stiffeners to the side of the existing wood joist provided the stiffeners are placed as close to their original specified position as possible.
7. Existing Concrete Pier adjacent to Existing Column A/5 prevents installation of 16" CMU lintel previously specified on H1/S2.1. Therefore install new W6 steel lintel as specified on attached SK-S77.

Items Needing Correction:

1. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.

2. The nuts on the rods still need to be tightened (see photo #6) at the first floor beam spanning between grids A/9 to B/9.
3. Jeff Yankowski of P&P Plumbing said that he needs to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Breton, the project mason, said that he will install (2) L4x4x5/16" double angle lintels above for the new opening.
4. One of the cantilevered beams at the rear entry steel over the entrance does not align with the curved channel. It was discussed with David Norton that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive (see photo #7).
5. David Norton said that the required (2) 1/2" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. David Norton said he has photos confirming this work and will provide them to PSE.
6. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this (see photo #8).
7. The 4 x 6 PT ledger required to support the existing joists at the primary front entrance (see detail F5/S3.3, issued on October 19, 2009) appears to be installed correctly, however, there is one bolt missing which needs to be installed.
8. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. To resist tension load at top of connection to LVL, install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Provide photos of completed work.
9. Install new concrete pier at grid A/5.9 to provide adequate support for proposed steel column since existing concrete block masonry support intended to be below the column at grid A/5.9 is approximately 7 inches off of gridline A.. Install pier in accordance with SK-S73, SK-S74, SK-S75 and SK-S76. These sketches were first issued directly to the contractor so that he could stay with the proposed construction schedule and later they were issued by a field order.
10. David Norton said that he is in the process of making preparations for welding stiffeners to existing steel beams as specified on the project documents. There is an interference with the continuous wood ledger. At these locations, toenail the joists directly to the wood ledger on both sides of the joists. Then remove a portion of the existing wood ledger as specified in SK-S10 issued previously (see 7/29/09 site visit report). In some cases, David said that some of the stiffeners interfere with both the ledger and the existing wood joists which bear on the continuous wood ledger of the steel beam. At these locations, it is acceptable to place the steel stiffeners to the side of the existing wood joist provided the stiffeners are placed as close to their original specified position as possible.
11. Existing Concrete Pier adjacent to Existing Column A/5 prevents installation of 16" CMU lintel previously specified on H1/S2.1. Therefore install new W6 steel lintel as specified on attached SK-S77.

Corrective action taken:

1. A new 6" steel lintel beam has been installed above the existing 36" man-door at grid F/9.8 to support the existing brick wall above which was not supported adequately. (see photo #6).

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

Price Structural Engineers Inc. shall not, during such visits or as a result of any observations of construction, supervise, direct or have control over Contractor's work nor shall Price Structural Engineers Inc. have authority over or responsibility for the equipment, means, methods, techniques or procedures by the Contractor or health and safety precautions in programs incident to the work of the Contractor. Price Structural Engineers Inc. does not assume responsibility for Contractor's failure to comply with laws, rules, regulations or codes or the Contractor's failure to furnish and perform their work in accordance with the construction documents and does not guarantee the performance of the construction contract by the Contractor. It is understood that this report will be reviewed by the contractor and that any items in this report which are inaccurate or misunderstood will be brought to the attention of Price Structural Engineers immediately.

Report prepared by: David A. Price, P.E.
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
David Douglas AIA, Ben Walter AIA, Steve Schuchert - CWS Architects
Jeff Frye, Dave Norton, Jed Taft – Hardy Pond Construction
Art Gallant – Quality Assurance Labs

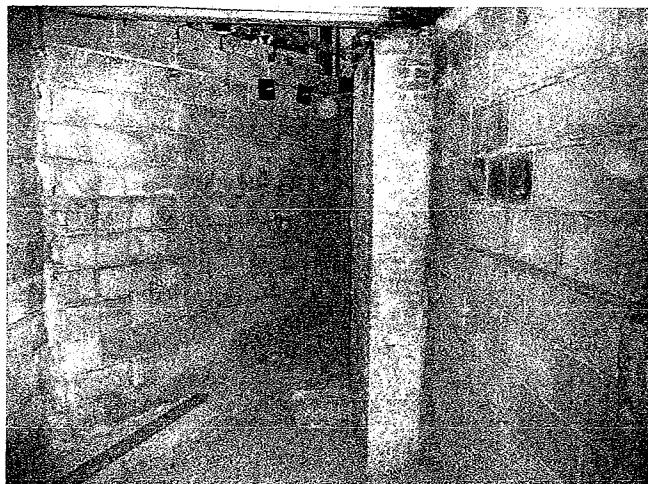


Photo # 1 – Existing Brick Pier at Existing Column A/6



Photo # 2 – Top of Existing Brick Pier at Existing Column A/6

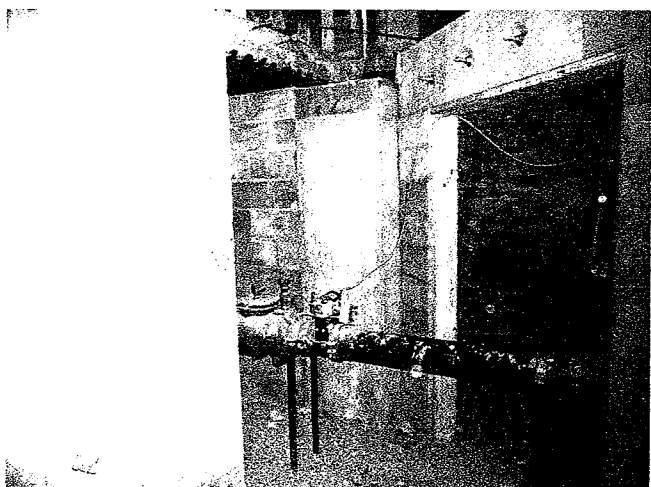


Photo # 3 – Existing Concrete Pier at Existing Column A/5

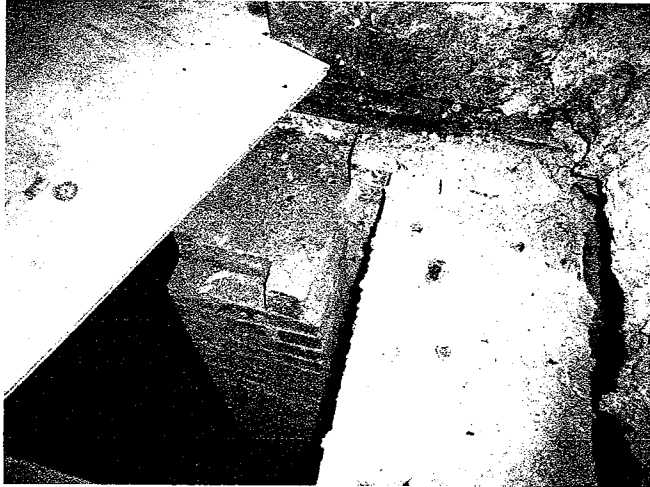


Photo # 4 – Top of Existing Brick Pier at Existing Column A/6

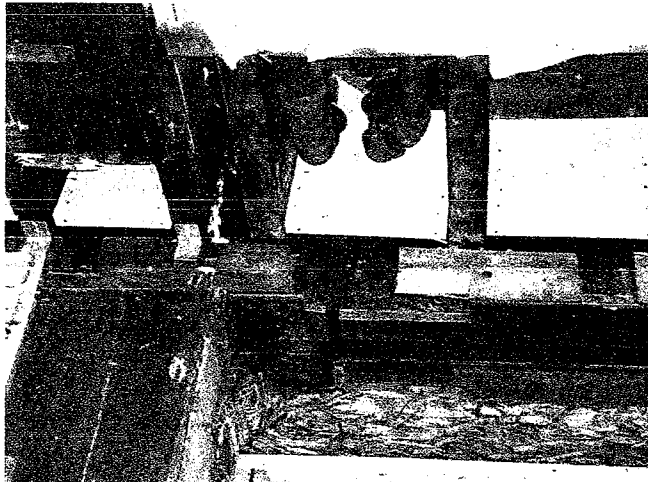


Photo # 5 – Top of Existing Cast Iron Column at Existing Column A/6

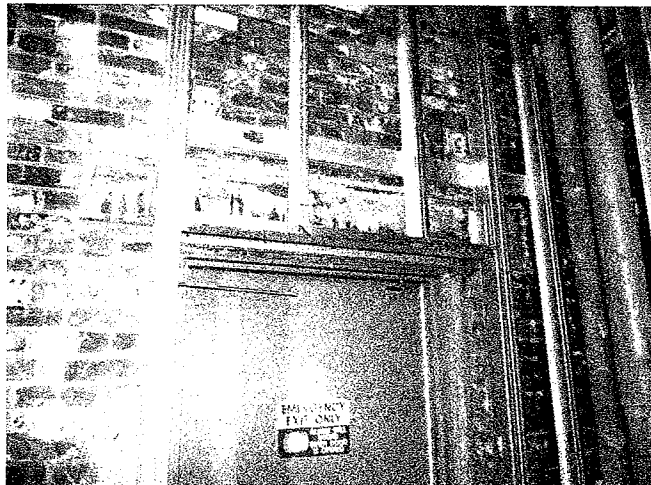
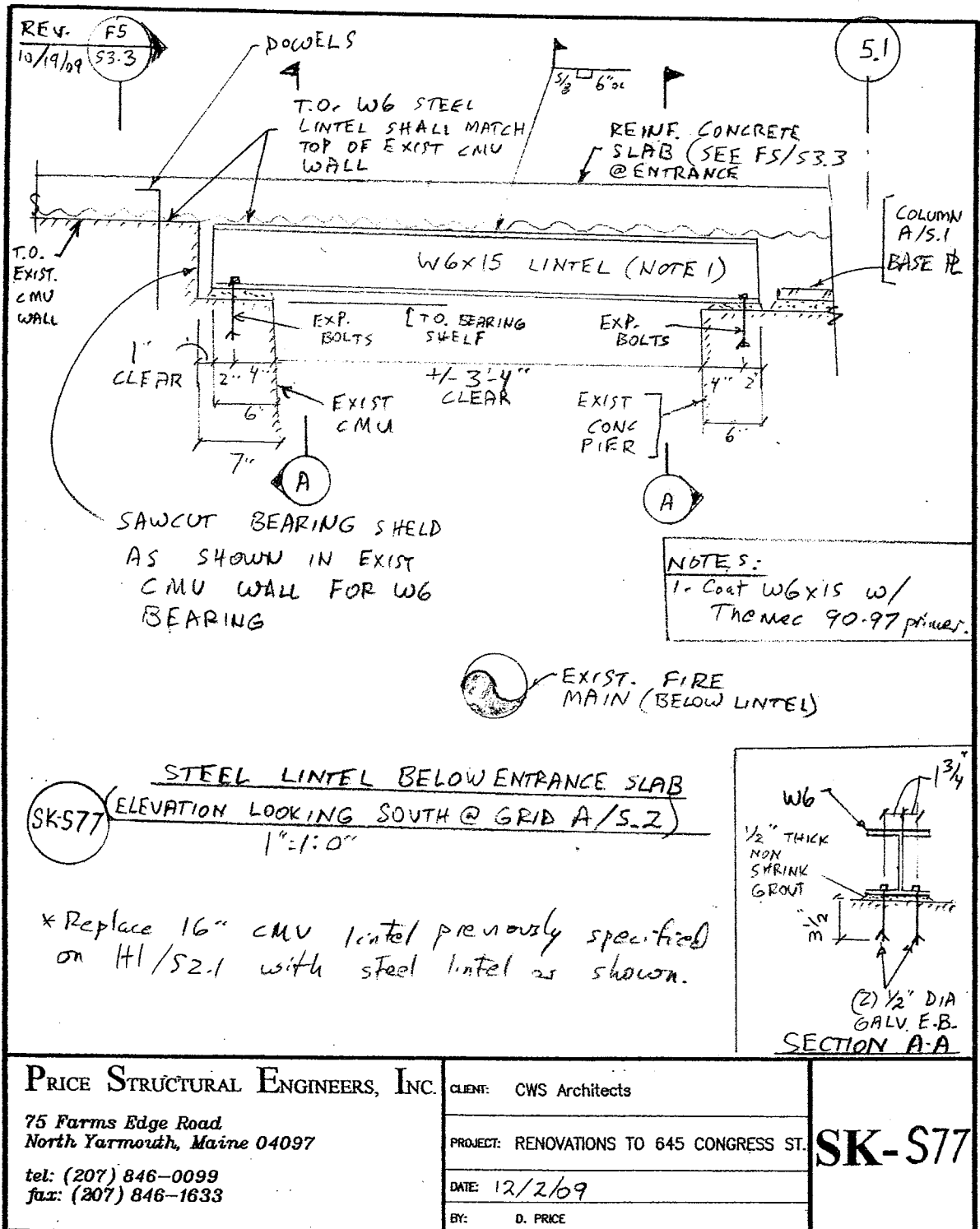


Photo # 6 – New steel lintel above existing door at Grid F/9.8.



PRICE STRUCTURAL ENGINEERS, INC.
 75 Farms Edge Road
 North Yarmouth, Maine 04097
 tel: (207) 846-0099
 fax: (207) 846-1633

CLIENT: CWS Architects
 PROJECT: RENOVATIONS TO 645 CONGRESS ST.
 DATE: 12/2/09
 BY: D. PRICE

SK-S77

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

<u>Project:</u>	645 Congress St.	<u>Weather:</u>	Partly sunny
<u>Location:</u>	Portland, ME	<u>Temperature:</u>	27 deg. F.
<u>Date:</u>	December 11, 2009	<u>Contractor:</u>	Hardy Pond
<u>Time:</u>	10:00 AM	<u>Site contact:</u>	David Norton; Leo Arris, John Wallace

Project Items to be Observed:

- Structural Steel status - general
- Steel Erection @ Grid A

Field Observations / Project Status:

1. David Norton said that this was his last day as superintendent for the project since he is being re-assigned to a different project. He said that Leo Arris would be taking over his responsibilities and Jed is also on site to provide continuity.
2. Cold form framing and finishes are being applied at the back entrance (photo #1). I reminded David that deal connection described in "Items Needing Correction #4" listed below has not yet been completed and must be done before it is covered up.
3. The scaffolding at the front of the Building (grid line a) was being removed at the time of the site visit (photo #2).
4. Structural steel above main entrance at grid A/5 was being installed (photo #3).
5. The steel columns and braces at grid A have been installed but have not yet been fully welded or otherwise completed. For example, the braces have been welded on one side to gusset plates, but not the other. Existing bolts at bracing bays shall be fully pre-tensioned as specified. Use TC-bolts as specified on Drawing S1.1 unless alternate pre-tensioning method is approved by PSE and pre-tensioning is performed in the presence of Art Gallant (QAL).
6. GC shall verify that bolt diameters and bolt grades at bracing bays conform to structural documents (reference approved steel erection shop drawings).
7. Tie bars at grids A/2.7 and A/4.7 (reference detail E7/S5.6) have been installed but concrete for threaded rod has not yet been placed (photo #4). Instead of epoxy bolts previously specified, nuts need to be tack welded to the bottom of the threaded rod prior to placing concrete and embedding the bolts.
8. Stiffeners above columns have not yet been installed. David said that there were some locations where the stiffener could not be placed above the column centerline because of an existing wood joist, but could be placed a few inches to either side. Therefore offsetting the stiffener not more than 3-inches horizontally from the originally specified location is permissible
9. There are some locations where the stiffener can not be welded to the existing beams at Grid A because there is an existing wood joist which is parallel to the beam restricting access for the weld. Later, I spoke with Art Gallant (QAL) about these areas and Art said that it is not possible to even apply pre-heat without removing a portion of the existing wood joist. This condition appears to occur at 2 locations (the first at grid A/4.2 and the second at grid A/2.9). This condition will be resolved during the next site visit.
10. The 4 x 6 PT ledger required to support the existing joists at the primary front entrance (see detail F5/S3.3, issued on October 19, 2009) appears to be installed correctly.
11. Double braces have been erected at Grid A and appear to be installed as specified (Photo #5). Base Shear WT transfer plates (reference detail E4/S5.5) were also installed at columns A/7.1 and A/8.9).

12. Cantilevered beams above main front entrance were being installed at the time of the site visit (see photos #6 and #7).
13. The front entrance cantilevered beams at grid A/6.3 and A/6.7 has a revised connection since the certified welder has expressed a concern regarding the detail previously specified. Therefore, connection between W12 cantilevered beams to existing double beams at grids A/6.3 and A/6.7 shall be as specified in attached SK-S53-R.
14. The new short stabilizing CMU wall located in the basement at grid A/3.7 need only have a steel plate at the top at one side of the wall only since there is an existing brick stabilizing wall in close proximity at the west side.(see photo #8).
15. The new concrete pier at grid A/5.9 has been installed (photo #9). The pier provides support for proposed steel column since existing concrete block masonry support intended to be below the column at grid A/5.9 was approximately 7 inches off of gridline A.. The pier was specified to be installed in accordance with SK-S73, SK-S74, SK-S75 and SK-S76. These sketches were first issued directly to the contractor so that he could stay with the proposed construction schedule and later they were issued by a field order.
16. It is mandatory that the steel erector install permanent shim plates at the tops of new columns, same size as column cap plates, where necessary to ensure complete bearing of existing Grid A double beams bearing on new columns. Shims shall be welded in place.
17. Install existing double beam splice at grid A/7 as specified in attached SK-S47-R (revised detail previously issued).
18. As an option (requested by contractor to facilitate construction), double beam splices may be installed in accordance with attached SK-S78 in lieu of previously specified detail H4/S5.5.
19. Contractor shall submit written copies of AWS welders certifications of welders performing field welds showing that certifications are current.

Items Needing Correction:

1. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
2. The nuts on the rods still need to be tightened at the first floor beam spanning between grids A/9 to B/9.
3. Jeff Yankowski of P&P Plumbing said that he needs to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Breton, the project mason, said that he will install (2) L4x4x5/16" double angle lintels above for the new opening.
4. One of the cantilevered beams at the rear entry steel over the entrance does not align with the curved channel. It was discussed with David Norton that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive.
5. David Norton said that the required (2) 1/2" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. David Norton said he has photos confirming this work and will provide them to PSE.
6. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been

completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this.

7. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. To resist tension load at top of connection to LVL, install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Provide photos of completed work.
8. David Norton said that he is in the process of making preparations for welding stiffeners to existing steel beams as specified on the project documents. There is an interference with the continuous wood ledger. At these locations, toenail the joists directly to the wood ledger on both sides of the joists. Then remove a portion of the existing wood ledger as specified in SK-S10 issued previously (see 7/29/09 site visit report). In some cases, David said that some of the stiffeners interfere with both the ledger and the existing wood joists which bear on the continuous wood ledger of the steel beam. At these locations, it is acceptable to place the steel stiffeners to the side of the existing wood joist provided the stiffeners are placed as close to their original specified position as possible.
9. Existing Concrete Pier adjacent to Existing Column A/5 prevents installation of 16" CMU lintel previously specified on H1/S2.1. Therefore install new W6 steel lintel as specified on SK-S77 (see Dec. 2, 2009 site visit report).
10. It is mandatory that the steel erector install permanent shim plates at the tops of new columns, same size as column cap plates, where necessary to ensure complete bearing of existing Grid A double beams bearing on new columns. Shims shall be welded in place.
11. Install existing double beam splice at grid A/7 as specified in SK-S47-R.
12. Connection between W12 cantilevered beams to existing double beams at grids A/6.3 and A/6.7 shall be as specified in SK-S53-R.
13. As an option (requested by contractor to facilitate construction), double beam splices may be installed in accordance with SK-S78 in lieu of previously specified detail H4/S5.5.
14. Contractor shall submit written copies of AWS welders certifications of welders performing field welds showing that certifications are current.
15. Existing bolts at bracing bays shall be fully pre-tensioned as specified. Use TC-bolts as specified on Drawing S1.1 unless alternate pre-tensioning method is approved by PSE and pre-tensioning is performed in the presence of Art Gallant (QAL).
16. GC shall verify that bolt diameters and bolt grades at bracing bays conform to structural documents (reference approved steel erection shop drawings).

Also add form plan
submittal

Corrective action taken:

1. The new concrete pier at grid A/5.9 has been installed (photo #9). The pier provides support for proposed steel column since existing concrete block masonry support intended to be below the column at grid A/5.9 was approximately 7 inches off of gridline A. The pier was specified to be installed in accordance with SK-S73, SK-S74, SK-S75 and SK-S76. These sketches were first issued directly to the contractor so that he could stay with the proposed construction schedule and later they were issued by a field order.
2. The 4 x 6 PT ledger required to support the existing joists at the primary front entrance (see detail F5/S3.3, issued on October 19, 2009) appears to be installed correctly.

3. The new short stabilizing CMU wall located in the basement at grid A/3.7 need only have a steel plate at the top at one side of the wall only since there is an existing brick stabilizing wall in close proximity at the west side.(see photo #8).

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

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Report prepared by: David A. Price, P.E.
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
David Douglas AIA, Ben Walter AIA, Steve Schuchert - CWS Architects
Jeff Frye, Dave Norton, Jed Taft – Hardy Pond Construction
Art Gallant – Quality Assurance Labs



Photo # 1 – Back of building, view looking South



Photo # 2- Scaffolding being removed in front of building

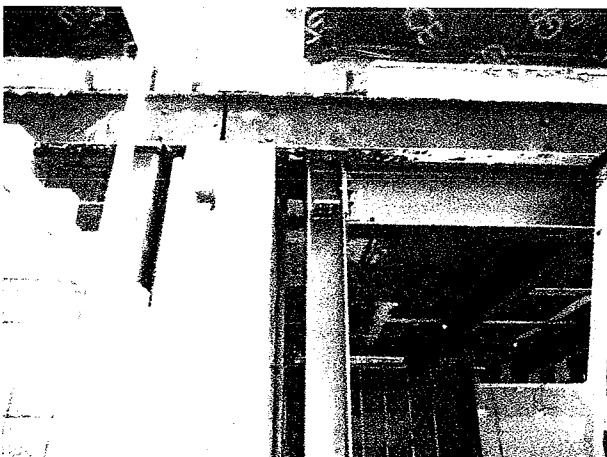


Photo # 3 – looking North at grid A/5 (building center on Congress Street)

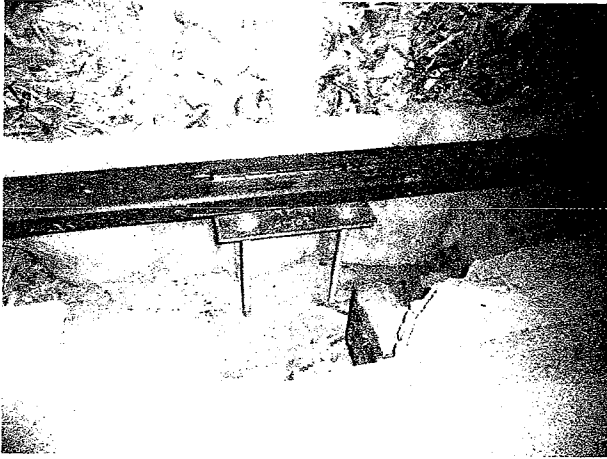


Photo # 4- Tie bar at grid A/2.7, concrete for bolts not yet placed.

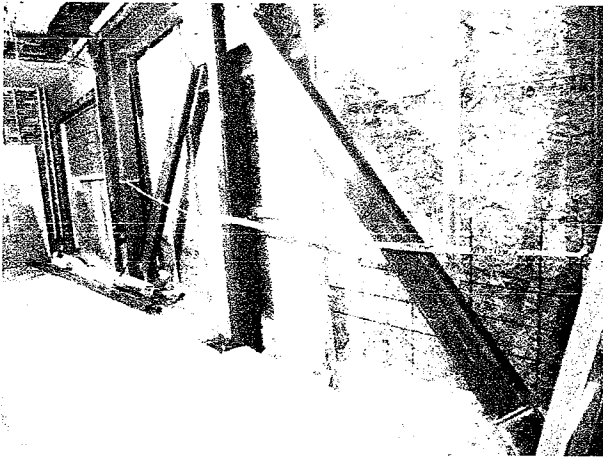


Photo # 5 – Structural steel braces at gridline A/8.



Photo # 6 – Installation of steel beams above main entrance.

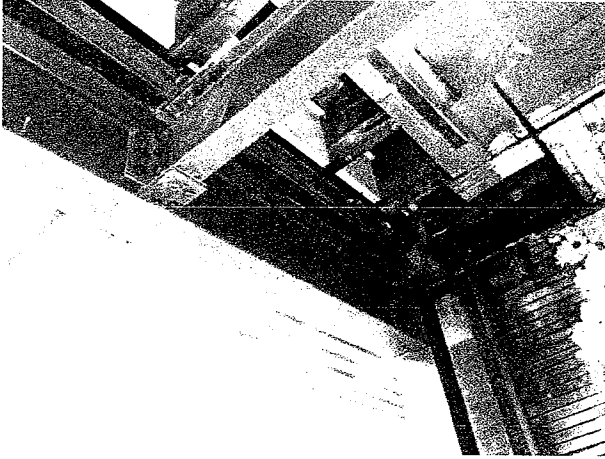


Photo # 7 – Bolted connections at cantilever

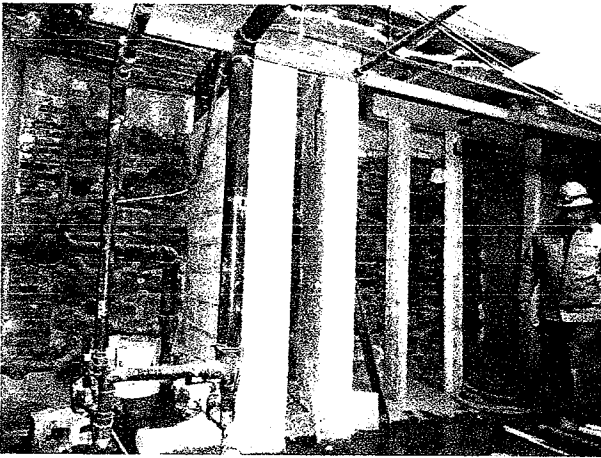


Photo # 8 – Concrete block pier at grid A/3.7



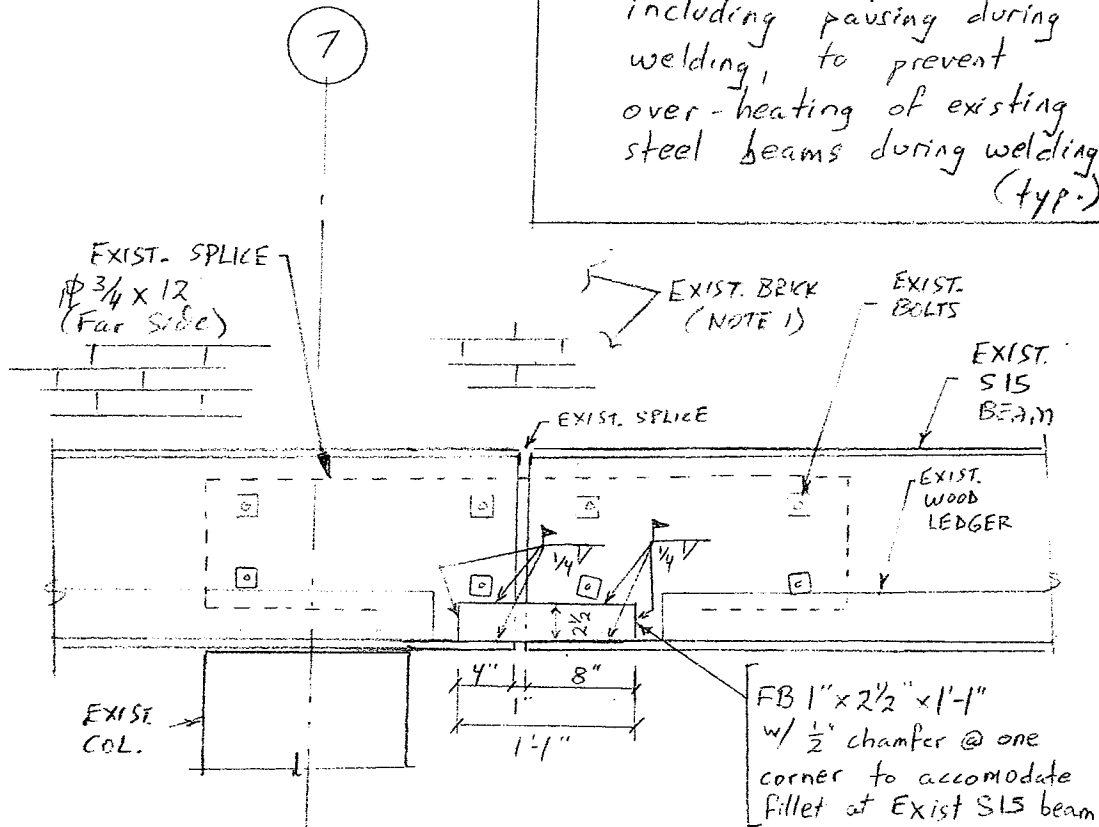
Photo # 9 – Concrete pier at grid A/5.9 with 9" thick cap.

This updated detail replaces the previously issued SK-S47 (formerly dated Oct. 2, 2009, reference Field Order #12)

Existing Wood Joists not shown for clarity.

NOTES:

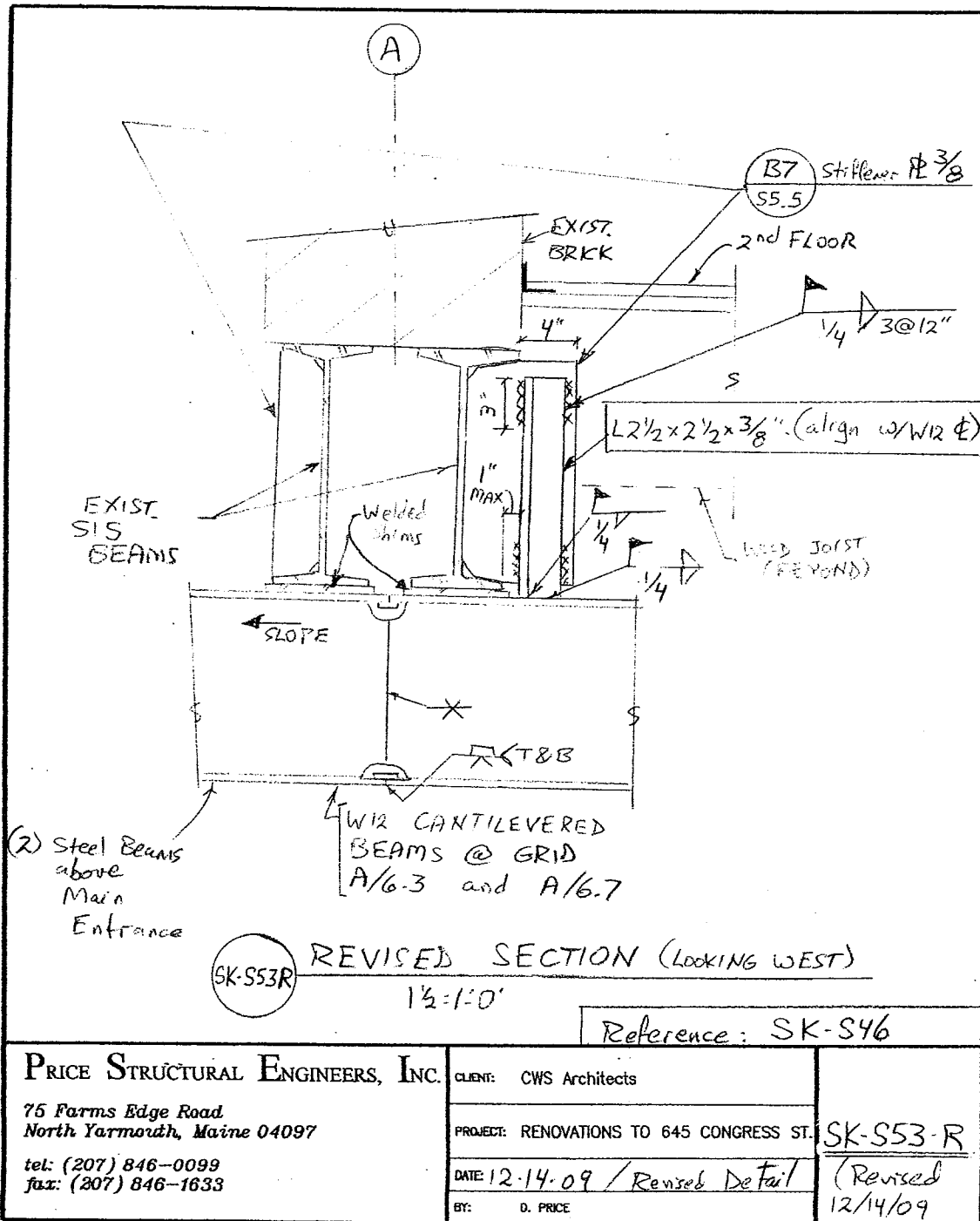
1. Provide temporary shoring (incl. in basement) during welding to existing beams (typ.).
2. Take necessary precautions, including pausing during welding, to prevent over-heating of existing steel beams during welding (typ.).

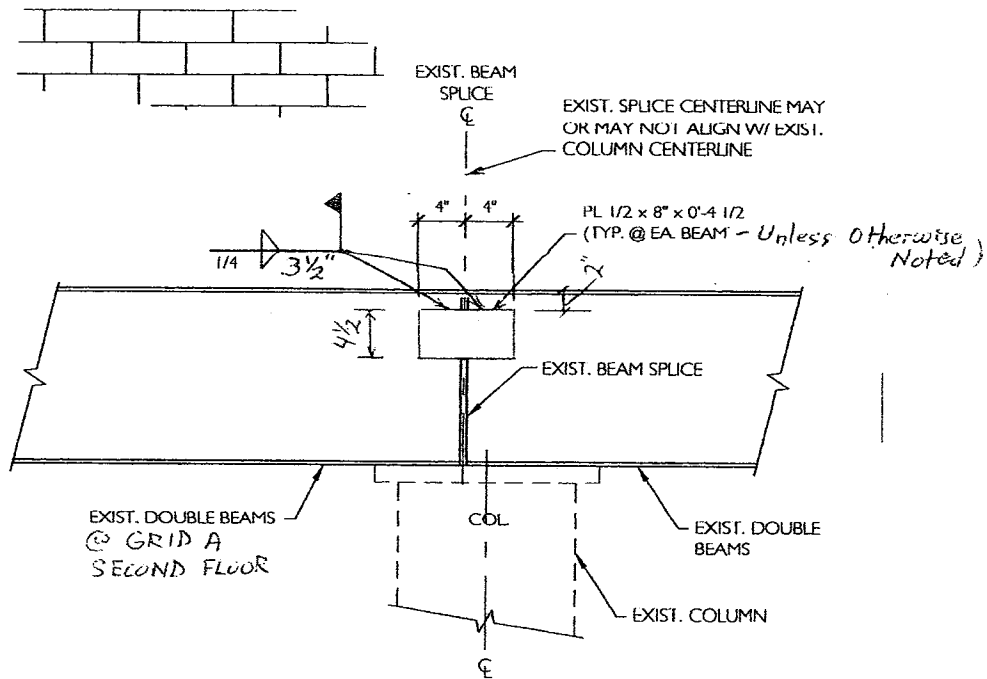


REVISÉD ELEVATION @ GRID A (LOOKING SOUTH)
1"=1'-0"

Reference SK-S46

PRICE STRUCTURAL ENGINEERS, INC. 75 Farms Edge Road North Yarmouth, Maine 04097 tel: (207) 846-0099 fax: (207) 846-1633	CLIENT: CWS Architects	SK-S47R (Revised Detail 12/15/09)
	PROJECT: RENOVATIONS TO 645 CONGRESS ST.	
	DATE: Dec. 15, 2009 / Revised Entrance	
	BY: D. PRICE	





NOTES:

1. This detail is typical from grid A/2 to A/10, and applies to both existing S15 beams @ Grid A.

This detail may be used in place of H4/SS.5 specified previously.

ALTERNATE
TYPICAL SPLICE @
EXIST. BEAMS - DETAIL

H4
SS5 1" = 1'-0"

PRICE STRUCTURAL ENGINEERS, INC. 75 Farms Edge Road North Yarmouth, Maine 04097 tel: (207) 846-0099 fax: (207) 846-1633	CLIENT: CWS Architects	SK-578
	PROJECT: RENOVATIONS TO 645 CONGRESS ST.	
	DATE: 12-14-09 / Alternate Detail	
	BY: D. PRICE	

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: December 18, 2009
Time: 12:30 PM

Weather: Partly sunny
Temperature: 27 deg. F.
Contractor: Hardy Pond
Site contact: Leo Arris, John Wallace

Project Items to be Observed:

- Steel Erection @ Grid A
- Discuss status with Leo Arris

Field Observations / Project Status:

1. Stiffener plates welded to beam above brace gusset plates (see photo #1). Stiffeners at other areas not yet completed but are in progress.
2. Column cap plates not yet welded to either the new HSS column or to the bottom of the existing beams (see photo #2). This work must be completed to ensure proper transfer of loads.
3. Moment connection of cantilevered beams over main entrance (see photo #3). These bolts still have to be tested to be sure that they are fully pre-tensioned.
4. Welding to the existing steel beams is being performed by Andy Faulkner (tel.# 329-5836). Andy is the welder designated to perform the special welding procedure for welding to the existing steel. Art Gallant (project CWI) has tested the welds performed by Andy to be sure they satisfy project requirements.
5. Cantilevered main entrance beams welded to bottom of existing beams at grid A/6.3 and A/6.7 has been performed (see photo #4). At the request of Andy Faulkner, the connection at these two locations will be further reinforced.
6. Hold-Down brace at base plate of column A/7.1 appears to be in accordance with Detail E3/S5.7 (see photo #5 and 6). This brace prevents uplift of the column at A/7.1 and extends to the bottom of the existing brick pier on both the north and south sides of the existing brick pier. The other column experiencing uplift occurs at grid A/8.9 but the brace is not needed at that location since there was sufficient room to install four new high strength anchor bolts directly into a new reinforced concrete pier (designed to resist the uplift force).
7. Bottom flange beam "kickers" being installed at grid A and appear to be installed correctly (see photo #7).
8. Steel brace at Grid A/2.9 foundation wall has been installed (reference SK-S69). See photos #8 and #9.
9. Leo said that he is taking over as superintendent now that David Norton is gone. Leo and I discussed the general status of the project and went over the "Items to be Corrected" list from the previous site visit report.
10. Leo and discussed that the cold form framing plan submittal was previously returned "Revise and Re-submit" more than 4 weeks ago and has not yet been resubmitted for review. This submittal is still required.

Items Needing Correction:

1. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
2. The nuts on the rods still need to be tightened at the first floor beam spanning between grids A/9 to B/9.
3. Jeff Yankowski of P&P Plumbing said that he needs to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Breton, the project mason, said that he will install (2) L4x4x5/16" double angle lintels above for the new opening.
4. One of the cantilevered beams at the rear entry steel over the entrance does not align with the curved channel. It was discussed with David Norton that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive.
5. David Norton said that the required (2) 1/2" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. David Norton said he has photos confirming this work and will provide them to PSE.
6. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this.
7. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. To resist tension load at top of connection to LVL, install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Provide photos of completed work.
8. David Norton said that he is in the process of making preparations for welding stiffeners to existing steel beams as specified on the project documents. There is an interference with the continuous wood ledger. At these locations, toenail the joists directly to the wood ledger on both sides of the joists. Then remove a portion of the existing wood ledger as specified in SK-S10 issued previously (see 7/29/09 site visit report). In some cases, David said that some of the stiffeners interfere with both the ledger and the existing wood joists which bear on the continuous wood ledger of the steel beam. At these locations, it is acceptable to place the steel stiffeners to the side of the existing wood joist provided the stiffeners are placed as close to their original specified position as possible.
9. Existing Concrete Pier adjacent to Existing Column A/5 prevents installation of 16" CMU lintel previously specified on H1/S2.1. Therefore install new W6 steel lintel as specified on SK-S77 (see Dec. 2, 2009 site visit report).
10. It is mandatory that the steel erector install permanent shim plates at the tops of new columns, same size as column cap plates, where necessary to ensure complete bearing of existing Grid A double beams bearing on new columns. Shims shall be welded in place.
11. Install existing double beam splice at grid A/7 as specified in SK-S47-R.
12. Connection between W12 cantilevered beams to existing double beams at grids A/6.3 and A/6.7 shall be as specified in SK-S53-R.
13. As an option (requested by contractor to facilitate construction), double beam splices may be installed

in accordance with SK-S78 in lieu of previously specified detail H4/S5.5.

14. Contractor shall submit written copies of AWS welders certifications of welders performing field welds showing that certifications are current.
15. Existing bolts at bracing bays shall be fully pre-tensioned as specified. Use TC-bolts as specified on Drawing S1.1 unless alternate pre-tensioning method is approved by PSE and pre-tensioning is performed in the presence of Art Gallant (QAL).
16. GC shall verify that bolt diameters and bolt grades at bracing bays conform to structural documents (reference approved steel erection shop drawings).
17. The cold form framing plan submittal was previously returned "Revise and Re-submit" more than 4 weeks ago and has not yet been resubmitted for review. This submittal is still required.

Corrective action taken:

- 1.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

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Report prepared by: David A. Price, P.E.
Price Structural Engineers, Inc.
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North Yarmouth, ME 04097

Distribution (email): Greg Shinberg, Felicia Teach, Leo Arris - Shinberg Consulting LLC
David Douglas AIA, Ben Walter AIA - CWS Architects
Jeff Frye, Jed Taft - Hardy Pond Construction
Art Gallant - Quality Assurance Labs

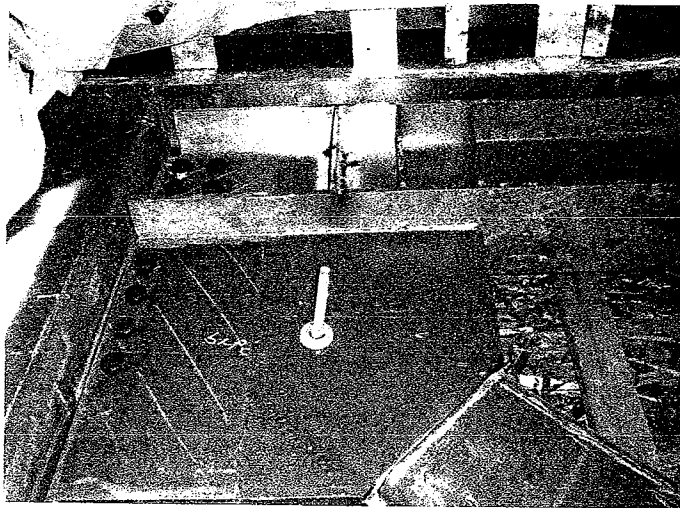


Photo # 1 – Stiffener plates welded to beam above brace gusset plates.

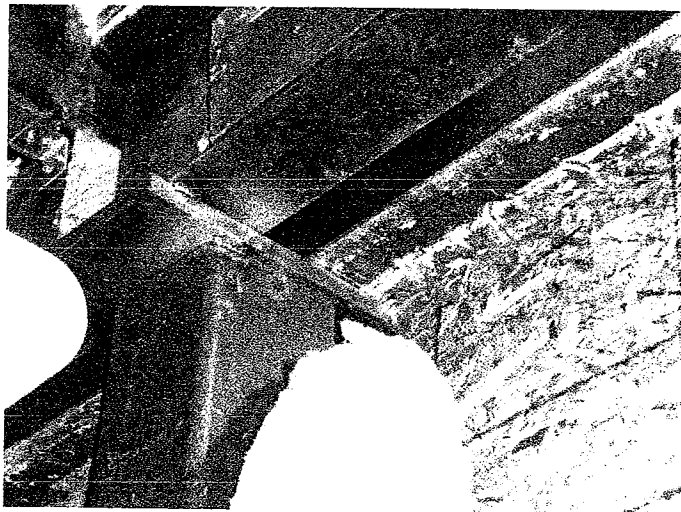


Photo # 2 – Column cap plates not yet welded to the new HSS column or to the bottom of the existing beams.

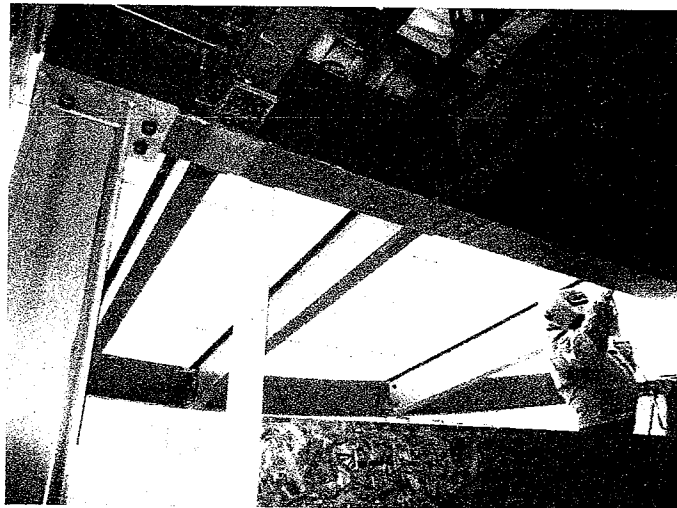


Photo # 3 – Moment connection of cantilevered beams over main entrance.

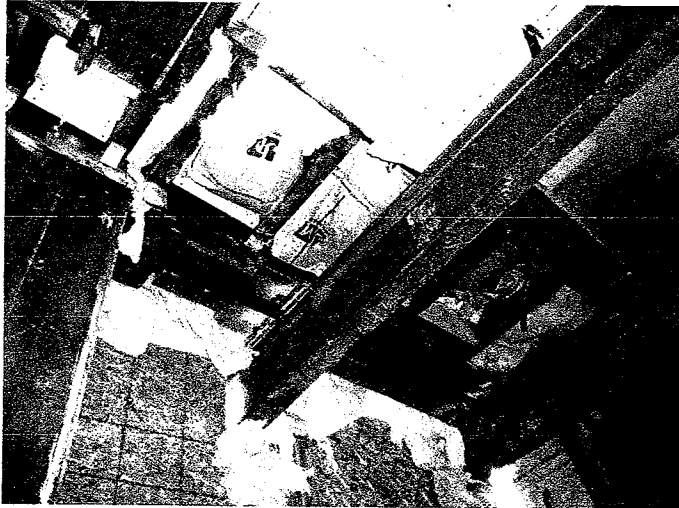


Photo # 4 – Cantilevered main entrance beams welded to bottom of existing beams @ grid A/6.7.



Photo # 5 Hold-Down brace at base plate of column A/7.1 (see Detail E3/S5.7).

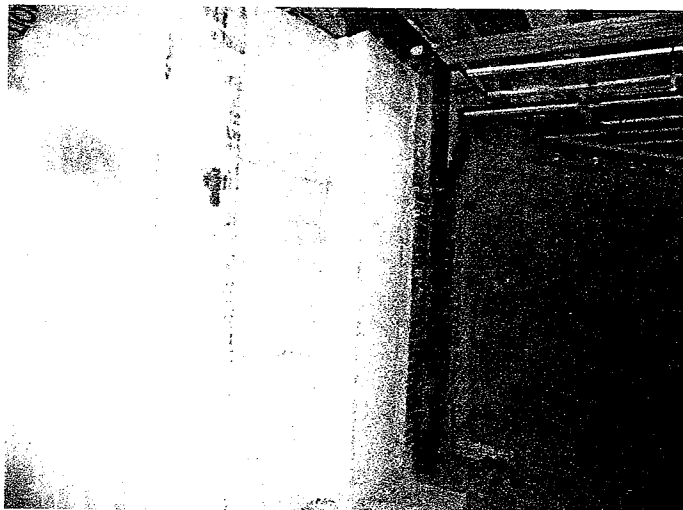


Photo # 6

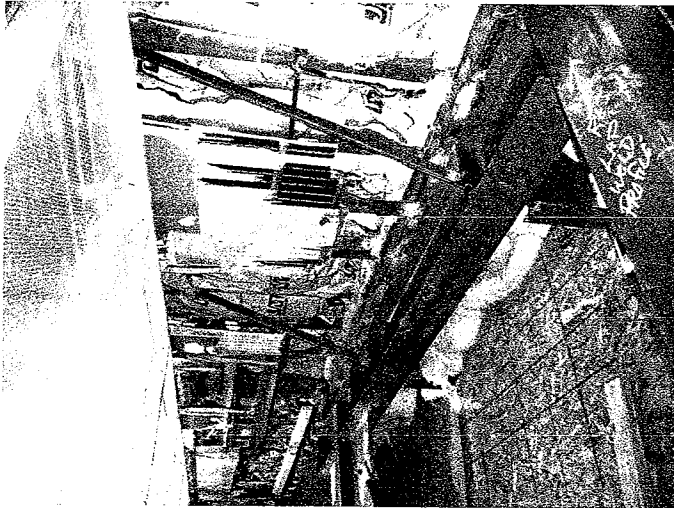


Photo # 7 – Bottom flange beam “kickers” being installed.

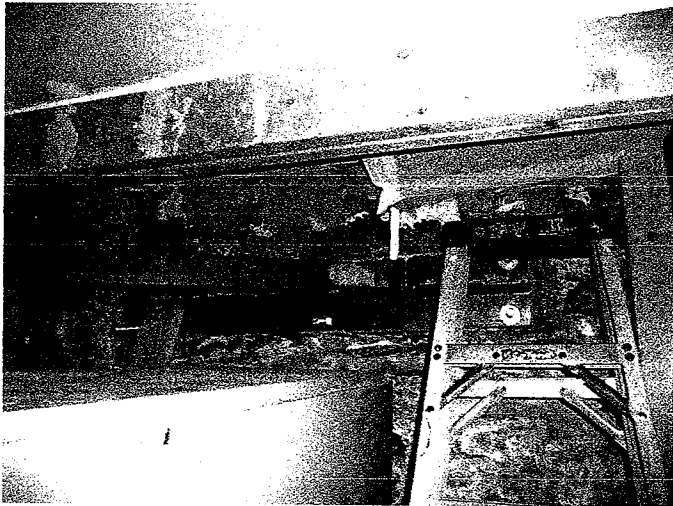


Photo # 8 – Steel brace at Grid A/2.9 foundation wall has been installed (reference SK-S69).



Photo # 9 - Steel brace at Grid A/2.9 foundation wall has been installed.

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: December 24, 2009
Time: 10:30 PM

Weather: Partly cloudy
Temperature: 32 deg. F.
Contractor: Hardy Pond
Site contact: Jed Taft, Bob Gaudreau

Project Items to be Observed:

- Discuss general status of structural work with Jed Taft
- Steel Erection @ Grid A
- Exterior concrete sidewalk concepts at Grid A.

Field Observations / Project Status:

1. Jed Taft said that Leo decided to leave and therefore Jed would be taking over the responsibilities as superintendent.
2. Jed said that the required (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. Jed said he has photos confirming this work and will provide them to PSE.
3. Roofing and metal siding were being installed at the Back Entrance (see photo #1).
4. The nuts on the steel rods have now been tightened at the first floor beam spanning between grids A/9 to B/9.
5. Double stiffeners have been welded to existing steel beam above column A/2.5 (see photo #3). This work is in progress.
6. The moment connection at Column A/5.1 appears to have been completed (see photo #4). Verification of full pre-tensioning must be performed since these bolts have been labeled as "slip – critical".
7. Jeff Yankowski of P&P Plumbing said that he needed to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Bretor, the project mason, has installed a CMU lintel for the new opening (photo #2).
8. One of the cantilevered beams at the rear entry steel over the entrance did not align with the curved channel. It was previously discussed with David Norton that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive. This welded plate has now been installed.
9. A field welded connection at the entrance canopy had to be performed due to a misalignment with the gusset plate (see photo #5).
10. The front entrance canopy steel has been installed. The contractor reported that this work went very smoothly. The connection to the bent channel is shown on photo #6.
11. Preparations for Congress street sidewalk were being made (see photo #7).
12. Bob Gaudreau (Hardy Pond owner) requested that the concrete curb below the window be installed as a second concrete placement so that it could be located exactly. Jed mentioned that this is critical since the windows have already been ordered. I said that this should be possible however there are several issues that have to be addressed since the contractor is now introducing a concrete cold joint at an important location. These issues include connecting the curb to the concrete grade beam (grade beam is located on the foundation wall) with #3 bent dowels ("hairpins"), adequate concrete cover for

the hairpins to prevent corrosion and water entry prevention using a waterstop (with 2x4 key). I also suggested using 5000 psi concrete for the curb with low water ratio to increase the density of the concrete to protect the rebar. Bob said that all made sense. I said that Dave Douglas and I will need a sketch of what the contractor proposes and Jed said he will send in the sketch as an RFI prior to constructing it.

13. Tie bar at grid A/2.5 is to be embedded in concrete (see photo #8). The infill floor at this area will be installed as indicated on the original drawings using pressure treated wood framing.
14. Preparations were being made at the front entrance slab at the grid A/3.5 entrance (see photo #9).

Items Needing Correction:

1. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
2. Jed Taft said that the required (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. Jed Taft said he has photos confirming this work and will provide them to PSE.
3. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this.
4. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. To resist tension load at top of connection to LVL, install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Provide photos of completed work.
5. David Norton said that he is in the process of making preparations for welding stiffeners to existing steel beams as specified on the project documents. There is an interference with the continuous wood ledger. At these locations, toenail the joists directly to the wood ledger on both sides of the joists. Then remove a portion of the existing wood ledger as specified in SK-S10 issued previously (see 7/29/09 site visit report). In some cases, David said that some of the stiffeners interfere with both the ledger and the existing wood joists which bear on the continuous wood ledger of the steel beam. At these locations, it is acceptable to place the steel stiffeners to the side of the existing wood joist provided the stiffeners are placed as close to their original specified position as possible.
6. Existing Concrete Pier adjacent to Existing Column A/5 prevents installation of 16" CMU lintel previously specified on H1/S2.1. Therefore install new W6 steel lintel as specified on SK-S77 (see Dec. 2, 2009 site visit report).
7. It is mandatory that the steel erector install permanent shim plates at the tops of new columns, same size as column cap plates, where necessary to ensure complete bearing of existing Grid A double beams bearing on new columns. Shims shall be welded in place.
8. Install existing double beam splice at grid A/7 as specified in SK-S47-R.
9. Connection between W12 cantilevered beams to existing double beams at grids A/6.3 and A/6.7 shall be as specified in SK-S53-R.
10. As an option (requested by contractor to facilitate construction), double beam splices may be installed in accordance with SK-S78 in lieu of previously specified detail H4/S5.5.

11. Contractor shall submit written copies of AWS welders certifications of welders performing field welds showing that certifications are current.
12. Existing bolts at bracing bays shall be fully pre-tensioned as specified. Use TC-bolts as specified on Drawing S1.1 unless alternate pre-tensioning method is approved by PSE and pre-tensioning is performed in the presence of Art Gallant (QAL).
13. GC shall verify that bolt diameters and bolt grades at bracing bays conform to structural documents (reference approved steel erection shop drawings).
14. The cold form framing plan submittal was previously returned "Revise and Re-submit" more than 4 weeks ago and has not yet been resubmitted for review. This submittal is still required.
15. Jed said he will send in a sketch of a revised curb detail below the gridline A windows as an RFI prior to constructing the concrete at this area.

Corrective action taken:

1. The nuts on the steel rods have now been tightened at the first floor beam spanning between grids A/9 to B/9.
2. Jeff Yankowski of P&P Plumbing said that he needed to have a 12" x 18" opening in the east face of the existing masonry block wall at grid G.5/3 for a new louver. John Breton, the project mason, has installed a CMU lintel for the new opening.
3. One of the cantilevered beams at the rear entry steel over the entrance did not align with the curved channel. It was discussed with David Norton that because the bolted connection is not possible that a welded plate connection will be performed at this location since the loads are not excessive. This welded plate has now been installed.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

Price Structural Engineers Inc. shall not, during such visits or as a result of any observations of construction, supervise, direct or have control over Contractor's work nor shall Price Structural Engineers Inc. have authority over or responsibility for the equipment, means, methods, techniques or procedures by the Contractor or health and safety precautions in programs incident to the work of the Contractor. Price Structural Engineers Inc. does not assume responsibility for Contractor's failure to comply with laws, rules, regulations or codes or the Contractor's failure to furnish and perform their work in accordance with the construction documents and does not guarantee the performance of the construction contract by the Contractor. It is understood that this report will be reviewed by the contractor and that any items in this report which are inaccurate or misunderstood will be brought to the attention of Price Structural Engineers immediately.

Report prepared by: David A. Price, P.E.
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75 Farms Edge Road
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Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
David Douglas AIA, Ben Walter AIA - CWS Architects
Jeff Frye, Dave Norton, Jed Taft - Hardy Pond Construction
Art Gallant - Quality Assurance Labs



Photo # 1 Roofing and metal siding were being installed at the Back Entrance.

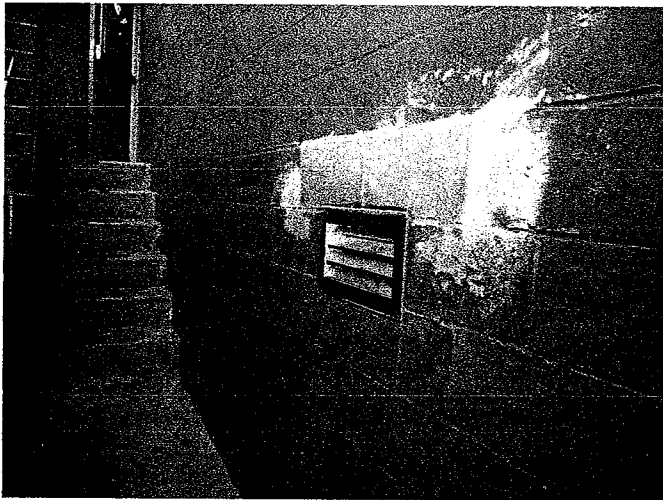


Photo # 2 The new lintel for the HVAC vent has been installed.



Photo # 3 Double stiffeners welded to existing steel beam above column A/2.5.

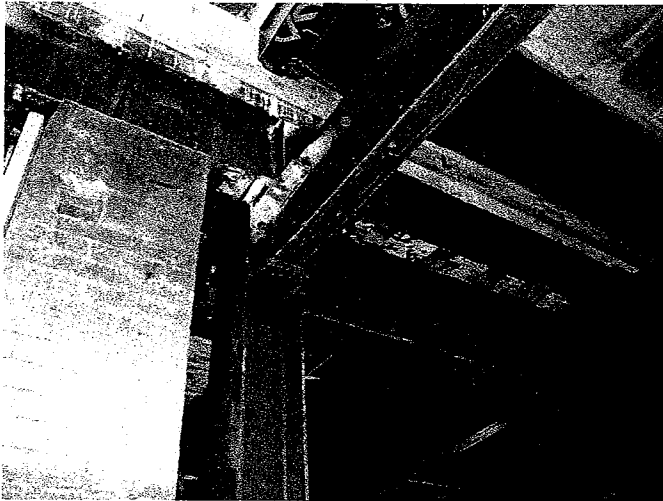


Photo # 4 - Moment connection at Column A/5.1

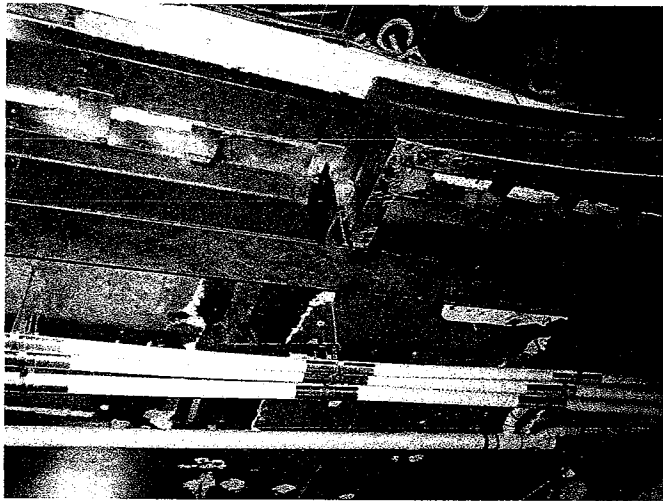


Photo # 5 - Field welded connection at entrance canopy since misalignment with gusset plate.

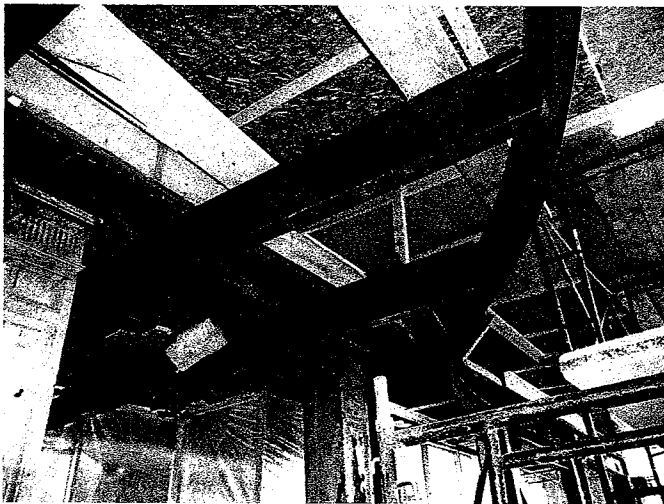


Photo # 6 - Front entrance canopy connection to bent channel.

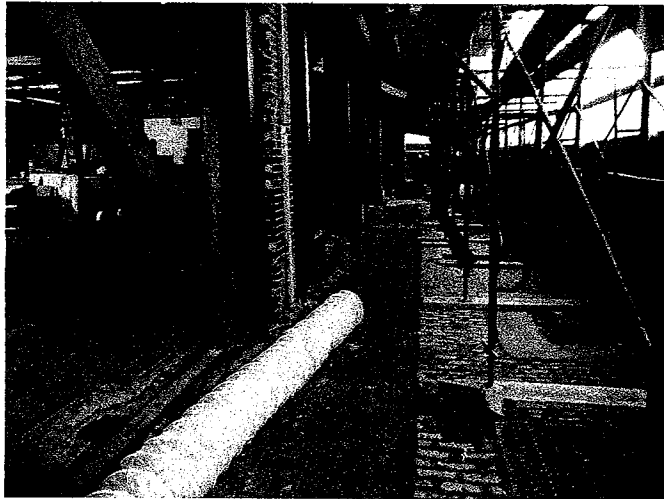


Photo # 7 – Preparations for Congress street sidewalk.



Photo # 8 – Tie bar at grid A/2.5 to be embedded in concrete.

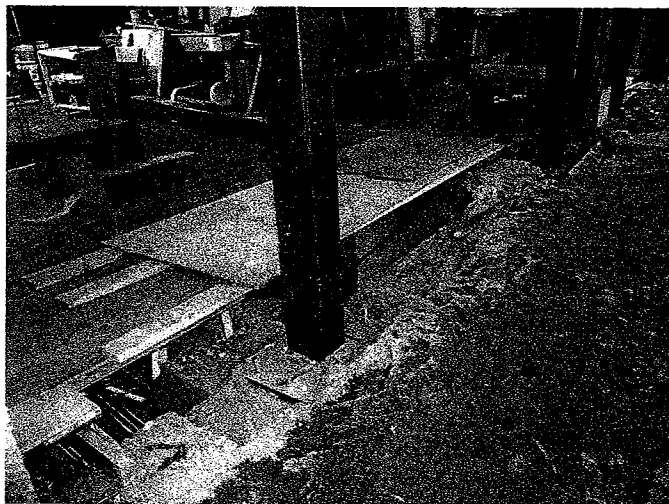


Photo # 9 – Front entrance slab preparation at grid A/3.5.

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: December 30, 2009
Time: 10:30 AM

Weather: Partly cloudy
Temperature: 20 deg. F.
Contractor: Hardy Pond
Site contact: Jed Taft, Jeff Frey

Project Items to be Observed:

- Observed Grid A5 to A/10 preparation for concrete placement for sidewalk / grade beams

Field Observations / Project Status:

1. Reinforcement dowels connecting the slab to the concrete masonry block below did not extend far enough above the concrete block wall at grid A/9.5. New reinforcement dowels were installed with hooks during the site visit.
2. Steel reinforcement mat was installed at the main entrance and appeared to be as specified (see photo one). Concrete vibrator was also observed to be site. Additional number four reinforcement bars at 12 inches on center were added above the masonry wall at Grid line A at the main entrance slab to resist cracking caused by negative bending moment at this location. The bars appeared to have a little more than 2 inches of concrete cover.
3. The metal deck at the main entrance was supported by a bolted angle at the perimeter (see photo two).
4. The 6- inch wide flange beam lintel specified to support the main entrance slab has now been installed (photo three).
5. Pressure treated 4x4 posts supporting the cantilevered bent plate at grid A/9.5 have been installed, but the anchors at each end have not yet been installed. Also, additional posts are required such that the spacing does not exceed 3 feet on center as specified.
6. Formwork was cantilevered so that the concrete at the brick shelf can be constructed (see photo four). All concrete had steel reinforcement. The contractor chose to use cantilevered formwork in lieu of a separately placed concrete curb as had been previously considered.
7. Bent plate with welded deformed bar anchors at entrance A/9.5 was observed (photo five).
8. Contractor requested using a 2 x 6 pressure treated ledger connected to the concrete grade beam with threaded rods to simplify connections for Simpson joist hangers (photo six).
9. Welded anchors per detail E5/S5.5 were installed (see photo seven).
10. Contractor was checking elevations using standard builders level.
11. A protective barrier was covering the non-pressure treated wood to prevent contact with concrete.
12. Jeff Frye gave me the cold form re-submittal for cold form framing along gridline A during the site visit.
13. Teague Adams from SW Cole testing was on site during the site visit.

Items Needing Correction:

1. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
2. Jed Taft said that the required (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. Jed Taft said he has photos confirming this work and will provide them to PSE.
3. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this.
4. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. To resist tension load at top of connection to LVL, install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Provide photos of completed work.
5. Stiffeners to existing steel beams were tack welded in place but not yet fully welded.
6. It is mandatory that the steel erector install permanent shim plates at the tops of new columns, same size as column cap plates, where necessary to ensure complete bearing of existing Grid A double beams bearing on new columns. Shims shall be welded in place.
7. Install existing double beam splice at grid A/7 as specified in SK-S47-R.
8. As an option (requested by contractor to facilitate construction), double beam splices may be installed in accordance with SK-S78 in lieu of previously specified detail H4/S5.5.
9. Contractor shall submit written copies of AWS welders certifications of welders performing field welds showing that certifications are current.
10. Existing bolts at bracing bays shall be fully pre-tensioned as specified. Use TC-bolts as specified on Drawing S1.1 unless alternate pre-tensioning method is approved by PSE and pre-tensioning is performed in the presence of Art Gallant (QAL).
11. GC shall verify that bolt diameters and bolt grades at bracing bays conform to structural documents (reference approved steel erection shop drawings).
12. Add 1.75" x 12" x 16' LVL Microlam at grid A.2/3.5 bolted w/ (2) ½" diameter bolts and 24 inches on center to the existing 6"x12" wood beam to provide additional support to the beam at the location
13. Pressure treated 4x4 posts supporting the cantilevered bent plate at grid A/9.5 have been installed, but the anchors at each end have not yet been installed. Also, additional post are required such that the spacing does not exceed 3 feet on center as specified.

Corrective action taken:

1. Existing Concrete Pier adjacent to Existing Column A/5 prevents installation of 16" CMU lintel previously specified on H1/S2.1. Therefore new W6 steel lintel was installed as specified on SK-S77 (see Dec. 2, 2009 site visit report).
2. Jed said he will send in a sketch of a revised curb detail below the gridline A windows as an RFI prior to constructing the concrete at this area.
3. Connection between W12 cantilevered beams to existing double beams at grids A/6.3 and A/6.7 appears to be as specified in SK-S53-R.
4. The cold form framing plan submittal was previously returned "Revise and Re-submit" . Jeff Frye gave me the cold form re-submittal for cold form framing along gridline A during the site visit.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

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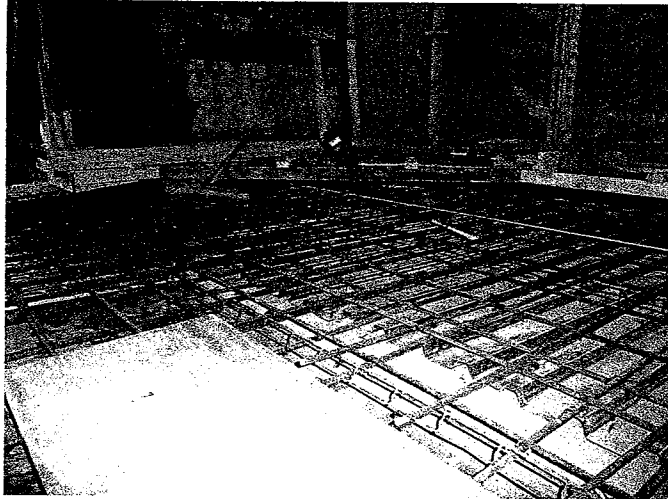


Photo # 1 – Reinforcement and deck at main entrance slab (grid A/5.5). Note vibrator in background.

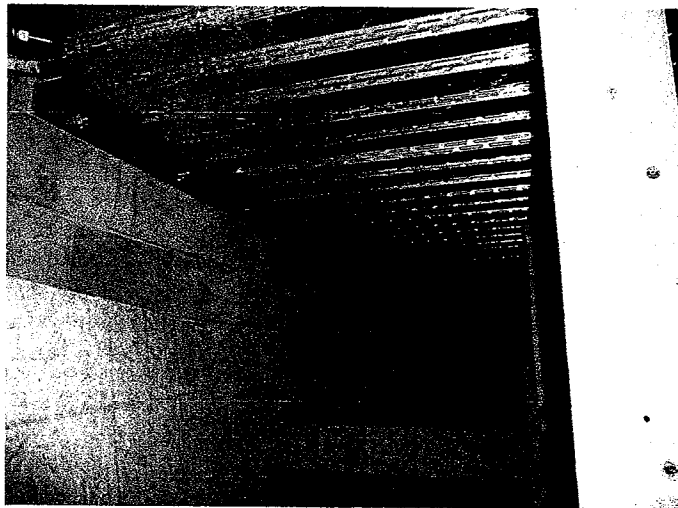


Photo # 2 – Metal deck below main entrance supported by bolted angle.

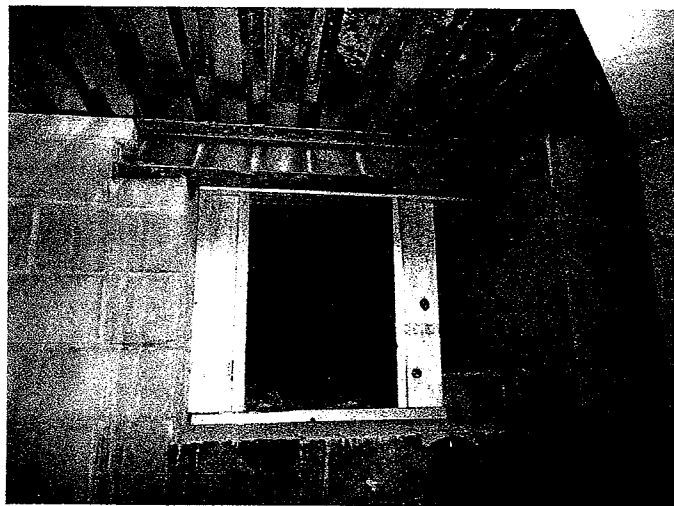


Photo # 3 Lintel supporting main entrance deck (grid A/2)



Photo # 4- Cantilevered formwork to accommodate concrete step for brick shelf.

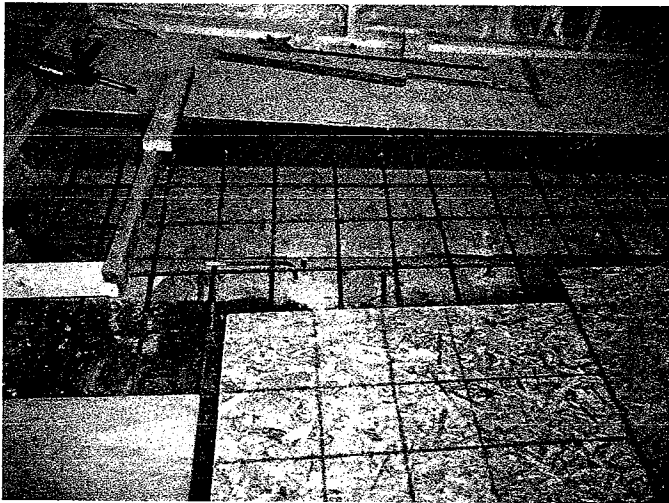


Photo # 5 – Bent plate with welded deformed bar anchors at entrance A/9.5

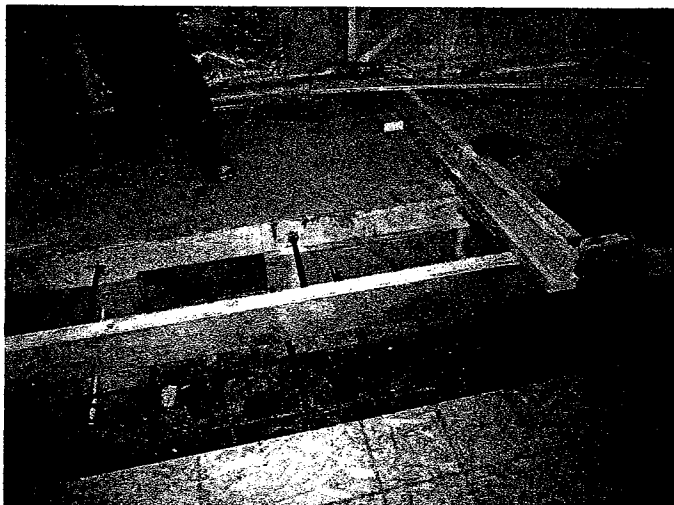


Photo # 6 – Pressure treated ledger with embedded threaded rods into concrete (note double nuts on rods which were tightened with two wrenches to prevent unwinding of nuts during vibrating of concrete)



Photo # 7 – Welded anchors per detail E5/S5.5



Photo # 8 – Contractor coated embedded steel with a Napa “Dupli-Color” truck-bed coating



Photo # 9 – Concrete supported by both metal deck and also extends onto masonry wall (this differs from original detail)

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: January 4, 2010
Time: 10:30 AM

Weather: Partly cloudy
Temperature: 35 deg. F.
Contractor: Hardy Pond
Site contact: Jed Taft, Jeff Frey

Project Items to be Observed:

- Observed Grid A2 to A/5 preparation for concrete placement for sidewalk / grade beams
- Observed structural steel framing at grid A

Field Observations / Project Status:

1. Preparations being made for placement of concrete grade beam from grid A/2 to grid A/5. Installation appears to be similar to previous placement. Threaded rods with double nuts used to support continuous pressure treated ledgers which will facilitate connections for lumber floor joists. Vibrator on site to consolidate concrete.
2. Concrete from placement on 12/30/09 appears to be in good condition. The top of the steel flat bar used at the hold-down anchor for the column at grid A/7/1 extends partially above the concrete but will be below the top of brick. To prevent this area from becoming corroded the contractor must cover this area of semi-exposed steel with bituminous roofing mastic.
3. Also, there was a bondout for a curb at grid A/9.5 which was not approved. Since it was an existing condition that the contractor said was to be placed with remaining concrete, I gave Jed a sketch with the following list of requirements at the curb prior to placing concrete:
 - the curb must be anchored with #4@12 bent bar dowels (epoxy into CMU wall below) with 1.5" minimum cover
 - Coat bars with rust inhibitor (contractor said he used "Rust-O-Lium"
 - Place concrete epoxy bonding agent in accordance with manufacturer's instruction at the cold joint.
4. Steel Bent Plate at grid A/3.5 entrance with welded deformed dowel anchors was observed (Photo # 1).
5. Heating and tenting provided full length of building along Congress St. was observed as was the case for the previous placement on 12/30/09 (Photo # 2).
6. Steel Bent Plate at grid A/2.5 entrance with welded deformed dowel anchors was observed (Photo # 3).
7. The structural steel appears to be close to completion. The stiffeners at the existing beams were observed to be fully welded into place..
8. Bolt diameters and bolt grades at bracing bays were observed to be in conformance with structural documents (reference approved steel erection shop drawings).
9. Existing double beam splices appear to be installed in accordance with SK-S78 in lieu of previously specified detail H4/S5.5.
10. Existing double beam splice at grid A/7 appears to be installed as specified in SK-S48.
11. Connections at tops of new columns along grid A appear to be in conformance with structural documents.

12. Grid A/7.1 and A/8 kicker bolts (supports beam bottom flange near canopy connections) are missing and those that are present need to be tightened.
13. Jed and discussed the urgency of getting the existing bolts at bracing bays and also the slip critical bolts at the front entrance tested as soon as possible since the cold – form contractor appeared to close to covering these areas up.

Items Needing Correction:

1. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads.
2. Jed Taft said that the required (2) ½" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F.4/2.6 and other floor infill areas has been completed. Jed Taft said he has photos confirming this work and will provide them to PSE.
3. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this.
4. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. To resist tension load at top of connection to LVL, install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Provide photos of completed work.
5. Install existing double beam splice at grid A/7 as specified in SK-S47-R.
6. Contractor shall submit written copies of AWS welders certifications of welders performing field welds showing that certifications are current.
7. Existing bolts at bracing bays shall be fully pre-tensioned as specified. Use TC-bolts as specified on Drawing S1.1 unless alternate pre-tensioning method is approved by PSE and pre-tensioning is performed in the presence of Art Gallant (QAL).
8. Add 1.75" x 12"x 16' LVL Microlam at grid A.2/3.5 bolted w/ (2) ½" diameter bolts and 24 inches on center to the existing 6"x12" wood beam to provide additional support to the beam at the location
9. Pressure treated 4x4 posts supporting the cantilevered bent plate at grid A/9.5 have been installed, but the anchors at each end have not yet been installed. Also, additional post are required such that the spacing does not exceed 3 feet on center as specified.
10. The top of the steel flat bar used at the hold-down anchor for the column at grid A/7/1 extends partially above the concrete but will be below the top of brick. To prevent this area from becoming corroded the contractor must cover this area of semi-exposed steel with bituminous roofing mastic.
11. Grid A/7.1 and A/8 kicker bolts (supports beam bottom flange near canopy connections) are missing and those that are present need to be tightened.

12. There was a bondout for a curb at grid A/9.5 which was not approved. Since it was an existing condition that the contractor said was to be placed with remaining concrete, I gave Jed a sketch with the following list of requirements at the curb prior to placing concrete (photos by GC should be provided verifying this work was done):
- the curb must be anchored with #4@12 bent bar dowels (epoxy into CMU wall below) with 1.5" minimum cover
 - Coat bars with rust inhibitor (contractor said he used "Rust-O-Lium"
 - Place concrete epoxy bonding agent in accordance with manufacturer's instruction at the cold joint.

Corrective action taken:

1. Stiffeners to existing steel beams appear to be fully welded.
2. David Price checked that bolt diameters and bolt grades at bracing bays conform to structural documents (reference approved steel erection shop drawings).
3. Existing double beam splices appear to be installed in accordance with SK-S78 in lieu of previously specified detail H4/S5.5.
4. Existing double beam splice at grid A/7 appears to be installed as specified in SK-S48.
5. Connections at tops of new columns along grid A appear to be in conformance with structural documents.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

Price Structural Engineers Inc. shall not, during such visits or as a result of any observations of construction, supervise, direct or have control over Contractor's work nor shall Price Structural Engineers Inc. have authority over or responsibility for the equipment, means, methods, techniques or procedures by the Contractor or health and safety precautions in programs incident to the work of the Contractor. Price Structural Engineers Inc. does not assume responsibility for Contractor's failure to comply with laws, rules, regulations or codes or the Contractor's failure to furnish and perform their work in accordance with the construction documents and does not guarantee the performance of the construction contract by the Contractor. It is understood that this report will be reviewed by the contractor and that any items in this report which are inaccurate or misunderstood will be brought to the attention of Price Structural Engineers immediately.

Report prepared by: David A. Price, P.E.
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
David Douglas AIA, Ben Walter AIA - CWS Architects
Jeff Frye, Dave Norton, Jed Taft - Hardy Pond Construction
Art Gallant - Quality Assurance Lab

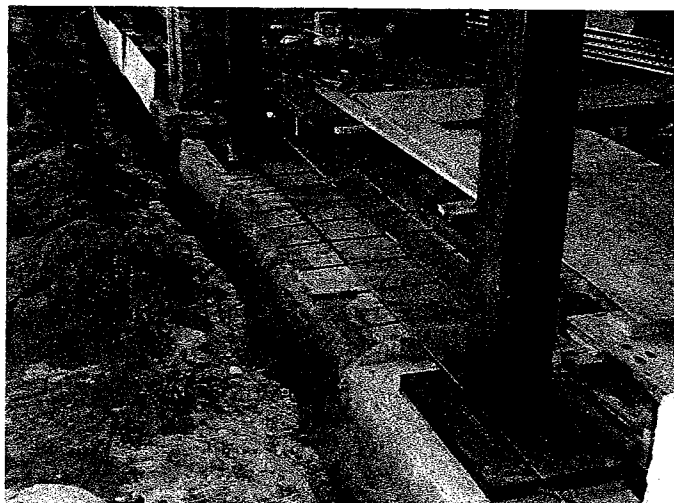


Photo # 2 – Steel Bent Plate at grid A/3.5 entrance with welded deformed dowel anchors.

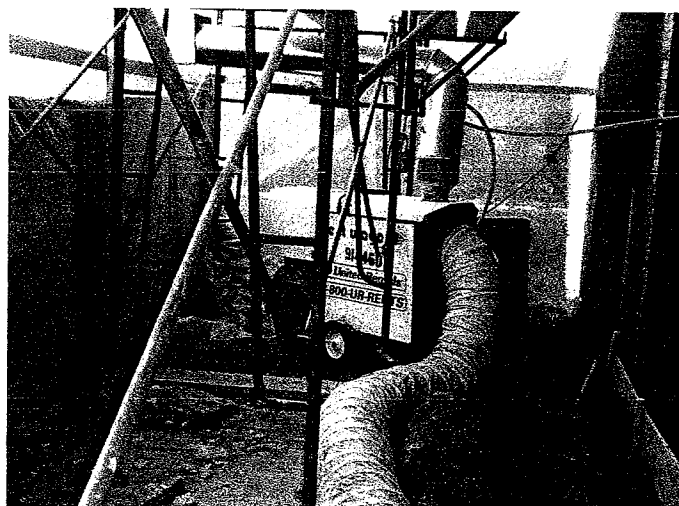


Photo # 3 – Heating and tenting provided full length of building along Congress St. (Grid A)

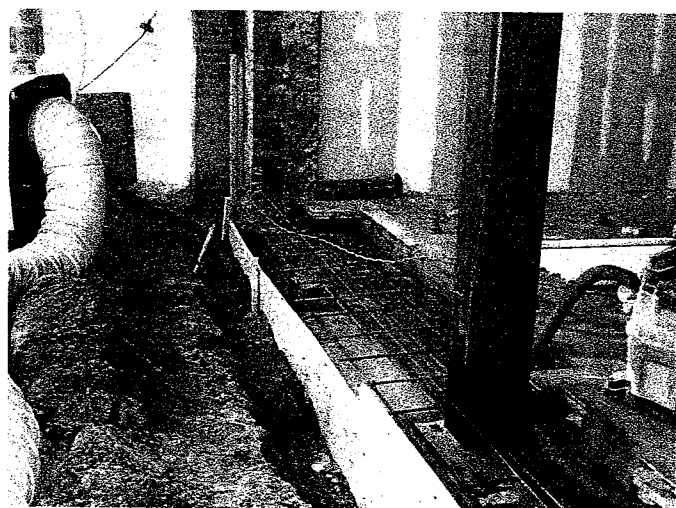


Photo # 4 - Steel Bent Plate at grid A/2.5 entrance with welded deformed dowel anchors.

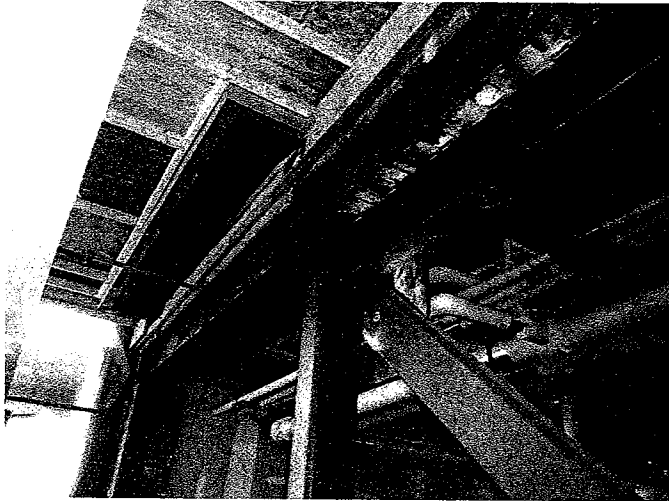


Photo # 5 – Bolted bracing connection at grid A/2.5

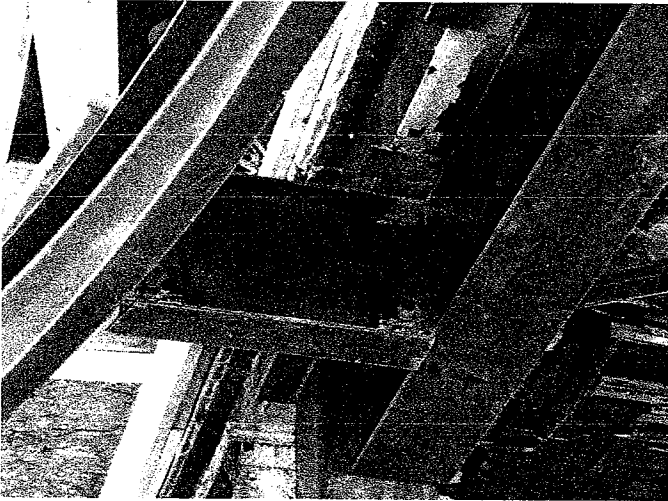


Photo # 6 – Field welded connections after canopy steel is bolted into place.

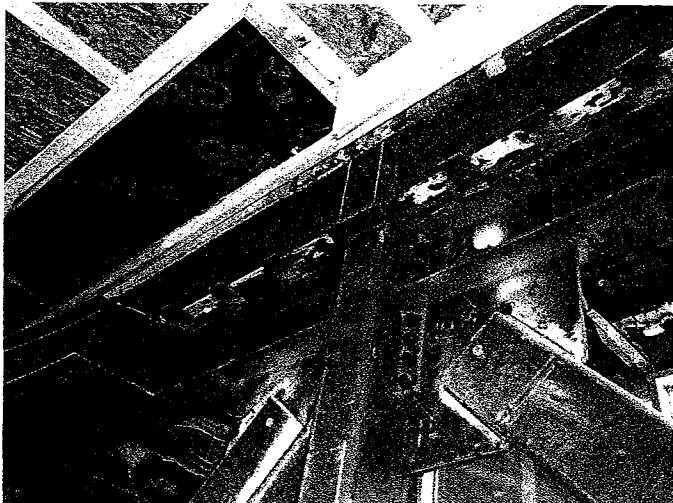


Photo # 7 – Bolted bracing connection at grid A/7.1

pricestructural

From: Jeff Frey [jeff@hardypond.com]
Sent: Monday, January 25, 2010 2:55 PM
To: pricestructural
Cc: Greg Shinberg; Felicia Teach; Jed Taft
Subject: FW: Scan from kyocera

Attachments: doc20100125145543.pdf



doc2010012514554
3.pdf (3 MB)

David The attached PDF files are the response to your latest site visit and corrective actions taken to outstanding issues. The only open issues are as follows;

1. I have asked A.H.Harris to send me manufacturer's cut sheets for the concrete bonding and rebar corrosion protection we applied prior to pouring the entry bond out at A9.5. I will forward it to you once I get it for your records
2. I have asked Greg's admin Felecia to see if she can find the photos that were taken at the 2nd floor rear bay window assembly floor reinforcement. Again I will forward this info once I get it. I did confirm that this work was completed in accordance with your requirements.
3. I am waiting on the last welder's certification from Art Gallant. He may be sending it to you directly.

I trust this gets you everything you need for your special inspections requirements. Please let me know if there are any other questions or issues. Thank you for your help on this project!! Jeff

Jeff Frey

Hardypond Construction

7 Tee Drive

Portland, ME 04103

(207) 671-2678 cell

(207) 797-6066 office

(207) 797-8986 fax

jeff@hardypond.com

Please consider the environment before printing this email.

-----Original Message-----
From: Kyocera@hardypond.com [mailto:Kyocera@hardypond.com]
Sent: Monday, January 25, 2010 2:56 PM
To: Jeff Frey
Subject: Scan from kyocera

KM-2560
[00:c0:ee:1e:5a:84]

Summary email
from Jeff
Frey, Project
Manager for
Hardy Pond (6c)

FIELD OBSERVATION REPORT
Price Structural Engineers, Inc.

Project: 645 Congress St.
Location: Portland, ME
Date: January 4, 2010
Time: 10:30 AM
Weather: Partly cloudy
Temperature: 35 deg. F.
Contractor: Hardy Pond
Site contact: Jed Taft, Jeff Frey

Project Items to be Observed:

- Observed Grid A2 to A/5 preparation for concrete placement for sidewalk / grade beams
- Observed structural steel framing at grid A

Field Observations / Project Status:

1. Preparations being made for placement of concrete grade beam from grid A2 to grid A/5. Installation appears to be similar to previous placement. Threaded rods with double nuts used to support continuous pressure treated ledgers which will facilitate connections for lumber floor joists. Vibrator on site to consolidate concrete.

Concrete from placement on 12/30/09 appears to be in good condition. The top of the steel flat bar used at the hold-down anchor for the column at grid A/7/1 extends partially above the concrete but will be below the top of brick. To prevent this area from becoming corroded the contractor must cover this area of semi-exposed steel with bituminous roofing mastic.

3. Also, there was a bondout for a curb at grid A/9.5 which was not approved. Since it was an existing condition that the contractor said was to be placed with remaining concrete, I gave Jed a sketch with the following list of requirements at the curb prior to placing concrete.

- the curb must be anchored with #4@12 bent bar dowels (epoxy into CMU wall below) with 1.8" minimum cover
- Coat bars with rust inhibitor (contractor said he used "Rust-O-Lium"
- Place concrete epoxy bonding agent in accordance with manufacturer's instruction at the cold joint. *Contractor advised by D. H. Healy, Jr.*

4. Steel Bent Plate at grid A/3.5 entrance with welded deformed dowel anchors was observed (Photo # 1).

5. Heating and linting provided full length of building along Congress St. was observed as was the case for the previous placement on 12/30/09 (Photo # 2).

6. Steel Bent Plate at grid A/2.5 entrance with welded deformed dowel anchors was observed (Photo # 3).

7. The structural steel appears to be close to completion. The stiffeners at the existing beams were observed to be fully welded into place.

8. Bolt diameters and bolt grades at bracing bays were observed to be in conformance with structural documents (reference approved steel erection shop drawings).

9. Existing double beam splices appear to be installed in accordance with SK-578 in lieu of previously specified detail H4/S5.5.

10. Existing double beam splice at grid A/7 appears to be installed as specified in SK-548.

11. Connections at tops of new columns along grid A appear to be in conformance with structural documents.

12. Grid A7.1 and A8 kicker bolts (supports beam bottom flange near canopy connections) are missing and those that are present need to be tightened. *Done Inspected by Art Gallant*
13. Jed and discussed the urgency of getting the existing bolts at bracing bays and also the slip critical bolts at the front entrance tested as soon as possible since the cold - form contractor appeared to close to covering these areas up. *Done Inspected by Art Gallant*

Items Needing Correction:

1. Hardy Pond superintendent shall verify with the mechanical subcontractor that piping, ductwork and other mechanical features be supported directly to primary joists or other structural materials and not to parts of the existing ceiling since the ceiling may not be capable of supporting the additional mechanical loads. *Reviewed by Pat Flaherty and Kevin J. Fir*
2. Jed Taft said that the required (2) 1/2" diameter x 5" galvanized expansion bolts at first floor pressure treated wood ledgers at Grid F-4/2.6 and other floor infill areas has been completed. Jed Taft said he has photos confirming this work and will provide them to PSE.
3. Installation of cold form clips at bottom of wood joists specified by Detail E7/S5.5 has not yet been completed. Note that this detail indicates that the requirement is "typical" and therefore applies to each of the floor joists "the full length of the building" (note 2). The contractor should contact PSE if he has any questions regarding this. *Done*
4. Review of existing cantilevered 2x10 joists at 2nd floor back bay window, located at grid A/4.5, was made with Jed Taft. To resist tension load at top of connection to LVL, install a 16 gage x 1.75" wide x 26" long steel "L-strap" that fastens to the top of each joist with 10d nails at 2" on center and hooks behind the LVL and nailed to the LVL with (4) additional 10d nails. Provide photos of completed work. *Done as specified*
5. Install existing double beam splice at grid A7 as specified in SK-S47-R. *in photo*
6. Contractor shall submit written copies of AWS welders certifications of welders performing field welds showing that certifications are current.
7. Existing bolts at bracing bays shall be fully pre-tensioned as specified. Use TC-bolts as specified on Drawing S1.1 unless alternate pre-tensioning method is approved by PSE and pre-tensioning is performed in the presence of Art Gallant (OAL). *Done Inspected by Art Gallant*
8. Add 1.75" x 12" x 16" LVL Microlam at grid A.2/3.5 bolted w/ (2) 1/2" diameter bolts and 24 inches on center to the existing 6"x12" wood beam to provide additional support to the beam at the location *Done Photos Sent 1/11/10*
9. Pressure treated 4x4 posts supporting the cantilevered bent plate at grid A/8.5 have been installed, but the anchors at each end have not yet been installed. Also, additional post are required such that the spacing does not exceed 3 feet on center as specified. *Done H.A. anchors installed*
10. The top of the steel flat bar used at the hold-down anchor for the column at grid A7/1 extends partially above the concrete but will be below the top of brick. To prevent this area from becoming corroded the contractor must cover this area of semi-exposed steel with bituminous roofing mastic. *Done Mark Green*
11. Grid A7.1 and A8 kicker bolts (supports beam bottom flange near canopy connections) are missing and those that are present need to be tightened. *Done Inspected by Art Gallant*

12. There was a bondout for a curb at grid A/9.5 which was not approved. Since it was an existing condition that the contractor said was to be placed with remaining concrete, I gave Jed a sketch with the following list of requirements at the curb prior to placing concrete (photos by GC should be provided verifying this work was done):
- the curb must be anchored with #4@12 bent bar dowels (epoxy into CMU wall below) with 1.5" minimum cover
 - Coat bars with rust inhibitor (contractor said he used "Rust-O-Lium"
 - Place concrete epoxy bonding agent in accordance with manufacturer's instruction at the cold joint.

Corrective action taken:

1. Stiffeners to existing steel beams appear to be fully welded.
2. David Price checked that bolt diameters and bolt grades at bracing bays conform to structural documents (reference approved steel erection shop drawings).
3. Existing double beam splices appear to be installed in accordance with SK-S78 in lieu of previously specified detail H4/S5.5.
4. Existing double beam splice at grid A/7 appears to be installed as specified in SK-S48.
5. Connections at tops of new columns along grid A appear to be in conformance with structural documents.

General:

The purpose of this site visit is to observe the project and generally become familiar with the progress and quality of the Contractor's work and to assess whether the work is proceeding in general conformance with the construction documents regarding the specific items listed within this report. The client has not retained Price Structural Engineers Inc. to make detailed inspections of every structural component or to provide exhaustive or continuous project review.

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Report prepared by: David A. Price, P.E.
Price Structural Engineers, Inc.
75 Farms Edge Road
North Yarmouth, ME 04097

Distribution (email): Greg Shinberg, Felicia Teach - Shinberg Consulting LLC
David Douglas AIA, Ben Walter, AIA - CMS Architects
Jeff Frye, Dave Norton, Jed Taft - Hardy Pond Construction
Art Gallant - Quality Assurance Lab

John W Wallace

#	Test Date	Exp. Code	Process	Gas	Filler	Metal	Base Metal	Position	Thickness	Expires
1	11/11/06	G D1.5	FCW	75/25	E71T-1	A36	A36	ALL	LIMITED	05/11/10
2	11/11/06	G D1.1	SHW	N/A	E7018	A36	A36	ALL	UNLIMITED	05/11/10



John W Wallace
 Cert # 0612020W SSN # XXX-XX-9726



AMERICAN WELDING SOCIETY

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Brett H Nye
 Cert # 0508035W SSN # XXX-XX-6668


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Information relating to identification and certification of the
 holder of this card may be verified by calling or writing:
 American Welding Society
 550 NW Lakeshore Blvd, Miami, FL 33126

#	Test Date	Sup Code	Process	Gas	Filler	Metal	Base Metal	Position	Thickness Expires
1	07/06/05	G	D.L.1	SHAW	N/A	E7018	SA 36	2F/1G	LIMITED 06/10/10
2	03/25/09	G	D.L.1	SHAW	N/A	E4	FX	A	LIMITED 06/10/10

AMERICAN WELDING SOCIETY
DRIVER'S LICENSE



NAME
 BRETT H NYE
 BRETT H NYE
 2985144

EXPIRES
 08/07/2011 08/05/2005 08/07/1984

SEX M **HAIR** BR **EYES** BR

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