

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK
CITY OF PORTLAND

Please Read
Application And
Notes, If Any,
Attached

BUILDING INSPECTION

PERMIT

Permit Number: 070584

This is to certify that LEWANDOWSKI PAUL & MARY ZWOLINSKI JTS/prop ow

has permission to Add a 8' x 8' porch

AT 116 CLARK ST

057 C00900

CITY OF PORTLAND

JUL 3 2007

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

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

Notification of inspection must be given and written permission procured before this building or part thereof is altered or closed-in. HOUR NOTICE IS REQUIRED.

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

OTHER REQUIRED APPROVALS

Fire Dept. _____

Health Dept. _____

Appeal Board _____

Other _____

Department Name

6/7/07 Chy. J. M.
 Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 07-0584	Issue Date: 7/3/07	CBL: 057 C009001
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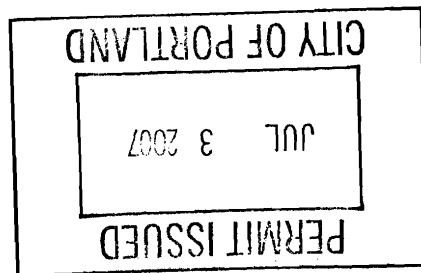
Location of Construction: 116 CLARK ST	Owner Name: LEWANDOWSKI PAUL & MARY	Owner Address: 116 CLARK ST	Phone:
Business Name:	Contractor Name: property owner	Contractor Address: Portland	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Dwellings	Zone: R6

Past Use: Residential 2 unit <i>legal use : 2 family</i>	Proposed Use: Residential 2 unit add a 8' x 8' porch	Permit Fee: \$50.00	Cost of Work: \$3,000.00	CEO District: 2
Proposed Project Description: Add a 8' x 8' porch		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: R-3 Type: 5B <i>IRL-2003</i>	
		Signature:	Signature: <i>6/2/07 CLM</i>	
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)				
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied				
Signature: _____ Date: _____				

Permit Taken By: dmartin	Date Applied For: 05/18/2007	Zoning Approval		
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- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Special Zone or Reviews	Zoning Appeal	Historic Preservation
<input type="checkbox"/> Shoreland	<input type="checkbox"/> Variance	<input type="checkbox"/> Not in District or Landmark
<input type="checkbox"/> Wetland	<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Does Not Require Review
<input type="checkbox"/> Flood Zone	<input type="checkbox"/> Conditional Use	<input type="checkbox"/> Requires Review
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Interpretation	<input type="checkbox"/> Approved
<input checked="" type="checkbox"/> Site Plan Exemption <i>2007-063</i>	<input type="checkbox"/> Approved	<input checked="" type="checkbox"/> Approved w/Conditions
Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>	<input type="checkbox"/> Denied	<input type="checkbox"/> Denied
Date: <i>6/1/07</i>	Date: _____	Date: <i>6/5/07 STM</i>



CERTIFICATION

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

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE



General Building Permit Application

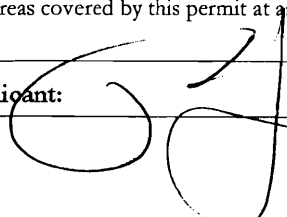
If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>116 Clark St, PORTLAND, ME 04102</u>		
Total Square Footage of Proposed Structure <u>200 sq. ft.</u>	Square Footage of Lot <u>4,000</u>	
Tax Assessor's Chart, Block & Lot Chart# <u>37</u> Block# <u>C</u> Lot# <u>9</u>	Owner: <u>PAUL LEWANDOWSKI</u> <u>MARY ZWOLINSKI</u>	Telephone: <u>712-7362</u>
Lessee/Buyer's Name (If Applicable)	Applicant name, address & telephone: <u>Paul Lewandowski</u> <u>116 Clark St.</u> <u>PORTLAND, ME 04102</u>	Cost Of Work: \$ <u>3,000</u> Fee: \$ <u>50</u> C of O Fee: \$ <u>N/A</u>
Current legal use (i.e. single family) <u>2 Family</u> If vacant, what was the previous use? _____ Proposed Specific use: <u>SAME</u> Is property part of a subdivision? <u>NO</u> If yes, please name _____ Project description: <u>POUCH ADDITION — Replacement of structure demolished</u> <u>on 8-1-6</u>		
Contractor's name, address & telephone: Who should we contact when the permit is ready: <u>Paul Lewandowski</u> Mailing address: <u>116 Clark St</u> <u>PORTLAND, ME 04102</u> Phone: <u>712-7362</u>		

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

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

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

Signature of applicant: 

DEPT. OF BUILDING INSPECTION
CITY OF PORTLAND, ME

Date: 5-18-7

MAY 18 2007

RECEIVED

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

VX 1000

City of Portland, Maine - Building or Use Permit

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

Permit No: 07-0584	Date Applied For: 05/18/2007	CBL: 057 C009001
-----------------------	---------------------------------	---------------------

Location of Construction: 116 CLARK ST	Owner Name: LEWANDOWSKI PAUL & MARY	Owner Address: 116 CLARK ST	Phone:
Business Name:	Contractor Name: property owner	Contractor Address: Portland	Phone
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Dwellings	

Proposed Use: Residential 2 unit - build 8' x 12' porch with 14' x 9' deck & steps on rear of building.	Proposed Project Description: build 8' x 12' porch with 14' x 9' deck & steps on rear of building
--	--

Dept: Historic **Status:** Approved with Conditions **Reviewer:** Scott Hanson **Approval Date:** 06/05/2007

Note: **Ok to Issue:**

- 1) Roof overhang to be shortened, as shown on Detail #1 - Sheet D3 and Detail #2 - Sheet D3, both dated Revised 6-4-7.

Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Ann Machado **Approval Date:** 06/01/2007

Note: Existing porch on rear (8' x 10.5') was torn down 8/1/06. Can still rebuild on it's footprint. **Ok to Issue:**

Using section 14-433 for reduced setback to 5' on the side property line since building located in historic district and the deck directly off the back won't be seen from the street.

- 1) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
- 2) This property shall remain a two family dwelling. Any change of use shall require a separate permit application for review and approval.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Chris Hanson **Approval Date:** 07/03/2007

Note: **Ok to Issue:**

- 1) Permit approved based on the plans submitted and reviewed w/owner/contractor, with additional information as agreed on and as noted on plans.
- 2) This permit DOES NOT certify the use of the property or building. It only authorizes the construction activities.
- 3) Fastener schedule per the IRC 2003
- 4) Frost protection must be installed per the enclosed detail as discussed w/owner/contractor.
- 5) Separate permits are required for any electrical, plumbing, or HVAC systems. Separate plans may need to be submitted for approval as a part of this process.
- 6) This permit is issued based on the plans submitted. Variations in actual construction that effect grades may change the requirements for handrails and guards.

Comments:

6/1/2007-amachado: Gave site plan exemption form to planning

116 Clark Street
Portland, Maine
04102
207.712.7362

Paul Lewandowski

Fax

To: Scott T. Hanson **From:** Paul Lewandowski

Fax: 756-8258 **Pages:** 3

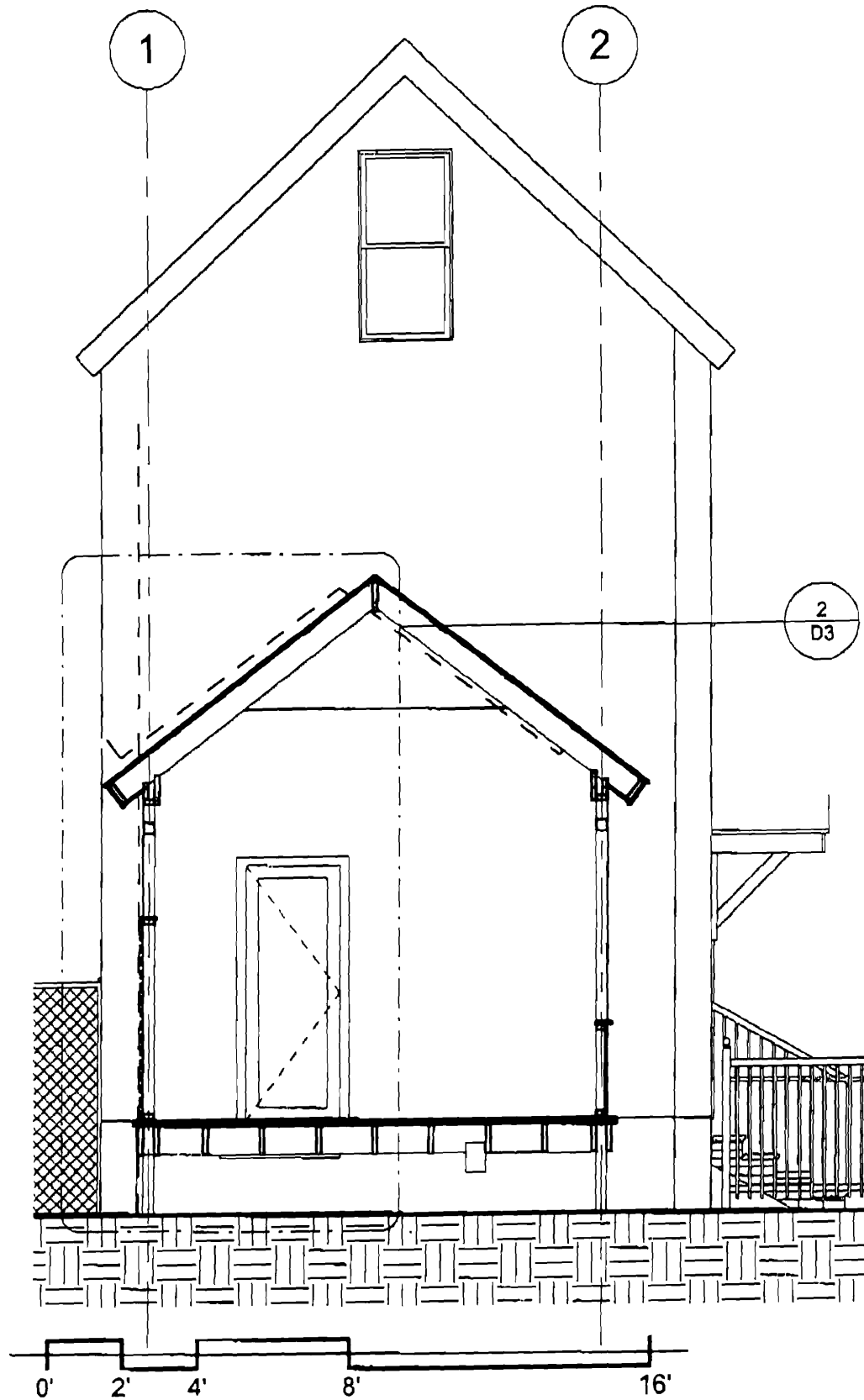
Phone: **Date:** 6.5.7

Re: Permit Drawing Revisions **cc:**

Urgent For Review Please Comment Please Reply Please Recycle

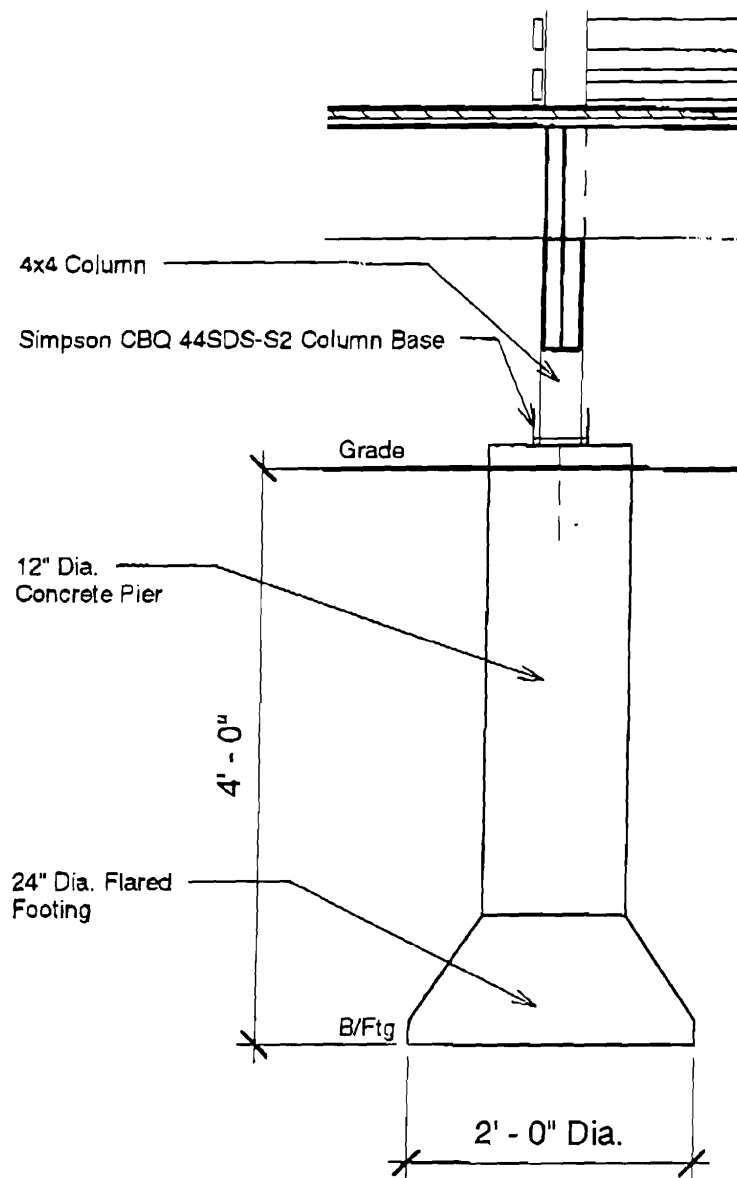
• Scott, attached please find a revised detail #1/D3 and #2/D3 these replace the details shown on sheet D3. Please call with any questions or needed clarifications.

-paul



DETAIL #1 - Sheet D3

116 Clark Street - REVISED 6-4-7



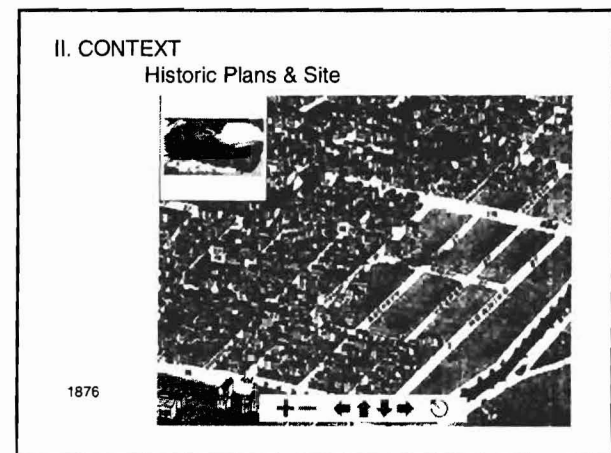
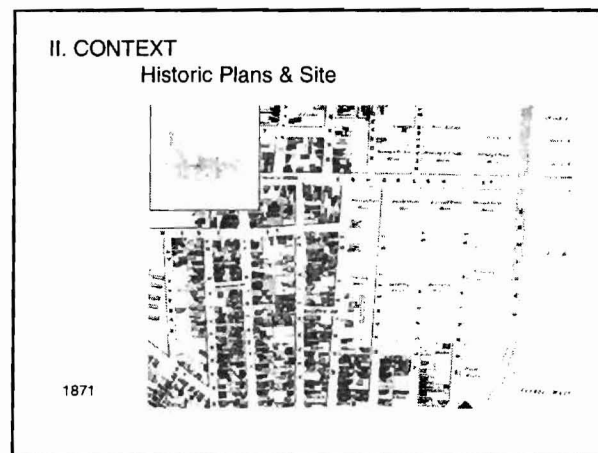
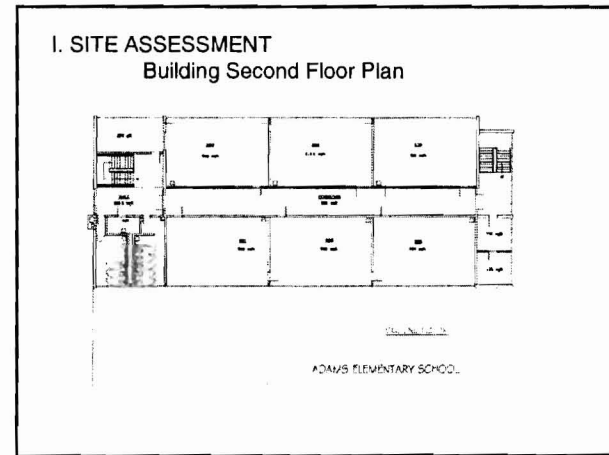
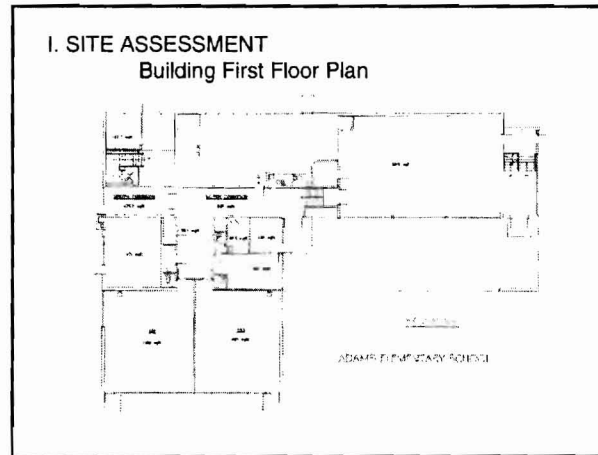
DETAIL #1a - Sheet D4

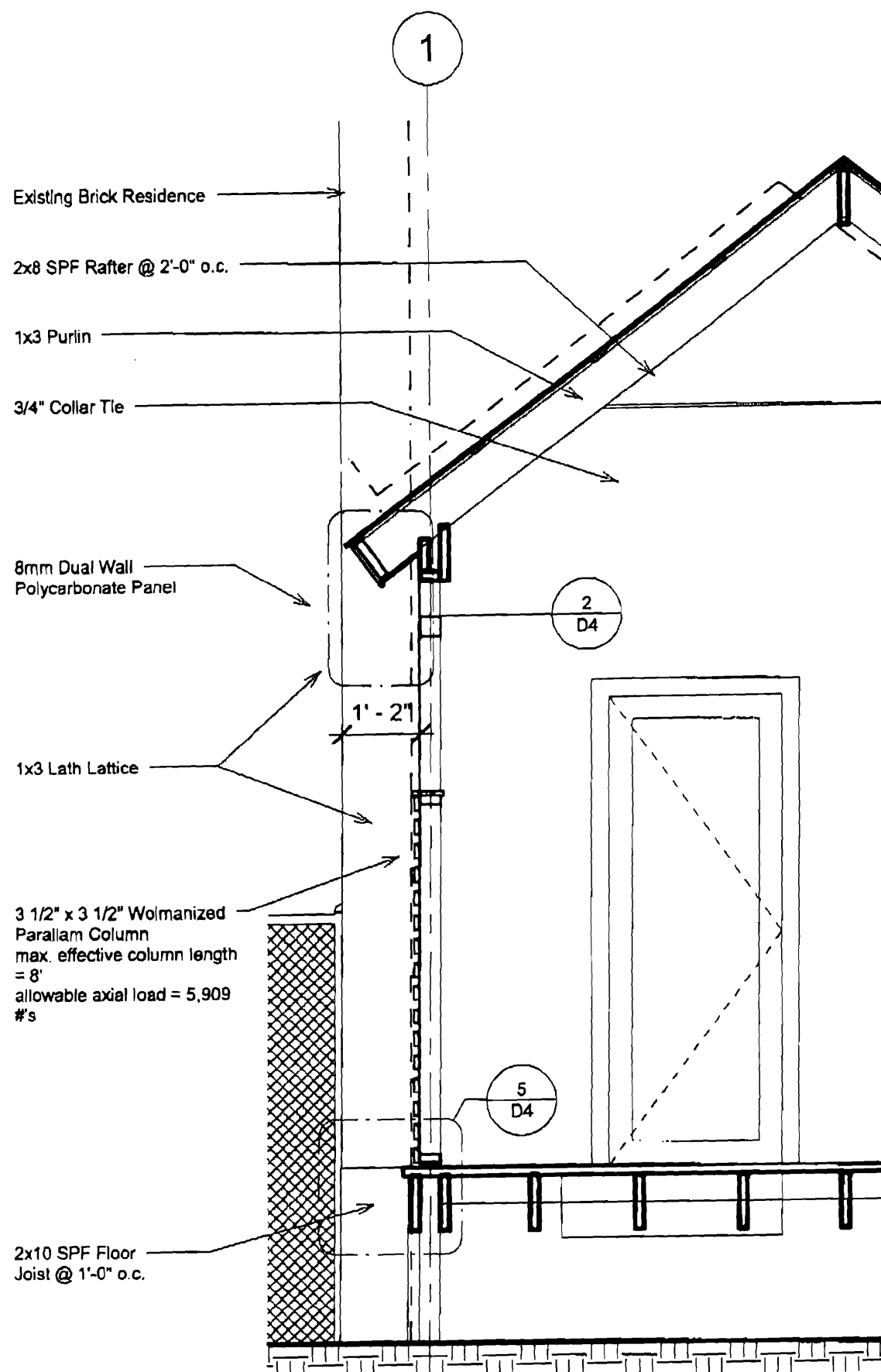
116 Clark Street - REVISED 6-27-7

116 Clark Street Porch - Pier Revision

874-8949

TO: CHRIS HANSON
FROM: PAUL LEWANDOWSKI 712-7362





DETAIL #2 - Sheet D3

116 Clark Street - REVISED 6-4-7

FOUNDATION POSTS

General Technical Information

1.0 CCMC

CCMC is the abbreviation of "*Canadian Construction Materials Centre*".

This government agency is part of the "*National Research Council Canada*".

The **CCMC** is responsible for the evaluation and the approval of all products intended for construction in Canada.

The **CCMC** ascertains that all new products for construction conform to the norm of the "*National Building Code of Canada (NBC) 1995*".

The **CCMC** provides an evaluation report on each product once this has proven to conform to the norm of the "*National Building Code of Canada (NBC) 1995*".

2.0 Technical Evaluation Guide

To obtain the **CCMC 13059, Techno Pieux Inc / Techno Metal Post Inc** had to conform to all the requirements listed in the **Technical Evaluation Guide for Helical Piles, section 02465 of the Masterformat of the "National Research Council Canada"**.

We recommend you consult the technical evaluation (enclosed) so as to appreciate the scope and the rigor of this process. [Click on the link "*Technical Guide*".]

3.0 The requirements of the Technical Evaluation Guide

Here is a list of the requirements that we have met to conform to the **Technical Evaluation Guide for Helical Piles, section 02465 of the Masterformat of "National Research Council Canada"**.

3.1 Physical properties of the materials

3.1.1 Steel

As specified in the Technical Evaluation Guide, the steel used in the circular tubes and accessories of Techno Pieux Inc. / Techno Metal Post Inc. conform to the norm ASTM A 500 grade C. Also the steel used in the helices and accessories, (support plates) conform to the norm CSA G40.21-98 (ASTM A36-97A).

The requirements are constantly validated with the help of metal test reports obtained from the retailers.

We use only steel of the best quality to manufacture the Techno Pieux™ / Techno Metal Post™ helical piles and accessories.

3.1.2 Galvanization

When applied, the galvanized protection of the steel elements confirm to the requirements of the norms CAN/CSA-G164-M92, with a minimum thickness of 610 g/m².

3.1.3 Shop and site welding

All welds made at the Techno Pieux Inc / Techno Metal Post Inc factory are regulated by the norm Gas Metal Arc Welding (GMAW) and are executed with a semi automatic MIG welding machine.

Our welding site was certified by an instructor and specialist in welding.

Furthermore the norm CSA W59-M1989 specified in the Technical Guide is consistent with the norms of arc welding. We require the same norms for site welding.

3.2 Structural resistance of the Techno Pieux™ / Techno Metal Post™

3.2.1 Capacity of circular tube, make-up of the piles

The capacity of the circular tube was determined by applying the norm CAN/CSA S16.1-M.

All related calculations were made by an independent consulting firm.

3.2.2 Helices and welding capacity on the circular tube

The helices are fixed to the circular tube of the Techno Pieux™ / Techno Metal Post™ by a continuous weld on each side of the helix.

Testing on the structural capacity of the helix/circular tube we conducted by an independent laboratory.

The tests were conducted with charges 3.5 times greater than the theoretical capacity of the circular tubes. We have set this factor at 3.5 to be certain that these elements will never be the weak link of our foundation system. These tests yielded positive results.

All our tests were made by an independent laboratory approved by the CCMC.

3.2.3 Load testing

All the load tests of the helical piles were conducted by structural engineers. The calculations were made conforming to NBC 1995.

3.3 Geotechnical capacity of the Techno Posts

3.3.1 General details

Considering the variables in nature and the unpredictable soils in any given region and according to the Commentary on the calculations of structures (Part 4) NBC 1995 (Page 133, art. 96) "*load testing on site provides the best method to determine the bearing capacity of deep foundations*". We have based the design of our helical piles and the resulting bearing capacity solely on the results of actual on site testing.

3.3.2 Load testing vs torque

We have made hundreds of tests of load recompression and tension throughout Quebec and Ontario since 1998.

In the process of obtaining a CCMC product number , we have utilized standard drilling and load tests according to the norm ASTM D 1143-81, "*Standard Test for piles Under Static Axial Compression Load*", ASTM D 3689-90, "*Standard Test Method for Individual Piles Under Static Axial Tensile Load*" and ASTM D 3966-90, "*Standard Test Method for Piles Under Lateral Load*" so as to corroborate ours results of torque relative to loads on compression and tension.

These tests were conducted under the supervision of an independent laboratory approved by CCMC. Soil types pulverulant and coherent were tested.

You will find in the **Evaluation Report** CCMC 13059-R a chart representing the torque applied relating to the loads admissible.

3.3.3 Calibration of instruments

All the measuring instruments are calibrated and we have current certificates for verification.

3.3.4 Exclusive plastic sheath

As specified in the **Evaluation Report** CCMC 13059-R, the helical pile is covered with an exclusive polyethylene sheath (exclusive plastic sheath) acting as a protective shield against frost heave. This will prevent any upward movement of our post.

3.4 Qualitative control of fabrication

The policy of **Techno Pieux Inc / Techno Metal Post Inc** in matters relating to quality control is to provide a constant quality product which corresponds to the expectations and precise norms of fabrication for all our distributors and clients.

To accomplish this, constant and rigorous quality control reviews of the raw material and the fabrication of the final product are made during the manufacture of all

Techno Pieux Inc / Techno Metal Post Inc products.

The quality of our product is the greatest preoccupation of our company and we will do everything in our power not to detract from this principle.

Thus, every **Techno Pieux™ / Techno Metal Post™** installed is identified with a sticker stating who the manufacturer is and the number **CCMC 13059-R**.

3.5 Installation and quality control

All **Techno Pieux™ / Techno Metal Post™** installers **must be certified** by **Techno Pieux Inc** before they are authorized to install helical piles manufactured by **Techno Pieux Inc / Techno Metal Post Inc**.

All installers must follow the **established theory and practice** concerning all the aspects of the **installation gauge readings, initiation of lead calculations and testing, responsibility for their work, installation security, etc, as defined in the Techno Pieux™ / Techno Metal™ approved Installer's Certification Manual**.

This certification training is given by an engineer and certified installers with at least 5 years of experience.

The certified installers must follow the instructions of the manufacturer, use the approved material and refer to the **CCMC 13059-R** document concerning usage and limitations.

All installers **must carry their certification card showing** their photos and their signatures.

You will find enclosed the list of the certified installers as per **CCMC 13059-R**. This list is updated with each new certified **CCMC 13059-R** installer.

For a good quality installation, demand products installed and certified in **CCMC 13059-R**.

3.6 Canada mortgage and Housing Corporation

The evaluation report **CCMC 13059-R** confirms that **Canada mortgage and Housing Corporation** permits the use of this product in construction, financed or insured under the **National Housing Act**.

3.7 Conclusion

Techno Pieux™ / Techno Metal Post™ is concerned with providing products and

services of the highest possible quality. Our **CCMC 13059-R** certification is one of the best confirmations of our commitment.

For all your projects, request **CCMC** certified products.



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Français
CCMC 13059-R

. [Introduction](#)

- . [Technical Guide](#)
- . [Evaluation Report](#)
- . [Technical Information](#)
- . [Certified Installers](#)

Introduction

This evaluation report is the result of a quality procedure. This work confirms that our product *Techno Pieux^{MD} / Techno Metal PostTM* is the evidence that it conforms with the requirements and the spirit of the " *National Building Code - Canada (NBC) 1995*".

To this end, *Techno Pieux Inc. / Techno Metal Post Inc.* had to conform to all the requirements listed in the technical evaluation guide for helical piles, section 02465 of the Masterformat , from the " *National Research Council Canada*".

Please note that *Techno Pieux Inc. / Techno Metal Post Inc.* is the first company of helical piles in Canada to obtain this distinction.

In this section of Techno Metal Post site, you will find enclosed the "**Evaluation CCMC 13059-R**, the **Technical evaluation guide for helical piles, section 02465 of the Masterformat of the National Research Council Canada** and an **informative document concerning the process.**



National Research
Council Canada

Institute for
Research in
Construction

Conseil national
de recherches Canada

Institut de
recherche en
construction

CCMC 13059-R

CCMC

EVALUATION
REPORT

DIVISION 02465

Issued 2002-04-08

Re-evaluated 2005-07-29

Re-evaluation due 2008-04-08

Techno Pieux™/Techno Metal Post

Techno Pieux Inc.
1895, boul. Frontenac Est
Thetford Mines (Québec)
G6G 5M6

Tel.: (418) 332-2139
Fax: (418) 332-4339

Plant: 1895, boul. Frontenac Est
Thetford Mines (Québec)

1. Purpose of Evaluation

The proponent sought confirmation from the Canadian Construction Materials Centre (CCMC) that "Techno Pieux™/Techno Metal Post" can serve as an auger-installed steel pile intended to be used as a foundation system in compliance with the intent of the National Building Code of Canada (NBC) 1995.

2. Opinion

Subject to the limitations and conditions stated in this report, test results and assessments provided by the proponent show that "Techno Pieux™/Techno Metal Post" complies with CCMC's Technical Guide for "Augered-Installed Steel Piles," Masterformat number 02465, dated 2001-02-28, and provides a level of performance equivalent to that required in:

- NBC 1995, Articles 4.2.3.7., 4.2.3.8., 4.2.3.10. and 4.3.4.1., and Sentence 9.4.1.1.(1).

This Report is provided without representation, warranty, or guarantee of any kind, expressed or implied, and the National Research Council of Canada (NRC) provides no endorsement for any evaluated material, product, system or service described herein.

NRC has evaluated the material, product, system or service described herein only for those characteristics stated herein. The information and opinions in this Report are directed to those who have the appropriate degree of experience to use and apply its contents.

NRC accepts no responsibility whatsoever arising in any way from any and all use or reliance on the information contained in this Report. NRC is not undertaking to render professional or other services for or on behalf of any person or entity nor to perform any duty owed by any person or entity to another person or entity.

Ruling No. 03-06-95 (13059-R) authorizing the use of this product in Ontario, subject to the terms and conditions contained in the Ruling, was made by the Minister of Municipal Affairs and Housing on 6 June, 2003 pursuant to s.29 of the Building Code Act, 1992 (see Ruling for terms and conditions).

Canada Mortgage and Housing Corporation permits the use of this product in construction financed or insured under the National Housing Act.

3. Description

“Techno Pieux™/Techno Metal Post” is an earth anchor constructed of helical-shaped, circular steel blades welded to a steel shaft. The blades are constructed as a helix with a carefully controlled pitch. The helix blades are available in diameters of 150 mm to 600 mm. The anchors come with single, double or triple helical blades. The diameter and number of blades are chosen based on the bearing capacity of the soil and the load the auger-installed steel pile is designed to support. The central shaft is used to transmit torque during installation and to transfer axial loads to the helical plates. The central shaft also provides most of the resistance to lateral loading. The shaft is available in diameters of 47.6 mm, 60.3 mm, 88.9 mm and 101.6 mm, and wall thicknesses of 3.7 mm, 3.9 mm, 5.5 mm and 5.7 mm respectfully. The foundation system comes with various other accessories such as support plates to adapt to the building structure, extension shafts and connectors. The shaft is covered with a ribbed polyethylene pipe, which acts as a frost sleeve to isolate the pile from being jacked up by annual frost heave in the surrounding soil.

The steel shaft conforms to ASTM A 500, grade C, and the blades and accessories conform to CAN/CSA-G40.21-M98.

Figure 1 shows a typical steel pile with a single helix.

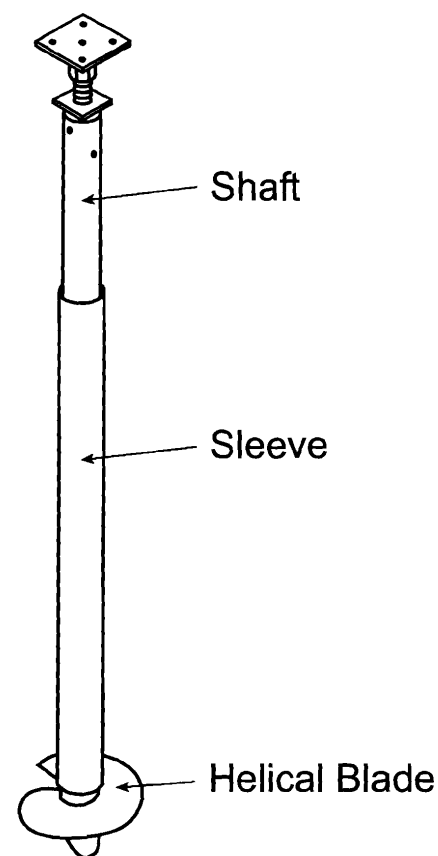


Figure 1. “Techno Pieux™/Techno Metal Post”

4. Usage and Limitations

The “Techno Pieux™/Techno Metal Post” may be used as a foundation system to support various constructions, provided that it is installed according to the manufacturer's current instructions and within the scope of this evaluation report.

When the “Techno Pieux™/Techno Metal Post” is installed in granular soil or silt, there is a direct relationship between the applied torque and the allowable compressive and tensile loads. Table 1 indicates the allowable compressive and tensile loads as a function of the applied torque.

When the auger-installed steel pile is installed in a cohesive soil such as clay, the relationship between the applied torque and the allowable compressive and tensile loads is not as predictable. When it is installed in such soils the allowable compressive and tensile loads have to be confirmed by agreed-

upon theoretical calculations and onsite load tests. These load tests are also required if the allowable loads need to be greater than those stated in Table 1. The tests need to be conducted under the direct supervision of a professional registered geotechnical engineer skilled in such design and licensed to practice under the appropriate provincial or territorial legislation.

In all cases, a registered professional engineer skilled in such design and licensed to practice under the appropriate provincial or territorial legislation must determine the number and spacing of the auger-installed steel piles required to carry the load. A certificate attesting to the conformity of the installation and the allowable loads for the piles must be provided.

Table 1. Allowable Compressive and Tensile Loads for the “Techno Pieux™/Techno Metal Post” Auger-Installed Pile in Granular Soil or Silt⁽¹⁾

Applied Torque		Allowable Loads			
		Compression		Tension	
Nm	(lbf)	kN	(lb)	kN	(lb)
678	500	10	2250	5.0	1125
1017	750	15	3375	7.5	1688
1356	1000	20	4500	10.0	2250
1695	1250	25	5625	12.5	2813
2034	1500	30	6750	15.0	3375
2373	1750	35	7875	17.5	3938
2712	2000	40	9000	20.0	4500
3051	2250	45	10125	22.5	5063
3390	2500	50	11250	25.0	5625
3728	2750	55	12375	27.5	6188
4067	3000	60	13500	30.0	6750
4406	3250	65	14625	32.5	7313
4745	3500	70	15750	35.0	7875

Note to Table 1:

- ⁽¹⁾ *The allowable loads identified in this table are only valid when “Techno Pieux™/Techno Metal Posts” are installed in granular soil or silt. Special attention is required when the auger-installed steel piles are installed in recently backfilled sites or in cohesive soils. In these cases, Table 1 does not apply and the allowable loads need to be determined by onsite confirmatory testing.*

The installation of the auger-installed steel pile shall be carried out in accordance with the manufacturer's instructions. The anchors are screwed into the ground using mechanized equipment. The anchor is rotated into the ground with sufficient applied downward pressure (crowd) to advance the anchor one pitch distance per revolution. The anchor is advanced until the applied torque value attains a specified value conforming to a target bearing capacity and freeze effects protection on the earth anchor and main shaft. Extensions are added to the central shaft as needed. The applied loads may be tensile (uplift), compressive (bearing), shear (lateral), or a combination thereof. Helical anchors are rapidly installed in a wide variety of soil formations using a variety of readily-available equipment. They are immediately ready for loading after installation.

When the "Techno Pieux™/Techno Metal Post" is installed in a soil where the conditions are corrosive to steel, adequate protection to the exposed steel shall be provided.

To be permitted to install the "Techno Pieux™/Techno Metal Post" auger-installed steel piles, the installer must be certified by Techno Pieux Inc. Using approved equipment, the installer must follow the manufacturer's installation instructions and heed the uses and limitations specified in this report. Each installer shall carry a certification card bearing their signature and photograph.

Each "Techno Pieux™/Techno Metal Post" auger-installed steel pile shall be identified with a label containing the following information:

- manufacturer's identification; and
- the phrase "CCMC # 13059-R."

5. Performance

Testing was conducted at an independent laboratory recognized by CCMC.

"Techno Pieux™/Techno Metal Post" auger-installed steel piles were tested to ASTM D 1143-81 (1994)e1, "Standard Test Method for Piles Under Static Axial Compressive Load," ASTM D 3689-90 (1995), "Standard Test Method for Individual Piles Under Static Axial Tensile Load," and ASTM D 3966-90, "Standard Test Method for Piles Under Lateral Loads."

Testing was conducted on three different sites. The first site had granular soil, the second had clay and the third was silt. A series of 14 tests were performed. The intent of the testing was to determine a correlation between the torque applied during installation and the allowable loads. In the granular and silt-based soils, there was a good correlation between the torque applied during installation and the allowable loads. For the compressive loads noted in Table 1, the factor of safety varied from 1.93 to 2.6. For the tensile loads, the factor of safety varied from 2.1 to 3.1. For the lateral loads no correlation was possible. For the testing that was conducted on the auger-installed steel pile in a cohesive soil such as clay, the correlation between the applied torque and the allowable loads was not as predictable.

For more information contact:

Alphonse Caouette, P.Eng.
(613) 993-6917

*Issued by the Institute for Research in Construction
under the authority of the National Research Council*

John Flack, Ph.D.
Manager, CCMC

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Readers are advised to confirm that this report has not been withdrawn or superseded by a later issue by referring to <http://irc.nrc.gc.ca/ccmc>, or by contacting the Canadian Construction Materials Centre, Institute for Research in Construction, National Research Council of Canada, Montreal Road, Ottawa, Ontario, K1A 0R6; Telephone (613) 993-6189, Fax (613) 952-0268.



APPLICATION FOR EXEMPTION FROM SITE PLAN REVIEW

Paul [unclear] [unclear]
Applicant

06/12
Application Date

116 Clark St Portland ME 04101
Applicant's Mailing Address

116 Clark St
Project Name/Description

719-2-12
Consultant/Agent/Phone Number

116 Clark St
Address of Proposed Site

CBL: 024-20

Description of Proposed Development:

to install 8' x 12' shed on property at 116 Clark St Portland ME 04101
shed to be used for storage

Please Attach Sketch/Plan of Proposal/Development

Criteria for Exemptions:
See Section 14-523 (4) on back side of form

- a) Within Existing Structures; No New Buildings, Demolitions or Additions
- b) Footprint Increase Less Than 500 Sq. Ft.
- c) No New Curb Cuts, Driveways, Parking Areas
- d) Curbs and Sidewalks in Sound Condition/Comply with ADA
- e) No Additional Parking/ No Traffic Increase
- f) No Stormwater Problems
- g) Sufficient Property Screening
- h) Adequate Utilities

Applicant's Assessment (Yes, No, N/A)	Planning Office Use Only
	✓
	✓
	N/A
	N/A
	✓
	✓
	✓
	N/A

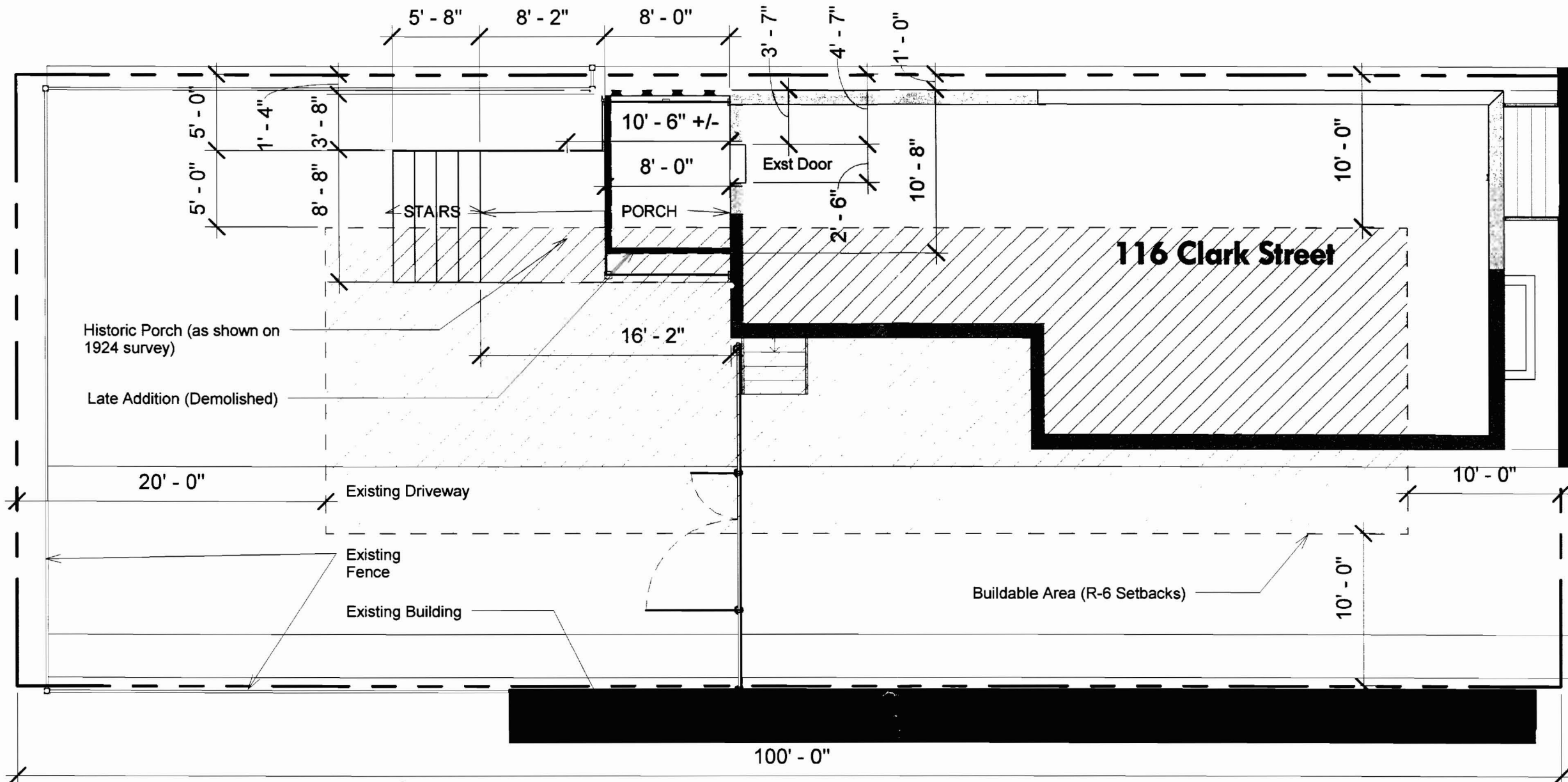
DEPT. OF BUILDING INSPECTION
CITY OF PORTLAND, ME
JUN 13 2007
RECEIVED

Planning Division Use Only

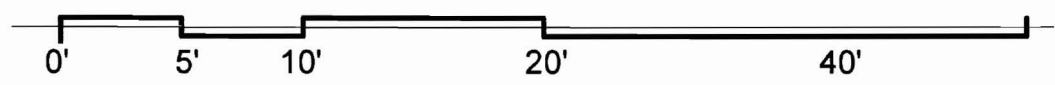
Exemption Granted Partial Exemption Exemption Denied

DEPT. OF BUILDING INSPECTION
CITY OF PORTLAND, ME
RECEIVED

Planner's Signature [Signature] Date 06-12-2007



(rear 8x10 porch had permitted May 1950 # 716)



1/8" = 1'

R6 - 20' rear - 28.75' setback
- 10' side - 5' 14' x 5' (section 11-435) $3 \times 24 = 744$
- 80% lot coverage 2,000 sq ft - 1324 sq ft $19.75 \times 115 = 325.88$
20' open space $277 = 14$
 $8 \times 35 = 28$
addition $22 \times 8.75 = 192.5$
 $11 \times 5 = 55$
 $\underline{\quad\quad\quad}$
 1324.38

Area Calculations		Zone
Site	4,000 sf	
House	1,146 sf	
Porch increase	62 sf (1208 sf)	30%
Deck increase	120 sf (1328 sf)	33%
Allowable		

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-paul lewadowski AIA
 116 Clark Street, Portland, ME 04102
 207.899.4317
 plewadowski@maine.rr.com

Alterations to 116 Clark Street
 P. Lewadowski & M. Zwolinski, 116 Clark St., Portland, ME 04102

Site Plan
 Project number 116 Clark Street
 Date 3.19.7

3 1/2" x 3 1/2" Wolmanized Parallam Column
 max. effective column length = 8'
 allowable axial load = 5,909 #'s

1,280# load 215 plf

Area: 8 x 16 @ 40 psf = 5,120

Typ. @ 12" o.c.

1,280# load

(4) Techno Post Metal Footing

15' - 11 1/2"

16' - 2 1/4"

1 Deck Framing
 1/4" = 1'-0"

3' - 7 1/2"

8' - 7 3/4"

DECK/PORCH

1

D3

2 Deck - Plan
 1/4" = 1'-0"

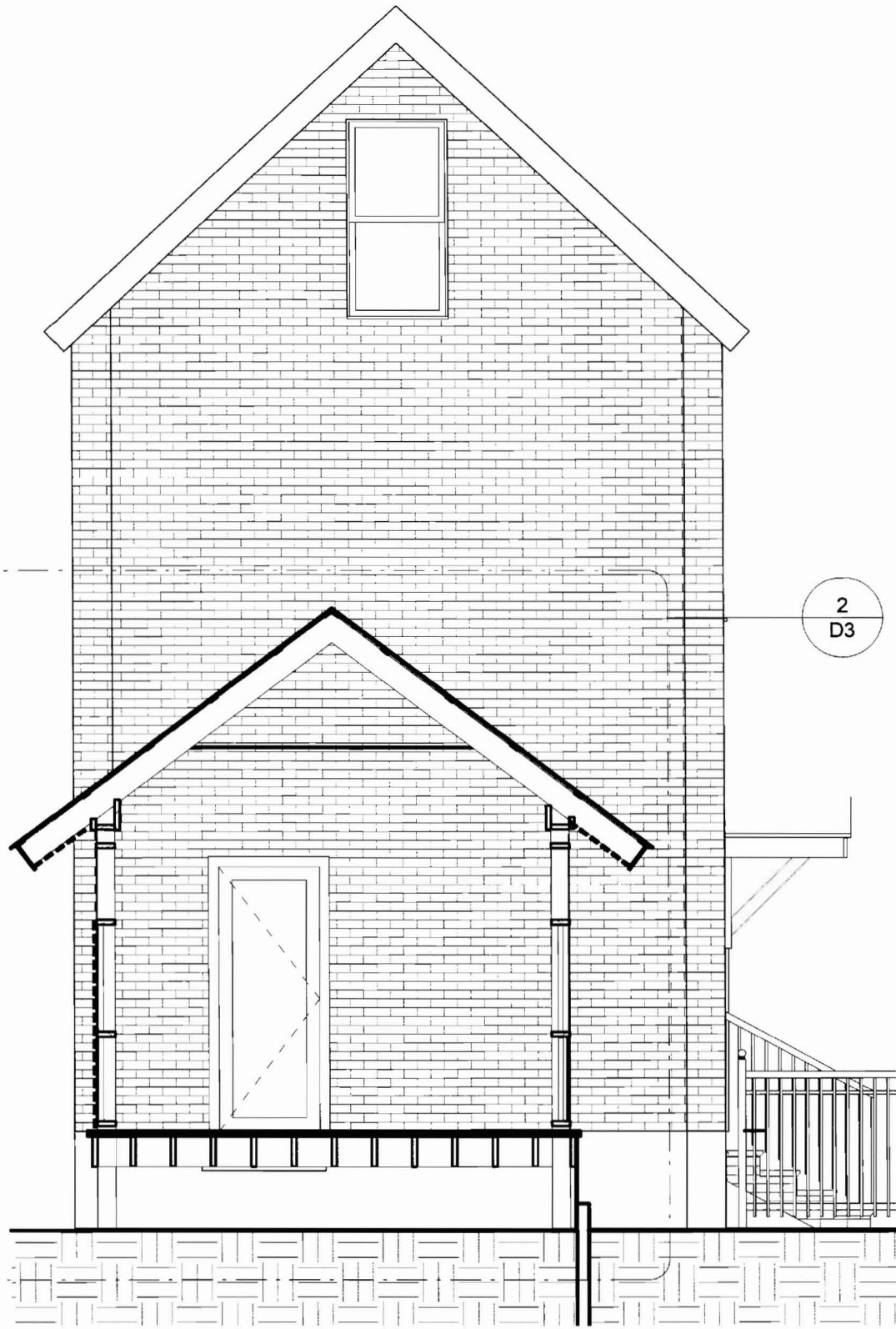
AS PER
 HISTORIC
 REVIEW

1'-0"

3 Porch View



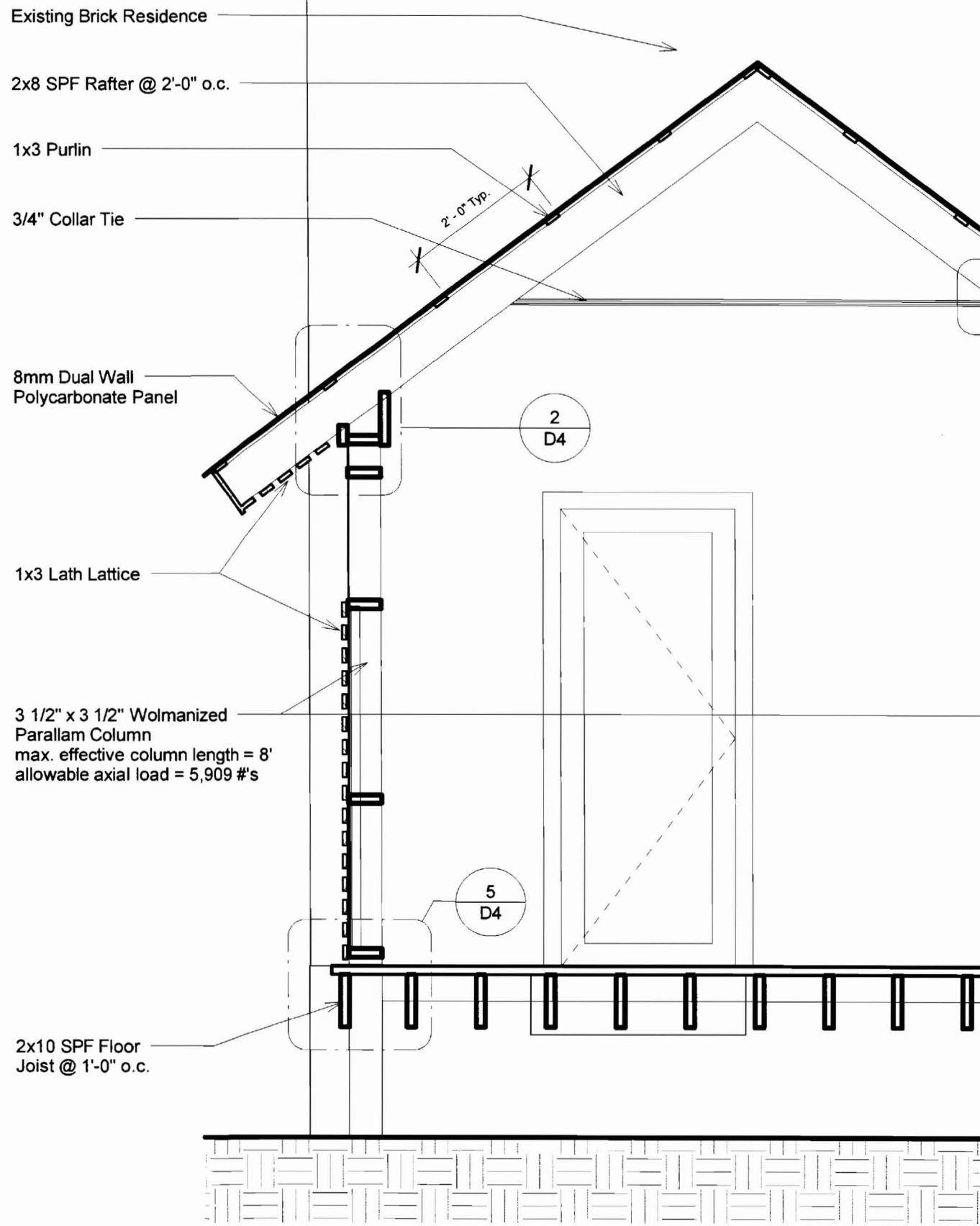
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1 Deck - Transverse Section
1/4" = 1'-0"

-paul lewandowski AIA
116 Clark Street, Portland, ME 04102
207.899.4317
plewandowski@maine.nr.com

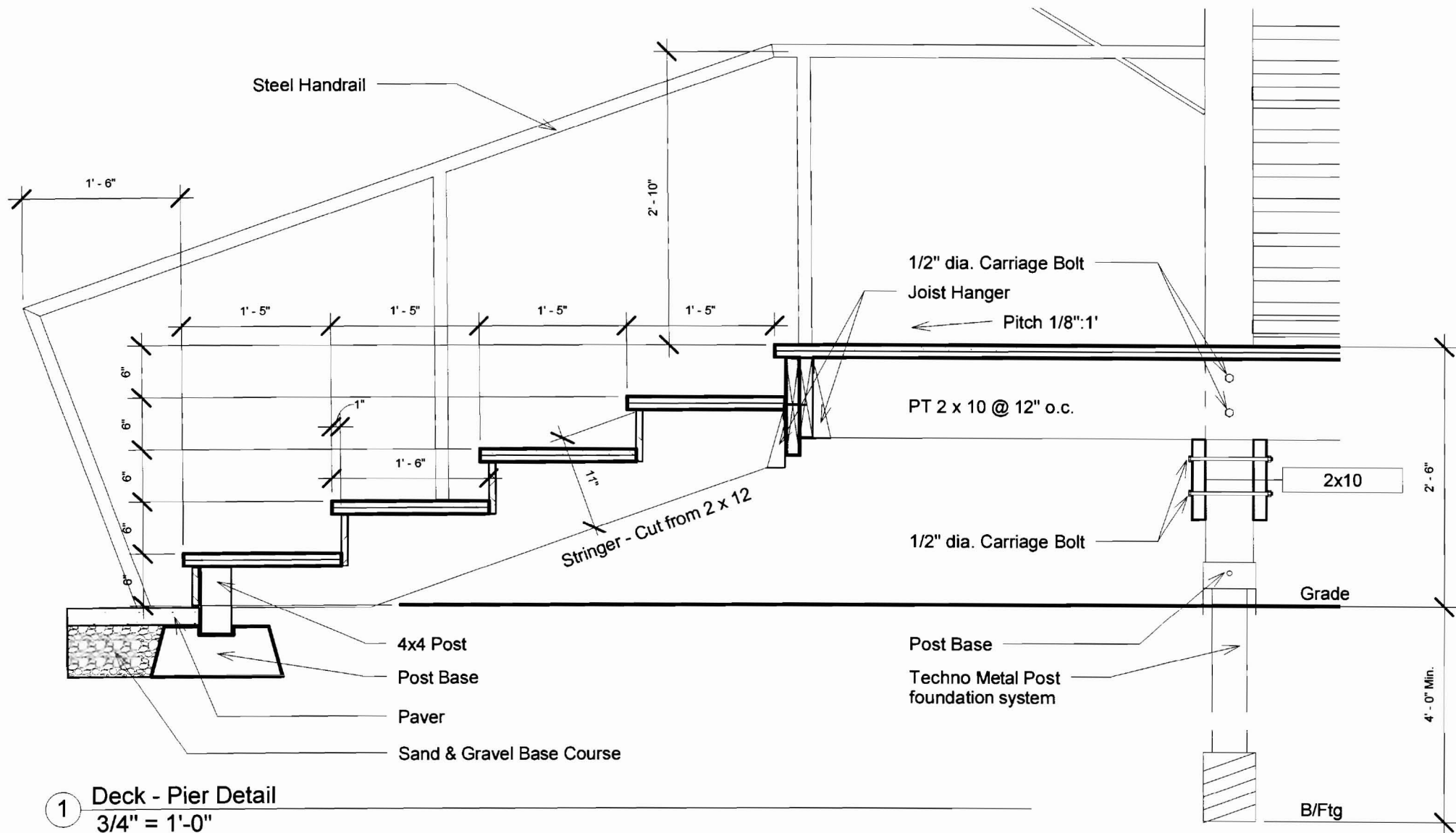
Alterations to 116 Clark Street
P. Lewandowski & M. Zwolinski, 116 Clark St., Portland, ME 04102



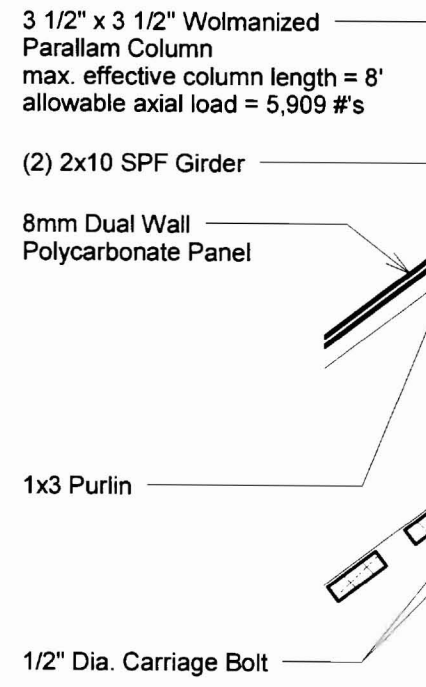
2 Deck - Section
1/2" = 1'-0"

Sections

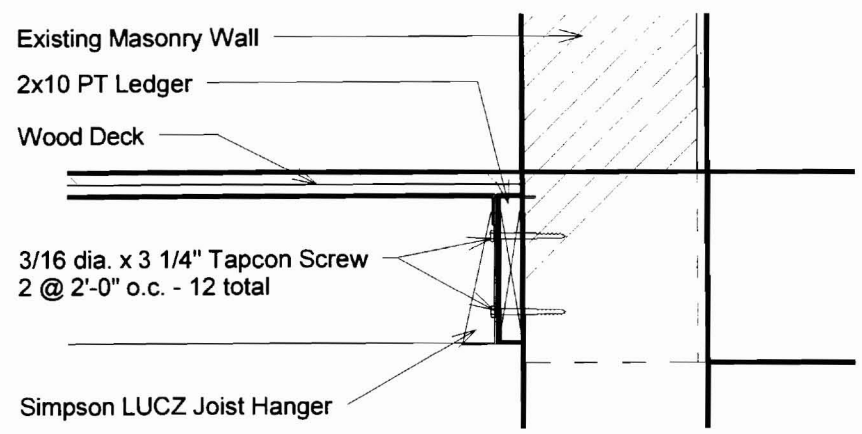
Project number 116 Clark Street
Date 3.19.7



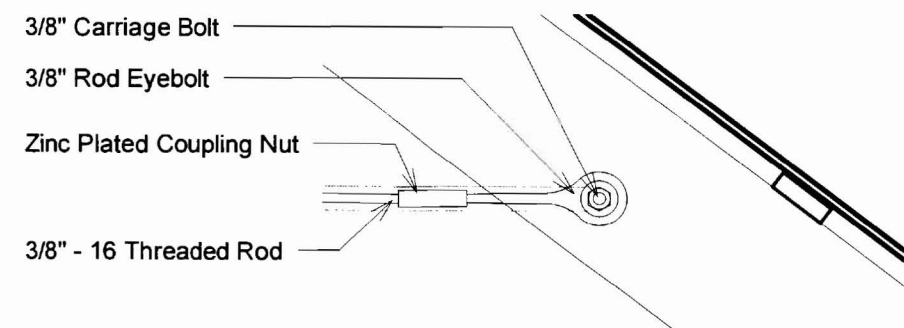
1 Deck - Pier Detail
3/4" = 1'-0"



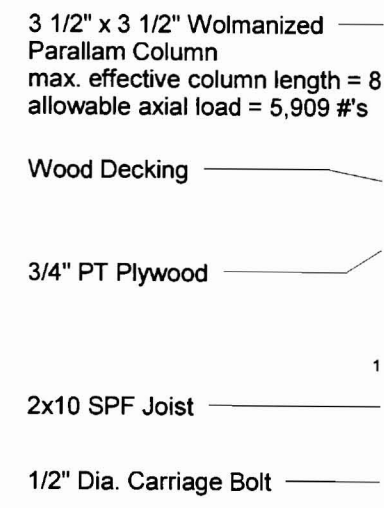
2 Girder Detail
1 1/2" = 1'-0"



3 Deck - Attachment Detail
1" = 1'-0"



4 Collar Tie Detail
1 1/2" = 1'-0"



5 Joist Detail
1 1/2" = 1'-0"

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-paul lewandowski AIA
116 Clark Street, Portland, ME 04102
207.899.4317
plewandowski@maine.rr.com

Alterations to 116 Clark Street
P. Lewandowski & M. Zwolinski, 116 Clark St., Portland, ME 04102

Deck - Details
Project number 116 Clark Street
Date 3.19.7

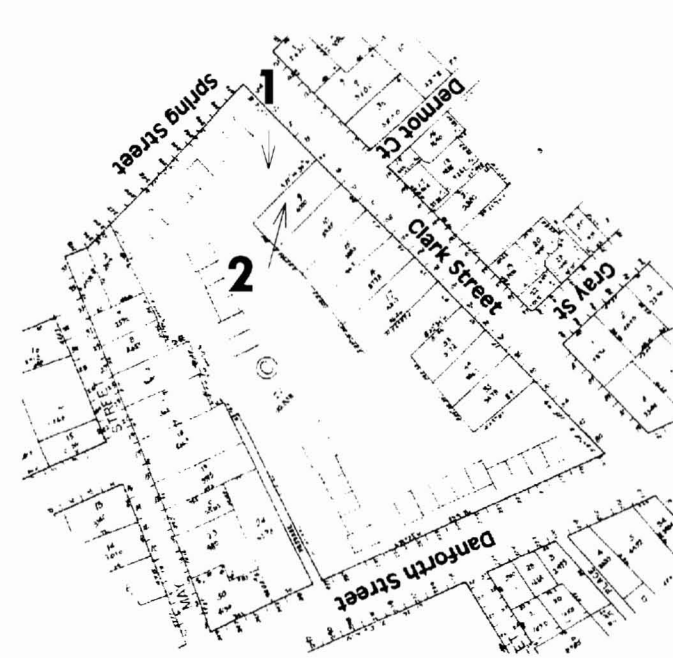
View from Clark Street



Proposed View



View from Backyard (Inside)



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-paul lewandowski AIA
116 Clark Street, Portland, ME 04102
207.899.4317
plewandowski@maine.rr.com

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P. Lewandowski & M. Zwolinski, 116 Clark St., Portland, ME 04102

Existing Conditions Photographs

Project number 116 Clark Street
Date 3.19.7