PERMIT ISSUED

City of Portland, Maine - Building or Use Permit Application

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

Permit No:	Issue Date:	CBL:
03-0567	JUL 22 2003	055 B016017

Location of Construction:	Owner Name:	Owner Address:	Phone:
17 Blythe Ct	Filene Daniel R – Susan	17 Blythe Ct CITY OF PORTLAND	780-1962 287-7425
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Applicant	Portland 287-5509 Fax	
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		Additions - Dwellings	R6

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	CEO District:
Condominium/SF	Condominium/SF	$30.00	$370.12	

legal # of units = two (2) Res. D.U.

Proposed Project Description:
Construct an 8' x 10' Platform Free Standing Deck

FIRE DEPT: ☐ Approved ☐ Denied
Signature:

INSPECTION:
Use Group: R3 Type: 5B Accessory
Signature: JMB 7/22/03

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

Permit Taken By:	Date Applied For:
gg	05/22/2003

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shorelafid previous condo permit # 02-097	☐ Variance	☐ Not in District or Landmark
☐ Wetland	☐ Miscellaneous	☑ Does Not Require Review not visible
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Minor ☐ MM ☐ OK with conditions	☐ Denied	☐ Denied to D.A. 7/17/03
Date: 7/17/03	Date:	Date: D. Andrews 7/21/03

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

City of Portland
INSPECTION SERVICES

Room 315
389 Congress Street
Portland, Maine 04101

Telephone: 207-874-8703 or 207-874-8693
Facsimile: 207-874-8716

FACSIMILE TRANSMISSION COVER SHEET

TO: Dan Filene
FROM: Jeanie Bourke
FAX NUMBER: 287-5509
NUMBER OF PAGES, WITH COVER: 3
TELEPHONE:
RE: Inspection Procedures
DATE: July 23, 2003

Comments: for your signature & return
mailed permit

City of Portland, Maine - Building or Use Permit
389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Date Applied For:	CBL:
03-0567	05/22/2003	055 B016017

Location of Construction:	Owner Name:	Owner Address:	Phone:
17 Blythe Ct	Filene Daniel R	17 Blythe Ct	( ) 287-7425
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Applicant	Portland	
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		Additions - Dwellings	

Proposed Use:	Proposed Project Description:
Condominium/SF	Construct an 8' x 10' Platform Free Standing Deck

Dept: Historical **Status:** Not Applicable **Reviewer:** Deborah Andrews **Approval Date:** 07/21/2003
Note: not visible; does not require review. **Ok to Issue:** ☑

Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Marge Schmuckal **Approval Date:** 07/17/2003
Note: 6/4/03 visited the site - the area is marked out - I have a question on whether a door is being proposed from the house to the deck (which would make the deck "attached")
7/14/03 spoke to Dr. Daniel Filene - he stated that there is no entryway on to this deck and it is not attached to the building. **Ok to Issue:** ☑

1) This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. Without special approvals.
2) There shall be NO direct access from the structure, such as a door, on to this deck. Any such access will create an illegal nonconformity as to setback requirements. This permit was approved only as a detached structure under 100 sq. ft. Any direct access from the building down onto the deck will make this an attached structure and shall be required to meet the setback requirements for the R-6 zone.
3) This property shall remain a two (2) family condominium dwelling. Any change of use shall require a separate permit application for review and approval.

Dept: Building **Status:** Approved **Reviewer:** Jeanine Bourke **Approval Date:** 07/22/2003
Note: **Ok to Issue:** ☑

1) Guardrails are not required if the elevation off grade is not more than 15-1/2". The plan shows that the elevation is 12-1/2" therefore a step is required to in order to access the deck of equal dimension not to exceed 7-3/4"

03-0567

Residential 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: 17 Blyth Court, Portland ME 04102

Total Square Footage of Proposed Structure	Square Footage of Lot
80 sq. ft.	

Tax Assessor's Chart, Block & Lot	Owner:	Telephone:
Chart# [redacted] Block# Lot# [redacted] 055-B-016017	Unit: Daniel R. Filene Lot: Blyth Court Condo. Assoc.	Day: 287-7425 Eve: 780-1962

Lessee/Buyer's Name (If Applicable)	Applicant name, address & telephone:	Cost Of Work: $ 370.12 Fee: $ 30
	Daniel R. Filene 17 Blyth Court Portland ME 04102 Phone as above	

Current Specific use: Grass

Proposed Specific use: Deck platform.

Project description: 8'x10' platform deck, 12½" height. Free-standing, not attached to house or any other structure. Supported by concrete floating foundation system (see attached pages).

Contractor's name, address & telephone: Self

Who should we contact when the permit is ready: Daniel R Filene

Mailing address:
17 Blyth Court
Portland ME 04102

ASAP

Phone: 287-7425

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

At the discretion of the Planning and Development Department, additional information may be required prior to permit approval. For further information 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: Daniel R. Filene	Date: 5/16/03

Permit Fee: $30.00 for the first $1000.00 Construction Cost, $7.00 per additional $1000.00 cost

This is not a Permit; you may not commence any work until the Permit is issued.

Planning and Development Dept.
Portland City Hall
389 Congress Street
Portland, ME 04101

May 16, 2003

Dear Building Department Officials:

I would like to build a small, low-level platform in my backyard at 17 Blyth Court. I am sending the plans and a building permit application, though I have received conflicting information as to whether a permit is necessary for this project.

The platform will be 8x10 feet, by 12 ½ inches high. It will be free-standing, self-supporting, and not attached to any structure. It will rest directly on the ground via specifically designed blocks. Although it is not intended to be portable, if ever necessary the structure could be fully disassembled using simple tools, and moved or removed.

The platform will be located within the Limited Common Area of my condominium unit. The setbacks exceed 5 feet, which I understand to be the allowance for a structure of less than 100 sq. ft. in Zone 2. The platform will not be visible from the street. The project has been approved by the Board of our two-unit Association (#15 and #17).

Please contact me if any additional information is needed, or let me know if a permit is not in fact necessary at all.

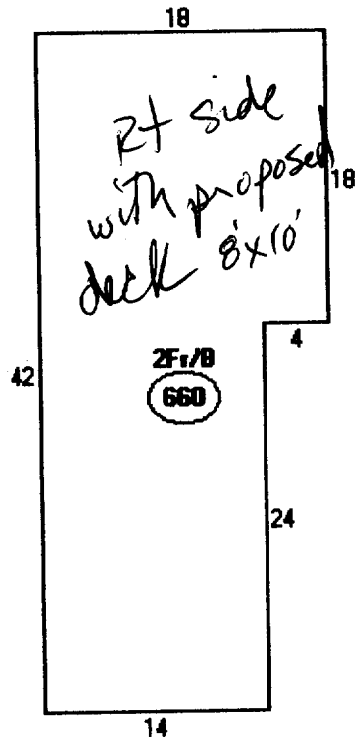
Thank you for your assistance,

Daniel R. Filene
Owner, 17 Blyth Court
Secretary, Blyth Court Condominium Association

Home: 780-1962
Office: 287-7425

Separate condo unit

On The Backside of This unit is where The Deck is located



Descriptor/Area
A: 2Fr/B
660 sqft

Rt side

80# 8x10

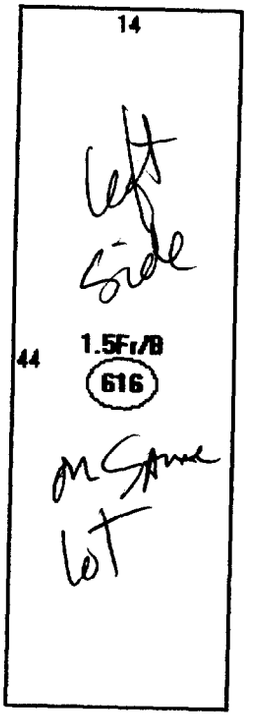
740

616 left side on same lot

1456

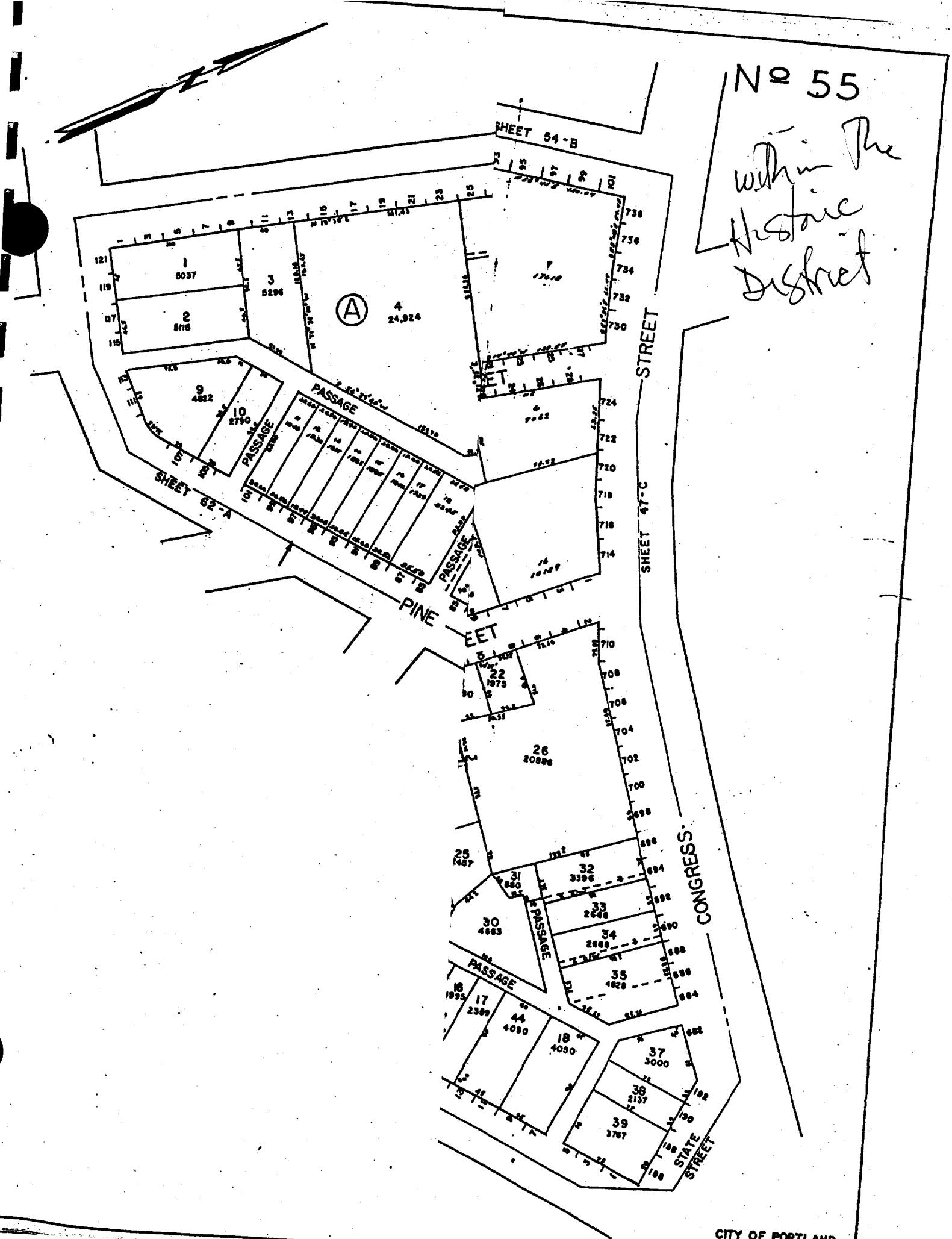
OK

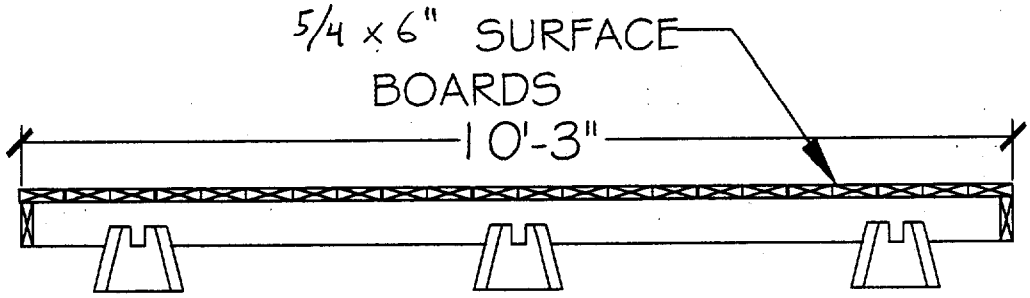
entire lot = 3048# x 50% = 1524# max cov.



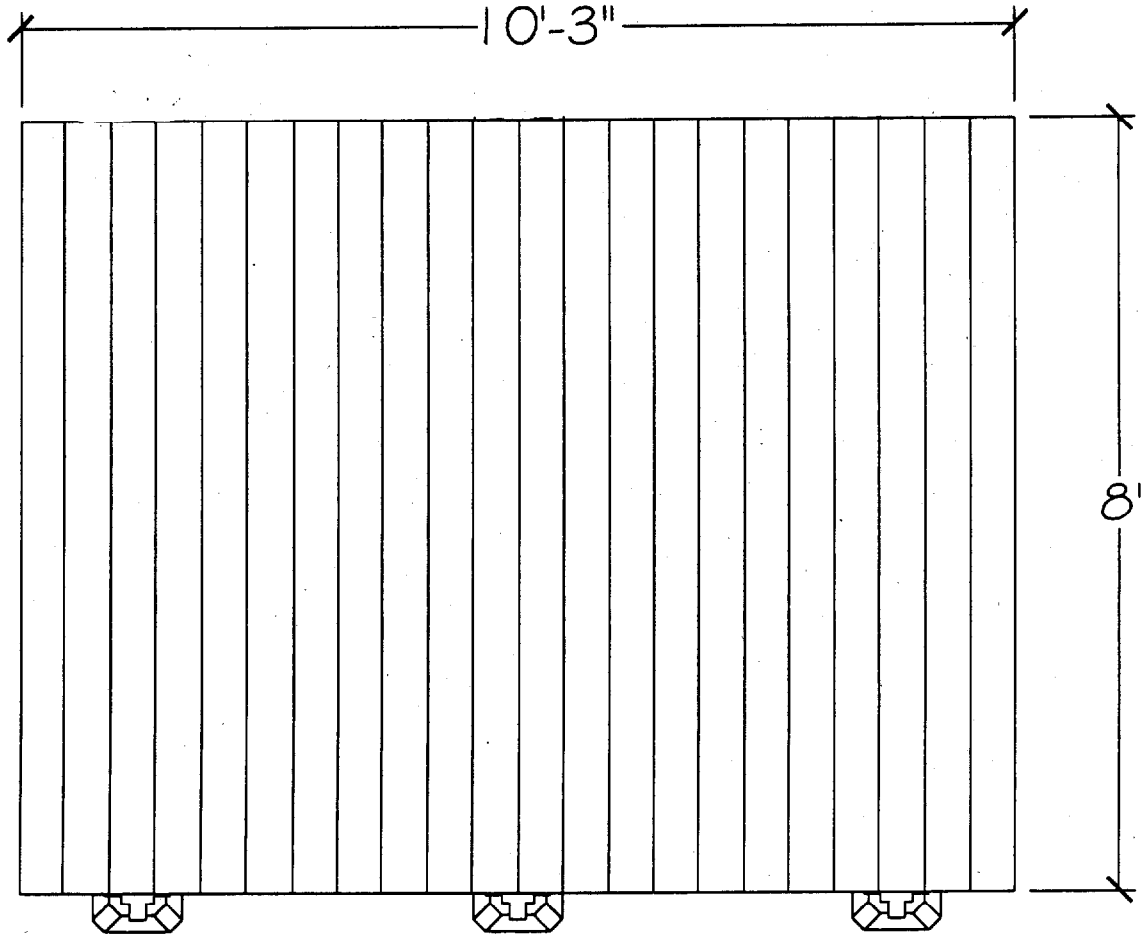
Descriptor/Area

A: 1.5Fr/B
616 sqft


Nº 55
within The Historic District
SHEET 54-B
SHEET 62-A
SHEET 47-C
PINE STREET
CONGRESS STREET
STATE STREET
PASSAGE
1 5037
2 5116
3 5296
A 4 24,924
9 4822
10 2790
22 1975
26 20886
25 1487
31 880
32 3396
33 2668
34 2668
35 4828
30 4883
18 1995
17 2389
44 4050
18 4050
37 3000
38 2137
39 3787
CITY OF PORTLAND
ASSESSORS PLAN
SCALE - 1" = 50'



1 DECKING SECTION
SCALE: 1/2" = 1'-0"



2 DECKING PLAN
SCALE: 1/2" = 1'-0"

Floating Foundation Deck Systems

8' x 10'
www.DECKPLANS.com

DEKBRANDS
P.O. BOX 14804
MPLS., MN 55414
(612) 331-4755

Live Technical Support
1-800-664-2705
7 Days a Week - 365 Days a Year
(5:00 am - 9:00 pm CST)

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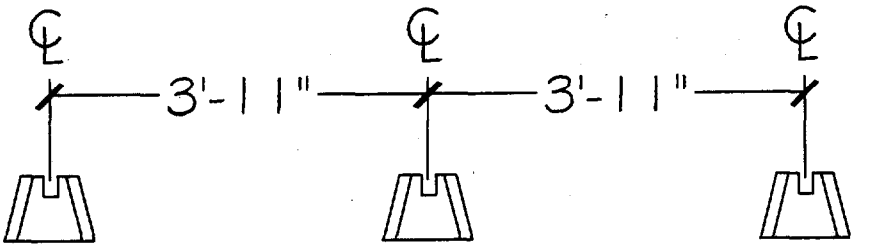
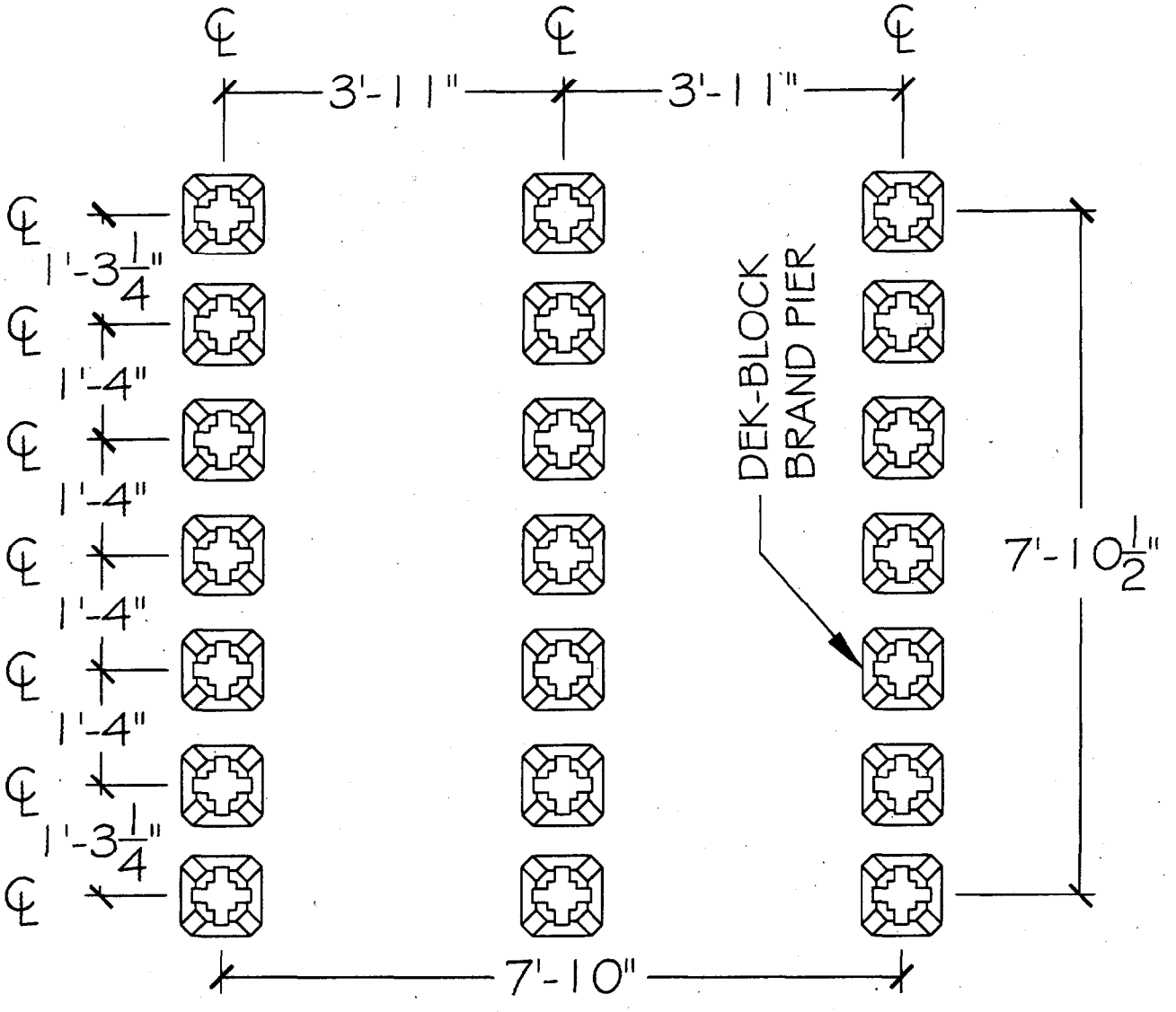


1 DEK-BLOCK LAYOUT SECTION
SCALE: 1/2" = 1' - 0"



2 DEK-BLOCK LAYOUT PLAN
SCALE: 1/2" = 1' - 0"

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8' x 10'

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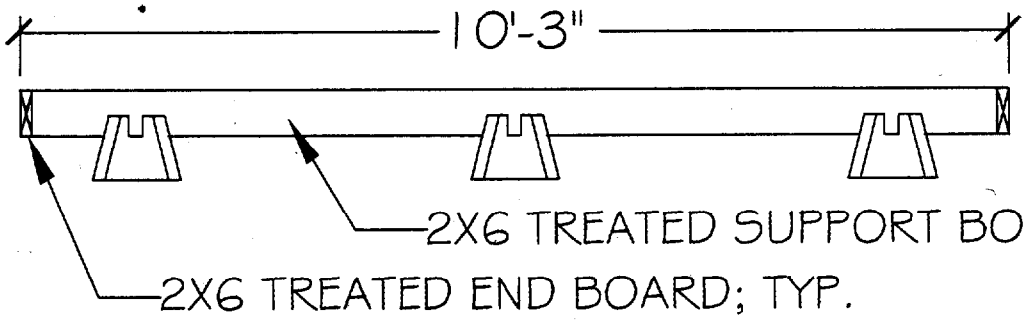
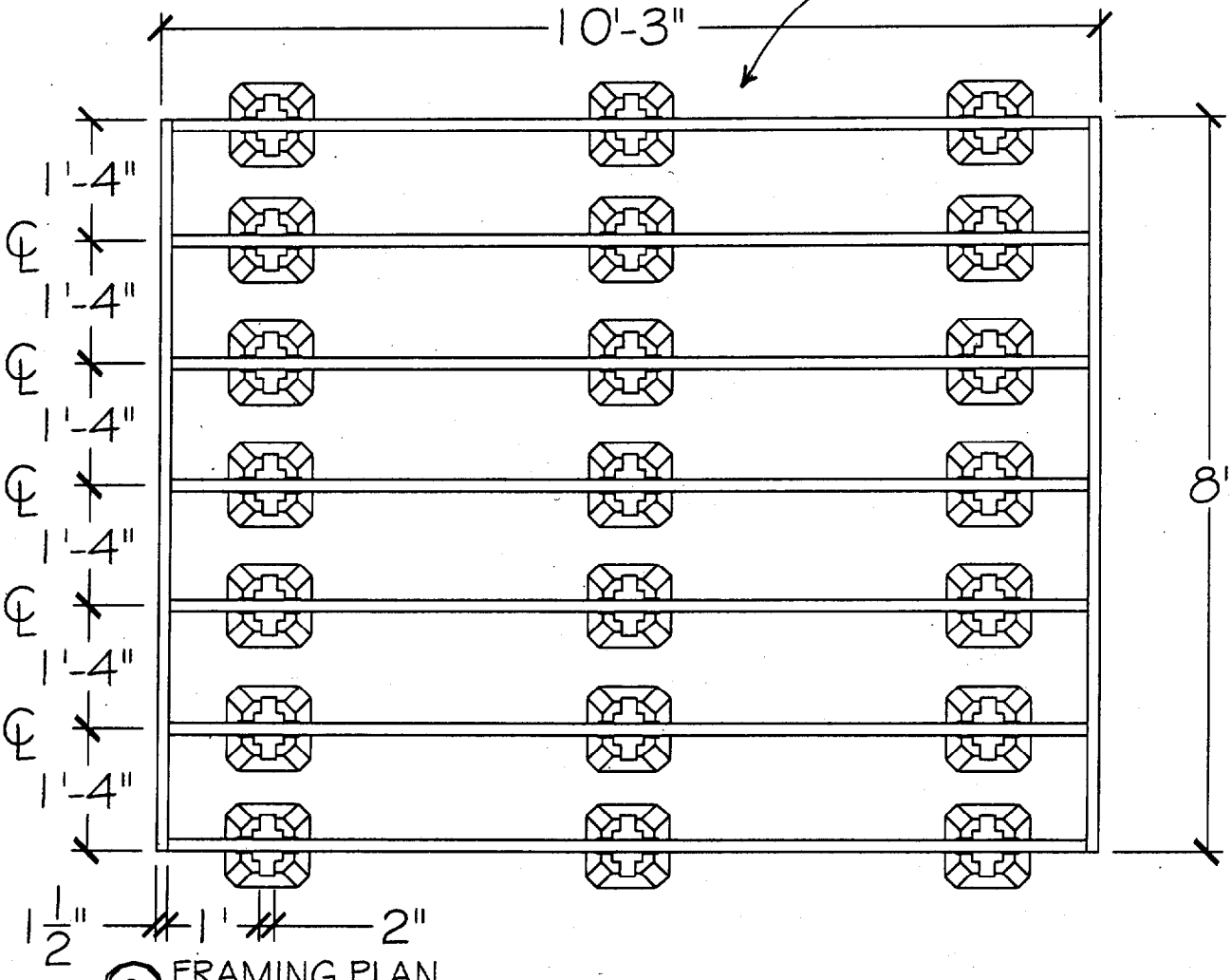


1 FRAMING SECTION
SCALE: 1/2" = 1' - 0"

Note: This support board and associated blocks will be recessed slightly, as shown on following page.



2 FRAMING PLAN
SCALE: 1/2" = 1' - 0"

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8' x 10'
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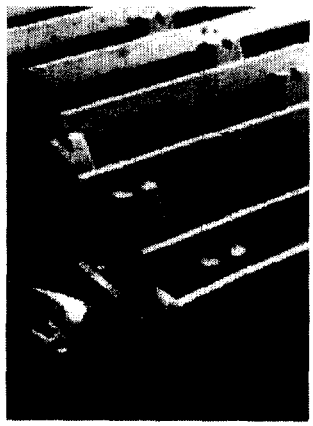
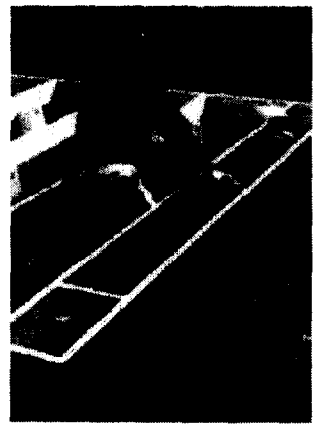
Add a Facia Board to Your Dek-Block® Deck

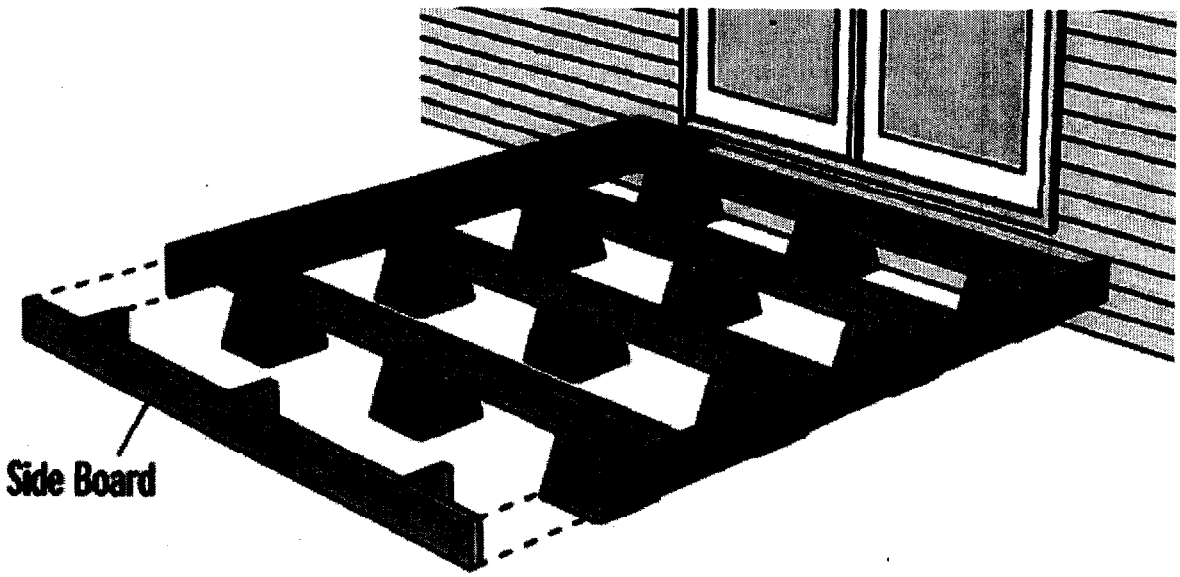
Building your deck can be a fun and rewarding experience. Plus, it can be completed in a weekend. Here are step by step directions on how to make adding a custom facia board to your deck simple and easy. Questions can be answered in the DekBrands forum, FAQ, by e-mail, or by calling us at 1-800-664-2705.



Hide the front row of Dek-Block® brand piers by moving them 71/2" toward the next row. Use 6" - 2"x6"s to connect the side board to the support boards. (Note: You will need to add one additional support board (s) and blocking to your material list.)

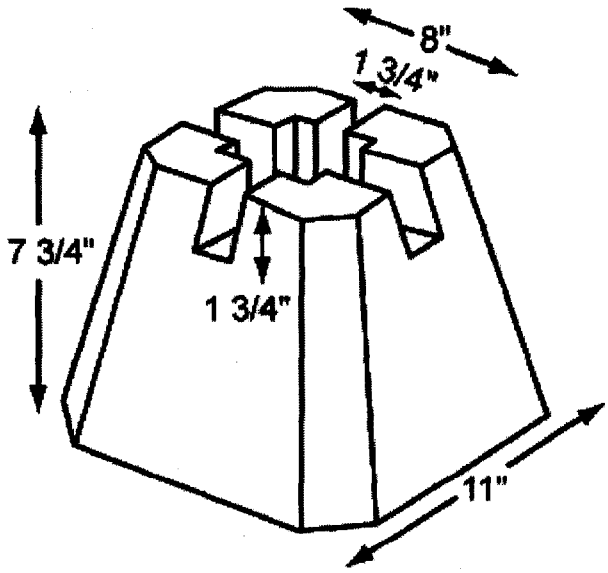
This adds a nice touch, especially when shrubs or gardens are planted next to the deck.



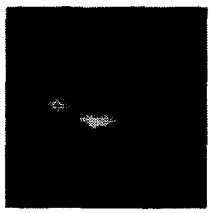


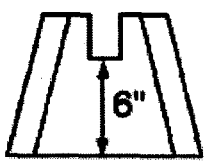
BACK

Dek-Block™ Specifications

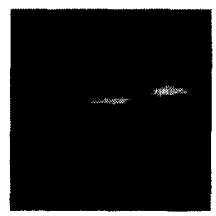


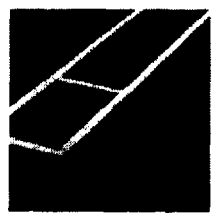
DekBrands Dek-Block brand piers are solid pre-formed concrete foundation blocks designed specifically for the Floating Foundation Deck System. Each block is manufactured from 5,000 psi concrete to ensure the greatest strength and durability.

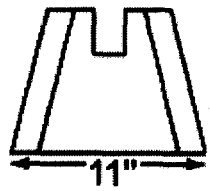




- 1-3/4" wide x 1-3/4" deep slot accepts 2" thick (1-1/2" net) lumber horizontally
- 3-3/4" square x 1-3/4" deep socket accepts 4x4 (3-1/2" x 3-1/2" net) posts vertically
- Block accepts all lumber species and surfaced sizes currently manufactured in the U.S.
- Blocks allow for lumber attachments in parallel and/or perpendicular configurations
- 6" distance from bottom of block to bottom of lumber slot
- Block porosity wicks moisture from slot/lumber to ground
- Weight: 38-45 lbs per block







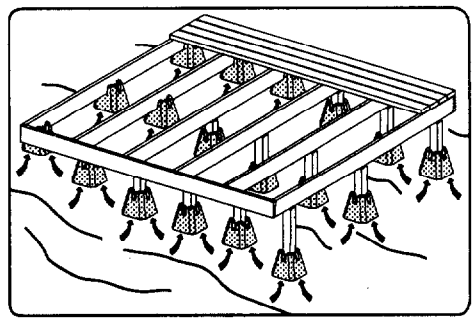
BACK

DECK SYSTEMS

Frequently Asked Questions

How does frost heave effect Dek-Block Floating Foundation Deck Systems?

The Dek-Block pier sits on top of the ground moving up and down just as your driveway or sidewalk would. The structure is part of a system and is designed to accommodate the frost movement.



Will my deck move sideways?

No. When frost heave occurs, the forces in the ground have nowhere to go except up. The deck will move slightly up and down, but not from side to side.

Will my deck sink?

Used even on poor soil conditions, your deck will not sink. Floating Foundation Deck Systems are designed as weight distribution system, spreading the weight EVENLY across the ground.

How do I determine my soil conditions?

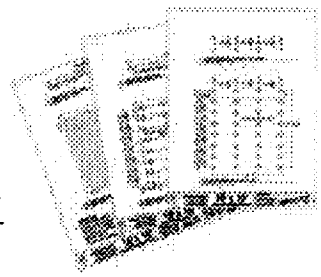
There is a simple non-technical method to determine if your soil is suitable for a Floating Foundation Deck System: the shoe print test. If a person's shoes sink into the ground while they are walking, the soil may not be suitable.

How strong is the Dek-Block Floating Foundation Deck System?

When built according to DekBrands deck plans, Dek-Block Floating Foundation decks far exceed the minimum structural requirements for construction. They are **STRONG**, **DURABLE**, and **SAFE**. Each deck is designed for 40 lbs per square foot live load (people, furniture, etc.) and 12 lbs per square foot dead load (deck materials).

Do building departments accept Dek-Block Floating Foundation decks?

DekBrands Floating Foundation Deck Systems have been designed in accordance with all major building codes. Most of the Midwest and Northeastern States have adopted a form of the Building Officials Code Administrators (BOCA)building code. The Mid-Atlantic States have adopted the Council of American Building Officials (CABO) building code. Both of these codes state that foundations must extend below the frost line "except where erected upon solid rock or otherwise protected from frost". Some states have adapted the newer International Building Code which does not require building permits for structures of four hundred square feet or less. When permits are required, they will normally be issued based on DekBrands deck plans.



How do I get my DekBrands deck plans and obtain a building permit?

Download the architectural deck plans and building code package from www.deckplans.com or call us at 1-800-664-2705 (5:00 am to 9:00 pm CST, 7 days a week) and we will mail or fax you a package. Take these plans and code package to your local building department for approval.

What do I do if my local Building Department has further questions about Dek-Block Floating Foundations decks?

DekBrands is available to answer any questions they may have, at 1-800-664-2705. DekBrands also has engineers available if there are additional, specific issues.

Live Technical Support - 7 Days a Week, 365 Days a Year (5:00 am to 9:00 pm CT) **1-800-664-2705** 100's of FREE Deck Plans at: www.DECKPLANS.com

EASY TO DO DECKS

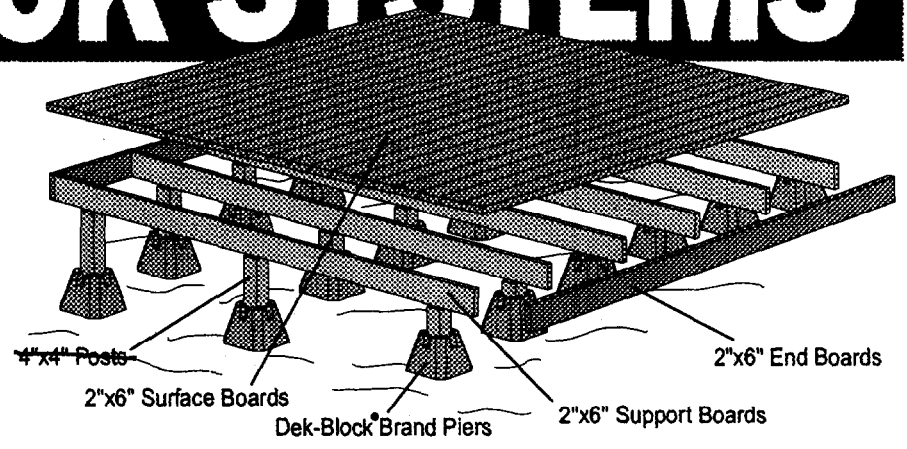
DECK SYSTEMS

BUILDING A DECK IS AS EASY AS 1-2-3!

Position the Dek-Block piers on the ground - Level the ground under each pier. The slot will be used to hold either horizontal 2"x6" deck support boards or vertical 4"x4" posts using 4"x4" posts of different lengths will level out uneven or sloping ground. (Note: For decks larger than 16', two or more 2"x6" support boards are joined end-to-end by nailing perforated metal truss to both sides of each joint. Make sure that a Dek-Block pier is centered directly under each support board joint.)

Place 2"x6" support boards directly in Dek-Block piers - The slotted top will hold horizontal 2"x6" deck support boards securely without bolts, brackets, or hassles. Square the support boards by measuring diagonally from corner to corner. Adjust the position of outside boards until the diagonal distance between opposite corners are EQUAL. Screw a 2"x6" end boards across one open end, adjusting all inside support boards so they butt flush against the end board, then screw the second end board across the other open end.

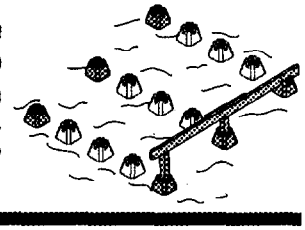
Install the 2"x6" surface boards - Put all surface boards in position on top of 2"x6" support boards. Use the width of a deck screw as a guide for spacing surface boards. Screw surface boards directly to 2"x6" support boards using two 2½" galv. deck screws per support board underneath. That's all there is to it!



How to Level or Elevate Your Deck:

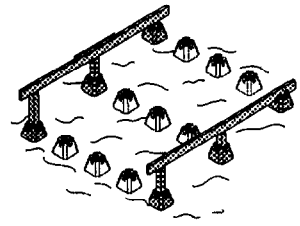
Determine the height of deck

Locate the highest corner Dek-Block pier. Position a 2"x6" support board in or above Dek-Block pier to desired height. Measure the distance from the bottom of the 2"x6" support board to the pocket of the Dek-Block pier. Cut 4"x4" post to length and position 2"x6" support board atop.



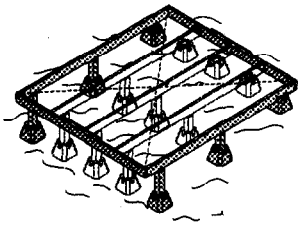
Level 2"x6" support board

Using a level as a guide, position the 2"x6" support board above the last block of the row. Measure the distance from the bottom of the 2"x6" support board to the pocket of the Dek-Block pier. Cut 4"x4" post to length and position 2"x6" support board atop. Repeat this process at the furthest row using the same height.



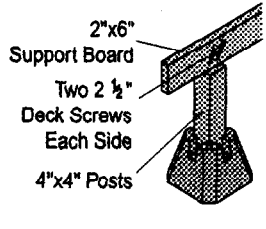
Square up 2"x6" support boards

Attach 2"x6" end boards to the support boards using two 2½" galvanized deck screws at each end. Using a level as a guide, insure that both end boards are level. Adjust outside support boards until diagonal distance between opposite corners is EQUAL. Attach 2"x6" support boards to the 4"x4" posts using two 2½" galvanized decks screws from each side.



Level remaining 2"x6" support boards

Position and attach 2"x6" support boards to the end boards using two 2½" galvanized deck screws at each end. Position Dek-Block piers beneath the support boards. Measure distance from the bottom of the 2"x6" support boards to the pocket of the Dek-Block piers. Cut 4"x4" posts to length and position between support boards and Dek-Block piers. Repeat until all 4"x4" posts are cut and positioned. Secure all support boards and 4"x4" posts.



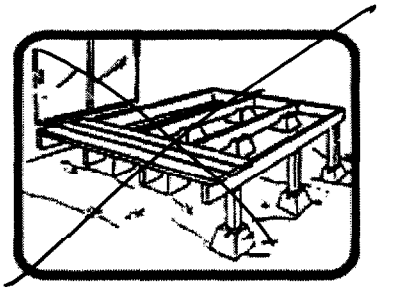
Live Technical Support - 7 Days a Week, 365 Days a Year (5:00 am to 9:00 pm CT) **1-800-664-2705**

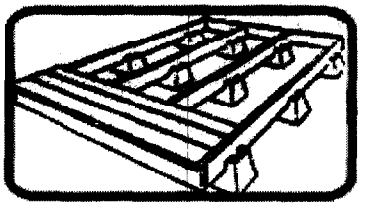
100's of FREE Deck Plans at: www.DECKPLANS.com

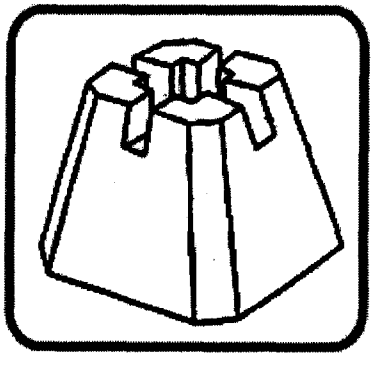
Boston Sunday Globe Home & Garden

Larry Eisinger
Tribune Media Services
May 26, 1996

If your deck is less than 30 inches above the ground, illustrated is a tested system that is not only 10-15 percent less expensive than a conventional deck with posts sunk into the ground, but requires less construction time for the very reason that you need not dig post holes. The joists, and where necessary the deck posts rest in a solid concrete block that in turn sits directly on the ground. And if you are thinking that a deck using this construction method will shift substantially because it does not have the usual dug in posts, bear in mind that each block weighs about 50 pounds and the edges will dig into the earth ever so slightly when set level so they cannot shift. Invented and patented by Paul Hoffman, owner of several small lumberyards in Alvadore, Oregon, because he wanted to sell more lumber. Hoffman assembled complete deck kits and used a regular concrete pier block on which to rest the deck joists or posts. However, using a regular pier block which had a metal strap molded in place presented several problems because the homeowners had difficulty positioning each block when placing the joists or vertical posts. He solved the problem by having a special mold made with a groove in the top in which regular dimensional lumber for joists could rest. To use this on-grade building system on a sloped surface one of Hoffman's associates, Sam Bright, suggested a square pocket be also molded in the block to accommodate the regular 4"X4" posts used in deck construction.



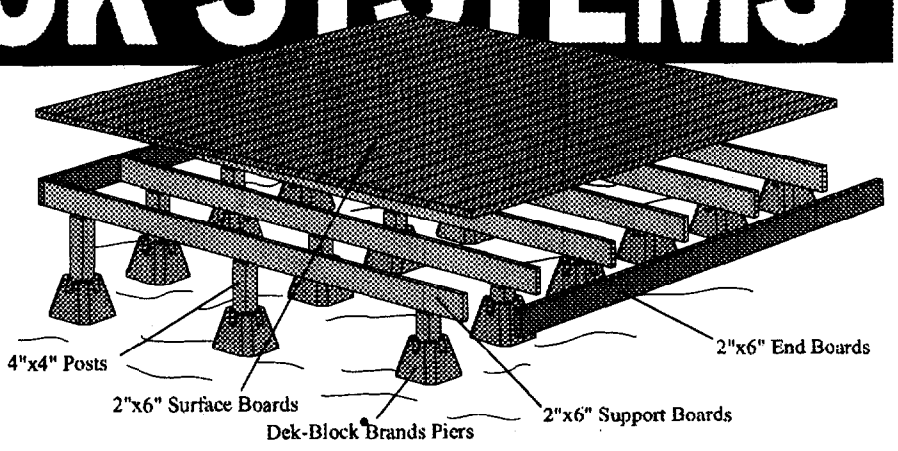




It is estimated that about a half million decks using Hoffman's system have been built nationally and 150,000 more will be built this year. A recent survey indicates that the average deck costs about $1200 to build, and requires 15 blocks which cost about $5 dollars per block. Since deck sizes and design vary with each home, DekBrands, the manufacturer of Dek-Block, is offering free detailed plans for many deck sizes and shapes along with extensive information on the types of lumber available, nails and screws, adhesives and finishes.

DECK SYSTEMS

8'x10' Rectangular Deck



☑	Material List	#	@	Per	Total
	Dek-Blocks				
☐	Dek-Block Brand Piers	21	@	$ 5	$ 105
	Support Boards				
☐	10' - 2"x6" Treated Lumber	7	@	$ 6	$ 34
	End Boards				
☐	8' - 2"x6" Treated Lumber	2	@	$ 6	$ 12
	Surface Boards				
☐	8' - 5/4"x6"	22	@	$ 8	$ 176
	Detailing				
☐	2½" Galvanized Deck Screws; lbs.	3	@	$ 2.50	$ 7.50
☐	Stain or Sealer; gals.	2	@	$ 9	$ 18
	Optional Posts for 30" Elevation				
☐	8' - 4"x4" Treated Posts	~~5~~	@	$ —	$ —

Total $ 352.50

Sales Tax 17.62

TOTAL $370.12

These plans are intended for consumer use only. Copyright 2000 Proshop Plans Co. They may not be reproduced, copied, distributed or disseminated without the written permission of DEKBRANDS. DekBrands and Dek-Block are trademarks of ProShop Plans Co. U.S. Patents 5,392,575 and 5,953,874 Pat. Pend/ App. Pend. Manufactured under license.

Live Technical Support - 7 Days a Week, 365 Days a Year (5:00 am to 9:00 pm CST) **1-800-664-2705**

100's of FREE Deck Plans at: www.DECKPLANS.com

DOUGLAS R. IVERSON, P.A.
6550 YORK AVE. SO., EDINA, MN 55435 (612) 920-2330 FAX (612) 920-4493

July 17, 2000

Mr. Irv Budlong
DEK-BRANDS, Inc.
P.O. Box 14804
Minneapolis, MN 55414

RE: FROST HEAVE CRITERIA
DECKS WITH DEK-BLOCK PIERS

Dear Mr. Budlong:

I have reviewed the design parameters of decks constructed with Dek-Block piers with respect to Building Codes and Frost Heave.

1. The Deck system has been analyzed for a dead load of 12 psf, and a live load of 40 psf.

2. The Standard Building Code allows that building not exceeding one story in height and 400 sq. ft. do not need to meet the requirements for foundation extension below frost depth.

3. I classify this structure as a lightweight structure since the normal dead load bearing is less than 200 psf.

4. The National Building Code says that "except where erected upon solid rock or otherwise protected from frost, foundation walls, piers, and other permanent supports of all buildings and structures larger that 100 square feet in area or 10 feet in height shall extend to the frost line of the locality, and spread footings of adequate size shall be provided where necessary to distribute properly the load within the allowable loadbearing value of the soil."

5. The deck system employing Dek-Block piers, 2x6 stringers and 2x6 decking has the flexibility and strength to safely support the design loads even with differential settlement of ½" between adjacent piers without damage to the stucture. Supporting calculations are attached.

6. The system has a plus or minus ½" tolerance in block height, and it is relatively easy to do maintenance shimming should settlement occur.

In my opinion, construction of a deck system with flexibility to and strength to accept the differential settlement or heave associated with frost action without structural damage meets the requirement for protection from frost.

Please call if you have any questions.

Sincerely yours,

Douglas R. Iverson, P.E.
Virginia License #022199

DOUGLAS R. IVERSON, P.A.
Structural Engineers
6550 York Avenue South
EDINA, MINNESOTA 55435
(612) 920-2330 Fax (612) 920-4493

JOB Dek - Block Piers
SHEET NO. 1 OF
CALCULATED BY DRI DATE 7/16/00
CHECKED BY DATE
SCALE Frost Heave Analysis

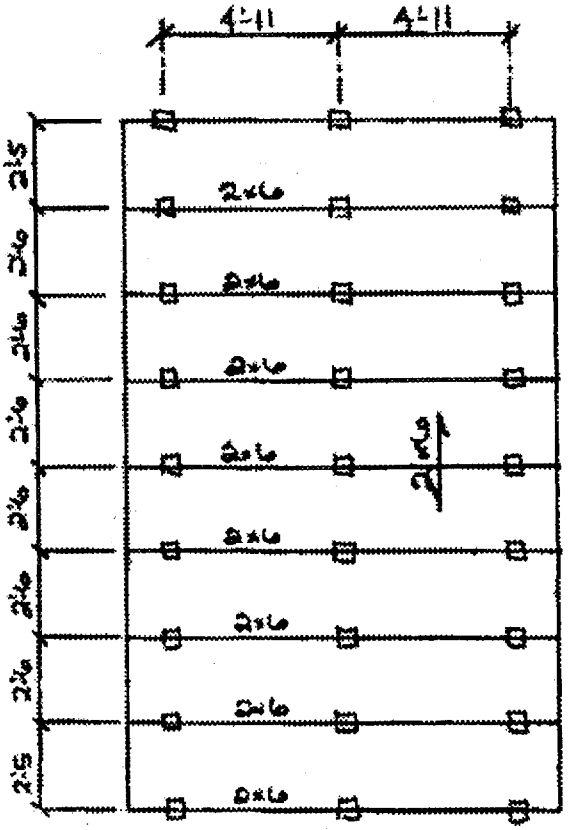
Evaluate Settlement & Frost Heave

Structural Live Load
40 PSF
Structural Dead Load
12 PSF

$W_D = 2.5 \times 12 = 30$ PLF
$W_L = 2.5 \times 40 = 100$ PLF

Maximum Footing Load
= 579 + 174 + 51 (Block)
= 804 PSF

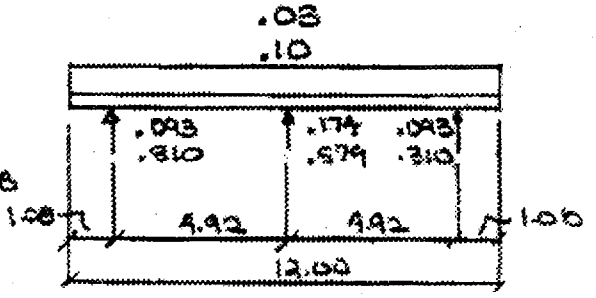
DL = 174 + 51 = 225 PSF
LL = 579 PSF
804 PSF

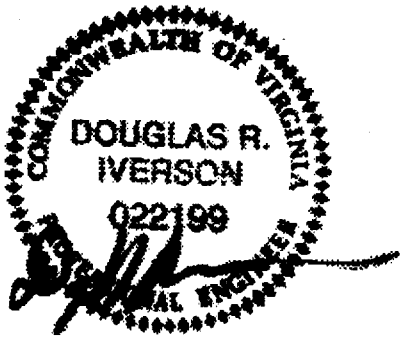


Calculate Simple Moments
$M = \frac{.13 \times 4.92^2}{8} = .394$

2x6 $S = \frac{1.5 \times 5.5^2}{6} = 7.56$ $I = \frac{1.5 \times 5.5^3}{12} = 20.8$
$f_b = .394 \times 12 / 7.56 = 625$ psi

Assume $E = 900{,}000$ psi
$\Delta = \frac{5 \times .13 \times 4.92^4 \times 12^3}{384 \times 900{,}000 \times 114} = .016$ in





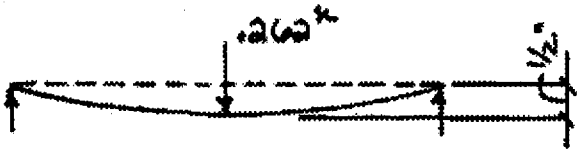
DOUGLAS R. IVERSON, P.A.
Structural Engineers
6550 York Avenue South
EDINA, MINNESOTA 55435
(612) 920-2330 Fax (612) 920-4493

JOB Deck-Block Piers
SHEET NO 2 OF
CALCULATED BY DRI DATE 7/16/00
CHECKED BY DATE
SCALE Frost Heave Analysis

Assume That Centle Support Settles 1/2"
Joist Then Spans 9.83 Ft
$M = .13 \times 9.83^2/8 = 1.57$ in-k $f_b = 1.57 \times 12/7.56 = 2.49$ ksi
$\Delta = \frac{5 \times .13 \times 9.83^4 \times 12^3}{384 \times 900 \times 58} = 1.51$ in

As Support Settles or Heaves, The Deck Timbers Will Deflect To Follow The Support

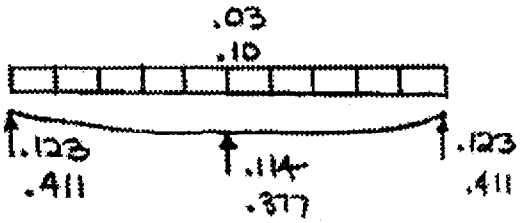
$\Delta = \frac{1}{2}" = \frac{Pl^3}{48EI} = \frac{P \times 9.84^3 \times 12^3}{48 \times 900 \times 20}$
$P = .262^k$

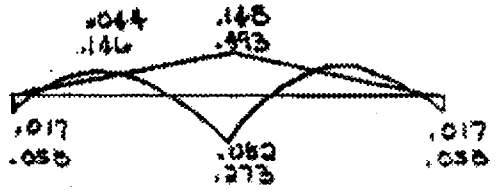


With Centle Support Deflected 1/2", The Reactions & Stresses Are As Shown

@ 1/2" Settlement.

$M = (.493 \times .148) - (.082 \times .273)$
$= .286$
$f_b = .286 \times 12/7.56 = .454$ ksi



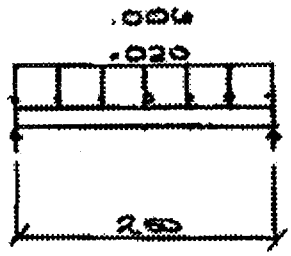


DOUGLAS R. IVERSON, P.A.
Structural Engineers
6550 York Avenue South
EDINA, MINNESOTA 55435
(612) 920-2330 Fax (612) 920-4493

JOB Deck - Block Piers
SHEET NO 3 OF
CALCULATED BY DRI DATE 7/16/00
CHECKED BY DATE
SCALE Frost Heave Analysis

Check Deck Boards
Boards @ 6" O.C.

DL = 13 PSF / 2 = 6 PLF
LL = 40 PSF / 2 = 20 PLF



$M = \frac{.026 \times 2.50^2}{8} = .0203$
$S = \frac{5.5 \times 1.5^2}{6} = 2.07$ $I = \frac{5.5 \times 1.5^3}{12} = 1.55$
$f_b = .0203 \times 12 / 2.07 = .118$ Ksi O.K.

$\Delta = \frac{.026 \times 5 \times 2.50^4 \times 12^3}{384 \times 900 \times 1.55} = .016$

Assume 1/2" Settlement
$\Delta = \frac{.023 \times 5 \times 5 \times 12^3}{384 \times 900 \times 1.55} = .232$

$M = \frac{.026 \times 5^2}{8} = .0813$ K-ft
$f_b = .0813 \times 12 / 2.07 = .4713$

Deck Boards Are Stiff Enough to Span Over 5'-0" & Have Strength To Span.

AE ASSOCIATES, INC.

*Engineering Design * Project & Construction Management*

BUILDING AND SPECIAL INSPECTIONS

January 16, 1997

To whom It May Concern:

Subject: DEKBRANDS Deck Systems-Building Code Reviews

AE ASSOCIATES, Inc. has been retained to consider the DEKBrands Deck System. Included in this process was structural design analysis of components that make up the system, including the Dek-Block Pier footing members, the spacing of these blocks, deck wood stringers, joists and surface decking.

In order to make these design analyses it was reasonable to use established design standards for vertical loading and ground support, as provided for in the various Building Codes adopted by all states and other municipalities. Where these Codes did not provide for specific "deck" loading criteria residential interior loads were used. All Code revisions since 1985 have been reviewed to determine that all current provisions were being complied with. These standards are summarized below, by Code and the most applicable Code chapter or section:

Council of American Building Officials (CABO)

Buildings - section 202
Design Criteria - sections 301.3, 301.4, 301.6, Table 301.4, 315.3
Foundations - sections 401.2, Table 401.4.1, Table 502.3.1a

Uniform Building Code (ICBO)

Foundations - chapter 18, sections 1803.2, 1804.1.1, 1806.1, 1806.3, 1806.5, 1806.7.2.3, 1806.7.4, Table 18.1.A
Structural forces - chapter 16, sections 1602, 1603.3.1, 1604.1, 1604.2, 1604.3, 1606, 1607, 1608, Table 16-A
Size and Height - chapter 5, section 509.1, 509.2, 509.3, chapter I, section 106, 106.2(2)(2.1), 106.2(2)(2.7)

Standard Building Code (SBCCI)

Egress - Chapter 10, section 1014.1.1, 1014.1.2, 1015.1
Structural Loads - chapter 16, section 1601.2.1, 1601.2.2, 1601.5, 1603.1, 1604.1, Table 1604.1, 1604.3
Foundations - chapter 18, section 1804.3.3.1, 1804.4.1, chapter 23, section 2303.2.1, 2303.2.2
Floor Construction - Wood - chapter 23, section 2301.1.2, 2301.2.1, 2301.2.5, 2301.3, 2303, 2304.2, 2306.1, 2307 (general)

Building Officials and Code Administrators International (BOCA)

Loadings - section 1606.1, 1606.2, table 1606, 1606.3
Footings - section 1807.1, 1810.3.1

In addition the "Dwelling Construction under the Uniform Building Code" handbook was consulted , particularly chapters on framing, foundations and tables on wood member working stresses.

The subject deck footing and structural systems were designed to a minimum standard of 40 pounds per square foot of LIVE LOAD, a CONCENTRATED LOAD of 300 pounds, using a DEAD LOAD of 12 pounds per square foot. All Code requirements considered appropriate are complied with using these standard. These are also considered conservative load ratings since higher live lad values (up to 75 pounds per square foot) could be used under conditions where soil and wood member strength ratings other than "minimum Code" values used.

We certify that, after review of all applicable current Codes, all systems and components analyzed by this company meet or exceed Code standards for uniform and concentrated loadings plus soil bearing conditions, when these products are installed in accordance with the instructions. Local Building Officials may apply requirements based on specific conditions of their municipality, requiring the consumer to purchase a building permit for the installation.

Respectfully submitted,

Robert C. Bowser, P. E.

2920 S. W. Luradel Lane * Portland, Oregon 97219 * FAX (503) 977-2021
Portland (503) 977-3622 * Vancouver (360) 253-4318 * Mobile (503) 784-3443

AE ASSOCIATES, INC.
Engineering Desing Project & Construction Management
Building and Special Constructions

	Job Name	S.O. No EST. 90-14

Description
REVIEW - PRO-SHOP DECK SYSTEMS

Design By:	Date	Checked By	Date	Approved	Date 4/6/90

REF: PROSHOP PLANS FOR STANDARDIZED DECKS (ATTACHED)

ISSUE:
IS 2X6 (TYP.) DECKING OK, RELATIVE TO STRESS 4 DEFLECTION, WHEN PLACED ON JOISTS AS MUCH AS 30" O.C. (I.E. SPAN OF 28 1/2")

LOADING PATTERNS:
- 40 PSF L.L - UNIFORM
- 300 LB CONCENTRATED LOAD ON 12" X 12" AREA

ACCEPTANCE CRITERIA:
- STRESS, BENDING (EXTREME FIBER) <
- DEFLECTION L/E > 360
- BOTH ARE ACCEPTED LEVELS FROM UBC

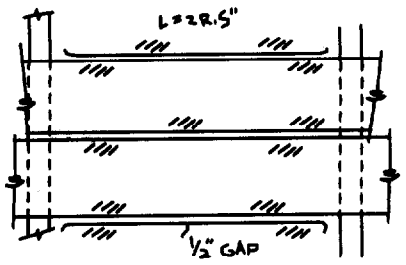
ASSUMPTIONS:
STANDARD & BETTER LUMBER INSTALLED TO REASONABLE
CONSTRUCTION QUALITY. USE SUPPORTED EDGES SINCE SOME DECK BOARD ENDS WILL BE INSTALED AT JOISTS.
1/2" MAXIMUM GAP BETWEEN BOARDS

FROM UBC:
MIN. $t\beta$ = 475 psi (LOWEST IN UBC)
MIN. E = 700,000 psi (LOWEST IN UBC)*

SECTIONS:
SECT MODS = $th^2/6$ (2X6)
= 2.1 in^3
I = 1.55 in

ALSO:
L= 28.5"
D.L. ~ 2.4 LBS/FT OF 2.6

L.L.
40#/FT ==> 20#/FT OF 2X6
300#/12" ==> 150# Per 12" of 2X6
D.L. = 2.4 #/FT



STRESSES:
UNIFORM LOADING: (ONE 2X6)

17 = WL/8
= 190 IN-LB

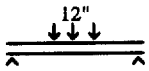
W = (20 + 2.4) 28.5"/12"
= 53.2 #

$t\beta$ = 190 IN-LB/2.1 IN^3
= 90 psi << 475 psi OK!

CONC. LOADING:

SEE ROARK, 5th P. 107, CA 14

a = 8.25"
c = 12"
d = 14.25"



W ~ 154#

MAX. M = W d/L (a + cd/2L)
= 866 in-lb
$t\beta$ = 413 psi << 475 psi OK!

DEFLECTIONS:
UNIFORM LOADING:
E = 5/384 WL^3/EI LET E=900,000 psi
= .012" ==> L/E = 2479 >> 360 OK!

CONC. LOADING:
W = 154#
E = 1/48EI { 8R1 (X^3-L^2X) + WX [$8d^3/L$ - 2 bc^2/L + c^3/L + $2c^2$]
-2W (x-a) /c}

WHERE: X = L/2 R1 = W/2
E = 1/48EI {-$WL^3/2$ + WL/2 (1077.5) - 2W(108) }
=.023"
L/E = 1245 >> 360 OK!

2920 S. W. Luradel Lame * Portland, Oregon 97219 * FAX (503) 977-2021
Portland (503) 977-3622 * Vancouver (360) 253-4318 * Mobile (503) 784-3443

CITY OF PORTLAND, MAINE

Department of Building Inspections

May 22 2003

Received from TA Napolitano

Location of Work 186 Cayo St

Cost of Construction $ _____

Permit Fee $ 35.00

Building (IL) ___ Plumbing (I5) ___ Electrical (I2) ✓ Site Plan (U2) ___

Other _____

CBL: 124 G019

Check #: 10047 **Total Collected** $ 35.00

THIS IS NOT A PERMIT

No work is to be started until PERMIT CARD is actually posted on the premises. Acceptance of fee is no guarantee that permit will

Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT ISSUED

Permit Number: 030567

JUL 22 2003

CITY OF PORTLAND

Please Read Application And Notes, If Any, Attached

PERMIT

This is to certify that Filene Daniel R /Applicant

has permission to Construct an 8' x 10' Platform ee Stand Deck

AT 17 Blythe Ct C L 055 B016017

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 lathed 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

Director - Building & Inspection Services

7/22/03

PENALTY FOR REMOVING THIS CARD

From: DANIEL R. FILENE
17 Blyth Court, Portland ME 04102
H: 207-780-1962
W: 207-287-7425

FAX COVER SHEET

DATE: 7/23/03

TO: Jeanie Bourke

FAX #: 874-8716

RE: Building Permit

TOTAL PAGES: 2

COMMENTS:

Thanks for your help. I will notify when I've been able to complete the framing.

BUILDING PERMIT INSPECTION PROCEDURES
Please call 874-8703 or 874-8693 to schedule your inspections as agreed upon

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

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

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

JB **Pre-construction Meeting**: Must be scheduled with your inspection team upon receipt of this permit. Jay Reynolds, Development Review Coordinator at 874-8632 must also be contacted at this time before any site work begins on any project other than single family additions or alterations.

N/A **Footing/Building Location Inspection:** Prior to pouring concrete

N/A **Re-Bar Schedule Inspection:** Prior to pouring concrete

N/A **Foundation Inspection:** Prior to placing ANY backfill

✓ **Framing/Rough Plumbing/Electrical:** + Location to setbacks Prior to any insulating or drywalling

N/A **Final/~~Certificate of Occupancy~~:** Prior to any occupancy of the structure or use. NOTE: ~~There is a $75.00 fee per~~ inspection at this point.

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

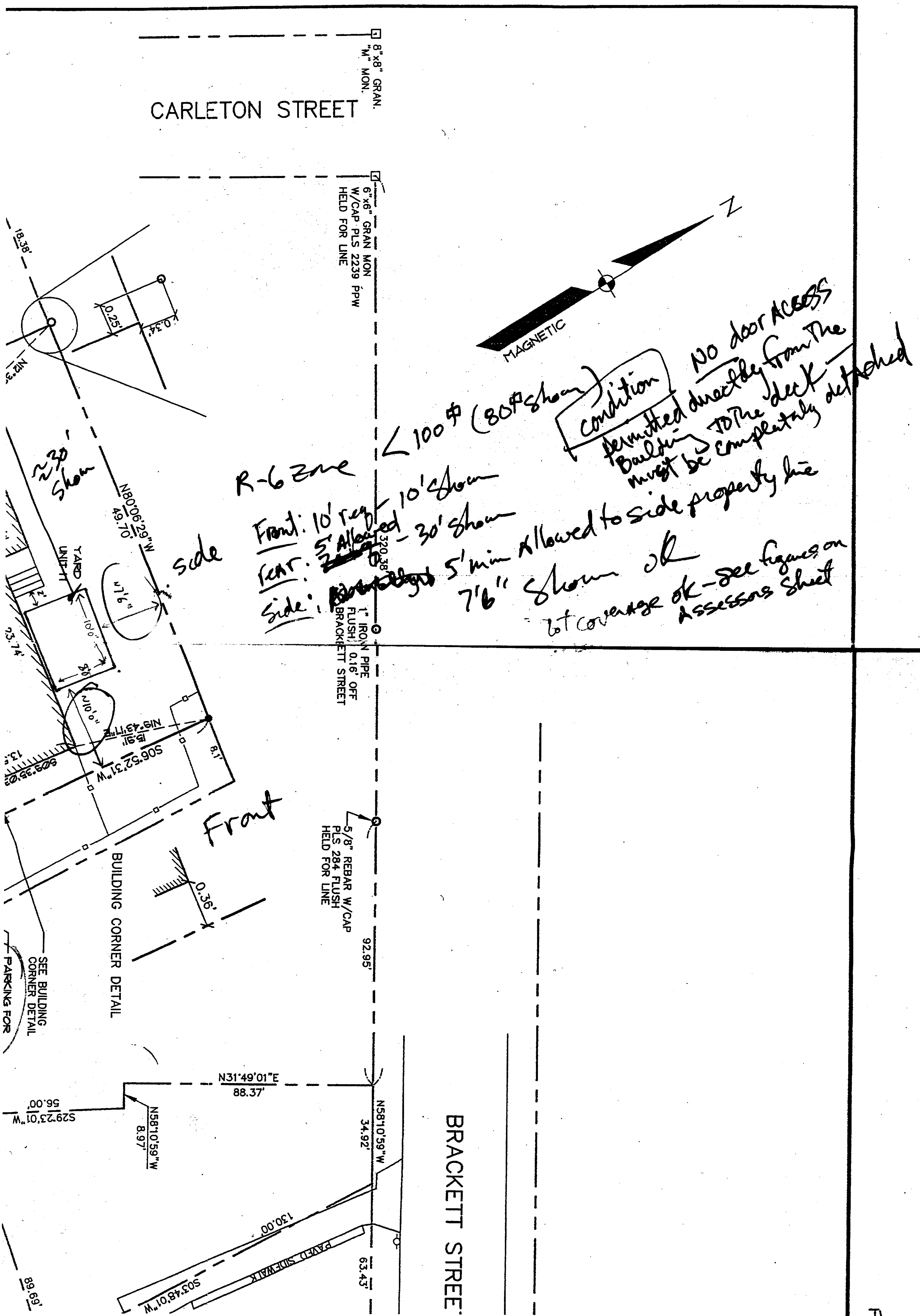
✓ **If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.**

N/A **CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED**

x _____ 7/23/03
Signature of applicant/designee Date

_____ 7/23/03
Signature of Inspections Official Date

CBL: 55-B-16 Building Permit #: 03-0567


CARLETON STREET
8"x8" GRAN. "M" MON.
6"x6" GRAN MON W/CAP PLS 2239 PPW HELD FOR LINE
MAGNETIC
18.38'
0.25'
0.34'
N80°06'29"W 49.70'
320.38'
YARD UNIT 11
1" IRON PIPE FLUSH 0.16' OFF BRACKETT STREET
N19°43'11"E 15.91'
S06°52'31"W
S09°35'03"
8.1'
23.74'
0.36'
5/8" REBAR W/CAP PLS 284 FLUSH HELD FOR LINE
92.95'
BUILDING CORNER DETAIL
SEE BUILDING CORNER DETAIL
PARKING FOR
N31°49'01"E 88.37'
S29°23'01"W 56.00'
N58°10'59"W 8.97'
N58°10'59"W 34.92'
130.00'
S03°48'01"W
PAVED SIDEWALK
63.43'
89.69'
BRACKETT STREE
R-6 Zone
< 100 ⌀ (80⌀ shown)
Front: 10' req. 10' shown
Rear: 5' Allowed - 30' shown
Side: 5' min Allowed to side property line
7'6" shown ok
Lot coverage ok - see figures on Assessors sheet
condition
No door ACCESS permitted directly from the Building to the deck - must be completely detached
~30' shown
~7'6"
~10'0"
10'0"
8'0"
2'
side
Front