

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: 02-0480	Issue Date: MAY 22 2002	CBL: 338 H017001
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Location of Construction: 19 Newton St	Owner Name: Dupuis Claude F &	Owner Address: 19 Newton St	Phone: 797-5044
Business Name:	Contractor Name: claude Dupuis	Contractor Address: 19 Newton Street Portland	Phone: 2077975044
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Dwellings	Zone: R-3

Past Use: Single Family	Proposed Use: Single Family	Permit Fee: \$37.00	Cost of Work: \$1,500.00	CEO District: 1
		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied N/A	INSPECTION: Use Group: R3 Type: SB BOCA 1997	

Proposed Project Description: 12' x 16' deck	Signature:	Signature:
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: jodinea	Date Applied For: 05/03/2002	Zoning Approval	
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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..	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: 5/22/02	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:
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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

Will have 36" high guardrails on deck & stairs.

Joist will be 2x8-16" OC

Rim Joist will be 2-2x10's or 3-2x8's
5/22/02 - Went over above w/owner - OK to issue permit.

6/7/02 - Setbacks + sunnetube depth - OK -
Size OK -

7/31/02 1st Riser at 8 inches (Bottom) Guardrails
at 34" (need to be 36 min) No handrails present.
Call owner after 4 PM w/ results. Tom M

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or ~~874-8632~~ 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.

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.

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: Prior to any insulating or drywalling

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**

Claude J. Dupuis
Signature of applicant/designee

Date
5/22/02

[Signature]
Signature of Inspections Official

Date

CBL: 338-H-17 Building Permit #: 020480

02-0480

All Purpose 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.

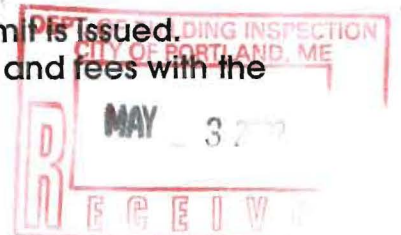
Location/Address of Construction: <u>19 Newton St. Portland Me. 04103</u>		
Total Square Footage of Proposed Structure <u>192 Square Foot.</u>	Square Footage of Lot <u>6,000</u>	
Tax Assessor's Chart, Block & Lot Chart# <u>338</u> Block# <u>H</u> Lot# <u>017</u>	Owner: <u>Claude Dupuis</u>	Telephone: <u>797-5044</u>
Lessee/Buyer's Name (If Applicable)	Applicant name, address & telephone: <u>Claude Dupuis 19 Newton St. Portland. Me. 04103 797-5044</u>	Cost Of Work: \$ <u>1,500.</u> Fee: \$ <u>37.00</u>
Current use: <u>S/F</u>		
If the location is currently vacant, what was prior use: _____		
Approximately how long has it been vacant: _____		
Proposed use: <u>12x16 Deck</u>		
Project description: _____		
Contractor's name, address & telephone: _____		
Who should we contact when the permit is ready: <u>Claude Dupuis +1 call</u>		
Mailing address: <u>19 Newton St. Portland, Me. 04103-1523</u>		
We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work, with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up. PHONE: <u>797-5044 +1</u>		

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.

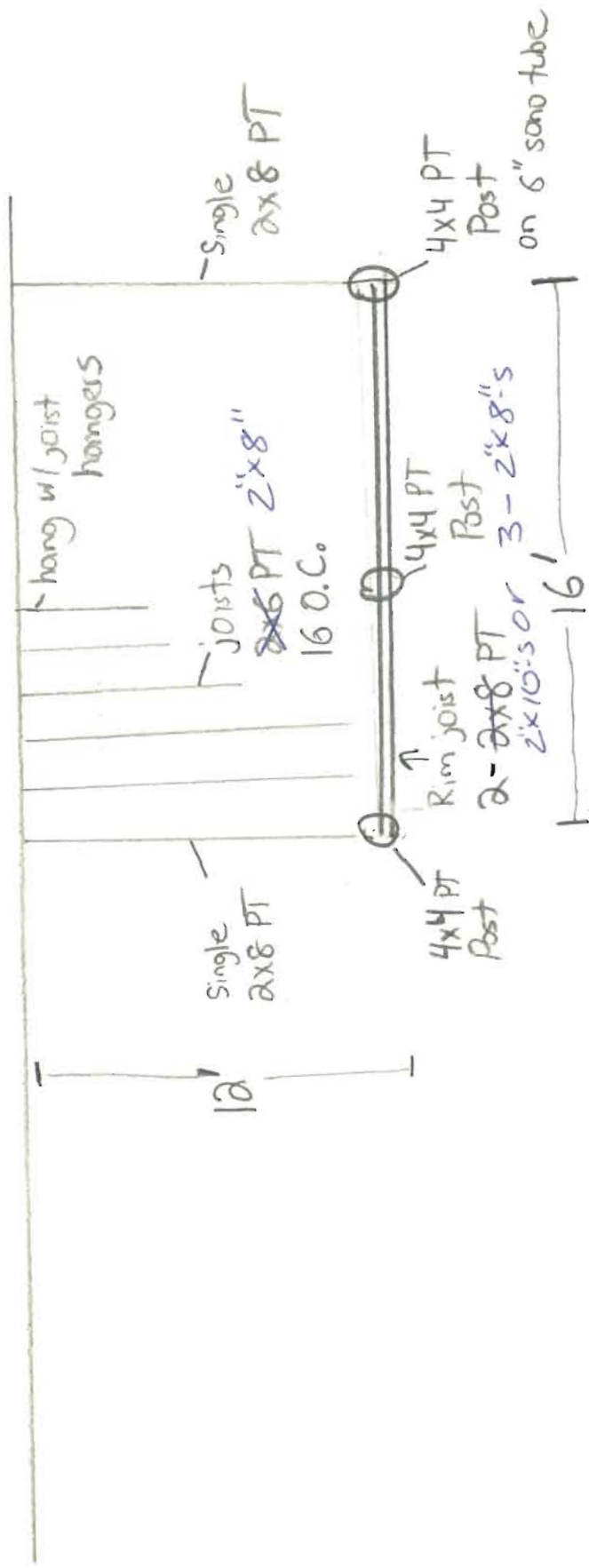
I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, 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: <u>Claude Dupuis</u>	Date: <u>5-4-09</u>
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This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall

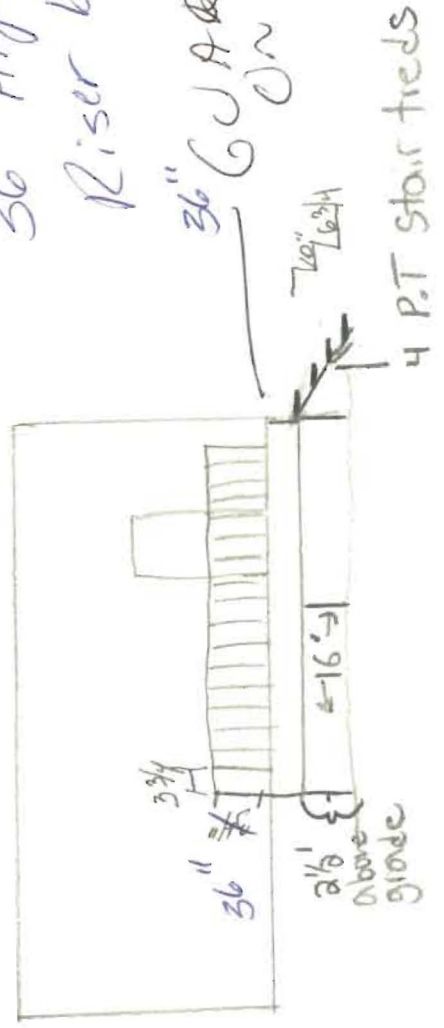


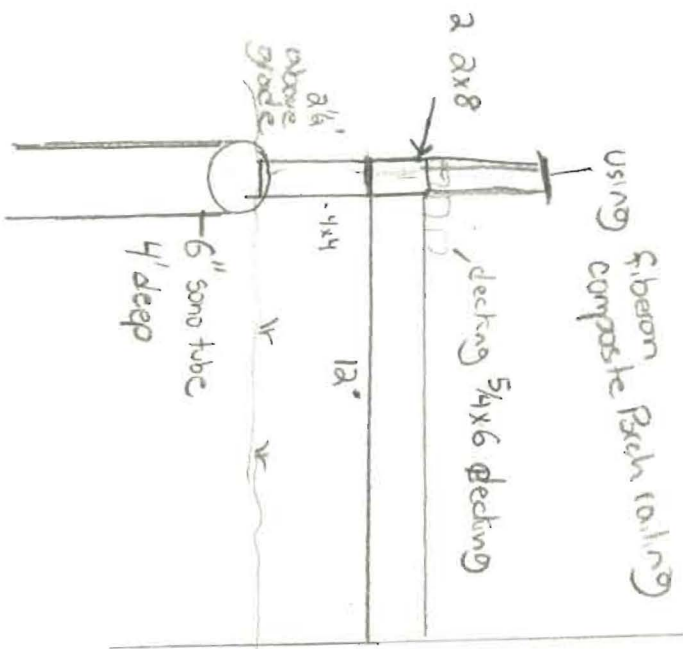
House



36" High Guardrail
Riser boards on stairs

36" GUARD ON STAIRS

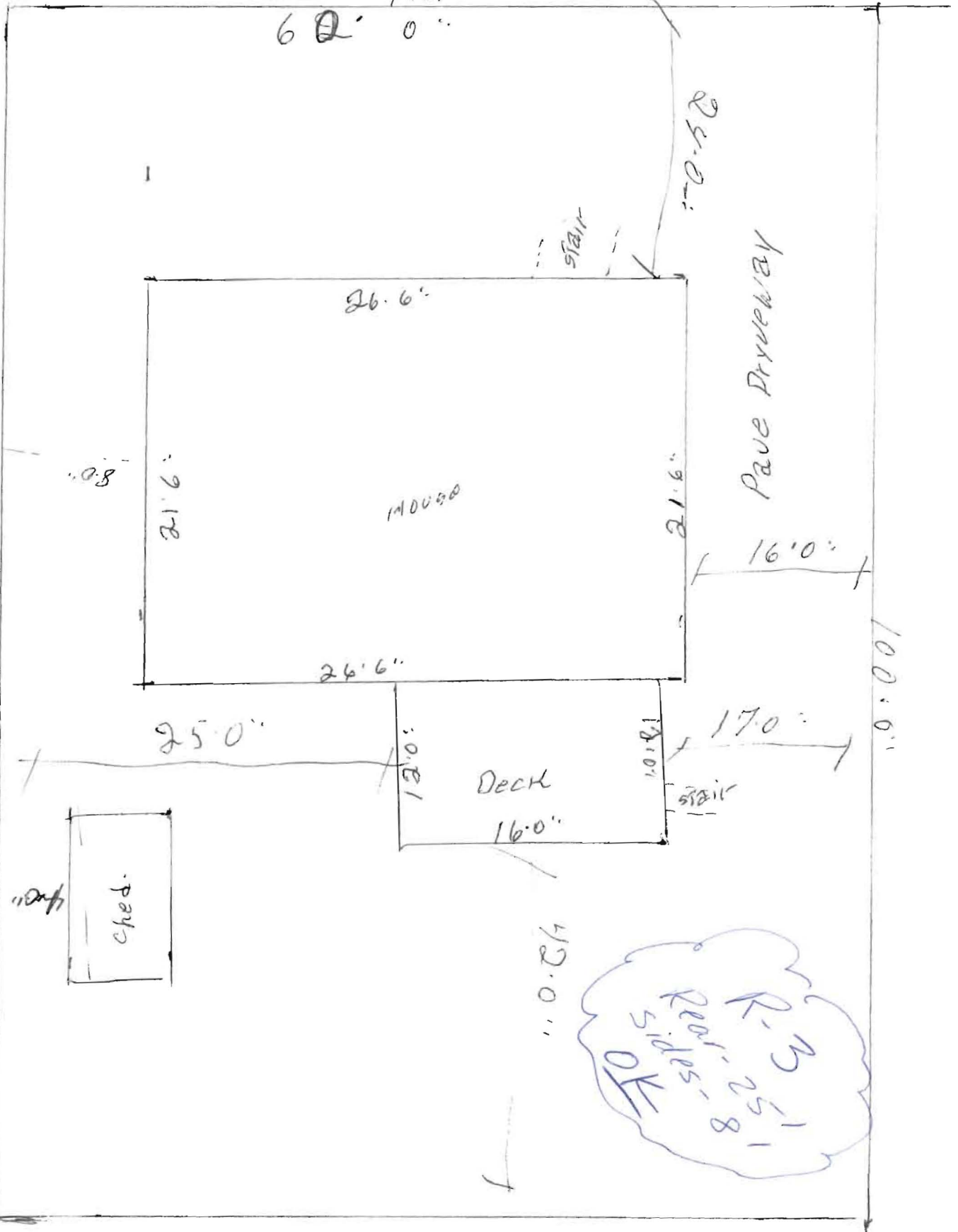




Newton Street

Front

62' 0"



Base 2x6 Treated Wood

Around. Base 2x8 Treated Wood.

FLOOR

5/4 Fiber Board

STAIR Fiber Board.

RAIL Fiber

4x4 Post

Pour Concrete For Post Base

3 = 4'0" deep

Fiberson® Railing Dimensions:

Section Dimension Height:

W/ Flat Top Rail – 33 13/16" (from the bottom of the bottom rail to the top of the top rail)

W/ Deluxe Top Rail – 34 7/8" (from the bottom of the bottom rail to the top of the top rail)

Rail only:

<u>Rail Type</u>	<u>Height</u>	<u>Width</u>	<u>Length</u>
6' edge rail (bottom rail)	3 1/2"	2"	72"
6' deluxe	2 1/8"	2 1/2"	72"
6' Flat	2"	3 1/2"	72"
4' edge rail	3 1/2"	2"	48"
4' deluxe	2 1/8"	2 1/2"	48"
4' flat	2"	3 1/2"	48"
4' post	48"	4"	4"(diameter)
Square Baluster	31 1/2"	1 1/4"	1 1/4"

The space between the balusters are 3 3/4"

From end of rail to edge of first baluster: 3 13/16" (6' sections with square balusters)

Stair angles – minimum 30°/maximum 34° (allowing an 11"run and a 7"rise)



**HARDWOOD PLYWOOD & VENEER ASSOCIATION
LABORATORY AND TESTING SERVICE**

P.O. Box 2789, Reston, Virginia 20195 U.S.A. 1825 Michael Faraday Drive, Reston, Virginia 20190 703-435-2900 FAX 703-435-2537

**Report On Structural Properties of
Fiberon Wood Composite Deck Railing System**

**Determined By
Conducting Strength Tests
Per BOCA National Building Code/1996
Section 1710.3.1 Test Procedure**

**Prepared For
Fiber Composites Corporation
34570 Random Road
New London, NC 28127**

**Report On
Breadloaf Shaped Top Rail Point Load Test on
Six Foot Handrail/Guard Assembly**

Report Date: January 20, 1999

I. SCOPE

This report contains the reference to the test method and product requirements, purpose, preparation and conditioning of specimens, test equipment, test and post test observation data, test results and conclusions.

II. TEST METHOD AND PRODUCT REQUIREMENTS

The test was conducted using an ASTM Designation E72 Racking apparatus. No ASTM method exists for the actual types of tests conducted. The test conducted was to determine if the product meets the B.O.C.A. National Building Code and the referenced ASCE 7-95 guidelines. The Code Sections require the following:

Section 1022.0 Handrails

- 1022.1 General:** Where required by the provisions of Sections 1012.5, 1013.0, 1014.6.6.1, 1014.7 and 1016.5, handrails shall be designed and constructed in accordance with this section and Section 1606.4
- 1022.2.1 Projection:** Handrails shall not project more than 3 ½ inches (89 mm) into the required passageway, aisle, *corridor* or ramp width, and not more than 4 ½ inches (114 mm) into the required *stairway* width.
- 1022.2.2 Height:** Handrails shall not be less than 34 inches (864 mm) nor more than 38 inches (965 mm), measured vertically, above the leading edge of the treads or above the finished floor of the landing or walking surfaces.

Exceptions

1. Handrails that form part of a guard shall have a height not less than 36 inches (914 mm) and not more than 42 inches (1067 mm).
2. Handrails within individual *dwelling units* shall not be less than 30 inches (762 mm) nor more than 38 inches (965 mm) measured vertically, above the leading edge of the treads or above the finished floor.

Section 1710.3 Load test procedures not specified: Where load test procedures are not specified in the applicable design standards listed in Chapter 35, the loadbearing capacity of structural components and assemblies shall be determined on the basis of load tests conducted in accordance with Sections 1710.3.1 and 1710.3.2. Load tests shall simulate all of the applicable *loading* conditions specified in Chapter 16.

Section 1710.3.1 Test procedure: The test assembly shall be subjected to an increasing superimposed load equal to not less than two times the superimposed design *load*. The test load shall be left in place for a period of 24 hours. The tested assembly shall be considered to have met successfully the test requirements if the assembly recovers not less than 75 percent of the maximum deflection within 24 hours after the removal of the test load. The test assembly shall then be reloaded and subjected to an increasing superimposed load until either structural failure occurs or the superimposed load is equal to two and one-half times the load at which the deflection limitations specified in Section 1710.3.2 were reached, or the load is equal to two and one-half times the superimposed design *load*. In the case of structural components and assemblies for which deflection limitations are not specified in Section 1710.3.2, the test specimen shall be subjected to an increasing superimposed load until structural failure occurs or the load is equal to two and one-half times the desired superimposed design *load*. The allowable superimposed design *load* shall be taken as the lesser of:

1. The load at the deflection limitation given by Section 1710.3.2;
2. The failure load divided by 2.5; or
3. The maximum load applied divided by 2.5.

Section 1710.3.2 Deflection: The deflection of structural members under the design *load* shall not exceed the limitations in Section 1604.5

Section 1710.5. Test specimens: All test specimens and construction shall be representative of the materials, workmanship and details normally used in practice. The properties of the materials used to construct the test assembly shall be determined on the basis of tests on samples taken from the load test assembly or on representative samples of the materials used to construct the load test assembly. All required tests shall be conducted or witnessed by an *approved agency*.

Section 1604.0 Design safe load

1604.1 Basic requirements: The basic requirements of strength, serviceability, self-straining forces and analysis for buildings and other structures shall be in accordance with Section 1.3 of ASCE 7 listed in Chapter 35.

1604.2 General structural integrity: The requirements for general structural integrity shall be in accordance with Section 1.4 of ASCE 7 listed in Chapter 35.

1604.4 Preconstruction load tests: Materials and methods of construction which are not capable of being designed by approved engineering analysis or which do not comply with the applicable material design standard listed in Chapter 35, or alternative test procedures in accordance with Section 1707.0, shall be load tested in accordance with Section 1710.0.

1604.5 Deflection limitations: The deflection of structural members shall not exceed the more stringent limitations of Sections 1604.5.1 through 1604.5.3 or Sections 1604.4 through 1604.5.6

1707.0 Alternative test procedure

1707.1 General: In the absence of *approved rules* or other approved standards, the code official shall make, or cause to be made, the necessary tests and investigations; or the code official shall accept duly authenticated reports from approved agencies in respect to the quality and manner of use of new materials or assemblies as provided for in Section 106.0. The cost of all tests and other investigations required under the provisions of this code shall be borne by the permit applicant.

Section 1710.0 Preconstruction load tests

Section 1710.1 General: In evaluating the physical properties of materials and methods of construction which are not capable of being designed by approved engineering analysis or which do not comply with the applicable material design standards listed in Chapter 35, the structural adequacy shall be predetermined based on the load test criteria established by Sections 1710.3 shall apply.

Section 1710.2 Load test procedures specified: Where specific load test procedures, *load* factors and acceptance criteria are included in the applicable design standards listed in Chapter 35, such test procedures, *load* factors and acceptance criteria shall apply. In the absence of *specific test procedures, load* factors or acceptance criteria, the corresponding provisions in Section 1710.3 shall apply.

Load data was obtained using the following:

1. A 2000# Omega LCG-2K compression load cell. Cell # 454484 originally calibrated on 2/3/95 by Omega Engineering, Inc. using instruments and standards that are traceable to the United States National Institute of Standards Technology (NIST). The cell is checked annually for range and linearity.
2. Chart recorder set for a full range (chart reading from 0 to 100 units) for a 1000# load. The recorder millivolt calibration was performed with an L&N Bridge calibrated with an NIST traceable standard cell.
3. Loading was done with a hydraulic cylinder. The cylinder rate of travel and/or rate of force application is adjustable.
4. The tests were video taped and photographed.
5. Deflection data by 1/8" reading steel yard stick.

VI. TEST AND POST TEST OBSERVATION DATA

See the following for method of test, spreadsheets test data and post test observations: This test examines a six foot section of deck handrail/guard for compliance with BOCA Code requirement Sections 1022, 1604, 1707, 1710 and ASCE 7-95 Section 4.4 requiring top and intermediate rails to withstand a concentrated load of 200 pounds. Each rail end was attached to the post with plastic cups which were in turn attached to clips, then to the post with two # 8 x 1" sheet metal screws. Fiberon Wood Composite posts at the ends of the six foot span were anchored to 2 x 10" treated SYP simulated skirt. The skirt was firmly anchored. The top ends of the posts were also restrained. A force was point applied to the center of the top rail. The load was applied @ 90 degrees to the rails and posts (worst case). The 90 degrees loading is the worst case in that a vertical load would be shared by the top and bottom rails thus reducing the load in each rail. See Sketch.

122898FB1-Top Rail: Anchored six-foot section of Fiberon Wood Composite handrail
Number of balusters in six-foot section: 14
Type of balusters in handrail 2 x 2 Fiberon Wood Composite @
0.36 pounds per linear foot. Maximum Load: 488 pounds @ 7
3/4"+ deflection. Failure, top rail snapped. This was a new extra
heavy section bread section (Deluxe) top rail @ 1.895 pounds per
linear foot. For section nominal thickness data, see "Breadload
Cross Section Data 122898 sketch attached. Tested 12/28/98.

ASCE Standard ASCE 7-95

4.4 Loads on Handrails, Guardrail Systems, Grab Bar Systems, and Vehicle barrier Systems

4.4.2 Loads

- A. For one- and two-family dwellings, the minimum load shall be 20 lb/ft (0.29 kN/m).

Further, all handrail assemblies and guardrail systems shall be able to resist a single concentrated load of 200 lb (0.89 kN), applied in any direction at any point along the top, and have attachment devices and supporting structure to transfer this loading to appropriate structural elements of the building. This load need not be assumed to act concurrently with the loads specified in the preceding paragraph.

Intermediate rails (add those except the handrail), balusters, and panel fillers shall be designed to withstand a horizontally applied normal load of 50 lb (0.22 kN) on an area not to exceed 1 ft square (305 mm square) including openings and space between rails. Reactions due to this loading are not required to be superimposed with those of either preceding paragraph.

These tests were designed to show compliance with the above B.O.C.A. and ASCE requirements up to the height tested.

III. PURPOSE

The purpose of the test is to determine the performance of the test material relative to the B.O.C.A. requirements by structural testing. Results are given as load deflection tables and graphs.

IV. PREPARATION AND CONDITIONING OF TEST SAMPLES

Test specimens were materials supplied directly by the manufacturer. No specimen conditioning was done prior to testing. The 24-hour preload was performed on one of the test specimens.

V. TEST EQUIPMENT



CITY OF PORTLAND, MAINE
Department of Building Inspections

May 3 2002

Received from Claude Dupuis

Location of Work 19 Newton St

Cost of Construction \$ _____

Permit Fee \$ 37.00

Building (IL) Plumbing (I5) _____ Electrical (I2) _____ Site Plan (U2) _____

Other _____

CBL: 338 H017

Check #: Cash Total Collected \$ 37.00

THIS IS NOT A PERMIT

No work is to be started until PERMIT CARD is actually posted upon the premises. Acceptance of fee is no guarantee that permit will be granted. PRESERVE THIS RECEIPT. In case permit cannot be granted the amount of the fee will be refunded upon return of the receipt less \$10.00 or 10% whichever is greater.

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy

[Handwritten signature]

EASY MAINTENANCE

fiberon®

Composite Decking



Buff Cedar
& Slate Gray

The Decking Solution for Your Lifestyle!

Strong & Durable

fiberon® Decking makes splitting, warping and cupping a thing of the past.

Water & Slip Resistant

fiberon® Decking's textured surface is even more slip resistant when wet.

Easy Installation

fiberon® Decking works like wood – with conventional wood working tools. No special tools are needed.

Environmentally Friendly

Made with premium recycled wood and polymers.

Warrantied

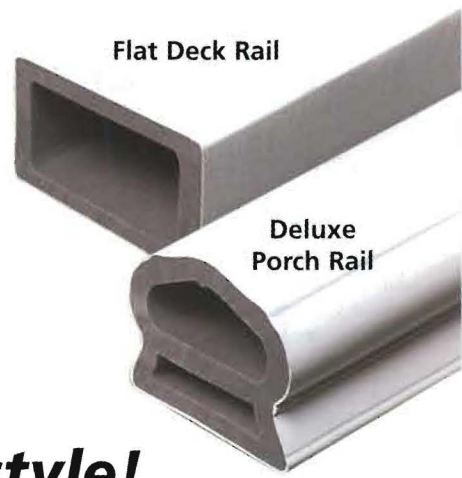
10-year limited warranty against splitting, warping, rotting or decay.



Things You Should Know...

- Use stainless steel or approved coated fasteners to prevent possible discoloration of decking.
- Joist spacing should be 16" OC for normal designs and 12" OC for diagonal designs.
- Color variation is common with composite decking due to natural color variations in

EASY MAINTENANCE
fiberon[®]
Composite Deck & Porch Railing



the Deck Rail Solution for Your Lifestyle!

**Pre-assembled
Sections
Easy To Install**

**Easy Maintenance
No Painting Ever**

**Snow-White Vinyl
Finish Will Not Fade**

Affordably Priced

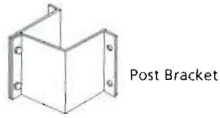
**Strong, Heavy Duty
Durable**

**Warranted Not To
Crack, Peel, Blister
or Decay**

**Strong Hardware
Makes It Fast To
Install**

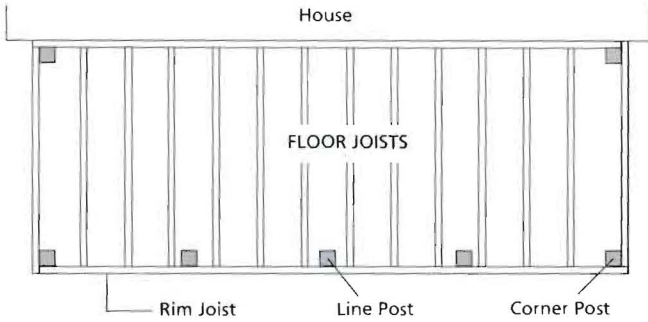


Post Installation

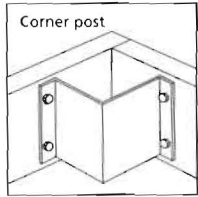
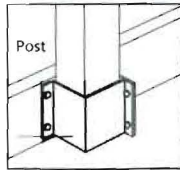
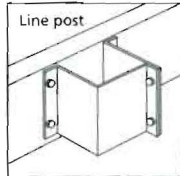


INSTRUCTIONS (Rim Joist Mount)

Post brackets attach to the inside of the rim joists before porch flooring or decking is attached. For remodeling existing flooring, cut hole in flooring next to joist for post. The post bracket can be used for line or corner posts and bolts directly to the rim joist. Measure the distance between each corner post and divide so all rail sections are the same length.



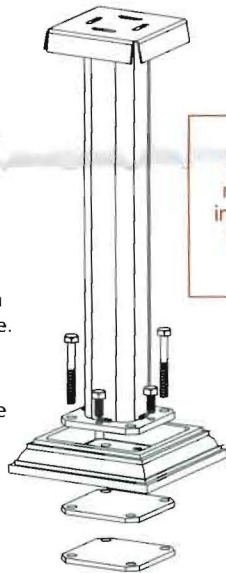
1. Position and bolt post brackets to rim joist using 3/8"x3" carriage bolts. Bracket should be flush with top of rim joist. **Pre-drill using a 7/16" drill bit.**
2. Insert post into bracket, plumb and tighten with 3/8"x3" carriage bolts.
3. When attaching a corner post, remove side plate from bracket and square up to the corner.
4. Once posts are in place, decking can be applied.



INSTRUCTIONS (Concrete Surface Mount)

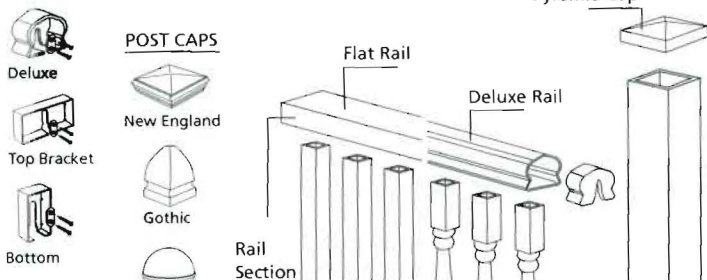
Post mount brackets attach to the concrete surface of your porch.

1. Using the post base trim as a guide, mark and drill 4 holes into concrete surface using a 7/32" drill bit.
2. Align the holes in the post base trim over the drilled holes in the concrete.
3. Set the bottom of the post mount into the base trim and fasten to the concrete surface with (4) 1/4" wedge bolts (included).
4. Slide post over the secured post mount.



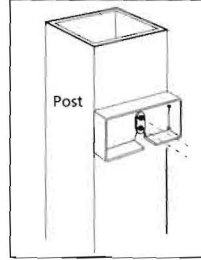
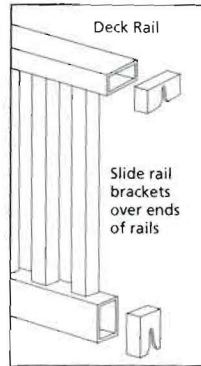
Note: See post mount kit instructions for more details.

Components

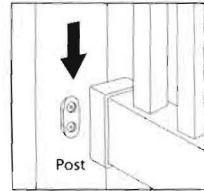
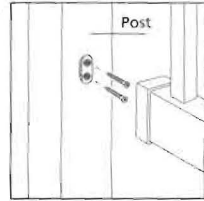
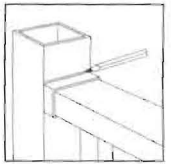
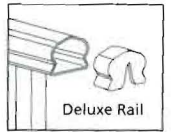


Rail Installation

INSTRUCTIONS



1. Cut rail sections 3/4" less than distance between posts.
2. Slide the Rail Bracket over all the ends of rails of the rail section to be attached to posts.
3. Position and level the rail section on crush block (included). Glue and place crush block underneath bottom rail centered between posts..
4. Mark with a pencil where the Rail Brackets meet the posts.
5. Once Rail Bracket flanges are in place, replace Rail Brackets on ends of rail, slide rail section onto Rail Bracket flanges and drive the section straight down onto the flanges.
6. The self-locking flange will hold rail in place. Glue and place crush block underneath bottom rail centered between posts.

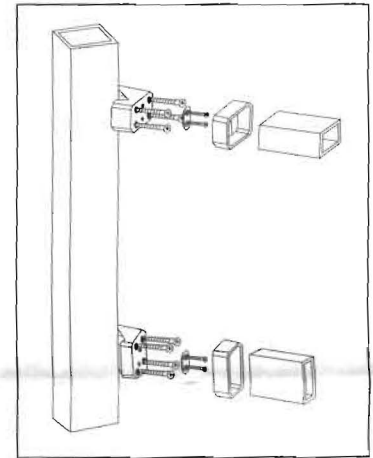


fiberon® Railing can be cut easily with any cross cut handsaw or circular saw using a 32 tooth carbide blade.

Angle Rail Installation

For angled railing installation use the Universal Angle Adapter for Flat Railing or the Stair Railing Brackets for Deluxe Rails.

Angle adapters connect to brackets for angle designs.

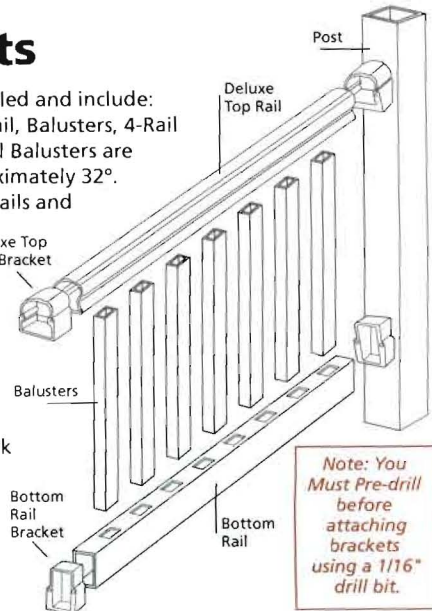


Stair Rail Kits

Stair Rail Kits come unassembled and include: 1-Deluxe top rail, 1-Bottom rail, Balusters, 4-Rail Brackets and Screws. Stair Rail Balusters are pre-cut to fit a slope of approximately 32°. (An 11" run by 7" rise.) The rails and brackets must be cut to fit between the posts.

STAIR RAIL INSTALLATION

1. To determine the angle of your stair rail, lay rail with brackets on stairs centered between the posts and mark the angle on the rail. Baluster holes should be equidistant from posts on each end of rail.



Note: You Must Pre-drill before attaching brackets using a 1/16" drill bit.



3. Cut bracket short enough so that

Product Warranting



Slate Gray at Purchase



Slate Gray – Approximation of Final Weathered Color



Buff Cedar at Purchase



Buff Cedar – Approximation of Final Weathered Color

Seeing is Believing!

Tired of Looking at Aged, Split, Warped, Cupped and Cracked Wood Decking?

Now you can have the natural beauty of wood without wood's unsightly and inconvenient drawbacks – splitting, warping, cupping and splintering. **fiberon®** Decking looks like wood, acts like wood, even feels like wood. This comes from its innovative construction – genuine wood fibers in a resin base, which goes completely through each board. Special surface texturing gives it that wood look and feel. Each board is produced using exclusive technology and engineered designs. **fiberon®** Decking's unique wood/resin construction makes it very easy to maintain.

The Beauty of Wood Without the Work!

Best of all, **fiberon®** Decking's beauty outlasts wood decks; continuing to look great long after a wooden deck would need waterproofing, re-staining or replacing. And, **fiberon®** Decking is backed by the 10-year warranty shown below.

Working with fiberon® Decking

No special tools are needed. Working with **fiberon®** Decking is as easy as working with wood. Whether you're cutting, nailing, drilling or routing, traditional woodworking tools will do the job. Always remember your safety glasses, dust mask and protective clothing.

Installation

Joist Spacing – Structural joists should be spaced no more than 16" on center for most residential applications and no more than 12" on center for commercial uses. In residential applications of prolonged direct sunlight, 12" joist spacing also eliminates any possible deflection between joists. If applying deck boards diagonally across joists, the joist spacing should be reduced by 4". For special situations or unusual designs, your local building codes should always be consulted. **fiberon®** Decking is intended for deck surface only, not for structural members.

Board Spacing – A minimum amount of linear thermal expansion is normal with **fiberon®** Decking. To accommodate expansion and proper drainage, Fiber Composites, LLC recommends that a 1/8" space be left between each parallel deck board. Between each end-to-end seam, leave 1/16" space for every 25 degree variance between installation temperature and maximum service temperature. A 1/4" space should be left between the house and deck board (when applied perpendicular to the house).

Fastening – Fiber Composites, LLC strongly recommends using stainless steel or approved coated fasteners to prevent possible discoloration of decking. Galvanized surface fasteners should not be used. For an attractive appearance, commercially available concealed fasteners can be used. Whatever your fastener choice, test the desired fasteners prior to installation. 2-1/2" ring or spiral shank, stainless steel siding nails provide excellent holding power with a minimum of nail head visibility. Pneumatic nailers are usable, but caution must be exercised to ensure consistent pressure for proper nail penetration. Specially designed composite decking screws are available and prevent material mushrooming during installation. Screw heads must be flush with board surface (do not over-tighten). With installation using conventional nails or screws, head penetration will cause slight mushrooming of the material around the head. This may be carefully removed if desired. For best results when using conventional screws, pre-drill with a countersink bit. Pre-drilling is recommended when installing **fiberon®** Decking in temperatures below 40 degrees F., or within 1 inch of the board end. Caution must be used to avoid over-tightening fasteners within 1" of the board end. Excess tightening may cause immediate or eventual cracking of the board end. For best results when using screws, pre-drill with a countersink bit and use a stainless steel finish head screw.

Stair Tread Installation – When using **fiberon®** Decking as Stair Treads, follow local inspector approved building codes, particularly as they pertain to sub-structure of staircase. Follow building code for allowable rise, run,

bull-nose, landings and overhang. Stair stringers should not exceed 16" on center. After securing the rise, the deck board shall have a 1/8" space from the rise. Between stair treads, also leave 1/8" space. Secure the stair treads with 2- 1/2" long ring or spiral shank, stainless steel siding nails.

Appearance

Textured Surface – **fiberon®** Decking is a consistent mixture of premium recycled wood, from sources like furniture, millwork or cabinetry manufacturers, and polymer resins. Its brushed surface highlights the rich texture of the wood fiber. The appearance of surface scratching that may result from normal use is exaggerated when first installed and will fade over time with normal weathering. Wood composites absorb heat from the sun to a greater extent than wood. Testing may be advisable prior to certain applications.

Color Variation – Occasional color tone variations in **fiberon®** Decking are normal due to natural color variations in the wood fiber and recycled materials. **fiberon®** Decking will lighten several shades over time to a beautiful weathered tone. This color shift is dependent upon exposure to sunlight and other environmental factors. The weathering process begins upon installation and may, in some cases, complete within 60-90 days. Please refer to the key above for an approximation of the final weathered color.

Final Touches

Painting/Staining – **fiberon®** Decking requires no painting or staining. Oil-based paint or stain can be applied if desired following a weathering period of 90-180 days. In general, wood composites do not absorb or retain paint and stain as well as natural wood. Fiber Composites, LLC advises consumers to test application of paint or stain on **fiberon®** Decking prior to use.

Storage – **fiberon®** Decking should be supported every 4' when stored. All wood composite decking, while stored in unit form uncovered, is subject to potentially significant tannin stains on the board surface. Rainfall accumulates between the boards and is not free to evaporate. Proper handling requires covered storage at all levels of distribution including the job site. Fiber Composites, LLC paper wraps its units to ensure weather tightness. Open units, including material at the job site, should be stored under cover to prevent rainwater from pooling between the board surfaces. Once installed, **fiberon®** Decking is largely unaffected since rainfall is able to drain and evaporate.

Cleaning – **fiberon®** Decking is primarily wood-based, and will require occasional cleaning. Most conventional deck cleaners work well on everyday dirt and traffic areas. Periodic pressure washing is an acceptable method of removing persistent stains. Wood fiber has various levels of tannic acid in its chemistry. When water is trapped and slowly evaporates, this naturally occurring chemical extractive can migrate to the surface. This extractive bleeding can result in a black surface stain. This is especially true with flower pots, certain deck furniture and other items stored directly on the deck surface. All wood based composite decking products can experience this type of staining. If extractive bleeding should occur, many conventional deck cleaners are effective for cleaning or the following cleaning procedure should be utilized: A solution of 4 ounces oxalic acid crystals (also known as wood bleach), generally found in the paint department of your retail store, should be dissolved in a non-metal container with a gallon of warm water. The solution should be brushed over the stained area and left for approximately fifteen minutes followed by a thorough rinsing with clear water. Within a 24 to 48 hour period, the stain should dissipate. If remnants of it persist, the procedure can be repeated, although normally any traces of the stain should disappear with additional time. As a substitute to oxalic acid, a solution of 1 cup trisodium phosphate (TSP), 1 cup household bleach and 1 gallon warm water should also be effective. If only a portion of the total deck is cleaned, there will be a variance in surface appearance between the cleaned and un-cleaned portions of the deck. This variance will fade over time. Always test a small section before applying any product to your **fiberon®** Decking.

COMPOSITE DECKING LIMITED WARRANTY

Fiber Composites, LLC ("Warrantor") warrants that **fiberon® Fiber Composite Material** will not check, splinter, rot, warp, or suffer structural damage from fungal decay for a period of ten (10) years from the date of the original consumer purchase from an authorized **fiberon® Fiber Composite Material** distributor: • when used in conjunction with an above ground application in a residential structure • installed according to the