

						5		F	FRMI	TIS	SUED		
City of Portland, 389 Congress Street	<b>Maine - Buildir</b> , 04101 Tel: (207	1 <b>g or Use</b> ( 7) 874-8703	Permi 6. Fax: (	t App (207)	plicati 874-87	<b>on</b>   <sup>1</sup> 716	Permit No: 05-0565	Issue D	ate:		066A	01900	1
Location of Construction:	Ow	ner Name:					ner Address:		MAY	19			
53 Payson St	K	aynor Edwar	dD&			53	Payson St Apt		8346		i none.		
Business Name:	Co	ntractor Name	:			Cor	ntractor Address:			DO	Bhone A N		
	A	pplicant				P	ortland	I CI	IY UF	ΡU	ATLAN	U	J
Lessee/Buyer's Name	Pho	one:				Per	mit Type:				L	Zone	
						А	Iterations - Dwe	llings				R	5
Past Use:	Pro	posed Use:				Per	mit Fee:	Cost of W	ork:	CE	O District:	7	
Condo	Co	ondo/ add 1/2	2 bath ,	new			\$57.00	\$3,	,200.00		3		
0	wi re:	indows, externovations	rior doo	or and		FIF	RE DEPT:	A <sub>pprovec</sub> Denied	INSPI Use C	BPECTION: e Group: R.Z. Type:			
EggAl use of en	the property	4:4 re	side	tik	L W	ndo	mmuns	)	1	EB	C 200	,3 	
add 1/2 bath, new win	ndows, exterior doo	or and renova	ions Signature: LKpf D 5/13/05 Sig				Signa	nature:					
				PEDESTRIAN ACTIVITIES DISTRIC				ISTRICT	CT (P.A.D.)				
						Act	tion: Approve	ed 🗌 A	Approved v	w/Con	ditions 🗋	Deni	b
						Sig	nature:			Da	te:		
Permit Taken By:	Date Applie	d For:					Zoning	Appro	val				
ldobson	05/09/20	05											
1.	-		Special Zone or Reviews		Zonin	Zoning Appeal		Histopic Preservation		n			
			Shoreland		Variance	Variance		Thot in District or Landmark		ndmark			
2. Building permits septic or electrica	do not include plun 1 work.	ıbing,	Wetland		Miscellan	Miscellaneous		Does Not Require Review		eview			
3. Building permits are void if work is not started within six (6) months of the date of issuance		not started ssuance.	🗆 Filipod Zipne		Condition	Conditional Use		Requires Review					
False information may invalidate a building permit and stop all work		Subdivision		Interpreta	Interpretation		Approved						
			Sit	e Plan			Approved	1			Approved w	/Conditi	ons
			Maj [	 	or 🔄 M	M 🗌	Denied				Denied	$\supset$	
			Date: 6	$\sin$	05	jer ps	Date:			Date:	$\sim$	2	
				i i	<b>h</b>								

### 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 <b>OF</b> APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

City of Portland, Maine - Build	ding or Use Permi		Permit No:	Date Applied For:	CBL:	
389 Congress Street, 04101 Tel: (2	207) 874-8703, Fax: (	05-0565	05/09/2005	066A A0 19001		
Location of Construction:	Owner Name:		0	wner Address:		Phone:
53 Payson St	Kaynor Edward D &			53 Payson St Apt 2		
Business Name:	Contractor Name:			Contractor Address:		Phone
	Applicant			Portland		l į
Lessee/Buyer's Name	Phone:		F	ermit Type:		
		1		Alterations - Dwel	lings	
Proposed Use:		1	Proposed	Project Description:		
Condo/ add 1/2 bath, new windows, e	exterior door and renova	ations	add 112	2 bath, new window	vs, exterior door and	renovations
Dept: Zoning Status: A	pproved with Condition	s <b>Rev</b> i	iewer:	Marge Schmuckal	Approval Da	te: 05/12/2005
Note:				C		Okto Issue: 🔽
1) Separate permits shall be required	for future decks sheds	pools an	d/or ga	rades		
1) Separate permits shari be required	for future decks, sheds,	, pools, all	u or ga		11.1.1 · · ·	
2) This is NOT an approval for an ad not limited to items such as stoves.	ditional dwelling unit. , microwaves, refrigerat	You SHA ors, or kit	LL NO chen si	T add any addition nks, etc. Without sp	al kitchen equipment pecial approvals.	including, but
3) This property shall remain a four ( application for review and approva	4) residential family con	ndominiur	n dwell	ing. Any change of	fuse shall require a s	eparate permit
4) This permit is being approved on t work.	he basis of plans submi	tted. Any	deviati	ons shall require a	separate approval be	fore starting that
Dept: Building Status: At	pproved	Revi	iewer:	Tammy Munson	Approval Da	te: 0511812005
Note:	r · · · ·				pp- o ai Du	Ok to Issue:
1.000						
Dept: Fire Status: At	oproved	Revi	iewer:	Jay Kelley	Approval Da	te: 05/13/2005

1)	Maintain	smke alarms	in	unit.

Γ	PERMIT ISSUED	a para ana ang ang ang ang ang ang ang ang an
	MAR 1 9 200	
	CITY OF PORTLAND	

# 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:	22	Paulo	<u>A2</u>		
Total Square Footage of Proposed Structu	ure	Square Footc	ige of Lot		
Tax Assessor's Chart, Block & Lot Chart# Block# Lot#	Owner: 5 LF54	DUARD D. K. 16 M. KAR	/AVAIOR DOR	Telepi <i>3</i> :Pi	hone: 1-0545
Lessee/Buyer's Name (If Applicable)	Applicant	name, address	8 1 - 17	Cost Of	200
	FOR	CAND, ME	54107	Fee: \$	57.0()
Current use:		-			
If the location is currently vacant, what we	as prior use:	RENTAL			
Approximately how long has it been vaca	ant: <u>6</u>	weeks		<u> </u>	$\circ \circ$
Proposed use: Contominum Project description: New 12	, ler bott	Novenci N. Met	lean i wen	Lina-	wall , entry
Contractor's name, address & telephone:	5 TUA 53 PAY	RD KAYNU SON ST	R PORTLEN	D, ME O	
Who should we contact when the permit Mailing address:	is ready: w/5	96002 .		_	
We will contact you by phone when the requirements before starting a and a \$100.00 fee if any work starts before	permit is rea ny work, wit e the permit	dy. You must c h a Plan Reviev i s picked up.	ome in and p wer. A stop w PHONE: 8	bick up the ork order w	permit and vill be issued
IF THE REQUIRED INFORMATION IS NOT INCL DENIED AT THE DISCRETION OF THE BUILDING INFORMATION IN ORDER TO APROVE THIS P	UDED IN THE G/PLANNING ERMIT.	SUBMISSIONS T DEPARTMENT,	ihe permitwi We may reqi	ll be auto Uire additi	MATICALLY ONAL
I hereby certify that I am the Owner of record of the r have been authorized by the owner to make this app jurisdiction. In addition, if a permit for work described shall have the authority to enter all areas covered by to this permit.	named property lication æhis/l in this application this permit at a	y, or that the owner ner authorized ager on is issued, I certify any reasonable hou	r of record authon nt. I agree to con v that the Code ( r to enforce ho	rizes the prop nform to all ap Official's author OF BUIL	osed work and that l oplicable laws of this prized representative be codes applicable
Signature of applicant: 51	04		Date:	VIT OF P	ORTLAND, ME
agrande of applicant. Called A	V. Kapp	mor		MAY -	- 9 <sub>2005</sub>
This is NOT a permit, you may r	not c <b>omme</b> av be sub	ence ANY wo	ork until the	permit is	issued.
Planning Depa	artmentor	the 4 <sup>th</sup> floor	of City Halt	TREUE	IVED

Planning Department on the 4th floor of City Hall-

May 9,2005

22 MONUMENT **SQ.**, SUITE 300 PORTLAND, ME 04101 TEL 207 775-1969 800 922-1969 FAX 207 775-4115

Ted Kaynor 53 Payson Street Portland, ME 04102

Re: Structural Design – 53-55 Payson Street, Portland, Maine CME Project No. 05-136

Dear Ted,

At your request, we met at the property at 53 Payson Street in Portland, Maine on May 2,2005 to perform a limited structural review and evaluation of an existing interior load-bearing wall. We were asked to recommend a structural beam to be used as a header for a proposed opening in the existing load-bearing wall within your apartment.

MOONEY ENGINEERS

The building at 53 Payson Street in Portland is a two-story, four-unit apartment building built approximately one hundred years ago. The building is comprised of interior and exterior wood framed, load-bearing walls supported on perimeter stone and brick foundation walls and interior brick piers. The interior and exterior framing walls consist of 2x4 stud walls with plaster and lath construction on the interior and horizontal siding on the exterior. The general condition of the interior elements that were visible to inspection is good at this time. We inspected only those areas of the building that are tributary to the proposed beam and supporting the design loads into the foundation. The inspection included and was limited to review of the roof framing, the distribution of roof loads through the building interior and the first and second floor framing at the location of the proposed wall opening.

The purpose of this inspection is to provide structural design services, specifically the design of a laminated engineered wood beam to support a portion of the second floor over an opening in an existing interior load-bearing wall. Mr. and Mrs. Kaynor were present with us during the inspection and provided useful information regarding the future use of the first floor apartment.

The interior framing members supporting the first and second levels and portions of the roof framing were viewed during this inspection. The first floor apartment is currently being renovated. Therefore, a section of the second floor-framing members were available for inspection. We viewed the first floor framing members within the basement area and viewed limited portions of the roof framing through a second floor scuttle. The wood framing we observed appears to be in good condition at this time,

#### LICENSED PROFESSIONAL ENGINEERS

BUILDING DIAGNOSTICS INSPECTIONS ENVIRONMENTAL SERVICES MAINTENANCE PLANNING DESIGN *Ted Kaynor May* 9, 2005 *Page* 2

The building standard used to design the structural framing elements is the current edition of the International Building Code (IBC) 2003 with the addition of the ASCE Standard, Minimum Design Loads for Buildings and Other Structures, 7-02.

This evaluation and design consisted of a visual survey of the existing conditions as they appeared on May 2,2005. No other part of the building was inspected for adequacy except for the limited portion of the first and second floor framing and roof framing that was tributary to the proposed beam installation.

As Professional Engineers, it is our responsibility to evaluate available evidence relevant to the structural system in this building. We are not, however, responsible for conditions that could not be seen or were not within the scope of our services at the time of the inspection.

### Design

The design of an engineered wood beam to span approximately 9-feet was completed utilizing the current edition of the adopted building code of the City of Portland, Maine, IBC 2003.

The specified structural member is an engineered wood product fabricated by Boise Cascade, Inc. The product is a Versa-Lam, laminated veneer beam. The size of the beam is  $3\frac{1}{2}$ -inches wide by  $9\frac{1}{2}$ -inches deep.

Prior to removal of any portion of the existing interior load-bearing wall, adequate shoring of the existing second floor joists and wall is required. Shoring is also required to extend down to the basement slab foundation. Failure to adhere to the specifications contained within this document may result in serious injury.

If the existing conditions are different than what we observed on May 2,2005, we recommend that the engineer be notified and advised of the inconsistencies in the existing conditions. Along with the specifications for the proposed laminated veneer beam, we have included information relating to fastening of this header to the existing wall.

The inspection and evaluation of the structural design include specific recommendations to support the second floor and wall framing. These recommendations are based on the specifications enclosed with this report.

As discussed, this was a preliminary investigation. We made recommendations in accordance with the scope of this inspection, evaluation and design.

Ted Kaynor May 9,2005 Page **3** 

It has been a pleasure working with you on this project. We hope that you will call us if you have further questions concerning this report. In addition, should you need any further assistance in the future we would be glad to be of service to you.

Yours truly,

Christoph Ra

Christopher F. Ray, P.E. Project Engineer

CFR/ja

s:\data\projects\proj05\53-55 payson st ltr.doc







APPLY APPROVED SHEATHING OR BRACE EXTERIOR WALLS WITH 1 IN. BY 4 IN. BRACES LET INTO STUDS AND PLATES AND EXTENDING FROM BOTTOM PLATE TO TOP PLATE, OR OTHER APPROVED METAL STRAP DEVICES INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. SEE SECTION R602.10.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

PAGE

cleats, metal drywall clips or other approved devices that will

serve as adequate backing for the facing materials.

FIGURE R602.3(2) FRAMING DETAILS

# VERSA-LAM<sup>®</sup> Design Values / Allowable Nail

### **VERSA-LAM®** Design Values

Grade	Width (in)	Dopth (in)	Veright (pif)	Allowahia Shear (libs)	Allowabie Moment (ft-Ibs)	Noment of Inertia (117)
	1 3/4	31/2	1.7	1184	1058	6.3
	1 3/4	51/2	2.7	1861	2486	24.3
	13/4	7 74	3.6	2453	4189	55.6
	13/4	974	4.5	3130	6636	115.4
3100 Fb SP	1 3/4	9%2	4.7	3214	6979	125.0
	1 3/4	11 1/4	5.5	3806	9605	207.6
	1 3/4	117/8	5.8	4018	10638	244.2
	1 ³/4	14	6.9	4737	14517	400.2
	13/4	16	7.9	5413	18,682	597.3
	1 3/4	18	8.8	6090	23337	850.5
	13/4	24	11.8	8120	40183	2016.0
	31/2	5 <sup>1</sup> /2	4.9	3658	4939	48.5
	31/2	71/4	6.5	4821	8323	111.1
	31/2	9 <sup>1</sup> /4	8.3	6151	13,187	230.8
	31/2	91/2	8.5	6318	13868	250.1
3080 Fb DF	31/2	111/4	10.1	7481	19086	415.3
	31/2	117/8	10.7	7897	21138	488.4
	31/2	14	12.6	9310	28847	800.3
а — т	31/2	16	14.4	10640	37,123	1194.7
	31/2	18	16.2	11970	46,373	1701.0
19	31/2	20	18.0	13300	56584	2333.3
	5 <sup>1</sup> /4	5 <sup>1</sup> /4	7,1	5237	6786	63.3
	5 <sup>1</sup> /4	5 <sup>1</sup> /2	7.4	5486	7409	72.8
	5 <sup>1</sup> /4	71/4	9.8	7232	12484	166.7
	5 <sup>1</sup> /4	91/4	12.5	9227	19780	346.3
	51/4	9 <sup>1</sup> /2	12.8	9476	20802	375,1
	5 <sup>1</sup> /4	111/4	15.2	11222	28,628	622.9
3080 Fb DF	51/4	117/8	16.0	11845	31707	732.6
	5 <sup>1</sup> /4	14	18.9	13965	43271	1200.5
	5 <sup>1</sup> /4	16	21.6	15960	55685	1792.0
	5 <sup>1</sup> /4	18	24.3	17955	69560	2551.5
8. j. 1. j.	51/4	20	27.0	19950	84,877	3500.0
	51/4	24	32.4	23940	119771	6048.0

Grado	Wigth (in)	Depth (in)	Waight (p#)	Allowable Shear (Ibs)	Allowable Moment (ft-bs)	Moment of Inertia (int)
	7	91/4	16.6	12308	26373	461.7
	7	9 <sup>1</sup> /2	17.1	12635	27736	500.1
	7	111/4	20.2	14963	38171	830.6
	7	11 <sup>7</sup> /8	21.4	15794	42276	976.8
3080 Fb DF	7	14	25.2	18620	57694	1600.7
	7	16	28.8	21280	74246	2389.3
	7	18	32.4	23940	92746	3402.0
	7	20	36.0	26600	113169	4666.7
	7	24	43.2	31920	159695	8064.0

Design Property	1 <sup>3/</sup> 4" Wide VERSA-LAM Beams	3 ½2" and Wider VERSA-LAM Beams	VERSA-LAM® Columns	VERSA- STUDS
Grade	3100 Fb SP	3080 Fb DF	2200 Fb DF	3100 Fb SP
Modulus of Elasticity, E(x 10 <sup>e</sup> psi) <sup>(1)</sup>	2.0	2.0	1.8	2.0
Bending, F <sub>b</sub> (psi) <sup>(2)(3)</sup>	3100	3080	2200	3100
Horizontal Shear, F <sub>v</sub> (psi) <sup>(3)4)</sup>	290	285	285	290
Tension Parallel to Grain, F <sub>t</sub> (psi) <sup>e) 6)</sup>	2250	2100	1600	2250
Compression Parallel to Grain, F <sub>cll</sub> (psi) <sup>(2)</sup>	3000	3000	3000	3000
Compression Perpendicular to Grain,F <sub>c1</sub> (psi) <sup>(1)(8)</sup>	850	900	900	850

1. This value cannot be adjusted for load duration.

2. This value is based on a load duration of 100% and may be adjusted for other load durations.

load durations.
Fiber stress bending value shall be multiplied by the depth factor, (12/d)<sup>16</sup> where d = member depth [in].
Stress applied perpendicular to the gluelines.
Tension value shall be multiplied by a length factor, (4/L)1/8 where L = member length [tt]. Use L = 4 for members less than four feet long.
Stress applied parallel to the gluelines.
Design properties are limited to dry conditions of use where the maximum moisture content of the material will not exceed 19%.
Fastener values are as provided in the National Design Specification<sup>®</sup> for sawn lumber with a specific action 50.

lumber with a specific gravity of 0.50.

#### VERSA-RIM<sup>®</sup> Allowable Nail Spacing VERSA-LAM® &

		Nailing Per to Glue (Wide	Nailing Perpendicular to Glue Lines (Wide Face)					
Neil Size	VERS. (1)	A-RIM <sup>●</sup> ∕16*)	VERSA- (1	LAM <sup>●</sup> SP ¾")	VERSA- (3)	LAM <sup>®</sup> DF /2")	All Products	
INall SIZE	O.C. [inches]	End [inches]	O.C. [inches]	End [inches]	O.C. [inches]	End [inches]	O.C. [inches]	End [inches]
8d Box	3	11/2	2	1	2	1/2	2	1/2
8d Common	4	3	3	2	2	1	2	1
10d & 12d Box	4	3	3	2	2	1	2	1
16d Box	4	3	3	2	2	1	2	1
10d & 12d Common	6	4	4	3	2	2	2	2
16d Sinker	6	4	4	3	2	2	2	2
16d Common	6	4	6	3	2	2	2	2
Simpson A35F							l u	se
Simpson LTP4							8d x 1	2" Nails

Nailing Parallel to Glue Lines (Narrow Face)



Nailing Perpendicular to Glue Lines (Wide Face)

• If more than one row of nails is used, the rows must be offset at least 1/2 inch

HAGE 5

**VERSA-LAM®** Products

## An Introduction to VERSA-LAM® Products



When you specify VERSA-LAM@aminated veneer headers/beams, you are building quality into your design. They are excellent as floor and roof framing supports or as headers for doors, windows and garage doors and columns.

Because they have no camber, VERSA-LAM@LVL products provide flatter, guieter floors, and consequently, the builder can expect happier customers with significantly fewer call backs.

LVL

#### VERSALI ΔΜ<sup>®</sup> REAM ΔRCHITECTURAL SPECIFICATIONS

This work includes the complete furnishing Scope and installation of all VERSA-LAM® beams as shown on the drawings, herein specified and necessary to complete the work.

Materials: Southern Pine veneers, laminated in a press with all grain parallel with the length of the member. Glues used in lamination are phenol formaldehyde and isocyanate exterior-type adhesives which comply with ASTM D2559.

Design: VERSA-LAM<sup>®</sup> beams shall be sized and detailed to fit the dimensions and loads indicated on the plans. All designs shall be in accordance with allowable values developed in accordance with ASTM D5456 and listed in the governing code evaluation service's report and section properties based upon standard engineering principles. Verification of design of the VERSA-LAM® beams by complete calculations shall be available upon request.

Drawings: Additional drawings showing layout and detail necessary for determining fit and placement in the buildings are (are not) to be provided by the supplier.

Fabrication: VERSA-LAM® beams shall be manufactured in a plant evaluated for fabrication by the governing code evaluation service and under the supervision of a third party inspection agency listed by the corresponding evaluation service.

Storage and Installation: VERSA-LAM® beams, if stored prior to erection, shall be stored on stickers spaced a maximum of 15 ft. apart. Beams shall be stored on a dry, level surface and protected from the weather. They shall be handled with care so they are not damaged.

VERSA-LAM<sup>®</sup> beams are to be installed in accordance with the plans and the Boise Engineered Wood Product's Installation Guide. Temporary construction loads which cause stresses beyond design limits are not permitted. Erection bracing shall be provided to assure adequate lateral support for the individual beams and the entire system until the sheathing material has been applied.

Codes: VERSA-LAM® beams shall be evaluated by a model code evaluation service.

## **Allowable Holes in VERSA-LAM\* Beams**

#### Notes

- I. Square and rectangular holes are not
- 2. Round il may be drilled or cut itt a hole saw anywhere within the d area beam FtF
- 3. The horizontal distance between adjacent must be at least two times e size of th larger hole
- 4 Do not drill more than three access holes in any four foot long section of beam.

is:

5. The maximum round hole diameter r

Beam Depth	Max. Hole Diameter
51/2"	3⁄4"
7%'	1"
91/4" and greater	2"



- 6. These limitations apply to holes drilled for plumbing or wiring access only. The size and location of holes drilled for fasteners are governed by the provisions of the National Design Specification\* for Wood Construction.
- 7. Beams deflect under load. Size holes to provide clearance where required.
- 8. This hole chart is valid for beams supporting uniform load only. For beams supporting concentrated loads or for beams with larger holes, contact Boise EWP Engineering.

