

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

Location of Construction: 45 Copley Woods Circle		Owner: KTO Builders		Phone: 892-2021		Permit No: 010130
Owner Address: 588 Roosevelt Trail Windham, ME		Lessee/Buyer's Name: 04062		BusinessName:		
Contractor Name: KTO Builders		Address: 588 Roosevelt Trail Windham, ME 04062		Phone: 892-2021		Permit Issued: FEB 26 01
Past Use: Single Family		Proposed Use: Single Family Amendment to permit #001173		COST OF WORK: \$ PERMIT FEE: \$ 30.00 INSPECTION: Use Group: R-3 Type: 5B FIRE DEPT. <input type="checkbox"/> Approved <input type="checkbox"/> Denied Signature: _____ Signature: <i>Hoffman</i> Signature: _____ Signature: _____		
Proposed Project Description: Amendment to permit # 001173 - No garage, No cantaleavered Domer. Add two dog house domers.				PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: Approved <input type="checkbox"/> Approved with Conditions: <input type="checkbox"/> Denied <input type="checkbox"/> Signature: _____ Date: _____		Zone: R-3 CBL: 413-B-012 Zoning Approval: <i>OK</i> 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"/> <i>2/23/01</i> <i>Conditions</i>
Permit Taken By: CHRIS		Date Applied For: February 22, 2001		CIH		

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..

PERMIT ISSUED WITH REQUIREMENTS

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 provisions of the code(s) applicable to such permit

February 22, 2001

SIGNATURE OF APPLICANT ADDRESS: DATE: PHONE:

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE PHONE:

Zoning Appeal

Variance
 Miscellaneous
 Conditional Use
 Interpretation
 Approved
 Denied

Historic Preservation

Not in District or Landmark
 Does Not Require Review
 Requires Review

Action:

Appoved
 Approved with Conditions
 Denied

Date: _____

PERMIT ISSUED WITH REQUIREMENTS

BUILDING PERMIT REPORT

DATE: 22 February 2001 ADDRESS: 45 Copley Woods Circle CBL: 413-B-012
REASON FOR PERMIT: To Amend permit #001173 - NO garage - No Cant, Levered dormer
BUILDING OWNER: KTO Builders
PERMIT APPLICANT: _____ / CONTRACTOR KTO Builders
USE GROUP: R-3 CONSTRUCTION TYPE: 5B CONSTRUCTION COST: _____ PERMIT FEES: \$30,600

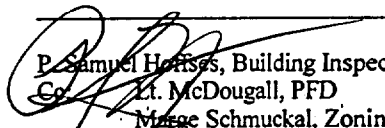
The City's Adopted Building Code (The BOCA National Building Code/1999 with City Amendments)
The City's Adopted Mechanical Code (The BOCA National Mechanical Code/1993)

CONDITION(S) OF APPROVAL

This permit is being issued with the understanding that the following conditions shall be met: *1, *11, *13, *15, *19, #31, 27, 34, 35, 37

- *1. This permit does not excuse the applicant from meeting applicable State and Federal rules and laws.
2. Before concrete for foundation is placed, approvals from the Development Review Coordinator and Inspection Services must be obtained. (A 24 hour notice is required prior to inspection) "**ALL LOT LINES SHALL BE CLEARLY MARKED BEFORE CALLING.**"
3. Foundation drain shall be placed around the perimeter of a foundation that consists of gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 sieve. The drain shall extend a minimum of 12 inches beyond the outside edge of the footing. The thickness shall be such that the bottom of the drain is not higher than the bottom of the base under the floor, and that the top of the drain is not less than 6 inches above the top of the footing. The top of the drain shall be covered with an approved filter membrane material. Where a drain tile or perforated pipe is used, the invert of the pipe or tile shall not be higher than the floor elevation. The top of joints or top of perforations shall be protected with an approved filter membrane material. The pipe or tile shall be placed on not less than 2" of gravel or crushed stone, and shall be covered with not less than 6" of the same material. Section 1813.5.2
4. Foundations anchors shall be a minimum of 1/2" in diameter, 7" into the foundation wall, minimum of 12" from corners of foundation and a maximum 6' O.C. between bolts. Section 2305.17
5. Waterproofing and dampproofing shall be done in accordance with Section 1813.0 of the building code.
6. Precaution must be taken to protect concrete and masonry. Concrete Sections 1908.9-19.8.10/ Masonry Sections 2111.3-2111.4.
7. It is strongly recommended that a registered land surveyor check all foundation forms before concrete is placed. This is done to verify that the proper setbacks are maintained.
8. Private garages located beneath habitable rooms in occupancies in Use Group R-1, R-2, R-3 or I-1 shall be separated from adjacent interior spaces by fire partitions and floor/ceiling assembly which are constructed with not less than 1-hour fire resisting rating. Private garages attached side-by-side to rooms in the above occupancies shall be completely separated from the interior spaces and the attic area by means of 1/2 inch gypsum board or the equivalent applied to the garage side. (Chapter 4, Section 407.0 of the BOCA/1999)
9. All chimneys and vents shall be installed and maintained as per Chapter 12 of the City's Mechanical Code. (The BOCA National Mechanical Code/1993). Chapter 12 & NFPA 211
10. Sound transmission control in residential building shall be done in accordance with Chapter 12, Section 1214.0 of the City's Building Code.
- *11. Guardrails & Handrails: A guardrail system is a system of building components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level. Minimum height all Use Groups 42". In occupancies in Use Group A, B, H-4, I-1, I-2, M, R, public garages and open parking structures, open guards shall have balusters or be of solid material such that a sphere with a diameter of 4" cannot pass through any opening. Guards shall not have an ornamental pattern that would provide a ladder effect. Handrails shall be a minimum of 34" but not more than 38". Exception: 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). Handrail grip size shall have a circular cross section with an outside diameter of at least 1 1/4" and not greater than 2". (Sections 1021 & 1022.0). Handrails shall be on both sides of stairway. (Section 1014.7)
12. Headroom in habitable space is a minimum of 7'6". (Section 1204.0)
- *13. Stair construction in Use Group R-3 & R-4 is a minimum of 10" tread and 7 1/2" maximum rise. All other Use Group minimum 11" tread, 7" maximum rise. (Section 1014.0)
14. The minimum headroom in all parts of a stairway shall not be less than 80 inches. (6'8") 1014.4
- *15. Every sleeping room below the fourth story in buildings of Use Groups R and I-1 shall have at least one operable window or exterior door approved for emergency egress or rescue. The units must be operable from the inside without the use of special knowledge or separate tools. Where windows are provided as means of egress or rescue they shall have a sill height not more than 44 inches (1118mm) above the floor. All egress or rescue windows from sleeping rooms shall have a minimum net clear opening height dimension of 24 inches (610mm). The minimum net clear opening width dimension shall be 20 inches (508)mm, and a minimum net clear opening of 5.7 sq. ft. (Section 1010.4)
16. Each apartment shall have access to two (2) separate, remote and approved means of egress. A single exit is acceptable when it exits directly from the apartment to the building exterior with no communications to other apartment units. (Section 1010.1)
17. All vertical openings shall be enclosed with construction having a fire rating of at least one (1) hour, including fire doors with self closure's. (Over 3 stories in height requirements for fire rating is two (2) hours. (Section 710.0)
18. The boiler shall be protected by enclosing with (1) hour fire rated construction including fire doors and ceiling, or by providing automatic extinguishment. (Table 302.1.1)

- 19. All single and multiple station smoke detectors shall be of an approved type and shall be installed in accordance with the provisions of the City's Building Code Chapter 9, Section 920.3.2 (BOCA National Building Code/1999), and NFPA 101 Chapter 18 & 19. (Smoke detectors shall be installed and maintained at the following locations):
 - In the immediate vicinity of bedrooms
 - In all bedrooms
 - In each story within a dwelling unit, including basements
 - 20. A portable fire extinguisher shall be located as per NFPA #10. They shall bear the label of an approved agency and be of an approved type. (Section 921.0)
 - 21. The Fire Alarm System shall be installed and maintained to NFPA #72 Standard.
 - 22. The Sprinkler System shall be installed and maintained to NFPA #13 Standard.
 - 23. All exit signs, lights and means of egress lighting shall be done in accordance with Chapter 10 Section & Subsections 1023.0 & 1024.0 of the City's Building Code. (The BOCA National Building Code/1999)
 - 24. Section 25 - 135 of the Municipal Code for the City of Portland states, "No person or utility shall be granted a permit to excavate or open any street or sidewalk from the time of November 15 of each year to April 15 of the following year".
 - 25. The builder of a facility to which Section 4594-C of the Maine State Human Rights Act Title 5 MRSA refers, shall obtain a certification from a design professional that the plans commencing construction of the facility, the builder shall submit the certification the Division of Inspection Services.
 - 26. Ventilation and access shall meet the requirements of Chapter 12 Sections 1210.0 and 1211.0 of the City's Building Code. (Crawl spaces & attics).
 - 27. All electrical, plumbing and HVAC permits must be obtained by Master Licensed holders of their trade. No closing in of walls until all electrical (min. 72 hours notice) and plumbing inspections have been done.
 - 28. All requirements must be met before a final Certificate of Occupancy is issued.
 - 29. All building elements shall meet the fastening schedule as per Table 2305.2 of the City's Building Code (The BOCA National Building Code/1996).
 - 30. Ventilation of spaces within a building shall be done in accordance with the City's Mechanical code (The BOCA National Mechanical Code/1993). (Chapter M-16)
 - 31. Please read and implement the attached Land Use Zoning report requirements. *original zoning setbacks still apply plan with all other previous conditions -*
 - 32. Boring, cutting and notching shall be done in accordance with Sections 2305.3, 2305.3.1, 2305.4.4 and 2305.5.1 of the City's Building Code.
 - 33. Bridging shall comply with Section 2305.16.
 - 34. Glass and glazing shall meet the requirements of Chapter 24 of the building code. (Safety Glazing Section 2406.0)
 - 35. All flashing shall comply with Section 1406.3.10.
 - 36. All signage shall be done in accordance with Section 3102.0 signs of the City's Building Code. (The BOCA National Building Code/1999).
- 4 37. All requirements of original permit shall be adhered too.*


 P. Samuel Harris, Building Inspector
 Lt. McDougall, PFD
 Marge Schmuckal, Zoning Administrator
 Michael Nugent, Inspection Service Manager

PSH 10/1/00

****This permit is herewith issued, on the basis of plans submitted and conditions placed on these plans, any deviations shall require a separate approval.**

*****THIS PERMIT HAS BEEN ISSUED WITH THE UNDERSTANDING THAT ALL THE CONDITIONS OF THE APPROVAL SHALL BE COMPLETED. THEREFORE, BEFORE THE WORK IS COMPLETED A REVISED PLAN OR STATEMENT FROM THE PERMIT HOLDER SHALL BE SUBMITTED TO THIS OFFICE SHOWING OR EXPLAINING THAT THE CONDITIONS HAVE BEEN MET. IF THIS REQUIREMENT IS NOT RECEIVED YOUR CERTIFICATE OF OCCUPANCY SHALL BE WITHHELD. (You Shall Call for Inspections)**

******ALL PLANS THAT REQUIRE A PROFESSIONAL DESIGNER'S SEAL, (AS PER SECTION 114.0 OF THE BUILDING CODE) SHALL ALSO BE PRESENTED TO THIS DIVISION ON AUTO CAD LT. 2000, DXF FORMAT OR EQUIVALENT.**

*******CERTIFICATE OF OCCUPANCY FEE \$50.00**

THIS IS NOT A PERMIT/CONSTRUCTION CANNOT COMMENCE UNTIL THE PERMIT IS ISSUED

**Minor/Minor Site Review for New Detached Single Family Dwelling,
All Purpose Building Permit Application**

In the interest of processing your application in the quickest possible manner, please complete the Information below for a Building or Use Permit.

NOTEIf 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: <i>45 Copley Woods Circle</i>

Total Square Footage of Proposed Structure	Square Footage of Lot-
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Tax Assessor's Chart, Block & Lot Number Chart# <i>413</i> Block# <i>B</i> Lot# <i>12</i>	Owner: <i>KTD Builders</i>	Telephone#: <i>872 2021</i>
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Lessee/Buyer's Name (If Applicable)	Owner's/Purchaser/Lessee Address:	Cost Of Work: <i>Less Than Original Estimate</i> Fee: \$
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Current use: <i>Single Family New Const.</i> use: <i>Single Family</i>	Proposed <i>Amendment to 001173</i>
Project description: <i>Amendment - No Garage No Cantilevered Dormer - Add Two dog House door</i>	

Contractor's Name, Address & Telephone <i>KTD Builders 508 Maxwell Trail Windham, ME 04092-0001 0402</i>	Rec'd By:
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A "minor/minor" site plan review is required for New Single Family Homes Only. The Site/Plot plan must be prepared and sealed by a registered land surveyor. The following must be submitted:

- 4 copies of the site/plot plan
- 1 copy of the building/construction plan on 32" x 48"
- 1 copy of the site plan/plot plan and construction/building plan on paper no larger than 11" x 17"

On all commercial permits the following must be submitted:

- 1 copy of the site/plot plan
- 2* 1 copy of the building/construction plan on 32" x 48"
- 1 copy of the site/plot and construction /building plan on paper no larger than 11" X 17"

Please note that single family additions and alterations may be hand drawn on regular paper, however the below details will still apply.

THIS IS NOT A PERMIT/CONSTRUCTION CANNOT COMMENCE UNTIL THE PERMIT IS ISSUED

A PLOT PLAN INCLUDES THE FOLLOWING:

- The shape and dimension of the lot, all existing buildings (if any), the proposed structure and the distance from the actual property lines. Structures include decks porches, a bow windows cantilever sections and roof overhangs, as well as, sheds, pools, garages and any other accessory structures.
- Scale and North arrow; Zoning District & Setbacks
- First Floor sill elevation (based on mean sea level datum);
- Location and dimensions of parking areas and driveways;
- Location and size of both existing utilities in the street and the proposed utilities serving the building;
- Location of areas on the site that will be used to dispose of surface water.
- Existing and proposed grade contours

A COMPLETE SET OF CONSTRUCTION DRAWINGS INCLUDES THE FOLLOWING:


- Cross Sections w/Framing details (including porches, decks w/ railings, and accessory structures)
 - Floor Plans & Elevations
 - Window and door schedules
 - Foundation plans with required drainage and damp proofing
- Electrical and plumbing layout. Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment (air handling) or other types of work that may require special review must be included.

SEPARATE PERMITS ARE REQUIRED FOR INTERNAL & EXTERNAL PLUMBING, HVAC AND ELECTRICAL INSTALLATIONS

- All construction must be conducted in compliance with the 1999 B.O.C.A. Building Code as amended by Section 6-Art II.
- All plumbing must be conducted in compliance with the State of Maine Plumbing Code.
- All Electrical Installation must comply with the 1999 National Electrical Code as amended by Section 6-Art III.
- HVAC (Heating, Ventilation and Air Conditioning) installation must comply with the 1993 BOCA Mechanical Code.

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/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: 	Date: 2-22-01
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Minor/Minor Site Review Fee: \$300.00/Building Permit Fee: \$30.00 for the 1st \$1000.cost plus \$6.00 per \$1,000.00 construction cost thereafter.

ONE SET OF SUBMISSIONS INCLUDING CONSTRUCTION AND SITE PLAN DRAWINGS MUST BE SUBMITTED ON PAPER NO LARGER THAN 11" x 17" BEFORE ANY BUILDING PERMIT WILL BE ISSUED

Job ST-41846	Truss 828	Truss Type PKK	Qty 100	P.N. 1	Sheet 19 of 28
Wood Structures, 255 Stafford, P.O. 04008-0347			6-0-31 & Apr 3 1998 MITOK Industrial, Inc. P.O. May 01 10:30:40 1998 Page 1		

LOADING (pcf) TCLL 43.0 TCCL 7.0 SCLL 0.0 BCCL 10.0	SPACING 2'-0" Rafter Inseam 1'-10" Lumber Inseam 1'-10" Rsp Struss bar YES Code SOCA/ANBSS	CR 0.81 TC 0.81 WB 0.41	DISPL (in) (Load) (Defl) VmaxLLJ -0.18 0-0 >900 VmaxTLJ -0.37 0-0 >842 MaxTLJ 0.00 0 a/j 1st LC U. Min Mem = 240	PLATES GWP M20 128/128 Weight: 108 lb
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LUMBER
TOP CHORD 2 X 4 SPF M 19
BOT CHORD 2 X 4 SPF M 2
WEBB 2 X 4 SPF S 2

BRACING
TOP CHORD Shrouded or 4-0-6 on center purlin spacing.
BOT CHORD Right ceiling bracing applied at 10-0-0 on center bracing.

REACTIONS (kips) 2=16290-3-6, 9=16290-3-8

FORCES (lb) - First Load Case Only
TOP CHORD 1-2=27, 2-3=-1978, 3-4=-1689, 4-5=-1689, 5-6=-1978, 6-7=27
BOT CHORD 2-10=1629, 9-10=1629, 9-8=1629, 8-5=1629
WEBB 3-10=484, 4-10=670, 4-8=670, 5-8=484

NOTES
1) This truss has been checked for unbalanced loading condition.
2) All plates are M20 plates unless otherwise indicated.
3) This truss has been designed for a 10.0 pcf bottom chord live load minimum with any other live loads per Table No. 16-B, UBC-94.
4) This truss has been designed with ANSI/TPI 1-1996 criteria.

LOAD CASES: Standard

DESIGN LOADING:
TCLL/TOTAL (PSF)
42/50 @ 34" oc.
33/74 @ 18.3" oc.
63/88 @ 18" oc.

WARNING - Verify design parameters and READ NOTES ON THIS AND REVISIONS SHEET BEFORE USE.
Design valid for use only with MITOK connections. This design is based only upon information shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper interpretation of connections is responsibility of building designer. Not true design. Drawing shows to be taken without modification unless otherwise noted. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the truss is the responsibility of the building designer. For general guidance regarding installation, quality control, storage, delivery, erection and loading, consult MITOK Quality Manual, 020-07 loading specifications, and MITOK Handling training and bracing recommendations available from two main sources, MITOK Quality Dept., Watertown, 02152-19.

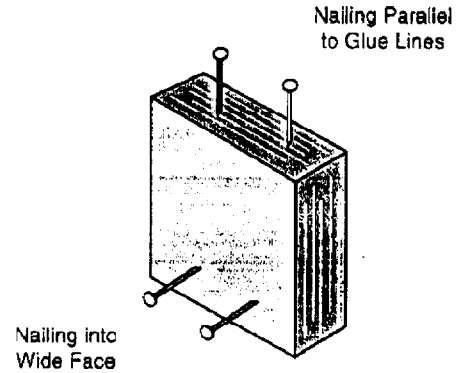
OK

[Signature]

Closest Allowable Nail Spacing

Versa-Lam & Versa-Rim Products

Connector Size	Closest Nailing Parallel to Glue Lines	Nailing into Wide Face
	Versa-Lam (1 3/4")	
8d Box	3"	2"
8d Common	3"	2"
10d & 12d Box	4"	2"
10d & 12d Common	4"	3"
16d Box	4"	3"
16d Sinkers	4"	3"
16d Common	8"	3"



Note: If two staggered rows of nails are required, offset rows minimum of 0.5 inches.

Versa-Lam Design Values

Grade	Width (in)	Depth (in)	Weight (lb/ft)	Allowable Stress (lb)	Allowable Moment (ft-lb)	Modulus of Elasticity (ksi)
2900 Fb SP	1 3/4	5 1/2	2.7	1861	2325	24.3
	1 3/4	7 1/4	3.6	2453	3918	55.6
	1 3/4	9 1/4	4.5	3130	6208	115.4
	1 3/4	9 1/2	4.7	3214	6529	125.0
	1 3/4	11 1/4	5.5	3906	8985	207.8
	1 3/4	11 7/8	5.8	4018	9951	244.2
	1 3/4	14	6.9	4737	13581	400.2
	1 3/4	16	7.9	5413	17477	597.3
2800 Fb DF	3 1/2	5 1/2	4.9	3658	4490	48.5
	3 1/2	7 1/4	6.5	4821	7566	111.1
	3 1/2	9 1/4	8.3	6151	11988	230.8
	3 1/2	9 1/2	8.5	6318	12607	250.1
	3 1/2	11 1/4	10.1	7481	17851	415.3
	3 1/2	11 7/8	10.7	7897	19216	488.4
	3 1/2	14	12.6	9310	26225	800.3
	3 1/2	16	14.4	10840	33748	1194.7
	3 1/2	18	16.2	11970	42157	1701.0
	3 1/2	20	18.0	13300	51440	2333.3
2800 Fb DF	5 1/4	5 1/4	7.1	5237	6189	63.3
	5 1/4	5 1/2	7.4	5486	6735	72.8
	5 1/4	7 1/4	9.8	7232	11350	166.7
	5 1/4	9 1/4	12.5	9227	17982	346.3
	5 1/4	9 1/2	12.8	9476	18911	375.1
	5 1/4	11 1/4	15.2	11222	26026	622.9
	5 1/4	11 7/8	16.0	11845	28824	732.6
	5 1/4	14	18.9	13965	39337	1200.5
	5 1/4	16	21.6	15960	50622	1792.0
	5 1/4	18	24.3	17955	63236	2551.5
2800 Fb DF	7	11 7/8	21.4	15794	38432	976.8
	7	14	25.2	18620	52449	1600.7
	7	16	28.8	21280	67497	2389.3
	7	18	32.4	23940	84315	3402.0
	7	20	36.0	26600	102881	4666.7

Design Property	Versa-Lam Beams	Versa-Lam Columns	Versa-Studs
Grade			
Modulus of Elasticity, E(x 10 ⁶ psi) (1)	2.0	2.0	1.8
Bending, F _b (psi) (2) (3)	2800	2900	2200
Horizontal Shear F _v (lbs) (2) (4)	285	290	285
Tension Parallel to Grain F _t (psi) (2) (5)	2100	2250	1600
Compression Parallel to Grain F _c (psi) (2)	3000	3000	3000
Compression Perpendicular to Grain F _{c⊥} (psi) (1) (6)	900	850	900

1. This value may not be increased for load duration.
2. This value is based on a normal load duration (100%) and may be increased for other load durations.
3. Multiply this value by (12/d)^{1/9}, where d = member depth (in).
4. Stress applied perpendicular to the glue lines (beam orientation).
5. Multiply this value by (4/L)^{1/8}, where L = member length (ft). Use L = 4 for members less than four feet long.
6. Stress applied parallel to the glue lines (beam orientation).
7. These design properties are limited to dry conditions of use where the maximum moisture content of the material will not exceed 12 1/2%.
8. Fastener values are as provided in the *National Design Specification*® for sawn lumber with a specific gravity of 0.50.

32

Versa-Lam Roof Beams

2900Fb SP (125%) Non-Snow Load

KEY TO TABLE: Top figure = Allowable Total Load (plf) Middle figure = Allowable Live Load (plf)
Bottom figures = Minimum Required Bearing Length at End/Intermediate Supports (Inches)

Design Span (ft)	1 3/4" Width - 2900 Fb SP						3 1/4" Width - 2800 Fb DF					5 1/4" Width - 2800 Fb DF				
	7 1/4"	9 1/2"	11 7/8"	14"	16" ⁽⁹⁾	18" ⁽⁸⁾	9 1/2"	11 7/8"	14"	16"	18"	9 1/2"	11 7/8"	14"	16"	18"
6	971 - 2/3	1353 - 2.7/3.4	1814 - 3.7/4.6	2285 - 4.8/5.8	2792 - 5.6/7.1	3374 - 6.8/8.5	2661 - 2.5/3.2	3565 - 3.4/4.3	4492 - 4.3/5.4	5489 - 5.2/6.6	6634 - 6.3/7.9	3991 - 2.5/3.2	5348 - 3.4/4.3	6738 - 4.3/5.4	8234 - 5.2/6.6	9951 - 6.3/7.9
8	609 482 1.6/3	850 - 2.6/3.2	1248 - 3.4/4.2	1598 - 4.2/5.2	1898 - 5/6.2	2186 - 5.8/7.3	1868 - 2.4/3	2451 - 3.1/3.9	3029 - 3.9/4.8	3613 - 4.6/5.8	4259 - 5.4/6.8	2602 - 2.4/3	3676 - 3.1/3.9	4635 - 3.9/4.8	5419 - 4.6/5.8	6388 - 5.4/6.8
10	325 247 1.5/3	648 556 2.2/3	949 - 3.2/4	1158 - 3.9/4.9	1368 - 4.6/5.8	1594 - 5.4/6.7	1252 1111 2/3	1666 - 3/3.7	2277 - 3.6/4.5	2891 - 4.3/5.4	3134 1667 2/3	1878 1667 2/3	2799 - 3/3.7	3415 - 3.6/4.5	4036 - 4.3/5.4	4701 - 5/6.3
11	244 186 1.5/3	535 418 2/3	817 815 3/3.8	1030 - 3.8/4.8	1213 - 4.5/5.8	1407 - 5.2/6.5	1033 835 1.8/3	1577 - 2.9/3.5	2026 - 3.6/4.4	2386 - 4.2/5.2	2768 - 4.9/6.1	1550 1263 1.8/3	2386 - 2.8/3.5	3039 - 3.6/4.4	3578 - 4.2/5.2	4151 - 4.9/6.1
12	187 143 1.5/3	424 322 1.7/3	685 628 2.8/3.5	928 - 3.8/4.7	1089 - 4.4/5.5	1280 - 6.1/6.4	849 643 1.8/3	1324 1256 2.6/3.2	1809 - 3.5/4.3	2142 - 4.1/5.1	2478 - 4.8/5.9	1274 965 1.6/3	1966 1864 2.5/3.2	2713 - 3.5/4.3	3214 - 4.1/5.1	3716 - 4.8/5.9
13	148 112 1.5/3	333 263 1.5/3	583 494 2.6/3.2	797 - 3.5/4.4	988 - 4.4/5.4	1140 - 5/6.3	666 506 1.5/3	1126 988 2.3/3	1539 - 3.2/4	1944 - 4/5.1	2242 - 4.7/5.8	999 759 1.5/3	1690 1482 2.3/3	2309 - 3.2/4	2916 - 4/5.1	3363 - 4.7/5.8
14	116 90 1.5/3	265 203 1.5/3	502 396 2.4/3	686 648 3.3/4.1	884 - 4.2/5.2	1041 - 4.9/6.2	532 405 1.5/3	970 791 2.2/3	1325 1296 3/3.7	1707 - 3.8/4.8	2048 - 4.6/5.7	797 608 1.5/3	1455 1187 2.2/3	1988 1944 3/3.7	2561 - 3.8/4.8	3071 - 4.6/5.7
15	94 73 1.5/3	215 165 1.5/3	423 322 2.2/3	587 527 3/3.8	769 - 3.9/4.9	958 - 4.9/6.1	491 329 1.5/3	843 643 2/3	1153 1054 2.8/3.5	1486 - 3.6/4.5	1657 - 4.5/5.6	646 494 1.5/3	1265 955 2/3	1729 1581 2.8/3.5	2228 - 3.6/4.5	2786 - 4.5/5.6
16	77 60 1.5/3	176 136 1.5/3	347 286 1.9/3	524 434 2.9/3.6	675 648 3.7/4.6	844 - 4.6/5.7	353 271 1.5/3	698 530 1.8/3	1012 866 2.6/3.3	1304 1296 3.3/4.2	1631 - 4.2/5.2	530 407 1.5/3	1044 795 1.8/3	1518 1303 2.6/3.3	1956 1944 3.3/4.2	2446 - 4.2/5.2
17	63 50 1.5/3	146 113 1.5/3	289 221 1.7/3	463 362 2.7/3.4	597 540 3.5/4.3	747 - 4.3/5.4	293 226 1.5/3	578 442 1.6/3	895 724 2.4/3.1	1153 1081 3.2/3.9	1443 - 3.9/4.9	440 339 1.5/3	868 683 1.6/3	1342 1086 2.4/3.1	1730 1621 3.2/3.9	2164 - 3.9/4.9
18	53 42 1.5/3	122 95 1.5/3	242 186 1.5/3	400 305 2.5/3.1	532 455 3.3/4.1	665 648 4.1/5.1	246 191 1.5/3	486 372 1.5/3	797 610 2.3/3	1027 910 3/3.7	1285 1296 3.7/4.6	368 286 1.5/3	728 558 1.5/3	1195 915 2.3/3	1541 1366 3/3.7	1927 1944 3.7/4.6
19	44 36 1.5/3	103 81 1.5/3	205 158 1.5/3	339 259 2.2/3	476 387 3.1/3.9	596 551 3.9/4.8	208 182 1.5/3	411 316 1.5/3	679 519 2.1/3	920 774 2.8/3.5	1152 1102 3.5/4.4	311 243 1.5/3	617 475 1.5/3	1018 779 2.1/3	1381 1161 2.8/3.5	1727 1853 3.5/4.4
20	38 31 1.5/3	88 69 1.5/3	175 138 1.5/3	290 222 2/3	429 332 2.9/3.7	537 473 3.7/4.6	177 139 1.5/3	351 271 1.5/3	580 445 1.9/3	829 664 2.7/3.3	1038 945 3.3/4.2	265 208 1.5/3	527 407 1.5/3	870 667 1.9/3	1244 996 2.7/3.3	1557 1418 3.3/4.2
22	27 23 1.5/3	65 52 1.5/3	130 102 1.5/3	216 167 1.8/3	325 249 2.5/3.1	442 355 3.3/4.2	131 104 1.5/3	261 204 1.5/3	433 334 1.6/3	650 499 2.3/3	855 710 3/3.8	196 157 1.5/3	392 306 1.5/3	649 501 1.6/3	976 748 2.3/3	1282 1065 3/3.8
24	20 18 1.5/3	49 40 1.5/3	99 79 1.5/3	165 129 1.5/3	248 192 2.1/3	356 273 2.9/3.7	99 80 1.5/3	199 157 1.5/3	330 257 1.5/3	498 384 2/3	713 547 2.8/3.5	148 121 1.5/3	298 236 1.5/3	498 368 1.5/3	747 578 2/3	1069 820 2.8/3.5
26	16 14 1.5/3	37 32 1.5/3	77 62 1.5/3	128 101 1.5/3	194 151 1.8/3	278 215 2.5/3.1	75 63 1.5/3	154 124 1.5/3	257 202 1.5/3	388 302 1.7/3	557 430 2.4/3	114 95 1.6/3	231 185 1.5/3	388 304 1.5/3	583 453 1.7/3	836 645 2.4/3
28	11 11 1.5/3	29 25 1.5/3	60 49 1.5/3	101 81 1.5/3	153 121 1.5/3	221 172 2.2/3	59 51 1.5/3	121 99 1.5/3	203 162 1.5/3	308 242 1.5/3	443 344 2/3	88 78 1.5/3	182 148 1.5/3	305 243 1.5/3	462 363 1.5/3	664 517 2/3
30	9 9 1.5/3	23 21 1.5/3	48 40 1.5/3	81 66 1.5/3	123 98 1.5/3	178 140 1.9/3	46 41 1.5/3	97 80 1.5/3	163 132 1.5/3	248 197 1.5/3	357 280 1.8/3	70 62 1.5/3	145 121 1.5/3	245 198 1.5/3	372 295 1.5/3	536 420 1.8/3

- Total Load values limited by shear, moment or deflection equal to L/180. Total Load values are the capacity of the beam in addition to its own weight.
- Live Load values are limited by deflection equal to L/240. Check the local building code for other deflection limits that may apply.
- Where a Live Load value is not shown, the Total Load value will control.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with the BC Calc software if the length of any span is less than half the length of an adjacent span.
- Table values assume that the lateral support is provided at each support end.
- Table values for Minimum Required Bearing Lengths are based on the allowable compression design value perpendicular to grain for the beam and the Total Load value shown. Other design considerations, such as a weaker support material, may warrant longer bearing lengths. Table values assume that the support is provided across the full width of the beam.
- For 2-ply, 3-ply or 4-ply beams; double, triple or quadruple Total Load and Live Load values. Minimum Required Bearing Lengths remain the same for any number of plies.
- 3/4" members deeper than 14 inches are to be used as multiple-ply beams only.
- This table was designed to apply to a broad range of applications. It may be

Versa-Lam Roof Beams

2900Fb SP (115%) Snow Load

KEY TO TABLE: Top figure = Allowable Total Load (plf) Middle figure = Allowable Live Load (plf)
Bottom figures = Minimum Required Bearing Length at End/Intermediate Supports (inches)

Design Span (ft)	1 3/4" Width - 2900 Fb SP						3 1/2" Width - 2800 Fb DF					5 1/4" Width - 2800 Fb DF				
	7 1/4"	9 1/2"	11 7/8"	14"	16 1/4"	18 1/8"	9 1/2"	11 7/8"	14"	16"	18"	9 1/2"	11 7/8"	14"	16"	18"
6	393 - 1.8/3	1245 - 2.5/3.1	1688 - 3.4/4.2	2102 - 4.3/5.3	2568 - 5.2/6.5	3104 - 6.3/7.8	2447 - 2.3/3	3279 - 3.1/3.9	4132 - 3.9/4.9	5049 - 4.8/6	6102 - 5.8/7.3	3671 - 2.3/3	4919 - 3.1/3.9	6198 - 3.9/4.9	7573 - 4.8/6	9153 - 5.8/7.3
8	560 482 1.5/3	874 - 2.4/3	1146 - 3.1/3.9	1414 - 3.8/4.8	1690 - 4.8/6.7	1992 - 5.4/6.7	1718 - 2.2/3	2254 - 2.9/3.6	2780 - 3.5/4.4	3323 - 4.2/5.3	3917 - 5/6.2	2577 - 2.2/3	3381 - 2.9/3.8	4171 - 3.5/4.4	4984 - 4.2/5.3	5875 - 5/6.2
10	328 247 1.5/3	596 556 2/3	872 - 3/3.7	1065 - 3.8/4.5	1258 - 4.3/5.3	1466 - 5/6.2	1151 1111 1.8/3	1716 - 2.7/3.4	2094 - 3.3/4.2	2474 - 4/4.9	2882 - 4.8/5.8	1727 1867 1.8/3	2574 - 2.7/3.4	3140 - 3.3/4.2	3711 - 4/4.9	4323 - 4.6/5.8
11	244 186 1.5/3	492 418 1.8/3	751 - 2.8/3.5	947 - 3.5/4.4	1116 - 4.2/5.2	1294 - 4.8/6	950 835 1.7/3	1450 - 2.6/3.2	1863 - 3.3/4.1	2194 - 3.9/4.8	2545 - 4.5/5.6	1425 1253 1.7/3	2176 - 2.6/3.2	2793 - 3.3/4.1	3290 - 3.9/4.8	3617 - 4.5/5.6
12	187 143 1.5/3	412 322 1.7/3	630 628 2.8/3.2	853 - 3.5/4.3	1002 - 4.1/5.1	1158 - 4.7/5.9	797 843 1.5/3	1217 - 2.3/3	1663 - 3.2/4	1970 - 3.8/4.7	2278 - 4.4/5.5	1195 965 1.5/3	1826 - 2.3/3	2494 - 3.2/4	2955 - 3.8/4.7	3417 - 4.4/5.5
13	146 112 1.5/3	333 253 1.5/3	536 494 2.4/3	732 - 3.2/4	909 - 4/5	1048 - 4.6/5.6	656 506 1.5/3	1035 968 2.2/3	1415 - 2.9/3.7	1787 - 3.7/4.6	2062 - 4.3/5.4	999 759 1.5/3	1553 1482 2.2/3	2123 - 2.9/3.7	2681 - 3.7/4.3	3082 - 4.3/5.4
14	116 90 1.5/3	265 203 1.5/3	461 396 2.2/3	631 - 3/3.7	812 - 3.9/4.8	957 - 4.5/5.7	532 405 1.5/3	891 791 2/3	1218 - 2.7/3.4	1570 - 3.5/4.4	1883 - 4.2/5.3	797 608 1.5/3	1337 1187 2/3	1826 - 2.7/3.4	2365 - 3.5/4.4	2824 - 4.2/5.3
15	94 79 1.5/3	216 165 1.5/3	401 322 2.1/3	548 527 2.8/3.5	707 - 3.6/4.5	880 - 4.5/5.6	431 329 1.5/3	775 543 1.9/3	1060 1054 2.6/3.2	1386 - 3.3/4.1	1708 - 4.1/5.1	646 494 1.5/3	1163 965 1.9/3	1590 1581 2.6/3.2	2048 - 3.3/4.1	2561 - 4.1/5.1
16	77 60 1.5/3	176 136 1.5/3	347 265 1.9/3	481 434 2.6/3.3	620 - 3.4/4.2	776 - 4.2/5.3	353 271 1.5/3	680 530 1.8/3	930 868 2.4/3	1198 - 3.1/3.9	1499 - 3.8/4.8	530 407 1.5/3	1020 795 1.8/3	1395 1303 2.4/3	1798 - 3.1/3.9	2248 - 3.8/4.8
17	63 50 1.5/3	146 113 1.5/3	289 221 1.7/3	425 362 2.5/3.1	548 540 3.2/4	686 - 4/5	293 226 1.5/3	578 442 1.8/3	822 724 2.3/3	1060 - 2.9/3.6	1326 - 3.6/4.5	440 339 1.5/3	869 663 1.8/3	1233 1086 2.3/3	1590 - 2.9/3.6	1989 - 3.6/4.5
18	53 42 1.5/3	122 95 1.5/3	242 186 1.5/3	379 305 2.3/3	488 455 3/3.8	611 - 3.8/4.7	246 191 1.5/3	486 372 1.5/3	732 610 2.1/3	944 910 2.7/3.4	1181 - 3.4/4.3	368 286 1.5/3	728 558 1.5/3	1098 915 2.1/3	1416 1366 2.7/3.4	1771 - 3.4/4.3
19	44 36 1.5/3	103 81 1.5/3	205 158 1.5/3	339 259 2.2/3	436 387 2.8/3.6	548 551 3.8/4.4	208 162 1.5/3	411 316 1.5/3	656 519 2/3	846 774 2.8/3.2	1058 - 3.2/4.1	311 243 1.5/3	617 475 1.5/3	984 778 2/3	1269 1161 2.6/3.2	1587 - 3.2/4.1
20	38 31 1.5/3	88 69 1.5/3	175 136 1.5/3	290 222 2/3	394 332 2.7/3.4	493 473 3.4/4.2	177 139 1.5/3	351 271 1.5/3	680 445 1.9/3	762 664 2.5/3.1	953 945 3.1/3.8	265 206 1.5/3	527 407 1.5/3	870 667 1.9/3	1143 996 2.5/3.1	1430 1418 3.1/3.8
22	27 23 1.5/3	65 52 1.5/3	130 102 1.5/3	216 167 1.6/3	324 249 2.5/3.1	406 358 3.1/3.8	131 104 1.5/3	281 204 1.5/3	433 334 1.6/3	627 499 2.2/3	785 710 2.8/3.5	196 157 1.5/3	382 306 1.5/3	649 501 1.8/3	941 748 2.2/3	1178 1065 2.8/3.5
24	20 18 1.5/3	49 40 1.5/3	99 79 1.5/3	165 129 1.5/3	248 192 2.1/3	340 273 2.8/3.5	99 80 1.5/3	199 157 1.5/3	330 257 1.5/3	498 384 2/3	657 547 2.6/3.2	148 121 1.5/3	298 236 1.5/3	496 386 1.5/3	747 578 2/3	986 820 2.6/3.2
26	15 14 1.5/3	37 32 1.5/3	77 62 1.5/3	128 101 1.5/3	194 151 1.8/3	278 215 2.5/3.1	76 63 1.5/3	184 124 1.5/3	257 202 1.5/3	388 302 1.7/3	557 430 2.4/3	114 95 1.5/3	231 185 1.5/3	386 304 1.5/3	583 453 1.7/3	836 645 2.4/3
28	11 11 1.5/3	29 25 1.5/3	60 49 1.5/3	101 81 1.5/3	153 121 1.5/3	221 172 2.2/3	59 51 1.5/3	121 99 1.5/3	203 162 1.5/3	308 242 1.5/3	443 344 2/3	88 76 1.5/3	182 148 1.5/3	305 243 1.5/3	462 363 1.5/3	664 517 2/3
30	9 9 1.5/3	23 21 1.5/3	48 40 1.5/3	81 66 1.5/3	123 98 1.5/3	178 140 1.9/3	48 41 1.5/3	97 80 1.5/3	183 132 1.5/3	248 197 1.8/3	357 280 1.8/3	70 62 1.5/3	145 121 1.5/3	245 198 1.5/3	372 295 1.5/3	536 420 1.9/3

- Total Load values limited by shear, moment or deflection equal to L/180. Total Load values are the capacity of the beam in addition to its own weight.
- Live Load values are limited by deflection equal to L/240. Check the local building code for other deflection limits that may apply.
- Where a Live Load value is not shown, the Total Load value will control.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with the BC Calc software if the length of any span is less than half the length of an adjacent span.
- Table values assume that the lateral support is provided at each support and continuously along the compression edge of the beam.
- Table values for Minimum Required Bearing Lengths are based on the allowable compression design value perpendicular to grain for the beam and the Total Load value shown. Other design considerations, such as a weaker support material, may warrant longer bearing lengths. Table values assume that the support is provided across the full width of the beam.
- For 2-ply, 3-ply or 4-ply beams; double, triple or quadruple Total Load and Live Load values. Minimum Required Bearing Lengths remain the same for any number of plies.
- 1 3/4" members deeper than 14 inches are to be used as multiple-ply beams only.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with the BC Calc software.

30

Versa-Lam Floor Beams

2900F_b SP (100%)

KEY TO TABLE: Top figure = Allowable Total Load (plf) Middle figure = Allowable Live Load (plf)
Bottom figures = Minimum Required Bearing Length at End/Intermediate Supports (inches)

Design Span (ft)	1 3/4" Width - 2900 Fb SP						3 1/2" Width - 2800 Fb DF					5 1/4" Width - 2800 Fb DF				
	7 1/2"	9 1/2"	11 7/8"	14"	16" ⁽¹⁾	18" ⁽¹⁾	9 1/2"	11 7/8"	14"	16"	18"	9 1/2"	11 7/8"	14"	16"	18"
6	776 762 1.6/3	1082 - 2.2/3	1450 - 2.9/3.7	1827 - 3.7/4.6	2232 - 4.5/5.6	2698 - 5.5/6.8	2127 - 2/3	2860 - 2.7/3.4	3591 - 3.4/4.3	4388 - 4.2/5.2	5304 - 5.1/6.3	3190 - 2/3	4275 - 2.7/3.4	5387 - 3.4/4.3	6583 - 4.2/5.2	7956 - 5.1/6.3
8	479 322 1.5/3	759 724 2.1/3	996 - 2.7/3.4	1229 - 3.3/4.2	1469 - 4/5	1731 - 4.7/5.8	1493 1447 1.9/3	1958 - 2.5/3.1	2416 - 3.1/3.9	2887 - 3.7/4.6	3404 - 4.3/5.4	2239 2171 1.9/3	2938 - 2.5/3.1	3624 - 3.1/3.9	4331 - 3.7/4.6	5106 - 4.3/5.4
10	243 165 1.5/3	518 370 1.8/3	758 724 2.6/3.2	925 - 3.1/3.9	1093 - 3.7/4.6	1273 - 4.3/5.4	1000 741 1.6/3	1491 1447 2.4/3	1819 - 2.9/3.6	2150 - 3.4/4.3	2504 - 4/5	1500 1111 1.6/3	2236 2171 2.4/3	2726 - 2.9/3.6	3225 - 3.4/4.3	3756 - 4/5
11	182 124 1.5/3	413 278 1.5/3	652 544 2.4/3	823 - 3.1/3.8	969 - 3.6/4.5	1124 - 4.2/5.2	825 667 1.5/3	1260 1087 2.2/3	1618 - 2.8/3.6	1906 - 3.4/4.2	2211 - 3.9/4.9	1237 835 1.5/3	1890 1631 2.2/3	2428 - 2.8/3.6	2858 - 3.4/4.2	3316 - 3.9/4.9
12	139 95 1.5/3	317 214 1.5/3	547 419 2.2/3	741 686 3/3.8	870 - 3.5/4.4	1006 - 4.1/5.1	635 429 1.5/3	1057 837 2/3	1444 1372 2.8/3.5	1711 - 3.3/4.1	1979 - 3.8/4.8	952 643 1.5/3	1585 1256 2/3	2167 2058 2.8/3.5	2567 - 3.3/4.1	2968 - 3.8/4.8
13	109 75 1.5/3	248 169 1.5/3	465 329 2.1/3	636 540 2.8/3.5	789 - 3.5/4.4	910 - 4/5	497 337 1.5/3	899 659 1.9/3	1229 1079 2.6/3.2	1552 - 3.2/4	1791 - 3.7/4.7	746 506 1.5/3	1348 988 1.9/3	1843 1619 2.6/3.2	2328 - 3.2/4	2886 - 3.7/4.7
14	86 60 1.5/3	198 135 1.5/3	390 264 1.9/3	547 432 2.6/3.3	705 645 3.4/4.2	831 - 4/4.9	398 270 1.5/3	774 527 1.7/3	1058 864 2.4/3	1363 1290 3.1/3.8	1635 - 3.7/4.6	595 405 1.5/3	1160 791 1.7/3	1587 1296 2.4/3	2045 1935 3.1/3.8	2452 - 3.7/4.6
15	70 49 1.5/3	180 110 1.5/3	316 214 1.6/3	476 351 2.4/3	614 524 3.1/3.9	764 747 3.9/4.9	321 220 1.5/3	632 429 1.5/3	920 703 2.2/3	1186 1049 2.9/3.6	1483 1493 3.6/4.5	481 329 1.5/3	949 643 1.5/3	1360 1054 2.2/3	1778 1573 2.9/3.8	2224 2240 3.6/4.5
16	57 40 1.5/3	131 90 1.5/3	259 177 1.5/3	418 289 2.3/3	538 432 2.9/3.7	673 615 3.7/4.6	263 181 1.5/3	519 353 1.5/3	807 579 2.1/3	1040 864 2.7/3.3	1301 1230 3.3/4.2	384 271 1.5/3	779 530 1.5/3	1210 868 2.1/3	1560 1296 2.7/3.3	1952 1848 3.3/4.2
17	47 34 1.5/3	108 75 1.5/3	215 147 1.5/3	355 241 2.1/3	476 360 2.8/3.5	595 513 3.5/4.3	218 151 1.5/3	431 295 1.5/3	711 483 2/3	920 720 2.6/3.2	1151 1026 3.1/3.9	327 226 1.5/3	647 442 1.5/3	1087 724 2/3	1380 1081 2.5/3.2	1726 1539 3.1/3.9
18	39 23 1.5/3	91 64 1.5/3	180 124 1.5/3	298 203 1.8/3	424 303 2.6/3.3	530 432 3.3/4.1	282 127 1.5/3	362 248 1.5/3	597 407 1.7/3	819 607 2.4/3	1025 864 3/3.7	273 191 1.5/3	542 372 1.5/3	896 610 1.7/3	1228 910 2.4/3	1537 1296 3/3.7
19	32 24 1.5/3	76 54 1.5/3	152 105 1.5/3	252 173 1.7/3	379 258 2.5/3.1	475 367 3.1/3.9	153 108 1.5/3	306 211 1.5/3	506 346 1.6/3	733 518 2.3/3	918 735 2.8/3.5	230 162 1.5/3	459 316 1.5/3	759 519 1.6/3	1100 774 2.3/3	1377 1102 2.8/3.5
20	27 21 1.5/3	65 46 1.5/3	130 90 1.5/3	215 148 1.5/3	324 221 2.2/3	428 315 2.9/3.7	130 93 1.5/3	261 181 1.5/3	432 296 2.1/3	649 442 2.7/3.3	827 630 1.5/3	195 139 1.5/3	391 271 1.5/3	648 445 1.5/3	974 654 2.1/3	1240 945 2.7/3.3
22	20 15 1.5/3	48 35 1.5/3	96 66 1.5/3	160 111 1.5/3	241 166 1.8/3	346 237 2.6/3.3	96 70 1.5/3	193 136 1.5/3	321 223 1.7/3	484 332 2.4/3	681 473 1.5/3	144 104 1.5/3	290 204 1.5/3	482 334 1.5/3	726 499 1.7/3	1021 710 2.4/3
24	14 12 1.5/3	38 27 1.5/3	73 52 1.5/3	122 86 1.5/3	184 128 1.5/3	265 182 2.2/3	72 54 1.5/3	148 105 1.5/3	245 172 1.5/3	370 256 1.5/3	531 365 2.1/3	108 80 1.5/3	220 157 1.5/3	367 257 1.5/3	555 384 1.5/3	796 547 2.1/3
26	10 8 1.5/3	27 21 1.5/3	58 41 1.5/3	94 67 1.5/3	143 101 1.5/3	206 143 1.9/3	55 42 1.5/3	113 82 1.5/3	190 135 1.5/3	288 201 1.5/3	414 287 1.8/3	82 63 1.5/3	169 124 1.5/3	285 202 1.5/3	432 302 1.5/3	621 430 1.8/3
28	8 8 1.5/3	21 17 1.5/3	44 33 1.5/3	74 54 1.5/3	113 81 1.5/3	163 115 1.6/3	42 34 1.5/3	88 66 1.5/3	149 108 1.5/3	227 161 1.5/3	328 230 1.5/3	83 51 1.5/3	132 99 1.5/3	224 162 1.5/3	341 242 1.5/3	492 344 1.6/3
30	6 6 1.5/3	16 14 1.5/3	34 27 1.5/3	59 44 1.5/3	90 66 1.5/3	131 93 1.5/3	33 27 1.5/3	70 54 1.5/3	119 88 1.5/3	182 131 1.5/3	264 187 1.5/3	49 41 1.5/3	105 80 1.5/3	179 132 1.5/3	273 197 1.5/3	399 280 1.5/3

- Total Load values limited by shear, moment or deflection equal to L/240. Total Load values are the capacity of the beam in addition to its own weight.
- Live Load values are limited by deflection equal to L/360.
- Where a Live Load value is not shown, the Total Load value will control.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with the BC Calc software if the length of any span is less than half the length of an adjacent span.
- Table values assume that the lateral support is provided at each support end

- compression design value perpendicular to grain for the beam and the Total Load value shown. Other design considerations, such as a weaker support material, may warrant longer bearing lengths. Table values assume that the support is provided across the full width of the beam.
- For 2-ply, 3-ply or 4-ply beams; double, triple or quadruple Total Load and Live Load values. Minimum Required Bearing Lengths remain the same for any number of plies.
- 1 3/4" members deeper than 14 inches are to be used as multiple-ply beams only.