



LIMIT STATES DESIGN
CANADA



WESTERN SPECIFIER GUIDE VERSA-LAM® 2.3E 3100

CCMC Report Number 12472-R VERSA-LAM®

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www.BC.com

High Performance Floor & Roof Systems



It's the **SIMPLE FRAMING SYSTEM®**, featuring beams, joists, studs, columns and rim boards that work together as a system, so you spend less time cutting and fitting. In fact, the **SIMPLE FRAMING SYSTEM®** uses fewer pieces and longer lengths than conventional framing, so you'll complete jobs in less time.

You'll Build Better Homes with the **SIMPLE FRAMING SYSTEM®**

Now it's easier than ever to design and build better floor systems. When you specify the **SIMPLE FRAMING SYSTEM®**, your clients will have fewer problems with squeaky floors and ceiling gypsum board cracks. The **SIMPLE FRAMING SYSTEM®** also means overall better floor, roof and wall framing than dimension lumber allows.

Better Framing Doesn't Have to Cost More

Boise Cascade EWP **SIMPLE FRAMING SYSTEM®** often costs less than conventional framing methods when the resulting reduced labor and materials waste are considered. There's less sorting and cost associated with disposing of waste because you order

only what you need. Although our longer lengths help your clients get the job done faster, they cost no more.

Environmentally Sound

As an added bonus, floor, roof and wall systems built with Boise Cascade Joists require about half the number of trees as those built with dimension lumber. This helps you design a home both you and future generations will be proud to own.

What Makes the **SIMPLE FRAMING SYSTEM®** So Simple?

- **Floor and Roof Framing with Boise Cascade Joists**

Light in weight, but heavy-duty, Boise Cascade Joists have a better strength/ weight ratio than dimension lumber. Knockouts can be removed for cross-ventilation and wiring.

- **Ceilings Framed with Boise Cascade Joists**

The consistent size of Boise Cascade Joists helps keep gypsum board flat and free of unsightly nail pops and ugly shadows, while keeping finish work to a minimum.

- **Versa-Lam® Beams for Floor and Roof Framing**

These highly-stable beams are free of the large-scale defects that plague dimension beams. The result is quieter, flatter floors (no camber) and no shrinkage-related call-backs.

- **VERSA-STUD® and Versa-Lam® Columns for Wall Framing**

VERSA-STUD® laminated veneer lumber wall framing is engineered for the high quality builder who wants . . .

- Stronger walls to resist wind loads.
- Stiffer walls for a solid feel.
- Straight walls for a high quality finish.

- **Boise Cascade Rimboard**

Boise Cascade EWP offer several engineered rimboard products regionally, including BC RIM BOARD® OSB, VERSA-RIM®, VERSA-STRAND™ 0.8 (check supplier or Boise Cascade EWP representative for availability). These products work with Alljoist® and BCI® Joists to provide a solid connection at the critical floor/wall intersection.

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An Introduction to Versa-Lam® Products



When you specify Versa-Lam® laminated 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, quieter floors, and consequently, the builder can expect happier customers with significantly fewer call backs.

Versa-Lam® Architectural Specifications

Scope: This work includes the complete furnishing and installation of all Versa-Lam® beams as shown on the drawings, herein special and necessary to complete the work.

Materials: Douglas Fir veneer, laminated in a press with all grain parallel with the length of the member. Glue used in lamination is phenol formaldehyde and isocyanate exterior type adhesive which comply with CSA O112 standards. All adhesives are compliant to NBCC 2015 and CCMC requirements for dry use structural applications.

Design: The Versa-Lam® beams shall be sized and detailed to fit the dimensions and loads indicated on the plans. All designs are in accordance with allowable values developed with ASTM D5456 and CSA O86-14 and listed in the Canadian Construction Materials Center CCMC 12472-R report and section properties based upon standard engineering principles. Verification of design of the 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 supplier.

Fabrication: The Versa-Lam® beams shall be manufactured in a plant evaluated for fabrication by the CCMC under the supervision of a third-party inspection agency listed by the CCMC.

Storage: The 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.

Installation: The Versa-Lam® beams are to be installed in accordance with the plans and Boise Cascade Engineered Wood Products 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.

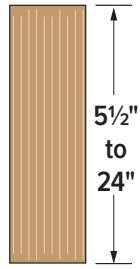
Codes: The design shall be based on CSA O86-14 and the National Building Code of Canada. The VERSA-LAM® beams shall be evaluated by the CCMC evaluation service.

Boise Cascade Chain-Of-Custody Certifications

Boise Cascade Engineered Wood Products has a proven track record of providing quality wood products and a nationwide building materials distribution network for our customers, helping them to enhance their own businesses.

Boise Cascade Engineered Wood Products build better homes with stronger, stiffer floors using only wood purchased in compliance with a number of green building programs. Take a moment to view our sustainability certification site at <http://www.bc.com/sustainability/certification-audits/> or view our green brochure at www.bc.com/inst11.

Boise Cascade Engineered Wood Products throughout North America can now be ordered FSC® Chain-of-Custody (COC) certified, enabling homebuilders to achieve LEED® points residential and commercial green building programs including LEED for Homes and LEED for New Construction. Boise Cascade Engineered Wood Products are available as PEFC® Chain-of-Custody certified, SFI® Chain-of-Custody certified and SFI® Fiber-Sourcing certified, as well as NAHB Research Center Green Approved, enabling homebuilders to also obtain green building points through the Green Building Standards.



3 1/2", 5 1/4", 7"
Versa-Lam®
2.3E 3100

Design Properties

Width	Depth	Size Factor	Weight	Factored Shear Resistance (Joist), V_r	Factored Bending Resistance (Joist), M_r	Moment of Inertia, I	Modulus of Elasticity, E_{true}	Modulus of Elasticity, $E_{apparent}$	Specified Bending Strength (Joist), f_b	Specified Shear Strength (Joist), f_v	Specified Compression Parallel to Grain, f_c	Specified Compression Perpendicular to Grain, f_{cp}
(in)	(in)		(lb/ft)	(lb)	(lb-ft)	(in ⁴)	(x10 ⁶ psi)	(x10 ⁶ psi)	(psi)	(psi)	(psi)	(psi)
Versa-Lam® 2.3E 3100 Design Properties												
3 1/2	7 1/4	1.06	7.4	8,069	13,936	111	2.3	2.2	5,730	530	4,790	1,365
	9 1/4	1.03	9.4	10,295	22,079	231						
	9 1/2	1.03	9.7	10,574	23,220	250						
	11 1/4	1.01	11.5	12,521	31,956	415						
	11 5/8	1.00	12.1	13,217	35,392	488						
	14	0.98	14.3	15,582	48,300	800						
	16	0.97	16.3	17,808	62,157	1,195						
	18	0.96	18.4	20,034	77,645	1,701						
5 1/4	9 1/4	1.03	14.2	15,443	33,118	346	2.3	2.2	5,730	530	4,790	1,365
	9 1/2	1.03	14.5	15,860	34,829	375						
	11 1/4	1.01	17.2	18,782	47,934	623						
	11 5/8	1.00	18.2	19,825	53,088	733						
	14	0.98	21.4	23,373	72,451	1,201						
	16	0.97	24.5	26,712	93,236	1,792						
	18	0.96	27.6	30,051	116,467	2,552						
	20	0.94	30.6	33,390	142,113	3,500						
	22	0.93	33.7	36,729	170,145	4,659						
	24	0.93	36.8	40,068	200,539	6,048						
7	9 1/4	1.03	18.9	20,591	44,158	462	2.3	2.2	5,730	530	4,790	1,365
	9 1/2	1.03	19.4	21,147	46,439	500						
	11 1/4	1.01	23.0	25,043	63,912	831						
	11 5/8	1.00	24.2	26,434	70,784	977						
	14	0.98	28.6	31,164	96,601	1,601						
	16	0.97	32.7	35,616	124,314	2,389						
	18	0.96	36.8	40,068	155,289	3,402						
	20	0.94	40.8	44,520	189,484	4,667						
	22	0.93	44.9	48,972	226,861	6,211						
	24	0.93	49.0	53,424	267,385	8,064						

- Repetitive member factor has not been applied to the Factored Bending Resistance.
- Size factors have been applied to the Factored Bending Resistance.
- Versa-Lam® Specific Gravity for fasteners design = 0.5

- Specified compression perpendicular to grain on plank orientation (plate) is 819 psi.
- Fiber stress bending value shall be multiplied by the depth factor, $(12/d)^{1/3}$ where d = member depth [in]

Uniform Load Table

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Versa-Lam® 2.3E 3100 (3½") Allowable Uniform Load (lbs/ft)

Design Span [ft]	Beam Thickness	3½"							
	Beam Depth	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"
6' - 0"	Unfactored Live Load for L / 360 [plf]	1517	2904	3112	-	-	-	-	-
	Unfactored Total Load for L / 240 [plf]	2269	-	-	-	-	-	-	-
	Factored Total Load, Wf [plf]	2553	3441	3559	4434	4769	6009	7342	8873
	Bearing Lengths [End / Intermediate] - SPF Plate [in]	3.75 / 9	5 / 12	5 / 12.5	6.25 / 15.5	6.75 / 16.75	8.5 / 21	10.25 / 25.75	12.5 / 31
	Bearing Lengths [End / Intermediate] - beam [in]	2.25 / 5.25	2.75 / 7	3 / 7	3.5 / 8.75	3.75 / 9.5	4.75 / 12	6 / 14.5	7 / 17.5
8' - 0"	Unfactored Live Load for L / 360 [plf]	680	1344	1446	2282	2631	4014	-	-
	Unfactored Total Load for L / 240 [plf]	1013	2008	2161	-	-	-	-	-
	Factored Total Load, Wf [plf]	1733	2421	2498	3065	3278	4044	4833	5697
	Bearing Lengths [End / Intermediate] - SPF Plate [in]	3.25 / 8.25	4.5 / 11.25	4.75 / 11.75	5.75 / 14.25	6.25 / 15.25	7.75 / 19	9 / 22.5	10.75 / 26.5
	Bearing Lengths [End / Intermediate] - beam [in]	2 / 4.75	2.75 / 6.5	2.75 / 6.75	3.25 / 8.25	3.5 / 8.75	4.25 / 10.75	5.25 / 12.75	6 / 15
10' - 0"	Unfactored Live Load for L / 360 [plf]	358	720	777	1246	1446	2255	3197	-
	Unfactored Total Load for L / 240 [plf]	531	1072	1157	1859	2159	-	-	-
	Factored Total Load, Wf [plf]	1106	1755	1846	2341	2496	3045	3599	4192
	Bearing Lengths [End / Intermediate] - SPF Plate [in]	2.75 / 6.5	4.25 / 10.25	4.5 / 10.75	5.5 / 13.75	6 / 14.5	7.25 / 17.75	8.5 / 21	9.75 / 24.5
	Bearing Lengths [End / Intermediate] - beam [in]	1.5 / 3.75	2.5 / 5.75	2.5 / 6.25	3.25 / 7.75	3.5 / 8.25	4 / 10	4.75 / 12	5.5 / 13.75
12' - 0"	Unfactored Live Load for L / 360 [plf]	210	428	462	748	872	1378	1980	2704
	Unfactored Total Load for L / 240 [plf]	309	633	684	1112	1297	2054	-	-
	Factored Total Load, Wf [plf]	765	1216	1279	1762	1952	2441	2866	3314
	Bearing Lengths [End / Intermediate] - SPF Plate [in]	2.25 / 5.5	3.5 / 8.5	3.75 / 9	5 / 12.5	5.5 / 13.75	7 / 17.25	8 / 20	9.25 / 23.25
	Bearing Lengths [End / Intermediate] - beam [in]	1.5 / 3.5	2 / 5	2.25 / 5.25	3 / 7	3.25 / 7.75	4 / 9.75	4.75 / 11.5	5.25 / 13.25
14' - 0"	Unfactored Live Load for L / 360 [plf]	134	273	295	482	563	897	1302	1795
	Unfactored Total Load for L / 240 [plf]	194	402	435	713	834	1334	1938	2677
	Factored Total Load, Wf [plf]	560	890	936	1291	1431	1955	2380	2739
	Bearing Lengths [End / Intermediate] - SPF Plate [in]	2 / 4.75	3 / 7.25	3.25 / 7.75	4.25 / 10.75	4.75 / 11.75	6.5 / 16	7.75 / 19.5	9 / 22.5
	Bearing Lengths [End / Intermediate] - beam [in]	1.5 / 3.5	1.75 / 4.25	1.75 / 4.5	2.5 / 6	2.75 / 6.75	3.75 / 9	4.5 / 11	5.25 / 12.75
16' - 0"	Unfactored Live Load for L / 360 [plf]	90	185	200	328	383	615	897	1246
	Unfactored Total Load for L / 240 [plf]	129	269	292	482	564	910	1332	1853
	Factored Total Load, Wf [plf]	427	679	714	985	1092	1493	1924	2333
	Bearing Lengths [End / Intermediate] - SPF Plate [in]	1.75 / 4	2.75 / 6.5	2.75 / 6.75	3.75 / 9.25	4.25 / 10.25	5.75 / 14	7.25 / 18	8.75 / 21.75
	Bearing Lengths [End / Intermediate] - beam [in]	1.5 / 3.5	1.5 / 3.75	1.5 / 3.75	2.25 / 5.25	2.5 / 5.75	3.25 / 8	4.25 / 10.25	5 / 12.25
18' - 0"	Unfactored Live Load for L / 360 [plf]	63	131	141	232	272	439	643	897
	Unfactored Total Load for L / 240 [plf]	89	188	204	339	398	646	951	1330
	Factored Total Load, Wf [plf]	335	534	562	776	860	1176	1516	1896
	Bearing Lengths [End / Intermediate] - SPF Plate [in]	1.5 / 3.75	2.25 / 5.75	2.5 / 6	3.25 / 8.25	3.75 / 9	5 / 12.5	6.5 / 16	8 / 20
	Bearing Lengths [End / Intermediate] - beam [in]	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	2 / 4.75	2.25 / 5.25	3 / 7	3.75 / 9	4.5 / 11.25
20' - 0"	Unfactored Live Load for L / 360 [plf]	46	96	103	171	200	323	476	666
	Unfactored Total Load for L / 240 [plf]	63	135	147	246	290	473	700	984
	Factored Total Load, Wf [plf]	270	431	453	626	694	950	1224	1532
	Bearing Lengths [End / Intermediate] - SPF Plate [in]	1.5 / 3.5	2.25 / 5.25	2.25 / 5.5	3 / 7.5	3.25 / 8.25	4.5 / 11.25	5.75 / 14.25	7.25 / 18
	Bearing Lengths [End / Intermediate] - beam [in]	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4.25	2 / 4.75	2.5 / 6.25	3.25 / 8.25	4.25 / 10.25
22' - 0"	Unfactored Live Load for L / 360 [plf]		72	78	129	151	245	361	508
	Unfactored Total Load for L / 240 [plf]		100	109	183	216	355	528	745
	Factored Total Load, Wf [plf]		354	373	515	571	782	1009	1262
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		2 / 4.75	2 / 5	2.75 / 6.75	3 / 7.5	4 / 10	5.25 / 13	6.5 / 16.25
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.75	1.75 / 4.25	2.5 / 5.75	3 / 7.5	3.75 / 9.25
24' - 0"	Unfactored Live Load for L / 360 [plf]		55	60	99	117	190	281	395
	Unfactored Total Load for L / 240 [plf]		75	82	139	165	272	407	577
	Factored Total Load, Wf [plf]		296	311	431	478	654	845	1058
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.75 / 4.25	1.75 / 4.5	2.5 / 6.25	2.75 / 6.75	3.75 / 9.25	4.75 / 12	6 / 14.75
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4	2.25 / 5.25	2.75 / 6.75	3.5 / 8.5
26' - 0"	Unfactored Live Load for L / 360 [plf]		44	47	78	92	150	222	313
	Unfactored Total Load for L / 240 [plf]		57	63	108	128	213	319	454
	Factored Total Load, Wf [plf]		250	264	365	405	555	717	898
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.75 / 4	1.75 / 4	2.25 / 5.75	2.5 / 6.25	3.5 / 8.5	4.5 / 11	5.5 / 13.75
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	2 / 4.75	2.5 / 6.25	3.25 / 7.75
28' - 0"	Unfactored Live Load for L / 360 [plf]				63	74	120	179	252
	Unfactored Total Load for L / 240 [plf]				84	100	168	254	363
	Factored Total Load, Wf [plf]				313	347	477	616	771
	Bearing Lengths [End / Intermediate] - SPF Plate [in]				2.25 / 5.25	2.5 / 5.75	3.25 / 8	4.25 / 10.25	5.25 / 12.75
	Bearing Lengths [End / Intermediate] - beam [in]				1.5 / 3.5	1.5 / 3.5	1.75 / 4.5	2.5 / 5.75	3 / 7.25
30' - 0"	Unfactored Live Load for L / 360 [plf]				51	60	98	146	206
	Unfactored Total Load for L / 240 [plf]				67	80	135	205	293
	Factored Total Load, Wf [plf]				271	301	413	534	669
	Bearing Lengths [End / Intermediate] - SPF Plate [in]				2 / 4.75	2.25 / 5.25	3 / 7.25	3.75 / 9.5	4.75 / 11.75
	Bearing Lengths [End / Intermediate] - beam [in]				1.5 / 3.5	1.5 / 3.5	1.75 / 4.25	2.25 / 5.25	2.75 / 6.75

NOTES:

- Factored Total Load values are limited by shear or moment. Total Load values are given by the beam capacity in addition to its own weight.
- Unfactored Live Load values are limited by deflection equal to L / 360. For deflections limited to L / 480, multiply live load values by 0.75 (recommended for less vibration).
- All 3 loading cases must be checked. Where a Live Load value is not shown, the Factored Total Load value will control.
- Table values represent the most restrictive of simple or continuous span beams applications and assume an uniform loading. Span is measured center to center of the supports. Analyze continuous 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 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 Factored Load value shown. Other design considerations, such as a weaker support material, may warrant longer bearing lengths. Table values assume that support is provided across the full width of the beam.
- For 2-ply beams; double the Allowable Factored Total Load, Allowable Unfactored Live and Total Load values. Minimum required bearing Lengths remain the same for any number of plies.
- 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.

Uniform Load Table

Versa-Lam® 2.3E 3100 (5¼") Allowable Uniform Load (lbs/ft)

Design Span [ft]	Beam Thickness		5¼"										
	Beam Depth		7¼"	9¼"	9½"	11¼"	11⅞"	14"	16"	18"	20"	22"	24"
6' - 0"	Unfactored Live Load for L / 360 [plf]		2275	4357	4668	-	-	-					
	Unfactored Total Load for L / 240 [plf]		3403	-	-	-	-	-					
	Factored Total Load, Wf [plf]		3830	5162	5338	6651	7153	9013					
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		3.75 / 9	5 / 12	5 / 12.5	6.25 / 15.5	6.75 / 16.75	8.5 / 21					
	Bearing Lengths [End / Intermediate] - beam [in]		2.25 / 5.25	2.75 / 7	3 / 7	3.5 / 8.75	3.75 / 9.5	4.75 / 12					
8' - 0"	Unfactored Live Load for L / 360 [plf]		1020	2016	2169	3423	3947	6022	-				
	Unfactored Total Load for L / 240 [plf]		1520	3012	3242	-	-	-	-				
	Factored Total Load, Wf [plf]		2600	3631	3748	4598	4917	6066	7249				
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		3.25 / 8.25	4.5 / 11.25	4.75 / 11.75	5.75 / 14.25	6.25 / 15.25	7.75 / 19	9 / 22.5				
	Bearing Lengths [End / Intermediate] - beam [in]		2 / 4.75	2.75 / 6.5	2.75 / 6.75	3.25 / 8.25	3.5 / 8.75	4.25 / 10.75	5.25 / 12.75				
10' - 0"	Unfactored Live Load for L / 360 [plf]		537	1081	1165	1870	2169	3383	4796				
	Unfactored Total Load for L / 240 [plf]		797	1609	1735	2789	3238	-	-				
	Factored Total Load, Wf [plf]		1659	2633	2769	3512	3744	4569	5399				
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		2.75 / 6.5	4.25 / 10.25	4.5 / 10.75	5.5 / 13.75	6 / 14.5	7.25 / 17.75	8.5 / 21				
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.75	2.5 / 5.75	2.5 / 6.25	3.25 / 7.75	3.5 / 8.25	4 / 10	4.75 / 12				
12' - 0"	Unfactored Live Load for L / 360 [plf]		316	642	693	1123	1308	2067	2970	4057			
	Unfactored Total Load for L / 240 [plf]		464	950	1027	1669	1945	3081	-	-			
	Factored Total Load, Wf [plf]		1148	1824	1918	2643	2928	3662	4299	4972			
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		2.25 / 5.5	3.5 / 8.5	3.75 / 9	5 / 12.5	5.5 / 13.75	7 / 17.25	8 / 20	9.25 / 23.25			
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	2 / 5	2.25 / 5.25	3 / 7	3.25 / 7.75	4 / 9.75	4.75 / 11.5	5.25 / 13.25			
14' - 0"	Unfactored Live Load for L / 360 [plf]		201	410	443	723	844	1347	1953	2693			
	Unfactored Total Load for L / 240 [plf]		292	603	653	1070	1251	2001	2908	4015			
	Factored Total Load, Wf [plf]		840	1335	1405	1937	2146	2933	3570	4109			
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		2 / 4.75	3 / 7.25	3.25 / 7.75	4.25 / 10.75	4.75 / 11.75	6.5 / 16	7.75 / 19.5	9 / 22.5			
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.75 / 4.25	1.75 / 4.5	2.5 / 6	2.75 / 6.75	3.75 / 9	4.5 / 11	5.25 / 12.75			
16' - 0"	Unfactored Live Load for L / 360 [plf]		135	278	300	492	575	923	1347	1870			
	Unfactored Total Load for L / 240 [plf]		193	404	438	723	847	1365	1998	2780			
	Factored Total Load, Wf [plf]		640	1019	1072	1478	1638	2240	2886	3500			
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.75 / 4	2.75 / 6.5	2.75 / 6.75	3.75 / 9.25	4.25 / 10.25	5.75 / 14	7.25 / 18	8.75 / 21.75			
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.75	1.5 / 3.75	2.25 / 5.25	2.5 / 5.75	3.25 / 8	4.25 / 10.25	5 / 12.25			
18' - 0"	Unfactored Live Load for L / 360 [plf]		95	196	212	349	409	658	965	1347	1806		
	Unfactored Total Load for L / 240 [plf]		133	282	306	508	597	969	1426	1996	2683		
	Factored Total Load, Wf [plf]		503	802	843	1164	1290	1765	2274	2845	3446		
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.5 / 3.75	2.25 / 5.75	2.5 / 6	3.25 / 8.25	3.75 / 9	5 / 12.5	6.5 / 16	8 / 20	9.75 / 24.25		
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	2 / 4.75	2.25 / 5.25	3 / 7	3.75 / 9	4.5 / 11.25	5.5 / 13.75		
20' - 0"	Unfactored Live Load for L / 360 [plf]		70	144	155	256	300	485	714	1000	1347		
	Unfactored Total Load for L / 240 [plf]		95	203	221	369	435	709	1050	1476	1993		
	Factored Total Load, Wf [plf]		405	646	680	939	1041	1425	1837	2298	2808		
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.5 / 3.5	2.25 / 5.25	2.25 / 5.5	3 / 7.5	3.25 / 8.25	4.5 / 11.25	5.75 / 14.25	7.25 / 18	8.75 / 21.75		
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4.25	2 / 4.75	2.5 / 6.25	3.25 / 8.25	4.25 / 10.25	5 / 12.25		
22' - 0"	Unfactored Live Load for L / 360 [plf]		52	108	117	193	227	368	542	762	1029	1347	
	Unfactored Total Load for L / 240 [plf]		69	150	163	275	324	533	792	1118	1516	1990	
	Factored Total Load, Wf [plf]		333	531	559	773	857	1173	1513	1894	2315	2774	
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.5 / 3.5	2 / 4.75	2 / 5	2.75 / 6.75	3 / 7.5	4 / 10	5.25 / 13	6.5 / 16.25	8 / 19.75	9.5 / 23.75	
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.75	1.75 / 4.25	2.5 / 5.75	3 / 7.5	3.75 / 9.25	4.5 / 11.25	5.5 / 13.5	
24' - 0"	Unfactored Live Load for L / 360 [plf]		40	84	90	149	175	285	421	593	803	1053	1347
	Unfactored Total Load for L / 240 [plf]		51	113	123	209	247	409	610	865	1177	1550	1988
	Factored Total Load, Wf [plf]		278	444	467	646	717	982	1267	1587	1939	2325	2744
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.5 / 3.5	1.75 / 4.25	1.75 / 4.5	2.5 / 6.25	2.75 / 6.75	3.75 / 9.25	4.75 / 12	6 / 14.75	7.25 / 18.25	8.75 / 21.75	10.25 / 25.75
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4	2.25 / 5.25	2.75 / 6.75	3.5 / 8.5	4.25 / 10.25	5 / 12.25	5.75 / 14.5
26' - 0"	Unfactored Live Load for L / 360 [plf]			66	71	118	138	225	333	470	638	839	1074
	Unfactored Total Load for L / 240 [plf]			86	94	162	192	319	479	681	930	1228	1579
	Factored Total Load, Wf [plf]			376	396	548	608	833	1076	1347	1647	1976	2332
	Bearing Lengths [End / Intermediate] - SPF Plate [in]			1.75 / 4	1.75 / 4	2.25 / 5.75	2.5 / 6.25	3.5 / 8.5	4.5 / 11	5.5 / 13.75	6.75 / 16.75	8 / 20	9.5 / 23.5
	Bearing Lengths [End / Intermediate] - beam [in]			1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	2 / 4.75	2.5 / 6.25	3.25 / 7.75	3.75 / 9.5	4.5 / 11.25	5.5 / 13.25
28' - 0"	Unfactored Live Load for L / 360 [plf]			53	57	95	111	181	268	379	515	678	870
	Unfactored Total Load for L / 240 [plf]			67	73	127	151	253	381	544	745	987	1273
	Factored Total Load, Wf [plf]			322	339	470	521	715	924	1157	1416	1698	2005
	Bearing Lengths [End / Intermediate] - SPF Plate [in]			1.5 / 3.5	1.5 / 3.75	2.25 / 5.25	2.5 / 5.75	3.25 / 8	4.25 / 10.25	5.25 / 12.75	6.25 / 15.5	7.5 / 18.5	8.75 / 21.75
	Bearing Lengths [End / Intermediate] - beam [in]			1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4.5	2.5 / 5.75	3 / 7.25	3.5 / 8.75	4.25 / 10.5	5 / 12.25
30' - 0"	Unfactored Live Load for L / 360 [plf]			43	46	77	90	148	219	310	421	555	714
	Unfactored Total Load for L / 240 [plf]			52	57	101	120	203	307	440	605	804	1039
	Factored Total Load, Wf [plf]			278	293	407	451	620	801	1004	1229	1475	1741
	Bearing Lengths [End / Intermediate] - SPF Plate [in]			1.5 / 3.5	1.5 / 3.5	2 / 4.75	2.25 / 5.25	3 / 7.25	3.75 / 9.5	4.75 / 11.75	5.75 / 14.5	7 / 17.25	8.25 / 20.25
	Bearing Lengths [End / Intermediate] - beam [in]			1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4.25	2.25 / 5.25	2.75 / 6.75	3.25 / 8.25	4 / 9.75	4.75 / 11.5

NOTES:

- Factored Total Load values are limited by shear or moment. Total Load values are given by the beam capacity in addition to its own weight.
- Unfactored Live Load values are limited by deflection equal to L / 360. For deflections limited to L / 480, multiply live load values by 0.75 (recommended for less vibration).
- All 3 loading cases must be checked. Where a Live Load value is not shown, the Factored Total Load value will control.
- Table values represent the most restrictive of simple or continuous span beams applications and assume a uniform loading. Span is measured center to center of the supports. Analyze continuous 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 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 Factored Load value shown. Other design considerations, such as a weaker support material, may warrant longer bearing lengths. Table values assume that support is provided across the full width of the beam.
- 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.

Uniform Load Table

7

Versa-Lam® 2.3E 3100 (7") Allowable Uniform Load (lbs/ft)

Design Span [ft]	Beam Thickness		7"										
	Beam Depth		7¼"	9¼"	9½"	11¼"	11⅞"	14"	16"	18"	20"	22"	24"
6' - 0"	Unfactored Live Load for L / 360 [plf]		3034	5810	6224	-	-	-	-	-			
	Unfactored Total Load for L / 240 [plf]		4538	-	-	-	-	-	-	-			
	Factored Total Load, Wf [plf]		5107	6882	7118	8868	9538	12018					
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		3.75 / 9	5 / 12	5 / 12.5	6.25 / 15.5	6.75 / 16.75	8.5 / 21					
	Bearing Lengths [End / Intermediate] - beam [in]		2.25 / 5.25	2.75 / 7	3 / 7	3.5 / 8.75	3.75 / 9.5	4.75 / 12					
8' - 0"	Unfactored Live Load for L / 360 [plf]		1360	2689	2893	4564	5263	8029	-	-			
	Unfactored Total Load for L / 240 [plf]		2027	4016	4322	-	-	-	-	-			
	Factored Total Load, Wf [plf]		3467	4842	4997	6131	6556	8088	9666				
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		3.25 / 8.25	4.5 / 11.25	4.75 / 11.75	5.75 / 14.25	6.25 / 15.25	7.75 / 19	9 / 22.5				
	Bearing Lengths [End / Intermediate] - beam [in]		2 / 4.75	2.75 / 6.5	2.75 / 6.75	3.25 / 8.25	3.5 / 8.75	4.25 / 10.75	5.25 / 12.75				
10' - 0"	Unfactored Live Load for L / 360 [plf]		717	1441	1554	2493	2893	4510	6395				
	Unfactored Total Load for L / 240 [plf]		1062	2145	2314	3719	4318	-	-				
	Factored Total Load, Wf [plf]		2213	3511	3693	4683	4992	6092	7199				
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		2.75 / 6.5	4.25 / 10.25	4.5 / 10.75	5.5 / 13.75	6 / 14.5	7.25 / 17.75	8.5 / 21				
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.75	2.5 / 5.75	2.5 / 6.25	3.25 / 7.75	3.5 / 8.25	4 / 10	4.75 / 12				
12' - 0"	Unfactored Live Load for L / 360 [plf]		421	856	924	1497	1744	2756	3960	5409			
	Unfactored Total Load for L / 240 [plf]		619	1267	1369	2225	2594	4109	-	-			
	Factored Total Load, Wf [plf]		1531	2432	2558	3524	3905	4883	5732	6629			
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		2.25 / 5.5	3.5 / 8.5	3.75 / 9	5 / 12.5	5.5 / 13.75	7 / 17.25	8 / 20	9.25 / 23.25			
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	2 / 5	2.25 / 5.25	3 / 7	3.25 / 7.75	4 / 9.75	4.75 / 11.5	5.25 / 13.25			
14' - 0"	Unfactored Live Load for L / 360 [plf]		268	547	591	964	1126	1796	2604	3591			
	Unfactored Total Load for L / 240 [plf]		389	804	870	1427	1668	2668	3877	5354			
	Factored Total Load, Wf [plf]		1121	1781	1873	2583	2862	3910	4760	5479			
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		2 / 4.75	3 / 7.25	3.25 / 7.75	4.25 / 10.75	4.75 / 11.75	6.5 / 16	7.75 / 19.5	9 / 22.5			
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.75 / 4.25	1.75 / 4.5	2.5 / 6	2.75 / 6.75	3.75 / 9	4.5 / 11	5.25 / 12.75			
16' - 0"	Unfactored Live Load for L / 360 [plf]		180	370	400	656	767	1230	1796	2493			
	Unfactored Total Load for L / 240 [plf]		258	539	584	964	1129	1821	2665	3707			
	Factored Total Load, Wf [plf]		854	1358	1429	1971	2185	2986	3848	4667			
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.75 / 4	2.75 / 6.5	2.75 / 6.75	3.75 / 9.25	4.25 / 10.25	5.75 / 14	7.25 / 18	8.75 / 21.75			
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.75	1.5 / 3.75	2.25 / 5.25	2.5 / 5.75	3.25 / 8	4.25 / 10.25	5 / 12.25			
18' - 0"	Unfactored Live Load for L / 360 [plf]		127	262	283	465	545	878	1287	1796	2409		
	Unfactored Total Load for L / 240 [plf]		178	376	408	678	796	1292	1902	2661	3577		
	Factored Total Load, Wf [plf]		671	1069	1125	1552	1720	2353	3033	3793	4595		
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.5 / 3.75	2.25 / 5.75	2.5 / 6	3.25 / 8.25	3.75 / 9	5 / 12.5	6.5 / 16	8 / 20	9.75 / 24.25		
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	2 / 4.75	2.25 / 5.25	3 / 7	3.75 / 9	4.5 / 11.25	5.5 / 13.75		
20' - 0"	Unfactored Live Load for L / 360 [plf]		93	192	207	342	400	647	952	1333	1796		
	Unfactored Total Load for L / 240 [plf]		126	271	294	493	580	946	1400	1968	2658		
	Factored Total Load, Wf [plf]		541	862	907	1252	1388	1900	2449	3064	3744		
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.5 / 3.5	2.25 / 5.25	2.25 / 5.5	3 / 7.5	3.25 / 8.25	4.5 / 11.25	5.75 / 14.25	7.25 / 18	8.75 / 21.75		
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4.25	2 / 4.75	2.5 / 6.25	3.25 / 8.25	4.25 / 10.25	5 / 12.25		
22' - 0"	Unfactored Live Load for L / 360 [plf]		70	144	156	258	303	490	723	1016	1372	1796	
	Unfactored Total Load for L / 240 [plf]		92	200	218	367	433	711	1056	1491	2022	2654	
	Factored Total Load, Wf [plf]		444	708	746	1030	1143	1565	2018	2525	3086	3699	
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.5 / 3.5	2 / 4.75	2 / 5	2.75 / 6.75	3 / 7.5	4 / 10	5.25 / 13	6.5 / 16.25	8 / 19.75	9.5 / 23.75	
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.75	1.75 / 4.25	2.5 / 5.75	3 / 7.5	3.75 / 9.25	4.5 / 11.25	5.5 / 13.5	
24' - 0"	Unfactored Live Load for L / 360 [plf]		54	111	121	200	234	380	562	791	1070	1405	1796
	Unfactored Total Load for L / 240 [plf]		68	151	164	279	330	545	814	1154	1570	2067	2650
	Factored Total Load, Wf [plf]		370	592	623	862	956	1309	1690	2116	2586	3101	3659
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.5 / 3.5	1.75 / 4.25	1.75 / 4.5	2.5 / 6.25	2.75 / 6.75	3.75 / 9.25	4.75 / 12	6 / 14.75	7.25 / 18.25	8.75 / 21.75	10.25 / 25.75
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4	2.25 / 5.25	2.75 / 6.75	3.5 / 8.5	4.25 / 10.25	5 / 12.25	5.75 / 14.5
26' - 0"	Unfactored Live Load for L / 360 [plf]		42	88	95	157	185	300	445	627	850	1118	1433
	Unfactored Total Load for L / 240 [plf]		51	115	126	216	256	426	639	908	1240	1638	2106
	Factored Total Load, Wf [plf]		313	501	528	730	810	1111	1434	1797	2197	2634	3109
	Bearing Lengths [End / Intermediate] - SPF Plate [in]		1.5 / 3.5	1.75 / 4	1.75 / 4	2.25 / 5.75	2.5 / 6.25	3.5 / 8.5	4.5 / 11	5.5 / 13.75	6.75 / 16.75	8 / 20	9.5 / 23.5
	Bearing Lengths [End / Intermediate] - beam [in]		1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	2 / 4.75	2.5 / 6.25	3.25 / 7.75	3.75 / 9.5	4.5 / 11.25	5.5 / 13.25
28' - 0"	Unfactored Live Load for L / 360 [plf]			70	76	126	148	241	358	505	686	904	1160
	Unfactored Total Load for L / 240 [plf]			89	97	169	201	337	508	726	994	1317	1697
	Factored Total Load, Wf [plf]			429	452	626	695	954	1232	1543	1888	2265	2674
	Bearing Lengths [End / Intermediate] - SPF Plate [in]			1.5 / 3.5	1.5 / 3.75	2.25 / 5.25	2.5 / 5.75	3.25 / 8	4.25 / 10.25	5.25 / 12.75	6.25 / 15.5	7.5 / 18.5	8.75 / 21.75
	Bearing Lengths [End / Intermediate] - beam [in]			1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4.5	2.5 / 5.75	3 / 7.25	3.5 / 8.75	4.25 / 10.5	5 / 12.25
30' - 0"	Unfactored Live Load for L / 360 [plf]			57	62	103	121	197	292	413	562	741	952
	Unfactored Total Load for L / 240 [plf]			69	76	134	160	270	410	587	807	1072	1385
	Factored Total Load, Wf [plf]			371	391	542	602	827	1068	1339	1639	1966	2322
	Bearing Lengths [End / Intermediate] - SPF Plate [in]			1.5 / 3.5	1.5 / 3.5	2 / 4.75	2.25 / 5.25	3 / 7.25	3.75 / 9.5	4.75 / 11.75	5.75 / 14.5	7 / 17.25	8.25 / 20.25
	Bearing Lengths [End / Intermediate] - beam [in]			1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.5 / 3.5	1.75 / 4.25	2.25 / 5.25	2.75 / 6.75	3.25 / 8.25	4 / 9.75	4.75 / 11.5

NOTES:

- Factored Total Load values are limited by shear or moment. Total Load values are given by the beam capacity in addition to its own weight.
- Unfactored Live Load values are limited by deflection equal to L / 360. For deflections limited to L / 480, multiply live load values by 0.75 (recommended for less vibration).
- All 3 loading cases must be checked. Where a Live Load value is not shown, the Factored Total Load value will control.
- Table values represent the most restrictive of simple or continuous span beams applications and assume a uniform loading. Span is measured center to center of the supports. Analyze continuous 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 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 Factored Load value shown. Other design considerations, such as a weaker support material, may warrant longer bearing lengths. Table values assume that support is provided across the full width of the beam.
- 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.

Floor Beam Span Tables - One Storey

Versa-Lam® 2.3E 3100

Live Load of 40 psf

Dead Load of 15 psf

L/360

Beam Depth		9½"			11½"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
Tributary Width [ft.]	6	15'-0"	17'-3"	19'-0"	18'-9"	21'-7"	23'-9"	22'-2"	25'-5"	28'-0"	25'-4"	29'-1"	32'-1"	28'-6"	32'-8"	36'-0"	36'-4"	39'-10"	40'-0"			
	End/Int bearing_SPF Plate (in)	1.7/4.2	1.5/3.5	1.5/3.5	2.1/5.2	1.6/4	1.5/3.5	2.5/6.1	1.9/4.7	1.6/3.9	2.8/7	2.2/5.4	1.8/4.5	3.2/7.9	2.4/6	2/5	2.7/6.7	2.2/5.5	3/7.4			
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	1.5/3.5	1.5/3.5	1.8/4.5	1.5/3.5	1.5/3.5	1.5/3.8	1.5/3.5	1.7/4.2			
	8	13'-7"	17'-3"	17'-0"	19'-6"	21'-7"	20'-0"	23'-0"	25'-5"	22'-11"	26'-4"	29'-1"	25'-9"	29'-8"	32'-8"	32'-11"	36'-4"	36'-3"	40'-0"	39'-6"		
	End/Int bearing_SPF Plate (in)	2/5	1.6/3.9	1.5/3.5	2.5/6.3	2/4.8	1.6/4	3/7.4	2.3/5.7	1.9/4.7	3.4/8.4	2.6/6.5	2.2/5.4	3.8/9.5	2.9/7.3	2.4/6	3.3/8.1	2.7/6.7	3.6/8.9	3/7.4	3.9/9.7	
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	1.5/3.5	1.5/3.5	1.7/4.2	1.5/3.5	1.5/3.5	1.9/4.8	1.5/3.7	1.5/3.5	2.2/5.4	1.7/4.1	1.5/3.5	1.9/4.6	1.5/3.8	2/5	1.7/4.2	2.2/5.5	
	10	12'-7"	14'-6"	16'-0"	15'-9"	18'-1"	20'-0"	18'-7"	21'-4"	23'-7"	21'-3"	24'-5"	26'-11"	23'-10"	27'-5"	30'-4"	30'-6"	33'-8"	33'-7"	37'-1"	36'-7"	
	End/Int bearing_SPF Plate (in)	2.4/5.8	1.8/4.5	1.5/3.7	2.9/7.3	2.3/5.6	1.9/4.6	3.5/8.6	2.7/6.6	2.2/5.4	3.9/9.8	3/7.5	2.5/6.2	4.4/11	3.4/8.4	2.8/7	3.8/9.4	3.1/7.8	4.1/10.3	3.4/8.5	4.5/11.2	
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.1	1.5/3.5	2/4.8	1.5/3.7	1.5/3.5	2.2/5.5	1.7/4.2	1.5/3.5	2.5/6.2	1.9/4.8	1.6/4	2.1/5.3	1.8/4.4	2.4/5.8	2/4.8	2.6/6.3		
	12	11'-10"	13'-7"	15'-0"	14'-9"	17'-0"	18'-9"	17'-5"	20'-0"	22'-2"	19'-11"	22'-11"	25'-4"	22'-5"	25'-9"	28'-6"	28'-8"	31'-8"	31'-6"	34'-10"	34'-5"	38'-0"
	End/Int bearing_SPF Plate (in)	2.6/6.5	2/5	1.7/4.2	3.3/8.2	2.5/6.3	2.1/5.2	3.9/9.6	3/7.4	2.5/6.1	4.4/11	3.4/8.4	2.8/7	5/12.4	3.8/9.5	3.2/7.9	4.2/10.5	3.5/8.7	4.7/11.6	3.9/9.6	5.1/12.6	4.2/10.5
	End/Int bearing_Member (in)	1.5/3.7	1.5/3.5	1.5/3.5	1.9/4.6	1.5/3.6	1.5/3.5	2.2/5.4	1.7/4.2	1.5/3.5	2.5/6.2	1.9/4.8	1.6/4	2.8/7	2.2/5.4	1.8/4.5	2.4/6.5	2.7/6.6	2.2/5.4	2.9/7.1	2.4/5.9	
	14	11'-2"	12'-11"	14'-3"	14'-0"	16'-1"	17'-10"	16'-6"	19'-0"	21'-0"	18'-10"	21'-9"	24'-0"	21'-3"	24'-5"	27'-0"	27'-2"	30'-0"	29'-11"	33'-0"	32'-7"	36'-0"
	End/Int bearing_SPF Plate (in)	2.9/7.2	2.3/5.6	1.9/4.6	3.6/9	2.8/6.9	2.3/5.8	4.3/10.6	3.3/8.2	2.7/6.8	4.9/12.2	3.8/9.3	3.1/7.7	5.5/13.7	4.2/10.5	3.5/8.7	4.7/11.7	3.9/9.7	5.2/12.8	4.3/10.6	5.6/14	4.7/11.6
	End/Int bearing_Member (in)	1.7/4.1	1.5/3.5	1.5/3.5	2.1/5.1	1.6/3.9	1.5/3.5	2.4/6	1.9/4.6	1.6/3.8	2.8/6.9	2.1/5.3	1.8/4.4	3.1/7.7	2.4/5.9	2/4.9	2.7/6.6	2.2/5.5	2.9/7.2	2.4/6	3.2/7.9	2.6/6.5
	16	10'-8"	12'-4"	13'-7"	13'-4"	15'-5"	17'-0"	15'-9"	18'-2"	20'-0"	18'-0"	20'-9"	22'-11"	20'-3"	23'-4"	25'-9"	25'-11"	28'-6"	28'-6"	31'-6"	31'-2"	34'-5"
	End/Int bearing_SPF Plate (in)	3.2/7.9	2.5/6.1	2/5	4/9.8	3.1/7.6	2.5/6.3	4.7/11.6	3.6/8.9	3/7.4	5.3/13.2	4.1/10.2	3.4/8.4	6/14.9	4.6/11.5	3.8/9.5	5.1/12.7	4.2/10.5	5.6/14	4.7/11.6	6.1/15.3	5.1/12.6
	End/Int bearing_Member (in)	1.8/4.5	1.5/3.5	1.5/3.5	2.3/5.6	1.7/4.3	1.5/3.6	2.7/6.6	2/5	1.7/4.2	3/7.5	2.3/5.8	1.9/4.8	3.4/8.4	2.6/6.5	2.2/5.4	2.9/7.2	2.4/6	3.2/7.9	2.7/6.6	3.5/8.6	2.9/7.1
	18	10'-3"	11'-10"	13'-1"	12'-10"	14'-9"	16'-4"	15'-1"	17'-5"	19'-3"	17'-3"	19'-11"	22'-0"	19'-5"	22'-5"	24'-9"	24'-11"	27'-6"	27'-5"	30'-3"	29'-11"	33'-0"
	End/Int bearing_SPF Plate (in)	3.4/8.5	2.6/6.5	2.2/5.4	4.3/10.6	3.3/8.2	2.7/6.8	5/12.5	3.9/9.6	3.2/7.8	5.7/14.3	4.4/11	3.7/9.1	6.5/16.1	5/12.4	4.1/10.3	5.5/13.7	4.6/11.4	6.1/15.1	5/12.5	6.6/16.5	5.5/13.7
	End/Int bearing_Member (in)	2/4.8	1.5/3.7	1.5/3.5	2.4/6	1.9/4.6	1.6/3.8	2.9/7.1	2.2/5.4	1.8/4.5	3.3/8.1	2.5/6.2	2.1/5.2	3.7/9.1	2.8/7	2.3/5.8	3.1/7.8	2.6/6.4	3.4/8.5	2.9/7.1	3.7/9.3	3.1/7.7
	20	9'-10"	11'-4"	12'-7"	12'-4"	14'-3"	15'-9"	14'-7"	16'-9"	18'-7"	16'-8"	19'-2"	21'-3"	18'-9"	21'-7"	23'-10"	24'-0"	26'-6"	26'-5"	29'-2"	28'-10"	31'-10"
	End/Int bearing_SPF Plate (in)	3.7/9.1	2.8/7	2.4/5.8	4.6/11.4	3.5/8.8	2.9/7.3	5.4/13.4	4.2/10.3	3.5/8.6	6.1/15.3	4.7/11.8	3.9/9.8	6.9/17.2	5.3/13.2	4.4/11	5.9/14.7	4.9/12.2	6.5/16.2	5.4/13.4	7.1/17.6	5.9/14.6
	End/Int bearing_Member (in)	2.1/5.1	1.6/4	1.5/3.5	2.6/6.4	2/5	1.7/4.1	3.1/7.6	2.4/5.8	2/4.8	3.5/8.6	2.7/6.7	2.2/5.5	3.9/9.7	3/7.5	2.5/6.2	3.4/8.3	2.8/6.9	3.7/9.1	3.1/7.6	4/10	3.3/8.3

Versa-Lam® 2.3E 3100

Live Load of 40 psf

Dead Load of 25 psf

L/360

Beam Depth		9½"			11½"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
Tributary Width [ft.]	6	14'-6"	16'-7"	18'-3"	18'-1"	20'-8"	22'-9"	21'-4"	24'-4"	26'-9"	24'-4"	27'-9"	30'-5"	27'-4"	31'-2"	34'-2"	34'-7"	37'-10"	37'-11"			
	End/Int bearing_SPF Plate (in)	1.9/4.7	1.5/3.6	1.5/3.5	2.4/5.8	1.8/4.4	1.5/3.7	2.8/6.8	2.1/5.2	1.8/4.3	3.1/7.8	2.4/5.9	2/4.9	3.5/8.7	2.7/6.7	2.2/5.5	3/7.4	2.5/6.1	3.3/8.1			
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/3.9	1.5/3.5	1.5/3.5	1.8/4.4	1.5/3.5	1.5/3.5	2/4.9	1.5/3.8	1.5/3.5	1.7/4.2	1.5/3.5	1.9/4.6			
	8	13'-2"	15'-1"	16'-7"	16'-5"	18'-10"	20'-8"	19'-4"	22'-2"	24'-4"	22'-1"	25'-3"	27'-9"	24'-10"	28'-5"	31'-2"	31'-6"	34'-7"	34'-7"	37'-11"	37'-8"	
	End/Int bearing_SPF Plate (in)	2.3/5.6	1.8/4.3	1.5/3.6	2.8/7	2.2/5.4	1.8/4.4	3.3/8.3	2.6/6.3	2.1/5.2	3.8/9.4	2.9/7.2	2.4/5.9	4.3/10.6	3.3/8.1	2.7/6.7	3.6/9	3/7.4	4/9.8	3.3/8.1	4.3/10.7	
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	1.5/3.5	1.5/3.5	1.9/4.7	1.5/3.6	1.5/3.5	2.2/5.3	1.7/4.1	1.5/3.5	2.4/6	1.9/4.6	1.5/3.8	2.1/5.1	1.7/4.2	2.3/5.6	1.9/4.6	2.5/6.1	
	10	12'-2"	14'-0"	15'-5"	15'-3"	17'-5"	19'-3"	17'-11"	20'-7"	22'-7"	20'-6"	23'-6"	25'-10"	23'-0"	26'-4"	29'-0"	29'-3"	32'-2"	32'-2"	35'-4"	35'-0"	38'-6"
	End/Int bearing_SPF Plate (in)	2.6/6.5	2/5	1.7/4.1	3.3/8.1	2.5/6.2	2.1/5.2	3.9/9.6	3/7.3	2.5/6.1	4.4/10.9	3.4/8.4	2.8/6.9	4.9/12.3	3.8/9.4	3.1/7.7	4.2/10.4	3.5/8.6	4.6/11.4	3.8/9.4	5/12.4	4.1/10.3
	End/Int bearing_Member (in)	1.5/3.7	1.5/3.5	1.5/3.5	1.9/4.6	1.5/3.5	1.5/3.5	2.2/5.4	1.7/4.1	1.5/3.5	2.5/6.2	1.9/4.7	1.6/3.9	2.8/6.9	2.2/5.3	1.8/4.4	2.4/5.9	2/4.9	2.6/6.5	2.2/5.3	2.8/7	2.3/5.8
	12	11'-5"	13'-2"	14'-6"	14'-3"	16'-5"	18'-1"	16'-10"	19'-4"	21'-4"	19'-3"	22'-1"	24'-4"	21'-7"	24'-10"	27'-4"	27'-6"	30'-4"	30'-3"	33'-3"	33'-0"	36'-3"
	End/Int bearing_SPF Plate (in)	3/7.3	2.3/5.6	1.9/4.7	3.7/9.2	2.8/7	2.4/5.8	4.3/10.8	3.3/8.3	2.8/6.8	5/12.3	3.8/9.4	3.1/7.8	5.6/13.8	4.3/10.6	3.5/8.7	4.7/11.7	3.9/9.7	5.2/12.9	4.3/10.6	5.7/14.1	4.7/11.6
	End/Int bearing_Member (in)	1.7/4.2	1.5/3.5	1.5/3.5	2.1/5.2	1.6/4	1.5/3.5	2.5/6.1	1.9/4.7	1.6/3.9	2.8/7	2.2/5.3	1.8/4.4	3.2/7.8	2.4/6	2/4.9	2.7/6.6	2.2/5.5	2.9/7.3	2.4/6	3.2/7.9	2.7/6.6
	14	10'-10"	12'-6"	13'-9"	13'-6"	15'-7"	17'-2"	16'-0"	18'-4"	20'-3"	18'-3"	20'-11"	23'-1"	20'-6"	23'-7"	25'-11"	26'-2"	28'-10"	28'-9"	31'-8"	31'-4"	34'-6"
	End/Int bearing_SPF Plate (in)	3.3/8.1	2.5/6.2	2.1/5.2	4.1/10.1	3.1/7.8	2.6/6.4	4.8/11.9	3.7/9.1	3.1/7.6	5.5/13.6	4.2/10.4	3.5/8.6	6.1/15.3	4.7/11.7	3.9/9.7	5.2/13	4.3/10.7	5.7/14.3	4.8/11.8	6.3/15.6	5.2/12.9
	End/Int bearing_Member (in)	1.9/4.6	1.5/3.5	1.5/3.5	2.3/5.7	1.8/4.4	1.5/3.6	2.7/6.7	2.1/5.2	1.7/4.3	3.1/7.7	2.4/5.9	2/4.9	3.5/8.6	2.7/6.6	2.2/5.5	3/7.3	2.5/6.1	3.3/8.1	2.7/6.7	3.5/8.8	2.9/7.3
	16	10'-4"	11'-11"	13'-2"	12'-11"	14'-11"	16'-5"	15'-3"	17'-6"	19'-4"	17'-5"	20'-0"	22'-1"	19'-7"	22'-6"	24'-10"	25'-0"	27'-6"	27'-6"	30'-3"	29'-11"	33'-0"
	End/Int bearing_SPF Plate (in)	3.6/8.9	2.8/6.8	2.3/5.6	4.4/11	3.4/8.5	2.8/7	5.2/13	4/10	3.3/8.3	6/14.8	4.6/11.4	3.8/9.4	6.7/16.7	5.1/12.8	4.3/10.6	5.7/14.2	4.7/11.7	6.3/15.6	5.2/12.9	6.8/17	5.7/14.1
	End/Int bearing_Member (in)	2/5	1.6/3.9	1.5/3.5	2.5/6.2	1.9/4.8	1.6/4	3/7.3	2.3/5.6	1.9/4.7	3.4/8.4	2.6/6.4	2.2/5.3	3.8/9.4	2.9/7.2	2.4/6	3.2/8	2.7/6.6	3.6/8.8	2.9/7.3	3.9/9.6	3.2/7.9
	18	9'-11"	11'-5"	12'-7"	12'-5"	14'-3"	15'-9"	14'-7"	16'-10"	18'-7"	16'-8"	19'-3"	21'-3"	18'-9"	21'-7"	23'-10"	24'-0"	26'-6"	26'-5"	29'-1"	28'-9"	31'-9"
	End/Int bearing_SPF Plate (in)	3.9/9.6	3/7.3	2.5/6.1	4.8/11.9	3.7/9.2	3.1/7.6	5.6/14	4.3/10.8	3.6/8.9	6.4/16	5/12.3	4.1/10.2	7.2/18	5.6/13.8	4.6/11.4	6.2/15.3	5.1/12.7	6.8/16.9	5.6/13.9	7.4/18.4	6.1/15.2
	End/Int bearing_Member (in)	2.2/5.4	1.7/4.2	1.5/3.5	2.7/6.7	2.1/5.2	1.7/4.3	3.2/7.9	2.5/6.1	2.1/5.1	3.6/9	2.8/7	2.3/5.8	4.1/10.2	3.2/7.8	2.6/6.5	3.5/8.7	2.9/7.2	3.8/9.5	3.2/7.9	4.2/10.4	3.5/8.6
20	9'-7"	11'-0"	12'-2"	11'-11"	13'-9"	15'-3"	14'-1"	16'-3"	17'-11"	16'-1"	18'-7"	20'-6"	18'-10"	20'-10"	23'-0"	23'-2"	25'-7"	25'-6"	28'-1"	27'-9"	30'-7"	
End/Int bearing_SPF Plate (in)	4.1/10.2	3.2/7.9	2.6/6.5	5.1/12.8	4/9.8	3.3/8.1	6/15	4.7/11.6	3.9/9.6	6.9/17.2	5.3/13.2	4.4/10.9	7.7/19.3	6/14.8	4.9/12.3	6.6/16.4	5.5/13.6	7.3/18.1	6/15	7.9/19.7	6.5/16.3	
End/Int bearing_Member (in)	2.3/5.8	1.8/4.5	1.5/3.7	2.9/7.2	2.2/5.5	1.9/4.6	3.4/8.5	2.6/6.5	2.2/5.4	3.9/9.7	3/7.4	2.5/6.2	4.4/10.9	3.4/8.4	2.8/6.9	3.6/9.3	3.1/7.7	4.1/10.2	3.4/8.4	4.5/11.1	3.7/9.2	

Floor Beam Span Tables - One Storey

9

Versa-Lam® 2.3E 3100

Live Load of 40 psf

Dead Load of 15 psf

L/480

Beam Depth		9½"			11½"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
Tributary Width [ft]	6	13'-7"	15'-7"	17'-3"	17'-0"	19'-6"	21'-7"	20'-0"	23'-0"	25'-5"	22'-11"	26'-4"	29'-1"	25'-9"	29'-8"	32'-8"	32'-11"	36'-4"	36'-3"	40'-0"	39'-6"	
	End/Int bearing_SPF Plate (in)	1.5/3.8	1.5/3.5	1.5/3.5	1.9/4.7	1.5/3.6	1.5/3.5	2.3/5.6	1.7/4.3	1.5/3.5	2.6/6.3	2/4.9	1.6/4	2.9/7.1	2.2/5.5	1.8/4.5	2.5/6.1	2/5	2.7/6.7	2.2/5.5	2.9/7.3	
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	1.5/3.5	1.5/3.5	1.6/4	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	1.5/3.5	1.7/4.1	
	8	12'-4"	14'-2"	15'-7"	15'-5"	17'-8"	19'-6"	18'-2"	23'-0"	25'-5"	22'-11"	26'-4"	29'-1"	25'-9"	29'-8"	32'-8"	32'-11"	36'-4"	36'-3"	40'-0"	39'-6"	
	End/Int bearing_SPF Plate (in)	1.9/4.6	1.5/3.5	1.5/3.5	2.3/5.7	1.8/4.4	1.5/3.6	2.7/6.7	2.1/5.2	1.7/4.3	3.1/7.7	2.4/5.9	2/4.9	3.5/8.6	2.7/6.6	2.2/5.5	3/7.3	2.5/6.1	3.3/8.1	2.7/6.7	3.5/8.8	2.9/7.3
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.3	1.5/3.5	1.5/3.5	2/4.9	1.5/3.7	1.5/3.5	1.7/4.2	1.5/3.5	1.9/4.6	1.5/3.8	2/5	1.7/4.1
	10	11'-4"	13'-1"	14'-6"	14'-3"	16'-5"	18'-1"	16'-9"	19'-4"	21'-4"	19'-2"	22'-11"	24'-5"	21'-7"	24'-10"	27'-5"	27'-8"	30'-6"	30'-5"	33'-7"	33'-2"	36'-7"
	End/Int bearing_SPF Plate (in)	2.1/5.3	1.7/4.1	1.5/3.5	2.7/6.6	2.1/5.1	1.7/4.2	3.1/7.7	2.4/6	2/4.9	3.6/8.8	2.7/6.8	2.3/5.6	4/9.9	3.1/7.6	2.6/6.3	3.4/8.5	2.8/7	3.8/9.3	3.1/7.7	4.1/10.2	3.4/8.4
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.7	1.5/3.5	1.5/3.5	1.8/4.4	1.5/3.5	1.5/3.5	2/5	1.6/3.9	1.5/3.5	2.3/5.6	1.8/4.3	1.5/3.6	2/4.8	1.6/4	2.1/5.3	1.8/4.4	2.3/5.8	1.9/4.8
	12	10'-8"	12'-4"	13'-7"	13'-4"	15'-5"	17'-0"	15'-9"	18'-2"	20'-0"	18'-0"	20'-9"	22'-11"	20'-3"	23'-4"	25'-9"	25'-11"	28'-8"	28'-6"	31'-6"	31'-2"	34'-5"
	End/Int bearing_SPF Plate (in)	2.4/5.9	1.9/4.6	1.5/3.8	3/7.4	2.3/5.7	1.9/4.7	3.5/8.7	2.7/6.7	2.3/5.6	4/9.9	3.1/7.7	2.6/6.3	4.5/11.2	3.5/8.6	2.9/7.1	3.9/9.6	3.2/7.9	4.2/10.5	3.5/8.7	4.6/11.5	3.8/9.5
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	1.5/3.5	1.5/3.5	2/4.9	1.5/3.8	1.5/3.5	2.3/5.6	1.8/4.3	1.5/3.6	2.6/6.3	2/4.9	1.6/4	2.2/5.4	1.8/4.5	2.4/5.9	2/4.9	2.6/6.5	2.2/5.4
	14	10'-1"	11'-8"	12'-11"	12'-8"	14'-7"	16'-1"	14'-11"	17'-2"	19'-0"	17'-0"	19'-8"	21'-9"	19'-2"	22'-11"	24'-5"	24'-7"	27'-2"	27'-0"	29'-11"	29'-6"	32'-7"
	End/Int bearing_SPF Plate (in)	2.6/6.5	2/5	1.7/4.2	3.3/8.2	2.5/6.3	2.1/5.2	3.9/9.6	3/7.4	2.5/6.1	4.4/11	3.4/8.5	2.8/7	5/12.4	3.8/9.5	3.2/7.9	4.3/10.6	3.5/8.8	4.7/11.6	3.9/9.6	5.1/12.7	4.2/10.5
	End/Int bearing_Member (in)	1.5/3.7	1.5/3.5	1.5/3.5	1.9/4.6	1.5/3.6	1.5/3.5	2.2/5.4	1.7/4.2	1.5/3.5	2.5/6.2	1.9/4.8	1.6/4	2.8/7	2.2/5.4	1.8/4.5	2.4/6	2/5	2.7/6.6	2.2/5.4	2.9/7.2	2.4/5.9
	16	9'-8"	11'-1"	12'-4"	12'-1"	13'-11"	15'-5"	14'-3"	16'-5"	18'-2"	16'-3"	18'-9"	20'-9"	18'-3"	21'-11"	23'-4"	23'-5"	25'-11"	25'-10"	28'-6"	28'-2"	31'-2"
	End/Int bearing_SPF Plate (in)	2.9/7.1	2.2/5.5	1.9/4.6	3.6/8.9	2.8/6.9	2.3/5.7	4.2/10.5	3.3/8.1	2.7/6.7	4.8/12	3.7/9.2	3.1/7.7	5.4/13.5	4.2/10.4	3.5/8.6	4.6/11.5	3.9/9.6	5.1/12.7	4.2/10.5	5.6/13.8	4.6/11.5
	End/Int bearing_Member (in)	1.6/4	1.5/3.5	1.5/3.5	2/5	1.6/3.9	1.5/3.5	2.4/5.9	1.9/4.6	1.5/3.8	2.7/6.8	2.1/5.2	1.8/4.3	3.1/7.6	2.4/5.9	2/4.9	2.6/6.5	2.2/5.4	2.9/7.2	2.4/5.9	3.1/7.8	2.6/6.5
	18	9'-3"	10'-8"	11'-10"	11'-7"	13'-4"	14'-9"	13'-8"	15'-9"	17'-5"	15'-7"	18'-0"	19'-11"	17'-6"	20'-3"	22'-5"	22'-6"	24'-11"	24'-9"	27'-5"	27'-0"	29'-11"
	End/Int bearing_SPF Plate (in)	3.1/7.7	2.4/5.9	2/4.9	3.9/9.6	3/7.4	2.5/6.1	4.6/11.3	3.5/8.7	2.9/7.2	5.2/12.9	4/9.9	3.3/8.3	5.8/14.5	4.5/11.2	3.7/9.3	5/12.4	4.2/10.3	5.5/13.7	4.6/11.3	6/14.9	5/12.4
	End/Int bearing_Member (in)	1.8/4.4	1.5/3.5	1.5/3.5	2.2/5.4	1.7/4.2	1.5/3.5	2.6/6.4	2/4.9	1.7/4.1	2.9/7.3	2.3/5.6	1.9/4.7	3.3/8.2	2.6/6.3	2.1/5.3	2.8/7	2.4/5.8	3.1/7.7	2.6/6.4	3.4/8.4	2.8/7
	20	8'-11"	10'-3"	11'-4"	11'-1"	12'-10"	14'-3"	13'-1"	15'-2"	16'-9"	15'-0"	17'-4"	19'-2"	16'-11"	19'-6"	21'-7"	21'-8"	24'-0"	23'-10"	26'-5"	26'-0"	28'-10"
	End/Int bearing_SPF Plate (in)	3.3/8.2	2.6/6.3	2.1/5.3	4.1/10.3	3.2/7.9	2.7/6.6	4.9/12.1	3.8/9.3	3.1/7.7	5.6/13.8	4.3/10.6	3.6/8.8	6.2/15.5	4.8/12	4/9.9	5.3/13.3	4.4/11	5.9/14.6	4.9/12.1	6.4/15.9	5.3/13.2
	End/Int bearing_Member (in)	1.9/4.7	1.5/3.6	1.5/3.5	2.4/5.8	1.8/4.5	1.5/3.7	2.8/6.8	2.1/5.3	1.8/4.4	3.1/7.8	2.4/6	2/5	3.5/8.8	2.7/6.8	2.3/5.6	3.7/5	2.5/6.2	3.3/8.3	2.8/6.9	3.6/9	3.1/7.5

Versa-Lam® 2.3E 3100

Live Load of 40 psf

Dead Load of 25 psf

L/480

Beam Depth		9½"			11⅝"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
Tributary Width [ft]	6	13'-7"	15'-7"	17'-3"	17'-0"	19'-6"	21'-7"	20'-0"	23'-0"	25'-5"	22'-11"	26'-4"	29'-1"	25'-9"	29'-8"	32'-8"	32'-11"	36'-4"	36'-3"	40'-0"	39'-6"	
	End/Int bearing_SPF Plate (in)	1.8/4.4	1.5/3.5	1.5/3.5	2.2/5.5	1.7/4.2	1.5/3.5	2.6/6.4	2/4.9	1.7/4.1	3/7.3	2.3/5.6	1.9/4.7	3.3/8.3	2.6/6.3	2.1/5.3	2.8/7	2.4/5.8	3.1/7.7	2.6/6.4	3.4/8.4	
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	1.5/3.5	1.5/3.5	1.7/4.2	1.5/3.5	1.5/3.5	1.9/4.7	1.5/3.6	1.5/3.5	1.6/4	1.5/3.5	1.8/4.4	1.5/3.6	1.9/4.8	
	8	12'-4"	14'-2"	15'-7"	15'-5"	17'-8"	19'-6"	18'-2"	20'-10"	23'-0"	20'-9"	23'-10"	26'-4"	23'-4"	26'-10"	29'-8"	29'-10"	32'-11"	32'-10"	36'-3"	35'-10"	39'-6"
	End/Int bearing_SPF Plate (in)	2.1/5.3	1.7/4.1	1.5/3.5	2.7/6.6	2.1/5.1	1.7/4.2	3.1/7.8	2.4/6	2/4.9	3.6/8.9	2.8/6.8	2.3/5.6	4/10	3.1/7.6	2.6/6.3	3.4/8.5	2.8/7	3.8/9.3	3.1/7.7	4.1/10.2	3.4/8.4
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.7	1.5/3.5	1.5/3.5	1.8/4.4	1.5/3.5	1.5/3.5	2/5	1.6/3.9	1.5/3.5	2.3/5.6	1.8/4.3	1.5/3.6	2/4.8	1.6/4	2.1/5.3	1.8/4.4	2.3/5.8	1.9/4.8
	10	11'-4"	13'-1"	14'-6"	14'-3"	16'-5"	18'-1"	16'-9"	19'-4"	21'-4"	19'-2"	22'-11"	24'-5"	21'-7"	24'-10"	27'-5"	27'-8"	30'-6"	30'-5"	33'-7"	33'-2"	36'-7"
	End/Int bearing_SPF Plate (in)	2.5/6.1	1.9/4.7	1.6/3.9	3.1/7.6	2.4/5.9	2/4.9	3.6/9	2.8/6.9	2.3/5.7	4.1/10.2	3.2/7.9	2.6/6.5	4.6/11.5	3.6/8.8	3/7.3	4/9.8	3.3/8.1	4.4/10.8	3.6/9	4.7/11.8	3.9/9.8
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.3	1.5/3.5	1.5/3.5	2.1/5.1	1.6/3.9	1.5/3.5	2.3/5.8	1.8/4.5	1.5/3.7	2.6/6.5	2/5	1.7/4.2	2.3/5.6	1.9/4.6	2.5/6.1	2.1/5.1	2.7/6.7	2.2/5.5
	12	10'-8"	12'-4"	13'-7"	13'-4"	15'-5"	17'-0"	15'-9"	18'-2"	20'-0"	18'-0"	20'-9"	22'-11"	20'-3"	23'-4"	25'-9"	25'-11"	28'-8"	28'-6"	31'-6"	31'-2"	34'-5"
	End/Int bearing_SPF Plate (in)	2.8/6.9	2.1/5.3	1.8/4.4	3.5/8.6	2.7/6.6	2.2/5.5	4.1/10.1	3.1/7.8	2.6/6.4	4.6/11.5	3.6/8.9	3/7.3	5.2/13	4/10	3.3/8.3	4.5/11.1	3.7/9.2	4.9/12.2	4.1/10.1	5.3/13.3	4.4/11
	End/Int bearing_Member (in)	1.6/3.9	1.5/3.5	1.5/3.5	2/4.8	1.5/3.7	1.5/3.5	2.3/5.7	1.8/4.4	1.5/3.6	2.6/6.5	2/5	1.7/4.2	3/7.3	2.3/5.6	1.9/4.7	2.5/6.3	2.1/5.2	2.8/6.9	2.3/5.7	3/7.5	2.5/6.2
	14	10'-1"	11'-8"	12'-11"	12'-8"	14'-7"	16'-1"	14'-11"	17'-2"	19'-0"	17'-0"	19'-8"	21'-9"	19'-2"	22'-11"	24'-5"	24'-7"	27'-2"	27'-0"	29'-11"	29'-6"	32'-7"
	End/Int bearing_SPF Plate (in)	3.1/7.6	2.4/5.8	2/4.8	3.8/9.5	2.9/7.3	2.4/6	4.5/11.1	3.5/8.6	2.9/7.1	5.1/12.7	3.9/9.8	3.3/8.1	5.8/14.3	4.4/11	3.7/9.1	4.9/12.2	4.1/10.1	5.4/13.4	4.5/11.2	5.9/14.7	4.9/12.2
	End/Int bearing_Member (in)	1.7/4.3	1.5/3.5	1.5/3.5	2.2/5.3	1.7/4.1	1.5/3.5	2.5/6.3	2/4.9	1.6/4	2.9/7.2	2.2/5.5	1.9/4.6	3.3/8.1	2.5/6.2	2.1/5.2	2.8/6.9	2.3/5.7	3.1/7.6	2.6/6.3	3.3/8.3	2.8/6.9
	16	9'-8"	11'-1"	12'-4"	12'-1"	13'-11"	15'-5"	14'-3"	16'-5"	18'-2"	16'-3"	18'-9"	20'-9"	18'-3"	21'-11"	23'-4"	23'-5"	25'-11"	25'-10"	28'-6"	28'-2"	31'-2"
	End/Int bearing_SPF Plate (in)	3.3/8.3	2.6/6.4	2.1/5.3	4.2/10.3	3.2/7.9	2.7/6.6	4.9/12.1	3.8/9.3	3.1/7.8	5.6/13.9	4.3/10.7	3.6/8.9	6.3/15.6	4.8/12	4/10	5.4/13.3	4.5/11.1	5.9/14.7	4.9/12.2	6.4/16	5.3/13.3
	End/Int bearing_Member (in)	1.9/4.7	1.5/3.6	1.5/3.5	2.4/5.8	1.8/4.5	1.5/3.7	2.8/6.9	2.1/5.3	1.8/4.4	3.2/7.8	2.4/6	2/5	3.6/8.8	2.7/6.8	2.3/5.6	3/7.5	2.5/6.3	3.3/8.3	2.8/6.9	3.6/9	3/7.5
	18	9'-3"	10'-8"	11'-10"	11'-7"	13'-4"	14'-9"	13'-8"	15'-9"	17'-5"	15'-7"	18'-0"	19'-11"	17'-6"	20'-3"	22'-5"	22'-6"	24'-11"	24'-9"	27'-5"	27'-0"	29'-11"
	End/Int bearing_SPF Plate (in)	3.6/8.9	2.8/6.9	2.3/5.7	4.5/11.1	3.5/8.6	2.9/7.1	5.3/13.1	4.1/10.1	3.4/8.4	6/15	4.6/11.5	3.9/9.6	6.8/16.8	5.2/13	4.3/10.8	5.8/14.4	4.8/11.9	6.4/15.8	5.3/13.1	6.9/17.3	5.8/14.3
End/Int bearing_Member (in)	2/5	1.6/3.9	1.5/3.5	2.5/6.3	2/4.8	1.6/4	3/7.4	2.3/5.7	1.9/4.7	3.4/8.4	2.6/6.5	2.2/5.4	3.8/9.5	3/7.3	2.5/6.1	3.3/8.1	2.7/6.7	3.6/8.9	3/7.4	3.9/9.7	3.3/8.1	
20	8'-11"	10'-3"	11'-4"	11'-1"	12'-10"	14'-3"	13'-1"	15'-2"	16'-9"	15'-0"	17'-4"	19'-2"	16'-11"	19'-6"	21'-7"	21'-8"	24'-0"	23'-10"	26'-5"	26'-0"	28'-10"	
End/Int bearing_SPF Plate (in)	3.8/9.5	3/7.3	2.5/6.1	4.8/11.9	3.7/9.2	3.1/7.6	5.6/14	4.3/10.8	3.6/9	6.4/16	5/12.3	4.1/10.2	7.2/18	5.6/13.9	4.6/11.5	6.2/15.4	5.1/12.8	6.8/16.9	5.7/14.1	7.4/18.5	6.2/15.3	
End/Int bearing_Member (in)	2.2/5.4	1.7/4.2	1.5/3.5	2.7/6.7	2.1/5.2	1.8/4.3	3.2/7.9	2.5/6.1	2.1/5.1	3.6/9	2.8/7	2.3/5.8	4.1/10.2	3.2/7.8	2.6/6.5	3.5/8.7	2.9/7.2	3.9/9.6	3.2/7.9	4.2/10.4	3.5/8.7	

Floor Beam Span Tables - Two Storeys

Versa-Lam® 2.3E 3100

Live Load of 40 psf

Dead Load of 15 psf

L/360

Beam Depth		9½"			11½"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
Tributary Width (ft)	6	11'-8"	13'-5"	14'-9"	14'-7"	16'-9"	18'-5"	17'-2"	19'-8"	21'-8"	19'-7"	22'-6"	24'-9"	22'-0"	25'-3"	27'-10"	28'-0"	30'-10"	30'-10"	33'-10"	33'-7"	36'-11"
	End/Int bearing_SPF Plate (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.7	15/3.5	15/3.6	17/4.2	15/3.5	17/4.1	19/4.7	16/3.9	21/5.2	17/4.3	23/5.7	19/4.7	25/6.2	21/5.1
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5
	8	10'-8"	12'-3"	13'-6"	13'-4"	15'-4"	16'-10"	15'-8"	18'-0"	19'-10"	17'-11"	20'-7"	22'-8"	20'-2"	23'-2"	25'-6"	25'-8"	28'-4"	28'-3"	31'-1"	30'-9"	33'-11"
	End/Int bearing_SPF Plate (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.8	15/3.5	16/3.9	18/4.5	15/3.7	18/4.4	21/5.1	17/4.2	2/5	23/5.7	19/4.7	26/6.3	21/5.2	28/6.9	23/5.7	31/7.6	25/6.3
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.6	15/3.5	16/3.9	15/3.5	17/4.3	15/3.5
	10	9'-10"	11'-4"	12'-7"	12'-4"	14'-3"	15'-9"	14'-7"	16'-9"	18'-6"	16'-8"	19'-2"	21'-2"	18'-9"	21'-7"	23'-9"	23'-11"	26'-5"	26'-4"	29'-0"	28'-8"	31'-8"
	End/Int bearing_SPF Plate (in)	15/3.5	15/3.5	15/3.5	16/3.8	18/4.4	15/3.7	18/4.5	21/5.2	17/4.3	21/5.1	24/5.9	2/4.9	23/5.8	27/6.6	22/5.5	3/7.4	25/6.1	33/8.1	27/6.7	36/8.8	29/7.3
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	17/4.2	15/3.5	19/4.6	15/3.8	2/5	17/4.1
	12	9'-3"	10'-8"	11'-10"	11'-7"	13'-4"	14'-9"	13'-8"	15'-9"	17'-5"	15'-7"	18'-0"	19'-11"	17'-6"	20'-3"	22'-5"	22'-6"	24'-11"	24'-9"	27'-5"	27'-0"	29'-10"
	End/Int bearing_SPF Plate (in)	15/3.5	16/4	15/3.5	17/4.3	2/4.9	17/4.1	21/5.1	24/5.8	2/4.8	23/5.8	27/6.6	22/5.5	26/6.5	3/7.5	25/6.2	33/8.3	28/6.9	37/9.1	31/7.6	4/9.9	33/8.3
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	17/4.2	15/3.5	19/4.7	16/3.9	21/5.2	17/4.3	23/5.6
	14	8'-6"	10'-1"	11'-2"	10'-8"	12'-8"	14'-0"	12'-7"	14'-11"	16'-6"	14'-4"	17'-0"	18'-10"	16'-2"	19'-2"	21'-3"	21'-4"	23'-7"	23'-5"	25'-11"	25'-7"	28'-4"
	End/Int bearing_SPF Plate (in)	15/3.7	18/4.4	15/3.6	19/4.6	22/5.5	18/4.5	22/5.4	26/6.4	22/5.3	25/6.2	3/7.3	25/6.1	28/7	33/8.3	28/6.9	37/9.2	31/7.6	41/10.1	34/8.4	44/11	37/9.1
	End/Int bearing_Member (in)	15/3.7	18/4.4	15/3.6	19/4.6	22/5.5	18/4.5	22/5.4	26/6.4	22/5.3	25/6.2	3/7.3	25/6.1	28/7	33/8.3	28/6.9	37/9.2	31/7.6	41/10.1	34/8.4	44/11	37/9.1
	16	7'-8"	9'-8"	10'-8"	9'-7"	12'-1"	13'-4"	11'-3"	14'-3"	15'-9"	12'-11"	16'-3"	18'-0"	14'-6"	18'-3"	20'-3"	20'-4"	22'-6"	22'-4"	24'-9"	24'-5"	27'-0"
	End/Int bearing_SPF Plate (in)	16/3.8	19/4.8	16/4	19/4.7	24/5.9	2/4.9	23/5.6	28/7	24/5.8	26/6.4	32/8	27/6.6	29/7.1	36/9	3/7.5	4/10	33/8.3	44/11	37/9.1	48/12	4/9.9
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	16/4	15/3.5	15/3.6	18/4.5	15/3.8	16/4	21/5.1	17/4.2	23/5.6	19/4.7	25/6.2	21/5.2	27/6.8	23/5.6
	18	7'-0"	9'-3"	10'-3"	8'-8"	11'-7"	12'-10"	10'-3"	13'-8"	15'-1"	11'-9"	15'-7"	17'-3"	13'-2"	17'-6"	19'-5"	19'-6"	21'-7"	21'-4"	23'-9"	23'-2"	25'-11"
	End/Int bearing_SPF Plate (in)	16/3.9	21/5.1	17/4.3	2/4.9	26/6.4	22/5.3	23/5.7	31/7.6	25/6.3	26/6.5	35/8.6	29/7.2	3/7.3	39/9.7	33/8.1	43/10.8	36/9	47/11.8	4/9.8	51/12.8	43/10.7
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.6	15/3.5	15/3.5	17/4.3	15/3.6	15/3.7	2/4.9	17/4.1	17/4.1	22/5.5	19/4.6	25/6.1	21/5.1	27/6.7	23/5.6	29/7.2	25/6.1
	20	6'-5"	8'-11"	9'-10"	8'-0"	11'-1"	12'-4"	9'-5"	13'-1"	14'-7"	10'-10"	15'-0"	16'-8"	12'-2"	16'-10"	18'-9"	18'-7"	20'-10"	20'-4"	22'-11"	22'-0"	25'-0"
	End/Int bearing_SPF Plate (in)	16/4	22/5.5	19/4.6	2/5	28/6.9	23/5.7	24/5.8	33/8.1	27/6.7	27/6.7	37/9.2	31/7.7	3/7.5	42/10.3	35/8.6	46/11.4	39/9.6	51/12.5	42/10.5	54/13.5	46/11.5
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	16/3.9	15/3.5	15/3.5	19/4.6	16/3.8	15/3.8	21/5.2	18/4.3	17/4.2	24/5.8	2/4.9	26/6.4	22/5.4	28/7	24/6	31/7.6	26/6.5

Versa-Lam® 2.3E 3100

Live Load of 40 psf

Dead Load of 25 psf

L/360

Beam Depth		9½"			11½"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
Tributary Width (ft)	6	11'-1"	12'-9"	14'-0"	13'-10"	15'-11"	17'-6"	16'-3"	18'-9"	20'-7"	18'-7"	21'-4"	23'-6"	20'-11"	24'-0"	26'-5"	26'-8"	29'-4"	29'-4"	32'-3"	31'-11"	35'-2"
	End/Int bearing_SPF Plate (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	16/4	15/3.5	16/4	19/4.6	15/3.8	18/4.5	21/5.1	17/4.3	23/5.7	19/4.7	25/6.3	21/5.2	28/6.8	23/5.6
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.6	15/3.5	16/3.9	15/3.5
	8	10'-1"	11'-7"	12'-10"	12'-7"	14'-6"	16'-0"	14'-10"	17'-1"	18'-10"	17'-0"	19'-6"	21'-6"	19'-1"	21'-11"	24'-2"	24'-5"	26'-10"	26'-10"	29'-6"	29'-3"	32'-2"
	End/Int bearing_SPF Plate (in)	15/3.5	15/3.5	15/3.5	15/3.6	17/4.2	15/3.5	17/4.3	2/4.9	17/4.1	2/4.9	23/5.6	19/4.6	22/5.5	25/6.3	21/5.2	28/7	23/5.8	31/7.6	26/6.3	34/8.3	28/6.9
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.6	15/3.5	16/3.9	15/3.5	18/4.3	15/3.6	19/4.7
	10	9'-4"	10'-10"	11'-11"	11'-8"	13'-6"	14'-11"	13'-10"	15'-11"	17'-7"	15'-9"	18'-2"	20'-1"	17'-9"	20'-5"	22'-7"	22'-8"	25'-0"	24'-11"	27'-6"	27'-2"	30'-0"
	End/Int bearing_SPF Plate (in)	15/3.5	16/3.9	15/3.5	17/4.2	2/4.8	16/4	2/4.9	23/5.7	19/4.7	23/5.6	26/6.5	22/5.4	26/6.3	29/7.3	24/6	33/8.1	27/6.7	36/8.9	3/7.4	39/9.7	32/8
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.7	15/3.5	15/3.6	17/4.1	15/3.5	19/4.6	15/3.8	2/5	17/4.2	22/5.5	18/4.5
	12	8'-7"	10'-2"	11'-3"	10'-9"	12'-8"	14'-1"	12'-8"	15'-0"	16'-7"	14'-5"	17'-1"	18'-11"	16'-3"	19'-3"	21'-3"	21'-4"	23'-7"	23'-6"	25'-11"	25'-7"	28'-4"
	End/Int bearing_SPF Plate (in)	15/3.7	18/4.4	15/3.6	19/4.6	22/5.5	18/4.5	22/5.4	26/6.4	22/5.3	25/6.2	3/7.3	25/6.1	28/6.9	33/8.2	28/6.8	37/9.1	31/7.6	4/10	34/8.3	44/10.9	37/9.1
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	17/4.1	15/3.5	16/3.9	19/4.7	16/3.9	21/5.2	17/4.3	23/5.7	19/4.7	25/6.2	21/5.1
	14	7'-7"	9'-8"	10'-8"	9'-5"	12'-1"	13'-4"	11'-2"	14'-3"	15'-9"	12'-9"	16'-3"	18'-0"	14'-4"	18'-3"	20'-2"	20'-4"	22'-5"	22'-4"	24'-8"	24'-4"	26'-11"
	End/Int bearing_SPF Plate (in)	16/3.8	2/4.8	16/4	19/4.7	24/6	2/5	23/5.6	29/7.1	24/5.9	26/6.4	33/8.1	27/6.7	29/7.2	37/9.1	31/7.6	41/10.1	34/8.4	45/11.1	37/9.2	49/12.1	4/10
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	15/3.5	16/4	15/3.5	15/3.6	19/4.6	16/3.8	17/4.1	21/5.2	17/4.3	23/5.7	19/4.7	25/6.3	21/5.2	28/6.8	23/5.7
	16	6'-10"	9'-3"	10'-2"	8'-6"	11'-6"	12'-9"	10'-0"	13'-7"	15'-0"	11'-6"	15'-6"	17'-2"	12'-11"	17'-5"	19'-4"	19'-3"	21'-6"	21'-1"	23'-7"	22'-10"	25'-9"
	End/Int bearing_SPF Plate (in)	16/3.9	21/5.3	18/4.4	2/4.9	27/6.6	22/5.5	23/5.7	31/7.8	26/6.4	27/6.6	36/8.8	3/7.4	3/7.4	4/9.9	33/8.3	44/11	37/9.2	48/12	41/10.1	52/13	44/11
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	15/3.7	15/3.5	15/3.5	18/4.4	15/3.7	15/3.7	2/5	17/4.2	17/4.2	23/5.6	19/4.7	25/6.2	21/5.2	27/6.8	23/5.7	3/7.3	25/6.2
	18	6'-2"	8'-8"	9'-10"	7'-9"	10'-10"	12'-3"	9'-2"	12'-9"	14'-5"	10'-5"	14'-7"	16'-6"	11'-9"	16'-5"	18'-7"	18'-2"	20'-8"	19'-11"	22'-8"	21'-7"	24'-9"
	End/Int bearing_SPF Plate (in)	16/4	23/5.6	19/4.7	2/5	28/7	24/5.9	24/5.9	33/8.2	28/7	27/6.7	38/9.4	32/7.9	31/7.6	42/10.5	36/8.9	47/11.6	4/9.9	51/12.7	44/10.9	56/13.8	48/11.9
	End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	16/4	15/3.5	15/3.5	19/4.6	16/3.9	16/3.8	21/5.3	18/4.5	17/4.3	24/5.9	2/5	27/6.6	23/5.6	29/7.2	25/6.2	32/7.8	27/6.7
	20	5'-9"	7'-11"	9'-5"	7'-2"	9'-11"	11'-10"	8'-5"	11'-9"	13'-11"	9'-8"	13'-5"	15'-11"	10'-10"	15'-1"	17'-11"	16'-9"	19'-11"	18'-5"	21'-10"	20'-1"	23'-8"
End/Int bearing_SPF Plate (in)	17/4.1	23/5.7	21/5.1	21/5.1	29/7.1	26/6.3	24/6	34/8.4	3/7.5	28/6.9	38/9.5	34/8.5	31/7.7	43/10.7	39/9.6	48/11.9	43/10.6	53/13.1	47/11.6	57/14.1	51/12.6	
End/Int bearing_Member (in)	15/3.5	15/3.5	15/3.5	15/3.5	16/4	15/3.6	15/3.6	19/4.7	16/2	16/3.9	22/5.4	2/4.8	18/4.4	25/6.2	22/5.4	27/6.7	24/6	3/7.4	27/6.6	32/8	29/7.7	

Floor Beam Span Tables - Two Storeys.

11

Versa-Lam® 2.3E 3100

Live Load of 40 psf

Dead Load of 15 psf

L/480

Beam Depth		9½"			11⅞"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
Tributary Width (ft)	6	10'-8"	12'-4"	13'-7"	13'-4"	15'-5"	17'-0"	15'-9"	18'-2"	20'-0"	18'-0"	20'-9"	22'-11"	20'-3"	23'-4"	25'-9"	25'-11"	28'-8"	28'-6"	31'-6"	31'-2"	34'-5"
	End/Int bearing_SPF Plate (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/3.9	1.5/3.5	1.5/3.8	1.8/4.3	1.5/3.6	2/4.8	1.6/4	21/5.3	1.8/4.4	2.3/5.8	1.9/4.8
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	8	9'-8"	11'-1"	12'-4"	12'-1"	13'-11"	15'-5"	14'-3"	16'-5"	18'-2"	16'-3"	18'-9"	20'-9"	18'-3"	21'-1"	23'-4"	23'-5"	25'-11"	25'-10"	28'-6"	28'-2"	31'-2"
	End/Int bearing_SPF Plate (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	1.9/4.6	1.6/3.9	1.8/4.5	21/5.2	1.8/4.3	2.3/5.8	2/4.8	2.6/6.4	21/5.3	2.8/6.9
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	1.5/3.5	1.6/3.9	1.5/3.5
	10	8'-11"	10'-3"	11'-4"	11'-1"	12'-10"	14'-3"	13'-1"	15'-2"	16'-9"	15'-0"	17'-4"	19'-2"	16'-11"	19'-6"	21'-7"	21'-8"	24'-0"	23'-10"	26'-5"	26'-0"	28'-10"
	End/Int bearing_SPF Plate (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	1.5/3.5	1.7/4.1	1.9/4.7	1.6/3.9	1.9/4.6	2.2/5.3	1.8/4.4	21/5.2	2.4/6	2/5	2.7/6.7	2.2/5.5	3/7.3	2.5/6.1	3.2/8	2.7/6.6
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	1.5/3.5	1.7/4.2	1.5/3.5	1.8/4.5	1.5/3.8
	12	8'-4"	9'-8"	10'-8"	10'-5"	12'-1"	13'-4"	12'-3"	14'-3"	15'-9"	14'-1"	16'-3"	18'-0"	15'-10"	18'-3"	20'-3"	20'-4"	22'-6"	22'-4"	24'-9"	24'-5"	27'-0"
	End/Int bearing_SPF Plate (in)	1.5/3.5	1.5/3.6	1.5/3.5	1.6/3.9	1.8/4.5	1.5/3.7	1.9/4.6	21/5.3	1.8/4.4	21/5.2	2.4/6	2/5	2.4/5.8	2.7/6.8	2.3/5.6	3/7.5	2.5/6.2	3.3/8.2	2.8/6.9	3.6/9	3/7.5
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	1.5/3.5	1.9/4.7	1.6/3.9	21/5.1	1.7/4.2
	14	7'-10"	9'-1"	10'-1"	9'-10"	11'-5"	12'-8"	11'-7"	13'-5"	14'-11"	13'-3"	15'-5"	17'-0"	14'-11"	17'-4"	19'-2"	19'-3"	21'-4"	21'-2"	23'-5"	23'-1"	25'-7"
	End/Int bearing_SPF Plate (in)	1.5/3.5	1.6/4	1.5/3.5	1.7/4.3	2/4.9	1.7/4.1	2/5	2.4/5.8	2/4.8	2.3/5.7	2.7/6.6	2.2/5.5	2.6/6.4	3/7.5	2.5/6.2	3.3/8.3	2.8/6.9	3.7/9.1	3.1/7.6	4/9.9	3.3/8.3
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	1.5/3.5	1.9/4.7	1.6/3.9	21/5.1	1.9/4.7
	16	7'-6"	8'-8"	9'-8"	9'-4"	10'-10"	12'-1"	11'-1"	12'-10"	14'-3"	12'-8"	14'-8"	16'-3"	14'-3"	16'-6"	18'-3"	18'-4"	20'-4"	20'-2"	22'-4"	22'-0"	24'-5"
	End/Int bearing_SPF Plate (in)	1.5/3.7	1.8/4.3	1.5/3.6	1.9/4.6	2.2/5.4	1.8/4.5	2.2/5.5	2.6/6.3	21/5.3	2.5/6.2	2.9/7.2	2.4/6	2.8/7	3.3/8.1	2.7/6.8	3.6/9	3/7.5	4/9.9	3.3/8.2	4.4/10.8	3.6/9
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.1	1.7/4.2	2.3/5.6	1.9/4.7	2.5/6.1	2.1/5.1
	18	7'-0"	8'-4"	9'-3"	8'-8"	10'-5"	11'-7"	10'-3"	13'-8"	11'-9"	14'-1"	16'-3"	18'-0"	15'-10"	18'-3"	20'-3"	17'-7"	19'-6"	19'-4"	21'-5"	21'-1"	23'-5"
	End/Int bearing_SPF Plate (in)	1.6/3.9	1.9/4.6	1.6/3.9	2/4.9	2.3/5.8	2/4.8	2.3/5.7	2.8/6.8	2.3/5.7	2.6/6.5	3.1/7.8	2.6/6.5	3/7.3	3.5/8.7	2.9/7.3	3.9/9.7	3.3/8.1	4.3/10.7	3.6/8.9	4.7/11.6	3.9/9.7
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/3.9	1.5/3.5	1.5/3.7	1.8/4.4	1.5/3.7	1.7/4.1	2/4.9	1.7/4.1	2.2/5.5	1.9/4.6	2.4/6	2/5	2.7/6.6	2.2/5.5
	20	6'-5"	8'-0"	8'-11"	8'-0"	10'-0"	11'-1"	9'-5"	11'-10"	13'-1"	10'-10"	13'-6"	15'-0"	12'-2"	15'-2"	16'-11"	16'-11"	18'-9"	18'-7"	20'-8"	20'-4"	22'-6"
	End/Int bearing_SPF Plate (in)	1.6/4	2/5	1.7/4.1	2/5	2.5/6.2	21/5.2	2.4/5.8	2.9/7.3	2.5/6.1	2.7/6.7	3.4/8.3	2.8/6.9	3/7.5	3.8/9.3	3.1/7.8	4.2/10.4	3.5/8.7	4.6/11.4	3.8/9.5	5/12.4	4.2/10.4
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.1	1.5/3.5	1.5/3.8	1.9/4.7	1.6/3.9	1.7/4.2	2.1/5.3	1.8/4.4	2.4/5.9	2/4.9	2.6/6.5	2.2/5.4	2.8/7	2.4/5.9

Versa-Lam® 2.3E 3100

Live Load of 40 psf

Dead Load of 25 psf

L/480

Beam Depth		9½"			11⅞"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
Tributary Width [ft]	6	10'-8"	12'-4"	13'-7"	13'-4"	15'-5"	17'-0"	15'-9"	18'-2"	20'-0"	18'-0"	20'-9"	22'-11"	20'-3"	23'-4"	25'-9"	25'-11"	28'-8"	28'-6"	31'-6"	31'-2"	34'-5"
	End/Int bearing_SPF Plate (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/3.9	1.5/3.5	1.6/3.9	1.8/4.5	1.5/3.7	1.8/4.4	2/5	1.7/4.2	2.3/5.6	1.9/4.6	2.5/6.1	21/5.1	2.7/6.7	2.2/5.5
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	1.5/3.5
	8	9'-8"	11'-1"	12'-4"	12'-1"	13'-11"	15'-5"	14'-3"	16'-5"	18'-2"	16'-3"	18'-9"	20'-9"	18'-3"	21'-1"	23'-4"	23'-5"	25'-11"	25'-10"	28'-6"	28'-2"	31'-2"
	End/Int bearing_SPF Plate (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	1.5/3.5	1.7/4.1	1.9/4.7	1.6/3.9	1.9/4.7	2.2/5.4	1.8/4.5	2.1/5.2	2.4/6	2/5	2.7/6.7	2.3/5.6	3/7.4	2.5/6.1	3.2/8	2.7/6.7
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	1.5/3.5	1.7/4.2	1.5/3.5	1.8/4.5	1.5/3.8
	10	8'-11"	10'-3"	11'-4"	11'-1"	12'-10"	14'-3"	13'-1"	15'-2"	16'-9"	15'-0"	17'-4"	19'-2"	16'-11"	19'-6"	21'-7"	21'-8"	24'-0"	23'-10"	26'-5"	26'-0"	28'-10"
	End/Int bearing_SPF Plate (in)	1.5/3.5	1.5/3.7	1.5/3.5	1.6/4	1.9/4.6	1.6/3.8	1.9/4.7	2.2/5.4	1.8/4.5	2.2/5.4	2.5/6.2	2.1/5.1	2.4/6	2.8/7	2.3/5.8	3.1/7.7	2.6/6.4	3.4/8.5	2.9/7.1	3.7/9.3	3.1/7.7
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.4	1.5/3.6	2.4/8	1.6/4	2.1/5.2	1.8/4.4
	12	8'-4"	9'-8"	10'-8"	10'-5"	12'-1"	13'-4"	12'-3"	14'-3"	15'-9"	14'-1"	16'-3"	18'-0"	15'-10"	18'-3"	20'-3"	20'-4"	22'-6"	22'-4"	24'-9"	24'-5"	27'-0"
	End/Int bearing_SPF Plate (in)	1.5/3.6	1.7/4.2	1.5/3.5	1.8/4.5	2.1/5.2	1.8/4.3	2.1/5.3	2.5/6.1	2.1/5.1	2.4/6	2.8/7	2.3/5.8	2.7/6.8	3.2/7.8	2.6/6.5	3.5/8.7	2.9/7.2	3.8/9.5	3.2/7.9	4.2/10.4	3.5/8.7
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/3.9	1.5/3.5	1.6/3.8	1.8/4.4	1.5/3.7	2/4.9	1.7/4.1	2.2/5.4	1.8/4.5	2.4/5.9	2/4.9
	14	7'-7"	9'-1"	10'-1"	9'-5"	11'-5"	12'-8"	11'-2"	13'-5"	14'-11"	12'-9"	15'-5"	17'-0"	14'-4"	17'-4"	19'-2"	19'-3"	21'-4"	21'-2"	23'-5"	23'-1"	25'-7"
	End/Int bearing_SPF Plate (in)	1.6/3.8	1.9/4.6	1.6/3.8	1.9/4.7	2.3/5.7	1.9/4.8	2.3/5.6	2.7/6.7	2.3/5.6	2.6/6.4	3.1/7.7	2.6/6.4	2.9/7.2	3.5/8.6	2.9/7.2	3.9/9.6	3.2/8	4.2/10.5	3.5/8.8	4.6/11.5	3.9/9.6
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/3.8	1.5/3.5	1.5/3.6	1.8/4.3	1.5/3.6	1.7/4.1	2/4.9	1.7/4.1	2.2/5.4	1.8/4.5	2.4/6	2/5	2.6/6.5	2.2/5.4
	16	6'-10"	8'-8"	9'-8"	8'-6"	10'-10"	12'-1"	10'-0"	12'-10"	14'-3"	11'-6"	14'-8"	16'-3"	12'-11"	16'-6"	18'-3"	18'-4"	20'-4"	20'-2"	22'-4"	22'-0"	24'-5"
	End/Int bearing_SPF Plate (in)	1.6/3.9	2/5	1.7/4.2	2/4.9	2.5/6.2	2.1/5.2	2.3/5.7	3/7.3	2.5/6.1	2.7/6.6	3.4/8.4	2.8/7	3/7.4	3.8/9.4	3.2/7.8	4.2/10.4	3.5/8.7	4.6/11.5	3.8/9.5	5/12.5	4.2/10.4
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.1	1.5/3.5	1.5/3.7	1.9/4.7	1.6/3.9	1.7/4.2	2.2/5.3	1.8/4.4	2.4/5.9	2/4.9	2.6/6.5	2.2/5.4	2.9/7.1	2.4/5.9
	18	6'-2"	8'-4"	9'-3"	7'-9"	10'-5"	11'-7"	9'-2"	12'-3"	13'-8"	10'-5"	14'-1"	15'-7"	11'-9"	15'-10"	17'-6"	17'-7"	19'-6"	19'-4"	21'-5"	21'-1"	23'-5"
	End/Int bearing_SPF Plate (in)	1.6/4	2.2/5.4	1.8/4.5	2/5	2.7/6.7	2.3/5.6	2.4/5.9	3.2/7.9	2.7/6.6	2.7/6.7	3.6/9	3/7.5	3.1/7.6	4.1/10.1	3.4/8.4	4.5/11.2	3.8/9.4	5/12.4	4.1/10.3	5.4/13.5	4.5/11.2
End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	1.5/3.5	1.5/3.5	1.8/4.5	1.5/3.7	1.6/3.8	2.1/5.1	1.7/4.2	1.7/4.3	2.3/5.7	1.9/4.8	2.6/6.4	2.1/5.3	2.8/7	2.4/5.8	3.1/7.6	2.6/6.3	
20	5'-9"	7'-11"	8'-11"	7'-2"	9'-11"	9'-11"	8'-5"	11'-9"	13'-1"	9'-8"	13'-5"	15'-0"	10'-10"	15'-1"	16'-11"	16'-9"	18'-9"	18'-5"	20'-8"	20'-1"	22'-6"	
End/Int bearing_SPF Plate (in)	1.7/4.1	2.3/5.7	1.9/4.8	2.1/5.1	2.7/7.1	2/4.6	2/4.6	3.4/8.4	2.8/7	2.8/6.9	3.8/9.5	3.2/8	3.1/7.7	4.3/10.7	3.6/9	4.8/11.9	4/10	5.3/13.1	4.4/11	5.7/14.2	4.8/12	
End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	1.5/3.5	1.5/3.5	1.9/4.7	1.6/4	1.6/3.9	2.2/5.4	1.8/4.5	1.8/4.4	2.5/6.1	2.1/5.1	2.7/6.7	2.3/5.7	3/7.4	2.5/6.2	3.2/8	2.7/6.8	

Ridge Beam Span Tables

Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Dead Load of 15 psf

L/240

Beam Depth		9½"			11⅝"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
House Width [ft]	20	15'-8"	18'-0"	19'-9"	19'-7"	22'-5"	24'-7"	23'-1"	26'-4"	28'-11"	26'-4"	30'-1"	33'-0"	29'-7"	33'-9"	37'-0"	37'-5"					
	End/Int bearing_SPF Plate (in)	1.8/4.5	1.5/3.5	1.5/3.5	2.3/5.6	1.7/4.3	1.5/3.5	2.7/6.6	2/5	1.7/4.2	3/7.5	2.3/5.7	1.9/4.7	3.4/8.4	2.6/6.4	2.1/5.3	2.9/7.1					
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.7	1.5/3.5	1.5/3.5	1.7/4.3	1.5/3.5	1.5/3.5	1.9/4.8	1.5/3.6	1.5/3.5	1.6/4					
	24	14'-9"	16'-11"	18'-7"	18'-5"	21'-1"	23'-2"	21'-9"	24'-10"	27'-3"	24'-9"	28'-4"	31'-1"	27'-10"	31'-10"	34'-11"	35'-4"	38'-9"	38'-9"			
	End/Int bearing_SPF Plate (in)	2.1/5.1	1.6/3.9	1.5/3.5	2.6/6.3	2/4.8	1.6/4	3/7.4	2.3/5.7	1.9/4.7	3.4/8.5	2.6/6.5	2.2/5.3	3.8/9.5	2.9/7.3	2.4/6	3.3/8.1	2.7/6.6	3.6/8.8			
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	1.5/3.5	1.5/3.5	1.7/4.2	1.5/3.5	1.5/3.5	2/4.8	1.5/3.7	1.5/3.5	2.2/5.4	1.7/4.1	1.5/3.5	1.9/4.6	1.5/3.8	2/5			
	28	14'-0"	16'-1"	17'-8"	17'-6"	20'-1"	22'-1"	20'-7"	23'-7"	25'-11"	23'-7"	26'-11"	29'-7"	26'-6"	30'-3"	33'-3"	33'-7"	36'-10"	36'-11"			
	End/Int bearing_SPF Plate (in)	2.3/5.6	1.8/4.3	1.5/3.6	2.8/7	2.2/5.4	1.8/4.4	3.3/8.2	2.5/6.3	2.1/5.2	3.8/9.4	2.9/7.2	2.4/5.9	4.3/10.6	3.3/8.1	2.7/6.6	3.6/8.9	3/7.4	4/9.8			
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	1.5/3.5	1.5/3.5	1.9/4.7	1.5/3.5	1.5/3.5	2.2/5.3	1.7/4.1	1.5/3.5	2.4/6	1.9/4.6	1.5/3.8	2.1/5.1	1.7/4.2	2.2/5.5			
	32	13'-5"	15'-4"	16'-11"	16'-9"	19'-2"	21'-1"	19'-8"	22'-7"	24'-10"	22'-6"	25'-9"	28'-4"	25'-4"	29'-0"	31'-10"	32'-2"	35'-4"	35'-4"	38'-9"	38'-6"	
	End/Int bearing_SPF Plate (in)	2.5/6.1	1.9/4.7	1.6/3.9	3.1/7.6	2.4/5.9	2/4.8	3.6/9	2.8/6.9	2.3/5.7	4.1/10.3	3.2/7.8	2.6/6.5	4.6/11.5	3.6/8.8	2.9/7.3	3.9/9.8	3.3/8.1	4.3/10.7	3.6/8.8	4.7/11.7	
	End/Int bearing_Member (in)	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.3	1.5/3.5	1.5/3.5	2.1/5.1	1.6/3.9	1.5/3.5	2.4/5.8	1.8/4.4	1.5/3.7	2.6/6.5	2/5	1.7/4.1	2.2/5.5	1.9/4.6	2.5/6.1	2/5	2.7/6.6	
	36	12'-10"	14'-9"	16'-3"	16'-1"	18'-5"	20'-4"	18'-1"	21'-9"	23'-11"	21'-8"	24'-9"	27'-3"	24'-7"	27'-10"	30'-8"	30'-11"	34'-0"	37'-4"	37'-0"		
	End/Int bearing_SPF Plate (in)	2.7/6.6	2.1/5.1	1.7/4.2	3.3/8.3	2.6/6.3	2.1/5.2	3.9/9.7	3/7.4	2.5/6.2	4.5/11.1	3.4/8.5	2.8/7	5/12.5	3.8/9.5	3.2/7.9	4.3/10.6	3.5/8.7	4.7/11.6	3.9/9.6	5.1/12.6	
	End/Int bearing_Member (in)	1.5/3.8	1.5/3.5	1.5/3.5	1.9/4.7	1.5/3.6	1.5/3.5	2.2/5.5	1.7/4.2	1.5/3.5	2.5/6.3	2/4.8	1.6/4	2.8/7	2.2/5.4	1.8/4.5	2.4/6	2/4.9	2.7/6.6	2.2/5.4	2.9/7.1	
	40	12'-5"	14'-3"	15'-6"	15'-6"	17'-10"	17'-10"	18'-3"	21'-8"	23'-9"	20'-9"	23'-11"	26'-4"	23'-2"	26'-11"	29'-7"	29'-10"	32'-10"	32'-10"	35'-9"	39'-4"	
	End/Int bearing_SPF Plate (in)	2.9/7.1	2.2/5.4	1.8/4.5	3.6/8.8	2.7/6.8	2.3/5.6	4.2/10.4	3.2/8	2.7/6.6	4.8/11.8	3.7/9.1	3/7.5	5.3/13.2	4.1/10.2	3.4/8.4	4.6/11.3	3.8/9.4	5/12.5	4.1/10.3	5.5/13.6	4.5/11.2
	End/Int bearing_Member (in)	1.6/4	1.5/3.5	1.5/3.5	2/5	1.6/3.8	1.5/3.5	2.4/5.9	1.8/4.5	1.5/3.7	2.7/6.7	2.1/5.1	1.7/4.3	3/7.5	2.3/5.8	1.9/4.8	2.6/6.4	2.1/5.3	2.8/7	2.4/5.8	3.1/7.7	2.6/6.3

Snow Load of 40 psf

Dead Load of 15 psf

L/240

Beam Depth		9½"			11⅝"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
House Width [ft]	20	13'-9"	15'-9"	17'-4"	17'-2"	19'-8"	21'-8"	20'-3"	23'-2"	25'-5"	23'-1"	26'-5"	29'-1"	25'-11"	29'-8"	32'-7"	32'-11"	36'-2"	36'-2"	39'-9"	39'-5"	
	End/Int bearing_SPF Plate (in)	2.6/6.3	2/4.9	1.6/4	3.2/7.9	2.5/6.1	2/5	3.8/9.3	2.9/7.1	2.4/5.9	4.3/10.6	3.3/8.1	2.7/6.7	4.8/11.9	3.7/9.1	3/7.5	4.1/10.1	3.4/8.3	4.5/11.1	3.7/9.1	4.9/12.1	
	End/Int bearing_Member (in)	1.5/3.6	1.5/3.5	1.5/3.5	1.8/4.5	1.5/3.5	1.5/3.5	2.1/5.3	1.6/4	1.5/3.5	2.4/6	1.9/4.6	1.5/3.8	2.7/6.7	2.1/5.2	1.7/4.3	2.3/5.7	1.9/4.7	2.5/6.3	2.1/5.2	2.8/6.8	
	24	12'-11"	14'-10"	16'-4"	16'-1"	18'-6"	20'-4"	19'-0"	21'-9"	24'-0"	21'-8"	24'-10"	27'-4"	24'-2"	27'-11"	30'-9"	31'-0"	34'-1"	34'-1"	37'-6"	37'-2"	
	End/Int bearing_SPF Plate (in)	2.9/7.2	2.2/5.5	1.8/4.5	3.6/8.9	2.8/6.8	2.3/5.6	4.2/10.5	3.2/8	2.7/6.6	4.8/12	3.7/9.2	3.1/7.6	5.4/13.3	4.1/10.3	3.4/8.5	4.6/11.4	3.8/9.4	5/12.5	4.2/10.3	5.5/13.7	
	End/Int bearing_Member (in)	1.7/4.1	1.5/3.5	1.5/3.5	2/5	1.6/3.9	1.5/3.5	2.4/5.9	1.8/4.5	1.5/3.8	2.7/6.8	2.1/5.2	1.7/4.3	3/7.5	2.4/5.8	2/4.8	2.6/6.5	2.2/5.3	2.9/7.1	2.4/5.8	3.1/7.7	
	28	12'-3"	14'-1"	15'-6"	15'-2"	17'-7"	17'-7"	19'-4"	17'-8"	20'-8"	22'-9"	20'-7"	26'-7"	22'-5"	26'-7"	29'-3"	29'-10"	32'-10"	32'-10"	35'-9"	38'-10"	
	End/Int bearing_SPF Plate (in)	3.2/7.9	2.5/6.1	2/5	3.9/9.8	3.1/7.6	2.5/6.3	4.6/11.4	3.6/8.9	3/7.4	5.2/12.9	4.1/10.2	3.4/8.4	5.8/14.4	4.6/11.4	3.8/9.4	5.1/12.6	4.2/10.4	5.6/13.9	4.6/11.5	6.1/15.1	5/12.5
	End/Int bearing_Member (in)	1.8/4.5	1.5/3.5	1.5/3.5	2.2/5.5	1.7/4.3	1.5/3.5	2.6/6.4	2/5	1.7/4.2	3/7.3	2.3/5.7	1.9/4.7	3.3/8.1	2.6/6.4	2.2/5.3	2.9/7.1	2.4/5.9	3.2/7.8	2.6/6.5	3.4/8.5	2.9/7.1
	32	11'-6"	13'-5"	14'-10"	14'-2"	16'-9"	18'-6"	16'-7"	19'-9"	21'-9"	18'-9"	22'-7"	24'-10"	21'-0"	25'-5"	27'-11"	28'-2"	31'-0"	30'-11"	34'-1"	37'-2"	
	End/Int bearing_SPF Plate (in)	3.4/8.5	2.7/6.6	2.2/5.5	4.2/10.5	3.3/8.3	2.8/6.8	4.9/12.2	3.9/9.7	3.2/8	5.6/13.8	4.5/11.1	3.7/9.2	6.2/15.4	5/12.5	4.1/10.3	5.6/13.8	4.6/11.4	6.1/15.1	5/12.5	6.6/16.4	5.5/13.7
	End/Int bearing_Member (in)	2/4.8	1.5/3.8	1.5/3.5	2.4/5.9	1.9/4.7	1.6/3.9	2.8/6.9	2.2/5.5	1.8/4.5	3.2/7.8	2.5/6.3	2.1/5.2	3.5/8.7	2.8/7	2.4/5.8	3.2/7.8	2.6/6.5	3.5/8.6	2.9/7.1	3.7/9.3	3.1/7.7
	36	10'-10"	12'-11"	14'-3"	13'-5"	16'-1"	17'-9"	15'-8"	19'-0"	20'-11"	17'-9"	21'-8"	23'-11"	19'-10"	24'-2"	26'-11"	26'-8"	29'-10"	29'-2"	32'-9"	31'-8"	35'-9"
	End/Int bearing_SPF Plate (in)	3.6/9	2.9/7.2	2.4/5.9	4.5/11.1	3.6/8.9	3/7.4	5.2/13	4.2/10.5	3.5/8.7	5.9/14.7	4.8/12	4/9.9	6.6/16.4	5.4/13.3	4.5/11.1	5.9/14.7	5/12.3	6.5/16.1	5.5/13.6	7/17.4	5.9/14.8
	End/Int bearing_Member (in)	2.1/5.1	1.7/4.1	1.5/3.5	2.5/6.3	2/5	1.7/4.2	3/7.3	2.4/5.9	2/4.9	3.3/8.3	2.7/6.8	2.3/5.6	3.7/9.2	3/7.5	2.5/6.3	3.4/8.3	2.8/7	3.7/9.1	3.1/7.7	4/9.8	3.4/8.3
	40	10'-3"	12'-5"	13'-9"	12'-8"	15'-6"	17'-2"	14'-10"	18'-2"	20'-3"	16'-10"	20'-7"	23'-1"	18'-10"	23'-0"	25'-11"	25'-4"	28'-10"	27'-8"	31'-8"	30'-1"	34'-6"
	End/Int bearing_SPF Plate (in)	3.8/9.5	3.1/7.7	2.6/6.3	4.7/11.7	3.8/9.5	3.2/7.9	5.5/13.7	4.5/11.1	3.8/9.3	6.2/15.5	5.1/12.6	4.3/10.6	6.9/17.3	5.7/14.1	4.8/11.9	6.2/15.5	5.3/13.2	6.8/17	5.8/14.5	7.4/18.4	6.4/15.8
	End/Int bearing_Member (in)	2.2/5.4	1.8/4.3	1.5/3.6	2.7/6.6	2.2/5.4	1.8/4.5	3.1/7.7	2.5/6.3	2.1/5.3	3.5/8.7	2.9/7.1	2.4/6	3.9/9.8	3.2/7.9	2.7/6.7	3.5/8.8	3/7.5	3.9/9.6	3.3/8.2	4.2/10.4	3.6/8.9

Snow Load of 60 psf

Dead Load of 15 psf

L/240

Beam Depth		9½"			11⅝"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"		
House Width [ft]	20	12'-6"	14'-4"	15'-9"	15'-5"	17'-11"	19'-8"	18'-1"	21'-1"	23'-2"	20'-5"	24'-1"	26'-6"	22'-10"	27'-0"	29'-9"	30'-0"	33'-0"	33'-0"	36'-3"	35'-11"	39'-6"
	End/Int bearing_SPF Plate (in)	3.2/7.9	2.5/6.1	2/5	4/9.8	3.1/7.6	2.5/6.3	4.6/11.5	3.6/8.9	3/7.4	5.2/13	4.1/10.2	3.4/8.4	5.8/14.5	4.6/11.5	3.8/9.5	5.1/12.7	4.2/10.5	5.6/14	4.6/11.5	6.1/15.2	5/12.5
	End/Int bearing_Member (in)	1.8/4.5	1.5/3.5	1.5/3.5	2.3/5.6	1.8/4.3	1.5/3.6	2.6/6.5	2.1/5.1	1.7/4.2	3/7.3	2.3/5.8	1.9/4.8	3.3/8.2	2.6/6.5	2.2/5.3	2.9/7.2	2.4/5.9	3.2/7.9	2.6/6.5	3.5/8.6	2.9/7.1
	24	11'-5"	13'-5"	14'-10"	14'-1"	16'-10"	18'-6"	16'-6"	19'-10"	21'-10"	18'-8"	22'-7"	24'-11"	20'-11"	25'-5"	28'-0"	28'-2"	31'-1"	30'-9"	34'-2"	33'-4"	37'-3"
	End/Int bearing_SPF Plate (in)	3.5/8.8	2.8/6.9	2.3/5.7	4.3/10.8	3.5/8.6	2.9/7.1	5.1/12.6	4.1/10.1	3.4/8.3	5.7/14.3	4.6/11.5	3.8/9.5	6.4/15.9	5.2/12.9	4.3/10.7	5.7/14.3	4.8/11.8	6.3/15.6	5.2/13	6.8/16.9	5.7/14.2
	End/Int bearing_Member (in)	2/5	1.6/3.9	1.5/3.5	2.5/6.1	2/4.8	1.6/4	2.9/7.1	2.3/5.7	1.9/4.7	3.2/8	2.6/6.5	2.2/5.4	3.6/9	2.9/7.3	2.4/6	3.3/8.1	2.7/6.7	3.6/8.8	3/7.3	3.9/9.6	3.2/8
	28	10'-7"	12'-9"	14'-1"	13'-1"	15'-11"	17'-7"	15'-3"	18'-8"	20'-9"	17'-4"	21'-2"	23'-8"	19'-4"	23'-8"	26'-7"	26'-1"	29'-6"	26'-6"	32'-5"	30'-11"	35'-4"
	End/Int bearing_SPF Plate (in)	3.8/9.5	3.1/7.6	2.5/6.3	4.7/11.7	3.8/9.5	3.2/7.8	5.5/13.6	4.5/11.1	3.7/9.2	6.2/15.4	5.1/12.6	4.2/10.5	6.9/17.2	5.6/14	4.8/11.8	6.2/15.5	5.3/13.1	6.8/16.9	5.8/14.4	7.4/18.3	6.3/15.7
	End/Int bearing_Member (in)	2.2/5.3	1.8/4.3	1.5/3.6	2.7/6.6	2.2/5.4	1.8/4.4	3.1/7.7	2.5/6.3	2.1/5.2	3.5/8.7	2.9/7.1	2.4/6	3.9/9.7	3.2/7.9	2.7/6.7	3.5/8.7	3/7.4	3.8/9.5	3.3/8.1	4.2/10.3	3.6/8.9
	32	9'-11"	12'-2"	13'-5"	12'-3"	15'-0"	16'-10"	14'-4"	17'-6"	19'-10"	16'-3"	19'-10"	22'-7"	18'-1"	22'-2"	25'-5"	24'-5"	28'-2"	26'-9"	30'-9"	29'-0"	33'-4"
	End/Int bearing_SPF Plate (in)	4.1/10.1	3.3/8.2	2.8/6.9	5/12.5	4.1/10.2	3.5/8.6	5.8/14.5	4.8/11.9	4.1/10.1	6.6/16.5	5.4/13.4	4.6/11.5	7.4/18.4	6/15	5.2/12.9	6.6/16.5	5.7/14.3	7.3/18.1	6.3/15.6	7.9/19.6	6.8/16.9
	End/Int bearing_Member (in)	2.3/5.7	1.9/4.7	1.6/3.9	2.8/7	2.3/5.7	2/4.8	3.3/8.2	2.7/6.7	2.3/5.7	3.7/9.3	3.1/7.6	2.6/6.5	4.2/10.4	3.4/8.5	2.9/7.3	3.8/9.3	3.3/8.1	4.1/10.2	3.6/8.8	4.5/11.1	3.9/9.6
	36	9'-3"	11'-5"	12'-11"	11'-6"	14'-1"	16'-2"	14'-1"	16'-6"	16'-6"	15'-3"	18'-8"	21'-7"	17'-1"	20'-11"	24'-1"	23'-1"	26'-7"	25'-2"	29'-0"	27'-4"	31'-6"
	End/Int bearing_SPF Plate (in)	4.3/10.6	3.5/8.8	3/7.4	5.3/13.2	4.3/10.8	3.7/9.3	6.2/15.4	5.1/12.6	4.4/10.9	7/17.5	5.7/14.3	5/12.3	7.8/19.5	6.4/15.9	5.5/13.8	7.1/17.6	6.1/15.2	7.7/19.2	6.7/16.6	8.4/20.8	7.2/18
	End/Int bearing_Member (in)	2.4/6	2/5	1.7/4.2	3/7.5	2.5/6.1	2.1/5.2	3.5/8.7	2.9/7.1	2.5/6.1	4/9.9	3.2/8	2.8/7	4.4/11	3.6/9	3.1/7.8	4/9.9	3.5/8.6	4.4/10.8	3.8/9.4	4.7/11.7	4.1/10.1
	40	8'-5"	10'-10"	12'-6"	10'-7"	13'-5"	15'-5"	12'-5"	15'-8"	18'-1"	14'-1"	17'-9"	19'-9"	20'-5"	16'-0"	19'-10"	22'-10"	21'-11"	25'-3"	23'-11"	27'-7"	26'-0"
End/Int bearing_SPF Plate (in)	4.3/10.8	3.7/9.2	3.2/7.9	5.4/13.4	4.6/11.4	4/9.8	6.4/15.8	5.3/13.3	4.6/11.5	7.3/18.1	6/15	5.2/13	8.1/20.3	6.7/16.8	5.8/14.5	7.4/18.5	6.4/16	8.1/20.2	7/17.5	8.8/22	7.6/19	
End/Int bearing_Member (in)	2.5/6.1	2.1/5.2	1.8/4.5	3.1/7.6	2.6/6.4	2.3/5.6	3.6/8.9	3/7.5	2.6/6.5	4.1/10.2	3.4/8.5	3/7.3	4.6/11.4	3.8/9.5	3.3/8.2	4.2/10.4	3.6/9	4.6/11.4	4/9.9	5/12.4	4.3/10.7	

Ridge Beam Span Tables

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Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Dead Load of 15 psf

L/360

Beam Depth		9½"			11⅝"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
House Width [ft]	20	14'-3"	16'-3"	17'-11"	17'-9"	20'-4"	22'-4"	20'-11"	23'-11"	26'-3"	23'-10"	27'-3"	29'-11"	26'-10"	30'-7"	33'-7"	33'-11"	37'-2"	37'-3"			
	End/Int bearing_SPF Plate (in)	17/41	15/35	15/35	21/51	16/39	15/35	24/6	19/46	15/38	28/68	21/52	17/43	31/77	24/58	2/48	26/65	22/53	29/71			
	End/Int bearing_Member (in)	15/35	15/35	15/35	15/35	15/35	15/35	15/35	15/35	15/35	16/39	15/35	15/35	18/43	15/35	15/35	15/37	15/35	16/4			
	24	13'-4"	15'-4"	16'-10"	16'-8"	19'-2"	21'-0"	19'-8"	22'-6"	24'-9"	22'-5"	25'-8"	28'-3"	25'-3"	28'-10"	31'-8"	32'-0"	35'-1"	35'-2"	38'-6"	38'-3"	
	End/Int bearing_SPF Plate (in)	19/46	15/35	15/35	23/57	18/44	15/36	27/67	21/52	17/43	31/77	24/59	2/48	35/86	27/66	22/54	3/73	24/6	32/8	27/66	35/87	
	End/Int bearing_Member (in)	15/35	15/35	15/35	15/35	15/35	15/35	16/38	15/35	15/35	18/44	15/35	15/35	2/49	15/37	15/35	17/41	15/35	18/45	15/37	2/49	
	28	12'-8"	14'-7"	16'-0"	15'-10"	18'-2"	20'-0"	18'-8"	21'-5"	23'-6"	21'-4"	24'-5"	26'-10"	23'-11"	27'-5"	30'-2"	30'-5"	33'-5"	33'-5"	36'-8"	36'-5"	40'-0"
	End/Int bearing_SPF Plate (in)	21/51	16/39	15/35	26/63	2/49	16/4	3/75	23/57	19/47	34/85	26/65	22/54	39/96	3/73	24/6	33/81	27/67	36/89	3/73	39/97	32/8
	End/Int bearing_Member (in)	15/35	15/35	15/35	15/36	15/35	15/35	17/42	15/35	15/35	2/48	15/37	22/54	17/41	15/35	19/46	15/38	2/5	17/42	22/55	18/45	
	32	12'-1"	13'-11"	15'-4"	15'-2"	17'-4"	19'-2"	17'-10"	20'-5"	22'-6"	20'-4"	23'-4"	25'-8"	22'-11"	26'-3"	28'-10"	29'-2"	32'-0"	32'-0"	35'-2"	34'-10"	38'-3"
	End/Int bearing_SPF Plate (in)	23/56	17/43	15/35	28/69	22/53	18/44	33/81	25/62	21/52	37/93	29/71	24/59	42/104	32/8	27/66	36/89	3/73	39/97	32/8	43/106	35/87
	End/Int bearing_Member (in)	15/35	15/35	15/35	16/39	15/35	15/35	19/46	15/35	15/35	21/53	16/4	15/35	24/59	18/45	15/37	2/5	17/41	22/55	18/45	24/6	2/49
	36	11'-8"	13'-4"	14'-9"	14'-6"	16'-8"	17'-2"	19'-8"	19'-7"	21'-8"	19'-7"	22'-1"	24'-9"	22'-0"	25'-3"	27'-9"	28'-0"	30'-10"	30'-9"	33'-0"	33'-6"	36'-0"
	End/Int bearing_SPF Plate (in)	24/6	19/46	16/38	3/75	23/57	19/47	35/88	27/67	23/56	4/10	31/77	26/64	45/113	35/86	29/71	39/96	32/79	42/105	35/87	46/115	38/95
	End/Int bearing_Member (in)	15/35	15/35	15/35	17/42	15/35	15/35	2/5	16/38	15/35	23/57	18/44	15/36	26/64	2/49	16/4	22/54	18/45	24/59	2/49	26/65	22/53
	40	11'-3"	12'-1"	14'-3"	14'-0"	16'-1"	17'-9"	17'-9"	19'-9"	20'-11"	18'-7"	21'-5"	23'-7"	20'-11"	24'-4"	26'-10"	27'-0"	29'-4"	29'-4"	32'-3"	32'-5"	35'-7"
	End/Int bearing_SPF Plate (in)	26/64	2/49	17/41	32/8	25/61	21/51	38/94	29/72	24/6	43/108	33/82	28/68	49/121	37/93	31/77	41/103	34/85	45/113	38/93	49/123	41/101
	End/Int bearing_Member (in)	15/36	15/35	15/35	18/45	15/35	15/35	22/53	17/41	15/35	25/61	19/47	16/39	28/68	21/52	18/43	24/58	2/48	26/64	21/53	28/69	23/57

Snow Load of 40 psf

Dead Load of 15 psf

L/360

Beam Depth		9½"			11⅝"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
House Width [ft]	20	12'-5"	14'-3"	15'-9"	15'-6"	17'-10"	19'-7"	18'-4"	21'-0"	23'-1"	20'-11"	23'-11"	26'-4"	23'-6"	26'-11"	29'-7"	29'-10"	32'-10"	32'-10"	36'-0"	35'-9"	39'-3"
	End/Int bearing_SPF Plate (in)	23/58	18/44	15/37	29/72	22/55	18/45	34/84	26/65	22/53	39/96	3/74	25/61	44/108	33/83	28/68	37/92	31/76	41/101	33/83	44/111	36/9
	End/Int bearing_Member (in)	15/35	15/35	15/35	17/41	15/35	15/35	19/48	15/37	15/35	22/54	17/42	15/35	25/61	19/47	16/39	21/52	17/43	23/57	19/47	25/62	21/51
	24	11'-8"	13'-5"	14'-9"	14'-7"	16'-9"	18'-5"	17'-2"	19'-9"	21'-9"	19'-8"	22'-6"	24'-10"	22'-1"	25'-4"	27'-10"	28'-1"	30'-11"	30'-11"	33'-11"	33'-8"	37'-0"
	End/Int bearing_SPF Plate (in)	26/65	2/5	17/41	33/81	25/62	21/51	38/95	29/73	24/6	44/108	34/83	28/69	49/122	38/93	31/77	42/103	34/85	46/114	38/94	51/124	41/102
	End/Int bearing_Member (in)	15/37	15/35	15/35	19/46	15/35	15/35	22/54	17/41	15/35	25/61	19/47	16/39	28/69	21/53	18/44	24/58	2/48	26/64	22/53	28/7	23/58
	28	11'-1"	12'-9"	14'-0"	13'-10"	15'-11"	17'-6"	16'-4"	18'-9"	20'-11"	18'-7"	21'-5"	23'-7"	20'-11"	24'-4"	26'-10"	26'-8"	29'-4"	29'-4"	32'-3"	32'-5"	35'-2"
	End/Int bearing_SPF Plate (in)	29/72	22/55	19/46	36/89	28/69	23/57	42/105	33/81	27/67	48/112	37/92	31/76	54/135	42/103	34/85	46/115	38/95	51/126	42/104	55/137	46/113
	End/Int bearing_Member (in)	17/41	15/35	15/35	21/51	16/39	15/35	24/59	19/46	15/38	27/68	21/52	18/43	31/76	24/58	2/48	26/65	22/54	29/71	24/59	31/77	26/64
	32	10'-7"	12'-2"	13'-5"	13'-2"	16'-9"	15'-7"	17'-11"	19'-9"	20'-5"	22'-6"	20'-5"	23'-0"	23'-0"	25'-4"	27'-10"	27'-0"	29'-4"	29'-4"	32'-3"	32'-5"	35'-7"
	End/Int bearing_SPF Plate (in)	32/78	24/6	2/5	39/97	3/75	25/62	46/115	35/88	29/73	53/131	4/10	34/83	59/147	45/113	38/93	51/125	42/103	55/137	46/114	61/15	51/124
	End/Int bearing_Member (in)	18/44	15/35	15/35	22/55	17/42	15/35	26/65	2/5	17/41	3/74	23/57	19/47	34/83	26/64	21/53	29/71	24/58	31/78	26/64	34/85	28/7
	36	10'-2"	11'-8"	12'-11"	12'-8"	14'-7"	16'-1"	14'-11"	17'-2"	19'-0"	17'-1"	19'-8"	21'-8"	19'-2"	22'-1"	24'-4"	24'-6"	27'-0"	26'-11"	29'-8"	29'-4"	32'-4"
	End/Int bearing_SPF Plate (in)	34/84	26/65	22/54	42/105	33/81	27/67	51/124	38/95	32/79	57/141	44/108	36/9	64/159	49/122	41/101	54/135	45/112	61/149	49/123	65/162	54/134
	End/Int bearing_Member (in)	19/48	15/37	15/35	24/59	19/46	15/38	28/7	22/54	18/45	32/8	25/61	21/51	36/9	28/69	23/57	31/76	26/63	34/84	28/69	37/91	31/76
	40	9'-9"	11'-3"	12'-5"	12'-2"	14'-1"	15'-6"	14'-5"	16'-7"	18'-4"	16'-5"	18'-1"	20'-11"	18'-6"	21'-3"	23'-6"	23'-8"	26'-1"	26'-0"	28'-8"	28'-4"	31'-3"
	End/Int bearing_SPF Plate (in)	36/9	28/69	23/58	45/113	35/87	29/72	53/132	41/102	34/84	61/151	47/116	39/96	68/17	53/131	44/108	58/145	48/112	64/159	53/132	71/174	58/144
	End/Int bearing_Member (in)	21/51	16/39	15/35	26/64	2/49	17/41	3/75	23/58	19/48	34/85	27/66	22/54	39/96	3/74	25/61	33/82	27/68	36/9	3/74	39/98	33/81

Snow Load of 60 psf

Dead Load of 15 psf

L/360

Beam Depth		9½"			11⅝"			14"			16"			18"			20"		22"		24"	
Beam Width		3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	3½"	5¼"	7"	5¼"	7"	5¼"	7"	5¼"	7"
House Width [ft]	20	10'-11"	12'-7"	13'-11"	13'-8"	15'-9"	17'-5"	16'-1"	18'-7"	20'-6"	18'-5"	21'-3"	23'-5"	20'-9"	23'-10"	26'-4"	26'-6"	29'-4"	29'-2"	32'-3"	31'-10"	35'-2"
	End/Int bearing_SPF Plate (in)	28/7	22/54	18/45	35/87	27/67	23/56	41/102	32/79	26/65	47/117	36/9	3/75	53/132	41/101	34/84	45/112	38/93	5/124	41/102	54/135	45/112
	End/Int bearing_Member (in)	16/39	15/35	15/35	2/49	15/38	15/35	23/58	18/45	15/37	27/66	21/51	17/42	3/74	23/57	19/47	26/63	21/53	28/7	23/58	31/76	26/63
	24	10'-3"	11'-10"	13'-1"	12'-10"	14'-9"	16'-4"	15'-1"	17'-5"	19'-3"	17'-3"	19'-11"	22'-0"	19'-5"	22'-5"	24'-9"	24'-11"	27'-6"	27'-5"	30'-3"	29'-1"	33'-0"
	End/Int bearing_SPF Plate (in)	32/78	24/6	2/5	39/98	3/75	25/62	46/115	36/89	3/74	53/132	41/101	34/84	61/148	46/114	38/94	51/126	42/105	56/139	46/115	61/152	51/126
	End/Int bearing_Member (in)	18/44	15/35	15/35	22/55	17/43	15/35	26/65	2/5	17/42	3/74	23/57	19/48	34/84	26/64	22/53	29/71	24/59	32/79	26/65	35/86	29/71
	28	9'-8"	11'-2"	12'-4"	12'-1"	14'-0"	15'-6"	14'-4"	16'-6"	18'-3"	16'-4"	18'-10"	20'-10"	18'-5"	21'-3"	23'-6"	23'-7"	26'-1"	25'-11"	28'-8"	28'-4"	31'-4"
	End/Int bearing_SPF Plate (in)	35/87	27/67	22/55	44/108	34/83	28/69	51/127	39/98	33/81	58/145	45/112	37/93	66/163	51/126	42/104	56/144	47/116	62/154	51/128	67/168	56/139
	End/Int bearing_Member (in)	2/49	15/38	15/35	25/61	19/47	16/39	29/72	22/55	19/46	33/82	26/63	21/53	37/92	29/71	24/59	32/79	27/66	35/87	29/72	38/95	32/79
	32	9'-3"	10'-8"	11'-10"	11'-7"	13'-4"	14'-9"	13'-8"	15'-9"	17'-5"	15'-7"	18'-0"	19'-11"	17'-6"	20'-3"	22'-5"	22'-6"	24'-1"	24'-9"	27'-5"	27'-0"	29'-11"
	End/Int bearing_SPF Plate (in)	38/94	29/73	24/6	47/118	37/91	3/75	56/139	43/107	36/89	64/158	49/122	41/101	72/178	55/137	46/114	61/152	51/126	67/168	56/139	73/183	61/152
	End/Int bearing_Member (in)	22/53	17/41	15/35	27/66	21/51	17/43	32/78	24/6	2/5	36/89	28/69	23/57	41/101	31/77	26/64	35/86	29/71	38/95	32/79	42/103	35/86
36	8'-10"	10'-3"	11'-4"	11'-1"	12'-10"	14'-2"	13'-1"	15'-1"	16'-8"	14'-1"	17'-3"	19'-1"	16'-10"	19'-5"	21'-6"	21'-7"	21'-3"	23'-1"	23'-9"	26'-3"	25'-1"	28'-8"
End/Int bearing_SPF Plate (in)	41/102	32/78	26/65	51/127	39/98	33/81	6/149	46/115	39/96	69/171	53/132	44/109	77/192	6/148	49/123	66/166	54/133	73/181	6/15	79/197	66/166	
End/Int bearing_Member (in)	23/57	18/44	15/37	29/72	22/55	19/46	34/84	26/65	22/54	39/96	3/74	25/62	44/108	34/84	28/69	37/93	31/77	41/102	34/85	45/111	37/92	
40	8'-5"	9'-10"	10'-11"	10'-7"	12'-4"	13'-8"	12'-5"	14'-7"	16'-1"	14'-2"	16'-8"	18'-5"	16'-0"	18'-9"	20'-8"	20'-10"	20'-10"	22'-1"	25'-4"	25'-0"	27'-8"	
End/Int bearing_SPF Plate (in)	43/108	34/84	28/7	54/134	42/105	35/87	64/158	5/123	41/102	73/181	57/141	47/117	81/203	64/158	53/132	70/176	59/146	78/194	65/161	85/211	7/175	
End/Int bearing_Member (in)	25/61	19/47	16/39	31/76	24/59	2/49	36/89	28/7	23/58	41/102	32/8	27/66	46/114	36/89	3/74	4/99	33/83	44/109	37/91	48/119	4/99	

Header Span Tables - Roof Only

Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Dead Load of 15 psf

L/240

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	8' - 7"	9' - 10"	11' - 3"	12' - 11"	14' - 4"	16' - 6"	14' - 9"	16' - 11"	17' - 6"	20' - 0"	18' - 5"	21' - 9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.7	1.5	1.7	1.5	2.0	1.6	2.1	1.6
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	8' - 1"	9' - 4"	10' - 8"	12' - 3"	13' - 8"	15' - 8"	14' - 0"	16' - 1"	16' - 7"	19' - 0"	17' - 6"	20' - 1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.9	1.5	2.0	1.5	2.3	1.8	2.4	1.9
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	7' - 9"	8' - 11"	10' - 3"	11' - 9"	13' - 0"	15' - 0"	13' - 5"	15' - 4"	15' - 10"	18' - 2"	16' - 9"	19' - 2"
End bearing_SPF Plate (in)	1.5	1.5	1.7	1.5	2.1	1.6	2.2	1.7	2.6	2.0	2.7	2.1
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	7' - 5"	8' - 7"	9' - 10"	11' - 3"	12' - 6"	14' - 4"	12' - 10"	14' - 9"	15' - 3"	17' - 6"	16' - 1"	18' - 5"
End bearing_SPF Plate (in)	1.5	1.5	1.8	1.5	2.3	1.8	2.4	1.8	2.8	2.2	3.0	2.3
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	7' - 2"	8' - 3"	9' - 6"	10' - 10"	12' - 1"	13' - 10"	12' - 5"	14' - 3"	14' - 8"	16' - 10"	15' - 6"	17' - 10"
End bearing_SPF Plate (in)	1.5	1.5	2.0	1.5	2.5	1.9	2.6	2.0	3.1	2.3	3.2	2.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	6' - 11"	8' - 0"	9' - 2"	10' - 6"	11' - 8"	13' - 5"	12' - 0"	13' - 9"	14' - 2"	16' - 4"	15' - 0"	17' - 3"
End bearing_SPF Plate (in)	1.6	1.5	2.1	1.6	2.7	2.1	2.8	2.1	3.3	2.5	3.4	2.7
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.9	1.5	2.0	1.5

Snow Load of 40 psf

Dead Load of 15 psf

L/240

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	7' - 6"	8' - 7"	9' - 10"	11' - 4"	12' - 7"	14' - 5"	12' - 11"	14' - 10"	15' - 3"	17' - 6"	16' - 1"	18' - 6"
End bearing_SPF Plate (in)	1.5	1.5	1.9	1.5	2.4	1.8	2.4	1.9	2.9	2.2	3.0	2.3
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	7' - 1"	8' - 2"	9' - 4"	10' - 9"	11' - 11"	13' - 8"	12' - 3"	14' - 1"	14' - 5"	16' - 8"	15' - 2"	17' - 7"
End bearing_SPF Plate (in)	1.6	1.5	2.1	1.6	2.7	2.1	2.7	2.1	3.2	2.5	3.4	2.6
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.8	1.5	1.9	1.5
28	6' - 9"	7' - 9"	8' - 11"	10' - 3"	11' - 3"	13' - 1"	11' - 6"	13' - 5"	13' - 6"	15' - 11"	14' - 2"	16' - 9"
End bearing_SPF Plate (in)	1.8	1.5	2.3	1.8	2.9	2.3	3.0	2.4	3.5	2.8	3.7	2.9
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.7	1.5	1.7	1.5	2.0	1.6	2.1	1.7
32	6' - 6"	7' - 6"	8' - 5"	9' - 10"	10' - 7"	12' - 7"	10' - 10"	12' - 11"	12' - 9"	15' - 3"	13' - 5"	16' - 1"
End bearing_SPF Plate (in)	2.0	1.5	2.5	2.0	3.2	2.5	3.2	2.6	3.8	3.0	4.0	3.2
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.8	1.5	1.8	1.5	2.2	1.7	2.3	1.8
36	6' - 2"	7' - 2"	8' - 0"	9' - 6"	10' - 0"	12' - 1"	10' - 3"	12' - 5"	12' - 1"	14' - 9"	12' - 8"	15' - 6"
End bearing_SPF Plate (in)	2.1	1.6	2.7	2.1	3.4	2.7	3.5	2.8	4.0	3.3	4.2	3.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.9	1.6	2.0	1.6	2.3	1.9	2.4	2.0
40	5' - 10"	7' - 0"	7' - 7"	9' - 2"	9' - 7"	11' - 8"	9' - 10"	12' - 0"	11' - 6"	14' - 1"	12' - 1"	14' - 10"
End bearing_SPF Plate (in)	2.2	1.8	2.8	2.3	3.6	2.9	3.7	3.0	4.3	3.5	4.5	3.7
End bearing_Member (in)	1.5	1.5	1.6	1.5	2.0	1.7	2.1	1.7	2.4	2.0	2.6	2.1

Snow Load of 60 psf

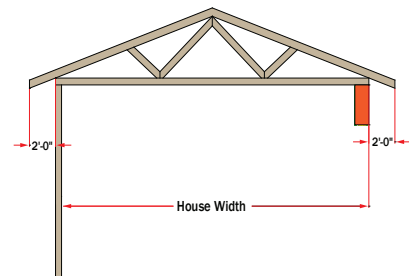
Dead Load of 15 psf

L/240

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	6' - 9"	7' - 9"	8' - 10"	10' - 3"	11' - 2"	13' - 1"	11' - 5"	13' - 5"	13' - 5"	15' - 11"	14' - 1"	16' - 10"
End bearing_SPF Plate (in)	1.8	1.5	2.3	1.8	2.9	2.3	2.9	2.3	3.4	2.7	3.6	2.9
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.6	1.5	1.7	1.5	2.0	1.6	2.1	1.6
24	6' - 4"	7' - 5"	8' - 2"	9' - 9"	10' - 4"	12' - 5"	10' - 7"	12' - 9"	12' - 5"	15' - 1"	13' - 1"	15' - 11"
End bearing_SPF Plate (in)	2.0	1.6	2.5	2.0	3.2	2.6	3.3	2.6	3.8	3.1	4.0	3.3
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.8	1.5	1.9	1.5	2.2	1.8	2.3	1.9
28	5' - 11"	7' - 1"	7' - 8"	9' - 4"	9' - 8"	11' - 10"	9' - 11"	12' - 1"	11' - 8"	13' - 3"	12' - 3"	15' - 0"
End bearing_SPF Plate (in)	2.2	1.7	2.8	2.3	3.5	2.8	3.6	2.9	4.2	3.4	4.4	3.6
End bearing_Member (in)	1.5	1.5	1.6	1.5	2.0	1.6	2.0	1.7	2.4	1.9	2.5	2.0
32	5' - 7"	6' - 9"	7' - 3"	8' - 10"	9' - 1"	11' - 2"	9' - 4"	11' - 5"	11' - 0"	13' - 5"	11' - 6"	14' - 1"
End bearing_SPF Plate (in)	2.3	1.9	3.0	2.4	3.7	3.1	3.8	3.1	4.5	3.7	4.7	3.9
End bearing_Member (in)	1.5	1.5	1.7	1.5	2.1	1.7	2.2	1.8	2.6	2.1	2.7	2.2
36	5' - 3"	6' - 6"	6' - 10"	8' - 5"	8' - 8"	10' - 7"	8' - 10"	10' - 10"	10' - 5"	12' - 9"	10' - 11"	13' - 5"
End bearing_SPF Plate (in)	2.5	2.0	3.2	2.6	4.0	3.3	4.1	3.4	4.8	3.9	5.0	4.1
End bearing_Member (in)	1.5	1.5	1.8	1.5	2.3	1.9	2.3	1.9	2.7	2.2	2.9	2.3
40	5' - 0"	6' - 2"	6' - 6"	8' - 0"	8' - 3"	10' - 1"	8' - 5"	10' - 4"	9' - 11"	12' - 2"	10' - 5"	12' - 9"
End bearing_SPF Plate (in)	2.6	2.1	3.4	2.8	4.2	3.5	4.3	3.5	5.1	4.2	5.3	4.4
End bearing_Member (in)	1.5	1.5	1.9	1.6	2.4	2.0	2.5	2.0	2.9	2.4	3.0	2.5

NOTES:

- This table has been established using a Live Load deflection equal to L / 240 and a Total Load deflection limit equal to L / 180.
- This table assumes a maximum roof slope of 12/12 and a 24" soffit.
- This table assumes uniform loads and simple span headers.
- Table values are based on SPF specified compression strength perpendicular to grain for plate of 769 psi.
- Minimum bearing lengths required are based on a minimum bearing width equal to or greater than the width of the supported beam.
- Span is measured center to center of the supports.
- Table values assume that lateral support is provided at each support and continuously along the compression edge of the beam.



Header Span Tables - Roof Only

15

Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	7'-9"	8'-11"	10'-2"	11'-9"	13'-0"	14'-11"	13'-4"	15'-4"	15'-10"	18'-2"	16'-8"	19'-2"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	7'-4"	8'-5"	9'-8"	11'-1"	12'-4"	14'-2"	12'-8"	14'-7"	15'-0"	17'-3"	15'-10"	18'-2"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	7'-0"	8'-1"	9'-3"	10'-7"	11'-10"	13'-7"	12'-1"	13'-11"	14'-4"	16'-6"	15'-2"	17'-4"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	6'-9"	7'-9"	8'-11"	10'-2"	11'-4"	13'-0"	11'-8"	13'-4"	13'-9"	15'-10"	14'-6"	16'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	6'-6"	7'-6"	8'-7"	9'-10"	10'-11"	12'-7"	11'-3"	12'-11"	13'-3"	15'-3"	14'-0"	16'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	6'-3"	7'-3"	8'-3"	9'-6"	10'-7"	12'-2"	10'-10"	12'-6"	12'-10"	14'-9"	13'-7"	15'-7"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 40 psf

Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	6'-9"	7'-9"	8'-11"	10'-3"	11'-4"	13'-1"	11'-8"	13'-5"	13'-10"	15'-10"	14'-7"	16'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	6'-5"	7'-4"	8'-5"	9'-9"	10'-9"	12'-5"	11'-1"	12'-9"	13'-1"	15'-1"	13'-10"	15'-11"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	6'-1"	7'-0"	8'-1"	9'-3"	10'-3"	11'-10"	10'-7"	12'-2"	12'-6"	14'-5"	13'-2"	15'-2"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	5'-10"	6'-9"	7'-9"	8'-11"	9'-10"	11'-4"	10'-2"	11'-8"	12'-0"	13'-10"	12'-8"	14'-7"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	5'-8"	6'-6"	7'-5"	8'-7"	9'-6"	10'-11"	9'-9"	11'-3"	11'-7"	13'-4"	12'-2"	14'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	5'-5"	6'-4"	7'-2"	8'-4"	9'-2"	10'-7"	9'-5"	10'-11"	11'-2"	12'-11"	11'-4"	13'-7"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 60 psf

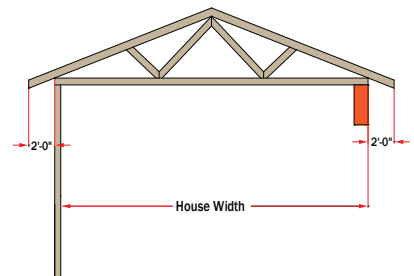
Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-11"	6'-10"	7'-10"	9'-0"	10'-0"	11'-6"	10'-3"	11'-10"	12'-1"	14'-0"	12'-10"	14'-9"
End bearing_SPF Plate (in)	1.6	1.5	2.0	1.6	2.6	2.0	3.1	2.4	3.3	2.5	3.9	3.0
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-7"	6'-5"	7'-5"	8'-6"	9'-5"	10'-11"	9'-8"	11'-2"	11'-6"	13'-3"	12'-1"	14'-0"
End bearing_SPF Plate (in)	1.8	1.5	2.3	1.8	2.9	2.3	3.0	2.3	3.5	2.7	3.7	2.9
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	5'-4"	6'-2"	7'-0"	8'-2"	9'-0"	10'-5"	9'-3"	10'-8"	10'-11"	12'-8"	11'-7"	13'-4"
End bearing_SPF Plate (in)	1.9	1.5	2.6	2.0	3.2	2.5	3.3	2.6	3.9	3.0	4.2	3.2
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	5'-1"	5'-11"	6'-9"	7'-10"	8'-7"	10'-0"	8'-10"	10'-3"	10'-6"	12'-1"	11'-1"	12'-10"
End bearing_SPF Plate (in)	2.1	1.7	2.8	2.2	3.5	2.7	3.6	2.8	4.3	3.3	4.5	3.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-11"	5'-8"	6'-6"	7'-6"	8'-4"	9'-7"	8'-6"	9'-10"	10'-1"	11'-8"	10'-8"	12'-4"
End bearing_SPF Plate (in)	2.3	1.8	3.0	2.3	3.8	3.0	3.9	3.0	4.7	3.6	4.9	3.8
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-9"	5'-6"	6'-3"	7'-3"	8'-0"	9'-3"	8'-3"	9'-6"	9'-9"	11'-3"	10'-4"	11'-11"
End bearing_SPF Plate (in)	2.5	1.9	3.2	2.5	4.1	3.2	4.2	3.3	5.0	3.9	5.3	4.1
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

NOTES:

- This table has been established using a Live Load deflection equal to L / 360 and a Total Load deflection limit equal to L / 240.
- This table assumes a maximum roof slope of 12/12 and a 24" soffit.
- This table assumes uniform loads and simple span headers.
- Table values are based on SPF specified compression strength perpendicular to grain for plate of 769 psi.
- Minimum bearing lengths required are based on a minimum bearing width equal to or greater than the width of the supported beam.
- Span is measured center to center of the supports.
- Table values assume that lateral support is provided at each support and continuously along the compression edge of the beam.



Header Span Tables - Roof + One Storey (No Center Bearing)

Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11½"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-9"	6'-8"	7'-7"	8'-9"	9'-9"	10'-0"	11'-6"	11'-10"	12'-6"	14'-5"	14'-9"	16'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-6"	6'-4"	7'-3"	8'-4"	9'-3"	10'-7"	9'-6"	10'-11"	11'-3"	12'-11"	13'-8"	13'-11"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	5'-2"	6'-0"	6'-10"	7'-11"	8'-9"	10'-2"	9'-0"	10'-5"	10'-8"	12'-4"	11'-3"	13'-0"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	5'-0"	5'-9"	6'-7"	7'-7"	8'-5"	9'-9"	8'-8"	10'-0"	10'-3"	11'-10"	10'-9"	12'-6"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-10"	5'-7"	6'-4"	7'-4"	8'-1"	9'-4"	8'-3"	9'-7"	9'-9"	11'-5"	10'-3"	12'-0"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-8"	5'-4"	6'-1"	7'-1"	7'-8"	9'-1"	7'-11"	9'-4"	9'-3"	11'-0"	9'-9"	11'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 40 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11½"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-5"	6'-3"	7'-1"	8'-3"	9'-1"	10'-6"	9'-4"	10'-9"	11'-1"	12'-9"	11'-8"	13'-6"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-1"	5'-11"	6'-9"	7'-9"	8'-7"	9'-11"	8'-10"	10'-2"	10'-6"	12'-1"	11'-1"	12'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-10"	5'-7"	6'-5"	7'-5"	8'-2"	9'-6"	8'-4"	9'-9"	9'-10"	11'-6"	10'-4"	12'-2"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-8"	5'-5"	6'-1"	7'-1"	7'-8"	9'-1"	7'-11"	9'-4"	9'-3"	11'-1"	9'-9"	11'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-5"	5'-2"	5'-9"	6'-10"	7'-3"	8'-9"	7'-6"	9'-0"	8'-9"	10'-8"	9'-3"	11'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-3"	5'-0"	5'-6"	6'-7"	6'-11"	8'-5"	7'-2"	8'-8"	8'-4"	10'-3"	8'-10"	10'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 60 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

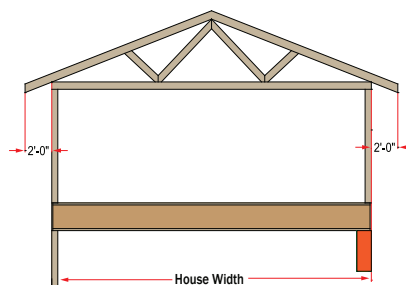
Floor Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11½"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-0"	5'-10"	6'-8"	7'-8"	8'-6"	9'-10"	8'-9"	10'-1"	10'-4"	12'-0"	10'-11"	12'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	4'-9"	5'-6"	6'-3"	7'-3"	8'-0"	9'-3"	8'-3"	9'-6"	9'-8"	11'-3"	10'-2"	11'-11"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-6"	5'-3"	5'-11"	6'-11"	7'-6"	8'-10"	7'-8"	9'-1"	9'-0"	11'-4"	10'-9"	11'-11"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-4"	5'-0"	5'-7"	6'-7"	7'-1"	8'-5"	7'-3"	8'-8"	8'-6"	10'-3"	9'-11"	10'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-0"	4'-10"	5'-4"	6'-4"	6'-8"	8'-1"	6'-10"	8'-4"	8'-1"	9'-10"	8'-6"	10'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	3'-9"	4'-8"	4'-11"	6'-1"	6'-4"	7'-10"	6'-6"	8'-0"	7'-8"	9'-5"	8'-1"	9'-11"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

NOTES:

- This table has been established using a Live Load deflection equal to L / 360 and a Total Load deflection limit equal to L / 240.
- This table assumes a maximum roof slope of 12/12 and a 24" soffit.
- This table assumes uniform loads and simple span headers.
- Table values assume that lateral support is provided at each support and continuously along the compression edge of the beam.
- Table values are based on SPF specified compression strength perpendicular to grain for plate of 769 psi.
- Minimum bearing lengths required are based on a minimum bearing width equal to or greater than the width of the supported beam.
- Span is measured center to center of the supports.
- Table values assume an exterior wall dead load of 100 plf.



Header Span Tables - Roof + One Storey (No Center Bearing)

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Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/480

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-7"	6'-5"	7'-4"	8'-6"	9'-5"	10'-10"	9'-8"	11'-1"	11'-5"	13'-2"	12'-1"	13'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-3"	6'-0"	6'-11"	8'-0"	8'-10"	10'-2"	9'-1"	10'-6"	10'-9"	12'-5"	11'-4"	13'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-11"	5'-9"	6'-7"	7'-7"	8'-4"	9'-8"	8'-7"	9'-11"	10'-2"	11'-9"	10'-9"	12'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-9"	5'-6"	6'-3"	7'-3"	8'-0"	9'-3"	8'-2"	9'-6"	9'-9"	11'-3"	10'-3"	11'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-6"	5'-3"	6'-0"	6'-11"	7'-8"	8'-10"	7'-10"	9'-1"	9'-4"	10'-10"	9'-10"	11'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-4"	5'-1"	5'-9"	6'-8"	7'-4"	8'-7"	7'-7"	8'-9"	9'-0"	10'-5"	9'-6"	11'-0"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 40 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/480

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	4'-11"	5'-9"	6'-7"	7'-7"	8'-4"	9'-8"	8'-7"	9'-11"	10'-2"	11'-9"	10'-9"	12'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	4'-8"	5'-5"	6'-2"	7'-2"	7'-10"	9'-1"	8'-1"	9'-4"	9'-7"	11'-1"	10'-1"	11'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-5"	5'-2"	5'-10"	6'-9"	7'-6"	8'-8"	7'-8"	8'-11"	9'-1"	10'-6"	9'-7"	11'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-3"	4'-11"	5'-7"	6'-6"	7'-1"	8'-3"	7'-4"	8'-6"	8'-8"	10'-1"	9'-2"	10'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-1"	4'-8"	5'-4"	6'-3"	6'-10"	7'-11"	7'-0"	8'-2"	8'-4"	9'-8"	8'-9"	10'-2"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	3'-11"	4'-6"	5'-2"	6'-0"	6'-7"	7'-8"	6'-9"	7'-10"	8'-0"	9'-4"	8'-6"	9'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 60 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

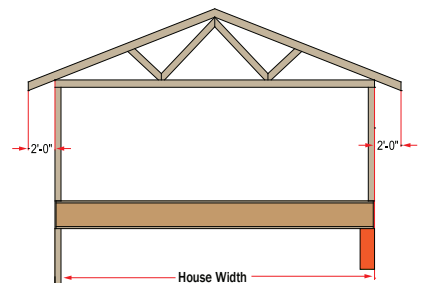
Floor Dead Load of 15 psf

L/480

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	4'-6"	5'-3"	6'-0"	6'-11"	7'-8"	8'-10"	7'-10"	9'-1"	9'-4"	10'-10"	9'-10"	11'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	4'-3"	4'-11"	5'-8"	6'-7"	7'-2"	8'-4"	7'-5"	8'-7"	8'-9"	10'-2"	9'-3"	10'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-1"	4'-8"	5'-4"	6'-3"	6'-10"	7'-11"	7'-0"	8'-2"	8'-4"	9'-8"	8'-9"	10'-2"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	3'-10"	4'-6"	5'-1"	5'-11"	6'-6"	7'-7"	6'-8"	7'-10"	7'-11"	9'-3"	8'-5"	9'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	3'-8"	4'-4"	4'-11"	5'-8"	6'-3"	7'-3"	6'-5"	7'-6"	7'-7"	8'-10"	8'-1"	9'-4"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	3'-7"	4'-2"	4'-9"	5'-6"	6'-0"	7'-0"	6'-2"	7'-3"	7'-4"	8'-7"	7'-9"	9'-0"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

NOTES:

- This table has been established using a Live Load deflection equal to L / 480 and a Total Load deflection limit equal to L / 240.
- This table assumes a maximum roof slope of 12/12 and a 24" soffit.
- This table assumes uniform loads and simple span headers.
- Table values assume that lateral support is provided at each support and continuously along the compression edge of the beam.
- Table values are based on SPF specified compression strength perpendicular to grain for plate of 769 psi.
- Minimum bearing lengths required are based on a minimum bearing width equal to or greater than the width of the supported beam.
- Span is measured center to center of the supports.
- Table values assume an exterior wall dead load of 100 plf.



Header Span Tables - Roof + One Storey (Center Bearing)

Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11½"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	5¼"	5¼"
20	6'-4"	7'-4"	8'-5"	9'-8"	10'-9"	12'-4"	11'-0"	12'-8"	13'-0"	15'-0"	13'-9"	15'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	6'-1"	7'-0"	8'-0"	9'-2"	10'-2"	11'-9"	10'-5"	12'-0"	12'-5"	14'-3"	13'-1"	15'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	5'-9"	6'-8"	7'-7"	8'-9"	9'-9"	11'-3"	10'-0"	11'-6"	11'-10"	13'-8"	12'-6"	14'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	5'-7"	6'-5"	7'-4"	8'-5"	9'-4"	10'-9"	9'-7"	11'-1"	11'-5"	13'-1"	12'-0"	13'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	5'-4"	6'-2"	7'-1"	8'-2"	9'-0"	10'-5"	9'-3"	10'-8"	11'-0"	12'-8"	11'-7"	13'-4"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	5'-2"	6'-0"	6'-10"	7'-11"	8'-9"	10'-1"	9'-0"	10'-4"	10'-7"	12'-3"	11'-2"	12'-11"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 40 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11½"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	5¼"	5¼"
20	5'-10"	6'-9"	7'-8"	8'-11"	9'-10"	11'-4"	10'-1"	11'-8"	12'-0"	13'-9"	12'-8"	14'-7"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-6"	6'-5"	7'-4"	8'-5"	9'-4"	10'-9"	9'-7"	11'-1"	11'-4"	13'-1"	12'-0"	13'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	5'-3"	6'-1"	7'-0"	8'-1"	8'-11"	10'-4"	9'-2"	10'-7"	10'-10"	12'-6"	11'-5"	13'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	5'-1"	5'-10"	6'-8"	7'-9"	8'-7"	9'-11"	8'-9"	10'-2"	10'-5"	12'-0"	11'-0"	12'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-11"	5'-8"	6'-5"	7'-6"	8'-3"	9'-6"	8'-5"	9'-10"	9'-11"	11'-7"	10'-5"	12'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-9"	5'-6"	6'-3"	7'-3"	7'-10"	9'-3"	8'-1"	9'-6"	9'-6"	11'-3"	10'-0"	11'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 60 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

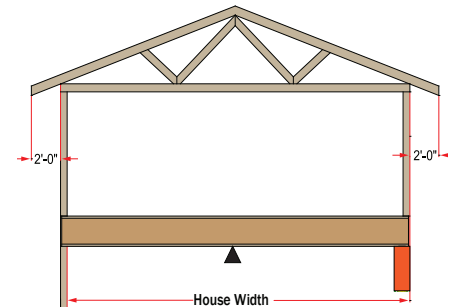
Floor Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11½"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	5¼"	5¼"
20	5'-5"	6'-3"	7'-2"	8'-3"	9'-2"	10'-7"	9'-4"	10'-10"	11'-1"	12'-10"	11'-9"	13'-7"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-1"	5'-11"	6'-9"	7'-10"	8'-7"	9'-10"	8'-10"	10'-3"	10'-6"	12'-1"	11'-1"	12'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-10"	5'-7"	6'-5"	7'-5"	8'-2"	9'-6"	8'-5"	9'-9"	10'-0"	11'-7"	10'-6"	12'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-8"	5'-5"	6'-2"	7'-1"	7'-10"	9'-1"	8'-0"	9'-4"	9'-5"	11'-1"	10'-8"	12'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-6"	5'-2"	5'-11"	6'-10"	7'-5"	8'-9"	8'-9"	9'-0"	9'-1"	11'-3"	10'-8"	12'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-4"	5'-0"	5'-7"	6'-7"	7'-1"	8'-3"	8'-6"	9'-0"	9'-0"	10'-10"	10'-6"	12'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

NOTES:

- This table has been established using a Live Load deflection equal to L / 360 and a Total Load deflection limit equal to L / 240.
- This table assumes a maximum roof slope of 12/12 and a 24" soffit.
- This table assumes uniform loads and simple span headers.
- Table values assume that lateral support is provided at each support and continuously along the compression edge of the beam.
- Table values are based on SPF specified compression strength perpendicular to grain for plate of 769 psi.
- Minimum bearing lengths required are based on a minimum bearing width equal to or greater than the width of the supported beam.
- Span is measured center to center of the supports.
- Table values assume an exterior wall dead load of 100 plf.



Header Span Tables - Roof + One Storey (Center Bearing)

19

Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/480

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	6'-4"	7'-4"	8'-5"	9'-8"	10'-8"	11'-0"	12'-8"	13'-0"	15'-0"	15'-10"	16'-3"	18'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	6'-0"	6'-11"	7'-11"	9'-1"	10'-1"	11'-8"	10'-4"	11'-11"	12'-3"	14'-2"	13'-0"	14'-11"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	5'-8"	6'-7"	7'-6"	8'-8"	9'-7"	11'-1"	9'-10"	11'-4"	11'-8"	13'-6"	12'-4"	14'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	5'-5"	6'-3"	7'-2"	8'-4"	9'-2"	10'-7"	9'-5"	10'-11"	11'-2"	12'-11"	11'-10"	13'-7"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	5'-3"	6'-0"	6'-11"	8'-0"	8'-10"	10'-2"	9'-1"	10'-6"	10'-9"	12'-5"	11'-4"	13'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	5'-0"	5'-10"	6'-8"	7'-8"	8'-6"	9'-10"	8'-9"	10'-1"	10'-4"	12'-0"	10'-11"	12'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 40 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/480

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-5"	6'-3"	7'-2"	8'-4"	9'-2"	10'-7"	9'-5"	10'-11"	11'-2"	12'-11"	11'-10"	13'-7"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-2"	5'-11"	6'-9"	7'-10"	8'-8"	10'-0"	8'-11"	10'-3"	10'-6"	12'-2"	11'-1"	12'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-10"	5'-8"	6'-5"	7'-5"	8'-3"	9'-6"	8'-5"	9'-9"	10'-0"	11'-7"	10'-7"	12'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-8"	5'-5"	6'-2"	7'-2"	7'-10"	9'-1"	8'-1"	9'-4"	9'-7"	11'-1"	10'-1"	11'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-6"	5'-2"	5'-11"	6'-10"	7'-7"	8'-9"	7'-9"	9'-0"	9'-2"	10'-8"	9'-9"	11'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-4"	5'-0"	5'-8"	6'-7"	7'-3"	8'-5"	7'-6"	8'-8"	8'-10"	10'-4"	9'-4"	10'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 60 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

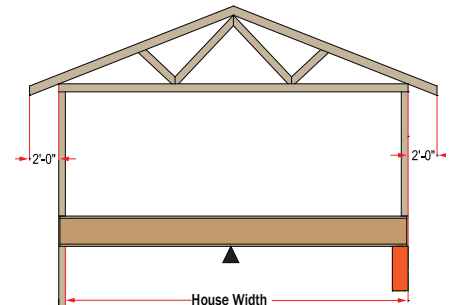
Floor Dead Load of 15 psf

L/480

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	4'-10"	5'-8"	6'-5"	7'-5"	8'-3"	9'-6"	8'-5"	9'-9"	10'-0"	11'-7"	10'-7"	12'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	4'-7"	5'-4"	6'-1"	7'-0"	7'-9"	9'-0"	8'-0"	9'-3"	9'-5"	10'-11"	10'-0"	11'-7"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-4"	5'-1"	5'-9"	6'-8"	7'-4"	8'-7"	7'-7"	8'-9"	9'-0"	10'-5"	9'-6"	11'-0"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-2"	4'-10"	5'-6"	6'-5"	7'-1"	8'-2"	7'-3"	8'-5"	8'-7"	10'-0"	9'-1"	10'-6"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-0"	4'-8"	5'-4"	6'-2"	6'-9"	7'-10"	6'-11"	8'-1"	8'-3"	9'-7"	8'-8"	10'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	3'-10"	4'-6"	5'-1"	5'-11"	6'-6"	7'-7"	6'-8"	7'-10"	7'-11"	9'-3"	8'-5"	9'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

NOTES:

- This table has been established using a Live Load deflection equal to L / 480 and a Total Load deflection limit equal to L / 240.
- This table assumes a maximum roof slope of 12/12 and a 24" soffit.
- This table assumes uniform loads and simple span headers.
- Table values assume that lateral support is provided at each support and continuously along the compression edge of the beam.
- Table values are based on SPF specified compression strength perpendicular to grain for plate of 769 psi.
- Minimum bearing lengths required are based on a minimum bearing width equal to or greater than the width of the supported beam.
- Span is measured center to center of the supports.
- Table values assume an exterior wall dead load of 100 plf.



Header Span Tables - Roof + Two Storeys (Center Bearing)

Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-7"	6'-6"	7'-5"	8'-7"	9'-5"	10'-11"	9'-8"	11'-2"	11'-6"	13'-3"	12'-2"	14'-0"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-4"	6'-2"	7'-0"	8'-1"	9'-0"	10'-4"	9'-3"	10'-8"	10'-11"	12'-7"	11'-6"	13'-4"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	5'-1"	5'-11"	6'-9"	7'-9"	8'-7"	9'-11"	8'-10"	10'-2"	10'-5"	12'-1"	11'-0"	12'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-11"	5'-8"	6'-5"	7'-6"	8'-3"	9'-6"	8'-6"	9'-10"	10'-0"	11'-7"	10'-6"	12'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-9"	5'-5"	6'-3"	7'-2"	7'-11"	9'-2"	8'-1"	9'-5"	9'-6"	11'-2"	10'-0"	11'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-7"	5'-3"	6'-0"	7'-0"	7'-6"	8'-11"	7'-9"	9'-2"	9'-1"	10'-10"	9'-7"	11'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 40 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-3"	6'-1"	6'-11"	8'-0"	8'-10"	10'-3"	9'-1"	10'-6"	10'-10"	12'-6"	11'-5"	13'-2"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-0"	5'-9"	6'-7"	7'-8"	8'-5"	9'-9"	8'-8"	10'-0"	10'-3"	11'-10"	10'-9"	12'-6"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-9"	5'-6"	6'-4"	7'-3"	8'-0"	9'-4"	8'-2"	9'-7"	9'-7"	11'-4"	10'-1"	12'-0"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-7"	5'-4"	6'-0"	7'-0"	7'-6"	8'-11"	7'-9"	9'-2"	9'-1"	10'-11"	9'-7"	11'-6"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-4"	5'-1"	5'-8"	6'-9"	7'-2"	8'-8"	7'-4"	8'-10"	8'-7"	10'-6"	9'-1"	11'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-2"	4'-11"	5'-5"	6'-6"	6'-10"	8'-4"	7'-0"	8'-7"	8'-3"	10'-1"	8'-8"	10'-7"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 60 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

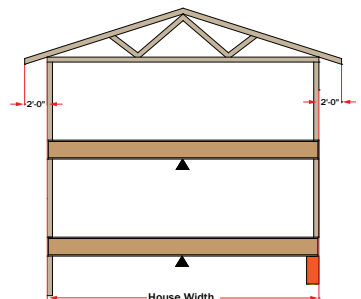
Floor Dead Load of 15 psf

L/360

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-0"	5'-9"	6'-7"	7'-7"	8'-5"	9'-9"	8'-8"	10'-0"	10'-2"	11'-10"	10'-9"	12'-6"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	4'-9"	5'-6"	6'-3"	7'-3"	7'-10"	9'-3"	8'-1"	9'-6"	9'-5"	11'-3"	9'-11"	11'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-6"	5'-3"	5'-10"	6'-11"	7'-4"	8'-10"	7'-7"	9'-1"	8'-10"	10'-9"	9'-4"	11'-4"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-3"	5'-0"	5'-6"	6'-11"	6'-11"	8'-5"	7'-1"	8'-8"	8'-4"	10'-3"	9'-9"	10'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	3'-11"	4'-10"	5'-2"	6'-4"	6'-7"	8'-1"	6'-9"	8'-3"	7'-11"	9'-9"	8'-4"	10'-3"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	3'-8"	4'-8"	4'-10"	6'-1"	6'-2"	7'-9"	6'-4"	7'-11"	7'-6"	9'-3"	7'-11"	9'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

NOTES:

- This table has been established using a Live Load deflection equal to L / 360 and a Total Load deflection limit equal to L / 240.
- This table assumes a maximum roof slope of 12/12 and a 24" soffit.
- This table assumes uniform loads and simple span headers.
- Table values assume that lateral support is provided at each support and continuously along the compression edge of the beam.
- Table values are based on SPF specified compression strength perpendicular to grain for plate 5/8" x 769 psi.
- Minimum bearing lengths required are based on a minimum bearing length equal to or greater than the width of the supported beam.
- Span is measured center to center of the supports.
- Table values assume an exterior wall dead load of 100 plf.



Versa-Lam® 2.3E 3100

Snow Load of 20 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/480

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	5'-7"	6'-5"	7'-4"	8'-6"	9'-5"	10'-10"	9'-8"	11'-1"	11'-5"	13'-2"	12'-1"	13'-11"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	5'-3"	6'-0"	6'-11"	8'-0"	8'-10"	10'-2"	9'-1"	10'-6"	10'-9"	12'-5"	11'-4"	13'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-11"	5'-9"	6'-7"	7'-7"	8'-4"	9'-8"	8'-7"	9'-11"	10'-2"	11'-9"	10'-9"	12'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-9"	5'-9"	6'-3"	7'-3"	8'-0"	9'-3"	8'-2"	9'-6"	9'-9"	11'-3"	10'-3"	11'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-6"	5'-3"	6'-0"	6'-11"	7'-8"	8'-10"	7'-10"	9'-1"	9'-4"	10'-10"	9'-10"	11'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	4'-4"	5'-1"	5'-9"	6'-8"	7'-4"	8'-7"	7'-7"	8'-9"	9'-0"	10'-5"	9'-6"	11'-0"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 40 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

Floor Dead Load of 15 psf

L/480

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	4'-11"	5'-9"	6'-7"	7'-7"	8'-4"	9'-8"	8'-7"	9'-11"	10'-2"	11'-9"	10'-9"	12'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	4'-8"	5'-5"	6'-2"	7'-2"	7'-10"	9'-1"	8'-1"	9'-4"	9'-7"	11'-1"	10'-1"	11'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-5"	5'-2"	5'-10"	6'-9"	7'-6"	8'-8"	7'-8"	8'-11"	9'-1"	10'-6"	9'-7"	11'-1"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	4'-3"	4'-11"	5'-7"	6'-6"	7'-1"	8'-3"	7'-4"	8'-6"	8'-8"	10'-1"	9'-2"	10'-8"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	4'-1"	4'-8"	5'-4"	6'-3"	6'-10"	7'-11"	7'-0"	8'-2"	8'-9"	10'-2"	9'-10"	11'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	3'-11"	4'-6"	5'-2"	6'-0"	6'-7"	7'-8"	6'-9"	7'-10"	8'-0"	9'-4"	8'-6"	9'-10"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Snow Load of 60 psf

Roof Dead Load of 15 psf

Floor Live Load of 40 psf

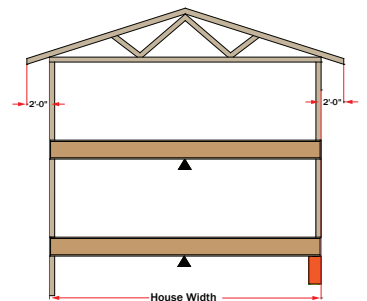
Floor Dead Load of 15 psf

L/480

Beam Depth	5½"	7¼"	9¼"	9½"	11¼"	11⅝"	14"	16"	18"	20"	22"	24"
Beam Width	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"	3½"	5¼"
20	4'-6"	5'-3"	6'-0"	6'-11"	7'-8"	8'-10"	7'-10"	9'-1"	9'-4"	10'-10"	9'-10"	11'-5"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
24	4'-3"	4'-11"	5'-8"	6'-7"	7'-2"	8'-4"	7'-5"	8'-7"	8'-9"	10'-2"	9'-3"	10'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
28	4'-1"	4'-8"	5'-4"	6'-3"	6'-10"	7'-11"	7'-0"	8'-2"	8'-4"	9'-8"	8'-9"	10'-2"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
32	3'-10"	4'-6"	5'-1"	5'-11"	6'-6"	7'-7"	6'-8"	7'-10"	7'-11"	9'-3"	8'-5"	9'-9"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
36	3'-8"	4'-4"	4'-11"	5'-8"	6'-3"	7'-3"	6'-5"	7'-6"	7'-7"	8'-10"	8'-1"	9'-4"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
40	3'-7"	4'-2"	4'-9"	5'-6"	6'-0"	7'-0"	6'-2"	7'-3"	7'-4"	8'-7"	7'-9"	9'-0"
End bearing_SPF Plate (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
End bearing_Member (in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

NOTES:

- This table has been established using a Live Load deflection equal to L / 480 and a Total Load deflection limit equal to L / 240.
- This table assumes a maximum roof slope of 12/12 and a 24" soffit.
- This table assumes uniform loads and simple span headers.
- Table values assume that lateral support is provided at each support and continuously along the compression edge of the beam.
- Table values are based on SPF specified compression strength perpendicular to grain for plate of 769 psi.
- Minimum bearing lengths required are based on a minimum bearing width equal to or greater than the width of the supported beam.
- Span is measured center to center of the supports.
- Table values assume an exterior wall dead load of 100 plf.

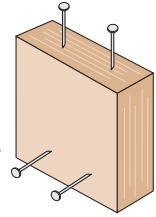


Nail Size	Nailing Parallel to Glue Lines (Narrow Face)		Nailing Perpendicular to Glue Lines (Wide Face)	
	Versa-Lam® 3½" & Wider		All Products	
	O.C. [inches]	End [inches]	O.C. [inches]	End [inches]
2½" (8d) Box	2	½	2	½
2½" (8d) Common	2	1	2	1
3" (10d) & 3¼" (12d) Box	2	1	2	1
3½" (16d) Box	2	1	2	1
3" (10d) & 3¼" (12d) common	2	2	2	2
3½" (16d) Sinker	2	2	2	2
3½" (16d) Common	2	2	2	2

NOTES:

Offset and stagger nail rows from floor sheathing and wall sole plate.

Nailing Parallel to Glue Lines
(Narrow Face)



Nailing Perpendicular to Glue Lines
(Wide Face)

Scarf Cut

Versa-Lam® 2.3E 3100 (3½")

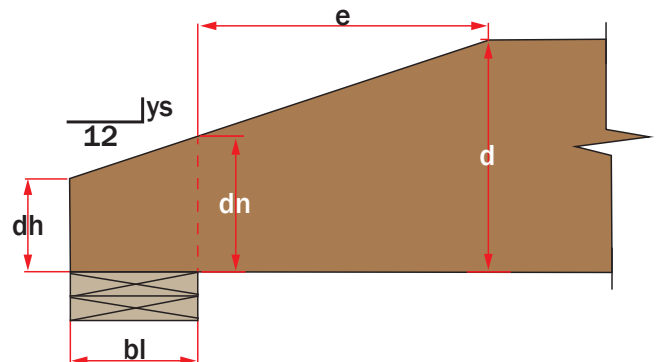
Maximum Factored Reaction for 3½" Wood Plate										
Depth (in)	Scarf Cut Slope (°/12)	Heel Height - dh								
		4½"	5"	5½"	6"	6½"	7"	7½"	8"	10"
7¼	3	5,971	6,624	7,520	7,533					
	6	7,533								
9¼	3		6,527	7,082	7,533	7,533	7,533	7,533		
	6	7,076	7,533	7,533	7,533	7,533	7,533			
	9	7,533	7,533	7,533	7,533					
	12	7,533	7,533	7,533						
9½	3		6,527	7,082	7,533	7,533	7,533	7,533		
	6	6,943	7,533	7,533	7,533	7,533	7,533			
	9	7,533	7,533	7,533	7,533					
	12	7,533	7,533	7,533						
11¼	3				7,533	7,533	7,533	7,533	7,533	
	6		7,499	7,533	7,533	7,533	7,533	7,533		
	9	7,533	7,533	7,533	7,533	7,533	7,533			
	12	7,533	7,533	7,533						
11½	3					7,533	7,533	7,533	7,533	
	6			7,533	7,533	7,533	7,533	7,533		
	9	7,533	7,533	7,533	7,533	7,533	7,533			
	12	7,533	7,533	7,533	7,533	7,533	7,533			
14	3								7,533	7,533
	6						7,533	7,533	7,533	
	9				7,533	7,533	7,533	7,533		
	12		7,533	7,533	7,533	7,533	7,533	7,533		
16	3									7,533
	6								7,533	
	9						7,533	7,533	7,533	
	12					7,533	7,533	7,533		
18	3									7,533
	6									7,533
	9									7,533
	12							7,533	7,533	
20	9									7,533
	12									7,533

Maximum Factored Reaction for 5¼" Wood Plate										
Depth (in)	Scarf Cut Slope (°/12)	Heel Height - dh								
		4½"	5"	5½"	6"	6½"	7"	7½"	8"	10"
7¼	3	6,474	7,435	7,929						
	6	8,049								
9¼	3	6,457	7,013	7,568	8,123	9,100	9,806	10,179	10,276	
	6	8,868	9,506	9,930	10,175	10,272				
	9	10,160	10,260							
	12									
9½	3	6,457	7,013	7,568	8,123	8,934	9,800	10,315	10,537	
	6	8,795	9,529	10,037	10,356	10,519				
	9	10,355	10,501							
	12									
11¼	3			7,568	8,123	8,679	9,234	9,790	10,706	
	6	7,915	8,669	9,827	10,723	11,300	11,300	11,300		
	9	11,109	11,300	11,300	11,300	11,300				
	12	11,300	11,300	11,300						
11½	3				8,123	8,679	9,234	9,790	10,345	11,300
	6	7,915	8,471	9,347	10,471	11,300	11,300	11,300		
	9	11,118	11,300	11,300	11,300	11,300				
	12	11,300	11,300	11,300	11,300					
14	3							9,790	10,345	11,300
	6				9,582	10,137	11,134	11,300	11,300	11,300
	9	10,121	11,300	11,300	11,300	11,300	11,300	11,300	11,300	11,300
	12	11,300	11,300	11,300	11,300	11,300	11,300	11,300	11,300	
16	3									11,300
	6						10,692	11,248	11,300	11,300
	9				11,300	11,300	11,300	11,300	11,300	11,300
	12	11,300	11,300	11,300	11,300	11,300	11,300	11,300	11,300	11,300
18	3									11,300
	6									11,300
	9						11,300	11,300	11,300	11,300
	12				11,300	11,300	11,300	11,300	11,300	11,300
20	3									
	6									11,300
	9									11,300
	12									11,300

- Tabulated values based on the factored bearing resistance of 615 psi and a beam width of 3½".
- Downward loading conditions only. For uplift loading contact Boise Cascade EWP representative.
- $K_p = 1.0$
- Holes or concentrated loads are not allowed within the taper cut.
- The scarf cut length should not exceed (½) Span, where the scarf cut length $(e + bl) = (d - dh) \cdot A$.

Scarf Cut Slope (°/12)	A
3	4.00
6	2.00
9	1.33
12	1.00

- For 5¼" and 7" beams, multiply by 1.5 and 2.0, respectively.



Versa-Lam® 2.3E 3100 (3½")

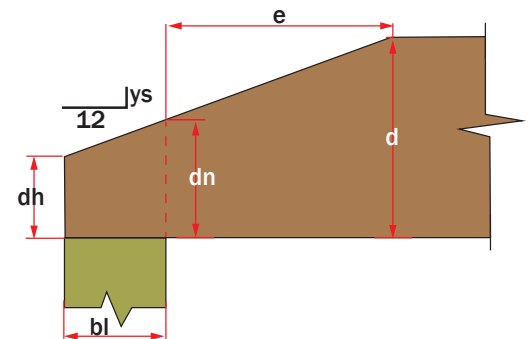
Factored Shear at Scarf Cut Location for 3½" Column										
Depth (in)	Scarf Cut Slope (°/12)	Heel Height (in) - dh								
		4½"	5"	5½"	6"	6½"	7"	7½"	8"	10"
7¼	3	5,971	6,624	7,520	7,963					
	6	7,699								
9¼	3		6,527	7,082	7,637	8,193	9,209	9,870	10,205	
	6		7,076	8,219	9,050	9,631	10,007	10,212		
	9		9,337	9,763	10,045	10,209				
	12		10,059	10,202	10,268					
9½	3			6,527	7,082	7,637	8,193	9,064	9,882	10,358
	6		6,943	8,064	9,002	9,676	10,133	10,411	10,539	
	9		9,381	9,871	10,209	10,422	10,531			
	12		10,241	10,423	10,523					
11¼	3				7,637	8,193	8,748	9,304	9,859	12,440
	6			7,499	8,054	8,986	10,074	10,911	11,537	11,985
	9		8,960	9,945	10,717	11,314	11,765	12,091	12,312	12,443
	12		11,031	11,509	11,873	12,140	12,324	12,438	12,491	
11⅝	3					8,193	8,748	9,304	9,859	12,783
	6				8,054	8,609	9,653	10,712	11,537	12,163
	9		8,501	9,683	10,628	11,378	11,964	12,413	12,744	12,974
	12		11,107	11,703	12,172	12,532	12,801	12,992	13,115	13,178
14	3								9,859	12,081
	6						9,720	10,276	11,437	13,377
	9				10,591	11,695	12,607	13,356	13,377	13,377
	12		11,599	12,467	13,185	13,377	13,377	13,377	13,377	13,377
16	3									12,081
	6								10,831	13,377
	9						11,520	12,725	13,377	13,377
	12						13,377	13,377	13,377	13,377
18	3									12,081
	6									13,053
	9									13,377
	12							13,377	13,377	13,377
20	3									
	6									
	9									13,377
	12									13,377

NOTES:

- Tabulated values based on the factored bearing resistance of 1092 psi and a beam width of 3½".
- Downward loading conditions only. For uplift loading, contact Boise Cascade EWP representative.
- $K_p = 1.0$
- Holes or concentrated loads are not allowed within the taper cut.
- The scarf cut length should not exceed (½) Span, where the scarf cut length $(e + bl) = (d - dh) \cdot A$.

Scarf Cut Slope (°/12)	A
3	4.00
6	2.00
9	1.33
12	1.00

- For 5¼" and 7" beams, multiply by 1.5 and 2.0, respectively.



Minimum Bearing Length Per Bearing Width

Versa-Lam® Minimum End bearing length per bearing width (in)			
Total Factored Reaction (lb)	Bearing width (in)		
	3½	5¼	7
2,000	1½	1½	1½
4,000	1½	1½	1½
6,000	1¾	1½	1½
8,000	2¼	1½	1½
10,000	2¾	1¾	1½
12,000	3¼	2¼	1¾
14,000	3¾	2½	2
16,000	4¼	3	2¼
18,000	4¾	3¼	2½
20,000	5¼	3½	2¾
22,000	6	4	3
24,000	6½	4¼	3¼
26,000	7	4¾	3½
28,000	7½	5	3¾
30,000	8	5¼	4
32,000	8½	5¾	4¼
34,000		6	4½
36,000		6½	4¾
38,000		6¾	5
40,000		7	5¼

Versa-Lam® Minimum Intermediate bearing length per bearing width (in)			
Total Factored Reaction (lb)	Bearing width (in)		
	3½	5¼	7
4,000	3½	3½	3½
8,000	3½	3½	3½
12,000	3½	3½	3½
16,000	4¼	3½	3½
20,000	5¼	3½	3½
24,000	6½	4¼	3½
28,000	7½	5	3¾
32,000	8½	5¾	4¼
36,000	9½	6½	4¾
40,000	10½	7	5¼
44,000	11¾	7¾	6
48,000	12¾	8½	6½
52,000	13¾	9¼	7
56,000	14¾	10	7½
60,000	15¾	10½	8
64,000	16¾	11¼	8½
68,000		12	9
72,000		12¾	9½
76,000		13½	10
80,000		14	10½

NOTES:

- Lateral support at bearings should be provided to prevent lateral displacement or rotation.
- Member bearing lengths are based on a Versa-Lam® Factored Bearing Resistance of 1092 psi.

Rows	Depth Range	Spacing				
			7" (2 plies)	7" (2 plies)	7" (2 plies)	7" (2 plies)
			Maximum Factored Uniform Load (PLF) Applied to Either Outside Member			
			SDW22634	SDS 1/4"X6"	6 3/4" TrussLok	1/2" Bolts
2	7 1/4" to 18"	24"	1140	610	849	
		12"	2280	1220	1698	
		6"	4560	2440	3396	
3	11 7/8" to 18"	24"	1710	915	1274	
		12"	3420	1830	2547	
		6"	6840	3660	5094	
4	14" to 18"	24"	2280	1220	1698	
		12"	4560	2440	3396	
		6"	9120	4880	6792	

NOTES:

- Design values apply to common bolts that conform to ASTM A307 Grades A&B, SAE J429 Grades 2 or higher. A washer not less than a standard cut washer shall be between the wood and the bolt head and between the wood and the nut. The minimum edge distance for SDS/TrussLok screws and bolts shall be 2". The minimum end distance for SDS/TrussLok screws and bolts shall be 4", except for SDW screws where the end distance should not be less than 6". Bolt holes shall not be greater than 1/16 of the bolt diameter.
- Beams wider than 7" must be designed by the professional engineer of record.
- An equivalent specific gravity of 0.5 may be used when designing specific connections with VERSA-LAM®. Connection design is based on CSA O86.
- Refer to current technical literature from FastenMaster TrussLok and Simpson Strong-Tie to confirm information herein has not been superseded.
- Other fasteners may also be used to connect multiple Versa-Lam® Beams. Contact Boise Cascade EWP Engineering for further information.

Multiple Beam Connections – Top Loads

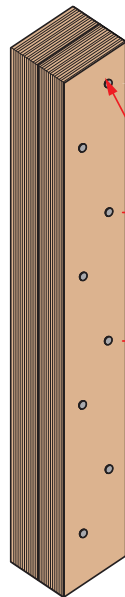
Versa-Lam® 2.3E 3100 - 3 1/2"		NOTES:	
Depth (in)	Number of plies = 2	• Load is applied evenly across the entire member width.	
7 1/4 to 18	2 rows of 1/2" Bolts at 24" o.c.	• Minimum end distance for bolts shall be 4". Bolt holes shall not be greater than 1/16 of the bolt diameter.	
20 to 24	3 rows of 1/2" Bolts at 24" o.c.		

**Column Design:
Maximum Factored Axial Loads
(Lbs)**

VERSALAM® 2.3E 3100 - 3 1/2"							
Effective length of column (ft)	Solid Column						
	Column Size (inches)						
	3 1/2 x 3 1/2	3 1/2 x 5 1/4	3 1/2 x 7	5 1/4 x 5 1/4	5 1/4 x 7	7 x 7	
4	26,139	39,208	52,277	67,075	89,434	124,282	
4 1/2	24,501	36,752	49,003	65,300	87,067	122,599	
5	22,810	34,215	45,620	63,311	84,414	120,668	
5 1/2	21,118	31,676	42,235	61,136	81,515	118,494	
6	19,466	29,199	38,932	58,812	78,416	116,089	
6 1/2	17,885	26,828	35,771	56,376	75,168	113,470	
7	16,396	24,594	32,792	53,867	71,822	110,657	
7 1/2	15,009	22,513	30,017	51,323	68,430	107,676	
8	13,726	20,589	27,286	48,778	65,037	104,554	
8 1/2	12,547	18,821	24,934	46,262	61,682	101,320	
9	11,468	17,202	22,783	43,798	58,397	98,005	
9 1/2	10,483	15,725	20,820	41,406	55,209	94,636	
10	9,585	14,378	19,033	39,101	52,135	91,241	
10 1/2	8,768	13,097	17,406	36,891	49,188	87,844	
11	8,023	11,985	15,925	34,783	46,378	84,470	
11 1/2	7,345	10,972	14,579	32,781	43,707	81,137	
12	6,729	10,051	13,355	30,883	41,177	77,863	
14	4,773	7,131	9,476	24,304	32,405	65,584	
16				19,151	25,534	54,903	
18				15,140	20,120	45,873	
20				12,025	15,981	38,341	

NOTES:

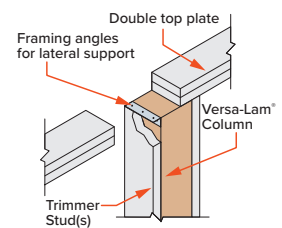
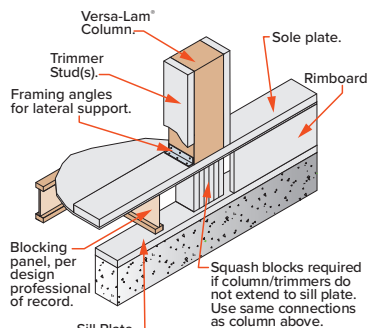
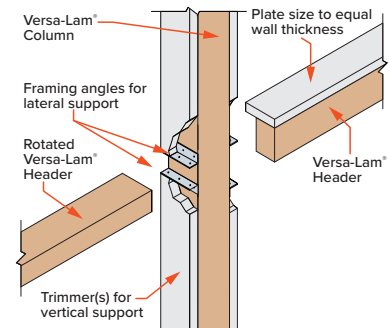
- The maximum factored axial loads assume a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is worse.
- These values are for preliminary design only. Final design should include a complete analysis, including bearing capacity of the foundation supporting the column. When the column is used in a wall system, review bearing resistance requirements to ensure adequacy.
- The column is subjected to a simple axial load.
- P - Δ effect was included in the analysis.

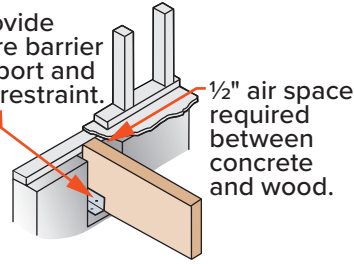
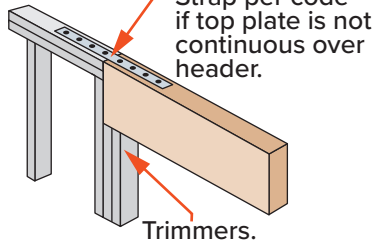
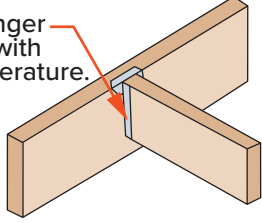
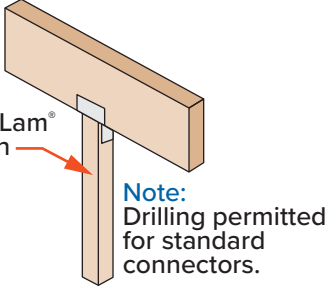
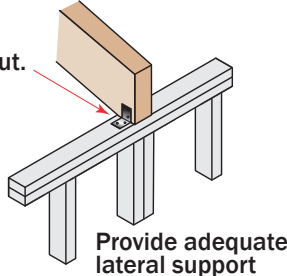
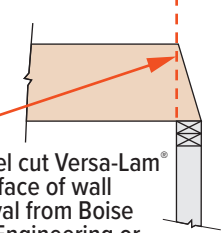
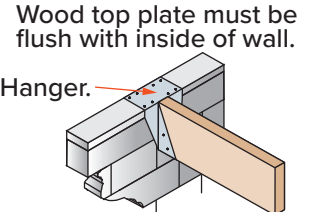
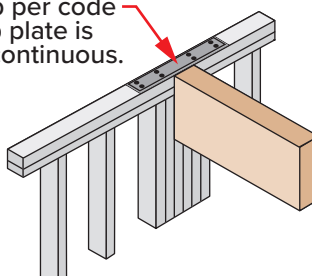
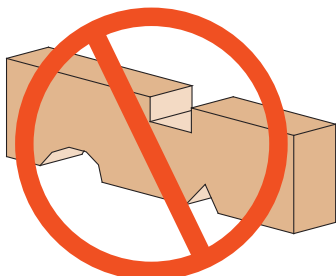
Versa-Stud® and Versa-Lam® Column Details**Multiple Ply Stud Connections****NOTE:**

The number of rows of fasteners should be as follows:

Stud/column depth	Rows of fasteners (staggered)
3 1/2"	1
5 1/2"	2
7 1/4"	2
9 1/4"	3
9 1/2"	3
11 1/4"	3
11 7/8"	3
14"	4

Thickness (in)	Number of plies	Fastener type	Fastener diameter (in)	Fastener length (in)	Min. end distance (in)	Min. edge distance (in)
3 1/2	2	1/2" dia. Bolts	0.500	7	6.0	2.0
		SDW 22634	0.220	6 3/4		
		6 3/4" TrussLok	0.228	6 3/4		
		SDS 1/4 x 6 (on both sides)	0.250	6		

Column to Top Plate**Column to Bottom Plate****Header to Column**

Bearing at concrete/masonry walls  Provide moisture barrier at support and lateral restraint. 1/2" air space required between concrete and wood. B01	Bearing for door or window header  Strap per code if top plate is not continuous over header. Trimmers. B02	Beam to beam connector  Verify hanger capacity with hanger literature. B03
Bearing at column  Versa-Lam® column Note: Drilling permitted for standard connectors. B04	Slope seat cut  Sloped seat cut. Not to exceed inside face of bearing. Provide adequate lateral support B06	Bevel cut  DO NOT bevel cut Versa-Lam® beyond inside face of wall without approval from Boise Cascade EWP Engineering or BC Calc® software analysis. B07
Beam to concrete/masonry walls  Wood top plate must be flush with inside of wall. Hanger. Moisture barrier between concrete and wood. B08	Bearing framing into wall  Strap per code if top plate is not continuous. B09	DO NOT drill, notch, cut or alter Versa-Lam® beams  B07

NOTES

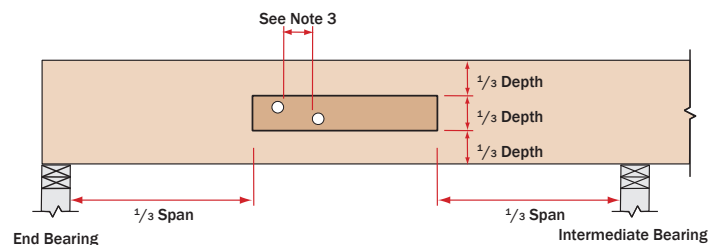
- Minimum of 1/2" air space between beam and wall pocket or adequate barrier must be provided between beam and concrete/masonry.
- Adequate bearing shall be provided. If not shown on plans, please refer to load tables in your region's Specifier Guide.
- Versa-Lam® beams are intended for interior applications only and should be kept as dry as possible during construction.
- Continuous lateral support of top and bottom of beam shall be provided (side or top bearing framing).

Allowable Holes In Versa-Lam® Beams

NOTES

- Square and rectangular holes are not permitted.
- Round holes may be drilled or cut with a hole saw anywhere within the shaded area of the beam.
- The horizontal distance between adjacent holes must be at least two times the size of the larger hole.
- Do not drill more than three access holes in any four foot long section of beam.
- The maximum round hole diameter permitted is:

Beam Depth	Max. Hole Diameter
5 1/2"	3/4"
7 1/4"	1"
Greater than 7 1/4"	2"



- These limitations apply to holes drilled for plumbing or wiring access only. The size and location of holes drilled for fasteners are under the regulations of the CSA O86-14 Engineering Design in Wood.
- Beams deflect under load. Size holes to provide clearance where required.
- This hole chart is valid for beams supporting uniform load only. For beams supporting concentrated loads or for beams with larger holes, contact Boise Cascade EWP Engineering.

BC FRAMER® CADD Framing Software

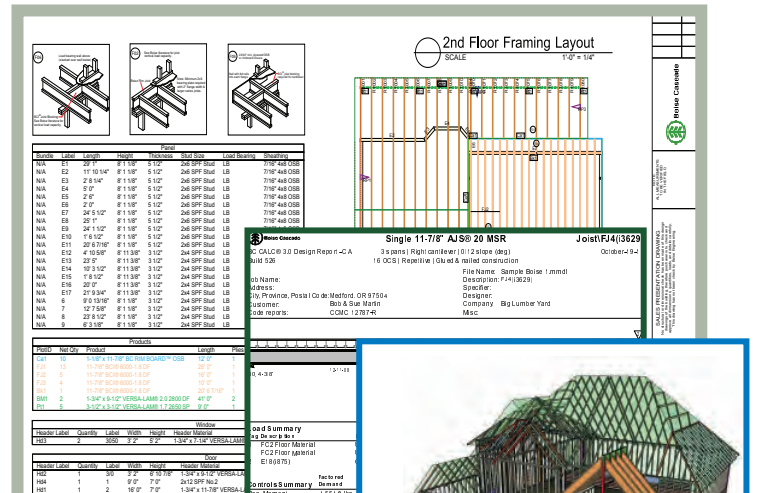
BC FRAMER® is an easy-to-use, stand-alone computer-aided drafting program with 3D capability designed to quickly create floor and roof framing layouts.

Draw walls, add framing areas, locate beams and rough openings, define cross-sections and on-center spacing. In minutes, BC FRAMER® frames your layout, builds a piece and price report, creates a framing drawing with schedule, all using Boise Cascade Engineered Wood Products.

Easy-to-use editing and drawing tools allow flexibility when modifying members and adding details, symbols and accessories.

Training classes for BC FRAMER® are provided at Boise Cascade EWP training centers.

For questions, comments or a free demonstration CD visit our website at www.BC.com/ewp or email us at EWPSupport@BC.com. Information can also be obtained at 800-405-5969.



TECHNICAL SPECS

This program is designed to work on stand-alone computers.

Recommended Hardware Specifications:

CPU: Quad Core 64 bit Intel i7 Processor (4th Generation or Newer)
L2 Cache: 3MB/Core

RAM: 8GB (12.0 – 16GB highly recommended for designing large structures)

Video: Full support for DirectX 9; Single monitor 512MB;

Dual monitor 1GB (Resolution 1366×768 Minimum)

Free Storage: 80GB (average 6,000-8,000 jobs)

Operating Systems: Windows 7 (Professional Edition 64-bit), and Windows 8 (Professional Edition 64-bit), Windows 10 (Pro or Enterprise Edition 64-bit)*

*Apple Mac or Windows Emulator not supported

Improvements in capacity or speed of these components will yield better performance.

BC Calc® Sizing Software

BC Calc® is Boise Cascade EWP sizing software for Boise Cascade Joists and Versa-Lam® Beams.

BC Calc® is simple to use, yet flexible enough to analyze most joist and beam applications. Span, load and hole information entered by the user is analyzed by the program to correctly size Boise Cascade EWP. A comprehensive Help File menu is included in the program.

BC Calc® is available to designers, architects and engineers on CD-ROM or by download at

www.bccalc.com/

Hardware requirements include Pentium® Processor with a recommended minimum of 1GB RAM. For questions or concerns regarding BC Calc®, call 800-405-5969 or email EWPSupport@BC.com

Use the New Design toolbar to create a new design

Use the Loads toolbar to add loads

Use the Holes toolbar to add holes

Member Diagram: Same as BC CALC 2001a

Double-Click on Analysis to analyze design

Double-Click on Cautions to analyze design and display Report

Double-Click on any item to display and change design parameters

View tabs - Click or Ctrl+D, Ctrl+R, Ctrl+E to see the Design window, Report, or Engineering Data

Project Manager tab

Design View Window

Design Tabs - Each design has its own. Click or Ctrl+Arrow to select

To download of BC CALC® CANADA, www.bccalc.com/

Click to analyze all designs

Click Print button to print selected designs

Create sub-folders to organize your designs

Double-click on design name or icon to go to a design

Use the Hide/Show checkboxes to hide or show each design - open Window menu to hide/show all designs

Click here to enter project information

Right-Click in the Designs column to create new folders and designs

Drag column border to resize

Drag column heading to move

Right-Click to add/drop column

Columns show analysis results, double-click to go to design

Project Manager Window

Weights of Building Materials

27

CEILING Pounds Per Square Foot [PSF]	
Acoustical fiber tile ⁽¹⁾	1
Suspended steel channel system ⁽¹⁾	2
Suspended wood channel system	2.5
2x8 ceiling joists @ 16" o.c., R-49 insulation, ½" gypsum board	7
1" Plaster	8
½" gypsum board	2.2
⅝" gypsum board	2.75
ROOF Pounds Per Square Foot [PSF]	
Fiberglass shingles	3
Asphalt shingles ⁽¹⁾	2
Wood shingles ⁽¹⁾	3
Spanish clay tile ⁽¹⁾	19
Concrete roof tile	12
Lightweight clay tile	6
Composition Roofing:	
Three-ply ready roofing ⁽¹⁾	1
Four-ply felt and gravel ⁽¹⁾	5.5
Five-ply felt and gravel ⁽¹⁾	6
20 gage metal deck ⁽¹⁾	2.5
18 gage metal deck ⁽¹⁾	3
0.05" thick polyvinyl chloride polymer membrane ⁽⁴⁾	0.35
1" fiberglass batt insulation	0.04
1" loose fiberglass insulation	0.04
1" loose cellulose insulation	0.14
1" rigid insulation ⁽¹⁾	1.5
Blowing wool insulation R-38 (16" deep)	0.62
⅜" slate ⁽¹⁾	7
¼" slate ⁽¹⁾	10
Single-ply (no ballast) ⁽¹⁾	0.7
Single-ply (ballasted)	11
Dry gravel ⁽¹⁾	8.7
2x8 rafters @ 16" o.c., fiberglass shingles, 15# felt, ⅝" sheathing	8
Skylight: metal frame w/ ⅜" wire glass ⁽¹⁾	8
FLOOR Pounds Per Square Foot [PSF]	
1" reinforced regular weight concrete	12.5
1" plain lightweight concrete ⁽¹⁾	8
⅞" cementitious backerboard	3
Ceramic or quarry tile (¾") on ½" mortar bed ⁽¹⁾	16
Ceramic or quarry tile (¾") on 1" mortar bed ⁽¹⁾	23
1" mortar bed	12
1" slate ⁽¹⁾	15
⅜" marble tile	6
⅜" ceramic floor tile	4.7
Hardwood flooring, 7/7-in ⁽¹⁾	4
¼" linoleum or asphalt tile ⁽¹⁾	1
BCI/AJS joists @ 16" o.c., ¾" sheathing, ½" gypsum board	10
¾" Gyp-Crete topping	6.5
Carpet & Pad	2.0
Waterproofing Membranes	
Bituminous, smooth surface ⁽¹⁾	1.5
Liquid applied ⁽¹⁾	1
MISCELLANEOUS Pounds Per Square Foot [PSF]	
1" of sand	8
1" of water	5.2
Hay: baled, dry ⁽²⁾	15 PCF
Straw: baled, dry ⁽²⁾	8 PCF
Saturated soil (garden/landscaped roof)	135 PCF
Grand piano	1000 LBS
Hot Tub (tub & water weight)	150
Acrylic soaking tub - 2 person - 80 gallon capacity (tub & water weight) ⁽⁵⁾	40

Include at least 1.5 psf in all dead load summations to account for incidentals such as plumbing, ducts, light fixtures, etc.

(1) Minimum Design Loads for Buildings and Other Structures, ASCE 7-05 Table C3.1-1a.

Boise Cascade EWP • CANADA • Western Versa-Lam® 2.3E 3100 Specifier Guide • 10/17/2019

SHEATHING Pounds Per Square Foot [PSF]	
11/32" or ⅜" Plywood – OSB ⁽³⁾	1.0 – 1.2
15/32" or ½" Plywood – OSB ⁽³⁾	1.4 – 1.7
19/32" or ⅝" Plywood – OSB ⁽³⁾	1.8 – 2.1
23/32" or ¾" Plywood – OSB ⁽³⁾	2.2 – 2.5
7/8" Plywood – OSB ⁽³⁾	2.6 – 2.9
1⅞" Plywood – OSB ⁽³⁾	3.3 – 3.6
½" cementitious backerboard	3
1½" softwood T & G decking	4.6
FRAMING Pounds Per Square Foot [PSF]	
2x4 @ 16" o.c.	1.1
2x6 @ 16" o.c.	1.7
2x8 @ 16" o.c.	2.2
2x10 @ 16" o.c.	2.9
2x12 @ 16" o.c.	3.5
BCI® 4500s, 5000 or 5000s @ 12" o.c.	2.0 – 2.9
BCI® 4500s, 5000 or 5000s @ 16" o.c.	1.5 – 2.2
BCI® 4500s, 5000 or 5000s @ 19.2" o.c.	1.3 – 1.8
BCI® 4500s, 5000 or 5000s @ 24" o.c.	1.0 – 1.5
BCI® 6000 or 6000s @ 12" o.c.	2.2 – 3.4
BCI® 6000 or 6000s @ 16" o.c.	1.7 – 2.6
BCI® 6000 or 6000s @ 19.2" o.c.	1.4 – 2.1
BCI® 6000 or 6000s @ 24" o.c.	1.1 – 1.7
BCI® 60, 60s, 6500 or 6500s @ 12" o.c.	2.3 – 3.8
BCI® 60, 60s, 6500 or 6500s @ 16" o.c.	1.7 – 2.9
BCI® 60, 60s, 6000 or 6500s @ 19.2" o.c.	1.4 – 2.4
BCI® 60, 60s, 6500 or 6500s @ 24" o.c.	1.2 – 1.9
BCI® 90 or 90s @ 12" o.c.	3.9 – 4.9
BCI® 90 or 90s @ 16" o.c.	2.9 – 3.7
BCI® 90 or 90s @ 19.2" o.c.	2.4 – 3.1
BCI® 90 or 90s @ 24" o.c.	1.9 – 2.5
AJS® 140, 150, 190 or 20 @ 12" o.c.	2.2 – 3.3
AJS® 140, 150, 190 or 20 @ 16" o.c.	1.7 – 2.5
AJS® 140, 150, 190 or 20 @ 19.2" o.c.	1.4 – 2.1
AJS® 140, 150, 190 or 20 @ 24" o.c.	1.1 – 1.7
AJS® 24, 25 or 30 @ 12" o.c.	3.1 – 3.9
AJS® 24, 25 or 30 @ 16" o.c.	2.3 – 2.9
AJS® 24, 25 or 30 @ 19.2" o.c.	1.9 – 2.4
AJS® 24, 25 or 30 @ 24" o.c.	1.6 – 2.0
AJS® 24 FMJ @ 12" o.c.	3.4 – 4.3
AJS® 24 FMJ @ 16" o.c.	2.6 – 3.2
AJS® 24 FMJ @ 19.2" o.c.	2.1 – 2.7
AJS® 24 FMJ @ 24" o.c.	1.7 – 2.1
WALL Pounds Per Square Foot [PSF]	
5/16" x 7½" fiber cement lap siding	3
4" clay brick ⁽¹⁾	39
¼" ceramic wall tile	3.1
1¾" Cultured Stone®	12
2x4 studs @ 16" o.c., ⅝" gypsum, insulation, ⅜" siding ⁽¹⁾	11
2x6 studs @ 16" o.c., ⅝" gypsum, insulation, ⅜" siding ⁽¹⁾	12
Wood or steel studs, ½" gypsum board each side ⁽¹⁾	8
Exterior stud walls w/ brick veneer ⁽¹⁾	48
Windows: glass, frame and sash ⁽¹⁾	8
Stucco	10
Log Wall: 10" diameter	26
Glass Block:	
4" Thick - standard (hollow)	20
3" Thick - standard (hollow)	16
4" Thick - thin face	30
3" Thick - solid glass block	40

(2) National Farm Building Code (Canada) 1995. Value in pounds per cubic foot (PCF), multiply by maximum height to obtain PSF.

(3) Approximate Engineering Dead Load Weight of Wood Structural Panels, APA EWS TT-019, 1998.

(4) Duro-Last® General Specifications, Duro-Last® Roofing, Inc. 2005

(5) Kohler® Specification Sheet K-1160-GLA 02/25/2018.

Information from Tech Note GE-1 r03/2018 valid for 2 years past publish date

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Boise Cascade warrants its BCI® Joist, Versa-Lam®, and ALLJOIST® products to comply with our specifications, to be free from defects in material and workmanship, and to meet or exceed our performance specifications for the normal and expected life of the structure when correctly stored, installed and used according to our Installation Guide.

For information about
Boise Cascade's Engineered Wood Products, visit our website at
www.BC.com/ewp

CCMC Report Number 12472-R VERSA-LAM®

LIMIT STATES DESIGN
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