

ALLOWABLE STRESS DESIGN VALUES FOR DRY USE	
Grade	3,100 F _b -2.1E
Modulus of Elasticity ⁴ , E (X10 ⁶ psi)	2.1
Bending Stress ¹ , F _b (psi)	3,100
Shear F _v (psi)	300
Compression Stress Perpendicular to Grain, F _{c⊥} (psi)	650

- Note:**
1. Reference bending design value in beam orientation is based on a reference depth of 12 inches. For other depths, the allowable bending stress, F_b, must be adjusted by multiplying F_b by (12/d)^{0.25}, where d is the depth of members in inches. For depths 3-1/2 inches or less, multiply F_b by 1.361.

2. Design stresses are based on 100% load duration.

3. F_{c⊥} and E shall not be increased for duration of load.

4. Deflection calculations shall include both bending and shear deformations.

Deflection for a simple span, uniform load: $\delta = \frac{270wL^4}{Ebd^3} + \frac{28.8wL^2}{Ebd}$

Where: δ = deflection (in)
w = uniform load (plf)
L = design span (ft)

E = modulus of elasticity (psi)
b = width of beam (in)
d = depth of beam (in)

Equations for other conditions can be found in engineering references.

DESIGN PROPERTIES

3100F _b -2.1E EVOLUTION LVL ALLOWABLE DESIGN VALUES FOR DRY USE										Width 1.5"		
Design Property	Depth											
	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16"	18"	24"
Allowable Moment (lbs-ft)	1077	2374	3850	5897	6179	8307	8633	9131	12180	15386	18908	31281
Allowable Shear (lbs.)	1050	1650	2175	2775	2850	3375	3450	3563	4200	4800	5400	7200
Moment of Inertia (in ⁴)	5	21	48	99	107	178	190	209	343	512	729	1728
Weight (lbs./ft.)	1.5	2.4	3.1	4.0	4.1	4.9	5.0	5.1	6.1	6.9	7.8	10.4

3100F _b -2.1E EVOLUTION LVL ALLOWABLE DESIGN VALUES FOR DRY USE										Width 1.75"		
Design Property	Depth											
	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16"	18"	24"
Allowable Moment (lbs-ft)	1256	2770	4492	6880	7209	9691	10071	10653	14210	17950	22059	36495
Allowable Shear (lbs.)	1225	1925	2538	3238	3325	3938	4025	4156	4900	5600	6300	8400
Moment of Inertia (in ⁴)	6	24	56	115	125	208	222	244	400	597	851	2016
Weight (lbs./ft.)	1.8	2.8	3.7	4.7	4.8	5.7	5.8	6.0	7.1	8.1	9.1	12.1

3100F _b -2.1E EVOLUTION LVL ALLOWABLE DESIGN VALUES FOR DRY USE										Width 3.5"		
Design Property	Depth											
	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16"	18"	24"
Allowable Moment (lbs-ft)	2512	5540	8984	13761	14418	19382	20143	21306	28420	35901	44118	72990
Allowable Shear (lbs.)	2450	3850	5075	6475	6650	7875	8050	8313	9800	11200	12600	16800
Moment of Inertia (in ⁴)	13	49	111	231	250	415	444	488	800	1195	1701	4032
Weight (lbs./ft.)	3.5	5.5	7.3	9.3	9.6	11.3	11.6	12.0	14.1	16.1	18.2	24.2

3100F _b -2.1E EVOLUTION LVL ALLOWABLE DESIGN VALUES FOR DRY USE										Width 5.25"		
Design Property	Depth											
	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16"	18"	24"
Allowable Moment (lbs-ft)	/	8310	13476	20641	21627	29074	30214	31959	42629	53851	66178	109485
Allowable Shear (lbs.)	/	5775	7613	9713	9975	11813	12075	12469	14700	16800	18900	25200
Moment of Inertia ^(d) (in	/	73	167	346	375	623	665	733	1201	1792	2552	6048
Weight (lbs./ft.)	/	8.3	11.0	14.0	14.4	17.0	17.4	18.0	21.2	24.2	27.2	36.3

3100F _b -2.1E EVOLUTION LVL ALLOWABLE DESIGN VALUES FOR DRY USE										Width 7"		
Design Property	Depth											
	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16"	18"	24"
Allowable Moment (lbs-ft)	/	/	17969	27521	28836	38765	40285	42612	56839	71801	88237	145980
Allowable Shear (lbs.)	/	/	10150	12950	13300	15750	16100	16625	19600	22400	25200	33600
Moment of Inertia (in ⁴)	/	/	222	462	500	831	887	977	1601	2389	3402	8064
Weight (lbs./ft.)	/	/	14.6	18.7	19.2	22.7	23.2	24.0	28.2	32.3	36.3	48.4

- Notes:**
1. Lateral support of the beam compression edge shall be provided at intervals of 24" on-center or closer to prevent lateral torsional buckling.

2. Lateral support shall also be provided at all bearing locations to control lateral displacement at supports.

3. 1.5" and 1.75" wide LVL members with depths of 16", 18", and 24" are permitted for use in multiple-member built-up units only.

4. Allowable design values are based on 100% load duration.

1.5" WIDTH													
Span (ft)	Condition	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16" *	18" *	24" *
6	LL (L/360)	71	261	563									
	TL (L/240)	105	389	682	947	984	1280	1330	1345	1551	2261	2701	3617
	Bearing	1.5/3.5	1.8/4.4	3.1/7.7	4.3/10.6	4.4/11	5.8/14.3	6/14.9	6/15	7/17.3	10.1/25.2	12.1/30.1	16.2/40.3
7	LL (L/360)		168	368	717	770							
	TL (L/240)		250	549	766	793	1005	1038	1090	1329	1913	2314	3098
	Bearing		1.5/3.5	2.9/7.2	4/10	4.2/10.4	5.3/13.1	5.5/13.6	5.7/14.2	7/17.4	10/24.9	12.1/30.1	16.2/40.3
8	LL (L/360)		114	252	499	537							
	TL (L/240)		169	376	644	666	832	857	896	1143	1433	1836	2710
	Bearing		1.5/3.5	2.3/5.7	3.9/9.7	4/10	5/12.4	5.2/12.8	5.4/13.4	6.9/17.1	8.6/21.4	11/27.4	16.2/40.4
9	LL (L/360)		81	180	360	388	617	655	714				
	TL (L/240)		119	268	537	578	711	731	763	957	1171	1432	2408
	Bearing		1.5/3.5	1.9/4.6	3.7/9.1	3.9/9.8	4.8/12	5/12.3	5.2/12.9	6.5/16.1	7.9/19.7	9.6/24	16.2/40.4
10	LL (L/360)		59	133	267	288	462	491	537				
	TL (L/240)		87	197	398	429	621	639	665	825	996	1194	2166
	Bearing		1.5/3.5	1.5/3.8	3/7.5	3.3/8.1	4.7/11.6	4.8/12	5/12.5	6.2/15.4	7.5/18.6	9/22.3	16.2/40.4
11	LL (L/360)			101	204	220	355	377	413	648			
	TL (L/240)			149	302	327	517	537	568	727	869	1029	1705
	Bearing			1.5/3.5	2.5/6.3	2.7/6.8	4.3/10.7	4.5/11.1	4.7/11.7	6/15	7.2/17.9	8.5/21.2	14/35
12	LL (L/360)			78	159	171	278	296	323	511	735		
	TL (L/240)			114	235	254	413	439	481	637	772	907	1430
	Bearing			1.5/3.5	2.2/5.4	2.3/5.8	3.8/9.3	4/9.9	4.4/10.9	5.8/14.3	7/17.4	8.2/20.4	12.9/32.1
13	LL (L/360)			62	126	136	221	236	258	410	592		
	TL (L/240)			90	185	201	328	349	383	542	685	811	1242
	Bearing			1.5/3.5	1.9/4.6	2/5	3.3/8.1	3.5/8.6	3.8/9.4	5.3/13.2	6.7/16.7	7.9/19.8	12.1/30.2
14	LL (L/360)				102	110	179	191	209	333	483	666	
	TL (L/240)				149	161	264	282	309	466	590	725	1102
	Bearing				1.6/4	1.8/4.3	2.8/7	3/7.5	3.3/8.2	4.9/12.3	6.2/15.5	7.7/19.1	11.6/28.9
15	LL (L/360)				83	90	147	156	171	274	399	552	
	TL (L/240)				121	131	216	230	253	406	513	631	993
	Bearing				1.5/3.5	1.6/3.8	2.5/6.2	2.7/6.6	2.9/7.2	4.6/11.5	5.8/14.5	7.1/17.8	11.2/27.9
16	LL (L/360)				69	74	122	130	142	228	333	462	
	TL (L/240)				99	108	178	190	209	337	450	554	904
	Bearing				1.5/3.5	1.5/3.5	2.2/5.5	2.4/5.8	2.6/6.4	4.1/10.2	5.5/13.6	6.7/16.7	10.9/27.1
17	LL (L/360)				58	62	102	109	119	192	281	391	
	TL (L/240)				83	89	149	159	174	283	398	489	812
	Bearing				1.5/3.5	1.5/3.5	2/4.9	2.1/5.2	2.3/5.7	3.7/9.1	5.1/12.8	6.3/15.7	10.4/25.9
18	LL (L/360)					53	86	92	101	163	239	333	
	TL (L/240)					75	125	134	147	239	352	436	723
	Bearing					1.5/3.5	1.8/4.4	1.9/4.7	2.1/5.1	3.3/8.2	4.8/12	6/14.8	9.8/24.5
19	LL (L/360)						74	79	86	139	205	286	635
	TL (L/240)						106	113	125	204	301	390	648
	Bearing						1.6/4	1.7/4.2	1.9/4.6	3/7.4	4.4/10.9	5.7/14.1	9.3/23.2
20	LL (L/360)						63	68	74	120	177	247	552
	TL (L/240)						91	97	107	175	259	351	584
	Bearing						1.5/3.6	1.6/3.8	1.7/4.2	2.7/6.7	4/9.9	5.4/13.4	8.9/22.1
21	LL (L/360)						55	59	64	104	154	215	483
	TL (L/240)						78	83	92	151	224	316	529
	Bearing						1.5/3.5	1.5/3.5	1.6/3.8	2.5/6.1	3.6/9	5.1/12.6	8.4/21
22	LL (L/360)							51	56	91	134	188	425
	TL (L/240)							72	79	131	195	276	481
	Bearing							1.5/3.5	1.5/3.5	2.3/5.6	3.3/8.3	4.7/11.6	8.1/20.1
23	LL (L/360)									80	118	166	375
	TL (L/240)									114	170	242	439
	Bearing									2.1/5.2	3.1/7.6	4.3/10.7	7.7/19.2
24	LL (L/360)									71	104	147	333
	TL (L/240)									100	150	213	402
	Bearing									1.9/4.8	2.8/7	4/9.9	7.4/18.4
25	LL (L/360)									63	93	130	297
	TL (L/240)									88	132	188	370
	Bearing									1.8/4.4	2.6/6.5	3.7/9.1	7.1/17.7
26	LL (L/360)									56	83	116	266
	TL (L/240)									78	117	167	341
	Bearing									1.7/4.1	2.4/6	3.4/8.5	6.8/17
27	LL (L/360)									50	74	104	239
	TL (L/240)									69	104	149	316
	Bearing									1.6/3.8	2.3/5.6	3.2/7.9	6.6/16.4
28	LL (L/360)										66	94	215
	TL (L/240)										93	133	293
	Bearing										2.1/5.2	3/7.4	6.3/15.8
29	LL (L/360)										60	85	195
	TL (L/240)										83	120	272
	Bearing										2/4.9	2.8/6.9	6.1/15.2
30	LL (L/360)										54	77	177
	TL (L/240)										75	107	255
	Bearing										1.9/4.6	2.6/6.5	6/14.8
31	LL (L/360)											70	161
	TL (L/240)											97	231
	Bearing											2.5/6.1	5.6/13.9
32	LL (L/360)											63	147
	TL (L/240)											88	210
	Bearing											2.3/5.7	5.3/13.1

Bearing=Minimum End / Intermediate Bearing Length (inches).

* All 16", 18" and 24" beam depths are to be used in multiple member units only.

1.75" WIDTH													
Span (ft)	Condition	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16" *	18" *	24" *
6	LL (L/360)	82	304	657									
	TL (L/240)	122	454	796	1104	1148	1494	1551	1569	1809	2638	3151	4219
	Bearing	1.5/3.5	1.8/4.4	3.1/7.7	4.3/10.6	4.4/11	5.8/14.3	6/14.9	6/15	7/17.3	10.1/25.3	12.1/30.1	16.2/40.4
7	LL (L/360)	52	196	429	837	899							
	TL (L/240)	77	291	641	893	925	1172	1211	1271	1550	2232	2700	3615
	Bearing	1.5/3.5	1.5/3.5	2.9/7.2	4/10	4.2/10.4	5.3/13.1	5.5/13.6	5.7/14.2	7/17.4	10/24.9	12.1/30.2	16.2/40.3
8	LL (L/360)		133	294	582	626							
	TL (L/240)		197	439	751	777	970	1000	1045	1333	1672	2142	3162
	Bearing		1.5/3.5	2.3/5.7	3.9/9.7	4/10	5/12.4	5.2/12.8	5.4/13.4	6.9/17.1	8.6/21.4	11/27.4	16.2/40.4
9	LL (L/360)		94	210	420	452	720	764	833				
	TL (L/240)		139	312	626	675	829	853	890	1116	1366	1671	2809
	Bearing		1.5/3.5	1.9/4.6	3.7/9.1	3.9/9.8	4.8/12	5/12.3	5.2/12.9	6.5/16.1	7.9/19.7	9.6/24	16.2/40.4
10	LL (L/360)		69	155	312	336	540	573	626				
	TL (L/240)		101	230	464	501	725	745	776	963	1162	1393	2527
	Bearing		1.5/3.5	1.5/3.8	3/7.5	3.3/8.1	4.7/11.6	4.8/12	5/12.5	6.2/15.4	7.5/18.6	9/22.3	16.2/40.3
11	LL (L/360)		52	118	238	257	414	440	481	756			
	TL (L/240)		76	173	353	381	603	627	663	848	1014	1201	1990
	Bearing		1.5/3.5	1.5/3.5	2.5/6.3	2.7/6.8	4.3/10.7	4.5/11.1	4.7/11.7	6/15	7.2/17.9	8.5/21.2	14/35
12	LL (L/360)			91	185	200	324	345	377	596	857		
	TL (L/240)			134	274	296	481	512	561	743	900	1058	1668
	Bearing			1.5/3.5	2.2/5.4	2.3/5.8	3.8/9.3	4/9.9	4.4/10.9	5.8/14.3	7/17.4	8.2/20.4	12.8/32
13	LL (L/360)			72	147	159	258	275	301	478	690		
	TL (L/240)			105	216	234	382	407	447	632	799	947	1449
	Bearing			1.5/3.5	1.9/4.6	2/5	3.3/8.1	3.5/8.6	3.8/9.4	5.3/13.2	6.7/16.7	7.9/19.8	12.1/30.2
14	LL (L/360)			58	119	128	209	222	244	389	564	777	
	TL (L/240)			84	174	188	308	328	360	544	688	846	1286
	Bearing			1.5/3.5	1.6/4	1.8/4.3	2.8/7	3/7.5	3.3/8.2	4.9/12.3	6.2/15.5	7.7/19.1	11.6/28.9
15	LL (L/360)				97	105	171	182	200	320	465	644	
	TL (L/240)				141	153	252	268	295	474	598	736	1158
	Bearing				1.5/3.5	1.6/3.8	2.5/6.2	2.7/6.6	2.9/7.2	4.6/11.5	5.8/14.5	7.1/17.8	11.2/27.9
16	LL (L/360)				80	87	142	151	166	266	389	540	
	TL (L/240)				116	126	208	222	244	393	525	646	1055
	Bearing				1.5/3.5	1.5/3.5	2.2/5.5	2.4/5.8	2.6/6.4	4.1/10.2	5.5/13.6	6.7/16.7	10.9/27.1
17	LL (L/360)				67	73	119	127	139	224	328	456	
	TL (L/240)				96	104	173	185	203	330	464	571	948
	Bearing				1.5/3.5	1.5/3.5	2/4.9	2.1/5.2	2.3/5.7	3.7/9.1	5.1/12.8	6.3/15.7	10.4/25.9
18	LL (L/360)				57	61	101	107	118	190	279	389	
	TL (L/240)				81	88	146	156	171	279	411	508	844
	Bearing				1.5/3.5	1.5/3.5	1.8/4.4	1.9/4.7	2.1/5.1	3.3/8.2	4.8/12	6/14.8	9.8/24.5
19	LL (L/360)					52	86	92	101	163	239	334	741
	TL (L/240)					74	124	132	146	237	351	455	756
	Bearing					1.5/3.5	1.6/4	1.7/4.2	1.9/4.6	3/7.4	4.4/10.9	5.7/14.1	9.3/23.2
20	LL (L/360)						74	79	87	140	206	289	644
	TL (L/240)						106	113	124	204	302	410	681
	Bearing						1.5/3.6	1.6/3.8	1.7/4.2	2.7/6.7	4/9.9	5.4/13.4	8.9/22.1
21	LL (L/360)						64	68	75	122	179	251	564
	TL (L/240)						91	97	107	176	261	368	617
	Bearing						1.5/3.5	1.5/3.5	1.6/3.8	2.5/6.1	3.6/9	5.1/12.6	8.4/21
22	LL (L/360)						56	60	66	106	157	220	496
	TL (L/240)						78	84	93	153	227	321	561
	Bearing						1.5/3.5	1.5/3.5	1.5/3.5	2.3/5.6	3.3/8.3	4.7/11.6	8.1/20.1
23	LL (L/360)							52	58	93	138	194	438
	TL (L/240)							73	81	133	199	282	512
	Bearing							1.5/3.5	1.5/3.5	2.1/5.2	3.1/7.6	4.3/10.7	7.7/19.2
24	LL (L/360)								51	82	122	171	389
	TL (L/240)								70	117	175	248	469
	Bearing								1.5/3.5	1.9/4.8	2.8/7	4/9.9	7.4/18.4
25	LL (L/360)									73	108	152	346
	TL (L/240)									103	154	220	432
	Bearing									1.8/4.4	2.6/6.5	3.7/9.1	7.1/17.7
26	LL (L/360)									65	96	136	310
	TL (L/240)									91	137	195	398
	Bearing									1.7/4.1	2.4/6	3.4/8.5	6.8/17
27	LL (L/360)									58	86	122	279
	TL (L/240)									81	122	174	368
	Bearing									1.6/3.8	2.3/5.6	3.2/7.9	6.6/16.4
28	LL (L/360)									52	78	109	251
	TL (L/240)									72	109	155	342
	Bearing									1.5/3.5	2.1/5.2	3/7.4	6.3/15.8
29	LL (L/360)										70	99	227
	TL (L/240)										97	139	318
	Bearing										2/4.9	2.8/6.9	6.1/15.2
30	LL (L/360)										63	89	206
	TL (L/240)										87	125	298
	Bearing										1.9/4.6	2.6/6.5	6/14.8
31	LL (L/360)										57	81	188
	TL (L/240)										78	113	270
	Bearing										1.8/4.3	2.5/6.1	5.6/13.9
32	LL (L/360)										52	74	171
	TL (L/240)										71	102	245
	Bearing										1.6/4	2.3/5.7	5.3/13.1

Bearing=Minimum End / Intermediate Bearing Length (inches).

* All 16", 18" and 24" beam depths are to be used in multiple member units only.

3.5" WIDTH													
Span (ft)	Condition	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16"	18"	24"
6	LL (L/360)	165	608	1313									
	TL (L/240)	244	909	1592	2209	2296	2988	3102	3138	3619	5276	6303	8439
	Bearing	1.5/3.5	1.8/4.4	3.1/7.7	4.3/10.6	4.4/11	5.8/14.3	6/14.9	6/15	7/17.4	10.1/25.2	12.1/30.1	16.2/40.4
7	LL (L/360)	105	391	858	1673	1797							
	TL (L/240)	154	583	1282	1786	1851	2345	2422	2543	3100	4464	5400	7230
	Bearing	1.5/3.5	1.5/3.5	2.9/7.2	4/10	4.2/10.4	5.3/13.1	5.5/13.6	5.7/14.2	7/17.4	10/24.9	12.1/30.2	16.2/40.3
8	LL (L/360)		266	589	1164	1252							
	TL (L/240)		394	878	1503	1554	1940	2000	2091	2667	3344	4285	6323
	Bearing		1.5/3.5	2.3/5.7	3.9/9.7	4/10	5/12.4	5.2/12.8	5.4/13.4	6.9/17.1	8.6/21.4	11/27.4	16.2/40.4
9	LL (L/360)		189	421	839	904	1440	1528	1667				
	TL (L/240)		278	625	1252	1350	1659	1707	1780	2233	2732	3342	5618
	Bearing		1.5/3.5	1.9/4.6	3.7/9.1	3.9/9.8	4.8/12	5/12.3	5.2/12.9	6.5/16.1	7.9/19.7	9.6/24	16.2/40.3
10	LL (L/360)		139	310	624	673	1079	1147	1252				
	TL (L/240)		203	459	928	1002	1450	1490	1552	1926	2324	2785	5054
	Bearing		1.5/3.5	1.5/3.8	3/7.5	3.3/8.1	4.7/11.6	4.8/12	5/12.5	6.2/15.4	7.5/18.6	9/22.3	16.2/40.4
11	LL (L/360)		105	235	476	513	828	880	963	1512			
	TL (L/240)		152	347	706	762	1206	1254	1326	1695	2028	2401	3979
	Bearing		1.5/3.5	1.5/3.5	2.5/6.3	2.7/6.8	4.3/10.7	4.5/11.1	4.7/11.7	6/15	7.2/17.9	8.5/21.2	14/35
12	LL (L/360)			183	371	400	648	690	755	1193	1714		
	TL (L/240)			267	548	592	963	1025	1123	1486	1801	2116	3336
	Bearing			1.5/3.5	2.2/5.4	2.3/5.8	3.8/9.3	4/9.9	4.4/10.9	5.8/14.3	7/17.4	8.2/20.4	12.8/32
13	LL (L/360)			144	294	318	516	550	602	956	1381		
	TL (L/240)			210	433	468	765	815	893	1264	1598	1893	2898
	Bearing			1.5/3.5	1.9/4.6	2/5	3.3/8.1	3.5/8.6	3.8/9.4	5.3/13.2	6.7/16.7	7.9/19.8	12.1/30.2
14	LL (L/360)			116	237	256	418	445	488	777	1127	1554	
	TL (L/240)			167	347	376	616	657	721	1088	1376	1693	2572
	Bearing			1.5/3.5	1.6/4	1.8/4.3	2.8/7	3/7.5	3.3/8.2	4.9/12.3	6.2/15.5	7.7/19.1	11.6/28.9
15	LL (L/360)				194	210	342	365	400	640	931	1289	
	TL (L/240)				282	305	503	537	589	948	1197	1472	2316
	Bearing				1.5/3.5	1.6/3.8	2.5/6.2	2.7/6.6	2.9/7.2	4.6/11.5	5.8/14.5	7.1/17.8	11.2/27.9
16	LL (L/360)				160	174	284	303	332	533	777	1079	
	TL (L/240)				232	251	416	443	487	787	1050	1292	2109
	Bearing				1.5/3.5	1.5/3.5	2.2/5.5	2.4/5.8	2.6/6.4	4.1/10.2	5.5/13.6	6.7/16.7	10.9/27.1
17	LL (L/360)				134	145	238	254	279	448	655	912	
	TL (L/240)				193	209	347	370	407	659	928	1142	1895
	Bearing				1.5/3.5	1.5/3.5	2/4.9	2.1/5.2	2.3/5.7	3.7/9.1	5.1/12.8	6.3/15.7	10.4/25.9
18	LL (L/360)				114	123	202	215	236	380	557	777	
	TL (L/240)				161	175	292	312	343	557	821	1017	1688
	Bearing				1.5/3.5	1.5/3.5	1.8/4.4	1.9/4.7	2.1/5.1	3.3/8.2	4.8/12	6/14.8	9.8/24.5
19	LL (L/360)					105	172	184	202	325	478	668	1482
	TL (L/240)					148	247	264	291	475	702	911	1512
	Bearing					1.5/3.5	1.6/4	1.7/4.2	1.9/4.6	3/7.4	4.4/10.9	5.7/14.1	9.3/23.2
20	LL (L/360)						148	158	174	280	412	577	1289
	TL (L/240)						211	226	249	407	604	820	1363
	Bearing						1.5/3.6	1.6/3.8	1.7/4.2	2.7/6.7	4/9.9	5.4/13.4	8.9/22.1
21	LL (L/360)						128	137	150	243	358	502	1127
	TL (L/240)						182	194	214	352	522	737	1234
	Bearing						1.5/3.5	1.5/3.5	1.6/3.8	2.5/6.1	3.6/9	5.1/12.6	8.4/21
22	LL (L/360)						112	119	131	212	313	440	991
	TL (L/240)						157	168	185	305	455	643	1122
	Bearing						1.5/3.5	1.5/3.5	1.5/3.5	2.3/5.6	3.3/8.3	4.7/11.6	8.1/20.1
23	LL (L/360)							105	115	187	275	387	876
	TL (L/240)							146	161	266	398	564	1024
	Bearing							1.5/3.5	1.5/3.5	2.1/5.2	3.1/7.6	4.3/10.7	7.7/19.2
24	LL (L/360)								102	165	243	342	777
	TL (L/240)								141	234	350	496	939
	Bearing								1.5/3.5	1.9/4.8	2.8/7	4/9.9	7.4/18.4
25	LL (L/360)									146	216	304	693
	TL (L/240)									206	309	439	863
	Bearing									1.8/4.4	2.6/6.5	3.7/9.1	7.1/17.7
26	LL (L/360)									130	193	272	620
	TL (L/240)									182	273	390	796
	Bearing									1.7/4.1	2.4/6	3.4/8.5	6.8/17
27	LL (L/360)									117	173	243	557
	TL (L/240)									161	243	348	737
	Bearing									1.6/3.8	2.3/5.6	3.2/7.9	6.6/16.4
28	LL (L/360)									105	155	219	502
	TL (L/240)									143	217	311	683
	Bearing									1.5/3.5	2.1/5.2	3/7.4	6.3/15.8
29	LL (L/360)										140	198	454
	TL (L/240)										194	279	635
	Bearing										2/4.9	2.8/6.9	6.1/15.2
30	LL (L/360)										127	179	412
	TL (L/240)										174	251	596
	Bearing										1.9/4.6	2.6/6.5	6/14.8
31	LL (L/360)										115	163	375
	TL (L/240)										157	226	540
	Bearing										1.8/4.3	2.5/6.1	5.6/13.9
32	LL (L/360)										105	148	342
	TL (L/240)										141	204	490
	Bearing										1.6/4	2.3/5.7	5.3/13.1

Bearing=Minimum End / Intermediate Bearing Length (inches).

5.25" WIDTH													
Span (ft)	Condition	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16"	18"	24"
6	LL (L/360)		912	1970									
	TL (L/240)		1363	2387	3313	3443	4481	4653	4707	5428	7914	9454	12658
	Bearing		1.8/4.4	3.1/7.7	4.3/10.6	4.4/11	5.8/14.3	6/14.9	6/15	7/17.4	10.1/25.2	12.1/30.1	16.2/40.3
7	LL (L/360)		587	1286	2510	2696							
	TL (L/240)		874	1923	2679	2776	3517	3633	3814	4650	6696	8100	10845
	Bearing		1.5/3.5	2.9/7.2	4/10	4.2/10.4	5.3/13.1	5.5/13.6	5.7/14.2	7/17.4	10/24.9	12.1/30.1	16.2/40.3
8	LL (L/360)		399	883	1746	1878							
	TL (L/240)		592	1316	2254	2331	2911	2999	3136	4000	5016	6427	9485
	Bearing		1.5/3.5	2.3/5.7	3.9/9.7	4/10	5/12.4	5.2/12.8	5.4/13.4	6.9/17.1	8.6/21.4	11/27.4	16.2/40.3
9	LL (L/360)		283	631	1259	1356	2160	2293	2500				
	TL (L/240)		417	937	1879	2024	2488	2560	2670	3349	4098	5013	8427
	Bearing		1.5/3.5	1.9/4.6	3.7/9.1	3.9/9.8	4.8/12	5/12.3	5.2/12.9	6.5/16.1	7.9/19.7	9.7/24.1	16.2/40.4
10	LL (L/360)		208	466	936	1009	1619	1720	1878				
	TL (L/240)		304	689	1393	1503	2175	2235	2328	2889	3487	4178	7580
	Bearing		1.5/3.5	1.5/3.8	3/7.5	3.3/8.1	4.7/11.6	4.8/12	5/12.5	6.2/15.4	7.5/18.6	9/22.3	16.2/40.3
11	LL (L/360)		157	353	713	770	1242	1320	1444	2268			
	TL (L/240)		228	520	1058	1143	1809	1880	1989	2543	3042	3602	5969
	Bearing		1.5/3.5	1.5/3.5	2.5/6.3	2.7/6.8	4.3/10.7	4.5/11.1	4.7/11.7	6/15	7.2/17.9	8.5/21.2	14/35
12	LL (L/360)			274	556	600	972	1034	1132	1789	2571		
	TL (L/240)			401	821	888	1444	1537	1684	2229	2701	3173	5004
	Bearing			1.5/3.5	2.2/5.4	2.3/5.8	3.8/9.3	4/9.9	4.4/10.9	5.8/14.3	7/17.4	8.2/20.4	12.9/32.1
13	LL (L/360)			217	441	476	774	824	903	1434	2071		
	TL (L/240)			315	649	702	1147	1222	1340	1896	2397	2840	4347
	Bearing			1.5/3.5	1.9/4.6	2/5	3.3/8.1	3.5/8.6	3.8/9.4	5.3/13.2	6.7/16.7	7.9/19.8	12.1/30.2
14	LL (L/360)			174	356	384	626	667	731	1166	1691	2331	
	TL (L/240)			251	521	563	925	985	1081	1632	2064	2539	3858
	Bearing			1.5/3.5	1.6/4	1.8/4.3	2.8/7	3/7.5	3.3/8.2	4.9/12.3	6.2/15.5	7.7/19.1	11.6/28.9
15	LL (L/360)				291	314	514	547	600	960	1397	1933	
	TL (L/240)				423	458	755	805	884	1422	1795	2208	3475
	Bearing				1.5/3.5	1.6/3.8	2.5/6.2	2.7/6.6	2.9/7.2	4.6/11.5	5.8/14.5	7.1/17.8	11.2/27.9
16	LL (L/360)				241	260	426	454	498	799	1166	1619	
	TL (L/240)				348	377	623	665	731	1180	1574	1937	3164
	Bearing				1.5/3.5	1.5/3.5	2.2/5.5	2.4/5.8	2.6/6.4	4.1/10.2	5.5/13.6	6.7/16.7	10.9/27.1
17	LL (L/360)				202	218	357	381	418	672	983	1368	
	TL (L/240)				289	313	520	555	610	989	1392	1713	2843
	Bearing				1.5/3.5	1.5/3.5	2/4.9	2.1/5.2	2.3/5.7	3.7/9.1	5.1/12.8	6.3/15.7	10.4/25.9
18	LL (L/360)				170	184	302	322	354	570	836	1166	
	TL (L/240)				242	263	438	467	514	836	1232	1525	2532
	Bearing				1.5/3.5	1.5/3.5	1.8/4.4	1.9/4.7	2.1/5.1	3.3/8.2	4.8/12	6/14.8	9.8/24.5
19	LL (L/360)					157	258	275	302	488	716	1001	2222
	TL (L/240)					222	371	396	437	712	1053	1366	2269
	Bearing					1.5/3.5	1.6/4	1.7/4.2	1.9/4.6	3/7.4	4.4/10.9	5.7/14.1	9.3/23.2
20	LL (L/360)						222	237	260	421	618	866	1933
	TL (L/240)						317	339	373	611	905	1230	2044
	Bearing						1.5/3.6	1.6/3.8	1.7/4.2	2.7/6.7	4/9.9	5.4/13.4	8.9/22.1
21	LL (L/360)						192	205	226	365	537	754	1691
	TL (L/240)						272	291	321	527	784	1105	1850
	Bearing						1.5/3.5	1.5/3.5	1.6/3.8	2.5/6.1	3.6/9	5.1/12.6	8.4/21
22	LL (L/360)						168	179	197	319	470	660	1487
	TL (L/240)						235	252	278	458	682	964	1683
	Bearing						1.5/3.5	1.5/3.5	1.5/3.5	2.3/5.6	3.3/8.3	4.7/11.6	8.1/20.1
23	LL (L/360)							157	173	280	413	581	1314
	TL (L/240)							219	242	400	597	845	1537
	Bearing							1.5/3.5	1.5/3.5	2.1/5.2	3.1/7.6	4.3/10.7	7.7/19.2
24	LL (L/360)								152	247	365	514	1166
	TL (L/240)								211	350	524	745	1408
	Bearing								1.5/3.5	1.9/4.8	2.8/7	4/9.9	7.4/18.4
25	LL (L/360)									219	324	456	1039
	TL (L/240)									308	463	659	1295
	Bearing									1.8/4.4	2.6/6.5	3.7/9.1	7.1/17.7
26	LL (L/360)									195	289	407	930
	TL (L/240)									273	410	585	1195
	Bearing									1.7/4.1	2.4/6	3.4/8.5	6.8/17
27	LL (L/360)									175	259	365	836
	TL (L/240)									242	365	521	1105
	Bearing									1.6/3.8	2.3/5.6	3.2/7.9	6.6/16.4
28	LL (L/360)									157	233	328	754
	TL (L/240)									215	326	466	1025
	Bearing									1.5/3.5	2.1/5.2	3/7.4	6.3/15.8
29	LL (L/360)										210	296	682
	TL (L/240)										291	418	953
	Bearing										2/4.9	2.8/6.9	6.1/15.2
30	LL (L/360)										190	268	618
	TL (L/240)										261	376	893
	Bearing										1.9/4.6	2.6/6.5	6/14.8
31	LL (L/360)										173	244	563
	TL (L/240)										235	339	810
	Bearing										1.8/4.3	2.5/6.1	5.6/13.9
32	LL (L/360)										157	222	514
	TL (L/240)										212	307	736
	Bearing										1.6/4	2.3/5.7	5.3/13.1

Bearing=Minimum End / Intermediate Bearing Length (inches).

7" WIDTH													
Span (ft)	Condition	3.5"	5.5"	7.25"	9.25"	9.5"	11.25"	11.5"	11.875"	14"	16"	18"	24"
6	LL (L/360)			2626									
	TL (L/240)			3183	4418	4591	5975	6204	6276	7238	10552	12606	16878
	Bearing			3.1/7.7	4.3/10.6	4.4/11	5.8/14.3	6/14.9	6/15	7/17.4	10.1/25.2	12.1/30.1	16.2/40.4
7	LL (L/360)			1715	3347	3594							
	TL (L/240)			2564	3573	3702	4689	4844	5085	6200	8928	10800	14460
	Bearing			2.9/7.2	4/10	4.2/10.4	5.3/13.1	5.5/13.6	5.7/14.2	7/17.3	10/24.9	12.1/30.1	16.2/40.3
8	LL (L/360)			1177	2328	2504							
	TL (L/240)			1755	3005	3108	3881	3999	4181	5333	6688	8569	12646
	Bearing			2.3/5.7	3.9/9.7	4/10	5/12.4	5.2/12.8	5.4/13.4	6.9/17.1	8.6/21.4	11/27.4	16.2/40.3
9	LL (L/360)			841	1679	1808	2880	3057	3333				
	TL (L/240)			1250	2505	2699	3317	3413	3560	4466	5464	6684	11236
	Bearing			1.9/4.6	3.7/9.1	3.9/9.8	4.8/12	5/12.3	5.2/12.9	6.5/16.1	7.9/19.7	9.7/24.1	16.2/40.3
10	LL (L/360)			621	1248	1346	2158	2293	2504				
	TL (L/240)			919	1857	2003	2899	2980	3104	3852	4649	5571	10107
	Bearing			1.5/3.8	3/7.5	3.3/8.1	4.7/11.6	4.8/12	5/12.5	6.2/15.4	7.5/18.6	9/22.3	16.2/40.4
11	LL (L/360)			471	951	1027	1656	1761	1925	3024			
	TL (L/240)			693	1411	1524	2412	2507	2652	3391	4056	4803	7958
	Bearing			1.5/3.5	2.5/6.3	2.7/6.8	4.3/10.7	4.5/11.1	4.7/11.7	6/15	7.2/17.9	8.5/21.2	14/35
12	LL (L/360)			365	741	800	1296	1379	1510	2386	3428		
	TL (L/240)			534	1095	1184	1926	2050	2245	2972	3602	4231	6672
	Bearing			1.5/3.5	2.2/5.4	2.3/5.8	3.8/9.3	4/9.9	4.4/10.9	5.8/14.3	7/17.4	8.2/20.4	12.8/32
13	LL (L/360)			289	588	635	1033	1099	1204	1912	2761		
	TL (L/240)			420	865	936	1529	1629	1786	2528	3197	3786	5796
	Bearing			1.5/3.5	1.9/4.6	2/5	3.3/8.1	3.5/8.6	3.8/9.4	5.3/13.2	6.7/16.7	7.9/19.8	12.1/30.2
14	LL (L/360)			232	474	512	835	890	975	1555	2254	3108	
	TL (L/240)			335	694	751	1233	1314	1442	2176	2752	3385	5144
	Bearing			1.5/3.5	1.6/4	1.8/4.3	2.8/7	3/7.5	3.3/8.2	4.9/12.3	6.2/15.5	7.7/19.1	11.6/28.9
15	LL (L/360)				388	419	685	730	800	1280	1862	2577	
	TL (L/240)				564	611	1007	1073	1179	1896	2393	2944	4633
	Bearing				1.5/3.5	1.6/3.8	2.5/6.2	2.7/6.6	2.9/7.2	4.6/11.5	5.8/14.5	7.1/17.8	11.2/27.9
16	LL (L/360)				321	347	568	605	664	1066	1555	2158	
	TL (L/240)				464	503	831	887	975	1573	2099	2583	4219
	Bearing				1.5/3.5	1.5/3.5	2.2/5.5	2.4/5.8	2.6/6.4	4.1/10.2	5.5/13.6	6.7/16.7	10.9/27.1
17	LL (L/360)				269	291	476	508	557	896	1311	1824	
	TL (L/240)				385	418	693	740	814	1319	1856	2284	3790
	Bearing				1.5/3.5	1.5/3.5	2/4.9	2.1/5.2	2.3/5.7	3.7/9.1	5.1/12.8	6.3/15.7	10.4/25.9
18	LL (L/360)				227	246	403	430	472	760	1114	1555	
	TL (L/240)				323	350	583	623	686	1115	1643	2033	3376
	Bearing				1.5/3.5	1.5/3.5	1.8/4.4	1.9/4.7	2.1/5.1	3.3/8.2	4.8/12	6/14.8	9.8/24.5
19	LL (L/360)					209	344	367	403	651	955	1335	2963
	TL (L/240)					296	495	529	582	950	1403	1821	3025
	Bearing					1.5/3.5	1.6/4	1.7/4.2	1.9/4.6	3/7.4	4.4/10.9	5.7/14.1	9.3/23.2
20	LL (L/360)						296	316	347	561	825	1154	2577
	TL (L/240)						423	452	498	815	1207	1640	2725
	Bearing						1.5/3.6	1.6/3.8	1.7/4.2	2.7/6.7	4/9.9	5.4/13.4	8.9/22.1
21	LL (L/360)						257	274	301	487	717	1005	2254
	TL (L/240)						363	388	428	703	1045	1474	2467
	Bearing						1.5/3.5	1.5/3.5	1.6/3.8	2.5/6.1	3.6/9	5.1/12.6	8.4/21
22	LL (L/360)						224	239	262	425	626	879	1982
	TL (L/240)						314	336	370	611	909	1286	2244
	Bearing						1.5/3.5	1.5/3.5	1.5/3.5	2.3/5.6	3.3/8.3	4.7/11.6	8.1/20.1
23	LL (L/360)							209	230	373	551	774	1751
	TL (L/240)							292	322	533	796	1127	2049
	Bearing							1.5/3.5	1.5/3.5	2.1/5.2	3.1/7.6	4.3/10.7	7.7/19.2
24	LL (L/360)								203	330	487	685	1555
	TL (L/240)								281	467	699	993	1878
	Bearing								1.5/3.5	1.9/4.8	2.8/7	4/9.9	7.4/18.4
25	LL (L/360)									292	432	609	1386
	TL (L/240)									411	617	878	1727
	Bearing									1.8/4.4	2.6/6.5	3.7/9.1	7.1/17.7
26	LL (L/360)									261	385	543	1240
	TL (L/240)									363	547	780	1593
	Bearing									1.7/4.1	2.4/6	3.4/8.5	6.8/17
27	LL (L/360)									233	345	487	1114
	TL (L/240)									322	486	695	1473
	Bearing									1.6/3.8	2.3/5.6	3.2/7.9	6.6/16.4
28	LL (L/360)									209	310	438	1005
	TL (L/240)									287	434	622	1367
	Bearing									1.5/3.5	2.1/5.2	3/7.4	6.3/15.8
29	LL (L/360)										280	395	909
	TL (L/240)										388	558	1271
	Bearing										2/4.9	2.8/6.9	6.1/15.2
30	LL (L/360)										253	358	825
	TL (L/240)										348	502	1191
	Bearing										1.9/4.6	2.6/6.5	6/14.8
31	LL (L/360)										230	325	750
	TL (L/240)										313	452	1080
	Bearing										1.8/4.3	2.5/6.1	5.6/13.9
32	LL (L/360)										209	296	685
	TL (L/240)										283	409	981
	Bearing										1.6/4	2.3/5.7	5.3/13.1

Bearing=Minimum End / Intermediate Bearing Length (inches).

GENERAL NOTES

1. Tables are formulated for all standard Evolution LVL beam widths including 1.5", 1.75", 3.5", 5.25", and 7". When multiple plies are joined properly side-by-side to achieve a larger assembly width, double the tabulated values for two-ply assemblies and triple for three-ply beam assemblies. Minimum bearing lengths shown for single-ply members apply equally to two-ply and three-ply built-up members. Refer to the Evolution LVL Connection Manual for specific fastening details.
2. Values shown are the maximum uniform loads, in pounds per lineal foot (plf), that can be applied to the beam in addition to its own self-weight.
3. Tables are based on uniform loads and the most restrictive conditions for simple or continuous spans under dry-use service conditions. For alternative load types, non-uniform loads, or special span configurations, design shall be performed in accordance with applicable engineering design standards.
4. Lateral support of beam compression edges is required at intervals of 24 inches (on center) or closer. For continuous spans, lateral support shall also be provided at the bottom compression edge at the same spacing.
5. Lateral support (blocking or headers) is mandatory at all beam bearing locations to prevent rotation and ensure load transfer.
6. Evolution LVL beams are manufactured without camber. Therefore, in addition to complying with the deflection limits of the applicable building code, long-term deflection due to creep under sustained loads must be evaluated during the design phase.
7. All 1.5" and 1.75" wide LVL members with nominal depths of 16", 18", and 24" are designed for use in multiple-member assemblies only. They are not intended for single-piece use.
8. To size a member for a span not explicitly listed in the tables, use the capacities designated for the next larger span shown.
9. For continuous beam systems with multiple spans, the shortest span must be at least 40% of the length of the adjacent longer span.
10. Bearing lengths are calculated based on a maximum allowable bearing stress of 500 psi for 2.1E Grade Evolution LVL. Bearing stresses cannot be increased for short-duration load cases. Bearing length must be increased if the supporting member's actual allowable bearing stress is less than 500 psi.

FLOOR BEAM SIZING

1. To size a beam for use in a floor, it is necessary to check both live load and total load. Make sure the selected beam will work in both rows. When no live load is shown, total load will control. Spans shown are measured center-to-center of bearing.
2. Check local code for other deflection criteria.
3. For deflection limits of L/480, multiply loads shown in live load row by 0.75. The resulting live load shall not exceed the total load shown.