BOOZERBEAM™

STRUCTURAL GLULAM COLUMN

1.9E • 2300Fc

- Stronger and more dimensionally stable than solid sawn posts.
- Lower cost than PSL.
- Exceptional value in cost vs. performance.
- Made from the finest dense southern yellow pine lumber.
- Available in architectural appearance grade for visually exposed applications. Absolutely beautiful!
- LiquiSeal™ wax coating available.
- Available in any length up to 52'.
- Quality inspected by APA-The Engineered Wood Assocation.

HANDCRAFTED WITH PRIDE IN THE U.S.A.

NORTH AMERICAN WHOLESALE LUMBER ASSOCIATION

APA

BOOZERBEAM 1.9E Structural Glulam Columns are available in the following widths:

3 1/8″ 3 1/2″ 5 1/8″ 5 1/4″ 5 1/2″ 6 3/4″ 7″

Please contact your nearest **BOOZERBEAM** dealer for sizes available in your market.

BOOZERBEAM HOLDS UP!

Boozer Laminated Beam Co., Inc. • Anniston, AL • 256-237-2875 • boozerbeam.com

APA

Allowable Axial Loads (Pounds) for Combination No. 50 Glulam Column (DRY USE)

Side loads are not permitted. End loads are limited to a maximum eccentricity of either 1/6 column width or depth, whichever is worse.

Effective Column Length	Lamination Net Width = 3-1/2 in.																																	
	Net Depth = 3-1/2 in. (3 lams)			Net Depth = 4-1/4 in. (4 lams)			Net Depth = 5-1/4 in. (4 lams)			Net Depth = 5-1/2 in. (4 lams)			Net Depth = 7 in. (6 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 8-3/8 in. (7 lams)			Net Depth = 9-1/4 in. (7 lams)			Net Depth = 9-1/2 in. (7 lams)			Net Depth = 11-1/4 in. (9 lams)			Net Depth = 11-7/8 in. (9 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
(ft)	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25
4	11,980	13,550	14,490	17,180	19,420	20,750	22,120	25,060	26,620	23,330	26,250	27,890	29,720	33,410	35,490	35,030	39,380	41,830	35,560	39,970	42,460	39,280	44,150	46,900	40,340	45,340	48,170	47,770	53,700	57,040	50,420	56,680	60,210
5	10,850	12,150	12,850	15,460	17,270	18,210	19,440	21,550	22,580	20,360	22,570	23,660	25,920	28,730	30,110	30,550	33,860	35,490	31,010	34,380	36,020	34,250	37,970	39,790	35,180	38,990	40,860	41,650	46,180	48,390	43,970	48,740	51,080
6	9,570	10,580	11,050	13,310	14,570	15,090	16,450	18,000	18,650	17,230	18,850	19,530	21,930	24,000	24,860	25,840	28,280	29,300	26,240	28,710	29,740	28,980	31,710	32,850	29,760	32,570	33,740	35,240	38,570	39,960	37,200	40,710	42,180
7	8,250	9,020	9,340	11,130	12,080	12,430	13,750	14,920	15,350	14,400	15,630	16,080	18,330	19,890	20,460	21,610	23,440	24,120	21,930	23,800	24,480	24,230	26,290	27,040	24,880	27,000	27,770	29,460	31,970	32,890	31,100	33,750	34,720
8	7,060	7,660	7,880	9,330	10,070	10,320	11,530	12,440	12,750	12,080	13,040	13,350	15,370	16,590	16,990	18,120	19,560	20,030	18,390	19,850	20,330	20,310	21,930	22,460	20,860	22,520	23,060	24,710	26,670	27,310	26,080	28,150	28,830
9	6,050	6,530	6,690	7,900	8,490	8,670	9,750	10,490	10,710	10,220	10,990	11,220	13,000	13,980	14,280	15,330	16,480	16,830	15,560	16,730	17,080	17,180	18,480	18,870	17,650	18,960	19,380	20,900	22,470	22,940	22,060	23,720	24,220
10	5,220	5,610	5,730	6,750	7,230	7,370	8,330	8,940	9,100	8,730	9,360	9,530	11,110	11,910	12,130	13,090	14,040	14,300	13,290	14,250	14,520	14,680	15,740	16,030	15,080	16,170	16,470	17,860	19,150	19,500	18,850	20,210	20,580
11	4,530	4,860	4,960	5,820	6,230	6,330	7,190	7,690	7,820	7,530	8,060	8,190	9,580	10,250	10,420	11,300	12,090	12,290	11,470	12,270	12,470	12,660	13,550	13,780	13,010	13,920	14,150	15,400	16,480	16,750	16,260	17,400	17,680
12	3,970	4,250	4,320	5,060	5,410	5,490	6,260	6,680	6,780	6,550	7,000	7,110	8,340	8,910	9,040	9,830	10,500	10,660	9,980	10,660	10,820	11,020	11,770	11,950	11,320	12,090	12,270	13,410	14,320	14,540	14,150	15,120	15,340
13	3,500	3,740	3,800	4,440	4,740	4,810	5,490	5,860	5,940	5,750	6,130	6,220	7,320	7,810	7,920	8,630	9,200	9,330	8,760	9,340	9,470	9,670	10,320	10,450	9,940	10,600	10,740	11,770	12,550	12,720	12,420	13,250	13,430
14	3,100	3,310	3,360	3,930	4,190	4,240	4,850	5,170	5,240	5,090	5,420	5,490	6,470	6,890	6,980	7,630	8,130	8,230	7,740	8,250	8,350	8,550	9,110	9,230	8,780	9,360	9,480	10,400	11,080	11,220	10,980	11,700	11,840

Notes:
1. The tabulated allowable loads apply only to one-piece glulam members made with all N1D14 laminations (Combination 50) without special tension laminations.
2. Applicable service conditions = dry
3. The tabulated allowable loads are based on simply axially loaded columns subjected to a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is worse. For side loads, other eccentric end loads, or other combined axial and flexural loads, see 2015 NDS
4. The column is assumed to be unbraced, except at the column ends, and the effective column length is equal to the actual column length.
5. Design properties for normal load duration and dry-use service conditions:
   Compression parallel to grain (F_c) = 2,300 psi for 4 or more lams, or 1,700 psi for 2 or 3 lams.
   Modulus of elasticity (E) = 1.9 x 10^6 psi
   Flexural stress when loaded parallel to wide faces of lamination (F_{by}) = 2,300 psi for 4 or more lams, or 2,100 psi for 3 lams.
   Flexural stress when loaded perpendicular to wide faces of lamination (F_{bx}) = 2,100 psi for 2 lams to 15 in. deep without special tension laminations.
   Volume factor for F_{bx} is in accordance with 2015 NDS. Size factor for F_{by} is $(12/d)^{1/9}$, where d is equal to the lamination width in inches.

Allowable Axial Loads (Pounds) for Combination No. 50 Glulam Column (WET USE)

Side loads are not permitted. End loads are limited to a maximum eccentricity of either 1/6 column width or depth, whichever is worse.

Effective Column Length	Lamination Net Width = 3-1/2 in.																																	
	Net Depth = 3-1/2 in. (3 lams)			Net Depth = 4-1/4 in. (4 lams)			Net Depth = 5-1/4 in. (4 lams)			Net Depth = 5-1/2 in. (4 lams)			Net Depth = 7 in. (6 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 8-3/8 in. (7 lams)			Net Depth = 9-1/4 in. (7 lams)			Net Depth = 9-1/2 in. (7 lams)			Net Depth = 11-1/4 in. (9 lams)			Net Depth = 11-7/8 in. (9 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
(ft)	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25
4	9,250	10,490	11,240	13,380	15,150	16,220	17,130	19,460	20,880	18,050	20,520	21,870	23,180	26,130	27,840	27,320	30,800	32,810	27,730	31,260	33,310	30,630	34,530	36,790	31,460	35,460	37,780	37,250	42,000	44,740	39,320	44,330	47,230
5	8,490	9,540	10,130	12,200	13,660	14,480	15,420	17,160	18,050	16,150	17,980	18,910	20,560	22,880	24,070	24,230	26,970	28,370	24,600	27,380	28,800	27,170	30,240	31,810	27,900	31,060	32,670	33,040	36,780	38,690	34,880	38,820	40,840
6	7,610	8,440	8,860	10,730	11,790	12,250	13,260	14,560	15,130	13,890	15,250	15,850	17,680	19,410	20,170	20,840	22,880	23,770	21,150	23,230	24,130	23,360	25,650	26,650	23,990	26,350	27,370	28,410	31,200	32,420	29,990	32,930	34,220
7	6,660	7,300	7,580	9,070	9,860	10,160	11,200	12,180	12,550	11,730	12,760	13,150	14,930	16,240	16,730	17,600	19,140	19,720	17,860	19,430	20,020	19,730	21,460	22,110	20,260	22,040	22,710	24,000	26,100	26,890	25,330	27,550	28,390
8	5,750	6,250	6,440	7,640	8,260	8,470	9,440	10,210	10,460	9,890	10,690	10,960	12,590	13,610	13,950	14,840	16,040	16,440	15,060	16,280	16,690	16,640	17,980	18,440	17,090	18,470	18,930	20,230	21,870	22,420	21,360	23,080	23,670
9	4,950	5,350	5,490	6,490	6,980	7,130	8,010	8,620	8,810	8,390	9,040	9,230	10,680	11,500	11,750	12,590	13,550	13,850	12,780	13,760	14,060	14,120	15,200	15,530	14,500	15,610	15,950	17,170	18,480	18,880	18,120	19,510	19,930
10	4,280	4,610	4,720	5,550	5,960	6,070	6,860	7,360	7,500	7,190	7,710	7,860	9,150	9,820	10,000	10,780	11,570	11,790	10,940	11,740	11,970	12,090	12,970	13,220	12,410	13,320	13,580	14,700	15,780	16,080	15,520	16,650	16,970
11	3,730	4,000	4,080	4,800	5,140	5,220	5,930	6,350	6,450	6,210	6,650	6,760	7,900	8,460	8,610	9,310	9,970	10,140	9,450	10,120	10,300	10,440	11,180	11,370	10,720	11,480	11,680	12,700	13,600	13,830	13,410	14,350	14,600
12	3,270	3,500	3,560	4,180	4,470	4,540	5,160	5,520	5,600	5,410	5,780	5,870	6,890	7,360	7,470	8,120	8,670	8,810	8,240	8,800	8,940	9,100	9,720	9,870	9,350	9,990	10,140	11,070	11,830	12,010	11,680	12,480	12,680
13	2,880	3,080	3,130	3,670	3,920	3,970	4,540	4,840	4,910	4,750	5,070	5,140	6,050	6,450	6,550	7,130	7,610	7,710	7,240	7,720	7,830	7,990	8,530	8,650	8,210	8,760	8,880	9,720	10,370	10,520	10,260	10,950	11,100
14	2,560	2,740	2,780	3,250	3,460	3,510	4,010	4,280	4,330	4,200	4,480	4,540	5,350	5,700	5,780	6,310	6,720	6,810	6,400	6,820	6,910	7,070	7,540	7,630	7,260	7,740	7,840	8,600	9,170	9,290	9,080	9,670	9,800

Notes:
1. The tabulated allowable loads apply only to one-piece glulam members made with all N1D14 laminations (Combination 50) without special tension laminations.
2. Applicable service conditions = wet
3. The tabulated allowable loads are based on simply axially loaded columns subjected to a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is worse. For side loads, other eccentric end loads, or other combined axial and flexural loads, see 2015 NDS
4. The column is assumed to be unbraced, except at the column ends, and the effective column length is equal to the actual column length.
5. Design properties for normal load duration and wet-use service conditions:
   Compression parallel to grain (F_c) = 2,300 x 0.73 psi for 4 or more lams, or 1,700 x 0.73 psi for 2 or 3 lams.
   Modulus of elasticity (E) = 1.9 x 0.833 x 10^6 psi
   Flexural stress when loaded parallel to wide faces of lamination (F_{by}) = 2,300 x 0.8 psi for 4 or more lams, or 2,100 x 0.8 psi for 3 lams.
   Flexural stress when loaded perpendicular to wide faces of lamination (F_{bx}) = 2,100 x 0.8 psi for 2 lams to 15 in. deep without special tension laminations.
   Volume factor for F_{bx} is in accordance with 2015 NDS. Size factor for F_{by} is $(12/d)^{1/9}$, where d is equal to the lamination width in inches.

Allowable Axial Loads (Pounds) for Combination No. 50 Glulam Column (DRY USE)

Side loads are not permitted. End loads are limited to a maximum eccentricity of either 1/6 column width or depth, whichever is worse.

Effective Column Length	Lamination Net Width = 5-1/4 in.																																	
	Net Depth = 5-1/4 in. (4 lams)			Net Depth = 5-1/2 in. (4 lams)			Net Depth = 7 in. (6 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 8-3/8 in. (7 lams)			Net Depth = 9-1/4 in. (7 lams)			Net Depth = 9-1/2 in. (7 lams)			Net Depth = 11-1/4 in. (9 lams)			Net Depth = 11-7/8 in. (9 lams)								
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor								
(ft)	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25						
4	34,110	38,860	41,850	35,970	41,010	44,180	47,100	53,840	58,160	56,220	64,340	69,580	57,130	65,380	70,720	63,450	72,650	78,620	65,250	74,720	80,870	77,790	89,140	96,530	82,250	94,260	102,100						
5	32,260	36,540	39,130	34,150	38,720	41,500	45,420	51,720	55,650	54,590	62,260	66,900	55,490	63,300	67,920	61,820	70,080	75,010	63,540	71,970	77,040	75,250	85,230	91,230	79,430	89,970	96,300						
6	30,090	33,850	35,990	31,990	36,040	38,370	43,330	49,020	52,090	51,390	57,780	61,390	52,170	58,650	62,320	57,620	64,780	68,830	59,180	66,530	70,690	70,080	78,790	83,710	73,970	83,170	88,360						
7	27,670	30,880	32,570	29,570	33,030	34,880	39,990	44,560	46,920	47,130	52,510	55,300	47,840	53,310	56,140	52,840	58,880	62,010	54,270	60,470	63,680	64,260	71,610	75,410	67,830	75,590	79,600						
8	25,120	27,780	29,060	26,950	29,840	31,250	36,130	39,880	41,630	42,580	47,000	49,070	43,220	47,710	49,810	47,740	52,700	55,020	49,030	54,120	56,500	58,060	64,090	66,910	61,290	67,660	70,630						
9	22,570	24,770	25,730	24,290	26,680	27,750	32,280	35,350	36,640	38,040	41,660	43,180	38,620	42,290	43,840	42,660	46,710	48,420	43,810	47,970	49,730	51,880	56,810	58,890	54,760	59,960	62,160						
10	20,170	22,010	22,750	21,760	23,760	24,580	28,690	31,230	32,210	33,820	36,810	37,960	34,330	37,360	38,540	37,920	41,270	42,570	38,940	42,380	43,720	46,120	50,190	51,770	48,680	52,980	54,640						
11	18,020	19,580	20,160	19,480	21,170	21,820	25,500	27,630	28,400	30,060	32,570	33,470	30,510	33,060	33,980	33,700	36,520	37,530	34,610	37,500	38,540	40,990	44,410	45,640	43,260	46,880	48,180						
12	16,130	17,460	17,930	17,460	18,910	19,430	22,720	24,540	25,150	26,780	28,920	29,640	27,190	29,360	30,090	30,030	32,430	33,230	30,840	33,310	34,130	36,520	39,440	40,420	38,550	41,630	42,660						
13	14,490	15,640	16,030	15,700	16,950	17,370	20,320	21,890	22,380	23,950	25,800	26,380	24,320	26,190	26,780	26,860	28,930	29,580	27,580	29,710	30,380	32,670	35,190	35,980	34,480	37,140	37,970						
14	13,060	14,070	14,390	14,160	15,260	15,610	18,260	19,620	20,030	21,520	23,130	23,600	21,840	23,480	23,960	24,130	25,930	26,460	24,780	26,630	27,180	29,340	31,540	32,190	30,970	33,290	33,970						
15	11,820	12,710	12,970	12,820	13,790	14,080	16,470	17,670	18,010	19,410	20,830	21,220	19,710	21,140	21,540	21,760	23,350	23,790	22,350	23,980	24,440	26,470	28,400	28,940	27,940	29,980	30,550						
16	10,740	11,530	11,750	11,660	12,510	12,760	14,920	15,980	16,270	17,590	18,840	19,170	17,850	19,120	19,460	19,720	21,120	21,490	20,250	21,690	22,070	23,980	25,690	26,140	25,310	27,120	27,590						
17	9,790	10,490	10,680	10,630	11,400	11,600	13,570	14,520	14,760	16,000	17,110	17,390	16,240	17,370	17,660	17,930	19,190	19,500	18,420	19,700	20,030	21,810	23,330	23,720	23,020	24,630	25,040						
18	8,960	9,590	9,750	9,730	10,400	10,560	12,390	13,240	13,450	14,600	15,610	15,850	14,830	15,840	16,090	16,370	17,500	17,770	16,820	17,970	18,250	19,920	21,280	21,610	21,020	22,460	22,810						
19	8,230	8,800	8,940	8,920	9,520	9,660	11,350	12,120	12,300	13,380	14,290	14,490	13,590	14,500	14,710	15,000	16,020	16,250	15,410	16,450	16,690	18,250	19,480	19,760	19,260	20,560	20,860						
20	7,580	8,090	8,220	8,200	8,750	8,870	10,440	11,130	11,290	12,300	13,120	13,300	12,490	13,320	13,500	13,800	14,710	14,920	14,170	15,110	15,320	16,780	17,890	18,140	17,710	18,890	19,150						
21	7,000	7,470	7,580	7,570	8,060	8,170	9,630	10,260	10,390	11,350	12,090	12,250	11,520	12,280	12,440	12,720	13,560	13,740	13,070	13,930	14,110	15,470	16,490	16,710	16,330	17,410	17,630						

Notes:
1. The tabulated allowable loads apply only to one-piece glulam members made with all N1D14 laminations (Combination 50) without special tension laminations.
2. Applicable service conditions = dry
3. The tabulated allowable loads are based on simply axially loaded columns subjected to a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is worse. For side loads, other eccentric end loads, or other combined axial and flexural loads, see 2015 NDS
4. The column is assumed to be unbraced, except at the column ends, and the effective column length is equal to the actual column length.
5. Design properties for normal load duration and dry-use service conditions:
   Compression parallel to grain (F_c) = 2,300 psi for 4 or more lams, or 1,700 psi for 2 or 3 lams.
   Modulus of elasticity (E) = 1.9 x 10^6 psi
   Flexural stress when loaded parallel to wide faces of lamination (F_{by}) = 2,300 psi for 4 or more lams, or 2,100 psi for 3 lams.
   Flexural stress when loaded perpendicular to wide faces of lamination (F_{bx}) = 2,100 psi for 2 lams to 15 in. deep without special tension laminations.
   Volume factor for F_{bx} is in accordance with 2015 NDS. Size factor for F_{by} is $(12/d)^{1/9}$, where d is equal to the lamination width in inches.

Allowable Axial Loads (Pounds) for Combination No. 50 Glulam Column (WET USE)

Side loads are not permitted. End loads are limited to a maximum eccentricity of either 1/6 column width or depth, whichever is worse.

Effective Column Length	Lamination Net Width = 5-1/4 in.																											
	Net Depth = 5-1/4 in. (4 lams)			Net Depth = 5-1/2 in. (4 lams)			Net Depth = 7 in. (6 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 8-3/8 in. (7 lams)			Net Depth = 9-1/4 in. (7 lams)			Net Depth = 9-1/2 in. (7 lams)			Net Depth = 11-1/4 in. (9 lams)			Net Depth = 11-7/8 in. (9 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
(ft)	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25
4	26,320	30,020	32,360	27,730	31,650	34,130	36,170	41,370	44,730	43,090	49,340	53,400	43,780	50,130	54,260	48,580	55,660	60,270	49,950	57,230	61,980	59,490	68,200	73,900	62,890	72,100	78,140
5	25,060	28,450	30,520	26,500	30,100	32,320	35,040	39,950	43,050	42,000	47,960	51,750	42,690	48,750	52,610	47,500	54,280	58,250	48,870	55,780	59,830	58,200	66,050	70,850	61,430	69,720	74,780
6	23,580	26,590	28,350	25,030	28,260	30,160	33,640	38,170	40,900	40,120	45,240	48,200	40,730	45,920	48,930	44,980	50,720	54,040	46,200	52,090	55,500	54,710	61,690	65,730	57,750	65,110	69,380
7	21,890	24,510	25,930	23,340	26,170	27,720	31,550	35,290	37,300	37,190	41,590	43,960	37,750	42,220	44,630	41,700	46,640	49,290	42,820	47,900	50,620	50,710	56,720	59,950	53,530	59,870	63,280
8	20,070	22,280	23,380	21,490	23,890	25,100	28,840	31,960	33,480	33,980	37,670	39,460	34,500	38,240	40,060	38,100	42,230	44,250	39,130	43,370	45,440	46,340	51,360	53,810	48,920	54,220	56,800
9	18,200	20,040	20,870	19,560	21,560	22,480	26,030	28,600	29,730	30,670	33,700	35,040	31,140	34,210	35,570	34,390	37,790	39,280	35,320	38,810	40,340	41,830	45,960	47,780	44,150	48,510	50,430
10	16,380	17,910	18,550	17,650	19,320	20,030	23,310	25,430	26,280	27,470	29,970	30,970	27,880	30,420	31,440	30,800	33,600	34,730	31,630	34,510	35,670	37,450	40,870	42,240	39,540	43,140	44,580
11	14,700	15,990	16,500	15,870	17,280	17,840	20,810	22,590	23,250	24,530	26,630	27,400	24,900	27,030	27,820	27,500	29,860	30,730	28,250	30,660	31,560	33,450	36,310	37,370	35,310	38,330	39,450
12	13,200	14,310	14,710	14,270	15,480	15,920	18,610	20,120	20,640	21,930	23,710	24,330	22,260	24,070	24,700	24,590	26,590	27,280	25,250	27,310	28,010	29,900	32,340	33,180	31,560	34,130	35,020
13	11,880	12,840	13,170	12,860	13,910	14,270	16,680	17,990	18,410	19,660	21,200	21,690	19,960	21,520	22,020	22,040	23,770	24,320	22,640	24,410	24,980	26,810	28,910	29,580	28,300	30,510	31,220
14	10,730	11,570	11,840	11,630	12,540	12,830	15,010	16,150	16,490	17,690	19,030	19,430	17,960	19,320	19,730	19,830	21,330	21,790	20,370	21,910	22,380	24,120	25,950	26,500	25,460	27,390	27,970
15	9,720	10,460	10,680	10,540	11,350	11,590	13,560	14,560	14,840	15,980	17,160	17,490	16,220	17,420	17,760	17,910	19,230	19,610	18,400	19,750	20,140	21,790	23,390	23,850	23,000	24,690	25,180
16	8,840	9,500	9,690	9,590	10,310	10,510	12,290	13,180	13,420	14,490	15,530	15,820	14,710	15,770	16,050	16,250	17,420	17,730	16,690	17,890	18,210	19,760	21,180	21,570	20,860	22,360	22,760
17	8,070	8,650	8,810	8,760	9,400	9,570	11,190	11,980	12,180	13,190	14,120	14,360	13,390	14,330	14,580	14,790	15,830	16,100	15,190	16,260	16,540	17,990	19,260	19,580	18,990	20,330	20,670
18	7,390	7,910	8,050	8,030	8,590	8,730	10,230	10,930	11,110	12,050	12,890	13,090	12,240	13,080	13,290	13,510	14,450	14,680	13,880	14,840	15,080	16,440	17,570	17,850	17,350	18,550	18,840
19	6,790	7,260	7,380	7,370	7,870	7,990	9,380	10,010	10,160	11,050	11,800	11,980	11,220	11,980	12,160	12,390	13,230	13,430	12,730	13,590	13,790	15,070	16,100	16,340	15,910	16,990	17,240
20	6,260	6,690	6,790	6,780	7,230	7,330	8,630	9,200	9,330	10,170	10,850	11,000	10,320	11,010	11,170	11,400	12,160	12,330	11,710	12,490	12,670	13,860	14,790	15,000	14,630	15,610	15,830
21	5,780	6,170	6,270	6,250	6,670	6,760	7,960	8,490	8,600	9,380	10,000	10,130	9,520	10,150	10,290	10,520	11,210	11,360	10,800	11,520	11,670	12,790	13,640	13,820	13,500	14,400	14,590

Notes:

1. The tabulated allowable loads apply only to one-piece glulam members made with all N1D14 laminations (Combination 50) without special tension laminations.
2. Applicable service conditions = wet
3. The tabulated allowable loads are based on simply axially loaded columns subjected to a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is worse.
   For side loads, other eccentric end loads, or other combined axial and flexural loads, see 2015 NDS
4. The column is assumed to be unbraced, except at the column ends, and the effective column length is equal to the actual column length.
5. Design properties for normal load duration and wet-use service conditions:
   Compression parallel to grain (F_c) = 2,300 x 0.73 psi for 4 or more lams, or 1,700 x 0.73 psi for 2 or 3 lams.
   Modulus of elasticity (E) = 1.9 x 0.833 x 10^6 psi
   Flexural stress when loaded parallel to wide faces of lamination (F_{by}) = 2,300 x 0.8 psi for 4 or more lams, or 2,100 x 0.8 psi for 3 lams.
   Flexural stress when loaded perpendicular to wide faces of lamination (F_{bx}) = 2,100 x 0.8 psi for 2 lams to 15 in. deep without special tension laminations.
   Volume factor for F_{bx} is in accordance with 2015 NDS. Size factor for F_{by} is $(12/d)^{1/9}$, where d is equal to the lamination width in inches.

Allowable Axial Loads (Pounds) for Combination No. 50 Glulam Column (DRY USE)

Side loads are not permitted. End loads are limited to a maximum eccentricity of either 1/6 column width or depth, whichever is worse.

Effective Column Length	Lamination Net Width = 5-1/2 in.																											
	Net Depth = 5-1/2 in. (4 lams)			Net Depth = 7 in. (6 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 8-3/8 in. (7 lams)			Net Depth = 9-1/4 in. (7 lams)			Net Depth = 9-1/2 in. (7 lams)			Net Depth = 11-1/4 in. (9 lams)			Net Depth = 11-7/8 in. (9 lams)					
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor					
(ft)	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25			
4	37,770	43,060	46,410	49,420	56,500	61,050	58,990	67,520	73,050	59,940	68,620	74,240	66,580	76,250	82,540	68,470	78,430	84,900	81,630	93,560	101,350	86,310	98,950	107,200			
5	35,900	40,730	43,670	47,720	54,360	58,520	57,360	65,450	70,580	58,320	66,550	71,780	64,970	74,200	79,930	66,860	76,380	82,090	79,950	90,690	97,220	84,390	95,720	102,620			
6	33,700	37,990	40,480	45,630	51,720	55,390	54,980	61,940	65,960	55,810	62,880	66,960	61,640	69,450	73,950	63,310	71,330	75,950	74,970	84,470	89,940	79,130	89,160	94,940			
7	31,240	34,950	36,960	43,130	48,210	50,920	50,840	56,820	60,010	51,610	57,680	60,920	57,000	63,700	67,280	58,540	65,420	69,100	69,320	77,480	81,830	73,170	81,780	86,370			
8	28,600	31,730	33,290	39,330	43,560	45,620	46,360	51,340	53,760	47,060	52,120	54,580	51,980	57,570	60,280	53,380	59,120	61,910	63,210	70,010	73,310	66,720	73,900	77,390			
9	25,900	28,510	29,700	35,450	38,930	40,460	41,780	45,880	47,690	42,410	46,580	48,410	46,840	51,450	53,470	48,110	52,840	54,920	56,970	62,570	65,030	60,130	66,040	68,640			
10	23,300	25,490	26,400	31,720	34,610	35,770	37,390	40,790	42,160	37,950	41,410	42,800	41,920	45,740	47,270	43,050	46,970	48,550	50,980	55,630	57,490	53,810	58,720	60,690			
11	20,920	22,770	23,500	28,330	30,760	31,670	33,390	36,260	37,320	33,900	36,810	37,890	37,440	40,650	41,850	38,450	41,750	42,980	45,540	49,440	50,900	48,070	52,190	53,720			
12	18,800	20,390	20,970	25,340	27,420	28,130	29,870	32,310	33,160	30,320	32,800	33,660	33,490	36,230	37,180	34,390	37,210	38,180	40,730	44,060	45,220	42,990	46,510	47,730			
13	16,940	18,310	18,790	22,730	24,520	25,110	26,790	28,900	29,590	27,200	29,340	30,040	30,040	32,410	33,180	30,850	33,280	34,070	36,530	39,410	40,350	38,560	41,600	42,590			
14	15,310	16,510	16,900	20,470	22,030	22,510	24,120	25,960	26,530	24,490	26,360	26,930	27,050	29,110	29,740	27,780	29,900	30,550	32,890	35,400	36,170	34,720	37,370	38,180			
15	13,880	14,940	15,270	18,500	19,870	20,270	21,800	23,420	23,890	22,130	23,780	24,250	24,450	26,260	26,790	25,110	26,970	27,510	29,730	31,940	32,580	31,390	33,710	34,390			
16	12,630	13,580	13,850	16,790	18,000	18,340	19,790	21,220	21,610	20,090	21,540	21,940	22,190	23,790	24,230	22,780	24,430	24,890	26,980	28,940	29,470	28,480	30,540	31,110			
17	11,540	12,380	12,610	15,290	16,380	16,660	18,020	19,300	19,640	18,300	19,590	19,930	20,210	21,640	22,020	20,750	22,230	22,610	24,580	26,320	26,780	25,940	27,780	28,270			
18	10,570	11,330	11,530	13,980	14,950	15,200	16,480	17,620	17,910	16,730	17,890	18,180	18,470	19,760	20,080	18,970	20,290	20,620	22,470	24,030	24,420	23,720	25,370	25,780			
19	9,720	10,400	10,580	12,830	13,700	13,910	15,120	16,150	16,400	15,340	16,390	16,650	16,950	18,110	18,380	17,410	18,600	18,880	20,610	22,020	22,360	21,760	23,250	23,600			
20	8,960	9,580	9,730	11,800	12,600	12,780	13,910	14,850	15,060	14,120	15,070	15,290	15,600	16,650	16,890	16,020	17,100	17,350	18,970	20,250	20,540	20,020	21,370	21,680			
21	8,290	8,850	8,980	10,900	11,620	11,780	12,840	13,700	13,880	13,040	13,900	14,090	14,400	15,360	15,570	14,790	15,770	15,990	17,510	18,680	18,930	18,480	19,710	19,980			
22	7,680	8,200	8,320	10,090	10,750	10,890	11,890	12,670	12,830	12,070	12,860	13,030	13,330	14,200	14,390	13,690	14,590	14,780	16,210	17,280	17,500	17,110	18,240	18,470			

Notes:

1. The tabulated allowable loads apply only to one-piece glulam members made with all N1D14 laminations (Combination 50) without special tension laminations.
2. Applicable service conditions = dry
3. The tabulated allowable loads are based on simply axially loaded columns subjected to a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is worse.
   For side loads, other eccentric end loads, or other combined axial and flexural loads, see 2015 NDS
4. The column is assumed to be unbraced, except at the column ends, and the effective column length is equal to the actual column length.
5. Design properties for normal load duration and dry-use service conditions:
   Compression parallel to grain (F_c) = 2,300 psi for 4 or more lams, or 1,700 psi for 2 or 3 lams.
   Modulus of elasticity (E) = 1.9 x 10^6 psi
   Flexural stress when loaded parallel to wide faces of lamination (F_{by}) = 2,300 psi for 4 or more lams, or 2,100 psi for 3 lams.
   Flexural stress when loaded perpendicular to wide faces of lamination (F_{bx}) = 2,100 psi for 2 lams to 15 in. deep without special tension laminations.
   Volume factor for F_{bx} is in accordance with 2015 NDS. Size factor for F_{by} is $(12/d)^{1/9}$, where d is equal to the lamination width in inches.

Allowable Axial Loads (Pounds) for Combination No. 50 Glulam Column (WET USE)

Side loads are not permitted. End loads are limited to a maximum eccentricity of either 1/6 column width or depth, whichever is worse.

Effective Column Length	Lamination Net Width = 5-1/2 in.																							
	Net Depth = 5-1/2 in. (4 lams)			Net Depth = 7 in. (6 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 8-3/8 in. (7 lams)			Net Depth = 9-1/4 in. (7 lams)			Net Depth = 9-1/2 in. (7 lams)			Net Depth = 11-1/4 in. (9 lams)			Net Depth = 11-7/8 in. (9 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
(ft)	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25
4	29,110	33,230	35,850	37,940	43,410	46,940	45,210	51,770	56,040	45,930	52,600	56,950	50,970	58,410	63,260	52,410	60,060	65,050	62,420	71,570	77,570	65,980	75,670	82,020
5	27,850	31,640	33,990	36,800	41,970	45,240	44,120	50,390	54,400	44,840	51,230	55,310	49,900	57,040	61,630	51,340	58,700	63,430	61,350	70,130	75,320	64,900	74,030	79,510
6	26,340	29,770	31,790	35,400	40,200	43,140	42,740	48,360	51,620	43,450	49,090	52,410	47,990	54,220	57,880	49,290	55,680	59,450	58,370	65,940	70,400	61,610	69,600	74,310
7	24,640	27,650	29,330	33,710	38,040	40,310	39,970	44,830	47,510	40,580	45,510	48,230	44,820	50,260	53,270	46,030	51,620	54,710	54,510	61,130	64,790	57,540	64,530	68,390
8	22,770	25,350	26,690	31,260	34,770	36,540	36,850	40,980	43,070	37,410	41,600	43,720	41,310	45,940	48,290	42,430	47,180	49,590	50,250	55,880	58,730	53,040	58,980	61,990
9	20,810	22,990	24,020	28,470	31,390	32,730	33,550	36,990	38,570	34,060	37,550	39,150	37,620	41,470	43,240	38,640	42,600	44,410	45,750	50,440	52,590	48,300	53,240	55,520
10	18,870	20,690	21,480	25,690	28,110	29,120	30,270	33,130	34,320	30,730	33,630	34,840	33,940	37,140	38,480	34,860	38,150	39,520	41,280	45,180	46,800	43,580	47,690	49,400
11	17,030	18,570	19,190	23,070	25,110	25,890	27,190	29,590	30,510	27,610	30,040	30,970	30,490	33,180	34,210	31,310	34,070	35,130	37,080	40,350	41,610	39,140	42,590	43,920
12	15,360	16,680	17,180	20,720	22,450	23,060	24,410	26,450	27,180	24,780	26,860	27,600	27,370	29,660	30,480	28,110	30,460	31,300	33,290	36,070	37,070	35,140	38,080	39,130
13	13,870	15,020	15,420	18,630	20,120	20,620	21,960	23,720	24,310	22,290	24,080	24,670	24,620	26,590	27,250	25,290	27,310	27,990	29,940	32,340	33,140	31,610	34,140	34,990
14	12,560	13,560	13,890	16,810	18,110	18,520	19,810	21,340	21,820	20,110	21,660	22,150	22,210	23,930	24,470	22,810	24,570	25,130	27,010	29,100	29,760	28,510	30,720	31,410
15	11,410	12,290	12,570	15,220	16,360	16,700	17,930	19,280	19,680	18,200	19,570	19,980	20,110	21,620	22,060	20,650	22,200	22,660	24,450	26,290	26,830	25,810	27,750	28,330
16	10,390	11,180	11,410	13,820	14,840	15,120	16,290	17,480	17,820	16,540	17,750	18,090	18,270	19,600	19,980	18,760	20,130	20,520	22,220	23,840	24,300	23,450	25,170	25,650
17	9,500	10,200	10,400	12,600	13,510	13,750	14,850	15,920	16,200	15,080	16,160	16,450	16,650	17,850	18,170	17,100	18,330	18,660	20,260	21,710	22,090	21,380	22,910	23,320
18	8,710	9,340	9,510	11,530	12,340	12,550	13,590	14,540	14,790	13,800	14,770	15,010	15,240	16,310	16,580	15,650	16,750	17,030	18,530	19,830	20,170	19,560	20,940	21,290
19	8,020	8,580	8,730	10,590	11,320	11,490	12,480	13,340	13,550	12,670	13,540	13,750	13,990	14,950	15,190	14,370	15,360	15,600	17,010	18,190	18,470	17,960	19,200	19,500
20	7,400	7,910	8,040	9,750	10,410	10,560	11,490	12,270	12,450	11,660	12,450	12,640	12,880	13,760	13,960	13,230	14,130	14,340	15,670	16,730	16,980	16,540	17,660	17,920
21	6,840	7,310	7,420	9,000	9,610	9,740	10,610	11,320	11,480	10,770	11,490	11,650	11,900	12,690	12,870	12,220	13,040	13,220	14,470	15,440	15,660	15,270	16,300	16,530
22	6,350	6,780	6,880	8,340	8,890	9,010	9,830	10,480	10,620	9,980	10,640	10,780	11,020	11,750	11,900	11,320	12,060	12,230	13,400	14,290	14,480	14,150	15,080	15,280

Notes:

1. The tabulated allowable loads apply only to one-piece glulam members made with all N1D14 laminations (Combination 50) without special tension laminations.
2. Applicable service conditions = wet
3. The tabulated allowable loads are based on simply axially loaded columns subjected to a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is worse. For side loads, other eccentric end loads, or other combined axial and flexural loads, see 2015 NDS
4. The column is assumed to be unbraced, except at the column ends, and the effective column length is equal to the actual column length.
5. Design properties for normal load duration and wet-use service conditions:
   Compression parallel to grain (F_c) = 2,300 x 0.73 psi for 4 or more lams, or 1,700 x 0.73 psi for 2 or 3 lams.
   Modulus of elasticity (E) = 1.9 x 0.833 x 10^6 psi
   Flexural stress when loaded parallel to wide faces of lamination (F_{by}) = 2,300 x 0.8 psi for 4 or more lams, or 2,100 x 0.8 psi for 3 lams.
   Flexural stress when loaded perpendicular to wide faces of lamination (F_{bx}) = 2,100 x 0.8 psi for 2 lams to 15 in. deep without special tension laminations.
   Volume factor for F_{bx} is in accordance with 2015 NDS. Size factor for F_{by} is $(12/d)^{1/9}$, where d is equal to the lamination width in inches.

Allowable Axial Loads (Pounds) for Combination No. 50 Glulam Column (DRY USE)

Side loads are not permitted. End loads are limited to a maximum eccentricity of either 1/6 column width or depth, whichever is worse.

Effective Column Length	Lamination Net Width = 7 in.																							
	Net Depth = 7 in. (6 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 8-3/8 in. (7 lams)			Net Depth = 9-1/4 in. (7 lams)			Net Depth = 9-1/2 in. (7 lams)			Net Depth = 11-1/4 in. (9 lams)			Net Depth = 11-7/8 in. (9 lams)					
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor					
(ft)	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25			
8	53,490	60,180	63,980	66,220	74,810	79,860	67,480	76,260	81,420	75,930	85,370	90,710	77,980	87,680	93,160	92,340	103,830	110,320	97,470	109,590	116,450			
9	50,300	56,250	59,450	62,980	70,740	74,970	64,230	72,090	76,100	71,270	79,620	84,050	73,200	81,770	86,320	86,680	96,830	102,230	91,500	102,210	107,910			
10	46,940	52,150	54,770	59,170	65,630	68,830	60,060	66,630	69,870	66,340	73,590	77,170	68,130	75,580	79,250	80,680	89,500	93,850	85,160	94,470	99,070			
11	43,510	48,020	50,140	54,660	60,220	62,760	55,490	61,140	63,720	61,280	67,520	70,370	62,940	69,350	72,270	74,540	82,120	85,590	78,680	86,680	90,340			
12	40,120	44,030	45,750	50,220	55,010	57,040	50,980	55,840	57,910	56,310	61,680	63,960	57,830	63,340	65,690	68,480	75,010	77,790	72,290	79,180	82,110			
13	36,890	40,300	41,710	46,010	50,160	51,810	46,710	50,920	52,600	51,590	56,240	58,090	52,980	57,760	59,660	62,740	68,400	70,650	66,230	72,200	74,580			
14	33,890	36,890	38,060	42,130	45,760	47,120	42,760	46,450	47,830	47,230	51,300	52,830	48,510	52,690	54,260	57,440	62,400	64,250	60,640	65,860	67,820			
15	31,150	33,810	34,800	38,600	41,800	42,940	39,190	42,440	43,590	43,280	46,870	48,150	44,450	48,140	49,450	52,640	57,010	58,560	55,560	60,170	61,810			
16	28,680	31,050	31,880	35,430	38,280	39,240	35,970	38,860	39,830	39,730	42,920	43,990	40,800	44,080	45,180	48,310	52,200	53,510	51,000	55,100	56,480			
17	26,450	28,570	29,290	32,590	35,140	35,950	33,080	35,670	36,500	36,540	39,400	40,310	37,530	40,460	41,400	44,440	47,910	49,030	46,910	50,570	51,750			
18	24,450	26,360	26,980	30,040	32,340	33,040	30,500	32,830	33,540	33,690	36,260	37,040	34,600	37,240	38,050	40,970	44,100	45,050	43,250	46,540	47,560			
19	22,640	24,370	24,910	27,770	29,840	30,450	28,190	30,290	30,910	31,130	33,450	34,140	31,970	34,360	35,060	37,860	40,690	41,520	39,960	42,950	43,830			
20	21,020	22,590	23,060	25,720	27,600	28,130	26,110	28,020	28,560	28,840	30,950	31,540	29,620	31,790	32,400	35,070	37,640	38,360	37,020	39,730	40,500			
21	19,550	20,990	21,400	23,880	25,600	26,070	24,240	25,990	26,460	26,780	28,700	29,220	27,500	29,480	30,010	32,570	34,910	35,540	34,370	36,850	37,520			
22	18,220	19,540	19,910	22,220	23,800	24,210	22,560	24,160	24,580	24,920	26,680	27,140	25,590	27,400	27,880	30,310	32,450	33,010	31,990	34,250	34,850			
23	17,020	18,240	18,560	20,730	22,170	22,540	21,040	22,510	22,880	23,240	24,860	25,270	23,870	25,530	25,950	28,260	30,240	30,730	29,840	31,920	32,440			
24	15,930	17,050	17,340	19,370	20,710	21,030	19,670	21,020	21,350	21,720	23,220	23,580	22,310	23,840	24,220	26,420	28,230	28,680	27,880	29,800	30,270			
25	14,940	15,980	16,230	18,140	19,370	19,660	18,420	19,670	19,960	20,340	21,720	22,050	20,890	22,310	22,640	24,740	26,420	26,810	26,110	27,890	28,300			
26	14,030	15,000	15,230	17,020	18,170	18,430	17,280	18,440	18,700	19,080	20,370	20,660	19,600	20,920	21,220	23,210	24,770	25,130	24,500	26,150	26,520			
27	13,200	14,100	14,310	16,000	17,060	17,300	16,240	17,320	17,560	17,940	19,130	19,390	18,420	19,650	19,920	21,820	23,270	23,590	23,030	24,560	24,900			
28	12,440	13,280	13,470	15,060	16,060	16,270	15,290	16,300	16,510	16,890	18,000	18,240	17,350	18,490	18,730	20,540	21,900	22,180	21,680	23,110	23,420			
29	11,740	12,520	12,690	14,210	15,130	15,330	14,420	15,360	15,560	15,930	16,970	17,180	16,360	17,430	17,650	19,370	20,640	20,900	20,450	21,780	22,060			

Notes:

1. The tabulated allowable loads apply only to one-piece glulam members made with all N1D14 laminations (Combination 50) without special tension laminations.
2. Applicable service conditions = dry
3. The tabulated allowable loads are based on simply axially loaded columns subjected to a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is worse. For side loads, other eccentric end loads, or other combined axial and flexural loads, see 2015 NDS
4. The column is assumed to be unbraced, except at the column ends, and the effective column length is equal to the actual column length.
5. Design properties for normal load duration and dry-use service conditions:
   Compression parallel to grain (F_c) = 2,300 psi for 4 or more lams, or 1,700 psi for 2 or 3 lams.
   Modulus of elasticity (E) = 1.9 x 10^6 psi
   Flexural stress when loaded parallel to wide faces of lamination (F_{by}) = 2,300 psi for 4 or more lams, or 2,100 psi for 3 lams.
   Flexural stress when loaded perpendicular to wide faces of lamination (F_{bx}) = 2,100 psi for 2 lams to 15 in. deep without special tension laminations.
   Volume factor for F_{bx} is in accordance with 2015 NDS. Size factor for F_{by} is $(12/d)^{1/9}$, where d is equal to the lamination width in inches.

Allowable Axial Loads (Pounds) for Combination No. 50 Glulam Column (WET USE)

Side loads are not permitted. End loads are limited to a maximum eccentricity of either 1/6 column width or depth, whichever is worse.

Effective Column Length	Lamination Net Width = 7 in.																				
	Net Depth = 7 in. (6 lams)			Net Depth = 8-1/4 in. (6 lams)			Net Depth = 8-3/8 in. (7 lams)			Net Depth = 9-1/4 in. (7 lams)			Net Depth = 9-1/2 in. (7 lams)			Net Depth = 11-1/4 in. (9 lams)			Net Depth = 11-7/8 in. (9 lams)		
	Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor			Load Duration Factor		
(ft)	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25	1.00	1.15	1.25
8	41,910	47,280	50,390	51,590	58,420	62,500	52,550	59,520	63,700	59,180	66,870	71,250	60,910	68,680	73,180	72,130	81,330	86,660	76,140	85,850	91,480
9	39,700	44,530	47,200	49,390	55,640	59,230	50,340	56,740	60,320	56,110	62,900	66,620	57,630	64,600	68,430	68,240	76,500	81,030	72,030	80,750	85,530
10	37,330	41,610	43,850	46,930	52,310	55,050	47,680	53,100	55,890	52,660	58,650	61,730	54,090	60,230	63,390	64,050	71,330	75,070	67,610	75,290	79,240
11	34,850	38,610	40,430	43,750	48,390	50,610	44,410	49,130	51,370	49,060	54,260	56,740	50,380	55,720	58,270	59,660	65,990	69,010	62,980	69,660	72,840
12	32,350	35,620	37,100	40,490	44,500	46,280	41,110	45,180	46,980	45,400	49,900	51,890	46,630	51,250	53,290	55,220	60,690	63,100	58,280	64,060	66,610
13	29,910	32,760	33,970	37,310	40,790	42,220	37,870	41,400	42,860	41,830	45,730	47,340	42,960	46,970	48,620	50,880	55,620	57,570	53,700	58,710	60,770
14	27,580	30,090	31,090	34,300	37,340	38,510	34,820	37,910	39,100	38,460	41,870	43,180	39,500	43,000	44,350	46,780	50,920	52,520	49,380	53,750	55,440
15	25,430	27,650	28,490	31,530	34,200	35,180	32,010	34,720	35,710	35,350	38,350	39,440	36,310	39,390	40,510	43,000	46,640	47,970	45,390	49,230	50,640
16	23,460	25,440	26,150	29,010	31,380	32,200	29,450	31,860	32,690	32,520	35,180	36,110	33,400	36,140	37,080	39,560	42,790	43,910	41,750	45,170	46,350
17	21,680	23,440	24,050	26,730	28,850	29,550	27,130	29,290	30,000	29,970	32,350	33,130	30,780	33,220	34,030	36,450	39,340	40,290	38,470	41,530	42,530
18	20,060	21,650	22,180	24,680	26,580	27,180	25,050	26,990	27,600	27,670	29,810	30,480	28,410	30,610	31,300	33,650	36,250	37,070	35,520	38,260	39,130
19	18,600	20,040	20,500	22,830	24,550	25,070	23,180	24,930	25,450	25,600	27,530	28,110	26,290	28,270	28,870	31,130	33,480	34,190	32,860	35,340	36,090
20	17,280	18,600	18,990	21,170	22,730	23,190	21,490	23,080	23,540	23,730	25,490	26,000	24,380	26,180	26,700	28,870	31,000	31,620	30,470	32,720	33,380
21	16,090	17,290	17,640	19,670	21,100	21,500	19,970	21,420	21,820	22,050	23,660	24,100	22,650	24,300	24,750	26,820	28,770	29,310	28,310	30,370	30,940
22	15,010	16,110	16,420	18,320	19,630	19,980	18,600	19,930	20,280	20,540	22,010	22,400	21,090	22,600	23,000	24,980	26,770	27,240	26,370	28,250	28,760
23	14,030	15,040	15,320	17,100	18,300	18,610	17,350	18,580	18,890	19,170	20,520	20,860	19,690	21,070	21,430	23,310	24,950	25,370	24,610	26,340	26,780
24	13,140	14,070	14,320	15,990	17,100	17,370	16,230	17,350	17,630	17,920	19,170	19,480	18,410	19,690	20,000	21,800	23,310	23,690	23,010	24,610	25,000
25	12,330	13,190	13,410	14,980	16,000	16,250	15,200	16,250	16,500	16,790	17,940	18,220	17,250	18,430	18,710	20,420	21,820	22,160	21,560	23,040	23,390
26	11,580	12,380	12,580	14,060	15,010	15,230	14,270	15,240	15,460	15,760	16,830	17,080	16,190	17,290	17,540	19,170	20,470	20,770	20,240	21,610	21,920
27	10,900	11,650	11,830	13,220	15,290	14,300	13,420	14,320	14,520	14,820	15,820	16,040	15,220	16,240	16,470	18,030	19,230	19,510	19,030	20,300	20,590
28	10,280	10,970	11,130	12,450	13,280	13,460	12,640	13,480	13,660	13,960	14,890	15,090	14,340	15,290	15,500	16,980	18,110	18,350	17,920	19,110	19,370
29	9,700	10,350	10,500	11,750	12,520	12,680	11,930	12,710	12,870	13,170	14,040	14,220	13,530	14,420	14,600	16,020	17,070	17,290	16,910	18,020	18,260

Notes:

1. The tabulated allowable loads apply only to one-piece glulam members made with all N1D14 laminations (Combination 50) without special tension laminations.
2. Applicable service conditions = wet
3. The tabulated allowable loads are based on simply axially loaded columns subjected to a maximum eccentricity of either 1/6 column width or 1/6 column depth, whichever is worse. For side loads, other eccentric end loads, or other combined axial and flexural loads, see 2015 NDS
4. The column is assumed to be unbraced, except at the column ends, and the effective column length is equal to the actual column length.
5. Design properties for normal load duration and wet-use service conditions:
   Compression parallel to grain (F_c) = 2,300 x 0.73 psi for 4 or more lams, or 1,700 x 0.73 psi for 2 or 3 lams.
   Modulus of elasticity (E) = 1.9 x 0.833 x 10^6 psi
   Flexural stress when loaded parallel to wide faces of lamination (F_{by}) = 2,300 x 0.8 psi for 4 or more lams, or 2,100 x 0.8 psi for 3 lams.
   Flexural stress when loaded perpendicular to wide faces of lamination (F_{bx}) = 2,100 x 0.8 psi for 2 lams to 15 in. deep without special tension laminations.
   Volume factor for F_{bx} is in accordance with 2015 NDS. Size factor for F_{by} is $(12/d)^{1/9}$, where d is equal to the lamination width in inches.

BOOZERBEAM™

INSTALLATION AND STORAGE REQUIREMENTS AND USE MEASURES APPLICABLE TO ALL BOOZER PRODUCTS.

(Updated January 18, 2019)

Specific use, storage and installation requirements and instructions applicable to all Boozer products, including but not limited to Boozer Glued Laminated Timber Beams, Treated Beams, Columns, Joists, and Headers (the "Product") may be found at http://boozer-beam.com/products/. The following precautions should be taken both when handling any BoozerBeam™ Product and in determining where to use and dispose of the Product. These requirements and instructions are provided as part of and incorporated by reference into Boozer's Limited Warranty.

- The Product should not be exposed to the elements (sun, rain, snow, water, moisture, excessive heat, excessive cold, etc.), other than very short periods prior to installation.
- The Product should not be used in direct water or marine applications, below grade, or in applications in which the Product is in direct contact with the soil. Columns may be installed on concrete if a installed onto a metal plate that separates the columns from the concrete.
- The Product should not be used where it will be in frequent or prolonged contact with bare skin, unless an effective sealer has been applied.
- The Product is not suitable for food garden uses.
- All shipping containers, plastic, or other wrapping applied during shipment should be removed from the Product prior to installation.
- Do not use the Product for cutting-boards or countertops.
- For all interior applications, the purchaser is responsible for ensuring that the installation of a treated product complies with all applicable indoor air quality standards (IAQs) as prescribed by the federal or applicable state or local regulatory authority.
- Dispose of the Product by ordinary trash collection or burial. Treated wood should not be burned in open fires or in stoves, fireplaces, or residential boilers because toxic chemicals may be produced as part of the smoke and ashes. Treated wood from commercial or industrial use (e.g., construction sites) may be burned only in commercial or industrial incinerators or boilers in accordance with state and federal regulations.
- Avoid frequent or prolonged inhalation of sawdust from the Product. When sawing and machining treated wood, wear a dust mask. Whenever possible, these operations should be performed outdoors to avoid indoor accumulations of airborne sawdust from treated wood.
- When power sawing and machining, wear goggles to protect eyes from flying particles.
- After working with the Product, and before eating, drinking, and use of tobacco products, wash all exposed skin areas thoroughly and completely.
- If oily preservatives or Product sawdust accumulate on clothes, launder before reuse of the clothes. Work clothes exposed to the Product or its sawdust or preservatives should be washed separately from other clothing.
- While in storage, the Product should be kept dry and under cover and not be exposed to standing water or marine conditions.
- It is the purchaser and intended user of the Product's sole responsibility to install the Product correctly and to select the proper-sized Product for its/his/her intended use.
- When storing a Product for any extended amount of time, the Product should be stored on its down-side, with gravity acting on the Product as it would in its eventual installation.
- All Products should be installed with the standard, as-designed orientation (e.g., for Beams, with the narrow side down). For Products with a specific or designated orientation instruction (which should appear on the Product), that instruction should be strictly followed.

BOOZERBEAM™

LIMITED WARRANTY

(Revised as of January 18, 2019)

1. LIMITED WARRANTY COVERAGE: Boozer Laminated Beam Company, Inc. ("Boozer") warrants (for installation within the U.S.) to the purchaser and all transferees prior to and including the first owner of the structure to which the Product (as hereafter defined) is properly installed (each a "Covered Person") that each Product sold by Boozer, including but not limited to Boozer Glued Laminated Timber Beams, Treated Beams, Columns, Joists, and Headers (the "Product"), when manufactured is free from defects in material and manufacture and, when used for its intended purpose and in accordance with Boozer's installation and use requirements, will perform in accordance with the published Product specifications. This Limited Warranty only covers defects and failures of the Product that result in structural failure of the Product. If the Product is defective in material or manufacture (when used for its intended purpose and in accordance with Boozer's installation and use requirements), Boozer will replace the Product with a non-defective Product (or equivalent product, if the Product is no longer available) at no charge. Boozer's replacement of the defective Product pursuant to this Section 1 of this Limited Warranty SHALL BE THE SOLE AND EXCLUSIVE REMEDY available to the Covered Person with respect to defects in material or manufacture or any performance of the Product that is not in accordance with relevant specifications. Boozer will not refund or pay any costs in connection with labor or accessory materials or for any other damages regardless of whether caused by the Product or otherwise.

2. CONDITIONS OF WARRANTY: Boozer's liability hereunder to the Covered Person shall be subject to the following terms and conditions:

(a) The claimant must provide reasonable proof that he/she is a Covered Person.

(b) The Product must be properly stored and installed in accordance with Boozer's installation, storage and use requirements (available at: http://boozerbeam.com/products/) and all applicable building codes, rules, and ordinances ("Applicable Building Rules") adopted by federal, state or local governments or government agencies and applicable to the installation. Failure to install the Product in accordance with Boozer's installation requirements and all Applicable Building Rules voids this Limited Warranty.

(c) The Covered Person must provide written notice of any claim under this Limited Warranty to Boozer within 45 days after discovery of any claimed Product failure covered by this Limited Warranty and before beginning any permanent repair. The notice must describe the location of the Product, details of the failure, and provide all information necessary for Boozer to investigate the claim. Photos of the Product, showing defect or failure, should accompany the notice. Before any permanent repair, the Covered Person must allow Boozer or Boozer's agent to enter the property and structure where the Product is installed, and examine, photograph and take samples of the Product.

(d) Upon discovery of a possible Product defect or failure, the Covered Person must immediately, and at the Covered Person's own expense, provide for protection of all property that could be affected until the problem or failure is remedied.

(e) Only defects and failures that result in the structural failure of the Product are covered by this Limited Warranty

3. EXCLUSIONS: This Limited Warranty does not cover loss, damage or defects resulting from or in any way attributable to: (a) any Product failure due to any reason other than structural failure or defect in material and manufacture; (b) the improper storage, shipping, handling or installation of the Product (including, without limitation, failure of the Product to be installed in strict compliance with Boozer's installation, storage and use requirements and all Applicable Building Rules) or improper installation of other accessories; (c) repair or alteration of the Product; (d) settlement or structural movement or movement of materials to which the Product is attached; (e) damage from incorrect or improper design of the structure; (f) exceeding any applicable maximum designed weight or wind loads; (g) acts of God including, but not limited to, hurricanes, tornados, floods, earthquakes, extreme weather or other natural phenomena, (including, but not limited to, unusual climate conditions); (h) performance of any paints or coatings; (i) lack of proper maintenance;
(j) damage during the construction process; (k) damage caused by the weathering of the Product including, but not limited to including but not limited to, raised grain, splitting, checking, twisting, warping, shrinkage, swelling; or de-lamination; (l) damage caused by the use of inappropriate fasteners; (m) any Product failure or damage due to water or marine applications; (n) discoloration or minor cosmetic defects; (o) failure due to moisture or exposure to elements; (p) wet use applications or any application in which the Product is enclosed and moisture cannot naturally evaporate from the Product; (q) any application in which the Product is in direct contact with the ground (except, in the case of Treated Columns, when the column is mounted on a metal plate on a concrete slab,

in accordance with Boozer's general and specific installation requirements and Applicable Building Rules); (r) failures or defects if the Product is subjected to further processing or alteration after shipment; (s) damage due to fungal decay of or termite attack (any such warranty on a Treated Product will be provided, if at all, by a third-party applicator as provided in Paragraph 4, below); (t) any unapproved pressure or topical treatment; or (u) any other neglect, abuse, or misuse by the Covered Person or a third party. In addition, only defects and failures of the Product that result in the structural failure of the Product are covered by this Limited Warranty.

4. TREATED PRODUCTS ONLY: To the extent a Covered Person has purchased or possesses a Boozer Product that has been treated with a chemical designed to deter or prevent insect damage or fungal growth on the Product (a "Treated Product"), Boozer assigns to such Covered Person any and all warranties applicable to the Treated Product, if any, against fungal damage or insect attack provided to Boozer from the manufacturers and applicators of such product.

5. DISCLAIMER: The statements in this Limited Warranty constitute the only warranty extended by Boozer for the Product. BOOZER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EXCEPT AS PROVIDED BY APPLICABLE STATE LAW IN WHICH CASE THE DURATION OF ANY APPLICABLE IMPLIED WARRANTIES ARE LIMITED TO THE FULLEST EXTENT ALLOWED BY APPLICABLE LAW. NO OTHER WARRANTY IS OR WILL BE MADE BY OR ON BEHALF OF THE MANUFACTURER OR THE SELLER OR BY OPERATION OF LAW OR BY USAGE OF TRADE OR COURSE OF DEALING WITH RESPECT TO THE PRODUCT OR ITS INSTALLATION, STORAGE, HANDLING, MAINTENANCE, USE, REPLACEMENT OR REPAIR.

6. EXCLUSION OF INCIDENTAL AND CONSEQUENTIAL DAMAGES: EXCEPT AS EXPRESSLY OVERRIDDEN BY APPLICABLE LAW, IN NO EVENT WILL BOOZER BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE, OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT.

7. SETTLEMENT OF CLAIM: Any warranty payment or material replacement by Boozer pursuant to Section 1 hereof shall constitute a full settlement and release of all claims of any Covered Person or their successors and assigns hereunder for damages or other relief, and shall be a complete bar to any litigation arising out of this warranty or the Covered Person's purchase or use of the Product filed subsequent to the Covered Person's acceptance of such compensation.