

Notes for the following Allowable PLF Load Tables (pages 13-15):

1. Floor Systems are designed using $LDF=1.0$. The Live Load Deflection Limit is $1/360$ and the Total Load Deflection Limit is $1/240$.
2. Roof Systems are designed using $LDF=1.15$ or 1.25 . The Live Load Deflection Limit is $1/240$ and the Total Load Deflection Limit is $1/180$.
3. The top line of each table indicates the allowable load carrying capacity in pounds per lineal foot (plf) with a deflection limit based on the total load and includes the weight of the member. (blue)
4. The middle line of each table indicates the allowable load carrying capacity in pounds per lineal foot (plf) with a deflection limit based on the live load. (green)
5. The bottom line of each table indicates the bearing length in inches: 1.5" is one trimmer, 3.0" is two trimmers, 4.5" is three trimmers, etc. (red)
6. Each table shows spans from 6 to 32 feet and includes information for 1-ply, 2-ply and 3-ply conditions.
7. Values provided are the maximum uniform loads in pounds per lineal foot (plf) that can be applied to the beam in addition to its own weight. Allowable plf loads are based on the minimum bearing length required to carry the load. This required bearing length is then converted to the least number of 1.5"-wide trimmers that can be used.
8. Interpolation between clear openings is permitted.
9. For live load deflection factors of $L/180$ and $L/360$, multiply the Maximum Live Load figure (row 2) by 1.333 and 0.667, respectively. The result shall not exceed the total load.
10. Design span is assumed to be the clear opening plus $1/2$ the actual required bearing length at each end.
11. The bearing lengths show the number of trimmers required at each end of the header or beam based on the maximum plf loads. Shorter bearing lengths may be required with lighter loads, and longer bearing lengths may be required because of the material on which the header or beam is bearing.
12. These tables are for gravity loads only. Consult a professional engineer for wind and seismic load analysis and design.
13. All tables are based on uniform load conditions. Any concentrated load applications must be analyzed separately or converted to an equivalent uniform load.
14. The compression edge of the header or beam must be laterally supported at intervals of 24" or less. In addition, lateral support must be provided at bearing points.
15. Allowable total and live plf loads used to select a header or beam must be equal to or greater than the actual plf loads applied.

Allowable Loads for Master Plank in Pounds per Lineal Foot - Load Duration Factor of 1.25 Construction Loads

Clear Opening	3-1/2" - 1 Ply										5-1/4" - 2 Ply [3-1/2" with 1-3/4"]										7" - 2 Ply																													
	7-1/4					8					9-1/4					9-1/2					11-1/4					11-7/8					14					16					18					24				
	Depth (in.)					Depth (in.)					Depth (in.)					Depth (in.)					Depth (in.)					Depth (in.)					Depth (in.)					Depth (in.)														
6'	2209	2651	3469	3644	4984	5505	7118	8949	1188	20261	3314	3977	5203	5467	7476	8257	10677	13424	16782	30391	5083	6099	7733	8017	10167	11010	14235	14818	18526	37067	4345	5838	7733	8017	10167	11010	14235	14818	18526	37067										
	3	3	4.5	4.5	6	6	9	10.5	13.5	27	3	3	4.5	4.5	6	6	9	10.5	13.5	27	3	3	4.5	4.5	6	6	9	9	10.5	24	3	3	4.5	4.5	6	6	9	9	10.5	24										
7'	1622	1946	2547	2676	3660	4045	5487	6881	8388	14881	2433	2920	3820	4014	5490	6068	8230	10322	12582	22322	3639	4478	5860	6156	8180	8814	11181	11394	13888	24701	2736	3676	5683	6156	8180	8814	11181	11394	13888	24701										
	3	3	4.5	4.5	6	6	7.5	9	12	21	3	3	3	3	4.5	4.5	6	7.5	9	12	21	3	3	3	3	4.5	4.5	6	6	7.5	18	3	3	4.5	4.5	6	6	7.5	7.5	9	18									
8'	1217	1489	1948	2047	2800	3095	4198	5376	6686	11184	1826	2233	2923	3071	4200	4643	6298	8064	10030	16776	2434	3273	4483	4710	6443	7121	9204	9253	11106	18517	1833	2463	3807	4124	6443	7121	9204	9253	11106	18517										
	3	3	3	3	4.5	4.5	6	9	10.5	18	3	3	3	3	4.5	4.5	6	6	9	10.5	18	3	3	3	3	4.5	4.5	6	6	7.5	15	3	3	4.5	4.5	6	6	7.5	7.5	9	15									
9'	853	1148	1538	1616	2211	2444	3315	4246	5281	8944	1280	1722	2307	2424	3316	3666	4973	6368	7921	13416	1707	2296	3540	3719	5087	5623	7628	7789	9251	14807	1287	1730	2674	2897	4810	5623	7628	7789	9251	14807										
	1.5	3	3	3	4.5	4.5	6	7.5	9	15	1.5	1.5	3	3	4.5	4.5	6	6	7.5	9	15	1.5	1.5	3	3	4.5	4.5	6	6	7.5	13.5	1.5	1.5	3	3	4.5	4.5	6	6	7.5	13.5									
10'	621	835	1245	1308	1789	1978	2684	3437	4275	7283	931	1253	1867	1962	2684	2967	4025	5155	6412	10925	1242	1670	2587	2803	4118	4552	6175	6274	7926	12334	939	1261	1949	2112	3507	4124	6175	6274	7926	12334										
	1.5	1.5	3	3	4.5	4.5	6	6	7.5	13.5	1.5	1.5	3	3	4.5	4.5	6	6	7.5	13.5	1.5	1.5	3	3	4.5	4.5	6	6	7.5	12	1.5	1.5	3	3	4.5	4.5	6	6	7.5	12										
11'	465	626	970	1051	1477	1633	2216	2839	3531	6016	698	939	1455	1577	2216	2450	3324	4258	5296	9025	930	1252	1940	2102	3400	3759	5100	5677	6932	10567	705	947	1465	1587	2635	3099	5078	5677	6932	10567										
	1.5	1.5	3	3	4.5	4.5	6	6	7.5	12	1.5	1.5	3	3	4.5	4.5	6	6	7.5	12	1.5	1.5	3	3	4.5	4.5	6	6	7.5	10.5	1.5	1.5	3	3	4.5	4.5	6	6	7.5	10.5										
12'	357	481	746	808	1240	1371	1861	2383	2965	5053	536	727	1119	1212	1860	2057	2791	3575	4447	7579	714	962	1492	1616	2691	3156	4282	4767	5930	9242	543	730	1128	1222	2029	2387	3911	4767	5930	9242										
	1.5	1.5	1.5	3	3	3	4.5	6	7.5	12	1.5	1.5	1.5	3	3	3	4.5	6	7.5	12	1.5	1.5	1.5	3	3	3	4.5	4.5	6	7.5	10.5	1.5	1.5	1.5	3	3	3	4.5	4.5	6	7.5	10.5								
13'	280	377	585	634	1056	1167	1584	2029	2525	4303	420	566	878	951	1583	1751	2376	3044	3787	6455	560	754	1170	1269	2113	2487	3646	4058	5049	8212	427	574	887	961	1596	1877	3076	4058	5049	8212										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	10.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	10.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	10.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	10.5										
14'	223	301	467	507	844	994	1365	1748	2175	3708	335	451	701	760	1267	1491	2047	2622	3263	5562	446	602	935	1013	1689	1988	3141	3496	4350	7387	342	460	710	770	1278	1503	2463	3496	4350	7387										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9										
15'	180	244	379	411	685	807	1187	1521	1893	3228	271	365	568	616	1028	1210	1781	2282	2840	4842	361	487	758	821	1370	1613	2651	3043	3786	6456	278	374	578	626	1039	1222	2002	2989	3786	6456										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9										
16'	148	200	311	337	563	663	1042	1336	1662	2835	222	300	466	506	845	995	1564	2004	2494	4253	296	400	622	674	1126	1326	2181	2672	3325	5670	229	308	476	516	856	1007	1650	2463	3325	5670										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	9										
17'	122	166	258	280	468	552	908	1182	1471	2510	184	249	387	420	702	827	1361	1773	2207	3764	245	331	516	560	936	1103	1815	2364	2942	5019	191	257	397	430	714	839	1376	2053	2924	5019										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3									
18'	102	139	217	235	393	463	763	1053	1311	2237	154	208	325	352	590	695	1145	1580	1966	3355	205	277	433	470	786	927	1526	2106	2622	4473	161	216	334	362	601	707	1159	1730	2463	4473										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3									
19'	86	117	183	199	333	393	647	944	1175	2006	129	176	275	298	500	589	971	1416	1763	3009	173	234	366	398	666	786	1295	1888	2351	4012	137	184	284	308	511	601	985	1471	2094	4012										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3									
20'	73	100	156	170	285	336	554	830	1060	1809	110	149	234	254	427	503	831	1245	1589	2713	147	199	312	339	569	671	1107	1660	2119	3617	117	158	244	264	438	516	845	1261	1796	3617										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3	3	4.5	4.5	7.5	1.5	1.5	1.5	1.5	3									
21'	63	85	134	146	245	289	477	715	960	1639	94	128	201	218	367	433	715	1073	1440	2458	125	171	268	291	490	578	954	1431	1920	3278	101	136	210	228	379	445	730	1089	1551	3278										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	1.5	1.5	1.5	1.5	3									
22'	54	74	116	126	212	250	414	621	874	1492	81	110	174	189	318	375	620	931	1310	2238	108	147	232	251	424	500	827	1241	1747	2984	88	118	183	198	329	387	635	947	1349	2984										
	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	1.5	1.5	1.5	1.5	3	3	4.5	4.5	6	1.5	1.5	1.5	1.5	3									
23'	46	64	101	109	184	218	361	542	775	1364	70	95	151	164	277	327	541	813	1162	2045	93	127	201	218	369	436	722	1084	1550	2727	77	104	160	174	288	339	555	829												