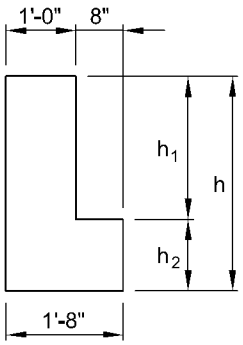
L-BEAMS

Normal Weight Concrete



f'_c = 5,000 psi
f_{pu} = 270,000 psi
½ in. diameter
low-relaxation strand

Designation	h in.	h_1/h_2 in./in.	A $in.^2$	I $in.^4$	y_b in.	S_b $in.^3$	S_t $in.^3$	wt plf
20LB20	20	12/8	304	10,160	8.74	1,163	902	317
20LB24	24	12/12	384	17,568	10.50	1,673	1,301	400
20LB28	28	16/12	432	27,883	12.22	2,282	1,767	450
20LB32	32	20/12	480	41,600	14.00	2,971	2,311	500
20LB36	36	24/12	528	59,119	15.82	3,737	2,930	550
20LB40	40	24/16	608	81,282	17.47	4,653	3,608	633
20LB44	44	28/16	656	108,107	19.27	5,610	4,372	683
20LB48	48	32/16	704	140,133	21.09	6,645	5,208	733
20LB52	52	36/16	752	177,752	22.94	7,749	6,117	783
20LB56	56	40/16	800	221,355	24.80	8,926	7,095	833
20LB60	60	44/16	848	271,332	26.68	10,170	8,143	883

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Key

6566 – Safe superimposed service load, plf.
0.3 – Estimated camber at erection, in.
0.1 – Estimated long-time camber, in.

Table of safe superimposed service load (plf) and cambers (in.)

Designation	No. Strand	y_s(end) in. y_s(center) in.	Span, ft																	
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
20LB20	98-S	2.44 2.44	6566	5131	4105	3345	2768	2318	1961	1674	1438	1243	1079							
			0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.2							
			0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2							
20LB24	108-S	2.80 2.80	9577	7495	6006	4904	4066	3414	2896	2479	2137	1854	1617	1416	1244	1097	969			
			0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2			
			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0			
20LB28	128-S	3.33 3.33			8228	6733	5596	4711	4009	3443	2979	2595	2273	2000	1768	1567	1394	1243	1110	992
					0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.2	1.3
					0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0
20LB32	148-S	3.71 3.71				8942	7446	6281	5356	4611	4001	3495	3071	2712	2406	2143	1914	1715	1540	1386
						0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3
						0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1
20LB36	168-S	4.25 4.25					9457	7988	6823	5883	5113	4476	3941	3489	3103	2771	2483	2231	2011	1816
							0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.2	1.2	1.3
							0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
20LB40	188-S	4.89 4.89						9812	8386	7235	6293	5513	4858	4305	3832	3425	3073	2765	2495	2257
								0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2
								0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20LB44	198-S	5.05 5.05								8959	7803	6845	6042	5363	4783	4284	3851	3474	3143	2850
										0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.1	1.1
										0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
20LB48	218-S	5.81 5.81									9226	8100	7158	6360	5678	5092	4584	4140	3751	3408
											0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.1
											0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
20LB52	238-S	6.17 6.17										9634	8521	7578	6774	6082	5482	4958	4499	4094
												0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0
												0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
20LB56	258-S	6.64 6.64											9954	8860	7927	7124	6427	5820	5287	4816
													0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.0
													0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
20LB60	278-S	7.33 7.33													9089	8173	7380	6688	6080	5544
															0.7	0.7	0.8	0.9	0.9	1.0
															0.3	0.3	0.3	0.3	0.3	0.3