

Prestressed Beam Load Table

24IT24 Beam

Safe Load Table

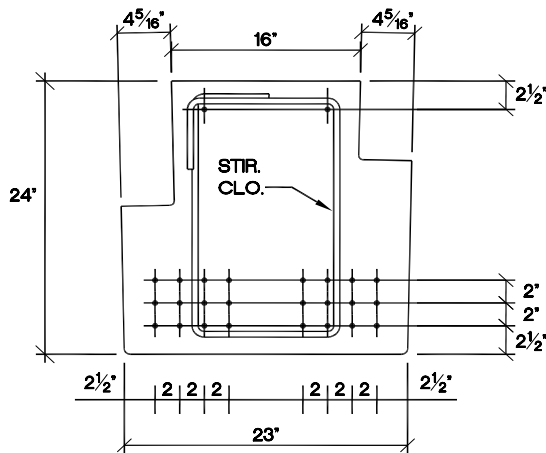
UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD IN KLF

# strand	Strand Area	ϕMn (k-ft)	Span Length (ft)									
			16	18	20	22	24	26	28	30	32	34
24	3.672	948.93	9.69	8.57	7.68	6.95	6.34	5.83	5.38	4.75	4.11	3.59
22	3.366	909.62	9.79	8.66	7.76	7.02	6.41	5.89	5.20	4.46	3.86	3.37
20	3.060	866.35	9.91	8.77	7.85	7.11	6.48	5.73	4.87	4.18	3.61	3.15
18	2.754	818.84	10.05	8.89	7.97	7.21	6.36	5.35	4.55	3.90	3.36	2.92
20 bottom	3.060	902.01	10.23	9.05	8.11	7.34	6.70	6.01	5.11	4.39	3.80	3.31
18 bottom	2.754	842.81	10.29	9.10	8.16	7.38	6.58	5.54	4.71	4.04	3.49	3.03
16	2.448	766.79	10.23	9.05	8.11	7.14	5.92	4.97	4.22	3.61	3.12	2.70
14	2.142	697.76	10.30	9.12	7.94	6.48	5.37	4.50	3.81	3.26	2.80	2.43
12	1.836	623.45	10.41	8.94	7.15	5.82	4.81	4.03	3.41	2.90	2.49	2.15
10	1.530	543.56	10.20	7.96	6.35	5.16	4.26	3.56	3.00	2.55	2.18	1.88
8	1.224	457.79	8.57	6.70	5.35	4.36	3.61	3.02	2.55	2.18	1.87	1.60
6	0.918	353.48	6.54	5.09	4.05	3.28	2.70	2.25	1.89	1.60	1.36	1.16

 Beam Shear Capacity Limited by #4 stirrups @ 6" O.C.

NOTES:

- 1) Concrete Strengths: f'_{ci} = 3500 psi, f'_c = 9000 psi.
- 2) Strand: 270 ksi, Low Relaxation, 1/2" Diameter.
- 3) Tabulated loads are based on $U=1.2D+1.6L$ and with all load superimposed on the section considered as live load.
- 4) Stresses at release require top reinforcement in most cases.
- 5) Beam sizes can have either 8", 10", 12" or 16" ledges which are covered by the load table.
- 6) Section properties shown are based on 12" ledges both sides.
- 7) Values in shaded area are controlled by limitations of steel shear reinforcing.
- 8) Tabulated loads do not account for torsional loading of beam which may require more in-depth analysis.
- 9) For conditions not covered on this load table contact, Molin Concrete Products, Engineering Division.
- 10) Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI) 318".



$A = 458.375 \text{ in}^2$
 $b_w = 15.5 \text{ in}$
 $I_g = 19681 \text{ in}^4$
 $y_b = 10.476 \text{ in}$



Molin Concrete Products Company • 415 Lilac Street • Lino Lakes, MN 55014
 Office: 651.786.7722 • 800.336.6546 • Fax: 651.786.0229
 www.molin.com • e-mail: info@molin.com

Prestressed Beam Load Table - 24IT24 Beam