

Composite Design Safe Load Table



See instructions on back side of sheet for using this table.

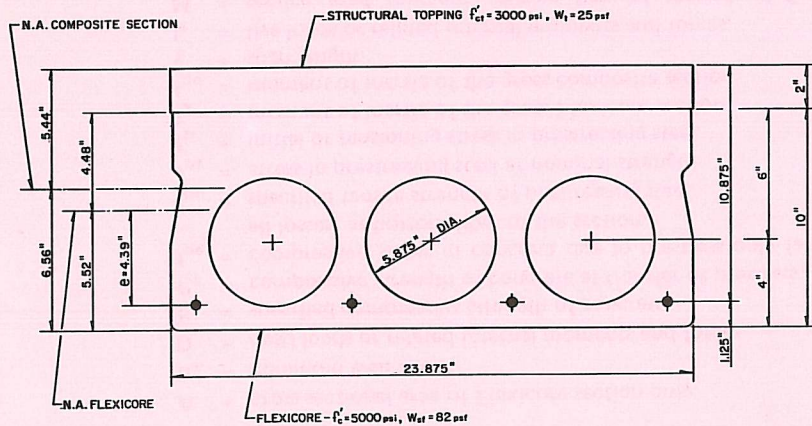
10" x 24" SECTION PLUS 2" STRUCTURAL TOPPING

UNIFORMLY DISTRIBUTED SUPERIMPOSED* LOAD IN PSF

Standard Designation	Strands No. & Size	Strand Area Sq. In.	M in Ft.-Kips per Unit	ϕM_n in Ft.-Kips per Unit	Span Length (L) in Ft.																		
					22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
T1024F-D58	4-1/2 (see Note 7)	0.576	67.82	100.50	368	348	322	290	262	234	207	184	163	144	126	111	96	83	71	60	49	40	
T1024F-D50	2-1/2 & 2-7/16	0.504	61.10	89.73	348	311	278	250	224	197	173	152	133	116	100	86	73	61	50	40			
T1024F-D43	4-7/16	0.432	54.38	78.46	293	261	232	207	185	160	139	120	103	88	74	61	50						
T1024F-D38	2-7/16 & 2-3/8	0.376	49.15	69.31	249	220	195	173	153	131	112	95	80	66	53	42							
T1024F-D32	4-3/8	0.320	43.92	59.86	203	178	156	137	120	102	85	70	57	44									
T1024F-D29	2-1/2	0.288	40.93	54.33	176	154	134	116	101	86	70	56	43										
T1024F-D28	2-3/8 & 2-5/16	0.276	39.81	52.23	166	144	125	109	94	80	65	51											

*TABULATED LOADS ARE BASED ON $U = 1.4D + 1.7L$ AND WITH ALL LOAD SUPERIMPOSED ON THE STRUCTURAL SECTION CONSIDERED AS LIVE LOAD. (ALSO SEE NOTE 6)

PHYSICAL PROPERTIES OF STRUCTURAL SECTION AND SPECIFICATIONS



$$A = 157.4 \text{ in.}^2 \quad I_g = 1690.8 \text{ in.}^4 \quad f'_c = 5000 \text{ psi} \quad f_{pu} = 250 \text{ ksi}$$

$$b_w = 6.25 \text{ in.} \quad I_{gc} = 2604.2 \text{ in.}^4 \quad f'_{ci} = 3500 \text{ psi} \quad f_{si} = 175 \text{ ksi}$$

NOTES:

1. Grouted weight of structural unit is 107 psf or 214 plf based on concrete unit weight of 150 pcf.
2. Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI 318-77)."
3. For spans in shaded area consult your local manufacturer.
4. No shear reinforcement is required for the tabulated loads.
5. Tabulated loads to the left of solid stepped line are controlled by shear strength of the concrete. Shear reinforcement may be added to increase the safe loads.
6. Tabulated loads to the right of dashed line are controlled by permissible flexural tension at service loads.
7. Slabs with four 1/2 in. strands and span lengths of 22 ft. thru 30 ft. require 2-#4 x 4'-0" long top re-bars ($f_y = 40$ ksi) at each end.
8. For longer spans and conditions not covered in the load table, consult your local manufacturer.