Form No. 824C-D July 15, 1978

250^{k} STRAND

Safe Load Table

flexicore®

PRESTRESSED CONCRETE SLAB

8" x 24" SECTION

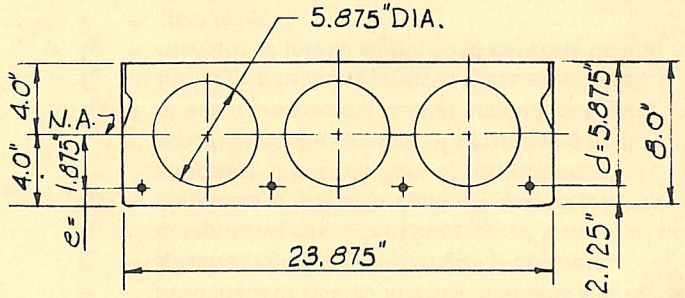
See instructions on back side of sheet for using this table.

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.																		
					15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
824C-D58	4-1/2	0.576	32.33	53.41	363	337	314	294	276	251	227	206	188	168	150	135	121	108	97	87	78	70	62
824C-D50	2-1/2 & 2-7/16	0.504	29.22	47.77	353	328	306	285	255	230	208	185	164	146	130	116	104	92	82	73	65	58	51
824C-D43	4-7/16	0.432	26.11	41.83	351	326	291	257	226	199	176	156	139	124	110	98	87	77	68	59	52	45	
824C-D38	2-7/16 & 2-3/8	0.376	23.69	37.01	340	293	254	222	194	171	150	133	118	104	92	82	72	64	56	49			
824C-D32	4-3/8	0.320	21.27	32.01	288	247	214	185	162	141	124	109	95	84	73	64	56	49					
824C-D29	2-1/2	0.288	19.89	29.08	*250*	220	190	164	143	124	108	94	82	72	62	54	47						
824C-D28	2-3/8 & 2-5/16	0.276	19.37	27.97	245	210	181	156	135	117	102	89	77	67	58	50	43						
824C-D23	4-5/16	0.232	17.47	23.81	202	172	147	126	108	93	80	69	59	50	43								
824C-D22	2-7/16	0.216	16.78	22.27	186	158	134	115	98	84	72	61	52	44									

*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 = 109.7 in.^{2} f'_c = 5000 psi f_{pu} = 250 ksi

b_w = 6.25 in. f'_{ci} = 3500 psi f_{si} = 175 ksi

I_g = 843.2 in.^{4}

NOTES:

1. Grouted weight of structural unit is 57 psf or 114 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 stepped line are controlled by permissible flexural tension at service loads.
7. Tabulated load in italics is controlled by bond.
8. **For longer spans and conditions not covered in the load table, consult your local manufacturer.**