



PRESTRESSED CONCRETE SLAB

# Safe Load Table

10" x 24" SECTION

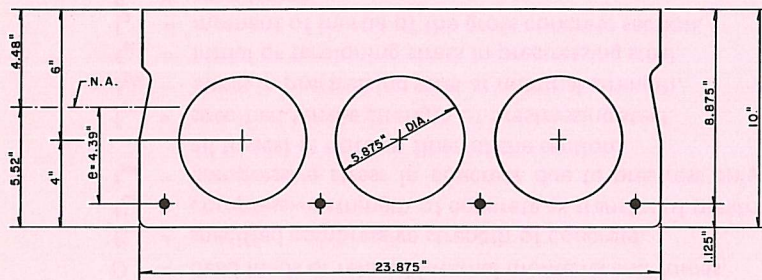
See instructions on back side of sheet for using this table.

UNIFORMLY DISTRIBUTED SUPERIMPOSED\* LOAD IN PSF

Standard Designation	Strands No. & Size	Strand Area Sq. In.	M in Ft.-Kips per Unit	$\phi M_n$ 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	40
1024F-D58	4-1/2 (see Note 7)	0.576	52.37	85.41	304	288	270	247	227	206	186	168	151	136	123	111	100	89	80	72	64	56	49
1024F-D50	2-1/2 & 2-7/16	0.504	47.18	75.81	296	270	242	218	196	177	159	143	128	115	103	92	82	73	64	56	49	43	
1024F-D43	4-7/16	0.432	41.98	65.91	253	226	202	181	162	145	130	117	105	93	83	73	64	56	48	41			
1024F-D38	2-7/16 & 2-3/8	0.376	37.95	58.00	214	190	169	151	134	120	107	95	84	74	66	58	50	42					
1024F-D32	4-3/8	0.320	33.91	49.90	175	154	136	120	106	94	82	72	63	55	47	40							
1024F-D29	2-1/2	0.288	31.60	45.12	152	133	117	102	90	78	68	59	50	43									
<del>1024F-D28</del>	<del>2-3/8 &amp; 2-5/16</del>	<del>0.276</del>	<del>30.74</del>	<del>43.31</del>	<del>143</del>	<del>125</del>	<del>109</del>	<del>96</del>	<del>83</del>	<del>72</del>	<del>62</del>	<del>54</del>	<del>46</del>										
<del>1024F-D23</del>	<del>4-5/16</del>	<del>0.282</del>	<del>27.56</del>	<del>36.64</del>	<del>111</del>	<del>95</del>	<del>82</del>	<del>70</del>	<del>60</del>	<del>51</del>	<del>42</del>												

\*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



$$\begin{aligned}
 A &= 157.4 \text{ in.}^2 & f'_c &= 5000 \text{ psi} & f_{pu} &= 250 \text{ ksi} \\
 b_w &= 6.25 \text{ in.} & f'_{ci} &= 3500 \text{ psi} & f_{si} &= 175 \text{ ksi} \\
 I_g &= 1690.8 \text{ in.}^4
 \end{aligned}$$

NOTES:

- Grouted weight of structural unit is 82 psf or 164 plf based on concrete unit weight of 150 pcf.
- Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI 318-77)."
- For spans in shaded area consult your local manufacturer.**
- No shear reinforcement is required for the tabulated loads.
- 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.
- Tabulated loads to the right of dashed stepped line are controlled by permissible flexural tension at service loads.
- 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.
- For longer spans and conditions not covered in the load table, consult your local manufacturer.**