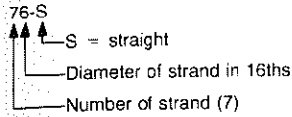


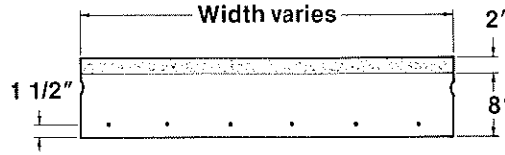
SOLID FLAT SLAB

Strand Pattern Designation



8" Thick
Lightweight Concrete

Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.



Section Properties per foot of width	
Untopped	Topped
A = 96.00 in. ²	—
I = 512.00 in. ⁴	1058.50 in. ⁴
Y _b = 4.00 in.	5.12 in.
Y _t = 4.00 in.	4.88 in.
Z _b = 128.00 in. ³	206.75 in. ³
Z _t = 128.00 in. ³	216.90 in. ³
b _w = 12.00 in.	12.00 in.
wt = 77 psf	102 psf
W/S = 4.00 in.	

$f'_c = 5000$ psi
 $f'_{ci} = 3500$ psi

Low-relaxation strand

Key

- 285 — Safe superimposed service load, psf
- 0.2 — Estimated camber at erection, in.
- 0.3 — Estimated long-time camber, in.

LFS8

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Designation Code	Span, ft.																						
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33			
66-S	285	252	225	192	165	142	122	105	90	77	66												
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1												
	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	-0.1												
76-S	298	269	231	199	173	150	130	113	98	85	74	64											
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.0											
	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.1	0.0	-0.1											
58-S		279	258	240	225	204	179	158	139	123	108	95	84	74	65								
		0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.2	0.1									
		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.0	-0.2								
68-S				243	228	212	200	188	174	155	138	123	109	97	87	76	65						
				0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3						
				0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.3	0.1	-0.1						
78-S					231	218	203	191	180	170	161	149	133	120	107	95	84	74	65				
					0.8	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.7	0.6	0.5				
					1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.0	0.9	0.7	0.5	0.3	0.0				

LFS8 + 2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Designation Code	Span, ft.															
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
66-S	244	208	170	137	109	85	64									
	0.2	0.2	0.2	0.2	0.1	0.1	0.0									
	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3									
76-S	253	218	185	153	125	100	78									
	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1								
	0.2	0.2	0.1	0.0	0.1	-0.2	-0.3									
58-S	290	256	225	197	168	141	117	96	77	60						
	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2						
	0.4	0.4	0.3	0.3	0.2	0.1	0.0	-0.2	-0.3	-0.5						
68-S		278	262	244	216	192	167	142	119	100	82	66				
		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.4				
		0.6	0.6	0.6	0.5	0.4	0.4	0.2	0.1	-0.1	-0.3	-0.5				
78-S			258	251	236	222	204	182	163	134	113	95	79			
			0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.7			
			0.9	0.9	0.9	0.8	0.8	0.7	0.6	0.3	0.2	0.0	-0.3			

Strength based on strain compatibility; bottom tension limited to $6\sqrt{f'_c}$; see pages 2-3-2-5 for explanation