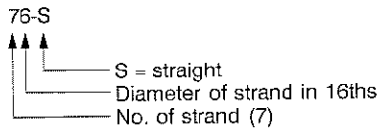


Strand Pattern Designation

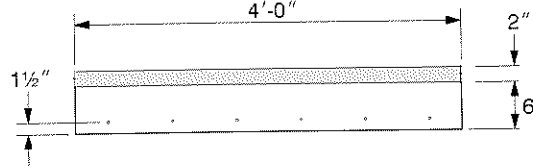
SOLID FLAT SLAB

Section Properties



6" Thick
 Lightweight Concrete

	Untopped	Topped
A	= 288 in ²	—
I	= 864 in ⁴	2,181 in ⁴
y _b	= 3.00 in.	4.11 in.
y _t	= 3.00 in.	3.89 in.
S _b	= 288 in ³	531 in ³
S _t	= 288 in ³	561 in ³
b _w	= 48.00 in.	48.00 in.
wt	= 230 plf	330 plf
	58 psf	83 psf
V/S	= 2.67 in.	



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.

$f'_c = 5,000$ psi
 $f'_{ci} = 3,500$ psi

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

LFS6

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Designation Code	Span, ft																																									
	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31																					
66-S	345	298	250	209	177	150	127	109	93	79	68	58	49	41	34																											
	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	-0.1	-0.3	-0.4																											
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.0	-0.1	-0.3	-0.5	-0.8	-1.1																											
76-S		351	294	247	209	179	153	132	113	98	85	73	62	52	44	36																										
		0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.0	-0.2	-0.4																										
		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.1	-0.1	-0.2	-0.5	-0.7	-1.1																										
58-S			383	334	295	262	233	201	175	151	131	113	98	85	73	63	54	46	39	32																						
			0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.1	0.0	-0.2	-0.5																						
			0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.3	0.1	-0.1	-0.4	-0.7	-1.1	-1.5																						
68-S				354	315	272	235	204	178	156	137	120	105	92	81	70	61	53	45	38	32																					
				0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.4	0.3	0.1	-0.2	-0.4																				
				0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.7	0.5	0.3	0.0	-0.4	-0.8	-1.2	-1.8																				
78-S					356	307	266	232	203	179	157	139	123	109	96	85	76	67	58	51	44																					
					0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4	0.2																				
					1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.2	1.2	1.0	0.9	0.6	0.4	0.0	-0.4	-0.9																					

LFS6+2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Designation Code	Span, ft																																										
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30																										
66-S	298	251	213	181	155	132	111	86	65	47	30																																
	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	-0.1	-0.3																																
	0.2	0.2	0.2	0.1	0.0	-0.1	-0.2	-0.4	-0.6	-0.8	-1.1																																
76-S		351	297	253	217	186	161	139	112	88	68	50	34																														
		0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.0	-0.2																														
		0.3	0.3	0.3	0.2	0.2	0.1	0.0	-0.2	-0.4	-0.6	-0.8	-1.1																														
58-S			371	328	283	246	214	187	163	135	110	89	70	53	38																												
			0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.1	0.0																												
			0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.1	-0.1	-0.3	-0.6	-0.9	-1.3																												
68-S				390	338	294	257	226	199	175	148	124	103	83	66	51	37																										
				0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.4	0.3	0.1																										
				0.7	0.7	0.7	0.6	0.6	0.5	0.4	0.3	0.1	-0.1	-0.4	-0.7	-1.1	-1.5																										
78-S					386	337	296	261	230	204	180	155	132	111	93	77	61	47																									
					0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.8	0.6	0.4																								
					0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.5	0.3	0.1	-0.2	-0.5	-0.9	-1.4																									

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