3.8 Solid Flat-Slab Load Tables (cont.)

Strand Pattern Designation
76-S

S = straight
Diameter of strand in 16ths
Number of strand (4)
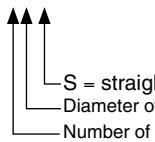
Safe loads shown include dead load of 10 lb/ft² for untopped members and 15 lb/ft² for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

Key
203 – Safe superimposed service load, lb/ft²
0.1 – Estimated camber at erection, in.
0.2 – Estimated long-time camber, in.

6 in. Thick
Normalweight Concrete

4'-0"

1½" 2" 6"

$f_c' = 5000$ psi

$f_{pu} = 270,000$ psi
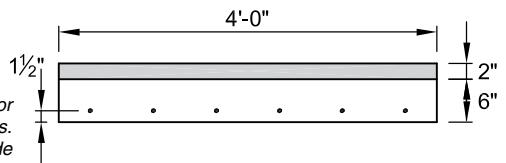
Section Properties

	No Topping	2 in. topping
A =	288 in.²	-
I =	864 in.⁴	1834 in.⁴
y_b =	3.00 in.	3.82 in.
y_t =	3.00 in.	4.18 in.
S_b =	288 in.³	480 in.³
S_t =	288 in.³	439 in.³
wt =	300 lb/ft	400 lb/ft
DL =	75 lb/ft²	100 lb/ft²
V/S =	2.67 in.	

FS6

Table of safe superimposed service load, lb/ft², and cambers, in.   **No Topping**

Strand designation code	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
66-S	203	180	163	148	133	120	110	103	93	79	68	53	42	33								
	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.0	-0.0	-0.1	-0.2	-0.3	-0.5								
	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.5	-0.7	-1.0								
76-S		220	198	180	165	150	138	128	114	96	80	66	54	43	34	26						
		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.5	-0.7						
		0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	-0.1	-0.2	-0.4	-0.5	-0.8	-1.0	-1.3						
58-S			188	170	158	143	133	120	112	103	95	88	77	65	54	44	35	28				
			0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.0	-0.1	-0.2	-0.3	-0.5	-0.7				
			0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.1	-0.2	-0.4	-0.6	-0.9	-1.2	-1.6				
68-S				213	195	180	165	155	145	135	125	118	98	84	71	60	50	42	34	27		
				0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.2	0.1	0.0	-0.2	-0.4	-0.6	-0.9		
				0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.2	0.0	-0.2	-0.4	-0.7	-1.1	-1.5	-1.9		
78-S					230	213	198	185	173	160	150	137	119	103	89	77	66	56	47	39	32	25
					0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.4	0.3	0.1	0.0	-0.2	-0.5	-0.7	-1.0
					0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.5	0.4	0.2	0.0	-0.3	-0.6	-0.9	-1.4	-1.8	-2.4

FS6 + 2

Table of safe superimposed service load, lb/ft², and cambers, in.   **2 in. Normalweight Topping**

Strand designation code	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
66-S	240	220	200	183	168	155	120	92	68	47	29						
	0.2	0.2	0.2	0.2	0.1	0.1	0.0	-0.1	-0.1	-0.2	-0.3						
	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.5	-0.7	-0.9						
76-S		265	243	225	208	184	148	118	91	68	48	31					
		0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3					
		0.2	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.4	-0.5	-0.7	-1.0					
58-S			230	210	195	183	168	155	137	110	87	66	48	32			
			0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.1	0.0	-0.1	-0.2	-0.3			
			0.3	0.3	0.3	0.2	0.1	0.0	-0.1	-0.3	-0.4	-0.7	-0.9	-1.2			
68-S					248	228	213	200	179	148	121	98	77	59	42	28	
					0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.1	0.0	-0.2	-0.4	
					0.4	0.4	0.4	0.3	0.1	0.0	-0.2	-0.3	-0.6	-0.9	-1.2	-1.5	
78-S						265	255	240	221	186	156	130	107	86	68	51	36
						0.6	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.1	0.0	-0.2
						0.5	0.5	0.5	0.4	0.3	0.1	0.0	-0.2	-0.5	-0.8	-1.1	-1.5

Strength is based on strain compatibility; bottom tension is limited to $7.5\sqrt{f_c'}$; see pages 3–8 through 3–11 for explanation.
See item 3, note 4, Section 3.3.2 for explanation of vertical line.