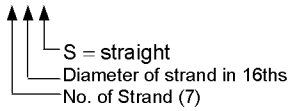


Strand Pattern Designation
76-S

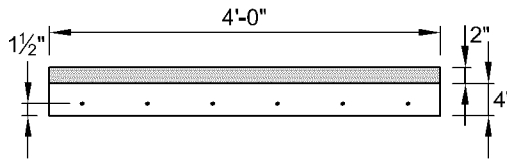


Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

Key
216 – Safe superimposed service load, psf
0.1 – Estimated camber at erection, in.
0.1 – Estimated long-time camber, in.

SOLID FLAT SLAB

4 in. Thick
Normal Weight Concrete



$f'_c = 5,000$ psi
 $f_{pu} = 270,000$ psi

Section Properties

	Untopped	Topped
A =	192 in. ²	288 in. ²
I =	256 in. ⁴	763 in. ⁴
$y_b =$	2.00 in.	2.84 in.
$y_t =$	2.00 in.	3.16 in.
$S_b =$	128 in. ³	269 in. ³
$S_t =$	128 in. ³	242 in. ³
wt =	200 plf	300 plf
DL =	50 psf	75 psf
V/S =	1.85 in.	

FS4

Table of safe superimposed service load (psf) and cambers (in.)

No Topping

Strand Designation Code	Span, ft												
	10	11	12	13	14	15	16	17	18	19	20	21	22
66-S	216	182	147	118	95	76	61	48	38	29			
	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.6			
	0.1	0.1	0.0	0.0	-0.1	-0.3	-0.4	-0.6	-0.9	-1.2			
76-S	250	208	167	135	110	89	72	58	47	37	28		
	0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.5	-0.7		
	0.1	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.5	-0.7	-1.0	-1.4		
58-S	256	220	180	148	123	103	86	72	61	51	42	34	26
	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	-0.1	-0.3	-0.4	-0.7	-0.9
	0.2	0.2	0.2	0.2	0.1	0.0	-0.1	-0.3	-0.5	-0.8	-1.1	-1.5	-1.9
68-S	276	223	182	150	125	104	87	73	62	52	43	36	30
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	-0.1	-0.3	-0.4	-0.7
	0.3	0.3	0.3	0.3	0.2	0.2	0.1	-0.1	-0.3	-0.5	-0.8	-1.2	-1.6

FS4 + 2

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping

Strand Designation Code	Span, ft											
	11	12	13	14	15	16	17	18	19	20	21	22
66-S	336	257	196	147	108	76	49	27				
	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.4				
	0.0	0.0	-0.1	-0.2	-0.3	-0.5	-0.7	-1.0				
76-S	385	298	231	177	134	99	70	45				
	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3				
	0.0	0.0	-0.1	-0.1	-0.3	-0.4	-0.6	-0.9				
58-S		356	296	239	187	146	111	82	58	37		
		0.2	0.2	0.1	0.1	0.0	0.0	-0.1	-0.3	-0.4		
		0.1	0.0	0.0	-0.1	-0.3	-0.4	-0.7	-0.9	-1.3		
68-S			360	289	232	185	146	114	87	64	43	25
			0.2	0.2	0.2	0.2	0.1	0.0	-0.1	-0.3	-0.4	-0.7
			0.1	0.1	0.0	-0.1	-0.3	-0.5	-0.7	-1.0	-1.4	-1.9

Strength is based on strain compatibility; bottom tension is limited to $7.5\sqrt{f'_c}$; see pages 2-7 through 2-10 for explanation.