

Strand Pattern Designation

SOLID FLAT SLAB

Section Properties

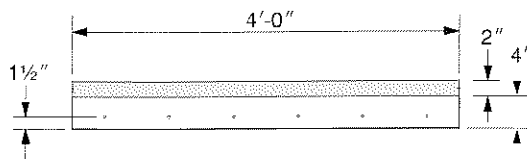
76-S

S = straight
 Diameter of strand in 16ths
 No. of strand (7)

4" Thick
 Normal Weight Concrete

Untopped Topped

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.



A	=	192 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
b _w	=	48.00 in.	48.00 in.
wl	=	200 plf	300 plf
		50 psf	75 psf
V/S	=	1.85 in.	

f'_c = 5,000 psi

f'_{ci} = 3,500 psi

Key

- 196 — Safe superimposed service load, psf
- 0.1 — Estimated camber at erection, in.
- 0.1 — Estimated long-time camber, in.

FS4

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Designation Code	Span, ft												
	10	11	12	13	14	15	16	17	18	19	20	21	22
66-S	196	165	132	105	83	66	52	41	31				
	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.4				
	0.1	0.1	0.0	0.0	-0.1	-0.3	-0.4	-0.6	-0.9				
76-S	230	190	151	122	98	79	63	50	40	30			
	0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.5			
	0.1	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.5	-0.9	-1.0			
58-S	253	212	180	154	127	104	86	70	57	46	37		
	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	-0.1	-0.3	-0.4		
	0.2	0.2	0.2	0.2	0.1	0.0	-0.1	-0.3	-0.5	-0.8	-1.1		
68-S	300	252	214	180	152	127	105	88	73	60	50	40	32
	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

2" Normal Weight Topping

Strand Designation Code	Span, ft											
	10	11	12	13	14	15	16	17	18	19	20	21
66-S	369	296	224	167	123	87	57	33				
	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3				
	0.0	0.0	0.0	-0.1	-0.2	-0.3	-0.5	-0.7				
76-S	346	265	203	153	113	80	53	31				
	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	400	342	274	214	166	127	95	67	44			
	0.2	0.2	0.2	0.1	0.1	0.0	0.0	-0.1	-0.3			
	0.1	0.1	0.0	0.0	-0.1	-0.3	-0.4	-0.7	-0.9			
68-S				335	268	213	169	132	101	74	52	32
				0.2	0.2	0.2	0.2	0.1	0.0	-0.1	-0.3	-0.4
				0.1	0.1	0.0	-0.1	-0.3	-0.5	-0.7	-1.0	-1.4

Strength based on strain compatibility; bottom tension limited to 6√f'_c; see pages 2-2–2-6 for explanation.