

# DOUBLE TEE

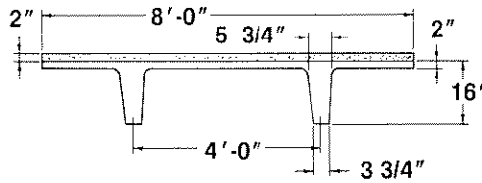
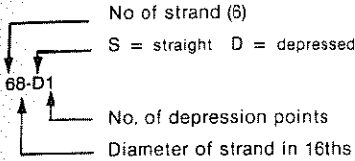
8'-0" x 16"  
Lightweight Concrete

### Section Properties

Untopped    Topped

A =	325 in. <sup>2</sup>	—
I =	6634 in. <sup>4</sup>	10,094 in. <sup>4</sup>
Y <sub>b</sub> =	11.93 in.	13.99 in.
Y <sub>t</sub> =	4.07 in.	4.01 in.
Z <sub>b</sub> =	556 in. <sup>3</sup>	721 in. <sup>3</sup>
Z <sub>t</sub> =	1630 in. <sup>3</sup>	2517 in. <sup>3</sup>
wt =	260 plf	460 plf
	33 psf	58 psf
V/S =	1.29 in.	

### Strand Pattern Designation



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

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

$f'_c = 5000$  psi  
 $f_{pu} = 270,000$  psi

**8LDT16**

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Pattern	$e_o$ $e_c$	Span, ft.																					
		16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52			
28-S	9.93	165	130	101	79	62	50	39	31														
	9.93	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4														
48-S	8.93				165	135	111	92	77	65	55	46	39	33									
	8.93				0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.3	1.3									
68-S	5.93				190	156	129	108	91	77	65	55	47	40	34								
	5.93				0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.3	1.3									
68-D1	5.93						181	153	130	111	96	83	72	62	54	47	41	36	31				
	9.43						1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.5	2.5	2.5	2.5	2.4	2.3				
88-D1	3.93																						
	9.18																						

**8LDT16 + 2**

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Pattern	$e_o$ $e_c$	Span, ft.																				
		16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46					
28-S	9.93	171	132	98	74	55	40															
	9.93	0.2	0.3	0.3	0.3	0.4	0.4															
48-S	8.93				172	137	111	89	72	58	46	36										
	8.93				0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.3										
68-S	5.93						169	138	113	92	76	62	48									
	5.93						0.9	1.0	1.1	1.1	1.2	1.3	1.3									
68-D1	5.93							192	159	133	111	93	79	66	54	42						
	9.43							1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.5	2.5						
88-D1	3.93																					
	9.18																					

**Bold type** — Capacity governed by stresses, others governed by flexural strength

Values below heavy line require release strengths higher than 3500 psi.