

# DOUBLE TEE

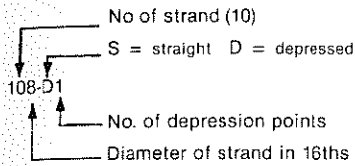
8'-0" x 20"  
Lightweight Concrete

## Section Properties

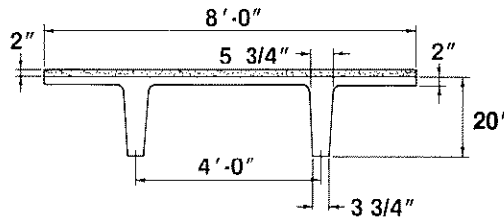
Untopped Topped

A	= 363 in. <sup>2</sup>	—
I	= 12,551 in. <sup>4</sup>	18,278 in. <sup>4</sup>
Y <sub>b</sub>	= 14.59 in.	17.02 in.
Y <sub>t</sub>	= 5.41 in.	4.98 in.
Z <sub>b</sub>	= 860 in. <sup>3</sup>	1074 in. <sup>3</sup>
Z <sub>t</sub>	= 2320 in. <sup>3</sup>	3670 in. <sup>3</sup>
wt	= 290 plf	490 plf
	36 psf	61 psf
V/S	= 1.35 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.



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

## Key

- 182 — Safe superimposed service load, psf
- 0.6 — Estimated camber at erection, in.
- 0.8 — Estimated long-time camber, in.

**8LDT20**

Table of safe superimposed service load (psf) and cambers

No Topping

Strand Pattern	e <sub>e</sub> e <sub>c</sub>	Span, ft.																					
		24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66
48-S	11.59	182	151	126	107	90	77	65	56	48	41	35											
	11.59	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0										
68-S	8.59	189	159	135	115	99	85	74	64	55	48	41	36	31									
	8.59	0.8	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.2	1.1	0.9	0.6	0.3						
68-D1	8.59				177	152	132	115	100	87	77	67	59	52	46	40	35	31					
	12.09				1.3	1.3	1.6	1.7	1.8	1.9	2.0	2.0	2.1	2.1	2.1	2.0	1.9	1.8					
88-D1	6.59									119	105	93	83	74	66	59	53	47	42	36	32		
	11.84									2.3	2.5	2.6	2.8	2.9	3.1	3.2	3.2	3.1	3.1	2.9	2.8		
108-D1	4.59																	59	53	47	42	37	33
	11.59																	3.7	3.6	3.9	3.9	3.8	3.7
																		3.3	3.1	2.8	2.5	2.1	1.4

**8LDT20 + 2**

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

Strand Pattern	e <sub>e</sub> e <sub>c</sub>	Span, ft.																					
		24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56					
48-S	11.59	185	150	123	101	83	68	56	45	36													
	11.59	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.0	1.0													
68-S	8.59	198	164	137	114	96	80	67	56	46													
	8.59	0.8	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3													
68-D1	8.59				178	151	128	109	93	79	68	57	48	41									
	12.09				1.3	1.3	1.6	1.7	1.8	1.9	2.0	2.0	2.1	2.1									
88-D1	6.59									115	100	87	76	65	54	44							
	11.84									2.3	2.5	2.6	2.8	2.9	3.1	3.2							
108-D1	4.59																			43			
	11.59																			3.7			
																				0.0			

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

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