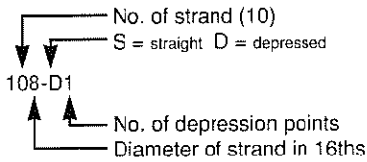


**Strand Pattern Designation**



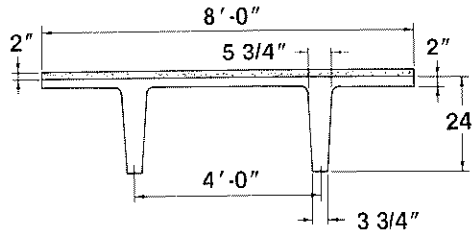
Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

**Key**

- 118 — Safe superimposed service load, psf
- 1.1 — Estimated camber at erection, in.
- 1.4 — Estimated long-time camber, in.

**DOUBLE TEE**

**8'-0" x 24"**  
**Lightweight Concrete**



**Section Properties**

Untopped    Topped

A	=	401 in. <sup>2</sup>	—
I	=	20,985 in. <sup>4</sup>	29,853 in. <sup>4</sup>
y <sub>b</sub>	=	17.15 in.	19.94 in.
y <sub>t</sub>	=	6.85 in.	6.06 in.
Z <sub>b</sub>	=	1,224 in. <sup>3</sup>	1,497 in. <sup>3</sup>
Z <sub>t</sub>	=	3,063 in. <sup>3</sup>	4,926 in. <sup>3</sup>
wt	=	320 plf	520 plf
		40 psf	65 psf
V/S	=	1.41 in.	

$f'_c = 5,000$  psi

$f_{pu} = 270,000$  psi

**8LDT24**

**Table of safe superimposed service load (psf) and cambers**

**No Topping**

Strand Pattern	e <sub>e</sub> e <sub>c</sub>	Span, ft.																							
		36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	
68-S	11.15	118	103	89	78	69	60	53	46	40	35	30													
	11.15	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.3	1.3	1.2													
88-S	9.15	144	126	110	97	86	76	67	59	53	47	41	36	32											
	9.15	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.4												
88-D1	9.15	176	156	139	124	111	99	89	80	72	64	58	52	47	42	38	34								
	14.40	1.9	2.1	2.2	2.4	2.5	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.0	3.0	2.9	2.8								
108-D1	7.15								113	102	93	84	76	69	63	57	52	47	43	38	35	31			
	14.15								3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.1	4.1	4.0	3.9	3.8	3.6	3.4			
128-D1	5.48																	65	59	54	50	45	41	38	34
	13.90																	4.8	4.9	4.9	4.9	4.8	4.7	4.5	4.3
148-D1	4.29																						46	42	
	13.65																						5.6	5.5	

**8LDT24 + 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.																						
		26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	
48-S	14.15	193	159	132	110	92	76	63	52	43	34													
	14.15	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.0													
68-S	11.15		185	157	133	113	96	82	70	59	50	41	34											
	11.15		0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.4											
68-D1	11.15				166	143	123	106	91	79	68	58	49	42	35									
	14.65				1.2	1.4	1.5	1.6	1.7	1.8	1.9	1.9	2.0	2.0	2.0									
88-D1	9.15					200	175	153	134	117	103	90	79	70	61	53	46	40						
	14.40					1.8	1.9	2.1	2.1	2.4	2.5	2.7	2.8	2.9	3.0	3.0	3.1	3.1						
108-D1	7.15													106	94	84	74	66	58	51	45			
	14.15													3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.1			
128-D1	5.48																					53	46	
	13.90																					4.8	4.9	

Strength based on strain compatibility; bottom tension limited to  $12\sqrt{f'_c}$ ; see pages 2-3-2-6 for explanation. Shaded values require release strengths higher than 3500 psi.