

DOUBLE TEE

TYPE "A" LOAD TABLE

4DT 14+2

Table of safe superimposed live load (psf)

Normal Weight Concrete

2" Normal Weight Topping

4'-0" x 14" Double Tee

Strand Pattern	Span, ft															
	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	
27-S	188*	136*	99*	71*	50*	34*										
47-S				169*	133*	104*	82*	63*	49*	35						
67-S					170*	136*	109*	84	63	45	30					
47-D1					185*	149*	120*	97*	78*	62*	49*	37	24			
67-D1										109*	91*	75	59	45	33	
Dead Load	f_t	-154	195	240	291	346	407	472	542	616	696	780	869	963	1062	1166
	f_b	-385	-487	-602	-728	-867	-1017	-1180	-1355	-1541	-1740	-1951	-2174	-2409	-2656	-2915
	a	0.039	0.062	0.095	0.139	0.197	0.271	0.365	0.481	0.623	0.794	0.998	1.238	1.521	1.848	2.226
100 plf Live Load	f_t	23	29	36	43	52	61	70	81	92	104	117	130	144	159	175
	f_b	-104	-132	-163	-197	-235	-276	-320	-368	-418	-472	-529	-590	-654	-721	-791
	a	0.008	0.013	0.020	0.029	0.041	0.057	0.077	0.101	0.131	0.167	0.210	0.260	0.320	0.388	0.468

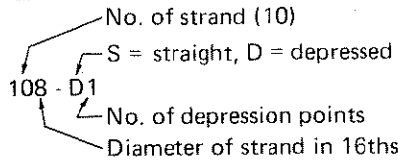
*Capacity governed by ultimate strength. Values below heavy line require release strengths higher than 3500 psi

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

Notation

- f_t = top fiber stress, psi (after assumed 22% loss) (precast section)
- f_b = bottom fiber stress, psi (after assumed 22% loss)
- a = center deflection, in.
- $0.001 l^2 \alpha$ = initial center camber, in. (after assumed 10% loss)
- l = span (ft)
- M_u = ult. moment capacity, in.-kips

Strand Pattern Designation

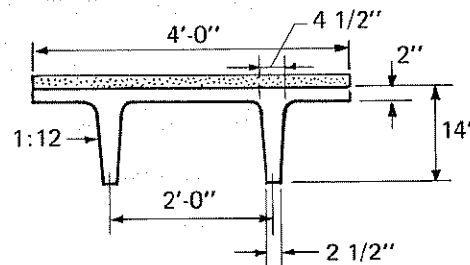


Section Properties

- I = 4204 in.⁴
- y_b = 11.46 in.
- y_t = 4.54 in.
- Z_b = 367 in.³
- Z_t = 926 in.³
- wt = 288 plf
- 72 psf

See preceding page for untopped section properties.

Strand Pattern	Eccentricity in.		Prestress alone					M_u
			end		center		α	
	end	ctr	f_t	f_b	f_t	f_b		
27-S	6.00	6.00	-95	900	-95	900	0.412	646
47-S	5.00	5.00	-96	1563	-96	1563	0.687	1131
67-S	3.33	3.33	91	1752	91	1752	0.687	1348
47-D1	5.00	7.78	-96	1563	-360	2223	0.941	1437
67-D1	3.33	7.56	91	1752	-510	3256	1.268	1991



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