

DOUBLE TEE

TYPE "A" LOAD TABLE

10LDT 32+2

Table of safe superimposed live load (psf)

Lightweight Concrete

2" Normal Weight Topping

10'-0" x 32" Double Tee

Strand Pattern	Span, ft																							
	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	
88-S	107*	92*	79*	68*	58*	49*	41*	33*	27*															
108-S	140*	122*	107*	93*	81*	70*	60*	52*	44*	37*	31*	25*												
128-S	172*	151*	133*	117*	103*	91*	80*	70*	61*	53*	46*	39*	33*	28*										
148-S	187*	165*	146*	129*	114*	101*	89*	78*	69*	60*	52*	45*	39*	32	25									
128-D1		203*	181*	161*	144*	128*	114*	102*	91*	81*	72*	64*	56*	49*	37*	32*	26							
148-D1			191*	171*	153*	138*	124*	111*		100*	90*	80*	72*	64*	57*	51*	45*	38	31	25				
168-D1							160*	144*	130*	118*	106*	96*	86*	78*	70*		63*	56	48	41	35	29		
188-D1													100*	91*	82*		75*	67	59	51	44	38	32	26
208-D1																		68	60	53	46	40	34	
Dead Load	f_t	329	361	394	429	466	504	543	584	627	671	717	764	812	862	913	966	1021	1077	1134	1193	1254	1316	1379
	f_b	-721	-792	-865	-942	-1022	-1106	-1193	-1283	-1376	-1473	-1572	-1675	-1782	-1891	-2004	-2121	-2240	-2363	-2489	-2618	-2751	-2887	-3026
100 pif Live Load	a	0.341	0.411	0.491	0.582	0.685	0.801	0.932	1.078	1.240	1.420	1.619	1.839	2.079	2.343	2.631	2.945	3.286	3.656	4.056	4.489	4.955	5.456	5.994
	f_t	21	23	25	27	29	32	34	37	40	42	45	48	51	55	58	61	65	68	72	76	80	84	88
	f_b	-80	-88	-97	-105	-114	-124	-133	-143	-154	-165	-176	-188	-199	-212	-224	-237	-251	-265	-279	-293	-308	-323	-339
	a	0.029	0.035	0.042	0.050	0.059	0.069	0.080	0.093	0.107	0.122	0.139	0.158	0.179	0.201	0.226	0.253	0.282	0.314	0.349	0.386	0.426	0.469	0.515

*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 25% loss) (precast section)

f_b = bottom fiber stress, psi (after assumed 25% loss)

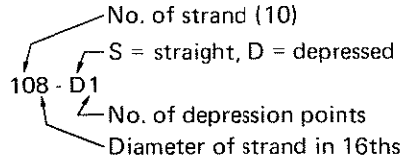
a = center deflection, in.

$0.001 l^2 \alpha$ = initial center camber, in. (after assumed 10% loss)

l = span (ft)

M_u = ult. moment capacity, in.-kips

Strand Pattern Designation

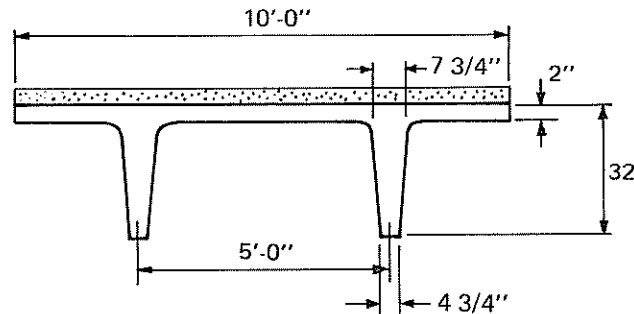


Section Properties

- $I = 83,001 \text{ in.}^4$
- $y_b = 25.40 \text{ in.}$
- $y_t = 8.60 \text{ in.}$
- $Z_b = 3268 \text{ in.}^3$
- $Z_t = 9651 \text{ in.}^3$
- wt = 741 pif
- 74 psf

See preceding page for untopped section properties.

Strand Pattern	Eccentricity in.		Prestress alone				α	M_u
			end		center			
	end	ctr	f_t	f_b	f_t	f_b		
88-S	14.48	14.48	-139	1207	-139	1207	0.378	7595
108-S	13.58	13.58	-141	1437	-141	1437	0.443	9070
128-S	12.98	12.98	-143	1667	-143	1667	0.508	10,510
148-S	11.12	11.12	-72	1737	-72	1737	0.508	11,175
128-D1	12.98	18.73	-143	1667	-394	2218	0.658	13,074
148-D1	11.12	18.48	-72	1737	-448	2560	0.732	14,827
168-D1	9.23	18.23	26	1744	-497	2894	0.794	16,442
188-D1	7.76	17.98	126	1750	-543	3220	0.855	17,991
208-D1	6.38	17.73	241	1724	-585	3538	0.909	19,445



Lightweight Concrete
2" Normal Weight Topping
10'-0" x 32" Double Tee

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