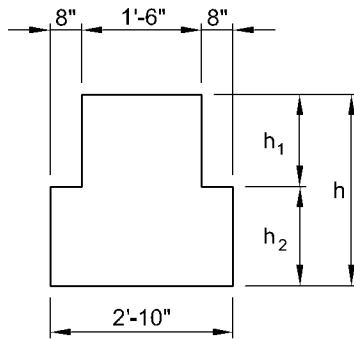


INVERTED TEE BEAMS

Normal Weight Concrete



$f'_c = 5,000$ psi
 $f_{pu} = 270,000$ psi
 1/2 in. diameter
 low-relaxation strand

Section Properties								
Designation	h in.	h ₁ /h ₂ in./in.	A in. ²	I in. ⁴	y _b in.	S _b in. ³	S _t in. ³	wt plf
34IT20	20	12/8	488	16,082	8.43	1,908	1,390	508
34IT24	24	12/12	624	27,825	10.15	2,741	2,009	650
34IT28	28	16/12	696	44,130	11.79	3,743	2,722	725
34IT32	32	20/12	768	65,856	13.50	4,878	3,560	800
34IT36	36	24/12	840	93,616	15.26	6,135	4,514	875
34IT40	40	24/16	976	128,656	16.85	7,635	5,558	1,017
34IT44	44	28/16	1,048	171,157	18.58	9,212	6,733	1,092
34IT48	48	23/16	1,120	221,906	20.34	10,910	8,023	1,167
34IT52	52	36/16	1,192	281,504	22.13	12,721	9,424	1,242
34IT60	60	44/16	1,336	439,623	25.78	17,053	12,847	1,392

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Key

- 7822 – Safe superimposed service load, plf.
- 0.4 – Estimated camber at erection, in.
- 0.1 – Estimated long-time camber, in.

Table of safe superimposed service load (plf) and cambers (in.)

Designation	No. Strand	y _s (end) in. y _s (center) in.	Span, ft																		
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	
34IT20	148-S	2.29 2.29	7822	6253	5092	4209	3522	2977	2537	2177	1879	1629	1417	1237	1081						
			0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.1	1.2	1.2	1.2						
			0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1				
34IT24	178-S	2.59 2.59	9221	7524	6233	5229	4432	3789	3262	2826	2461	2151	1887	1660	1463	1291	1140	1007			
			0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.2		
			0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.0	-0.1		
34IT28	208-S	3.00 3.00	8641	7271	6183	5306	4589	3994	3495	3073	2713	2403	2134	1900	1694	1513					
			0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.3				
			0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1			
34IT32	238-S	3.48 3.48	9589	8174	7032	6097	5323	4674	4124	3655	3252	2902	2597	2329	2093						
			0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.3					
			0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2				
34IT36	248-S	3.50 3.50	9223	8016	7015	6176	5466	4860	4338	3886	3492	3146	2840								
			0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.2							
			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
34IT40	308-S	4.40 4.40	9720	8510	7497	6639	5907	5277	4731	4254	3836	3467									
			0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3							
			0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
34IT44	308-S	4.40 4.40	9362	8307	7406	6630	5958	5372	4857	4403											
			0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3						
			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
34IT48	338-S	4.73 4.73	8963	8037	7234	6533	5919	5376													
			0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3							
			0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
34IT52	368-S	5.22 5.22	9503	8564	7745	7026	6392														
			0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3							
			0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
34IT56	398-S	5.59 5.59	8269	7532																	
			1.0	1.0																	
			0.3	0.3																	
34IT60	408-S	6.00 6.00	9564	8721																	
			0.8	0.9																	
			0.3	0.3																	