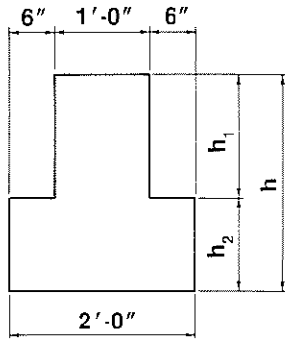


INVERTED TEE BEAMS



$f'_c = 5,000$ psi
 $f_{pu} = 270,000$ psi
 ½ in. diameter
 low-relaxation strand

Normal Weight Concrete

Section Properties								
Designation	h (in.)	h ₁ /h ₂ (in.)	A (in. ²)	I (in. ⁴)	y _b (in.)	Z _b (in. ³)	Z _i (in. ³)	wt (plf)
24IT20	20	12/8	336	10,981	8.29	1,325	938	350
24IT24	24	12/12	432	19,008	10.00	1,901	1,358	450
24IT28	28	16/12	480	30,131	11.60	2,598	1,837	500
24IT32	32	20/12	528	44,969	13.27	3,389	2,401	550
24IT36	36	24/12	576	63,936	15.00	4,262	3,045	600
24IT40	40	24/16	672	87,845	16.57	5,301	3,749	700
24IT44	44	28/16	720	116,877	18.27	6,397	4,542	750
24IT48	48	32/16	768	151,552	20.00	7,578	5,413	800
24IT52	52	36/16	816	192,275	21.76	8,836	6,358	850
24IT56	56	40/16	864	239,445	23.56	10,163	7,381	900
24IT60	60	44/16	912	293,460	25.37	11,567	8,474	950

Key

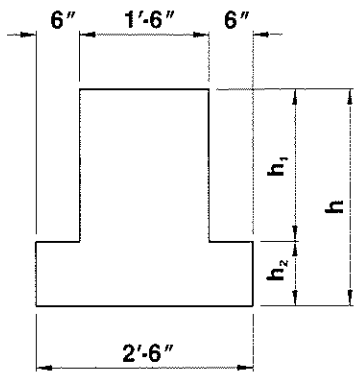
- 7,078 — Safe superimposed service load, plf
- 0.3 — Estimated camber at erection, in.
- 0.1 — Estimated long-time camber, in.

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% 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.

Table of safe superimposed service load (plf) and cambers

Designation	No. Strand	e	Span, ft.																	
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
24IT20	9	6.20	7,078 0.3 0.1	5,515 0.4 0.1	4,404 0.4 0.1	3,582 0.5 0.1	2,957 0.6 0.1	2,470 0.7 0.1	2,084 0.7 0.1	1,773 0.8 0.1	1,518 0.9 0.1	1,307 0.9 0.1	1,130 1.0 0.0	980 1.0 0.0						
24IT24	11	7.17		8,107 0.3 0.1	6,489 0.4 0.1	5,289 0.4 0.1	4,376 0.5 0.1	3,666 0.6 0.1	3,102 0.7 0.1	2,647 0.7 0.1	2,275 0.8 0.1	1,966 0.8 0.1	1,708 0.9 0.0	1,489 1.0 0.0	1,302 1.0 -0.1	1,142 1.0 -0.1	1,002 1.1 0.0			
24IT28	13	8.44			8,874 0.3 0.1	7,247 0.4 0.1	6,013 0.5 0.1	5,053 0.6 0.1	4,292 0.7 0.1	3,677 0.8 0.1	3,175 0.8 0.1	2,758 0.9 0.1	2,409 0.9 0.1	2,113 1.0 0.1	1,861 1.0 0.1	1,644 1.1 0.1	1,456 1.1 0.0	1,292 1.1 0.0	1,147 1.1 -0.1	1,020 1.1 -0.1
24IT32	15	9.77				9,574 0.4 0.1	7,957 0.4 0.1	6,698 0.5 0.1	5,700 0.6 0.2	4,894 0.7 0.2	4,238 0.8 0.2	3,694 0.8 0.2	3,239 0.9 0.2	2,853 1.0 0.2	2,524 1.0 0.2	2,241 1.1 0.2	1,996 1.1 0.2	1,752 1.1 0.1	1,594 1.1 0.1	1,428 1.2 0.1
24IT36	16	11.50					8,594 0.4 0.1	7,327 0.5 0.1	6,305 0.6 0.1	5,469 0.7 0.2	4,776 0.8 0.2	4,199 0.8 0.2	3,710 0.9 0.2	3,293 0.9 0.2	2,934 1.0 0.2	2,623 1.0 0.2	2,352 1.0 0.1	2,114 1.1 0.1	1,904 1.1 0.1	
24IT40	19	12.02						9,061 0.5 0.1	7,802 0.6 0.2	6,775 0.7 0.2	5,926 0.8 0.2	5,214 0.8 0.2	4,611 0.9 0.2	4,097 1.0 0.2	3,654 1.0 0.2	3,271 1.1 0.2	2,936 1.1 0.2	2,642 1.1 0.2	2,383 1.1 0.1	
24IT44	20	13.73							9,554 0.5 0.1	8,306 0.6 0.1	7,272 0.7 0.2	6,409 0.8 0.2	5,680 0.8 0.2	5,057 0.9 0.2	4,520 1.0 0.2	4,056 1.0 0.2	3,650 1.1 0.2	3,295 1.1 0.2	2,981 1.0 0.1	
24IT48	22	15.08							9,989 0.5 0.1	8,757 0.6 0.2	7,725 0.7 0.2	6,851 0.8 0.2	6,105 0.8 0.2	5,466 0.9 0.2	4,913 1.0 0.2	4,431 1.0 0.2	4,008 0.9 0.2	3,634 0.9 0.2		
24IT52	24	16.44								9,164 0.6 0.2	8,137 0.7 0.2	7,261 0.8 0.2	6,507 0.8 0.2	5,853 0.9 0.2	5,283 1.0 0.2	4,786 0.9 0.2	4,348 0.9 0.2			
24IT56	26	17.82									9,536 0.6 0.2	8,519 0.7 0.2	7,643 0.8 0.2	6,884 0.8 0.2	6,222 0.9 0.2	5,641 0.9 0.2	5,128 0.9 0.2			
24IT60	28	19.18										9,863 0.6 0.2	8,857 0.7 0.2	7,986 0.8 0.2	7,226 0.8 0.2	6,559 0.9 0.2	5,970 0.9 0.2			

INVERTED TEE BEAMS



$f'_c = 5,000$ psi
 $f_{pu} = 270,000$ psi
 ½ in. diameter
 low-relaxation strand

Normal Weight Concrete

Section Properties								
Designation	h (in.)	h ₁ /h ₂ (in.)	A (in. ²)	I (in. ⁴)	y _b (in.)	Z _b (in. ³)	Z _t (in. ³)	wt (plf)
30IT20	20	12/8	456	15,240	8.74	1,744	1,354	475
30IT24	24	12/12	576	26,352	10.50	2,510	1,952	600
30IT28	28	16/12	648	41,824	12.22	3,423	2,650	675
30IT32	32	20/12	720	62,400	14.00	4,457	3,467	750
30IT36	36	24/12	792	88,678	15.82	5,605	4,394	825
30IT40	40	24/16	912	121,923	17.47	6,979	5,412	950
30IT44	44	28/16	984	162,161	19.27	8,415	6,557	1,025
30IT48	48	32/16	1,056	210,199	21.09	9,967	7,811	1,100
30IT52	52	36/16	1,128	266,627	22.94	11,623	9,175	1,175
30IT56	56	40/16	1,200	332,032	24.80	13,388	10,642	1,250
30IT60	60	44/16	1,272	406,997	26.68	15,255	12,215	1,325

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% 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.

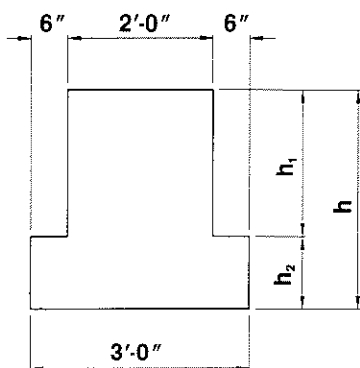
Key

- 8,428 — Safe superimposed service load, plf
- 0.4 — Estimated camber at erection, in.
- 0.2 — Estimated long-time camber, in.

Table of safe superimposed service load (plf) and cambers

Designation	No. Strand	e	Span, ft.																
			18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
30IT20	14	6.65	8,428 0.4 0.2	6,736 0.5 0.2	5,485 0.6 0.2	4,533 0.7 0.3	3,792 0.9 0.3	3,204 1.0 0.3	2,730 1.1 0.3	2,342 1.2 0.3	2,020 1.3 0.3	1,751 1.4 0.3	1,523 1.4 0.3	1,332 1.5 0.3	1,167 1.6 0.3	1,024 1.6 0.2			
30IT24	17	7.67		9,736 0.4 0.2	7,942 0.5 0.2	6,578 0.6 0.2	5,516 0.7 0.2	4,673 0.8 0.3	3,994 0.9 0.3	3,437 1.0 0.3	2,976 1.1 0.3	2,592 1.2 0.3	2,269 1.3 0.3	1,993 1.4 0.2	1,755 1.4 0.2	1,550 1.4 0.2	1,370 1.5 0.2	1,212 1.5 0.1	1,073 1.5 0.0
30IT28	20	9.06				9,087 0.6 0.2	7,643 0.7 0.2	6,497 0.8 0.3	5,573 0.9 0.3	4,816 1.0 0.3	4,189 1.1 0.3	3,664 1.2 0.3	3,219 1.3 0.3	2,839 1.4 0.3	2,513 1.4 0.3	2,334 1.4 0.3	1,990 1.5 0.3	1,776 1.5 0.3	1,588 1.5 0.2
30IT32	23	10.50						8,647 0.7 0.2	7,436 0.8 0.3	6,445 0.9 0.3	5,623 1.0 0.3	4,935 1.1 0.4	4,352 1.2 0.4	3,855 1.3 0.4	3,426 1.4 0.4	3,055 1.4 0.4	2,732 1.5 0.4	2,448 1.5 0.4	2,201 1.5 0.3
30IT36	24	12.32							9,492 0.7 0.2	8,243 0.8 0.3	7,207 0.9 0.3	6,340 1.0 0.3	5,605 1.1 0.3	4,978 1.2 0.3	4,439 1.3 0.3	3,971 1.4 0.3	3,563 1.4 0.3	3,205 1.5 0.3	2,892 1.4 0.3
30IT40	30	12.92								9,077 0.8 0.3	7,994 0.9 0.3	7,077 1.0 0.3	6,295 1.1 0.4	5,621 1.2 0.4	5,037 1.3 0.4	4,528 1.4 0.4	4,081 1.4 0.4	3,687 1.4 0.4	
30IT44	30	14.73									9,659 0.7 0.3	8,564 0.8 0.3	7,629 0.9 0.3	6,825 1.0 0.3	6,127 1.1 0.3	5,519 1.2 0.3	4,985 1.3 0.3	4,514 1.2 0.3	
30IT48	33	16.17										9,222 0.8 0.3	8,262 0.9 0.3	7,431 1.0 0.3	6,705 1.1 0.3	6,068 1.2 0.3	5,506 1.1 0.3		
30IT52	36	17.62											9,836 0.9 0.3	8,858 1.0 0.3	8,004 1.1 0.3	7,255 1.1 0.3	6,594 1.1 0.4		
30IT56	39	19.06													9,407 1.0 0.3	8,538 1.0 0.4	7,770 1.1 0.4		
30IT60	42	20.49															9,917 1.0 0.3	9,036 1.0 0.4	

INVERTED TEE BEAMS



$f'_c = 5,000$ psi
 $f_{pu} = 270,000$ psi
 ½ in. diameter
 low-relaxation strand

Normal Weight Concrete

Section Properties								
Designation	h (in.)	h ₁ /h ₂ (in.)	A (in. ²)	I (in. ⁴)	y _b (in.)	Z _b (in. ³)	Z _t (in. ³)	wt (plf)
36IT20	20	12/8	576	19,392	9.00	2,155	1,763	600
36IT24	24	12/12	720	33,523	10.80	3,104	2,540	750
36IT28	28	16/12	816	53,222	12.59	4,227	3,454	850
36IT32	32	20/12	912	79,390	14.42	5,506	4,516	950
36IT36	36	24/12	1,008	112,814	16.29	6,925	5,724	1,050
36IT40	40	24/16	1,152	155,136	18.00	8,619	7,052	1,200
36IT44	44	28/16	1,248	206,306	19.85	10,393	8,543	1,300
36IT48	48	32/16	1,344	267,410	21.71	12,317	10,172	1,400
36IT52	52	36/16	1,440	339,226	23.60	14,374	11,945	1,500

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% 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

- 8,882 — Safe superimposed service load, plf
- 0.6 — Estimated camber at erection, in.
- 0.2 — Estimated long-time camber, in.

Table of safe superimposed service load (plf) and cambers

Designation	No. Strand	e	Span, ft.															
			20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
36IT20	18	6.91	8,882	7,236	5,985	5,011	4,238	3,614	3,104	2,681	2,327	2,027	1,771	1,553	1,366	1,202	1,059	
			0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.8	
			0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.1	
36IT24	22	7.97		8,676	7,282	6,175	5,283	4,552	3,947	3,439	3,010	2,644	2,333	2,064	1,829	1,623	1,441	
				0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.5	1.6	1.6	1.6	
				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	0.3	0.2
36IT28	26	9.43				8,615	7,395	6,397	5,569	4,876	4,289	3,788	3,357	2,983	2,657	2,374	2,126	
						0.8	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	
						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
36IT32	30	10.92					9,874	8,563	7,477	6,567	5,796	5,139	4,572	4,082	3,654	3,278	2,947	
							0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.6	
							0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4
36IT36	32	12.79							9,640	8,485	7,508	6,674	5,955	5,333	4,790	4,314	3,893	
										0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.5
										0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36IT40	38	13.45									9,322	8,296	7,413	6,648	5,980	5,394	4,877	
												1.0	1.0	1.1	1.2	1.3	1.4	1.4
												0.4	0.4	0.4	0.4	0.4	0.4	0.4
36IT44	40	15.31											9,146	8,218	7,408	6,698	6,071	
													1.0	1.1	1.2	1.3	1.3	
													0.4	0.4	0.4	0.4	0.4	0.4
36IT48	44	16.79												9,955	8,989	8,141	7,393	
														1.1	1.1	1.2	1.3	
														0.4	0.4	0.4	0.4	
36IT52	48	18.28														9,724	8,844	
																	1.2	1.2
																	0.4	0.4