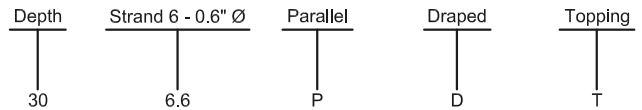
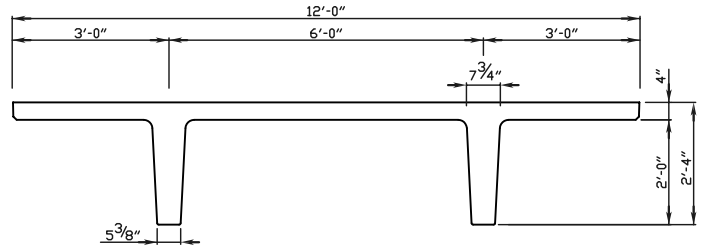


Prestressed Concrete 28" x 12' DOUBLE TEE (PRETOPPED)

PHYSICAL PROPERTIES	
A = 890 in. ²	S _b = 2,416 in. ³
I = 51,490 in. ⁴	St = 7,703 in. ³
Y _b = 21.32 in.	Wt. = 928 PLF
Y _t = 6.68 in.	Wt. = 77 PSF



DESIGN DATA

1. Precast Strength @ release = 3,500 PSI.
2. Precast Strength @ release for draped tees = 4,500 PSI.
3. Precast Strength @ 28 days = 6,000 PSI.
4. Precast Density = 150 PCF.
5. Strand = 0.6" Ø 270K Lo-Relaxation.
6. Maximum moment capacity is critical at midspan for parallel strands and is critical near 0.4 span for draped strands.
7. Maximum bottom tensile stress is $12\sqrt{f'_c} = 930$ PSI.
8. Flexural capacity is based on stress/strain strand relationships.
9. All superimposed load is treated as live load in the flexural strength analysis. To determine the allowable live load if the amount of superimposed dead load is known use the following conversion method...

$$\text{Allowable Live Load} = \frac{(1.6)(\text{Load Table Value}) - (1.2)(\text{Superimposed Dead Load})}{1.6}$$

10. If the above conversion is used then allowable stress limits must be checked so they are not exceeded.
11. Deflection limits were not considered when determining allowable loads in this table.

ALLOWABLE SUPERIMPOSED LIVE LOADS (psf)														IBC 2012 & ACI 318-11 (1.2 D + 1.6 L)													
Section	Ø Mn (in. Kips)	Span (Feet)																									
		38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84		
28 - 6.6 P	7,517	122	105	89	76	55	46	38																			
28 - 8.6 P	9,568			130	113	99	86	74	64	55	47	40	34														
28 - 10.6 P	11,390					128	113	100	88	77	68	59	51	44	38												
28 - 12.6 P	12,985							122	108	96	85	76	67	59	52	45	39										
28 - 14.6 D	17,453											118	106	95	85	76	68	61	54	47	41	36					
28 - 16.6 D	19,626												122	109	98	89	80	72	64	57	51	45	40	35			
28 - 18.6 D	21,719													122	110	100	90	82	74	66	60	53	47	42	37		



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This table is for simple spans and uniform loads. Design data for any of these span-load conditions is available on request. Individual designs may be furnished to satisfy unusual conditions of heavy loads, concentrated loads, cantilevers, etc...