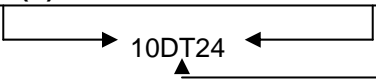


PREFACE TO PRODUCT LOAD TABLES

The following pages contain load tables for the standard products available from Coreslab Structures (ARIZ) Inc. Load capacities are in conformance with the American Concrete Institute "Building Code Requirements for Structural Concrete (ACI 318-05)". However, values given in the tables are intended for preliminary member selections, not final designs. These values assume that the safe superimposed load is composed of 60% dead load and 40% live load.

In some cases, loads in excess of those shown can be accommodated by modifying the general parameters such as concrete strength and/or reinforcing patterns.

GENERAL NOTATION

Width of Precast Section (ft)	Depth of Precast Section (in)	Description of Section
		DT = Double Tee Slab IT = Inverted Tee Beam LB = ELL Beam

MATERIAL PROPERTIES

Concrete:

Compressive Strength

Final (28-day) = 5000 psi (Precast)
= 3000 psi (Topping)

At Prestress Release = 3500 to 4500 psi when maximum load is used. Otherwise a lower strength may be sufficient.

Normal Weight = 150 pcf
Modulus of Elasticity = $W^{1.5} 33\sqrt{f'c}$

Steel:

Prestressing Strand:

Sizes: 1/2" Diameter

Ultimate Strength = 270,000 psi

Initial Tension = 70 to 75% of Ult. Strength

Modulus of Elasticity = 28,000,000 psi

Reinforcing Steel:

Bar Sizes: 4, 5 and 6 are A706, Grade 60

Bar Sizes: 7 and larger are A615, Grade 60

FLEXURAL MEMBERS

In general, maximum spans shown for the various prestressing conditions will result in an upward camber under dead load, after loss of prestress has occurred. Roof deflection, however, should always be checked. It is recommended that a positive slope always be provided for roofs. Whenever span-to-depth ratio exceeds 30 for double tees a positive roof slope is essential to preclude ponding. Also, see the 2006 Edition "International Building Code" IBC.

Topping Slab Design by Others

For composite members, reinforcement (i.e., welded wire fabric or reinforcing bar) is generally required for the structural design of the topping slab. The Engineer of Record should furnish this design.

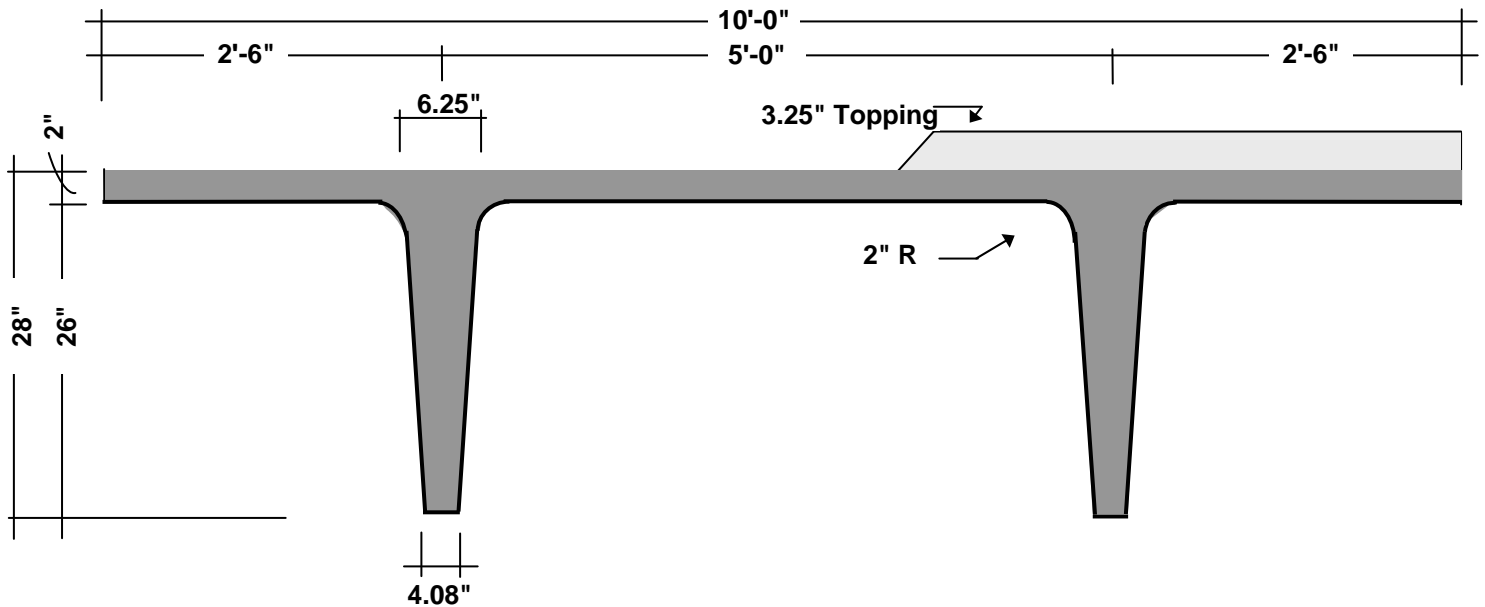
DESIGN RECOMMENDATIONS	Maximum Bottom Tension Stress	Range of Maximum Precast Span-To-Depth Ratio
Double Tee Floor Slabs	$12\sqrt{f'c}$	25 to 30
Double Tee Roof Slabs	$12\sqrt{f'c}$	35 to 40
Inverted Tee or ELL Beams	$7.5\sqrt{f'c}$	10 to 20
Hollow Core Slabs	$6\sqrt{f'c}$	45 to 50

The required depth of a beam or slab is influenced by the ratio of live load to total load. When this ratio is high, deeper sections may be needed.

28" DOUBLE TEES 10' WIDE

<u>Section Properties</u>	<u>Non-Composite</u>	<u>Composite</u>
A (in ²)	509	811
I (in ⁴)	36704	54210
y _b (in)	20.09	23.64
St (in ³)	4639	*12438
Sb (in ³)	1827	2293
Normal Weight (150 pcf)	53 psf	94 psf
	530 plf	936 plf

* At top of precast



Allowable Superimposed Service Loads, Pounds per Square Foot													
Non-Composite													
Span (ft)	56	58	60	62	64	66	68	70	72	74	76	78	80
Load (psf)	88	81	75	69	64	60	56	52	48	45	42	39	32
Composite (3¼" Topping)													
Span (ft)	40	42	44	46	48	50	52	54	56	58	60	62	64
Load (psf)	210	186	166	148	132	119	108	96	88	78	68	58	42