

# Extruded Hollow Core

PRESTRESSED CONCRETE SLAB

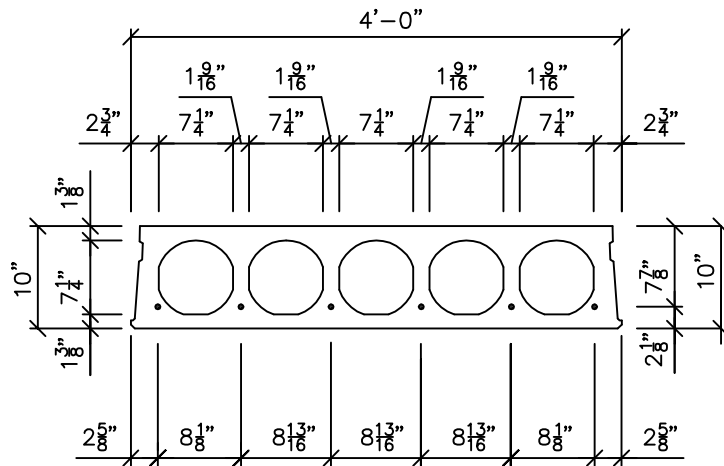
# 10" X 48" Section

Safe Load Table

UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD IN PSF

Standard Designation	Strands No. & Size	Strand Area Sq. In.	M Ft.-Kips per Unit	$\phi M_n$ Ft.-Kips Per Unit	Span Length (l) in Ft.																									
					15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1048-130	6 - 6/10	1.302	128.6	186.9	593	553	517	486	457	432	409	388	369	351	321	293	268	245	225	207	191	176	162	150	138	128	118	108	99	91
1048-117	4 - 6/10 & 2 - 1/2	1.174	119.7	170.3	593	553	517	486	457	432	409	387	350	317	288	262	239	219	201	184	169	155	143	132	121	112	103	95	87	80
1048-92	6 - 1/2	0.918	101.9	135.9	593	553	517	472	418	372	333	299	269	242	219	199	181	164	150	136	124	113	104	94	86	79	72	65	59	54
1048-61	4 - 1/2	0.612	80.6	92.9	463	401	349	306	269	238	211	187	167	149	133	119	107	96	86	76	68	61	54							

controlled by: ultimate  shear  service



$A = 263.65 \text{ in}^2$        $f'_c = 9000 \text{ psi}$   
 $b_w = 10.9714 \text{ in}$        $f'_{ci} = 3500 \text{ psi}$   
 $I_g = 3258.09 \text{ in}^4$        $f_{pu} = 270 \text{ ksi}$   
 $y_b = 5.074 \text{ in}$

**NOTES:**

- 1) Grouted weight of structural unit is 70 psf or 280 plf based on concrete unit weight of 154 pcf.
- 2) Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI318)."
- 3) No shear reinforcement is required for the tabulated loads to the right of the heavy stepped line.
- 4) Tabulated loads are based on  $U=1.2D+1.6L$  and with all load superimposed on the structural section considered as live load.
- 5) Tabulated loads in the blue area may be achieved by adding partial concrete corefill.
- 6) Tabulated loads in yellow are controlled by permissible flexural tension at service loads.
- 7) Tabulated loads in bold font have deflections in excess of  $L/360$ .
- 8) All strand stressed to 70% of ultimate.
- 9) For longer spans and conditions not covered in the load table, consult Molin.



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