

500mm PRESTRESSED CONCRETE SLAB 09.1312-29 - SAFE LOAD TABLE								14/01/2024
Self Weight 1,006Kg/m - SAFE LOADS are exclusive of self weight (90mins fire resistance)								
EFFECTIVE SPAN (see fig A for explanation)		PRELIMINARY UNIFORM SAFE LOAD (0 infilled holes)	SHEAR 0 INFILLED HOLES	BEARING 0 INFILLED HOLES	PRELIMINARY UNIFORM SAFE LOAD (2 infilled holes)	SHEAR 2 INFILLED HOLES	BEARING 2 INFILLED HOLES	9mm TOP WIRES
meters	feet	Kg/m ²	T/panel	mm	Kg/m ²	T/panel	mm	
3.0	9'10"	15,578	25.24	100	19,512	32.32	105	2
3.5	11'6"	13,210	24.97	100	16,581	32.05	105	2
4.0	13'1"	11,434	24.70	100	14,384	31.78	105	2
4.5	14'9"	10,052	24.43	100	12,674	31.51	105	2
5.0	16'5"	8,947	24.16	100	11,307	31.24	105	2
5.5	18'0"	8,043	23.89	100	10,188	30.97	110	2
6.0	19'8"	7,289	23.62	100	9,256	30.70	110	2
6.5	21'4"	6,651	23.35	100	8,217	30.43	110	2
7.0	23'0"	6,105	23.08	100	6,964	30.16	110	2
7.5	24'7"	5,631	22.81	100	5,953	29.89	110	2
8.0	26'3"	5,126	22.54	100	5,126	29.62	110	2
8.5	27'11"	4,440	22.27	100	4,440	29.35	110	2
9.0	29'6"	3,866	22.00	100	3,866	29.08	110	2
9.5	31'2"	3,379	21.73	100	3,379	28.81	110	2
10.0	32'10"	2,964	21.47	100	2,964	28.55	110	2
10.5	34'5"	2,607	21.20	105	2,607	28.28	110	2
11.0	36'0"	2,297	20.93	105	2,297	28.01	115	2
11.5	37'9"	2,027	20.66	105	2,027	27.74	115	2
12.0	39'4"	1,790	20.39	110	1,790	27.47	115	2
12.5	41'0"	1,580	20.12	110	1,580	27.20	120	2
13.0	42'8"	1,395	19.85	115	1,395	26.93	120	2
13.5	44'4"	1,230	19.58	115	1,230	26.66	125	2
14.0	45'11"	1,082	19.31	115	1,082	26.39	125	2
14.5	47'7"	949	19.04	120	949	26.12	125	2
15.0	49'3"	829	18.77	120	829	25.85	130	2
15.5	50'10"	721	18.50	125	721	25.58	130	2
16.0	52'6"	623	18.23	125	623	25.31	135	2
16.5	54'2"	533	17.96	125	533	25.04	135	2
17.0	55'9"	451	17.69	130	451	24.77	140	2
17.5	57'5"	376	17.42	130	376	24.50	140	2

Notes to Periti: Refer also to guidelines: <http://www.gmfprecast.sandbox.local.com.mt/technical-specs>

- (A) Load tables conforming to *MSA EN 1992-1-1 Eurocode 2: Design of concrete structures - Part 1-1: General rules and rules for buildings*, with both the safe load values satisfying the serviceability limit state (SLS)
- (B) For HC slabs resting on beams, filling of hollows in C30 concrete at supports is recommended.
- (C) The minimum bearing of HC slabs as per table above is to be a minimum of 100mm depending on the loads & strength C30 of padstone suletta, important to have a fair-faced finish to the top surface.
- (D) For all load patterns, eg point loads, these are to be converted to equivalent uniform loads, whilst the **actual** shear load needs to be addressed.
- (E) The selection of *plank* type is the responsibility of the client's *Perit*.
- (F) Embodied carbon is measured per square meter on plan.

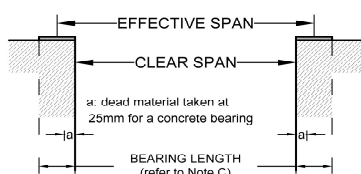


Fig. A

500
 Concrete Grade: C45
 Area: 0.411m²
 Hole Area: 0.175m²
 Weight / m: 1,006kg/m
 R_w: 518mm
 I_{xx}: 1,111,939cm⁴
 Y_x: 250mm
 Y_y: 250mm
 Embodied Carbon: 173kgCO₂e/m²

