CARGAS Y LOSAS

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Nombre del tema: Análisis de cargas en losas, trabes y cerramientos dados

Unida: I

Nombre de la Materia: Análisis de Estructuras

Nombre del profesor: ARQ. Pedro Alberto García López

Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 5

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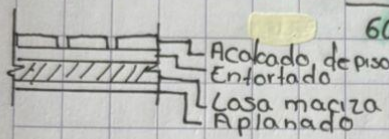
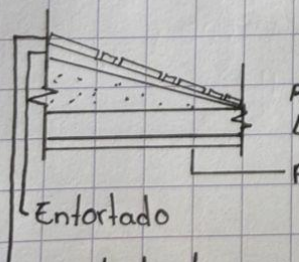
Entrepiso:

	10 cm casa habitacion	12cm casa habitacional	
Acabado de Piso	= 70 kg/m²	70 kg/m²	70
Entortado	= 30 kg/m²	30 kg/m²	30
Losa maciza (10cm)	= 240 kg/m²	288	295
Aplanado	= 30 kg/m²	30	30
Reglamento	= 40 kg/m²	40 kg/m²	40
	410 kg/m²	458 kg/m²	465
CVm	= 190 kg/m²	190 kg/m²	190
	600 kg/m²	648 kg/m²	655



Azotea:

10cm	10 cm	12cm	25 cm
Acabado de piso	70 kg/m²	70 kg/m²	70
Entortado	30 kg/m²	30 kg/m²	30
Relleno	100 kg/m²	100 kg/m²	100
Losa	240 kg/m²	288 kg/m²	295
aplanado	30 kg/m²	30 kg/m²	30
	510 kg/m²	558 kg/m²	565
CVm	= 100 kg/m²	100 kg/m²	100
	610 kg/m²	658 kg/m²	665



Silky

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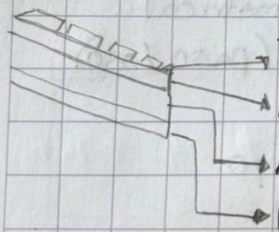

	10 cm	12 cm	25 cm
Teja	50	50	50
Entortado	30	30	30
Losa de 10 cm	240	288	295
Aplanado	30	30	30
reglamento	40	40	40
	390 kg/m²	438	445
CV azotea	40 kg/m²	40	40
	430 kg/m²	478 kg/m²	490 kg/m²

Losa de casetón de 25 cm = 295.5 295.5

casa habitación (25cm)

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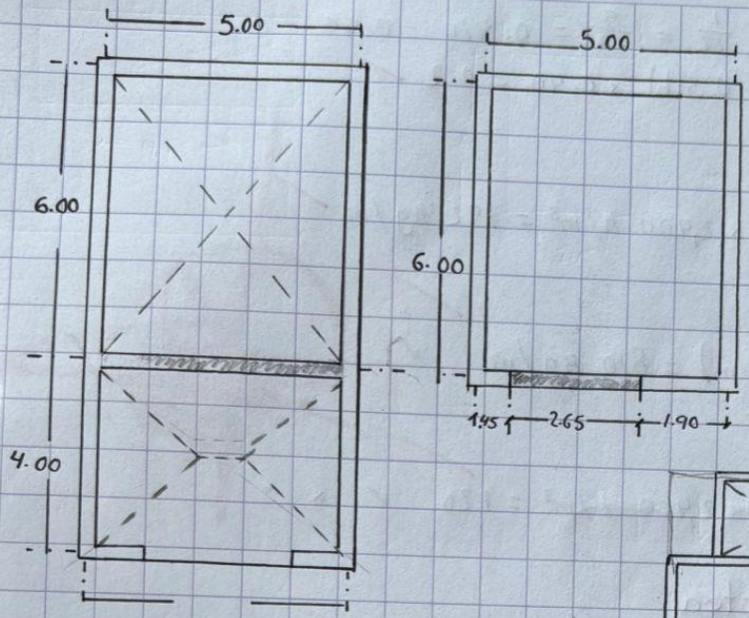
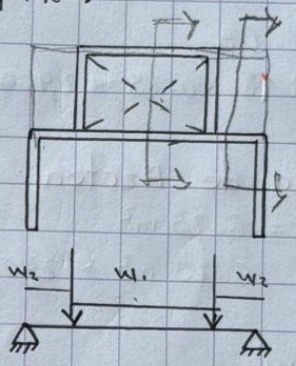
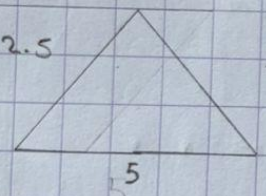




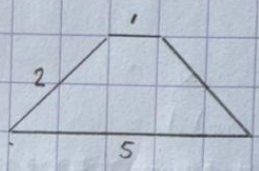


$\frac{b \times h}{2} = 6.25\ m^2$

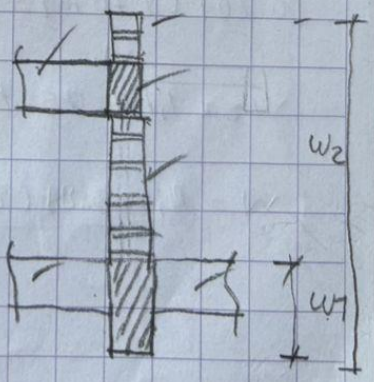
$W_1 = 1,796.75$

$W_2 = 3,750$

$P = 1,331.9566$



$\frac{B+b \times h}{2} = 6.0\ m^2$



② Peso

$A_1 = 6.25\ (655\ k/m) = 4,093.75$

$A_2 = 6.00\ (655\ k/m) = 3,930$

③ Carga w

$4,093.75 / 5 = 818.750\ Kg/m$

$3,930 / 5 = 786.0\ Kg/m$

Silky

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h = Trabe $\frac{1}{12} = \frac{5}{12} = 0.416 = 0.40$

b = 0.5(h) x 0.40 = 0.2

④ P. P

0.20 x 0.40 x 2,400 k/m³ = 192 kg/m

⑤ Peso Muro

3m (270 kg/m) = 810 kg/m ✓

⑥ P. CR

0.25 x 0.25 x 2,400 k/m³ = 120 ✓ x .

Losa de Azotea

A_s = 6.25 m²

6.25 m² x 2,400 kg/m³ = 4,156.25 k/m

⑧ W

$\frac{4,156.25 \text{ k/m}}{5}$ = 831.25 k/m ✓ x .

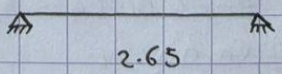
P. Pretil

(0.20) (2.70 m) = 54 kg/m ✓ x .

W_1 + P. M + P. CR + W + P. Pretil =

W_2 = 1,796.75 + 810 + 120 + 831.25 + 54 = 3,582

$W = \frac{1,005.25 (2.65)}{2}$ = 1,331.9562



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