



Mi Universidad

Ensayo

Nombre del Alumno: Aguilar López Jorge Alberto

Nombre del tema: Cancha de usos múltiples

Parcial: 1

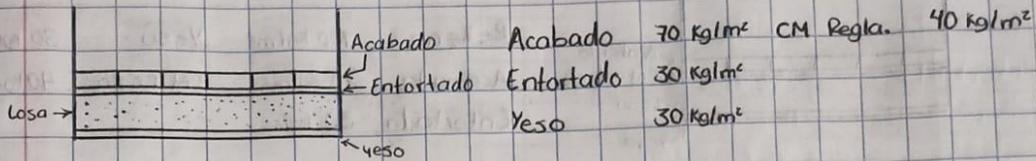
Nombre de la Materia: Análisis de estructuras

Nombre del profesor: Pedro Alberto García López

Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 5

Entre Piso



Losa 10 cm

$$2400 \text{ Kg/m}^3 \cdot 0.10 \text{ m} =$$

$$240 \text{ Kg/m}^2$$

$$+ 170 \text{ Kg/m}^2$$

$$\text{CM} = 410 \text{ Kg/m}^2 + 90$$

$$\text{CV} = 170 \text{ Kg/m}^2$$

$$\text{Total} = 580 \text{ Kg/m}^2$$

Losa 12 cm

$$2400 \text{ Kg/m}^3 \cdot 0.12 =$$

$$288 \text{ Kg/m}^2$$

$$+ 170 \text{ Kg/m}^2$$

$$\text{CM} = 458 \text{ Kg/m}^2 + 90$$

$$\text{CV} = 170 \text{ Kg/m}^2$$

$$\text{Total} = 628 \text{ Kg/m}^2$$

Losa 13 cm

$$2400 \text{ Kg/m}^3 \cdot 0.13 \text{ m} =$$

$$312 \text{ Kg/m}^2$$

$$+ 170 \text{ Kg/m}^2$$

$$\text{CM} = 482 \text{ Kg/m}^2 + 90$$

$$\text{CV} = 170 \text{ Kg/m}^2$$

$$\text{Total} = 652 \text{ Kg/m}^2$$

Oficina 10 cm

$$2400 \text{ Kg/m}^3 \cdot 0.10 \text{ cm} =$$

$$240 \text{ Kg/m}^2$$

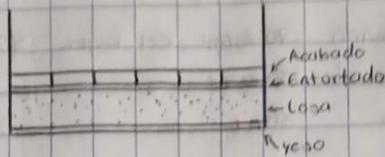
$$+ 170 \text{ Kg/m}^2$$

$$\text{CM} = 410 \text{ Kg/m}^2$$

$$\text{CV} = 250 \text{ Kg/m}^2$$

$$\text{Total} = 660 \text{ Kg/m}^2$$

Baños



Re lleno	100 kg/m ²	Yeso	30 kg/m ²
Acabado	70 kg/m ²	CM Regla	40 kg/m ²
Entortado	30 kg/m ²		

Losa 10

$$2400 \text{ kg/m}^2$$

$$+ 270 \text{ kg/m}^2$$

$$\text{CM} = 510 \text{ kg/m}^2$$

$$\text{CV} = 170 \text{ kg/m}^2$$

$$\text{Total} = 680 \text{ kg/m}^2$$

Losa 12

$$288 \text{ kg/m}^2$$

$$+ 270 \text{ kg/m}^2$$

$$\text{CM} = 536 \text{ kg/m}^2$$

$$\text{CV} = 170 \text{ kg/m}^2$$

$$\text{Total} = 728 \text{ kg/m}^2$$

Losa 13

$$288 \text{ kg/m}^2$$

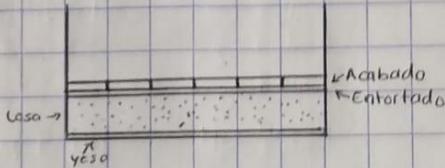
$$+ 270 \text{ kg/m}^2$$

$$\text{CM} = 582 \text{ kg/m}^2$$

$$\text{CV} = 170 \text{ kg/m}^2$$

$$\text{Total} = 752 \text{ kg/m}^2$$

Azotea con pendiente de 2/a 5%



Re lleno	= 100 kg/m ²	Yeso	= 40 kg/m ²
Acabado	= 70 kg/m ²	CM Regla	= 40 kg/m ²
Entortado	= 30 kg/m ²		

Losa 10 cm

$$240 \text{ kg/m}^2$$

$$+ 270 \text{ kg/m}^2$$

$$\text{CM} = 540 \text{ kg/m}^2$$

$$\text{CV} = 100 \text{ kg/m}^2$$

$$\text{Total} = 610 \text{ kg/m}^2$$

Losa 12 cm

$$288 \text{ kg/m}^2$$

$$+ 270 \text{ kg/m}^2$$

$$\text{CM} = 558 \text{ kg/m}^2$$

$$\text{CV} = 100 \text{ kg/m}^2$$

$$\text{Total} = 658 \text{ kg/m}^2$$

Losa 13 cm

$$312 \text{ kg/m}^2$$

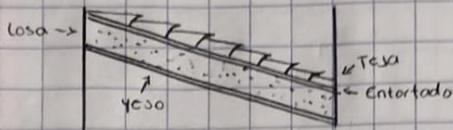
$$+ 270 \text{ kg/m}^2$$

$$\text{CM} = 582 \text{ kg/m}^2$$

$$\text{CV} = 100 \text{ kg/m}^2$$

$$\text{Total} = 682 \text{ kg/m}^2$$

Losas inclinadas con teja



Teja =	50 Kg/m ²
Entartado =	30 Kg/m ²
Yeso =	30 Kg/m ²
CM Regla =	40 Kg/m ²
	270 Kg/m ²

Losas 10cm

$$240 \text{ Kg/m}^2$$

$$150 \text{ Kg/m}^2$$

$$\text{CM} = 390 \text{ Kg/m}^2$$

$$\text{CV} = 60 \text{ Kg/m}^2$$

$$\text{Total} = 450 \text{ Kg/m}^2$$

Losas 12cm

$$288 \text{ Kg/m}^2$$

$$150 \text{ Kg/m}^2$$

$$\text{CM} = 438 \text{ Kg/m}^2$$

$$\text{CV} = 60 \text{ Kg/m}^2$$

$$\text{Total} = 498 \text{ Kg/m}^2$$

Losas 13cm

$$312 \text{ Kg/m}^2$$

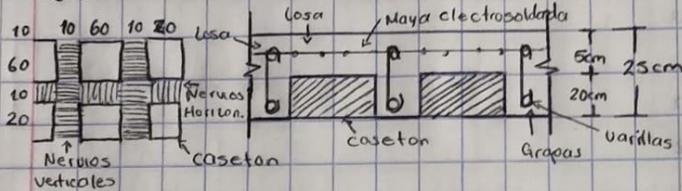
$$150 \text{ Kg/m}^2$$

$$\text{CM} = 462 \text{ Kg/m}^2$$

$$\text{CV} = 60 \text{ Kg/m}^2$$

$$\text{Total} = 522 \text{ Kg/m}^2$$

Losas de Caseton



- Nervios verticales = $0.10\text{m} \times 0.20\text{m} \times 10\text{m} \times 2400 \text{ Kg/m}^3$ (2 piezas) = 96 Kg/m^2
 - Nervios Horizontales = $0.10\text{m} \times 0.20\text{m} \times 0.80\text{m} \times 2400 \text{ Kg/m}^3$ (2 piezas) = 76.8 Kg/m^2
 - Capa de compresion = $1\text{m} \times 1\text{m} \times 0.05\text{m} \times 2400 \text{ Kg/m}^3$ = 120 Kg/m^2
 - Caseton/unicel = $0.60\text{m} \times 0.60\text{m} \times 0.20\text{m}$ (2.5 piezas) (15 Kg/m^3) = 2.70 Kg/m^2
- $2.70 + 2.92 = 295.50 \text{ Kg/m}^2$
- * P.P Losa de caseton = 295 Kg/m^2 (H=25cm)

Entrepiso

Acabado	70 kg/m ²
Entortado	30 kg/m ²
Losa	295 kg/m ²
Yeso	30 kg/m ²
CM Regla	40 kg/m ²

$$CV = 770 \text{ kg/m}^2 \quad CM = 465 \text{ kg/m}^2$$
$$635 \text{ kg/m}^2$$

Azotea

Pelleno	100 kg/m ²
Entortado	70 kg/m ²
Acabado	30 kg/m ²
Losa	295 kg/m ²
Yeso	30 kg/m ²
CM Regla	40 kg/m ²

$$CV = 100 \text{ kg/m}^2 \quad CM = 565 \text{ kg/m}^2$$
$$665 \text{ kg/m}^2$$

Inclinada

Entortado =	30 kg/m ²	CM Regla =	40 kg/m ²	CV =	100 kg/m ²	CM =	405 kg/m ²
Losa =	295 kg/m ²				505 kg/m ²		
Teja =	50 kg/m ²						
Yeso =	30 kg/m ²						