

**EXAMEN: CUANTIFICACION DE ZAPATA**  
**2ª UNIDAD**

DOCENTE:

PEDRO ALBERTO GARCÍA

ALUMNO:

IRAM GÓMEZ RUEDA

CARRERA:

LICENCIATURA EN ARQUITECTURA

CUATRIMESTRE:

QUINTO

COMITÁN DE DOMÍNGUEZ, CHIAPAS; 19 DE FEBRERO DE 2021

19/02/2021

### Excavación

$$(1) (6.85) (1.15) = 7.8975 \text{ m}^3$$

Abundamiento del 30%

$$(7.8975 \text{ m}^3) (1.3) = 9.9975 \text{ m}^3$$

Concreto F/100 kg/m<sup>2</sup>

Anchura = 1  
Long = 6.85

Alt = 0.665

$$(1) (6.85) (0.05) = 0.3425$$

$$= 0.3425$$

Desperdicio = 10%

$$= (0.3425) (1.1) = 0.37675 \text{ m}^3$$

Varilla corrugada #3 (transversal)

$$\text{Dobles} = 3/2 (6.259) = 0.0095225 \times 12 = 11.45$$

$$\text{Dobles} = 12 //$$

Concreto F/200 kg/m<sup>2</sup>

Anchura = 0.80

Long = 6.65

Alt = 0.15

$$(0.80) (6.65) (0.15) = 0.798 \text{ m}^3$$



$$\text{Long} = 0.24 + 0.80 = 1.04 \text{ m}$$

Contratrabes

Anchura = 0.15

Long = 6

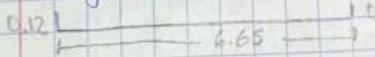
Alt = 0.35

$$(0.15) (6) (0.35) = 0.315 \text{ m}^3 //$$

- Neces de pzas

$$6.65 / 0.15 + 1 = 45.333 //$$

### Longitudinales



$$\text{Long} = 0.24 + 6.65 = 6.89 \text{ m}$$

Desperdicio del 5%

$$(1.15 \text{ m}^3) (1.05) =$$

$$1.2075 \text{ m}^3 //$$

M. de varilla 6.89 (4) = 27.56 m

Contratrabes

$$\text{Long} = 6 + 0.15$$

$$= 6.15 \text{ m}$$

$$2 \text{ pzas } (6.15) = 12.30 \text{ m}$$

$$\text{Suma total} = 85.272 \text{ m}$$

Desperdicio de 5%

$$(85.272) (1.05) = 89.5356$$

Dens = 8

$$89.5356 \times 8 = 716.2848 \text{ kg}$$

$$(89.5356) (1.05) = 93.91238$$

$$= 93.91238$$

10:49 p.m.  
19/02/2021



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Varilla #5

Dobles =  $(1.587)(12) = 19.044 = 20$

longitud  $\rightarrow 0.20$

long =  $6m + 0.90m = 6.90m$

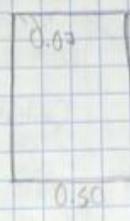
Desperdicio del 3%  
(1280m) (1.07m)

Metros  $(6.90m)(2\text{ piezas}) = 13.80m = \frac{13.696m}{.2}$

Pesos =  $2 \cdot (13.696m)(1.560) = 21.999.36kg$

Varilla #2

Dobles = 0.07



long  $1.30 + 0.15 = 1.45m$

Desperdicio del 5%  
(59.09m) (1.05)  
 $= 60.812m$

Pesos  
 $610.15 + 1 = 91$

Metros  
(91 pesos) (1.45m)  
 $= 54.09m$

Total en kg  $(60.812)(0.25) = 15.2025kg$

Varilla #4

Dobles =  $(12)(1.270) = 15.24 = 15$

Pesos  $\frac{15.24}{2} = 7.62 = 8$  pesos

Peso =  $(8.73)(0.497kg) = 13.1831kg$

Desperdicio del 5%  
(12.6m) (1.05)  
 $= 13.23m$

