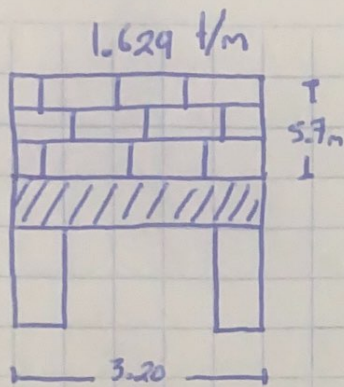
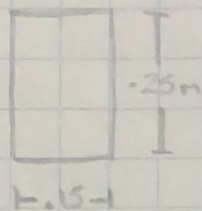


Uber Lopez Pulido

10.5



concreto reforzado
 muro de block = 270 kg/m



Apex 320cm 1.33cm
 240

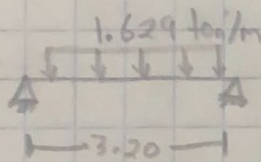
$$h = 3.20 / 12 = .2666 \text{ m}$$

$$b = .5(.25 \text{ m}) = .125 \text{ m}$$

$$PP = .25 \text{ m} \cdot .15 \text{ m} \cdot 2,400 \text{ kg/m}^2 = 90 \text{ kg/m}$$

$$MU10 = 5.70 \text{ m} (270 \text{ kg/m}) = 1,539 \text{ kg/m}$$

$$1,539 \text{ kg/m} + 90 \text{ kg/m} = \underline{1,629 \text{ kg/m}}$$



$$M = \frac{1.629 \text{ ton/m} (3.20)^2}{8} = 2.085 \text{ ton}\cdot\text{m}$$

$$RA = \frac{1.629 \text{ ton/m} (3.20)}{2} = 2.606 \text{ ton}$$

$$E = 3,100,000 \text{ ton/m}^2$$

$$I_x = \frac{(.15 \text{ m})(.25 \text{ m})^3}{12} = .0001953 \text{ m}^4$$

$$\theta_A = \theta_B = \frac{1.629 (3.20)^3}{24 (3,100,000 \text{ ton/m}^2) (.0001953 \text{ m}^4)} = \frac{53,379072}{14,530.32} = .003676$$

$$F = \frac{5/34 \cdot 1.629 \text{ ton/m} (3.20)^4}{(3,100,000 \text{ ton/m}^2) (.0001953 \text{ m}^4)} = .003673 \text{ m} = 36.73 \text{ cm}$$

Ulber López Pulido

1.586 t/m

concreto reforzado

Muro de block = 270 kg/m



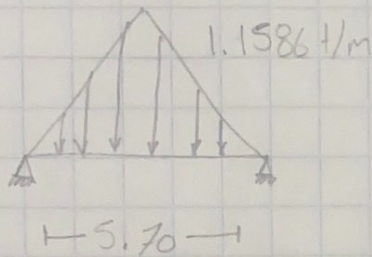
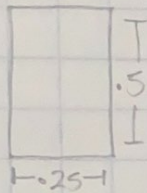
$$h = 5.70 / 12 = .475 \text{ m}$$

$$b = .5(.5 \text{ m}) = .25 \text{ m}$$

$$P.P. \text{ teja} = .5 \text{ m} \cdot .25 \text{ m} \cdot 2,400 \text{ kg/m}^2 = 300 \text{ kg/m}$$

$$P.P. \text{ muro} = 3.18(270 \text{ kg/m}) = 858.6 \text{ kg/m}$$

$$858.6 \text{ kg/m} + 300 \text{ kg/m} = 1.1586 \text{ ton/m}$$



$$M = 1.1586 \text{ ton/m} (5.70)^2 = 3.136 \text{ ton} \cdot \text{m}$$

$$R_A = R_B = 1.1586 \text{ ton/m} (5.70 \text{ m}) = 1.651 \text{ ton}$$

$$E = 3,100,000 \text{ ton/m}^2$$

$$I_x = .25 \text{ m} (.5 \text{ m})^3 / 12 = .002604 \text{ m}^4$$

$$\theta_A = \theta_B = \frac{5(1.1586 \text{ ton/m})(5.70)^3}{196(3,100,000 \text{ ton/m}^2)(.002604)} = \frac{1072.823049}{158290.4} = .0006780$$

$$f = \frac{1.1586 \text{ ton/m} (5.70 \text{ m})^4}{12(3,100,000 \text{ ton/m}^2)(.002604 \text{ m}^4)} = .001262 \text{ m} = 12.62 \text{ cm}$$

$$\Delta_{Per} = \frac{5.70 \text{ m}}{240} = 2.375 \text{ cm}$$