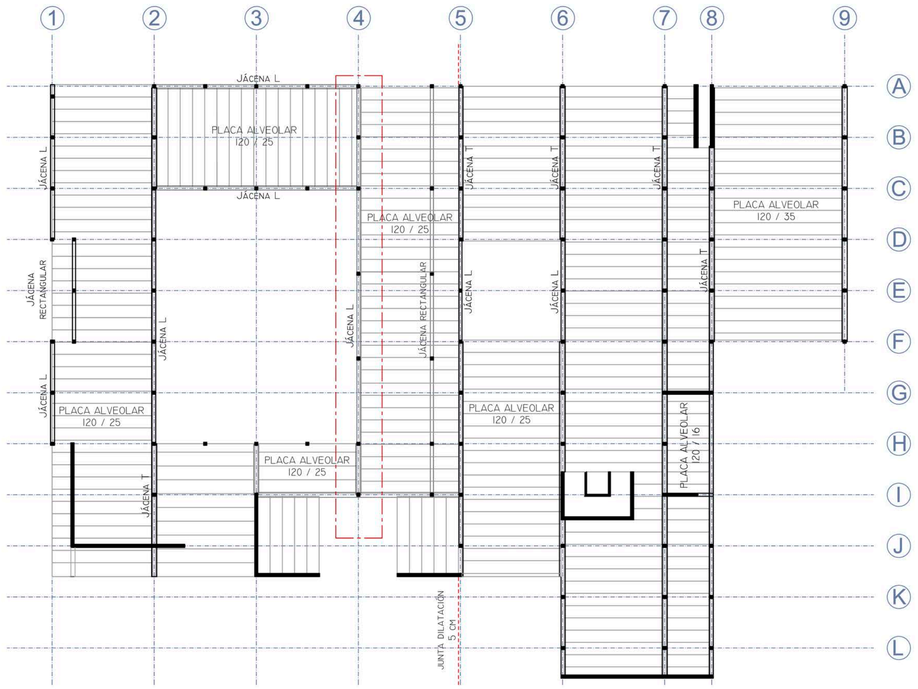
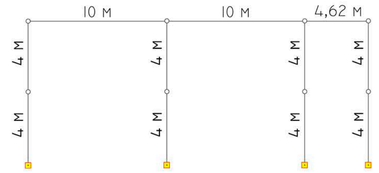
PLANTA BAJA E 1:300

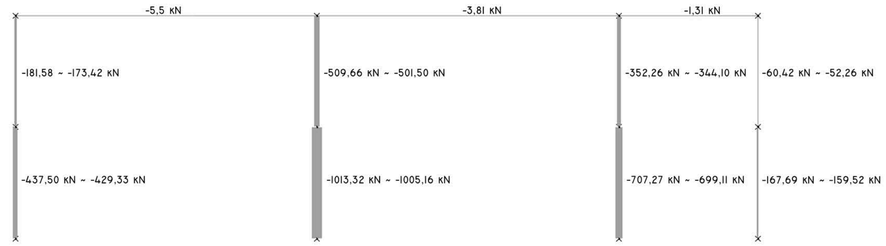


PLANTA I E 1:300

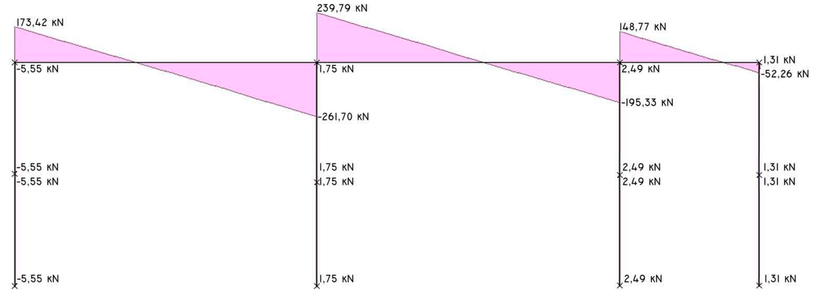
DIAGRAMAS PÓRTICO B



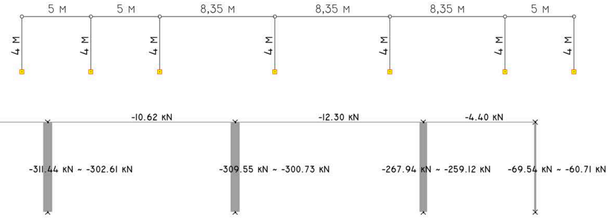
AXILES



CORTANTES

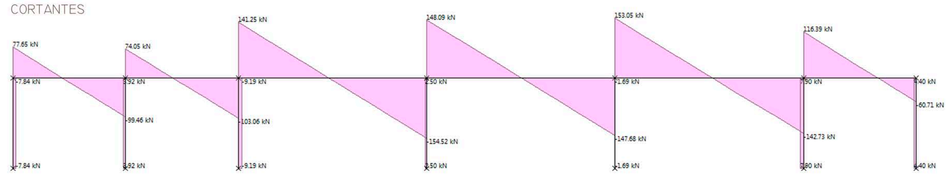


DIAGRAMAS PÓRTICO 4

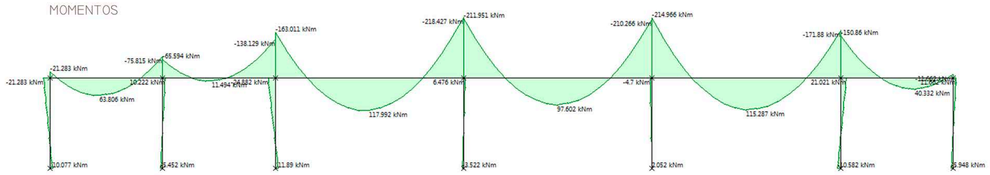


AXIALES

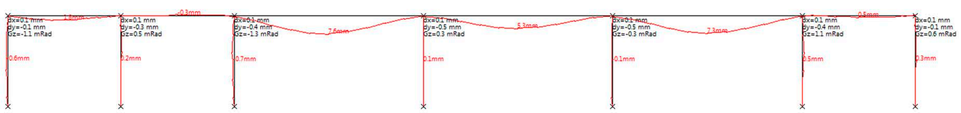
CORTANTES



MOMENTOS



DEFORMADA



CÁLCULOS

PÓRTICO 4

	CARGA	SUP./LONG.	TOT. CARGA
CUBIERTA	7,01 kN/m²	3,7 m²	25,94 kN
ANTEPECHO	1,0 kN/m	1,0 m	1,0 kN
NIEVE	0.4 kN/m²	3,7 m²	1,48 kN
CARGA LINEAL			28,42 kN/m

JÁCENA 4

$$I = \frac{5}{384} * \frac{0.2842 * 835^4}{E * L/1000} = 7681{,}9\ cm^4$$

PÓRTICO B

	CARGA	SUP./LONG.	TOT. CARGA
CUBIERTA	5,93 kN/m²	5 m²	29,65 kN
ANTEPECHO	1,0 kN/m	1,0 m	1,0 kN
NIEVE	0.4 kN/m²	5,0 m²	2,0 kN
CARGA LINEAL			32,65 kN/m

JÁCENA B

$$I = \frac{5}{384} * \frac{0.3265 * 1000^4}{E * L/1000} = 15158\ cm^4$$

PILAR 6B

AXIL CARACTERÍSTICO

Nd = (g + q) * A * γ
Nd = (7,33 + 9,91) * 50 * 1,5 = 1293 kN = 129,3 T

MOMENTO DE CÁLCULO

Md = 1,6 * (N*L/20) = 1,6 * (129 * 5 / 20) = 51,6 mT
Md ≤ 1,6 * Nd * e
Md ≤ 1,6 * 129.3 * 0,04 = 8,27 OK

ÁREA ARMADURA

Nc = 0,85 * fcd * b * h
Nc = 0,85 * (25 / 1.15) * 0.3 * 0.3 [*10] = 16,6 T

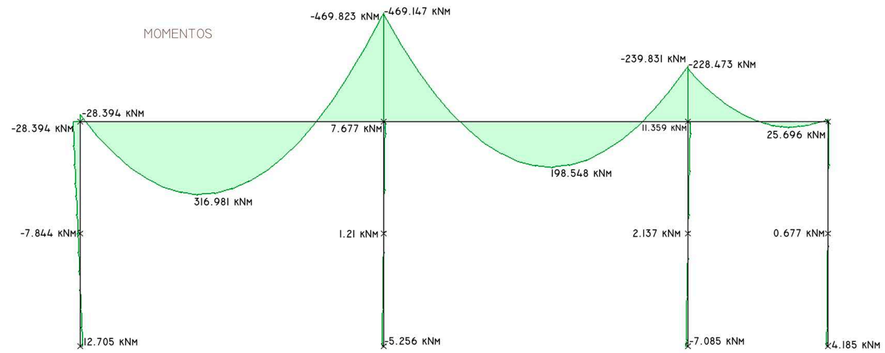
Ac = (Nd-Nc / fyd) * 1000 = 5,184 cm² ---> 8 barras Ø10 eØ6 cada 20 cm

ESBELTEZ

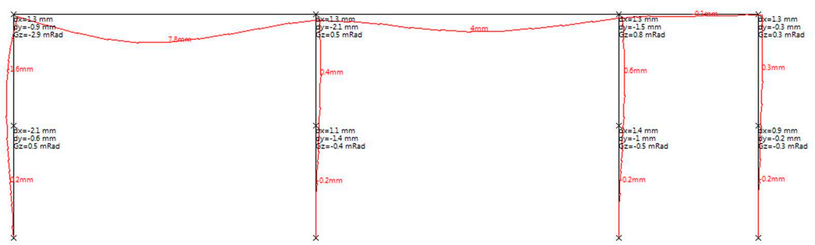
λ = (β * H / n) * √12
λ = (0,5 * 4 / 0.3) * √12 = 23,09 OK λ<35

q = CARGAS PERMANENTES
g = SOBRECARGA DE USO
n = NÚMERO DE PLANTAS ENCIMA
L = LUZ A PILARES ADYACENTES
emin = 4 cm

MOMENTOS



DEFORMADA



ESCUELA INFANTIL, BIBLIOTECA Y SALA POLIVALENTE

SARAY CORDÓN MATEOS