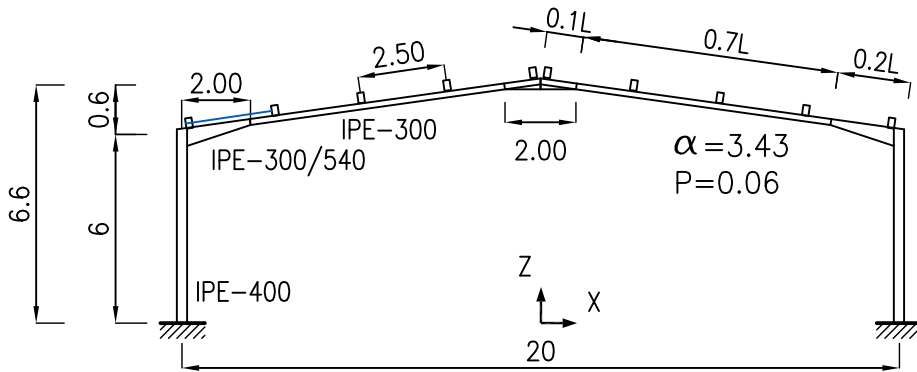


GEOMETRIA



MATERIAL Acero $W=7850 \text{ kg/m}^3$ $E=2.1 \cdot 10^6 \text{ kg/cm}^2$

PERFILES

PILAR: IPE-400 ; DINTEL: IPE-300

Acartelamiento esquina : IPE300/540 (mm)

$h=540$; $b=150$; $t_f=10.7$; $t_w=7.1$

Acartelamiento cumbrera : IPE300/450 $h=450$

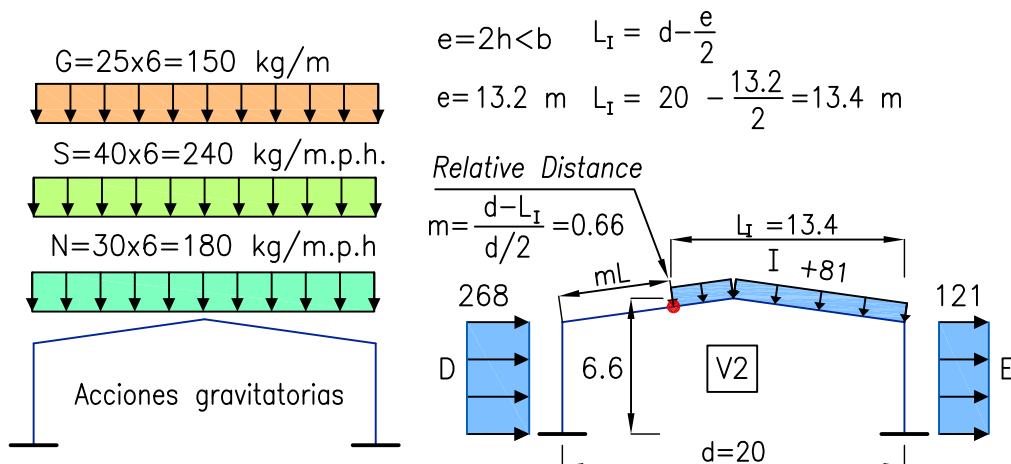
ACCIONES

HIPOTESIS

- 1.- Cargas Permanentes : G
- 2.- Sobrecarga de uso : S
- 3.- Nieve : N
- 4.- Viento Max Presión : V2

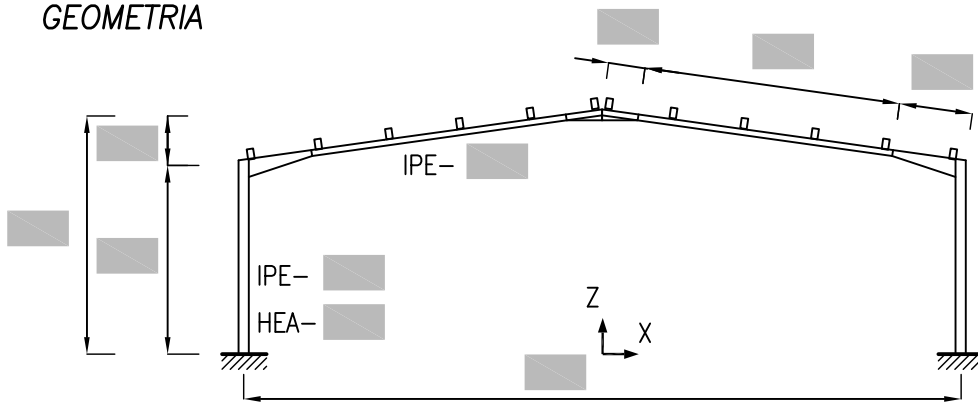
COMBINACIONES

- Comb1) $1.35 G + 1.50 S + 0.75 N$
- Comb2) $1.35 G + 1.50 S + 0.75 N + 0.90 V2$
- ELS1) $G + S + N$
- ELS2) $G + S + 0.5N + 0.6V2$



ELEMENTO	ZONA EOLICA	q_b kg/m ²	$s_{p\acute{o}rticos}$ m	c_e	c_p	Presi3n kg/m
PILARES	BARLOVENTO D	45	6	1.4	0.71	268
	SOTAVENTO E				0.32	121
DINTELES	ZONA I			1.5	0.20	81

GEOMETRIA



MATERIAL Acero $W=7850 \text{ kg/m}^3$ $E=2.1 \cdot 10^6 \text{ kg/cm}^2$

PERFILES

PILAR: IPE- [] ó HEA- [] ; DINTEL: IPE- []

Acartelamiento esquina : IPE [] / [] (mm)

$h=$ [] ; $b=$ [] ; $t_f=$ [] ; $t_w=$ []

Acartelamiento cumbrera : IPE [] / [] $h=$ []

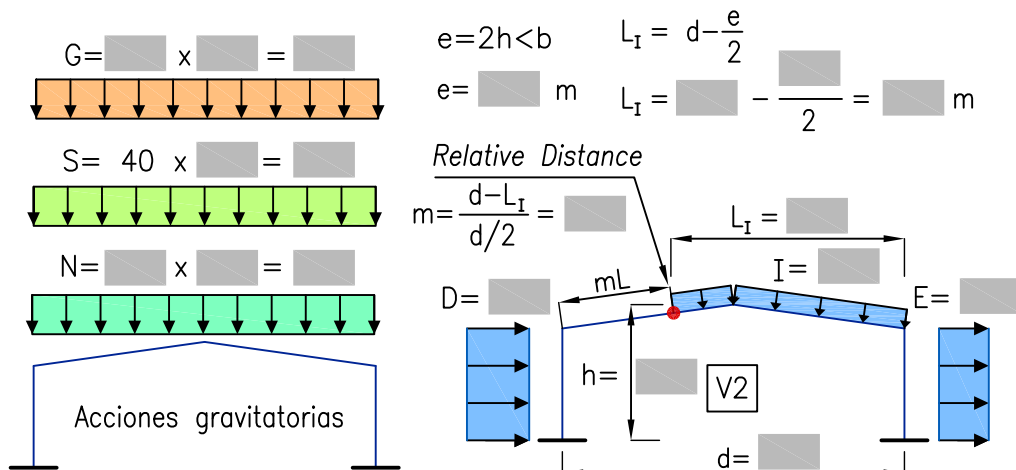
ACCIONES

HIPOTESIS

- 1.- Cargas Permanentes : G
- 2.- Sobrecarga de uso : S
- 3.- Nieve : N
- 4.- Viento Max Presión : V2

COMBINACIONES

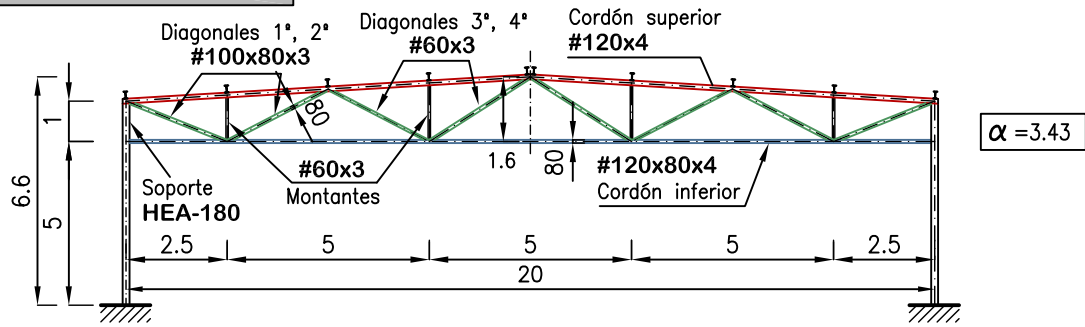
- Comb1) $1.35 G + 1.50 S + 0.75 N$
- Comb2) $1.35 G + 1.50 S + 0.75 N + 0.90 V2$
- ELS1) $G + S + N$
- ELS2) $G + S + 0.5N + 0.6V2$



ELEMENTO	ZONA EOLICA	q_b kg/m ²	s pórticos m	c_e	c_p	Presión kg/m
PILARES	BARLOVENTO D	[]	[]	[]	[]	D= []
	SOTAVENTO E					E= []
DINTELES	ZONA I	[]	[]	[]	[]	I= []

GEOMETRIA PERFILES

Unidades: m, kg

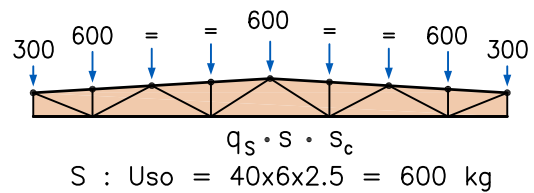


ACCIONES

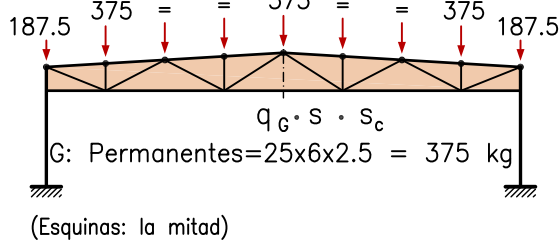
COMBINACIONES Añadir a Comb1, Comb2, ELS-1, ELS-2:
 Comb3) $1.35 G + 0.75 N + 1.5 V2$
 ELS-3) $G + 0.5 N + V2$

$q_G = 25$ $s = 6.0\text{m}$ (Pórticos)
 $q_S = 40$ $s_c = 2.5\text{m}$ (Correas)
 $q_N = 30$

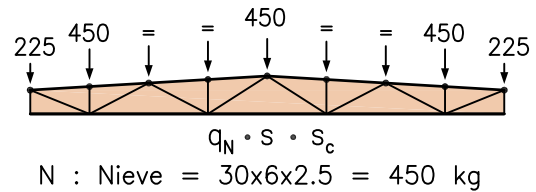
SOBRECARGA DE USO



ACCIONES PERMANENTES



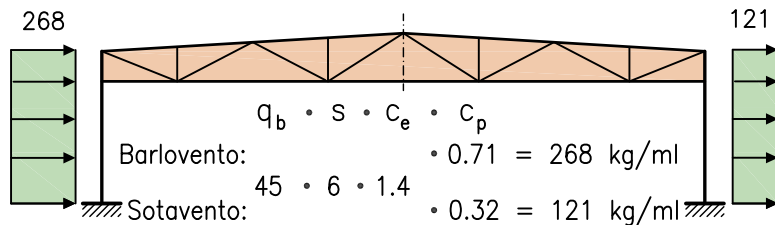
SOBRECARGA DE NIEVE



VIENTO PILARES V2

(igual al pórtico) $q_b = 45$

$C_e = 1.40$
 $C_{p, \text{barlovento}} = 0.71$
 $C_{p, \text{sotavento}} = 0.32$



VIENTO CUBIERTA V2

Carga puntual en extremo de barra

$C_e = 1.50$ $C_p = 0.20$

Longitud zona I

Número de barras con carga:

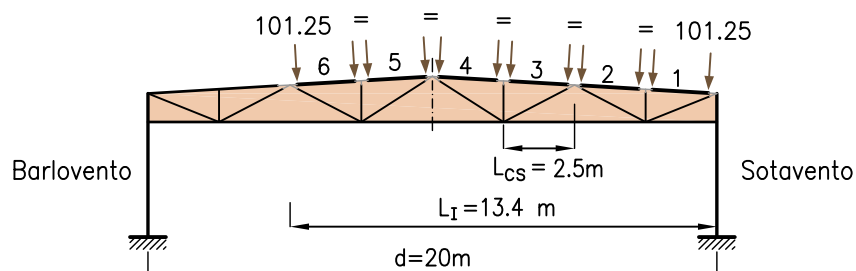
$$q_b \cdot s \cdot C_e \cdot C_p \cdot L_{cs} / 2$$

$$45 \times 6 \times 1.5 \times 0.2 \times 2.5 / 2 = 101.25 \text{ kg}$$

$$e = 2h < b \quad L_I = d - \frac{e}{2}$$

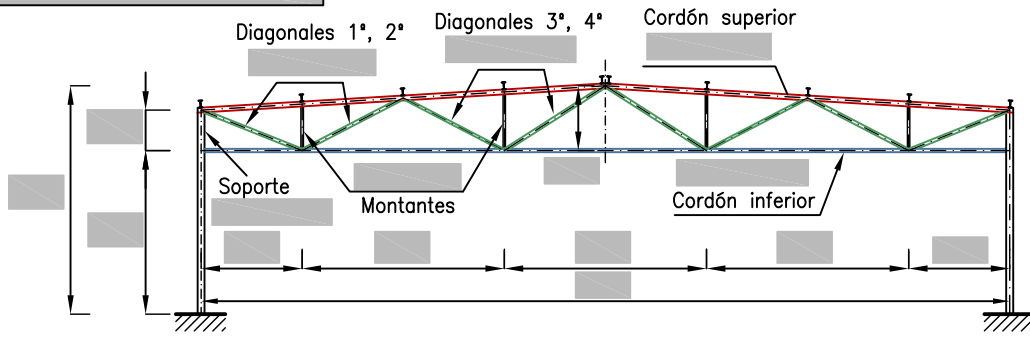
$$e = 13.2 \text{ m} \quad L_I = 20 - \frac{13.2}{2} = 13.4 \text{ m}$$

$$\frac{L_I}{L_{cs}} = \frac{13.4}{2.5} = 5.4 \text{ barras} \rightarrow 6 \text{ barras}$$



GEOMETRIA PERFILES

Unidades: m, kg

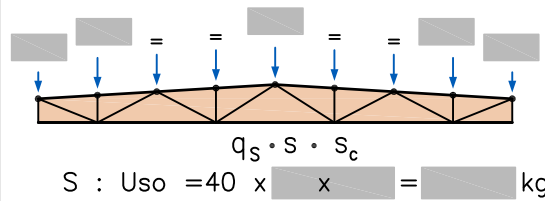


ACCIONES

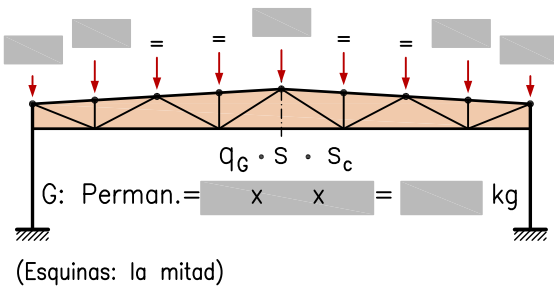
COMBINACIONES Añadir a Comb1, Comb2, ELS-1, ELS-2:
 Comb3) 1.35 G + 0.75 N + 1.5 V2
 ELS-3) G + 0.5 N + V2

$q_G = \dots$ $s = \dots$ m (Pórticos)
 $q_S = 40$ $s_c = \dots$ m (Correas)
 $q_N = \dots$

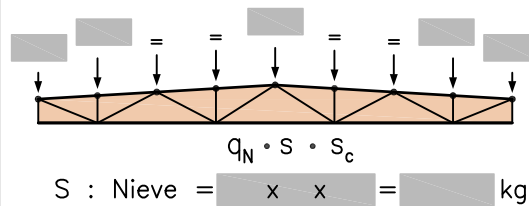
SOBRECARGA DE USO



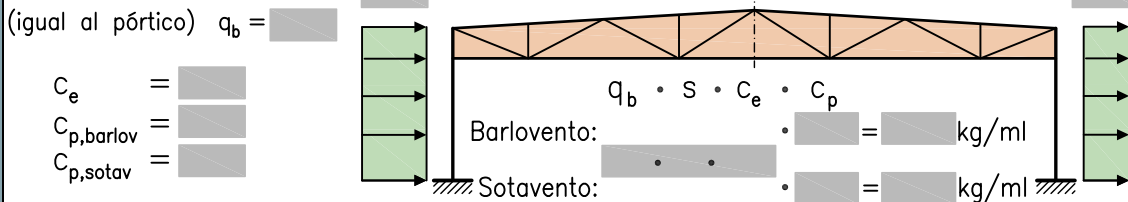
ACCIONES PERMANENTES



SOBRECARGA DE NIEVE



VIENTO PILARES V2



VIENTO CUBIERTA V2

Carga puntual en extremo de barra
 $C_e = \dots$ $C_p = 0.20$

Longitud zona I

Número de barras con carga:

$q_b \cdot s \cdot C_e \cdot C_p \cdot L_{cs} / 2$
 \dots x \dots x 0.2 x \dots / 2 = \dots kg
 $e = 2h < b$ $L_I = d - \frac{e}{2}$
 $e = \dots$ m $L_I = \dots - \frac{\dots}{2} = \dots$ m
 $\frac{L_I}{L_{cs}} = \dots = \dots$ barras \rightarrow \dots barras

