ANEJO Nº 6. ESTRUCTURAS

4. Cálculos

4.3.8. CÁLCULO DE LOS VIADUCTOS SOBRE EL RÍO LLOBREGAT

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.821				0.383000	-17.097

Coeficiente de seguridad 1.628

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.493				0.484000	18.600

Coeficiente de seguridad 1.496

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.493				-0.117000	-7.410

Coeficiente de seguridad 2.033

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.821				-0.108000	6.966

Coeficiente de seguridad 1.962

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-240.713				0.124000	-17.079

Coeficiente de seguridad 1.635

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.025				0.261000	18.711

Coeficiente de seguridad 1.498

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.025				-0.076000	-7.431

Coeficiente de seguridad 2.042

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-240.713				-0.044000	6.989

Coeficiente de seguridad 1.968

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.697				-0.064000	-17.228

Coeficiente de seguridad 1.635

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.748				0.122000	18.662

Coeficiente de seguridad 1.505

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.748				-0.037000	-7.452

Coeficiente de seguridad 2.050

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.697				0.019000	7.017

Coeficiente de seguridad 1.973

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.193				-0.221000	-17.423

Coeficiente de seguridad 1.630

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.100				0.020000	18.584

Coeficiente de seguridad 1.510

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.100				0.001000	-7.476

Coeficiente de seguridad 2.053

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.193				0.081000	7.049

Coeficiente de seguridad 1.975

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.259				-0.378000	-17.622

Coeficiente de seguridad 1.623

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.123				-0.079000	18.522

Coeficiente de seguridad 1.512

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.123				0.039000	-7.503

Coeficiente de seguridad 2.051

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.259				0.143000	7.085

Coeficiente de seguridad 1.972

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.831				-0.560000	-17.807

Coeficiente de seguridad 1.615

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.753				-0.201000	18.489

Coeficiente de seguridad 1.510

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.753				0.078000	-7.536

Coeficiente de seguridad 2.045

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.831				0.206000	7.124

Coeficiente de seguridad 1.966

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-240.717				-0.799000	-17.934

Coeficiente de seguridad 1.608

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-240.852				-0.381000	18.518

Coeficiente de seguridad 1.504

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-240.852				0.118000	-7.572

Coeficiente de seguridad 2.035

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-240.717				0.271000	7.164

Coeficiente de seguridad 1.958

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.424				-1.131	-17.910

Coeficiente de seguridad 1.607

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.004				-0.656000	18.698

Coeficiente de seguridad 1.492

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.004				0.161000	-7.616

Coeficiente de seguridad 2.025

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.424				0.339000	7.206

Coeficiente de seguridad 1.951

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-240.867				-1.586	-17.580

Coeficiente de seguridad 1.620

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.168				-1.065	19.211

Coeficiente de seguridad 1.471

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.168				0.208000	-7.668

Coeficiente de seguridad 2.021

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-240.867				0.411000	7.245

Coeficiente de seguridad 1.953

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-237.153				-2.147	-16.763

Coeficiente de seguridad 1.664

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.259				-1.607	20.315

Coeficiente de seguridad 1.440

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-239.259				0.259000	-7.736

Coeficiente de seguridad 2.037

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-237.153				0.488000	7.280

Coeficiente de seguridad 1.976

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-149.912				-18.216	-14.651

Coeficiente de seguridad 1.490

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-150.057				-18.131	23.432

Coeficiente de seguridad 1.122

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-150.057				0.541000	-7.739

Coeficiente de seguridad 2.910

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-149.912				0.777000	7.569

Coeficiente de seguridad 2.791

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-227.594				-2.705	-15.329

Coeficiente de seguridad 1.761

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-229.827				-2.199	22.313

Coeficiente de seguridad 1.395

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-229.827				0.314000	-7.823

Coeficiente de seguridad 2.099

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-227.594				0.566000	7.307

Coeficiente de seguridad 2.041

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-131.274				-15.540	-15.615

Coeficiente de seguridad 1.594

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-124.784				-16.425	25.262

Coeficiente de seguridad 1.113

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-125.181				0.559000	-7.835

Coeficiente de seguridad 3.283

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-130.850				0.810000	7.641

Coeficiente de seguridad 3.061

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-209.133				-3.059	-13.299

Coeficiente de seguridad 1.950

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-208.914				-2.678	25.482

Coeficiente de seguridad 1.335

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-208.914				0.369000	-7.935

Coeficiente de seguridad 2.256

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-209.133				0.644000	7.326

Coeficiente de seguridad 2.183

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-113.550				-10.475	-14.847

Coeficiente de seguridad 1.936

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.736				-11.586	31.584

Coeficiente de seguridad 1.010

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-83.202				0.536000	-8.016

Coeficiente de seguridad 4.069

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-110.957				0.800000	7.683

Coeficiente de seguridad 3.395

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-210.693				-3.245	-11.972

Coeficiente de seguridad 2.007

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-198.384				-3.755	33.638

Coeficiente de seguridad 1.107

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-199.341				0.401000	-8.286

Coeficiente de seguridad 2.317

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-209.685				0.728000	7.922

Coeficiente de seguridad 2.143

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-154.911				14.045	-12.357

Coeficiente de seguridad 1.640

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-152.202				14.132	30.084

Coeficiente de seguridad 1.112

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-152.202				0.606000	-8.448

Coeficiente de seguridad 2.807

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-154.911				0.745000	7.697

Coeficiente de seguridad 2.714

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.783				-3.054	-8.976

Coeficiente de seguridad 2.618

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-122.982				-3.470	40.479

Coeficiente de seguridad 0.993112

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-125.676				0.459000	-8.337

Coeficiente de seguridad 3.204

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-158.940				0.813000	8.001

Coeficiente de seguridad 2.635

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-124.076				10.961	-14.181

Coeficiente de seguridad 1.787

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-115.542				10.656	30.435

Coeficiente de seguridad 1.195

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-115.542				0.660000	-8.519

Coeficiente de seguridad 3.332

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-124.076				0.795000	7.767

Coeficiente de seguridad 3.155

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-99.264				5.645	-15.084

Coeficiente de seguridad 2.150

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-72.293				5.388	33.171

Coeficiente de seguridad 1.151

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-72.293				0.705000	-8.594

Coeficiente de seguridad 4.100

Cálculo Resistencia Ultima: Pila "PILOTMZM"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-99.264				0.835000	7.851

Coeficiente de seguridad 3.587

ANÁLISIS DE RESULTADOS EN PILOTES DE PARQUE PEDANTERES

Se adjuntan a continuación los pilotes que tienen un $\gamma < 1,0$.

	barra	N	M_y	M_z	γ	Envolvente	
a)	2698	−55,04	−12,28	30,815	0,98	M_y	$N \times 1,0$
b)	2702	−82,381	−4,49	40,10	0,92	M_y	$N \times 1,0$
a)	2698	−53,824	−11,586	31,584	0,98	M_A	$N \times 1,0$
	2702	−81,938	−3,47	40,479	0,924	M_T	$N \times 1,0$
	2698	−53,824	−11,586	31,584	0,98	N	$N \times 1,0$
b)	2702	−81,816	−4,120	40,22	0,924	N	$N \times 1,0$
b)	2702	−122,724	−4,120	40,22	0,987	N	$N \times 1,5$
b)	2702	−123,572	−4,491	40,10	0,983	M_y	$M \times 1,5$
b)	2701	−122,982	−3,47	40,479	0,993	M_T	$M \times 1,5$

Axiales mayorados.

1). Si se analiza la barra 2698 vemos que el momento en eje y de 12,28 mt. se verá reducido por el empuje de tierras del trasdós de los muros de parque. Vf.

Así: $M_{yd} = -12,28 + \frac{1}{2} 3,40 \times 3,40 \times 2,0 \times 1,0 \times \frac{0,33}{0,15} = -4,58$ mt.

(Vf pilot. Activo)

$M_{yd} = -11,586 + \frac{1}{2} 3,40 \times 3,4 \times 2,0 \times 1,0 \times \frac{0,33}{0,5} = -3,86$ mt.

Se comprueba ahora los siguientes valores.

$-55,04 \quad -4,58 \quad 30,815 \Rightarrow \gamma = 1,156$ válido

$-53,824 \quad -3,86 \quad 31,584 \Rightarrow \gamma = 1,126$ válido

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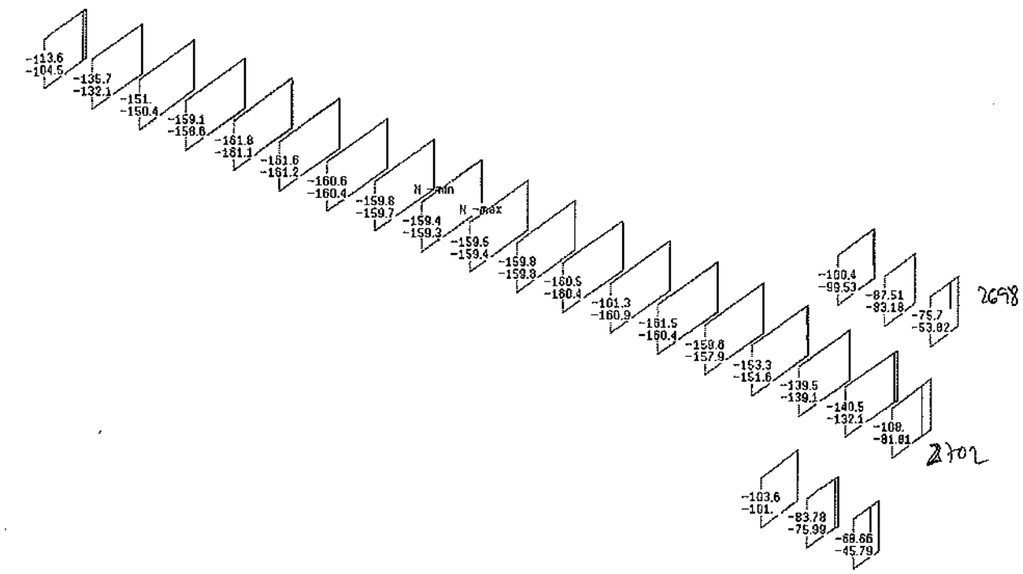
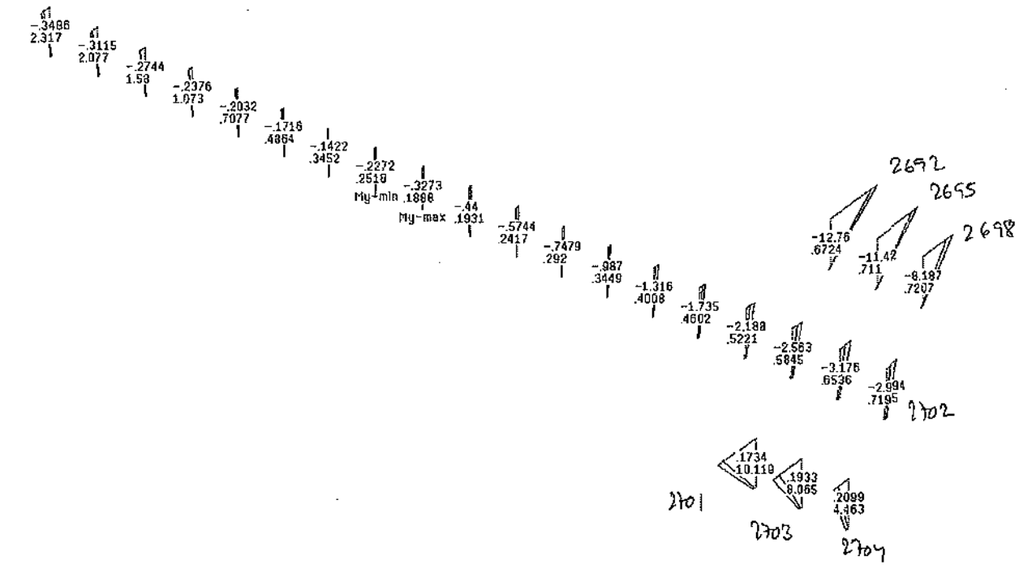
S T A T I K - 3   V.2.68                                    página....
Corsán-Corviam S.A.                                          04.01.06
SANT BOI DE LLOBREGAT                                        20:10/1
ESTRIBO E-1
-------------------------------------------------------------------------------

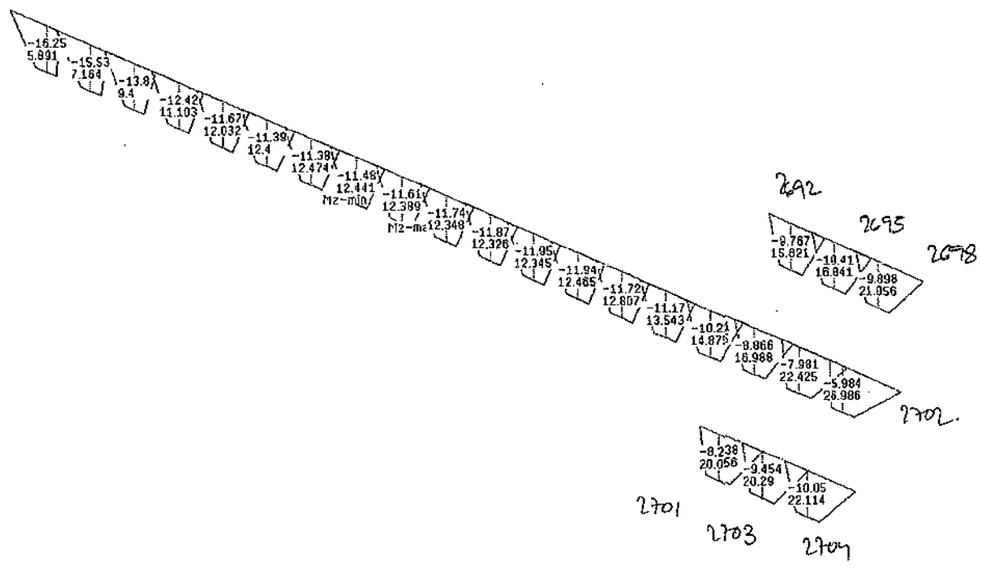
Escala  1 :  199.4
Section forces envelope N , GWSP AG (ENVOLVENTE 1), View "PILOTE40"
- Struktur: Staebe
- Envelop Normal force N-min,  Scaling  2.00E-02
  min: -1.62E+02   max: -6.87E+01  [t]
- Envelop Normal force N-max,  Scaling  2.00E-02
  min: -1.61E+02   max: -4.58E+01  [t]
- Text envelopes [t]
```



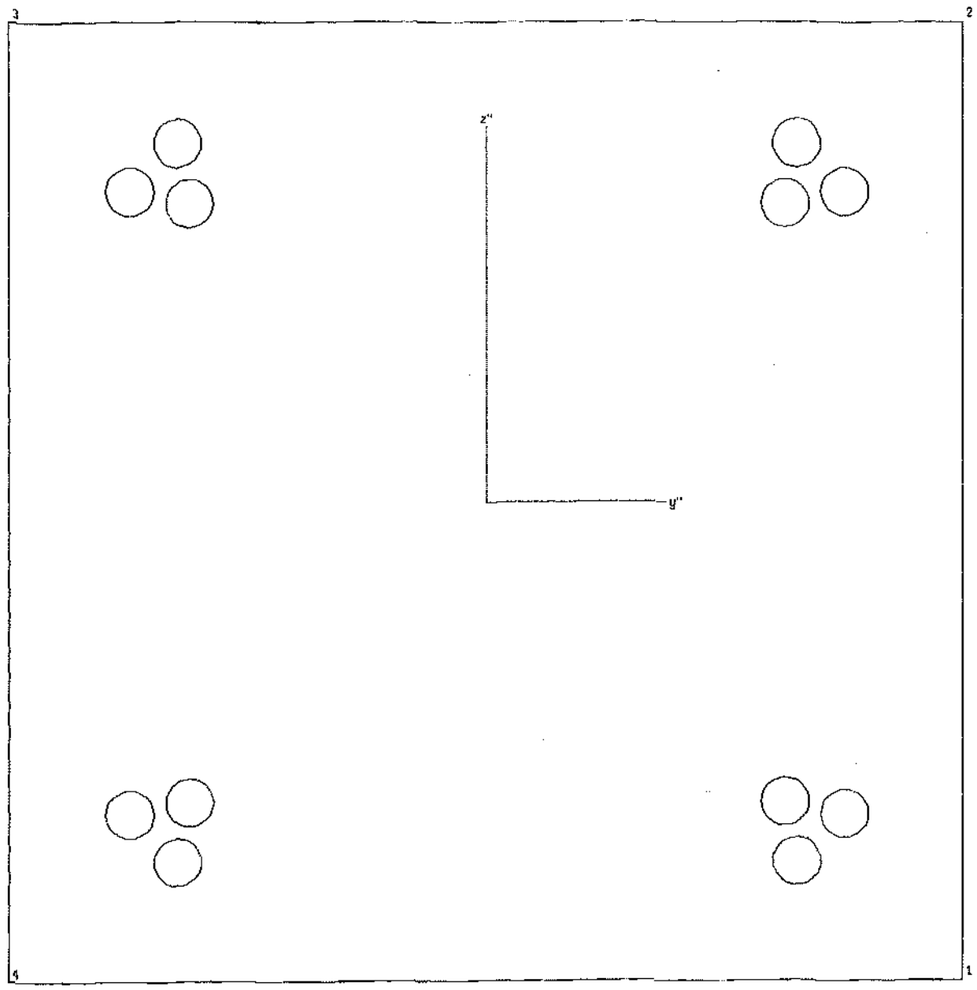
Escala 1 : 201.8
Section forces envelope My, GWSP AG (ENVOLVENTE 1), View "PILOTE40"
- Struktur: Staebe
- Envelop Moment My-min, Scaling 2.00E-01
  min: -1.28E+01 max: 8.66E+00 [tm]
- Envelop Moment My-max, Scaling 2.00E-01
  min: -1.15E+01 max: 1.01E+01 [tm]
- Text envelopes [tm]



Escala 1 : 212.5
Section forces envelope Mz, GWSP AG (ENVOLVENTE 1), View "PILOTE40"
- Struktur: Staebe
- Envelop Moment Mz-min, Scaling 1.00E-01
  min: -1.63E+01 max: -4.80E+00 [tm]
- Envelop Moment Mz-max, Scaling 1.00E-01
  min: 4.64E+00 max: 2.70E+01 [tm]
- Text envelopes [tm]



Mstb. 1 : 2.5



Sección :"2698" Armadura :"B1"
Tipo : tipo pila/ Rectángulo Unidades :[cm]
Material :"H450"

Ancho = 40.00 cm Canto = 40.00 cm

Características mecánicas de la sección:
Area : Ax= 0.160000 [m2]
Momentos de inercia : Iy= 0.002133 [m4] Iz= 0.002133 [m4]
Inercia a torsión : Ix= 0.003601 [m4]

Posición del centro de gravedad: ys= 0.000 [m] zs= 0.200000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-0.200	-0.010667	0.067
dch.	Iz	0.200	0.010667	-0.067
abajo	Iy	-0.200	-0.010667	0.067
arriba	Iy	0.200	0.010667	-0.067

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	12.50	7.50		
2	AEH500	(1)	3.14	-12.50	7.50		
3	AEH500	(1)	3.14	-12.50	32.50		
4	AEH500	(1)	3.14	12.50	32.50		
5	AEH500	(1)	3.14	-13.00	5.00		
6	AEH500	(1)	3.14	-15.00	7.00		
7	AEH500	(1)	3.14	13.00	5.00		
8	AEH500	(1)	3.14	13.00	35.00		
9	AEH500	(1)	3.14	-13.00	35.00		
10	AEH500	(1)	3.14	-15.00	7.00		
11	AEH500	(1)	3.14	-15.00	33.00		
12	AEH500	(1)	3.14	15.00	7.00		
13	AEH500	(1)	3.14	15.00	33.00		

Total: 40.82 Cuantía de armadura: 2.551 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccion
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

Dimens. a cortante (valores por defecto): (Acero"AEH500"/Hormigón"H450"

Cortante	Area mín.cercos	Ancho alma ideal	Canto útil	Incl.bielas
Vz	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00
Vy	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00

Características del material:

Nom.Mat.	Módulo E [t/m2]	0.85*fcd,fyd [t/m2]	eps-fc [o/oo]	fct [t/m2]	fcv [t/m2]	fcw,mín [t/m2]
"H450"	4.00E+06	-2550.000	-2.000	0.0	86.600	4500.000
"AEH500"	2.10E+07	44347.0				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Cálculo Resistencia Ultima: Pila "2698"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-55.040				-4.580	30.815

Coeficiente de seguridad 1.156

Cálculo Resistencia Ultima: Pila "2698"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-53.824				-3.860	31.584

Coeficiente de seguridad 1.126

5). La comprobación ahora la barra 2702.

Los valores pésimos son.

N	My	Mx.	
-82,331	-4,49	40,10.	Absoluto My. Con N×1,0
-81,988	-3,47	40,479.	" Mx. " N×1,0
-81,816	-4,120	40,22.	" N. " N×1,0.

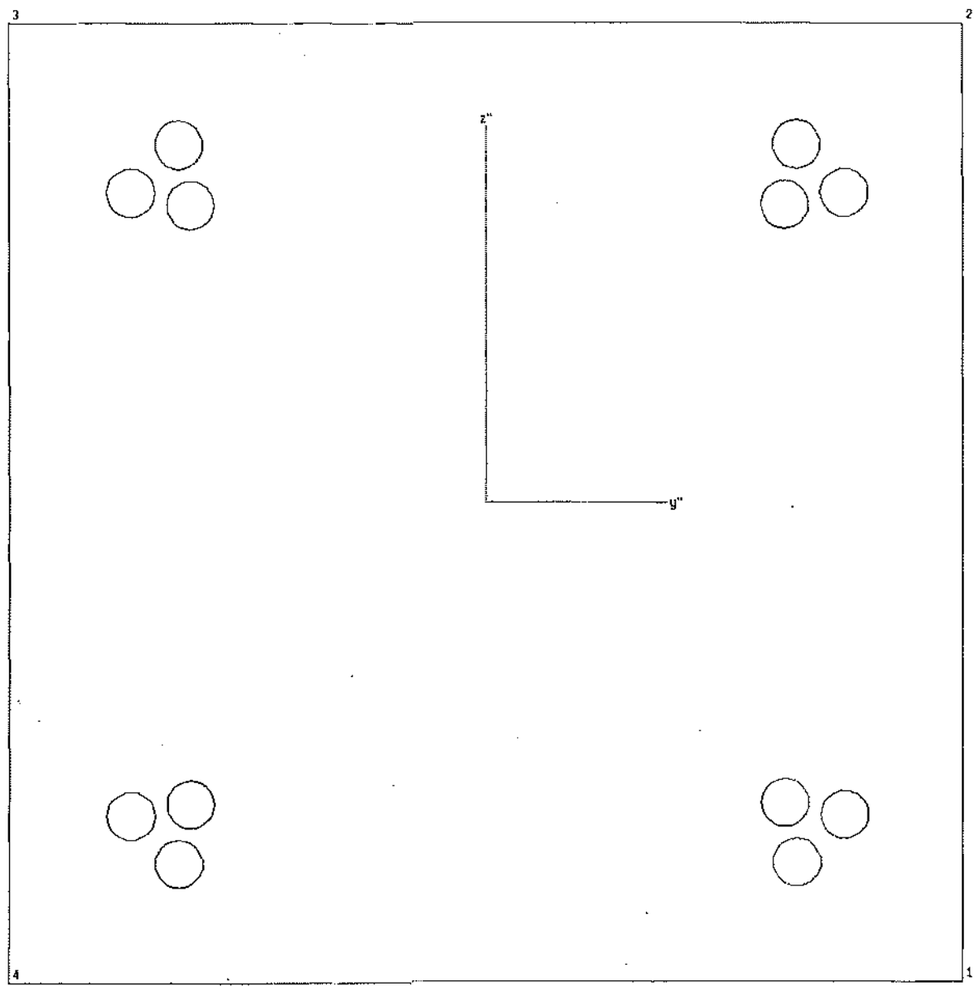
Para mitigar este efecto se modifica la disposición de los pilotes y en lugar de estar colocados según la viga barca (oriada) están colocados perpendiculares al eje longitudinal del tablero. Esto permite disponer un pilote central adicional de tal forma que el ancho de cada par de pilote se reduce de 2+1=3,0 m a 1,5+0,75=2,25 m. Los esfuerzos de comprobación serían.

N	My	MA.	γ
-61,8	-3,37	30,1	1,235
-61,50	-2,60	30,36.	1,230
-61,40	-3,1	30,2.	1,231

Una posterior revisión requería la posición exacta de los pilotes, dirigidos y en caso de ser necesario se podría incluso la pinza fila de pilotes del poyo.

4451

Mstb. 1 : 2.5



Sección :"2702" Armadura :"B1"
Tipo : tipo pila/ Rectángulo Unidades :[cm]
Material :"H450"

Ancho = 40.00 cm Canto = 40.00 cm

Características mecánicas de la sección:
Area : Ax= 0.160000 [m2]
Momentos de inercia : Iy= 0.002133 [m4] Iz= 0.002133 [m4]
Inercia a torsión : Ix= 0.003601 [m4]

Posición del centro de gravedad: ys= 0.000 [m] zs= 0.200000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-0.200	-0.010667	0.067
dch.	Iz	0.200	0.010667	-0.067
abajo	Iy	-0.200	-0.010667	0.067
arriba	Iy	0.200	0.010667	-0.067

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	12.50	7.50		
2	AEH500	(1)	3.14	-12.50	7.50		
3	AEH500	(1)	3.14	-12.50	32.50		
4	AEH500	(1)	3.14	12.50	32.50		
5	AEH500	(1)	3.14	-13.00	5.00		
6	AEH500	(1)	3.14	-15.00	7.00		
7	AEH500	(1)	3.14	13.00	5.00		
8	AEH500	(1)	3.14	13.00	35.00		
9	AEH500	(1)	3.14	-13.00	35.00		
10	AEH500	(1)	3.14	-15.00	7.00		
11	AEH500	(1)	3.14	-15.00	33.00		
12	AEH500	(1)	3.14	15.00	7.00		
13	AEH500	(1)	3.14	15.00	33.00		
Total:			40.84	Cuantía de armadura: 2.553 [o/o]			

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccior
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

Dimens. a cortante (valores por defecto): (Acero"AEH500"/Hormigón"H450'

Cortante	Area mín.cercos	Ancho alma ideal	Canto útil	Incl.bielas
Vz	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00
Vy	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00

Características del material:

Nom.Mat.	Módulo E [t/m2]	0.85*fcd,fyd [t/m2]	eps-fc [o/oo]	fct [t/m2]	fcv [t/m2]	fcw,mín [t/m2]
"H450"	4.00E+06	-2550.000	-2.000	0.0	86.600	4500.000
"AEH500"	2.10E+07	44347.0				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

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Cálculo Resistencia Ultima: Pila "2702"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-61.800				-3.370	30.100

Coeficiente de seguridad 1.235

Cálculo Resistencia Ultima: Pila "2702"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-61.500				-2.600	30.360

Coeficiente de seguridad 1.230

Cálculo Resistencia Ultima: Pila "2702"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-61.400				-3.100	30.200

Coeficiente de seguridad 1.231

CORTANTE

ENVOLVENTE <N-Vz> concomitantes

Axil 1.00 Cargas Puntuales
Vz 1.50

Barra Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γ_c	γ_s	θ [°]	A_{sl} [mm²]	A_c [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ_{cd} [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1}	Comprobación Compresión Oblicua Alma	ξ	ρ_l	V_{cu}	Necesidad Armadura Cortante	Armadura dispuesta	cm2	V_{su}	β	cot (θ_{e})	cot (θ_e)	$f_{ct,m}$ [N/mm²]	A necesaria cm2	
1700	-146.889	2.129	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.181	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.864	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.724	0.371	1.849	1.849	3.795	-6.822	No Precisa Armadura Cortante
	-11.180	0.769	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.052	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.454	0.850	1.068	1.068	3.795	-6.853	No Precisa Armadura Cortante
1700	-146.889	2.129	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.181	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.864	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.724	0.371	1.849	1.849	3.795	-6.822	No Precisa Armadura Cortante
	-11.180	0.769	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.052	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.454	0.850	1.068	1.068	3.795	-6.853	No Precisa Armadura Cortante
1701	-139.265	2.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.704	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.863	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.623	0.380	1.815	1.815	3.795	-6.570	No Precisa Armadura Cortante
	-16.464	0.602	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.029	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.745	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.415	0.797	1.127	1.127	3.795	-6.995	No Precisa Armadura Cortante
1701	-139.265	2.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.704	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.863	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.623	0.380	1.815	1.815	3.795	-6.570	No Precisa Armadura Cortante
	-16.464	0.602	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.029	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.745	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.415	0.797	1.127	1.127	3.795	-6.995	No Precisa Armadura Cortante
1702	-132.156	2.234	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.260	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-6.563	No Precisa Armadura Cortante
	-21.370	0.654	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.336	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.389	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.400	0.754	1.163	1.163	3.795	-6.941	No Precisa Armadura Cortante
1702	-132.156	2.234	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.260	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-6.563	No Precisa Armadura Cortante
	-21.370	0.654	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.336	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.389	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.400	0.754	1.163	1.163	3.795	-6.941	No Precisa Armadura Cortante
1703	-126.365	1.950	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.898	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.170	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.452	0.398	1.755	1.755	3.795	-6.747	No Precisa Armadura Cortante
	-25.470	0.796	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.592	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.927	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.399	0.723	1.191	1.191	3.795	-6.828	No Precisa Armadura Cortante
1703	-126.365	1.950	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.898	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.170	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.452	0.398	1.755	1.755	3.795	-6.747	No Precisa Armadura Cortante
	-25.470	0.794	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.592	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.927	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.399	0.723	1.191	1.191	3.795	-6.828	No Precisa Armadura Cortante
1704	-114.479	1.273	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.155	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.610	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.295	0.417	1.699	1.699	3.795	-7.156	No Precisa Armadura Cortante
	-28.219	1.235	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.764	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.288	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.403	0.704	1.210	1.210	3.795	-6.482	No Precisa Armadura Cortante
1704	-114.479	1.273	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.155	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.610	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.295	0.417	1.699	1.699	3.795	-7.156	No Precisa Armadura Cortante
	-28.219	1.235	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.764	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.288	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.403	0.704	1.210	1.210	3.795	-6.482	No Precisa Armadura Cortante
1705	-122.028	1.602	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.627	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.601	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.395	0.405	1.735	1.735	3.795	-6.978	No Precisa Armadura Cortante
	-28.826	0.943	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.368	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	-6.716	No Precisa Armadura Cortante
1705	-122.028	1.602	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.627	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.601	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.395	0.405	1.735	1.735	3.795	-6.978	No Precisa Armadura Cortante
	-28.826	0.943	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.368	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	-6.716	No Precisa Armadura Cortante
1706	-110.316	1.301	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.895	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.063	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.241	0.424	1.678	1.678	3.795	-7.095	No Precisa Armadura Cortante
	-31.048	1.218	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.659	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.412	0.686	1.229	1.229	3.795	-6.503	No Precisa Armadura Cortante
1706	-110.316	1.301	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.895	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.063	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.241	0.424	1.678	1.678	3.795	-7.095	No Precisa Armadura Cortante
	-31.046	1.218	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.659	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.412	0.686	1.229	1.229	3.795	-6.503	No Precisa Armadura Cortante
1707	-119.106	1.224	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.444	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.217	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.356	0.410	1.721	1.721	3.795	-7.248	No Precisa Armadura Cortante
	-31.672	1.080	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.728	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.414	0.682	1.233	1.233	3.795	-6.614	No Precisa Armadura Cortante
1707	-119.106	1.224	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.444	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.217	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.356	0.410	1.721	1.721	3.795	-7.248	No Precisa Armadura Cortante
	-31.672	1.080	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.728	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.414	0.682	1.233	1.233	3.795	-6.614	No Precisa Armadura Cortante
1708	-106.448	1.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.653	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.656	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.190	0.431	1.659	1.659	3.795	-7.025	No Precisa Armadura Cortante
	-33.741	1.144	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.109	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.013	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.423	0.669	1.247	1.247	3.795	-6.571	No Precisa Armadura Cortante
1708	-106.448	1.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.653	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.656	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.190	0.431	1.659	1.659	3.795	-7.025	No Precisa Armadura Cortante
	-33.741	1.144	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.109	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.013	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.423	0.669	1.247	1.247	3.795	-6.571	No Precisa Armadura Cortante
1709	-117.516	0.826	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.345	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.008	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.335	0.412	1.713	1.713	3.795	-7.547	No Precisa Armadura Cortante
	-33.782	1.221	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.111	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.018	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.423	0.669	1.248	1.248	3.795	-6.510	No Precisa Armadura Cortante
1709	-117.516	0.826	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.345	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.008	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.335	0.412	1.713	1.713	3.795	-7.547	No Precisa Armadura Cortante
	-33.782	1.221	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.111	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.018	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.423	0.669	1.248	1.248	3.795	-6.510	No Precisa Armadura Cortante
1710	-102.979	1.380	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.436	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.100	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.145	0.438	1.642	1.642	3.795	-7.020	No Precisa Armadura Cortante
	-36.361	1.093	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.273	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.436	0.654	1.264	1.264	3.795	-6.621	No Precisa Armadura Cortante
1710	-102.979	1.380	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.436	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.100	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.145	0.438	1.642	1.642	3.795	-7.020	No Precisa Armadura Cortante
	-36.361	1.093	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.273	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.436	0.654	1.264	1.264	3.795	-6.621	No Precisa Armadura Cortante
1711	-78.899	0.672	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.931	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.840	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.844	0.492	1.516	1.516	3.795	-7.278	No Precisa Armadura Cortante
	-46.823	1.309	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.926	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.730	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.508	0.602	1.331	1.331	3.795	-6.507	No Precisa Armadura Cortante
1711	-78.899	0.672	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.931	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.840	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.844	0.492	1.516	1.516	3.795	-7.279	No Precisa Armadura Cortante
	-46.823	1.309	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.926	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.730	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.508	0.602	1.331	1.331	3.795	-6.507	No Precisa Armadura Cortante
1712	-117.156	0.400	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.325	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.966	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.331	0.413	1.712	1.712	3.795	-7.882	No Precisa Armadura Cortante
	-35.473	1.372	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.240	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.431	0.659	1.259	1.259	3.795	-6.396	No Precisa Armadura Cortante
1712	-117.156	0.400	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.325	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.966	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.331	0.413	1.712	1.712	3.795	-7.882	No Precisa Armadura Cortante
	-35.473	1.372	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.240	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.431	0.659	1.259	1.259	3.795	-6.396	No Precisa Armadura Cortante
1713	-100.105	1.178	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.257	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.723	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.108	0.443	1.627	1.627	3.795	-7.087	No Precisa Armadura Cortante
	-38.828	1.079	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.427	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.680	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.450	0.641	1.280	1.280	3.795	-6.844	No Precisa Armadura Cortante
1713	-100.105	1.178	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.257	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.723	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.108	0.443	1.627	1.627	3.795	-7.087	No Precisa Armadura Cortante
	-38.828	1.079	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.427	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.680	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.450	0.641	1.280	1.280	3.795	-6.844	No Precisa Armadura Cortante
1714	-76.985	0.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.812	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.689	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.821	0.497	1.506	1.506	3.795	-7.231	No Precisa Armadura Cortante
	-48.607	1.286	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.032	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.951	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.522	0.594	1.341	1.341	3.795	-6.537	No Precisa Armadura Cortante
1714	-76.985	0.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.812	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.689	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.821	0.497	1.506	1.506	3.795	-7.231	No Precisa Armadura Cortante
	-48.607	1.286	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.032	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.951	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.522	0.594	1.341	1.341	3.795	-6.537	No Precisa Armadura Cortante
1715	-118.078	0.049	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.380	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.082	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.342	0.411	1.716	1.716	3.795	-8.170	No Precisa Armadura Cortante
	-36.622	1.554	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.289	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.391	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.437	0.653	1.266	1.266	3.795	-6.257	No Precisa Armadura Cortante
1715	-118.078	0.049	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.380	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.082	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.342	0.411	1.716	1.716	3.795	-8.170	No Precisa Armadura Cortante
	-36.622	1.554	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.289	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.391	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.437	0.653	1.266	1.266	3.795	-6.257	No Precisa Armadura Cortante
1716	-87.939	1.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.121	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.439	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.061	0.448	1.616	1.616	3.795	-7.205	No Precisa Armadura Cortante
	-41.090	1.084	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.568	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.977	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.465	0.629	1.295	1.295	3.795	-6.652	No Precisa Armadura Cortante
1716	-87.939	1.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.121	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.439	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.061	0.448	1.616	1.616	3.795	-7.205	No Precisa Armadura Cortante
	-41.090	1.084	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.568	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.977	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.465	0.629	1.295	1.295	3.795	-6.652	No Precisa Armadura Cortante
1717	-75.140	0.757	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.446	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.799	0.502	1.496	1.496	3.795	-7.176	No Precisa Armadura Cortante
	-50.174	1.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.136	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.170	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.537	0.587	1.351	1.351	3.795	-6.592	No Precisa Armadura Cortante
1717	-75.140	0.757	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.446	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.799	0.502	1.496	1.496	3.795	-7.176	No Precisa Armadura Cortante
	-50.174	1.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.136	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.170	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.537	0.587	1.351	1.351	3.795	-6.592	No Precisa Armadura Cortante
1718	-119.862	0.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.498	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.329	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.387	0.408	1.725	1.725	3.795	-7.878	No Precisa Armadura Cortante
	-37.234	1.733	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.327	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.471	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.441	0.649	1.270	1.270	3.795	-6.118	No Precisa Armadura Cortante
1718	-119.862	0.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.498	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.329	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.387	0.408	1.725	1.725	3.795	-7.878	No Precisa Armadura Cortante
	-37.234	1.733	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.327	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.471	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.441	0.649	1.270	1.270	3.795	-6.118	No Precisa Armadura Cortante
1719	-96.478	0.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.247	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.062	0.451	1.609	1.609	3.795	-7.350	No Precisa Armadura Cortante
	-43.148	1.096	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.697	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.248	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	-6.654	No Precisa Armadura Cortante
1719	-96.478	0.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.247	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.062	0.451	1.609	1.609	3.795	-7.350	No Precisa Armadura Cortante
	-43.148	1.096	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.697	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.248	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	-6.654	No Precisa Armadura Cortante
1720	-73.382	0.795	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.585	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.213	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.779	0.507	1.486	1.486	3.795	-7.136	No Precisa Armadura Cortante
	-51.801	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.244	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.396	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.552	0.580	1.362	1.362	3.795	-6.669	No Precisa Armadura Cortante
1720	-73.382	0.795	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.585	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.213	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.779	0.507	1.486	1.486	3.795	-7.136	No Precisa Armadura Cortante
	-51.801	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.244	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.396	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.552	0.580	1.362	1.362	3.795	-6.669	No Precisa Armadura Cortante
1721	-69.468	1.838	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.654	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.258	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	-6.332	No Precisa Armadura Cortante
	-47.471	0.194	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.815	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.514	0.599	1.335	1.335	3.795	-7.405	No Precisa Armadura Cortante
1721	-69.468	1.838	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.654	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.258	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	-6.332	No Precisa Armadura Cortante
	-47.471	0.194	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.815	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.514	0.599	1.335	1.335	3.795	-7.405	No Precisa Armadura Cortante
1722	-122.109	0.569	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.632	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.611	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.396	0.405	1.735	1.735	3.795	-7.799	No Precisa Armadura Cortante
	-37.678	1.736	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.355	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.530	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	-6.117	No Precisa Armadura Cortante
1722	-122.109	0.569	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.632	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.611	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.396	0.405	1.735	1.735	3.795	-7.799	No Precisa Armadura Cortante
	-37.678	1.736	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.355	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.530	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	-6.117	No Precisa Armadura Cortante
1723	-95.614	0.605	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.976	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.134	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.051	0.453	1.605	1.605	3.795	-7.497	No Precisa Armadura Cortante
	-45.050	1.092	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.816	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.497	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.494	0.610	1.320	1.320	3.795	-6.669	No Precisa Armadura Cortante
1723	-95.614	0.605	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.976	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.134	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.051	0.453	1.605	1.605	3.795	-7.497	No Precisa Armadura Cortante
	-45.050	1.092	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.816	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.497	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.494	0.610	1.320	1.320	3.795	-6.669	No Precisa Armadura Cortante
1724	-71.701	0.800	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.461	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.995	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.759	0.512	1.477	1.477	3.795	-7.111	No Precisa Armadura Cortante
	-53.709	1.065	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.357	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.634	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.569	0.573	1.373	1.373	3.795	-6.749	No Precisa Armadura Cortante
1724	-71.701	0.800	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.461	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.995	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.759	0.512	1.477	1.477	3.795	-7.111	No Precisa Armadura Cortante
	-53.709	1.065	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.357	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.634	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.569	0.573	1.373	1.373	3.795	-6.749	No Precisa Armadura Cortante
1725	-69.502	1.631	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.719	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.394	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.626	0.551	1.407	1.407	3.795	-6.346	No Precisa Armadura Cortante
	-47.035	0.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.758	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.510	0.601	1.332	1.332	3.795	-7.405	No Precisa Armadura Cortante
1725	-69.502	1.631	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.719	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.394	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.626	0.551	1.407	1.407	3.795	-6.346	No Precisa Armadura Cortante
	-47.035	0.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.758	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.510	0.601	1.332	1.332	3.795	-7.405	No Precisa Armadura Cortante
1726	-95.145	0.444	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.947	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.072	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.045	0.454	1.602	1.602	3.795	-7.619	No Precisa Armadura Cortante
	-46.918	1.054	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.912	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.742	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.509	0.601	1.331	1.331	3.795	-6.711	No Precisa Armadura Cortante
1726	-95.145	0.444	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.947	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.072	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.045	0.454	1.602	1.602	3.795	-7.619	No Precisa Armadura Cortante
	-46.918	1.054	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.912	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.742	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.509	0.601	1.331	1.331	3.795	-6.711	No Precisa Armadura Cortante

Envolvente N-Vz

ENVOLVENTE <N-Vz >
concomitantes

Axil 1.60 Cargas Puntuales
Vz 1.50

Barra Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{s1} [mm²]	A_c [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{cu} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vsu [t]	β	cot (θe, ref)	cot (θe)	$f_{ct,m}$ [N/mm²]	A necesaria cm2	
1727	-70.213	0.773	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.888	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.800	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.742	0.516	1.468	1.468	3.795	-7.118	No Precisa Armadura Cortante
	-55.882	0.985	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.879	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.587	0.566	1.384	1.384	3.795	-6.827	No Precisa Armadura Cortante
1727	-70.213	0.773	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.388	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.800	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.742	0.516	1.468	1.468	3.795	-7.118	No Precisa Armadura Cortante
	-55.882	0.985	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.879	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.587	0.566	1.384	1.384	3.795	-6.827	No Precisa Armadura Cortante
1728	-60.554	1.599	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.785	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	-6.379	No Precisa Armadura Cortante
	-46.555	0.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	-7.428	No Precisa Armadura Cortante
1728	-60.554	1.599	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.785	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	-6.379	No Precisa Armadura Cortante
	-46.565	0.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	-7.428	No Precisa Armadura Cortante
1729	-94.785	0.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.025	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.040	0.454	1.600	1.600	3.795	-7.699	No Precisa Armadura Cortante
	-48.901	0.983	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.056	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.003	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.526	0.593	1.344	1.344	3.795	-6.760	No Precisa Armadura Cortante
1729	-94.785	0.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.025	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.040	0.454	1.600	1.600	3.795	-7.099	No Precisa Armadura Cortante
	-48.901	0.983	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.056	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.003	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.526	0.593	1.344	1.344	3.795	-6.760	No Precisa Armadura Cortante
1730	-68.882	0.738	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.305	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.625	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	-7.135	No Precisa Armadura Cortante
	-57.609	0.905	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.594	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.132	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.606	0.558	1.395	1.395	3.795	-6.906	No Precisa Armadura Cortante
1730	-68.882	0.738	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.305	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.625	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	-7.135	No Precisa Armadura Cortante
	-57.609	0.905	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.594	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.132	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.606	0.558	1.395	1.395	3.795	-6.906	No Precisa Armadura Cortante
1731	-61.697	1.632	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.682	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	-6.443	No Precisa Armadura Cortante
	-45.964	0.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.617	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.501	0.606	1.325	1.325	3.795	-7.468	No Precisa Armadura Cortante
1731	-61.697	1.632	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.682	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	-6.443	No Precisa Armadura Cortante
	-45.964	0.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.617	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.501	0.606	1.325	1.325	3.795	-7.468	No Precisa Armadura Cortante
1732	-56.152	1.432	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.510	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.954	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.593	0.563	1.387	1.387	3.795	-6.477	No Precisa Armadura Cortante
	-28.701	0.369	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.794	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.351	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.701	1.214	1.214	3.795	-7.171	No Precisa Armadura Cortante
1732	-56.152	1.432	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.510	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.954	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.593	0.563	1.387	1.387	3.795	-6.477	No Precisa Armadura Cortante
	-28.701	0.369	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.794	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.351	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.701	1.214	1.214	3.795	-7.171	No Precisa Armadura Cortante
1733	-94.392	0.745	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.900	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.973	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.035	0.455	1.598	1.598	3.795	-7.770	No Precisa Armadura Cortante
	-50.953	0.953	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.185	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.272	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.544	0.584	1.356	1.356	3.795	-6.818	No Precisa Armadura Cortante
1733	-94.392	0.745	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.900	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.973	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.035	0.455	1.598	1.598	3.795	-7.770	No Precisa Armadura Cortante
	-50.953	0.953	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.185	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.272	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.544	0.584	1.356	1.356	3.795	-6.818	No Precisa Armadura Cortante
1734	-70.356	1.170	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.824	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-6.805	No Precisa Armadura Cortante
	-57.067	0.339	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.567	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.074	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.602	0.560	1.393	1.393	3.795	-7.352	No Precisa Armadura Cortante
1734	-70.356	1.170	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.824	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-6.805	No Precisa Armadura Cortante
	-57.067	0.339	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.567	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.074	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.602	0.560	1.393	1.393	3.795	-7.352	No Precisa Armadura Cortante
1735	-63.009	1.427	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.938	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.854	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.663	0.539	1.427	1.427	3.795	-6.536	No Precisa Armadura Cortante
	-45.195	0.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.825	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.516	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.495	0.609	1.321	1.321	3.795	-7.521	No Precisa Armadura Cortante
1735	-63.009	1.427	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.938	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.854	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.663	0.539	1.427	1.427	3.795	-6.536	No Precisa Armadura Cortante
	-45.195	0.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.825	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.516	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.495	0.609	1.321	1.321	3.795	-7.521	No Precisa Armadura Cortante
1736	-57.340	1.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.110	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.604	0.559	1.394	1.394	3.795	-6.499	No Precisa Armadura Cortante
	-28.745	0.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.796	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	-7.172	No Precisa Armadura Cortante
1736	-57.340	1.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.110	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.604	0.559	1.394	1.394	3.795	-6.499	No Precisa Armadura Cortante
	-28.745	0.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.796	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.406	0.700	1.214	1.214	3.795	-7.172	No Precisa Armadura Cortante
1737	-73.024	0.989	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.564	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.169	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.775	0.508	1.484	1.484	3.795	-6.965	No Precisa Armadura Cortante
	-55.283	0.376	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.840	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.584	0.567	1.382	1.382	3.795	-7.308	No Precisa Armadura Cortante
1737	-73.024	0.989	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.564	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.169	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.775	0.508	1.484	1.484	3.795	-6.965	No Precisa Armadura Cortante
	-55.283	0.376	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.840	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.584	0.587	1.382	1.382	3.795	-7.308	No Precisa Armadura Cortante
1738	-64.547	1.295	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.056	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.679	0.534	1.438	1.438	3.795	-6.654	No Precisa Armadura Cortante
	-44.198	0.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.762	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.385	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.489	0.614	1.314	1.314	3.795	-7.481	No Precisa Armadura Cortante
1738	-64.547	1.295	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.056	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.678	0.534	1.436	1.436	3.795	-6.654	No Precisa Armadura Cortante
	-44.198	0.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.782	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.385	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.488	0.614	1.314	1.314	3.795	-7.481	No Precisa Armadura Cortante
1739	-58.514	1.395	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.264	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.618	0.555	1.401	1.401	3.795	-6.525	No Precisa Armadura Cortante
	-28.752	0.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.797	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.358	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.406	0.700	1.214	1.214	3.795	-7.194	No Precisa Armadura Cortante
1739	-58.514	1.395	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.264	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	-6.525	No Precisa Armadura Cortante
	-28.752	0.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.797	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.358	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	-7.194	No Precisa Armadura Cortante
1740	-75.862	0.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.541	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.808	0.500	1.500	1.500	3.795	-7.117	No Precisa Armadura Cortante
	-53.304	0.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.580	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.565	0.575	1.370	1.370	3.795	-7.269	No Precisa Armadura Cortante
1740	-75.862	0.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.541	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.808	0.500	1.500	1.500	3.795	-7.117	No Precisa Armadura Cortante
	-53.304	0.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.580	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.565	0.575	1.370	1.370	3.795	-7.269	No Precisa Armadura Cortante
1741	-66.315	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.145	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.288	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	-6.786	No Precisa Armadura Cortante
	-42.931	0.183	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.683	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	-7.401	No Precisa Armadura Cortante
1741	-66.315	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.145	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.288	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	-6.786	No Precisa Armadura Cortante
	-42.931	0.183	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.683	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	-7.401	No Precisa Armadura Cortante
1742	-59.765	1.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.735	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.429	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.679	0.550	1.409	1.409	3.795	-6.573	No Precisa Armadura Cortante
	-28.601	0.244	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.788	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.338	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.404	0.701	1.213	1.213	3.795	-7.270	No Precisa Armadura Cortante
1742	-59.765	1.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.735	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.429	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.629	0.550	1.409	1.409	3.795	-6.573	No Precisa Armadura Cortante
	-28.601	0.244	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.788	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.338	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.404	0.701	1.213	1.213	3.795	-7.270	No Precisa Armadura Cortante
1743	-57.808	0.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.613	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.172	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.609	0.557	1.397	1.397	3.795	-7.022	No Precisa Armadura Cortante
	-5.807	0.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.363	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.347	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.526	0.915	1.047	1.047	3.795	-7.442	No Precisa Armadura Cortante
1743	-57.808	0.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.813	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.172	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.609	0.557	1.397	1.397	3.795	-7.022	No Precisa Armadura Cortante
	-5.807	0.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.363	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.347	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.526	0.915	1.047	1.047	3.795	-7.442	No Precisa Armadura Cortante
1744	-78.745	0.718	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.922	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.920	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.842	0.492	1.515	1.515	3.795	-7.241	No Precisa Armadura Cortante
	-51.220	0.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.201	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.307	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.546	0.583	1.358	1.358	3.795	-7.254	No Precisa Armadura Cortante
1744	-78.745	0.718	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.922	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.920	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.842	0.492	1.515	1.515	3.795	-7.241	No Precisa Armadura Cortante
	-51.220	0.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.201	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.307	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.546	0.583	1.358	1.358	3.795	-7.254	No Precisa Armadura Cortante
1745	-68.276	0.595	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.267	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.545	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.721	0.522	1.457	1.457	3.795	-6.925	No Precisa Armadura Cortante
	-41.377	0.241	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.586	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.015	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.467	0.628	1.297	1.297	3.795	-7.322	No Precisa Armadura Cortante
1745	-68.276	0.595	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.267	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.545	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.721	0.522	1.457	1.457	3.795	-6.925	No Precisa Armadura Cortante
	-41.377	0.241	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.586	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.015	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.467	0.628	1.297	1.297	3.795	-7.322	No Precisa Armadura Cortante
1746	-61.399	1.266	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.837	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.643	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.646	0.545	1.418	1.418	3.795	-6.651	No Precisa Armadura Cortante
	-27.858	0.146	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.241	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.403	0.705	1.208	1.208	3.795	-7.346	No Precisa Armadura Cortante
1746	-61.399	1.266	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.837	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.643	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.645	0.545	1.418	1.418	3.795	-6.651	No Precisa Armadura Cortante
	-27.858	0.146	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.241	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.403	0.705	1.208	1.208	3.795	-7.346	No Precisa Armadura Cortante
1747	-59.272	0.778	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.705	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.364	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.624	0.552	1.406	1.406	3.795	-7.021	No Precisa Armadura Cortante
	-6.327	0.088	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.395	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.415	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.517	0.908	1.051	1.051	3.795	-7.483	No Precisa Armadura Cortante
1747	-59.272	0.774	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.705	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.364	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.624	0.552	1.406	1.406	3.795	-7.021	No Precisa Armadura Cortante
	-6.327	0.088	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.395	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.415	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.517	0.908	1.051	1.051	3.795	-7.483	No Precisa Armadura Cortante
1748	-70.356	0.852	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.397	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.819	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-7.057	No Precisa Armadura Cortante
	-39.579	0.311	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.779	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.455	0.637	1.285	1.285	3.795	-7.257	No Precisa Armadura Cortante
1748	-70.356	0.852	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.397	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.819	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-7.057	No Precisa Armadura Cortante
	-39.579	0.311	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.779	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.455	0.637	1.285	1.285	3.795	-7.257	No Precisa Armadura Cortante
1749	-63.102	1.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.944	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.866	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.664	0.539	1.428	1.428	3.795	-6.754	No Precisa Armadura Cortante
	-26.821	0.034	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.676	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.105	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.401	0.714	1.201	1.201	3.795	-7.434	No Precisa Armadura Cortante
1749	-63.102	1.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.944	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.866	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.664	0.539	1.428	1.428	3.795	-6.754	No Precisa Armadura Cortante
	-26.821	0.034	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.676	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.105	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.401	0.714	1.201	1.201	3.795	-7.434	No Precisa Armadura Cortante
1750	-60.551	0.794	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	-7.019	No Precisa Armadura Cortante
	-6.804	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.425	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.477	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.509	0.902	1.055	1.055	3.795	-7.497	No Precisa Armadura Cortante
1750	-60.551	0.794	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	-7.019	No Precisa Armadura Cortante
	-6.804	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.425	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.477	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.509	0.902	1.055	1.055	3.795	-7.497	No Precisa Armadura Cortante
1751	-72.466	0.732	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.529	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.094	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.768	0.510	1.481	1.481	3.795	-7.172	No Precisa Armadura Cortante
	-37.620	0.348	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.351	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.527	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	-7.218	No Precisa Armadura Cortante
1751	-72.466	0.732	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.579	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.094	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.768	0.510	1.481	1.481	3.795	-7.172	No Precisa Armadura Cortante
	-37.620	0.348	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.351	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.522	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	-7.218	No Precisa Armadura Cortante
1752	-64.884	1.024	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.055	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.100	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.683	0.533	1.438	1.438	3.795	-6.872	No Precisa Armadura Cortante
	-25.452	0.088	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.591	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.925	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.399	0.723	1.191	1.191	3.795	-7.389	No Precisa Armadura Cortante
1752	-64.884	1.024	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.055	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.100	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.683	0.533	1.438	1.438	3.795	-6.872	No Precisa Armadura Cortante
	-25.452	0.088	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.591	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.925	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.399	0.723	1.191	1.191	3.795	-7.389	No Precisa Armadura Cortante
1753	-61.690	0.787	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.681	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	-7.037	No Precisa Armadura Cortante
	-7.165	0.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.449	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.528	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.504	0.897	1.058	1.058	3.795	-7.533	No Precisa Armadura Cortante
1753	-61.690	0.783	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.681	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	-7.037	No Precisa Armadura Cortante

ENVOLVENTE <N-Vz> concomitantes

Axil 1.00 Cargas Puntuales
Vz 1.50

Barra / Elemento	N	Vz																																
[illegible]	[illegible]	0.017	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.449	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.528	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.504	0.897	1.058	1.058	3.795	-7.533	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.678	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.407	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.796	0.503	1.494	1.494	3.795	-7.353	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.203	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.211	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.430	0.660	1.257	1.257	3.795	-7.098	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.678	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.407	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.796	0.503	1.494	1.494	3.795	-7.353	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.203	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.211	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.430	0.660	1.257	1.257	3.795	-7.098	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.170	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.341	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.703	0.527	1.449	1.449	3.795	-6.997	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.486	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.704	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.398	0.736	1.180	1.180	3.795	-7.298	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.170	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.341	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.703	0.527	1.449	1.449	3.795	-6.997	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.486	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.704	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.398	0.736	1.180	1.180	3.795	-7.298	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.921	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.819	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.660	0.540	1.426	1.426	3.795	-7.075	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.459	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.548	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.501	0.895	1.059	1.059	3.795	-7.477	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.921	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.819	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.660	0.540	1.426	1.426	3.795	-7.075	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.459	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.548	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.501	0.895	1.059	1.059	3.795	-7.477	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.284	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.580	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.724	0.521	1.459	1.459	3.795	-7.109	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.365	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.452	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.399	0.751	1.166	1.166	3.795	-7.231	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.284	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.580	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.724	0.521	1.459	1.459	3.795	-7.109	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.365	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.452	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.399	0.751	1.166	1.166	3.795	-7.231	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.982	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.946	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.670	0.537	1.431	1.431	3.795	-7.128	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.445	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.518	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.505	0.896	1.057	1.057	3.795	-7.365	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.982	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.946	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.670	0.537	1.431	1.431	3.795	-7.128	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.445	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.518	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.505	0.896	1.057	1.057	3.795	-7.365	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.394	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.811	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.743	0.516	1.469	1.469	3.795	-7.199	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.235	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.179	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.403	0.766	1.151	1.151	3.795	-7.195	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.394	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.811	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.743	0.516	1.469	1.469	3.795	-7.199	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.235	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.179	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.403	0.766	1.151	1.151	3.795	-7.195	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.037	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.063	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.680	0.534	1.437	1.437	3.795	-6.887	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.404	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.432	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.515	0.906	1.052	1.052	3.795	-7.276	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.037	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.063	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.680	0.534	1.437	1.437	3.795	-6.887	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.404	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.432	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.515	0.906	1.052	1.052	3.795	-7.276	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.497	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.026	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.762	0.511	1.478	1.478	3.795	-7.274	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.101	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.896	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.410	0.786	1.136	1.136	3.795	-7.200	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.497	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.026	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.762	0.511	1.478	1.478	3.795	-7.274	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.101	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.896	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.410	0.786	1.136	1.136	3.795	-7.200	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.111	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.217	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.693	0.530	1.443	1.443	3.795	-6.994	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.326	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.268	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.536	0.923	1.042	1.042	3.795	-7.529	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.111	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.217	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.693	0.530	1.443	1.443	3.795	-6.994	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.326	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.268	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.536	0.923	1.042	1.042	3.795	-7.529	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.182	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.366	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.705	0.526	1.450	1.450	3.795	-7.084	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.233	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.073	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.565	0.943	1.030	1.030	3.795	-7.500	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.182	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.366	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.705	0.526	1.450	1.450	3.795	-7.084	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.233	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.073	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.565	0.943	1.030	1.030	3.795	-7.500	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.248	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.506	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.717	0.523	1.456	1.456	3.795	-7.144	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.130	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	11.857	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.601	0.967	1.017	1.017	3.795	-7.502	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.248	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.506	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.717	0.523	1.456	1.456	3.795	-7.144	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.130	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	11.857	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.601	0.967	1.017	1.017	3.795	-7.502	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.304	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.623	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	-7.147	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.015	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	11.617	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.647	0.996	1.002	1.002	3.795	-7.526	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.304	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.623	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	-7.147	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.015	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	11.617	>=Vy. No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.647	0.996	1.002	1.002	3.795	-7.526	No Precisa Armadura Cortante

ENVOLVENTE <N-Vz> Axil 1.50 Cargas Puntuales
concomitantes Vz 1.50

Barra	N	Vz	bo	h	d	fck	fyk	γc	γs	θ	As1	Ac	cotan (θ)	fct	fyd	σ'cd	K	fcd	Función de θ	Vu1	Comprobacion Compresion Oblicua Alma	ξ	ρl	Vcu	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vsu	β	cot(θe,ref)	cot(θe)	fyα,d	Asnecesaria	
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[mm²]	[mm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]				[t]				[N/mm²]	cm2	
1700	-220.334	2.129	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.771	0.90	18.00	0.50	113.60	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	40.503	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.857	0.333	2.151	2.000	3.795	-8.515	No Precisa Armadura Cortante
	-16.770	0.769	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.048	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.785	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.413	0.794	1.130	1.130	3.795	-6.861	No Precisa Armadura Cortante
1700	-220.334	2.128	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.771	0.90	18.00	0.50	113.60	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	40.503	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.857	0.333	2.151	2.000	3.795	-8.515	No Precisa Armadura Cortante
	-16.770	0.769	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.048	1.00	18.00	0.50	120.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.785	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.413	0.794	1.130	1.130	3.795	-6.861	No Precisa Armadura Cortante
1701	-208.898	2.345	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.056	0.94	18.00	0.50	118.61	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.002	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.357	0.333	2.107	2.000	3.795	-7.947	No Precisa Armadura Cortante
	-24.695	0.602	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.544	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.826	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.398	0.729	1.186	1.186	3.795	-6.981	No Precisa Armadura Cortante
1701	-208.898	2.345	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.056	0.94	18.00	0.50	118.61	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.002	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.357	0.333	2.107	2.000	3.795	-7.947	No Precisa Armadura Cortante
	-24.695	0.602	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.544	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.826	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.398	0.729	1.186	1.186	3.795	-6.981	No Precisa Armadura Cortante
1702	-198.234	2.234	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.390	0.96	18.00	0.50	123.27	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.603	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.891	0.333	2.065	2.000	3.795	-7.664	No Precisa Armadura Cortante
	-32.055	0.654	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.003	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.792	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.416	0.678	1.236	1.236	3.795	-6.954	No Precisa Armadura Cortante
1702	-198.234	2.234	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.390	0.98	18.00	0.50	123.27	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.603	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.891	0.333	2.065	2.000	3.795	-7.664	No Precisa Armadura Cortante
	-32.055	0.654	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.003	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.792	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.416	0.679	1.236	1.236	3.795	-6.954	No Precisa Armadura Cortante
1703	-189.548	1.950	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.847	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	36.462	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.511	0.333	2.030	2.000	3.795	-7.588	No Precisa Armadura Cortante
	-38.205	0.796	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.388	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.599	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.447	0.644	1.276	1.276	3.795	-6.866	No Precisa Armadura Cortante
1703	-189.548	1.950	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.847	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	36.462	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.511	0.333	2.030	2.000	3.795	-7.588	No Precisa Armadura Cortante
	-38.205	0.796	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.388	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.599	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.447	0.644	1.276	1.276	3.795	-6.866	No Precisa Armadura Cortante
1704	-171.719	1.279	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.732	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.122	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.051	0.343	1.956	1.956	3.795	-7.756	No Precisa Armadura Cortante
	-42.329	1.335	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.646	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.140	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.474	0.623	1.303	1.303	3.795	-6.538	No Precisa Armadura Cortante
1704	-171.719	1.279	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.732	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.122	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.051	0.343	1.956	1.956	3.795	-7.756	No Precisa Armadura Cortante
	-42.329	1.335	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.646	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.140	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.474	0.623	1.303	1.303	3.795	-6.536	No Precisa Armadura Cortante
1705	-183.042	1.602	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.609	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.226	0.333	2.004	2.000	3.795	-7.638	No Precisa Armadura Cortante
	-43.239	0.943	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.702	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.259	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.480	0.618	1.308	1.308	3.795	-6.776	No Precisa Armadura Cortante
1705	-183.042	1.602	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.609	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.226	0.333	2.004	2.000	3.795	-7.638	No Precisa Armadura Cortante
	-43.239	0.943	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.702	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.259	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.480	0.618	1.308	1.308	3.795	-6.776	No Precisa Armadura Cortante
1706	-165.474	1.301	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.342	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.303	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.969	0.350	1.930	1.930	3.795	-7.674	No Precisa Armadura Cortante
	-46.659	1.218	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.911	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.697	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	-6.578	No Precisa Armadura Cortante
1706	-165.474	1.301	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.342	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.303	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.969	0.350	1.930	1.930	3.795	-7.674	No Precisa Armadura Cortante
	-46.659	1.218	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.911	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.697	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	-6.578	No Precisa Armadura Cortante
1707	-178.658	1.224	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.166	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.033	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.142	0.337	1.985	1.985	3.795	-7.872	No Precisa Armadura Cortante
	-47.358	1.080	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.960	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.800	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.513	0.599	1.334	1.334	3.795	-6.697	No Precisa Armadura Cortante
1707	-178.658	1.224	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.166	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.033	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.142	0.337	1.985	1.985	3.795	-7.872	No Precisa Armadura Cortante
	-47.358	1.080	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.960	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.800	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.513	0.599	1.334	1.334	3.795	-6.697	No Precisa Armadura Cortante
1708	-159.672	1.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.980	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.541	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.893	0.356	1.905	1.905	3.795	-7.583	No Precisa Armadura Cortante
	-50.612	1.144	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.163	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.227	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.541	0.585	1.354	1.354	3.795	-6.664	No Precisa Armadura Cortante
1708	-159.672	1.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.580	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.541	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.893	0.356	1.905	1.905	3.795	-7.583	No Precisa Armadura Cortante
	-50.612	1.144	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.163	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.227	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.541	0.585	1.354	1.354	3.795	-6.664	No Precisa Armadura Cortante
1709	-176.274	0.828	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.017	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.720	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.111	0.339	1.976	1.976	3.795	-8.163	No Precisa Armadura Cortante
	-60.673	1.221	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.167	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.235	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.541	0.585	1.354	1.354	3.795	-6.604	No Precisa Armadura Cortante
1709	-176.274	0.828	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.017	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.720	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.111	0.339	1.976	1.976	3.795	-8.163	No Precisa Armadura Cortante
	-60.673	1.221	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.167	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.235	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.541	0.585	1.354	1.354	3.795	-6.604	No Precisa Armadura Cortante
1710	-154.469	1.300	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.654	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.858	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.824	0.362	1.882	1.882	3.795	-7.559	No Precisa Armadura Cortante
	-54.542	1.093	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.409	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.743	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.577	0.570	1.378	1.378	3.795	-6.733	No Precisa Armadura Cortante
1710	-154.469	1.300	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.654	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.858	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.824	0.362	1.882	1.882	3.795	-7.559	No Precisa Armadura Cortante
	-54.542	1.093	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.409	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.743	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.577	0.570	1.378	1.378	3.795	-6.733	No Precisa Armadura Cortante
1711	-118.349	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.397	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.118	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.348	0.411	1.717	1.717	3.795	-7.677	No Precisa Armadura Cortante
	-70.235	1.309	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.390	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.803	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.743	0.516	1.469	1.469	3.795	-6.693	No Precisa Armadura Cortante
1711	-118.349	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.397	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.118	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.348	0.411	1.717	1.717	3.795	-7.677	No Precisa Armadura Cortante
	-70.235	1.309	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.390	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.803	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.743	0.516	1.469	1.469	3.795	-6.693	No Precisa Armadura Cortante
1712	-175.794	0.400	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.987	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.657	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.105	0.339	1.974	1.974	3.795	-8.496	No Precisa Armadura Cortante
	-53.210	1.372	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.326	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.568	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.564	0.575	1.370	1.370	3.795	-6.502	No Precisa Armadura Cortante
1712	-175.794	0.400	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.987	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.657	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.105	0.339	1.974	1.974	3.795	-8.496	No Precisa Armadura Cortante
	-53.210	1.372	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.326	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.568	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.564	0.575	1.370	1.370	3.795	-6.502	No Precisa Armadura Cortante
1713	-150.158	1.178	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.385	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.293	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.767	0.367	1.864	1.864	3.795	-7.610	No Precisa Armadura Cortante
	-58.239	1.079	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.640	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.228	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.613	0.556	1.400	1.400	3.795	-6.773	No Precisa Armadura Cortante
1713	-150.158	1.178	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.385	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.293	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.767	0.367	1.864	1.864	3.795	-7.610	No Precisa Armadura Cortante
	-58.239	1.079	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.640	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.228	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.613	0.556	1.400	1.400	3.795	-6.773	No Precisa Armadura Cortante
1714	-115.478	0.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.741	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.308	0.415	1.703	1.703	3.795	-7.618	No Precisa Armadura Cortante
	-72.765	1.286	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.548	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.134	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.772	0.509	1.483	1.483	3.795	-6.734	No Precisa Armadura Cortante
1714	-115.478	0.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.741	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.308	0.415	1.703	1.703	3.795	-7.618	No Precisa Armadura Cortante
	-72.765	1.286	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.548	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.134	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.772	0.509	1.483	1.483	3.795	-6.734	No Precisa Armadura Cortante
1715	-177.117	0.049	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.070	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.831	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.122	0.338	1.979	1.979	3.795	-8.788	No Precisa Armadura Cortante
	-54.933	1.554	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.433	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.794	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.581	0.568	1.380	1.380	3.795	-6.371	No Precisa Armadura Cortante
1715	-177.117	0.049	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.070	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.831	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.122	0.338	1.979	1.979	3.795	-8.788	No Precisa Armadura Cortante
	-54.933	1.554	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.433	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.794	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.581	0.568	1.380	1.380	3.795	-6.371	No Precisa Armadura Cortante
1716	-146.909	1.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.182	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.866	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.724	0.371	1.849	1.849	3.795	-7.717	No Precisa Armadura Cortante
	-61.636	1.084	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.852	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.674	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.648	0.544	1.419	1.419	3.795	-6.787	No Precisa Armadura Cortante
1716	-146.909	1.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.182	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.866	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.724	0.371	1.849	1.849	3.795	-7.717	No Precisa Armadura Cortante
	-61.635	1.084	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.852	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.674	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.648	0.544	1.419	1.419	3.795	-6.787	No Precisa Armadura Cortante
1717	-112.710	0.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.044	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.378	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.272	0.420	1.690	1.690	3.795	-7.551	No Precisa Armadura Cortante
	-75.261	1.251	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.704	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.462	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.801	0.502	1.496	1.496	3.795	-6.601	No Precisa Armadura Cortante
1717	-112.710	0.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.044	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.378	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.272	0.420	1.690	1.690	3.795	-7.551	No Precisa Armadura Cortante
	-75.261	1.251	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.704	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.462	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.801	0.502	1.496	1.496	3.795	-6.601	No Precisa Armadura Cortante
1718	-179.943	0.446	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.246	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.202	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.159	0.335	1.991	1.991	3.795	-8.503	No Precisa Armadura Cortante
	-55.851	1.733	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.491	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.915	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.590	0.565	1.386	1.386	3.795	-6.236	No Precisa Armadura Cortante
1718	-179.943	0.446	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.246	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.202	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.159	0.335	1.991	1.991	3.795	-8.503	No Precisa Armadura Cortante
	-55.851	1.733	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.491	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.915	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.590	0.565	1.386	1.386	3.795	-6.236	No Precisa Armadura Cortante
1719	-144.717	0.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.045	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.578	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.695	0.373	1.839	1.839	3.795	-7.852	No Precisa Armadura Cortante
	-64.722	1.098	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.045	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.079	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.681	0.533	1.437	1.437	3.795	-6.814	No Precisa Armadura Cortante
1719	-144.717	0.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.045	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.578	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.695	0.373	1.839	1.839	3.795	-7.852	No Precisa Armadura Cortante
	-64.722	1.098	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.045	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.079	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.681	0.533	1.437	1.437	3.795	-6.814	No Precisa Armadura Cortante
1720	-110.043	0.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.878	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.027	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.237	0.425	1.677	1.677	3.795	-7.494	No Precisa Armadura Cortante
	-77.852	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.866	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.802	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.831	0.495	1.511	1.511	3.795	-6.891	No Precisa Armadura Cortante
1720	-110.043	0.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.878	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.027	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.237	0.425	1.677	1.677	3.795	-7.494	No Precisa Armadura Cortante
	-77.852	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.866	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.802	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.831	0.495	1.511	1.511	3.795	-6.891	No Precisa Armadura Cortante
1721	-87.702	1.638	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.481	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.095	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.951	0.470	1.563	1.563	3.795	-6.598	No Precisa Armadura Cortante
	-71.207	0.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.513	1.474	1.474	3.795	-7.595	No Precisa Armadura Cortante
1721	-87.702	1.638	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.481	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.095	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.951	0.470	1.563	1.563	3.795	-6.598	No Precisa Armadura Cortante
	-71.207	0.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.513	1.474	1.474	3.795	-7.595	No Precisa Armadura Cortante
1722	-183.164	0.569	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.448	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.625	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.231	0.333	2.004	2.000	3.795	-8.462	No Precisa Armadura Cortante
	-56.517	1.736	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.532	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.002	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.596	0.562	1.389	1.389	3.795	-6.239	No Precisa Armadura Cortante
1722	-183.164	0.569	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.448	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.625	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.231	0.333	2.004	2.000	3.795	-8.462	No Precisa Armadura Cortante
	-56.517	1.736	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.532	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.002	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.596	0.562	1.389	1.389	3.795	-6.239	No Precisa Armadura Cortante
1723	-143.421	0.805	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.964	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.408	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.678	0.375	1.834	1.834	3.795	-7.995	No Precisa Armadura Cortante
	-67.576	1.092	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.223	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.454	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.713	0.524	1.454	1.454	3.795	-6.842	No Precisa Armadura Cortante
1723	-143.421	0.805	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.964	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.408	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.678	0.375	1.834	1.834	3.795	-7.995	No Precisa Armadura Cortante
	-67.576	1.092	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.223	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.454	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.713	0.524	1.454	1.454	3.795	-6.842	No Precisa Armadura Cortante
1724	-107.552	0.800	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.722	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.700	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.205	0.429	1.665	1.665	3.795	-7.464	No Precisa Armadura Cortante
	-80.564	1.065	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.035	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.158	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.864	0.488	1.525	1.525	3.795	-6.983	No Precisa Armadura Cortante
1724	-107.552	0.800	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.722	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.700	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.205	0.429	1.665	1.665	3.795	-7.464	No Precisa Armadura Cortante
	-80.564	1.065	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.035	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.156	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.864	0.488	1.525	1.525	3.795	-6.983	No Precisa Armadura Cortante
1725	-89.253	1.631	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.578	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.299	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.971	0.467	1.572	1.572	3.795	-6.619	No Precisa Armadura Cortante
	-70.553	0.186	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.410	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.844	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.515	1.470	1.470	3.795	-7.592	No Precisa Armadura Cortante
1725	-89.253	1.631	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.578	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.299	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.971	0.467	1.572	1.572	3.795	-6.619	No Precisa Armadura Cortante
	-70.553	0.186	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.410	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.844	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.515	1.470	1.470	3.795	-7.592	No Precisa Armadura Cortante
1726	-142.718	0.444	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.920	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.316	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.668	0.376	1.830	1.830	3.795	-8.114	No Precisa Armadura Cortante
	-70.377	1.054	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.399	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.821	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-6.897	No Precisa Armadura Cortante
1726	-142.718	0.444	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.920	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.316	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.668	0.376	1.830	1.830	3.795	-8.114	No Precisa Armadura Cortante
	-70.377	1.054	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.399	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.821	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-6.897	No Precisa Armadura Cortante

ENVOLVENTE <N-Vz> concomitantes

Axil 1.50 Cargas Puntuales
Vz 1.50

Barra	N	Vz	bo	h	d	f_{ck}	f_{yk}	γc	γs	θ	A_{st}	A_c	cotan (θ)	f_{cd}	f_{yd}	σ'cd	K	f_{1cd}	Función de θ	V_{u1}	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{su}	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu	β	cot ($θ_e$)	cot ($θ$)	$f_{yαd}$	A necesaria	
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[mm²]	[mm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]				[t]				[N/mm²]	cm2	
1727	-105.320	0.773	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.582	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.408	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.176	0.433	1.654	1.654	3.795	-7.462	No Precisa Armadura Cortante
	-83.373	0.985	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.211	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.527	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.898	0.481	1.540	1.540	3.795	-7.074	No Precisa Armadura Cortante
1727	-105.320	0.773	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.582	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.408	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.176	0.433	1.654	1.654	3.795	-7.462	No Precisa Armadura Cortante
	-83.373	0.985	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.211	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.527	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.898	0.481	1.540	1.540	3.795	-7.074	No Precisa Armadura Cortante
1728	-90.831	1.598	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.506	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.990	0.463	1.580	1.580	3.795	-6.660	No Precisa Armadura Cortante
	-69.833	0.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.365	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.750	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.738	0.517	1.466	1.466	3.795	-7.612	No Precisa Armadura Cortante
1728	-90.831	1.598	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.506	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.990	0.463	1.580	1.580	3.795	-6.660	No Precisa Armadura Cortante
	-69.833	0.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.365	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.750	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.738	0.517	1.466	1.466	3.795	-7.612	No Precisa Armadura Cortante
1729	-142.178	0.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.886	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.245	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.661	0.377	1.828	1.828	3.795	-8.192	No Precisa Armadura Cortante
	-73.352	0.983	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.212	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.778	0.507	1.486	1.486	3.795	-6.980	No Precisa Armadura Cortante
1729	-142.178	0.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.886	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.245	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.661	0.377	1.828	1.828	3.795	-8.192	No Precisa Armadura Cortante
	-73.352	0.983	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.212	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.778	0.507	1.486	1.486	3.795	-6.980	No Precisa Armadura Cortante
1730	-103.323	0.738	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.458	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.145	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.150	0.437	1.644	1.644	3.795	-7.470	No Precisa Armadura Cortante
	-86.284	0.905	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.391	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.906	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.934	0.474	1.556	1.556	3.795	-7.166	No Precisa Armadura Cortante
1730	-103.323	0.738	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.458	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.145	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.150	0.437	1.644	1.644	3.795	-7.470	No Precisa Armadura Cortante
	-86.264	0.905	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.391	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.906	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.934	0.474	1.556	1.556	3.795	-7.166	No Precisa Armadura Cortante
1731	-92.546	1.532	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.731	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.012	0.459	1.589	1.589	3.795	-6.731	No Precisa Armadura Cortante
	-68.946	0.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.309	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.634	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.728	0.520	1.461	1.461	3.795	-7.648	No Precisa Armadura Cortante
1731	-92.546	1.532	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.731	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.012	0.459	1.589	1.589	3.795	-6.731	No Precisa Armadura Cortante
	-68.946	0.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.309	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.634	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.728	0.520	1.461	1.461	3.795	-7.648	No Precisa Armadura Cortante
1732	-84.228	1.432	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.264	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.639	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.908	0.478	1.545	1.545	3.795	-6.727	No Precisa Armadura Cortante
	-43.052	0.369	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.691	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.235	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.479	0.619	1.307	1.307	3.795	-7.230	No Precisa Armadura Cortante
1732	-84.228	1.432	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.264	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.639	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.908	0.478	1.545	1.545	3.795	-6.727	No Precisa Armadura Cortante
	-43.052	0.369	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.691	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.235	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.479	0.619	1.307	1.307	3.795	-7.230	No Precisa Armadura Cortante
1733	-141.588	0.245	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.849	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.168	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.653	0.377	1.825	1.825	3.795	-8.261	No Precisa Armadura Cortante
	-76.430	0.853	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.777	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.616	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.814	0.499	1.503	1.503	3.795	-7.033	No Precisa Armadura Cortante
1733	-141.588	0.245	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.849	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.168	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.653	0.377	1.825	1.825	3.795	-8.261	No Precisa Armadura Cortante
	-76.430	0.853	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.777	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.616	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.814	0.499	1.503	1.503	3.795	-7.033	No Precisa Armadura Cortante
1734	-105.594	1.170	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.600	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.444	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.179	0.433	1.655	1.655	3.795	-7.150	No Precisa Armadura Cortante
	-85.601	0.339	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.350	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.819	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.925	0.476	1.552	1.552	3.795	-7.608	No Precisa Armadura Cortante
1734	-105.594	1.170	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.600	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.444	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.179	0.433	1.655	1.655	3.795	-7.150	No Precisa Armadura Cortante
	-85.601	0.339	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.350	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.819	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.925	0.476	1.552	1.552	3.795	-7.608	No Precisa Armadura Cortante
1735	-94.514	1.427	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.907	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.989	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.037	0.455	1.599	1.599	3.795	-6.833	No Precisa Armadura Cortante
	-67.793	0.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.482	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.715	0.524	1.455	1.455	3.795	-7.696	No Precisa Armadura Cortante
1735	-94.514	1.427	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.907	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.989	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.037	0.455	1.599	1.599	3.795	-6.833	No Precisa Armadura Cortante
	-67.793	0.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.482	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.715	0.524	1.455	1.455	3.795	-7.696	No Precisa Armadura Cortante
1736	-86.010	1.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.376	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.873	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.930	0.474	1.554	1.554	3.795	-6.757	No Precisa Armadura Cortante
	-43.112	0.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.694	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.243	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.479	0.618	1.306	1.306	3.795	-7.232	No Precisa Armadura Cortante
1736	-86.010	1.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.376	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.873	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.930	0.474	1.554	1.554	3.795	-6.757	No Precisa Armadura Cortante
	-43.112	0.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.694	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.243	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.479	0.618	1.306	1.306	3.795	-7.232	No Precisa Armadura Cortante
1737	-109.536	0.999	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.846	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.981	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.231	0.426	1.674	1.674	3.795	-7.327	No Precisa Armadura Cortante
	-82.925	0.376	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.183	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.468	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.893	0.482	1.538	1.538	3.795	-7.559	No Precisa Armadura Cortante
1737	-109.536	0.999	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.846	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.981	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.231	0.426	1.674	1.674	3.795	-7.327	No Precisa Armadura Cortante
	-82.925	0.376	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.183	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.468	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.893	0.482	1.538	1.538	3.795	-7.559	No Precisa Armadura Cortante
1738	-96.821	1.295	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.051	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.292	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	-6.861	No Precisa Armadura Cortante
	-66.297	0.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.144	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.286	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	-7.648	No Precisa Armadura Cortante
1738	-96.821	1.295	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.051	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.292	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	-6.981	No Precisa Armadura Cortante
	-66.297	0.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.144	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.286	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	-7.648	No Precisa Armadura Cortante
1739	-87.774	1.395	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.486	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.104	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.952	0.470	1.564	1.564	3.795	-6.791	No Precisa Armadura Cortante
	-43.128	0.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.245	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	-7.253	No Precisa Armadura Cortante
1739	-87.774	1.395	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.486	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.104	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.952	0.470	1.564	1.564	3.795	-6.791	No Precisa Armadura Cortante
	-43.128	0.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.245	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	-7.253	No Precisa Armadura Cortante
1740	-113.793	0.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.112	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.520	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.286	0.418	1.695	1.695	3.795	-7.496	No Precisa Armadura Cortante
	-79.956	0.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.997	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.079	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.857	0.489	1.522	1.522	3.795	-7.500	No Precisa Armadura Cortante
1740	-113.793	0.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.112	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.520	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.286	0.418	1.695	1.695	3.795	-7.496	No Precisa Armadura Cortante
	-79.956	0.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.997	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.079	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.857	0.489	1.522	1.522	3.795	-7.500	No Precisa Armadura Cortante
1741	-99.473	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.640	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.100	0.445	1.624	1.624	3.795	-7.104	No Precisa Armadura Cortante
	-64.397	0.153	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.025	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	-7.559	No Precisa Armadura Cortante
1741	-99.473	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.640	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.100	0.445	1.624	1.624	3.795	-7.104	No Precisa Armadura Cortante
	-64.397	0.153	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.025	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	-7.559	No Precisa Armadura Cortante
1742	-89.649	1.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.603	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.351	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.976	0.466	1.574	1.574	3.795	-6.849	No Precisa Armadura Cortante
	-42.902	0.244	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.681	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.215	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.476	0.620	1.306	1.306	3.795	-7.329	No Precisa Armadura Cortante
1742	-89.649	1.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.603	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.351	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.976	0.466	1.574	1.574	3.795	-6.849	No Precisa Armadura Cortante
	-42.902	0.244	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.681	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.215	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.476	0.620	1.306	1.306	3.795	-7.329	No Precisa Armadura Cortante
1743	-86.712	0.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.420	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.965	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.939	0.473	1.558	1.558	3.795	-7.284	No Precisa Armadura Cortante
	-8.711	0.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.544	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.728	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.482	0.878	1.069	1.069	3.795	-7.408	No Precisa Armadura Cortante
1743	-86.712	0.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.420	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.965	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.939	0.473	1.558	1.558	3.795	-7.284	No Precisa Armadura Cortante
	-8.711	0.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.544	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.728	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.482	0.878	1.069	1.069	3.795	-7.408	No Precisa Armadura Cortante
1744	-118.118	0.716	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.382	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.087	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.343	0.411	1.716	1.716	3.795	-7.639	No Precisa Armadura Cortante
	-76.836	0.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.668	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.819	0.497	1.505	1.505	3.795	-7.471	No Precisa Armadura Cortante
1744	-118.118	0.716	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.382	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.087	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.343	0.411	1.716	1.716	3.795	-7.639	No Precisa Armadura Cortante
	-76.836	0.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.668	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.819	0.497	1.505	1.505	3.795	-7.471	No Precisa Armadura Cortante
1745	-102.413	0.995	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.026	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.138	0.439	1.639	1.639	3.795	-7.256	No Precisa Armadura Cortante
	-62.066	0.241	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.879	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.730	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.653	0.542	1.422	1.422	3.795	-7.470	No Precisa Armadura Cortante
1745	-102.413	0.995	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.026	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.138	0.439	1.639	1.639	3.795	-7.256	No Precisa Armadura Cortante
	-62.066	0.241	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.879	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.730	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.653	0.542	1.422	1.422	3.795	-7.470	No Precisa Armadura Cortante
1746	-92.099	1.266	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.756	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.672	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.006	0.460	1.586	1.586	3.795	-6.937	No Precisa Armadura Cortante
	-41.787	0.146	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.612	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.069	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.470	0.626	1.299	1.299	3.795	-7.400	No Precisa Armadura Cortante
1746	-92.099	1.266	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.756	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.672	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.006	0.460	1.586	1.586	3.795	-6.937	No Precisa Armadura Cortante
	-41.787	0.146	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.612	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.069	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.470	0.626	1.299	1.299	3.795	-7.400	No Precisa Armadura Cortante
1747	-88.908	0.778	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.557	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.254	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.966	0.467	1.570	1.570	3.795	-7.292	No Precisa Armadura Cortante
	-9.491	0.088	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.593	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.830	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.473	0.868	1.075	1.075	3.795	-7.448	No Precisa Armadura Cortante
1747	-88.908	0.778	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.557	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.254	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.966	0.467	1.570	1.570	3.795	-7.292	No Precisa Armadura Cortante
	-9.491	0.088	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.593	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.830	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.473	0.869	1.075	1.075	3.795	-7.448	No Precisa Armadura Cortante
1748	-105.534	0.853	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.596	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.436	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.178	0.433	1.655	1.655	3.795	-7.402	No Precisa Armadura Cortante
	-59.356	0.311	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.711	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.376	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.625	0.552	1.406	1.406	3.795	-7.392	No Precisa Armadura Cortante
1748	-105.534	0.853	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.596	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.436	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.178	0.433	1.655	1.655	3.795	-7.402	No Precisa Armadura Cortante
	-59.356	0.311	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.711	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.376	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.625	0.552	1.406	1.406	3.795	-7.392	No Precisa Armadura Cortante
1749	-94.653	1.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.916	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.008	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.039	0.455	1.600	1.600	3.795	-7.051	No Precisa Armadura Cortante
	-40.232	0.034	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.514	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.865	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.459	0.633	1.289	1.289	3.795	-7.481	No Precisa Armadura Cortante
1749	-94.653	1.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.916	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.008	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.039	0.455	1.600	1.600	3.795	-7.051	No Precisa Armadura Cortante
	-40.232	0.034	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.514	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.865	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.459	0.633	1.289	1.289	3.795	-7.481	No Precisa Armadura Cortante
1750	-90.827	0.794	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.505	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.990	0.463	1.580	1.580	3.795	-7.299	No Precisa Armadura Cortante
	-10.206	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.638	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.924	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.464	0.861	1.081	1.081	3.795	-7.461	No Precisa Armadura Cortante
1750	-90.827	0.794	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.505	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.990	0.463	1.580	1.580	3.795	-7.299	No Precisa Armadura Cortante
	-10.206	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.638	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.924	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.464	0.861	1.081	1.081	3.795	-7.461	No Precisa Armadura Cortante
1751	-108.684	0.732	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.793	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.849	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.219	0.427	1.670	1.670	3.795	-7.530	No Precisa Armadura Cortante
	-56.436	0.348	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.527	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.991	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.595	0.562	1.389	1.389	3.795	-7.339	No Precisa Armadura Cortante
1751	-108.684	0.732	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.793	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.849	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.219	0.427	1.670	1.670	3.795	-7.530	No Precisa Armadura Cortante
	-56.436	0.348	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.527	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.991	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.595	0.562	1.389	1.389	3.795	-7.339	No Precisa Armadura Cortante
1752	-97.326	1.024	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.083	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.358	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.073	0.449	1.613	1.613	3.795	-7.181	No Precisa Armadura Cortante
	-38.176	0.088	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.386	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.595	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.446	0.644	1.276	1.276	3.795	-7.427	No Precisa Armadura Cortante
1752	-97.326	1.024	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.083	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.358	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.073	0.449	1.613	1.613	3.795	-7.181	No Precisa Armadura Cortante
	-38.176	0.088	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.386	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.595	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.446	0.644	1.276	1.276	3.795	-7.427	No Precisa Armadura Cortante
1753	-92.535	0.783	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.783	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.730	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.012	0.459	1.589	1.589	3.795	-7.325	No Precisa Armadura Cortante
	-10.779	0.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.674	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.999	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.458	0.855	1.085	1.085	3.795	-7.496	No Precisa Armadura Cortante
1753	-92.535	0.783	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.783	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.730	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.012	0.459	1.589	1.589	3.795	-7.325	No Precisa Armadura Cortante

Envolvente N-Vz

ENVOLVENTE <N-Vz>
concomitantes

Axil 1.50 Cargas Puntuales
Vz 1.50

Nudo	N	Vz	My	b	h	d	r	Estribos	Nº	Ø	Ø Pasivo	Ø Activo	Ø Pretensado	Pasivo (N)	Momento	Cortante	Torsor	Nudo	Pésimo	Posición	Combinación Obtenida	Nº	Comprobación	Nº	Mensajes Advertencias	Mensajes Errores	Nº	As Necesario	Ø	Separación	Nº	As Necesario	Ø	Separación	Nº	As Necesario	Ø	Separación	Anclaje Mínimo	Anclaje Máximo	Anclaje Inferior
Elemento	N	Vz	My	b	h	d	r	Estribos	Nº	Ø	Ø Pasivo	Ø Activo	Ø Pretensado	Pasivo (N)	Momento	Cortante	Torsor	Nudo	Pésimo	Posición	Combinación Obtenida	Nº	Comprobación	Nº	Mensajes Advertencias	Mensajes Errores	Nº	As Necesario	Ø	Separación	Nº	As Necesario	Ø	Separación	Nº	As Necesario	Ø	Separación	Anclaje Mínimo	Anclaje Máximo	Anclaje Inferior
	-46.778	-0.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.574	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.990	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.458	0.855	1.085	1.085	3.795	-7.496	No Precisa Armadura Cortante
	-46.778	-0.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-7.016	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	26.319	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.266	0.421	1.688	1.688	3.795	-7.126	No Precisa Armadura Cortante
	-112.392	-0.831	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-3.305	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	18.524	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.561	0.576	1.368	1.368	3.795	-7.203	No Precisa Armadura Cortante
	-52.977	-0.496	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-7.016	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	26.319	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.266	0.421	1.688	1.688	3.795	-7.126	No Precisa Armadura Cortante
	-111.592	-0.831	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-3.305	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	18.524	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.561	0.576	1.368	1.368	3.795	-7.203	No Precisa Armadura Cortante
	-41.377	-0.496	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.255	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.719	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.106	0.444	1.627	1.627	3.795	-7.318	No Precisa Armadura Cortante
	-100.477	-0.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.255	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	16.264	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.432	0.658	1.260	1.260	3.795	-7.325	No Precisa Armadura Cortante
	-96.846	-0.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.255	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.719	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.106	0.444	1.627	1.627	3.795	-7.318	No Precisa Armadura Cortante
	-100.473	-0.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.255	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	16.264	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.432	0.658	1.260	1.260	3.795	-7.325	No Precisa Armadura Cortante
	-35.854	-0.272	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-2.226	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.936	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.052	0.456	1.597	1.597	3.795	-7.370	No Precisa Armadura Cortante
	-34.167	-0.749	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-5.882	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.051	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.456	0.852	1.087	1.087	3.795	-7.441	No Precisa Armadura Cortante
	-41.934	-0.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-0.569	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.051	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.456	0.852	1.087	1.087	3.795	-7.441	No Precisa Armadura Cortante
	-34.167	-0.749	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-5.882	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.051	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.456	0.852	1.087	1.087	3.795	-7.441	No Precisa Armadura Cortante
	-41.934	-0.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-0.569	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.051	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.456	0.852	1.087	1.087	3.795	-7.441	No Precisa Armadura Cortante
	-107.317	-0.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.426	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	25.078	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.143	0.436	1.641	1.641	3.795	-7.442	No Precisa Armadura Cortante
	-37.749	-0.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-2.048	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	15.885	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.418	0.675	1.241	1.241	3.795	-7.246	No Precisa Armadura Cortante
	-102.912	-0.787	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-2.048	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	15.885	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.418	0.675	1.241	1.241	3.795	-7.246	No Precisa Armadura Cortante
	-33.763	-0.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-5.973	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.127	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.050	0.453	1.604	1.604	3.795	-7.429	No Precisa Armadura Cortante
	-96.141	-0.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-5.973	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.127	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.050	0.453	1.604	1.604	3.795	-7.429	No Precisa Armadura Cortante
	-96.141	-0.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-5.958	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.988	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.459	0.856	1.064	1.064	3.795	-7.329	No Precisa Armadura Cortante
	-44.683	-0.725	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-0.558	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.988	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.459	0.856	1.064	1.064	3.795	-7.329	No Precisa Armadura Cortante
	-102.344	-0.671	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-1.853	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	25.424	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.177	0.433	1.654	1.654	3.795	-7.544	No Precisa Armadura Cortante
	-39.649	-0.636	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.990	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	15.476	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.407	0.695	1.220	1.220	3.795	-7.199	No Precisa Armadura Cortante
	-95.844	-0.671	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-1.853	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	25.424	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.177	0.433	1.654	1.654	3.795	-7.544	No Precisa Armadura Cortante
	-39.649	-0.636	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.990	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	15.476	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.407	0.695	1.220	1.220	3.795	-7.199	No Precisa Armadura Cortante
	-39.348	-0.636	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-1.853	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.307	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.067	0.450	1.611	1.611	3.795	-7.195	No Precisa Armadura Cortante
	-94.894	-0.671	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.956	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.856	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.470	0.667	1.077	1.077	3.795	-7.240	No Precisa Armadura Cortante
	-39.348	-0.636	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-0.906	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.307	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.067	0.450	1.611	1.611	3.795	-7.195	No Precisa Armadura Cortante
	-94.894	-0.671	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.956	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.856	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.470	0.667	1.077	1.077	3.795	-7.240	No Precisa Armadura Cortante
	-107.672	-0.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.745	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	28.750	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.215	0.429	1.687	1.687	3.795	-7.633	No Precisa Armadura Cortante
	-39.418	-0.537	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-1.951	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	25.750	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.215	0.429	1.687	1.687	3.795	-7.633	No Precisa Armadura Cortante
	-107.307	-0.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.745	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	15.052	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.400	0.716	1.196	1.196	3.795	-7.193	No Precisa Armadura Cortante
	-39.418	-0.537	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-1.951	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.534	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.090	0.445	1.620	1.620	3.795	-7.310	No Precisa Armadura Cortante
	-96.843	-0.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.166	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.810	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.495	0.669	1.062	1.062	3.795	-7.496	No Precisa Armadura Cortante
	-39.418	-0.537	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-0.488	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.810	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.495	0.669	1.062	1.062	3.795	-7.496	No Precisa Armadura Cortante
	-37.812	-0.963	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.273	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.767	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.112	0.443	1.629	1.629	3.795	-7.405	No Precisa Armadura Cortante
	-100.395	-0.788	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.273	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.918	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.529	0.917	1.045	1.045	3.795	-7.472	No Precisa Armadura Cortante
	-96.846	-0.413	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.273	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.767	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.112	0.443	1.629	1.629	3.795	-7.405	No Precisa Armadura Cortante
	-100.395	-0.788	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.273	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.918	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.529	0.917	1.045	1.045	3.795	-7.472	No Precisa Armadura Cortante
	-100.354	-0.788	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.349	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.966	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.132	0.440	1.637	1.637	3.795	-7.479	No Precisa Armadura Cortante
	-96.843	-0.413	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.349	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.966	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.132	0.440	1.637	1.637	3.795	-7.479	No Precisa Armadura Cortante
	-101.854	-0.746	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.372	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	11.994	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.677	0.952	1.025	1.025	3.795	-7.483	No Precisa Armadura Cortante
	-3.122	-0.746	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-0.195	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.966	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.132	0.440	1.637	1.637	3.795	-7.479	No Precisa Armadura Cortante
	-101.854	-0.746	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.372	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	11.994	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.677	0.952	1.025	1.025	3.795	-7.483	No Precisa Armadura Cortante
	-3.122	-0.746	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.456	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	26.142	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.150	0.437	1.643	1.643	3.795	-7.524	No Precisa Armadura Cortante
	-102.297	-0.788	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-0.023	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	11.633	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.644	0.994	1.003	1.003	3.795	-7.483	No Precisa Armadura Cortante
	-3.122	-0.746	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-6.456	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	26.142	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.150	0.437	1.643	1.643	3.795	-7.524	No Precisa Armadura Cortante
	-102.297	-0.788	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	150000.00	1.00	30.00	443.48	-0.023	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	11.633	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.644	0.994	1.003	1.003	3.795	-7.483	No Precisa Armadura Cortante

ENVOLVENTE <N-Vy >
concomitantes

Axil 1.00 Cargas Puntuales
Vy 1.50

Barra Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	fck [N/mm²]	fyk [N/mm²]	γc	γs	θ [º]	As [mm²]	Ac [mm²]	cotan (θ)	fct [N/mm²]	fyd [N/mm²]	σ'cd [N/mm²]	K	fcv [N/mm²]	Función de θ	Vu1 [t]	Comprobación Compresion Oblicua Alma	ξ	ρl	Vu2 [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot(θe,cal)	cot(θe)	fyα,d [N/mm²]	Anecesaria cm2	
1700	-146.889	10.127	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.181	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.864	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.724	0.371	1.849	1.849	3.795	-0.474	No Precisa Armadura Cortante
	-11.180	11.933	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.052	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.454	0.850	1.088	1.088	3.795	1.967	No Precisa Armadura Cortante
1700	-146.889	10.127	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.181	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.864	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.724	0.371	1.849	1.849	3.795	-0.474	No Precisa Armadura Cortante
	-11.180	11.933	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.052	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.454	0.850	1.088	1.088	3.795	1.967	No Precisa Armadura Cortante
1701	-139.265	10.523	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.704	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.863	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.623	0.380	1.815	1.815	3.795	-0.079	No Precisa Armadura Cortante
	-16.464	12.261	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.029	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.745	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.415	0.797	1.127	1.127	3.795	2.259	No Precisa Armadura Cortante
1701	-139.265	10.523	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.704	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.863	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.623	0.380	1.815	1.815	3.795	-0.079	No Precisa Armadura Cortante
	-16.464	12.261	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.029	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.745	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.415	0.797	1.127	1.127	3.795	2.259	No Precisa Armadura Cortante
1702	-132.156	10.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.260	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.930	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.762	1.762	3.795	0.305	No Precisa Armadura Cortante
	-21.370	12.587	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.336	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.389	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.400	0.754	1.163	1.163	3.795	2.529	No Precisa Armadura Cortante
1702	-132.156	10.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.260	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.930	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.762	1.762	3.795	0.305	No Precisa Armadura Cortante
	-21.370	12.587	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.336	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.389	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.400	0.754	1.163	1.163	3.795	2.529	No Precisa Armadura Cortante
1703	-126.365	11.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.898	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.170	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.452	0.398	1.755	1.755	3.795	0.561	No Precisa Armadura Cortante
	-25.470	12.826	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.592	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.927	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.399	0.723	1.191	1.191	3.795	2.719	No Precisa Armadura Cortante
1703	-126.365	11.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.898	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.170	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.452	0.398	1.755	1.755	3.795	0.561	No Precisa Armadura Cortante
	-25.470	12.826	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.592	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.927	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.399	0.723	1.191	1.191	3.795	2.719	No Precisa Armadura Cortante
1704	-114.479	10.865	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.155	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.610	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.295	0.417	1.699	1.699	3.795	0.452	No Precisa Armadura Cortante
	-28.219	12.679	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.764	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.288	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.403	0.704	1.210	1.210	3.795	2.520	No Precisa Armadura Cortante
1704	-114.479	10.865	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.155	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.610	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.295	0.417	1.699	1.699	3.795	0.452	No Precisa Armadura Cortante
	-28.219	12.679	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.764	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.288	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.403	0.704	1.210	1.210	3.795	2.520	No Precisa Armadura Cortante
1705	-122.028	11.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.627	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.601	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.395	0.405	1.735	1.735	3.795	0.755	No Precisa Armadura Cortante
	-28.826	13.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.368	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	2.857	No Precisa Armadura Cortante
1705	-122.028	11.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.627	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.601	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.395	0.405	1.735	1.735	3.795	0.755	No Precisa Armadura Cortante
	-28.826	13.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.368	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	2.857	No Precisa Armadura Cortante
1706	-110.316	11.051	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.895	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.063	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.241	0.424	1.678	1.678	3.795	0.643	No Precisa Armadura Cortante
	-31.046	12.711	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.659	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.412	0.686	1.229	1.229	3.795	2.618	No Precisa Armadura Cortante
1706	-110.316	11.051	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.895	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.063	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.241	0.424	1.678	1.678	3.795	0.643	No Precisa Armadura Cortante
	-31.046	12.711	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.659	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.412	0.686	1.229	1.229	3.795	2.618	No Precisa Armadura Cortante
1707	-119.105	11.424	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.444	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.217	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.356	0.410	1.721	1.721	3.795	0.845	No Precisa Armadura Cortante
	-31.572	13.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.728	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.414	0.682	1.233	1.233	3.795	2.968	No Precisa Armadura Cortante
1707	-119.105	11.424	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.444	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.217	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.356	0.410	1.721	1.721	3.795	0.845	No Precisa Armadura Cortante
	-31.572	13.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.728	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.414	0.682	1.233	1.233	3.795	2.968	No Precisa Armadura Cortante
1708	-106.548	11.270	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.653	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.556	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.190	0.431	1.659	1.659	3.795	0.856	No Precisa Armadura Cortante
	-33.741	12.872	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.109	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.013	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.423	0.669	1.247	1.247	3.795	2.737	No Precisa Armadura Cortante
1708	-106.548	11.270	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.653	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.556	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.190	0.431	1.659	1.659	3.795	0.856	No Precisa Armadura Cortante
	-33.741	12.872	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.109	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.013	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.423	0.669	1.247	1.247	3.795	2.737	No Precisa Armadura Cortante
1709	-117.516	11.518	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.345	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.008	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.335	0.412	1.713	1.713	3.795	0.859	No Precisa Armadura Cortante
	-33.782	13.281	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.111	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.018	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.423	0.669	1.248	1.248	3.795	3.062	No Precisa Armadura Cortante
1709	-117.516	11.518	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.345	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.008	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.335	0.412	1.713	1.713	3.795	0.859	No Precisa Armadura Cortante
	-33.782	13.281	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.111	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.018	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.423	0.669	1.248	1.248	3.795	3.062	No Precisa Armadura Cortante
1710	-102.879	11.462	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.436	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.100	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.145	0.438	1.642	1.642	3.795	1.045	No Precisa Armadura Cortante
	-36.361	13.044	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.273	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.357	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.436	0.654	1.264	1.264	3.795	2.864	No Precisa Armadura Cortante
1710	-102.879	11.462	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.436	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.100	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.145	0.438	1.642	1.642	3.795	1.045	No Precisa Armadura Cortante
	-36.361	13.044	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.273	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.357	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.436	0.654	1.264	1.264	3.795	2.864	No Precisa Armadura Cortante
1711	-78.899	11.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.931	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.940	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.844	0.492	1.516	1.516	3.795	1.283	No Precisa Armadura Cortante
	-46.823	13.128	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.926	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.730	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.508	0.602	1.331	1.331	3.795	2.873	No Precisa Armadura Cortante
1711	-78.899	11.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.931	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.940	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.844	0.492	1.516	1.516	3.795	1.283	No Precisa Armadura Cortante
	-46.823	13.128	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.926	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.730	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.508	0.602	1.331	1.331	3.795	2.873	No Precisa Armadura Cortante
1712	-117.196	11.330	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.325	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.966	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.331	0.413	1.712	1.712	3.795	0.793	No Precisa Armadura Cortante
	-35.473	13.382	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.240	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.431	0.659	1.259	1.259	3.795	3.135	No Precisa Armadura Cortante
1712	-117.196	11.330	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.325	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.966	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.331	0.413	1.712	1.712	3.795	0.783	No Precisa Armadura Cortante
	-35.473	13.382	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.240	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.431	0.659	1.259	1.259	3.795	3.135	No Precisa Armadura Cortante
1713	-100.105	11.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.257	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.723	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.108	0.443	1.627	1.627	3.795	1.176	No Precisa Armadura Cortante
	-38.826	13.203	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.427	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.680	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.450	0.641	1.280	1.280	3.795	2.978	No Precisa Armadura Cortante
1713	-100.105	11.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.257	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.723	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.108	0.443	1.627	1.627	3.795	1.176	No Precisa Armadura Cortante
	-38.826	13.203	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.427	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.680	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.450	0.641	1.280	1.280	3.795	2.978	No Precisa Armadura Cortante
1714	-76.985	11.581	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.812	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.689	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.821	0.497	1.506	1.506	3.795	1.381	No Precisa Armadura Cortante
	-48.507	13.179	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.032	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.951	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.522	0.594	1.341	1.341	3.795	2.902	No Precisa Armadura Cortante
1714	-76.985	11.581	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.812	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.689	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.821	0.497	1.506	1.506	3.795	1.381	No Precisa Armadura Cortante
	-48.507	13.179	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.032	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.951	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.522	0.594	1.341	1.341	3.795	2.902	No Precisa Armadura Cortante
1715	-118.078	11.538	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.380	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.082	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.342	0.411	1.716	1.716	3.795	0.631	No Precisa Armadura Cortante
	-36.622	13.430	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.289	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.391	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.437	0.653	1.266	1.266	3.795	3.168	No Precisa Armadura Cortante
1715	-118.078	11.538	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.380	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.082	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.342	0.411	1.716	1.716	3.795	0.631	No Precisa Armadura Cortante
	-36.622	13.430	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.289	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.391	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.437	0.653	1.266	1.266	3.795	3.168	No Precisa Armadura Cortante
1716	-97.939	11.651	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.121	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.439	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.081	0.448	1.616	1.616	3.795	1.246	No Precisa Armadura Cortante
	-41.090	13.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.568	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.877	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.465	0.629	1.295	1.295	3.795	3.080	No Precisa Armadura Cortante
1716	-97.939	11.651	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.121	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.439	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.081	0.448	1.616	1.616	3.795	1.246	No Precisa Armadura Cortante
	-41.090	13.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.568	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.877	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.465	0.629	1.295	1.295	3.795	3.080	No Precisa Armadura Cortante
1717	-75.140	11.652	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.446	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.799	0.502	1.496	1.496	3.795	1.470	No Precisa Armadura Cortante
	-50.174	13.244	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.136	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.170	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.537	0.587	1.351	1.351	3.795	2.942	No Precisa Armadura Cortante
1717	-75.140	11.652	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.446	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.799	0.502	1.496	1.496	3.795	1.470	No Precisa Armadura Cortante
	-50.174	13.244	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.136	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.170	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.537	0.587	1.351	1.351	3.795	2.942	No Precisa Armadura Cortante
1718	-119.962	10.832	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.498	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.329	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.367	0.408	1.725	1.725	3.795	0.368	No Precisa Armadura Cortante
	-37.234	13.404	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.327	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.471	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.441	0.649	1.270	1.270	3.795	3.145	No Precisa Armadura Cortante
1718	-119.962	10.832	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.498	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.329	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.367	0.408	1.725	1.725	3.795	0.368	No Precisa Armadura Cortante
	-37.234	13.404	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.327	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.471	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.441	0.649	1.270	1.270	3.795	3.145	No Precisa Armadura Cortante
1719	-96.478	11.640	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.247	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.062	0.451	1.609	1.609	3.795	1.252	No Precisa Armadura Cortante
	-43.148	13.470	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.697	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.248	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	3.167	No Precisa Armadura Cortante
1719	-96.478	11.640	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.247	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.062	0.451	1.609	1.609	3.795	1.252	No Precisa Armadura Cortante
	-43.148	13.470	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.697	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.248	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	3.167	No Precisa Armadura Cortante
1720	-73.362	11.742	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.585	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.213	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.779	0.507	1.486	1.486	3.795	1.558	No Precisa Armadura Cortante
	-51.901	13.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.244	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.396	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.552	0.580	1.362	1.362	3.795	3.004	No Precisa Armadura Cortante
1720	-73.362	11.742	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.585	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.213	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.779	0.507	1.486	1.486	3.795	1.558	No Precisa Armadura Cortante
	-51.901	13.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.244	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.396	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.552	0.580	1.362	1.362	3.795	3.004	No Precisa Armadura Cortante
1721	-58.459	14.756	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.654	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.258	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	4.079	No Precisa Armadura Cortante
	-47.471	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.815	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.514	0.599	1.335	1.335	3.795	2.634	No Precisa Armadura Cortante
1721	-58.459	14.756	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.654	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.258	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	4.079	No Precisa Armadura Cortante
	-47.471	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.815	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.514	0.599	1.335	1.335	3.795	2.634	No Precisa Armadura Cortante
1722	-122.109	10.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.632	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.611	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.396	0.405	1.735	1.735	3.795	0.064	No Precisa Armadura Cortante
	-37.678	13.349	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.355	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.530	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	3.099	No Precisa Armadura Cortante
1722	-122.109	10.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.632	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.611	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.396	0.405	1.735	1.735	3.795	0.064	No Precisa Armadura Cortante
	-37.678	13.349	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.355	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.530	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	3.099	No Precisa Armadura Cortante
1723	-95.614	11.559	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.976	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.134	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.051	0.453	1.605	1.605	3.795	1.197	No Precisa Armadura Cortante
	-45.050	13.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.816	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.497	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.494	0.610	1.320	1.320	3.795	3.244	No Precisa Armadura Cortante
1723	-95.614	11.559	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.976	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.134	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.051	0.453	1.605	1.605	3.795	1.197	No Precisa Armadura Cortante
	-45.050	13.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.816	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.497	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.494	0.610	1.320	1.320	3.795	3.244	No Precisa Armadura Cortante
1724	-71.701	11.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.481	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.995	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.759	0.512	1.477	1.477	3.795	1.629	No Precisa Armadura Cortante
	-53.709	13.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.357	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.834	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.569	0.573	1.373	1.373	3.795	3.083	No Precisa Armadura Cortante
1724	-71.701	11.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.481	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.995	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.759	0.512	1.477	1.477	3.795	1.629	No Precisa Armadura Cortante
	-53.709	13.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.357	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.834	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.569	0.573	1.373	1.373	3.795	3.083	No Precisa Armadura Cortante
1725	-59.502	14.757	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.719	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.394	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.626	0.551	1.407	1.407	3.795	4.072	No Precisa Armadura Cortante
	-47.035	12.826	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.758	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.510	0.601	1.332	1.332	3.795	2.631	No Precisa Armadura Cortante
1725	-59.502	14.757	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.719	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.394	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.626	0.651	1.407	1.407	3.795	4.072	No Precisa Armadura Cortante
	-47.035	12.826	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.768	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.510	0.601	1.332	1.332	3.795	2.631	No Precisa Armadura Cortante
1726	-95.155	11.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.947	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.072	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.045	0.454	1.602	1.602	3.795	1.087	No Precisa Armadura Cortante
	-46.918	13.677	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.932	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.742	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.509	0.601	1.331	1.331	3.795	3.308	No Precisa Armadura Cortante
1726	-95.155	11.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.947	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.072	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.045	0.454	1.602	1.602	3.795	1.087	No Precisa Armadura Cortante
	-46.918	13.677	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.932	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.742	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.509	0.601	1.331	1.331	3.795	3.308	No Precisa Armadura Cortante

Envolvente N-Vy

ENVOLVENTE <N-Vy> concomitantes

Axil 1.00 Cargas Puntuales
Vy 1.50

Barra Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{ct} [mm²]	A_c [mm²]	cotg (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σcd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cfo2	Vcu [t]	β	cot (θe)	cot (θ)	$f_{y\alpha,d}$ [N/mm²]	Armadura necesaria cm2	
1727	-70.213	11.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.368	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.600	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.742	0.516	1.468	1.468	3.795	1.669	No Precisa Armadura Cortante
	-55.552	13.578	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.879	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.587	0.568	1.384	1.384	3.795	3.167	No Precisa Armadura Cortante
1727	-70.213	11.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.368	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.600	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.742	0.516	1.468	1.468	3.795	1.669	No Precisa Armadura Cortante
	-55.552	13.578	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.879	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.587	0.566	1.384	1.384	3.795	3.167	No Precisa Armadura Cortante
1728	-60.654	14.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.765	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	4.067	No Precisa Armadura Cortante
	-46.555	12.821	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	2.630	No Precisa Armadura Cortante
1728	-60.554	14.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.785	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	4.067	No Precisa Armadura Cortante
	-46.555	12.821	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	2.630	No Precisa Armadura Cortante
1729	-54.785	11.237	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.924	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.025	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.040	0.454	1.600	1.600	3.795	0.949	No Precisa Armadura Cortante
	-48.901	13.779	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.066	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.003	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.526	0.593	1.344	1.344	3.795	3.376	No Precisa Armadura Cortante
1729	-54.785	11.237	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.025	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.040	0.454	1.600	1.600	3.795	0.949	No Precisa Armadura Cortante
	-48.901	13.779	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.066	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.003	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.526	0.593	1.344	1.344	3.795	3.376	No Precisa Armadura Cortante
1730	-68.892	11.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.305	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.625	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	1.674	No Precisa Armadura Cortante
	-57.699	13.708	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.594	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.132	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.606	0.558	1.395	1.395	3.795	3.256	No Precisa Armadura Cortante
1730	-68.892	11.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.305	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.625	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	1.674	No Precisa Armadura Cortante
	-57.509	13.709	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.594	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.132	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.606	0.559	1.395	1.395	3.795	3.256	No Precisa Armadura Cortante
1731	-61.697	14.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.682	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	4.076	No Precisa Armadura Cortante
	-48.964	12.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.617	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.501	0.606	1.325	1.325	3.795	2.628	No Precisa Armadura Cortante
1731	-61.697	14.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.682	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	4.075	No Precisa Armadura Cortante
	-45.964	12.613	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.617	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.501	0.606	1.325	1.325	3.795	2.628	No Precisa Armadura Cortante
1732	-56.152	14.792	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.510	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.954	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.593	0.563	1.387	1.387	3.795	4.131	No Precisa Armadura Cortante
	-28.701	12.821	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.794	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.351	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.701	1.214	1.214	3.795	2.711	No Precisa Armadura Cortante
1732	-56.152	14.798	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.510	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.954	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.593	0.563	1.387	1.387	3.795	4.131	No Precisa Armadura Cortante
	-28.701	12.821	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.794	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.351	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.701	1.214	1.214	3.795	2.711	No Precisa Armadura Cortante
1733	-84.332	11.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.900	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.973	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.035	0.455	1.598	1.598	3.795	0.838	No Precisa Armadura Cortante
	-60.853	13.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.185	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.272	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.544	0.584	1.356	1.356	3.795	3.471	No Precisa Armadura Cortante
1733	-84.332	11.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.900	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.973	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.035	0.455	1.598	1.598	3.795	0.838	No Precisa Armadura Cortante
	-60.853	13.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.165	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.272	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.544	0.584	1.356	1.356	3.795	3.471	No Precisa Armadura Cortante
1734	-70.396	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.824	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	4.188	No Precisa Armadura Cortante
	-67.067	12.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.567	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.074	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.602	0.560	1.393	1.393	3.795	2.631	No Precisa Armadura Cortante
1734	-70.336	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.824	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.515	1.469	1.469	3.795	4.188	No Precisa Armadura Cortante
	-67.067	12.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.567	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.074	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.602	0.560	1.393	1.393	3.795	2.631	No Precisa Armadura Cortante
1735	-63.003	14.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.938	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.854	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.663	0.539	1.427	1.427	3.795	4.110	No Precisa Armadura Cortante
	-45.195	12.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.825	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.516	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.495	0.609	1.321	1.321	3.795	2.627	No Precisa Armadura Cortante
1735	-63.003	14.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.938	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.854	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.663	0.539	1.427	1.427	3.795	4.110	No Precisa Armadura Cortante
	-45.195	12.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.825	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.516	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.495	0.609	1.321	1.321	3.795	2.627	No Precisa Armadura Cortante
1736	-67.340	14.829	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.110	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.604	0.559	1.394	1.394	3.795	4.146	No Precisa Armadura Cortante
	-28.741	12.824	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.796	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	2.713	No Precisa Armadura Cortante
1736	-67.340	14.829	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.564	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.110	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.604	0.559	1.394	1.394	3.795	4.146	No Precisa Armadura Cortante
	-28.741	12.824	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.796	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	2.713	No Precisa Armadura Cortante
1737	-73.024	15.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.564	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.189	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.775	0.508	1.484	1.484	3.795	4.326	No Precisa Armadura Cortante
	-55.283	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.840	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.584	0.567	1.382	1.382	3.795	2.620	No Precisa Armadura Cortante
1737	-73.024	15.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.564	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.169	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.776	0.508	1.484	1.484	3.795	4.326	No Precisa Armadura Cortante
	-55.283	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.840	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.584	0.567	1.382	1.382	3.795	2.620	No Precisa Armadura Cortante
1738	-64.647	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.056	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	4.174	No Precisa Armadura Cortante
	-44.198	12.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.762	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.385	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.488	0.614	1.314	1.314	3.795	2.830	No Precisa Armadura Cortante
1738	-64.647	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.056	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	4.174	No Precisa Armadura Cortante
	-44.198	12.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.762	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.385	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.488	0.614	1.314	1.314	3.795	2.830	No Precisa Armadura Cortante
1739	-68.516	14.849	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.264	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	4.153	No Precisa Armadura Cortante
	-28.752	12.815	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.797	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.358	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	2.706	No Precisa Armadura Cortante
1739	-68.516	14.849	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.264	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	4.153	No Precisa Armadura Cortante
	-28.752	12.815	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.797	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.358	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.406	0.700	1.214	1.214	3.795	2.706	No Precisa Armadura Cortante
1740	-76.865	15.479	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.541	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.808	0.500	1.500	1.500	3.795	4.501	No Precisa Armadura Cortante
	-63.306	12.870	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.580	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.565	0.575	1.370	1.370	3.795	2.623	No Precisa Armadura Cortante
1740	-76.865	15.479	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.541	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.808	0.500	1.500	1.500	3.795	4.501	No Precisa Armadura Cortante
	-63.306	12.870	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.580	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.565	0.575	1.370	1.370	3.795	2.623	No Precisa Armadura Cortante
1741	-66.315	15.083	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.145	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.288	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	4.273	No Precisa Armadura Cortante
	-42.935	12.803	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.683	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	2.638	No Precisa Armadura Cortante
1741	-66.315	15.083	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.145	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.288	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	4.273	No Precisa Armadura Cortante
	-42.935	12.803	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.683	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	2.638	No Precisa Armadura Cortante
1742	-59.785	14.150	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.735	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.429	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.629	0.550	1.409	1.409	3.795	3.588	No Precisa Armadura Cortante
	-28.601	12.095	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.788	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.338	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.404	0.701	1.213	1.213	3.795	2.135	No Precisa Armadura Cortante
1742	-59.785	14.150	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.735	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.429	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.629	0.550	1.409	1.409	3.795	3.588	No Precisa Armadura Cortante
	-28.601	12.095	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.788	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.338	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.404	0.701	1.213	1.213	3.795	2.135	No Precisa Armadura Cortante
1743	-67.809	13.615	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.613	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.172	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.609	0.557	1.397	1.397	3.795	3.100	No Precisa Armadura Cortante
	-6.807	11.513	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.363	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.347	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.526	0.915	1.047	1.047	3.795	1.577	No Precisa Armadura Cortante
1743	-67.809	13.615	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.613	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.172	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.609	0.557	1.397	1.397	3.795	3.100	No Precisa Armadura Cortante
	-6.807	11.613	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.389	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.347	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.526	0.915	1.047	1.047	3.795	1.577	No Precisa Armadura Cortante
1744	-78.745	15.740	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.922	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.920	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.842	0.492	1.515	1.515	3.795	4.681	No Precisa Armadura Cortante
	-51.229	12.851	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.201	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.307	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.546	0.583	1.358	1.358	3.795	2.622	No Precisa Armadura Cortante
1744	-78.745	15.740	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.922	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.920	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.842	0.492	1.515	1.515	3.795	4.681	No Precisa Armadura Cortante
	-51.220	12.851	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.201	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.307	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.546	0.583	1.358	1.358	3.795	2.622	No Precisa Armadura Cortante
1745	-61.275	15.272	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.267	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.545	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.721	0.522	1.457	1.457	3.795	4.406	No Precisa Armadura Cortante
	-41.377	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.586	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.015	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.467	0.628	1.297	1.297	3.795	2.655	No Precisa Armadura Cortante
1745	-61.275	15.272	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.267	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.545	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.721	0.522	1.457	1.457	3.795	4.406	No Precisa Armadura Cortante
	-41.377	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.586	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.015	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.467	0.628	1.297	1.297	3.795	2.655	No Precisa Armadura Cortante
1746	-61.393	14.237	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.837	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.643	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.646	0.545	1.418	1.418	3.795	3.643	No Precisa Armadura Cortante
	-27.854	12.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.241	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.403	0.706	1.208	1.208	3.795	2.150	No Precisa Armadura Cortante
1746	-61.393	14.237	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.837	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.643	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.646	0.545	1.418	1.418	3.795	3.643	No Precisa Armadura Cortante
	-27.856	12.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.241	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.403	0.705	1.208	1.208	3.795	2.150	No Precisa Armadura Cortante
1747	-65.272	13.599	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.705	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.364	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.624	0.552	1.406	1.406	3.795	3.155	No Precisa Armadura Cortante
	-6.327	11.621	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.395	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.415	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.517	0.908	1.051	1.051	3.795	1.669	No Precisa Armadura Cortante
1747	-65.272	13.598	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.705	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.364	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.624	0.552	1.406	1.406	3.795	3.156	No Precisa Armadura Cortante
	-6.327	11.621	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.396	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.415	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.517	0.908	1.051	1.051	3.795	1.669	No Precisa Armadura Cortante
1748	-70.356	15.487	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.397	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.819	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	4.565	No Precisa Armadura Cortante
	-39.875	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.779	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.455	0.637	1.285	1.285	3.795	2.676	No Precisa Armadura Cortante
1748	-70.356	15.457	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.397	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.819	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	4.565	No Precisa Armadura Cortante
	-39.875	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.779	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.455	0.637	1.285	1.285	3.795	2.676	No Precisa Armadura Cortante
1749	-63.102	14.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.944	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.866	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.664	0.539	1.428	1.428	3.795	3.733	No Precisa Armadura Cortante
	-26.821	12.131	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.676	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.105	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.401	0.714	1.201	1.201	3.795	2.167	No Precisa Armadura Cortante
1749	-63.102	14.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.944	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.866	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.664	0.539	1.428	1.428	3.795	3.733	No Precisa Armadura Cortante
	-26.821	12.131	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.676	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.105	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.401	0.714	1.201	1.201	3.795	2.167	No Precisa Armadura Cortante
1750	-60.551	13.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	3.184	No Precisa Armadura Cortante
	-6.804	11.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.425	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.477	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.509	0.902	1.055	1.055	3.795	1.692	No Precisa Armadura Cortante
1750	-60.551	13.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	3.184	No Precisa Armadura Cortante
	-6.804	11.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.425	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.477	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.509	0.902	1.055	1.055	3.795	1.692	No Precisa Armadura Cortante
1751	-72.456	15.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.529	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.094	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.768	0.510	1.481	1.481	3.795	4.736	No Precisa Armadura Cortante
	-37.620	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.351	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.522	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	2.690	No Precisa Armadura Cortante
1751	-72.456	15.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.529	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.094	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.768	0.510	1.481	1.481	3.795	4.736	No Precisa Armadura Cortante
	-37.620	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.351	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.522	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	2.690	No Precisa Armadura Cortante
1752	-64.865	14.559	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.065	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.100	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.683	0.533	1.438	1.438	3.795	3.870	No Precisa Armadura Cortante
	-25.452	12.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.501	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.925	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.399	0.723	1.191	1.191	3.795	2.207	No Precisa Armadura Cortante
1752	-64.864	14.559	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.066	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.100	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.683	0.533	1.438	1.438	3.795	3.870	No Precisa Armadura Cortante
	-25.462	12.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.591	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.925	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.399	0.723	1.191	1.191	3.795	2.207	No Precisa Armadura Cortante
1753	-61.690	13.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.881	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	3.217	No Precisa Armadura Cortante
	-7.186	11.643	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.449	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.528	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.604	0.897	1.056	1.056	3.795	1.696	No Precisa Armadura Cortante
1753	-61.690	13.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.881	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	3.212	No Precisa Armadura Cortante

ENVOLVENTE <N-Vy > Axil 1.50 Cargas Puntuales
concomitantes Vy 1.50

Barra / Extremo	N	Vy	bo	h									cotg (θ)				K		Función de θ		Comprobación Compresión Oblicua Alma				Necesidad Armadura Cortante	Armadura dispuesta								
[illegible]	-7.184	11.643	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.449	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.528	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.604	0.697	1.058	1.058	3.795	1.696	No Precisa Armadura Cortante
[illegible]	-74.841	16.431	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.678	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.407	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.796	0.503	1.494	1.494	3.795	4.472	No Precisa Armadura Cortante
	-34.281	12.336	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.203	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.211	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.430	0.660	1.257	1.257	3.795	2.306	No Precisa Armadura Cortante
[illegible]	-74.841	16.431	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.678	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.407	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.796	0.503	1.494	1.494	3.795	4.472	No Precisa Armadura Cortante
	-35.251	12.336	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.203	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.211	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.430	0.660	1.257	1.257	3.795	2.306	No Precisa Armadura Cortante
[illegible]	-68.716	14.787	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.170	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.341	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.703	0.527	1.449	1.449	3.795	4.035	No Precisa Armadura Cortante
	-23.170	12.242	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.488	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.704	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.398	0.736	1.180	1.180	3.795	2.257	No Precisa Armadura Cortante
[illegible]	-68.716	14.787	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.170	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.341	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.703	0.527	1.449	1.449	3.795	4.035	No Precisa Armadura Cortante
	-23.770	12.242	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.488	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.704	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.398	0.736	1.180	1.180	3.795	2.257	No Precisa Armadura Cortante
[illegible]	-42.728	13.724	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.021	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.819	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.660	0.540	1.426	1.426	3.795	3.249	No Precisa Armadura Cortante
	-7.345	11.830	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.459	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.549	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.501	0.895	1.059	1.059	3.795	1.689	No Precisa Armadura Cortante
[illegible]	-42.728	13.724	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.021	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.819	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.660	0.540	1.426	1.426	3.795	3.249	No Precisa Armadura Cortante
	-7.345	11.830	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.459	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.549	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.501	0.895	1.059	1.059	3.795	1.689	No Precisa Armadura Cortante
[illegible]	-68.641	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.284	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.580	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.724	0.521	1.459	1.459	3.795	4.204	No Precisa Armadura Cortante
	-21.946	12.296	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.365	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.452	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.399	0.751	1.166	1.166	3.795	2.299	No Precisa Armadura Cortante
[illegible]	-68.641	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.284	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.580	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.724	0.521	1.459	1.459	3.795	4.204	No Precisa Armadura Cortante
	-21.946	12.296	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.365	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.452	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.399	0.751	1.166	1.166	3.795	2.299	No Precisa Armadura Cortante
[illegible]	-63.787	13.823	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.982	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.946	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.670	0.537	1.431	1.431	3.795	3.296	No Precisa Armadura Cortante
	-7.412	11.589	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.445	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.519	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.505	0.898	1.057	1.057	3.795	1.654	No Precisa Armadura Cortante
[illegible]	-63.787	13.823	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.982	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.946	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.670	0.537	1.431	1.431	3.795	3.296	No Precisa Armadura Cortante
	-7.412	11.589	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.445	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.519	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.505	0.898	1.057	1.057	3.795	1.654	No Precisa Armadura Cortante
[illegible]	-70.296	15.243	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.394	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.611	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.743	0.516	1.469	1.469	3.795	4.365	No Precisa Armadura Cortante
	-18.156	12.420	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.235	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.179	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.403	0.768	1.151	1.151	3.795	2.315	No Precisa Armadura Cortante
[illegible]	-70.296	15.243	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.394	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.611	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.743	0.616	1.469	1.469	3.795	4.365	No Precisa Armadura Cortante
	-18.156	12.420	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.235	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.179	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.403	0.768	1.151	1.151	3.795	2.315	No Precisa Armadura Cortante
[illegible]	-65.189	14.676	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.037	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.063	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.680	0.534	1.437	1.437	3.795	3.885	No Precisa Armadura Cortante
	-4.445	11.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.404	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.432	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.515	0.906	1.052	1.052	3.795	1.684	No Precisa Armadura Cortante
[illegible]	-65.189	14.676	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.037	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.063	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.680	0.534	1.437	1.437	3.795	3.885	No Precisa Armadura Cortante
	-4.445	11.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.404	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.432	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.515	0.906	1.052	1.052	3.795	1.684	No Precisa Armadura Cortante
[illegible]	-71.861	16.437	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.497	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.028	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.762	0.611	1.478	1.478	3.795	4.503	No Precisa Armadura Cortante
	-27.612	12.394	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.101	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.896	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.410	0.766	1.136	1.136	3.795	2.289	No Precisa Armadura Cortante
[illegible]	-71.861	16.437	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.497	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.028	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.762	0.511	1.478	1.478	3.795	4.503	No Precisa Armadura Cortante
	-27.612	12.394	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.101	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.896	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.410	0.766	1.136	1.136	3.795	2.289	No Precisa Armadura Cortante
[illegible]	-66.776	14.814	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.111	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.217	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.693	0.530	1.443	1.443	3.795	4.064	No Precisa Armadura Cortante
	-5.206	12.248	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.326	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.268	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.535	0.923	1.042	1.042	3.795	2.152	No Precisa Armadura Cortante
[illegible]	-66.776	14.814	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.111	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.217	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.693	0.530	1.443	1.443	3.795	4.064	No Precisa Armadura Cortante
	-5.206	12.248	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.326	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.268	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.535	0.923	1.042	1.042	3.795	2.152	No Precisa Armadura Cortante
[illegible]	-68.816	15.041	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.182	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.366	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.705	0.526	1.450	1.450	3.795	4.234	No Precisa Armadura Cortante
	-3.726	12.306	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.233	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.073	<Vy. Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.565	0.943	1.030	1.030	3.795	2.176	Valida la armadura del pilote
[illegible]	-68.816	15.041	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.182	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.366	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.705	0.526	1.450	1.450	3.795	4.234	No Precisa Armadura Cortante
	-3.726	12.306	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.233	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.073	<Vy. Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.565	0.943	1.030	1.030	3.795	2.176	Valida la armadura del pilote
[illegible]	-67.873	15.724	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.248	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.506	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.717	0.523	1.456	1.456	3.795	4.378	No Precisa Armadura Cortante
	-2.081	12.326	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.130	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	11.857	<Vy. Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.601	0.967	1.017	1.017	3.795	2.163	Valida la armadura del pilote
[illegible]	-67.873	15.724	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.248	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.506	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.717	0.523	1.456	1.456	3.795	4.378	No Precisa Armadura Cortante
	-2.081	12.326	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.130	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	11.857	<Vy. Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.601	0.967	1.017	1.017	3.795	2.163	Valida la armadura del pilote
[illegible]	-68.886	16.344	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.304	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.623	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	4.457	No Precisa Armadura Cortante
	-0.346	12.230	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.015	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	11.617	<Vy. Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.647	0.996	1.002	1.002	3.795	2.050	Valida la armadura del pilote
[illegible]	-68.886	16.344	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.304	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.623	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	4.457	No Precisa Armadura Cortante
	-0.346	12.230	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.015	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	11.617	<Vy. Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.647	0.996	1.002	1.002	3.795	2.050	Valida la armadura del pilote

ENVOLVENTE <N-Vy>
concomitantes

Axil 1.50 Cargas Puntuales
Vy 1.50

Barra Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_y [N/mm²]	γ_c	γ_s	θ [°]	A_{s1} [mm²]	A_c [mm²]	Cotan (θ)	f_{cv} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot (θe, ue)	cot (θe)	$f_{ct,m}$ [N/mm²]	A necesaria cm2	
1700	-220.334	10.127	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.771	0.90	18.00	0.50	113.60	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	40.503	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.857	0.333	2.151	2.000	3.795	-2.167	No Precisa Armadura Cortante
	-19.770	11.933	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.048	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.785	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.413	0.784	1.130	1.130	3.795	1.999	No Precisa Armadura Cortante
1700	-220.334	10.527	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.771	0.90	18.00	0.50	113.60	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	40.503	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.857	0.333	2.151	2.000	3.795	-2.167	No Precisa Armadura Cortante
	-19.770	11.933	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.048	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.765	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.413	0.784	1.130	1.130	3.795	1.999	No Precisa Armadura Cortante
1701	-208.898	10.521	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.056	0.94	18.00	0.50	118.61	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	39.002	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.357	0.333	2.107	2.000	3.795	-1.456	No Precisa Armadura Cortante
	-24.696	12.261	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.544	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.820	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.398	0.729	1.186	1.186	3.795	2.272	No Precisa Armadura Cortante
1701	-208.838	10.523	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.056	0.94	18.00	0.50	118.61	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	39.002	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.357	0.333	2.107	2.000	3.795	-1.456	No Precisa Armadura Cortante
	-24.699	12.261	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.544	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	14.826	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.398	0.729	1.186	1.186	3.795	2.272	No Precisa Armadura Cortante
1702	-198.234	10.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.390	0.98	18.00	0.50	123.27	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	37.603	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.891	0.333	2.065	2.000	3.795	-0.776	No Precisa Armadura Cortante
	-32.065	12.547	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.003	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	15.792	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.416	0.679	1.236	1.236	3.795	2.517	No Precisa Armadura Cortante
1702	-198.234	10.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.390	0.98	18.00	0.50	123.27	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	37.603	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.891	0.333	2.065	2.000	3.795	-0.776	No Precisa Armadura Cortante
	-32.065	12.587	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.003	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	15.792	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.418	0.679	1.236	1.236	3.795	2.517	No Precisa Armadura Cortante
1703	-189.548	11.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.847	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	36.462	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.511	0.333	2.030	2.000	3.795	-0.259	No Precisa Armadura Cortante
	-38.205	12.825	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.388	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.599	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.447	0.644	1.276	1.276	3.795	2.681	No Precisa Armadura Cortante
1703	-189.548	11.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.847	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	36.462	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.511	0.333	2.030	2.000	3.795	-0.259	No Precisa Armadura Cortante
	-38.295	12.825	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.388	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.599	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.447	0.644	1.276	1.276	3.795	2.681	No Precisa Armadura Cortante
1704	-171.719	10.865	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.732	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	34.122	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.051	0.343	1.956	1.956	3.795	-0.148	No Precisa Armadura Cortante
	-42.329	12.579	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.646	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.140	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.474	0.623	1.303	1.303	3.795	2.464	No Precisa Armadura Cortante
1704	-171.719	10.865	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.732	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	34.122	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.051	0.343	1.956	1.956	3.795	-0.148	No Precisa Armadura Cortante
	-42.329	12.579	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.646	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.140	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.474	0.623	1.303	1.303	3.795	2.464	No Precisa Armadura Cortante
1705	-183.042	11.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.440	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	35.609	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.226	0.333	2.004	2.000	3.795	0.095	No Precisa Armadura Cortante
	-43.239	13.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.702	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.259	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.480	0.618	1.308	1.308	3.795	2.797	No Precisa Armadura Cortante
1705	-183.042	11.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.440	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	35.609	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.226	0.333	2.004	2.000	3.795	0.095	No Precisa Armadura Cortante
	-43.239	13.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.702	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.259	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.480	0.618	1.308	1.308	3.795	2.797	No Precisa Armadura Cortante
1706	-165.474	11.051	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.342	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	33.303	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.969	0.350	1.930	1.930	3.795	0.064	No Precisa Armadura Cortante
	-46.569	12.715	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.911	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.697	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	2.543	No Precisa Armadura Cortante
1706	-165.474	11.051	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.342	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	33.303	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.969	0.350	1.930	1.930	3.795	0.064	No Precisa Armadura Cortante
	-46.569	12.711	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.911	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.697	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	2.543	No Precisa Armadura Cortante
1707	-178.656	11.421	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.166	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	35.033	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.142	0.337	1.985	1.985	3.795	0.221	No Precisa Armadura Cortante
	-47.358	13.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.960	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.800	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.513	0.599	1.334	1.334	3.795	2.889	No Precisa Armadura Cortante
1707	-178.656	11.421	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.166	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	35.033	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.142	0.337	1.985	1.985	3.795	0.221	No Precisa Armadura Cortante
	-47.358	13.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.960	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.800	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.513	0.599	1.334	1.334	3.795	2.889	No Precisa Armadura Cortante
1708	-159.672	11.270	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.980	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	32.541	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.893	0.356	1.905	1.905	3.795	0.799	No Precisa Armadura Cortante
	-60.612	12.672	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.163	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.227	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.541	0.585	1.354	1.354	3.795	2.643	No Precisa Armadura Cortante
1708	-159.672	11.270	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.980	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	32.541	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.893	0.356	1.905	1.905	3.795	0.799	No Precisa Armadura Cortante
	-60.612	12.872	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.163	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.227	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.541	0.585	1.354	1.354	3.795	2.643	No Precisa Armadura Cortante
1709	-176.274	11.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.017	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	34.720	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.111	0.339	1.976	1.976	3.795	0.244	No Precisa Armadura Cortante
	-60.673	13.261	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.167	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.235	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.541	0.585	1.354	1.354	3.795	2.968	No Precisa Armadura Cortante
1709	-176.274	11.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.017	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	34.720	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.111	0.339	1.976	1.976	3.795	0.244	No Precisa Armadura Cortante
	-60.673	13.281	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.167	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.235	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.541	0.585	1.354	1.354	3.795	2.968	No Precisa Armadura Cortante
1710	-154.469	11.462	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.654	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	31.858	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.824	0.362	1.882	1.882	3.795	0.506	No Precisa Armadura Cortante
	-64.642	13.044	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.409	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.743	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.577	0.570	1.378	1.378	3.795	2.752	No Precisa Armadura Cortante
1710	-154.469	11.462	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.654	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	31.858	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.824	0.362	1.882	1.882	3.795	0.506	No Precisa Armadura Cortante
	-64.642	13.044	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.409	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.743	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.577	0.570	1.378	1.378	3.795	2.752	No Precisa Armadura Cortante
1711	-118.349	11.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.397	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	27.118	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.346	0.411	1.717	1.717	3.795	0.884	No Precisa Armadura Cortante
	-70.235	13.128	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.390	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.803	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.743	0.516	1.469	1.469	3.795	2.687	No Precisa Armadura Cortante
1711	-118.349	11.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.397	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	27.118	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.346	0.411	1.717	1.717	3.795	0.884	No Precisa Armadura Cortante
	-70.235	13.128	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.390	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.803	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.743	0.516	1.469	1.469	3.795	2.687	No Precisa Armadura Cortante
1712	-175.794	11.330	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.987	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	34.657	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.105	0.339	1.974	1.974	3.795	0.178	No Precisa Armadura Cortante
	-53.210	13.382	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.326	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.568	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.564	0.575	1.370	1.370	3.795	3.029	No Precisa Armadura Cortante
1712	-175.794	11.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.987	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	34.657	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.105	0.339	1.974	1.974	3.795	0.178	No Precisa Armadura Cortante
	-53.210	13.382	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.326	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.568	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.564	0.575	1.370	1.370	3.795	3.029	No Precisa Armadura Cortante
1713	-150.168	11.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.385	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	31.293	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.767	0.367	1.664	1.664	3.795	0.654	No Precisa Armadura Cortante
	-68.239	13.203	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.640	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.228	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.613	0.556	1.400	1.400	3.795	2.849	No Precisa Armadura Cortante
1713	-150.168	11.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.385	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	31.293	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.767	0.367	1.664	1.664	3.795	0.654	No Precisa Armadura Cortante
	-68.239	13.203	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.640	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.228	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.613	0.556	1.400	1.400	3.795	2.849	No Precisa Armadura Cortante
1714	-115.478	11.661	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.217	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	26.741	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.308	0.415	1.703	1.703	3.795	0.994	No Precisa Armadura Cortante
	-72.761	13.179	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.548	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.134	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.772	0.509	1.483	1.483	3.795	2.704	No Precisa Armadura Cortante
1714	-115.478	11.661	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.217	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	26.741	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.308	0.415	1.703	1.703	3.795	0.994	No Precisa Armadura Cortante
	-72.761	13.179	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.548	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.134	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.772	0.509	1.483	1.483	3.795	2.704	No Precisa Armadura Cortante
1715	-177.117	11.138	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.070	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	34.831	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.122	0.338	1.979	1.979	3.795	0.012	No Precisa Armadura Cortante
	-64.833	13.430	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.433	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.794	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.581	0.568	1.380	1.380	3.795	3.054	No Precisa Armadura Cortante
1715	-177.117	11.138	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.070	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	34.831	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.122	0.338	1.979	1.979	3.795	0.012	No Precisa Armadura Cortante
	-64.833	13.430	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.433	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.794	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.581	0.568	1.380	1.380	3.795	3.054	No Precisa Armadura Cortante
1716	-146.909	11.651	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.182	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	30.866	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.724	0.371	1.849	1.849	3.795	0.735	No Precisa Armadura Cortante
	-61.635	13.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.852	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.674	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.648	0.544	1.419	1.419	3.795	2.934	No Precisa Armadura Cortante
1716	-146.909	11.651	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.182	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	30.866	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.724	0.371	1.849	1.849	3.795	0.735	No Precisa Armadura Cortante
	-61.635	13.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.852	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.674	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.648	0.544	1.419	1.419	3.795	2.934	No Precisa Armadura Cortante
1717	-112.710	11.652	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.044	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	26.378	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.272	0.420	1.690	1.690	3.795	1.095	No Precisa Armadura Cortante
	-75.261	13.244	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.704	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.462	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.801	0.502	1.496	1.496	3.795	2.732	No Precisa Armadura Cortante
1717	-112.710	11.652	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.044	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	26.378	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.272	0.420	1.690	1.690	3.795	1.095	No Precisa Armadura Cortante
	-75.261	13.244	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.704	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.462	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.801	0.502	1.496	1.496	3.795	2.732	No Precisa Armadura Cortante
1718	-179.843	10.832	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.246	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	35.202	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.159	0.335	1.991	1.991	3.795	-0.260	No Precisa Armadura Cortante
	-65.851	13.404	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.491	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.915	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.590	0.565	1.386	1.386	3.795	3.027	No Precisa Armadura Cortante
1718	-179.843	10.832	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.246	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	35.202	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.159	0.335	1.991	1.991	3.795	-0.260	No Precisa Armadura Cortante
	-65.851	13.404	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.491	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.915	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.590	0.565	1.386	1.386	3.795	3.027	No Precisa Armadura Cortante
1719	-144.717	11.640	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.045	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	30.578	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.695	0.373	1.839	1.839	3.795	0.750	No Precisa Armadura Cortante
	-64.722	13.470	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.045	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.079	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.681	0.533	1.437	1.437	3.795	3.007	No Precisa Armadura Cortante
1719	-144.717	11.640	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.045	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	30.578	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.695	0.373	1.839	1.839	3.795	0.750	No Precisa Armadura Cortante
	-64.722	13.470	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.045	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.079	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.681	0.533	1.437	1.437	3.795	3.007	No Precisa Armadura Cortante
1720	-110.043	11.742	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.878	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	26.027	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.237	0.425	1.677	1.677	3.795	1.194	No Precisa Armadura Cortante
	-77.852	13.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.866	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.802	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.831	0.495	1.511	1.511	3.795	2.783	No Precisa Armadura Cortante
1720	-110.043	11.742	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.878	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	26.027	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.237	0.425	1.677	1.677	3.795	1.194	No Precisa Armadura Cortante
	-77.852	13.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.866	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.802	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.831	0.495	1.511	1.511	3.795	2.783	No Precisa Armadura Cortante
1721	-87.702	14.756	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.481	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.095	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.951	0.470	1.563	1.563	3.795	3.813	No Precisa Armadura Cortante
	-71.207	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.513	1.474	1.474	3.795	2.443	No Precisa Armadura Cortante
1721	-87.702	14.756	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.481	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.095	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.951	0.470	1.563	1.563	3.795	3.813	No Precisa Armadura Cortante
	-71.207	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.513	1.474	1.474	3.795	2.443	No Precisa Armadura Cortante
1722	-183.164	10.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.448	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	35.625	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.231	0.333	2.004	2.000	3.795	-0.599	No Precisa Armadura Cortante
	-56.517	13.349	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.532	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.002	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.596	0.562	1.389	1.389	3.795	2.978	No Precisa Armadura Cortante
1722	-183.164	10.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.448	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	35.625	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.231	0.333	2.004	2.000	3.795	-0.599	No Precisa Armadura Cortante
	-56.517	13.349	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.532	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.002	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.596	0.562	1.389	1.389	3.795	2.978	No Precisa Armadura Cortante
1723	-143.421	11.559	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.964	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	30.408	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.678	0.375	1.834	1.834	3.795	0.699	No Precisa Armadura Cortante
	-67.675	13.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.223	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.454	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.713	0.524	1.454	1.454	3.795	3.070	No Precisa Armadura Cortante
1723	-143.421	11.559	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.964	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	30.408	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.678	0.375	1.834	1.834	3.795	0.699	No Precisa Armadura Cortante
	-67.675	13.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.223	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.454	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.713	0.524	1.454	1.454	3.795	3.070	No Precisa Armadura Cortante
1724	-107.552	11.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.722	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	25.700	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.205	0.429	1.665	1.665	3.795	1.276	No Precisa Armadura Cortante
	-80.564	13.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.035	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	22.158	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.864	0.488	1.525	1.525	3.795	2.849	No Precisa Armadura Cortante
1724	-107.552	11.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.722	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	25.700	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.205	0.429	1.665	1.665	3.795	1.276	No Precisa Armadura Cortante
	-80.564	13.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.035	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	22.158	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.864	0.488	1.525	1.525	3.795	2.849	No Precisa Armadura Cortante
1725	-89.253	14.757	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.578	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.299	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.971	0.467	1.572	1.572	3.795	3.799	No Precisa Armadura Cortante
	-70.653	12.825	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.410	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.844	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.515	1.470	1.470	3.795	2.443	No Precisa Armadura Cortante
1725	-89.253	14.757	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.578	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.299	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.971	0.467	1.572	1.677	3.795	3.799	No Precisa Armadura Cortante
	-70.653	12.825	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.410	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.844	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.515	1.470	1.470	3.795	2.443	No Precisa Armadura Cortante
1726	-142.718	11.415	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	30.316	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.668	0.376	1.830	1.830	3.795	0.593	No Precisa Armadura Cortante
	-70.377	13.677	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.399	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.821	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	3.121	No Precisa Armadura Cortante
1726	-142.718	11.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	30.316	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.668	0.376	1.830	1.830	3.795	0.593	No Precisa Armadura Cortante
	-70.377	13.677	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.399	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.821	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	3.121	No Precisa Armadura Cortante

ENVOLVENTE <N-Vy> concomitantes

Axil 1.50 Cargas Puntuales
Vy 1.50

Barra Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	φ [º]	A_{st} [mm²]	A_c [mm²]	cotan (θ)	f_{ck} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobación Compresión Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot(θe,ini)	cot(θe)	$f_{ct,m}$ [N/mm²]	A necesaria cm²	
1727	-105.320	11.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.582	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.408	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.176	0.433	1.654	1.654	3.795	1.325	No Precisa Armadura Cortante
	-83.373	13.578	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.211	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.527	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.898	0.481	1.540	1.540	3.795	2.921	No Precisa Armadura Cortante
1727	-105.320	11.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.582	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.408	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.176	0.433	1.654	1.654	3.795	1.325	No Precisa Armadura Cortante
	-83.373	13.578	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.211	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.527	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.898	0.481	1.540	1.540	3.795	2.921	No Precisa Armadura Cortante
1728	-90.831	14.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.506	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.990	0.463	1.560	1.560	3.795	3.787	No Precisa Armadura Cortante
	-69.833	12.821	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.365	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.750	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.738	0.517	1.466	1.466	3.795	2.446	No Precisa Armadura Cortante
1728	-90.831	14.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.506	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.990	0.463	1.560	1.560	3.795	3.787	No Precisa Armadura Cortante
	-69.833	12.821	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.365	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.750	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.738	0.517	1.466	1.466	3.795	2.446	No Precisa Armadura Cortante
1729	-142.178	11.237	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.886	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.245	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.661	0.377	1.828	1.828	3.795	0.457	No Precisa Armadura Cortante
	-73.352	13.779	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.212	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.778	0.507	1.486	1.486	3.795	3.175	No Precisa Armadura Cortante
1729	-142.178	11.237	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.886	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.245	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.661	0.377	1.828	1.828	3.795	0.457	No Precisa Armadura Cortante
	-73.352	13.779	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.212	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.778	0.507	1.486	1.486	3.795	3.175	No Precisa Armadura Cortante
1730	-103.323	11.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.458	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.145	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.150	0.437	1.644	1.644	3.795	1.339	No Precisa Armadura Cortante
	-86.264	13.709	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.391	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.906	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.934	0.474	1.556	1.556	3.795	2.996	No Precisa Armadura Cortante
1730	-103.323	11.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.458	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.145	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.150	0.437	1.644	1.644	3.795	1.339	No Precisa Armadura Cortante
	-86.264	13.709	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.391	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.906	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.834	0.474	1.556	1.556	3.795	2.996	No Precisa Armadura Cortante
1731	-92.546	14.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.731	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.012	0.459	1.589	1.589	3.795	3.787	No Precisa Armadura Cortante
	-68.946	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.309	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.634	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.728	0.520	1.461	1.461	3.795	2.448	No Precisa Armadura Cortante
1731	-92.546	14.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.731	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.012	0.459	1.589	1.589	3.795	3.787	No Precisa Armadura Cortante
	-68.946	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.309	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.634	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.728	0.520	1.461	1.461	3.795	2.448	No Precisa Armadura Cortante
1732	-84.228	14.788	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.264	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.639	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.908	0.478	1.545	1.545	3.795	3.880	No Precisa Armadura Cortante
	-43.052	12.821	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.691	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.235	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.479	0.619	1.307	1.307	3.795	2.652	No Precisa Armadura Cortante
1732	-84.228	14.788	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.264	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.639	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.908	0.478	1.545	1.545	3.795	3.880	No Precisa Armadura Cortante
	-43.052	12.821	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.691	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.235	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.479	0.619	1.307	1.307	3.795	2.652	No Precisa Armadura Cortante
1733	-141.548	11.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.849	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.168	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.653	0.377	1.825	1.825	3.795	0.347	No Precisa Armadura Cortante
	-76.430	13.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.777	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.616	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.814	0.499	1.503	1.503	3.795	3.256	No Precisa Armadura Cortante
1733	-141.548	11.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.849	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.168	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.653	0.377	1.825	1.825	3.795	0.347	No Precisa Armadura Cortante
	-76.430	13.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.777	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.616	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.814	0.499	1.503	1.503	3.795	3.256	No Precisa Armadura Cortante
1734	-105.594	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.600	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.444	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.179	0.433	1.655	1.655	3.795	3.843	No Precisa Armadura Cortante
	-85.601	12.817	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.350	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.810	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.925	0.475	1.552	1.552	3.795	2.374	No Precisa Armadura Cortante
1734	-105.594	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.600	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.444	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.179	0.433	1.655	1.655	3.795	3.843	No Precisa Armadura Cortante
	-85.601	12.817	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.350	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.819	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.825	0.475	1.552	1.552	3.795	2.374	No Precisa Armadura Cortante
1735	-94.514	14.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.907	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.989	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.037	0.455	1.599	1.599	3.795	3.813	No Precisa Armadura Cortante
	-67.793	12.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.524	1.455	1.455	3.795	2.453	No Precisa Armadura Cortante
1735	-94.514	14.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.907	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.989	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.037	0.455	1.599	1.599	3.795	3.813	No Precisa Armadura Cortante
	-67.793	12.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.524	1.455	1.455	3.795	2.453	No Precisa Armadura Cortante
1736	-86.010	14.829	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.376	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.873	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.930	0.474	1.554	1.554	3.795	3.886	No Precisa Armadura Cortante
	-43.112	12.824	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.694	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.243	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.479	0.619	1.308	1.308	3.795	2.654	No Precisa Armadura Cortante
1736	-86.010	14.829	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.376	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.873	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.930	0.474	1.554	1.554	3.795	3.886	No Precisa Armadura Cortante
	-43.112	12.824	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.694	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.243	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.479	0.619	1.308	1.308	3.795	2.654	No Precisa Armadura Cortante
1737	-109.636	15.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.846	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.961	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.231	0.426	1.674	1.674	3.795	3.964	No Precisa Armadura Cortante
	-82.925	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.183	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.468	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.893	0.482	1.538	1.538	3.795	2.375	No Precisa Armadura Cortante
1737	-109.636	15.225	400.00	400.00	350.00	45.00	610.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.846	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.961	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.231	0.426	1.674	1.674	3.795	3.964	No Precisa Armadura Cortante
	-82.925	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.183	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.488	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.893	0.482	1.538	1.538	3.795	2.375	No Precisa Armadura Cortante
1738	-96.821	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.051	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.282	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	3.867	No Precisa Armadura Cortante
	-66.297	12.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.144	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.288	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.699	0.526	1.446	1.446	3.795	2.462	No Precisa Armadura Cortante
1738	-96.821	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.051	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.292	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	3.867	No Precisa Armadura Cortante
	-66.297	12.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.144	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.286	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.699	0.526	1.446	1.446	3.795	2.462	No Precisa Armadura Cortante
1739	-87.771	14.849	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.486	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.104	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.952	0.470	1.564	1.564	3.795	3.886	No Precisa Armadura Cortante
	-43.128	12.815	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.245	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	2.647	No Precisa Armadura Cortante
1739	-87.771	14.849	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.486	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.104	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.952	0.470	1.564	1.564	3.795	3.886	No Precisa Armadura Cortante
	-43.128	12.815	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.245	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	2.647	No Precisa Armadura Cortante
1740	-113.793	15.478	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.112	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.286	0.418	1.695	1.695	3.795	4.121	No Precisa Armadura Cortante
	-79.869	12.870	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.997	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.079	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.857	0.489	1.522	1.522	3.795	2.392	No Precisa Armadura Cortante
1740	-113.793	15.478	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.112	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.286	0.418	1.695	1.695	3.795	4.121	No Precisa Armadura Cortante
	-79.856	12.870	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.997	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.079	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.837	0.489	1.522	1.522	3.795	2.397	No Precisa Armadura Cortante
1741	-99.473	15.083	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.640	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.100	0.445	1.624	1.624	3.795	3.954	No Precisa Armadura Cortante
	-64.397	12.803	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.025	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	2.460	No Precisa Armadura Cortante
1741	-99.473	15.083	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.640	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.100	0.445	1.624	1.624	3.795	3.954	No Precisa Armadura Cortante
	-64.397	12.803	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.025	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	2.460	No Precisa Armadura Cortante
1742	-89.649	14.150	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.603	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.351	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.978	0.466	1.574	1.574	3.795	3.313	No Precisa Armadura Cortante
	-42.902	12.095	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.681	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.215	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.478	0.620	1.306	1.306	3.795	2.077	No Precisa Armadura Cortante
1742	-89.649	14.150	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.603	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.351	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.976	0.466	1.574	1.574	3.795	3.313	No Precisa Armadura Cortante
	-42.902	12.095	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.681	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.215	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.478	0.620	1.306	1.306	3.795	2.077	No Precisa Armadura Cortante
1743	-86.712	13.515	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.420	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.965	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.939	0.473	1.558	1.558	3.795	2.838	No Precisa Armadura Cortante
	-8.711	11.613	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.544	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.728	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.482	0.878	1.069	1.069	3.795	1.611	No Precisa Armadura Cortante
1743	-86.712	13.515	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.420	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.905	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.939	0.473	1.558	1.558	3.795	2.838	No Precisa Armadura Cortante
	-8.711	11.613	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.544	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.728	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.482	0.878	1.069	1.069	3.795	1.611	No Precisa Armadura Cortante
1744	-118.118	15.740	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.382	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.087	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.343	0.411	1.716	1.716	3.795	4.283	No Precisa Armadura Cortante
	-76.830	12.851	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.668	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.819	0.497	1.505	1.505	3.795	2.406	No Precisa Armadura Cortante
1744	-118.118	15.740	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.382	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.087	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.343	0.411	1.716	1.716	3.795	4.283	No Precisa Armadura Cortante
	-76.830	12.851	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.668	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.819	0.497	1.505	1.505	3.795	2.406	No Precisa Armadura Cortante
1745	-102.413	15.272	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.026	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.138	0.439	1.639	1.639	3.795	4.074	No Precisa Armadura Cortante
	-62.066	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.879	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.730	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.653	0.542	1.422	1.422	3.795	2.508	No Precisa Armadura Cortante
1745	-102.413	15.272	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.026	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.138	0.439	1.639	1.639	3.795	4.074	No Precisa Armadura Cortante
	-62.066	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.879	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.730	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.653	0.542	1.422	1.422	3.795	2.508	No Precisa Armadura Cortante
1746	-92.099	14.237	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.756	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.672	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.006	0.460	1.586	1.586	3.795	3.357	No Precisa Armadura Cortante
	-41.787	12.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.612	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.069	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.470	0.626	1.299	1.299	3.795	2.096	No Precisa Armadura Cortante
1746	-92.099	14.237	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.756	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.672	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.006	0.460	1.586	1.586	3.795	3.357	No Precisa Armadura Cortante
	-41.787	12.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.612	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.069	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.470	0.626	1.299	1.299	3.795	2.096	No Precisa Armadura Cortante
1747	-88.908	13.899	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.557	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.254	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.966	0.467	1.570	1.570	3.795	2.883	No Precisa Armadura Cortante
	-9.491	11.621	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.593	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.830	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.473	0.869	1.075	1.075	3.795	1.705	No Precisa Armadura Cortante
1747	-88.908	13.899	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.557	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.254	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.966	0.467	1.570	1.570	3.795	2.883	No Precisa Armadura Cortante
	-9.491	11.621	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.593	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.830	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.473	0.869	1.075	1.075	3.795	1.705	No Precisa Armadura Cortante
1748	-105.534	15.497	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.596	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.436	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.178	0.433	1.655	1.655	3.795	4.221	No Precisa Armadura Cortante
	-59.359	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.711	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.376	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.625	0.552	1.406	1.406	3.795	2.541	No Precisa Armadura Cortante
1748	-105.534	15.497	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.596	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.436	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.178	0.433	1.655	1.655	3.795	4.221	No Precisa Armadura Cortante
	-59.359	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.711	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.376	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.625	0.552	1.406	1.406	3.795	2.541	No Precisa Armadura Cortante
1749	-94.653	14.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.916	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.008	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.039	0.455	1.600	1.600	3.795	3.435	No Precisa Armadura Cortante
	-40.232	12.131	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.514	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.665	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.459	0.633	1.289	1.289	3.795	2.120	No Precisa Armadura Cortante
1749	-94.653	14.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.916	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.008	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.039	0.455	1.600	1.600	3.795	3.435	No Precisa Armadura Cortante
	-40.232	12.131	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.514	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.665	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.459	0.633	1.289	1.289	3.795	2.120	No Precisa Armadura Cortante
1750	-90.827	13.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.505	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.990	0.463	1.580	1.580	3.795	2.903	No Precisa Armadura Cortante
	-10.206	11.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.638	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.924	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.464	0.861	1.081	1.081	3.795	1.728	No Precisa Armadura Cortante
1750	-90.827	13.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.505	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.990	0.463	1.580	1.580	3.795	2.903	No Precisa Armadura Cortante
	-10.206	11.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.638	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.924	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.464	0.861	1.081	1.081	3.795	1.726	No Precisa Armadura Cortante
1751	-108.684	15.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.793	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.849	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.219	0.427	1.670	1.670	3.795	4.377	No Precisa Armadura Cortante
	-56.430	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.527	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.991	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.595	0.562	1.389	1.389	3.795	2.569	No Precisa Armadura Cortante
1751	-108.684	15.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.793	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.849	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.219	0.427	1.670	1.670	3.795	4.377	No Precisa Armadura Cortante
	-56.430	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.527	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.991	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.595	0.562	1.389	1.389	3.795	2.569	No Precisa Armadura Cortante
1752	-97.326	14.659	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.083	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.358	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.073	0.449	1.613	1.613	3.795	3.560	No Precisa Armadura Cortante
	-38.178	12.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.386	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.595	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.446	0.644	1.276	1.276	3.795	2.170	No Precisa Armadura Cortante
1752	-97.326	14.659	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.083	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.358	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.073	0.449	1.613	1.613	3.795	3.560	No Precisa Armadura Cortante
	-38.178	12.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.386	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.595	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.446	0.644	1.276	1.276	3.795	2.170	No Precisa Armadura Cortante
1753	-92.535	13.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.783	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.730	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.012	0.459	1.569	1.569	3.795	2.924	No Precisa Armadura Cortante
	-10.773	11.643	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.674	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.999	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.458	0.855	1.085	1.085	3.795	1.734	No Precisa Armadura Cortante
1753	-92.535	13.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.783	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.730	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.012	0.459	1.589	1.589	3.795	2.924	No Precisa Armadura Cortante

Envolvente N-Vy

ENVOLVENTE <N-Vy > Axil 1.50 Cargas Puntuales
concomitantes Vy 1.50

Barra / Elemento	N (t)	Vy (t)	bw (mm)	h (mm)	rec (mm)	d (mm)	fc (Kg/cm²)	fy (Kg/cm²)	Ag (cm²)	Ø	Nd (t)	Mx (t-m)	My (t-m)	Pu (t)	Vy (t)	Vu (t)	Comprobación Solicitación Obliqua Alma	Ø	Vc (t)	Vs (t)	Vu (t)	Vu/Ø (t)	Vu/Ø (Kg/cm²)	Ø	Vu/Ø (t)	Vu/Ø (Kg/cm²)	Armadura Transversal	Ø	Vu/Ø (t)	Vu/Ø (Kg/cm²)	Armadura Transversal
	-10.779	-11.645	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.674	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.998	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.456	0.855	1.085	1.085	3.795	1.734	No Precisa Armadura Cortante
1764	-112.532	-16.531	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.016	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.319	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.266	0.421	1.688	1.688	3.795	4.009	No Precisa Armadura Cortante
	-92.977	-12.336	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.305	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.524	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.561	0.576	1.368	1.368	3.795	2.202	No Precisa Armadura Cortante
1763	-112.282	-16.451	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.016	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.319	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.266	0.421	1.688	1.688	3.795	4.009	No Precisa Armadura Cortante
	-92.977	-12.336	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.305	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.524	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.561	0.576	1.368	1.368	3.795	2.202	No Precisa Armadura Cortante
1762	-100.873	-14.787	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.255	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.719	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.108	0.444	1.627	1.627	3.795	3.714	No Precisa Armadura Cortante
	-100.873	-14.787	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.255	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.719	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.108	0.444	1.627	1.627	3.795	3.714	No Precisa Armadura Cortante
1761	-88.646	-12.949	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.264	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.432	0.658	1.260	1.260	3.795	2.294	No Precisa Armadura Cortante
	-88.646	-12.949	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.264	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.432	0.658	1.260	1.260	3.795	2.294	No Precisa Armadura Cortante
1760	-84.197	-13.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.882	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.936	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.032	0.456	1.597	1.597	3.795	2.954	No Precisa Armadura Cortante
	-84.197	-13.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.882	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.936	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.032	0.456	1.597	1.597	3.795	2.954	No Precisa Armadura Cortante
1759	-11.924	-11.830	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.668	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.051	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.456	0.852	1.087	1.087	3.795	1.725	No Precisa Armadura Cortante
	-11.924	-11.830	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.668	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.051	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.456	0.852	1.087	1.087	3.795	1.725	No Precisa Armadura Cortante
1758	-107.812	-15.571	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.426	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.078	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.143	0.438	1.641	1.641	3.795	3.871	No Precisa Armadura Cortante
	-107.812	-15.571	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.426	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.078	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.143	0.438	1.641	1.641	3.795	3.871	No Precisa Armadura Cortante
1757	-102.819	-16.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.048	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.885	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.418	0.675	1.241	1.241	3.795	2.263	No Precisa Armadura Cortante
	-102.819	-16.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.048	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.885	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.418	0.675	1.241	1.241	3.795	2.263	No Precisa Armadura Cortante
1756	-92.765	-12.996	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.127	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.050	0.453	1.604	1.604	3.795	2.994	No Precisa Armadura Cortante
	-92.765	-12.996	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.127	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.050	0.453	1.604	1.604	3.795	2.994	No Precisa Armadura Cortante
1755	-90.582	-13.023	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.668	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.966	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.459	0.856	1.064	1.064	3.795	1.690	No Precisa Armadura Cortante
	-90.582	-13.023	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.668	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.966	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.459	0.856	1.064	1.064	3.795	1.690	No Precisa Armadura Cortante
1754	-105.444	-15.343	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.592	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.424	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.177	0.433	1.654	1.654	3.795	4.020	No Precisa Armadura Cortante
	-89.845	-12.370	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.853	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.475	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.407	0.695	1.220	1.220	3.795	2.311	No Precisa Armadura Cortante
1753	-105.444	-15.343	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.592	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.424	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.177	0.433	1.654	1.654	3.795	4.020	No Precisa Armadura Cortante
	-89.845	-12.370	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.853	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.475	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.407	0.695	1.220	1.220	3.795	2.311	No Precisa Armadura Cortante
1752	-94.994	-14.576	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.606	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.302	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.067	0.450	1.611	1.611	3.795	3.578	No Precisa Armadura Cortante
	-94.994	-14.576	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.606	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.856	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.470	0.667	1.077	1.077	3.795	1.720	No Precisa Armadura Cortante
1751	-89.854	-14.576	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.606	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.302	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.067	0.450	1.611	1.611	3.795	3.578	No Precisa Armadura Cortante
	-89.854	-14.576	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.606	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.856	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.470	0.667	1.077	1.077	3.795	1.720	No Precisa Armadura Cortante
1750	-107.727	-16.437	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.745	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.750	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.210	0.429	1.667	1.667	3.795	4.148	No Precisa Armadura Cortante
	-107.727	-16.437	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.745	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.750	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.210	0.429	1.667	1.667	3.795	4.148	No Precisa Armadura Cortante
1749	-97.837	-14.294	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.651	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.092	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.400	0.716	1.198	1.198	3.795	2.297	No Precisa Armadura Cortante
	-97.837	-14.294	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.651	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.092	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.400	0.716	1.198	1.198	3.795	2.297	No Precisa Armadura Cortante
1748	-96.419	-12.294	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.166	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.694	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.090	0.446	1.620	1.620	3.795	3.749	No Precisa Armadura Cortante
	-88.645	-12.949	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.488	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.610	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.495	0.889	1.062	1.062	3.795	2.165	No Precisa Armadura Cortante
1747	-96.419	-12.294	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.166	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.694	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.090	0.446	1.620	1.620	3.795	3.749	No Precisa Armadura Cortante
	-88.645	-12.949	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.488	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.610	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.495	0.889	1.062	1.062	3.795	2.165	No Precisa Armadura Cortante
1746	-90.583	-13.248	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.273	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.757	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.112	0.448	1.629	1.629	3.795	3.812	No Precisa Armadura Cortante
	-90.583	-13.248	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.273	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.757	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.112	0.448	1.629	1.629	3.795	3.812	No Precisa Armadura Cortante
1745	-100.252	-15.041	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.348	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.318	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.529	0.917	1.045	1.045	3.795	2.204	No Precisa Armadura Cortante
	-8.388	-12.598	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.273	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.757	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.112	0.448	1.629	1.629	3.795	3.812	No Precisa Armadura Cortante
	-100.252	-15.041	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.348	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.318	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.529	0.917	1.045	1.045	3.795	2.204	No Precisa Armadura Cortante
1744	-91.524	-15.234	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.372	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.966	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.132	0.440	1.637	1.637	3.795	4.049	No Precisa Armadura Cortante
	-3.122	-12.335	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.195	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	11.994	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.577	0.952	1.025	1.025	3.795	2.181	Valida la armadura del pilote
	-91.524	-15.234	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.372	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.966	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.132	0.440	1.637	1.637	3.795	4.049	No Precisa Armadura Cortante
1743	-3.122	-12.335	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.195	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	11.994	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.577	0.952	1.025	1.025	3.795	2.181	Valida la armadura del pilote
	-90.583	-13.248	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.456	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.142	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.150	0.437	1.643	1.643	3.795	4.122	No Precisa Armadura Cortante
1742	-3.388	-12.230	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.023	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	11.633	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.644	0.994	1.003	1.003	3.795	2.062	Valida la armadura del pilote
	-90.583	-13.248	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.456	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.142	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.150	0.437	1.643	1.643	3.795	4.122	No Precisa Armadura Cortante
1741	-3.388	-12.230	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.023	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	11.633	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.644	0.994	1.003	1.003	3.795	2.062	Valida la armadura del pilote

ENVOLVENTE <Vz > concomitantes

Axil 1.00 Cargas Puntuales
Vz 1.60

Barra Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{sl} [mm²]	A_c [mm²]	cotan (θ)	f_{cd} [N/cm²]	f_{yd} [N/mm²]	σcd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cot2	Vcu [t]	β	cot (θe, ...)	cot (θe)	$f_{yα,d}$ [N/mm²]	A necesaria cm2	
1700	-15.363	0.255	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.960	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.601	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.421	0.807	1.119	1.119	3.795	-7.275	No Precisa Armadura Cortante
	-143.537	2.667	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.971	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.424	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.679	0.375	1.834	1.834	3.795	-6.359	No Precisa Armadura Cortante
1700	-15.363	0.255	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.960	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.601	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.421	0.807	1.119	1.119	3.795	-7.275	No Precisa Armadura Cortante
	-143.537	2.667	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.971	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.424	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.679	0.375	1.834	1.834	3.795	-6.359	No Precisa Armadura Cortante
1701	-20.190	0.116	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.262	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.234	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.402	0.764	1.154	1.154	3.795	-7.370	No Precisa Armadura Cortante
	-136.312	2.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.520	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.475	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.584	0.384	1.801	1.801	3.795	-6.133	No Precisa Armadura Cortante
1701	-20.190	0.116	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.262	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.234	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.402	0.764	1.154	1.154	3.795	-7.370	No Precisa Armadura Cortante
	-136.312	2.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.520	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.475	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.584	0.384	1.801	1.801	3.795	-6.133	No Precisa Armadura Cortante
1702	-24.665	0.183	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.542	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.822	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.398	0.729	1.186	1.186	3.795	-7.314	No Precisa Armadura Cortante
	-129.581	2.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.099	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.592	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.494	0.394	1.770	1.770	3.795	-6.163	No Precisa Armadura Cortante
1702	-24.665	0.183	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.542	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.822	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.398	0.729	1.186	1.186	3.795	-7.314	No Precisa Armadura Cortante
	-129.581	2.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.099	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.592	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.494	0.394	1.770	1.770	3.795	-6.163	No Precisa Armadura Cortante
1703	-28.394	0.330	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.775	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.311	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.404	0.703	1.211	1.211	3.795	-7.201	No Precisa Armadura Cortante
	-124.116	2.436	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.757	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.875	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.422	0.402	1.745	1.745	3.795	-6.338	No Precisa Armadura Cortante
1703	-28.394	0.330	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.775	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.311	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.404	0.703	1.211	1.211	3.795	-7.201	No Precisa Armadura Cortante
	-124.116	2.436	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.757	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.875	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.422	0.402	1.745	1.745	3.795	-6.338	No Precisa Armadura Cortante
1704	-97.274	0.676	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.080	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.352	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.072	0.449	1.613	1.613	3.795	-7.457	No Precisa Armadura Cortante
	-46.043	1.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.878	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.627	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.502	0.605	1.326	1.326	3.795	-6.069	No Precisa Armadura Cortante
1704	-97.274	0.676	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.080	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.352	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.072	0.449	1.613	1.613	3.795	-7.457	No Precisa Armadura Cortante
	-46.043	1.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.878	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.627	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.502	0.605	1.326	1.326	3.795	-6.069	No Precisa Armadura Cortante
1705	-31.447	0.473	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.965	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.712	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.413	0.683	1.232	1.232	3.795	-7.091	No Precisa Armadura Cortante
	-120.050	2.084	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.503	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.341	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.368	0.408	1.725	1.725	3.795	-6.575	No Precisa Armadura Cortante
1705	-31.447	0.473	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.965	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.712	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.413	0.683	1.232	1.232	3.795	-7.091	No Precisa Armadura Cortante
	-120.050	2.084	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.503	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.341	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.368	0.408	1.725	1.725	3.795	-6.575	No Precisa Armadura Cortante
1706	-94.072	0.678	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.880	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.931	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.031	0.456	1.597	1.597	3.795	-7.423	No Precisa Armadura Cortante
	-47.868	1.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.992	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.867	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.517	0.597	1.337	1.337	3.795	-6.079	No Precisa Armadura Cortante
1706	-94.072	0.678	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.880	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.931	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.031	0.456	1.597	1.597	3.795	-7.423	No Precisa Armadura Cortante
	-47.868	1.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.992	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.867	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.517	0.597	1.337	1.337	3.795	-6.079	No Precisa Armadura Cortante
1707	-33.958	0.614	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.122	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.041	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.424	0.668	1.249	1.249	3.795	-6.992	No Precisa Armadura Cortante
	-117.345	1.701	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.334	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.986	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.333	0.412	1.712	1.712	3.795	-6.851	No Precisa Armadura Cortante
1707	-33.958	0.614	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.122	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.041	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.424	0.668	1.249	1.249	3.795	-6.992	No Precisa Armadura Cortante
	-117.345	1.701	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.334	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.986	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.333	0.412	1.712	1.712	3.795	-6.851	No Precisa Armadura Cortante
1708	-36.108	0.670	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.257	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.324	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.435	0.656	1.263	1.263	3.795	-6.956	No Precisa Armadura Cortante
	-104.621	1.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.539	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.316	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.167	0.435	1.650	1.650	3.795	-6.619	No Precisa Armadura Cortante
1708	-36.108	0.670	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.257	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.324	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.435	0.656	1.263	1.263	3.795	-6.956	No Precisa Armadura Cortante
	-104.621	1.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.539	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.316	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.167	0.435	1.650	1.650	3.795	-6.619	No Precisa Armadura Cortante
1709	-98.951	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.572	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.094	0.446	1.622	1.622	3.795	-7.636	No Precisa Armadura Cortante
	-52.970	1.581	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.311	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.537	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.562	0.576	1.368	1.368	3.795	-6.334	No Precisa Armadura Cortante
1709	-98.951	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.572	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.094	0.446	1.622	1.622	3.795	-7.636	No Precisa Armadura Cortante
	-52.970	1.581	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.311	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.537	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.562	0.576	1.368	1.368	3.795	-6.334	No Precisa Armadura Cortante
1710	-38.464	0.633	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.404	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.633	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.448	0.643	1.278	1.278	3.795	-6.996	No Precisa Armadura Cortante
	-101.395	1.773	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.337	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.891	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.125	0.441	1.634	1.634	3.795	-6.678	No Precisa Armadura Cortante
1710	-38.464	0.633	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.404	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.633	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.448	0.643	1.278	1.278	3.795	-6.996	No Precisa Armadura Cortante
	-101.395	1.773	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.337	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.891	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.125	0.441	1.634	1.634	3.795	-6.678	No Precisa Armadura Cortante
1711	-67.016	0.145	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.189	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.380	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.707	0.526	1.450	1.450	3.795	-7.588	No Precisa Armadura Cortante
	-59.114	1.845	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.695	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.343	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.622	0.553	1.405	1.405	3.795	-6.172	No Precisa Armadura Cortante
1711	-67.016	0.145	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.189	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.380	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.707	0.526	1.450	1.450	3.795	-7.588	No Precisa Armadura Cortante
	-59.114	1.845	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.695	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.343	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.622	0.553	1.405	1.405	3.795	-6.172	No Precisa Armadura Cortante
1712	-98.055	0.143	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.128	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.454	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.082	0.448	1.617	1.617	3.795	-7.886	No Precisa Armadura Cortante
	-55.246	1.629	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.453	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.835	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.584	0.567	1.382	1.382	3.795	-6.313	No Precisa Armadura Cortante
1712	-98.055	0.143	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.128	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.454	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.082	0.448	1.617	1.617	3.795	-7.888	No Precisa Armadura Cortante
	-55.246	1.629	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.453	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.835	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.584	0.567	1.382	1.382	3.795	-6.313	No Precisa Armadura Cortante
1713	-40.696	0.626	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.544	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.926	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.462	0.631	1.292	1.292	3.795	-7.013	No Precisa Armadura Cortante
	-98.721	1.641	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.170	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.541	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.091	0.446	1.620	1.620	3.795	-6.706	No Precisa Armadura Cortante
1713	-40.696	0.626	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.544	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.926	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.462	0.631	1.292	1.292	3.795	-7.013	No Precisa Armadura Cortante
	-98.721	1.641	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.170	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.541	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.091	0.446	1.620	1.620	3.795	-6.706	No Precisa Armadura Cortante
1714	-65.702	0.158	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.106	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.208	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.692	0.530	1.443	1.443	3.795	-7.566	No Precisa Armadura Cortante
	-60.173	1.847	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.761	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.633	0.549	1.411	1.411	3.795	-6.180	No Precisa Armadura Cortante
1714	-65.702	0.158	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.106	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.208	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.692	0.530	1.443	1.443	3.795	-7.566	No Precisa Armadura Cortante
	-60.173	1.847	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.761	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.633	0.549	1.411	1.411	3.795	-6.180	No Precisa Armadura Cortante
1715	-98.032	0.220	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.127	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.451	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.082	0.448	1.617	1.617	3.795	-7.827	No Precisa Armadura Cortante
	-48.778	1.736	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.049	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.986	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.525	0.593	1.343	1.343	3.795	-6.182	No Precisa Armadura Cortante
1715	-98.032	0.220	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.127	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.451	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.082	0.448	1.617	1.617	3.795	-7.827	No Precisa Armadura Cortante
	-48.778	1.736	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.049	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.986	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.525	0.593	1.343	1.343	3.795	-6.182	No Precisa Armadura Cortante
1716	-83.733	0.641	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.233	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.574	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.902	0.480	1.542	1.542	3.795	-7.430	No Precisa Armadura Cortante
	-55.770	1.550	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.486	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.904	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.589	0.565	1.385	1.385	3.795	-6.381	No Precisa Armadura Cortante
1716	-83.733	0.641	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.233	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.574	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.902	0.480	1.542	1.542	3.795	-7.430	No Precisa Armadura Cortante
	-55.770	1.550	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.486	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.904	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.589	0.565	1.385	1.385	3.795	-6.381	No Precisa Armadura Cortante
1717	-64.391	0.200	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.024	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	-7.522	No Precisa Armadura Cortante
	-61.284	1.796	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.830	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.628	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.645	0.545	1.417	1.417	3.795	-6.230	No Precisa Armadura Cortante
1717	-64.391	0.200	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.024	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	-7.522	No Precisa Armadura Cortante
	-61.284	1.796	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.830	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.628	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.645	0.545	1.417	1.417	3.795	-6.230	No Precisa Armadura Cortante
1718	-106.607	0.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.663	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.577	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.192	0.431	1.660	1.660	3.795	-7.627	No Precisa Armadura Cortante
	-50.834	1.890	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.177	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.256	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.543	0.585	1.355	1.355	3.795	-6.074	No Precisa Armadura Cortante
1718	-106.607	0.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.663	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.577	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.192	0.431	1.660	1.660	3.795	-7.627	No Precisa Armadura Cortante
	-50.834	1.890	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.177	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.256	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.543	0.585	1.355	1.355	3.795	-6.074	No Precisa Armadura Cortante
1719	-82.090	0.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.131	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.359	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.882	0.484	1.534	1.534	3.795	-7.514	No Precisa Armadura Cortante
	-58.007	1.484	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.198	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.611	0.557	1.398	1.398	3.795	-6.450	No Precisa Armadura Cortante
1719	-82.090	0.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.131	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.359	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.882	0.484	1.534	1.534	3.795	-7.514	No Precisa Armadura Cortante
	-58.007	1.484	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.198	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.611	0.557	1.398	1.398	3.795	-6.450	No Precisa Armadura Cortante
1720	-63.021	0.253	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.939	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.856	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.663	0.539	1.428	1.428	3.795	-7.469	No Precisa Armadura Cortante
	-62.584	1.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.912	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.798	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.658	0.541	1.425	1.425	3.795	-6.319	No Precisa Armadura Cortante
1720	-63.021	0.253	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.939	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.856	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.663	0.539	1.428	1.428	3.795	-7.469	No Precisa Armadura Cortante
	-62.584	1.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.912	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.798	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.658	0.541	1.425	1.425	3.795	-6.319	No Precisa Armadura Cortante
1721	-47.471	0.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.815	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.514	0.599	1.335	1.335	3.795	-7.405	No Precisa Armadura Cortante
	-53.204	1.655	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.325	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.567	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.564	0.575	1.370	1.370	3.795	-6.278	No Precisa Armadura Cortante
1721	-47.471	0.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.815	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.514	0.599	1.335	1.335	3.795	-7.405	No Precisa Armadura Cortante
	-53.204	1.655	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.325	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.567	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.564	0.575	1.370	1.370	3.795	-6.278	No Precisa Armadura Cortante
1722	-107.310	0.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.707	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.669	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.202	0.430	1.663	1.663	3.795	-7.544	No Precisa Armadura Cortante
	-52.749	1.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.297	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.508	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.560	0.577	1.367	1.367	3.795	-6.092	No Precisa Armadura Cortante
1722	-107.310	0.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.707	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.669	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.202	0.430	1.663	1.663	3.795	-7.544	No Precisa Armadura Cortante
	-52.749	1.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.297	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.508	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.560	0.577	1.367	1.367	3.795	-6.092	No Precisa Armadura Cortante
1723	-80.763	0.392	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.048	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.184	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	-7.599	No Precisa Armadura Cortante
	-60.378	1.402	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.774	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.509	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.635	0.548	1.412	1.412	3.795	-6.534	No Precisa Armadura Cortante
1723	-80.763	0.392	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.048	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.184	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	-7.599	No Precisa Armadura Cortante
	-60.378	1.402	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.774	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.509	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.635	0.548	1.412	1.412	3.795	-6.534	No Precisa Armadura Cortante
1724	-61.599	0.259	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.850	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.669	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.648	0.544	1.419	1.419	3.795	-7.428	No Precisa Armadura Cortante
	-64.141	1.576	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.009	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.003	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.675	0.535	1.434	1.434	3.795	-6.426	No Precisa Armadura Cortante
1724	-61.599	0.259	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.850	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.669	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.648	0.544	1.419	1.419	3.795	-7.428	No Precisa Armadura Cortante
	-64.141	1.576	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.009	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.003	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.675	0.535	1.434	1.434	3.795	-6.426	No Precisa Armadura Cortante
1725	-47.035	0.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.758	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.510	0.601	1.332	1.332	3.795	-7.405	No Precisa Armadura Cortante
	-59.502	1.631	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.719	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.394	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.626	0.551	1.407	1.407	3.795	-6.346	No Precisa Armadura Cortante
1725	-47.035	0.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.758	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.510	0.601	1.332	1.332	3.795	-7.405	No Precisa Armadura Cortante
	-59.502	1.631	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.719	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.394	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.626	0.551	1.407	1.407	3.795	-6.346	No Precisa Armadura Cortante
1726	-79.580	0.188	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.031	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.852	0.490	1.520	1.520	3.795	-7.662	No Precisa Armadura Cortante
	-62.963	1.294	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.935	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.848	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.662	0.539	1.427	1.427	3.795	-6.642	No Precisa Armadura Cortante
1726	-79.580	0.188	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.031	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.852	0.490	1.520	1.520	3.795	-7.662	No Precisa Armadura Cortante
	-62.963	1.294	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.935	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.848	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.662	0.539	1.427	1.427	3.795	-6.642	No Precisa Armadura Cortante

Envolvente Vz

ENVOLVENTE <Vz > concomitantes

Axil 1.00 Cargas Puntuales
Vz 1.50

Barra Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γ_c	γ_s	θ [°]	A_s [mm²]	A_c [mm²]	cotan (α)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot(θe)	cot(θ)	$f_{ct,m}$ [N/mm²]	Anecesaria cm2	
1727	-60.154	0.305	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.760	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.460	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.633	0.549	1.411	1.411	3.795	-7.403	No Precisa Armadura Cortante
	-65.965	1.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.123	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.242	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.695	0.529	1.444	1.444	3.795	-6.541	No Precisa Armadura Cortante
1727	-60.154	0.305	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.760	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.460	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.633	0.549	1.411	1.411	3.795	-7.403	No Precisa Armadura Cortante
	-65.965	1.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.123	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.242	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.695	0.529	1.444	1.444	3.795	-6.541	No Precisa Armadura Cortante
1728	-46.555	0.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	-7.478	No Precisa Armadura Cortante
	-60.554	1.599	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.785	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	-6.379	No Precisa Armadura Cortante
1728	-46.555	0.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.506	0.603	1.329	1.329	3.795	-7.478	No Precisa Armadura Cortante
	-60.554	1.599	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.785	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.532	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.548	1.413	1.413	3.795	-6.379	No Precisa Armadura Cortante
1729	-78.356	0.142	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.897	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.869	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.837	0.493	1.513	1.513	3.795	-7.695	No Precisa Armadura Cortante
	-65.840	1.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.226	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.694	0.530	1.444	1.444	3.795	-6.764	No Precisa Armadura Cortante
1729	-78.356	0.142	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.897	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.869	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.837	0.493	1.513	1.513	3.795	-7.695	No Precisa Armadura Cortante
	-65.840	1.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.226	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.694	0.530	1.444	1.444	3.795	-6.764	No Precisa Armadura Cortante
1730	-58.666	0.317	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.667	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.284	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.618	0.554	1.402	1.402	3.795	-7.381	No Precisa Armadura Cortante
	-68.047	1.322	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.253	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.516	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.718	0.573	1.456	1.456	3.795	-6.663	No Precisa Armadura Cortante
1730	-58.666	0.317	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.667	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.284	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.618	0.554	1.402	1.402	3.795	-7.381	No Precisa Armadura Cortante
	-68.047	1.322	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.253	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.516	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.718	0.573	1.456	1.456	3.795	-6.663	No Precisa Armadura Cortante
1731	-45.964	0.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.617	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.501	0.606	1.325	1.325	3.795	-7.468	No Precisa Armadura Cortante
	-61.697	1.632	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.682	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	-6.443	No Precisa Armadura Cortante
1731	-45.964	0.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.617	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.501	0.606	1.325	1.325	3.795	-7.468	No Precisa Armadura Cortante
	-61.697	1.632	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.856	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.682	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.649	0.544	1.420	1.420	3.795	-6.443	No Precisa Armadura Cortante
1732	-29.994	0.374	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.875	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.521	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.408	0.692	1.222	1.222	3.795	-7.170	No Precisa Armadura Cortante
	-54.861	1.467	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.429	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.785	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.580	0.568	1.380	1.380	3.795	-6.439	No Precisa Armadura Cortante
1732	-29.994	0.374	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.875	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.521	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.408	0.692	1.222	1.222	3.795	-7.170	No Precisa Armadura Cortante
	-54.861	1.467	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.429	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.785	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.580	0.568	1.380	1.380	3.795	-6.439	No Precisa Armadura Cortante
1733	-77.027	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.814	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.694	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.822	0.497	1.506	1.506	3.795	-7.745	No Precisa Armadura Cortante
	-68.848	1.123	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.303	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.621	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	-6.828	No Precisa Armadura Cortante
1733	-77.027	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.814	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.694	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.822	0.497	1.506	1.506	3.795	-7.745	No Precisa Armadura Cortante
	-68.848	1.123	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.303	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.621	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	-6.828	No Precisa Armadura Cortante
1734	-57.067	0.331	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.567	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.074	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.602	0.560	1.393	1.393	3.795	-7.352	No Precisa Armadura Cortante
	-70.396	1.170	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.824	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-6.805	No Precisa Armadura Cortante
1734	-57.067	0.331	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.567	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.074	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.602	0.560	1.393	1.393	3.795	-7.352	No Precisa Armadura Cortante
	-70.396	1.170	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.824	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-6.805	No Precisa Armadura Cortante
1735	-45.195	0.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.825	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.516	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.495	0.609	1.321	1.321	3.795	-7.521	No Precisa Armadura Cortante
	-63.009	1.427	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.938	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.854	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.663	0.539	1.427	1.427	3.795	-6.536	No Precisa Armadura Cortante
1735	-45.195	0.018	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.825	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.516	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.495	0.609	1.321	1.321	3.795	-7.521	No Precisa Armadura Cortante
	-63.009	1.427	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.938	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.854	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.663	0.539	1.427	1.427	3.795	-6.536	No Precisa Armadura Cortante
1736	-28.741	0.357	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.796	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	-7.172	No Precisa Armadura Cortante
	-56.524	1.436	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.533	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.003	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.696	0.562	1.390	1.390	3.795	-6.476	No Precisa Armadura Cortante
1736	-28.741	0.357	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.796	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	-7.172	No Precisa Armadura Cortante
	-56.524	1.436	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.533	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.003	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.590	0.662	1.390	1.390	3.795	-6.416	No Precisa Armadura Cortante
1737	-62.149	0.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.884	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.741	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.654	0.542	1.422	1.422	3.795	-7.440	No Precisa Armadura Cortante
	-66.159	1.035	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.135	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.268	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.697	0.529	1.445	1.445	3.795	-6.827	No Precisa Armadura Cortante
1737	-62.149	0.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.884	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.741	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.654	0.542	1.422	1.422	3.795	-7.440	No Precisa Armadura Cortante
	-66.159	1.035	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.135	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.268	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.697	0.529	1.445	1.445	3.795	-6.827	No Precisa Armadura Cortante
1738	-44.196	0.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.782	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.385	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.458	0.614	1.314	1.314	3.795	-7.481	No Precisa Armadura Cortante
	-64.547	1.296	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.058	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.670	0.534	1.436	1.436	3.795	-6.654	No Precisa Armadura Cortante
1738	-44.196	0.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.762	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.385	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.488	0.614	1.314	1.314	3.795	-7.481	No Precisa Armadura Cortante
	-64.547	1.295	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.058	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.670	0.534	1.436	1.436	3.795	-6.654	No Precisa Armadura Cortante
1739	-28.752	0.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.797	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.358	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	-7.194	No Precisa Armadura Cortante
	-58.156	1.400	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.635	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.217	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.613	0.556	1.399	1.399	3.795	-6.518	No Precisa Armadura Cortante
1739	-28.752	0.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.797	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.358	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.405	0.703	1.214	1.214	3.795	-7.194	No Precisa Armadura Cortante
	-58.156	1.400	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.635	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.217	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.613	0.556	1.399	1.399	3.795	-6.518	No Precisa Armadura Cortante
1740	-64.252	0.166	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.016	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.017	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	-7.546	No Precisa Armadura Cortante
	-64.916	1.079	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.057	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.104	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.683	0.533	1.438	1.438	3.795	-6.829	No Precisa Armadura Cortante
1740	-64.252	0.166	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.016	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.017	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	-7.546	No Precisa Armadura Cortante
	-64.916	1.079	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.057	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.104	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.683	0.533	1.438	1.438	3.795	-6.829	No Precisa Armadura Cortante
1741	-42.931	0.153	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.683	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	-7.401	No Precisa Armadura Cortante
	-66.316	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.145	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.288	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	-6.786	No Precisa Armadura Cortante
1741	-42.931	0.153	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.683	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	-7.401	No Precisa Armadura Cortante
	-66.316	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.145	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.288	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	-6.786	No Precisa Armadura Cortante
1742	-28.640	0.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.790	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.343	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.404	0.701	1.213	1.213	3.795	-7.236	No Precisa Armadura Cortante
	-59.696	1.358	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.731	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.418	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.628	0.551	1.408	1.408	3.795	-6.584	No Precisa Armadura Cortante
1742	-28.640	0.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.790	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.343	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.404	0.701	1.213	1.213	3.795	-7.236	No Precisa Armadura Cortante
	-59.688	1.358	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.731	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.418	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.628	0.551	1.408	1.408	3.795	-6.554	No Precisa Armadura Cortante
1743	-7.861	0.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.491	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.616	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.494	0.888	1.063	1.063	3.795	-7.050	No Precisa Armadura Cortante
	-55.733	1.249	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.899	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.569	0.565	1.385	1.385	3.795	-6.618	No Precisa Armadura Cortante
1743	-7.861	0.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.491	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.616	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.491	0.888	1.063	1.063	3.795	-7.050	No Precisa Armadura Cortante
	-55.733	1.249	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.899	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.589	0.585	1.385	1.385	3.795	-6.618	No Precisa Armadura Cortante
1744	-66.370	0.081	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.148	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.295	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.699	0.528	1.447	1.447	3.795	-7.633	No Precisa Armadura Cortante
	-63.596	1.043	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.975	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.931	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.669	0.537	1.431	1.431	3.795	-6.846	No Precisa Armadura Cortante
1744	-66.370	0.081	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.148	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.295	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.699	0.528	1.447	1.447	3.795	-7.633	No Precisa Armadura Cortante
	-63.596	1.043	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.975	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.931	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.669	0.537	1.431	1.431	3.795	-6.846	No Precisa Armadura Cortante
1745	-62.288	0.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.893	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.760	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.655	0.542	1.423	1.423	3.795	-7.499	No Precisa Armadura Cortante
	-47.364	1.030	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.960	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.801	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.513	0.599	1.334	1.334	3.795	-6.732	No Precisa Armadura Cortante
1745	-62.288	0.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.893	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.760	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.655	0.542	1.423	1.423	3.795	-7.499	No Precisa Armadura Cortante
	-47.364	1.030	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.960	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.801	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.513	0.599	1.334	1.334	3.795	-6.732	No Precisa Armadura Cortante
1746	-28.304	0.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.769	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.299	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.404	0.703	1.211	1.211	3.795	-7.299	No Precisa Armadura Cortante
	-60.903	1.283	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.806	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.578	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.641	0.546	1.415	1.415	3.795	-6.625	No Precisa Armadura Cortante
1746	-28.304	0.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.769	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.299	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.404	0.703	1.211	1.211	3.795	-7.289	No Precisa Armadura Cortante
	-60.903	1.293	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.806	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.578	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.641	0.546	1.415	1.415	3.795	-6.625	No Precisa Armadura Cortante
1747	-8.035	0.540	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.502	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.639	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.491	0.886	1.064	1.064	3.795	-7.105	No Precisa Armadura Cortante
	-57.553	1.256	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.597	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.138	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.607	0.558	1.396	1.396	3.795	-6.628	No Precisa Armadura Cortante
1747	-8.035	0.540	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.502	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.639	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.491	0.886	1.064	1.064	3.795	-7.105	No Precisa Armadura Cortante
	-57.553	1.255	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.597	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.138	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.607	0.558	1.396	1.396	3.795	-6.628	No Precisa Armadura Cortante
1748	-63.932	0.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.996	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.975	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.673	0.536	1.433	1.433	3.795	-7.597	No Precisa Armadura Cortante
	-46.002	1.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.875	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.622	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.502	0.606	1.326	1.326	3.795	-6.698	No Precisa Armadura Cortante
1748	-63.932	0.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.996	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.975	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.673	0.536	1.433	1.433	3.795	-7.597	No Precisa Armadura Cortante
	-46.002	1.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.875	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.622	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.502	0.606	1.326	1.326	3.795	-6.698	No Precisa Armadura Cortante
1749	-27.661	0.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.729	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.215	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.402	0.708	1.206	1.206	3.795	-7.374	No Precisa Armadura Cortante
	-62.200	1.198	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.888	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.748	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.654	0.542	1.423	1.423	3.795	-6.712	No Precisa Armadura Cortante
1749	-27.661	0.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.729	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.215	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.402	0.708	1.206	1.206	3.795	-7.374	No Precisa Armadura Cortante
	-62.160	1.196	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.888	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.748	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.654	0.542	1.423	1.423	3.795	-6.712	No Precisa Armadura Cortante
1750	-11.070	0.512	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.692	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.037	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.456	0.851	1.087	1.087	3.795	-7.098	No Precisa Armadura Cortante
	-59.188	1.265	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.353	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.623	0.552	1.405	1.405	3.795	-6.634	No Precisa Armadura Cortante
1750	-11.070	0.512	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.692	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.037	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.456	0.851	1.087	1.087	3.795	-7.098	No Precisa Armadura Cortante
	-59.188	1.265	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.353	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.623	0.552	1.405	1.405	3.795	-6.634	No Precisa Armadura Cortante
1751	-65.557	0.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.097	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.189	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.690	0.531	1.442	1.442	3.795	-7.680	No Precisa Armadura Cortante
	-44.515	1.067	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.782	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.427	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.490	0.612	1.316	1.316	3.795	-6.685	No Precisa Armadura Cortante
1751	-65.557	0.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.097	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.189	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.690	0.531	1.442	1.442	3.795	-7.680	No Precisa Armadura Cortante
	-44.518	1.067	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.782	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.427	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.490	0.612	1.316	1.316	3.795	-6.685	No Precisa Armadura Cortante
1752	-26.678	0.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.667	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.086	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.400	0.715	1.200	1.200	3.795	-7.457	No Precisa Armadura Cortante
	-63.585	1.082	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.669	0.537	1.431	1.431	3.795	-6.815	No Precisa Armadura Cortante
1752	-26.678	0.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.667	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.086	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.400	0.715	1.200	1.200	3.795	-7.457	No Precisa Armadura Cortante
	-63.585	1.082	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.669	0.537	1.431	1.431	3.795	-6.815	No Precisa Armadura Cortante
1753	-11.352	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.710	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.074	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.452	0.848	1.089	1.089	3.795	-7.127	No Precisa Armadura Cortante
	-60.679	1.247	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.792	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.548	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.638	0.547	1.414	1.414	3.795	-6.660	No Precisa Armadura Cortante
1753	-11.352	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.710	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.074	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.452	0.848	1.069	1.069	3.795	-7.127	No Precisa Armadura Cortante

ENVOLVENTE <Vz > concomitantes

Axil 1.00 Cargas Puntuales
Vz 1.50

Barra Elemento	N	Vz																			Comprobación Compresión Oblicua Alma					Armadura transversal								Armadura
	-40.679	1.247	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.792	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.648	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.638	0.547	1.414	1.414	3.795	-6.660	No Precisa Armadura Cortante
1784	-47.129	0.945	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.196	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.395	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.708	0.526	1.451	1.451	3.795	-7.653	No Precisa Armadura Cortante
	-42.974	1.046	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.686	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	17.225	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	-6.893	No Precisa Armadura Cortante
1754	-47.129	0.946	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.196	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.395	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.708	0.526	1.451	1.451	3.795	-7.653	No Precisa Armadura Cortante
	-42.874	1.048	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.888	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	17.225	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	-6.693	No Precisa Armadura Cortante
1764	-29.477	0.098	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.586	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.915	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.399	0.724	1.191	1.191	3.795	-7.384	No Precisa Armadura Cortante
	-65.0[illegible]	0.958	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.064	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.119	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.685	0.532	1.439	1.439	3.795	-6.926	No Precisa Armadura Cortante
1766	-29.477	0.995	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.586	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.815	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.399	0.724	1.191	1.191	3.795	-7.384	No Precisa Armadura Cortante
	-65.0[illegible]	0.954	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.064	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.119	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.685	0.532	1.439	1.439	3.795	-6.926	No Precisa Armadura Cortante
1766	-11.241	0.392	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.713	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.062	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.452	0.848	1.090	1.090	3.795	-7.190	No Precisa Armadura Cortante
	-69.434	1.205	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.656	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.262	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.618	0.555	1.401	1.401	3.795	-6.676	No Precisa Armadura Cortante
1766	-11.41[illegible]	0.392	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.713	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.062	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.457	0.848	1.090	1.090	3.795	-7.190	No Precisa Armadura Cortante
	-69.444	1.206	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.658	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.262	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	-6.676	No Precisa Armadura Cortante
1767	-44.441	0.961	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.029	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.045	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	-7.615	No Precisa Armadura Cortante
	-25.629	0.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.614	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.974	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.399	0.721	1.194	1.194	3.795	-6.719	No Precisa Armadura Cortante
1767	-44.461	0.961	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.029	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.045	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	-7.615	No Precisa Armadura Cortante
	-25.629	0.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.614	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.974	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.399	0.721	1.194	1.194	3.795	-6.719	No Precisa Armadura Cortante
1764	-11.10[illegible]	0.350	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.694	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.042	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.455	0.851	1.088	1.088	3.795	-7.298	No Precisa Armadura Cortante
	-59.845	1.160	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.722	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.400	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.627	0.551	1.407	1.407	3.795	-6.720	No Precisa Armadura Cortante
1763	-11.10[illegible]	0.350	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.694	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.042	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.455	0.851	1.088	1.088	3.795	-7.298	No Precisa Armadura Cortante
	-59.845	1.160	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.722	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.400	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.627	0.551	1.407	1.407	3.795	-6.720	No Precisa Armadura Cortante
1763	-46.841	0.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.098	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.187	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.690	0.531	1.442	1.442	3.795	-7.672	No Precisa Armadura Cortante
	-24.415	0.947	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.526	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.788	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.398	0.731	1.184	1.184	3.795	-6.708	No Precisa Armadura Cortante
1763	-46.841	0.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.098	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.187	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.690	0.531	1.442	1.442	3.795	-7.672	No Precisa Armadura Cortante
	-24.41[illegible]	0.947	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.526	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.788	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.398	0.731	1.184	1.184	3.795	-6.708	No Precisa Armadura Cortante
1766	-10.377	0.139	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.649	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.946	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.462	0.859	1.082	1.082	3.795	-7.400	No Precisa Armadura Cortante
	-60.49[illegible]	1.045	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.781	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.624	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.636	0.548	1.413	1.413	3.795	-6.817	No Precisa Armadura Cortante
1766	-10.377	0.139	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.649	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.948	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.462	0.859	1.082	1.082	3.795	-7.400	No Precisa Armadura Cortante
	-60.49[illegible]	1.045	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.781	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.524	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.636	0.548	1.413	1.413	3.795	-6.817	No Precisa Armadura Cortante
1761	-46.6[illegible]	0.027	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.158	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.316	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.701	0.528	1.448	1.448	3.795	-7.678	No Precisa Armadura Cortante
	-22.017	0.017	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.432	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.692	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.398	0.742	1.174	1.174	3.795	-6.731	No Precisa Armadura Cortante
1761	-46.6[illegible]	0.027	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.158	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.316	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.701	0.528	1.448	1.448	3.795	-7.678	No Precisa Armadura Cortante
	-22.017	0.017	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.432	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.692	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.398	0.742	1.174	1.174	3.795	-6.731	No Precisa Armadura Cortante
1762	-9.376	0.053	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.586	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.815	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.474	0.870	1.074	1.074	3.795	-7.477	No Precisa Armadura Cortante
	-61.347	0.043	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.837	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.641	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.646	0.545	1.418	1.418	3.795	-6.907	No Precisa Armadura Cortante
1762	-9.376	0.051	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.586	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.815	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.474	0.870	1.074	1.074	3.795	-7.477	No Precisa Armadura Cortante
	-61.347	0.043	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.837	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.641	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.646	0.545	1.418	1.418	3.795	-6.907	No Precisa Armadura Cortante
1763	-8.192	0.060	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.511	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.658	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.489	0.885	1.065	1.065	3.795	-7.529	No Precisa Armadura Cortante
	-62.225	0.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.889	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.752	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.655	0.542	1.423	1.423	3.795	-6.982	No Precisa Armadura Cortante
1763	-8.192	0.060	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.511	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.658	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.489	0.885	1.065	1.065	3.795	-7.529	No Precisa Armadura Cortante
	-62.225	0.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.889	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.752	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.655	0.542	1.423	1.423	3.795	-6.982	No Precisa Armadura Cortante
1764	-6.833	0.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.427	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.481	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.509	0.901	1.055	1.055	3.795	-7.532	No Precisa Armadura Cortante
	-62.9[illegible]	0.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.936	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.851	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.663	0.539	1.427	1.427	3.795	-7.031	No Precisa Armadura Cortante
1764	-6.833	0.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.427	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.481	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.509	0.901	1.055	1.055	3.795	-7.532	No Precisa Armadura Cortante
	-62.965	0.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.936	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.851	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.663	0.539	1.427	1.427	3.795	-7.031	No Precisa Armadura Cortante
1765	-5.284	0.026	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.331	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.279	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.535	0.921	1.043	1.043	3.795	-7.546	No Precisa Armadura Cortante
	-63.565	0.017	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.873	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.928	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.669	0.537	1.431	1.431	3.795	-7.026	No Precisa Armadura Cortante
1766	-5.284	0.026	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.331	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.279	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.535	0.921	1.043	1.043	3.795	-7.546	No Precisa Armadura Cortante
	-63.565	0.017	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.873	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.928	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.669	0.537	1.431	1.431	3.795	-7.026	No Precisa Armadura Cortante

ENVOLVENTE <Vz > Axil 1.50 Cargas Puntuales
concomitantes Vz 1.50

Barra	N	Vz	bo	h	d	f_{ck}	f_{yk}	γ_c	γ_s	θ	A_{sl}	A_c	cotan (θ)	f_{cv}	f_{yd}	σ'cd	K	f_{1cd}	Función de θ	V_{u1}	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2}	Necesidad Armadura Cortante	Armadura dispuesta	cos2	Vcu	β	cot ($\theta_{e,ref}$)	cot (θ_e)	$f_{ct,m}$	Armadura Real	
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[mm²]	[mm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]				[t]				[N/mm²]	cm2	
1700	-23.045	0.255	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.609	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.398	0.741	1.175	1.175	3.795	-7.257	No Precisa Armadura Cortante
	-215.306	2.667	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.457	0.92	18.00	0.50	115.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.843	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.637	0.333	2.132	2.000	3.795	-7.913	No Precisa Armadura Cortante
1700	-23.045	0.255	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	14.609	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.398	0.741	1.175	1.175	3.795	-7.257	No Precisa Armadura Cortante
	-215.306	2.667	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.457	0.92	18.00	0.50	115.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.843	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.637	0.333	2.132	2.000	3.795	-7.913	No Precisa Armadura Cortante
1701	-30.285	0.116	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.893	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.559	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.409	0.690	1.224	1.224	3.795	-7.376	No Precisa Armadura Cortante
	-204.468	2.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.779	0.96	18.00	0.50	120.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.421	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.163	0.333	2.090	2.000	3.795	-7.387	No Precisa Armadura Cortante
1701	-30.285	0.116	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.893	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.559	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.409	0.690	1.224	1.224	3.795	-7.376	No Precisa Armadura Cortante
	-204.468	2.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.779	0.96	18.00	0.50	120.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.421	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.163	0.333	2.090	2.000	3.795	-7.387	No Precisa Armadura Cortante
1702	-36.898	0.183	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.312	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.440	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.439	0.651	1.269	1.269	3.795	-7.347	No Precisa Armadura Cortante
	-194.372	2.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.148	0.99	18.00	0.50	124.96	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.096	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.722	0.333	2.050	2.000	3.795	-7.137	No Precisa Armadura Cortante
1702	-36.898	0.183	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.312	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.440	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.439	0.651	1.269	1.269	3.795	-7.347	No Precisa Armadura Cortante
	-194.372	2.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.148	0.99	18.00	0.50	124.96	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.096	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.722	0.333	2.050	2.000	3.795	-7.137	No Precisa Armadura Cortante
1703	-42.591	0.330	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.662	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.174	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.476	0.622	1.304	1.304	3.795	-7.258	No Precisa Armadura Cortante
	-186.174	2.436	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.636	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	36.020	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.363	0.333	2.016	2.000	3.795	-7.085	No Precisa Armadura Cortante
1703	-42.591	0.330	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.662	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.174	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.476	0.622	1.304	1.304	3.795	-7.258	No Precisa Armadura Cortante
	-186.174	2.436	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.636	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	36.020	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.363	0.333	2.016	2.000	3.795	-7.085	No Precisa Armadura Cortante
1704	-145.911	0.676	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.119	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.735	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.711	0.372	1.845	1.845	3.795	-7.964	No Precisa Armadura Cortante
	-69.045	1.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.317	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.648	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.520	1.462	1.462	3.795	-6.249	No Precisa Armadura Cortante
1704	-145.911	0.676	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.119	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.735	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.711	0.372	1.845	1.845	3.795	-7.964	No Precisa Armadura Cortante
	-69.045	1.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.317	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.648	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.520	1.462	1.462	3.795	-6.249	No Precisa Armadura Cortante
1705	-47.171	0.479	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.775	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.511	0.600	1.333	1.333	3.795	-7.169	No Precisa Armadura Cortante
	-180.075	2.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.255	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.161	0.335	1.991	1.991	3.795	-7.204	No Precisa Armadura Cortante
1705	-47.171	0.479	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.775	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.511	0.600	1.333	1.333	3.795	-7.169	No Precisa Armadura Cortante
	-180.075	2.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.255	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	35.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.161	0.335	1.991	1.991	3.795	-7.204	No Precisa Armadura Cortante
1706	-141.108	0.678	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.819	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.105	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.647	0.378	1.823	1.823	3.795	-7.912	No Precisa Armadura Cortante
	-71.802	1.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.488	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.008	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.761	0.512	1.477	1.477	3.795	-6.273	No Precisa Armadura Cortante
1706	-141.108	0.678	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.819	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.105	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.647	0.378	1.823	1.823	3.795	-7.912	No Precisa Armadura Cortante
	-71.802	1.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.488	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.008	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.761	0.512	1.477	1.477	3.795	-6.273	No Precisa Armadura Cortante
1707	-50.837	0.614	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.270	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.544	0.584	1.356	1.356	3.795	-7.087	No Precisa Armadura Cortante
	-176.018	1.701	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.001	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.687	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.108	0.339	1.974	1.974	3.795	-7.466	No Precisa Armadura Cortante
1707	-50.837	0.614	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.270	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.544	0.584	1.356	1.356	3.795	-7.087	No Precisa Armadura Cortante
	-176.018	1.701	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.001	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.687	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.108	0.339	1.974	1.974	3.795	-7.466	No Precisa Armadura Cortante
1708	-54.162	0.670	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.385	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.693	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.573	0.571	1.376	1.376	3.795	-7.066	No Precisa Armadura Cortante
	-158.932	1.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.606	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.182	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.857	0.359	1.893	1.893	3.795	-7.166	No Precisa Armadura Cortante
1708	-54.162	0.670	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.385	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.693	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.573	0.571	1.376	1.376	3.795	-7.066	No Precisa Armadura Cortante
	-158.932	1.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.606	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.182	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.857	0.359	1.893	1.893	3.795	-7.166	No Precisa Armadura Cortante
1709	-148.427	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.277	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.065	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.744	0.369	1.856	1.856	3.795	-8.153	No Precisa Armadura Cortante
	-79.455	1.581	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.966	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.013	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.651	0.491	1.519	1.519	3.795	-6.563	No Precisa Armadura Cortante
1709	-148.427	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.277	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.065	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.744	0.369	1.856	1.856	3.795	-8.153	No Precisa Armadura Cortante
	-79.455	1.581	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.966	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.013	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.651	0.491	1.519	1.519	3.795	-6.563	No Precisa Armadura Cortante
1710	-57.696	0.633	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.606	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.157	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.608	0.558	1.396	1.396	3.795	-7.123	No Precisa Armadura Cortante
	-152.078	1.773	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.505	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.545	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.792	0.364	1.872	1.872	3.795	-7.158	No Precisa Armadura Cortante
1710	-57.696	0.633	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.606	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.157	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.608	0.558	1.396	1.396	3.795	-7.123	No Precisa Armadura Cortante
	-152.078	1.773	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.505	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.545	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.792	0.364	1.872	1.872	3.795	-7.158	No Precisa Armadura Cortante
1711	-100.524	0.145	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.283	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.778	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.114	0.443	1.630	1.630	3.795	-7.912	No Precisa Armadura Cortante
	-88.671	1.845	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.542	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.222	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.963	0.468	1.568	1.568	3.795	-6.443	No Precisa Armadura Cortante
1711	-100.524	0.145	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.283	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.778	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.114	0.443	1.630	1.630	3.795	-7.912	No Precisa Armadura Cortante
	-88.671	1.845	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.542	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.222	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.963	0.468	1.568	1.568	3.795	-6.443	No Precisa Armadura Cortante
1712	-147.083	0.143	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.193	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.888	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.726	0.370	1.850	1.850	3.795	-8.399	No Precisa Armadura Cortante
	-82.859	1.629	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.179	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.461	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.892	0.482	1.538	1.538	3.795	-6.558	No Precisa Armadura Cortante
1712	-147.083	0.143	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.193	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.888	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.726	0.370	1.850	1.850	3.795	-8.399	No Precisa Armadura Cortante
	-82.859	1.629	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.179	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.461	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.892	0.482	1.538	1.538	3.795	-6.558	No Precisa Armadura Cortante
1713	-61.044	0.626	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.815	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.596	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.642	0.546	1.416	1.416	3.795	-7.156	No Precisa Armadura Cortante
	-148.062	1.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.255	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.020	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.740	0.369	1.854	1.854	3.795	-7.221	No Precisa Armadura Cortante
1713	-61.044	0.626	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.815	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.596	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.642	0.546	1.416	1.416	3.795	-7.156	No Precisa Armadura Cortante
	-148.062	1.841	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.255	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.020	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.740	0.369	1.854	1.854	3.795	-7.221	No Precisa Armadura Cortante
1714	-98.553	0.158	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.160	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.519	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.088	0.447	1.620	1.620	3.795	-7.881	No Precisa Armadura Cortante
	-90.260	1.847	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.641	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.431	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.983	0.464	1.577	1.577	3.795	-6.458	No Precisa Armadura Cortante
1714	-98.553	0.158	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.160	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.519	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.088	0.447	1.620	1.620	3.795	-7.881	No Precisa Armadura Cortante
	-90.260	1.847	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.641	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.431	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.983	0.464	1.577	1.577	3.795	-6.458	No Precisa Armadura Cortante
1715	-147.048	0.220	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.191	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.884	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.726	0.370	1.850	1.850	3.795	-8.338	No Precisa Armadura Cortante
	-73.167	1.736	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.573	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.188	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.776	0.508	1.485	1.485	3.795	-6.382	No Precisa Armadura Cortante
1715	-147.048	0.220	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.191	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.884	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.726	0.370	1.850	1.850	3.795	-8.338	No Precisa Armadura Cortante
	-73.167	1.736	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.573	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.188	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.776	0.508	1.485	1.485	3.795	-6.382	No Precisa Armadura Cortante
1716	-125.600	0.541	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.850	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.069	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.442	0.399	1.752	1.752	3.795	-7.858	No Precisa Armadura Cortante
	-83.656	1.550	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.564	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.901	0.480	1.542	1.542	3.795	-6.629	No Precisa Armadura Cortante
1716	-125.600	0.541	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.850	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.069	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.442	0.399	1.752	1.752	3.795	-7.858	No Precisa Armadura Cortante
	-83.656	1.550	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.564	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.901	0.480	1.542	1.542	3.795	-6.629	No Precisa Armadura Cortante
1717	-96.587	0.200	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.037	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.261	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.063	0.451	1.610	1.610	3.795	-7.828	No Precisa Armadura Cortante
	-91.926	1.786	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.745	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.650	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.004	0.461	1.585	1.585	3.795	-6.515	No Precisa Armadura Cortante
1717	-96.587	0.200	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.037	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.261	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.063	0.451	1.610	1.610	3.795	-7.828	No Precisa Armadura Cortante
	-91.926	1.786	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.745	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.650	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.004	0.461	1.585	1.585	3.795	-6.515	No Precisa Armadura Cortante
1718	-153.511	0.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.594	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.573	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	-8.186	No Precisa Armadura Cortante
	-76.261	1.890	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.766	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.592	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.812	0.499	1.502	1.502	3.795	-6.288	No Precisa Armadura Cortante
1718	-153.511	0.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.594	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.573	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	-8.186	No Precisa Armadura Cortante
	-76.261	1.890	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.766	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.592	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.812	0.499	1.502	1.502	3.795	-6.288	No Precisa Armadura Cortante
1719	-123.135	0.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.746	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.409	0.403	1.740	1.740	3.795	-7.932	No Precisa Armadura Cortante
	-87.011	1.484	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.438	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.004	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.943	0.472	1.560	1.560	3.795	-6.713	No Precisa Armadura Cortante
1719	-123.135	0.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.746	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.409	0.403	1.740	1.740	3.795	-7.932	No Precisa Armadura Cortante
	-87.011	1.484	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.438	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.004	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.943	0.472	1.560	1.560	3.795	-6.713	No Precisa Armadura Cortante
1720	-94.532	0.253	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.908	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.992	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.037	0.455	1.599	1.599	3.795	-7.766	No Precisa Armadura Cortante
	-93.876	1.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.867	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.906	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.029	0.456	1.596	1.596	3.795	-6.613	No Precisa Armadura Cortante
1720	-94.532	0.253	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.908	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.992	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.037	0.455	1.599	1.599	3.795	-7.766	No Precisa Armadura Cortante
	-93.876	1.697	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.867	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.906	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.029	0.456	1.596	1.596	3.795	-6.613	No Precisa Armadura Cortante
1721	-71.207	0.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.513	1.474	1.474	3.795	-7.595	No Precisa Armadura Cortante
	-79.806	1.655	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.988	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.059	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.855	0.490	1.521	1.521	3.795	-6.508	No Precisa Armadura Cortante
1721	-71.207	0.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.930	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.513	1.474	1.474	3.795	-7.595	No Precisa Armadura Cortante
	-79.806	1.655	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.988	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.059	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.855	0.490	1.521	1.521	3.795	-6.508	No Precisa Armadura Cortante
1722	-160.965	0.897	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.060	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.711	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.910	0.354	1.911	1.911	3.795	-8.106	No Precisa Armadura Cortante
	-79.124	1.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.945	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.969	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.847	0.491	1.518	1.518	3.795	-6.319	No Precisa Armadura Cortante
1722	-160.965	0.897	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.060	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.711	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.910	0.354	1.911	1.911	3.795	-8.106	No Precisa Armadura Cortante
	-79.124	1.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.945	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.969	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.847	0.491	1.518	1.518	3.795	-6.319	No Precisa Armadura Cortante
1723	-121.145	0.292	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.572	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.485	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.383	0.406	1.731	1.731	3.795	-8.009	No Precisa Armadura Cortante
	-90.547	1.402	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.660	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.471	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.987	0.464	1.578	1.578	3.795	-6.813	No Precisa Armadura Cortante
1723	-121.145	0.292	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.572	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.485	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.383	0.406	1.731	1.731	3.795	-8.009	No Precisa Armadura Cortante
	-90.547	1.402	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.660	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.471	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.987	0.464	1.578	1.578	3.795	-6.813	No Precisa Armadura Cortante
1724	-92.398	0.238	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.775	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.712	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.010	0.460	1.588	1.588	3.795	-7.715	No Precisa Armadura Cortante
	-96.212	1.578	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.013	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.212	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.059	0.451	1.608	1.608	3.795	-6.731	No Precisa Armadura Cortante
1724	-92.398	0.238	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.775	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.712	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.010	0.460	1.588	1.588	3.795	-7.715	No Precisa Armadura Cortante
	-96.212	1.578	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.013	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.212	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.059	0.451	1.608	1.608	3.795	-6.731	No Precisa Armadura Cortante
1725	-70.553	0.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.410	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.844	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.515	1.470	1.470	3.795	-7.592	No Precisa Armadura Cortante
	-89.253	1.631	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.578	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.299	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.971	0.467	1.572	1.572	3.795	-6.619	No Precisa Armadura Cortante
1725	-70.553	0.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.410	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.844	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.515	1.470	1.470	3.795	-7.592	No Precisa Armadura Cortante
	-89.253	1.631	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.578	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.299	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.971	0.467	1.572	1.572	3.795	-6.619	No Precisa Armadura Cortante
1726	-119.385	0.158	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.462	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.254	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.360	0.409	1.722	1.722	3.795	-8.065	No Precisa Armadura Cortante
	-94.446	1.294	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.903	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.960	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.036	0.455	1.599	1.599	3.795	-6.938	No Precisa Armadura Cortante
1726	-119.385	0.158	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.462	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.254	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.360	0.409	1.722	1.722	3.795	-8.065	No Precisa Armadura Cortante
	-94.446	1.294	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.903	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.960	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.036	0.455	1.599	1.599	3.795	-6.938	No Precisa Armadura Cortante

ENVOLVENTE <Vz >
concomitantes

Axil 1,50 Cargas Puntuales
Vz 1,50

Barra Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γ_c	γ_s	θ [°]	A_{s1} [mm²]	A_c [mm²]	cotg (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'_{cd} [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{su} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot(θ_e, cal)	cot (θ_e)	f_{ctm} [N/mm²]	As necesaria cm2	
1727	-90.231	0.305	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.639	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.427	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.983	0.464	1.577	1.577	3.795	-7.681	No Precisa Armadura Cortante
	-98.948	1.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.571	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.094	0.446	1.622	1.622	3.795	-6.857	No Precisa Armadura Cortante
1727	-98.231	0.305	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.639	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.427	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.983	0.464	1.577	1.577	3.795	-7.681	No Precisa Armadura Cortante
	-93.948	1.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.571	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.094	0.446	1.622	1.622	3.795	-6.857	No Precisa Armadura Cortante
1728	-69.833	0.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.365	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.750	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.738	0.517	1.466	1.466	3.795	-7.612	No Precisa Armadura Cortante
	-90.831	1.599	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.506	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.990	0.463	1.560	1.560	3.795	-6.660	No Precisa Armadura Cortante
1728	-69.833	0.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.365	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.750	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.738	0.517	1.466	1.466	3.795	-7.612	No Precisa Armadura Cortante
	-90.831	1.599	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.677	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.506	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.990	0.463	1.560	1.560	3.795	-6.660	No Precisa Armadura Cortante
1729	-117.534	0.142	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.346	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.011	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.335	0.412	1.713	1.713	3.795	-8.090	No Precisa Armadura Cortante
	-98.760	1.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.173	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.547	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.091	0.446	1.621	1.621	3.795	-7.079	No Precisa Armadura Cortante
1729	-117.534	0.142	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.346	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.011	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.335	0.412	1.713	1.713	3.795	-8.090	No Precisa Armadura Cortante
	-98.760	1.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.173	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.547	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.091	0.446	1.621	1.621	3.795	-7.079	No Precisa Armadura Cortante
1730	-87.999	0.317	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.500	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.134	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.955	0.470	1.565	1.565	3.795	-7.649	No Precisa Armadura Cortante
	-102.071	1.322	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.379	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.981	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.134	0.440	1.637	1.637	3.795	-6.993	No Precisa Armadura Cortante
1730	-87.999	0.317	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.500	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.134	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.955	0.470	1.565	1.565	3.795	-7.649	No Precisa Armadura Cortante
	-102.071	1.322	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.379	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.981	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.134	0.440	1.637	1.637	3.795	-6.993	No Precisa Armadura Cortante
1731	-68.946	0.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.309	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.634	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.728	0.520	1.461	1.461	3.795	-7.648	No Precisa Armadura Cortante
	-92.546	1.532	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.731	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.012	0.459	1.569	1.569	3.795	-6.731	No Precisa Armadura Cortante
1731	-68.946	0.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.309	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.634	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.728	0.520	1.461	1.461	3.795	-7.648	No Precisa Armadura Cortante
	-92.546	1.532	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.784	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.731	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.012	0.459	1.569	1.569	3.795	-6.731	No Precisa Armadura Cortante
1732	-44.991	0.374	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.812	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.489	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.494	0.610	1.319	1.319	3.795	-7.238	No Precisa Armadura Cortante
	-82.292	1.467	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.143	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.385	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.865	0.483	1.535	1.535	3.795	-6.661	No Precisa Armadura Cortante
1732	-44.991	0.374	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.812	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.489	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.494	0.610	1.319	1.319	3.795	-7.238	No Precisa Armadura Cortante
	-82.292	1.467	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.143	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.385	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.865	0.483	1.535	1.535	3.795	-6.661	No Precisa Armadura Cortante
1733	-115.541	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.749	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.309	0.415	1.704	1.704	3.795	-8.132	No Precisa Armadura Cortante
	-103.272	1.123	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.139	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.149	0.437	1.643	1.643	3.795	-7.163	No Precisa Armadura Cortante
1733	-115.541	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.749	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.309	0.415	1.704	1.704	3.795	-8.132	No Precisa Armadura Cortante
	-103.272	1.123	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.139	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.149	0.437	1.643	1.643	3.795	-7.163	No Precisa Armadura Cortante
1734	-85.601	0.339	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.350	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.819	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.925	0.475	1.552	1.552	3.795	-7.608	No Precisa Armadura Cortante
	-105.654	1.170	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.600	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.444	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.179	0.433	1.655	1.655	3.795	-7.150	No Precisa Armadura Cortante
1734	-85.601	0.339	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.350	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.819	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.925	0.475	1.552	1.552	3.795	-7.608	No Precisa Armadura Cortante
	-105.654	1.170	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.600	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.444	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.179	0.433	1.655	1.655	3.795	-7.150	No Precisa Armadura Cortante
1735	-67.792	0.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.524	1.455	1.455	3.795	-7.696	No Precisa Armadura Cortante
	-94.514	1.427	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.907	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.989	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.037	0.456	1.599	1.599	3.795	-6.833	No Precisa Armadura Cortante
1736	-67.792	0.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.524	1.455	1.455	3.795	-7.696	No Precisa Armadura Cortante
	-94.514	1.427	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.907	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.989	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.037	0.456	1.599	1.599	3.795	-6.833	No Precisa Armadura Cortante
1736	-43.112	0.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.694	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.243	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.479	0.619	1.308	1.308	3.795	-7.232	No Precisa Armadura Cortante
	-84.786	1.436	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.299	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.713	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.915	0.477	1.548	1.548	3.795	-6.729	No Precisa Armadura Cortante
1736	-43.112	0.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.694	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.243	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.479	0.619	1.308	1.308	3.795	-7.297	No Precisa Armadura Cortante
	-84.786	1.436	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.299	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.713	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.915	0.477	1.548	1.548	3.795	-6.729	No Precisa Armadura Cortante
1737	-93.224	0.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.826	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.820	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.021	0.458	1.592	1.592	3.795	-7.731	No Precisa Armadura Cortante
	-99.239	1.095	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.202	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.609	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.097	0.445	1.623	1.623	3.795	-7.144	No Precisa Armadura Cortante
1737	-93.224	0.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.826	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.820	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.021	0.458	1.592	1.592	3.795	-7.731	No Precisa Armadura Cortante
	-99.239	1.095	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.202	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.609	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.097	0.445	1.623	1.623	3.795	-7.144	No Precisa Armadura Cortante
1738	-66.297	0.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.144	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.286	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	-7.648	No Precisa Armadura Cortante
	-96.821	1.215	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.051	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.292	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	-6.961	No Precisa Armadura Cortante
1738	-66.297	0.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.144	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.286	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	-7.648	No Precisa Armadura Cortante
	-96.821	1.215	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.051	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.292	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	-6.961	No Precisa Armadura Cortante
1739	-43.128	0.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.245	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	-7.253	No Precisa Armadura Cortante
	-87.234	1.400	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.452	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.034	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.946	0.471	1.561	1.561	3.795	-6.782	No Precisa Armadura Cortante
1739	-43.128	0.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.245	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.480	0.619	1.308	1.308	3.795	-7.253	No Precisa Armadura Cortante
	-87.234	1.400	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.452	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.034	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.946	0.471	1.561	1.561	3.795	-6.782	No Precisa Armadura Cortante
1740	-96.378	0.168	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.024	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.234	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.061	0.451	1.608	1.608	3.795	-7.851	No Precisa Armadura Cortante
	-97.373	1.079	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.086	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.364	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.073	0.449	1.614	1.614	3.795	-7.139	No Precisa Armadura Cortante
1740	-96.378	0.168	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.024	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.234	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.061	0.451	1.608	1.608	3.795	-7.851	No Precisa Armadura Cortante
	-97.373	1.079	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.086	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.364	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.073	0.449	1.614	1.614	3.795	-7.139	No Precisa Armadura Cortante
1741	-64.397	0.153	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.025	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	-7.559	No Precisa Armadura Cortante
	-99.473	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.640	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.100	0.445	1.624	1.624	3.795	-7.104	No Precisa Armadura Cortante
1741	-64.397	0.153	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.025	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	-7.559	No Precisa Armadura Cortante
	-99.473	1.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.640	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.100	0.445	1.624	1.624	3.795	-7.104	No Precisa Armadura Cortante
1742	-42.949	0.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.685	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.223	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	-7.294	No Precisa Armadura Cortante
	-89.532	1.358	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.596	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.335	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.974	0.466	1.573	1.573	3.795	-6.838	No Precisa Armadura Cortante
1742	-42.949	0.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.685	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.223	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	-7.294	No Precisa Armadura Cortante
	-89.532	1.358	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.596	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.335	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.974	0.466	1.573	1.573	3.795	-6.838	No Precisa Armadura Cortante
1743	-11.795	0.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.737	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.132	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.448	0.843	1.093	1.093	3.795	-7.014	No Precisa Armadura Cortante
	-83.600	1.249	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.225	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.557	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.901	0.480	1.547	1.547	3.795	-6.866	No Precisa Armadura Cortante
1743	-11.795	0.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.737	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.132	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.448	0.843	1.093	1.093	3.795	-7.014	No Precisa Armadura Cortante
	-83.600	1.249	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.225	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.557	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.901	0.480	1.542	1.542	3.795	-6.866	No Precisa Armadura Cortante
1744	-99.555	0.081	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.222	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.651	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.101	0.445	1.625	1.625	3.795	-7.952	No Precisa Armadura Cortante
	-95.394	1.043	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.962	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.105	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.048	0.453	1.603	1.603	3.795	-7.147	No Precisa Armadura Cortante
1744	-99.655	0.081	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.222	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.651	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.101	0.445	1.625	1.625	3.795	-7.952	No Precisa Armadura Cortante
	-95.394	1.043	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.962	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.105	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.048	0.453	1.603	1.603	3.795	-7.147	No Precisa Armadura Cortante
1745	-93.434	0.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.840	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.847	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.023	0.457	1.593	1.593	3.795	-7.791	No Precisa Armadura Cortante
	-71.046	1.030	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.909	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.752	0.514	1.473	1.473	3.795	-6.922	No Precisa Armadura Cortante
1745	-93.434	0.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.840	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.847	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.023	0.457	1.593	1.593	3.795	-7.791	No Precisa Armadura Cortante
	-71.046	1.030	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.909	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.752	0.514	1.473	1.473	3.795	-6.922	No Precisa Armadura Cortante
1746	-42.456	0.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.654	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.157	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.475	0.622	1.304	1.304	3.795	-7.355	No Precisa Armadura Cortante
	-91.355	1.293	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.710	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.575	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.997	0.462	1.583	1.583	3.795	-6.908	No Precisa Armadura Cortante
1746	-42.456	0.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.654	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.157	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.475	0.622	1.304	1.304	3.795	-7.355	No Precisa Armadura Cortante
	-91.355	1.293	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.710	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.575	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.997	0.462	1.583	1.583	3.795	-6.908	No Precisa Armadura Cortante
1747	-12.053	0.540	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.753	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.166	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.446	0.841	1.095	1.095	3.795	-7.068	No Precisa Armadura Cortante
	-86.330	1.256	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.396	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.915	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.934	0.473	1.556	1.556	3.795	-6.888	No Precisa Armadura Cortante
1747	-12.053	0.540	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.753	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.166	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.446	0.841	1.095	1.095	3.795	-7.068	No Precisa Armadura Cortante
	-86.330	1.256	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.396	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.915	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.934	0.473	1.556	1.556	3.795	-6.888	No Precisa Armadura Cortante
1748	-95.896	0.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.994	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.171	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.055	0.452	1.606	1.606	3.795	-7.900	No Precisa Armadura Cortante
	-69.003	1.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.313	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.641	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.729	0.520	1.462	1.462	3.795	-6.878	No Precisa Armadura Cortante
1748	-95.896	0.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.994	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.171	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.055	0.452	1.606	1.606	3.795	-7.900	No Precisa Armadura Cortante
	-69.003	1.062	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.313	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.641	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.729	0.520	1.462	1.462	3.795	-6.878	No Precisa Armadura Cortante
1749	-41.492	0.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.593	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.030	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.468	0.627	1.297	1.297	3.795	-7.426	No Precisa Armadura Cortante
	-93.300	1.198	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.831	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.830	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.022	0.458	1.593	1.593	3.795	-7.003	No Precisa Armadura Cortante
1749	-41.492	0.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.593	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.030	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.468	0.627	1.297	1.297	3.795	-7.426	No Precisa Armadura Cortante
	-93.300	1.198	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.831	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.830	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.022	0.458	1.593	1.593	3.795	-7.003	No Precisa Armadura Cortante
1750	-16.605	0.512	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.038	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.764	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.414	0.796	1.128	1.128	3.795	-7.065	No Precisa Armadura Cortante
	-88.782	1.265	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.549	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.237	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.965	0.468	1.569	1.569	3.795	-6.905	No Precisa Armadura Cortante
1750	-16.605	0.512	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.038	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.764	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.414	0.796	1.128	1.128	3.795	-7.065	No Precisa Armadura Cortante
	-88.782	1.265	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.549	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.237	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.965	0.468	1.569	1.569	3.795	-6.905	No Precisa Armadura Cortante
1751	-98.336	0.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.146	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.491	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.086	0.447	1.618	1.618	3.795	-7.994	No Precisa Armadura Cortante
	-66.779	1.067	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.174	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.349	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.704	0.527	1.449	1.449	3.795	-6.855	No Precisa Armadura Cortante
1751	-98.336	0.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.146	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.491	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.086	0.447	1.618	1.618	3.795	-7.994	No Precisa Armadura Cortante
	-66.779	1.067	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.174	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.349	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.704	0.527	1.449	1.449	3.795	-6.855	No Precisa Armadura Cortante
1752	-40.017	0.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.501	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.837	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.458	0.635	1.288	1.288	3.795	-7.502	No Precisa Armadura Cortante
	-95.378	1.082	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.961	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.103	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.048	0.453	1.603	1.603	3.795	-7.116	No Precisa Armadura Cortante
1752	-40.017	0.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.501	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.837	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.458	0.635	1.288	1.288	3.795	-7.502	No Precisa Armadura Cortante
	-95.378	1.082	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.961	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.103	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.048	0.453	1.603	1.603	3.795	-7.116	No Precisa Armadura Cortante
1753	-17.028	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.064	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.819	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.412	0.792	1.132	1.132	3.795	-7.095	No Precisa Armadura Cortante
	-91.018	1.247	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.689	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.531	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.993	0.463	1.581	1.581	3.795	-6.941	No Precisa Armadura Cortante
1753	-17.078	0.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.064	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.819	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.412	0.792	1.132	1.132	3.795	-7.095	No Precisa Armadura Cortante

Envolvente Vz

ENVOLVENTE <Vz > Axil 1.40 Cargas Puntuales
concomitantes Vz 1.50

Barra / Elemento	N	Vz																																
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.669	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.531	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.993	0.463	1.581	1.581	3.795	-6.941	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.293	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.800	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.116	0.442	1.630	1.630	3.795	-7.977	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.029	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.045	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	-6.651	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.293	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.800	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.116	0.442	1.630	1.630	3.795	-7.977	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.029	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.045	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	-6.651	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.379	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.580	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.446	0.645	1.275	1.275	3.795	-7.421	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.096	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.368	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.075	0.449	1.614	1.614	3.795	-7.236	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.378	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.580	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.446	0.645	1.275	1.275	3.795	-7.421	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.096	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.368	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.075	0.449	1.614	1.614	3.795	-7.236	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.070	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.831	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.412	0.791	1.132	1.132	3.795	-7.159	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.484	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.100	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.952	0.470	1.564	1.564	3.795	-6.942	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.070	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.831	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.412	0.791	1.132	1.132	3.795	-7.159	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.484	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.100	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.952	0.470	1.564	1.564	3.795	-6.942	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.043	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.275	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.065	0.450	1.610	1.610	3.795	-7.921	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.421	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.669	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.450	0.641	1.280	1.280	3.795	-6.759	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.043	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.275	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.065	0.450	1.610	1.610	3.795	-7.921	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.421	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.669	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.450	0.641	1.280	1.280	3.795	-6.759	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.041	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.770	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.414	0.795	1.129	1.129	3.795	-7.266	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.582	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.307	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.972	0.466	1.572	1.572	3.795	-6.993	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.041	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.770	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.414	0.795	1.129	1.129	3.795	-7.266	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.582	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.307	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.972	0.466	1.572	1.572	3.795	-6.993	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.144	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.488	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.085	0.447	1.618	1.618	3.795	-7.985	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.289	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.390	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.437	0.653	1.266	1.266	3.795	-6.739	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.144	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.488	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.085	0.447	1.618	1.618	3.795	-7.985	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.289	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.390	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.437	0.653	1.266	1.266	3.795	-6.739	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.973	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.627	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.420	0.805	1.121	1.121	3.795	-7.368	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.871	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.494	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.989	0.463	1.579	1.579	3.795	-7.097	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.973	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.627	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.420	0.805	1.121	1.121	3.795	-7.368	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.871	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.494	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.989	0.463	1.579	1.579	3.795	-7.097	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.237	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.681	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.104	0.444	1.626	1.626	3.795	-7.998	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.148	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.096	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.426	0.665	1.251	1.251	3.795	-6.753	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.237	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.681	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.104	0.444	1.626	1.626	3.795	-7.998	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.148	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	16.096	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.426	0.665	1.251	1.251	3.795	-6.753	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.879	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.431	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.429	0.820	1.110	1.110	3.795	-7.441	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.755	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.670	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.006	0.460	1.586	1.586	3.795	-7.193	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.879	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.431	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.429	0.820	1.110	1.110	3.795	-7.441	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.755	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.670	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.006	0.460	1.586	1.586	3.795	-7.193	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.767	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.195	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.444	0.838	1.096	1.096	3.795	-7.492	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.834	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.835	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.022	0.458	1.593	1.593	3.795	-7.274	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.767	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	13.195	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.444	0.838	1.096	1.096	3.795	-7.492	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.834	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.835	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.022	0.458	1.593	1.593	3.795	-7.274	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.641	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.930	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.464	0.860	1.081	1.081	3.795	-7.496	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.905	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.984	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.036	0.455	1.599	1.599	3.795	-7.328	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.641	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.930	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.464	0.860	1.081	1.081	3.795	-7.496	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.905	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	23.984	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.036	0.455	1.599	1.599	3.795	-7.328	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.496	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.627	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.493	0.868	1.063	1.063	3.795	-7.513	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.999	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.099	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.048	0.453	1.603	1.603	3.795	-7.326	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.496	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	12.627	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.493	0.868	1.063	1.063	3.795	-7.513	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.960	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	24.099	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.048	0.453	1.603	1.603	3.795	-7.329	No Precisa Armadura Cortante

ENVOLVENTE <Vy >
concomitantes

Axil 1.00 Cargas Puntuales
Vy 1.50

Barra	N	Vy	bo	h	d	f_{ck}	f_{yk}	γc	γs	θ	A_{s1}	A_c	cotan (θ)	f_{cd}	f_{yd}	σ'cd	K	f_{1cd}	Función de θ	V_{u1}	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2}	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu	β	cot (θe,ad)	cot (θe)	$f_{yα,d}$	A necesaria	
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[mm²]	[mm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]				[t]				[N/mm²]	cm2	
1700	-124.462	11.652	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.779	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.920	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.427	0.401	1.746	1.746	3.795	0.972	No Precisa Armadura Cortante
	-34.437	13.493	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.152	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.104	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.426	0.665	1.252	1.252	3.795	3.227	No Precisa Armadura Cortante
1700	-124.462	11.652	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.779	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.920	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.427	0.401	1.746	1.746	3.795	0.972	No Precisa Armadura Cortante
	-34.437	13.493	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.152	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.104	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.426	0.665	1.252	1.252	3.795	3.227	No Precisa Armadura Cortante
1701	-118.095	11.952	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.381	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.084	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.343	0.411	1.716	1.716	3.795	1.277	No Precisa Armadura Cortante
	-38.407	13.727	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.625	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.448	0.643	1.278	1.278	3.795	3.396	No Precisa Armadura Cortante
1701	-118.095	11.952	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.381	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.084	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.343	0.411	1.716	1.716	3.795	1.277	No Precisa Armadura Cortante
	-38.407	13.727	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.625	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.448	0.643	1.278	1.278	3.795	3.396	No Precisa Armadura Cortante
1702	-112.154	12.246	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.010	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.305	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.265	0.421	1.687	1.687	3.795	1.571	No Precisa Armadura Cortante
	-42.091	13.955	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.631	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.109	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.472	0.624	1.301	1.301	3.795	3.557	No Precisa Armadura Cortante
1702	-112.154	12.246	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.010	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.305	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.265	0.421	1.687	1.687	3.795	1.571	No Precisa Armadura Cortante
	-42.091	13.955	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.631	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.109	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.472	0.624	1.301	1.301	3.795	3.557	No Precisa Armadura Cortante
1703	-107.288	12.429	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.706	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.666	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.201	0.430	1.663	1.663	3.795	1.768	No Precisa Armadura Cortante
	-45.223	14.106	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.826	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.496	0.609	1.321	1.321	3.795	3.659	No Precisa Armadura Cortante
1703	-107.288	12.429	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.706	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.666	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.201	0.430	1.663	1.663	3.795	1.768	No Precisa Armadura Cortante
	-45.223	14.106	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.826	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.496	0.609	1.321	1.321	3.795	3.659	No Precisa Armadura Cortante
1704	-97.432	12.380	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.090	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.372	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.074	0.449	1.614	1.614	3.795	1.830	No Precisa Armadura Cortante
	-45.883	14.129	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.868	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.606	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.501	0.606	1.325	1.325	3.795	3.673	No Precisa Armadura Cortante
1704	-97.432	12.380	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.090	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.372	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.074	0.449	1.614	1.614	3.795	1.830	No Precisa Armadura Cortante
	-45.883	14.129	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.868	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.606	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.501	0.606	1.325	1.325	3.795	3.673	No Precisa Armadura Cortante
1705	-103.536	12.522	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.471	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.173	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.153	0.437	1.645	1.645	3.795	1.880	No Precisa Armadura Cortante
	-47.962	14.217	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.998	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.879	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.518	0.597	1.338	1.338	3.795	3.730	No Precisa Armadura Cortante
1705	-103.536	12.522	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.471	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.173	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.153	0.437	1.645	1.645	3.795	1.880	No Precisa Armadura Cortante
	-47.962	14.217	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.998	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.879	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.518	0.597	1.338	1.338	3.795	3.730	No Precisa Armadura Cortante
1706	-94.217	12.471	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.889	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.950	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.033	0.456	1.597	1.597	3.795	1.935	No Precisa Armadura Cortante
	-47.722	14.165	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.983	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.848	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.516	0.598	1.336	1.336	3.795	3.689	No Precisa Armadura Cortante
1706	-94.217	12.471	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.889	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.950	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.033	0.456	1.597	1.597	3.795	1.935	No Precisa Armadura Cortante
	-47.722	14.165	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.983	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.848	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.516	0.598	1.336	1.336	3.795	3.689	No Precisa Armadura Cortante
1707	-100.733	12.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.296	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.806	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.116	0.442	1.631	1.631	3.795	1.932	No Precisa Armadura Cortante
	-50.570	14.322	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.161	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.222	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.540	0.586	1.354	1.354	3.795	3.795	No Precisa Armadura Cortante
1707	-100.733	12.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.296	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.806	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.116	0.442	1.631	1.631	3.795	1.932	No Precisa Armadura Cortante
	-50.570	14.322	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.161	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.222	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.540	0.586	1.354	1.354	3.795	3.795	No Precisa Armadura Cortante
1708	-91.196	12.691	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.700	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.554	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.995	0.462	1.582	1.582	3.795	2.060	No Precisa Armadura Cortante
	-49.533	14.228	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.096	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.086	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.531	0.590	1.347	1.347	3.795	3.727	No Precisa Armadura Cortante
1708	-91.196	12.691	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.700	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.554	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.995	0.462	1.582	1.582	3.795	2.060	No Precisa Armadura Cortante
	-49.533	14.228	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.096	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.086	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.531	0.590	1.347	1.347	3.795	3.727	No Precisa Armadura Cortante
1709	-82.951	12.540	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.572	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.094	0.446	1.622	1.622	3.795	1.942	No Precisa Armadura Cortante
	-52.970	14.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.311	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.537	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.562	0.576	1.368	1.368	3.795	3.875	No Precisa Armadura Cortante
1709	-82.951	12.540	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.572	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.094	0.446	1.622	1.622	3.795	1.942	No Precisa Armadura Cortante
	-52.970	14.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.311	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.537	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.562	0.576	1.368	1.368	3.795	3.875	No Precisa Armadura Cortante
1710	-88.379	12.889	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.524	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.184	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.960	0.469	1.567	1.567	3.795	2.174	No Precisa Armadura Cortante
	-51.470	14.316	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.340	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.548	0.582	1.359	1.359	3.795	3.784	No Precisa Armadura Cortante
1710	-88.379	12.889	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.524	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.184	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.960	0.469	1.567	1.567	3.795	2.174	No Precisa Armadura Cortante
	-51.470	14.316	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.340	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.548	0.582	1.359	1.359	3.795	3.784	No Precisa Armadura Cortante
1711	-67.156	12.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.197	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.399	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.708	0.526	1.451	1.451	3.795	2.564	No Precisa Armadura Cortante
	-58.972	14.639	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.686	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.324	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.621	0.553	1.404	1.404	3.795	3.982	No Precisa Armadura Cortante
1711	-67.156	12.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.197	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.399	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.708	0.526	1.451	1.451	3.795	2.564	No Precisa Armadura Cortante
	-58.972	14.639	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.686	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.324	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.621	0.553	1.404	1.404	3.795	3.982	No Precisa Armadura Cortante
1712	-98.055	12.464	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.128	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.454	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.082	0.448	1.617	1.617	3.795	1.890	No Precisa Armadura Cortante
	-55.246	14.561	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.453	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.835	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.584	0.567	1.382	1.382	3.795	3.950	No Precisa Armadura Cortante
1712	-98.055	12.464	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.128	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.454	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.082	0.448	1.617	1.617	3.795	1.890	No Precisa Armadura Cortante
	-55.246	14.561	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.453	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.835	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.584	0.567	1.382	1.382	3.795	3.950	No Precisa Armadura Cortante
1713	-85.904	12.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.369	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.859	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.829	0.474	1.554	1.554	3.795	2.248	No Precisa Armadura Cortante
	-53.514	14.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.345	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.608	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.567	0.574	1.372	1.372	3.795	3.844	No Precisa Armadura Cortante
1713	-85.904	12.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.369	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.859	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.829	0.474	1.554	1.554	3.795	2.248	No Precisa Armadura Cortante
	-53.514	14.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.345	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.608	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.567	0.574	1.372	1.372	3.795	3.844	No Precisa Armadura Cortante
1714	-65.840	12.944	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.226	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.694	0.530	1.444	1.444	3.795	2.579	No Precisa Armadura Cortante
	-60.034	14.595	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.752	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.464	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.632	0.549	1.410	1.410	3.795	3.939	No Precisa Armadura Cortante
1714	-65.840	12.944	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.226	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.694	0.530	1.444	1.444	3.795	2.579	No Precisa Armadura Cortante
	-60.034	14.595	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.752	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.464	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.632	0.549	1.410	1.410	3.795	3.939	No Precisa Armadura Cortante
1715	-98.032	12.297	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.127	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.451	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.082	0.448	1.617	1.617	3.795	1.758	No Precisa Armadura Cortante
	-57.320	14.639	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.583	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.108	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.604	0.559	1.394	1.394	3.795	3.995	No Precisa Armadura Cortante
1715	-98.032	12.297	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.127	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.451	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.082	0.448	1.617	1.617	3.795	1.758	No Precisa Armadura Cortante
	-57.320	14.639	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.583	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.108	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.604	0.559	1.394	1.394	3.795	3.995	No Precisa Armadura Cortante
1716	-83.733	12.777	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.233	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.574	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.902	0.480	1.542	1.542	3.795	2.281	No Precisa Armadura Cortante
	-55.776	14.510	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.486	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.904	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.589	0.565	1.385	1.385	3.795	3.905	No Precisa Armadura Cortante
1716	-83.733	12.777	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.233	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.574	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.902	0.480	1.542	1.542	3.795	2.281	No Precisa Armadura Cortante
	-55.776	14.510	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.486	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.904	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.589	0.565	1.385	1.385	3.795	3.906	No Precisa Armadura Cortante
1717	-64.528	12.947	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.033	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.054	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	2.593	No Precisa Armadura Cortante
	-61.146	14.571	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.822	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.610	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.643	0.545	1.417	1.417	3.795	3.911	No Precisa Armadura Cortante
1717	-64.528	12.947	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.033	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.054	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.678	0.534	1.436	1.436	3.795	2.593	No Precisa Armadura Cortante
	-61.146	14.571	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.822	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.610	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.643	0.545	1.417	1.417	3.795	3.911	No Precisa Armadura Cortante
1718	-98.780	12.024	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.174	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.549	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.091	0.446	1.621	1.621	3.795	1.534	No Precisa Armadura Cortante
	-59.087	14.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.694	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.341	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.622	0.553	1.405	1.405	3.795	3.990	No Precisa Armadura Cortante
1718	-98.780	12.024	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.174	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.549	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.091	0.446	1.621	1.621	3.795	1.534	No Precisa Armadura Cortante
	-59.087	14.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.694	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.341	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.622	0.553	1.405	1.405	3.795	3.990	No Precisa Armadura Cortante
1719	-82.090	12.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.131	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.359	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.882	0.484	1.534	1.534	3.795	2.284	No Precisa Armadura Cortante
	-58.007	14.633	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.198	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.611	0.557	1.398	1.398	3.795	3.985	No Precisa Armadura Cortante
1719	-82.090	12.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.131	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.359	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.882	0.484	1.534	1.534	3.795	2.284	No Precisa Armadura Cortante
	-58.007	14.633	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.198	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.611	0.557	1.398	1.398	3.795	3.985	No Precisa Armadura Cortante
1720	-63.161	12.960	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.874	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.665	0.539	1.428	1.428	3.795	2.615	No Precisa Armadura Cortante
	-62.443	14.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.903	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.780	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.657	0.541	1.424	1.424	3.795	3.916	No Precisa Armadura Cortante
1720	-63.161	12.960	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.874	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.665	0.539	1.428	1.428	3.795	2.615	No Precisa Armadura Cortante
	-62.443	14.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.903	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.780	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.657	0.541	1.424	1.424	3.795	3.916	No Precisa Armadura Cortante
1721	-47.632	12.956	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.977	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.836	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.515	0.598	1.336	1.336	3.795	2.731	No Precisa Armadura Cortante
	-58.306	14.877	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.644	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.237	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.614	0.556	1.400	1.400	3.795	4.177	No Precisa Armadura Cortante
1721	-47.632	12.956	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.977	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.836	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.515	0.598	1.336	1.336	3.795	2.731	No Precisa Armadura Cortante
	-58.306	14.877	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.644	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.237	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.614	0.556	1.400	1.400	3.795	4.177	No Precisa Armadura Cortante
1722	-83.713	11.703	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.232	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.672	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.103	0.444	1.625	1.625	3.795	1.270	No Precisa Armadura Cortante
	-60.789	14.634	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.799	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.563	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.640	0.547	1.415	1.415	3.795	3.964	No Precisa Armadura Cortante
1722	-83.713	11.703	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.232	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.672	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.103	0.444	1.625	1.625	3.795	1.270	No Precisa Armadura Cortante
	-60.789	14.634	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.799	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.563	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.640	0.547	1.415	1.415	3.795	3.964	No Precisa Armadura Cortante
1723	-80.763	12.693	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.048	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.184	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	2.243	No Precisa Armadura Cortante
	-60.378	14.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.774	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.509	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.635	0.548	1.412	1.412	3.795	4.066	No Precisa Armadura Cortante
1723	-80.763	12.693	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.048	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.184	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	2.243	No Precisa Armadura Cortante
	-60.378	14.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.774	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.509	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.635	0.548	1.412	1.412	3.795	4.056	No Precisa Armadura Cortante
1724	-61.748	12.971	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.859	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.689	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.650	0.543	1.420	1.420	3.795	2.636	No Precisa Armadura Cortante
	-63.992	14.648	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.000	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.983	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.673	0.535	1.433	1.433	3.795	3.948	No Precisa Armadura Cortante
1724	-61.748	12.971	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.859	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.689	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.650	0.543	1.420	1.420	3.795	2.636	No Precisa Armadura Cortante
	-63.992	14.648	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.000	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.983	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.673	0.535	1.433	1.433	3.795	3.948	No Precisa Armadura Cortante
1725	-47.199	12.523	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.950	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.779	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.511	0.600	1.333	1.333	3.795	2.707	No Precisa Armadura Cortante
	-59.338	14.855	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.709	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.372	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.625	0.552	1.406	1.406	3.795	4.151	No Precisa Armadura Cortante
1725	-47.199	12.523	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.950	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.779	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.511	0.600	1.333	1.333	3.795	2.707	No Precisa Armadura Cortante
	-59.338	14.855	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.709	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.372	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.625	0.552	1.406	1.406	3.795	4.151	No Precisa Armadura Cortante
1726	-79.580	12.575	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.031	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.852	0.490	1.520	1.520	3.795	2.161	No Precisa Armadura Cortante
	-62.953	14.886	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.935	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.848	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.662	0.539	1.427	1.427	3.795	4.146	No Precisa Armadura Cortante
1726	-79.580	12.575	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.031	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.852	0.490	1.520	1.520	3.795	2.161	No Precisa Armadura Cortante
	-62.953	14.886	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.935	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.848	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.602	0.539	1.427	1.427	3.795	4.146	No Precisa Armadura Cortante

ENVOLVENTE <Vy> concomitantes

Axil 1.60 Cargas Puntuales
Vy 1.50

Barra Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	fck [N/mm²]	fyk [N/mm²]	γc	γs	θ [º]	Asl [mm²]	Ac [mm²]	cotan (θ)	fcd [N/mm²]	fyd [N/mm²]	σ'cd [N/mm²]	K	f1cd [N/mm²]	Función de θ	Vu1 [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	Vu2 [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot (θe)	cot (θ)	fct,m [N/mm²]	A necesaria cm2	
1727	-60.154	12.952	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.760	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.460	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.633	0.549	1.411	1.411	3.795	2.642	No Precisa Armadura Cortante
	-65.965	14.733	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.123	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.242	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.695	0.529	1.444	1.444	3.795	3.998	No Precisa Armadura Cortante
1727	-60.154	12.952	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.760	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.460	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.633	0.549	1.411	1.411	3.795	2.642	No Precisa Armadura Cortante
	-65.965	14.733	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.123	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.242	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.695	0.529	1.444	1.444	3.795	3.996	No Precisa Armadura Cortante
1728	-46.722	12.891	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.920	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.717	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.506	0.602	1.330	1.330	3.795	2.685	No Precisa Armadura Cortante
	-60.387	14.832	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.774	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.510	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.635	0.548	1.412	1.412	3.795	4.124	No Precisa Armadura Cortante
1728	-46.722	12.891	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.920	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.717	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.506	0.602	1.330	1.330	3.795	2.685	No Precisa Armadura Cortante
	-60.387	14.832	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.774	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.510	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.635	0.548	1.412	1.412	3.795	4.124	No Precisa Armadura Cortante
1729	-78.356	12.432	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.897	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.869	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.837	0.493	1.513	1.513	3.795	2.059	No Precisa Armadura Cortante
	-65.840	15.028	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.226	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.694	0.530	1.444	1.444	3.795	4.234	No Precisa Armadura Cortante
1729	-78.356	12.432	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.897	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.869	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.837	0.493	1.513	1.513	3.795	2.059	No Precisa Armadura Cortante
	-65.840	15.028	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.226	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.694	0.530	1.444	1.444	3.795	4.234	No Precisa Armadura Cortante
1730	-58.666	12.950	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.887	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.284	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.618	0.554	1.402	1.402	3.795	2.644	No Precisa Armadura Cortante
	-68.047	14.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.253	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.516	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.718	0.523	1.456	1.456	3.795	4.064	No Precisa Armadura Cortante
1730	-58.666	12.954	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.887	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.284	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.618	0.554	1.402	1.402	3.795	2.644	No Precisa Armadura Cortante
	-68.047	14.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.253	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.516	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.718	0.523	1.456	1.456	3.795	4.064	No Precisa Armadura Cortante
1731	-46.137	12.860	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.884	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.640	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.503	0.605	1.327	1.327	3.795	2.664	No Precisa Armadura Cortante
	-61.523	14.835	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.845	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.659	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.647	0.544	1.419	1.419	3.795	4.114	No Precisa Armadura Cortante
1731	-46.137	12.860	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.884	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.640	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.503	0.605	1.327	1.327	3.795	2.664	No Precisa Armadura Cortante
	-61.523	14.835	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.845	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.659	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.647	0.544	1.419	1.419	3.795	4.114	No Precisa Armadura Cortante
1732	-28.868	12.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.804	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.373	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.700	1.215	1.215	3.795	2.805	No Precisa Armadura Cortante
	-65.983	14.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.499	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.932	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.591	0.564	1.386	1.386	3.795	4.226	No Precisa Armadura Cortante
1732	-28.868	12.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.804	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.373	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.700	1.215	1.215	3.795	2.805	No Precisa Armadura Cortante
	-65.983	14.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.499	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.932	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.591	0.564	1.386	1.386	3.795	4.226	No Precisa Armadura Cortante
1733	-77.077	12.321	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.814	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.694	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.822	0.497	1.506	1.506	3.795	1.984	No Precisa Armadura Cortante
	-68.848	15.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.303	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.621	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	4.349	No Precisa Armadura Cortante
1733	-77.077	12.321	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.814	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.694	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.822	0.497	1.506	1.506	3.795	1.984	No Precisa Armadura Cortante
	-68.848	15.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.303	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.621	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.520	1.461	1.461	3.795	4.349	No Precisa Armadura Cortante
1734	-67.067	12.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.557	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.074	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.602	0.560	1.393	1.393	3.795	2.631	No Precisa Armadura Cortante
	-70.396	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.824	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	4.188	No Precisa Armadura Cortante
1734	-67.067	12.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.557	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.074	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.602	0.560	1.393	1.393	3.795	2.631	No Precisa Armadura Cortante
	-70.396	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.824	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	4.188	No Precisa Armadura Cortante
1735	-45.379	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.836	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.640	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.497	0.608	1.322	1.322	3.795	2.643	No Precisa Armadura Cortante
	-62.124	14.862	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.927	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.830	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.661	0.540	1.426	1.426	3.795	4.128	No Precisa Armadura Cortante
1735	-45.379	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.836	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.640	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.497	0.608	1.322	1.322	3.795	2.643	No Precisa Armadura Cortante
	-62.124	14.862	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.927	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.830	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.661	0.540	1.426	1.426	3.795	4.128	No Precisa Armadura Cortante
1736	-28.818	12.918	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.807	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.380	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.699	1.215	1.215	3.795	2.788	No Precisa Armadura Cortante
	-67.161	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.573	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.087	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.603	0.560	1.393	1.393	3.795	4.223	No Precisa Armadura Cortante
1736	-28.818	12.918	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.807	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.360	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.699	1.215	1.215	3.795	2.788	No Precisa Armadura Cortante
	-67.161	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.573	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.087	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.603	0.560	1.393	1.393	3.795	4.273	No Precisa Armadura Cortante
1737	-55.283	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.840	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.584	0.567	1.382	1.382	3.795	2.620	No Precisa Armadura Cortante
	-73.024	15.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.564	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.169	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.775	0.508	1.484	1.484	3.795	4.326	No Precisa Armadura Cortante
1737	-55.283	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.840	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.584	0.567	1.382	1.382	3.795	2.620	No Precisa Armadura Cortante
	-73.024	15.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.564	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.169	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.775	0.508	1.484	1.484	3.795	4.326	No Precisa Armadura Cortante
1738	-44.158	12.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.762	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.365	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.488	0.614	1.314	1.314	3.795	2.630	No Precisa Armadura Cortante
	-64.647	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.056	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	4.174	No Precisa Armadura Cortante
1738	-44.158	12.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.762	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.385	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.488	0.614	1.314	1.314	3.795	2.630	No Precisa Armadura Cortante
	-64.647	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.056	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	4.174	No Precisa Armadura Cortante
1739	-28.939	12.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.809	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.363	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.698	1.215	1.215	3.795	2.761	No Precisa Armadura Cortante
	-56.326	14.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.645	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.240	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.614	0.555	1.400	1.400	3.795	4.210	No Precisa Armadura Cortante
1739	-28.939	12.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.809	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.383	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.690	1.215	1.215	3.795	2.761	No Precisa Armadura Cortante
	-56.326	14.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.645	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.240	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.614	0.555	1.400	1.400	3.795	4.210	No Precisa Armadura Cortante
1740	-63.304	12.870	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.580	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.565	0.575	1.370	1.370	3.795	2.623	No Precisa Armadura Cortante
	-76.867	15.479	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.341	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.808	0.500	1.500	1.500	3.795	4.501	No Precisa Armadura Cortante
1740	-63.304	12.870	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.580	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.565	0.575	1.370	1.370	3.795	2.623	No Precisa Armadura Cortante
	-76.867	15.479	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.541	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.808	0.500	1.500	1.500	3.795	4.501	No Precisa Armadura Cortante
1741	-42.931	12.803	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.683	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.219	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	2.638	No Precisa Armadura Cortante
	-66.316	15.083	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.145	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.288	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	4.273	No Precisa Armadura Cortante
1741	-42.931	12.803	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.683	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.218	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.478	0.620	1.307	1.307	3.795	2.638	No Precisa Armadura Cortante
	-66.316	15.083	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.145	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.288	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	4.273	No Precisa Armadura Cortante
1742	-28.840	12.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.803	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.370	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	2.724	No Precisa Armadura Cortante
	-69.488	14.918	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.718	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.392	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.626	0.551	1.407	1.407	3.795	4.200	No Precisa Armadura Cortante
1742	-28.840	12.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.803	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.370	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.405	0.700	1.214	1.214	3.795	2.724	No Precisa Armadura Cortante
	-69.488	14.918	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.718	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.392	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.626	0.551	1.407	1.407	3.795	4.200	No Precisa Armadura Cortante
1743	-10.379	12.834	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.649	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.947	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.462	0.859	1.082	1.082	3.795	2.676	No Precisa Armadura Cortante
	-63.053	14.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.916	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.548	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.563	0.576	1.369	1.369	3.795	4.207	No Precisa Armadura Cortante
1743	-10.379	12.834	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.649	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	12.947	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.462	0.859	1.082	1.082	3.795	2.676	No Precisa Armadura Cortante
	-63.053	14.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.916	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.548	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.563	0.576	1.369	1.369	3.795	4.207	No Precisa Armadura Cortante
1744	-51.220	12.851	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.201	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.307	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.546	0.583	1.358	1.358	3.795	2.622	No Precisa Armadura Cortante
	-78.745	15.740	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.922	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.920	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.842	0.492	1.515	1.515	3.795	4.681	No Precisa Armadura Cortante
1744	-51.220	12.851	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.201	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.307	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.546	0.583	1.358	1.358	3.795	2.622	No Precisa Armadura Cortante
	-78.745	15.740	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.922	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.920	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.842	0.492	1.515	1.515	3.795	4.681	No Precisa Armadura Cortante
1745	-41.377	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.586	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.015	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.467	0.628	1.297	1.297	3.795	2.655	No Precisa Armadura Cortante
	-68.275	15.272	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.267	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.545	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.721	0.522	1.457	1.457	3.795	4.406	No Precisa Armadura Cortante
1745	-41.377	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.586	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.015	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.467	0.628	1.297	1.297	3.795	2.655	No Precisa Armadura Cortante
	-68.275	15.272	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.267	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.545	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.721	0.522	1.457	1.457	3.795	4.406	No Precisa Armadura Cortante
1746	-28.518	12.788	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.782	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.327	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.404	0.702	1.212	1.212	3.795	2.685	No Precisa Armadura Cortante
	-60.688	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.793	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.550	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.639	0.547	1.414	1.414	3.795	4.206	No Precisa Armadura Cortante
1746	-28.518	12.788	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.782	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.377	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.404	0.702	1.212	1.212	3.795	2.685	No Precisa Armadura Cortante
	-60.688	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.793	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.550	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.639	0.547	1.414	1.414	3.795	4.206	No Precisa Armadura Cortante
1747	-10.863	12.808	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.679	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.010	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.457	0.854	1.086	1.086	3.795	2.740	No Precisa Armadura Cortante
	-64.554	14.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.410	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.745	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.577	0.570	1.378	1.378	3.795	4.240	No Precisa Armadura Cortante
1747	-10.863	12.808	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.679	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.010	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.457	0.854	1.086	1.086	3.795	2.740	No Precisa Armadura Cortante
	-64.554	14.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.410	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.745	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.577	0.570	1.378	1.378	3.795	4.240	No Precisa Armadura Cortante
1748	-33.579	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.779	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.455	0.637	1.285	1.285	3.795	2.676	No Precisa Armadura Cortante
	-70.356	15.487	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.397	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.818	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	4.565	No Precisa Armadura Cortante
1748	-33.579	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.779	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.455	0.637	1.285	1.285	3.795	2.676	No Precisa Armadura Cortante
	-70.356	15.487	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.397	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.819	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	4.565	No Precisa Armadura Cortante
1749	-27.861	12.747	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.729	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.215	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.402	0.708	1.206	1.206	3.795	2.655	No Precisa Armadura Cortante
	-62.200	15.012	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.888	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.748	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.654	0.542	1.423	1.423	3.795	4.252	No Precisa Armadura Cortante
1749	-27.861	12.747	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.729	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.215	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.402	0.708	1.206	1.206	3.795	2.655	No Precisa Armadura Cortante
	-62.200	15.012	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.888	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.748	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.654	0.542	1.423	1.423	3.795	4.252	No Precisa Armadura Cortante
1750	-11.275	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.705	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.064	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.453	0.849	1.089	1.089	3.795	2.724	No Precisa Armadura Cortante
	-65.896	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.494	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.921	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.590	0.564	1.386	1.386	3.795	4.233	No Precisa Armadura Cortante
1750	-11.275	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.705	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.064	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.453	0.849	1.089	1.089	3.795	2.724	No Precisa Armadura Cortante
	-65.896	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.494	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.921	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.590	0.564	1.386	1.386	3.795	4.233	No Precisa Armadura Cortante
1751	-37.620	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.351	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.522	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	2.690	No Precisa Armadura Cortante
	-72.456	15.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.529	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.094	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.766	0.510	1.481	1.481	3.795	4.736	No Precisa Armadura Cortante
1751	-37.620	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.351	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.522	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.443	0.647	1.273	1.273	3.795	2.690	No Precisa Armadura Cortante
	-72.456	15.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.529	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.094	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.766	0.510	1.481	1.481	3.795	4.736	No Precisa Armadura Cortante
1752	-26.678	12.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.667	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.066	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.400	0.715	1.200	1.200	3.795	2.667	No Precisa Armadura Cortante
	-63.585	15.173	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.930	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.669	0.537	1.431	1.431	3.795	4.368	No Precisa Armadura Cortante
1752	-26.678	12.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.667	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	15.066	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.400	0.715	1.200	1.200	3.795	2.667	No Precisa Armadura Cortante
	-63.585	15.173	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.930	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.669	0.537	1.431	1.431	3.795	4.368	No Precisa Armadura Cortante
1753	-11.576	12.836	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.723	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.104	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.450	0.846	1.091	1.091	3.795	2.647	No Precisa Armadura Cortante
	-67.119	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.570	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.081	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.602	0.560	1.393	1.393	3.795	4.223	No Precisa Armadura Cortante
1753	-11.576	12.836	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.723	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.104	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.450	0.846	1.091	1.091	3.795	2.647	No Precisa Armadura Cortante

ENVOLVENTE <Vy> Axil 1.00 Cargas Puntuales
concomitantes Vy 1.50

Barra	N	Vy	b	h	d	r	fck	fyd	Ec	Ag	Ac	Ast	Ast/Ac	N	Vcu	Factor d/z	Vsu	Tipo de Comprobación a Cortante		Vd	Vcu	Vsu	Separación Estribos Cortante	Armaduras Mínimas	Asw/s	Vu2	Vu2/Vd	Vu1	Vu1/Vd	Armado Tipo
Barra Inic.	N	Vy	b	h	d	r	fck	fyd	Ec	Ag	Ac	Ast	Ast/Ac	N	Vcu	Factor d/z	Vsu	Tipo de Comprobación a Cortante		Vd	Vcu	Vsu	Separación Estribos Cortante	Armaduras Mínimas	Asw/s	Vu2	Vu2/Vd	Vu1	Vu1/Vd	Armado Tipo
	-57.418	14.824	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.578	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.081	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.602	0.503	1.399	1.399	3.795	4.223	No Precisa Armadura Cortante
	-56.592	12.938	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.225	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	16.256	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.532	0.586	1.259	1.259	3.795	3.795	No Precisa Armadura Cortante
	-74.510	15.965	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.657	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	18.258	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.432	0.658	1.269	1.269	3.795	2.895	No Precisa Armadura Cortante
	-56.592	12.938	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.225	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	16.256	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.532	0.586	1.259	1.259	3.795	3.795	No Precisa Armadura Cortante
	-74.510	15.965	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.657	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	21.364	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.702	0.504	1.492	1.492	3.795	4.809	No Precisa Armadura Cortante
	-24.690	13.965	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.545	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.915	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.399	0.724	1.191	1.191	3.795	2.693	No Precisa Armadura Cortante
	-25.377	13.792	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.588	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.119	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.685	0.537	1.439	1.439	3.795	4.514	No Precisa Armadura Cortante
	-25.377	13.792	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.588	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.119	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.685	0.537	1.439	1.439	3.795	4.514	No Precisa Armadura Cortante
	-66.923	18.372	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.064	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.114	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.448	0.645	1.092	1.092	3.795	2.841	No Precisa Armadura Cortante
	-11.446	17.777	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.728	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	18.230	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.614	0.566	1.400	1.400	3.795	4.224	No Precisa Armadura Cortante
	-56.590	14.936	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.641	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.114	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.448	0.645	1.092	1.092	3.795	2.841	No Precisa Armadura Cortante
	-11.446	17.777	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.728	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	18.230	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.614	0.566	1.400	1.400	3.795	4.224	No Precisa Armadura Cortante
	-56.590	14.936	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.641	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.042	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.455	0.651	1.068	1.068	3.795	2.577	No Precisa Armadura Cortante
	-11.163	17.709	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.894	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.400	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.627	0.561	1.407	1.407	3.795	4.245	No Precisa Armadura Cortante
	-56.846	14.978	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.722	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.042	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.455	0.651	1.068	1.068	3.795	2.577	No Precisa Armadura Cortante
	-11.163	17.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.894	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.400	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.627	0.561	1.407	1.407	3.795	4.245	No Precisa Armadura Cortante
	-56.846	14.978	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.722	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.486	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.306	0.748	1.168	1.168	3.795	2.716	No Precisa Armadura Cortante
	-21.174	13.951	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.383	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.467	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.524	1.455	1.455	3.795	4.614	No Precisa Armadura Cortante
	-21.174	13.951	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.383	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.486	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.306	0.748	1.168	1.168	3.795	2.716	No Precisa Armadura Cortante
	-22.172	13.951	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.863	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.467	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.524	1.455	1.455	3.795	4.614	No Precisa Armadura Cortante
	-67.634	15.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.239	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.845	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.462	0.859	1.062	1.062	3.795	2.509	No Precisa Armadura Cortante
	-13.277	17.756	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.849	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.524	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.636	0.548	1.413	1.413	3.795	4.493	No Precisa Armadura Cortante
	-59.184	15.148	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.781	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.846	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.462	0.859	1.062	1.062	3.795	2.509	No Precisa Armadura Cortante
	-13.277	17.756	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.849	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.524	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.636	0.548	1.413	1.413	3.795	4.493	No Precisa Armadura Cortante
	-59.184	15.148	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.781	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.253	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.401	0.763	1.155	1.155	3.795	2.677	No Precisa Armadura Cortante
	-20.334	13.774	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.271	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.654	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.730	0.520	1.462	1.462	3.795	4.842	No Precisa Armadura Cortante
	-69.105	16.957	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.319	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	14.253	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.401	0.763	1.155	1.155	3.795	2.677	No Precisa Armadura Cortante
	-20.334	13.774	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.271	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	20.654	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.730	0.520	1.462	1.462	3.795	4.842	No Precisa Armadura Cortante
	-69.105	16.957	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.319	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.815	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.474	0.870	1.074	1.074	3.795	2.636	No Precisa Armadura Cortante
	-9.372	13.796	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.588	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	18.541	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.649	0.645	1.418	1.418	3.795	4.564	No Precisa Armadura Cortante
	-61.347	15.286	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.837	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.815	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.474	0.870	1.074	1.074	3.795	2.636	No Precisa Armadura Cortante
	-9.372	13.796	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.588	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	18.541	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.649	0.645	1.418	1.418	3.795	4.564	No Precisa Armadura Cortante
	-61.347	15.286	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.837	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.641	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.485	0.645	1.065	1.065	3.795	2.649	Valida la armadura del pilote
	-9.161	13.797	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.611	1.00	18.00	0.50	126.00	<Vy, Precisa Armadura Cortante	1.756	0.01346	12.658	<Vy, Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.465	0.845	1.065	1.065	3.795	2.649	Valida la armadura del pilote
	-67.129	16.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.889	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.752	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.655	0.542	1.423	1.423	3.795	4.716	No Precisa Armadura Cortante
	-9.161	13.797	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.611	1.00	18.00	0.50	126.00	<Vy, Precisa Armadura Cortante	1.756	0.01346	12.658	<Vy, Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.465	0.845	1.065	1.065	3.795	2.649	Valida la armadura del pilote
	-67.129	16.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.889	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.752	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.655	0.542	1.423	1.423	3.795	4.716	No Precisa Armadura Cortante
	-42.226	15.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.427	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.481	<Vy, Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.509	0.901	1.055	1.055	3.795	2.629	Valida la armadura del pilote
	-6.853	13.872	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.428	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.851	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.663	0.599	1.427	1.427	3.795	4.847	No Precisa Armadura Cortante
	-42.042	15.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.936	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.481	<Vy, Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.509	0.901	1.055	1.055	3.795	2.629	Valida la armadura del pilote
	-6.853	13.872	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.427	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.851	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.663	0.599	1.427	1.427	3.795	4.847	No Precisa Armadura Cortante
	-42.042	15.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.936	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.478	<Vy, Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.535	0.921	1.043	1.043	3.795	2.592	Valida la armadura del pilote
	-4.294	13.711	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.391	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.938	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.669	0.577	1.431	1.431	3.795	4.916	No Precisa Armadura Cortante
	-43.549	15.853	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.973	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.279	<Vy, Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.535	0.921	1.043	1.043	3.795	2.520	Valida la armadura del pilote
	-4.294	13.711	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.391	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	19.938	>=Vy, No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.669	0.577	1.431	1.431	3.795	4.916	No Precisa Armadura Cortante
	-43.549	15.853	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.973	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.279	<Vy, Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.535	0.921	1.043	1.043	3.795	2.520	Valida la armadura del pilote

Envolvente Vy

ENVOLVENTE <Vy> concomitantes

Axil 1.50 Cargas Puntuales
Vy 1.50

Barra	N	Vy	bo	h	d	fck	fyk	γc	γs	θ	Asl	Ac	cotan (θ)	fcd	fyd	σ'cd	K	f1cd	Función de θ	Vu1	Comprobacion Compresion Oblicua Alma	ξ	ρl	Vu2	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vsu	β	cot (θe)	cot (θ)	fct	Armadura cm2	
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[mm²]	[mm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]				[t]				[N/mm²]	cm2	
1700	-186.693	11.652	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.668	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	36.088	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.386	0.333	2.018	2.000	3.795	0.211	No Precisa Armadura Cortante
	-51.656	13.493	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.364	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.550	0.581	1.360	1.360	3.795	3.129	No Precisa Armadura Cortante
1700	-186.693	11.652	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.668	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	36.088	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.386	0.333	2.018	2.000	3.795	0.211	No Precisa Armadura Cortante
	-51.656	13.493	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.364	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.550	0.581	1.360	1.360	3.795	3.129	No Precisa Armadura Cortante
1701	-177.143	11.952	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.071	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.834	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.122	0.338	1.979	1.978	3.795	0.658	No Precisa Armadura Cortante
	-57.611	13.727	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.601	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.146	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.607	0.558	1.396	1.396	3.795	3.269	No Precisa Armadura Cortante
1701	-177.143	11.952	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-11.071	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	34.834	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.122	0.338	1.979	1.978	3.795	0.658	No Precisa Armadura Cortante
	-57.611	13.727	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.601	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.146	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.607	0.558	1.396	1.396	3.795	3.269	No Precisa Armadura Cortante
1702	-168.231	12.245	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.514	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.665	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.006	0.347	1.942	1.942	3.795	0.983	No Precisa Armadura Cortante
	-63.137	13.955	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.946	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.871	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.664	0.539	1.428	1.428	3.795	3.405	No Precisa Armadura Cortante
1702	-168.231	12.245	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.514	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.665	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.006	0.347	1.942	1.942	3.795	0.983	No Precisa Armadura Cortante
	-63.137	13.955	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.946	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.871	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.664	0.539	1.428	1.428	3.795	3.405	No Precisa Armadura Cortante
1703	-160.432	12.429	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.058	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.707	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.909	0.354	1.911	1.911	3.795	1.206	No Precisa Armadura Cortante
	-67.835	14.106	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.240	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.488	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.716	0.524	1.455	1.455	3.795	3.484	No Precisa Armadura Cortante
1703	-160.432	12.429	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.058	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.707	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.909	0.354	1.911	1.911	3.795	1.206	No Precisa Armadura Cortante
	-67.835	14.106	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.240	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.488	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.716	0.524	1.455	1.455	3.795	3.484	No Precisa Armadura Cortante
1704	-146.148	12.380	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.134	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.766	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.714	0.372	1.846	1.846	3.795	1.322	No Precisa Armadura Cortante
	-68.826	14.128	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.302	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.618	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.727	0.521	1.461	1.461	3.795	3.493	No Precisa Armadura Cortante
1704	-146.148	12.380	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.134	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.766	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.714	0.372	1.846	1.846	3.795	1.322	No Precisa Armadura Cortante
	-68.826	14.128	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.302	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.618	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.727	0.521	1.461	1.461	3.795	3.493	No Precisa Armadura Cortante
1705	-155.304	12.522	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.707	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.968	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.835	0.361	1.886	1.886	3.795	1.339	No Precisa Armadura Cortante
	-71.943	14.217	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.496	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.027	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.762	0.511	1.478	1.478	3.795	3.536	No Precisa Armadura Cortante
1705	-155.304	12.522	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.707	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.968	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.835	0.361	1.886	1.886	3.795	1.339	No Precisa Armadura Cortante
	-71.943	14.217	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.496	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.027	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.762	0.511	1.478	1.478	3.795	3.536	No Precisa Armadura Cortante
1706	-141.326	12.471	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.833	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.133	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.650	0.378	1.824	1.824	3.795	1.445	No Precisa Armadura Cortante
	-71.543	14.165	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.980	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.758	0.512	1.476	1.476	3.795	3.497	No Precisa Armadura Cortante
1706	-141.326	12.471	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.833	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.133	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.650	0.378	1.824	1.824	3.795	1.445	No Precisa Armadura Cortante
	-71.543	14.165	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.474	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.980	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.758	0.512	1.476	1.476	3.795	3.497	No Precisa Armadura Cortante
1707	-161.100	12.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.444	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.416	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.778	0.366	1.868	1.868	3.795	1.406	No Precisa Armadura Cortante
	-76.865	14.322	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.540	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.808	0.500	1.500	1.500	3.795	3.583	No Precisa Armadura Cortante
1707	-161.100	12.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.444	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.416	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.778	0.366	1.868	1.868	3.795	1.406	No Precisa Armadura Cortante
	-76.865	14.322	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.540	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.808	0.500	1.500	1.500	3.795	3.583	No Precisa Armadura Cortante
1708	-136.794	12.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.550	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.539	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.590	0.384	1.803	1.803	3.795	1.568	No Precisa Armadura Cortante
	-74.300	14.228	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.336	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.789	0.504	1.491	1.491	3.795	3.522	No Precisa Armadura Cortante
1708	-136.794	12.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.550	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.539	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.590	0.384	1.803	1.803	3.795	1.568	No Precisa Armadura Cortante
	-74.300	14.228	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.336	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.789	0.504	1.491	1.491	3.795	3.522	No Precisa Armadura Cortante
1709	-148.427	12.640	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.277	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.065	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.744	0.369	1.856	1.856	3.795	1.425	No Precisa Armadura Cortante
	-78.465	14.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.966	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.013	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.851	0.491	1.519	1.519	3.795	3.646	No Precisa Armadura Cortante
1709	-148.427	12.640	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.277	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.065	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.744	0.369	1.856	1.856	3.795	1.425	No Precisa Armadura Cortante
	-78.465	14.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.966	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.013	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.851	0.491	1.519	1.519	3.795	3.646	No Precisa Armadura Cortante
1710	-132.569	12.689	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.286	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.884	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.534	0.389	1.784	1.784	3.795	1.716	No Precisa Armadura Cortante
	-77.205	14.316	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.825	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.717	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.824	0.496	1.507	1.507	3.795	3.565	No Precisa Armadura Cortante
1710	-132.569	12.689	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.286	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.884	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.534	0.389	1.784	1.784	3.795	1.716	No Precisa Armadura Cortante
	-77.205	14.316	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.825	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.717	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.824	0.496	1.507	1.507	3.795	3.565	No Precisa Armadura Cortante
1711	-100.734	12.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.296	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.806	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.116	0.442	1.631	1.631	3.795	2.240	No Precisa Armadura Cortante
	-88.458	14.639	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.529	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.194	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.961	0.468	1.567	1.567	3.795	3.712	No Precisa Armadura Cortante
1711	-100.734	12.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.296	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.806	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.116	0.442	1.631	1.631	3.795	2.240	No Precisa Armadura Cortante
	-88.458	14.639	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.529	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.194	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.961	0.468	1.567	1.567	3.795	3.712	No Precisa Armadura Cortante
1712	-147.083	12.464	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.193	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.889	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.726	0.370	1.850	1.850	3.795	1.379	No Precisa Armadura Cortante
	-82.859	14.661	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.179	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.461	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.892	0.482	1.538	1.538	3.795	3.705	No Precisa Armadura Cortante
1712	-147.083	12.464	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.193	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.889	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.726	0.370	1.850	1.850	3.795	1.379	No Precisa Armadura Cortante
	-82.859	14.661	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.179	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.461	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.892	0.482	1.538	1.538	3.795	3.705	No Precisa Armadura Cortante
1713	-128.656	12.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.054	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.497	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.485	0.395	1.767	1.767	3.795	1.807	No Precisa Armadura Cortante
	-80.271	14.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.017	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.120	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.860	0.488	1.524	1.524	3.795	3.611	No Precisa Armadura Cortante
1713	-128.656	12.762	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.054	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.497	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.485	0.395	1.767	1.767	3.795	1.807	No Precisa Armadura Cortante
	-80.271	14.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.017	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.120	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.860	0.488	1.524	1.524	3.795	3.611	No Precisa Armadura Cortante
1714	-98.760	12.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.173	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.547	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.091	0.446	1.621	1.621	3.795	2.264	No Precisa Armadura Cortante
	-90.051	14.695	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.628	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.404	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.981	0.465	1.576	1.576	3.795	3.662	No Precisa Armadura Cortante
1714	-98.760	12.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.173	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.547	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.091	0.446	1.621	1.621	3.795	2.264	No Precisa Armadura Cortante
	-90.051	14.695	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.628	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.404	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.981	0.465	1.576	1.576	3.795	3.667	No Precisa Armadura Cortante
1715	-147.048	12.287	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.191	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.884	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.726	0.370	1.850	1.850	3.795	1.247	No Precisa Armadura Cortante
	-85.980	14.639	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.374	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.869	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.930	0.474	1.554	1.554	3.795	3.737	No Precisa Armadura Cortante
1715	-147.048	12.287	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.191	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.884	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.726	0.370	1.850	1.850	3.795	1.247	No Precisa Armadura Cortante
	-85.980	14.639	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.374	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.869	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.930	0.474	1.554	1.554	3.795	3.737	No Precisa Armadura Cortante
1716	-125.600	12.777	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.850	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.069	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.442	0.399	1.752	1.752	3.795	1.853	No Precisa Armadura Cortante
	-83.665	14.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.564	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.901	0.480	1.542	1.542	3.795	3.657	No Precisa Armadura Cortante
1716	-125.600	12.777	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.850	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.069	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.442	0.399	1.752	1.752	3.795	1.853	No Precisa Armadura Cortante
	-83.665	14.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.564	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.901	0.480	1.542	1.542	3.795	3.657	No Precisa Armadura Cortante
1717	-96.782	12.947	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.050	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.288	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	2.286	No Precisa Armadura Cortante
	-91.718	14.571	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.732	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.622	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.002	0.461	1.584	1.584	3.795	3.626	No Precisa Armadura Cortante
1717	-96.782	12.947	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.050	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.288	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	2.286	No Precisa Armadura Cortante
	-91.718	14.671	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.732	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.622	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.002	0.461	1.584	1.584	3.795	3.626	No Precisa Armadura Cortante
1718	-148.170	12.024	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.261	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.032	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.741	0.369	1.855	1.855	3.795	1.018	No Precisa Armadura Cortante
	-88.646	14.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.540	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.219	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.963	0.468	1.568	1.568	3.795	3.719	No Precisa Armadura Cortante
1718	-148.170	12.024	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.261	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.032	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.741	0.369	1.855	1.855	3.795	1.018	No Precisa Armadura Cortante
	-88.646	14.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.540	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.719	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.963	0.468	1.568	1.568	3.795	3.719	No Precisa Armadura Cortante
1719	-123.135	12.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.746	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.409	0.403	1.740	1.740	3.795	1.856	No Precisa Armadura Cortante
	-87.011	14.633	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.438	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.004	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.943	0.472	1.560	1.560	3.795	3.722	No Precisa Armadura Cortante
1719	-123.135	12.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.746	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.409	0.403	1.740	1.740	3.795	1.856	No Precisa Armadura Cortante
	-87.011	14.633	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.438	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.004	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.943	0.472	1.560	1.560	3.795	3.722	No Precisa Armadura Cortante
1720	-94.742	12.960	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.921	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.019	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.040	0.455	1.600	1.600	3.795	2.318	No Precisa Armadura Cortante
	-93.665	14.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.854	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.878	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.026	0.457	1.594	1.594	3.795	3.627	No Precisa Armadura Cortante
1720	-94.742	12.960	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.921	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.019	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.040	0.455	1.600	1.600	3.795	2.318	No Precisa Armadura Cortante
	-93.665	14.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.854	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.878	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.026	0.457	1.594	1.594	3.795	3.627	No Precisa Armadura Cortante
1721	-71.448	12.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.466	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.962	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.756	0.513	1.475	1.475	3.795	2.539	No Precisa Armadura Cortante
	-87.451	14.877	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.466	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.063	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.948	0.471	1.562	1.562	3.795	3.912	No Precisa Armadura Cortante
1721	-71.448	12.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.466	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.962	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.756	0.513	1.475	1.475	3.795	2.539	No Precisa Armadura Cortante
	-87.451	14.877	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.466	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.063	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.948	0.471	1.562	1.562	3.795	3.912	No Precisa Armadura Cortante
1722	-149.570	11.703	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.348	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.215	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.759	0.367	1.861	1.861	3.795	0.749	No Precisa Armadura Cortante
	-91.184	14.634	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.552	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.995	0.462	1.582	1.582	3.795	3.682	No Precisa Armadura Cortante
1722	-149.570	11.703	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.348	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.215	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.759	0.367	1.861	1.861	3.795	0.749	No Precisa Armadura Cortante
	-91.184	14.634	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.552	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.995	0.462	1.582	1.582	3.795	3.682	No Precisa Armadura Cortante
1723	-121.145	12.693	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.572	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.485	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.383	0.406	1.731	1.731	3.795	1.833	No Precisa Armadura Cortante
	-90.567	14.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.660	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.471	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.987	0.464	1.578	1.578	3.795	3.787	No Precisa Armadura Cortante
1723	-121.145	12.693	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.572	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.485	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.383	0.406	1.731	1.731	3.795	1.833	No Precisa Armadura Cortante
	-90.567	14.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.660	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.471	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.987	0.464	1.578	1.578	3.795	3.787	No Precisa Armadura Cortante
1724	-92.622	12.971	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.789	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.741	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.013	0.459	1.589	1.589	3.795	2.347	No Precisa Armadura Cortante
	-95.958	14.648	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.999	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.183	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.056	0.452	1.606	1.606	3.795	3.644	No Precisa Armadura Cortante
1724	-92.622	12.971	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.789	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.741	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.013	0.459	1.589	1.589	3.795	2.347	No Precisa Armadura Cortante
	-95.958	14.648	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.999	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.183	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.056	0.457	1.606	1.606	3.795	3.644	No Precisa Armadura Cortante
1725	-70.785	12.923	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.425	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.877	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.749	0.515	1.472	1.472	3.795	2.518	No Precisa Armadura Cortante
	-89.007	14.855	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.563	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.267	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.968	0.467	1.570	1.570	3.795	3.876	No Precisa Armadura Cortante
1725	-70.785	12.923	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.425	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.877	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.749	0.515	1.472	1.472	3.795	2.519	No Precisa Armadura Cortante
	-89.007	14.855	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.563	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.267	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.968	0.467	1.570	1.570	3.795	3.878	No Precisa Armadura Cortante
1726	-119.385	12.875	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.462	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.254	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.360	0.409	1.722	1.722	3.795	1.758	No Precisa Armadura Cortante
	-94.445	14.886	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.903	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.980	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.036	0.455	1.599	1.599	3.795	3.849	No Precisa Armadura Cortante
1726	-119.385	12.875	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.462	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.254	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.360	0.409	1.722	1.722	3.795	1.758	No Precisa Armadura Cortante
	-94.445	14.886	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.903	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.980	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.036	0.455	1.599	1.599	3.795	3.849	No Precisa Armadura Cortante

Envolvente Vy

ENVOLVENTE <Vy>
concomitantes

Axil 1,50 Cargas Puntuales
Vy 1,50

Barra / Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	fck [N/mm²]	fyk [N/mm²]	γc	γs	θ [º]	Ast [mm²]	Ac [mm²]	cotan (θ)	fcd [N/mm²]	fyd [N/mm²]	σ'cd [N/mm²]	K	f1cd [N/mm²]	Función de θ	Vu1 [t]	Comprobación Compresion Oblicua Alma	ξ	ρl	Vcu [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot (θe,ref)	cot (θe)	fyα,d [N/mm²]	Armadura necesaria cm2	
1727	-90.231	12.962	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.639	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.427	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.983	0.464	1.577	1.577	3.795	2.364	No Precisa Armadura Cortante
	-98.946	14.733	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.571	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.094	0.446	1.622	1.622	3.795	3.682	No Precisa Armadura Cortante
1727	-90.231	12.962	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.639	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.427	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.983	0.464	1.577	1.577	3.795	2.364	No Precisa Armadura Cortante
	-98.946	14.733	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.184	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.571	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.094	0.446	1.622	1.622	3.795	3.682	No Precisa Armadura Cortante
1728	-70.083	12.891	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.380	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.783	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.741	0.517	1.468	1.468	3.795	2.500	No Precisa Armadura Cortante
	-90.581	14.832	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.661	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.473	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.987	0.464	1.578	1.578	3.795	3.445	No Precisa Armadura Cortante
1728	-70.083	12.891	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.380	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.783	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.741	0.517	1.468	1.468	3.795	2.500	No Precisa Armadura Cortante
	-90.581	14.832	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.661	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.473	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.987	0.464	1.578	1.578	3.795	3.445	No Precisa Armadura Cortante
1729	-117.534	12.432	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.346	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.011	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.335	0.412	1.713	1.713	3.795	1.664	No Precisa Armadura Cortante
	-98.760	16.029	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.173	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.547	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.091	0.446	1.621	1.621	3.795	3.919	No Precisa Armadura Cortante
1729	-117.534	12.432	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.346	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.011	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.335	0.412	1.713	1.713	3.795	1.664	No Precisa Armadura Cortante
	-98.760	16.029	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.173	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.547	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.091	0.446	1.621	1.621	3.795	3.919	No Precisa Armadura Cortante
1730	-87.999	12.950	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.500	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.134	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.955	0.470	1.565	1.565	3.795	2.377	No Precisa Armadura Cortante
	-102.071	14.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.379	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.981	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.134	0.440	1.637	1.637	3.795	3.754	No Precisa Armadura Cortante
1730	-87.999	12.950	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.500	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.134	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.955	0.470	1.565	1.565	3.795	2.377	No Precisa Armadura Cortante
	-102.071	14.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.379	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.981	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.134	0.440	1.637	1.637	3.795	3.754	No Precisa Armadura Cortante
1731	-69.206	12.860	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.325	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.668	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.731	0.519	1.463	1.463	3.795	2.483	No Precisa Armadura Cortante
	-92.285	14.831	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.768	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.697	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.009	0.460	1.587	1.587	3.795	3.827	No Precisa Armadura Cortante
1731	-69.206	12.860	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.325	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.668	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.731	0.519	1.463	1.463	3.795	2.483	No Precisa Armadura Cortante
	-92.285	14.831	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.768	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.697	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.009	0.460	1.587	1.587	3.795	3.827	No Precisa Armadura Cortante
1732	-43.302	12.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.706	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.268	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.481	0.618	1.309	1.309	3.795	2.745	No Precisa Armadura Cortante
	-83.976	14.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.248	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.606	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.905	0.479	1.544	1.544	3.795	3.977	No Precisa Armadura Cortante
1732	-43.302	12.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.706	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.268	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.481	0.618	1.309	1.309	3.795	2.745	No Precisa Armadura Cortante
	-83.976	14.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.248	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.606	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.905	0.479	1.544	1.544	3.795	3.977	No Precisa Armadura Cortante
1733	-115.541	12.321	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.749	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.309	0.415	1.704	1.704	3.795	1.597	No Precisa Armadura Cortante
	-103.272	15.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.139	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.149	0.437	1.643	1.643	3.795	4.014	No Precisa Armadura Cortante
1733	-115.541	12.321	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.749	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.309	0.415	1.704	1.704	3.795	1.597	No Precisa Armadura Cortante
	-103.272	15.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.139	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.149	0.437	1.643	1.643	3.795	4.014	No Precisa Armadura Cortante
1734	-85.601	12.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.350	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.819	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.925	0.475	1.552	1.552	3.795	2.374	No Precisa Armadura Cortante
	-105.594	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.600	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.444	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.179	0.433	1.655	1.655	3.795	3.843	No Precisa Armadura Cortante
1734	-85.601	12.917	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.350	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.819	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.925	0.475	1.552	1.552	3.795	2.374	No Precisa Armadura Cortante
	-105.594	15.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.600	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.444	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.179	0.433	1.655	1.655	3.795	3.843	No Precisa Armadura Cortante
1735	-68.069	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.254	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.518	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.718	0.523	1.456	1.456	3.795	2.467	No Precisa Armadura Cortante
	-94.236	14.862	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.890	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.953	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.033	0.456	1.597	1.597	3.795	3.832	No Precisa Armadura Cortante
1735	-68.069	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.254	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.518	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.718	0.523	1.456	1.456	3.795	2.467	No Precisa Armadura Cortante
	-94.236	14.862	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.890	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.953	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.033	0.456	1.597	1.597	3.795	3.832	No Precisa Armadura Cortante
1736	-43.377	12.918	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.711	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.278	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.481	0.618	1.309	1.309	3.795	2.727	No Precisa Armadura Cortante
	-85.742	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.359	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.838	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.927	0.475	1.553	1.553	3.795	3.965	No Precisa Armadura Cortante
1736	-43.377	12.918	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.711	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.278	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.481	0.618	1.309	1.309	3.795	2.727	No Precisa Armadura Cortante
	-85.742	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.359	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.838	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.927	0.475	1.553	1.553	3.795	3.966	No Precisa Armadura Cortante
1737	-82.925	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.183	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.468	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.893	0.482	1.538	1.538	3.795	2.375	No Precisa Armadura Cortante
	-109.536	15.228	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.846	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.961	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.231	0.428	1.674	1.674	3.795	3.964	No Precisa Armadura Cortante
1737	-82.925	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.183	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.468	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.893	0.482	1.538	1.538	3.795	2.375	No Precisa Armadura Cortante
	-109.536	15.228	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.846	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.961	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.231	0.428	1.674	1.674	3.795	3.964	No Precisa Armadura Cortante
1738	-66.297	12.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.144	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.266	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	2.462	No Precisa Armadura Cortante
	-96.821	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.051	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.292	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	3.867	No Precisa Armadura Cortante
1738	-66.297	12.801	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.144	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.266	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.699	0.528	1.446	1.446	3.795	2.462	No Precisa Armadura Cortante
	-96.821	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.051	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.292	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.066	0.450	1.611	1.611	3.795	3.867	No Precisa Armadura Cortante
1739	-43.408	12.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.713	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.282	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.482	0.618	1.310	1.310	3.795	2.700	No Precisa Armadura Cortante
	-87.488	14.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.468	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.067	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.949	0.471	1.562	1.562	3.795	3.945	No Precisa Armadura Cortante
1739	-43.408	12.884	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.713	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.282	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.482	0.618	1.310	1.310	3.795	2.700	No Precisa Armadura Cortante
	-87.488	14.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.468	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.067	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.949	0.471	1.562	1.562	3.795	3.945	No Precisa Armadura Cortante
1740	-79.956	12.870	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.997	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.078	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.857	0.489	1.522	1.522	3.795	2.392	No Precisa Armadura Cortante
	-113.793	16.479	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.112	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.520	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.286	0.418	1.695	1.695	3.795	4.121	No Precisa Armadura Cortante
1740	-79.956	12.870	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.997	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.079	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.857	0.489	1.522	1.522	3.795	2.392	No Precisa Armadura Cortante
	-113.793	16.479	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.112	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.520	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.286	0.418	1.695	1.695	3.795	4.121	No Precisa Armadura Cortante
1741	-64.397	12.803	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.025	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	2.480	No Precisa Armadura Cortante
	-99.473	15.083	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.640	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.100	0.445	1.624	1.624	3.795	3.954	No Precisa Armadura Cortante
1741	-64.397	12.803	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.025	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.036	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.678	0.535	1.435	1.435	3.795	2.480	No Precisa Armadura Cortante
	-99.473	15.083	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.217	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.640	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.100	0.445	1.624	1.624	3.795	3.954	No Precisa Armadura Cortante
1742	-43.260	12.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.704	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.262	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.481	0.618	1.309	1.309	3.795	2.684	No Precisa Armadura Cortante
	-89.232	14.918	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.577	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.296	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.970	0.467	1.571	1.571	3.795	3.926	No Precisa Armadura Cortante
1742	-43.260	12.837	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.704	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.262	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.481	0.618	1.309	1.309	3.795	2.684	No Precisa Armadura Cortante
	-89.232	14.918	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.577	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.296	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.970	0.467	1.571	1.571	3.795	3.926	No Precisa Armadura Cortante
1743	-15.569	12.834	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.628	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.420	0.805	1.121	1.121	3.795	2.710	No Precisa Armadura Cortante
	-79.580	14.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.029	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.852	0.490	1.520	1.520	3.795	3.977	No Precisa Armadura Cortante
1743	-15.569	12.834	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.628	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.420	0.805	1.121	1.121	3.795	2.710	No Precisa Armadura Cortante
	-79.580	14.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.974	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.029	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.852	0.490	1.520	1.520	3.795	3.977	No Precisa Armadura Cortante
1744	-76.830	12.851	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.668	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.819	0.497	1.505	1.505	3.795	2.406	No Precisa Armadura Cortante
	-118.118	15.740	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.382	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.087	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.343	0.411	1.716	1.716	3.795	4.283	No Precisa Armadura Cortante
1744	-76.830	12.851	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.802	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.668	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.819	0.497	1.505	1.505	3.795	2.406	No Precisa Armadura Cortante
	-118.118	15.740	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.382	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.087	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.343	0.411	1.716	1.716	3.795	4.283	No Precisa Armadura Cortante
1745	-62.066	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.879	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.730	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.653	0.542	1.422	1.422	3.795	2.508	No Precisa Armadura Cortante
	-102.413	15.272	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.026	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.138	0.439	1.639	1.639	3.795	4.074	No Precisa Armadura Cortante
1745	-62.066	12.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.879	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.730	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.653	0.542	1.422	1.422	3.795	2.508	No Precisa Armadura Cortante
	-102.413	15.272	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.026	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.138	0.439	1.639	1.639	3.795	4.074	No Precisa Armadura Cortante
1746	-42.777	12.789	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.674	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.199	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.477	0.621	1.306	1.306	3.795	2.627	No Precisa Armadura Cortante
	-91.032	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.690	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.532	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.993	0.463	1.581	1.581	3.795	3.925	No Precisa Armadura Cortante
1746	-42.777	12.789	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.674	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.199	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.477	0.621	1.306	1.306	3.795	2.627	No Precisa Armadura Cortante
	-91.032	14.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.690	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.532	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.993	0.463	1.581	1.581	3.795	3.925	No Precisa Armadura Cortante
1747	-16.295	12.909	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.018	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.723	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.416	0.798	1.126	1.126	3.795	2.772	No Precisa Armadura Cortante
	-81.831	14.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.114	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.325	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.879	0.484	1.532	1.532	3.795	4.000	No Precisa Armadura Cortante
1747	-16.295	12.909	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.018	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.723	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.416	0.798	1.126	1.126	3.795	2.772	No Precisa Armadura Cortante
	-81.831	14.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.114	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.325	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.879	0.484	1.532	1.532	3.795	4.000	No Precisa Armadura Cortante
1748	-59.369	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.711	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.376	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.625	0.552	1.406	1.406	3.795	2.541	No Precisa Armadura Cortante
	-105.534	15.497	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.596	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.436	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.178	0.433	1.655	1.655	3.795	4.221	No Precisa Armadura Cortante
1748	-59.369	12.827	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.711	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	19.376	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.625	0.552	1.406	1.406	3.795	2.541	No Precisa Armadura Cortante
	-105.534	15.497	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.436	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.178	0.433	1.655	1.655	3.795	4.221	No Precisa Armadura Cortante
1749	-41.492	12.747	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.593	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.030	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.468	0.627	1.297	1.297	3.795	2.602	No Precisa Armadura Cortante
	-93.300	15.012	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.831	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.830	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.022	0.458	1.593	1.593	3.795	3.961	No Precisa Armadura Cortante
1749	-41.492	12.747	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.593	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.030	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.468	0.627	1.297	1.297	3.795	2.602	No Precisa Armadura Cortante
	-93.300	15.012	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.831	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.830	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.022	0.458	1.593	1.593	3.795	3.961	No Precisa Armadura Cortante
1750	-16.913	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.057	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.804	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.413	0.793	1.131	1.131	3.795	2.756	No Precisa Armadura Cortante
	-83.844	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.240	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.589	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.904	0.479	1.543	1.543	3.795	3.984	No Precisa Armadura Cortante
1750	-16.913	12.885	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.057	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.804	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.413	0.793	1.131	1.131	3.795	2.756	No Precisa Armadura Cortante
	-83.844	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.240	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.589	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.904	0.479	1.543	1.543	3.795	3.984	No Precisa Armadura Cortante
1751	-56.430	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.527	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.991	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.595	0.562	1.389	1.389	3.795	2.569	No Precisa Armadura Cortante
	-108.684	15.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.793	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.849	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.219	0.427	1.670	1.670	3.795	4.377	No Precisa Armadura Cortante
1751	-56.430	12.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.527	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.991	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.595	0.562	1.389	1.389	3.795	2.569	No Precisa Armadura Cortante
	-108.684	15.735	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.793	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.849	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.219	0.427	1.670	1.670	3.795	4.377	No Precisa Armadura Cortante
1752	-40.017	12.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.501	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.837	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.458	0.635	1.288	1.288	3.795	2.821	No Precisa Armadura Cortante
	-95.378	15.173	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.961	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.103	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.048	0.453	1.600	1.600	3.795	4.067	No Precisa Armadura Cortante
1752	-40.017	12.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.501	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	16.837	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.458	0.635	1.288	1.288	3.795	2.821	No Precisa Armadura Cortante
	-95.378	15.173	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.961	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.103	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.048	0.453	1.600	1.600	3.795	4.067	No Precisa Armadura Cortante
1753	-17.363	12.836	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.085	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.863	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.411	0.789	1.134	1.134	3.795	2.718	No Precisa Armadura Cortante
	-85.677	14.924	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.355	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.829	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.926	0.475	1.553	1.553	3.795	3.966	No Precisa Armadura Cortante
1753	-17.363	12.836	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.085	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	13.863	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.411	0.789	1.134	1.134	3.795	2.718	No Precisa Armadura Cortante

Envolvente Vy

ENVOLVENTE <Vy>
concomitantes

Axil 1.50 Cargas Puntuales
Vy 1.50

Barra / Elemento	N	Vy	(mm)	(mm)	(mm)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Comprobación Compresión Oblicua Alma	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.355	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	22.429	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.926	0.475	1.553	1.553	3.795	3.966	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.397	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	18.692	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.566	0.574	1.371	1.371	3.795	2.549	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.985	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	26.253	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.260	0.422	1.685	1.685	3.795	4.528	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.337	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	18.692	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.566	0.574	1.371	1.371	3.795	2.549	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.985	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	26.253	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.260	0.422	1.685	1.685	3.795	4.528	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.378	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	16.580	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.446	0.645	1.275	1.275	3.795	2.656	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.098	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.386	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.075	0.449	1.614	1.614	3.795	4.204	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.378	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	16.580	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.446	0.645	1.275	1.275	3.795	2.656	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.098	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.386	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.075	0.449	1.614	1.614	3.795	4.204	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.093	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.879	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.410	0.788	1.135	1.135	3.795	2.672	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.461	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.052	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.947	0.471	1.562	1.562	3.795	3.959	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.093	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.879	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.410	0.788	1.135	1.135	3.795	2.672	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.461	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.052	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.947	0.471	1.562	1.562	3.795	3.959	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.234	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	16.276	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.433	0.658	1.260	1.260	3.795	2.668	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.231	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.669	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.103	0.444	1.625	1.625	3.795	4.348	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.234	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	16.276	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.433	0.658	1.260	1.260	3.795	2.668	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.231	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.669	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.103	0.444	1.625	1.625	3.795	4.348	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.041	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.770	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.414	0.795	1.129	1.129	3.795	2.610	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.582	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.307	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.972	0.466	1.572	1.572	3.795	3.972	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.041	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.770	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.414	0.795	1.129	1.129	3.795	2.610	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.582	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.307	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.972	0.466	1.572	1.572	3.795	3.972	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.074	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	15.940	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.420	0.672	1.244	1.244	3.795	2.699	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.359	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.939	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.129	0.440	1.636	1.636	3.795	4.466	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.074	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	15.940	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.420	0.672	1.244	1.244	3.795	2.699	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.359	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.939	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.129	0.440	1.636	1.636	3.795	4.466	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.973	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.627	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.420	0.805	1.121	1.121	3.795	2.643	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.671	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.494	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.989	0.463	1.579	1.579	3.795	4.123	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.973	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.627	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.420	0.805	1.121	1.121	3.795	2.643	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.671	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.494	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.989	0.463	1.579	1.579	3.795	4.123	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.907	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	15.568	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.410	0.689	1.226	1.226	3.795	2.670	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.479	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	25.169	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.154	0.437	1.645	1.645	3.795	4.605	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-1.907	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	15.568	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.410	0.689	1.226	1.226	3.795	2.670	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.479	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	25.169	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.154	0.437	1.645	1.645	3.795	4.605	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.879	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.431	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.429	0.820	1.110	1.110	3.795	2.671	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.755	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.670	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.006	0.460	1.586	1.586	3.795	4.278	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.879	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.431	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.429	0.820	1.110	1.110	3.795	2.671	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.755	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.670	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.006	0.460	1.586	1.586	3.795	4.278	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.787	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.195	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.444	0.838	1.096	1.096	3.795	2.645	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.834	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.835	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.022	0.458	1.593	1.593	3.795	4.425	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.787	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	13.195	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.444	0.838	1.096	1.096	3.795	2.645	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.834	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.835	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.022	0.458	1.593	1.593	3.795	4.425	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.641	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.930	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.464	0.860	1.081	1.081	3.795	2.665	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.905	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.984	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.038	0.455	1.599	1.599	3.795	4.550	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.641	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.930	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.464	0.860	1.081	1.081	3.795	2.665	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.905	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	23.984	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.038	0.455	1.599	1.599	3.795	4.550	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.496	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.627	<Vy, Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.493	0.888	1.063	1.063	3.795	2.553	Valide la armadura del pilote
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.960	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.099	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.048	0.453	1.603	1.603	3.795	4.615	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-0.496	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	12.627	<Vy, Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	9.493	0.888	1.063	1.063	3.795	2.553	Valide la armadura del pilote
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.960	1.00	18.00	0.50	126.00	>=Vy, Valida Compresion Oblicua Alma	1.756	0.01346	24.099	>=Vy, No Precisa Armadura Cortante	cercos ϕ6 a 0.12	8.378	10.048	0.453	1.603	1.603	3.795	4.615	No Precisa Armadura Cortante

CORTANTE EN LOTES DE PARQUE
FILAS EXTERIORES

ENVOLVENTE <N-Vz> concomitantes

Axil 1.00 Cargas Puntuales
Vz 1.50

Barra Elemento	N [t]	Vz [t]	bo [mm]	b [mm]	d [mm]	f_{ck} [N/mm²]	f_y [N/mm²]	γ_c	γ_s	θ [°]	A_s [mm²]	A_c [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'_{cd} [N/mm²]	K	f_{1cd} [N/mm²]	Fracción de B	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	ctg	V_{cu} [t]	β	cot (θ_e)	cot (θ)	f_{ct} [N/mm²]	As necesaria cm²	
2648	-44.282	2.891	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.768	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.932	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.740	0.614	1.315	1.315	3.795	-4.800	No Precisa Armadura Cortante
	-39.614	2.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.319	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.678	0.637	1.285	1.285	3.795	-4.791	No Precisa Armadura Cortante
2648	-44.282	2.891	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.768	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.932	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.740	0.614	1.315	1.315	3.795	-4.800	No Precisa Armadura Cortante
	-39.614	2.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.319	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.678	0.637	1.285	1.285	3.795	-4.791	No Precisa Armadura Cortante
2649	-68.612	2.906	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.800	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.939	0.555	1.401	1.401	3.795	-4.789	No Precisa Armadura Cortante
	-66.836	2.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.540	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.553	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.912	0.562	1.390	1.390	3.795	-4.846	No Precisa Armadura Cortante
2649	-68.612	2.906	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.800	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.939	0.555	1.401	1.401	3.795	-4.789	No Precisa Armadura Cortante
	-66.836	2.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.540	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.553	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.912	0.562	1.390	1.390	3.795	-4.946	No Precisa Armadura Cortante
2651	-68.358	3.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.272	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.092	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.084	0.522	1.458	1.458	3.795	-4.749	No Precisa Armadura Cortante
	-68.835	2.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.252	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.049	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.080	0.523	1.456	1.456	3.795	-4.892	No Precisa Armadura Cortante
2651	-68.358	3.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.272	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.092	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.084	0.522	1.458	1.458	3.795	-4.749	No Precisa Armadura Cortante
	-68.035	2.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.252	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.049	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.080	0.523	1.456	1.456	3.795	-4.892	No Precisa Armadura Cortante
2653	-73.711	3.302	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.653	No Precisa Armadura Cortante
	-73.318	3.156	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.582	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.743	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-4.764	No Precisa Armadura Cortante
2653	-73.711	3.302	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.653	No Precisa Armadura Cortante
	-73.318	3.158	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.582	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.743	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-4.764	No Precisa Armadura Cortante
2654	-65.952	4.220	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.497	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.464	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.902	0.564	1.386	1.386	3.795	-3.716	No Precisa Armadura Cortante
	-61.848	4.217	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.241	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	16.926	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.844	0.580	1.362	1.362	3.795	-3.672	No Precisa Armadura Cortante
2654	-65.952	4.220	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.497	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.464	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.902	0.564	1.386	1.386	3.795	-3.716	No Precisa Armadura Cortante
	-61.848	4.217	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.241	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	16.926	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.844	0.580	1.362	1.362	3.795	-3.672	No Precisa Armadura Cortante
2656	-75.549	3.489	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.722	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.036	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.193	0.501	1.498	1.498	3.795	-4.527	No Precisa Armadura Cortante
	-75.062	3.308	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.691	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.970	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.665	No Precisa Armadura Cortante
2656	-75.549	3.489	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.722	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.036	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.193	0.501	1.498	1.498	3.795	-4.527	No Precisa Armadura Cortante
	-75.062	3.301	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.691	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.970	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.665	No Precisa Armadura Cortante
2657	-65.437	4.261	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.089	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.706	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.041	0.531	1.441	1.441	3.795	-3.801	No Precisa Armadura Cortante
	-63.875	4.143	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.992	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.503	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.018	0.536	1.432	1.432	3.795	-3.869	No Precisa Armadura Cortante
2657	-65.437	4.261	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.089	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.706	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.041	0.531	1.441	1.441	3.795	-3.801	No Precisa Armadura Cortante
	-63.875	4.143	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.992	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.503	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.018	0.536	1.432	1.432	3.795	-3.869	No Precisa Armadura Cortante
2659	-76.529	3.820	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.721	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.033	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.192	0.501	1.498	1.498	3.795	-4.423	No Precisa Armadura Cortante
	-76.538	3.414	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.982	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-4.581	No Precisa Armadura Cortante
2659	-76.529	3.820	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.721	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.033	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.192	0.501	1.498	1.498	3.795	-4.423	No Precisa Armadura Cortante
	-76.135	3.414	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.982	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-4.581	No Precisa Armadura Cortante
2660	-71.485	4.182	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.466	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.498	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.131	0.513	1.475	1.475	3.795	-3.952	No Precisa Armadura Cortante
	-71.207	4.002	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.466	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.127	0.513	1.474	1.474	3.795	-4.068	No Precisa Armadura Cortante
2660	-71.485	4.182	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.466	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.498	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.131	0.513	1.475	1.475	3.795	-3.952	No Precisa Armadura Cortante
	-71.207	4.002	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.466	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.127	0.513	1.474	1.474	3.795	-4.068	No Precisa Armadura Cortante
2662	-74.805	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.951	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.494	1.494	3.795	-4.346	No Precisa Armadura Cortante
	-74.658	3.483	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.666	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.919	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.521	No Precisa Armadura Cortante
2662	-74.805	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.951	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.494	1.494	3.795	-4.346	No Precisa Armadura Cortante
	-74.658	3.483	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.666	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.919	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.521	No Precisa Armadura Cortante
2663	-74.317	4.017	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.645	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.874	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.093	No Precisa Armadura Cortante
	-74.032	3.842	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.837	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.197	No Precisa Armadura Cortante
2663	-74.317	4.017	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.645	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.874	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.093	No Precisa Armadura Cortante
	-74.052	3.882	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.837	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.197	No Precisa Armadura Cortante
2665	-74.295	3.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.643	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.871	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.289	No Precisa Armadura Cortante
	-74.161	3.531	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.635	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.853	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.172	0.505	1.490	1.490	3.795	-4.477	No Precisa Armadura Cortante
2665	-74.295	3.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.643	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.871	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.289	No Precisa Armadura Cortante
	-74.161	3.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.635	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.853	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.172	0.505	1.490	1.490	3.795	-4.477	No Precisa Armadura Cortante
2666	-74.916	3.903	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.953	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.191	No Precisa Armadura Cortante
	-74.618	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.664	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.913	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.179	0.504	1.493	1.493	3.795	-4.283	No Precisa Armadura Cortante
2666	-74.916	3.903	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.953	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.191	No Precisa Armadura Cortante
	-74.618	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.664	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.913	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.179	0.504	1.493	1.493	3.795	-4.283	No Precisa Armadura Cortante
2668	-73.813	3.811	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.821	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-4.245	No Precisa Armadura Cortante
	-73.851	3.567	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.616	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.813	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.444	No Precisa Armadura Cortante
2668	-73.913	3.818	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.821	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-4.245	No Precisa Armadura Cortante
	-73.851	3.567	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.616	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.813	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.444	No Precisa Armadura Cortante
2669	-74.580	3.824	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.660	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.906	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.178	0.504	1.493	1.493	3.795	-4.249	No Precisa Armadura Cortante
	-74.376	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.648	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.882	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.175	0.504	1.492	1.492	3.795	-4.340	No Precisa Armadura Cortante
2669	-74.580	3.824	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.660	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.906	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.178	0.504	1.493	1.493	3.795	-4.249	No Precisa Armadura Cortante
	-74.376	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.648	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.882	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.175	0.504	1.492	1.492	3.795	-4.340	No Precisa Armadura Cortante
2671	-73.820	3.795	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.809	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.488	1.488	3.795	-4.263	No Precisa Armadura Cortante
	-73.728	3.665	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.608	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.797	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.368	No Precisa Armadura Cortante
2671	-73.820	3.795	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.809	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.488	1.488	3.795	-4.263	No Precisa Armadura Cortante
	-73.728	3.665	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.608	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.797	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.366	No Precisa Armadura Cortante
2672	-74.071	3.768	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.842	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.268	No Precisa Armadura Cortante
	-73.991	3.651	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.624	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.379	No Precisa Armadura Cortante
2672	-74.071	3.768	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.842	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.268	No Precisa Armadura Cortante
	-73.991	3.651	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.624	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.379	No Precisa Armadura Cortante
2674	-73.924	3.842	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.822	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-4.227	No Precisa Armadura Cortante
	-73.810	3.708	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.807	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.332	No Precisa Armadura Cortante
2674	-73.924	3.842	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.822	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-4.227	No Precisa Armadura Cortante
	-73.810	3.708	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.807	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.332	No Precisa Armadura Cortante
2676	-73.815	3.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.808	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.255	No Precisa Armadura Cortante
	-73.706	3.576	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.784	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.474	No Precisa Armadura Cortante
2676	-73.815	3.809	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.808	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.255	No Precisa Armadura Cortante
	-73.709	3.528	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.784	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.474	No Precisa Armadura Cortante
2677	-74.108	3.902	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.632	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.847	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.182	No Precisa Armadura Cortante
	-73.893	3.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.288	No Precisa Armadura Cortante
2677	-74.108	3.902	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.632	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.847	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.182	No Precisa Armadura Cortante
	-73.893	3.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.288	No Precisa Armadura Cortante
2678	-73.803	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.806	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.274	No Precisa Armadura Cortante
	-73.657	3.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.787	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.516	No Precisa Armadura Cortante
2678	-73.803	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.806	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.274	No Precisa Armadura Cortante
	-73.657	3.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.787	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.516	No Precisa Armadura Cortante
2680	-74.043	4.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.843	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.026	No Precisa Armadura Cortante
	-73.932	3.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.318	No Precisa Armadura Cortante
2680	-74.043	4.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.843	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.026	No Precisa Armadura Cortante
	-73.932	3.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.318	No Precisa Armadura Cortante
2681	-74.019	3.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.835	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.294	No Precisa Armadura Cortante
	-73.862	3.419	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.815	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.563	No Precisa Armadura Cortante

Envolvente N-Vz Parque Extremo

ENVOLVENTE <N-Vz >
concomitantes

Axil 1,00 Cargas Puntuales
Vz 1,50

Barra / Extremo	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	fck [N/mm²]	fyk [N/mm²]	γc	γs	θ [°]	A [mm²]	A [mm²]	[illegible]	[N/mm²]	[N/mm²]	σcd [N/mm²]	K	[N/mm²]	[illegible]	Vu1 [t]	Comprobación Compresión Oblicua Alma	ξ	[illegible]	Vcu [t]	Necesidad Armadura Cortante	Armadura [illegible]	[illegible]	Vsu [t]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	-74.619	3.780	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.835	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.294	No Precisa Armadura Cortante
	-73.869	3.419	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.815	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.563	No Precisa Armadura Cortante
[illegible]	-73.343	4.197	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.591	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.741	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-3.938	No Precisa Armadura Cortante
	-73.078	3.847	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.567	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.711	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.155	0.508	1.484	1.484	3.795	-4.211	No Precisa Armadura Cortante
[illegible]	-73.343	4.197	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.591	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.741	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-3.938	No Precisa Armadura Cortante
	-73.078	3.847	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.567	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.711	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.155	0.508	1.484	1.484	3.795	-4.211	No Precisa Armadura Cortante
[illegible]	-74.438	3.721	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.890	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.176	0.504	1.492	1.492	3.795	-4.322	No Precisa Armadura Cortante
	-74.309	3.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.873	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.614	No Precisa Armadura Cortante
[illegible]	-74.438	3.721	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.890	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.176	0.504	1.492	1.492	3.795	-4.322	No Precisa Armadura Cortante
	-74.309	3.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.873	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.614	No Precisa Armadura Cortante
[illegible]	-70.638	4.329	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.415	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.391	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.118	0.515	1.471	1.471	3.795	-3.801	No Precisa Armadura Cortante
	-70.306	3.948	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.388	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.335	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.112	0.516	1.468	1.468	3.795	-4.099	No Precisa Armadura Cortante
[illegible]	-70.638	4.329	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.415	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.391	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.118	0.515	1.471	1.471	3.795	-3.801	No Precisa Armadura Cortante
	-70.306	3.948	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.388	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.335	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.112	0.516	1.468	1.468	3.795	-4.099	No Precisa Armadura Cortante
[illegible]	-74.878	3.872	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.954	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.454	No Precisa Armadura Cortante
	-74.826	3.410	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.677	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.941	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.581	No Precisa Armadura Cortante
[illegible]	-74.878	3.872	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.954	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.454	No Precisa Armadura Cortante
	-74.826	3.410	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.677	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.941	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.581	No Precisa Armadura Cortante
[illegible]	-64.307	4.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.056	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.638	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.033	0.533	1.438	1.438	3.795	-3.673	No Precisa Armadura Cortante
	-64.292	3.883	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.018	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.558	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.024	0.535	1.435	1.435	3.795	-4.001	No Precisa Armadura Cortante
[illegible]	-64.307	4.406	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.056	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.638	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.033	0.533	1.438	1.438	3.795	-3.673	No Precisa Armadura Cortante
	-64.292	3.883	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.018	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.558	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.024	0.535	1.435	1.435	3.795	-4.001	No Precisa Armadura Cortante
[illegible]	-75.105	3.519	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.694	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.978	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-4.505	No Precisa Armadura Cortante
	-74.937	3.326	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.955	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.649	No Precisa Armadura Cortante
[illegible]	-75.105	3.519	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.694	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.978	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-4.505	No Precisa Armadura Cortante
	-74.937	3.326	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.955	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.649	No Precisa Armadura Cortante
[illegible]	-73.830	3.336	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.621	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.824	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.168	0.505	1.489	1.489	3.795	-4.629	No Precisa Armadura Cortante
	-73.716	3.292	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.795	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.669	No Precisa Armadura Cortante
[illegible]	-73.830	3.336	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.621	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.824	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.168	0.505	1.489	1.489	3.795	-4.629	No Precisa Armadura Cortante
	-73.716	3.292	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.795	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.669	No Precisa Armadura Cortante
[illegible]	-49.782	3.415	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.361	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.279	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.106	0.518	1.466	1.466	3.795	-4.518	No Precisa Armadura Cortante
	-49.653	2.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.262	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.104	0.518	1.465	1.465	3.795	-4.913	No Precisa Armadura Cortante
[illegible]	-49.782	3.415	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.361	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.279	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.106	0.518	1.466	1.466	3.795	-4.518	No Precisa Armadura Cortante
	-49.653	2.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.262	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.104	0.518	1.465	1.465	3.795	-4.913	No Precisa Armadura Cortante
[illegible]	-61.429	3.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.839	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.182	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.982	0.544	1.418	1.418	3.795	-4.583	No Precisa Armadura Cortante
	-60.868	2.848	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.804	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.109	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.974	0.546	1.415	1.415	3.795	-5.021	No Precisa Armadura Cortante
[illegible]	-61.429	3.207	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.839	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.182	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.982	0.544	1.418	1.418	3.795	-4.583	No Precisa Armadura Cortante
	-60.868	2.848	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.804	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.109	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.974	0.546	1.415	1.415	3.795	-5.021	No Precisa Armadura Cortante

ENVOLVENTE <N-Vz >
concomitantes

AxR 1.50 Cargas Puntuales
Vz 1.50

Barra Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{sl} [mm²]	A_c [mm²]	cotan (θ)	f_{cv} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot (θe)	cot (θ)	$f_{y\alpha,d}$ [N/mm²]	Armadura [cm²]	
2648	-46.423	2.691	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.151	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	18.838	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.056	0.526	1.447	1.447	3.795	-5.051	No Precisa Armadura Cortante
	-49.421	2.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.714	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	17.919	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.952	0.552	1.407	1.407	3.795	-5.009	No Precisa Armadura Cortante
2648	-46.421	2.691	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.151	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	18.838	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.056	0.526	1.447	1.447	3.795	-5.051	No Precisa Armadura Cortante
	-49.421	2.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.714	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	17.919	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.952	0.552	1.407	1.407	3.795	-5.009	No Precisa Armadura Cortante
2649	-87.785	2.906	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.466	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	21.639	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.379	0.470	1.564	1.564	3.795	-5.137	No Precisa Armadura Cortante
	-84.954	2.691	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.310	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	21.270	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.336	0.477	1.549	1.549	3.795	-5.282	No Precisa Armadura Cortante
2649	-87.778	2.906	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.466	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	21.639	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.379	0.470	1.564	1.564	3.795	-5.137	No Precisa Armadura Cortante
	-84.954	2.691	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.310	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	21.270	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.336	0.477	1.549	1.549	3.795	-5.282	No Precisa Armadura Cortante
2651	-102.537	3.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.409	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	23.578	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.604	0.439	1.640	1.640	3.795	-5.162	No Precisa Armadura Cortante
	-102.053	2.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.378	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	23.514	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.597	0.440	1.637	1.637	3.795	-5.302	No Precisa Armadura Cortante
2651	-102.537	3.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.409	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	23.578	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.604	0.439	1.640	1.640	3.795	-5.162	No Precisa Armadura Cortante
	-102.053	2.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.378	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	23.514	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.597	0.440	1.637	1.637	3.795	-5.302	No Precisa Armadura Cortante
2653	-110.567	3.302	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.632	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.679	1.679	3.795	-5.099	No Precisa Armadura Cortante
	-109.878	3.156	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.874	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.555	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.718	0.425	1.677	1.677	3.795	-5.208	No Precisa Armadura Cortante
2653	-110.567	3.302	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.632	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.679	1.679	3.795	-5.099	No Precisa Armadura Cortante
	-109.878	3.156	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.874	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.555	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.718	0.425	1.677	1.677	3.795	-5.208	No Precisa Armadura Cortante
2654	-83.928	4.220	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.246	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	21.135	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.320	0.479	1.543	1.543	3.795	-4.048	No Precisa Armadura Cortante
	-77.787	4.217	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.862	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	20.329	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.227	0.495	1.510	1.510	3.795	-3.976	No Precisa Armadura Cortante
2654	-83.928	4.220	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.246	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	21.135	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.320	0.479	1.543	1.543	3.795	-4.048	No Precisa Armadura Cortante
	-77.787	4.217	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.862	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	20.329	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.227	0.495	1.510	1.510	3.795	-3.976	No Precisa Armadura Cortante
2656	-113.324	3.489	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.083	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.994	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.769	0.419	1.693	1.693	3.795	-4.984	No Precisa Armadura Cortante
	-112.678	3.308	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.896	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.757	0.420	1.689	1.689	3.795	-5.119	No Precisa Armadura Cortante
2656	-113.324	3.489	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.083	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.894	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.769	0.419	1.693	1.693	3.795	-4.984	No Precisa Armadura Cortante
	-112.678	3.308	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.896	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.757	0.420	1.689	1.689	3.795	-5.119	No Precisa Armadura Cortante
2657	-98.126	4.251	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.133	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	22.999	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.537	0.447	1.617	1.617	3.795	-4.195	No Precisa Armadura Cortante
	-95.813	4.143	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.968	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	22.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.502	0.452	1.606	1.606	3.795	-4.253	No Precisa Armadura Cortante
2657	-98.126	4.251	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.133	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	22.990	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.537	0.447	1.617	1.617	3.795	-4.195	No Precisa Armadura Cortante
	-95.813	4.143	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.968	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	22.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.502	0.452	1.606	1.606	3.795	-4.253	No Precisa Armadura Cortante
2659	-113.294	3.620	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.081	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.990	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.768	0.419	1.693	1.693	3.795	-4.880	No Precisa Armadura Cortante
	-112.767	3.414	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.044	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.913	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.759	0.420	1.690	1.690	3.795	-5.036	No Precisa Armadura Cortante
2659	-113.294	3.620	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.081	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.990	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.768	0.419	1.693	1.693	3.795	-4.880	No Precisa Armadura Cortante
	-112.767	3.414	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.044	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.913	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.759	0.420	1.690	1.690	3.795	-5.036	No Precisa Armadura Cortante
2660	-107.184	4.152	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.188	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.675	0.430	1.663	1.663	3.795	-4.383	No Precisa Armadura Cortante
	-106.811	4.002	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.676	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.139	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.669	0.431	1.661	1.661	3.795	-4.488	No Precisa Armadura Cortante
2660	-107.184	4.152	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.188	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.675	0.430	1.663	1.663	3.795	-4.383	No Precisa Armadura Cortante
	-106.811	4.002	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.676	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.139	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.669	0.431	1.661	1.661	3.795	-4.488	No Precisa Armadura Cortante
2662	-112.358	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.022	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.867	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-4.799	No Precisa Armadura Cortante
	-111.987	3.483	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.999	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.818	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.748	0.421	1.686	1.686	3.795	-4.972	No Precisa Armadura Cortante
2662	-112.358	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.022	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.867	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-4.799	No Precisa Armadura Cortante
	-111.987	3.483	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.999	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.818	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.748	0.421	1.686	1.686	3.795	-4.977	No Precisa Armadura Cortante
2663	-111.476	4.037	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.751	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-4.542	No Precisa Armadura Cortante
	-111.048	3.882	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.941	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.734	0.423	1.682	1.682	3.795	-4.644	No Precisa Armadura Cortante
2663	-111.476	4.037	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.751	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-4.542	No Precisa Armadura Cortante
	-111.048	3.882	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.941	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.695	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.734	0.423	1.682	1.682	3.795	-4.644	No Precisa Armadura Cortante
2665	-111.443	3.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.965	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.747	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-4.738	No Precisa Armadura Cortante
	-111.242	3.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.953	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.720	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.737	0.423	1.683	1.683	3.795	-4.925	No Precisa Armadura Cortante
2665	-111.443	3.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.965	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.747	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-4.738	No Precisa Armadura Cortante
	-111.242	3.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.953	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.720	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.737	0.423	1.683	1.683	3.795	-4.925	No Precisa Armadura Cortante
2666	-112.374	3.903	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.023	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.869	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-4.644	No Precisa Armadura Cortante
	-111.927	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.995	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.810	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.747	0.422	1.686	1.686	3.795	-4.735	No Precisa Armadura Cortante
2666	-112.374	3.903	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.023	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.869	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-4.644	No Precisa Armadura Cortante
	-111.927	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.995	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.810	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.747	0.422	1.686	1.686	3.795	-4.735	No Precisa Armadura Cortante
2668	-110.970	3.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.928	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.671	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-4.692	No Precisa Armadura Cortante
	-110.777	3.667	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.924	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.659	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.730	0.424	1.681	1.681	3.795	-4.891	No Precisa Armadura Cortante
2668	-110.970	3.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.929	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.671	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-4.692	No Precisa Armadura Cortante
	-110.777	3.667	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.924	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.659	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.730	0.424	1.681	1.681	3.795	-4.891	No Precisa Armadura Cortante
2669	-111.840	3.824	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.769	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.422	1.686	1.686	3.795	-4.700	No Precisa Armadura Cortante
	-111.663	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.762	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.742	0.422	1.684	1.684	3.795	-4.790	No Precisa Armadura Cortante
2669	-111.840	3.824	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.769	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.422	1.686	1.686	3.795	-4.700	No Precisa Armadura Cortante
	-111.663	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.762	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.742	0.422	1.684	1.684	3.795	-4.790	No Precisa Armadura Cortante
2671	-110.730	3.795	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.921	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.653	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-4.710	No Precisa Armadura Cortante
	-110.692	3.865	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.912	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.635	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-4.812	No Precisa Armadura Cortante
2671	-110.730	3.795	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.921	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.653	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-4.710	No Precisa Armadura Cortante
	-110.692	3.845	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.912	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.635	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-4.812	No Precisa Armadura Cortante
2672	-111.107	3.768	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.914	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.703	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-4.736	No Precisa Armadura Cortante
	-110.987	3.651	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-4.827	No Precisa Armadura Cortante
2672	-111.107	3.768	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.944	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.703	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-4.736	No Precisa Armadura Cortante
	-110.987	3.651	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-4.827	No Precisa Armadura Cortante
2674	-110.886	3.842	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.930	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.674	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-4.675	No Precisa Armadura Cortante
	-110.716	3.708	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-4.776	No Precisa Armadura Cortante
2674	-110.886	3.842	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.930	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.674	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-4.675	No Precisa Armadura Cortante
	-110.715	3.708	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-4.776	No Precisa Armadura Cortante
2675	-110.723	3.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.652	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-4.701	No Precisa Armadura Cortante
	-110.549	3.528	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.631	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.679	1.679	3.795	-4.919	No Precisa Armadura Cortante
2675	-110.733	3.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.652	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-4.701	No Precisa Armadura Cortante
	-110.559	3.528	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.631	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.679	1.679	3.795	-4.919	No Precisa Armadura Cortante
2677	-111.152	3.902	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.710	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.736	0.423	1.682	1.682	3.795	-4.630	No Precisa Armadura Cortante
	-110.980	3.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-4.735	No Precisa Armadura Cortante
2677	-111.152	3.902	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.710	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.736	0.423	1.682	1.682	3.795	-4.630	No Precisa Armadura Cortante
	-110.980	3.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-4.735	No Precisa Armadura Cortante
2678	-110.705	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.819	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.650	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-4.720	No Precisa Armadura Cortante
	-110.486	3.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.905	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.621	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.725	0.424	1.679	1.679	3.795	-4.961	No Precisa Armadura Cortante
2678	-110.705	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.650	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-4.720	No Precisa Armadura Cortante
	-110.486	3.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.905	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.621	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.725	0.424	1.679	1.679	3.795	-4.961	No Precisa Armadura Cortante
2680	-111.125	4.058	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.845	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.705	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-4.474	No Precisa Armadura Cortante
	-110.988	3.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-4.765	No Precisa Armadura Cortante
2680	-111.126	4.058	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.845	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.705	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-4.474	No Precisa Armadura Cortante
	-110.988	3.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-4.765	No Precisa Armadura Cortante
2681	-111.029	3.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.939	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.692	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.734	0.423	1.682	1.682	3.795	-4.742	No Precisa Armadura Cortante
	-110.802	3.419	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.925	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	24.663	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.730	0.423	1.681	1.681	3.795	-5.009	No Precisa Armadura Cortante

ENVOLVENTE <N-Vz>
concomitantes

Axil 1.50 Cargas Puntuales
Vz 1.50

Barra / Elemento	N	Vz	b0	h	d	fck	fyk	γc	γs	θ	A	A	[illegible]	[illegible]	[illegible]	[illegible]	K	[illegible]	[illegible]	[illegible]	Comprobación Compresión Oblicua Alma	ξ	ρ	Vcu	Necesidad Armadura Cortante	Armadura Dispuesta	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Armadura Mín.	
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.839	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.692	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.734	0.423	1.682	1.682	3.795	-4.742	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.825	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.663	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.730	0.423	1.681	1.681	3.795	-5.009	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.872	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.551	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.717	0.425	1.676	1.676	3.795	-4.381	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.851	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.507	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.712	0.426	1.675	1.675	3.795	-4.653	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.872	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.551	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.717	0.425	1.676	1.676	3.795	-4.381	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.851	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.507	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.712	0.426	1.675	1.675	3.795	-4.653	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.978	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.774	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.743	0.422	1.685	1.685	3.795	-4.772	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.966	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.749	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-5.064	No Precisa Armadura Cortante
[illegible]	[illegible]	3.731	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.978	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.774	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.743	0.422	1.685	1.685	3.795	-4.772	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.966	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.749	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-5.064	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.622	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.027	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.656	0.432	1.657	1.657	3.795	-4.228	No Precisa Armadura Cortante
	-106.312	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.582	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.942	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.647	0.433	1.654	1.654	3.795	-4.523	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.622	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.027	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.656	0.432	1.657	1.657	3.795	-4.228	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.582	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.942	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.647	0.433	1.654	1.654	3.795	-4.523	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.025	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.872	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-4.907	No Precisa Armadura Cortante
	[illegible]	3.410	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.015	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.851	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.752	0.421	1.688	1.688	3.795	-5.034	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.025	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.872	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-4.907	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.016	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.851	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.752	0.421	1.688	1.688	3.795	-5.034	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.084	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.896	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.525	0.449	1.613	1.613	3.795	-4.063	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.027	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.777	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.511	0.451	1.609	1.609	3.795	-4.388	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.084	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.896	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.525	0.449	1.613	1.613	3.795	-4.063	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.027	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.777	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.511	0.451	1.609	1.609	3.795	-4.388	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.041	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.907	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.759	0.420	1.690	1.690	3.795	-4.959	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.025	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.872	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.755	0.421	1.688	1.688	3.795	-5.102	No Precisa Armadura Cortante
[illegible]	[illegible]	3.510	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.041	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.907	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.759	0.420	1.690	1.690	3.795	-4.959	No Precisa Armadura Cortante
	-112.450	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.025	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.872	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.755	0.421	1.688	1.688	3.795	-5.102	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.932	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.677	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.732	0.423	1.681	1.681	3.795	-5.076	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.911	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.633	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-5.115	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.932	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.677	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.732	0.423	1.681	1.681	3.795	-5.076	No Precisa Armadura Cortante
	-110.674	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.911	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.633	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-5.115	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.542	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.858	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.435	1.650	1.650	3.795	-4.938	No Precisa Armadura Cortante
	[illegible]	2.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.530	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.833	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.634	0.435	1.649	1.649	3.795	-5.334	No Precisa Armadura Cortante
[illegible]	[illegible]	3.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.542	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.858	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.637	0.435	1.650	1.650	3.795	-4.938	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.530	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.833	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.634	0.435	1.649	1.649	3.795	-5.334	No Precisa Armadura Cortante
[illegible]	[illegible]	3.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.759	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.214	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.445	0.460	1.567	1.567	3.795	-4.951	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.706	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.103	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.433	0.462	1.562	1.562	3.795	-5.385	No Precisa Armadura Cortante
[illegible]	[illegible]	3.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.759	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.214	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.445	0.460	1.567	1.567	3.795	-4.951	No Precisa Armadura Cortante
	[illegible]	2.845	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.706	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.103	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.433	0.462	1.562	1.562	3.795	-5.385	No Precisa Armadura Cortante

ENVOLVENTE <N-Vy > concomitantes

Axil 1.00 Cargas Puntuales

Vy 1.50

Barra	N	Vy	bo	h	d	f_{ck}	f_{yk}	γc	γs	θ	A_{st}	A_c	cotan (θ)	f_{cd}	f_{yd}	σ'cd	K	f_{1cd}	Función de θ	V_{u1}	Comprobación Compresión Oblicua Alma	ξ	ρl	V_{u2}	Necesidad Armadura Cortante	Armadura dispuesta	cm2	V_{su}	β	cot (θe, rad)	cot (θe)	f_{cv}	Area necesaria	
Elemento	[t]	[t]	(mm)	(mm)	(mm)	(N/mm²)	(N/mm²)			[°]	(mm²)	(mm²)		(N/mm²)	(N/mm²)	(N/mm²)		(N/mm²)		[t]				[t]				[t]				(N/mm²)	cm2	
2648	-44.282	7.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.768	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	15.932	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.740	0.614	1.315	1.315	3.795	-0.890	No Precisa Armadura Cortante
	-39.614	3.601	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	15.319	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.678	0.637	1.285	1.285	3.795	-4.109	No Precisa Armadura Cortante
2648	-44.282	7.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.768	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	15.932	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.740	0.614	1.315	1.315	3.795	-0.890	No Precisa Armadura Cortante
	-39.614	3.601	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	15.319	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.678	0.637	1.285	1.285	3.795	-4.109	No Precisa Armadura Cortante
2649	-66.612	7.287	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	17.800	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.939	0.555	1.401	1.401	3.795	-1.311	No Precisa Armadura Cortante
	-66.636	3.932	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.540	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	17.553	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.912	0.562	1.390	1.390	3.795	-3.953	No Precisa Armadura Cortante
2649	-66.612	7.287	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	17.800	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.939	0.555	1.401	1.401	3.795	-1.311	No Precisa Armadura Cortante
	-66.636	3.932	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.540	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	17.551	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.912	0.562	1.390	1.390	3.795	-3.953	No Precisa Armadura Cortante
2651	-68.358	6.659	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.272	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.092	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.084	0.522	1.458	1.458	3.795	-1.925	No Precisa Armadura Cortante
	-68.035	4.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.252	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.049	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.080	0.523	1.456	1.456	3.795	-3.470	No Precisa Armadura Cortante
2651	-68.358	6.659	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.272	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.092	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.084	0.522	1.458	1.458	3.795	-1.925	No Precisa Armadura Cortante
	-68.035	4.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.252	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.049	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.080	0.523	1.456	1.456	3.795	-3.470	No Precisa Armadura Cortante
2653	-73.711	5.162	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-3.177	No Precisa Armadura Cortante
	-73.319	6.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.582	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.743	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-2.502	No Precisa Armadura Cortante
2653	-73.711	5.162	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-3.177	No Precisa Armadura Cortante
	-73.319	6.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.582	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.743	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-2.502	No Precisa Armadura Cortante
2654	-65.852	6.588	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.497	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	17.464	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.902	0.564	1.386	1.386	3.795	-1.837	No Precisa Armadura Cortante
	-61.858	4.389	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.241	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	16.926	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.844	0.580	1.362	1.362	3.795	-3.536	No Precisa Armadura Cortante
2654	-65.852	6.588	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.497	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	17.464	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.902	0.564	1.386	1.386	3.795	-1.837	No Precisa Armadura Cortante
	-61.858	4.389	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.241	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	16.926	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	8.844	0.580	1.362	1.362	3.795	-3.536	No Precisa Armadura Cortante
2656	-75.648	6.605	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.722	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	20.036	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.193	0.501	1.498	1.498	3.795	-2.927	No Precisa Armadura Cortante
	-76.062	5.727	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.691	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.970	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-2.745	No Precisa Armadura Cortante
2656	-75.648	6.605	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.722	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	20.036	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.193	0.501	1.498	1.498	3.795	-2.927	No Precisa Armadura Cortante
	-75.092	5.727	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.691	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.970	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-2.745	No Precisa Armadura Cortante
2657	-65.417	6.216	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.089	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	18.706	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.041	0.531	1.441	1.441	3.795	-2.242	No Precisa Armadura Cortante
	-63.876	4.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.992	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	18.503	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.018	0.536	1.432	1.432	3.795	-3.361	No Precisa Armadura Cortante
2657	-65.417	6.216	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.089	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	18.706	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.041	0.531	1.441	1.441	3.795	-2.242	No Precisa Armadura Cortante
	-63.876	4.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.992	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	18.503	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.018	0.536	1.432	1.432	3.795	-3.361	No Precisa Armadura Cortante
2659	-76.429	6.654	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.721	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	20.033	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.192	0.501	1.498	1.498	3.795	-2.809	No Precisa Armadura Cortante
	-76.138	6.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.982	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-2.831	No Precisa Armadura Cortante
2659	-76.528	6.654	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.721	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	20.033	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.192	0.501	1.498	1.498	3.795	-2.809	No Precisa Armadura Cortante
	-76.138	6.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.982	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-2.831	No Precisa Armadura Cortante
2660	-73.456	5.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.466	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.498	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.131	0.513	1.475	1.475	3.795	-2.682	No Precisa Armadura Cortante
	-73.207	5.394	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.466	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.127	0.513	1.474	1.474	3.795	-2.963	No Precisa Armadura Cortante
2660	-73.456	6.261	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.466	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.498	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.131	-0.513	1.475	1.475	3.795	-2.682	No Precisa Armadura Cortante
	-73.207	5.394	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.450	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.466	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.127	0.513	1.474	1.474	3.795	-2.963	No Precisa Armadura Cortante
2662	-74.905	5.696	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.951	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.183	0.503	1.494	1.494	3.795	-2.768	No Precisa Armadura Cortante
	-74.858	5.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.666	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.919	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-2.833	No Precisa Armadura Cortante
2662	-74.905	5.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.951	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.183	0.503	1.494	1.494	3.795	-2.768	No Precisa Armadura Cortante
	-74.858	5.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.668	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.919	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-2.833	No Precisa Armadura Cortante
2663	-74.317	5.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.645	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.874	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-2.563	No Precisa Armadura Cortante
	-74.032	5.647	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.837	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-2.875	No Precisa Armadura Cortante
2663	-74.317	5.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.645	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.874	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-2.563	No Precisa Armadura Cortante
	-74.032	5.647	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.837	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-2.875	No Precisa Armadura Cortante
2665	-74.295	5.694	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.643	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.871	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-2.762	No Precisa Armadura Cortante
	-74.181	5.648	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.635	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.853	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.172	0.505	1.490	1.490	3.795	-2.799	No Precisa Armadura Cortante
2665	-74.295	5.694	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.643	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.871	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-2.762	No Precisa Armadura Cortante
	-74.181	5.648	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.635	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.853	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.172	0.505	1.490	1.490	3.795	-2.799	No Precisa Armadura Cortante
2666	-74.815	6.152	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.953	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-2.406	No Precisa Armadura Cortante
	-74.618	5.393	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.664	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.913	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.178	0.504	1.493	1.493	3.795	-3.005	No Precisa Armadura Cortante
2666	-74.815	6.152	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.953	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-2.406	No Precisa Armadura Cortante
	-74.618	5.393	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.664	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.913	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.179	0.504	1.493	1.493	3.795	-3.005	No Precisa Armadura Cortante
2668	-73.813	5.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.821	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-2.765	No Precisa Armadura Cortante
	-73.851	5.896	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.615	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.813	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-2.755	No Precisa Armadura Cortante
2668	-73.813	5.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.821	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-2.765	No Precisa Armadura Cortante
	-73.851	5.896	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.616	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.813	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-2.755	No Precisa Armadura Cortante
2669	-74.560	6.219	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.660	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.906	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.178	0.504	1.493	1.493	3.795	-2.348	No Precisa Armadura Cortante
	-74.376	5.358	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.648	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.882	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.175	0.504	1.492	1.492	3.795	-3.029	No Precisa Armadura Cortante
2669	-74.560	6.219	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.660	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.906	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.178	0.504	1.493	1.493	3.795	-2.348	No Precisa Armadura Cortante
	-74.376	5.358	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.648	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.882	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.175	0.504	1.492	1.492	3.795	-3.029	No Precisa Armadura Cortante
2671	-73.820	5.900	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.809	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.167	0.506	1.488	1.488	3.795	-2.593	No Precisa Armadura Cortante
	-73.728	5.823	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.608	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.797	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-2.653	No Precisa Armadura Cortante
2671	-73.820	5.900	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.809	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.167	0.506	1.488	1.488	3.795	-2.593	No Precisa Armadura Cortante
	-73.728	5.823	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.608	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.797	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-2.653	No Precisa Armadura Cortante
2672	-74.071	6.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.842	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-2.338	No Precisa Armadura Cortante
	-73.991	5.384	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.624	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-3.004	No Precisa Armadura Cortante
2672	-74.071	6.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.842	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-2.338	No Precisa Armadura Cortante
	-73.991	5.384	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.624	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-3.004	No Precisa Armadura Cortante
2674	-73.924	5.946	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.822	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-2.557	No Precisa Armadura Cortante
	-73.810	5.829	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.807	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-2.649	No Precisa Armadura Cortante
2674	-73.924	5.946	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.822	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-2.557	No Precisa Armadura Cortante
	-73.810	5.829	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.807	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-2.649	No Precisa Armadura Cortante
2675	-73.815	5.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.808	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-3.037	No Precisa Armadura Cortante
	-73.706	6.123	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.784	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-2.414	No Precisa Armadura Cortante
2675	-73.815	5.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.808	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-3.037	No Precisa Armadura Cortante
	-73.706	6.123	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-2.414	No Precisa Armadura Cortante
2677	-74.105	5.973	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.632	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.847	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-2.538	No Precisa Armadura Cortante
	-73.993	5.858	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-2.628	No Precisa Armadura Cortante
2677	-74.105	5.973	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.632	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.847	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-2.538	No Precisa Armadura Cortante
	-73.993	5.858	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-2.628	No Precisa Armadura Cortante
2678	-73.803	5.351	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.806	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-2.956	No Precisa Armadura Cortante
	-73.657	6.113	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.787	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-2.422	No Precisa Armadura Cortante
2678	-73.803	5.351	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.806	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-2.896	No Precisa Armadura Cortante
	-73.657	6.113	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.787	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-2.472	No Precisa Armadura Cortante
2680	-74.083	5.772	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.843	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-2.697	No Precisa Armadura Cortante
	-73.981	5.781	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-2.689	No Precisa Armadura Cortante
2680	-74.083	5.772	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.843	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-2.697	No Precisa Armadura Cortante
	-73.982	5.781	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-2.689	No Precisa Armadura Cortante
2681	-74.019	5.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.835	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-2.956	No Precisa Armadura Cortante
	-73.846	6.104	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.00897	19.815	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-2.432	No Precisa Armadura Cortante

ENVOLVENTE <N-Vy > Axil 1.00 Cargas Puntuales
concomitantes Vy 1.60

Barra	N	Vy											cotan(θ)						Función de θ		Comprobación Compresión Oblicua Alma				Necesidad Armadura Cortante			Vcu						
[illegible]	-74.915	5.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.635	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-2.956	No Precisa Armadura Cortante
	-77.964	5.789	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.615	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-2.432	No Precisa Armadura Cortante
[illegible]	-73.363	5.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.581	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.741	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-2.514	No Precisa Armadura Cortante
	-73.078	5.678	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.567	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.711	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.155	0.508	1.484	1.484	3.795	-2.759	No Precisa Armadura Cortante
[illegible]	-73.303	5.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.581	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.741	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-2.614	No Precisa Armadura Cortante
	-73.078	5.678	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.567	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.711	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.155	0.508	1.484	1.484	3.795	-2.759	No Precisa Armadura Cortante
[illegible]	-74.436	5.495	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.690	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.175	0.504	1.492	1.492	3.795	-2.822	No Precisa Armadura Cortante
	-74.308	6.107	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.673	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-2.434	No Precisa Armadura Cortante
[illegible]	-74.436	5.495	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.690	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.175	0.504	1.492	1.492	3.795	-2.822	No Precisa Armadura Cortante
	-74.309	6.107	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.673	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-2.434	No Precisa Armadura Cortante
[illegible]	-78.631	6.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.415	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.391	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.119	0.515	1.471	1.471	3.795	-2.206	No Precisa Armadura Cortante
	-70.208	6.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.388	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.335	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.112	0.516	1.468	1.468	3.795	-2.938	No Precisa Armadura Cortante
[illegible]	-73.615	6.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.415	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.391	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.119	0.515	1.471	1.471	3.795	-2.206	No Precisa Armadura Cortante
	-75.206	6.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.388	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.335	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.112	0.516	1.468	1.468	3.795	-2.938	No Precisa Armadura Cortante
[illegible]	-74.928	6.212	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.954	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-2.359	No Precisa Armadura Cortante
	-74.836	5.565	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.677	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.941	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-2.855	No Precisa Armadura Cortante
[illegible]	-74.928	6.212	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.954	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-2.359	No Precisa Armadura Cortante
	-74.826	5.565	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.677	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.941	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-2.855	No Precisa Armadura Cortante
[illegible]	-64.887	6.792	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.056	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.634	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.033	0.533	1.438	1.438	3.795	-1.779	No Precisa Armadura Cortante
	-64.282	6.068	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.018	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.558	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.024	0.535	1.435	1.435	3.795	-3.142	No Precisa Armadura Cortante
[illegible]	-64.887	6.792	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.056	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.634	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.033	0.533	1.438	1.438	3.795	-1.779	No Precisa Armadura Cortante
	-64.282	6.068	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.018	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.658	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.024	0.535	1.435	1.435	3.795	-3.142	No Precisa Armadura Cortante
[illegible]	-75.109	6.334	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.694	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.978	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-2.262	No Precisa Armadura Cortante
	-74.833	6.632	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.956	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-2.898	No Precisa Armadura Cortante
[illegible]	-75.109	6.336	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.694	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.978	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-2.262	No Precisa Armadura Cortante
	-74.833	6.632	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.955	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-2.898	No Precisa Armadura Cortante
[illegible]	-73.939	6.661	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.621	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.874	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.168	0.505	1.489	1.489	3.795	-2.078	No Precisa Armadura Cortante
	-73.718	6.251	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.795	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-3.105	No Precisa Armadura Cortante
[illegible]	-73.939	6.661	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.621	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.874	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.168	0.505	1.489	1.489	3.795	-2.078	No Precisa Armadura Cortante
	-73.718	6.251	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.795	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-3.105	No Precisa Armadura Cortante
[illegible]	-48.782	4.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.361	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.279	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.106	0.518	1.466	1.466	3.795	-3.383	No Precisa Armadura Cortante
	-49.853	7.047	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.104	0.518	1.465	1.465	3.795	-1.617	No Precisa Armadura Cortante
[illegible]	-48.782	4.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.361	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.279	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.106	0.518	1.466	1.466	3.795	-3.383	No Precisa Armadura Cortante
	-48.853	7.067	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.104	0.518	1.465	1.465	3.795	-1.617	No Precisa Armadura Cortante
[illegible]	-41.679	4.328	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.839	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.182	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.982	0.544	1.418	1.418	3.795	-3.694	No Precisa Armadura Cortante
	-40.968	7.703	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.804	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.109	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.974	0.546	1.415	1.415	3.795	-1.009	No Precisa Armadura Cortante
[illegible]	-41.629	4.328	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.839	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.182	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.982	0.544	1.418	1.418	3.795	-3.694	No Precisa Armadura Cortante
	-40.968	7.703	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.804	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.109	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.974	0.546	1.415	1.415	3.795	-1.009	No Precisa Armadura Cortante

ENVOLVENTE <N-Vy > concomitantes

Axil 1.50 Cargas Puntuales
Vy 1.50

Barra Elemento	N [t]	Vy [t]	bo [mm]	b [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [º]	A_{sl} [mm²]	A_c [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot (θe)	cot (θ)	$f_{y\alpha,d}$ [N/mm²]	Armadura necesaria cm2	
2648	-66.423	7.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.151	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.838	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.056	0.528	1.447	1.447	3.795	-1.141	No Precisa Armadura Cortante
	-59.421	3.501	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.714	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.919	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.952	0.552	1.407	1.407	3.795	-4.326	No Precisa Armadura Cortante
2648	-66.423	7.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.161	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.838	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.056	0.528	1.447	1.447	3.795	-1.141	No Precisa Armadura Cortante
	-59.421	3.501	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.714	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.919	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.952	0.552	1.407	1.407	3.795	-4.326	No Precisa Armadura Cortante
2649	-87.748	7.287	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.486	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.839	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.379	0.470	1.564	1.564	3.795	-1.660	No Precisa Armadura Cortante
	-84.954	3.932	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.310	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.270	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.336	0.477	1.549	1.549	3.795	-4.289	No Precisa Armadura Cortante
2649	-87.748	7.287	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.486	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.839	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.378	0.470	1.564	1.564	3.795	-1.660	No Precisa Armadura Cortante
	-84.954	3.932	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.310	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.270	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.336	0.477	1.549	1.549	3.795	-4.289	No Precisa Armadura Cortante
2651	-102.637	6.658	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.409	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.578	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.604	0.439	1.640	1.640	3.795	-2.338	No Precisa Armadura Cortante
	-102.053	4.707	400.00	400.00	350.00	45.00	510.00	1.50	1.16	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.378	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.514	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.597	0.440	1.637	1.637	3.795	-3.881	No Precisa Armadura Cortante
2651	-102.637	6.659	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.409	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.578	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.604	0.439	1.640	1.640	3.795	-2.338	No Precisa Armadura Cortante
	-102.053	4.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.378	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.514	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.597	0.440	1.637	1.637	3.795	-3.881	No Precisa Armadura Cortante
2653	-110.597	5.162	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.910	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.632	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.424	1.679	1.679	3.795	-3.623	No Precisa Armadura Cortante
	-109.970	6.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.874	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.565	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.718	0.425	1.677	1.677	3.795	-2.846	No Precisa Armadura Cortante
2653	-110.597	5.162	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.910	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.632	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.424	1.679	1.679	3.795	-3.623	No Precisa Armadura Cortante
	-109.970	6.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.874	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.555	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.718	0.425	1.677	1.677	3.795	-2.846	No Precisa Armadura Cortante
2654	-83.928	6.588	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.246	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.135	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.320	0.478	1.543	1.543	3.795	-2.168	No Precisa Armadura Cortante
	-77.787	4.389	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.862	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.329	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.227	0.495	1.510	1.510	3.795	-3.839	No Precisa Armadura Cortante
2654	-83.928	6.588	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.246	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.135	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.320	0.479	1.543	1.543	3.795	-2.168	No Precisa Armadura Cortante
	-77.787	4.389	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.862	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.329	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.227	0.495	1.510	1.510	3.795	-3.839	No Precisa Armadura Cortante
2656	-113.324	5.505	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.063	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.994	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.769	0.419	1.693	1.693	3.795	-3.384	No Precisa Armadura Cortante
	-112.578	5.727	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.036	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.896	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.757	0.420	1.689	1.689	3.795	-3.199	No Precisa Armadura Cortante
2656	-113.324	5.505	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.083	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.994	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.769	0.419	1.693	1.693	3.795	-3.384	No Precisa Armadura Cortante
	-112.578	5.727	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.036	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.896	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.757	0.420	1.689	1.689	3.795	-3.199	No Precisa Armadura Cortante
2657	-98.126	6.216	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.133	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.999	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.537	0.447	1.617	1.617	3.795	-2.636	No Precisa Armadura Cortante
	-95.813	4.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.988	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.695	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.502	0.452	1.606	1.606	3.795	-3.744	No Precisa Armadura Cortante
2657	-98.126	6.216	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.133	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.999	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.537	0.447	1.617	1.617	3.795	-2.636	No Precisa Armadura Cortante
	-95.813	4.784	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.988	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.695	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.502	0.452	1.606	1.606	3.795	-3.744	No Precisa Armadura Cortante
2659	-113.294	5.654	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.081	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.990	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.768	0.419	1.693	1.693	3.795	-3.266	No Precisa Armadura Cortante
	-112.707	5.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.044	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.913	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.759	0.420	1.690	1.690	3.795	-3.286	No Precisa Armadura Cortante
2659	-113.294	5.654	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.081	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.990	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.768	0.419	1.693	1.693	3.795	-3.266	No Precisa Armadura Cortante
	-112.707	5.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.044	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.913	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.759	0.420	1.690	1.690	3.795	-3.286	No Precisa Armadura Cortante
2660	-107.184	5.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.699	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.188	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.675	0.430	1.663	1.663	3.795	-3.114	No Precisa Armadura Cortante
	-106.811	5.384	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.676	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.139	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.669	0.431	1.661	1.661	3.795	-3.393	No Precisa Armadura Cortante
2660	-107.184	5.761	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.699	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.188	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.675	0.430	1.663	1.663	3.795	-3.114	No Precisa Armadura Cortante
	-106.811	5.384	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.676	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.139	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.669	0.431	1.661	1.661	3.795	-3.393	No Precisa Armadura Cortante
2662	-112.358	5.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.022	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.867	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-3.221	No Precisa Armadura Cortante
	-111.987	5.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.999	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.818	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.748	0.421	1.686	1.686	3.795	-3.284	No Precisa Armadura Cortante
2662	-112.358	5.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.022	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.867	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-3.221	No Precisa Armadura Cortante
	-111.987	5.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.999	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.818	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.748	0.421	1.686	1.686	3.795	-3.284	No Precisa Armadura Cortante
2663	-111.476	5.845	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.967	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.751	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-3.013	No Precisa Armadura Cortante
	-111.048	5.547	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.941	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.695	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.734	0.423	1.682	1.682	3.795	-3.323	No Precisa Armadura Cortante
2663	-111.476	5.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.967	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.751	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-3.013	No Precisa Armadura Cortante
	-111.048	5.547	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.941	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.695	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.734	0.423	1.682	1.682	3.795	-3.323	No Precisa Armadura Cortante
2665	-111.443	5.694	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.965	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.747	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-3.211	No Precisa Armadura Cortante
	-111.242	5.646	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.953	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.720	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.737	0.423	1.683	1.683	3.795	-3.248	No Precisa Armadura Cortante
2665	-111.443	5.694	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.965	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.747	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-3.211	No Precisa Armadura Cortante
	-111.242	5.646	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.953	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.720	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.737	0.423	1.683	1.683	3.795	-3.248	No Precisa Armadura Cortante
2666	-112.374	6.162	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.023	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.869	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-2.859	No Precisa Armadura Cortante
	-111.927	5.393	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.810	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.747	0.422	1.686	1.686	3.795	-3.456	No Precisa Armadura Cortante
2666	-112.374	6.152	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.023	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.869	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-2.859	No Precisa Armadura Cortante
	-111.827	5.393	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.810	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.747	0.422	1.686	1.686	3.795	-3.456	No Precisa Armadura Cortante
2668	-110.870	5.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.929	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.671	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-3.212	No Precisa Armadura Cortante
	-110.777	5.696	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.924	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.659	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.730	0.424	1.681	1.681	3.795	-3.202	No Precisa Armadura Cortante
2668	-110.870	5.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.929	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.671	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-3.212	No Precisa Armadura Cortante
	-110.777	5.696	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.924	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.659	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.730	0.424	1.681	1.681	3.795	-3.202	No Precisa Armadura Cortante
2669	-111.840	6.219	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.990	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.799	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.746	0.422	1.686	1.686	3.795	-2.799	No Precisa Armadura Cortante
	-111.563	5.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.973	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.762	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.742	0.422	1.684	1.684	3.795	-3.470	No Precisa Armadura Cortante
2669	-111.840	6.219	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.990	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.799	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.746	0.422	1.686	1.686	3.795	-2.799	No Precisa Armadura Cortante
	-111.563	5.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.973	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.762	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.742	0.422	1.684	1.684	3.795	-3.479	No Precisa Armadura Cortante
2671	-110.730	5.900	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.921	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.653	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.039	No Precisa Armadura Cortante
	-110.592	5.823	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.912	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.635	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-3.098	No Precisa Armadura Cortante
2671	-110.730	5.900	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.921	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.653	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.039	No Precisa Armadura Cortante
	-110.592	5.823	400.00	400.00	350.00	45.00	510.00	1.60	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.912	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.635	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-3.098	No Precisa Armadura Cortante
2672	-111.107	6.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.944	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.703	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-2.786	No Precisa Armadura Cortante
	-110.987	5.384	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.452	No Precisa Armadura Cortante
2672	-111.107	6.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.944	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.703	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-2.788	No Precisa Armadura Cortante
	-110.987	5.384	400.00	400.00	350.00	45.00	510.00	1.60	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.452	No Precisa Armadura Cortante
2674	-110.886	5.946	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.930	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.674	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-3.004	No Precisa Armadura Cortante
	-110.716	5.829	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.095	No Precisa Armadura Cortante
2674	-110.886	5.946	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.930	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.674	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-3.004	No Precisa Armadura Cortante
	-110.716	5.829	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.095	No Precisa Armadura Cortante
2675	-110.723	5.349	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.652	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.483	No Precisa Armadura Cortante
	-110.659	6.123	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.910	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.631	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.424	1.679	1.679	3.795	-2.860	No Precisa Armadura Cortante
2675	-110.723	5.349	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.652	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.728	0.424	1.680	1.680	3.795	-3.483	No Precisa Armadura Cortante
	-110.659	6.123	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.910	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.631	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.424	1.679	1.679	3.795	-2.860	No Precisa Armadura Cortante
2677	-111.162	5.973	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.948	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.710	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.736	0.423	1.682	1.682	3.795	-2.986	No Precisa Armadura Cortante
	-110.930	5.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.076	No Precisa Armadura Cortante
2677	-111.162	5.973	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.948	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.710	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.736	0.423	1.682	1.682	3.795	-2.988	No Precisa Armadura Cortante
	-110.930	5.856	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.078	No Precisa Armadura Cortante
2678	-110.706	5.351	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.919	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.650	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.443	No Precisa Armadura Cortante
	-110.486	6.113	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.905	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.621	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.725	0.424	1.679	1.679	3.795	-2.867	No Precisa Armadura Cortante
2678	-110.705	5.351	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.918	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.650	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.443	No Precisa Armadura Cortante
	-110.486	6.113	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.905	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.621	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.725	0.424	1.679	1.679	3.795	-2.867	No Precisa Armadura Cortante
2680	-111.125	5.772	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.945	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.705	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-3.145	No Precisa Armadura Cortante
	-110.938	5.781	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.137	No Precisa Armadura Cortante
2680	-111.125	5.772	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.945	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.705	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-3.145	No Precisa Armadura Cortante
	-110.948	5.781	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.137	No Precisa Armadura Cortante
2681	-111.029	5.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.939	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.692	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.734	0.423	1.682	1.682	3.795	-3.404	No Precisa Armadura Cortante
	-110.802	6.104	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.925	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.683	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.730	0.423	1.681	1.681	3.795	-2.878	No Precisa Armadura Cortante

ENVOLVENTE <N-Vy> Axil 1,60 Cargas Puntuales
concomitantes Vy 1,60

Barra / Elemento	N	Vy	bo	h	d	r	Recub	Nudo	Ni	Ac	Ac	Votos (t)	Cs	fcd	fyd	Vcu	Vsu	Estribos de 2	Separ	Vu1	Vu2	Estado Resistente Compresión Oblicua Alma	Vu2	Vu2/Vu1	Estado Resistente Agotamiento Tracción	Armadura de Cortante	Vcu	Vsu	Vu1	Vu2	Vu2/Vu1	Axil Cortante
	t	t	mm	mm	mm	mm	mm			cm²	mm²			N/mm²	N/mm²	t	t		cm	t	t		t				t	t	t	t		
1	-111.679	0.448	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.939	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.692	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.734	0.423	1.582	1.582	3.795	-3.404	No Precisa Armadura Cortante
2	-110.902	0.106	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.905	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.663	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.790	0.423	1.581	1.581	3.795	-2.878	No Precisa Armadura Cortante
3	-110.902	0.106	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.872	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.561	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.717	0.425	1.576	1.576	3.795	-2.957	No Precisa Armadura Cortante
4	-109.845	0.351	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.872	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.507	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.712	0.426	1.575	1.575	3.795	-3.201	No Precisa Armadura Cortante
5	-109.517	0.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.851	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.561	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.717	0.425	1.576	1.576	3.795	-2.957	No Precisa Armadura Cortante
6	-109.189	0.351	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.872	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.507	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.712	0.426	1.575	1.575	3.795	-3.201	No Precisa Armadura Cortante
7	-109.517	0.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.851	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.774	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.745	0.422	1.585	1.585	3.795	-3.372	No Precisa Armadura Cortante
8	-111.364	0.496	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.878	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.749	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.740	0.422	1.584	1.584	3.795	-2.884	No Precisa Armadura Cortante
9	-111.484	0.187	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.966	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.774	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.749	0.422	1.585	1.585	3.795	-3.372	No Precisa Armadura Cortante
10	-111.654	0.435	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.966	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.749	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.740	0.422	1.584	1.584	3.795	-2.884	No Precisa Armadura Cortante
11	-111.654	0.435	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.966	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.749	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.656	0.432	1.557	1.557	3.795	-2.633	No Precisa Armadura Cortante
12	-111.484	0.187	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.922	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.027	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.656	0.432	1.557	1.557	3.795	-2.633	No Precisa Armadura Cortante
13	-109.952	0.339	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.542	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	23.842	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.647	0.433	1.554	1.554	3.795	-3.362	No Precisa Armadura Cortante
14	-109.312	0.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.522	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.027	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.656	0.432	1.557	1.557	3.795	-2.633	No Precisa Armadura Cortante
15	-108.959	0.339	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.522	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	23.842	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.647	0.433	1.554	1.554	3.795	-3.362	No Precisa Armadura Cortante
16	-109.312	0.411	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.582	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.072	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.664	0.431	1.559	1.559	3.795	-2.813	No Precisa Armadura Cortante
17	-112.734	0.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.025	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.672	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.752	0.421	1.588	1.588	3.795	-3.308	No Precisa Armadura Cortante
18	-112.234	0.646	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.015	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.872	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.754	0.421	1.588	1.588	3.795	-2.812	No Precisa Armadura Cortante
19	-112.394	0.611	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.025	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.762	0.421	1.586	1.586	3.795	-3.306	No Precisa Armadura Cortante
20	-112.339	0.646	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.015	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.762	0.421	1.586	1.586	3.795	-3.306	No Precisa Armadura Cortante
21	-112.394	0.611	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.015	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.762	0.421	1.586	1.588	3.795	-3.306	No Precisa Armadura Cortante
22	-112.339	0.646	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.015	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.754	0.421	1.588	1.588	3.795	-3.306	No Precisa Armadura Cortante
23	-97.845	0.777	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.084	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	22.896	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.525	0.449	1.613	1.613	3.795	-2.169	No Precisa Armadura Cortante
24	-96.439	0.996	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.027	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	22.695	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.511	0.451	1.609	1.609	3.795	-3.528	No Precisa Armadura Cortante
25	-97.845	0.777	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.084	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	22.777	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.511	0.451	1.609	1.609	3.795	-3.528	No Precisa Armadura Cortante
26	-96.439	0.996	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.027	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.907	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.759	0.420	1.590	1.590	3.795	-2.716	No Precisa Armadura Cortante
27	-112.684	0.334	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.041	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.872	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.755	0.421	1.588	1.588	3.795	-3.351	No Precisa Armadura Cortante
28	-112.490	0.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.025	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.907	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.759	0.420	1.590	1.590	3.795	-3.351	No Precisa Armadura Cortante
29	-112.340	0.334	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.041	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.872	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.755	0.421	1.588	1.588	3.795	-3.351	No Precisa Armadura Cortante
30	-112.309	0.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-7.025	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.833	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.424	1.580	1.580	3.795	-3.551	No Precisa Armadura Cortante
31	-110.874	0.263	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.911	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.677	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.732	0.423	1.581	1.581	3.795	-2.525	No Precisa Armadura Cortante
32	-110.909	0.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.922	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.833	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.424	1.580	1.580	3.795	-3.551	No Precisa Armadura Cortante
33	-110.874	0.263	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.911	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.677	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.732	0.423	1.581	1.581	3.795	-2.525	No Precisa Armadura Cortante
34	-110.909	0.551	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.922	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	24.833	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.727	0.424	1.580	1.580	3.795	-3.551	No Precisa Armadura Cortante
35	-109.872	0.644	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.542	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	23.858	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.632	0.435	1.550	1.550	3.795	-3.404	No Precisa Armadura Cortante
36	-109.489	0.647	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.542	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	23.833	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.634	0.436	1.549	1.549	3.795	-2.938	No Precisa Armadura Cortante
37	-109.872	0.644	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.590	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	23.858	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.632	0.435	1.550	1.550	3.795	-3.404	No Precisa Armadura Cortante
38	-109.489	0.647	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-6.590	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	23.833	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.634	0.436	1.549	1.549	3.795	-2.938	No Precisa Armadura Cortante
39	-42.644	-4.228	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-5.759	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	22.214	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.445	0.460	1.587	1.587	3.795	-4.062	No Precisa Armadura Cortante
40	-41.387	-7.193	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-5.706	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	22.103	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.453	0.462	1.562	1.562	3.795	-1.973	No Precisa Armadura Cortante
41	-42.644	-4.228	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-5.759	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	22.214	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.445	0.460	1.587	1.587	3.795	-4.062	No Precisa Armadura Cortante
42	-41.387	-7.193	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	1600000.00	1.00	30.00	443.48	-5.706	1.00	18.00	0.50	126.00	>=Vy. Valida	Compresion Oblicua Alma	1.756	0.00897	22.103	>=Vy.	No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.453	0.462	1.562	1.562	3.795	-1.973	No Precisa Armadura Cortante

Envolvente N-Vy Parque Extremo

ENVOLVENTE <Vy> concomitantes — Axil 1.00 — Vy 1.50 — Cargas Puntuales

Barra / Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{sl} [mm²]	A_c [mm²]	Seno (θ)	f_{cv} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot(θe)	cot(θ)	$f_{ct,m}$ [N/mm²]	As necesaria cm2	
2648	-39.614	3.501	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.784	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.455	0.637	1.285	1.285	3.795	-4.726	No Precisa Armadura Cortante
	-44.282	7.618	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.768	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.396	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.488	0.614	1.315	1.315	3.795	-1.484	No Precisa Armadura Cortante
2648	-39.614	3.501	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.784	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.455	0.637	1.285	1.285	3.795	-4.726	No Precisa Armadura Cortante
	-44.282	7.618	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.768	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	17.396	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.488	0.614	1.315	1.315	3.795	-1.484	No Precisa Armadura Cortante
2649	-56.649	3.960	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.541	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.020	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.598	0.562	1.390	1.390	3.795	-4.474	No Precisa Armadura Cortante
	-68.499	7.316	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.656	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	-1.826	No Precisa Armadura Cortante
2649	-56.649	3.960	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.541	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.020	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.598	0.562	1.390	1.390	3.795	-4.474	No Precisa Armadura Cortante
	-68.499	7.316	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.656	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.616	0.555	1.401	1.401	3.795	-1.826	No Precisa Armadura Cortante
2651	-68.058	4.737	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.254	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.517	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.718	0.523	1.456	1.456	3.795	-3.953	No Precisa Armadura Cortante
	-68.335	6.489	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.271	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.553	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.721	0.522	1.458	1.458	3.795	-2.407	No Precisa Armadura Cortante
2651	-68.058	4.737	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.254	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.517	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.718	0.523	1.456	1.456	3.795	-3.953	No Precisa Armadura Cortante
	-68.335	6.489	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.271	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.553	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.721	0.522	1.458	1.458	3.795	-2.407	No Precisa Armadura Cortante
2653	-73.685	5.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.606	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.258	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.782	0.506	1.488	1.488	3.795	-3.526	No Precisa Armadura Cortante
	-73.337	6.192	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.584	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.210	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.778	0.507	1.486	1.486	3.795	-2.846	No Precisa Armadura Cortante
2653	-73.685	5.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.606	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.258	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.782	0.506	1.488	1.488	3.795	-3.526	No Precisa Armadura Cortante
	-73.337	6.192	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.584	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.210	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.778	0.507	1.486	1.486	3.795	-2.846	No Precisa Armadura Cortante
2654	-51.890	4.473	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.243	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.395	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.552	0.580	1.362	1.362	3.795	-4.031	No Precisa Armadura Cortante
	-55.926	6.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.495	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.925	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.590	0.564	1.386	1.386	3.795	-2.364	No Precisa Armadura Cortante
2654	-51.890	4.473	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.243	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.395	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.552	0.580	1.362	1.362	3.795	-4.031	No Precisa Armadura Cortante
	-55.926	6.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.495	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	18.925	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.590	0.564	1.386	1.386	3.795	-2.364	No Precisa Armadura Cortante
2656	-75.525	5.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.720	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.497	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.804	0.501	1.498	1.498	3.795	-3.270	No Precisa Armadura Cortante
	-75.073	5.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.692	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.438	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.799	0.502	1.495	1.495	3.795	-3.084	No Precisa Armadura Cortante
2656	-75.525	5.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.720	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.497	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.804	0.501	1.498	1.498	3.795	-3.270	No Precisa Armadura Cortante
	-75.073	5.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.692	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.438	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.799	0.502	1.495	1.495	3.795	-3.084	No Precisa Armadura Cortante
2657	-63.918	4.906	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.974	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.673	0.536	1.433	1.433	3.795	-3.784	No Precisa Armadura Cortante
	-65.378	6.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.086	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.165	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.689	0.531	1.441	1.441	3.795	-2.657	No Precisa Armadura Cortante
2657	-63.918	4.906	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.974	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.673	0.536	1.433	1.433	3.795	-3.784	No Precisa Armadura Cortante
	-65.378	6.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.086	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.165	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.689	0.531	1.441	1.441	3.795	-2.657	No Precisa Armadura Cortante
2659	-75.500	6.834	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.719	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.494	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.804	0.501	1.498	1.498	3.795	-3.161	No Precisa Armadura Cortante
	-75.161	5.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.698	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.449	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.800	0.502	1.496	1.496	3.795	-3.170	No Precisa Armadura Cortante
2659	-75.500	6.834	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.719	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.494	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.804	0.501	1.498	1.498	3.795	-3.161	No Precisa Armadura Cortante
	-75.161	5.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.698	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.449	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.800	0.502	1.496	1.496	3.795	-3.170	No Precisa Armadura Cortante
2660	-71.259	5.519	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.454	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.937	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.754	0.513	1.474	1.474	3.795	-3.367	No Precisa Armadura Cortante
	-71.407	6.877	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.463	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.957	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.756	0.513	1.475	1.475	3.795	-3.079	No Precisa Armadura Cortante
2660	-71.259	5.519	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.454	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.937	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.754	0.513	1.474	1.474	3.795	-3.367	No Precisa Armadura Cortante
	-71.407	6.877	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.463	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.957	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.756	0.513	1.475	1.475	3.795	-3.079	No Precisa Armadura Cortante
2662	-74.875	5.874	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.679	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.411	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.796	0.503	1.494	1.494	3.795	-3.113	No Precisa Armadura Cortante
	-74.690	5.786	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.668	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.387	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.794	0.503	1.493	1.493	3.795	-3.173	No Precisa Armadura Cortante
2662	-74.875	5.874	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.679	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.411	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.796	0.503	1.494	1.494	3.795	-3.113	No Precisa Armadura Cortante
	-74.690	5.718	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.668	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.387	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.794	0.503	1.493	1.493	3.795	-3.173	No Precisa Armadura Cortante
2663	-74.317	5.845	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.645	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.338	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.790	0.504	1.491	1.491	3.795	-3.052	No Precisa Armadura Cortante
	-74.032	6.847	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.301	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.786	0.505	1.490	1.490	3.795	-3.365	No Precisa Armadura Cortante
2663	-74.317	5.845	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.645	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.338	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.790	0.504	1.491	1.491	3.795	-3.052	No Precisa Armadura Cortante
	-74.032	5.847	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.301	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.786	0.505	1.490	1.490	3.795	-3.365	No Precisa Armadura Cortante
2665	-74.256	5.873	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.641	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.330	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.789	0.505	1.491	1.491	3.795	-3.108	No Precisa Armadura Cortante
	-74.198	5.831	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.637	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.323	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.788	0.505	1.491	1.491	3.795	-3.141	No Precisa Armadura Cortante
2665	-74.256	5.873	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.641	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.330	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.789	0.505	1.491	1.491	3.795	-3.108	No Precisa Armadura Cortante
	-74.198	5.835	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.637	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.323	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.788	0.505	1.491	1.491	3.795	-3.141	No Precisa Armadura Cortante
2666	-74.916	6.162	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.417	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.797	0.503	1.495	1.495	3.795	-2.893	No Precisa Armadura Cortante
	-74.618	6.393	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.664	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.378	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.793	0.504	1.493	1.493	3.795	-3.493	No Precisa Armadura Cortante
2666	-74.916	6.162	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.417	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.797	0.503	1.495	1.495	3.795	-2.893	No Precisa Armadura Cortante
	-74.618	6.393	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.664	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.378	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.793	0.504	1.493	1.493	3.795	-3.493	No Precisa Armadura Cortante
2668	-73.849	5.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.280	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.784	0.506	1.489	1.489	3.795	-3.112	No Precisa Armadura Cortante
	-73.852	6.882	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.618	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.283	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.506	1.489	1.489	3.795	-3.098	No Precisa Armadura Cortante
2668	-73.858	5.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.280	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.784	0.506	1.489	1.489	3.795	-3.112	No Precisa Armadura Cortante
	-73.893	6.882	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.618	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.283	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.506	1.489	1.489	3.795	-3.098	No Precisa Armadura Cortante
2669	-74.560	6.219	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.660	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.370	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.792	0.504	1.493	1.493	3.795	-2.836	No Precisa Armadura Cortante
	-74.375	5.358	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.648	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.346	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.790	0.504	1.492	1.492	3.795	-3.518	No Precisa Armadura Cortante
2669	-74.560	6.219	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.660	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.370	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.792	0.504	1.493	1.493	3.795	-2.836	No Precisa Armadura Cortante
	-74.374	5.358	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.648	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.346	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.790	0.504	1.492	1.492	3.795	-3.518	No Precisa Armadura Cortante
2671	-73.778	5.858	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.609	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-3.115	No Precisa Armadura Cortante
	-73.811	5.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.272	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.784	0.506	1.488	1.488	3.795	-3.055	No Precisa Armadura Cortante
2671	-73.778	5.858	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.609	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-3.116	No Precisa Armadura Cortante
	-73.811	5.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.272	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.784	0.506	1.488	1.488	3.795	-3.055	No Precisa Armadura Cortante
2672	-74.071	6.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.306	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.787	0.505	1.490	1.490	3.795	-2.827	No Precisa Armadura Cortante
	-73.991	5.384	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.624	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.296	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.786	0.505	1.489	1.489	3.795	-3.494	No Precisa Armadura Cortante
2672	-74.071	6.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.308	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.787	0.505	1.490	1.490	3.795	-2.827	No Precisa Armadura Cortante
	-73.991	5.384	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.624	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.299	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.786	0.505	1.489	1.489	3.795	-3.494	No Precisa Armadura Cortante
2674	-73.817	5.865	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.273	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.784	0.506	1.488	1.488	3.795	-3.110	No Precisa Armadura Cortante
	-73.817	6.082	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.286	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.506	1.489	1.489	3.795	-3.018	No Precisa Armadura Cortante
2674	-73.817	5.865	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.273	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.784	0.506	1.488	1.488	3.795	-3.110	No Precisa Armadura Cortante
	-73.857	6.982	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.288	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.506	1.489	1.489	3.795	-3.018	No Precisa Armadura Cortante
2675	-73.769	6.215	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.611	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.267	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-2.832	No Precisa Armadura Cortante
	-73.751	5.430	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.609	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.264	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-3.455	No Precisa Armadura Cortante
2675	-73.769	6.215	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.611	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.267	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-2.832	No Precisa Armadura Cortante
	-73.751	5.430	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.609	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.264	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-3.455	No Precisa Armadura Cortante
2677	-73.997	5.895	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.296	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.786	0.505	1.489	1.489	3.795	-3.068	No Precisa Armadura Cortante
	-74.104	6.011	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.632	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.310	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.787	0.505	1.490	1.490	3.795	-2.997	No Precisa Armadura Cortante
2677	-73.997	5.895	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.296	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.786	0.505	1.489	1.489	3.795	-3.068	No Precisa Armadura Cortante
	-74.104	6.011	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.632	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.310	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.787	0.505	1.490	1.490	3.795	-2.997	No Precisa Armadura Cortante
2678	-73.737	6.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.608	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.261	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-2.840	No Precisa Armadura Cortante
	-73.735	5.484	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.608	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-3.412	No Precisa Armadura Cortante
2678	-73.727	6.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.608	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.261	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-2.840	No Precisa Armadura Cortante
	-73.733	5.484	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.608	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-3.412	No Precisa Armadura Cortante
2680	-73.996	5.979	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.296	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.786	0.505	1.489	1.489	3.795	-3.021	No Precisa Armadura Cortante
	-74.078	6.190	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.307	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.787	0.505	1.490	1.490	3.795	-3.014	No Precisa Armadura Cortante
2680	-73.996	5.979	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.296	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.786	0.505	1.489	1.489	3.795	-3.021	No Precisa Armadura Cortante
	-74.078	5.990	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.307	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.787	0.505	1.490	1.490	3.795	-3.014	No Precisa Armadura Cortante
2681	-73.944	6.198	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.622	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.289	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.505	1.489	1.489	3.795	-2.847	No Precisa Armadura Cortante
	-73.941	5.640	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.621	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.289	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.505	1.489	1.489	3.795	-3.370	No Precisa Armadura Cortante

ENVOLVENTE <Vy >
concomitantes

Axil 1.00 Cargas Puntuales
Vy 1.50

Barra Elemento	N (t)	Vy (t)	b0 (mm)	h (mm)	d (mm)	fck (N/mm²)	fyk (N/mm²)	γc	γs	α	As (mm²)	Ac (mm²)	cotan (θ)	fcd (N/mm²)	fyd (N/mm²)	σcd (N/mm²)	K	f1cd (N/mm²)	Posición	Vu1 (t)	Comprobación Compresión Oblicua Alma	ξ	ρl	Vcu (t)	Necesidad Armadura Cortante	Armadura mínima		Vcu (t)		cot(θe)	cot(θ)	fyα (N/mm²)	Armadura (cm²)	
2581	-73.944	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.622	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.289	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.505	1.489	1.489	3.795	-2.847	No Precisa Armadura Cortante
	-73.943	6.940	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.621	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.289	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.505	1.489	1.489	3.795	-3.370	No Precisa Armadura Cortante
2583	-73.182	6.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.574	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.169	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.376	9.776	0.508	1.485	1.485	3.795	-2.861	No Precisa Armadura Cortante
	-73.189	6.347	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.575	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.192	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.374	9.777	0.506	1.485	1.485	3.795	-3.103	No Precisa Armadura Cortante
2587	-73.182	8.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.574	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.189	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.778	0.508	1.485	1.485	3.795	-2.861	No Precisa Armadura Cortante
	-73.189	6.367	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.576	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.192	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.777	0.508	1.485	1.485	3.795	-3.103	No Precisa Armadura Cortante
2604	-74.3[illegible]	7.234	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.649	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.348	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.790	0.504	1.492	1.492	3.795	-2.846	No Precisa Armadura Cortante
	-74.394	6.505	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.647	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.344	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.790	0.504	1.491	1.491	3.795	-3.333	No Precisa Armadura Cortante
2604	-74.3[illegible]	7.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.649	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.348	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.790	0.504	1.492	1.492	3.795	-2.846	No Precisa Armadura Cortante
	-74.3[illegible]	6.951	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.647	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.344	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.790	0.504	1.491	1.491	3.795	-3.333	No Precisa Armadura Cortante
2646	-70.485	7.518	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.404	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.833	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.745	0.516	1.470	1.470	3.795	-2.562	No Precisa Armadura Cortante
	-70.386	6.507	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.399	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.823	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-3.292	No Precisa Armadura Cortante
2606	-70.466	6.515	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.404	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.833	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.745	0.516	1.470	1.470	3.795	-2.562	No Precisa Armadura Cortante
	-70.386	6.507	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.399	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.823	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.744	0.516	1.469	1.469	3.795	-3.292	No Precisa Armadura Cortante
2607	-74.923	8.243	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.418	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.797	0.503	1.495	1.495	3.795	-2.820	No Precisa Armadura Cortante
	-74.832	6.610	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.677	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.406	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.796	0.503	1.494	1.494	3.795	-3.317	No Precisa Armadura Cortante
2617	-74.923	8.243	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.683	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.418	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.797	0.503	1.495	1.495	3.795	-2.820	No Precisa Armadura Cortante
	-74.832	6.616	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.677	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.406	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.796	0.503	1.494	1.494	3.795	-3.317	No Precisa Armadura Cortante
2603	-64.6[illegible]	6.965	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.042	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.072	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.681	0.534	1.437	1.437	3.795	-2.156	No Precisa Armadura Cortante
	-64.626	6.267	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.033	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.053	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	-3.518	No Precisa Armadura Cortante
2625	-64.6[illegible]	8.965	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.042	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.072	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.681	0.534	1.437	1.437	3.795	-2.156	No Precisa Armadura Cortante
	-64.626	6.267	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.033	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.053	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.679	0.534	1.436	1.436	3.795	-3.518	No Precisa Armadura Cortante
2610	-75.098	6.360	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.694	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.441	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.799	0.507	1.496	1.496	3.795	-2.722	No Precisa Armadura Cortante
	-74.945	6.665	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.684	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.421	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.797	0.503	1.495	1.495	3.795	-3.359	No Precisa Armadura Cortante
2630	-75.098	7.360	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.694	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.441	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.799	0.502	1.496	1.496	3.795	-2.722	No Precisa Armadura Cortante
	-74.946	6.666	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.684	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.421	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.797	0.503	1.495	1.495	3.795	-3.359	No Precisa Armadura Cortante
2613	-73.910	6.962	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.619	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.285	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.505	1.489	1.489	3.795	-2.479	No Precisa Armadura Cortante
	-73.760	6.304	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.609	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.264	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-3.507	No Precisa Armadura Cortante
2633	-73.910	6.602	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.619	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.285	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.785	0.506	1.489	1.489	3.795	-2.479	No Precisa Armadura Cortante
	-73.760	6.344	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.609	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	21.264	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.783	0.506	1.488	1.488	3.795	-3.507	No Precisa Armadura Cortante
2636	-69.721	7.185	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.358	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.735	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.737	0.518	1.466	1.466	3.795	-2.029	No Precisa Armadura Cortante
	-69.716	4.958	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.357	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.734	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.737	0.518	1.466	1.466	3.795	-3.793	No Precisa Armadura Cortante
2656	-69.721	7.185	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.358	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.735	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.737	0.518	1.466	1.466	3.795	-2.029	No Precisa Armadura Cortante
	-69.716	4.958	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.357	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	20.734	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.737	0.518	1.466	1.466	3.795	-3.793	No Precisa Armadura Cortante
2629	-60.887	7.817	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.810	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.584	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.641	0.546	1.416	1.416	3.795	-1.448	No Precisa Armadura Cortante
	-61.346	4.442	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.834	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.636	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.645	0.545	1.418	1.418	3.795	-4.130	No Precisa Armadura Cortante
2649	-60.952	7.817	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.810	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.584	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.641	0.546	1.416	1.416	3.795	-1.448	No Precisa Armadura Cortante
	-61.345	4.442	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.834	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.01346	19.636	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.645	0.545	1.418	1.418	3.795	-4.130	No Precisa Armadura Cortante

ENVOLVENTE <Vy>
concomitantes

Axil 1.50 Cargas Puntuales
Vy 1.50

Barra Elemento	N [t]	Vy [t]	bo [mm]	b [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{sl} [mm²]	A_c [mm²]	cotα (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	$σ'_{cd}$ [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot(θe)	cot θ	σ [N/mm²]	Armadura necesaria cm2	
2648	-59.421	3.501	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.714	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.919	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.952	0.552	1.407	1.407	3.795	-4.320	No Precisa Armadura Cortante
	-66.423	7.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.151	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.838	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.056	0.528	1.447	1.447	3.795	-1.141	No Precisa Armadura Cortante
2648	-59.421	3.501	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.714	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.919	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.952	0.552	1.407	1.407	3.795	-4.326	No Precisa Armadura Cortante
	-66.423	7.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.151	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.838	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.056	0.528	1.447	1.447	3.795	-1.141	No Precisa Armadura Cortante
2649	-84.974	3.960	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.311	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.273	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.336	0.477	1.549	1.549	3.795	-4.267	No Precisa Armadura Cortante
	-87.749	7.316	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.484	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.637	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.378	0.470	1.564	1.564	3.795	-1.637	No Precisa Armadura Cortante
2649	-84.974	3.960	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.311	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.273	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.336	0.477	1.549	1.549	3.795	-4.267	No Precisa Armadura Cortante
	-87.749	7.316	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.484	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.637	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.378	0.470	1.564	1.564	3.795	-1.637	No Precisa Armadura Cortante
2651	-102.087	4.737	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.380	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.519	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.597	0.440	1.637	1.637	3.795	-3.857	No Precisa Armadura Cortante
	-102.603	6.689	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.406	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.573	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.604	0.439	1.639	1.639	3.795	-2.314	No Precisa Armadura Cortante
2651	-102.087	4.737	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.380	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.519	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.597	0.440	1.637	1.637	3.795	-3.857	No Precisa Armadura Cortante
	-102.603	6.685	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.406	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	23.573	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.604	0.439	1.639	1.639	3.795	-2.314	No Precisa Armadura Cortante
2653	-110.634	6.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.906	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.627	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.728	0.424	1.679	1.679	3.795	-3.481	No Precisa Armadura Cortante
	-110.006	6.102	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.875	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.558	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.718	0.425	1.677	1.677	3.795	-2.798	No Precisa Armadura Cortante
2653	-110.634	6.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.906	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.627	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.728	0.424	1.679	1.679	3.795	-3.481	No Precisa Armadura Cortante
	-110.006	6.152	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.875	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.558	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.718	0.425	1.677	1.677	3.795	-2.798	No Precisa Armadura Cortante
2654	-77.835	4.473	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.865	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.336	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.227	0.496	1.511	1.511	3.795	-3.773	No Precisa Armadura Cortante
	-83.689	6.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.243	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.130	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.319	0.479	1.543	1.543	3.795	-2.149	No Precisa Armadura Cortante
2654	-77.836	4.473	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.865	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.336	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.227	0.495	1.511	1.511	3.795	-3.773	No Precisa Armadura Cortante
	-83.889	6.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.243	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	21.130	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.319	0.479	1.543	1.543	3.795	-2.149	No Precisa Armadura Cortante
2656	-113.288	5.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.080	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.989	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.758	0.419	1.693	1.693	3.795	-3.242	No Precisa Armadura Cortante
	-112.610	5.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.038	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.900	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.758	0.420	1.689	1.689	3.795	-3.051	No Precisa Armadura Cortante
2656	-113.288	6.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.080	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.989	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.758	0.419	1.693	1.693	3.795	-3.242	No Precisa Armadura Cortante
	-112.610	5.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.038	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.900	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.758	0.420	1.689	1.689	3.795	-3.051	No Precisa Armadura Cortante
2657	-95.877	4.905	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.992	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.704	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.503	0.452	1.606	1.606	3.795	-3.649	No Precisa Armadura Cortante
	-98.067	6.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.129	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.991	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.536	0.448	1.617	1.617	3.795	-2.536	No Precisa Armadura Cortante
2657	-95.877	4.905	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.992	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.704	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.503	0.452	1.606	1.606	3.795	-3.649	No Precisa Armadura Cortante
	-98.057	5.341	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.129	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	22.991	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.536	0.448	1.617	1.617	3.795	-2.535	No Precisa Armadura Cortante
2659	-113.250	5.834	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.078	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.984	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.767	0.419	1.693	1.693	3.795	-3.122	No Precisa Armadura Cortante
	-112.745	6.805	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.047	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.918	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.760	0.420	1.690	1.690	3.795	-3.139	No Precisa Armadura Cortante
2659	-113.250	5.834	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.078	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.984	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.767	0.419	1.693	1.693	3.795	-3.122	No Precisa Armadura Cortante
	-112.745	6.805	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.047	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.918	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.760	0.420	1.690	1.690	3.795	-3.139	No Precisa Armadura Cortante
2660	-106.888	5.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.681	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.149	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.671	0.431	1.661	1.661	3.795	-3.295	No Precisa Armadura Cortante
	-107.111	5.077	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.694	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.178	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.674	0.430	1.662	1.662	3.795	-3.014	No Precisa Armadura Cortante
2660	-106.888	5.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.681	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.149	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.671	0.431	1.661	1.661	3.795	-3.295	No Precisa Armadura Cortante
	-107.111	6.877	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.694	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.178	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.674	0.430	1.662	1.662	3.795	-3.014	No Precisa Armadura Cortante
2662	-112.307	5.874	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.019	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.860	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.753	0.421	1.688	1.688	3.795	-3.078	No Precisa Armadura Cortante
	-112.035	5.796	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.002	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.824	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.749	0.421	1.687	1.687	3.795	-3.137	No Precisa Armadura Cortante
2662	-112.307	6.874	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.019	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.850	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.753	0.421	1.688	1.688	3.795	-3.079	No Precisa Armadura Cortante
	-112.035	5.736	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.002	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.824	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.749	0.421	1.687	1.687	3.795	-3.137	No Precisa Armadura Cortante
2663	-111.476	6.966	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.967	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.751	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-3.013	No Precisa Armadura Cortante
	-111.044	5.547	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.941	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.695	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.734	0.423	1.682	1.682	3.795	-3.323	No Precisa Armadura Cortante
2663	-111.476	6.945	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.967	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.751	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.740	0.422	1.684	1.684	3.795	-3.013	No Precisa Armadura Cortante
	-111.048	5.947	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.941	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.695	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.734	0.423	1.682	1.682	3.795	-3.323	No Precisa Armadura Cortante
2665	-111.383	6.873	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.961	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.739	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.739	0.422	1.683	1.683	3.795	-3.069	No Precisa Armadura Cortante
	-111.297	6.831	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.956	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.728	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.738	0.423	1.683	1.683	3.795	-3.101	No Precisa Armadura Cortante
2665	-111.383	6.873	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.961	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.739	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.738	0.422	1.683	1.683	3.795	-3.069	No Precisa Armadura Cortante
	-111.297	6.831	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.956	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.728	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.738	0.423	1.683	1.683	3.795	-3.101	No Precisa Armadura Cortante
2666	-112.374	6.152	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.023	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.869	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.421	1.686	1.686	3.795	-2.859	No Precisa Armadura Cortante
	-111.027	5.333	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.810	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.747	0.422	1.686	1.686	3.795	-3.456	No Precisa Armadura Cortante
2666	-112.374	6.152	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.023	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.869	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-2.859	No Precisa Armadura Cortante
	-111.027	5.393	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.810	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.747	0.422	1.685	1.686	3.795	-3.456	No Precisa Armadura Cortante
2668	-110.804	5.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.925	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.663	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.730	0.423	1.681	1.681	3.795	-3.069	No Precisa Armadura Cortante
	-110.840	5.862	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.927	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.668	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-3.055	No Precisa Armadura Cortante
2668	-110.804	5.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.925	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.663	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.730	0.423	1.681	1.681	3.795	-3.069	No Precisa Armadura Cortante
	-110.840	5.682	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.927	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.668	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-3.055	No Precisa Armadura Cortante
2669	-111.840	6.219	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.990	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.789	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.422	1.686	1.686	3.795	-2.789	No Precisa Armadura Cortante
	-111.563	5.188	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.973	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.762	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.742	0.422	1.684	1.684	3.795	-3.479	No Precisa Armadura Cortante
2669	-111.840	6.219	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.990	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.799	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.746	0.422	1.686	1.686	3.795	-2.799	No Precisa Armadura Cortante
	-111.663	5.188	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.973	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.762	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.742	0.422	1.684	1.684	3.795	-3.479	No Precisa Armadura Cortante
2671	-110.607	5.858	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.913	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.637	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-3.071	No Precisa Armadura Cortante
	-110.717	5.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.012	No Precisa Armadura Cortante
2671	-110.607	5.858	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.913	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.637	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-3.071	No Precisa Armadura Cortante
	-110.717	5.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.651	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.012	No Precisa Armadura Cortante
2672	-111.107	6.226	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.944	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.703	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-2.786	No Precisa Armadura Cortante
	-110.947	5.384	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.452	No Precisa Armadura Cortante
2672	-111.107	6.225	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.944	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.703	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-2.786	No Precisa Armadura Cortante
	-110.937	5.384	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.687	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.452	No Precisa Armadura Cortante
2674	-110.726	5.865	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.653	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.067	No Precisa Armadura Cortante
	-110.876	5.912	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.930	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.672	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-2.976	No Precisa Armadura Cortante
2674	-110.726	5.865	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.920	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.653	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.729	0.424	1.680	1.680	3.795	-3.067	No Precisa Armadura Cortante
	-110.876	5.912	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.930	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.672	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.731	0.423	1.681	1.681	3.795	-2.976	No Precisa Armadura Cortante
2675	-110.654	6.215	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.918	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.643	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.728	0.424	1.680	1.680	3.795	-2.788	No Precisa Armadura Cortante
	-110.627	5.430	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.914	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.640	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.728	0.424	1.680	1.680	3.795	-3.411	No Precisa Armadura Cortante
2676	-110.654	6.215	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.916	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.643	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.728	0.424	1.680	1.680	3.795	-2.788	No Precisa Armadura Cortante
	-110.627	5.430	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.914	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.640	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.728	0.424	1.680	1.680	3.795	-3.411	No Precisa Armadura Cortante
2677	-110.935	5.895	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.688	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.048	No Precisa Armadura Cortante
	-111.156	6.011	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.947	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.709	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.736	0.423	1.682	1.682	3.795	-2.956	No Precisa Armadura Cortante
2677	-110.916	5.895	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.688	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-3.046	No Precisa Armadura Cortante
	-111.156	6.011	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.947	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.709	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.736	0.423	1.682	1.682	3.795	-2.956	No Precisa Armadura Cortante
2678	-110.581	6.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.912	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.635	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-2.796	No Precisa Armadura Cortante
	-110.600	5.484	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.912	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.636	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-3.368	No Precisa Armadura Cortante
2678	-110.581	6.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.912	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.635	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-2.796	No Precisa Armadura Cortante
	-110.600	5.494	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.912	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.636	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.727	0.424	1.680	1.680	3.795	-3.368	No Precisa Armadura Cortante
2680	-110.994	5.979	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.688	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-2.979	No Precisa Armadura Cortante
	-111.117	6.990	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.945	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.704	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-2.973	No Precisa Armadura Cortante
2680	-110.994	5.979	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.937	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.686	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.733	0.423	1.682	1.682	3.795	-2.979	No Precisa Armadura Cortante
	-111.117	6.990	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.945	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.704	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.735	0.423	1.682	1.682	3.795	-2.973	No Precisa Armadura Cortante
2681	-110.916	6.112	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.932	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.678	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.732	0.423	1.681	1.681	3.795	-2.805	No Precisa Armadura Cortante
	-110.916	5.640	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.932	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	24.677	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.732	0.423	1.681	1.681	3.795	-3.327	No Precisa Armadura Cortante

ENVOLVENTE <Vy> Axil 1.50 Cargas Puntuales
concomitantes Vy 1.50

Barra / Estación	N	Vy	Mx	My	Mz	Ly	Lz	Ky	Kz	Area	Iyy	Izz	Ix	Ay	Az	Ky'	Kz'	Ay'	Az'	Ky''	Kz''	Ay''	Az''	Comprobación Compresión Oblicua		Comprobación Flexión Oblicua		Cuantía Mínima		Cuantía Mínima		Cuantía Mínima		Cuantía Mínima		Armadura Mínima
2	-519.816	-8.156	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.822	1.00	18.00	0.50	126.00	1.756	0.00697	24.874	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	24.977	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.752	0.423	1.681	1.681	3.795	-3.327	No Precisa Armadura Cortante
3	-518.816	-8.228	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.833	1.00	18.00	0.50	126.00	1.756	0.00697	24.526	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	24.526	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.425	1.676	1.676	3.795	-2.813	No Precisa Armadura Cortante
4	-519.771	-8.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.861	1.00	18.00	0.50	126.00	1.756	0.00697	24.531	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	24.531	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.425	1.676	1.676	3.795	-3.044	No Precisa Armadura Cortante
5	-519.727	-8.187	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.902	1.00	18.00	0.50	126.00	1.756	0.00697	24.526	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	24.526	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.425	1.676	1.676	3.795	-2.813	No Precisa Armadura Cortante
6	-519.772	-8.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.862	1.00	18.00	0.50	126.00	1.756	0.00697	24.531	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	24.531	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.715	0.425	1.676	1.676	3.795	-3.054	No Precisa Armadura Cortante
7	-519.794	-8.187	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.902	1.00	18.00	0.50	126.00	1.756	0.00697	24.765	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	24.765	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.742	0.422	1.684	1.684	3.795	-2.808	No Precisa Armadura Cortante
8	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.974	1.00	18.00	0.50	126.00	1.756	0.00697	24.759	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	24.759	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.741	0.422	1.684	1.684	3.795	-3.294	No Precisa Armadura Cortante
9	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.971	1.00	18.00	0.50	126.00	1.756	0.00697	24.765	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	24.765	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.742	0.422	1.684	1.684	3.795	-2.808	No Precisa Armadura Cortante
10	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.971	1.00	18.00	0.50	126.00	1.756	0.00697	24.758	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	24.758	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.741	0.422	1.684	1.684	3.795	-3.291	No Precisa Armadura Cortante
11	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.971	1.00	18.00	0.50	126.00	1.756	0.00697	23.959	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.652	0.433	1.656	1.656	3.795	-2.496	No Precisa Armadura Cortante
12	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.905	1.00	18.00	0.50	126.00	1.756	0.00697	23.959	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.652	0.433	1.656	1.656	3.795	-3.216	No Precisa Armadura Cortante
13	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.905	1.00	18.00	0.50	126.00	1.756	0.00697	23.977	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.651	0.433	1.655	1.655	3.795	-3.216	No Precisa Armadura Cortante
14	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.599	1.00	18.00	0.50	126.00	1.756	0.00697	23.977	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.651	0.433	1.655	1.655	3.795	-3.216	No Precisa Armadura Cortante
15	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.599	1.00	18.00	0.50	126.00	1.756	0.00697	23.963	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	23.963	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.652	0.433	1.656	1.652	3.795	-2.496	No Precisa Armadura Cortante
16	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.606	1.00	18.00	0.50	126.00	1.756	0.00697	23.963	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00697	23.977	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.651	0.433	1.655	1.655	3.795	-3.216	No Precisa Armadura Cortante
17	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.599	1.00	18.00	0.50	126.00	1.756	0.00697	24.870	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.754	0.421	1.688	1.688	3.795	-2.787	No Precisa Armadura Cortante
18	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.074	1.00	18.00	0.50	126.00	1.756	0.00697	24.852	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.752	0.421	1.688	1.688	3.795	-3.263	No Precisa Armadura Cortante
19	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.016	1.00	18.00	0.50	126.00	1.756	0.00697	24.852	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.752	0.421	1.688	1.688	3.795	-3.263	No Precisa Armadura Cortante
20	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.074	1.00	18.00	0.50	126.00	1.756	0.00697	24.852	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.752	0.421	1.688	1.688	3.795	-3.263	No Precisa Armadura Cortante
21	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.074	1.00	18.00	0.50	126.00	1.756	0.00697	24.852	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.752	0.421	1.688	1.688	3.795	-3.263	No Precisa Armadura Cortante
22	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.018	1.00	18.00	0.50	126.00	1.756	0.00697	23.852	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.330	0.450	1.612	1.612	3.795	-3.028	No Precisa Armadura Cortante
23	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.663	1.00	18.00	0.50	126.00	1.756	0.00697	23.823	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.316	0.450	1.611	1.611	3.795	-3.395	No Precisa Armadura Cortante
24	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.649	1.00	18.00	0.50	126.00	1.756	0.00697	23.823	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.316	0.450	1.611	1.611	3.795	-3.395	No Precisa Armadura Cortante
25	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.663	1.00	18.00	0.50	126.00	1.756	0.00697	22.852	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.520	0.450	1.612	1.612	3.795	-2.026	No Precisa Armadura Cortante
26	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.649	1.00	18.00	0.50	126.00	1.756	0.00697	22.823	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.516	0.450	1.611	1.611	3.795	-3.343	No Precisa Armadura Cortante
27	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.648	1.00	18.00	0.50	126.00	1.756	0.00697	21.905	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.756	0.420	1.690	1.690	3.795	-2.690	No Precisa Armadura Cortante
28	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.040	1.00	18.00	0.50	126.00	1.756	0.00697	24.875	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.755	0.421	1.689	1.689	3.795	-3.725	No Precisa Armadura Cortante
29	-519.816	-8.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.040	1.00	18.00	0.50	126.00	1.756	0.00697	24.905	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.756	0.420	1.690	1.690	3.795	-2.690	No Precisa Armadura Cortante
30	-519.847	-8.349	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.018	1.00	18.00	0.50	126.00	1.756	0.00697	24.870	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.765	0.421	1.689	1.689	3.795	-3.335	No Precisa Armadura Cortante
31	-519.816	-8.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-7.029	1.00	18.00	0.50	126.00	1.756	0.00697	24.671	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.731	0.425	1.681	1.681	3.795	-2.435	No Precisa Armadura Cortante
32	-519.785	-8.342	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.829	1.00	18.00	0.50	126.00	1.756	0.00697	24.639	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.728	0.424	1.680	1.680	3.795	-3.463	No Precisa Armadura Cortante
33	-519.785	-8.342	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.814	1.00	18.00	0.50	126.00	1.756	0.00697	24.671	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.731	0.425	1.681	1.681	3.795	-2.435	No Precisa Armadura Cortante
34	-519.785	-8.342	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.829	1.00	18.00	0.50	126.00	1.756	0.00697	24.639	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.728	0.424	1.680	1.680	3.795	-3.463	No Precisa Armadura Cortante
35	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.814	1.00	18.00	0.50	126.00	1.756	0.00697	23.848	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.835	0.435	1.650	1.650	3.795	-1.948	No Precisa Armadura Cortante
36	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.638	1.00	18.00	0.50	126.00	1.756	0.00697	23.645	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.835	0.435	1.650	1.650	3.795	-3.715	No Precisa Armadura Cortante
37	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.638	1.00	18.00	0.50	126.00	1.756	0.00697	23.645	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.835	0.435	1.650	1.650	3.795	-3.715	No Precisa Armadura Cortante
38	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-6.638	1.00	18.00	0.50	126.00	1.756	0.00697	22.120	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.435	0.462	1.583	1.583	3.795	-1.284	No Precisa Armadura Cortante
39	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.711	1.00	18.00	0.50	126.00	1.756	0.00697	22.197	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.444	0.460	1.586	1.586	3.795	-3.970	No Precisa Armadura Cortante
40	-519.816	-8.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.711	1.00	18.00	0.50	126.00	1.756	0.00697	22.120	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.435	0.462	1.583	1.583	3.795	-1.284	No Precisa Armadura Cortante
41	-519.834	-8.204	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.751	1.00	18.00	0.50	126.00	1.756	0.00697	22.197	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.444	0.460	1.586	1.586	3.795	-3.970	No Precisa Armadura Cortante
42	-519.816	-8.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-5.751	1.00	18.00	0.50	126.00	1.756	0.00697	22.120	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.435	0.462	1.583	1.583	3.795	-1.284	No Precisa Armadura Cortante

ENVOLVENTE <Vz>
concomitantes

Axil 1.00 Cargas Puntuales
Vz 1.50

Barra Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm^2]	f_{yk} [N/mm^2]	γc	γs	θ [°]	A_{st} [mm^2]	A_c [mm^2]	cotan (θ)	f_{cd} [N/mm^2]	f_{yd} [N/mm^2]	σ'cd [N/mm^2]	K	f_{1cd} [N/mm^2]	Fracción de α	V_{u1} [t]	Comprobación Compresión Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm(t)	Vcu [t]	β	cot(θe)	cot(θ)	Vsu [t]	Anecesaria cm2	
2648	-39.617	2.641	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.920	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.678	0.637	1.285	1.285	3.795	-4.871	No Precisa Armadura Cortante
	-44.278	2.790	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.767	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.931	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.739	0.614	1.315	1.315	3.795	-4.722	No Precisa Armadura Cortante
2648	-39.617	2.641	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.320	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.678	0.637	1.285	1.285	3.795	-4.871	No Precisa Armadura Cortante
	-44.278	2.790	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.767	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.931	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.739	0.614	1.315	1.315	3.795	-4.722	No Precisa Armadura Cortante
2649	-56.636	2.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.540	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.553	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.912	0.562	1.390	1.390	3.795	-4.946	No Precisa Armadura Cortante
	-58.512	2.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.800	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.939	0.555	1.401	1.401	3.795	-4.789	No Precisa Armadura Cortante
2649	-56.636	2.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.540	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.553	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.912	0.562	1.390	1.390	3.795	-4.946	No Precisa Armadura Cortante
	-58.512	2.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.800	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.939	0.555	1.401	1.401	3.795	-4.789	No Precisa Armadura Cortante
2651	-68.035	2.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.252	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.049	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.080	0.523	1.456	1.456	3.795	-4.892	No Precisa Armadura Cortante
	-68.354	3.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.272	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.092	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.084	0.522	1.458	1.458	3.795	-4.749	No Precisa Armadura Cortante
2651	-68.035	2.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.252	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.049	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.080	0.523	1.456	1.456	3.795	-4.892	No Precisa Armadura Cortante
	-68.354	3.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.272	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.092	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.084	0.522	1.458	1.458	3.795	-4.749	No Precisa Armadura Cortante
2653	-73.664	3.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.788	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.774	No Precisa Armadura Cortante
	-73.711	3.302	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.653	No Precisa Armadura Cortante
2653	-73.664	3.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.788	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.774	No Precisa Armadura Cortante
	-73.711	3.302	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.653	No Precisa Armadura Cortante
2654	-51.890	4.350	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.243	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	16.930	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.844	0.580	1.362	1.362	3.795	-3.567	No Precisa Armadura Cortante
	-55.926	4.146	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.495	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.460	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.902	0.564	1.386	1.386	3.795	-3.776	No Precisa Armadura Cortante
2654	-51.890	4.350	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.243	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	16.930	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.844	0.580	1.362	1.362	3.795	-3.567	No Precisa Armadura Cortante
	-55.926	4.146	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.495	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.460	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.902	0.564	1.386	1.386	3.795	-3.776	No Precisa Armadura Cortante
2656	-75.052	3.308	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.691	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.970	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.665	No Precisa Armadura Cortante
	-75.548	3.489	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.722	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.036	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.193	0.501	1.498	1.498	3.795	-4.527	No Precisa Armadura Cortante
2656	-75.052	3.308	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.691	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.970	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.665	No Precisa Armadura Cortante
	-75.548	3.489	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.722	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.036	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.193	0.501	1.498	1.498	3.795	-4.527	No Precisa Armadura Cortante
2657	-63.915	4.296	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.509	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.018	0.536	1.433	1.433	3.795	-3.748	No Precisa Armadura Cortante
	-65.378	4.107	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.086	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.701	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.040	0.531	1.441	1.441	3.795	-3.915	No Precisa Armadura Cortante
2657	-63.915	4.296	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.509	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.018	0.536	1.433	1.433	3.795	-3.748	No Precisa Armadura Cortante
	-65.378	4.107	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.086	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.701	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.040	0.531	1.441	1.441	3.795	-3.915	No Precisa Armadura Cortante
2659	-75.138	3.414	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.982	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-4.581	No Precisa Armadura Cortante
	-75.629	3.620	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.721	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.033	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.192	0.501	1.498	1.498	3.795	-4.423	No Precisa Armadura Cortante
2659	-75.138	3.414	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.582	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-4.581	No Precisa Armadura Cortante
	-75.629	3.620	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.721	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.033	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.192	0.501	1.498	1.498	3.795	-4.423	No Precisa Armadura Cortante
2660	-71.256	4.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.454	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.473	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.128	0.513	1.474	1.474	3.795	-3.942	No Precisa Armadura Cortante
	-71.407	4.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.463	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.492	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.130	0.513	1.475	1.475	3.795	-4.071	No Precisa Armadura Cortante
2660	-71.256	4.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.454	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.473	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.128	0.513	1.474	1.474	3.795	-3.942	No Precisa Armadura Cortante
	-71.407	4.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.463	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.492	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.130	0.513	1.475	1.475	3.795	-4.071	No Precisa Armadura Cortante
2662	-74.653	3.483	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.666	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.919	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.521	No Precisa Armadura Cortante
	-74.805	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.951	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.183	0.503	1.494	1.494	3.795	-4.346	No Precisa Armadura Cortante
2662	-74.653	3.483	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.666	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.919	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.521	No Precisa Armadura Cortante
	-74.805	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.951	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.183	0.503	1.494	1.494	3.795	-4.346	No Precisa Armadura Cortante
2663	-74.085	4.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.844	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.073	No Precisa Armadura Cortante
	-74.262	3.862	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.641	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.867	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.173	0.505	1.491	1.491	3.795	-4.223	No Precisa Armadura Cortante
2663	-74.085	4.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.844	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.073	No Precisa Armadura Cortante
	-74.262	3.862	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.641	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.867	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.173	0.505	1.491	1.491	3.795	-4.223	No Precisa Armadura Cortante
2665	-74.181	3.635	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.635	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.853	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.172	0.505	1.490	1.490	3.795	-4.477	No Precisa Armadura Cortante
	-74.296	3.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.643	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.871	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.289	No Precisa Armadura Cortante
2665	-74.161	3.631	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.635	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.853	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.172	0.505	1.490	1.490	3.795	-4.477	No Precisa Armadura Cortante
	-74.296	3.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.643	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.871	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.289	No Precisa Armadura Cortante
2666	-74.673	3.545	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.667	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.921	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.154	No Precisa Armadura Cortante
	-74.855	3.731	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.679	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.945	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.327	No Precisa Armadura Cortante
2666	-74.673	3.545	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.667	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.921	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.154	No Precisa Armadura Cortante
	-74.855	3.731	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.679	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.945	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.327	No Precisa Armadura Cortante
2668	-73.851	3.667	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.616	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.813	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.444	No Precisa Armadura Cortante
	-73.913	3.818	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.821	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-4.245	No Precisa Armadura Cortante
2668	-73.851	3.667	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.618	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.813	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.444	No Precisa Armadura Cortante
	-73.913	3.818	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.821	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-4.245	No Precisa Armadura Cortante
2669	-74.430	3.876	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.889	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.176	0.504	1.492	1.492	3.795	-4.204	No Precisa Armadura Cortante
	-74.602	3.644	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.658	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.898	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.177	0.504	1.492	1.492	3.795	-4.392	No Precisa Armadura Cortante
2669	-74.430	3.876	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.889	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.176	0.504	1.492	1.492	3.795	-4.204	No Precisa Armadura Cortante
	-74.602	3.644	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.656	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.898	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.177	0.504	1.492	1.492	3.795	-4.392	No Precisa Armadura Cortante
2671	-73.765	3.600	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.610	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.802	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.417	No Precisa Armadura Cortante
	-73.786	3.869	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.612	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.804	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.204	No Precisa Armadura Cortante
2671	-73.765	3.600	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.610	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.802	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.417	No Precisa Armadura Cortante
	-73.786	3.869	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.612	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.804	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.204	No Precisa Armadura Cortante
2672	-74.050	3.853	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.628	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.839	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.236	No Precisa Armadura Cortante
	-74.012	3.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.834	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.169	0.505	1.490	1.490	3.795	-4.434	No Precisa Armadura Cortante
2672	-74.050	3.853	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.628	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.839	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.236	No Precisa Armadura Cortante
	-74.012	3.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.834	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.169	0.505	1.490	1.490	3.795	-4.434	No Precisa Armadura Cortante
2674	-73.852	3.629	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.616	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.814	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.396	No Precisa Armadura Cortante
	-73.873	3.923	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.816	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.153	No Precisa Armadura Cortante
2674	-73.852	3.629	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.616	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.814	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.396	No Precisa Armadura Cortante
	-73.873	3.923	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.816	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.153	No Precisa Armadura Cortante
2675	-73.816	3.606	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.808	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.255	No Precisa Armadura Cortante
	-73.706	3.928	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.474	No Precisa Armadura Cortante
2675	-73.816	3.606	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.808	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.255	No Precisa Armadura Cortante
	-73.706	3.928	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.474	No Precisa Armadura Cortante
2677	-74.031	3.669	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.837	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.366	No Precisa Armadura Cortante
	-74.044	3.999	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.841	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.104	No Precisa Armadura Cortante
2677	-74.031	3.669	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.837	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.366	No Precisa Armadura Cortante
	-74.044	3.999	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.841	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.104	No Precisa Armadura Cortante
2678	-73.803	3.712	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.806	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.274	No Precisa Armadura Cortante
	-73.657	3.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.787	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.516	No Precisa Armadura Cortante
2678	-73.803	3.712	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.806	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.274	No Precisa Armadura Cortante
	-73.657	3.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.787	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.516	No Precisa Armadura Cortante
2680	-73.992	3.728	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.318	No Precisa Armadura Cortante
	-74.083	4.098	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.843	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.026	No Precisa Armadura Cortante
2680	-73.992	3.728	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.318	No Precisa Armadura Cortante
	-74.083	4.098	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.843	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.026	No Precisa Armadura Cortante
2681	-74.015	3.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.835	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.294	No Precisa Armadura Cortante
	-73.868	3.419	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.815	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.563	No Precisa Armadura Cortante

ENVOLVENTE <Vz> **concomitantes**

Asli 1.00 Cargas Puntuales
Vz 1.50

Barra	N	Vz	My	Mz	Vy	T	Sección	fck	fyd	fcd	Ec	Ast	Recub.	Nmin	Mpy	Mpz	Mpyz	Mpzy	Mpyz/Mpzy	Comprobación Compresión Oblicua Alma	Vrd	Vrd1	Vrd2	Comprobación Armadura Cortante	Separación Cercos	Ø	Ancho	Canto útil	Canto	Cuantía Mínima	Cuantía Geométrica	Cuantía Mecánica	
[m]	[kg]	[kg]	[kgm]	[kgm]	[kg]	[kgm]		[N/mm²]	[N/mm²]	[N/mm²]	[N/mm²]	[cm²]	[cm]	[kg]	[kgm]	[kgm]	[kgm]	[kgm]			[kg]	[kg]	[kg]		[cm]	[cm]	[cm]	[cm]	[cm]	[cm²/m]	[cm²/m]	[cm²/m]	
0	-74.615	2.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.835	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.170	0.506	1.490	1.490	3.795	-4.284	No Precisa Armadura Cortante
1	-74.844	2.418	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.611	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.815	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.265	No Precisa Armadura Cortante
2	-75.073	2.078	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.596	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.794	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.159	0.506	1.484	1.484	3.795	-4.245	No Precisa Armadura Cortante
3	-75.302	1.737	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.581	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.774	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.150	0.507	1.488	1.488	3.795	-4.225	No Precisa Armadura Cortante
4	-75.532	1.397	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.566	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.754	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.159	0.507	1.488	1.488	3.795	-3.914	No Precisa Armadura Cortante
5	-75.762	1.057	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.551	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.740	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.178	0.504	1.492	1.492	3.795	-4.327	No Precisa Armadura Cortante
6	-75.992	0.717	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.873	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.614	No Precisa Armadura Cortante
7	-76.238	0.390	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.873	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.112	0.516	1.468	1.468	3.795	-4.134	No Precisa Armadura Cortante
8	-76.484	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.369	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.337	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.118	0.515	1.471	1.471	3.795	-3.768	No Precisa Armadura Cortante
9	-76.724	-0.570	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.414	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.390	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.112	0.516	1.468	1.468	3.795	-4.134	No Precisa Armadura Cortante
10	-76.964	-1.203	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.389	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.337	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.118	0.515	1.471	1.471	3.795	-3.768	No Precisa Armadura Cortante
11	-77.205	-1.834	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.414	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.390	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.112	0.516	1.468	1.468	3.795	-4.134	No Precisa Armadura Cortante
12	-77.444	-2.465	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.852	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.558	No Precisa Armadura Cortante
13	-77.684	-3.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.852	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.558	No Precisa Armadura Cortante
14	-77.924	-3.722	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.843	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.675	No Precisa Armadura Cortante
15	-78.164	-4.353	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.678	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.843	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.675	No Precisa Armadura Cortante
16	-78.404	-5.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.678	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.662	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.024	0.535	1.435	1.435	3.795	-4.046	No Precisa Armadura Cortante
17	-78.645	-5.650	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.678	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.662	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.024	0.535	1.435	1.435	3.795	-4.046	No Precisa Armadura Cortante
18	-78.885	-6.299	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.658	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.635	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.033	0.533	1.438	1.438	3.795	-3.853	No Precisa Armadura Cortante
19	-79.125	-6.948	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.658	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.635	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.033	0.533	1.438	1.438	3.795	-3.853	No Precisa Armadura Cortante
20	-79.365	-7.597	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.020	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	18.607	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.033	0.533	1.438	1.438	3.795	-3.633	No Precisa Armadura Cortante
21	-79.605	-8.246	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.055	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	18.635	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.406	No Precisa Armadura Cortante
22	-79.844	-8.894	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.089	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.907	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.748	No Precisa Armadura Cortante
23	-80.084	-9.543	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.089	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.907	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.748	No Precisa Armadura Cortante
24	-80.317	-10.203	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.809	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.461	No Precisa Armadura Cortante
25	-80.557	-10.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.615	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.811	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.462	No Precisa Armadura Cortante
26	-80.797	-11.544	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.809	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.462	No Precisa Armadura Cortante
27	-81.037	-12.224	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.811	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.462	No Precisa Armadura Cortante
28	-81.277	-12.904	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.279	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.106	0.518	1.466	1.466	3.795	-4.516	No Precisa Armadura Cortante
29	-81.517	-13.584	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.104	0.518	1.465	1.465	3.795	-4.516	No Precisa Armadura Cortante
30	-81.757	-14.264	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.279	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.106	0.518	1.466	1.466	3.795	-4.516	No Precisa Armadura Cortante
31	-81.997	-14.944	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	19.262	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.104	0.518	1.465	1.465	3.795	-4.516	No Precisa Armadura Cortante
32	-82.237	-15.624	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.359	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	18.182	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.982	0.544	1.418	1.418	3.795	-4.589	No Precisa Armadura Cortante
33	-82.476	-16.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.839	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	18.109	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.974	0.546	1.415	1.415	3.795	-5.021	No Precisa Armadura Cortante
34	-82.716	-16.987	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.804	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	18.182	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.982	0.544	1.418	1.418	3.795	-4.589	No Precisa Armadura Cortante
35	-82.955	-17.666	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.804	1.00	18.00	0.50	126.00	>=Vy. Válida Compresión Oblicua Alma	1.756	0.00697	18.100	>=Vy. No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	8.974	0.546	1.415	1.415	3.795	-5.021	No Precisa Armadura Cortante

ENVOLVENTE <Vz > concomitantes

Axil 1.50 Cargas Puntuales
Vz 1.50

Barra	N	Vz	bo	h	d	f_{ck}	f_{yk}	γc	γs	θ	A_s	A_c	cotan (θ)	f_{cd}	f_{yd}	σ'cd	K	f_{1cd}	Fracción de θ	V_{u1}	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2}	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu	β	cot ($θ_{e,ref}$)	cot ($θ_e$)	$f_{yα,d}$	As necesaria	
Elemento	[t]	[t]	(mm)	(mm)	(mm)	(N/mm²)	(N/mm²)			[°]	(mm²)	(mm²)		(N/mm²)	(N/mm²)	(N/mm²)		(N/mm²)		[t]				[t]				[t]				(N/mm²)	cm2	
2648	-39.617	2.641	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.320	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.678	0.637	1.285	1.285	3.795	-4.871	No Precisa Armadura Cortante
	-44.279	2.780	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.767	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.931	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.739	0.614	1.315	1.315	3.795	-4.722	No Precisa Armadura Cortante
2648	-39.617	2.641	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.476	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.320	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.678	0.637	1.285	1.285	3.795	-4.871	No Precisa Armadura Cortante
	-44.279	2.780	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-2.767	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	15.931	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.739	0.614	1.315	1.315	3.795	-4.722	No Precisa Armadura Cortante
2649	-56.636	2.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.540	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.553	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.912	0.562	1.390	1.390	3.795	-4.946	No Precisa Armadura Cortante
	-58.512	2.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.800	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.939	0.555	1.401	1.401	3.795	-4.789	No Precisa Armadura Cortante
2649	-56.636	2.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.540	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.553	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.912	0.562	1.390	1.390	3.795	-4.946	No Precisa Armadura Cortante
	-58.512	2.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.657	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.800	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.939	0.555	1.401	1.401	3.795	-4.789	No Precisa Armadura Cortante
2651	-68.035	2.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.252	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.049	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.060	0.523	1.456	1.456	3.795	-4.892	No Precisa Armadura Cortante
	-68.358	3.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.272	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.092	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.084	0.522	1.458	1.458	3.795	-4.749	No Precisa Armadura Cortante
2651	-68.035	2.916	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.252	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.049	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.080	0.523	1.456	1.456	3.795	-4.892	No Precisa Armadura Cortante
	-68.358	3.101	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.272	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.092	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.084	0.522	1.458	1.458	3.795	-4.748	No Precisa Armadura Cortante
2653	-73.664	3.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.788	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.774	No Precisa Armadura Cortante
	-73.711	3.302	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.653	No Precisa Armadura Cortante
2653	-73.664	3.149	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.788	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.774	No Precisa Armadura Cortante
	-73.711	3.302	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.653	No Precisa Armadura Cortante
2654	-51.890	4.350	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.243	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	16.930	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.844	0.580	1.362	1.362	3.795	-3.567	No Precisa Armadura Cortante
	-55.926	4.146	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.495	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.460	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.902	0.564	1.386	1.386	3.795	-3.776	No Precisa Armadura Cortante
2654	-51.890	4.350	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.243	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	16.930	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.844	0.580	1.362	1.362	3.795	-3.567	No Precisa Armadura Cortante
	-55.926	4.146	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.495	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	17.460	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	8.902	0.564	1.386	1.386	3.795	-3.776	No Precisa Armadura Cortante
2656	-75.062	3.308	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.691	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.970	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.665	No Precisa Armadura Cortante
	-75.549	3.488	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.722	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.036	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.193	0.501	1.498	1.498	3.795	-4.527	No Precisa Armadura Cortante
2656	-75.062	3.308	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.691	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.970	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.665	No Precisa Armadura Cortante
	-75.549	3.488	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.722	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.036	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.193	0.501	1.498	1.498	3.795	-4.527	No Precisa Armadura Cortante
2657	-63.918	4.296	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.509	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.018	0.536	1.433	1.433	3.795	-3.748	No Precisa Armadura Cortante
	-65.378	4.107	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.086	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.701	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.040	0.531	1.441	1.441	3.795	-3.915	No Precisa Armadura Cortante
2657	-63.918	4.296	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.995	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.509	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.018	0.536	1.433	1.433	3.795	-3.748	No Precisa Armadura Cortante
	-65.378	4.107	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.086	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.701	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.040	0.531	1.441	1.441	3.795	-3.916	No Precisa Armadura Cortante
2659	-75.138	3.414	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.982	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-4.581	No Precisa Armadura Cortante
	-75.523	3.620	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.721	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.033	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.192	0.501	1.498	1.498	3.795	-4.423	No Precisa Armadura Cortante
2659	-75.138	3.414	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.696	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.982	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.186	0.502	1.496	1.496	3.795	-4.581	No Precisa Armadura Cortante
	-75.528	3.620	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.721	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	20.033	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.192	0.501	1.498	1.498	3.795	-4.423	No Precisa Armadura Cortante
2660	-71.269	4.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.454	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.473	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.128	0.513	1.474	1.474	3.795	-3.942	No Precisa Armadura Cortante
	-71.407	4.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.463	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.492	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.130	0.513	1.475	1.475	3.795	-4.071	No Precisa Armadura Cortante
2660	-71.259	4.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.454	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.473	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.128	0.513	1.474	1.474	3.795	-3.942	No Precisa Armadura Cortante
	-71.407	4.001	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.463	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.492	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.130	0.513	1.475	1.475	3.795	-4.071	No Precisa Armadura Cortante
2662	-74.658	3.483	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.666	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.919	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.521	No Precisa Armadura Cortante
	-74.905	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.951	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.183	0.503	1.494	1.494	3.795	-4.346	No Precisa Armadura Cortante
2662	-74.658	3.483	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.666	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.919	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.521	No Precisa Armadura Cortante
	-74.906	3.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.951	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.183	0.503	1.494	1.494	3.795	-4.346	No Precisa Armadura Cortante
2663	-74.085	4.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.844	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.073	No Precisa Armadura Cortante
	-74.262	3.852	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.641	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.867	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.173	0.505	1.491	1.491	3.795	-4.223	No Precisa Armadura Cortante
2663	-74.085	4.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.844	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.073	No Precisa Armadura Cortante
	-74.262	3.852	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.641	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.867	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.173	0.505	1.491	1.491	3.795	-4.223	No Precisa Armadura Cortante
2665	-74.161	3.531	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.635	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.853	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.172	0.505	1.490	1.490	3.795	-4.477	No Precisa Armadura Cortante
	-74.295	3.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.643	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.871	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.289	No Precisa Armadura Cortante
2665	-74.161	3.531	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.635	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.853	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.172	0.505	1.490	1.490	3.795	-4.477	No Precisa Armadura Cortante
	-74.295	3.770	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.643	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.871	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.289	No Precisa Armadura Cortante
2666	-74.673	3.946	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.667	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.921	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.154	No Precisa Armadura Cortante
	-74.859	3.731	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.679	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.945	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.327	No Precisa Armadura Cortante
2666	-74.673	3.946	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.667	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.921	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.179	0.503	1.493	1.493	3.795	-4.154	No Precisa Armadura Cortante
	-74.859	3.731	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.679	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.945	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.327	No Precisa Armadura Cortante
2668	-73.851	3.567	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.616	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.813	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.444	No Precisa Armadura Cortante
	-73.913	3.819	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.821	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-4.245	No Precisa Armadura Cortante
2668	-73.851	3.567	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.616	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.813	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.444	No Precisa Armadura Cortante
	-73.913	3.819	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.620	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.821	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.168	0.506	1.489	1.489	3.795	-4.245	No Precisa Armadura Cortante
2669	-74.430	3.878	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.889	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.176	0.504	1.492	1.492	3.795	-4.204	No Precisa Armadura Cortante
	-74.502	3.644	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.656	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.898	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.177	0.504	1.492	1.492	3.795	-4.392	No Precisa Armadura Cortante
2669	-74.430	3.879	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.889	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.176	0.504	1.492	1.492	3.795	-4.204	No Precisa Armadura Cortante
	-74.501	3.644	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.656	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.898	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.177	0.504	1.492	1.492	3.795	-4.392	No Precisa Armadura Cortante
2671	-73.766	3.600	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.610	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.802	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.417	No Precisa Armadura Cortante
	-73.796	3.859	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.612	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.804	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.204	No Precisa Armadura Cortante
2671	-73.765	3.600	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.610	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.802	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.417	No Precisa Armadura Cortante
	-73.796	3.859	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.612	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.804	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.204	No Precisa Armadura Cortante
2672	-74.050	3.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.628	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.839	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.236	No Precisa Armadura Cortante
	-74.012	3.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.834	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.169	0.505	1.490	1.490	3.795	-4.434	No Precisa Armadura Cortante
2672	-74.050	3.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.628	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.839	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.236	No Precisa Armadura Cortante
	-74.012	3.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.834	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.169	0.505	1.490	1.490	3.795	-4.434	No Precisa Armadura Cortante
2674	-73.862	3.629	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.616	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.814	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.396	No Precisa Armadura Cortante
	-73.873	3.923	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.816	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.163	No Precisa Armadura Cortante
2674	-73.862	3.629	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.618	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.814	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.396	No Precisa Armadura Cortante
	-73.873	3.923	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.816	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.163	No Precisa Armadura Cortante
2676	-73.815	3.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.808	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.255	No Precisa Armadura Cortante
	-73.706	3.528	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.474	No Precisa Armadura Cortante
2676	-73.815	3.806	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.808	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.255	No Precisa Armadura Cortante
	-73.706	3.528	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.607	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.794	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.165	0.506	1.488	1.488	3.795	-4.474	No Precisa Armadura Cortante
2677	-74.036	3.669	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.837	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.366	No Precisa Armadura Cortante
	-74.065	3.999	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.841	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.104	No Precisa Armadura Cortante
2677	-74.036	3.669	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.627	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.837	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.366	No Precisa Armadura Cortante
	-74.065	3.999	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.841	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.104	No Precisa Armadura Cortante
2678	-73.803	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.806	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.274	No Precisa Armadura Cortante
	-73.657	3.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.787	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.516	No Precisa Armadura Cortante
2678	-73.803	3.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.613	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.806	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.166	0.506	1.488	1.488	3.795	-4.274	No Precisa Armadura Cortante
	-73.657	3.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.604	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.787	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.164	0.506	1.488	1.488	3.795	-4.516	No Precisa Armadura Cortante
2680	-73.992	3.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.318	No Precisa Armadura Cortante
	-74.083	4.098	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.843	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.026	No Precisa Armadura Cortante
2680	-73.992	3.729	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.625	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.831	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.169	0.505	1.489	1.489	3.795	-4.318	No Precisa Armadura Cortante
	-74.083	4.098	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.630	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.843	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.171	0.505	1.490	1.490	3.795	-4.026	No Precisa Armadura Cortante
2681	-74.019	3.755	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.626	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.835	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.294	No Precisa Armadura Cortante
	-73.868	3.419	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.815	>=Vy. No Precisa Armadura Cortante	cercos φ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.563	No Precisa Armadura Cortante

ENVOLVENTE <Vz> Axil 1,50 Cargas Puntuales
concomitantes Vz 1,50

[illegible]	-76.978	3.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.629	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.535	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.170	0.505	1.490	1.490	3.795	-4.294	No Precisa Armadura Cortante
	-77.069	3.419	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.617	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.515	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.563	No Precisa Armadura Cortante
[illegible]	-73.082	3.812	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.666	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.712	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.155	0.506	1.484	1.484	3.795	-4.240	No Precisa Armadura Cortante
	-73.300	4.227	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.581	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.740	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-3.914	No Precisa Armadura Cortante
[illegible]	-71.082	3.811	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.668	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.712	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.155	0.506	1.484	1.484	3.795	-4.240	No Precisa Armadura Cortante
	-71.300	4.227	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.581	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.740	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.159	0.507	1.486	1.486	3.795	-3.914	No Precisa Armadura Cortante
[illegible]	-74.138	3.731	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.890	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.176	0.504	1.492	1.492	3.795	-4.322	No Precisa Armadura Cortante
	-74.308	3.369	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.873	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.614	No Precisa Armadura Cortante
[illegible]	-74.175	3.731	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.652	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.890	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.176	0.504	1.492	1.492	3.795	-4.322	No Precisa Armadura Cortante
	-74.309	3.340	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.644	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.873	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.174	0.504	1.491	1.491	3.795	-4.614	No Precisa Armadura Cortante
[illegible]	-70.224	3.803	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.389	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.337	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.112	0.516	1.468	1.468	3.795	-4.134	No Precisa Armadura Cortante
	-70.416	4.378	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.414	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.390	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.118	0.515	1.471	1.471	3.795	-3.769	No Precisa Armadura Cortante
[illegible]	-70.224	3.103	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.389	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.337	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.112	0.516	1.468	1.468	3.795	-4.134	No Precisa Armadura Cortante
	-70.420	4.310	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.414	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.390	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.118	0.515	1.471	1.471	3.795	-3.768	No Precisa Armadura Cortante
[illegible]	-74.814	3.897	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.952	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.358	No Precisa Armadura Cortante
	-74.840	3.591	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.678	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.943	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.675	No Precisa Armadura Cortante
[illegible]	-74.814	3.812	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.682	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.952	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.183	0.503	1.495	1.495	3.795	-4.358	No Precisa Armadura Cortante
	-74.840	3.291	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.678	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.943	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.182	0.503	1.494	1.494	3.795	-4.675	No Precisa Armadura Cortante
[illegible]	-64.320	3.727	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.020	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.682	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.024	0.535	1.435	1.435	3.795	-4.046	No Precisa Armadura Cortante
	-64.175	4.466	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.055	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.635	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.033	0.533	1.438	1.438	3.795	-3.633	No Precisa Armadura Cortante
[illegible]	-64.320	3.927	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.020	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.682	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.024	0.535	1.435	1.435	3.795	-4.046	No Precisa Armadura Cortante
	-64.378	4.466	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.055	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.635	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.033	0.533	1.438	1.438	3.795	-3.633	No Precisa Armadura Cortante
[illegible]	-76.826	3.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.689	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.967	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.406	No Precisa Armadura Cortante
	-76.617	3.203	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.44	-4.689	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.966	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.748	No Precisa Armadura Cortante
[illegible]	-76.826	3.833	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.689	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.967	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.406	No Precisa Armadura Cortante
	-76.617	3.203	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.689	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.966	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.185	0.502	1.495	1.495	3.795	-4.748	No Precisa Armadura Cortante
[illegible]	-73.112	3.846	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.809	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.461	No Precisa Armadura Cortante
	-73.537	3.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.615	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.811	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.828	No Precisa Armadura Cortante
[illegible]	-73.122	3.546	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.614	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.809	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.461	No Precisa Armadura Cortante
	-73.037	3.864	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.615	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.811	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.167	0.506	1.489	1.489	3.795	-4.828	No Precisa Armadura Cortante
[illegible]	-49.727	3.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.361	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.279	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.106	0.518	1.466	1.466	3.795	-4.516	No Precisa Armadura Cortante
	-49.553	2.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.262	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.104	0.518	1.465	1.465	3.795	-4.913	No Precisa Armadura Cortante
[illegible]	-49.762	3.416	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.361	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.279	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.106	0.518	1.466	1.466	3.795	-4.516	No Precisa Armadura Cortante
	-49.053	2.913	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-4.353	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	19.262	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.104	0.518	1.465	1.465	3.795	-4.913	No Precisa Armadura Cortante
[illegible]	-41.429	3.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.839	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.182	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.982	0.544	1.418	1.418	3.795	-4.683	No Precisa Armadura Cortante
	-40.858	2.648	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.804	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.109	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.974	0.546	1.415	1.415	3.795	-5.021	No Precisa Armadura Cortante
[illegible]	-41.429	3.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.839	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.182	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.982	0.544	1.418	1.418	3.795	-4.683	No Precisa Armadura Cortante
	-40.963	2.648	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1256.00	160000.00	1.00	30.00	443.48	-3.804	1.00	18.00	0.50	126.00	>=Vy. Valida Compresion Oblicua Alma	1.756	0.00897	18.109	>=Vy. No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	8.974	0.546	1.415	1.415	3.795	-5.021	No Precisa Armadura Cortante

CORTANTE EN PILOTES DE [illegible] FILA INTERIOR Y DELANTEROS EXTERIORES

ENVOLVENTE <N-Vy > concomitantes

Axil 1,00 Cargas Puntuales
Vy 1.60

Barra Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γ_c	γ_s	θ [°]	A_{s1} [mm²]	A_c [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot(θe,ui)	cot(θ)	$f_{y\alpha,d}$ [N/mm²]	Armadura necesaria cm2	
2650	-113.653	15.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.103	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.501	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.284	0.419	1.695	1.695	3.795	4.306	No Precisa Armadura Cortante
	-104.609	8.018	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.632	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.301	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.165	0.435	1.650	1.650	3.795	-1.705	No Precisa Armadura Cortante
2650	-113.653	15.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.103	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.501	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.284	0.419	1.695	1.695	3.795	4.306	No Precisa Armadura Cortante
	-104.609	8.018	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.632	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.301	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.165	0.435	1.650	1.650	3.795	-1.705	No Precisa Armadura Cortante
2652	-135.731	16.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.399	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.576	0.385	1.799	1.799	3.795	3.639	No Precisa Armadura Cortante
	-132.100	8.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.256	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.922	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-1.220	No Precisa Armadura Cortante
2652	-135.731	16.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.399	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.576	0.385	1.799	1.799	3.795	3.639	No Precisa Armadura Cortante
	-132.100	8.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.256	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.922	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-1.220	No Precisa Armadura Cortante
2655	-151.068	13.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.442	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.412	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.779	0.366	1.868	1.868	3.795	2.432	No Precisa Armadura Cortante
	-150.610	10.700	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.326	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.770	0.366	1.865	1.865	3.795	-0.056	No Precisa Armadura Cortante
2655	-151.068	13.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.442	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.412	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.779	0.366	1.868	1.868	3.795	2.432	No Precisa Armadura Cortante
	-150.610	10.700	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.326	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.770	0.366	1.865	1.865	3.795	-0.056	No Precisa Armadura Cortante
2658	-159.175	12.003	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.476	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.886	0.356	1.903	1.903	3.795	0.885	No Precisa Armadura Cortante
	-158.699	12.798	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.414	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.880	0.357	1.901	1.901	3.795	1.522	No Precisa Armadura Cortante
2658	-159.175	12.003	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.476	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.886	0.356	1.903	1.903	3.795	0.885	No Precisa Armadura Cortante
	-158.699	12.798	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.414	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.880	0.357	1.901	1.901	3.795	1.522	No Precisa Armadura Cortante
2661	-161.836	12.717	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.825	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	1.425	No Precisa Armadura Cortante
	-161.195	12.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.075	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.741	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	1.046	No Precisa Armadura Cortante
2661	-161.836	12.717	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.825	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	1.425	No Precisa Armadura Cortante
	-161.195	12.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.075	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.741	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	1.046	No Precisa Armadura Cortante
2664	-161.662	13.095	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.104	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.802	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.919	0.354	1.914	1.914	3.795	1.656	No Precisa Armadura Cortante
	-161.214	12.032	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.076	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.744	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	0.888	No Precisa Armadura Cortante
2664	-161.662	13.095	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.104	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.802	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.919	0.354	1.914	1.914	3.795	1.656	No Precisa Armadura Cortante
	-161.214	12.032	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.076	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.744	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	0.888	No Precisa Armadura Cortante
2667	-160.683	13.064	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.043	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.674	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.906	0.355	1.909	1.909	3.795	1.712	No Precisa Armadura Cortante
	-160.474	12.027	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	0.892	No Precisa Armadura Cortante
2667	-160.683	13.064	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.043	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.674	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.906	0.355	1.909	1.909	3.795	1.712	No Precisa Armadura Cortante
	-160.474	12.027	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	0.892	No Precisa Armadura Cortante
2670	-159.833	13.048	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	1.709	No Precisa Armadura Cortante
	-159.797	12.114	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.987	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.894	0.356	1.906	1.906	3.795	0.968	No Precisa Armadura Cortante
2670	-159.833	13.048	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	1.709	No Precisa Armadura Cortante
	-159.797	12.114	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.987	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.894	0.356	1.906	1.906	3.795	0.968	No Precisa Armadura Cortante
2673	-159.467	11.922	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.514	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.890	0.356	1.904	1.904	3.795	0.819	No Precisa Armadura Cortante
	-159.394	12.725	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.962	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.505	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	1.457	No Precisa Armadura Cortante
2673	-159.467	11.922	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.514	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.890	0.356	1.904	1.904	3.795	0.819	No Precisa Armadura Cortante
	-159.394	12.725	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.962	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.505	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	1.457	No Precisa Armadura Cortante
2676	-159.513	12.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.970	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	0.910	No Precisa Armadura Cortante
	-159.408	12.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.507	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	1.442	No Precisa Armadura Cortante
2676	-159.513	12.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.970	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	0.910	No Precisa Armadura Cortante
	-159.408	12.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.507	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	1.447	No Precisa Armadura Cortante
2679	-159.892	12.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.993	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.570	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	0.993	No Precisa Armadura Cortante
	-159.830	12.705	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.989	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	1.437	No Precisa Armadura Cortante
2679	-159.892	12.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.993	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.570	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	0.993	No Precisa Armadura Cortante
	-159.830	12.705	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.989	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	1.437	No Precisa Armadura Cortante
2682	-160.578	12.102	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.660	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.905	0.355	1.909	1.909	3.795	1.585	No Precisa Armadura Cortante
	-160.467	12.399	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.029	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.646	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	1.187	No Precisa Armadura Cortante
2682	-160.578	12.102	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.660	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.905	0.355	1.909	1.909	3.795	1.585	No Precisa Armadura Cortante
	-160.467	12.399	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.029	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.646	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	1.187	No Precisa Armadura Cortante
2685	-161.376	13.010	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.086	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.765	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.915	0.354	1.912	1.912	3.795	1.652	No Precisa Armadura Cortante
	-160.907	12.405	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.057	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.703	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.909	0.355	1.910	1.910	3.795	1.187	No Precisa Armadura Cortante
2685	-161.376	13.010	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.086	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.765	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.915	0.354	1.912	1.912	3.795	1.662	No Precisa Armadura Cortante
	-160.907	12.405	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.057	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.703	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.909	0.355	1.910	1.910	3.795	1.187	No Precisa Armadura Cortante
2688	-161.528	13.280	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.096	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.785	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.917	0.354	1.913	1.913	3.795	1.883	No Precisa Armadura Cortante
	-160.490	12.257	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.031	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.904	0.355	1.909	1.909	3.795	1.074	No Precisa Armadura Cortante
2688	-161.528	13.280	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.096	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.785	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.917	0.354	1.913	1.913	3.795	1.883	No Precisa Armadura Cortante
	-160.490	12.257	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.031	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.904	0.355	1.909	1.909	3.795	1.074	No Precisa Armadura Cortante
2691	-159.633	13.874	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.977	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.536	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.892	0.356	1.905	1.905	3.795	2.370	No Precisa Armadura Cortante
	-157.967	11.688	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.318	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.870	0.358	1.898	1.898	3.795	0.792	No Precisa Armadura Cortante
2691	-159.633	13.878	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.977	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.536	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.892	0.356	1.905	1.905	3.795	2.370	No Precisa Armadura Cortante
	-157.967	11.688	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.318	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.870	0.358	1.898	1.898	3.795	0.792	No Precisa Armadura Cortante
2692	-100.421	15.249	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.277	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.766	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.113	0.443	1.629	1.629	3.795	4.077	No Precisa Armadura Cortante
	-99.538	10.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.101	0.445	1.625	1.625	3.795	0.520	No Precisa Armadura Cortante
2692	-100.421	15.249	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.277	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.766	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.113	0.443	1.629	1.629	3.795	4.077	No Precisa Armadura Cortante
	-99.538	10.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.101	0.445	1.625	1.625	3.795	0.520	No Precisa Armadura Cortante
2694	-153.336	14.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.710	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.809	0.363	1.877	1.877	3.795	3.274	No Precisa Armadura Cortante
	-151.603	11.160	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.475	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.786	0.365	1.870	1.870	3.795	0.312	No Precisa Armadura Cortante
2694	-153.336	14.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.710	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.809	0.363	1.877	1.877	3.795	3.274	No Precisa Armadura Cortante
	-151.603	11.160	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.475	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.786	0.365	1.870	1.870	3.795	0.312	No Precisa Armadura Cortante
2695	-87.615	11.594	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.470	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.071	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.949	0.471	1.562	1.562	3.795	1.305	No Precisa Armadura Cortante
	-83.183	16.618	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.199	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.503	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.896	0.481	1.539	1.539	3.795	5.256	No Precisa Armadura Cortante
2695	-87.615	11.594	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.470	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.071	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.949	0.471	1.562	1.562	3.795	1.305	No Precisa Armadura Cortante
	-83.183	16.618	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.199	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.503	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.896	0.481	1.539	1.539	3.795	5.256	No Precisa Armadura Cortante
2697	-139.534	10.037	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.721	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.898	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.626	0.380	1.816	1.816	3.795	-0.468	No Precisa Armadura Cortante
	-139.167	16.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.698	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.850	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.621	0.380	1.814	1.814	3.795	4.618	No Precisa Armadura Cortante
2697	-139.534	10.037	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.721	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.898	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.626	0.380	1.816	1.816	3.795	-0.468	No Precisa Armadura Cortante
	-139.167	16.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.698	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.850	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.621	0.380	1.814	1.814	3.795	4.618	No Precisa Armadura Cortante
2698	-75.700	11.235	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.731	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.808	0.501	1.499	1.499	3.795	1.134	No Precisa Armadura Cortante
	-53.824	19.775	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.364	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.649	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.570	0.572	1.373	1.373	3.795	8.099	Valida la armadura del pilote
2698	-75.700	11.235	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.731	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.808	0.501	1.499	1.499	3.795	1.134	No Precisa Armadura Cortante
	-53.824	19.775	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.364	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.649	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.570	0.572	1.373	1.373	3.795	8.099	Valida la armadura del pilote
2700	-140.666	9.708	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.785	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.033	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.640	0.379	1.821	1.821	3.795	-0.740	No Precisa Armadura Cortante
	-132.152	20.732	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.260	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.929	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	8.098	No Precisa Armadura Cortante
2700	-140.666	9.708	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.785	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.033	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.640	0.379	1.821	1.821	3.795	-0.740	No Precisa Armadura Cortante
	-132.152	20.732	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.260	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.929	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	8.096	No Precisa Armadura Cortante
2701	-103.653	9.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.478	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.189	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.154	0.437	1.645	1.645	3.795	-0.296	No Precisa Armadura Cortante
	-101.090	18.020	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.318	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.852	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.121	0.442	1.632	1.632	3.795	7.063	No Precisa Armadura Cortante
2701	-103.653	9.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.478	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.189	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.154	0.437	1.645	1.645	3.795	-0.296	No Precisa Armadura Cortante
	-101.090	18.020	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.318	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.852	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.121	0.442	1.632	1.632	3.795	7.063	No Precisa Armadura Cortante
2702	-108.018	8.252	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.751	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.762	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.211	0.428	1.667	1.667	3.795	-1.555	No Precisa Armadura Cortante
	-81.816	24.173	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.114	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.323	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.679	0.484	1.532	1.532	3.795	11.349	Necesita Armadura Adicional
2702	-108.018	8.252	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.751	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.762	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.211	0.428	1.667	1.667	3.795	-1.555	No Precisa Armadura Cortante
	-81.816	24.173	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.114	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.323	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.679	0.484	1.532	1.532	3.795	11.349	Necesita Armadura Adicional
2703	-83.788	10.638	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.582	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.903	0.480	1.543	1.543	3.795	0.631	No Precisa Armadura Cortante
	-75.993	19.194	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.750	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.809	0.500	1.500	1.500	3.795	7.448	No Precisa Armadura Cortante
2703	-83.788	10.638	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.582	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.903	0.480	1.543	1.543	3.795	0.631	No Precisa Armadura Cortante
	-75.993	19.194	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.750	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.809	0.500	1.500	1.500	3.795	7.448	No Precisa Armadura Cortante
2704	-68.663	11.276	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.292	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.597	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.725	0.521	1.460	1.460	3.795	1.231	No Precisa Armadura Cortante
	-45.794	20.679	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.862	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.595	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.500	0.606	1.324	1.324	3.795	8.872	Necesita Armadura Adicional
2704	-68.663	11.276	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.292	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.597	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.725	0.521	1.460	1.460	3.795	1.231	No Precisa Armadura Cortante
	-45.794	20.679	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.862	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.595	<Vy Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.500	0.606	1.324	1.324	3.795	8.872	Necesita Armadura Adicional

Se considera válido al incluir un pilote adicional reduciendo los esfuerzos.

ENVOLVENTE <N-Vy > concomitantes

Axil 1.50 Cargas Puntuales
Vy 1.50

Barra Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm^2]	f_{yk} [N/mm^2]	γc	γs	Ø [°]	A_{sl} [mm^2]	A_c [mm^2]	cotan (θ)	f_{cd} [N/mm^2]	f_{yd} [N/mm^2]	σ'cd [N/mm^2]	K	f_{1cd} [N/mm^2]	Función de θ	V_{u1} [t]	Comprobación Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot(θe)	cot(θ)	$f_{y\alpha d}$ [N/mm^2]	A necesaria cm2	
2650	-170.480	15.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.655	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.960	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.035	0.345	1.951	1.951	3.795	3.710	No Precisa Armadura Cortante
	-156.764	8.018	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.798	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.160	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.854	0.359	1.892	1.892	3.795	-2.252	No Precisa Armadura Cortante
2650	-170.480	15.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.655	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.960	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.035	0.345	1.951	1.951	3.795	3.710	No Precisa Armadura Cortante
	-156.764	8.018	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.798	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.160	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.854	0.359	1.892	1.892	3.795	-2.252	No Precisa Armadura Cortante
2652	-203.537	15.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.725	0.96	18.00	0.50	120.93	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.306	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	12.125	0.333	2.086	2.000	3.795	2.409	No Precisa Armadura Cortante
	-198.150	8.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.384	0.98	18.00	0.50	123.31	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.592	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.887	0.333	2.065	2.000	3.795	-2.298	No Precisa Armadura Cortante
2652	-203.537	15.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.725	0.96	18.00	0.50	120.93	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.306	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	12.125	0.333	2.086	2.000	3.795	2.409	No Precisa Armadura Cortante
	-198.150	8.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.384	0.98	18.00	0.50	123.31	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.592	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.887	0.333	2.065	2.000	3.795	-2.298	No Precisa Armadura Cortante
2655	-226.602	13.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.163	0.88	18.00	0.50	110.86	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.326	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.132	0.333	2.175	2.000	3.795	0.565	No Precisa Armadura Cortante
	-225.616	10.700	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.101	0.88	18.00	0.50	111.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.196	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.089	0.333	2.171	2.000	3.795	-1.896	No Precisa Armadura Cortante
2655	-226.602	13.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.163	0.88	18.00	0.50	110.86	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.326	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.132	0.333	2.175	2.000	3.795	0.565	No Precisa Armadura Cortante
	-225.616	10.700	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.101	0.88	18.00	0.50	111.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.196	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.089	0.333	2.171	2.000	3.795	-1.896	No Precisa Armadura Cortante
2658	-238.763	12.003	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.923	0.84	18.00	0.50	105.54	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.922	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.664	0.333	2.221	2.000	3.795	-1.318	No Precisa Armadura Cortante
	-238.049	12.798	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.878	0.84	18.00	0.50	105.85	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.828	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.632	0.333	2.218	2.000	3.795	-0.662	No Precisa Armadura Cortante
2658	-238.763	12.003	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.923	0.84	18.00	0.50	105.54	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.922	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.664	0.333	2.221	2.000	3.795	-1.318	No Precisa Armadura Cortante
	-238.049	12.798	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.878	0.84	18.00	0.50	105.85	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.828	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.632	0.333	2.218	2.000	3.795	-0.662	No Precisa Armadura Cortante
2661	-242.764	12.717	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.172	0.82	18.00	0.50	103.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.446	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.838	0.333	2.235	2.000	3.795	-0.890	No Precisa Armadura Cortante
	-241.743	12.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.112	0.83	18.00	0.50	104.22	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.320	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.796	0.333	2.232	2.000	3.795	-1.242	No Precisa Armadura Cortante
2661	-242.764	12.717	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.172	0.82	18.00	0.50	103.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.446	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.838	0.333	2.235	2.000	3.795	-0.890	No Precisa Armadura Cortante
	-241.743	12.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.112	0.83	18.00	0.50	104.22	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.320	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.796	0.333	2.232	2.000	3.795	-1.242	No Precisa Armadura Cortante
2664	-242.483	13.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.156	0.82	18.00	0.50	103.91	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.412	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.827	0.333	2.235	2.000	3.795	-0.652	No Precisa Armadura Cortante
	-241.825	12.032	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.114	0.83	18.00	0.50	104.20	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.323	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.798	0.333	2.232	2.000	3.795	-1.402	No Precisa Armadura Cortante
2664	-242.483	13.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.156	0.82	18.00	0.50	103.91	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.412	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.827	0.333	2.235	2.000	3.795	-0.652	No Precisa Armadura Cortante
	-241.825	12.032	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.114	0.83	18.00	0.50	104.20	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.323	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.798	0.333	2.232	2.000	3.795	-1.402	No Precisa Armadura Cortante
2667	-241.025	13.064	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.064	0.83	18.00	0.50	104.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.219	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.763	0.333	2.229	2.000	3.795	-0.556	No Precisa Armadura Cortante
	-240.711	12.027	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.044	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-1.367	No Precisa Armadura Cortante
2667	-241.025	13.064	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.064	0.83	18.00	0.50	104.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.219	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.763	0.333	2.229	2.000	3.795	-0.556	No Precisa Armadura Cortante
	-240.711	12.027	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.044	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-1.367	No Precisa Armadura Cortante
2670	-239.750	13.049	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-0.523	No Precisa Armadura Cortante
	-239.656	12.114	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.981	0.83	18.00	0.50	105.13	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.044	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.705	0.333	2.224	2.000	3.795	-1.262	No Precisa Armadura Cortante
2670	-239.750	13.049	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-0.523	No Precisa Armadura Cortante
	-239.656	12.114	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.981	0.83	18.00	0.50	105.13	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.044	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.705	0.333	2.224	2.000	3.795	-1.262	No Precisa Armadura Cortante
2673	-239.201	11.922	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.950	0.84	18.00	0.50	105.35	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.979	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.683	0.333	2.222	2.000	3.795	-1.398	No Precisa Armadura Cortante
	-239.081	12.725	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.943	0.84	18.00	0.50	105.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.965	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.678	0.333	2.222	2.000	3.795	-0.757	No Precisa Armadura Cortante
2673	-239.201	11.922	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.950	0.84	18.00	0.50	105.35	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.979	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.683	0.333	2.222	2.000	3.795	-1.398	No Precisa Armadura Cortante
	-239.081	12.726	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.943	0.84	18.00	0.50	105.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.965	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.678	0.333	2.222	2.000	3.795	-0.757	No Precisa Armadura Cortante
2676	-239.270	12.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.988	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.686	0.333	2.223	2.000	3.795	-1.308	No Precisa Armadura Cortante
	-239.112	12.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.945	0.84	18.00	0.50	105.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.968	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.679	0.333	2.222	2.000	3.795	-0.772	No Precisa Armadura Cortante
2676	-239.270	12.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.988	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.686	0.333	2.223	2.000	3.795	-1.308	No Precisa Armadura Cortante
	-239.112	12.707	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.945	0.84	18.00	0.50	105.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.968	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.679	0.333	2.222	2.000	3.795	-0.772	No Precisa Armadura Cortante
2679	-239.838	12.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.990	0.83	18.00	0.50	105.07	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.063	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.711	0.333	2.225	2.000	3.795	-1.241	No Precisa Armadura Cortante
	-239.745	12.786	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-0.795	No Precisa Armadura Cortante
2679	-239.838	12.147	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.990	0.83	18.00	0.50	105.07	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.063	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.711	0.333	2.225	2.000	3.795	-1.241	No Precisa Armadura Cortante
	-239.745	12.706	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-0.795	No Precisa Armadura Cortante
2682	-240.869	12.902	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.054	0.83	18.00	0.50	104.62	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.198	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.756	0.333	2.229	2.000	3.795	-0.678	No Precisa Armadura Cortante
	-240.701	12.399	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.044	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.176	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-1.071	No Precisa Armadura Cortante
2682	-240.869	12.902	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.054	0.83	18.00	0.50	104.62	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.198	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.756	0.333	2.229	2.000	3.795	-0.678	No Precisa Armadura Cortante
	-240.701	12.399	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.044	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.176	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-1.071	No Precisa Armadura Cortante
2685	-242.063	13.010	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.129	0.83	18.00	0.50	104.10	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.355	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.808	0.333	2.233	2.000	3.795	-0.634	No Precisa Armadura Cortante
	-241.381	12.405	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.085	0.83	18.00	0.50	104.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.263	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.777	0.333	2.230	2.000	3.795	-1.089	No Precisa Armadura Cortante
2685	-242.063	13.010	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.129	0.83	18.00	0.50	104.10	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.355	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.808	0.333	2.233	2.000	3.795	-0.634	No Precisa Armadura Cortante
	-241.381	12.405	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.085	0.83	18.00	0.50	104.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.263	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.777	0.333	2.230	2.000	3.795	-1.089	No Precisa Armadura Cortante
2688	-242.292	13.280	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.143	0.83	18.00	0.50	104.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.385	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.818	0.333	2.234	2.000	3.795	-0.419	No Precisa Armadura Cortante
	-240.735	12.257	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.046	0.83	18.00	0.50	104.68	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.181	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.750	0.333	2.228	2.000	3.795	-1.185	No Precisa Armadura Cortante
2688	-242.292	13.280	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.143	0.83	18.00	0.50	104.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.385	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.818	0.333	2.234	2.000	3.795	-0.419	No Precisa Armadura Cortante
	-240.735	12.257	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.046	0.83	18.00	0.50	104.68	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.181	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.750	0.333	2.228	2.000	3.795	-1.185	No Precisa Armadura Cortante
2691	-239.450	13.876	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.966	0.84	18.00	0.50	105.24	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.012	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.694	0.333	2.223	2.000	3.795	0.146	No Precisa Armadura Cortante
	-236.961	11.668	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.809	0.84	18.00	0.50	106.33	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.684	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.584	0.333	2.214	2.000	3.795	-1.362	No Precisa Armadura Cortante
2691	-239.450	13.876	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.966	0.84	18.00	0.50	105.24	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.012	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.694	0.333	2.223	2.000	3.795	0.146	No Precisa Armadura Cortante
	-236.961	11.668	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.809	0.84	18.00	0.50	106.33	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.684	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.584	0.333	2.214	2.000	3.795	-1.362	No Precisa Armadura Cortante
2692	-150.647	15.249	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.415	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.357	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.773	0.366	1.866	1.866	3.795	3.552	No Precisa Armadura Cortante
	-149.307	10.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.181	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.756	0.368	1.860	1.860	3.795	0.001	No Precisa Armadura Cortante
2692	-150.647	15.249	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.415	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.357	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.773	0.366	1.866	1.866	3.795	3.552	No Precisa Armadura Cortante
	-149.307	10.757	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.181	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.756	0.368	1.860	1.860	3.795	0.001	No Precisa Armadura Cortante
2694	-230.004	14.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.375	0.87	18.00	0.50	109.37	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.772	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.281	0.333	2.188	2.000	3.795	1.312	No Precisa Armadura Cortante
	-227.405	11.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.213	0.88	18.00	0.50	110.51	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.431	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.167	0.333	2.178	2.000	3.795	-1.577	No Precisa Armadura Cortante
2694	-230.004	14.934	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.375	0.87	18.00	0.50	109.37	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.772	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.281	0.333	2.188	2.000	3.795	1.312	No Precisa Armadura Cortante
	-227.406	11.180	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.213	0.88	18.00	0.50	110.51	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.431	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	13.167	0.333	2.178	2.000	3.795	-1.577	No Precisa Armadura Cortante
2695	-131.274	11.594	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.205	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.814	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.517	0.391	1.778	1.778	3.795	0.855	No Precisa Armadura Cortante
	-124.784	16.518	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.799	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.962	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.431	0.401	1.748	1.748	3.795	4.831	No Precisa Armadura Cortante
2695	-131.274	-11.694	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.205	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.814	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.517	0.391	1.778	1.778	3.795	0.855	No Precisa Armadura Cortante
	-124.784	16.518	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.799	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.962	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.431	0.401	1.748	1.748	3.795	4.831	No Precisa Armadura Cortante
2697	-209.301	10.037	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.081	0.94	18.00	0.50	118.43	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.055	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	12.375	0.333	2.109	2.000	3.795	-1.856	No Precisa Armadura Cortante
	-208.751	16.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.047	0.94	18.00	0.50	118.67	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.983	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	12.351	0.333	2.107	2.000	3.795	3.245	No Precisa Armadura Cortante
2697	-209.301	10.037	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.081	0.94	18.00	0.50	118.43	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.055	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	12.375	0.333	2.109	2.000	3.795	-1.856	No Precisa Armadura Cortante
	-208.751	16.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.047	0.94	18.00	0.50	118.67	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.983	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	12.351	0.333	2.107	2.000	3.795	3.245	No Precisa Armadura Cortante
2698	-113.550	11.235	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.097	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.488	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.283	0.419	1.694	1.694	3.795	0.756	No Precisa Armadura Cortante
	-80.736	19.775	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.046	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.181	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	7.664	No Precisa Armadura Cortante
2698	-113.550	11.235	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.097	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.488	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.283	0.419	1.694	1.694	3.795	0.756	No Precisa Armadura Cortante
	-80.736	19.775	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.046	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.181	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	7.664	No Precisa Armadura Cortante
2700	-210.848	9.708	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.178	0.93	18.00	0.50	117.75	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.258	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	12.442	0.333	2.115	2.000	3.795	-2.170	No Precisa Armadura Cortante
	-188.228	20.732	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.389	0.98	18.00	0.50	123.28	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.602	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.890	0.333	2.065	2.000	3.795	7.017	No Precisa Armadura Cortante
2700	-210.848	9.708	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.178	0.93	18.00	0.50	117.75	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.258	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	12.442	0.333	2.115	2.000	3.795	-2.170	No Precisa Armadura Cortante
	-188.228	20.732	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.389	0.98	18.00	0.50	123.28	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.602	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	11.890	0.333	2.065	2.000	3.795	7.017	No Precisa Armadura Cortante
2701	-155.490	9.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.717	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.991	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.837	0.361	1.887	1.887	3.795	-0.838	No Precisa Armadura Cortante
	-151.636	19.020	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.477	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.486	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.787	0.365	1.870	1.870	3.795	6.534	No Precisa Armadura Cortante
2701	-155.490	9.782	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.717	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.991	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.837	0.361	1.887	1.887	3.795	-0.835	No Precisa Armadura Cortante
	-151.636	19.020	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.477	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.486	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.787	0.365	1.870	1.870	3.795	6.534	No Precisa Armadura Cortante
2702	-152.027	8.262	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.127	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.850	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.924	0.353	1.915	1.915	3.795	-2.121	No Precisa Armadura Cortante
	-122.724	24.174	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.670	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.697	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.404	0.404	1.738	1.738	3.795	10.932	No Precisa Armadura Cortante
2702	-152.027	8.262	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.127	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.850	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.924	0.353	1.915	1.915	3.795	-2.121	No Precisa Armadura Cortante
	-122.724	24.175	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.670	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.697	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.404	0.404	1.738	1.738	3.795	10.932	No Precisa Armadura Cortante
2703	-125.632	10.693	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.855	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.080	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.443	0.399	1.752	1.752	3.795	0.203	No Precisa Armadura Cortante
	-113.990	19.194	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.124	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.545	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.289	0.416	1.696	1.696	3.795	7.068	No Precisa Armadura Cortante
2703	-125.632	10.693	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.855	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.080	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.443	0.399	1.752	1.752	3.795	0.203	No Precisa Armadura Cortante
	-113.990	19.194	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.124	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.545	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.289	0.416	1.696	1.696	3.795	7.068	No Precisa Armadura Cortante
2704	-103.004	11.276	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.438	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.104	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.146	0.438	1.642	1.642	3.795	0.897	No Precisa Armadura Cortante
	-68.691	20.679	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.293	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.600	<Vy Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.725	0.521	1.460	1.460	3.795	8.693	Necesita Armadura Adicional
2704	-103.004	11.276	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.438	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.104	>=Vy No Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	10.146	0.438	1.642	1.642	3.795	0.897	No Precisa Armadura Cortante
	-68.691	20.675	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.293	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.600	<Vy Precisa Armadura Cortante	cercos Ø8 a 0.12	8.378	9.725	0.521	1.460	1.460	3.795	8.693	Necesita Armadura Adicional

Se considera válido al incluir un pilote adicional reduciendo los esfuerzos.

ENVOLVENTE <N-Vz >
concomitantes

Az fl 1.00 Cargas Puntuales

Vz 1.50

Barra Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γ_c	γ_s	θ [°]	A_{sl} [mm²]	A_c [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ_{cd} [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρ_l	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cot2	V_{cu} [t]	β	cot(θ_e)	cot(θ)	$f_{y\alpha,d}$ [N/mm²]	As necesaria cm2	
2650	-113.653	1.658	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.103	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.501	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.284	0.419	1.695	1.695	3.795	-6.847	No Precisa Armadura Cortante
	-104.509	1.791	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.532	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.301	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.165	0.435	1.650	1.650	3.795	-6.646	No Precisa Armadura Cortante
2650	-113.653	1.658	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.103	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.501	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.284	0.419	1.695	1.695	3.795	-6.847	No Precisa Armadura Cortante
	-104.509	1.791	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.532	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.301	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.165	0.435	1.650	1.650	3.795	-6.646	No Precisa Armadura Cortante
2652	-135.731	1.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.399	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.576	0.385	1.799	1.799	3.795	-7.222	No Precisa Armadura Cortante
	-132.100	1.598	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.256	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.922	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-7.087	No Precisa Armadura Cortante
2652	-135.731	1.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.399	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.576	0.385	1.799	1.799	3.795	-7.222	No Precisa Armadura Cortante
	-132.100	1.598	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.256	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.922	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-7.087	No Precisa Armadura Cortante
2655	-151.068	1.132	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.442	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.412	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.779	0.366	1.868	1.868	3.795	-7.657	No Precisa Armadura Cortante
	-150.410	1.209	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.326	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.770	0.366	1.865	1.865	3.795	-7.588	No Precisa Armadura Cortante
2655	-151.068	1.132	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.442	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.412	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.779	0.366	1.868	1.868	3.795	-7.657	No Precisa Armadura Cortante
	-150.410	1.209	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.326	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.770	0.366	1.865	1.865	3.795	-7.588	No Precisa Armadura Cortante
2658	-159.175	0.814	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.476	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.886	0.356	1.903	1.903	3.795	-7.994	No Precisa Armadura Cortante
	-158.699	0.768	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.414	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.880	0.357	1.901	1.901	3.795	-8.025	No Precisa Armadura Cortante
2658	-159.175	0.814	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.476	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.886	0.356	1.903	1.903	3.795	-7.994	No Precisa Armadura Cortante
	-158.699	0.768	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.414	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.880	0.357	1.901	1.901	3.795	-8.025	No Precisa Armadura Cortante
2661	-161.836	0.507	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.825	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	-8.266	No Precisa Armadura Cortante
	-161.195	0.487	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.075	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.741	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	-8.290	No Precisa Armadura Cortante
2661	-161.836	0.507	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.825	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	-8.266	No Precisa Armadura Cortante
	-161.196	0.487	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.075	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.741	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	-8.290	No Precisa Armadura Cortante
2664	-161.662	0.300	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.104	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.802	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.919	0.354	1.914	1.914	3.795	-8.428	No Precisa Armadura Cortante
	-161.214	0.245	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.076	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.744	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	-8.467	No Precisa Armadura Cortante
2664	-161.662	0.300	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.104	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.802	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.919	0.354	1.914	1.914	3.795	-8.428	No Precisa Armadura Cortante
	-161.214	0.245	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.076	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.744	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	-8.467	No Precisa Armadura Cortante
2667	-160.693	0.269	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.043	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.674	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.906	0.355	1.909	1.909	3.795	-8.450	No Precisa Armadura Cortante
	-160.474	0.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	-8.648	No Precisa Armadura Cortante
2667	-160.693	0.269	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.043	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.674	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.906	0.355	1.909	1.909	3.795	-8.450	No Precisa Armadura Cortante
	-160.474	0.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	-8.648	No Precisa Armadura Cortante
2670	-159.833	0.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.524	No Precisa Armadura Cortante
	-159.787	0.116	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.987	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.894	0.356	1.906	1.906	3.795	-8.554	No Precisa Armadura Cortante
2670	-159.833	0.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.524	No Precisa Armadura Cortante
	-159.787	0.116	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.987	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.894	0.356	1.906	1.906	3.795	-8.554	No Precisa Armadura Cortante
2673	-159.467	0.200	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.514	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.890	0.356	1.904	1.904	3.795	-8.484	No Precisa Armadura Cortante
	-159.394	0.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.962	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.505	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	-8.360	No Precisa Armadura Cortante
2673	-159.467	0.200	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.514	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.890	0.355	1.904	1.904	3.795	-8.484	No Precisa Armadura Cortante
	-159.394	0.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.962	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.505	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	-8.360	No Precisa Armadura Cortante
2676	-159.613	0.127	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.970	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	-8.543	No Precisa Armadura Cortante
	-159.408	0.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.507	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	-8.277	No Precisa Armadura Cortante
2676	-159.613	0.127	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.970	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	-8.543	No Precisa Armadura Cortante
	-159.408	0.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.507	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	-8.277	No Precisa Armadura Cortante
2679	-159.892	0.041	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.993	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.570	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	-8.615	No Precisa Armadura Cortante
	-159.830	0.677	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.989	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.189	No Precisa Armadura Cortante
2679	-159.892	0.041	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.993	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.570	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	-8.615	No Precisa Armadura Cortante
	-159.830	0.677	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.989	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.189	No Precisa Armadura Cortante
2682	-160.578	0.423	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.038	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.660	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.905	0.355	1.909	1.909	3.795	-8.319	No Precisa Armadura Cortante
	-160.457	0.388	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.028	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.646	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	-8.345	No Precisa Armadura Cortante
2682	-160.578	0.423	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.660	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.905	0.355	1.909	1.909	3.795	-8.319	No Precisa Armadura Cortante
	-160.457	0.388	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.029	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.648	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	-8.345	No Precisa Armadura Cortante
2685	-161.376	0.587	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.086	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.765	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.915	0.354	1.912	1.912	3.795	-8.197	No Precisa Armadura Cortante
	-160.907	0.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.057	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.703	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.909	0.355	1.910	1.910	3.795	-8.194	No Precisa Armadura Cortante
2685	-161.376	0.587	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.086	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.765	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.915	0.354	1.912	1.912	3.795	-8.197	No Precisa Armadura Cortante
	-160.907	0.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.057	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.703	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.909	0.355	1.910	1.910	3.795	-8.194	No Precisa Armadura Cortante
2688	-161.628	0.828	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.098	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.785	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.917	0.354	1.913	1.913	3.795	-8.014	No Precisa Armadura Cortante
	-160.480	0.843	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.031	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.904	0.355	1.909	1.909	3.795	-7.985	No Precisa Armadura Cortante
2688	-161.628	0.828	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.090	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.785	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.917	0.354	1.913	1.913	3.795	-8.014	No Precisa Armadura Cortante
	-160.480	0.843	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.031	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.904	0.355	1.909	1.909	3.795	-7.985	No Precisa Armadura Cortante
2691	-159.633	1.122	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.977	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.536	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.892	0.356	1.905	1.905	3.795	-7.754	No Precisa Armadura Cortante
	-157.967	1.165	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.318	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.870	0.358	1.898	1.898	3.795	-7.710	No Precisa Armadura Cortante
2691	-159.633	1.122	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.977	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.536	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.892	0.356	1.905	1.905	3.795	-7.754	No Precisa Armadura Cortante
	-157.967	1.165	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.873	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.318	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.870	0.358	1.898	1.898	3.795	-7.710	No Precisa Armadura Cortante
2692	-100.431	3.345	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.277	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.768	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.113	0.443	1.629	1.629	3.795	-0.133	No Precisa Armadura Cortante
	-99.538	3.897	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.101	0.445	1.625	1.625	3.795	-0.956	No Precisa Armadura Cortante
2692	-100.431	3.345	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.277	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.768	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.113	0.443	1.629	1.629	3.795	-0.133	No Precisa Armadura Cortante
	-99.538	3.897	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.101	0.445	1.625	1.625	3.795	-0.956	No Precisa Armadura Cortante
2694	-153.336	1.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.710	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.809	0.363	1.877	1.877	3.795	-7.425	No Precisa Armadura Cortante
	-151.603	1.465	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.475	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.786	0.365	1.870	1.870	3.795	-7.397	No Precisa Armadura Cortante
2694	-153.336	1.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.584	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.710	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.809	0.363	1.877	1.877	3.795	-7.425	No Precisa Armadura Cortante
	-151.603	1.466	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.475	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.482	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.786	0.365	1.870	1.870	3.795	-7.397	No Precisa Armadura Cortante
2695	-87.516	8.120	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.470	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.071	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.949	0.471	1.562	1.562	3.795	-1.452	No Precisa Armadura Cortante
	-83.165	8.656	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.199	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.503	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.896	0.481	1.539	1.539	3.795	-1.063	No Precisa Armadura Cortante
2695	-87.516	8.120	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.470	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.071	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.949	0.471	1.562	1.562	3.795	-1.452	No Precisa Armadura Cortante
	-83.165	8.656	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.199	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.503	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.896	0.481	1.539	1.539	3.795	-1.063	No Precisa Armadura Cortante
2697	-139.534	1.197	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.721	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.898	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.626	0.380	1.816	1.816	3.795	-7.483	No Precisa Armadura Cortante
	-139.167	2.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.698	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.850	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.621	0.380	1.814	1.814	3.795	-6.696	No Precisa Armadura Cortante
2697	-139.534	1.197	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.721	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.898	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.626	0.380	1.816	1.816	3.795	-7.483	No Precisa Armadura Cortante
	-139.167	2.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.698	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.850	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.621	0.380	1.814	1.814	3.795	-6.696	No Precisa Armadura Cortante
2698	-76.700	5.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.731	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.806	0.501	1.499	1.499	3.795	-3.353	No Precisa Armadura Cortante
	-53.824	6.126	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.364	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.570	0.572	1.373	1.373	3.795	-2.734	No Precisa Armadura Cortante
2698	-76.700	5.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.731	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.806	0.501	1.499	1.499	3.795	-3.353	No Precisa Armadura Cortante
	-53.824	6.126	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.364	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.649	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.570	0.572	1.373	1.373	3.795	-2.734	No Precisa Armadura Cortante
2700	-140.565	1.399	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.785	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.033	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.640	0.379	1.821	1.821	3.795	-7.334	No Precisa Armadura Cortante
	-132.152	2.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.260	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.929	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-6.253	No Precisa Armadura Cortante
2700	-140.565	1.399	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.785	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.033	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.640	0.379	1.821	1.821	3.795	-7.334	No Precisa Armadura Cortante
	-132.152	2.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.260	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.929	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-6.253	No Precisa Armadura Cortante
2701	-103.653	7.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.478	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.189	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.154	0.437	1.645	1.645	3.795	-2.139	No Precisa Armadura Cortante
	-101.090	6.964	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.318	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.852	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.121	0.442	1.632	1.632	3.795	-3.308	No Precisa Armadura Cortante
2701	-103.663	7.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.478	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.189	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.154	0.437	1.645	1.645	3.795	-2.139	No Precisa Armadura Cortante
	-101.090	6.964	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.318	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.852	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.121	0.442	1.632	1.632	3.795	-3.308	No Precisa Armadura Cortante
2702	-108.018	1.357	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.751	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.762	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.211	0.428	1.667	1.667	3.795	-7.027	No Precisa Armadura Cortante
	-81.816	2.625	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.114	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.373	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.879	0.484	1.532	1.532	3.795	-5.837	No Precisa Armadura Cortante
2702	-108.018	1.357	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.751	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.762	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.211	0.428	1.667	1.667	3.795	-7.027	No Precisa Armadura Cortante
	-81.816	2.625	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.114	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.373	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.879	0.484	1.532	1.532	3.795	-5.837	No Precisa Armadura Cortante
2703	-83.788	5.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.582	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.903	0.480	1.543	1.543	3.795	-3.382	No Precisa Armadura Cortante
	-75.983	4.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.750	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.809	0.500	1.500	1.500	3.795	-4.261	No Precisa Armadura Cortante
2703	-83.788	5.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.237	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.582	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.903	0.480	1.543	1.543	3.795	-3.382	No Precisa Armadura Cortante
	-75.983	4.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.750	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.809	0.500	1.500	1.500	3.795	-4.261	No Precisa Armadura Cortante
2704	-68.669	2.880	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.292	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.597	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.725	0.521	1.460	1.460	3.795	-5.432	No Precisa Armadura Cortante
	-45.794	1.866	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.862	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.595	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.500	0.606	1.324	1.324	3.795	-6.059	No Precisa Armadura Cortante
2704	-68.669	2.880	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.292	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.597	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.725	0.521	1.460	1.460	3.795	-5.432	No Precisa Armadura Cortante
	-45.794	1.866	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.862	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.595	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.500	0.606	1.324	1.324	3.795	-6.059	No Precisa Armadura Cortante

ENVOLVENTE <N-Vz > concomitantes

Axil 1.50 Cargas Puntuales
Vz 1.50

Barra	N	Vz	bo	h	d	f_{ck}	f_{yk}	γc	γs	θ	A_{l}	A_{c}	cotan (θ)	f_{cd}	f_{yd}	σ'cd	K	f_{1cd}	Función de θ	V_{u1}	Comprobación Compresión Oblicua Alma	ξ	ρl	V_{cu}	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vsu	δ	cot($θ_{e,ed}$)	cot ($θ_i$)	$f_{y\alpha d}$	As necesaria	
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[cm²]	[cm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]				[t]				[N/mm²]	cm2	
2660	-170.480	1.658	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.655	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.960	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.035	0.345	1.951	1.951	3.795	-7.443	No Precisa Armadura Cortante
	-156.764	1.791	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.798	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.160	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.854	0.359	1.892	1.892	3.795	-7.193	No Precisa Armadura Cortante
2660	-170.480	1.658	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.655	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.960	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.035	0.345	1.951	1.951	3.795	-7.443	No Precisa Armadura Cortante
	-156.764	1.791	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.798	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.160	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.854	0.359	1.892	1.892	3.795	-7.193	No Precisa Armadura Cortante
2652	-203.597	1.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.725	0.96	18.00	0.50	120.93	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.306	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.125	0.333	2.086	2.000	3.795	-8.452	No Precisa Armadura Cortante
	-198.160	1.538	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.384	0.98	18.00	0.50	123.31	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.592	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.887	0.333	2.065	2.000	3.795	-8.166	No Precisa Armadura Cortante
2652	-203.597	1.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.725	0.96	18.00	0.50	120.93	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.306	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.125	0.333	2.086	2.000	3.795	-8.452	No Precisa Armadura Cortante
	-198.160	1.538	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.384	0.98	18.00	0.50	123.31	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.592	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.887	0.333	2.065	2.000	3.795	-8.166	No Precisa Armadura Cortante
2655	-226.692	1.132	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.163	0.88	18.00	0.50	110.86	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.326	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.132	0.333	2.175	2.000	3.795	-9.524	No Precisa Armadura Cortante
	-225.615	1.209	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.101	0.88	18.00	0.50	111.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.196	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.089	0.333	2.171	2.000	3.795	-9.428	No Precisa Armadura Cortante
2655	-226.692	1.132	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.163	0.88	18.00	0.50	110.86	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.326	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.132	0.333	2.175	2.000	3.795	-9.524	No Precisa Armadura Cortante
	-225.615	1.209	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.101	0.88	18.00	0.50	111.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.196	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.089	0.333	2.171	2.000	3.795	-9.428	No Precisa Armadura Cortante
2658	-238.763	0.814	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.923	0.84	18.00	0.50	105.54	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.922	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.664	0.333	2.221	2.000	3.795	-10.198	No Precisa Armadura Cortante
	-238.049	0.768	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.878	0.84	18.00	0.50	105.85	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.828	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.632	0.333	2.218	2.000	3.795	-10.210	No Precisa Armadura Cortante
2658	-238.763	0.814	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.923	0.84	18.00	0.50	105.54	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.922	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.664	0.333	2.221	2.000	3.795	-10.198	No Precisa Armadura Cortante
	-238.049	0.768	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.878	0.84	18.00	0.50	105.85	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.828	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.632	0.333	2.218	2.000	3.795	-10.210	No Precisa Armadura Cortante
2661	-242.764	0.507	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.172	0.82	18.00	0.50	103.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.446	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.838	0.333	2.235	2.000	3.795	-10.581	No Precisa Armadura Cortante
	-241.793	0.467	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.112	0.83	18.00	0.50	104.22	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.320	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.796	0.333	2.232	2.000	3.795	-10.579	No Precisa Armadura Cortante
2661	-242.764	0.507	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.172	0.82	18.00	0.50	103.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.446	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.838	0.333	2.235	2.000	3.795	-10.581	No Precisa Armadura Cortante
	-241.793	0.467	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.112	0.83	18.00	0.50	104.22	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.320	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.796	0.333	2.232	2.000	3.795	-10.579	No Precisa Armadura Cortante
2664	-242.453	0.360	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.156	0.82	18.00	0.50	103.81	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.412	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.827	0.333	2.235	2.000	3.795	-10.736	No Precisa Armadura Cortante
	-241.821	0.245	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.114	0.83	18.00	0.50	104.20	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.323	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.798	0.333	2.232	2.000	3.795	-10.756	No Precisa Armadura Cortante
2664	-242.453	0.360	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.156	0.82	18.00	0.50	103.81	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.412	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.827	0.333	2.235	2.000	3.795	-10.736	No Precisa Armadura Cortante
	-241.821	0.245	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.114	0.83	18.00	0.50	104.20	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.323	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.798	0.333	2.232	2.000	3.795	-10.756	No Precisa Armadura Cortante
2667	-241.026	0.259	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.064	0.83	18.00	0.50	104.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.763	0.333	2.228	2.000	3.795	-10.717	No Precisa Armadura Cortante
	-240.711	0.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.044	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-10.907	No Precisa Armadura Cortante
2667	-241.026	0.259	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.064	0.83	18.00	0.50	104.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.219	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.763	0.333	2.228	2.000	3.795	-10.717	No Precisa Armadura Cortante
	-240.711	0.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.044	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-10.907	No Precisa Armadura Cortante
2670	-239.730	0.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-10.756	No Precisa Armadura Cortante
	-239.696	0.116	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.981	0.83	18.00	0.50	105.13	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.044	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.705	0.333	2.224	2.000	3.795	-10.765	No Precisa Armadura Cortante
2670	-239.730	0.154	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-10.756	No Precisa Armadura Cortante
	-239.696	0.116	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.981	0.83	18.00	0.50	105.13	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.044	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.705	0.333	2.224	2.000	3.795	-10.765	No Precisa Armadura Cortante
2673	-239.201	0.200	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.950	0.84	18.00	0.50	105.35	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.979	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.683	0.333	2.222	2.000	3.795	-10.701	No Precisa Armadura Cortante
	-239.091	0.366	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.943	0.84	18.00	0.50	105.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.965	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.678	0.333	2.222	2.000	3.795	-10.573	No Precisa Armadura Cortante
2673	-239.201	0.200	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.950	0.84	18.00	0.50	105.35	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.979	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.683	0.333	2.222	2.000	3.795	-10.701	No Precisa Armadura Cortante
	-239.091	0.366	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.943	0.84	18.00	0.50	105.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.965	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.678	0.333	2.222	2.000	3.795	-10.573	No Precisa Armadura Cortante
2676	-239.270	0.127	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.988	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.686	0.333	2.223	2.000	3.795	-10.761	No Precisa Armadura Cortante
	-239.112	0.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.945	0.84	18.00	0.50	105.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.968	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.679	0.333	2.222	2.000	3.795	-10.492	No Precisa Armadura Cortante
2676	-239.270	0.127	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.988	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.686	0.333	2.223	2.000	3.795	-10.761	No Precisa Armadura Cortante
	-239.112	0.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.945	0.84	18.00	0.50	105.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.968	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.679	0.333	2.222	2.000	3.795	-10.497	No Precisa Armadura Cortante
2679	-239.838	0.041	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.990	0.83	18.00	0.50	105.07	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.063	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.711	0.333	2.225	2.000	3.795	-10.849	No Precisa Armadura Cortante
	-239.745	0.577	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-10.421	No Precisa Armadura Cortante
2679	-239.838	0.041	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.990	0.83	18.00	0.50	105.07	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.063	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.711	0.333	2.225	2.000	3.795	-10.849	No Precisa Armadura Cortante
	-239.745	0.577	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-10.421	No Precisa Armadura Cortante
2682	-240.849	0.423	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.054	0.83	18.00	0.50	104.62	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.198	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.756	0.333	2.229	2.000	3.795	-10.582	No Precisa Armadura Cortante
	-240.701	0.388	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.044	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.176	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-10.603	No Precisa Armadura Cortante
2682	-240.849	0.423	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.054	0.83	18.00	0.50	104.62	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.198	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.756	0.333	2.229	2.000	3.795	-10.582	No Precisa Armadura Cortante
	-240.701	0.388	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.044	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.176	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-10.603	No Precisa Armadura Cortante
2685	-242.063	0.587	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.129	0.83	18.00	0.50	104.10	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.355	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.808	0.333	2.233	2.000	3.795	-10.493	No Precisa Armadura Cortante
	-241.361	0.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.085	0.83	18.00	0.50	104.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.263	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.777	0.333	2.230	2.000	3.795	-10.471	No Precisa Armadura Cortante
2685	-242.063	0.587	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.129	0.83	18.00	0.50	104.10	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.355	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.808	0.333	2.233	2.000	3.795	-10.493	No Precisa Armadura Cortante
	-241.361	0.684	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.085	0.83	18.00	0.50	104.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.263	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.777	0.333	2.230	2.000	3.795	-10.471	No Precisa Armadura Cortante
2688	-242.252	0.820	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.143	0.83	18.00	0.50	104.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.385	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.818	0.333	2.234	2.000	3.795	-10.316	No Precisa Armadura Cortante
	-240.735	0.843	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.046	0.83	18.00	0.50	104.68	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.181	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.750	0.333	2.228	2.000	3.795	-10.244	No Precisa Armadura Cortante
2688	-242.252	0.820	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.143	0.83	18.00	0.50	104.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.385	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.818	0.333	2.234	2.000	3.795	-10.316	No Precisa Armadura Cortante
	-240.735	0.843	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.046	0.83	18.00	0.50	104.68	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.181	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.750	0.333	2.228	2.000	3.795	-10.244	No Precisa Armadura Cortante
2691	-239.480	1.122	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.866	0.84	18.00	0.50	105.24	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.012	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.694	0.333	2.223	2.000	3.795	-9.977	No Precisa Armadura Cortante
	-236.951	1.155	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.809	0.84	18.00	0.50	106.33	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.684	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.584	0.333	2.214	2.000	3.795	-9.864	No Precisa Armadura Cortante
2691	-239.480	1.122	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.866	0.84	18.00	0.50	105.24	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.012	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.694	0.333	2.223	2.000	3.795	-9.977	No Precisa Armadura Cortante
	-236.951	1.155	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.809	0.84	18.00	0.50	106.33	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.684	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.584	0.333	2.214	2.000	3.795	-9.864	No Precisa Armadura Cortante
2692	-150.647	9.945	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.415	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.773	0.366	1.866	1.866	3.795	-0.658	No Precisa Armadura Cortante
	-149.307	8.897	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.181	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.756	0.368	1.860	1.860	3.795	-1.476	No Precisa Armadura Cortante
2692	-150.647	9.945	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.415	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.357	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.773	0.366	1.866	1.866	3.795	-0.658	No Precisa Armadura Cortante
	-149.307	8.897	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.332	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.181	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.756	0.368	1.860	1.860	3.795	-1.476	No Precisa Armadura Cortante
2694	-230.004	1.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.375	0.87	18.00	0.50	109.37	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.772	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.281	0.333	2.188	2.000	3.795	-9.386	No Precisa Armadura Cortante
	-227.406	1.465	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.213	0.88	18.00	0.50	110.51	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.431	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.167	0.333	2.178	2.000	3.795	-9.287	No Precisa Armadura Cortante
2694	-230.004	1.454	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.375	0.87	18.00	0.50	109.37	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.772	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.281	0.333	2.188	2.000	3.795	-9.386	No Precisa Armadura Cortante
	-227.405	1.466	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.213	0.88	18.00	0.50	110.51	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.431	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	13.167	0.333	2.178	2.000	3.795	-9.287	No Precisa Armadura Cortante
2695	-131.274	8.120	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.205	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.814	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.517	0.391	1.778	1.778	3.795	-1.903	No Precisa Armadura Cortante
	-124.784	8.656	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.799	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.962	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.431	0.401	1.748	1.748	3.795	-1.488	No Precisa Armadura Cortante
2695	-131.274	8.120	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.205	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.814	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.517	0.391	1.778	1.778	3.795	-1.903	No Precisa Armadura Cortante
	-124.784	8.656	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.799	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.962	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.431	0.401	1.748	1.748	3.795	-1.488	No Precisa Armadura Cortante
2697	-209.301	1.197	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.081	0.94	18.00	0.50	118.43	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.055	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.375	0.333	2.109	2.000	3.795	-8.871	No Precisa Armadura Cortante
	-208.781	2.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.047	0.94	18.00	0.50	118.67	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.983	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.351	0.333	2.107	2.000	3.795	-8.069	No Precisa Armadura Cortante
2697	-209.301	1.197	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.081	0.94	18.00	0.50	118.43	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.055	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.375	0.333	2.109	2.000	3.795	-8.871	No Precisa Armadura Cortante
	-208.781	2.184	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.047	0.94	18.00	0.50	118.67	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.983	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.351	0.333	2.107	2.000	3.795	-8.069	No Precisa Armadura Cortante
2698	-113.550	6.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.097	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.488	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.283	0.419	1.694	1.694	3.795	-3.731	No Precisa Armadura Cortante
	-80.736	6.126	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.046	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.181	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	-2.968	No Precisa Armadura Cortante
2698	-113.550	6.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.097	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.488	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.283	0.419	1.694	1.694	3.795	-3.731	No Precisa Armadura Cortante
	-80.736	6.126	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.046	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.181	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	-2.968	No Precisa Armadura Cortante
2700	-210.848	1.399	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.178	0.93	18.00	0.50	117.75	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.258	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.442	0.333	2.115	2.000	3.795	-8.765	No Precisa Armadura Cortante
	-198.328	2.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.389	0.98	18.00	0.50	123.28	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.602	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.890	0.333	2.065	2.000	3.795	-7.334	No Precisa Armadura Cortante
2700	-210.848	1.399	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.178	0.93	18.00	0.50	117.75	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.258	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	12.442	0.333	2.115	2.000	3.795	-8.765	No Precisa Armadura Cortante
	-198.328	2.649	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.389	0.98	18.00	0.50	123.28	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.602	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	11.890	0.333	2.065	2.000	3.795	-7.334	No Precisa Armadura Cortante
2701	-155.480	7.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.717	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.991	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.837	0.361	1.887	1.887	3.795	-2.681	No Precisa Armadura Cortante
	-151.635	5.964	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.477	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.486	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.787	0.365	1.870	1.870	3.795	-3.836	No Precisa Armadura Cortante
2701	-155.480	7.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.717	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.991	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.837	0.361	1.887	1.887	3.795	-2.681	No Precisa Armadura Cortante
	-151.635	5.964	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.477	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.486	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.787	0.365	1.870	1.870	3.795	-3.836	No Precisa Armadura Cortante
2702	-162.027	1.357	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.127	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.850	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.924	0.353	1.915	1.915	3.795	-7.593	No Precisa Armadura Cortante
	-122.724	2.525	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.670	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.692	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.404	0.404	1.738	1.738	3.795	-6.253	No Precisa Armadura Cortante
2702	-162.027	1.357	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.127	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.850	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.924	0.353	1.915	1.915	3.795	-7.593	No Precisa Armadura Cortante
	-122.724	2.526	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.670	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.692	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.404	0.404	1.738	1.738	3.795	-6.253	No Precisa Armadura Cortante
2703	-125.682	5.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.855	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.080	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.443	0.399	1.752	1.752	3.795	-3.811	No Precisa Armadura Cortante
	-113.990	4.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.124	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.545	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.289	0.418	1.696	1.696	3.795	-4.642	No Precisa Armadura Cortante
2703	-125.682	5.642	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.855	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.080	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.443	0.399	1.752	1.752	3.795	-3.811	No Precisa Armadura Cortante
	-113.990	4.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.124	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.545	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.289	0.418	1.696	1.696	3.795	-4.642	No Precisa Armadura Cortante
2704	-103.004	2.880	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.438	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.104	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.146	0.438	1.642	1.642	3.795	-5.766	No Precisa Armadura Cortante
	-68.691	1.866	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.293	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.600	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.725	0.521	1.460	1.460	3.795	-6.237	No Precisa Armadura Cortante
2704	-103.004	2.880	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.438	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.104	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.146	0.438	1.642	1.642	3.795	-5.766	No Precisa Armadura Cortante
	-68.691	1.866	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.293	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.600	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.725	0.521	1.460	1.460	3.795	-6.237	No Precisa Armadura Cortante

ENVOLVENTE <Vy> concomitantes

Axil 1.00 Cargas Puntuales
Vy 1.50

Barra Elemento	N [t]	Vy [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{sl} [mm²]	A_c [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cot2	Vsu [t]	β	cot ($θ_e$)	cot (θ)	$f_{yα,d}$ [N/mm²]	Armadura necesaria cot	
2650	-104.609	8.018	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.532	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.301	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.165	0.435	1.650	1.650	3.795	-1.705	No Precisa Armadura Cortante
	-113.653	15.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.103	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.501	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.284	0.419	1.695	1.695	3.795	4.306	No Precisa Armadura Cortante
2650	-104.609	8.016	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.532	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.301	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.165	0.435	1.650	1.650	3.795	-1.705	No Precisa Armadura Cortante
	-113.653	15.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.103	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.501	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.284	0.419	1.695	1.695	3.795	4.306	No Precisa Armadura Cortante
2652	-132.100	8.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.256	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.922	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-1.220	No Precisa Armadura Cortante
	-135.731	15.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.399	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.576	0.385	1.799	1.799	3.795	3.639	No Precisa Armadura Cortante
2652	-132.100	8.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.256	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.922	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-1.220	No Precisa Armadura Cortante
	-135.731	15.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.399	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.576	0.385	1.799	1.799	3.795	3.639	No Precisa Armadura Cortante
2655	-150.410	10.700	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.326	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.770	0.366	1.865	1.865	3.795	-0.056	No Precisa Armadura Cortante
	-151.068	13.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.442	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.412	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.779	0.366	1.868	1.868	3.795	2.432	No Precisa Armadura Cortante
2655	-150.410	10.700	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.326	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.770	0.366	1.865	1.865	3.795	-0.056	No Precisa Armadura Cortante
	-151.068	13.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.442	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.412	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.779	0.366	1.868	1.868	3.795	2.432	No Precisa Armadura Cortante
2658	-159.176	12.003	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.478	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.888	0.356	1.903	1.903	3.795	0.886	No Precisa Armadura Cortante
	-158.698	12.798	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.414	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.880	0.357	1.901	1.901	3.795	1.522	No Precisa Armadura Cortante
2658	-159.176	12.003	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.476	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.888	0.356	1.903	1.903	3.795	0.886	No Precisa Armadura Cortante
	-158.699	12.798	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.414	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.880	0.357	1.901	1.901	3.795	1.522	No Precisa Armadura Cortante
2661	-161.836	12.717	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.825	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	1.425	No Precisa Armadura Cortante
	-161.195	12.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.075	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.741	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	1.046	No Precisa Armadura Cortante
2661	-161.836	12.717	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.115	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.825	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	1.425	No Precisa Armadura Cortante
	-161.185	12.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.075	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.741	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	1.046	No Precisa Armadura Cortante
2664	-161.662	13.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.104	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.802	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.919	0.354	1.914	1.914	3.795	1.656	No Precisa Armadura Cortante
	-161.214	12.032	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.076	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.744	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	0.886	No Precisa Armadura Cortante
2664	-161.662	13.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.104	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.802	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.919	0.354	1.914	1.914	3.795	1.656	No Precisa Armadura Cortante
	-161.214	12.032	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.076	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.744	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	0.886	No Precisa Armadura Cortante
2667	-160.683	13.071	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.043	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.674	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.906	0.355	1.909	1.909	3.795	1.718	No Precisa Armadura Cortante
	-160.475	12.835	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	0.898	No Precisa Armadura Cortante
2667	-160.683	13.071	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.043	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.674	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.906	0.355	1.909	1.909	3.795	1.718	No Precisa Armadura Cortante
	-160.475	12.035	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	0.898	No Precisa Armadura Cortante
2670	-159.832	13.056	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	1.715	No Precisa Armadura Cortante
	-159.798	12.122	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.987	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.558	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.894	0.356	1.906	1.906	3.795	0.974	No Precisa Armadura Cortante
2670	-159.832	13.056	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	1.715	No Precisa Armadura Cortante
	-159.798	12.122	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.987	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.558	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.894	0.356	1.906	1.906	3.795	0.974	No Precisa Armadura Cortante
2673	-159.400	13.028	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.506	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	1.698	No Precisa Armadura Cortante
	-159.462	12.236	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.966	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.514	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.890	0.356	1.904	1.904	3.795	1.068	No Precisa Armadura Cortante
2673	-159.400	13.028	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.506	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	1.698	No Precisa Armadura Cortante
	-159.462	12.236	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.966	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.514	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.890	0.356	1.904	1.904	3.795	1.068	No Precisa Armadura Cortante
2676	-159.416	13.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.508	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	1.665	No Precisa Armadura Cortante
	-159.606	12.354	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.969	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	1.161	No Precisa Armadura Cortante
2676	-159.415	13.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.508	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	1.665	No Precisa Armadura Cortante
	-159.606	12.364	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.969	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	1.161	No Precisa Armadura Cortante
2679	-159.935	13.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.563	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	1.681	No Precisa Armadura Cortante
	-159.887	12.465	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.993	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.570	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	1.246	No Precisa Armadura Cortante
2679	-159.835	13.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.563	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	1.681	No Precisa Armadura Cortante
	-159.887	12.466	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.993	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.570	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	1.240	No Precisa Armadura Cortante
2682	-160.588	13.044	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.659	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.905	0.355	1.909	1.909	3.795	1.698	No Precisa Armadura Cortante
	-160.478	12.549	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	1.306	No Precisa Armadura Cortante
2682	-160.588	13.044	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.659	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.905	0.355	1.909	1.909	3.795	1.698	No Precisa Armadura Cortante
	-160.478	12.549	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	1.306	No Precisa Armadura Cortante
2685	-161.339	13.157	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.084	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.760	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.915	0.354	1.912	1.912	3.795	1.779	No Precisa Armadura Cortante
	-160.849	12.558	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.059	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.709	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.910	0.354	1.911	1.911	3.795	1.308	No Precisa Armadura Cortante
2685	-161.336	13.157	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.084	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.760	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.915	0.354	1.912	1.912	3.795	1.779	No Precisa Armadura Cortante
	-160.840	12.650	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.059	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.709	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.910	0.354	1.911	1.911	3.795	1.308	No Precisa Armadura Cortante
2688	-161.445	13.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.090	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.774	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.916	0.354	1.913	1.913	3.795	2.003	No Precisa Armadura Cortante
	-160.878	12.413	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.660	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.905	0.355	1.909	1.909	3.795	1.197	No Precisa Armadura Cortante
2688	-161.445	13.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.090	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.774	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.916	0.354	1.913	1.913	3.795	2.003	No Precisa Armadura Cortante
	-160.878	12.413	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.660	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.905	0.355	1.909	1.909	3.795	1.197	No Precisa Armadura Cortante
2691	-158.606	14.025	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.869	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	2.488	No Precisa Armadura Cortante
	-158.102	12.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.881	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.335	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.872	0.358	1.898	1.898	3.795	0.912	No Precisa Armadura Cortante
2691	-158.606	14.025	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.869	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	2.488	No Precisa Armadura Cortante
	-158.102	12.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.881	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.335	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.872	0.358	1.898	1.898	3.795	0.917	No Precisa Armadura Cortante
2692	-100.034	15.586	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.252	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.714	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.108	0.444	1.627	1.627	3.795	4.347	No Precisa Armadura Cortante
	-99.841	11.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.249	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.702	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.106	0.444	1.627	1.627	3.795	0.797	No Precisa Armadura Cortante
2692	-100.038	15.585	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.252	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.714	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.108	0.444	1.627	1.627	3.795	4.347	No Precisa Armadura Cortante
	-99.841	11.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.246	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.702	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.106	0.444	1.627	1.627	3.795	0.797	No Precisa Armadura Cortante
2694	-153.318	16.068	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.578	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.694	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.806	0.363	1.877	1.877	3.795	3.381	No Precisa Armadura Cortante
	-151.729	11.318	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.499	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.788	0.365	1.870	1.870	3.795	0.420	No Precisa Armadura Cortante
2694	-153.318	15.068	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.578	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.694	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.806	0.363	1.877	1.877	3.795	3.381	No Precisa Armadura Cortante
	-151.729	11.318	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.483	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.499	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.788	0.365	1.870	1.870	3.795	0.420	No Precisa Armadura Cortante
2695	-83.189	16.518	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.199	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.503	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.896	0.481	1.539	1.539	3.795	5.256	No Precisa Armadura Cortante
	-87.616	11.694	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.470	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.071	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.849	0.471	1.562	1.562	3.795	1.306	No Precisa Armadura Cortante
2695	-83.189	16.518	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.199	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.503	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.896	0.481	1.539	1.539	3.795	5.256	No Precisa Armadura Cortante
	-87.616	11.694	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.470	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.071	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.849	0.471	1.562	1.562	3.795	1.305	No Precisa Armadura Cortante
2697	-139.276	16.709	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.705	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.864	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.623	0.380	1.815	1.815	3.795	4.830	No Precisa Armadura Cortante
	-139.422	10.313	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.714	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.883	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.625	0.380	1.815	1.815	3.795	-0.248	No Precisa Armadura Cortante
2697	-139.276	16.709	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.705	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.864	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.623	0.380	1.815	1.815	3.795	4.830	No Precisa Armadura Cortante
	-139.422	10.315	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.714	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.883	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.625	0.380	1.815	1.815	3.795	-0.248	No Precisa Armadura Cortante
2698	-83.824	19.775	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.984	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.649	<Vy Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.570	0.572	1.373	1.373	3.795	8.099	Valida la armadura del pilote
	-76.700	11.335	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.731	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.520	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.806	0.501	1.499	1.499	3.795	1.134	No Precisa Armadura Cortante
2698	-83.824	19.776	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.984	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.649	<Vy Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.570	0.572	1.373	1.373	3.795	8.099	Valida la armadura del pilote
	-75.709	11.335	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.731	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.520	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.806	0.501	1.499	1.499	3.795	1.134	No Precisa Armadura Cortante
2700	-132.895	20.949	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.306	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.027	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.538	0.389	1.786	1.786	3.795	8.263	No Precisa Armadura Cortante
	-139.790	9.932	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.737	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.932	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.630	0.380	1.817	1.817	3.795	-0.554	No Precisa Armadura Cortante
2700	-132.894	20.948	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.306	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.027	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.538	0.389	1.786	1.786	3.795	8.263	No Precisa Armadura Cortante
	-139.790	9.932	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.737	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.832	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.630	0.380	1.817	1.817	3.795	-0.554	No Precisa Armadura Cortante
2701	-101.468	19.266	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.342	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.902	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.126	0.441	1.634	1.634	3.795	7.254	No Precisa Armadura Cortante
	-103.274	10.026	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.139	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.149	0.437	1.643	1.643	3.795	-0.098	No Precisa Armadura Cortante
2701	-101.468	19.266	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.342	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.902	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.126	0.441	1.634	1.634	3.795	7.254	No Precisa Armadura Cortante
	-103.274	10.026	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.455	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.139	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.149	0.437	1.643	1.643	3.795	-0.098	No Precisa Armadura Cortante
2702	-81.988	24.363	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.124	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.345	<Vy Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.881	0.484	1.533	1.533	3.795	11.494	Necesita Armadura Adicional
	-107.855	8.441	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.740	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.209	0.429	1.666	1.666	3.795	-1.403	No Precisa Armadura Cortante
2702	-81.988	24.363	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.124	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.345	<Vy Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.881	0.484	1.533	1.533	3.795	11.494	Necesita Armadura Adicional
	-107.855	8.441	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.741	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.740	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	10.209	0.429	1.666	1.666	3.795	-1.403	No Precisa Armadura Cortante
2703	-77.028	19.478	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.814	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.694	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.822	0.497	1.506	1.506	3.795	7.683	No Precisa Armadura Cortante
	-82.717	10.974	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.170	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.441	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.890	0.482	1.537	1.537	3.795	0.860	No Precisa Armadura Cortante
2703	-77.028	19.478	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.814	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.694	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.822	0.497	1.506	1.506	3.795	7.683	No Precisa Armadura Cortante
	-82.717	10.974	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.170	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.441	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.890	0.482	1.537	1.537	3.795	0.860	No Precisa Armadura Cortante
2704	-48.195	20.882	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.012	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.910	<Vy Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.520	0.596	1.339	1.339	3.795	9.017	Necesita Armadura Adicional
	-45.176	11.468	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.136	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.270	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.697	0.529	1.446	1.446	3.795	1.405	No Precisa Armadura Cortante
2704	-48.195	20.882	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.012	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.910	<Vy Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.520	0.596	1.339	1.339	3.795	9.017	Necesita Armadura Adicional
	-45.176	11.468	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.136	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.270	>=Vy No Precisa Armadura Cortante	cercos ϕ8 a 0.12	8.378	9.697	0.529	1.446	1.446	3.795	1.405	No Precisa Armadura Cortante

ENVOLVENTE <Vy> concomitantes Axil 1,50 Cargas Puntuales
Vy 1,50

Barra	N	Vy	bo	h	d	f_{ck}	f_{yk}	γc	γs	θ	A_{sl}	A_c	cotα (θ)	f_{cd}	f_{yd}	σ'cd	K	f_{1cd}	Función de θ	V_{u1}	Comprobación Compresión Oblicua Alma	ξ	ρl	V_{u2}	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu	β	cot(θe)	cot(θe)	$f_{y\alpha,d}$	A necesaria	
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[mm²]	[mm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]				[t]				[N/mm²]	cm2	
2650	-156.764	8.018	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.796	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.180	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.854	0.359	1.892	1.892	3.795	-7.252	No Precisa Armadura Cortante
	-170.480	15.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.655	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.900	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	11.035	0.345	1.951	1.951	3.795	3.710	No Precisa Armadura Cortante
2650	-156.764	8.018	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.796	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.180	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.854	0.359	1.892	1.892	3.795	-7.252	No Precisa Armadura Cortante
	-170.480	15.710	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.655	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.900	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	11.035	0.345	1.951	1.951	3.795	3.710	No Precisa Armadura Cortante
2652	-198.150	8.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.384	0.98	18.00	0.50	123.31	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.592	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	11.887	0.333	2.065	2.000	3.795	-2.298	No Precisa Armadura Cortante
	-203.697	15.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.725	0.96	18.00	0.50	120.93	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.306	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	12.125	0.333	2.086	2.000	3.795	2.409	No Precisa Armadura Cortante
2652	-198.150	8.991	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.384	0.98	18.00	0.50	123.31	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.592	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	11.887	0.333	2.065	2.000	3.795	-2.298	No Precisa Armadura Cortante
	-203.697	15.161	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.725	0.96	18.00	0.50	120.93	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.306	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	12.125	0.333	2.086	2.000	3.795	2.409	No Precisa Armadura Cortante
2655	-225.616	10.700	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.101	0.88	18.00	0.50	111.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.196	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.089	0.333	2.171	2.000	3.795	-1.896	No Precisa Armadura Cortante
	-226.602	13.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.163	0.88	18.00	0.50	110.86	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.326	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.132	0.333	2.176	2.000	3.795	0.565	No Precisa Armadura Cortante
2655	-225.616	10.700	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.101	0.88	18.00	0.50	111.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.196	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.089	0.333	2.171	2.000	3.795	-1.896	No Precisa Armadura Cortante
	-226.602	13.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.163	0.88	18.00	0.50	110.86	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.326	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.132	0.333	2.176	2.000	3.795	0.565	No Precisa Armadura Cortante
2658	-238.763	12.003	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.923	0.84	18.00	0.50	105.54	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.922	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.664	0.333	2.221	2.000	3.795	-1.318	No Precisa Armadura Cortante
	-238.049	12.798	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.878	0.84	18.00	0.50	105.85	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.828	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.632	0.333	2.218	2.000	3.795	-0.662	No Precisa Armadura Cortante
2658	-238.763	12.003	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.923	0.84	18.00	0.50	105.54	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.922	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.664	0.333	2.221	2.000	3.795	-1.318	No Precisa Armadura Cortante
	-238.049	12.798	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.878	0.84	18.00	0.50	105.85	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.828	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.632	0.333	2.218	2.000	3.795	-0.662	No Precisa Armadura Cortante
2661	-242.754	12.717	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.172	0.82	18.00	0.50	103.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.446	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.838	0.333	2.235	2.000	3.795	-0.890	No Precisa Armadura Cortante
	-241.793	12.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.112	0.83	18.00	0.50	104.22	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.320	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.796	0.333	2.232	2.000	3.795	-1.242	No Precisa Armadura Cortante
2661	-242.754	12.717	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.172	0.82	18.00	0.50	103.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.446	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.838	0.333	2.235	2.000	3.795	-0.890	No Precisa Armadura Cortante
	-241.793	12.231	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.112	0.83	18.00	0.50	104.22	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.320	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.796	0.333	2.232	2.000	3.795	-1.242	No Precisa Armadura Cortante
2664	-242.493	13.006	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.156	0.82	18.00	0.50	103.91	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.412	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.827	0.333	2.235	2.000	3.795	-0.652	No Precisa Armadura Cortante
	-241.821	12.032	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.114	0.83	18.00	0.50	104.20	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.323	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.798	0.333	2.232	2.000	3.795	-1.402	No Precisa Armadura Cortante
2664	-242.493	13.005	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.156	0.82	18.00	0.50	103.91	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.412	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.827	0.333	2.235	2.000	3.795	-0.652	No Precisa Armadura Cortante
	-241.821	12.032	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.114	0.83	18.00	0.50	104.20	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.323	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.798	0.333	2.232	2.000	3.795	-1.402	No Precisa Armadura Cortante
2667	-241.025	13.071	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.064	0.83	18.00	0.50	104.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.219	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.763	0.333	2.229	2.000	3.795	-0.548	No Precisa Armadura Cortante
	-240.713	12.035	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.045	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-1.361	No Precisa Armadura Cortante
2667	-241.025	13.071	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.064	0.83	18.00	0.50	104.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.219	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.763	0.333	2.228	2.000	3.795	-0.548	No Precisa Armadura Cortante
	-240.713	12.035	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.045	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-1.361	No Precisa Armadura Cortante
2670	-239.748	13.056	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-0.517	No Precisa Armadura Cortante
	-239.697	12.122	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.981	0.83	18.00	0.50	105.13	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.045	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.705	0.333	2.224	2.000	3.795	-1.256	No Precisa Armadura Cortante
2670	-239.748	13.056	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-0.517	No Precisa Armadura Cortante
	-239.697	12.122	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.981	0.83	18.00	0.50	105.13	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.045	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.705	0.333	2.224	2.000	3.795	-1.256	No Precisa Armadura Cortante
2673	-239.100	13.029	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.944	0.84	18.00	0.50	105.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.966	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.678	0.333	2.222	2.000	3.795	-0.515	No Precisa Armadura Cortante
	-239.193	12.236	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.950	0.84	18.00	0.50	105.35	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.978	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.683	0.333	2.222	2.000	3.795	-1.148	No Precisa Armadura Cortante
2673	-239.100	13.029	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.944	0.84	18.00	0.50	105.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.966	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.678	0.333	2.222	2.000	3.795	-0.515	No Precisa Armadura Cortante
	-239.193	12.236	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.950	0.84	18.00	0.50	105.35	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.978	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.683	0.333	2.222	2.000	3.795	-1.148	No Precisa Armadura Cortante
2676	-239.123	13.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.945	0.84	18.00	0.50	105.38	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.969	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.679	0.333	2.222	2.000	3.795	-0.529	No Precisa Armadura Cortante
	-239.259	12.364	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.987	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.685	0.333	2.223	2.000	3.795	-1.057	No Precisa Armadura Cortante
2676	-239.123	13.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.945	0.84	18.00	0.50	105.38	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.969	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.679	0.333	2.222	2.000	3.795	-0.529	No Precisa Armadura Cortante
	-239.259	12.364	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.987	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.685	0.333	2.223	2.000	3.795	-1.057	No Precisa Armadura Cortante
2679	-239.763	13.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.985	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.052	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-0.551	No Precisa Armadura Cortante
	-239.834	12.465	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.989	0.83	18.00	0.50	105.07	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.062	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.710	0.333	2.225	2.000	3.795	-0.988	No Precisa Armadura Cortante
2679	-239.763	13.013	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.985	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.052	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-0.551	No Precisa Armadura Cortante
	-239.834	12.465	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.989	0.83	18.00	0.50	105.07	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.062	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.710	0.333	2.225	2.000	3.795	-0.988	No Precisa Armadura Cortante
2682	-240.842	13.044	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.053	0.83	18.00	0.50	104.63	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.196	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.755	0.333	2.228	2.000	3.795	-0.564	No Precisa Armadura Cortante
	-240.717	12.549	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.045	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-0.953	No Precisa Armadura Cortante
2682	-240.852	13.044	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.053	0.83	18.00	0.50	104.63	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.196	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.755	0.333	2.228	2.000	3.795	-0.564	No Precisa Armadura Cortante
	-240.717	12.849	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.045	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-0.953	No Precisa Armadura Cortante
2685	-242.004	13.157	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.125	0.83	18.00	0.50	104.12	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.347	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.806	0.333	2.233	2.000	3.795	-0.519	No Precisa Armadura Cortante
	-241.424	12.558	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.089	0.83	18.00	0.50	104.38	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.271	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.780	0.333	2.231	2.000	3.795	-0.970	No Precisa Armadura Cortante
2685	-242.004	13.157	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.125	0.83	18.00	0.50	104.12	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.347	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.806	0.333	2.233	2.000	3.795	-0.519	No Precisa Armadura Cortante
	-241.424	12.558	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.089	0.83	18.00	0.50	104.38	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.271	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.760	0.333	2.231	2.000	3.795	-0.970	No Precisa Armadura Cortante
2688	-242.168	13.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.135	0.83	18.00	0.50	104.05	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.369	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.813	0.333	2.233	2.000	3.795	-0.296	No Precisa Armadura Cortante
	-240.857	12.413	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.054	0.83	18.00	0.50	104.62	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.198	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.756	0.333	2.229	2.000	3.795	-1.068	No Precisa Armadura Cortante
2688	-242.168	13.440	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.135	0.83	18.00	0.50	104.05	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.369	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.813	0.333	2.233	2.000	3.795	-0.298	No Precisa Armadura Cortante
	-240.857	12.413	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.054	0.83	18.00	0.50	104.62	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.198	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.756	0.333	2.229	2.000	3.795	-1.068	No Precisa Armadura Cortante
2691	-239.259	14.025	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.987	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.685	0.333	2.223	2.000	3.795	0.269	No Precisa Armadura Cortante
	-237.153	12.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.822	0.84	18.00	0.50	106.25	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.711	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.593	0.333	2.215	2.000	3.795	-1.248	No Precisa Armadura Cortante
2691	-239.259	14.026	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.987	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.685	0.333	2.223	2.000	3.795	0.269	No Precisa Armadura Cortante
	-237.153	12.021	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.822	0.84	18.00	0.50	106.25	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.711	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.593	0.333	2.215	2.000	3.795	-1.248	No Precisa Armadura Cortante
2692	-150.067	16.686	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.379	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.279	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.766	0.367	1.863	1.863	3.795	3.825	No Precisa Armadura Cortante
	-149.912	11.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.369	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.260	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.764	0.367	1.862	1.862	3.795	0.275	No Precisa Armadura Cortante
2692	-150.067	15.585	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.379	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.279	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.766	0.367	1.863	1.863	3.795	3.825	No Precisa Armadura Cortante
	-149.912	11.111	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.369	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.260	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.764	0.367	1.862	1.862	3.795	0.275	No Precisa Armadura Cortante
2694	-229.827	15.068	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.364	0.87	18.00	0.50	109.45	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.749	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.273	0.333	2.187	2.000	3.795	1.424	No Precisa Armadura Cortante
	-227.594	11.318	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.225	0.88	18.00	0.50	110.43	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.456	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.175	0.333	2.179	2.000	3.795	-1.474	No Precisa Armadura Cortante
2694	-229.827	15.068	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.364	0.87	18.00	0.50	109.45	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.749	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.273	0.333	2.187	2.000	3.795	1.424	No Precisa Armadura Cortante
	-227.604	11.318	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.225	0.88	18.00	0.50	110.43	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.456	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	13.175	0.333	2.179	2.000	3.795	-1.474	No Precisa Armadura Cortante
2695	-124.784	16.618	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.799	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.962	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.431	0.401	1.748	1.748	3.795	4.831	No Precisa Armadura Cortante
	-131.274	11.694	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.205	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.814	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.517	0.391	1.778	1.778	3.795	0.855	No Precisa Armadura Cortante
2695	-124.784	16.618	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.799	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.962	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.431	0.401	1.748	1.748	3.795	4.831	No Precisa Armadura Cortante
	-131.274	11.594	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.205	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.814	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.517	0.391	1.778	1.778	3.795	0.855	No Precisa Armadura Cortante
2697	-208.914	16.709	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.057	0.94	18.00	0.50	118.50	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.004	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	12.358	0.333	2.107	2.000	3.795	3.453	No Precisa Armadura Cortante
	-209.133	10.313	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.071	0.94	18.00	0.50	118.50	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.033	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	12.367	0.333	2.108	2.000	3.795	-1.631	No Precisa Armadura Cortante
2697	-208.914	16.709	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.057	0.94	18.00	0.50	118.50	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.004	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	12.358	0.333	2.107	2.000	3.795	3.453	No Precisa Armadura Cortante
	-209.133	10.313	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.071	0.94	18.00	0.50	118.50	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.033	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	12.367	0.333	2.108	2.000	3.795	-1.631	No Precisa Armadura Cortante
2698	-80.736	19.775	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.046	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.181	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	7.864	No Precisa Armadura Cortante
	-113.550	11.235	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.097	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.468	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.283	0.419	1.694	1.694	3.795	0.756	No Precisa Armadura Cortante
2698	-80.736	19.776	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.046	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.181	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.866	0.487	1.526	1.526	3.795	7.864	No Precisa Armadura Cortante
	-113.550	11.235	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.097	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.468	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.283	0.419	1.694	1.694	3.795	0.756	No Precisa Armadura Cortante
2700	-199.341	20.949	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.459	0.97	18.00	0.50	122.79	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.748	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	11.939	0.333	2.069	2.000	3.795	7.151	No Precisa Armadura Cortante
	-209.685	9.932	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.105	0.94	18.00	0.50	118.26	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.105	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	12.392	0.333	2.110	2.000	3.795	-1.952	No Precisa Armadura Cortante
2700	-199.341	20.949	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.459	0.97	18.00	0.50	122.79	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.748	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	11.939	0.333	2.069	2.000	3.795	7.151	No Precisa Armadura Cortante
	-209.685	9.932	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.105	0.94	18.00	0.50	118.26	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.105	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	12.392	0.333	2.110	2.000	3.795	-1.952	No Precisa Armadura Cortante
2701	-152.202	19.266	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.513	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.561	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.794	0.364	1.873	1.873	3.795	6.724	No Precisa Armadura Cortante
	-154.911	10.026	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.682	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.916	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.830	0.361	1.884	1.884	3.795	-0.638	No Precisa Armadura Cortante
2701	-152.202	19.266	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.513	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.561	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.794	0.364	1.873	1.873	3.795	6.724	No Precisa Armadura Cortante
	-154.911	10.026	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.682	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.916	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.830	0.361	1.884	1.884	3.795	-0.638	No Precisa Armadura Cortante
2702	-122.982	24.363	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.686	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.726	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.407	0.403	1.739	1.739	3.795	11.076	No Precisa Armadura Cortante
	-161.783	8.441	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.111	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.818	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	-1.968	No Precisa Armadura Cortante
2702	-122.982	24.363	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.686	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.726	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.407	0.403	1.739	1.739	3.795	11.076	No Precisa Armadura Cortante
	-161.783	8.441	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.111	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.818	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	-1.968	No Precisa Armadura Cortante
2703	-115.542	19.478	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.749	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.309	0.415	1.704	1.704	3.795	7.276	No Precisa Armadura Cortante
	-124.076	10.974	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.755	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.869	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.422	0.402	1.744	1.744	3.795	0.438	No Precisa Armadura Cortante
2703	-115.542	19.478	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.221	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.749	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.309	0.415	1.704	1.704	3.795	7.276	No Precisa Armadura Cortante
	-124.076	10.974	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.755	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.869	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.422	0.402	1.744	1.744	3.795	0.438	No Precisa Armadura Cortante
2704	-72.293	20.882	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.518	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.073	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.766	0.510	1.480	1.480	3.795	8.822	No Precisa Armadura Cortante
	-99.264	11.468	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.204	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.613	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.098	0.445	1.623	1.623	3.795	1.087	No Precisa Armadura Cortante
2704	-72.293	20.882	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.518	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.073	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	9.766	0.510	1.480	1.480	3.795	8.822	No Precisa Armadura Cortante
	-99.264	11.468	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.204	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.613	>=Vy No Precisa Armadura Cortante	cercos ∅8 a 0.12	8.378	10.098	0.445	1.623	1.623	3.795	1.087	No Precisa Armadura Cortante

ENVOLVENTE <Vz >
concomitantes

Axil 1,00 Cargas Puntuales
Vz 1.50

Barra	N	Vz	bo	h	d	f_{ck}	f_{yk}	γc	γs	θ	A_{sl}	A_c	cotan (θ)	f_{cd}	f_{yd}	σ'cd	K	f_{1cd}	Función de α	V_{u1}	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2}	Necesidad Armadura Cortante	Armadura dispuesta	cm²	Vcu	β	cot(θe)	cot(θ)	$f_{y\alpha,d}$	As necesaria	
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[mm²]	[mm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]				[t]				[N/mm²]	cm²	
2650	-104.542	1.977	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.534	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.305	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.166	0.435	1.650	1.650	3.795	-6.499	No Precisa Armadura Cortante
	-113.620	1.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.101	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.497	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.284	0.419	1.694	1.694	3.795	-6.994	No Precisa Armadura Cortante
2650	-104.542	1.977	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.534	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.305	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.166	0.435	1.650	1.650	3.795	-6.499	No Precisa Armadura Cortante
	-113.620	1.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.101	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.497	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.284	0.419	1.694	1.694	3.795	-6.994	No Precisa Armadura Cortante
2652	-132.115	1.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.257	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.924	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-6.953	No Precisa Armadura Cortante
	-135.716	1.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.482	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.397	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.576	0.385	1.799	1.799	3.795	-7.356	No Precisa Armadura Cortante
2652	-132.115	1.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.257	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.924	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.528	0.390	1.782	1.782	3.795	-6.953	No Precisa Armadura Cortante
	-135.716	1.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.462	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.397	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.576	0.385	1.799	1.799	3.795	-7.356	No Precisa Armadura Cortante
2656	-150.414	1.363	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.326	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.770	0.366	1.865	1.865	3.795	-7.466	No Precisa Armadura Cortante
	-151.064	0.976	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.442	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.411	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.779	0.366	1.868	1.868	3.795	-7.778	No Precisa Armadura Cortante
2656	-150.414	1.363	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.401	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.326	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.770	0.366	1.865	1.865	3.795	-7.468	No Precisa Armadura Cortante
	-151.064	0.976	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.442	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.411	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.779	0.366	1.868	1.868	3.795	-7.778	No Precisa Armadura Cortante
2658	-158.703	0.952	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.414	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.880	0.357	1.901	1.901	3.795	-7.879	No Precisa Armadura Cortante
	-159.171	0.611	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.476	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.886	0.356	1.903	1.903	3.795	-8.155	No Precisa Armadura Cortante
2658	-158.703	0.952	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.414	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.880	0.357	1.901	1.901	3.795	-7.878	No Precisa Armadura Cortante
	-159.171	0.611	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.948	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.476	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.886	0.356	1.903	1.903	3.795	-8.155	No Precisa Armadura Cortante
2661	-161.201	0.683	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.075	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.742	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	-8.119	No Precisa Armadura Cortante
	-161.830	0.273	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.114	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.825	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	-8.451	No Precisa Armadura Cortante
2661	-161.201	0.683	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.075	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.742	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	-8.119	No Precisa Armadura Cortante
	-161.830	0.273	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.114	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.825	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.921	0.354	1.914	1.914	3.795	-8.451	No Precisa Armadura Cortante
2664	-161.219	0.493	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.076	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.744	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	-8.270	No Precisa Armadura Cortante
	-161.658	0.035	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.104	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.802	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.919	0.354	1.914	1.914	3.795	-8.638	No Precisa Armadura Cortante
2664	-161.219	0.493	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.076	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.744	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.913	0.354	1.912	1.912	3.795	-8.270	No Precisa Armadura Cortante
	-161.658	0.035	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.104	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.802	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.919	0.354	1.914	1.914	3.795	-8.638	No Precisa Armadura Cortante
2667	-160.478	0.365	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	-8.363	No Precisa Armadura Cortante
	-160.680	0.129	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.043	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.674	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.906	0.355	1.909	1.909	3.795	-8.553	No Precisa Armadura Cortante
2667	-160.478	0.365	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	-8.363	No Precisa Armadura Cortante
	-160.680	0.129	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.043	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.674	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.906	0.355	1.909	1.909	3.795	-8.551	No Precisa Armadura Cortante
2670	-159.801	0.275	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.988	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.428	No Precisa Armadura Cortante
	-159.828	0.252	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.989	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.447	No Precisa Armadura Cortante
2670	-159.801	0.276	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.988	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.558	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.428	No Precisa Armadura Cortante
	-159.828	0.252	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.989	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.447	No Precisa Armadura Cortante
2673	-159.465	0.210	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.514	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.890	0.356	1.904	1.904	3.795	-8.476	No Precisa Armadura Cortante
	-159.394	0.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.962	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.505	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	-8.360	No Precisa Armadura Cortante
2673	-159.465	0.215	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.967	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.514	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.890	0.356	1.904	1.904	3.795	-8.476	No Precisa Armadura Cortante
	-159.394	0.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.962	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.505	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	-8.380	No Precisa Armadura Cortante
2676	-159.510	0.156	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.969	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	-8.520	No Precisa Armadura Cortante
	-159.411	0.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.507	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.358	1.904	1.904	3.795	-8.265	No Precisa Armadura Cortante
2676	-159.510	0.156	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.969	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.520	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.891	0.356	1.904	1.904	3.795	-8.520	No Precisa Armadura Cortante
	-159.411	0.475	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.963	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.507	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.889	0.356	1.904	1.904	3.795	-8.265	No Precisa Armadura Cortante
2679	-159.891	0.090	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.993	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.570	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	-8.576	No Precisa Armadura Cortante
	-159.832	0.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.161	No Precisa Armadura Cortante
2679	-159.891	0.090	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.993	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.570	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.896	0.356	1.906	1.906	3.795	-8.576	No Precisa Armadura Cortante
	-159.832	0.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.990	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.562	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.895	0.356	1.906	1.906	3.795	-8.161	No Precisa Armadura Cortante
2682	-160.477	0.004	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	-8.650	No Precisa Armadura Cortante
	-160.570	0.780	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.659	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.906	0.355	1.909	1.909	3.795	-8.035	No Precisa Armadura Cortante
2682	-160.477	0.004	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.030	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.647	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.903	0.355	1.909	1.909	3.795	-8.650	No Precisa Armadura Cortante
	-160.570	0.780	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.036	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.659	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.905	0.355	1.909	1.909	3.795	-8.035	No Precisa Armadura Cortante
2685	-160.934	0.145	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.058	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.707	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.909	0.354	1.911	1.911	3.795	-8.543	No Precisa Armadura Cortante
	-161.351	0.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.084	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.762	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.915	0.354	1.912	1.912	3.795	-7.870	No Precisa Armadura Cortante
2685	-160.934	0.146	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.058	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.707	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.909	0.354	1.911	1.911	3.795	-8.543	No Precisa Armadura Cortante
	-161.351	0.939	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.084	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.762	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.915	0.354	1.912	1.912	3.795	-7.870	No Precisa Armadura Cortante
2688	-160.642	0.348	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.655	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.904	0.355	1.909	1.909	3.795	-8.378	No Precisa Armadura Cortante
	-161.481	1.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.093	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.778	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.917	0.354	1.913	1.913	3.795	-7.642	No Precisa Armadura Cortante
2688	-160.642	0.348	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.034	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.655	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.904	0.355	1.909	1.909	3.795	-8.378	No Precisa Armadura Cortante
	-161.481	1.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.093	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.779	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.917	0.354	1.913	1.913	3.795	-7.642	No Precisa Armadura Cortante
2691	-158.047	0.604	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.878	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.328	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.871	0.358	1.898	1.898	3.795	-8.149	No Precisa Armadura Cortante
	-159.561	1.647	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.527	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.891	0.356	1.905	1.905	3.795	-7.337	No Precisa Armadura Cortante
2691	-158.047	0.604	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.878	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.328	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.871	0.358	1.898	1.898	3.795	-8.149	No Precisa Armadura Cortante
	-159.561	1.647	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.973	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.527	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.891	0.356	1.905	1.905	3.795	-7.337	No Precisa Armadura Cortante
2692	-99.564	8.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.223	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.652	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.101	0.445	1.625	1.625	3.795	-1.066	No Precisa Armadura Cortante
	-100.415	10.074	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.276	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.764	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.112	0.443	1.629	1.629	3.795	-0.030	No Precisa Armadura Cortante
2692	-99.564	8.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.223	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.652	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.101	0.445	1.625	1.625	3.795	-1.066	No Precisa Armadura Cortante
	-100.415	10.074	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.276	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.764	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.112	0.443	1.629	1.629	3.795	-0.030	No Precisa Armadura Cortante
2694	-151.694	0.859	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.481	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.494	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.787	0.365	1.870	1.870	3.795	-7.880	No Precisa Armadura Cortante
	-153.251	2.033	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.578	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.699	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.808	0.363	1.877	1.877	3.795	-6.965	No Precisa Armadura Cortante
2694	-151.694	0.858	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.481	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.494	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.787	0.365	1.870	1.870	3.795	-7.880	No Precisa Armadura Cortante
	-153.251	2.033	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.678	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.699	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.808	0.363	1.877	1.877	3.795	-6.965	No Precisa Armadura Cortante
2695	-87.035	7.646	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.008	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.943	0.472	1.560	1.560	3.795	-1.903	No Precisa Armadura Cortante
	-83.647	9.102	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.563	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.901	0.480	1.542	1.542	3.795	-0.834	No Precisa Armadura Cortante
2695	-87.035	7.646	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	23.008	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.943	0.472	1.560	1.560	3.795	-1.903	No Precisa Armadura Cortante
	-83.647	9.102	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.228	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.563	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.901	0.480	1.542	1.542	3.795	-0.834	No Precisa Armadura Cortante
2697	-139.520	1.015	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.720	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.896	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.626	0.380	1.816	1.816	3.795	-7.628	No Precisa Armadura Cortante
	-139.178	2.361	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.852	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.622	0.380	1.814	1.814	3.795	-6.556	No Precisa Armadura Cortante
2697	-139.520	1.015	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.720	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.896	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.626	0.380	1.816	1.816	3.795	-7.628	No Precisa Armadura Cortante
	-139.179	2.361	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.699	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	29.852	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.622	0.380	1.814	1.814	3.795	-6.556	No Precisa Armadura Cortante
2698	-74.400	4.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.650	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.349	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.791	0.504	1.492	1.492	3.795	-3.805	No Precisa Armadura Cortante
	-55.038	6.881	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.808	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.582	0.568	1.381	1.381	3.795	-2.302	No Precisa Armadura Cortante
2698	-74.400	4.997	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.650	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.349	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.791	0.504	1.492	1.492	3.795	-3.805	No Precisa Armadura Cortante
	-55.038	6.881	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-3.440	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	18.808	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.582	0.568	1.381	1.381	3.795	-2.302	No Precisa Armadura Cortante
2700	-140.334	1.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.771	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.003	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.637	0.379	1.820	1.820	3.795	-7.512	No Precisa Armadura Cortante
	-132.350	2.873	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.272	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.955	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.531	0.390	1.783	1.783	3.795	-6.076	No Precisa Armadura Cortante
2700	-140.334	1.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.771	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	30.003	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.637	0.379	1.820	1.820	3.795	-7.512	No Precisa Armadura Cortante
	-132.350	2.873	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.272	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.955	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.531	0.390	1.783	1.783	3.795	-6.078	No Precisa Armadura Cortante
2701	-103.653	7.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.478	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.189	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.154	0.437	1.645	1.645	3.795	-2.139	No Precisa Armadura Cortante
	-101.090	5.954	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.318	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.852	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.121	0.442	1.632	1.632	3.795	-3.308	No Precisa Armadura Cortante
2701	-103.653	7.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.478	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.189	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.154	0.437	1.645	1.645	3.795	-2.139	No Precisa Armadura Cortante
	-101.090	5.954	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.318	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	24.852	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.121	0.442	1.632	1.632	3.795	-3.308	No Precisa Armadura Cortante
2702	-107.363	1.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.710	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.676	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.202	0.430	1.664	1.664	3.795	-7.231	No Precisa Armadura Cortante
	-82.381	2.786	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.149	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.397	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.886	0.483	1.535	1.535	3.795	-5.635	No Precisa Armadura Cortante
2702	-107.363	1.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.710	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.676	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.202	0.430	1.664	1.664	3.795	-7.231	No Precisa Armadura Cortante
	-82.381	2.786	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.149	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.397	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.886	0.483	1.535	1.535	3.795	-5.635	No Precisa Armadura Cortante
2703	-83.661	5.904	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.229	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.565	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.902	0.480	1.542	1.542	3.795	-3.173	No Precisa Armadura Cortante
	-76.084	4.176	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.755	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.570	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.810	0.500	1.501	1.501	3.795	-4.472	No Precisa Armadura Cortante
2703	-83.661	5.904	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.229	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.565	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.902	0.480	1.542	1.542	3.795	-3.173	No Precisa Armadura Cortante
	-76.084	4.176	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.755	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	21.570	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.810	0.500	1.501	1.501	3.795	-4.472	No Precisa Armadura Cortante
2704	-68.220	3.189	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.264	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.538	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.720	0.522	1.457	1.457	3.795	-5.183	No Precisa Armadura Cortante
	-46.151	1.557	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.884	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.642	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.503	0.605	1.327	1.327	3.795	-6.306	No Precisa Armadura Cortante
2704	-68.220	3.189	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.264	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.538	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.720	0.522	1.457	1.457	3.795	-5.183	No Precisa Armadura Cortante
	-46.151	1.557	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-2.884	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	17.642	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.503	0.605	1.327	1.327	3.795	-6.306	No Precisa Armadura Cortante

Envolvente Vz Parque Centrales

ENVOLVENTE <Vz> concomitantes

Axil 1.50 Cargas Puntuales
Vz 1.50

Barra Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{sl} [mm²]	A_c [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	ξ	ρl	V_{u2} [t]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vcu [t]	β	cot(θe,ce)	cot(θe)	$f_{ct,m}$ [N/mm²]	Anecesaria cm2	
2650	-166.813	1.577	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.801	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.166	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.856	0.359	1.893	1.893	3.795	-7.046	No Precisa Armadura Cortante
	-170.430	1.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.652	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.953	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	11.034	0.345	1.951	1.951	3.795	-7.589	No Precisa Armadura Cortante
2650	-166.813	1.577	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.801	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.166	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.856	0.359	1.893	1.893	3.795	-7.046	No Precisa Armadura Cortante
	-170.430	1.472	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.652	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	33.953	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	11.034	0.345	1.951	1.951	3.795	-7.589	No Precisa Armadura Cortante
2652	-193.173	1.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.386	0.98	18.00	0.50	123.30	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.594	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	11.888	0.333	2.065	2.000	3.795	-8.032	No Precisa Armadura Cortante
	-203.574	1.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.723	0.96	18.00	0.50	120.94	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.303	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	12.124	0.333	2.086	2.000	3.795	-8.585	No Precisa Armadura Cortante
2652	-193.173	1.767	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.386	0.98	18.00	0.50	123.30	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.594	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	11.888	0.333	2.065	2.000	3.795	-8.032	No Precisa Armadura Cortante
	-203.574	1.307	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.723	0.96	18.00	0.50	120.94	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.303	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	12.124	0.333	2.086	2.000	3.795	-8.585	No Precisa Armadura Cortante
2655	-225.621	1.363	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.101	0.88	18.00	0.50	111.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.197	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.069	0.333	2.171	2.000	3.795	-9.306	No Precisa Armadura Cortante
	-226.596	0.978	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.162	0.88	18.00	0.50	110.86	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.325	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.131	0.333	2.175	2.000	3.795	-9.645	No Precisa Armadura Cortante
2655	-225.621	1.363	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.101	0.88	18.00	0.50	111.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.197	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.069	0.333	2.171	2.000	3.795	-9.306	No Precisa Armadura Cortante
	-226.596	0.978	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.162	0.88	18.00	0.50	110.86	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.325	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.131	0.333	2.175	2.000	3.795	-9.645	No Precisa Armadura Cortante
2658	-238.055	0.852	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.878	0.84	18.00	0.50	105.65	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.829	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.633	0.333	2.218	2.000	3.795	-10.064	No Precisa Armadura Cortante
	-238.767	0.611	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.922	0.84	18.00	0.50	105.54	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.921	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.663	0.333	2.221	2.000	3.795	-10.359	No Precisa Armadura Cortante
2658	-238.055	0.852	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.878	0.84	18.00	0.50	105.65	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.829	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.633	0.333	2.218	2.000	3.795	-10.064	No Precisa Armadura Cortante
	-238.767	0.611	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.922	0.84	18.00	0.50	105.54	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.921	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.663	0.333	2.221	2.000	3.795	-10.359	No Precisa Armadura Cortante
2661	-241.802	0.683	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.113	0.83	18.00	0.50	104.21	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.321	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.797	0.333	2.232	2.000	3.795	-10.408	No Precisa Armadura Cortante
	-242.745	0.273	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.172	0.82	18.00	0.50	103.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.445	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.838	0.333	2.235	2.000	3.795	-10.766	No Precisa Armadura Cortante
2661	-241.802	0.683	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.113	0.83	18.00	0.50	104.21	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.321	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.797	0.333	2.232	2.000	3.795	-10.408	No Precisa Armadura Cortante
	-242.745	0.273	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.172	0.82	18.00	0.50	103.80	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.445	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.838	0.333	2.235	2.000	3.795	-10.766	No Precisa Armadura Cortante
2664	-241.829	0.493	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.114	0.83	18.00	0.50	104.20	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.324	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.798	0.333	2.232	2.000	3.795	-10.559	No Precisa Armadura Cortante
	-242.487	0.035	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.155	0.82	18.00	0.50	103.91	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.411	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.827	0.333	2.235	2.000	3.795	-10.946	No Precisa Armadura Cortante
2664	-241.829	0.493	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.114	0.83	18.00	0.50	104.20	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.324	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.798	0.333	2.232	2.000	3.795	-10.559	No Precisa Armadura Cortante
	-242.487	0.035	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.155	0.82	18.00	0.50	103.91	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.411	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.827	0.333	2.235	2.000	3.795	-10.946	No Precisa Armadura Cortante
2667	-240.717	0.366	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.045	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-10.622	No Precisa Armadura Cortante
	-241.020	0.129	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.064	0.83	18.00	0.50	104.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.218	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.762	0.333	2.229	2.000	3.795	-10.820	No Precisa Armadura Cortante
2667	-240.717	0.366	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.045	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-10.622	No Precisa Armadura Cortante
	-241.020	0.129	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.064	0.83	18.00	0.50	104.55	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.218	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.762	0.333	2.229	2.000	3.795	-10.820	No Precisa Armadura Cortante
2670	-239.702	0.275	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.981	0.83	18.00	0.50	105.13	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.045	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.705	0.333	2.224	2.000	3.795	-10.659	No Precisa Armadura Cortante
	-239.742	0.252	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.050	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-10.678	No Precisa Armadura Cortante
2670	-239.702	0.275	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.981	0.83	18.00	0.50	105.13	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.045	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.705	0.333	2.224	2.000	3.795	-10.659	No Precisa Armadura Cortante
	-239.742	0.252	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.050	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-10.678	No Precisa Armadura Cortante
2673	-239.184	0.210	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.950	0.84	18.00	0.50	105.35	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.979	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.683	0.333	2.222	2.000	3.795	-10.693	No Precisa Armadura Cortante
	-239.081	0.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.943	0.84	18.00	0.50	105.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.965	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.678	0.333	2.222	2.000	3.795	-10.573	No Precisa Armadura Cortante
2673	-239.184	0.210	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.950	0.84	18.00	0.50	105.35	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.979	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.683	0.333	2.222	2.000	3.795	-10.693	No Precisa Armadura Cortante
	-239.081	0.356	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.943	0.84	18.00	0.50	105.40	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.965	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.678	0.333	2.222	2.000	3.795	-10.573	No Precisa Armadura Cortante
2676	-239.285	0.156	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.988	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.686	0.333	2.223	2.000	3.795	-10.736	No Precisa Armadura Cortante
	-239.147	0.475	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.945	0.84	18.00	0.50	105.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.968	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.679	0.333	2.222	2.000	3.795	-10.480	No Precisa Armadura Cortante
2676	-239.285	0.156	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.954	0.84	18.00	0.50	105.32	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.988	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.686	0.333	2.223	2.000	3.795	-10.736	No Precisa Armadura Cortante
	-239.147	0.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.945	0.84	18.00	0.50	105.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.968	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.679	0.333	2.222	2.000	3.795	-10.480	No Precisa Armadura Cortante
2679	-239.837	0.090	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.990	0.83	18.00	0.50	105.07	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.063	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.711	0.333	2.225	2.000	3.795	-10.810	No Precisa Armadura Cortante
	-239.748	0.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-10.393	No Precisa Armadura Cortante
2679	-239.837	0.090	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.990	0.83	18.00	0.50	105.07	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.063	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.711	0.333	2.225	2.000	3.795	-10.810	No Precisa Armadura Cortante
	-239.748	0.612	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.984	0.83	18.00	0.50	105.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.051	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.707	0.333	2.224	2.000	3.795	-10.393	No Precisa Armadura Cortante
2682	-240.716	0.004	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.045	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-10.909	No Precisa Armadura Cortante
	-240.865	0.780	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.053	0.83	18.00	0.50	104.63	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.197	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.755	0.333	2.228	2.000	3.795	-10.298	No Precisa Armadura Cortante
2682	-240.716	0.004	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.045	0.83	18.00	0.50	104.69	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.178	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.749	0.333	2.228	2.000	3.795	-10.909	No Precisa Armadura Cortante
	-240.865	0.780	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.053	0.83	18.00	0.50	104.63	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.197	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.755	0.333	2.228	2.000	3.795	-10.298	No Precisa Armadura Cortante
2685	-241.401	0.145	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.088	0.83	18.00	0.50	104.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.268	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.779	0.333	2.231	2.000	3.795	-10.821	No Precisa Armadura Cortante
	-242.037	0.998	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.127	0.83	18.00	0.50	104.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.350	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.807	0.333	2.233	2.000	3.795	-10.165	No Precisa Armadura Cortante
2685	-241.401	0.145	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.088	0.83	18.00	0.50	104.39	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.268	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.779	0.333	2.231	2.000	3.795	-10.821	No Precisa Armadura Cortante
	-242.037	0.998	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.127	0.83	18.00	0.50	104.11	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.350	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.807	0.333	2.233	2.000	3.795	-10.165	No Precisa Armadura Cortante
2688	-240.813	0.348	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.051	0.83	18.00	0.50	104.64	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.191	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.753	0.333	2.228	2.000	3.795	-10.639	No Precisa Armadura Cortante
	-242.212	1.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.139	0.83	18.00	0.50	104.03	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.376	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.815	0.333	2.234	2.000	3.795	-9.942	No Precisa Armadura Cortante
2688	-240.813	0.346	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.051	0.83	18.00	0.50	104.64	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.191	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.753	0.333	2.228	2.000	3.795	-10.639	No Precisa Armadura Cortante
	-242.212	1.288	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-15.139	0.83	18.00	0.50	104.03	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	43.376	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.815	0.333	2.234	2.000	3.795	-9.942	No Precisa Armadura Cortante
2691	-237.071	0.604	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.817	0.84	18.00	0.50	106.28	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.700	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.590	0.333	2.214	2.000	3.795	-10.306	No Precisa Armadura Cortante
	-238.342	1.647	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.959	0.84	18.00	0.50	105.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.998	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.689	0.333	2.223	2.000	3.795	-9.557	No Precisa Armadura Cortante
2691	-237.071	0.604	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.817	0.84	18.00	0.50	106.28	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.700	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.590	0.333	2.214	2.000	3.795	-10.306	No Precisa Armadura Cortante
	-238.342	1.647	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.959	0.84	18.00	0.50	105.29	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	42.998	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.689	0.333	2.223	2.000	3.795	-9.557	No Precisa Armadura Cortante
2692	-149.346	8.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.334	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.186	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.756	0.368	1.860	1.860	3.795	-1.586	No Precisa Armadura Cortante
	-150.623	10.074	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.414	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.354	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.773	0.366	1.866	1.866	3.795	-0.555	No Precisa Armadura Cortante
2692	-149.346	8.759	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.334	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.186	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.756	0.368	1.860	1.860	3.795	-1.586	No Precisa Armadura Cortante
	-150.623	10.074	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.414	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.354	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.773	0.366	1.866	1.866	3.795	-0.555	No Precisa Armadura Cortante
2694	-227.541	0.859	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.221	0.88	18.00	0.50	110.45	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.449	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.173	0.333	2.179	2.000	3.795	-9.773	No Precisa Armadura Cortante
	-229.180	2.033	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.367	0.87	18.00	0.50	109.43	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.756	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.275	0.333	2.188	2.000	3.795	-8.923	No Precisa Armadura Cortante
2694	-227.541	0.859	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.221	0.88	18.00	0.50	110.45	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.449	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.173	0.333	2.179	2.000	3.795	-9.773	No Precisa Armadura Cortante
	-229.180	2.033	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-14.367	0.87	18.00	0.50	109.43	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	41.756	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	13.275	0.333	2.188	2.000	3.795	-8.923	No Precisa Armadura Cortante
2695	-130.559	7.545	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.160	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.720	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.507	0.397	1.775	1.775	3.795	-2.351	No Precisa Armadura Cortante
	-125.471	9.102	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.842	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.052	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.440	0.400	1.751	1.751	3.795	-1.062	No Precisa Armadura Cortante
2695	-130.559	7.545	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-8.160	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.720	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.507	0.397	1.775	1.775	3.795	-2.351	No Precisa Armadura Cortante
	-125.471	9.102	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.842	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.052	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.440	0.400	1.751	1.751	3.795	-1.062	No Precisa Armadura Cortante
2697	-209.210	1.015	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.080	0.94	18.00	0.50	118.44	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.052	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	12.374	0.333	2.109	2.000	3.795	-9.015	No Precisa Armadura Cortante
	-208.769	2.361	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.048	0.94	18.00	0.50	118.66	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.985	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	12.351	0.333	2.107	2.000	3.795	-7.929	No Precisa Armadura Cortante
2697	-209.210	1.015	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.080	0.94	18.00	0.50	118.44	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.052	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	12.374	0.333	2.109	2.000	3.795	-9.015	No Precisa Armadura Cortante
	-208.769	2.361	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.048	0.94	18.00	0.50	118.66	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	38.985	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	12.351	0.333	2.107	2.000	3.795	-7.979	No Precisa Armadura Cortante
2698	-111.600	4.597	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.975	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.232	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.257	0.422	1.685	1.685	3.795	-4.175	No Precisa Armadura Cortante
	-82.659	6.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.160	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.420	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.888	0.483	1.536	1.536	3.795	-2.545	No Precisa Armadura Cortante
2698	-111.600	4.597	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.975	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.232	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.257	0.422	1.685	1.685	3.795	-4.175	No Precisa Armadura Cortante
	-82.659	6.681	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-5.160	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	22.420	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.888	0.483	1.536	1.536	3.795	-2.545	No Precisa Armadura Cortante
2700	-210.581	1.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.156	0.94	18.00	0.50	117.91	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.213	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	12.427	0.333	2.113	2.000	3.795	-8.933	No Precisa Armadura Cortante
	-198.625	2.873	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.408	0.98	18.00	0.50	123.15	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.641	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	11.903	0.333	2.066	2.000	3.795	-7.167	No Precisa Armadura Cortante
2700	-210.581	1.171	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-13.156	0.94	18.00	0.50	117.91	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	39.213	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	12.427	0.333	2.113	2.000	3.795	-8.933	No Precisa Armadura Cortante
	-198.625	2.873	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-12.408	0.98	18.00	0.50	123.15	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	37.641	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	11.903	0.333	2.066	2.000	3.795	-7.167	No Precisa Armadura Cortante
2701	-155.460	7.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.717	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.991	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.837	0.361	1.887	1.887	3.795	-2.681	No Precisa Armadura Cortante
	-151.635	5.954	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.477	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.486	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.787	0.365	1.870	1.870	3.795	-3.836	No Precisa Armadura Cortante
2701	-155.460	7.460	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.717	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.991	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.837	0.361	1.887	1.887	3.795	-2.681	No Precisa Armadura Cortante
	-151.635	5.954	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-9.477	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	31.486	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.787	0.365	1.870	1.870	3.795	-3.836	No Precisa Armadura Cortante
2702	-161.045	1.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.095	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.721	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.911	0.354	1.911	1.911	3.795	-7.794	No Precisa Armadura Cortante
	-123.572	2.786	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.723	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.603	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.415	0.403	1.742	1.742	3.795	-6.055	No Precisa Armadura Cortante
2702	-161.045	1.091	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-10.095	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	32.721	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.911	0.354	1.911	1.911	3.795	-7.794	No Precisa Armadura Cortante
	-123.572	2.786	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.723	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	27.603	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.415	0.403	1.742	1.742	3.795	-6.055	No Precisa Armadura Cortante
2703	-125.482	5.904	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.843	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.055	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.440	0.400	1.751	1.751	3.795	-3.600	No Precisa Armadura Cortante
	-114.126	4.176	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.133	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.563	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.291	0.418	1.697	1.697	3.795	-4.853	No Precisa Armadura Cortante
2703	-125.482	5.904	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.843	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	28.055	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.440	0.400	1.751	1.751	3.795	-3.600	No Precisa Armadura Cortante
	-114.126	4.176	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-7.133	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	26.563	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.291	0.418	1.697	1.697	3.795	-4.853	No Precisa Armadura Cortante
2704	-102.330	3.189	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.396	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.015	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.137	0.439	1.639	1.639	3.795	-5.514	No Precisa Armadura Cortante
	-69.227	1.557	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.327	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.670	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.731	0.519	1.463	1.463	3.795	-6.487	No Precisa Armadura Cortante
2704	-102.330	3.189	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-6.396	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	25.015	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	10.137	0.439	1.639	1.639	3.795	-5.514	No Precisa Armadura Cortante
	-69.227	1.557	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	1884.00	160000.00	1.00	30.00	443.48	-4.327	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.756	0.01346	20.670	>=Vy No Precisa Armadura Cortante	cercos ø8 a 0.12	8.378	9.731	0.519	1.463	1.463	3.795	-6.487	No Precisa Armadura Cortante

ESTRIBO FIJO (Comprobación de pretensado).

Frenado y arranque: 3135,162 kN/apoyo

Rozamiento: 1808,34 kN/apoyo

TOTAL ELS: 4943,95 kN/apoyo.

TOTAL ELU = 1,5 × 4943,95 = 7415,93 kN.

Pérdidas instantáneas: 10%

Pérdidas diferidas: 13%

Δt_{00} $T_{pret\ def}$ = 2 × 3 T 15 ϕ 0,6" × 0,9 × 0,87 = 5816,12 kN.

En la comprobación de ELS: 0,9 × 5816,12 = 5234,5 kN > 4943,95 kN válido.

En ELU:

f_{pk}: 0,9 1860 = 1674 N/mm².

$f_{pd} = \frac{1674}{1,15} = 1455,7$ N/mm².

$T_{pret\ ELU}$ = 2 × 3 × 140 × 1455,7 × 0,9 × 0,87 = 6064 kN < 7415,93 kN

⇒ Es preciso incrementar el pretensado del tablero al estribo.

⇒ $\frac{7415,93 \cdot 10^3}{0,9 \times 0,87 \times 2 \times 1455,7 \times 140}$ = 24 cables en 2 tendones.

2 tendones 24 ϕ 0,6" ⇒ 67,2 cm².

$T_{pret\ ELU}$ = 67,2 × 100 × 1455,7 × 0,9 × 0,87 · 10^{-3} = 7659,5 kN > 7415,93 kN válido

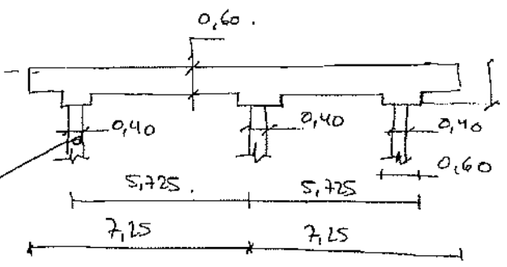
⇒ T_{pret} · 24 × 7 × 1,4 × 18600 · 10^{-2} × α = 3714 × α.

α = 0,60. Se tesa al 60% de la carga de rotura.

DIMENSIONAMIENTO DE LOSA DE PÁRVE.

- Cota de viga: 10,50 aprox
- Cota excavación parque: 6,50 m. 7,10
- Espesor losa parque: 0,60 m.

Detalle dep 2,0 m.

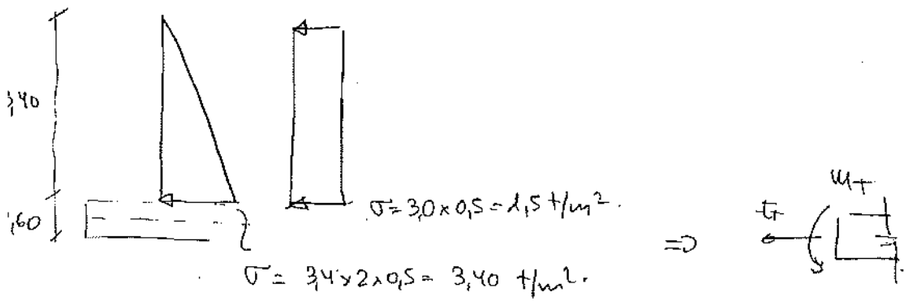


Acciones sobre losa

- Peso propio de losa: γ = 2,5 t/m³
- Peso de tierras: (10,50 − 7,10) × 2,0 = 6,8 t/m²
- Sobrecarga funcional: 3,0 t/m² (1 faixa en vano 1 / vano 2)
- Peso de muros.
  - muro interior: (10,50 − 7,10) × 1,02 × 2,5 = 8,67 t/m.
  - muro exterior: (9,832 − 0,834 − 7,1) × 0,90 × 2,5 = 4,271 t/m.

Se modelizará la estructura en programa CEDRUS 5,0 para dimensionamiento de losas.

- empuje de tierras.



$E_T = \frac{1}{2}\,3{,}40 \times 3{,}40 + 1{,}50 \times 3{,}40 = 10{,}88$ t/m

$M_{E_T} = 1{,}50 \times 3{,}40 \times \left(\frac{3{,}40}{2} + 0{,}30\right) + \frac{1}{2}\,3{,}40 \times 3{,}40 \times \left(\frac{3{,}40}{3} + 0{,}30\right) = 12{,}48$ tm/m.

- empuje tablero transmitido por el estribo

Del cálculo del estribo se tiene que la tracción máxima obtenida en las bases de conexión del pórtico al estribo son:

Barra	[t] N_{max}	[m] Ancho		N [t/m]
1955	116,1	3,0	⇒	38,7
1960	167,54	6,01	⇒	27,88
1963	104,67	3,0	⇒	34,89
Σ	388,31 t.	Valores característicos		

Se adopta como tracción uniforme 38,7 t/m.

Los cortes en la unión son:

Barra	[t] V_{max}	[m] Ancho	[t/ml] V_{max}
1955	57,23	3,0	19,08
1960	82,55	6,01	13,74
1963	26,50	3,0	8,83

Los momentos que el empuje transmite a la losa son:

Barra	[mt] M_{max}	[m] Ancho	[mt/m] M_{max}
1955	94,72	3,0	31,57
1960	162,70	6,01	27,07
1963	33,19	3,0	11,063

Armado longitudinal de la losa.

$N_d = 38{,}7 \times 1{,}50 = 58{,}05$ t/m (tracción)

$M_d = 31{,}57 \times 1{,}50 = 47{,}36$ mt/m $+20 = 67{,}36$ mt/m. } $\phi = 0{,}10$

$V_d = 19{,}08 \times 1{,}50 = 28{,}62$ t/m

Del cálculo de la losa del pórtico el monto obtenido es 20 mt/m (longitudinal) aproximadamente. (Ver de cálculo) se incorpora al transmitido por el empuje para el dimensionado de la armadura longitudinal en las proximidades del estribo.

4503

ENVOLVENTE para < N > (y valores concomitantes) "TRACCPAR"
(1. línea: MIN., 2. línea: MAX.)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
1955	0	-86.136	2.800	18.968	-97.048	3.79E-07	5.60E-08
		116.103	-8.026	57.012	-122.582	1.14E-06	-1.61E-07
1955	0.500	-86.138	2.800	14.034	-97.048	8.250	1.400
		116.101	-8.026	52.077	-122.582	27.271	-4.013
1955	1.000	-86.140	2.800	9.099	-97.048	14.033	2.800
		116.099	-8.026	47.143	-122.582	52.075	-8.026
1955	1.500	-86.142	2.800	4.164	-97.048	17.349	4.200
		116.097	-8.026	42.208	-122.582	74.412	-12.039
1955	2.000	-86.144	2.800	-0.770749	-97.048	18.197	5.601
		116.095	-8.026	37.273	-122.582	94.281	-16.052
1960	0	-143.745	-5.491	42.215	-40.107	8.44E-07	-1.10E-07
		167.543	-4.602	79.738	-82.582	1.59E-06	-9.20E-08
1960	0.500	-143.746	-5.491	41.615	-40.107	20.957	-2.745
		167.542	-4.602	79.138	-82.582	39.718	-2.301
1960	1.000	-143.746	-5.491	41.015	-40.107	41.613	-5.491
		167.542	-4.602	78.538	-82.582	79.135	-4.601
1960	1.500	-143.746	-5.491	40.415	-40.107	61.970	-8.236
		167.542	-4.602	77.938	-82.582	118.253	-6.902
1960	2.000	-143.746	-5.491	39.815	-40.107	82.026	-10.981
		167.542	-4.602	77.338	-82.582	157.071	-9.203
1963	0	-105.922	-4.690	-5.222	56.796	-1.04E-07	-9.38E-08
		104.672	3.348	18.425	33.950	3.68E-07	6.70E-08
1963	0.500	-105.923	-4.690	-10.157	56.796	-3.845	-2.345
		104.672	3.348	13.490	33.950	7.979	1.674
1963	1.000	-105.923	-4.690	-15.092	56.796	-10.156	-4.690
		104.671	3.348	8.556	33.950	13.490	3.348
1963	1.500	-105.924	-4.690	-20.026	56.796	-18.935	-7.035
		104.670	3.348	3.621	33.950	16.534	5.022
1963	2.000	-105.925	-4.690	-24.961	56.796	-30.182	-9.381
		104.669	3.348	-1.314	33.950	17.111	6.696

ENVOLVENTE para < Vy > (y valores concomitantes) "TRACCPAR"
(1. línea: MIN., 2. línea: MAX.)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	[t
1955	0	114.037	-8.111	56.294	-121.952	1.13E-06	-1.62E-
		-84.828	3.007	19.781	-97.869	3.96E-07	6.01E-
1955	0.500	114.035	-8.111	51.359	-121.952	26.912	-4.(
		-84.830	3.007	14.847	-97.869	8.657	1.5
1955	1.000	114.033	-8.111	46.424	-121.952	51.357	-8.1
		-84.832	3.007	9.912	-97.869	14.846	3.(
1955	1.500	114.031	-8.111	41.489	-121.952	73.335	-12.1
		-84.834	3.007	4.977	-97.869	18.568	4.5
1955	2.000	114.029	-8.111	36.555	-121.952	92.845	-16.2
		-84.836	3.007	0.042254	-97.869	19.823	6.(
1960	0	163.222	-11.379	81.961	-91.240	1.64E-06	-2.28E-
		-139.424	1.286	39.993	-31.450	8.00E-07	2.57E-
1960	0.500	163.222	-11.379	81.361	-91.240	40.829	-5.6
		-139.424	1.286	39.393	-31.450	19.846	0.642
1960	1.000	163.221	-11.379	80.761	-91.240	81.358	-11.3
		-139.425	1.286	38.793	-31.450	39.391	1.2
1960	1.500	163.221	-11.379	80.161	-91.240	121.586	-17.(
		-139.425	1.286	38.193	-31.450	58.637	1.9
1960	2.000	163.221	-11.379	79.561	-91.240	161.515	-22.7
		-139.425	1.286	37.593	-31.450	77.582	2.9
1963	0	-105.922	-4.690	-5.222	56.796	-1.04E-07	-9.38E-
		104.672	3.348	18.425	33.950	3.68E-07	6.70E-
1963	0.500	-105.923	-4.690	-10.157	56.796	-3.845	-2.3
		104.672	3.348	13.490	33.950	7.979	1.6
1963	1.000	-105.923	-4.690	-15.092	56.796	-10.156	-4.6
		104.671	3.348	8.556	33.950	13.490	3.3
1963	1.500	-105.924	-4.690	-20.026	56.796	-18.935	-7.(
		104.670	3.348	3.621	33.950	16.534	5.(
1963	2.000	-105.925	-4.690	-24.961	56.796	-30.182	-9.3
		104.669	3.348	-1.314	33.950	17.111	6.6

ENVOLVENTE para < Vz > (y valores concomitantes) "TRACCPAR"
(1. línea: MIN., 2. línea: MAX.)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
1955	0	-81.090	0.624534	18.734	-99.615	3.75E-07	1.25E-08
		111.375	-5.957	57.231	-120.045	1.14E-06	-1.19E-07
1955	0.500	-81.092	0.624534	13.799	-99.615	8.133	0.312255
		111.373	-5.957	52.296	-120.045	27.381	-2.979
1955	1.000	-81.094	0.624534	8.865	-99.615	13.799	0.624509
		111.371	-5.957	47.361	-120.045	52.294	-5.957
1955	1.500	-81.096	0.624534	3.930	-99.615	16.997	0.936764
		111.369	-5.957	42.426	-120.045	74.740	-8.936
1955	2.000	-81.098	0.624534	-1.005	-99.615	17.729	1.249
		111.367	-5.957	37.492	-120.045	94.719	-11.914
1960	0	-139.252	0.342969	39.286	-29.590	7.86E-07	6.86E-09
		163.135	-10.595	82.552	-92.706	1.65E-06	-2.12E-07
1960	0.500	-139.252	0.342969	38.686	-29.590	19.492	0.171478
		163.134	-10.595	81.952	-92.706	41.124	-5.297
1960	1.000	-139.252	0.342969	38.086	-29.590	38.685	0.342956
		163.134	-10.595	81.352	-92.706	81.948	-10.594
1960	1.500	-139.252	0.342969	37.486	-29.590	57.577	0.514433
		163.134	-10.595	80.752	-92.706	122.473	-15.891
1960	2.000	-139.252	0.342969	36.886	-29.590	76.170	0.685911
		163.134	-10.595	80.152	-92.706	162.697	-21.188
1963	0	-89.125	-2.846	-6.724	62.162	-1.34E-07	-5.69E-08
		87.241	1.454	19.865	28.787	3.97E-07	2.91E-08
1963	0.500	-89.126	-2.846	-11.658	62.162	-4.595	-1.423
		87.240	1.454	14.930	28.787	8.698	0.726734
1963	1.000	-89.127	-2.846	-16.593	62.162	-11.658	-2.846
		87.240	1.454	9.995	28.787	14.930	1.453
1963	1.500	-89.127	-2.846	-21.528	62.162	-21.188	-4.269
		87.239	1.454	5.061	28.787	18.694	2.180
1963	2.000	-89.128	-2.846	-26.463	62.162	-33.185	-5.692
		87.238	1.454	0.125851	28.787	19.990	2.907

ENVOLVENTE para < My > (y valores concomitantes) "TRACCPAR"
(1. línea: MIN., 2. línea: MAX.)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
1955	0	-81.090	0.624534	18.734	-99.615	3.75E-07	1.25E-08
		111.375	-5.957	57.231	-120.045	1.14E-06	-1.19E-07
1955	0.500	-81.092	0.624534	13.799	-99.615	8.133	0.312255
		111.373	-5.957	52.296	-120.045	27.381	-2.979
1955	1.000	-81.094	0.624534	8.865	-99.615	13.799	0.624509
		111.371	-5.957	47.361	-120.045	52.294	-5.957
1955	1.500	-81.096	0.624534	3.930	-99.615	16.997	0.936764
		111.369	-5.957	42.426	-120.045	74.740	-8.936
1955	2.000	-81.098	0.624534	-1.005	-99.615	17.729	1.249
		111.367	-5.957	37.492	-120.045	94.719	-11.914
1960	0	-139.252	0.342969	39.286	-29.590	7.86E-07	6.86E-09
		163.135	-10.595	82.552	-92.706	1.65E-06	-2.12E-07
1960	0.500	-139.252	0.342969	38.686	-29.590	19.492	0.171478
		163.134	-10.595	81.952	-92.706	41.124	-5.297
1960	1.000	-139.252	0.342969	38.086	-29.590	38.685	0.342956
		163.134	-10.595	81.352	-92.706	81.948	-10.594
1960	1.500	-139.252	0.342969	37.486	-29.590	57.577	0.514433
		163.134	-10.595	80.752	-92.706	122.473	-15.891
1960	2.000	-139.252	0.342969	36.886	-29.590	76.170	0.685911
		163.134	-10.595	80.152	-92.706	162.697	-21.188
1963	0	-89.125	-2.846	-6.724	62.162	-1.34E-07	-5.69E-08
		87.241	1.454	19.865	28.787	3.97E-07	2.91E-08
1963	0.500	-89.126	-2.846	-11.658	62.162	-4.595	-1.423
		87.240	1.454	14.930	28.787	8.698	0.726734
1963	1.000	-89.127	-2.846	-16.593	62.162	-11.658	-2.846
		87.240	1.454	9.995	28.787	14.930	1.453
1963	1.500	-89.127	-2.846	-21.528	62.162	-21.188	-4.269
		87.239	1.454	5.061	28.787	18.694	2.180
1963	2.000	-89.128	-2.846	-26.463	62.162	-33.185	-5.692
		87.238	1.454	0.125851	28.787	19.990	2.907

Obra: Prueba
Fecha: 03/01/2006
Hora: 10:14:00

Cálculo de secciones a flexión compuesta recta

1 Datos

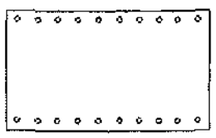
- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γc = 1.50
γs = 1.15

- Sección

Sección : LOSAPARQUE1
b [m] = 1.00
h [m] = 0.60
r [m] = 0.050

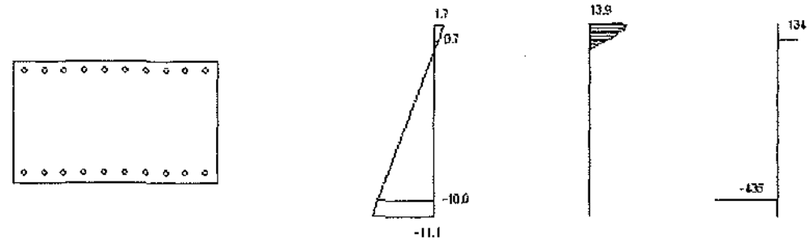
nº barras horizontales = 10
nº barras verticales = 2



2 Comprobación

ϕ [mm] = 25
Nd [kN] = -580.5
Md [kN·m] = 673.6

Nu [kN] = -766.8
Mu [kN·m] = 889.7
γ = 1.32



Plano de deformación de agotamiento

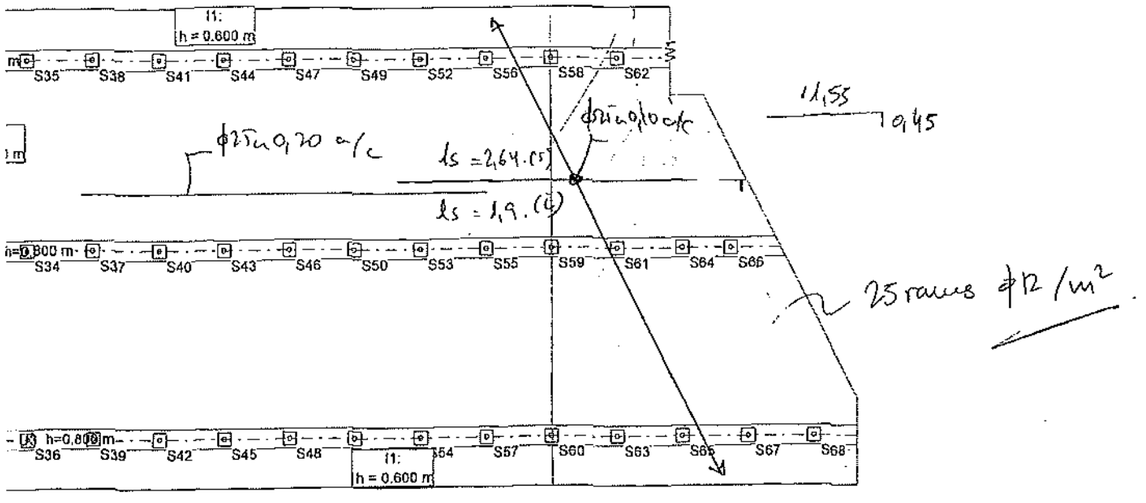
x [m] = 0.081
1/r [1/m]·1.E-3 = 21.3
εs ·1.E-3 = 1.7
εi ·1.E-3 = -11.1

Deformación y tensión de armaduras superior e inferior

Profundidad [m]	Deformación ·1.E-3	Tensión [MPa]
0.050	0.7	-134.0
0.550	-10.0	434.8

Sections

Scale 1 :181.9 (11.87,-2.31,.44.57,18.22)



En cuanto al cortante, se dispone un refuerzo en toda la zona de ramas ϕ12 a 0,20 x 0,20.

Se estudia la conexión al encepado del estribo.

Por un lado tenemos las reacciones transmitidas por la losa al estribo que tiene un valor máximo de 23,35 t/m. (valor característico).

Los cortante que el estribo transmite a la losa, son, como se especificaba anteriormente, de valor máximo 19,08 t/m.

Por tanto se comprueba el rasante de la junta para un cortante de cálculo de

$$Vd = (23,35 + 19,08) \times 1,50 = 63,65 \text{ t/m}.$$

$$\tau_{rad} = \frac{63,65}{0,6} = 106,1 \text{ t/m}^2 < 0,25 f_{cd} = 416,67 \text{ t/m}^2.$$

$$\tau_{rad} = 106,1 \text{ t/m}^2 = \frac{A_{st}}{s_p} f_{yad} (\mu \sin\alpha + \cos\alpha) + \mu \sigma_{rd}.$$

$$\sigma_{rd} = \frac{58,05}{0,60} = 96,75 \text{ t/m}^2 \text{ (tracción)}.$$

μ: rugosidad alta = 0,9.

$$106,1 = 0,9 \times 96,75 + \frac{A_{st}}{s_p} f_{yad}\, 0,90.$$

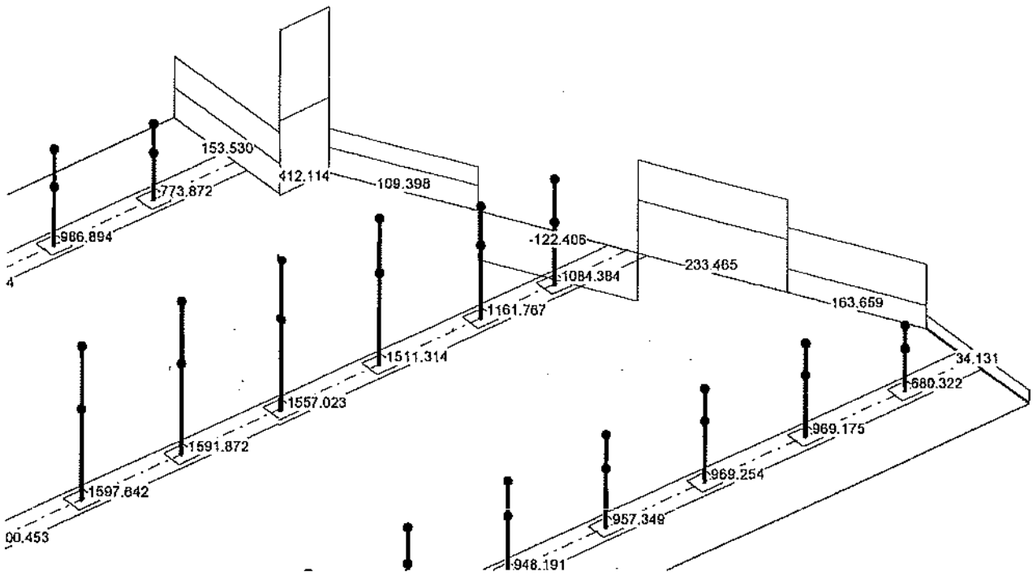
$$193,2 = \frac{A_{st}}{s_p} f_{yad} \times 0,90 \Rightarrow 214,64 \text{ t/m}^2 = \frac{A_{st}}{s_p} f_{yad}.$$

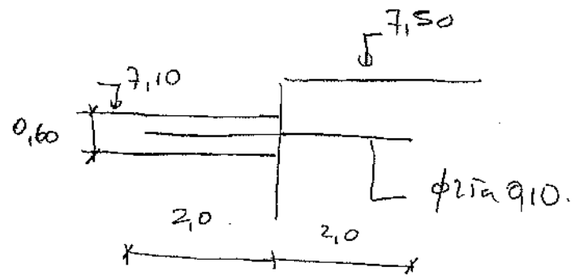
$$A_{st} = \frac{214,64 \times 1 \times 0,6}{4} = 32,20 \text{ cm}^2/\text{m} \quad \phi 25 a 0,10$$

VALIDO PARA TRACCIÓN

4507

Envelopes of reaction forces Walls and columns: Limit state specification: ELS
Walls values sectionwise presented, identifications: Columns: [kN], Walls: [kN/m]





PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.0
Cátedra de Hormigón Estructural ETSICCPM - (ECA

Obra: Prueba
Fecha: 03/01/2006
Hora: 10:27:11

Cálculo de secciones a flexión compuesta recta

1 Datos

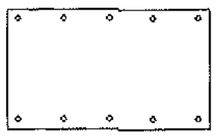
- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γc = 1.50
γs = 1.15

- Sección

Sección : LOSAPARQUE1
b [m] = 1.00
h [m] = 0.60
r [m] = 0.050

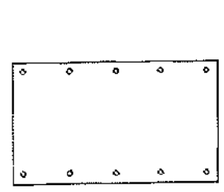
nº barras horizontales = 5
nº barras verticales = 2

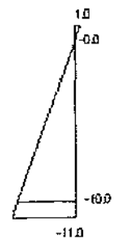


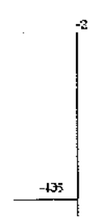
2 Comprobación

ϕ [mm] = 25
Nd [kN] = -580.5
Md [kN·m] = 256

Nu [kN] = -785.8
Mu [kN·m] = 346.5
γ = 1.35







Plano de deformación de agotamiento

x [m] = 0.049
1/r [1/m]·1.E-3 = 20.0
εs ·1.E-3 = 1.0
εi ·1.E-3 = -11.0

Deformación y tensión de armaduras superior e inferior

Profundidad [m]	Deformación ·1.E-3	Tensión [MPa]
0.050	-0.0	2.4
0.550	-10.0	434.8

4509

03/01/2006

ESTADO LÍMITE DE SERVICIO: FISURACIÓN

			MATERIALES				GEOMETRIA			As Trac		As Comp				Est. Característ.									
Tipo Amb.	Wk.adm (mm)	Viga Losa	fck (Kg/cm2)	γc	fyk (Kg/cm2)	γs	Ancho b(cm)	Canto h(cm)	Recu (cm)	φ (mm)	nº φ	φ (mm)	nº φ	k1	k2	Nk (T)	Mk (mT)	Sm (cm)	Nfis (T)	Mfis (mT)	σsr (Kg/cm2)	σs (Kg/cm2)	εsm	wk (mm)	Comentario
IIa	0.30	L	250	1.5	5100	1.15	100	60	3.5	25	10	25	10	0.125	0.5	38.7	44.9	12.82	14.88	17.27	842.85	2191.84	0.00097	0.211	Cumple
IIa	0.30	L	250	1.5	5100	1.15	100	60	3.5	25	5	25	5	0.125	0.5	38.7	17.07	18.64	31.37	13.84	1734.86	2140.41	0.00068	0.217	Cumple

Armadura longitudinal. (LOSA PARQUE)

Del cálculo se obtiene una armadura longitudinal máxima de 11,18 cm²/m.

Añadiendo la armadura de tracción debida al esfuerzo [illegible]

- $A_{S\,long\ superior}$ = φ25 a 0,20 Incluyendo tracción [58,05 t/m]
- A_S long inferior: φ25 a 0,20 Incluyendo tracción. [58,05. t/m]

Armadura transversal (LOSA PARQUE). Ver cálculo posterior.

A. base: φ20 a 0,20.

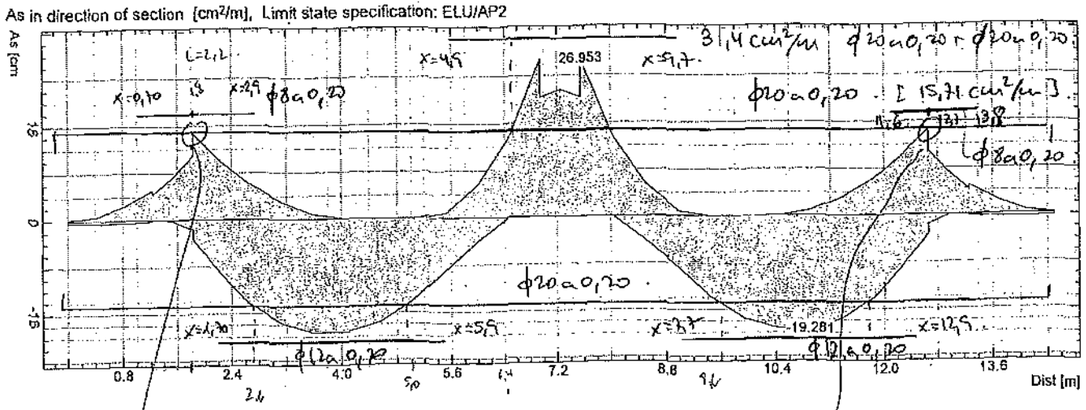
As transversal superior = A refuerzo: φ20 a 0,20 en zona central.
φ8 a 0,20 en zona lateral.
ver esquema.

As transversal inferior = A. base: φ20 a 0,20.
A refuerzo: φ12 a 0,20. ver esquema.

Se adjuntan listados CEDRUS

Section: S4 (-10.166,14.500 - -10.166,0.000)

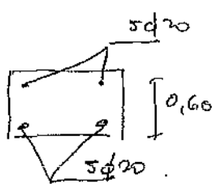
As in direction of section (cm²/m), Limit state specification: ELU/AP2



de compuela la sección

$M_d = -334,2$ kN·m/m.

$N_d = -108,8 \times 1,50 = -163,2$ tn. (- tracción).



$\delta = 0,94$. No válido ⇒

⇒ la ref/m2 armada $\phi 8 \, a \, 0,20$

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.0

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: Prueba
Fecha: 27/12/2005
Hora: 19:02:35

Cálculo de secciones a flexión compuesta recta

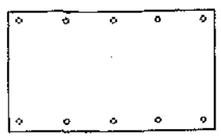
1 Datos

- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γc = 1.50
γs = 1.15

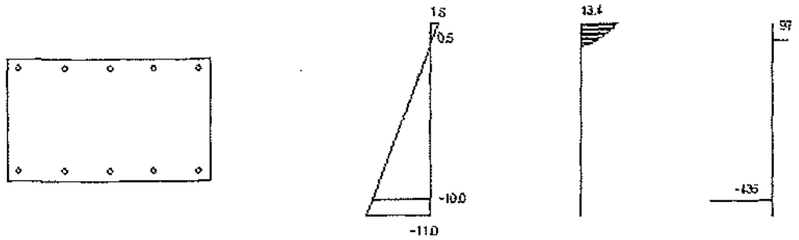
- Sección

Sección : LOSAPARQUE1
b [m] = 1.00
h [m] = 0.60
r [m] = 0.050
nº barras horizontales = 5
nº barras verticales = 2



2 Dimensionamiento

Nd [kN] = -163.2
Md [kN·m] = 334.2



Plano de deformación de agotamiento

x [m] = 0.073

1/r [1/m]·1.E-3 = 21.0

εs ·1.E-3 = 1.5

εi ·1.E-3 = -11.0

Deformación y tensión de armaduras superior e inferior

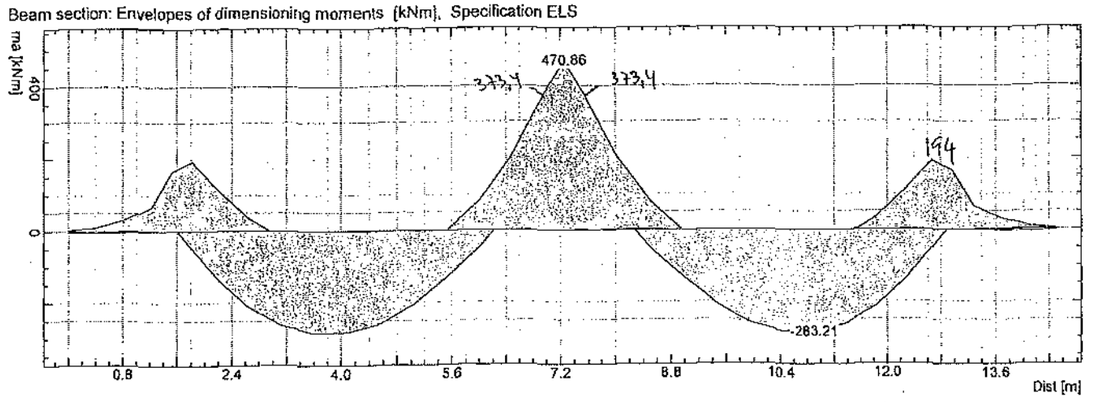
Profundidad [m]	Deformación ·1.E-3	Tensión [MPa]
0.050	0.5	-97.2
0.550	-10.0	434.8

Propuesta armadura dimensionamiento

Aest [cm2]	φest [mm]	A [cm2]	φ [mm]	Nu [kN]	Mu [kN·m]
40.5	20.6	49.1	25.00	-238.3	487.9

Section: S4 (-10.166,14.500 - -10.166,0.000)

Beam section: Envelopes of dimensioning moments (kNm), Specification ELS



03/01/2006

ESTADO LÍMITE DE SERVICIO: FISURACIÓN

Tipo Amb.	Wk adm (mm)	Ylgu Losa	MATERIALES fck (Kg/cm2)	γc	fyk (Kg/cm2)	γs	GEOMETRIA Ancho h (cm)	Canto h (cm)	Recu (cm)	AS Trac. φ (mm)	n°ø	AS Comp. φ (mm)	n°ø	k1	k2	Base Característ. Nk (m.T)	Sm (cm)	Nqs (T)	Mqs (m.T)	σsr (Kg/cm2)	σs (Kg/cm2)	εsm	wk (mm)	Comentarios
fis	0.30	L	250	1.5	5100	1.15	100	60	3.5	25	10	25	10	0.125	0.5	38.7	12.82	14.88	17.27	842.85	2191.84	0.00097	0.211	Cumple
fis	0.30	L	250	1.5	5100	1.15	100	60	3.5	25	5	25	5	0.125	0.5	38.7	18.64	31.37	13.84	1734.86	2140.41	0.00068	0.217	Cumple
fis	0.30	I	250	1.5	5100	1.15	100	60	3.5	20	10	20	5	0.125	0.5	10.88	13.77	4.91	16.84	1123.95	2491.70	0.00107	0.250	Cumple
fis	0.30	L	250	1.5	5100	1.15	100	60	3.5	20	7	20	5	0.125	0.5	10.88	16.68	6.23	16.22	1565.14	2732.87	0.00109	0.319	No Cumple
fis	0.30	L	250	1.5	5100	1.15	100	60	3.5	20	6	20	5	0.125	0.5	10.88	18.29	8.85	15.78	1843.65	2265.96	0.00072	0.224	Cumple

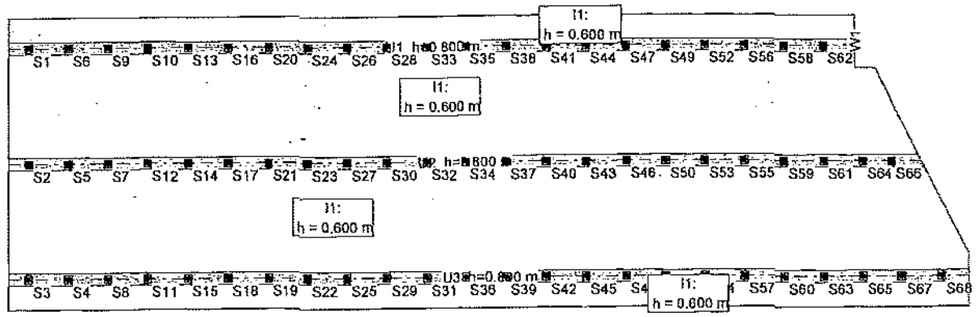
le corrijeria válido ya que el número sería uno intermedio entre φ12 y φ20.

Corsán-Corviam S.A.
Llobregat
losa de parque

27.12.05, 16:52
jalabarra

STRUCTURE

Scale 1:300.0



STRUCTURE DATA

MATERIALS

Id	Material	E (kN/mm²)	ρ (t/m³)	Material class	α [‰]	ν
1	Concrete	40.00	2.50	H450	0.010	0.17
2	Reinf. steel	210.00	8.00	AEH500	0.012	0.30
6	HA-25	27.26	2.50	HA-25	0.010	0.20

DOWNSTANDING

Id	Geometry Width (m)	Total height (m)	Level of top surface (m)	Slab Slab thickness (m)	Level of top surface (m)	f_E	Materials Body	Reinforcement
U1	0.600	0.800	0	0.600	0	1.000	HA-25	Reinf. stee
U2	0.600	0.800	0	0.600	0	1.000	HA-25	Reinf. stee
U3	0.600	0.800	0	0.600	0	1.000	HA-25	Reinf. stee

COLUMNS - Table 1: FE-Model

Id	Type Description	Nonlin.	Support ks (kN/m³)	sdz (kN/m)	srx (kN/m)	sry (kN/m)	Geometry and Material dx (m)	dy (m)	Young's modulus (kN/m²)
S1	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S2	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S3	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S4	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S5	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S6	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S7	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S8	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S9	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S10	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S11	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S12	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S13	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S14	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S15	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S16	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S17	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S18	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S19	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S20	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S21	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S22	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S23	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S24	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S25	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S26	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S27	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S28	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S29	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S30	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S31	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S32	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S33	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S34	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S35	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S36	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S37	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S38	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S39	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S40	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S41	Point	No		blocked	free	free	0.300	0.300	3.000000E+7

Id	Type Description	Nonlin.	Support ks [kN/m³]	sdz [kN/m]	srx [kNm]	sry [kNm]	Geometry and Material dx [m]	dy [m]	Young's modulus [kN/m²]
S42	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S43	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S44	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S45	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S46	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S47	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S48	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S49	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S50	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S51	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S52	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S53	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S54	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S55	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S56	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S57	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S58	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S59	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S60	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S61	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S62	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S63	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S64	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S65	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S66	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S67	Point	No		blocked	free	free	0.300	0.300	3.000000E+7
S68	Point	No		blocked	free	free	0.300	0.300	3.000000E+7

COLUMNS - Table 2: Structure

Id	Topology	ø [m]	Geometry dx [m]	dy [m]	Height [m]	Position wx [°]	wy [°]	ex [m]	ey [m]
S1	Quadrilater		0.400	0.400	5.000	0	90.000		
S2	Quadrilater		0.400	0.400	5.000	0	90.000		
S3	Quadrilater		0.400	0.400	5.000	0	90.000		
S4	Quadrilater		0.400	0.400	5.000	0	90.000		
S5	Quadrilater		0.400	0.400	5.000	0	90.000		
S6	Quadrilater		0.400	0.400	5.000	0	90.000		
S7	Quadrilater		0.400	0.400	5.000	0	90.000		
S8	Quadrilater		0.400	0.400	5.000	0	90.000		
S9	Quadrilater		0.400	0.400	5.000	0	90.000		
S10	Quadrilater		0.400	0.400	5.000	0	90.000		
S11	Quadrilater		0.400	0.400	5.000	0	90.000		
S12	Quadrilater		0.400	0.400	5.000	0	90.000		
S13	Quadrilater		0.400	0.400	5.000	0	90.000		
S14	Quadrilater		0.400	0.400	5.000	0	90.000		
S15	Quadrilater		0.400	0.400	5.000	0	90.000		
S16	Quadrilater		0.400	0.400	5.000	0	90.000		
S17	Quadrilater		0.400	0.400	5.000	0	90.000		
S18	Quadrilater		0.400	0.400	5.000	0	90.000		
S19	Quadrilater		0.400	0.400	5.000	0	90.000		
S20	Quadrilater		0.400	0.400	5.000	0	90.000		
S21	Quadrilater		0.400	0.400	5.000	0	90.000		
S22	Quadrilater		0.400	0.400	5.000	0	90.000		
S23	Quadrilater		0.400	0.400	5.000	0	90.000		
S24	Quadrilater		0.400	0.400	5.000	0	90.000		
S25	Quadrilater		0.400	0.400	5.000	0	90.000		
S26	Quadrilater		0.400	0.400	5.000	0	90.000		
S27	Quadrilater		0.400	0.400	5.000	0	90.000		
S28	Quadrilater		0.400	0.400	5.000	0	90.000		
S29	Quadrilater		0.400	0.400	5.000	0	90.000		
S30	Quadrilater		0.400	0.400	5.000	0	90.000		
S31	Quadrilater		0.400	0.400	5.000	0	90.000		
S32	Quadrilater		0.400	0.400	5.000	0	90.000		
S33	Quadrilater		0.400	0.400	5.000	0	90.000		
S34	Quadrilater		0.400	0.400	5.000	0	90.000		
S35	Quadrilater		0.400	0.400	5.000	0	90.000		
S36	Quadrilater		0.400	0.400	5.000	0	90.000		
S37	Quadrilater		0.400	0.400	5.000	0	90.000		
S38	Quadrilater		0.400	0.400	5.000	0	90.000		
S39	Quadrilater		0.400	0.400	5.000	0	90.000		
S40	Quadrilater		0.400	0.400	5.000	0	90.000		
S41	Quadrilater		0.400	0.400	5.000	0	90.000		
S42	Quadrilater		0.400	0.400	5.000	0	90.000		
S43	Quadrilater		0.400	0.400	5.000	0	90.000		
S44	Quadrilater		0.400	0.400	5.000	0	90.000		
S45	Quadrilater		0.400	0.400	5.000	0	90.000		
S46	Quadrilater		0.400	0.400	5.000	0	90.000		
S47	Quadrilater		0.400	0.400	5.000	0	90.000		
S48	Quadrilater		0.400	0.400	5.000	0	90.000		
S49	Quadrilater		0.400	0.400	5.000	0	90.000		
S50	Quadrilater		0.400	0.400	5.000	0	90.000		
S51	Quadrilater		0.400	0.400	5.000	0	90.000		

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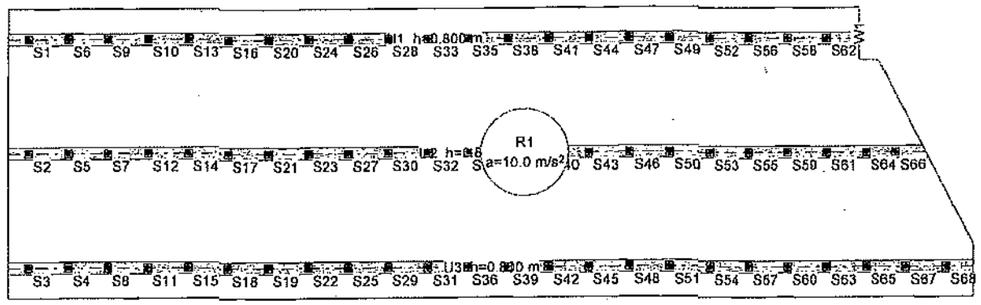
Id	Topology	ø [m]	Geometry dx [m]	dy [m]	Height [m]	Position wx [°]	wy [°]	ex [m]	ey [m]
S52	Quadrilater		0.400	0.400	5.000	0	90.000		
S53	Quadrilater		0.400	0.400	5.000	0	90.000		
S54	Quadrilater		0.400	0.400	5.000	0	90.000		
S55	Quadrilater		0.400	0.400	5.000	0	90.000		
S56	Quadrilater		0.400	0.400	5.000	0	90.000		
S57	Quadrilater		0.400	0.400	5.000	0	90.000		
S58	Quadrilater		0.400	0.400	5.000	0	90.000		
S59	Quadrilater		0.400	0.400	5.000	0	90.000		
S60	Quadrilater		0.400	0.400	5.000	0	90.000		
S61	Quadrilater		0.400	0.400	5.000	0	90.000		
S62	Quadrilater		0.400	0.400	5.000	0	90.000		
S63	Quadrilater		0.400	0.400	5.000	0	90.000		
S64	Quadrilater		0.400	0.400	5.000	0	90.000		
S65	Quadrilater		0.400	0.400	5.000	0	90.000		
S66	Quadrilater		0.400	0.400	5.000	0	90.000		
S67	Quadrilater		0.400	0.400	5.000	0	90.000		
S68	Quadrilater		0.400	0.400	5.000	0	90.000		

WALLS

Id	Type Description	Nonlin.	Support sdz [kN/m²]	srx [kN]	sry [kN]	Geometry and Material Width [m]	Height [m]	Young's modulus [kN/m²]
W1	free rotati	No	blocked	free	free	0	4.000	3.000000E+7

LOAD CASE SW: Self weight

Scale 1:300.0



LOAD CASE SW : Self weight

Dead load (Hole structure)

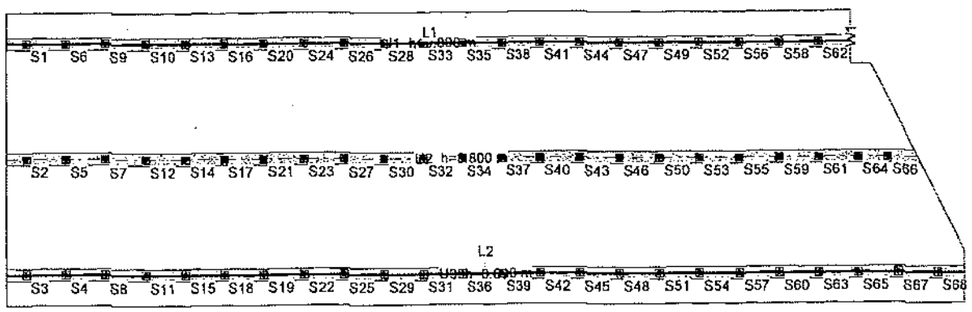
ID	Volume [m³]	Geometry Thickness [cm]	Area [m²]	Loasd Mass [t]	Sub total Load Z [kN]
R1	414.937	var.	664.171	1037.343	-10373.431

Sum Z

	Total Load [kN]
Total	-10373.431

LOAD CASE LC1 : Muros laterales

Scale 1 :300.0



LOAD CASE LC1 : Muros laterales

Line load

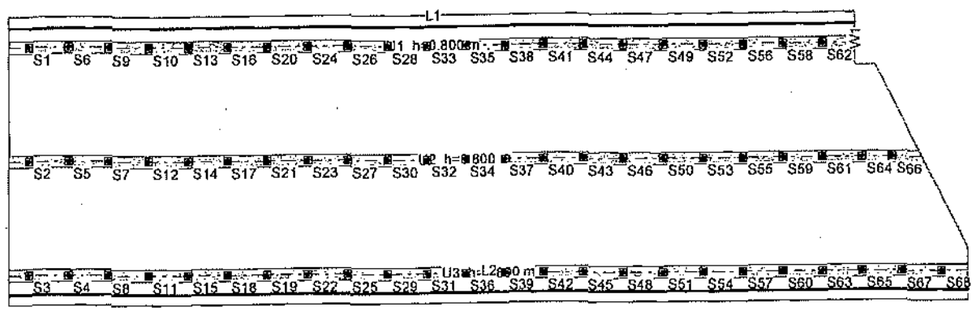
ID	X [m]	Y [m]	Geometry Length [m]	Loasd MI [kN]	Loasd FZ [kN/m]	Sub total Load Z [kN]
L1	-10.666	12.975		0	-86.700	
	31.962	12.975	42.628	0	-86.700	-3695.874
L2	-10.666	1.525		0	-86.700	
	37.669	1.526	48.335	0	-86.700	-4190.642

Sum Z

	Total Load [kN]
Total	-7886.516

LOAD CASE LC6 : Muros exteriores (opcional)

Scale 1 :300.0



LOAD CASE LC6 : Muros exteriores (opcional)

Line load

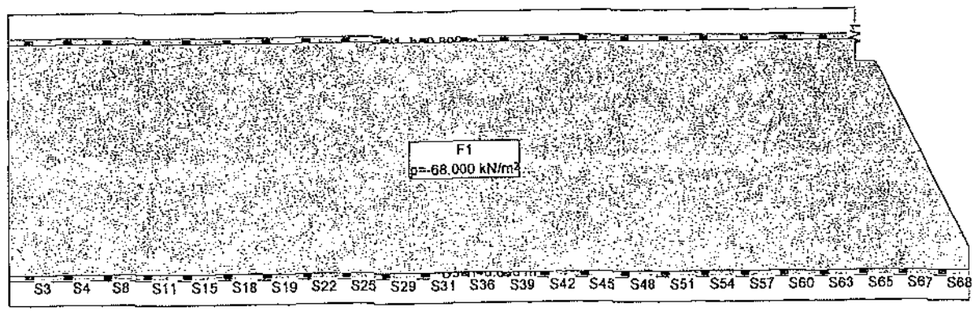
ID	X [m]	Y [m]	Geometry Length [m]	Loasd MI [kN]	Loasd FZ [kN/m]	Sub total Load Z [kN]
L1	-10.666	13.935		0	-42.710	
	31.962	13.935	42.628	0	-42.710	-1820.655
L2	-10.666	0.565		0	-42.710	
	37.669	0.566	48.335	0	-42.710	-2064.387

Sum Z

	Total Load [kN]
Total	-3885.042

LOAD CASE LC2 : Tierras

Scale 1 :300.0



LOAD CASE LC2 : Tierras

Distributed load (Polygon)

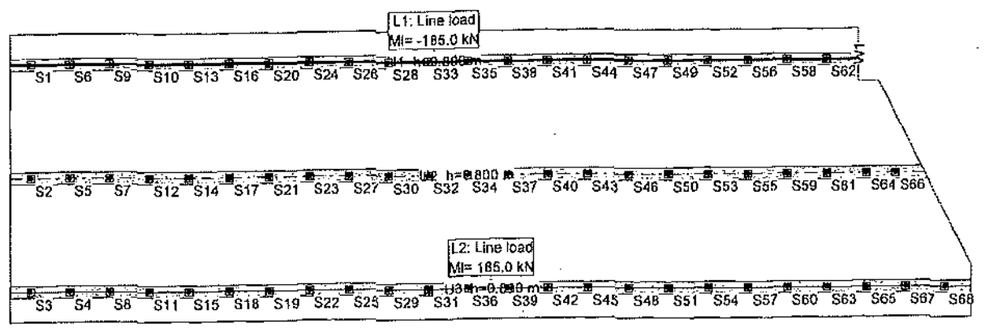
ID	X [m]	Y [m]	Geometry Polygon	Area [m²]	Loasd Value [kN/m²]	Sub total Load Z [kN]
F1	12.313	7.124	with 7 Pages	525.407	-68.000	-35727.655

Sum Z

	Total Load [kN]
Total	-35727.655

LOAD CASE LC5 : Empuje de tierras

Scale 1 :300.0



LOAD CASE LC5 : Empuje de tierras

Line load

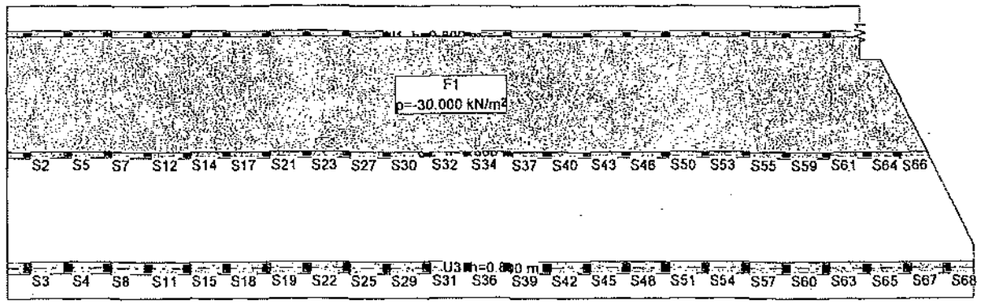
ID	X [m]	Y [m]	Geometry Length [m]	Loasd MI [kN]	Loasd FZ [kN/m]	Sub total Load Z [kN]
L1	-10.666	12.975		-185.0	0	
	31.962	12.975	42.628	-185.0	0	0
L2	-10.666	1.525		185.0	0	
	37.669	1.526	48.335	185.0	0	0

Sum Z

	Total Load [kN]
Total	0

LOAD CASE LC3 : Sobercarga via 1 30kn/m2

Scale 1 :300.0



LOAD CASE LC3 : Sobercarga via 1 30kn/m2

Distributed load (Polygon)

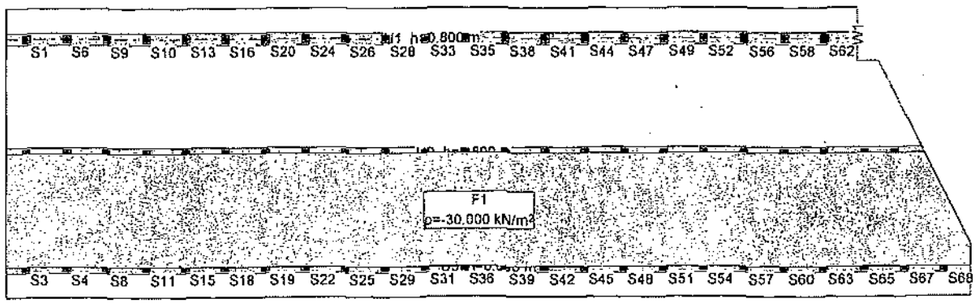
ID	X [m]	Y [m]	Geometry Polygon	Area [m²]	Loasd Value [kN/m²]	Sub total Load Z [kN]
F1	11.541	10.074	with 6 Pages	254.104	-30.000	-7623.120

Sum Z

	Total Load [kN]
Total	-7623.120

LOAD CASE LC4 : Sobrecarga via 2 30kn/m2

Scale 1 :300.0



LOAD CASE LC4 : Sobrecarga via 2 30kn/m2

Distributed load (Polygon)

ID	X [m]	Y [m]	Geometry Polygon	Area [m²]	Loasd Value [kN/m²]	Sub total Load Z [kN]
F1	13.037	4.361	with 5 Pages	271.303	-30.000	-8139.081

Sum Z

	Total Load [kN]
Total	-8139.081

Analysis-Parameters, Code: Spanish Code EH-91

ID	σ-ε-Diagram c	s	p	a	Strain Limits $\varepsilon_{cu,c}$ [‰]	$\varepsilon_{cu,b}$ [‰]	ε_{su} [‰]	Adm.Stress $\sigma_{s,adm}$ [N/mm²]	Resistance factors γ_c [-]	γ_s [-]	γ_p [-]	γ_a [-]	Various parameters α [-]	ϕ [-]	P(t) [-]	κ
AP1	1/0	1	1	1				200.00	1.00	1.00	1.00	1.00	45.00	0	t=o	-
AP2	2/0	1	1	1	-2.0	-3.5	10.0		1.50	1.15	1.15	1.15	45.00	0	t=o	-
AP3	3/0	1	1	1	-2.0	-3.5	10.0		1.50	1.15	1.15	1.15	45.00	0	t=o	-

α : Inclination of diagonal in compression
ϕ : Creep coefficient
P(t) : STATIK-5 analysis; Initial value of PT force: P=P(t=o) or P=P(t=oo) 'with longterm-losses'
κ : + = Analysis with bond coefficient: κ_s=0.7 κ_l=0.9
ID : AP3: Non-linear analysis

Limit state specification: !Serviceability(quasi permanent)

Description
Standard design situation: Serviceability quasi permanent combination
Analysis parameter: AP1

Action combinations

No	Action Name	Fac	Action combinations 1
1	Dead load	1	1
2	Superimposed dead loads	1	1
3	Live load general	1	0.6

Fac : all combination factors are multiplied by this factor

Load case superpositions for the actions

for limit state specification !Serviceability(quasi permanent)

Action	Alt	additive	exclusive	Load case		Factor	Comb.
Dead load		permanent		SW	Self weight	1.000	
Superimposed dead loa		permanent		LC1	Muros laterales	1.000	
		permanent		LC2	Tierras	1.000	
Live load general		if critical		LC3	Sobercarga via 1 30kn/m2	1.000	
		plus where crit.		LC4	Sobrecarga via 2 30kn/m2	1.000	
		plus where crit.		LC5	Empuje de tierras	1.000	
		plus where crit.		LC6	Muros exteriores (opcional)	1.000	

Alt : Alternative superposition

Limit state specification: !Serviceability(frequent)

Description
Standard design situation: Serviceability frequent combination
Analysis parameter: AP1

Action combinations

No	Action Name	Fac	Action combinations 1
1	Dead load	1	1
2	Superimposed dead loads	1	1
3	Live load general	1	0.7

Fac : all combination factors are multiplied by this factor

Load case superpositions for the actions

for limit state specification !Serviceability(frequent)

Action	Alt	additive	exclusive	Load case		Factor	Comb.
Dead load		permanent		SW	Self weight	1.000	
Superimposed dead loa		permanent		LC1	Muros laterales	1.000	
		permanent		LC2	Tierras	1.000	
Live load general		if critical		LC3	Sobercarga via 1 30kn/m2	1.000	
		plus where crit.		LC4	Sobrecarga via 2 30kn/m2	1.000	
		plus where crit.		LC5	Empuje de tierras	1.000	
		plus where crit.		LC6	Muros exteriores (opcional)	1.000	

Alt : Alternative superposition

Limit state specification: !Serviceability(occasional)

Description
Standard design situation: Serviceability occasional combination
Analysis parameter: AP1

Action combinations

No	Action Name	Fac	Action combinations 1
1	Dead load	1	1
2	Superimposed dead loads	1	1
3	Live load general	1	1

Fac : all combination factors are multiplied by this factor

Load case superpositions for the actions
for limit state specification !Serviceability(occasional)

Action	Alt	additive	exclusive	Load case	Factor	Comb.
Dead load		permanent		SW Self weight	1.000	
Superimposed dead loa		permanent		LC1 Muros laterales	1.000	
		permanent		LC2 Tierras	1.000	
Live load general		if critical		LC3 Sobercarga via 1 30kn/m2	1.000	
		plus where crit.		LC4 Sobrecarga via 2 30kn/m2	1.000	
		plus where crit.		LC5 Empuje de tierras	1.000	
		plus where crit.		LC6 Muros exteriores (opcional)	1.000	

Alt : Alternative superposition

Limit state specification: !Ultimate limit state

Description
Standard design situation: Ultimate limit state type 2 (1B)
Analysis parameter: AP2

Action combinations

No	Action Name	Fac	Action combinations 1	2
1	Dead load	1	1.35	1
2	Superimposed dead loads	1	1.35	1
3	Live load general	1	1.5	1.5

Fac : all combination factors are multiplied by this factor

Load case superpositions for the actions
for limit state specification !Ultimate limit state

Action	Alt	additive	exclusive	Load case	Factor	Comb.
Dead load		permanent		SW Self weight	1.000	
Superimposed dead loa		permanent		LC1 Muros laterales	1.000	
		permanent		LC2 Tierras	1.000	
Live load general		if critical		LC3 Sobercarga via 1 30kn/m2	1.000	
		plus where crit.		LC4 Sobrecarga via 2 30kn/m2	1.000	
		plus where crit.		LC5 Empuje de tierras	1.000	
		plus where crit.		LC6 Muros exteriores (opcional)	1.000	

Alt : Alternative superposition

Limit state specification: ELS

Description
Standard design situation: Serviceability occasional combination
Analysis parameter: AP1

Action combinations

No	Action Name	Fac	Action combinations 1
1	Dead load	1	1
2	Superimposed dead loads	1	1
3	Live load general	1	1

Fac : all combination factors are multiplied by this factor

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Load case superpositions for the actions
for limit state specification ELS

Action	Alt	additive	exclusive	Load case	Factor	Comb.
Dead load		permanent		SW Self weight	1.000	
Superimposed dead loa		permanent		LC1 Muros laterales	1.000	
		permanent		LC2 Tierras	1.000	
Live load general		if critical		LC3 Sobercarga via 1 30kn/m2	1.000	
		plus where crit.		LC4 Sobrecarga via 2 30kn/m2	1.000	
		plus where crit.		LC5 Empuje de tierras	1.000	
		plus where crit.		LC6 Muros exteriores (opcional)	1.000	

Alt : Alternative superposition

Limit state specification: ELU

Description
Standard design situation: Ultimate limit state type 2 (1B)
Analysis parameter: AP2

Action combinations

No	Action Name	Fac	Action combinations 1	2
1	Dead load	1	1.5	1
2	Superimposed dead loads	1	1.5	1
3	Live load general	1	1.6	1.6

Fac : all combination factors are multiplied by this factor

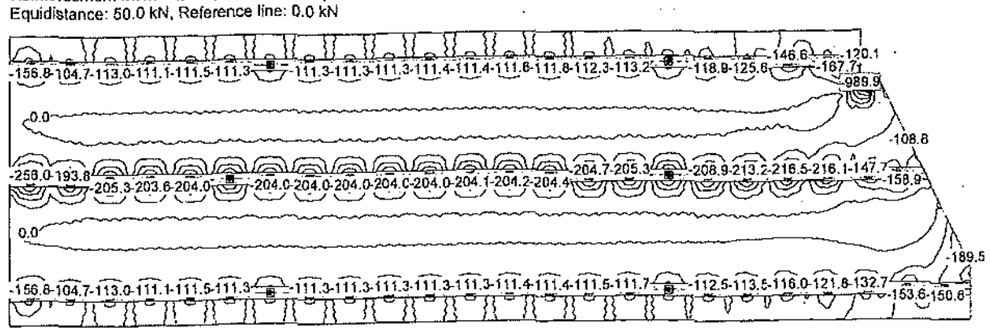
Load case superpositions for the actions
for limit state specification ELU

Action	Alt	additive	exclusive	Load case	Factor	Comb.
Dead load		permanent		SW Self weight	1.000	
Superimposed dead loa		permanent		LC1 Muros laterales	1.000	
		permanent		LC2 Tierras	1.000	
Live load general		if critical		LC3 Sobercarga via 1 30kn/m2	1.000	
		plus where crit.		LC4 Sobrecarga via 2 30kn/m2	1.000	
		plus where crit.		LC5 Empuje de tierras	1.000	
		plus where crit.		LC6 Muros exteriores (opcional)	1.000	

Alt : Alternative superposition

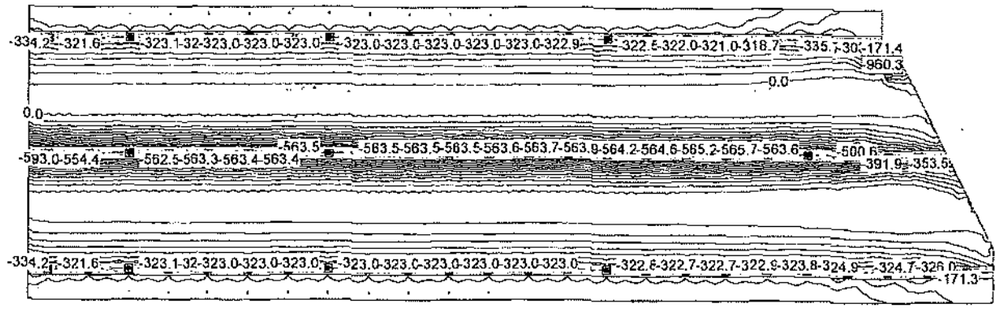
Reinforcement moments max: Limit state specification: ELU
Equidistance: 50.0 kN, Reference line: 0.0 kN

Scale 1 :300.0



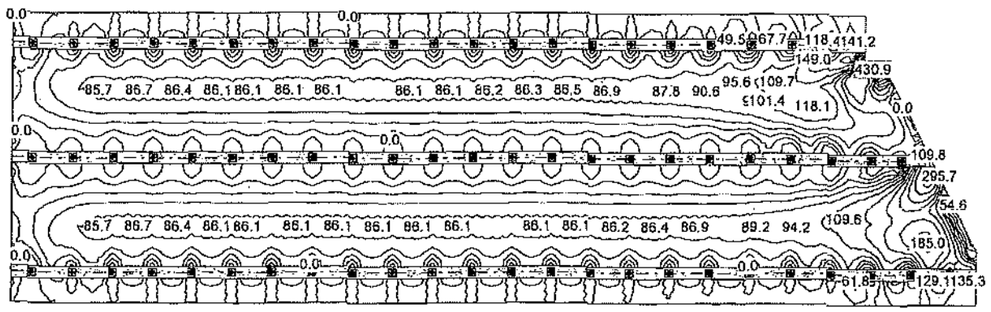
Reinforcement moments m_{ayt}: Limit state specification: ELU
Equidistance: 50.0 kN, Reference line: 0.0 kN

Scale 1 :300.0



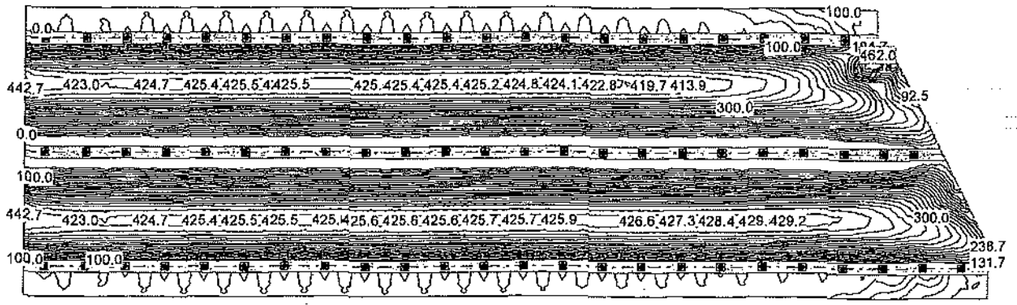
Reinforcement moments m_{axb}: Limit state specification: ELU
Equidistance: 20.0 kN, Reference line: 0.0 kN

Scale 1 :300.0



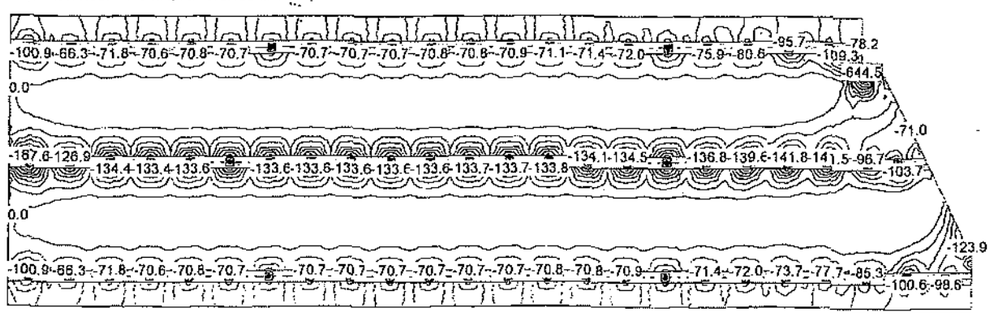
Reinforcement moments m_{ayb}: Limit state specification: ELU
Equidistance: 20.0 kN, Reference line: 0.0 kN

Scale 1 :300.0



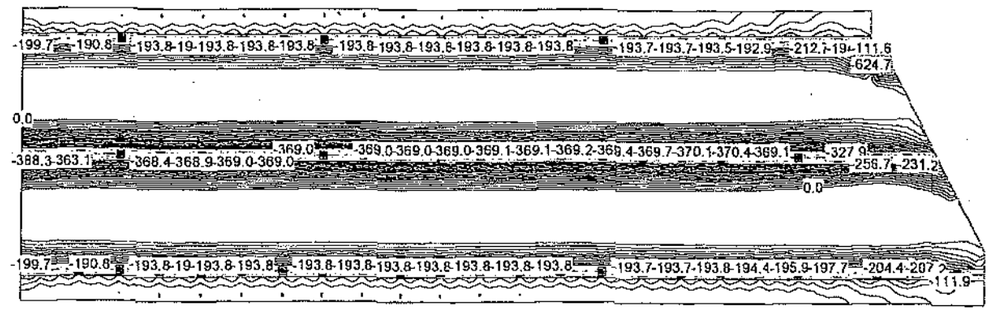
Reinforcement moments m_{axt}: Limit state specification: ELS
Equidistance: 20.0 kN, Reference line: 0.0 kN

Scale 1 :300.0



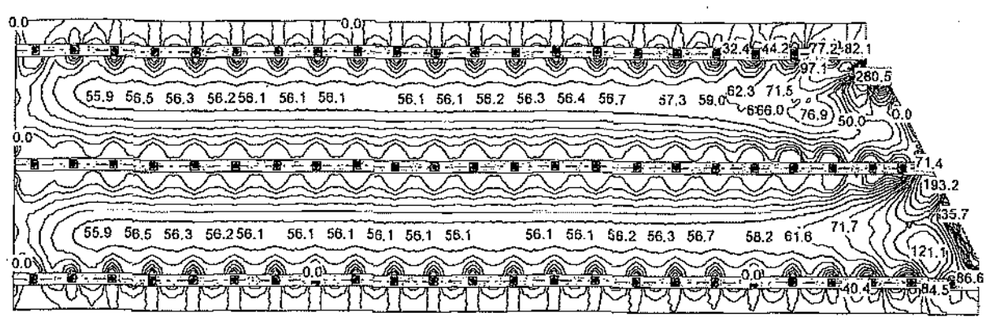
Reinforcement moments m_{ayt}: Limit state specification: ELS
Equidistance: 20.0 kN, Reference line: 0.0 kN

Scale 1 :300.



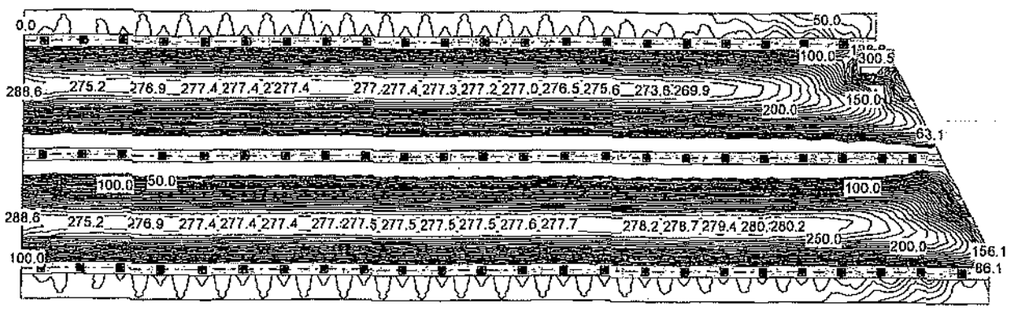
Reinforcement moments m_{axb}: Limit state specification: ELS
Equidistance: 10.0 kN, Reference line: 0.0 kN

Scale 1 :300.



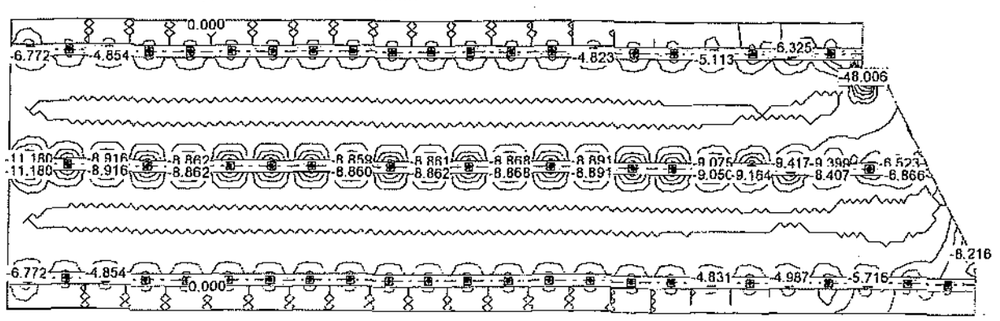
Reinforcement moments m_{ayb}: Limit state specification: ELS
Equidistance: 10.0 kN, Reference line: 0.0 kN

Scale 1 :300.



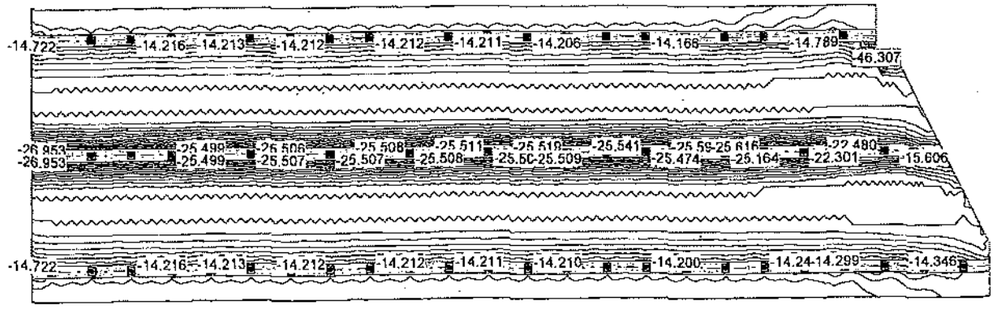
Reinforcement cross sections a_{xt}, Specification: ELU/AP2:
Equidistance: 2.000 cm²/m, Reference line: 0.000 cm²/m

Scale 1 :300.



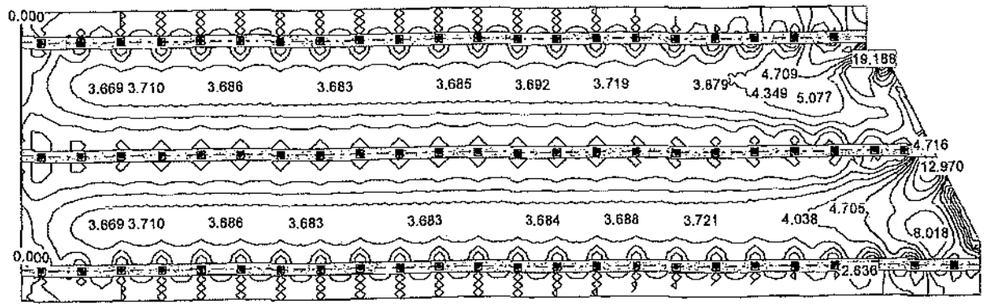
Reinforcement cross sections a_{yt}, Specification: ELU/AP2:
Equidistance: 2.000 cm²/m, Reference line: 0.000 cm²/m

Scale 1 :300.0



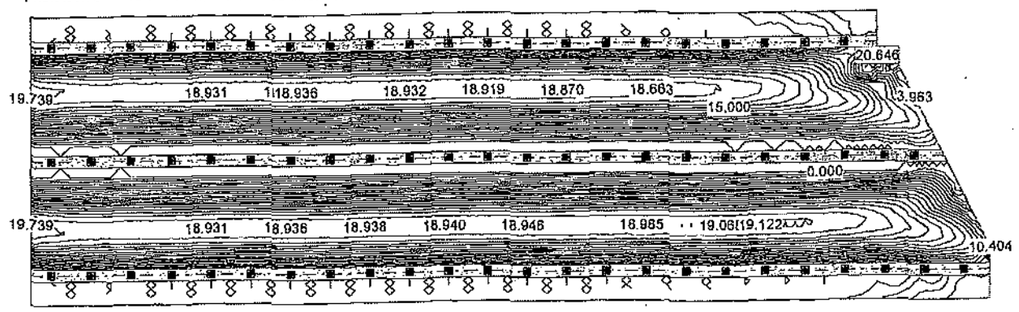
Reinforcement cross sections a_{xb}, Specification: ELU/AP2:
Equidistance: 1.000 cm²/m, Reference line: 0.000 cm²/m

Scale 1 :300.0



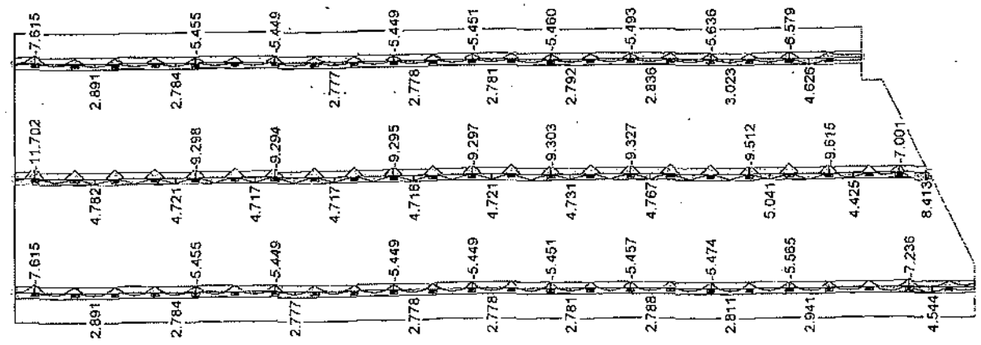
Reinforcement cross sections a_{yb}, Specification: ELU/AP2:
Equidistance: 1.000 cm²/m, Reference line: 0.000 cm²/m

Scale 1 :300.0



Beam section(s): As [cm²], Specification ELU/AP2

Scale 1 :300.0

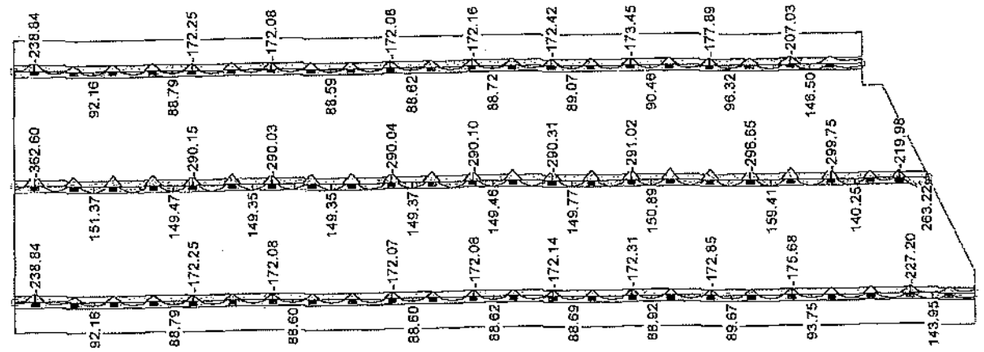


Corsán-Corviam S.A.
Llobregat
losa de parque

27.12.05, 16:52
jalabarra

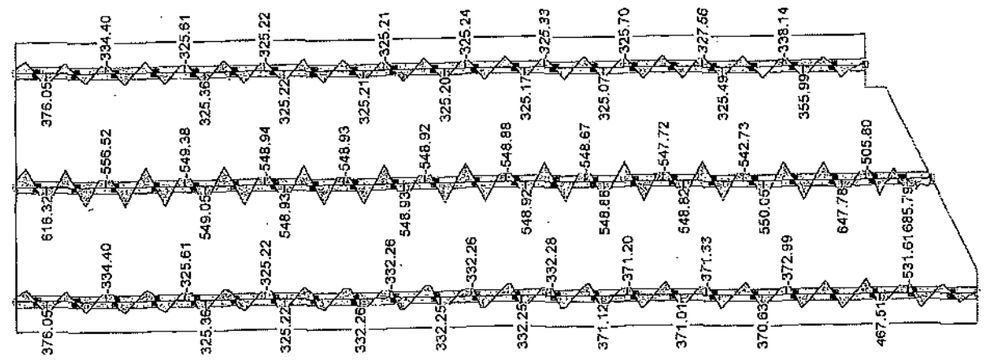
Beam section(s): Envelopes of dimensioning moments [kNm], Specification ELU

Scale 1 :300.0

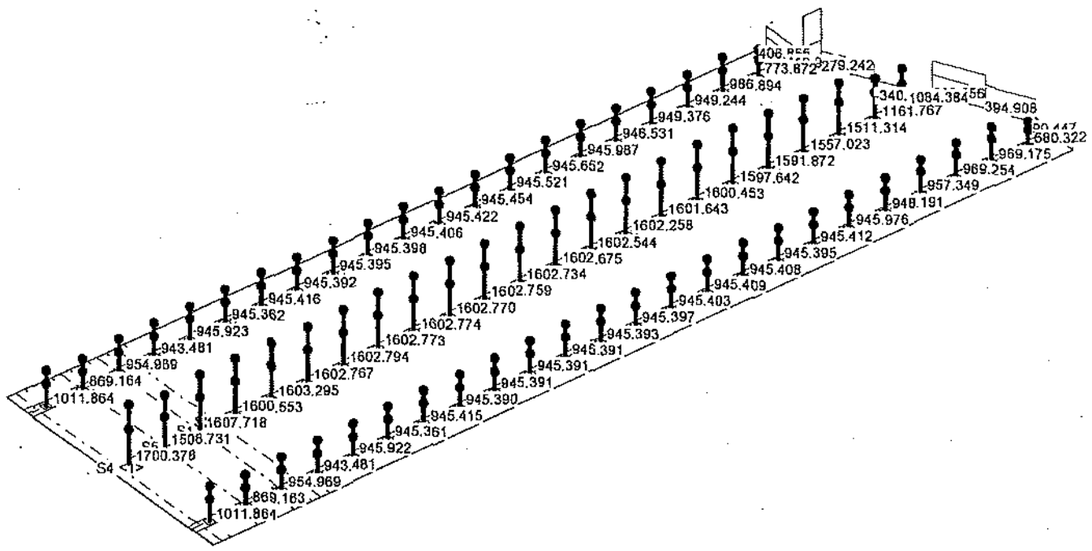


Beam section(s): Envelopes of dimensioning shear forces [kN], Specification ELU

Scale 1 :300.0

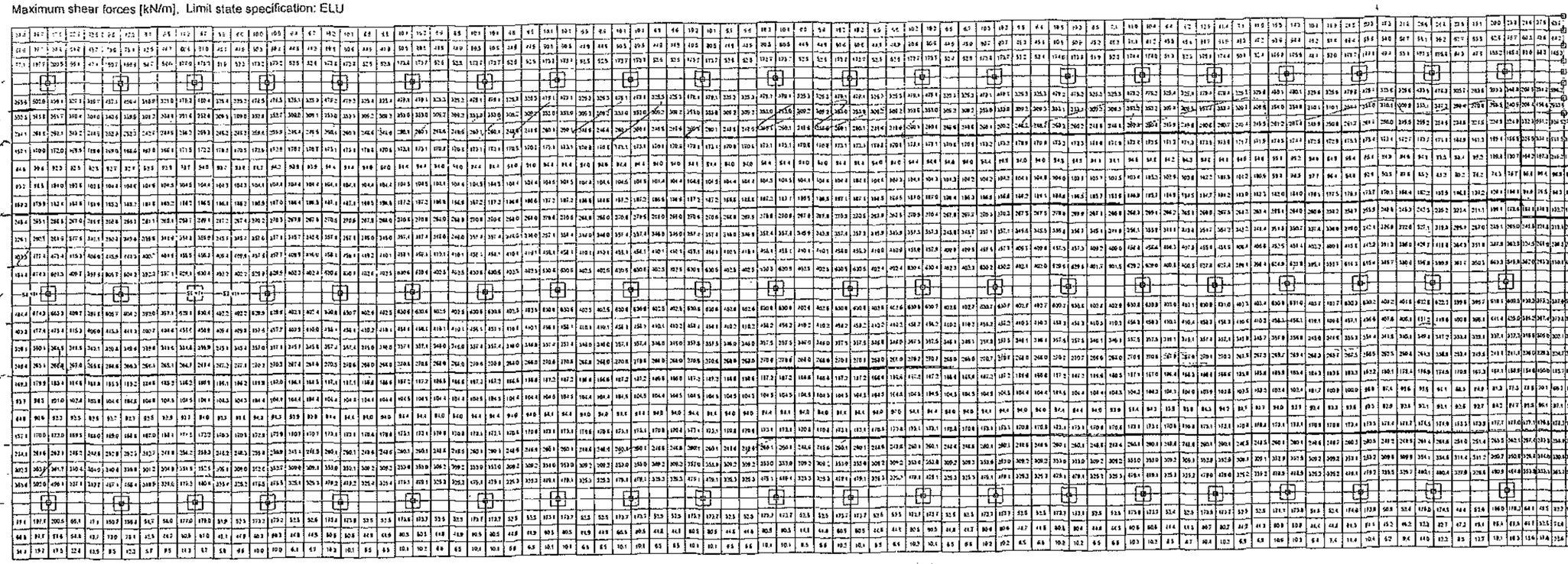


Envelopes of reaction forces Walls and columns: Limit state specification: ELS
Walls values sectionwise presented, Identifications: Columns: [kN], Walls: [kN]



Maximum shear forces [kN/m]. Limit state specification: ELU

Scale 1:125.0



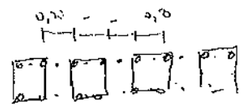
$V_{u_1} = 2750$ kN/m N_d: 163,2 kN.

$V_{u_2} = 172,7$ kN/m sin N_d.

$V_{cu} = 131,8$ kN/m. Contribución del hormigón.

$V_{d_1} = 388,88$ kN/m. $\Rightarrow$ $V_{dn} = \frac{388,88 - 131,8}{40 \times 0,9 \times 0,55} = 12,68$ cm²/m² $\Rightarrow$ $\phi 10 \, a \, 0,20 \times 0,30$. A razón $\phi 10/m^2$

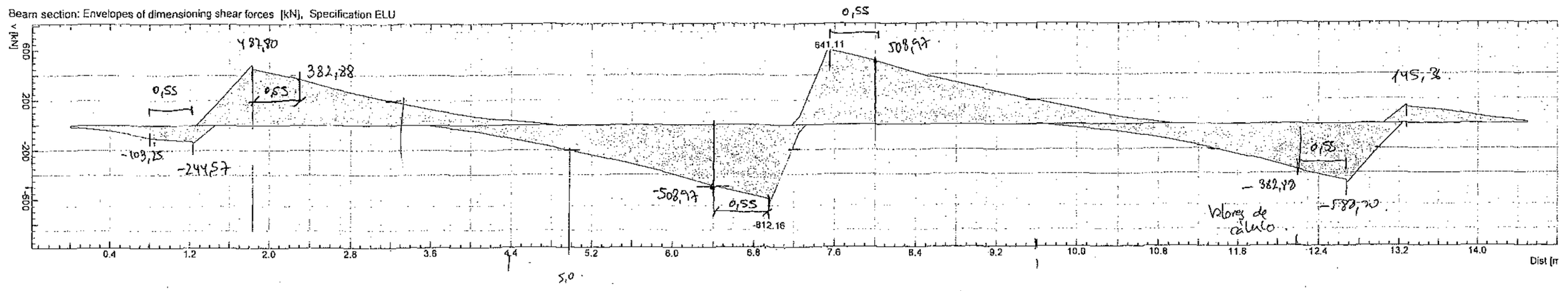
$V_{d_2} = 108,97$ kN/m $\Rightarrow$ $V_{dn} = \frac{108,97 - 131,8}{40 \times 0,9 \times 0,55} = 19,05$ cm²/m. $\Rightarrow$ $\phi 10 \, a \, 0,20 \times 0,20$. 2 razones $\phi 10/m^2$.



Pilar = 0,20 -

Section: S4 (-10.166,14.500 - -10.166,0.000)

Beam section: Envelopes of dimensioning shear forces [kN], Specification ELU



Obra:
Fecha: 27/12/2005
Hora: 19:14:29

Cálculo de secciones a cortante

1 Datos

- Materiales

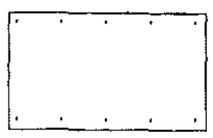
Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γc = 1.50
γs = 1.15

- Tipo de elemento estructural

Tipo : elemento sin armadura a cortante

- Sección

Sección : LOSAPARQUE1
b0 [m] = 1.00
h [m] = 0.60



2 Comprobación

ρl [·1.E-3] = 2.6
Nd [kN] = -163.2
Vu [kN] = 172.7

Obra:
Fecha: 27/12/2005
Hora: 19:17:01

Cálculo de secciones a cortante

1 Datos

- Materiales

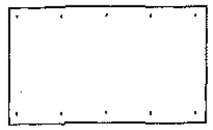
Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γc = 1.50
γs = 1.15

- Tipo de elemento estructural

Tipo : elemento con armadura a cortante

- Sección

Sección : LOSAPARQUE1
b0 [m] = 1.00
h [m] = 0.60



2 Dimensionamiento

Esfuerzo cortante de cálculo Vd [kN] = 382.88

Inclinación de las bielas [°] = 45
Inclinación de los cercos [°] = 90.0
ρ [·1.E-3] = 2.6
Nd [kN] = -163.2
σxd [MPa] = -0.3
σyd [MPa] = 0
θe [°] = 46.8

ϕ [mm]	Separación [mm]	nº ramas	Area [cm²/m]	Tipo	Vsu [kN]	Vu2 [kN]
ø 6	----	----	----	----	----	----
ø 8	0.15	4	13.4	2	268.1	399.84
ø 10	0.25	4	12.6	2	251.3	383.09
ø 12	0.25	4	18.1	2	361.9	493.67

Área estricta [cm²/m] = 12.6

Vu1 [kN] = 2750.0

Vcu [kN] = 131.8

Obra:
Fecha: 27/12/2005
Hora: 19:18:11

Cálculo de secciones a cortante

1 Datos

- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γc = 1.50
γs = 1.15

- Tipo de elemento estructural

Tipo : elemento con armadura a cortante

- Sección

Sección : LOSAPARQUE1
b0 [m] = 1.00
h [m] = 0.60

2 Dimensionamiento

Esfuerzo cortante de cálculo Vd [kN] = 508.97

Inclinación de las bielas [°] = 45
Inclinación de los cercos [°] = 90.0
ρ [·1.E-3] = 2.6
Nd [kN] = -163.2
σxd [MPa] = -0.3
σyd [MPa] = 0
θe [°] = 46.8

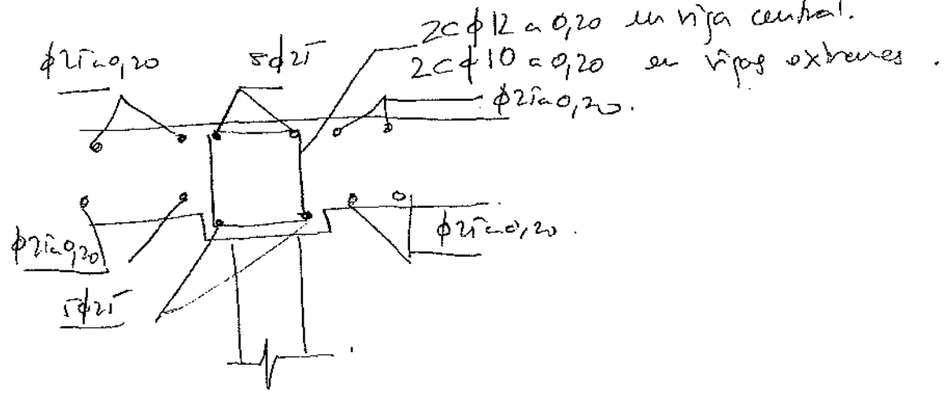
ϕ [mm]	Separación [mm]	nº ramas	Area [cm²/m]	Tipo	Vsu [kN]	Vu2 [kN]
ø 6	----	----	----	----	----	----
ø 8	0.10	4	20.1	2	402.1	533.88
ø 10	0.15	4	20.9	2	418.9	550.64
ø 12	0.20	4	22.6	2	452.4	584.15

Área estricta [cm²/m] = 18.9

Vul [kN] = 2750.0

Vcu [kN] = 131.8

Armadura de viga de cabeza.



4525

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.0
Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra:
Fecha: 27/12/2005
Hora: 19:32:30

Cálculo de secciones a cortante

1 Datos

- Materiales

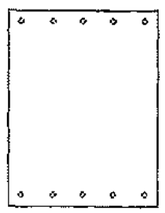
Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γc = 1.50
γs = 1.15

- Tipo de elemento estructural

Tipo : elemento con armadura a cortante

- Sección

Sección : VIGAATADO
b0 [m] = 0.60
h [m] = 0.80



2 Dimensionamiento

Esfuerzo cortante de cálculo Vd [kN] = 685.79

Inclinación de las bielas [°] = 45
Inclinación de los cercos [°] = 90.0
ρ [·1.E-3] = 3.27
Nd [kN] = -404.0
σxd [MPa] = -0.8
σyd [MPa] = 0
θe [°] = 50.3

ϕ [mm]	Separación [mm]	nº ramas	Area [cm²/m]	Tipo	Vsu [kN]	Vu2 [kN]
ø 6	----	----	----	----	----	----
ø 8	----	----	----	----	----	----
ø 10	0.10	4	31.4	2	854.5	925.86
ø 12	0.20	4	22.6	2	615.2	686.60

Área estricta [cm²/m] = 22.6
Vu1 [kN] = 2250.0
Vcu [kN] = 71.3

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.0
Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra:
Fecha: 27/12/2005
Hora: 19:34:58

Cálculo de secciones a cortante

1 Datos

- Materiales

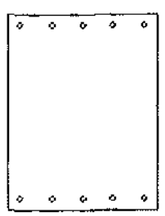
Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γc = 1.50
γs = 1.15

- Tipo de elemento estructural

Tipo : elemento con armadura a cortante

- Sección

Sección : VIGAATADO
b0 [m] = 0.60
h [m] = 0.80



2 Dimensionamiento

Esfuerzo cortante de cálculo Vd [kN] = 467.51

Inclinación de las bielas [°] = 45
Inclinación de los cercos [°] = 90.0
ρ [·1.E-3] = 3.27
Nd [kN] = -404.0
σxd [MPa] = -0.8
σyd [MPa] = 0
θe [°] = 50.3

ϕ [mm]	Separación [mm]	nº ramas	Area [cm²/m]	Tipo	Vsu [kN]	Vu2 [kN]
ø 6	---	---	---	---	---	---
ø 8	0.10	4	20.1	2	546.9	618.24
ø 10	0.20	4	15.7	2	427.3	498.61
ø 12	0.25	4	18.1	2	492.2	563.55

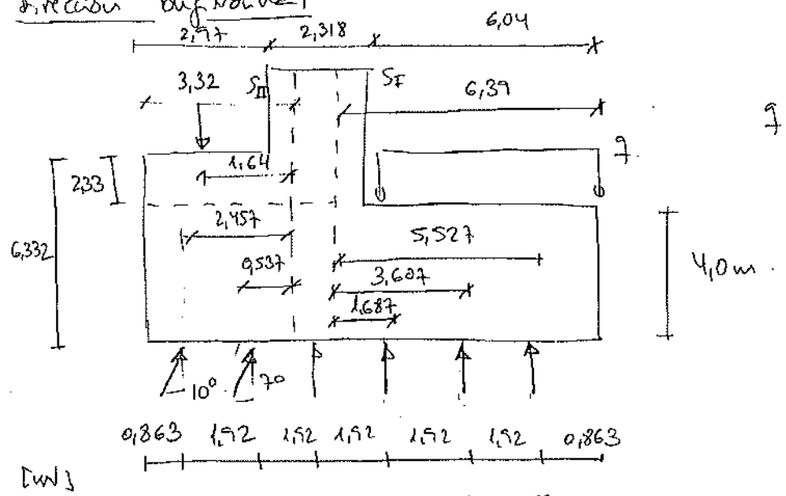
Área estricta [cm²/m] = 14.6
Vu1 [kN] = 2250.0
Vcu [kN] = 71.3

4527

DIMENSIONAMIENTO DE DINTEL

Se realiza el dimensionamiento del encepado para la envolvente de reacciones obtenida en el cálculo previo

Dirección bycicletonal



$q = 30\ kN/m^2 + 3,0 \times 2,0 = 90\ kN/m^2$

sc tecc tierra

[kN]

Rmin	111,8	282,1	468,2	474,7	287	58,1	LADO 1
Rmax	1468	1144	788,5	584,6	561,5	578	
Rmin	376,7	509,5	312,2	352,5	176,1	246	LADO 2.
Rmax	1221	943,9	787,4	748,4	719,5	688,6	

NOTA: • La acción horizontal se considera actuando en el eje del macizado

• El cortante, del lado de la seguridad, se anula en las secciones S_I y S_{II} coincidiendo con las de obtención de momentos.

Reacciones transmitidas por el tablero en apoyos:

N_{max}: 4826 kN

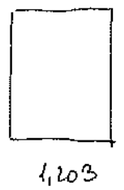
N_{min}: 1843 kN

Se dimensiona en primer lugar la armadura de la cara superior del encepado. Este dimensionamiento se realiza para los valores de las reacciones en el lado 2 (pésimos para momentos positivos y negativos)

S_I Negativo [m]

$$Md_{S_I} = -1,5 \times \left[4,0 \times 25 \times \frac{6,39^2}{2} + 90 \times 6,04 \times (6,39 - 3,02) \right] \times 1,203 +$$

$$+ 1,0 \times \left[2,46 \times 5,527 + 176,1 \times 3,607 + 352,5 \times 1,687 \right] = 5746,3\ kN$$



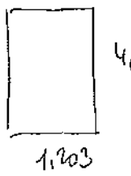
$U_{S_1} = 1488\ kN \Rightarrow A_{S_1} = 33,56\ cm^2 \equiv 27,9\ cm^2/m$

$f_{cu} = 30\ N/mm^2 \Rightarrow$ 6 ϕ 25 /m.

Positivo [m]

$$Md_{S_I} = -1,0 \times \left[4,0 \times 25 \times \frac{6,39^2}{2} + 60 \times 6,04 \times (6,39 - 3,02) \right] \times 1,203$$

$$+ 1,50 \times \left[688,6 \times 5,527 + 719,5 \times 3,607 + 748,4 \times 1,687 \right] = 7770,3\ k$$



$U_{S_1} = 1965\ kN$

$A_{S_1} = 44,32\ cm^2 \Rightarrow 36,84\ cm^2/m$.

8 ϕ 25/m.

Cortante

$$V_d = 1,5 \times \left[688,6 + 719,5 + 748,4 \right] - 1,0 \times \left[4,0 \times 25 \times 6,39 + 60 \times 6,04 \right] \times 1,$$

$$= 2030\ kN$$

$$V_{cu} = 0,1 \cdot \left(1 + \sqrt{\frac{200}{3500}} \right) \cdot \left(30 \times 100 \times \frac{32,72 \cdot 10^{-4}}{1,0 \times 3,9} \right)^{1/3} \cdot 1000 \cdot 3900 \cdot 10^{-3} = 651\ kN/m$$

$$A_{s} = \frac{2030 - 651 \times 1{,}203}{0{,}9 \times 3{,}50 \times 40} = 8{,}88 \text{ cm}^2/\text{m} \Rightarrow \underline{7{,}40 \text{ cm}^2/\text{m}^2}$$

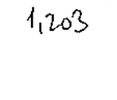
$$V_d = -1{,}50 \times \left[4{,}0 \times 25 \times 6{,}39 + 90 \times 6{,}04 \right] \times 1{,}203 + 1{,}0 \times [2{,}46 +$$

$$+ 176{,}1 + 352{,}5] = -1602{,}9 \text{ kN} \Rightarrow \text{NO CONDICIONA.}$$

S II | Positivo [m¹]

$$M_d^+ = 1{,}5 \times \left[1468 \times 2{,}457 \cdot \cos 10^\circ + 1144 \times 0{,}537 \times \cos 7^\circ \right] -$$

$$- 1{,}0 \times \left[\frac{1843}{3{,}05} \times 1{,}203 \times 1{,}64 \right] - 1{,}0 \times \left[4{,}0 \times 25 \times \frac{3{,}32^2}{2} \right] = 4500 \text{ kN m.}$$



V_{s1}: 1162 kN $\Rightarrow$ $A_{s1} = 26{,}21 \text{ cm}^2 \Rightarrow \underline{21{,}79 \text{ cm}^2/\text{m}}$.

5φ25/m.

1,203

$$M_d^- = 1{,}10 \times \left[111{,}8 \times 2{,}457 \times \cos 10^\circ + 282{,}1 \times 0{,}537 \cdot \cos 7^\circ \right] -$$

$$- 1{,}50 \times \left[\frac{4826}{3{,}05} \times 1{,}203 + 6{,}33 \times 25 \times \frac{3{,}32^2}{2} \right] = -3743 \text{ kN m.}$$

$V_{s1} = 966$ kN

A_{s1}: 21,77 cm² $\Rightarrow$ 18,1 cm²/m. 4φ27/m.

$\Rightarrow$ se prolonga la armadura del trasdós.

Cortante.

$$V_d = 1{,}50 \times \left[1468 \times \cos 10^\circ + 1144 \cdot \cos 7^\circ \right] - 1{,}0 \times \left[\frac{1843}{3{,}05} \times 1{,}203 + 4{,}0 \times 25 \times 3{,}32 \right]$$

$$= 2813 \text{ kN}$$

$$V_{cu} = 0{,}1 \cdot \left(1 + \sqrt{\frac{200}{390}}\right) \cdot (30 \times 100 \, \frac{32{,}72 \cdot 10^{-4}}{1 \times 3{,}5})^{1/3} \cdot 1000 \cdot 390 \, 10^{-3} = 650{,}64 \text{ kN/m}$$

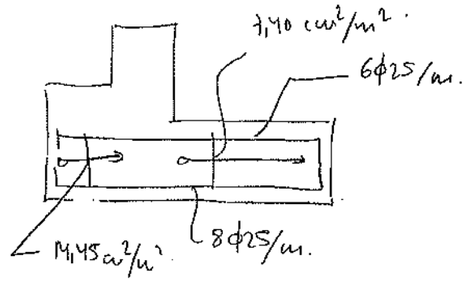
$$A_s = \frac{2813 - 782{,}72}{40 \times 0{,}9 \times 35} = 14{,}46 \text{ cm}^2/\text{m} \Rightarrow \underline{12{,}02 \text{ cm}^2/\text{m}^2}$$

$$V_d = 1{,}0 \times \left[111{,}8 \times \cos 10^\circ + 282{,}1 \cdot \cos 7^\circ \right] - 1{,}5 \cdot \left[\frac{4826}{3{,}05} \times 1{,}203 + \right.$$

$$\left. + 6{,}33 \times 25 \times 3{,}32 \right] = -3272 \text{ kN}$$

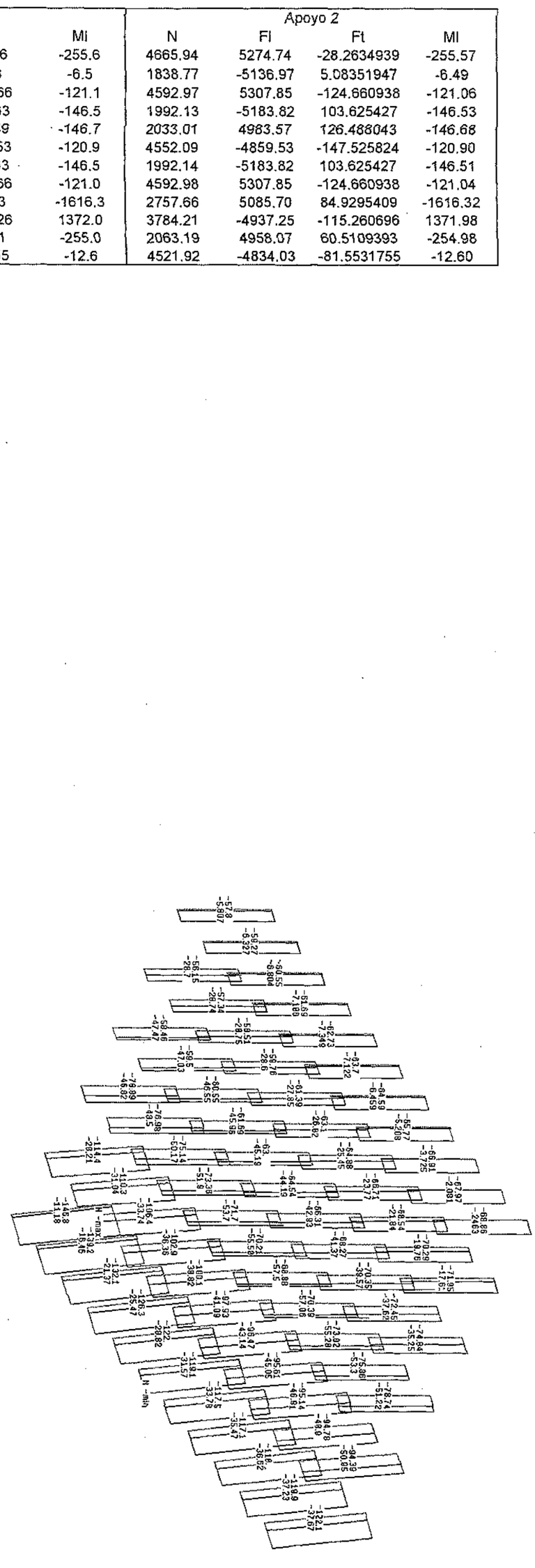
$$A_s = \frac{3272 - 831{,}80}{40 \times 0{,}9 \times 35} \sim 8\phi 25 = 17{,}38 \text{ cm}^2/\text{m} \Rightarrow 14{,}45 \text{ cm}^2/\text{m}^2$$

Resumen.-



Acciones de ...lero repartidas en apoyos

	Apoyo 1				Apoyo 2			
	N	Fl	Ft	Ml	N	Fl	Ft	Ml
Nmax	4825.56	4966.79	-28.26	-255.6	4665.94	5274.74	-28.2634939	-255.57
Nmin	1842.82	-5104.49	5.08	-6.5	1838.77	-5136.97	5.08351947	-6.49
Fl max	4668.58	4933.68	-124.66	-121.1	4592.97	5307.85	-124.660938	-121.06
Fl min	2083.65	-5057.66	103.63	-146.5	1992.13	-5183.82	103.625427	-146.53
Ft max	2124.62	5257.96	126.49	-146.7	2033.01	4983.57	126.488043	-146.68
Ft min	4627.60	-5381.94	-147.53	-120.9	4552.09	-4859.53	-147.525824	-120.90
Ml max	2083.64	-5057.66	103.63	-146.5	1992.14	-5183.82	103.625427	-146.51
Ml min	4668.57	4933.68	-124.66	-121.0	4592.98	5307.85	-124.660938	-121.04
Mt max	3767.11	5155.82	84.93	-1616.3	2757.66	5085.70	84.9295409	-1616.32
Mt min	2927.36	-5304.21	-115.26	1372.0	3784.21	-4937.25	-115.260696	1371.98
Mtor max	2222.44	5283.46	60.51	-255.0	2063.19	4958.07	60.5109393	-254.98
Mtor min	4529.78	-5407.44	-81.55	-12.6	4521.92	-4834.03	-81.5531755	-12.60



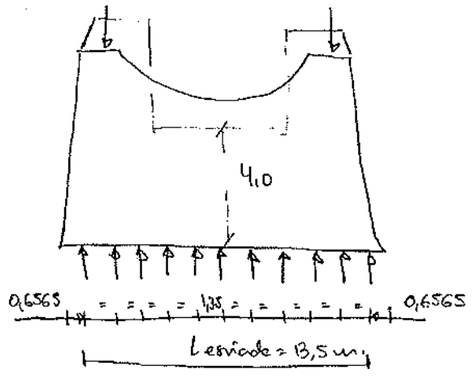
S T A T I K - 3 V 2.68 página 2(
Corsán-Corviam S.A. 02.01.06
SANT BOI DE LLOBREGAT 12:47
ESTRIBO E-1

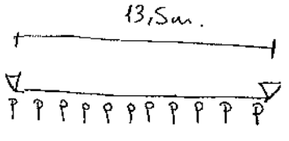
Escala 1 : 81.0
Section forces envelope N , GWSP AG (ENVOLVENTE 1), View "SUPERIOR"
- Struktur: Staebe
- Envelop Normal force N-min, Scaling 5.00E-03
  min: -1.47E+02 max: -5.62E+01 [t]
- Envelop Normal force N-max, Scaling 5.00E-03
  min: -5.75E+01 max: -2.46E-01 [t]
- Text envelopes [t]

dirección pantrosal

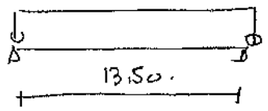
Se comprueba la estabilidad de las filas de pilotes en la dirección esviada.

Fila delantera ⇒ ①





Cada banda se asimila a una viga invertida y biapoyada en los extremos.



$q_1 = \frac{1468 + 1221}{2} \times \frac{9}{13,50} = 896,3$ kN/m.

$q_{pp} = 4 \times 25 \times 1,92 = 192$ kN/m.

$M_d = 1,5 \times \frac{(896,3 - 192)}{8} \times 13,5^2 = 24067$ kN m.

$\Rightarrow V_{s1} = 6328$ kN / 1,92 m. $\Rightarrow A_{s1} = 142,7 cm^2$.

$\Rightarrow 74,32 cm^2/m$.

$\Rightarrow V_{s1} = 4621$ kN / 1,823 $\Rightarrow A_{s1} = 104,21 cm^2$

$\Rightarrow 57,20 cm^2/m$.

$V_d = 1,5 \times (896,3 - 192) \times \frac{13,5}{2} = 7131$ kN. $\Rightarrow A_\alpha = 38,49 cm^2/m \Rightarrow 20,05 cm^2/m^2$

$V_{cu} = 0,10 \cdot \left(1 + \sqrt{\frac{2700}{3900}}\right) \cdot \left(30 \times 100 \cdot \frac{86,34 \cdot 10^{-4}}{1,0 \times 3,9}\right)^{1/3} \cdot 1920 \times 3500 \cdot 10^{-3} = 1726,3$ kN

5.-

Fila ②

$q_2 = \frac{1144 + 943,9}{2} \times \frac{9}{13,5} = 695,97$ kN/m.

$M_d = 1,50 \times \frac{(696 - 192)}{8} \cdot 13,5^2 = 17223$ kN.m.

$\Rightarrow V_{s1} = 4496$ kN $\Rightarrow A_{s1} = 101,4 cm^2$

$A_{s1} = 52,8 cm^2/m$

$V_d = 1,50 \times \frac{(696 - 192)}{2} \times 13,50 = 5103$ kN.

$A_{\alpha 2} = \frac{5103 - 1249}{40 \times 0,9 \times 3,90} = 27,45 cm^2/m \Rightarrow 14,30 cm^2/m$

Fila ③.

$q_3 = \frac{778,9 + 787,4}{2} \times \frac{9}{13,5} = 522,1$ kN/m.

$M_d = 1,50 \times \frac{(522,1 - 192)}{8} \times 13,5^2 = 11280$ kN.m.

$V_{s1} = 2926$ kN $\Rightarrow A_{s1} = 65,98 in^2 \Rightarrow 34,36 cm^2/m$

$V_d = 1,50 \times \frac{(522,1 - 192)}{2} \times 13,5 = 3342$ kN

$A_{\alpha 3} = \frac{3342 - 1249}{40 \times 0,9 \times 3,5} = 14,91 cm^2/m \Rightarrow 7,76 cm^2/m^2$

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6.-

Tira ④

$$q_4 = \frac{584,6 + 748,4}{2} \cdot \frac{9}{13,50} = 444,33 \text{ kN/m}.$$

$$M_{sd} = 1,50 \times \frac{(444,33 - 192)}{8} \cdot 13,5^2 = 8622,7 \text{ kN·m}.$$

$V_{s_1} = 2230,5$ kN $A_s = 50,3 \text{ cm}^2 \Rightarrow 26,2 \text{ cm}^2/\text{m}$

Tira ⑤

$$q_5 = \frac{719,5 + 561,5}{2} \cdot \frac{9}{13,50} = 427 \text{ kN/m}.$$

$$M_{sd} = 1,50 \times \frac{(427 - 192)}{8} \times 13,5^2 = 8030,4 \text{ kN·m}.$$

$V_{s_1} = 2076$ kN $A_{s_1} = 46,81 \text{ cm}^2 \Rightarrow A_{s_1} = 24,38 \text{ cm}^2/\text{m}$.

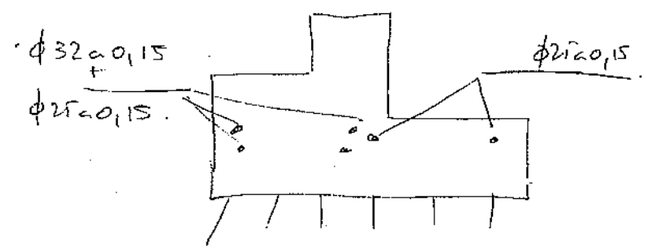
Tira ⑥ Se comprueba la flexión positiva:

$$q_6 = \frac{58,07 + 246}{2} = 30,3 \text{ kN/m}.$$

$$M_{sd} = 1,50 \times \frac{(30,3 - 192)}{8} \cdot 13,5^2 = 5527 \text{ kN·m}.$$

$V_{s_1} = 1426,7$ kN $\Rightarrow A_{s_1} = 32,2 \text{ cm}^2 \Rightarrow 16,77 \text{ cm}^2/\text{m}$.

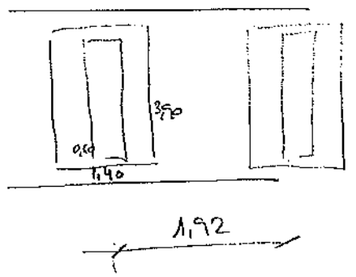
Resumen.



Se combina el cortante necesario por ambas direcciones:

Dir larg: $A_{s\,max} = 14,45 \text{ cm}^2/\text{m}^2$
Dir trans: $A_{s\,max} = 20,05 \text{ cm}^2/\text{m}^2$
$\Rightarrow A_s = 34,5 \text{ cm}^2/\text{m}^2$.

$1c\phi 20 + 1c\phi 16$ a $0,15 / 1,92 \text{ m} \equiv 35,78 \text{ cm}^2/\text{m}^2$.
válido



Capa bacinzalla.

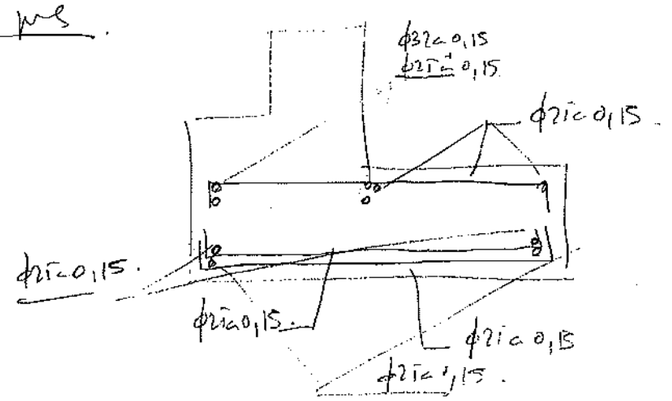
$N_{sd} = 146,8 \times 1,50 = 220,2$ t

$A_s = 0,25 \times \frac{220,2}{4} = 13,76 \text{ cm}^2$. Para un ancho máximo de 0,6

$A_s = \frac{13,76}{0,60} = 22,94 \text{ cm}^2/\text{m} \Rightarrow \phi 25 \text{ c } 0,15$ válido

a/d.
a/i.

Kit pues.

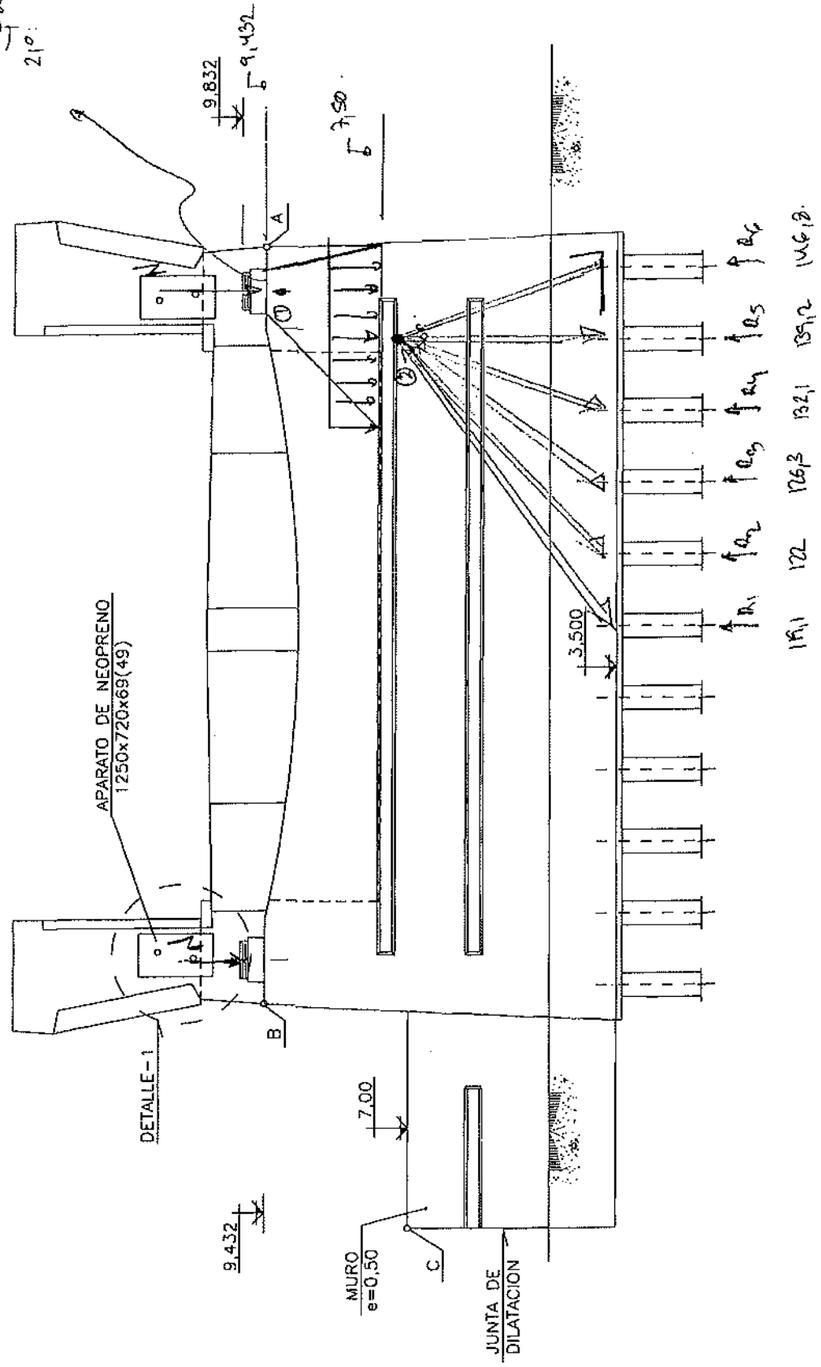


$T_d = \frac{N_d}{\cos 21} \cdot \operatorname{sen} 21° = 135,41$ t.

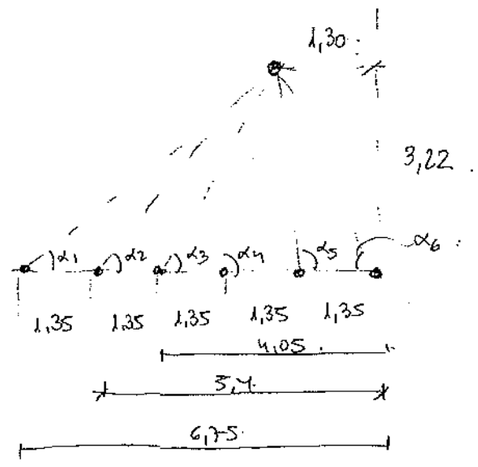
$A_s = 46,35 \text{ cm}^2$ ⟸ N_d

$\sum 101,45$ t

VALIDO



NUDO ②



$\alpha_1 = 30,6°$ ⇒	$Cd_1 = 233,97$ t.	$Td_1 = 201,40$ t.	
$\alpha_2 = 38,14°$	$Cd_2 = 197,54$ t.	$Td_2 = 155,4$ t.	
$\alpha_3 = 49,50°$	$Cd_3 = 166,1$ t.	$Td_3 = 107,87$	
$\alpha_4 = 66,500$	$Cd_4 = 144,05$ t	$Td_4 = 57,44$ t	
$\alpha_5 = 87,11°$	$Cd_5 = 139,22$ t.	$Td_5 = 2,16$ t.	
$\alpha_6 = 68,101°$	$Cd_6 = 158,32$ t.	$Td_6 = -59,3$ t.	

$\Sigma = 464,96$ t

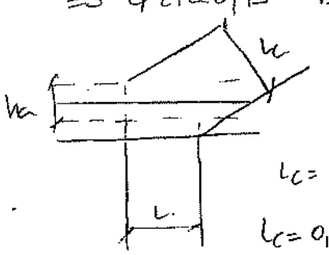
$A_s = 116,24 \text{ cm}^2$ /barde de pilote ⇒ $60,54 \text{ cm}^2/\text{m}$.

y dispone $86,34 \text{ cm}^2/\text{m}$.

Armadura superior: $\frac{59,3 \text{ t}}{4,0} = 14,83 \text{ cm}^2/\text{barda}$.

⇒ $\phi 25 \text{ c } 0,15$ bi-bicl. ($19,63 \text{ cm}^2$ sobre pilote $\varnothing 0,6$ m)

bi-bela en Cd_1 ⇒



$L_c = l \cdot \operatorname{sen}\alpha_1 + h_a \cdot \cos\alpha_1$

$L_c = 0,40 \cdot 0,51 + 0,10 \cdot 0,861 = 0,29$ m.

$\Omega_p = 0,25 \times 0,60 = 0,174 \text{ m}^2$.

$\sigma = \frac{234}{0,174} = 1346 \text{ t/m}^2 < 0,7 f_{cd}$ ⇒ bi-bicl. $l = 0,60$ m.

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ESTUDIO DE CIMENTACIONES
DE LOS ESTRIBOS
DEL VIADUCTO SOBRE EL RÍO LLOBREGAT

ANEJO 2: ESTUDIO GEOTÉCNICO

ÍNDICE

1 INFORMACION GEOTECNICA

2 ESTUDIO DE SIMULACIÓN DEL PROCESO DE HINCADO

1. INFORMACIÓN GEOTÉCNICA

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

INFORME DE LA CAMPAÑA DE SONDEOS

PARTE 1: TESTIFICACIÓN

"Línea de Alta Velocidad Madrid - Zaragoza - Barcelona - Frontera Francesa.
Tramo Sant Boi de Llobregat - Hospitalet de Llobregat"

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

COORDENADAS DE SONDEOS

SONDEO	X (UTM)	Y (UTM)	Z
SOCC-01	423194,13	4575778,25	6,75
SOCC-02	423278,10	4575771,08	6,32
SOCC-03	423979,58	4576134,68	6,79
SOCC-04	424057,92	4576163,24	6,65
SOCC-05-01	424922,18	4576547,09	8,30
SOCC-05-02	424893,96	4576468,83	6,45
SOCC-06	424986,07	4576500,14	8,22
SOCC-07	-	-	1,00 aprox
SOCC-09	425118,35	4576594,71	6,60
SOCC-10	-	-	-
SOCC-12	423415,68	4575879,80	6,86
SOCC-13	423591,15	4575953,14	7,28
SOCC-14	423918,66	4576103,43	6,59
SOCC-15	424151,18	4576204,46	6,67
SOCC-17	424405,96	4576282,44	6,12
SOCC-18	424504,32	4576326,19	6,34
SOCC-19	-	-	-

→ JUNTO A PILA-1 ANCHO IB
→ JUNTO A ESTRIBO E-1

→ JUNTO A PILA-2 ANCHO UIC
→ JUNTO A ESTRIBO E-2.

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GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 1 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERÍA, CORONA Y REVESTIMIENT
0.00				Relleno con restos de aglomerado											113
2,45				Arena fina con grava y restos de raíces	SPT	4-5-7-5			P-0081						
5,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 3 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
10,00 10,15				Arena con limo	SPT	10-13-14-13			P-0082						
11,05				Arena media con limo											
11,60				Limo arcilloso ligeramente arenoso											
12,05				Arena muy fina gris oscura											
12,75				Arena gris oscura											
13,52				Arena fina gris oscura											
14,12			14,00	Arena media gris oscura											
15,00				Limo arenoso											113

OBSERVACIONES:

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GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 4 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
15,00				Limo arenoso											
15,30					MI	10-14-17-12									
				Limo arcilloso											
16,35															
				Limo arenoso											
17,75															113
				Arena fina	SPT	9-10-9-18			P-0083						
19,05															
				Limo											
19,50															
				Arena limosa											
20,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 5 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GgolpES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
20,00				Arena limosa											
20,70				Limo arenoso											
21,10					MI	14-17-21-22			I-0086						
				Arena limosa con intercalaciones máximas de 10 cm de limo arenoso											113
					SPT	7-5-8-10			P-0084						
24,45				Limo											
24,85				Arena limosa con niveles milimétricos de limo arenoso											
25,00															

OBSERVACIONES:

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GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 6 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL. (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
25,00				Arena limosa con niveles milimétricos de limo arenoso											
26,10				Arena ligeramente limosa											
26,45				Arena limosa con intercalaciones de limo arenoso	MI	4-3-10-12									113
28,33				Limo											
29,35				Limo arenoso											
29,73				Limo											
30,00															

OBSERVACIONES:

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GEOCISA GERTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 7 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
30.00				Limo	SPT	2-3-6-7			P-0085						
31,17				Arena limosa											
32,85				Limo	MI	9-14-17-32			I-0087						113
33,30				Arena limosa											
33,83				Limo arenoso											
34,15				Arena con niveles milimétricos de limo											
35,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 8 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
35,00				Arena con niveles milimétricos de limo											
36,30					M I	16-29-41-37			I-0088						
				Arena fina											
37,00															
				Arena limosa											
37,45				Limo											
37,93				Arena limosa											113
38,90				Limo arcilloso											
39,15					SPT	18-30-49-54			P-0086						
				Grava de 5 cm con matriz arcillosa											
40,00															

OBSERVACIONES:

MI: Muestra Inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 9 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GgolpES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
40,00				Grava de 5 cm con matriz arcillosa											
40,60				Grava de 3 cm con matriz arcillosa											
41,50					SPT	R10									113
				Grava con matriz areno-limosa											
45,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 10 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
45.00				Grava con matriz areno-limosa	SPT	R10									
45,70				Grava de 2 cm con Matriz limosa											113
47,65				Arena marrón-rojiza											
48,40					MI	16-25-37-54			I-0089						
50,00				Arena limosa marrón clara											

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

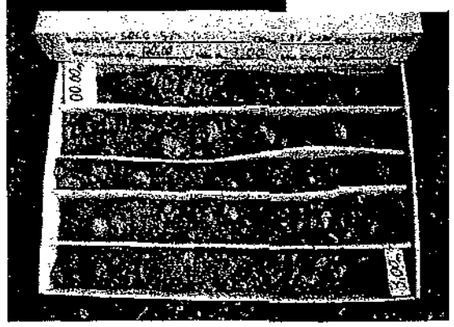
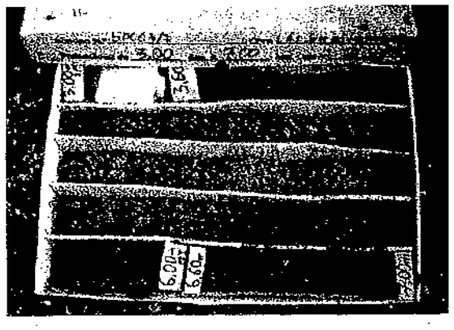
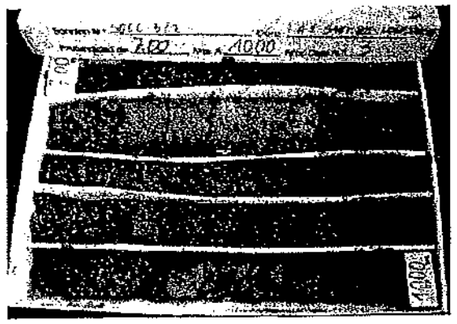
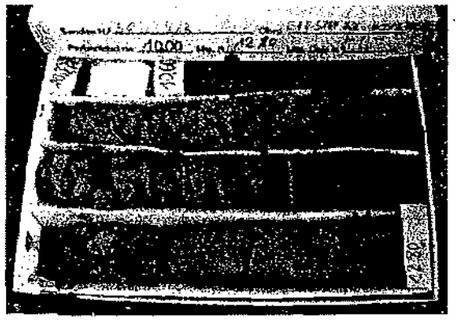
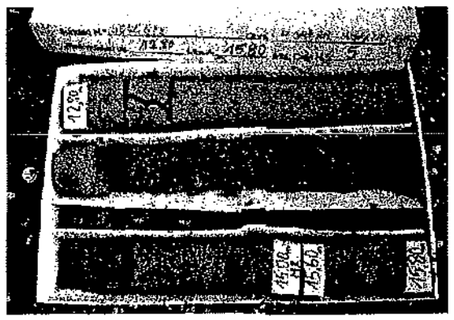
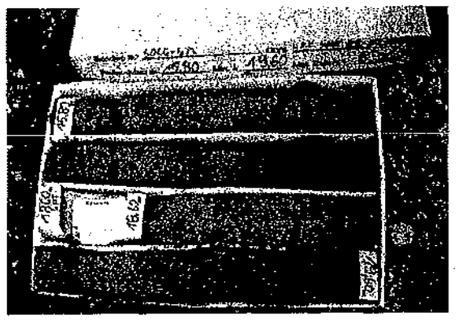
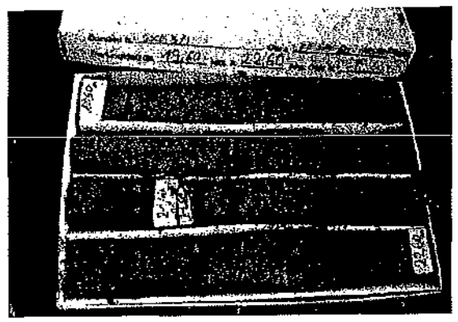
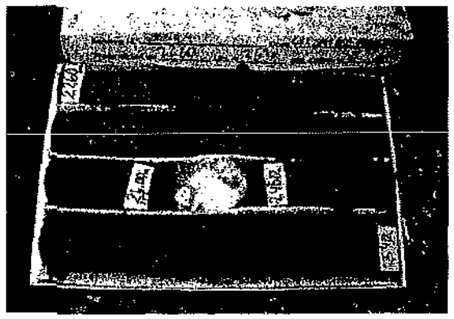
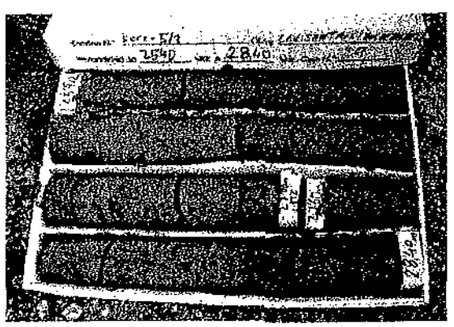
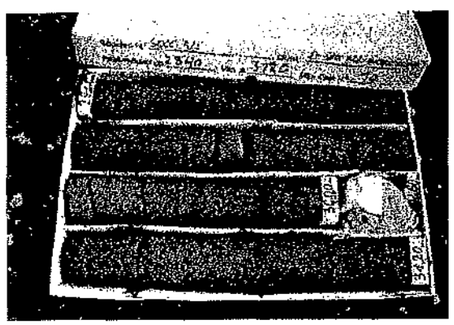
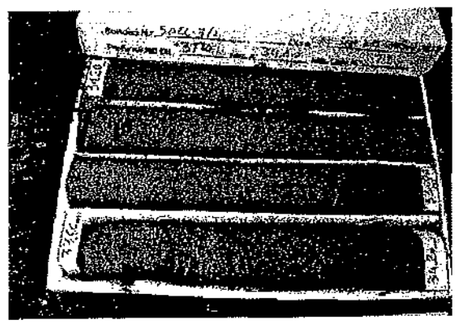
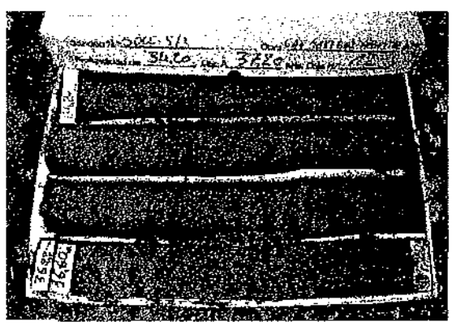
FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 11 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD (cm/s)	BATERIA, CORONA Y REVESTIMIENT
50.00															
					SPT	7-8-9-13			P-0087						
				Arena limosa marrón clara											113
					M I	40-R5			I-0090						
55,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

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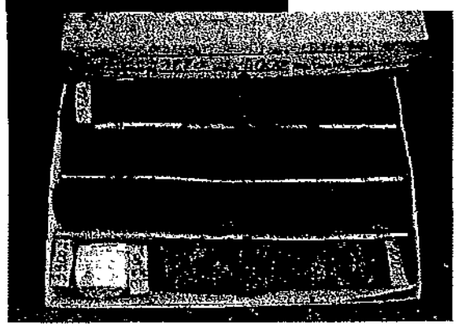
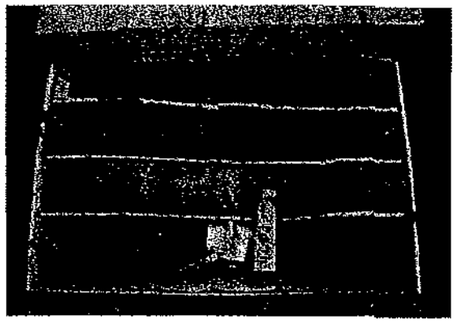
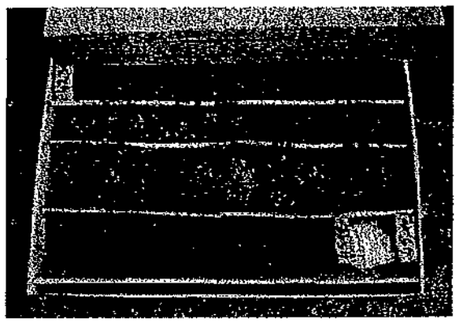
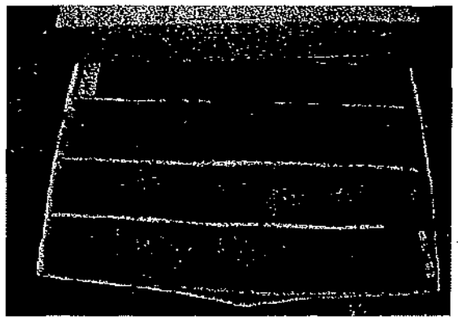
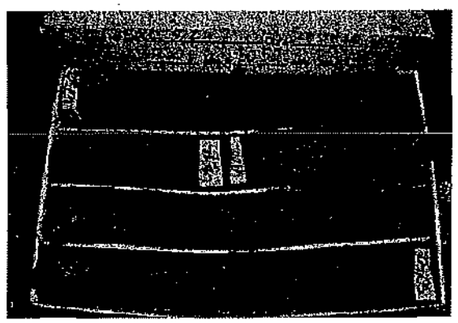
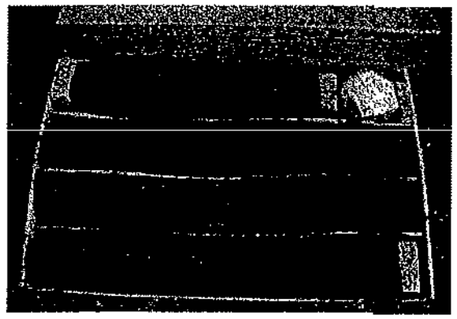
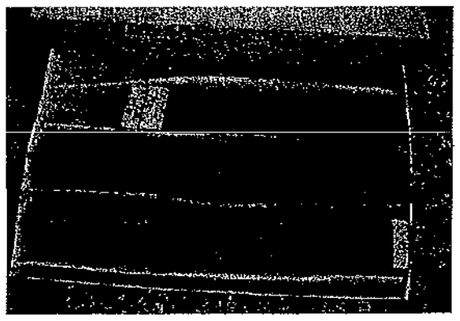

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GEOTECNIA Y CIMIENTOS, S.A.

SOCC-09

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GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 1 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
0,00				Material de relleno muy contaminado											
1,40				Limo arenoso	SPT	3-3-3-4			P-0026						113
3,70				Arena limosa											
4,50				Limo arenoso											
5,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 2 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
5,00				Limo arenoso											
5,30				Arena	M I	9-7-8-10			I-0031						
7,60		N.F 7.50		Arena gruesa											113
9,60				Arena gruesa con limo											
10,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 3 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
10,00				Arena gruesa con limo	SPT	9-11-11-13			P-0027						
10,80				Arena limosa											
12,80				Arena											
13,60				Limo arcilloso gris	M I	8-7-12-22			I-0032						113
15,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 4 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL. (%)	LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
15,00				Limo arcilloso gris											
15,60				Limo arcilloso marrón											
16,50				Limo											
16,87				Limo arenoso											113
17,70				Arena fina limosa	SPT	6-6-7-10			P-0028						
20,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

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GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 5 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GgolpES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD (cm/s)	BATERIA, CORONA Y REVESTIMIENT
20,00				Arena fina limosa											
20,60				Limo arenosa	MI	6-14-27-24			I-0033						
21,60				Limo arcilloso											
22,20				Arena limosa											113
22,90				Limo											
23,20				Arena limosa	SPT	3-1-1-2			P-0029						
24,70				Limo											
25,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 6 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
25,00				Arena limosa											
25,70				Limo arenoso											
26,10				Arena limosa											
27,15					MI	5-10-8-10			I-0034						113
27,80				Limo arenoso											
28,50				Arena limosa											
29,80				Limo arcilloso											
30,00				Arena limosa											

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 7 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
30,00				Arena limosa											
30,30					SPT	2-3-6-5			P-0030						
				Limo											
30,80															
				Limo arenoso											
31,70															
				Arena limosa											
32,20															
				Limo arenoso	M I	8-8-12-12			I-0035						113
34,70															
35,00				Arena limosa											

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005

PROFUNDIDAD: 65 m

HOJA: 8 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERÍA, CORONA Y REVESTIMIENT
35.00				Arena limosa											
36,30				Arena	MI	7-14-14-47			I-0036						113
37,00				Arena limosa											
37,50				Arena											
39,40				Arena limosa	SPT	4-7-8-13			P-0031						
40,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 9 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GgolpES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
40,00				Arena limosa											
41,90				Grava con matriz limosa	MI	R10									
42,30				Arena limosa											113
42,80				Grava de hasta 15 cm de diámetro con arena y matriz limosa											
45,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 10 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD (cm/s)	BATERIA, CORONA Y REVESTIMIENT
45,00				Grava de hasta 15 cm de diámetro con arena y matriz limosa	SPT	34-28-55-37			P-0032						
46,00															
46,20				Arena											
				Grava de hasta 10 cm de diámetro con arena y matriz limosa											113
47,90					SPT	R20									
				Grava de hasta 10 cm de diámetro con arena											
50,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 11 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GgolpES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
50,00				Grava de hasta 10 cm de diámetro con arena											
50,50				Arena fina marrón claro											
51,40				Arena limosa marrón claro											
51,90				Arena fina marrón claro con grava											
52,30				Arena fina marrón claro	SPT	8-20-25-23			P-0033						113
55,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 12 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
55,00				Arena fina marrón claro	MI	14-31-36-R5			I-0037						
57,30				Arena fina algo limosa											113
58,70				Arena fina marrón claro con grava											
59,05				Arena fina marrón claro											
59,35				Grava con matriz limosa											
60,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

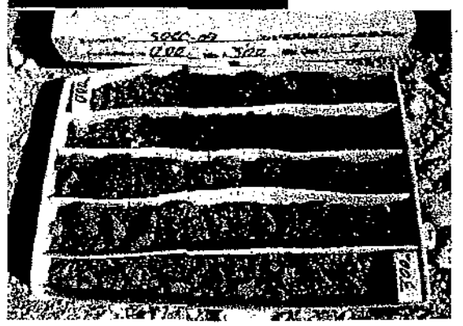
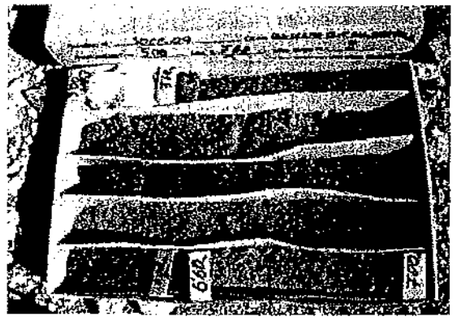
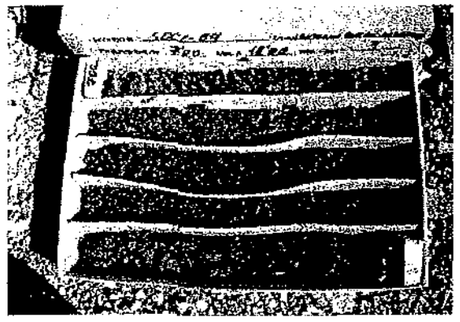
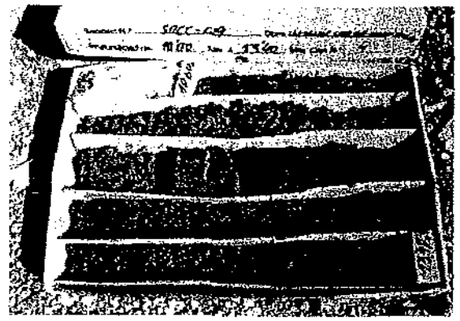
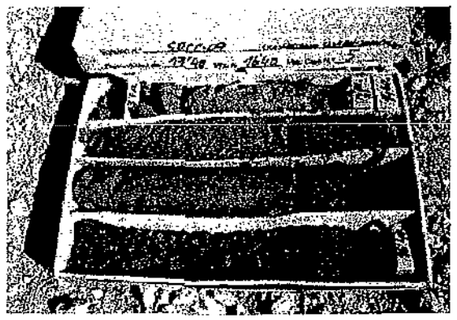
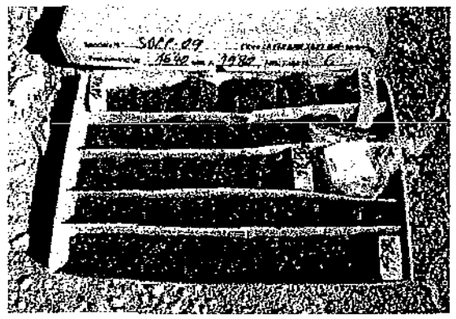
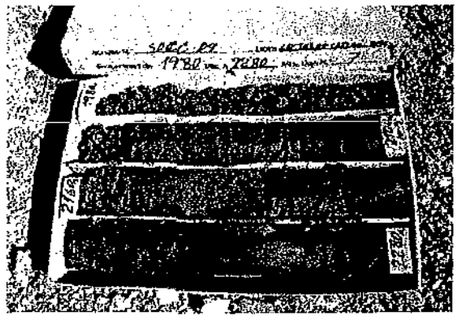
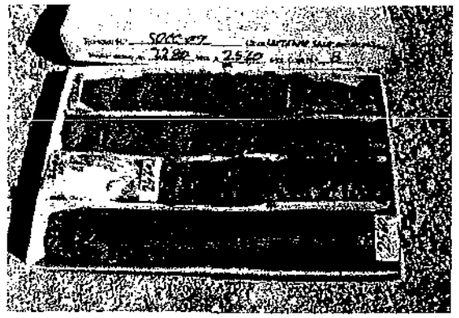
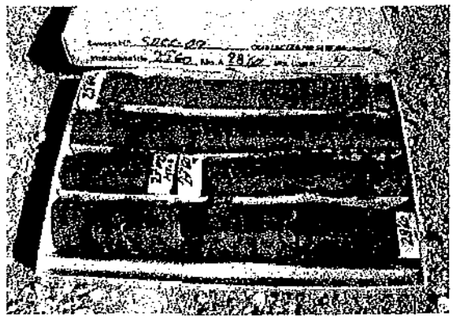
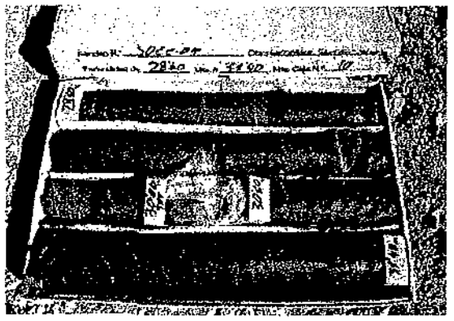
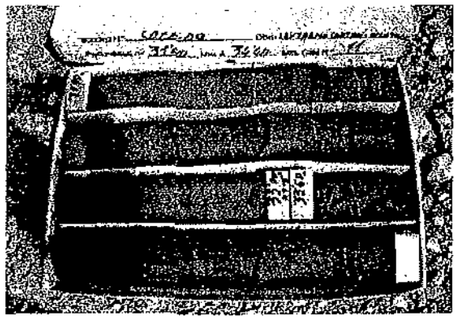
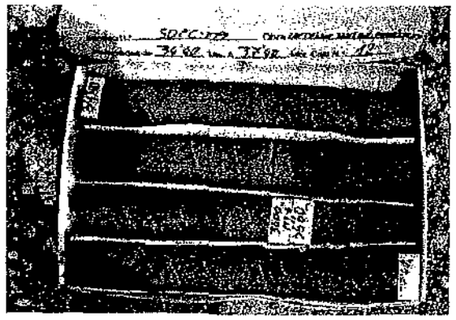
FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 13 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
60,00					SPT	29-31-36-R9			P-0034						
				Grava con matriz limosa											
61,75															
				Arcilla limosa marrón clara											113
62,50															
					MI	42-32-37-44			I-0038						
				Arena marrón clara											
65,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

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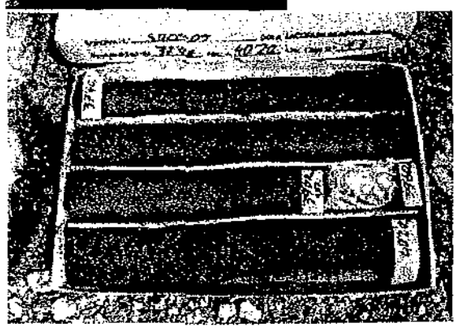
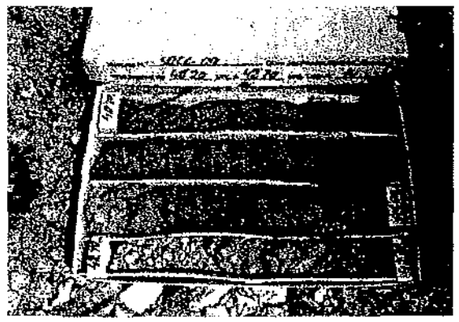
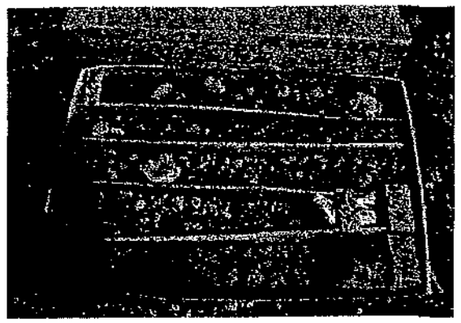
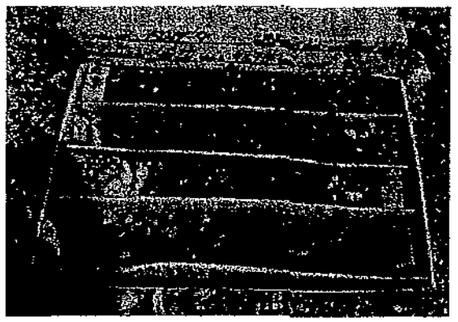
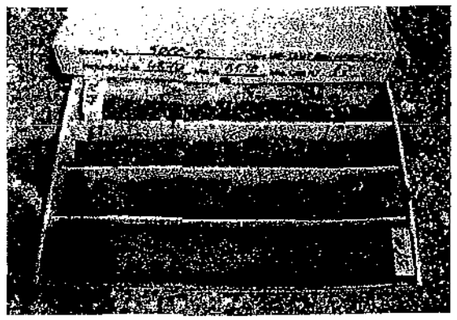
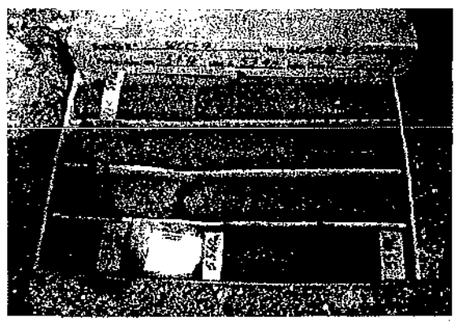
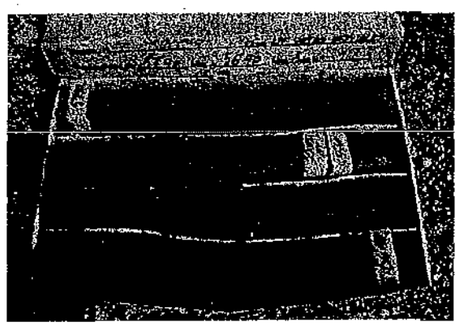
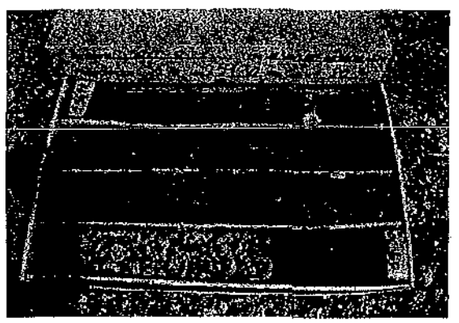
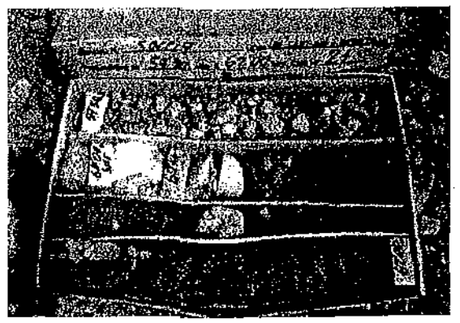
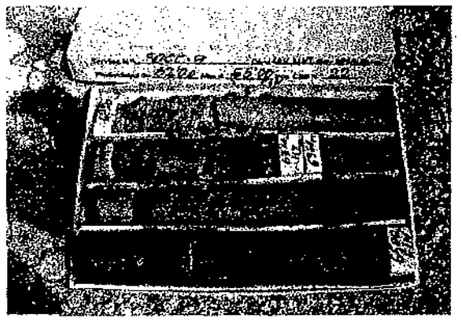
GEOTECNIA Y CIMIENTOS, S.A.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

SOCC-05-02

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0081 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

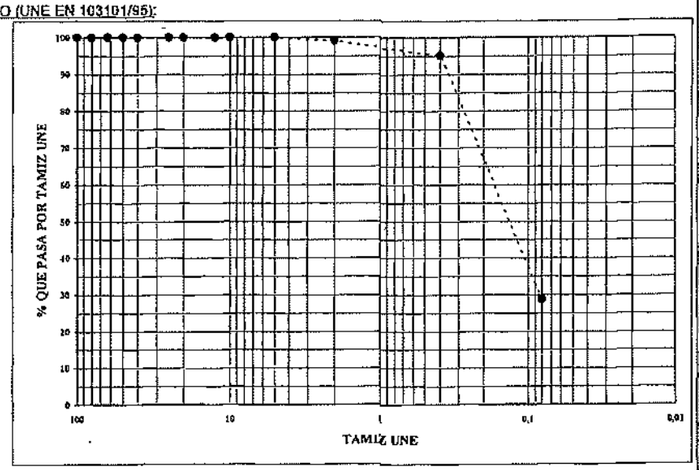
PROFUNDIDAD: DE 03,00 A 03,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	99,1
0,400	95,1
0,08	28,7



PORCENTAJE RETENIDO POR TAMIZ 0,080	71,3
DENSIDAD SECA (UNE EN 103301/94):	-
HUMEDAD NATURAL (UNE EN 103300/93):	-
LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):	
Límite líquido	-
Límite plástico	-
Indice de plasticidad	-

IDENTIFICACIÓN:

BARCELONA 03/11/2005 Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

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GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0082** FECHA: **19/08/2005**

PROCEDENCIA: **SOCC-05-02** TIPO DE MUESTRA: **SPT**

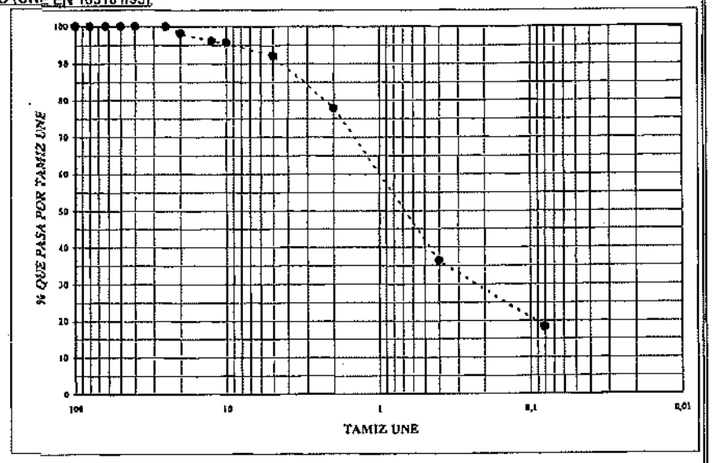
PROFUNDIDAD: **DE 10,00 A 10,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	98,1
12,5	96,1
10,0	95,6
5,0	92,0
2,0	77,9
0,400	36,3
0,08	18,2



PORCENTAJE RETENIDO POR TAMIZ 0,080: **81,8**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0083** FECHA: **19/08/2005**

PROCEDENCIA: **SOCC-05-02** TIPO DE MUESTRA: **SPT**

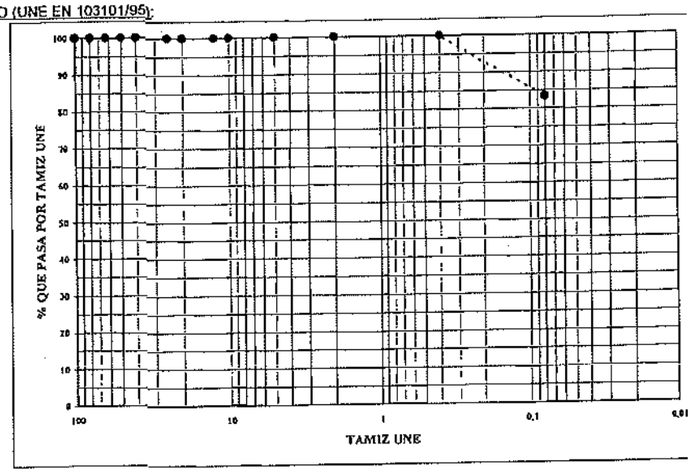
PROFUNDIDAD: **DE 18,00 A 18,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	83,3



PORCENTAJE RETENIDO POR TAMIZ 0,080: **16,7**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0084 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

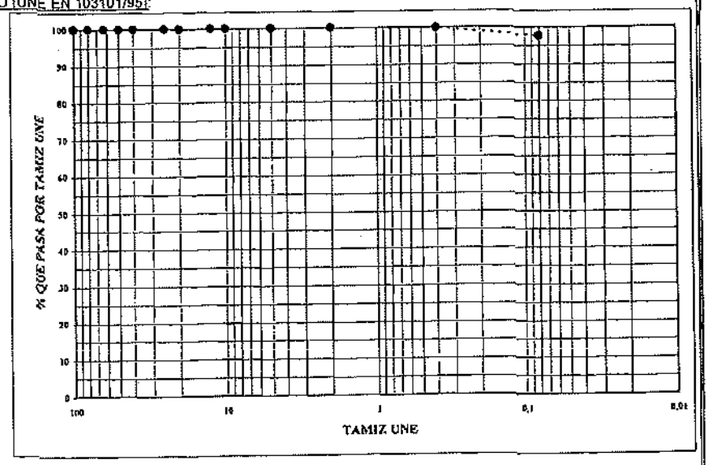
PROFUNDIDAD: DE 24,00 A 24,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	97,6



PORCENTAJE RETENIDO POR TAMIZ 0,080: 2,4

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0085 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

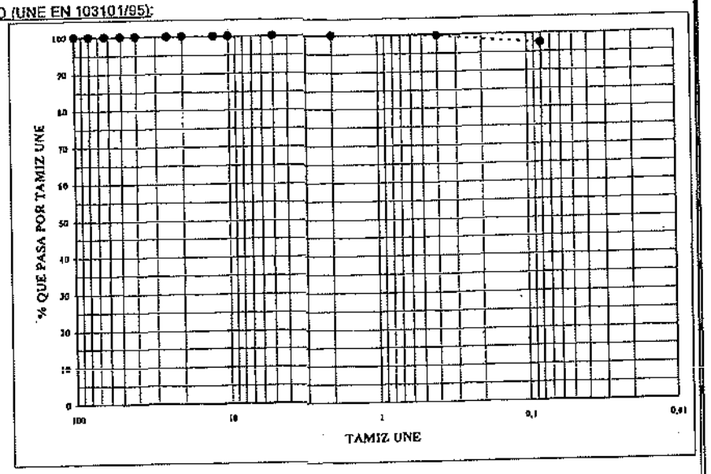
PROFUNDIDAD: DE 30,00 A 30,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,8
0,08	97,3



PORCENTAJE RETENIDO POR TAMIZ 0,080: 2,7

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0086 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

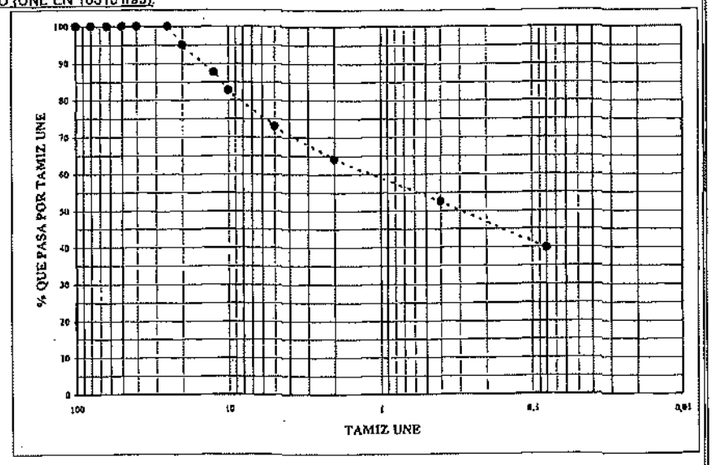
PROFUNDIDAD: DE 39,00 A 39,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	94,9
12,5	87,6
10,0	82,7
5,0	72,9
2,0	64,1
0,400	52,4
0,08	39,8



PORCENTAJE RETENIDO POR TAMIZ 0,080: 60,2

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

- Límite líquido: -
- Límite plástico: -
- Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0087 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

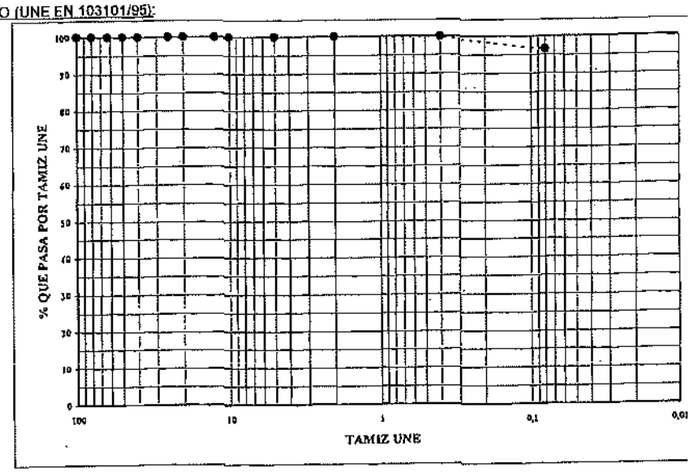
PROFUNDIDAD: DE 51,00 A 51,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	99,9
0,400	99,9
0,08	96,4



PORCENTAJE RETENIDO POR TAMIZ 0,080: 3,6

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

- Límite líquido: -
- Límite plástico: -
- Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0085
PROCEDENCIA: SOCC-05-02
PROFUNDIDAD: DE 06,00 A 06,60

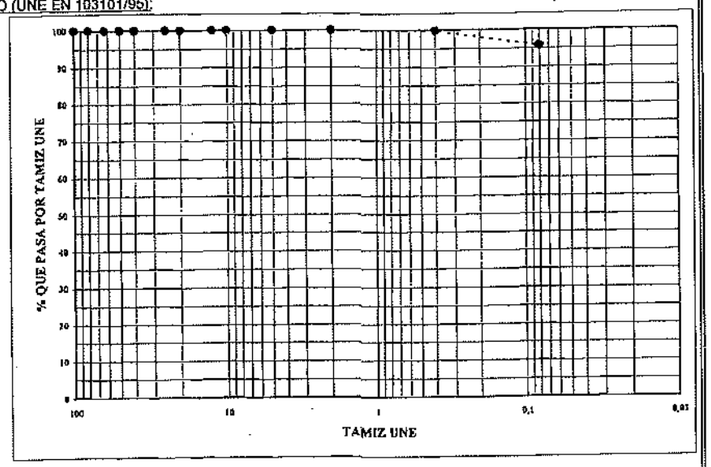
FECHA: 18/08/2005
TIPO DE MUESTRA: MUESTRA INALTERADA

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,8
0,08	95,7



PORCENTAJE RETENIDO POR TAMIZ 0,080: 4,3

DENSIDAD SECA (gr/cm³). (UNE EN 103301/94): 1,7

HUMEDAD NATURAL (%).(UNE EN 103300/93): 30,2

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido	31
Límite plástico	23
Indice de plasticidad	8

*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : CL-ML

OBSERVACIONES:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0086
PROCEDENCIA: SOCC-05-02
PROFUNDIDAD: DE 21,00 A 21,60

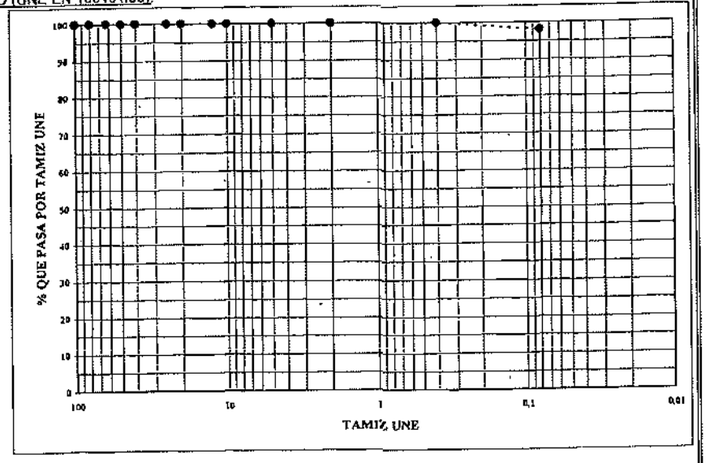
FECHA: 18/08/2005
TIPO DE MUESTRA: MUESTRA INALTERADA

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	98,0



PORCENTAJE RETENIDO POR TAMIZ 0,080: 2,0

DENSIDAD SECA (gr/cm³). (UNE EN 103301/94): 1,6

HUMEDAD NATURAL (%) (UNE EN 103300/93): 25,2

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido	N.P.
Límite plástico	N.P.
Indice de plasticidad	N.P.

*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : ML

MÓDULO EDOMÉTRICO (kPa) (UNE 103405/94): 12080,259

OBSERVACIONES:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0087 FECHA: 18/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: MUESTRA INALTERADA

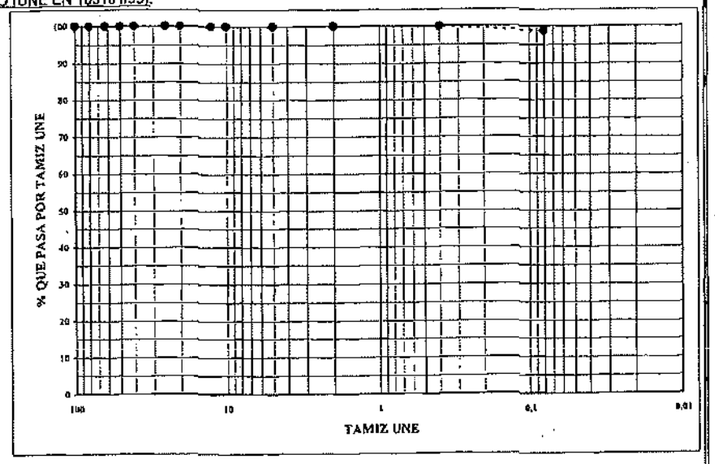
PROFUNDIDAD: DE 33,00 A 33,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	98,7



PORCENTAJE RETENIDO POR TAMIZ 0,080: 1,3

DENSIDAD SECA (gr/cm³), (UNE EN 103301/94): 1,7

HUMEDAD NATURAL (%) (UNE EN 103300/93): 23,0

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido	N.P.	
Límite plástico	N.P.	
Indice de plasticidad	N.P.	*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : ML

OBSERVACIONES:

BARCELONA 03/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0088 FECHA: 18/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: MUESTRA INALTERADA

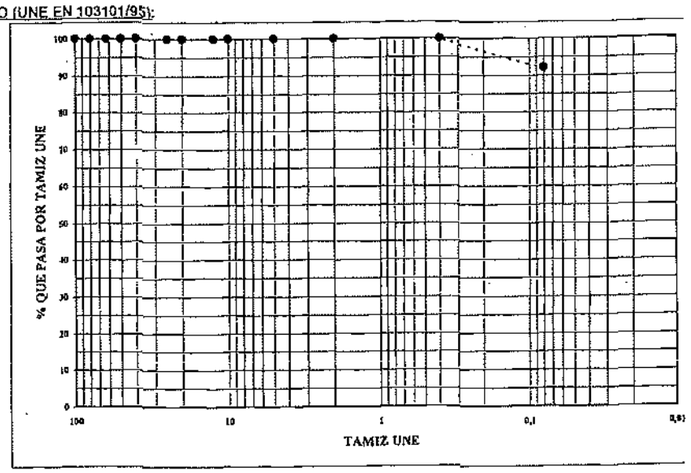
PROFUNDIDAD: DE 36,00 A 36,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	92,0



PORCENTAJE RETENIDO POR TAMIZ 0,080: 8,0

DENSIDAD SECA (gr/cm³), (UNE EN 103301/94): 1,7

HUMEDAD NATURAL (%) (UNE EN 103300/93): 26,8

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido	N.P.	
Límite plástico	N.P.	
Indice de plasticidad	N.P.	*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : ML

MÓDULO EDOMÉTRICO (kPa) (UNE 103405/94):

OBSERVACIONES:

BARCELONA 07/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0088 FECHA: 18/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: MUESTRA INALTERADA

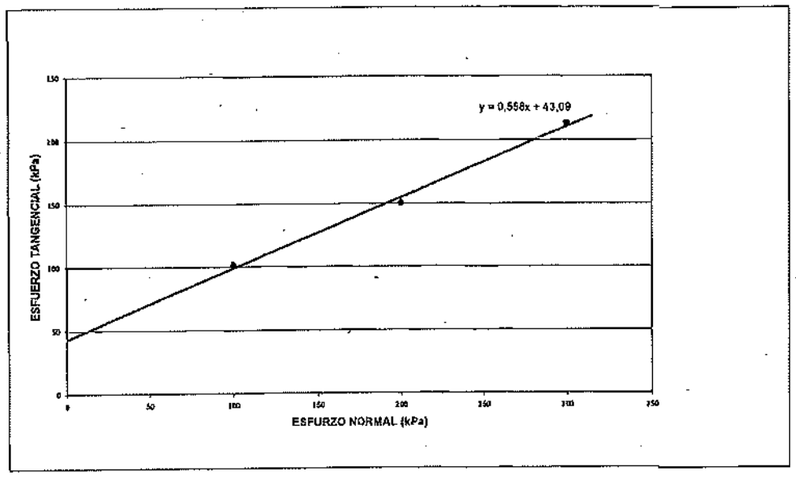
PROFUNDIDAD: DE 36,00 A 36,60

ENSAYOS EN SUELOS

Ensayo:

1. ENSAYO DE CORTE DIRECTO CONSOLIDADO Y DRENADO (UNE 103401/98)

RESULTADOS FASE DE CORTE					
CARGA AXIAL 100 kPa		CARGA AXIAL 200 kPa		CARGA AXIAL 300 kPa	
Sh (mm)	Pmax (Kpa)	Sh (mm)	Pmax (Kpa)	Sh (mm)	Pmax (Kpa)
4,29	101,22	4,29	160,01	5,28	212,81



RESULTADOS DEL ENSAYO	
COHESIÓN en kPa	43,09
ÁNGULO ROZAMIENTO INTERNO EN °	29,16

OBSERVACIONES:

BARCELONA
07/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0090 FECHA: 18/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: MUESTRA INALTERADA

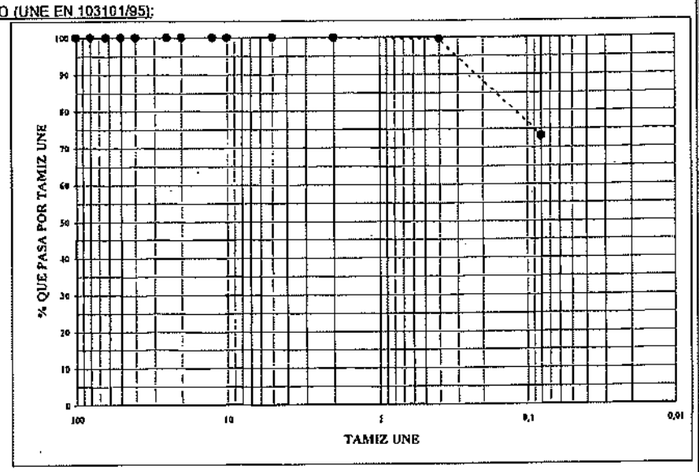
PROFUNDIDAD: DE 55,00 A 55,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	99,9
0,400	99,4
0,08	73,0



PORCENTAJE RETENIDO POR TAMIZ 0,080: 27,0

DENSIDAD SECA (gr/cm³), (UNE EN 103301/94): -

HUMEDAD NATURAL (%) (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : -

OBSERVACIONES:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

4573

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

SOCC-09

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0026 FECHA: 22/06/2005

PROCEDENCIA: SOCC-09 TIPO DE MUESTRA: SPT

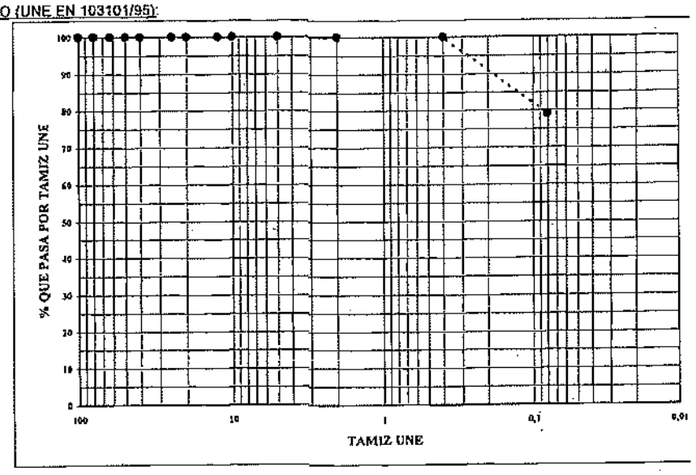
PROFUNDIDAD: DE 03,00 A 03,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	79,0



PORCENTAJE RETENIDO POR TAMIZ 0,080	21,0
DENSIDAD SECA (UNE EN 103301/94):	-
HUMEDAD NATURAL (UNE EN 103300/93):	-
LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):	
Límite líquido	-
Límite plástico	-
Indice de plasticidad	-

IDENTIFICACIÓN:

BARCELONA 03/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0027** FECHA: **22/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

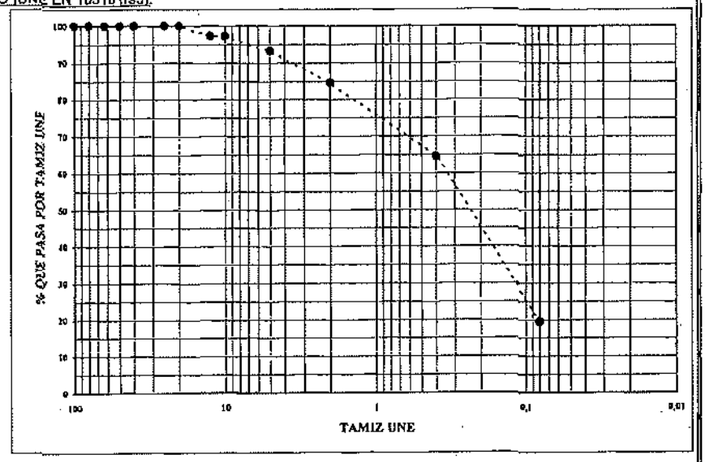
PROFUNDIDAD: **DE 10,00 A 10,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	97,2
10,0	97,2
5,0	93,1
2,0	84,6
0,400	64,5
0,08	19,4



PORCENTAJE RETENIDO POR TAMIZ 0,080: **80,6**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0028** FECHA: **22/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

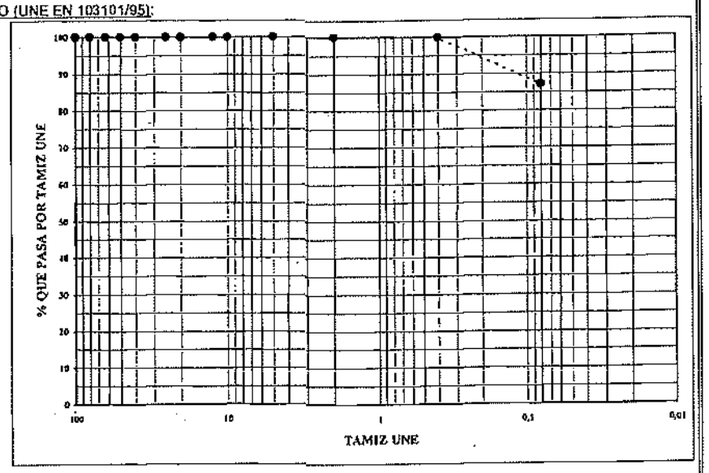
PROFUNDIDAD: **DE 18,00 A 18,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	87,0



PORCENTAJE RETENIDO POR TAMIZ 0,080: **13,0**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0029 FECHA: 22/06/2005

PROCEDENCIA: SOCC-09 TIPO DE MUESTRA: SPT

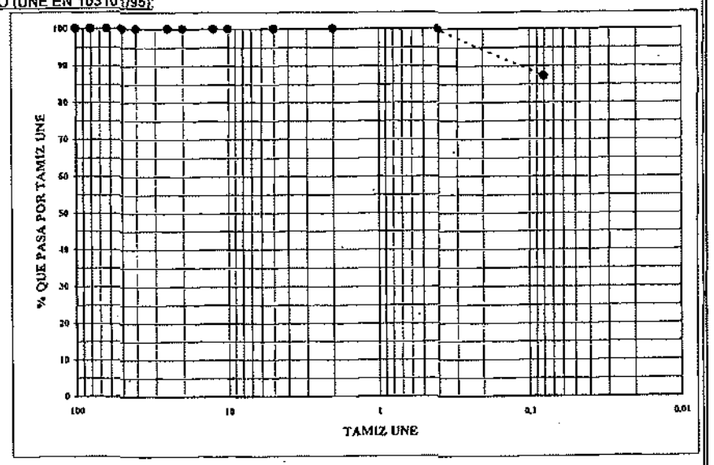
PROFUNDIDAD: DE 24,00 A 24,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	87,2



PORCENTAJE RETENIDO POR TAMIZ 0,080: 12,8

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0030 FECHA: 22/06/2005

PROCEDENCIA: SOCC-09 TIPO DE MUESTRA: SPT

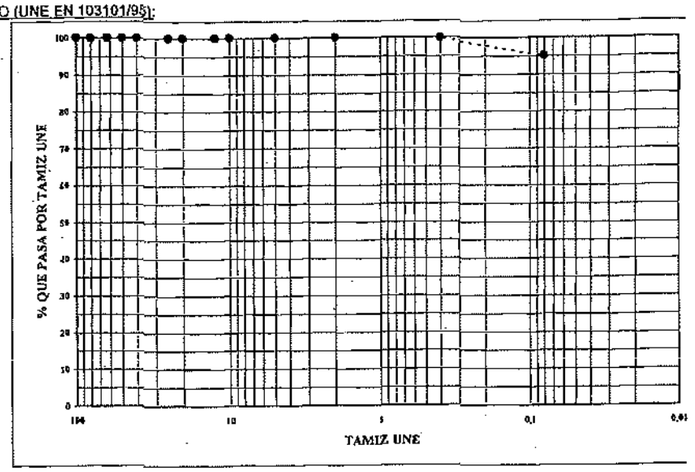
PROFUNDIDAD: DE 30,00 A 30,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	94,9



PORCENTAJE RETENIDO POR TAMIZ 0,080: 5,1

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0031** FECHA: **27/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

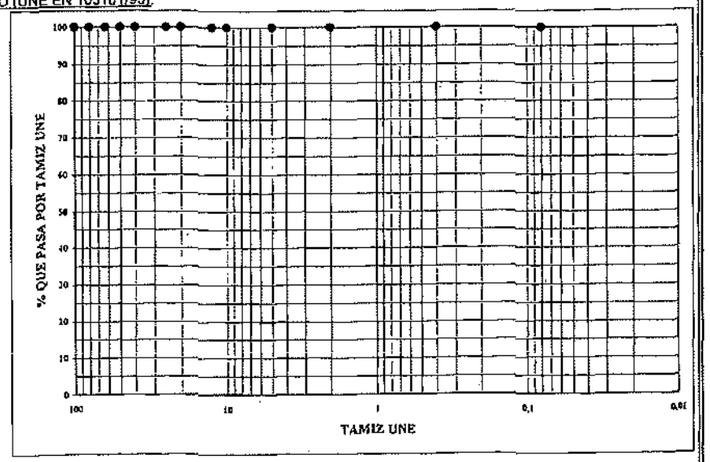
PROFUNDIDAD: **DE 39,00 A 39,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	99,8



PORCENTAJE RETENIDO POR TAMIZ 0,080: **0,2**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0032** FECHA: **27/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

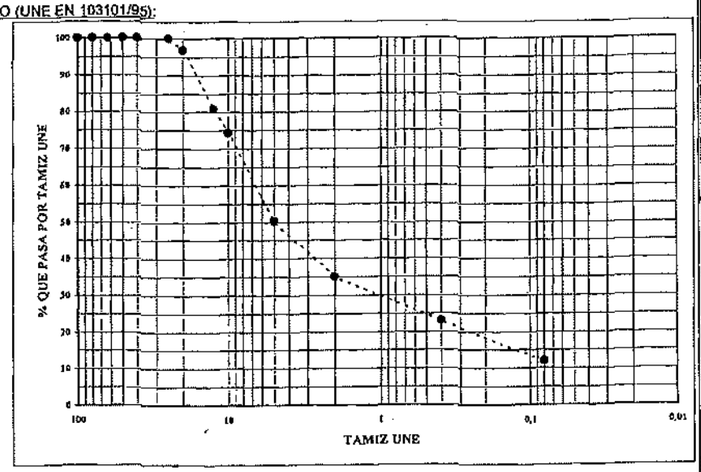
PROFUNDIDAD: **DE 45,00 A 45,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	96,9
12,5	81,0
10,0	74,4
5,0	50,2
2,0	35,0
0,400	22,9
0,08	12,1



PORCENTAJE RETENIDO POR TAMIZ 0,080: **87,9**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0033** FECHA: **27/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

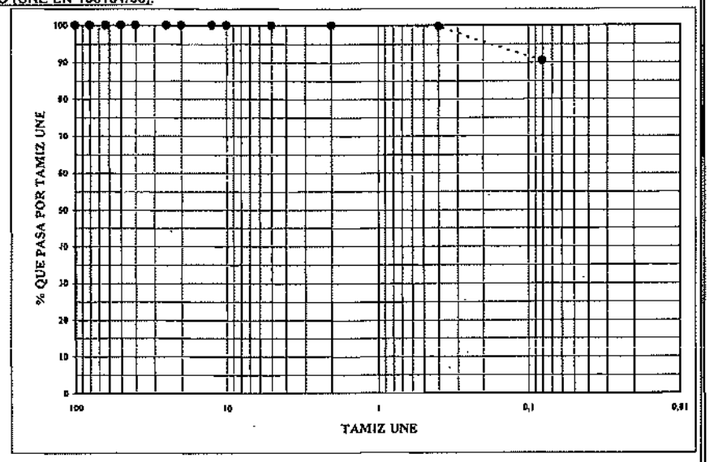
PROFUNDIDAD: **DE 53,00 A 53,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,7
0,08	90,4



PORCENTAJE RETENIDO POR TAMIZ 0,080: **9,6**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0034** FECHA: **27/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

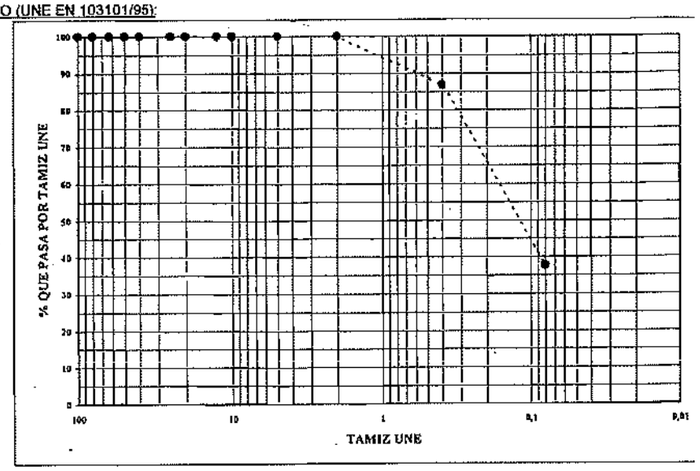
PROFUNDIDAD: **DE 60,00 A 60,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	86,7
0,08	37,7



PORCENTAJE RETENIDO POR TAMIZ 0,080: **62,3**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

2. ESTUDIO DE SIMULACIÓN DEL PROCESO DE HINCADO

TERRATEST
TECNICAS ESPECIALES

CLIENTE: CORSAN-CORVIAN

CIMENTACION DE VIADUCTO DEL TRAMO DE AVE: SANT BOI - HOSPITALET

RESULTADOS DEL PROGRAMA DE ANALISIS DE ECUACION DE LA ONDA (WEAP) EN PILOTES PREFABRICADOS HINCADOS

Diciembre, 2005

Expediente nº: T05567

1.- INTRODUCCION

GRL'S Wave Equation Analysis of Pile Driving (WEAP) es un programa que simula la hinca de un pilote bajo la acción de un martillo, al mismo tiempo que calcula para dicho pilote:

- El rechazo, es decir, la penetración del pilote para un número determinado de golpes, normalmente diez (10) golpes, bajo uno o más valores supuestos de resistencia última y otros parámetros dinámicos de resistencia del suelo.
- La resistencia o carga axil en el pilote correspondiente a la cantidad de golpes calculada.
- La energía transferida al pilote.

Basándonos en estos resultados podemos deducir:

- La capacidad de carga del pilote durante la hinca o en rehinca, con su correspondiente rechazo.
- Los esfuerzos que se originan durante la hinca del pilote, así como la resistencia por fuste y por punta del pilote y el rechazo asociado a éstas resistencias.

Previamente al cálculo que realiza el programa WEAP es necesario introducir una serie de parámetros relativos a los distintos elementos del modelo, puesto que dicho programa está basando en un modelo matemático, en el que están representados la maza, el sistema de almohadillado y sufridera, pilote y suelo.

Una vez introducidas los datos, el cálculo comienza por una integración para obtener velocidades y desplazamientos en un segmento de pilote *i* y en un intervalo de tiempo *j*. A continuación, calcula la fuerza que actúa sobre el segmento *i*, y con ello un nuevo valor de la aceleración, y por integración nuevos valores de velocidad y desplazamiento.

Este proceso iterativo continua hasta un número de pasos especificado por el usuario o hasta que convergen las velocidades en la parte superior e inferior del segmento de pilote. Finalizado este proceso iterativo calcula los valores de las fuerzas de resistencia y, bien continua en el siguiente incremento de tiempo, bien da por finalizado el análisis.

2.- DATOS

Se proyecta la cimentación un viaducto para la línea de AVE, en el tramo Sant Boi – Hospitalet. La cimentación se efectuará mediante pilotes de sección T-400, hincados mediante un equipo Banut de 7 Tons. y altura de caída entre 0.2 y 1.2 m., en un terreno cuyas características extraídas del Estudio Geotécnico se detallan a continuación:

Profundidad (m)	Descripción	Ensayo SPT	Parámetros del suelo					
			Resistencia unitaria		Quake (mm)		Damping (s/m)	
			Fuste (T/m²)	Punta (Tons)	Fuste	Punta	Fuste	Punta
0 - 14.2	Arenas	10	25	400	2	8	0.05	0.05
14.2 – 40.4	Arenas con intercalaciones de arcillas	17	45	600	2	8	0.1	0.05
40.4 - 48	Gravas	38/R	120	2000	2.5	6	0.4	0.6

3.- RESULTADOS

Los resultados del programa WEAP figuran en las hojas siguientes y su contenido por páginas es el siguiente:

Página 1: Tabla de resultados donde se indican, para cada profundidad, la resistencia última, la resistencia por fuste y por punta, el número de golpes por metro, los esfuerzos que se originan a tracción y compresión y el tiempo de hinca del pilote.

Página 2 y 3: Salida gráfica de los resultados del programa.

Página 4 - 31: Salida numérica correspondiente a las distintas profundidades del análisis

Madrid, a 15 de Diciembre de 2.005

TERRATEST TÉCNICAS ESPECIALES, S.A.

Juan Carlos Sánchez
Geólogo

Borja Sainz de Baranda
Geólogo

Teratest Tecnicas Especiales SA
AVE (SantBoi - Hospitalet)

2005 Dec 15
GRLWEAP(TM) Version 2003

Gain/Loss 1 at Shaft and Toe 1.000 / 1.000

Depth m	Ultimate Capacity kN	Friction kN	End Bearing kN	Set mm/10 bl	Comp. Stress MPa	Tension Stress MPa	Stroke m	ENTHRU kJ
2.0	448.8	48.8	400.0	160.3	30.376	-3.011	1.20	67.7
4.0	498.8	98.8	400.0	157.0	30.099	-4.319	1.20	67.7
6.0	548.8	148.8	400.0	156.3	29.847	-4.833	1.20	67.7
8.0	598.8	198.8	400.0	156.0	29.716	-5.152	1.20	67.7
10.0	648.8	248.8	400.0	155.5	29.510	-5.394	1.20	67.7
12.0	698.8	298.8	400.0	155.0	29.347	-5.580	1.20	67.7
14.0	748.8	348.8	400.0	154.6	29.256	-5.730	1.20	67.7
16.0	1034.7	434.7	600.0	71.8	39.036	-7.252	1.20	67.8
18.0	1124.7	524.7	600.0	72.3	38.410	-7.078	1.20	67.8
20.0	1214.7	614.7	600.0	72.4	37.761	-6.876	1.20	67.8
22.0	1304.7	704.7	600.0	72.3	37.149	-6.169	1.20	67.8
24.0	1394.7	794.7	600.0	72.0	36.529	-5.681	1.20	67.7
26.0	1484.7	884.7	600.0	71.5	35.921	-5.764	1.20	67.7
28.0	1574.7	974.7	600.0	70.9	35.320	-5.867	1.20	67.7
30.0	1664.7	1064.7	600.0	70.2	34.724	-5.977	1.20	67.7
32.0	1754.7	1154.7	600.0	69.3	34.134	-6.074	1.20	67.7
34.0	1844.7	1244.7	600.0	68.4	33.548	-6.242	1.20	67.6
36.0	1934.7	1334.7	600.0	67.5	32.967	-6.480	1.20	67.6
38.0	2024.7	1424.7	600.0	66.6	32.390	-6.781	1.20	67.6
40.0	2114.6	1514.6	600.0	65.7	31.813	-7.107	1.20	67.5
42.0	3724.3	1724.3	2000.0	1.0	40.466	-5.537	1.20	67.5
44.0	3964.3	1964.3	2000.0	1.0	38.778	-5.843	1.20	67.4
46.0	4204.3	2204.3	2000.0	1.0	36.722	-5.806	1.20	67.2
48.0	4444.3	2444.3	2000.0	1.0	34.568	-5.684	1.20	66.8

Refusal occured; no driving time output possible

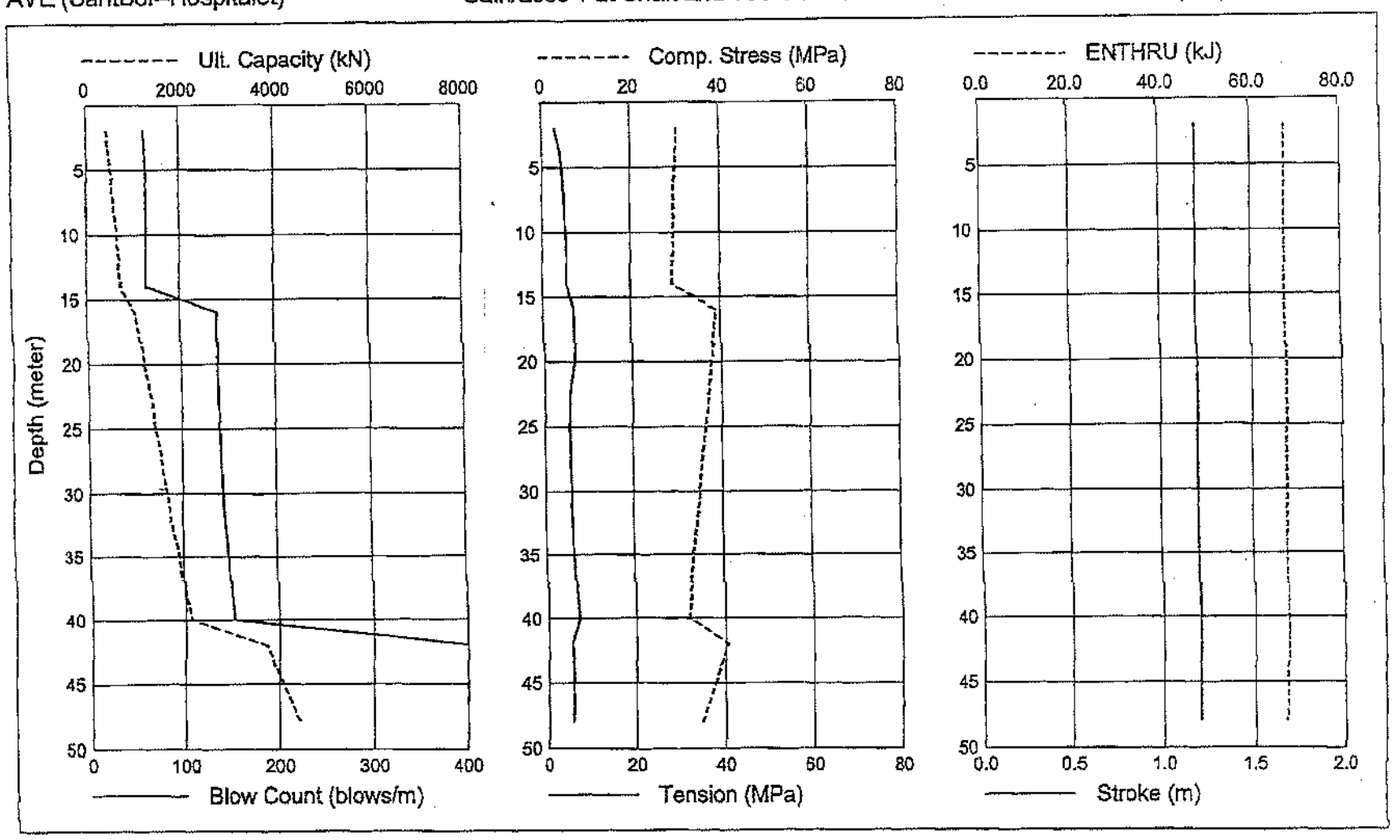
Terratest Tecnicas Especiales SA

2005 Dec 16

AVE (SantBoi--Hospitalet)

Gain/Loss 1 at Shaft and Toe 1.000 / 1.000

GRLWEAP(TM) Version 2003



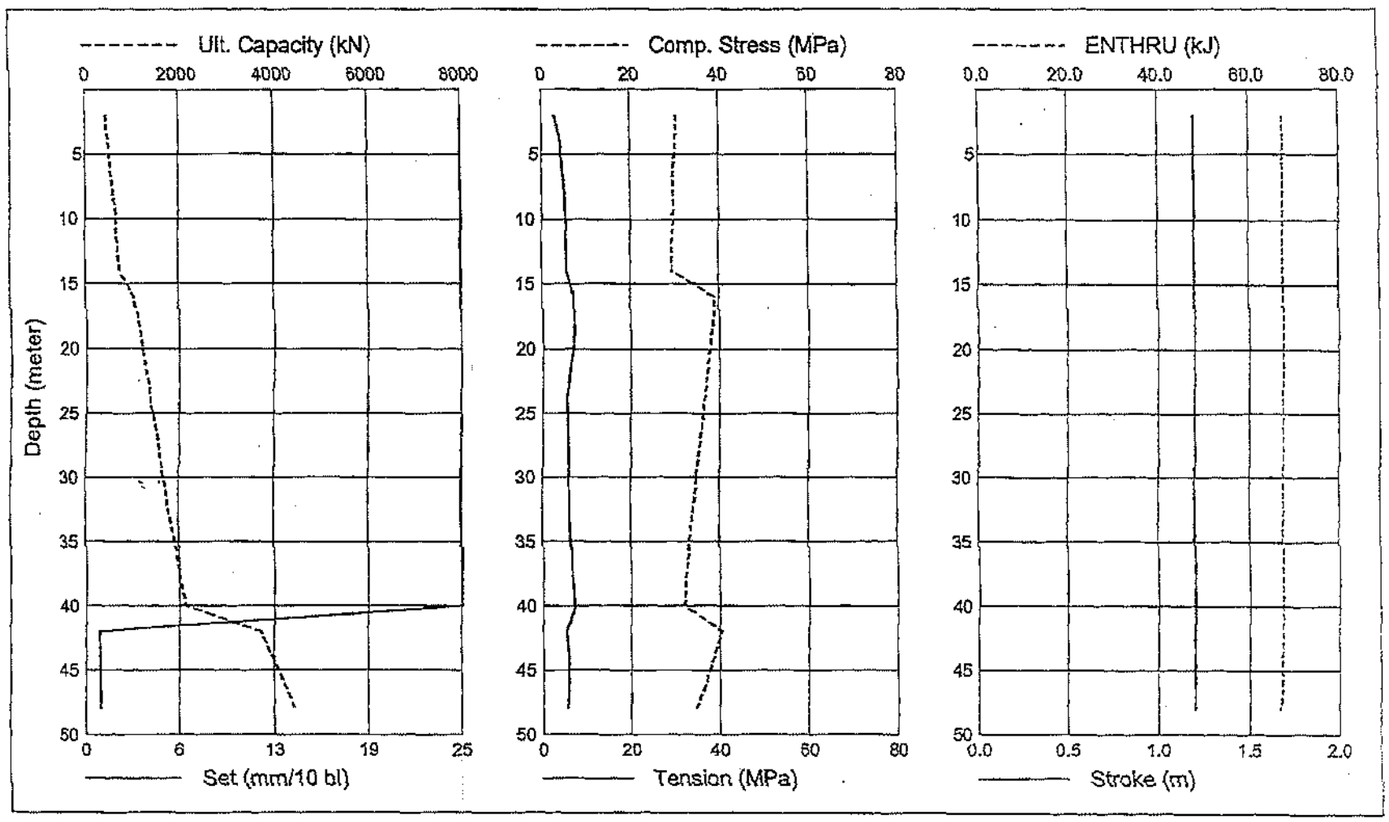
Terratest Tecnicas Especiales SA

2005 Dec 16

AVE (SantBoi--Hospitalet)

Gain/Loss 1 at Shaft and Toe 1.000 / 1.000

GRLWEAP(TM) Version 2003



GRLWEAP: WAVE EQUATION ANALYSIS OF PILE FOUNDATIONS
Version 2003
SI Units

AVE (SantBoi--Hospitalet)

Hammer Model: 7 Tonnes Made by: BANUT

No.	Weight kN	Stiffn kN/mm	CoR	C-Slk mm	Dampg kN/m/s
1	17.166				
2	17.166	39024.5	1.000	3.0480	
3	17.166	39024.5	1.000	3.0480	
4	17.166	39024.5	1.000	3.0480	46.4
Cushion		1321.6	1.000	3.0480	

Assembly	Weight kN	Stiffn kN/mm	CoR	C-Slk mm
1	6.377	262.8		
2	6.377	262.8	0.800	3.0480

HAMMER OPTIONS:
Hammer File ID No. 545

HAMMER DATA:

Ram Weight	(kN)	68.66	Ram Length	(mm)	4025.14
Maximum (Eq) Stroke	(m)	0.80	Actual (Eq) Stroke	(m)	1.20
			Efficiency		0.900
Rated Energy	(kJ)	54.92	Potential Energy	(kJ)	82.40
Kinetic Energy	(kJ)	74.16	Impact Velocity	(m/s)	4.60

HAMMER CUSHION			PILE CUSHION		
Cross Sect. Area	(cm2)	1600.00	Cross Sect. Area	(cm2)	1600.00
Elastic-Modulus	(MPa)	1206.0	Elastic-Modulus	(MPa)	413.0
Thickness	(mm)	100.00	Thickness	(mm)	50.00
Coeff of Restitution		0.920	Coeff of Restitution		0.500
RoundOut	(mm)	3.0	RoundOut	(mm)	3.0
Stiffness	(kN/mm)	1929.6	Stiffness	(kN/mm)	1321.6

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 2.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut(kN) 448.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR kN	Soil-S s/m	Soil-D mm	Quake m	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
3	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	47.00	1.0	1600.0
4	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe					400.0		4.000	8.00			

PILE, SOIL, ANALYSIS OPTIONS:
Uniform pile
No. of Slacks/Splices 0
Pile Penetration (m) 400.00
Pile Segments: Automatic
Pile Damping (%) 3
Pile Damping Fact.(kN/m/s) 94.383

Driveability Analysis
Soil Damping Option Smith
Max No Analysis Iterations 0 Time Increment/Critical 160
Output Time Interval 1 Analysis Time-Input (ms) 0
Output Level: Normal
Gravity Mass, Pile, Hammer: 9.810 9.810 9.810
Output Segment Generation: Automatic

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
2.00	1.20	0.900	1322.	0.500

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 4.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 498.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
45	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	45.00	1.0	1600.0
46	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	46.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
4.00	1.20	0.900	1322.	0.500

TERRATEST TÉCNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 6.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 548.8

Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S s/m	Soil-D mm	Quake m	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
43	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	43.00	1.0	1600.0
44	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	44.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
6.00	1.20	0.900	1322.	0.500

CLIENTE: CORSAN-CORVION Expediente nº: T05567

TERRATEST TÉCNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

Depth (m) 6.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
	m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
	0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
	48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 548.8

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm	Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m	cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
43	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	43.00	1.0	1600.0
44	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	44.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
6.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
548.8	64.0	1.20	-4.83	9	24	29.85	48	16	67.7
439.0	51.1	1.20	-5.77	9	24	28.98	38	14	67.7

TERRATEST TÉCNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

Depth (m) 8.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
	m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
	0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
	48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 598.8

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm	Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m	cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
41	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	41.00	1.0	1600.0
42	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	42.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
8.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
598.8	64.1	1.20	-5.15	8	24	29.72	48	16	67.7
479.0	51.8	1.20	-6.19	9	24	29.03	38	14	67.7

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 10.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
	0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
	48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN)
648.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
39	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	39.00	1.0	1600.0
40	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	40.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
10.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
648.8	64.3	1.20	-5.39	8	25	29.51	48	16	67.7
519.0	52.5	1.20	-6.47	8	25	29.10	38	14	67.7

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 12.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
	0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
	48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 698.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
37	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	37.00	1.0	1600.
38	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	38.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
12.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
698.8	64.5	1.20	-5.58	8	25	29.35	48	16	67.7
559.0	53.2	1.20	-6.68	8	25	29.15	37	14	67.7

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AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 28.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1574.7

No. Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1 3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2 3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
21 3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	21.00	1.0	1600.0
22 3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	22.00	1.0	1600.0
35 3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	35.00	1.0	1600.0
36 3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	36.00	1.0	1600.0
48 3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe					600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
28.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1574.7	141.0	1.20	-5.87	21	33	35.32	48	17	67.7
1259.7	111.0	1.20	-6.25	21	33	34.86	48	17	67.7

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Depth (m) 30.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1664.7

No. Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1 3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2 3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
19 3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	19.00	1.0	1600.0
20 3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	20.00	1.0	1600.0
33 3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	33.00	1.0	1600.0
34 3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	34.00	1.0	1600.0
48 3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe					600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
30.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1664.7	142.5	1.20	-5.98	19	33	34.72	48	17	67.7
1331.7	111.9	1.20	-6.23	19	33	34.38	48	17	67.7

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Depth (m) 32.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1754.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
17	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	17.00	1.0	1600.0
18	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	18.00	1.0	1600.0
31	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	31.00	1.0	1600.0
32	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	32.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
32.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1754.7	144.2	1.20	-6.07	18	32	34.13	48	17	67.7
1403.7	113.0	1.20	-6.23	19	33	33.91	48	17	67.7

TERRATEST TÉCNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
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Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 14.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 748.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
35	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	35.00	1.0	1600.0
36	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	36.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
14.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
748.8	64.7	1.20	-5.73	8	25	29.26	35	13	67.7
599.0	53.9	1.20	-6.84	8	25	29.14	35	13	67.7

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AVE (SantBoi--Hospitalet)
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Depth (m) 16.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1034.7

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m	cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
33	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	33.00	1.0 1600.0
34	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	34.00	1.0 1600.0
47	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	47.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
16.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
1034.7	139.2	1.20	-7.25	48	40	39.04	48	17	67.8
827.7	109.4	1.20	-6.50	48	40	37.83	48	17	67.8

TERRATEST TECNICAS ESPECIALES, S.A.

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Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

Depth (m) 18.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1124.7

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m	cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
31	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	31.00	1.0 1600.0
32	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	32.00	1.0 1600.0
45	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	45.00	1.0 1600.0
46	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	46.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
18.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
1124.7	138.3	1.20	-7.08	48	40	38.41	48	17	67.8
899.7	108.9	1.20	-6.40	48	40	37.34	48	17	67.8

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Depth (m) 20.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1214.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
29	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	29.00	1.0	1600.0
30	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	30.00	1.0	1600.0
43	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	43.00	1.0	1600.0
44	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	44.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
20.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1214.7	138.1	1.20	-6.88	48	40	37.78	48	17	67.8
971.7	108.9	1.20	-6.27	48	40	36.83	48	17	67.8

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Depth (m) 22.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1304.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
27	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	27.00	1.0	1600.0
28	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	28.00	1.0	1600.0
41	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	41.00	1.0	1600.0
42	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	42.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
22.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1304.7	138.4	1.20	-6.17	48	40	37.15	48	17	67.8
1043.7	109.2	1.20	-6.11	48	40	36.33	48	17	67.8

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Depth (m) 24.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
	m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00		1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00		1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1394.7

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
25	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	25.00	1.0 1600.0
26	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	26.00	1.0 1600.0
39	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	39.00	1.0 1600.0
40	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	40.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
24.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
1394.7	138.9	1.20	-5.68	25	34	36.53	48	17	67.7
1115.7	109.6	1.20	-5.93	48	40	35.83	48	17	67.7

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Depth (m) 26.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
	m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00		1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00		1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1484.7

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
23	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	23.00	1.0 1600.0
24	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	24.00	1.0 1600.0
37	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	37.00	1.0 1600.0
38	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	38.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
26.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
1484.7	139.8	1.20	-5.76	23	34	35.92	48	17	67.7
1187.7	110.2	1.20	-6.06	23	34	35.34	48	17	67.7

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Depth (m) 34.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	A/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1844.7

No. Weight Area kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR kN	Soil-S s/m	Soil-D mm	Quake m	LbTop m	Circm cm2
1 3.856 1600.0	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0
2 3.856 1600.0	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0
15 3.856 1600.0	6295.	0.000	0.000	1.00	23.7	0.050	2.00	15.00	1.0
16 3.856 1600.0	6295.	0.000	0.000	1.00	25.0	0.050	2.00	16.00	1.0
29 3.856 1600.0	6295.	0.000	0.000	1.00	40.9	0.094	2.00	29.00	1.0
30 3.856 1600.0	6295.	0.000	0.000	1.00	45.0	0.100	2.00	30.00	1.0
48 3.856 1600.0	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0
Toe					600.0	7.000	8.00		

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
34.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1844.7	146.1	1.20	-6.24	18	32	33.55	48	17	67.6
1475.7	114.2	1.20	-6.31	19	33	33.44	48	17	67.7

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Depth (m) 36.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor
1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1934.7

No. Weight Area kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR kN	Soil-S s/m	Soil-D mm	Quake m	LbTop m	Circm cm2
1 3.856 1600.0	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0
2 3.856 1600.0	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0
13 3.856 1600.0	6295.	0.000	0.000	1.00	23.7	0.050	2.00	13.00	1.0
14 3.856 1600.0	6295.	0.000	0.000	1.00	25.0	0.050	2.00	14.00	1.0
27 3.856 1600.0	6295.	0.000	0.000	1.00	40.9	0.094	2.00	27.00	1.0
28 3.856 1600.0	6295.	0.000	0.000	1.00	45.0	0.100	2.00	28.00	1.0
48 3.856 1600.0	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0
Toe					600.0	7.000	8.00		

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
36.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1934.7	148.1	1.20	-6.48	18	32	32.97	48	17	67.6
1547.7	115.4	1.20	-6.46	19	33	32.98	48	17	67.6

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Depth m) 38.0
Shaft Gain/Loss Factor .000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
	m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00		1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00		1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 2024.7

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
11	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	11.00	1.0 1600.0
12	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	12.00	1.0 1600.0
25	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	25.00	1.0 1600.0
26	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	26.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
38.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
2024.7	150.1	1.20	-6.78	18	32	32.39	48	17	67.6
1619.7	116.7	1.20	-6.67	19	33	32.52	48	17	67.6

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Depth (m) 40.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
	m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00		1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
8.00		1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 2114.6

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
9	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	9.00	1.0 1600.0
10	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	10.00	1.0 1600.0
23	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	23.00	1.0 1600.0
24	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	24.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
40.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
2114.6	152.3	1.20	-7.11	18	32	31.81	48	17	67.5
1691.7	118.1	1.20	-6.92	19	33	32.06	48	17	67.6

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Depth (m) 42.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor
1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 3724.3

No. Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1 3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2 3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
7 3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	7.00	1.0	1600.0
8 3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	8.00	1.0	1600.0
21 3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	21.00	1.0	1600.0
22 3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	22.00	1.0	1600.0
47 3.856	6295.	0.000	0.000	1.00	89.6	0.338	2.40	47.00	1.0	1600.0
48 3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	48.00	1.0	1600.0
Toe					2000.0	15.000	6.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
42.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
3724.3	9999.0	1.20	-5.54	21	32	40.47	47	17	67.5
2979.4	9999.0	1.20	-5.27	22	32	42.03	48	17	67.5

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Depth (m) 44.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor
1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 3964.3

No. Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1 3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2 3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
5 3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	5.00	1.0	1600.0
6 3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	6.00	1.0	1600.0
19 3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	19.00	1.0	1600.0
20 3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	20.00	1.0	1600.0
45 3.856	6295.	0.000	0.000	1.00	89.6	0.338	2.40	45.00	1.0	1600.0
46 3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	46.00	1.0	1600.0
48 3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	48.00	1.0	1600.0
Toe					2000.0	15.000	6.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
44.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
3964.3	9999.0	1.20	-5.84	19	31	38.78	47	17	67.4
3171.4	9999.0	1.20	-5.32	21	32	40.54	47	17	67.5

TERRATEST TÉCNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

Depth (m) 46.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 4204.3

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
3	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	3.00	1.0	1600.0
4	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	4.00	1.0	1600.0
17	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	17.00	1.0	1600.0
18	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	18.00	1.0	1600.0
43	3.856	6295.	0.000	0.000	1.00	89.6	0.338	2.40	43.00	1.0	1600.0
44	3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	44.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	48.00	1.0	1600.0
Toe						2000.0	15.000	6.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
46.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
4204.3	9999.0	1.20	-5.81	19	31	36.72	46	17	67.2
3363.4	9999.0	1.20	-5.19	20	32	38.82	47	13	67.3

TERRATEST TÉCNICAS ESPECIALES, S.A.

G/L at Shaft and Toe: 0.800 0.800

Depth m	Rut kN	Frictn kN	End Bg kN	Bl Ct bl/m	Com Str MPa	Ten Str MPa	Stroke m	ENTHRU kJ
2.0	359.0	39.0	320.0	48.9	28.979	-3.407	1.2	67.7
4.0	399.0	79.0	320.0	50.1	28.978	-4.509	1.2	67.7
6.0	439.0	119.0	320.0	51.1	28.980	-5.769	1.2	67.7
8.0	479.0	159.0	320.0	51.8	29.028	-6.192	1.2	67.7
10.0	519.0	199.0	320.0	52.5	29.097	-6.467	1.2	67.7
12.0	559.0	239.0	320.0	53.2	29.147	-6.680	1.2	67.7
14.0	599.0	279.0	320.0	53.9	29.135	-6.844	1.2	67.7
16.0	827.7	347.7	480.0	109.4	37.833	-6.502	1.2	67.8
18.0	899.7	419.7	480.0	108.9	37.340	-6.395	1.2	67.8
20.0	971.7	491.7	480.0	108.9	36.830	-6.271	1.2	67.8
22.0	1043.7	563.7	480.0	109.2	36.330	-6.114	1.2	67.8
24.0	1115.7	635.7	480.0	109.6	35.830	-5.933	1.2	67.7
26.0	1187.7	707.7	480.0	110.2	35.341	-6.057	1.2	67.7
28.0	1259.7	779.7	480.0	111.0	34.858	-6.249	1.2	67.7
30.0	1331.7	851.7	480.0	111.9	34.381	-6.226	1.2	67.7
32.0	1403.7	923.7	480.0	113.0	33.909	-6.230	1.2	67.7
34.0	1475.7	995.7	480.0	114.2	33.442	-6.306	1.2	67.7
36.0	1547.7	1067.7	480.0	115.4	32.978	-6.458	1.2	67.6
38.0	1619.7	1139.7	480.0	116.7	32.517	-6.668	1.2	67.6
40.0	1691.7	1211.7	480.0	118.1	32.057	-6.922	1.2	67.6
42.0	2979.4	1379.4	1600.0	9999.0	42.028	-5.270	1.2	67.5
44.0	3171.4	1571.4	1600.0	9999.0	40.542	-5.324	1.2	67.5
46.0	3363.4	1763.4	1600.0	9999.0	38.822	-5.185	1.2	67.3
48.0	3555.4	1955.4	1600.0	9999.0	36.978	-5.030	1.2	67.0

CLIENTE: CORSAN-CORVION Expediente nº: T05567

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2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Table of Depths Analyzed with Driving System Modifiers

Depth	Length	Wait Time	Equivalent Stroke	Pressure Ratio	Efficy.	Stiffn. Factor	Cushion CoR
m	m	hr	m				
2.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
4.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
6.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
8.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
10.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
12.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
14.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
16.00	48.00	0.00	1.20	0.00	0.90	1.00	0.5
18.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
20.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
22.00	48.00	0.00	1.20	0.00	0.90	1.00	0.5
24.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
26.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
28.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
30.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
32.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
34.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
36.00	48.00	0.00	1.20	0.00	0.90	1.00	0.5
38.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
40.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
42.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
44.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
46.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
48.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50

Soil Layer Resistance Values

Shaft Depth	End Res.	Shaft Bearing	Toe Quake	Shaft Quake	Toe Damping	Soil Setup	Relative Energy	Setup Time
	kPa	kN	mm	mm	s/m	s/m	Normlzd	m hrs
0.10	25.00	400.00	2.000	8.000	0.050	4.000	1.000	0.000 0.000
14.20	25.00	400.00	2.000	8.000	0.050	4.000	1.000	0.000 0.000
14.21	45.00	600.00	2.000	8.000	0.100	7.000	1.000	0.000 0.000
40.40	45.00	600.00	2.000	8.000	0.100	7.000	1.000	0.000 0.000
40.41	120.00	2000.00	2.500	6.000	0.400	15.000	1.000	0.000 0.000
48.00	120.00	2000.00	2.500	6.000	0.400	15.000	1.000	0.000 0.000

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Depth (m) 48.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 4444.3

No, Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
kN	kN/mm	mm	mm	kN	s/m	mm	m	m	cm2
1 3.856	6295.	3.000	0.000	1.00	23.8	0.050	2.00	1.00	1.0 1600.0
2 3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	2.00	1.0 1600.0
15 3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	15.00	1.0 1600.0
16 3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	16.00	1.0 1600.0
41 3.856	6295.	0.000	0.000	1.00	89.6	0.338	2.40	41.00	1.0 1600.0
42 3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	42.00	1.0 1600.0
48 3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	48.00	1.0 1600.0
Toe					2000.0	15.000	6.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
48.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
4444.3	9999.0	1.20	-5.68	18	31	34.57	46	17	66.8
3555.4	9999.0	1.20	-5.03	20	31	36.98	47	17	67.0

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

SUMMARY OVER DEPTHS

G/L at Shaft and Toe: 1.000 1.000

Depth	Rut	Frictn	End Bg	Bl Ct	Com Str	Ten Str	Stroke	ENTHRU
m	kN	kN	kN	bl/m	MPa	MPa	m	kJ
2.0	448.8	48.8	400.0	62.4	30.376	-3.011	1.2	67.7
4.0	498.8	98.8	400.0	63.7	30.099	-4.319	1.2	67.7
6.0	548.8	148.8	400.0	64.0	29.847	-4.833	1.2	67.7
8.0	598.8	198.8	400.0	64.1	29.716	-5.152	1.2	67.7
10.0	648.8	248.8	400.0	64.3	29.510	-5.394	1.2	67.7
12.0	698.8	298.8	400.0	64.5	29.347	-5.580	1.2	67.7
14.0	748.8	348.8	400.0	64.7	29.256	-5.730	1.2	67.7
16.0	1034.7	434.7	600.0	139.2	39.036	-7.252	1.2	67.8
18.0	1124.7	524.7	600.0	138.3	38.410	-7.078	1.2	67.8
20.0	1214.7	614.7	600.0	138.1	37.781	-6.876	1.2	67.8
22.0	1304.7	704.7	600.0	138.4	37.149	-6.169	1.2	67.8
24.0	1394.7	794.7	600.0	138.9	36.529	-5.681	1.2	67.7
26.0	1484.7	884.7	600.0	139.8	35.921	-5.764	1.2	67.7
28.0	1574.7	974.7	600.0	141.0	35.320	-5.867	1.2	67.7
30.0	1664.7	1064.7	600.0	142.5	34.724	-5.977	1.2	67.7
32.0	1754.7	1154.7	600.0	144.2	34.134	-6.074	1.2	67.7
34.0	1844.7	1244.7	600.0	146.1	33.548	-6.242	1.2	67.6
36.0	1934.7	1334.7	600.0	148.1	32.967	-6.480	1.2	67.6
38.0	2024.7	1424.7	600.0	150.1	32.390	-6.781	1.2	67.6
40.0	2114.6	1514.6	600.0	152.3	31.813	-7.107	1.2	67.5
42.0	3724.3	1724.3	2000.0	9999.0	40.466	-5.537	1.2	67.5
44.0	3964.3	1964.3	2000.0	9999.0	38.778	-5.843	1.2	67.4
46.0	4204.3	2204.3	2000.0	9999.0	36.722	-5.806	1.2	67.2
48.0	4444.3	2444.3	2000.0	9999.0	34.568	-5.684	1.2	66.8

ESTUDIO DE CIMENTACIONES
DE LOS ESTRIBOS
DEL VIADUCTO SOBRE EL RÍO LLOBREGAT

MEMORIA Y ANEJOS

4599

TÍTULO: ESTUDIO DE CIMENTACIONES DE LOS ESTRIBOS DEL VIADUCTO SOBRE EL RÍO LLOBREGAT

OBRA: PROYECTO DE CONSTRUCCION DE PLATAFORMA LINEA DE ALTA VELOCIDAD MADRID – ZARAGOZA – BARCELONA – FRONTERA FRANCESA. TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET

Nº: MC-ATOP-05002

REVISIÓN		MODIFICACIONES EFECTUADAS
Nº	FECHA	
1	30.12.05	1ª EDICIÓN

Elaborado por:	Revisado por:	Aprobado por:	REVISIÓN Nº: 0
TE: Jesús Labarra	TR: Rafael Rojas Castillo	TV: Jesús Santamaría Arias	
Fecha: 29.12.05	Fecha: 29.12.05	Fecha: 30.12.05	Fecha: 30.12.05

MEMORIA Y ANEJOS

MEMORIA

1. OBJETO DEL PROYECTO .....
2. DESCRIPCIÓN DE LA SOLUCIÓN ADOPTADA....
3. JUSTIFICACION DE LA SOLUCIÓN ADOPTADA .
4. DOCUMENTOS QUE INTEGRAN EL PROYECTO.

ANEJOS

1 CÁLCULOS ESTRUCTURALES

2 ESTUDIO GEOTECNICO

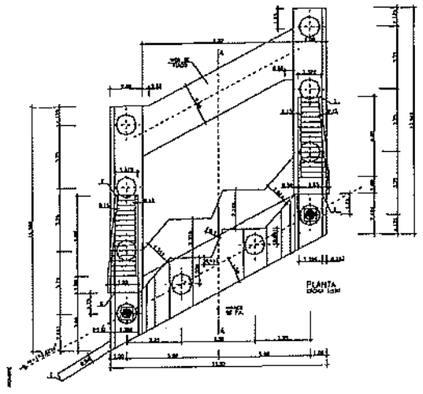
1. OBJETO DEL PROYECTO

El objeto del presente proyecto es desarrollar con detalle una solución alternativa a la cimentación de los estribos existentes en proyecto, pudiendo así constituir por si mismo un proyecto modificado apto para construcción. Se modifican para ello de forma adecuada y coherente entre si todos los planos afectados por el cambio propuesto.

La solución alternativa que se desarrolla en el presente documento consiste en sustituir los pilotes ejecutados "in situ" con camisa perdida por pilotes prefabricados hincados. Esta solución cumple la exigencia de proyecto de evitar cualquier tipo de afección al acuífero inferior evitando además, cualquier fenómeno de lavado del acuífero por sifonamiento.

2. DESCRIPCIÓN DE LA SOLUCIÓN ADOPTADA

La solución formal adoptada en proyecto para el Estribo 1 no es compatible con las exigencias de una cimentación profunda mediante pilotes prefabricados hincados ya que originalmente este estribo se compone de dos muros laterales de gran canto pilotados y alineados con los apoyos del tablero. Estos muros se encuentran arriostrados transversalmente por dos vigas de gran rigidez. La viga delantera hace las veces de muro de contención y se encuentra pilotada, mientras que la trasera únicamente tiene la misión de proporcionar rigidez al conjunto.



Puesto que el perímetro (1.60 m) y la sección transversal (0.16 m^2) de los pilotes prefabricados T-400 es muy inferior a la de un pilote circular de 1.25 m de diámetro (3.93 m de diámetro y 1.23 m^2 de sección) es preciso disponer un número muy superior a los existentes en proyecto. Esta necesidad obliga a tener un elemento de reparto lo suficientemente rígido que permita repartir las acciones provenientes del tablero entre la totalidad de los pilotes dispuestos y de la forma más uniforme posible.

Para ello se modifica conceptualmente el estribo adoptando una configuración más clásica y similar a la del estribo 2, es decir, se dispone un encepado que ocupa toda la planta del estribo y que será el encargado de repartir tanto las acciones provenientes del tablero como las transmitidas por el propio estribo.

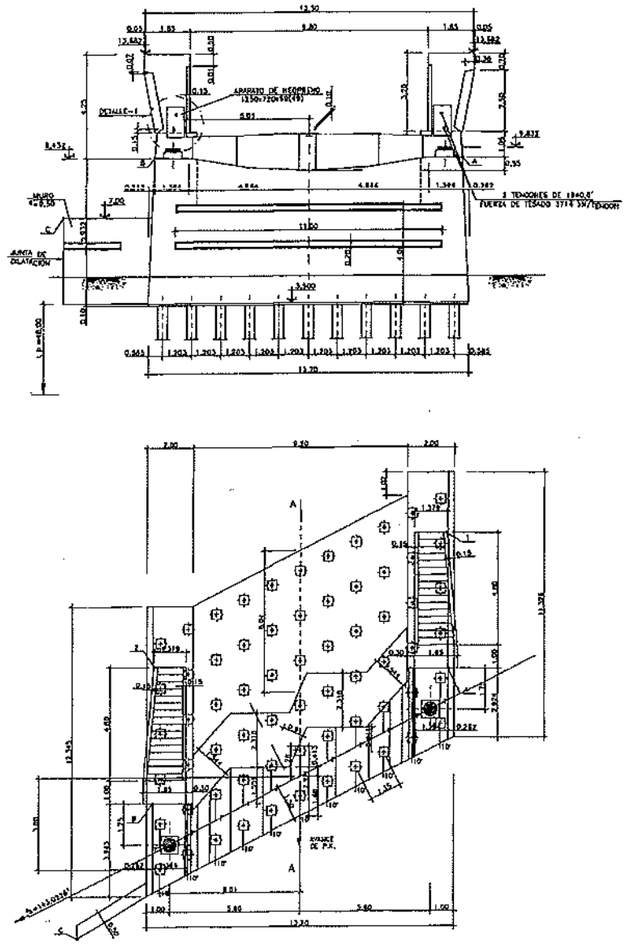
En cuanto a las dimensiones principales del estribo, únicamente se ha modificado la dimensión longitudinal que se ha reducido de 13.55 m a 11.33 m. Se adjunta una planta de la solución propuesta en la que se pueden apreciar los 66 pilotes prefabricados hincados que forman la cimentación.

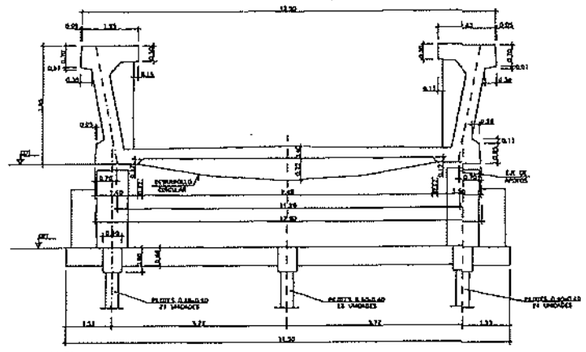
De forma adicional se han tenido en cuenta una serie de aspectos comentados en la reunión celebrada el 13/12/05 en las oficinas de EIPSA para tratar aspectos relacionados con el empuje del tablero. Esta reunión contó con la presencia de MK4, EIPSA y CORSÁN-CORVIAM, y entre otras cosas se acordó prolongar 0.50 m las almas del tablero hacia el lado del estribo 1 para garantizar una correcto apoyo del gato durante las últimas fases del empuje y además se indicaron las ventajas de unir el parque de empuje con el estribo.

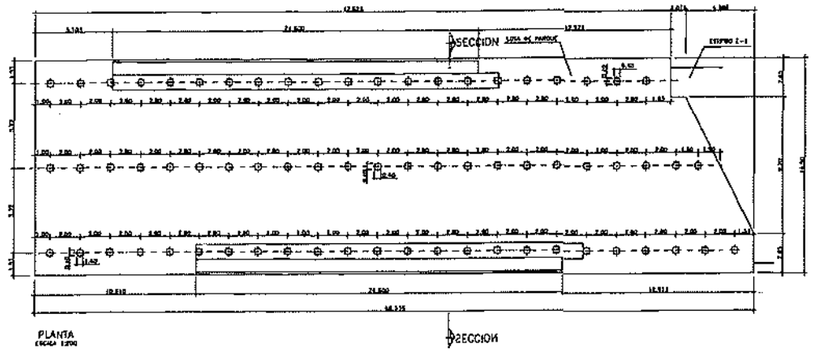
En esta alternativa, y siguiendo con los criterios establecidos en dicha reunión, ya se ha tenido en cuenta el incremento de longitud en las almas del tablero retrasando el macizo de anclaje y además se ha unido el parque de fabricación al encepado del estribo. El parque de fabricación se ha diseñado para la situación de servicio, esto es, considerando carga de tierras y sobrecarga ferroviaria, por lo que no se plantea su demolición una vez construido el tablero. Esta solución permite además repartir la

fuerza longitudinal de frenado y rozamiento de apoyos en toda la longitud del parque minorando las deformaciones del estribo y reduciendo los esfuerzos de forma ostensible. Además, los muros del parque se plantean como muros definitivos a los que será preciso hacerles un recrecido y un tratamiento posterior acorde con los acabados del tablero.

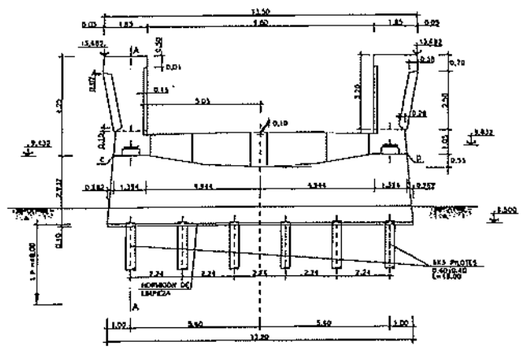
Se adjunta la definición geométrica del estribo 1 y del parque de fabricación.

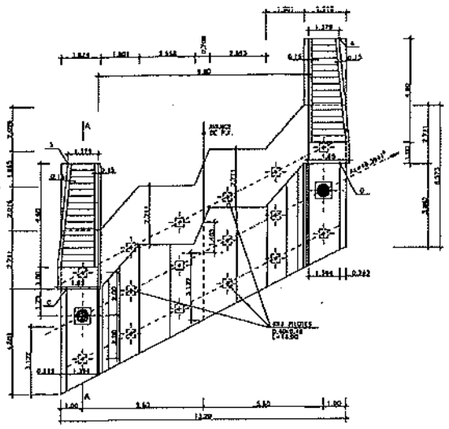






En cuanto al estribo 2 se mantiene la misma solución formal que en proyecto pero sustituyendo los pilotes "in situ" con camisa perdida por pilotes prefabricados hincados T-400. En este caso se reduce la dimensión longitudinal del estribo en 0.177 m y se adelanta el estribo con respecto a la posición de los apoyos para centrar la resultante. En este caso se disponen 18 pilotes repartidos en tres filas de seis pilotes cada una, estando la fila central centrada respecto a los apoyos.





Los pilotes prefabricados son, en todos los casos, de sección cuadrada con 0,4 m de lado y fabricados con hormigón HA-45. En el estribo 1 la primera fila de pilotes se dispone con una inclinación en sentido longitudinal de 10º, mientras que la fila anterior se dispone con una inclinación longitudinal de 7º respecto a la vertical. En el estribo 2 todos los pilotes son verticales.

Los pilotes tienen un tope estructural de 205 t y la previsión, según el terreno existente, es que pueda alcanzarse dicho tope para una profundidad media de 48 m

cuando se cumpla la condición de rechazo siguiente: 560 golpes para hincar el último metro de pilote. Estos pilotes están armados con 8 barras ϕ20 de acero B-500S situadas en las esquinas por parejas y atadas mediante cercos ϕ8 separados cada 0.12 m. En el caso del Estribo 1 se dispone un refuerzo de armadura en los tres últimos metros de pilotes de 1ϕ20 en cada esquina.

Los pilotes se fabrican en módulos de 12 m que se unen en obra mediante una junta, patentada por la empresa suministradora de los mismos, cuyas características se incluyen en el anejo de cálculos estructurales.

3. JUSTIFICACION DE LA SOLUCIÓN ADOPTADA

Por último como justificación de la solución planteada en este proyecto enumeramos las ventajas constructivas que, fruto de las particulares características geotécnicas de los terrenos donde tiene que cimentarse la estructura, la hacen especialmente interesante.

A continuación se exponen las ventajas que consideramos más importantes:

- La carga admisible para la que se deja instalado el pilote es conocida por el propio proceso de hinca y medición del rechazo último, es decir de la penetración por golpe de la última andanada efectuada sobre la cabeza del pilote. En los pilotes "in situ", por el contrario, la carga admisible es un valor teórico obtenido mediante diversos tipos de formulaciones establecidas en base a los parámetros geotécnicos del terreno, conocidos más o menos bien en función de una campaña de ensayos. Los diversos tipos de formulación a emplear no dejan de ser más que fórmulas teóricas dando cada una resultados distintos.

- La posible contribución o no de los terrenos blandos, en el caso de los pilotes hormigonados "in situ" queda poco clara y razones de cautela aconsejan despreciarla en dicho caso. En el caso de los pilotes hincados es el proceso de hinca el que señala la resistencia a hundimiento del pilote contando con los

factores que realmente influyen en dicha resistencia al hundimiento sin necesidad de realizar consideraciones teóricas adicionales.

- La única duda sobre el verdadero comportamiento del pilote prefabricado frente a las cargas que debe asumir sitúa al constructor dentro del lado de la seguridad. Esta imprecisión se debe a que durante el proceso de hinca, si el terreno esta saturado y es poco permeable, se generan presiones intersticiales en torno al pilote que hacen que la resistencia al hundimiento que se está midiendo en el proceso de hinca sea la denominada resistencia a corto plazo, la cual es sólo una fracción de la resistencia definitiva. Al disiparse las tensiones intersticiales aumenta la resistencia al hundimiento del pilote. Este aumento de la resistencia con el tiempo ha sido descrito por numeroso autores tales como Vesic 1977, Reese 1984, Matsumoto 1995, Likins y Hussein 1992. Podría por tanto incluso establecerse un procedimiento de hinca en dos fases de forma que en la primera fase de hinca se pidiera sólo entre el 50% y el 70% del valor definitivo y en una fase de rehinca, por ejemplo dos semanas después, pasar a comprobar que la resistencia definitiva alcanzada es superior a la necesaria.

- Aunque se extremen los cuidados en las labores de limpieza de la punta en el caso de los pilotes "in situ" siempre quedan impurezas bajo la misma, tanto provenientes de posibles pequeños desprendimientos de material de las paredes como de los residuos de otros materiales, consecuencia del bombeo profundo del hormigón y en su caso del uso de lodos. Esto lleva a que en los pilotes "in situ" haya de preverse un cierto asiento del pilote antes de transmitir la carga para la que está dimensionado. En el caso de los pilotes prefabricados el propio proceso de hinca garantiza un contacto íntimo entre el pilote y el terreno bajo la punta del mismo, por lo que queda garantizado que no se producirá ningún tipo de asiento en vacío.
- El menor tamaño de los pilotes hincados prefabricados propuestos frente a los previstos en proyecto y consecuentemente el mayor número de pilotes en cada pila hace que el posible problema derivado del fallo de un pilote individual quede

mucho más limitado en el caso del uso del pilote prefabricado que en el del pilote "in situ".

- Está más controlado el proceso de fabricación e instalación que en el caso de los pilotes "in situ", existiendo mayor garantía en cuanto al cumplimiento de plazos.

- El material del pilote está mejor aprovechado. Las limitaciones de esfuerzo tope en los pilotes hormigonados "in situ" se establecen con base en el proceso constructivo del pilote y no en la calidad del hormigón, mientras que en el caso de pilotes prefabricados se establece en función de la calidad real del hormigón del pilote.

A continuación se incluye como anejos a esta memoria que pretenden justificar la solución propuesta e informar sobre aspectos concretos relacionados con el tema:

- Memoria de cálculo de la cimentación mediante pilotes prefabricados donde se describen las características resistentes de los pilotes y se estima, en función de las mismas y de los esfuerzos actuantes según proyecto, el número de pilotes necesarios y su disposición dentro del encepado para estas pilas, así como el armado de los mismos

- Estudio de simulación del proceso de hinca con los resultados de los sondeos y ensayos del terreno realizados en el emplazamientos de los pilotes.

El proyecto incluye además los planos con la solución planteada y un pequeño pliego de condiciones, habituales para este tipo de pilotaje, referentes a su ejecución (materiales, equipos, fabricación, hinca y control de calidad).

4. **DOCUMENTOS QUE INTEGRAN EL PROYECTO**

DOCUMENTO Nº 1: MEMORIA Y ANEJOS

1 OBJETO DEL PROYECTO

2 DESCRIPCIÓN DE LA SOLUCIÓN ADOPTADA

3 JUSTIFICACIÓN DE LA SOLUCIÓN ADOPTADA

4 DOCUMENTOS QUE INTEGRAN EL PROYECTO

ANEJO 1: CÁLCULOS ESTRUCTURALES

1 BASES DE CÁLCULO

2 CARACTERÍSTICAS DE LOS PILOTES PREFABRICADOS

3 COMPROBACIONES EN ESTADO LÍMITE ÚLTIMO

ANEJO 2: ESTUDIO GEOTECNICO

1 INFORMACIÓN GEOTECNICA

2 ESTUDIO DE SIMULACIÓN DEL PROCESO DE HINCADO

DOCUMENTO Nº 2: PLANOS

Viaducto de ancho UIC

PLANO / HOJA	REVISIÓN	TÍTULO
2.9.1.4 / 1	0	VIADUCTO UIC (S/ RIO LLOBREGAT) ESTRIBO 1. DEFINICIÓN GEOMETRÍCA
2.9.1.4 / 2	0	VIADUCTO UIC (S/ RIO LLOBREGAT) ESTRIBO 1. ARMADURAS (1)
2.9.1.4 / 3	0	VIADUCTO UIC (S/ RIO LLOBREGAT) ESTRIBO 1. ARMADURAS (2)

2.9.1.4 / 4	0	VIADUCTO UIC (S/ RIO LLOBREGAT) ESTRIBO 1. ARMADURAS (3)
2.9.1.4 / 5	0	VIADUCTO UIC (S/ RIO LLOBREGAT) ESTRIBO 2. DEFINICIÓN GEOMÉTRICA
2.9.1.4 / 6	0	VIADUCTO UIC (S/ RIO LLOBREGAT) ESTRIBO 2. ARMADURAS
2.9.1.4P / 1	0	VIADUCTO UIC (S/ RIO LLOBREGAT) CIMENTACIÓN PARQUE E-1. DEF. GEOMETRICA
2.9.1.4P / 2	0	VIADUCTO UIC (S/ RIO LLOBREGAT) CIMENTACIÓN PARQUE E-1. ARMADURAS

Viaducto de ancho RENFE

PLANO / HOJA	REVISIÓN	TÍTULO
2.9.2.4 / 1	0	VIADUCTO IB (S/ RIO LLOBREGAT) ESTRIBO 1. DEFINICIÓN GEOMETRÍCA
2.9.2.4 / 2	0	VIADUCTO IB (S/ RIO LLOBREGAT) ESTRIBO 1. ARMADURAS (1)
2.9.2.4 / 3	0	VIADUCTO IB (S/ RIO LLOBREGAT) ESTRIBO 1. ARMADURAS (2)
2.9.2.4 / 4	0	VIADUCTO IB (S/ RIO LLOBREGAT) ESTRIBO 1. ARMADURAS (3)
2.9.2.4 / 5	0	VIADUCTO IB (S/ RIO LLOBREGAT) ESTRIBO 2. DEFINICIÓN GEOMÉTRICA
2.9.2.4 / 6	0	VIADUCTO IB (S/ RIO LLOBREGAT) ESTRIBO 2. ARMADURAS
2.9.2.4P / 1	0	VIADUCTO IB (S/ RIO LLOBREGAT) CIMENTACIÓN PARQUE E-1. DEF. GEOMETRICA
2.9.2.4P / 2	0	VIADUCTO IB (S/ RIO LLOBREGAT) CIMENTACIÓN PARQUE E-1. ARMADURAS

DOCUMENTO Nº 3: PLIEGO DE PRESCRIPCIONES TÉCNICAS

1 PRESCRIPCIONES TÉCNICAS GENERALES

2 DESCRIPCIÓN DE LAS OBRAS

3 UNIDADES DE OBRA

Madrid, 30 de Diciembre de 2005

Fdo. JESÚS ANGEL LABARRA BLANCO
Ingeniero de Caminos, Canales y Puertos
Servicio de Estructuras del Dpto. de ATOP.

VºBº: RAFAEL ROJAS CASTILLO
Ingeniero de Caminos, Canales y Puertos
Jefe Servicio de Estructuras del Dpto. de ATOP

ANEJO 1. CÁLCULOS ESTRUCTURALES

ESTUDIO DE CIMENTACIONES
DE LOS ESTRIBOS
DEL VIADUCTO SOBRE EL RÍO LLOBREGAT

ANEJO 1: CÁLCULOS ESTRUCTURALES

ÍNDICE

1 BASES DE CÁLCULO

2 CARACTERÍSTICAS DE PILOTES PREFABRICADOS

3 COMPROBACIONES EN ESTADO LÍMITE ÚLTIMO

1. BASES DE CÁLCULO

1 BASES DE CÁLCULO

DATOS DE PARTIDA

Se han considerado los esfuerzos pésimos de proyecto en apoyos los cuales han sido trasladados a la cara inferior de los encepados para el dimensionamiento de las cimentaciones. De forma adicional se han considerado las cargas transmitidas por el propio estribo como son el peso propio de encepado, empuje de tierras, etc.

El modelo de terreno considerado para la evaluación de los esfuerzos y deformaciones en la cimentación es el mismo de proyecto.

NORMATIVA CONSIDERADA

Se han tenido en cuenta las prescripciones de las siguientes Instrucciones:

- EHE: Instrucción de Hormigón Estructural (5ª edición revisada de diciembre 1999).
- IAPF: Instrucción sobre las Acciones a considerar en el proyecto de Puentes de Ferrocarril (borrador de julio de 2001).
- Guía de Cimentaciones en Obras de Carretera (septiembre de 2002).

PROGRAMAS DE ORDENADOR

Los cálculos que se adjuntan en los capítulos siguientes han sido realizados con los programas siguientes:

- STATIK 3 (versión 2.63).
- FAGUS 2 (versión 1.32).
- CEDRUS 5 (versión 1.19)
- Hojas de cálculo en EXCEL para dimensionamiento de diversos elementos.

METODOLOGÍA DE CÁLCULO

Se ha realizado un modelo espacial de la cimentación considerando los pilotes y el encepado como barras con las características geométricas y mecánicas adecuadas. El terreno se ha modelizado mediante muelles horizontales de constante elástica la correspondiente a los módulos de balasto considerados en proyecto para los terrenos atravesados.

Con los esfuerzos de proyecto en ELS se han obtenido la carga máxima transmitida sobre cada pilote, comprobándose que es inferior al tope estructural de los pilotes. (205 T)

Una vez comprobado el tope estructural de los pilotes se realiza el dimensionamiento de los mismos. Para ello se considera, del lado de la seguridad, una doble hipótesis. En primer lugar, se considera el axil característico y el momento flector mayorado por 1,5 y posteriormente se comprueba con el axil y el momento mayorado por 1.5.

Una vez comprobado el armado de los pilotes se realiza el dimensionamiento de la armadura del encepado a partir de los valores pésimos de las reacciones en pilotes y mayorando los esfuerzos obtenidos por 1.5.

2. CARACTERÍSTICAS DE LOS PILOTES PREFABRICADOS

2 CARACTERÍSTICAS DE PILOTES PREFABRICADOS

En las páginas siguientes se adjunta un documento descriptivo de las características fundamentales de los pilotes prefabricados TERRA y de las juntas entre módulos tipo ABB diseñadas para estos pilotes.

Es suministrado por la empresa prefabricadora a modo de memoria justificativa de dichos elementos.

2 CARACTERÍSTICAS DE PILOTES PREFABRICADOS

En las páginas siguientes se adjunta un documento descriptivo de las características fundamentales de los pilotes prefabricados TERRA y de las juntas entre módulos tipo ABB diseñadas para estos pilotes.

Es suministrado por la empresa prefabricadora a modo de memoria justificativa de dichos elementos.

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1.- INTRODUCCIÓN. NORMATIVA.

2.- CARACTERÍSTICAS DE LOS PILOTES.

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3.1.- TOPE ESTRUCTURAL.

3.2.- TRACCIÓN MÁXIMA

3.3.- FLEXO-COMPRESIÓN / TRACCIÓN.

3.4.- CORTANTE.

4.- CARGA DE HUNDIMIENTO. RECHAZO.

5.- DISTRIBUCIÓN DE PILOTES.

6.- ENCEPADOS Y VIGAS RIOSTRAS.

7.- ANEJOS.

1.- INTRODUCCIÓN. NORMATIVA.

La presente Memoria de Cálculo se refiere a las características, tanto geométricas como mecánicas, de los pilotes prefabricados TERRA dimensionados como cimentación de la estructura proyectada.

Refleja, por tanto, los diferentes tipos de pilotes, su cuantía de armaduras, las características de los materiales constituyentes, y su capacidad estructural.

Define también los rechazos mínimos a obtener en la puesta en obra, de acuerdo con las solicitaciones actuantes.

Asimismo recoge la tipología de los encepados, y de las vigas de arriostramiento, que sirven de conexión y rigidización de la cimentación a la estructura.

La normativa utilizada es la siguiente:

- Instrucción de Hormigón Estructural (EHE).

- Instrucción para recepción de cementos (RC-97).

- Norma Tecnológica de la Edificación (NTE-CPP/1978).

- Norma Sismorresistente de Construcción (NSCE-94).

- Norma UNE 36-097-81 (parte 1).

2.- CARACTERÍSTICAS DE LOS PILOTES

Los pilotes empleados en el dimensionamiento de la cimentación de la obra de referencia son prefabricados del tipo TERRA, que se fabrican en las siguientes secciones:

Secciones Nominales	Área Real
T-400: Sección Recta: 400 x 400 mm	1.640,2 cm^2

Se fabrican bajo un Sistema de Calidad certificado por AENOR, siendo longitudinalmente su sección prismática, variando, usualmente, entre 5 y 12 m, con incrementos de metro en metro.

Para longitudes mayores, se emplea la junta de unión Tipo ABB, patentada y experimentada, que garantiza la continuidad de las características resistentes del pilote.

Los pilotes se fabrican con hormigón de resistencia característica a 28 días no menor de 45 N/ mm^2 (HA-45). (Según Norma EHE).

En todos los casos se emplea cemento SR (según Instrucción para la recepción de cementos RC-97), resistente tanto a sulfatos como al agua de mar. El cemento es del tipo I-45 (denominación RC-93) y CEM I 42,5R/SR UNE 80 301/3 (denominación RC-97), Pórtland con resistencia mínima a 28 días 45 N/ mm^2.

Las secciones T-400 están armadas en toda su longitud, mediante barras de acero corrugado y calidad B-500S, de límite elástico 500 N/mm^2, de la siguiente forma:

8 Ø 20 mm en T-400

Se sitúan dos redondos en cada esquina para las secciones T-400, y uno en cada esquina para el resto de secciones.

La sección T-400 va zunchado, mediante una armadura transversal, en acero de AE-215L (lisa de límite elástico 320 N/ mm^2), de 8 mm. de diámetro. El paso es de 12 cm, reduciéndose a 8 cm. en la zona de los ganchos de izado, y en los 80 cm. próximos a los extremos.

El recubrimiento mínimo de armaduras es el fijado en el Art. 37, en la tabla 37.2.4, de la Norma EHE, para los Ambientes: I (no agresivos), IIa - IIb (normales), IIIa - IIIb (marinos) y IV (cloruros de origen diferente al medio marino), distancia al paramento de la armadura más externa 25 mm., para piezas prefabricadas con $f_{ck} \geq 40$ N/ mm^2.

Para el resto de ambientes y condicionantes del entorno, hay que tener en cuenta la elevada compacidad del hormigón empleado en la fabricación de los pilotes, así como el elevado tiempo de curado y una potente energía de vibración del hormigón, con lo que en la fórmula de Feret ($S = K*(c/(c+h))^2$), el término "h" (huecos en el hormigón) tiende a cero.

3.- CAPACIDAD ESTRUCTURAL DE LOS PILOTES

Los pilotes prefabricados están capacitados para absorber esfuerzos de compresión, tracción, flexo-compresión, flexo-tracción y cortante, hasta los límites que a continuación se detallan:

3.1.- CAPACIDAD A COMPRESIÓN. (TOPE ESTRUCTURAL)

Las máximas cargas estructurales de compresión se deducen a partir de lo indicado en la Norma Tecnológica de la Edificación NTE-CPP/1978.

Particularizando para el caso de pilotes prefabricados en instalaciones permanentes fijas, Categoría I, tenemos la siguiente fórmula:

$$T = 0{,}23 * A_c * f_{ck} + A_s * 1.600 \text{ (en kp)}$$

De forma que no sea superior a $T_L = 125 * A$ (en Kp), y siendo:

A_c = Área de la sección recta de hormigón (en cm^2)
A_s = Área de la armadura longitudinal (en cm^2)
A = Área de la sección recta del pilote (en cm^2)
f_{ck} = Resistencia característica del hormigón (en Kp/ cm^2)

sustituyendo en los diferentes casos:

T-400 : As = 25,1 cm^2, A_c = 1.620,1 cm^2, A = 1.640,2 cm^2 (40,50 * 40,50 cm.)
T = 0,23 * 1.620,1 * 450 + 25,1 * 1.600 = 207.840 Kp = 207,8 t
T_L = 125 * 1.640,2 = 205.025 Kp = 205,0 t

Por tanto resulta el siguiente tope estructural:

T-400 = 205 t

3.2.- CAPACIDAD MÁXIMA A TRACCIÓN

El valor máximo viene limitado por una parte por la capacidad mecánica de las armaduras longitudinales (T_c), y por otra por la fisuración (T_f).

3.2.1. Estado Límite Último de tracción en armaduras:

La capacidad mecánica de las armaduras es la siguiente:

$$T_c = \frac{f_{yk} * A_s}{\gamma_s * \gamma_f} \text{ (en Kp)}$$

siendo:

A_s = sección de armaduras longitudinales (en cm^2).
f_{yk} = límite elástico del acero 5.100 Kp/cm^2 = 500 N/ mm2 para las secciones T-400).
γ_s = coeficiente de minoración del acero (1,15). (*)
γ_f = coeficiente de mayoración de esfuerzos (1,5). (*)

*(*) **nota**:* para el cálculo de los coeficientes de mayoración, hay que tener presente los casos de acciones accidentales, acciones variables y acciones permanentes, que permitirían, al ser el nivel de control intenso para la fabricación de los pilotes, reducir los coeficientes de seguridad tomados, adoptándose $\gamma_s = 1{,}15$ y $\gamma_f = 1{,}5$ para el caso general del lado de la seguridad.

sustituyendo para diversas secciones:

T-400: $A_s = 25{,}1\ cm^2$

$$T_c = \frac{5.100 * 25{,}1}{1{,}15 * 1{,}5} = 74.208\ Kp = 74{,}2\ t$$

3.2.2.- Estado Límite de Fisuración:

La comprobación del estado límite de fisuración frente a tracción simple viene definida en el Artículo 49, de la Norma EHE.

La abertura característica se obtiene a partir de la siguiente expresión:

$$w_k = \beta * s_m * \varepsilon_{sm}$$

De los cuales:

$$\beta = 1{,}7$$

$$s_m = 2c + 0{,}2s + 0{,}4\ k_1 * (\varnothing * A_{c,eficaz} / A_s)$$

$$\varepsilon_{sm} = \sigma_s/E_s * (1-k_2(\sigma_{sr}/\sigma_s)^2) > 0{,}4\ \sigma_s/E_s$$

Siendo s_m :

c : recubrimiento del hormigón

T-400 = 35,4 mm

s : Distancia entre barras longitudinales

T-400 = 311,7 mm

k_1 : coeficiente que para tracción simple vale 0,25

$\varnothing$: diámetro equivalente de la barra más traccionada

$A_{c,eficaz}$: Área de hormigón de la zona de recubrimiento

A_s : Sección total de armaduras en el área $A_{c,eficaz}$

Sustituyendo toma el siguiente valor:

T-400 $S_m = 2 * 35{,}4 + 0{,}2 * 311{,}7 + 0{,}4 * 0{,}25 * (28{,}3 * 164.020 / 2.512) = 317{,}92$ mm

Por otro lado, ε_{sm} se obtiene a partir de los valores:

k_2 : coeficiente de valor 0,5

σ_{sr} : tensión de la armadura cuando el hormigón alcanza $f_{ct,m}$

E_s : módulo de deformación longitudinal del acero

$f_{ct,m}$: valor medio de la resistencia a tracción del hormigón, que para 45 N/mm^2 vale 3,795 N/mm^2; no obstante, este valor deducido de la formulación del artículo 39.1 de la Norma EHE, se podría mayorar en base al artículo 30.3 de la EHE, al fabricarse el hormigón con fibras de polipropileno, que arroja mayor valor de la resistencia a tracción.

Haciendo $\sigma_{sr} = (A / A_s) * f_{ct,m}$, y sustituyendo queda

T-400 $$\varepsilon_{sm} = \frac{\sigma^2 - 30.701}{\sigma * 210.000}$$

Como ejemplo detallamos el cálculo para el pilote T-235 para aperturas de fisura W_K ... 0,2 mm. (ambientes III_a, III_b, IV y F), resultando la siguiente tracción máxima a fisuración:

$$W_K \ldots 0{,}2 = 1{,}7 * 207{,}29 * \left[\frac{\sigma^2 - 36.041}{\sigma * 210.000}\right]$$

De donde se obtiene que $\sigma^2 = 258{,}6$ N/mm^2.

Comprobando la limitación de ε_{sm} obtenemos:

$$\varepsilon_{sm} = \frac{258,6^2 - 36.041}{258,6 * 210.000} = 0,000568 > 0,4 * \frac{258,6}{210.000}$$

siendo entonces la tracción máxima:

$$N = \sigma * A_s = 258,6 * 804 = 20,8\ T$$

Realizando el mismo cálculo para cada sección obtenemos las siguiente tracciones máximas a fisuración:

	W_K ... 0,2 mm.	W_K ... 0,1 mm.
T-400	54,8 T	19,6 T

Estos resultados coinciden con el menor valor de las dos tracciones calculadas en los puntos 3.2.1. y 3.2.2.

3.3.- CAPACIDAD A FLEXO-COMPRESIÓN Y FLEXO-TRACCIÓN

La capacidad de los pilotes para absorber esfuerzos combinados de axiles y momentos flectores queda reflejada en las curvas que se acompañan en el anejo 1.

Para su obtención se ha aplicado las formulas que figuran en el Anejo 8 de la Norma EHE.

3.4.- ESFUERZOS CORTANTES DE PILOTES SOMETIDOS A COMPRESIÓN O FLEXO-COMPRESIÓN

Los pilotes están armados para absorber como máximo el esfuerzo cortante dado por la siguiente expresión (Art.44, EHE):

$$V_{u_2} = V_{cu} + V_{su}$$

siendo:

V_{cu} : Contribución del hormigón a la resistencia a esfuerzo cortante despreciando el efecto de los esfuerzos axiles.

V_{su} : Contribución de la armadura transversal a la resistencia a esfuerzo cortante.

V_{cu} tiene el valor siguiente:

$$V_{cu} = 0,1 * \varepsilon * (100 * \rho l * f_{ck})^{(1/3)} * bo * d$$

donde:

$f_{ck} = 45\ N/mm^2$ resistencia característica del hormigón.

bo = ancho de la sección en mm.

d = canto útil de la sección en mm.

$\xi = 1 + \sqrt{\frac{200}{d}}$ coeficiente adimensional

$\rho_l = \frac{As}{boxd}$ no mayor de 0,02. cuantía geométrica de la armadura longitudinal traccionada.

V_{su} se obtiene aplicando la fórmula:

$$V_{su} = A_{90} * f_{y90,d} * 0,9 * d$$

siendo:

$A_{90} = \frac{2 * 0,50}{12} = 0,083$ cm. Cercos Ø 8 cada 12 cm. en sección T-400.

Area por unidad de longitud de cada grupo de armaduras que forman un ángulo $\alpha = 90°$ con la directriz de la pieza.

4617

$$fy_{on,d} = \frac{3.200}{1,15} = 2.783 \ \text{kp/cm}^2$$ En sección T-400.

Resistencia de cálculo de las armaduras transversales.

sustituyendo para las diferentes secciones:

T-400: $V\,cu = 0,10 * 1,748 * (\sqrt[3]{100 * 0,0087 * 45}) * 405,0 * 357,9 * 10^{-1} = 8.592$ Kp

$V\,su = 0,083 * 2.783 * 0,9 * 35,79 = 7.440$ Kp

$V_{u2} = 8.592 + 7.440 = 16.032$ Kp = 16,03 Ton.

que en servicio, equivalen, al dividir por 1,5 (coeficiente de mayoración), a :

T-400: V = 10,69 ton. (en servicio)

4.- CARGA DE HUNDIMIENTO. RECHAZO ADMISIBLE.

La máxima carga a la que puede ser sometido cada pilote viene limitada no solo por su capacidad estructural, dada en el apartado anterior, sino también por el comportamiento del terreno que recibe las solicitaciones que le transmite el propio pilote.

La carga a la que se produce el agotamiento del terreno, y que produce la rotura del mismo, se denomina carga de hundimiento del pilote. A esta carga se le impone una limitación, aplicándola un coeficiente de seguridad.

En los pilotes prefabricados su particular puesta en obra permite obtener esta carga aplicando fórmulas de hinca. Entre las muchas existentes es habitual el empleo de la holandesa, cuyo desarrollo es el siguiente:

$$Qadm = \frac{M * M * H}{F * e * (P + M)}$$

siendo:

Q_{adm}	=	Carga admisible
M	=	Peso de la maza del equipo de hinca (4 a 6 Toneladas).
H	=	Altura de caída de la maza durante el control del rechazo (0,35 m.; 0,23 m.; 0,17 m. para equipos de hinca hidráulicos y 0,50 m para equipos de cable).
F	=	Coeficiente de fórmula que incluye el coef. de seguridad frente a la carga de hundimiento (7 para equipos de hinca hidráulicos y 10 para equipos de cable).
e	=	Rechazo admisible (penetr./golpe)
P	=	Peso del pilote en proceso de hinca.

Aplicando la fórmula para las cargas actuantes (como máximo su tope estructural 50, 71, 94, 115, 154 y 205 t, respectivamente), se obtiene el rechazo mínimo, e, a obtener en la hinca de cada pilote, quedando por tanto para los distintos equipos las siguientes expresiones:

$$e(penetr./golpe) = \underset{\text{Equipo de cable 4 t.}}{\frac{4*4*50}{Qadm*10*(P+4)}} = \underset{\text{Equipo hidráulico 4 t.}}{\frac{4*4*35}{Qadm*7*(P+4)}} = \underset{\text{Equipo hidráulico 5 t.}}{\frac{5*5*23}{Qadm*7*(P+5)}} = \underset{\text{Equipo hidráulico}}{\frac{6*6*17}{Qadm*7*(P+}}$$

En obra, con objeto de facilitar su lectura y obtener valores medios, se procede a medir el anterior parámetro (e) en una serie de diez golpes.

5.- DISTRIBUCIÓN DE PILOTES

La distribución de pilotes se obtiene de forma que en ningún caso se supere ni el tope estructural ni la carga admisible del terreno, de acuerdo con las solicitaciones actuantes a cota de cimentación.

6.- ENCEPADOS Y VIGAS DE ARRIOSTRAMIENTO

Los encepados son los elementos de unión de los pilares con los pilotes.

Como elementos de hormigón armado su cálculo se realiza según lo indicado en el artículo 59.4 de la norma EHE.

Las vigas de atado, que arriostran los encepados individuales en dos direcciones perpendiculares y los dobles en un plano perpendicular al eje de los pilotes, se calculan sometidas únicamente a su propio peso y a un momento en sus extremos producido por una excentricidad accidental de los pilotes de 10 cm.

En ambos elementos el hormigón será como mínimo de 25 N/ mm^2 de resistencia característica y el acero B-500S de 500 N/ mm^2 de limite elástico.

7.- ANEJOS

ANEJO 1

CURVAS DE FLEXO-TRACCIÓN Y FLEXO-COMPRESIÓN

1.- ASPECTOS TECNICOS DE LA JUNTA ABB

Junta ABB de origen sueco, normalizada y patentada en ESPAÑA por la firma TERRATEST, S.A.

La junta en conjunto esta dividida en dos mitades que se hormigonan cada una de ellas en los tramos de pilote a unir (Junta-Azuche + Junta-Collar).

Cada una de estas medias juntas, según diseños y secciones esta compuesta de dos o cuatro bloques, llamado bloque el elemento estructural de mayor importancia de la Junta, y que aloja los tetones de la otra media Junta, situando bloque y tetón enfrentados en cada mitad para su correcto acoplamiento.

En las secciones de pilote Terra-235, 270, 300 y 350 cada media junta consta de 2 bloques y 2 tetones.

A cada bloque y tetón va soldado una barra de anclaje que se solapa alrededor de 1,0 m. a los redondos de la armadura del pilote por lo que siempre se le da continuidad al mismo.

Una vez introducidos los tetones en los bloques correspondientes, la unión se asegura introduciendo una pasador de cierre, Ø 25 mm. y calidad F-114 en cada bloque, el cual entra algo excéntrico, aprisionando un pestillo de bola y ejerciendo una fuerza adicional de tensión que asegure la perfecta conexión.

La Junta ABB está diseñada para resistir las fuerzas que desarrolla el pilote mientras se hinca, y las solicitaciones actuantes. Esto significa que la junta puede soportar la fuerza de tensión causada por el golpeo cuando el pilote atraviesa una capa de terreno blando, así como la resistencia a la compresión.

Además la Junta está diseñada para soportar al menos lo mismo que el pilote. Por las razones anteriores un pilote con junta puede soportar la misma carga que un pilote sin junta, dado que la transmisión de cargas de un tramo a otro del pilote está garantizada.

Las pruebas efectuadas, han certificado que la junta puede soportar hasta 10.000 golpes.

La Junta ABB, tiene la misma sección exterior que el pilote lo cual es necesario en la hinca de pilotes que trabajan por fuste, llamados de rozamiento o cohesivos.

Desde el punto de vista práctico, las juntas son muy fáciles de colocar en obra, así como de inspeccionar.

Una ventaja añadida de la junta patentada es que es completamente simétrica, lo que quiere decir que no hay macho ni hembra al final de los pilotes, y las partes inferior y superior de los mismos son idénticas, lo cual significa menor riesgo de error en obra.

La Junta ABB la podemos estudiar técnicamente desde dos aspectos fundamentales:

1. Mecánico
2. De durabilidad frente a la corrosión

1.- Mecánico

A1.- De flexión

A2.- De tracción

A1 – Flexión normal.- Funcionan los dos tramos como una sola pieza, dada la continuidad que hay entre las armaduras. De los ensayos realizados, se puede inferior lo siguiente:

- En los ensayos a flexión en piezas con Junta, la rotura se produce para un momento flector mayor que en las piezas sin unión.
- La deformación de 1/500 de la luz, se produce en las piezas con uniones para un momento flector mayor que en las piezas sin unión.
- Una fisuración del orden de 0,2 mm. se produce en las piezas con uniones para un momento flector mayor que en las piezas sin unión.
- Se concluye que en las piezas con Junta ABB, hay un mejor comportamiento en las piezas con unión que en las piezas sin unión.

A2 – Ensayo a tracción.- En este ensayo hay que distinguir los ensayos a tracción individual y los ensayos a tracción por bloque mecánico completo. La fuerza del bloque de junta, corresponde a la de un redondo de armadura corrugada 7/8" (22 mm) – siendo su capacidad a tracción de al menos 16 toneladas. Con periodicidad semestral se comprueba la resistencia de las roscas, sometiéndolas al límite de la rotura 5.300 kg/cm2 y un alargamiento no mayor de 0,15 mm (fisuración en ambiente III del Art. 44 de la EH-91).

Por bloque mecánico completo, la fuerza de la tensión sobrepasa las 10 toneladas, y los lados de las juntas están unidas con una fuerza mayor a éste valor. Por tanto la fuerza de tensión en cada bloque de junta es mayor que la fuerza de resistencia de un redondo de armadura corrugada de 5/8" (16 mm.). La resistencia última de un bloque de junta es de unas 24 toneladas. Una junta standard para un pilote de sección cuadrada lleva cuatro bloques de junta, con lo que su resistencia a tracción es superior a las 40 toneladas.

2.- Ensayos de durabilidad frente a la corrosión

Los posibles frentes de ataque de la corrosión de la Junta, son tres:

- A través de los bulones al bloque de cierre. Como el bloque de cierre se coloca en el molde, queda hormigonado junto con el pilote, protegiéndolo totalmente de la corrosión, así mismo se coloca una grasa especial que reduce el posible riesgo. Las pruebas en éste sentido se han llevado a cabo por el Laboratorio para Pruebas de Materiales Charnes de Gothemburgo.
- Faldón de afuera: el faldón exterior es una chapa de montaje de 3 mm. de espesor, siendo ésta suficiente para proteger el bloque de la corrosión, es de calidad ST-27 ó SAE-1008.
- Punto medio de conexión de las dos medias juntas. Son dos chapas planificadas de 8 mm. de espesor cada una, que confluyen al unirse formando un espesor de 16 mm.

A todo lo anteriormente expuesto, hay que añadir la amplia experiencia de más de 50 años de TERRATEST TÉCNICAS ESPECIALES, S.A. empleando éste tipo de juntas.

En los siguientes 10 puntos hemos descrito las ventajas técnicas de nuestra junta.

1.- La junta está diseñada para resistir las fuerzas que desarrolla el pilote mientras se hinca y las solicitaciones actuantes. Esto significa que la junta puede soportar la fuerza de tensión causada por golpeo cuando el pilote atraviesa una capa de terreno blando, así como la resistencia a la compresión cuando el pilote queda sujeto por piedras o morrena. Además la junta esta diseñada para soportar lo mismo que el pilote. Por tanto, las dimensiones de los zunchos dependen solo de la armadura de los pilotes.

2.- Por las razones anteriores, un pilote con junta puede soportar la misma carga que un pilote sin junta.

3.- Debido a su construcción, la junta presenta un refuerzo de aproximadamente 10 Tn. por bloque de cierre, lo que significa una gran ventaja desde el punto de vista de la hinca, especialmente en el hincado de pilotes largos.

4.- Las pruebas efectuadas han certificado que la junta puede soportar hasta 10.000 golpes.

5.- La junta tiene la misma sección exterior que el pilote, lo que es necesario en la hinca de pilotes que trabajan por fuste, llamados de rozamiento o cohesivos.

6.- Generalmente la junta se usa con pilotes de forma cuadrada, lo que quiere decir que la junta se diseña con cuatro bloques.

7.- Como el bloque de cierre se coloca en el pilote moldeado y lleva también un material que protege contra la corrosión, el riesgo de ésta es bastante pequeño. Las pruebas en este sentido, se han llevado a cabo por el Laboratorio para Pruebas de Materiales Charmer, de Gothemburgo.

8.- Desde el punto de vista práctico, las juntas son muy fáciles de colocar en la obra.

9.- Es muy fácil inspeccionar la junta.

10.-Finalmente, la mayor ventaja de la junta patentada, es que es completamente simétrica, lo que quiere decir que no hay macho ni hembra al final de los pilotes y las partes inferior y superior de los mismos son idénticas. Esto significa menos riesgo de error en la obra.

2.- COMPONENTES, ESQUEMAS Y DETALLES DE LA JUNTA ABB

Bloque de Junta

Corte en sección de un bloque de la junta con el pasador colocado. La protección contra la corrosión se hace con GF8 Flincote, un producto comprobado por el Instituto de Pruebas Chalmers.

La junta ABB es tan fuerte como el mismo pilote.

Pruebas efectuadas han mostrado que la fuerza y rigidez de un pilote unido es igual a la de un pilote de la misma longitud, siempre que este esté unido con una junta ABB. Así, los pilotes que esten unidos con estas juntas, han sido aprobados para utilizarlos sin reducción de la carga permitida.

Las juntas ABB pueden emplearse con todo tipo de pilotes, (puede servir para cualquier profundidad dentro de los límites usuales).

La junta ABB se ha patentado en varios paises.

Pruebas de tensión sobre la Junta ABB

La unión se hace introduciendo el pasador de cierre en el bloque de la junta. Cuando está colocado, cada pasador ejerce una fuerza de tensión que tira juntando los extremos de cada sección de pilotes.

En un catálogo se muestra la magnitud de esta fuerza de tensión, obtenida durante las pruebas hechas por el Instituto Nacional sueco de Pruebas de Materiales, y que se describen en el certificado U60-1088.

La fuerza de tensión sobrepasa a las 10 Tn. por bloque de junta, y los lados de las juntas están unidos con una fuerza mayor a este valor. Por tanto, la fuerza de tensión en cada bloque de junta es mayor que la fuerza de resistencia de un redondo de armadura corrugada de 5/8" (16 mm.).

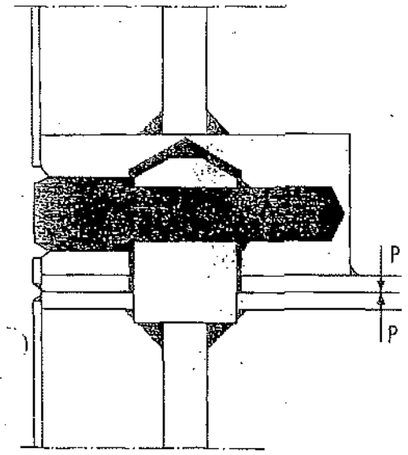
La resistencia última de un bloque de junta es de unas 24 Tn.

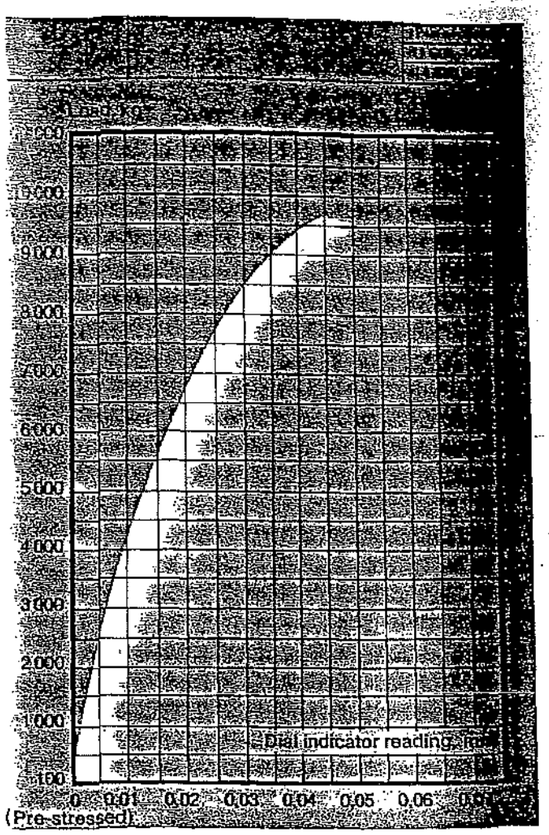
El bloque de junta y barra de anclaje estan soldados o roscados juntos por un método especial. La barra de anclaje no se debilita por la soldadura y la junta es, por lo menos, tan fuerte como la barra. La fuerza del bloque de junta corresponde a la de un redondo de armadura corrugada de 7/8" (22 mm.) utilizada como barra de anclaje.

Una junta standard para un pilote de sección cuadrada, lleva cuatro bloques de juntas, con lo que su resistencia a tracción es superior a las 40 Tn.

JOINT BLOCK

... through joint block with locking pin in position. Protec... against corrosion is given by Flintcote GF8, an anti-corrosion agent tested by Chalmers Testing Institute.





... is as strong as the pile itself

Tests have shown that the strength and rigidity of a jointed pile may be equal to that of a continuous pile – providing that it is fitted with an ABB JOINT. Piles provided with these joints have therefore been approved by Swedish authorities for use without reduction of the permissible load.

The ABB JOINT may be employed on all types of piles – round, rectangular, hexagonal or octagonal, hollow or solid.

The ABB JOINT is economical – any depth within the usual range may be accommodated with a limited stock of pile sections. The joint can be made very rapidly and may be easily checked.

The ABB JOINT is patented in several countries.

TENSILE TESTS ON THE ABB JOINT

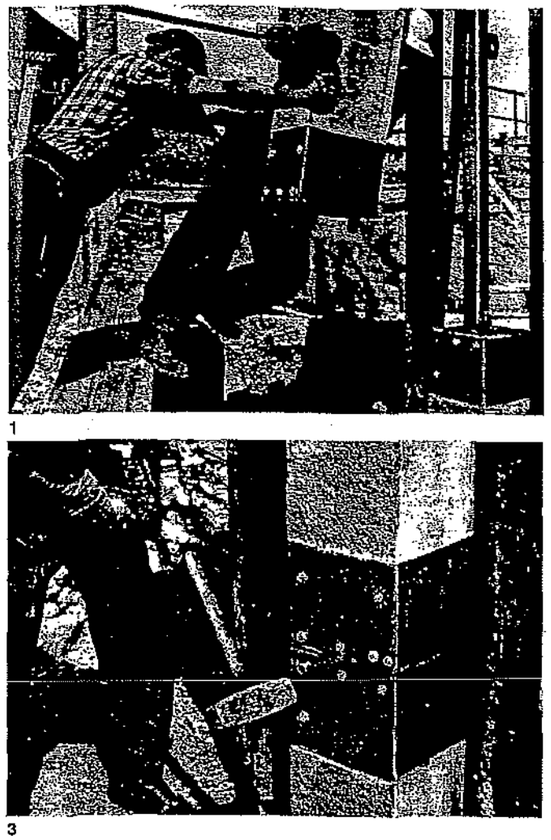
The joint is made by driving the locking pins into the joint blocks. When in position, each locking pin exerts a tensile stress (p) which draws together the ends of the pile sections (see left-hand figure above).

The graph (right-hand figure above) illustrates the magnitude of this tensile stress as obtained during the tests made by the National Swedish Institute for Materials Testing, and described in their certificate U60–1088.

The tensile stress amounts to about 10 tons per joint block, and the joint faces are pressed together with a force up to this value. Thus the tensile stress in each joint block is higher than the yield stress of a 5/8" (16 mm) deformed reinforcing bar.

The ultimate stress of a joint block is about 24 tons. The joint block and anchor rod are welded together by a special method. The anchor rod is not weakened by the weld and the joint is at least as strong as the rod. The strength of the joint block corresponds to that of a 7/8" (22 mm) deformed reinforcing bar used as an anchor rod.

A standard joint for a pile with a square cross-section contains four joint blocks.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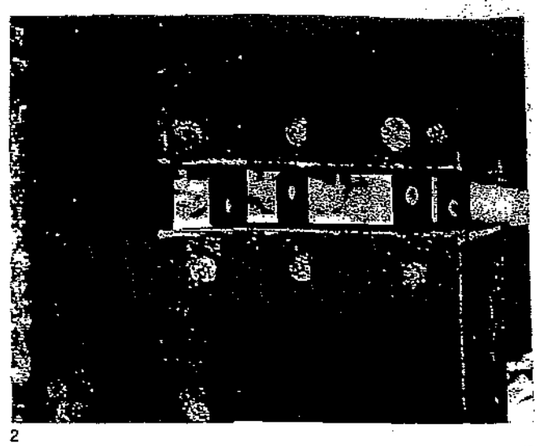
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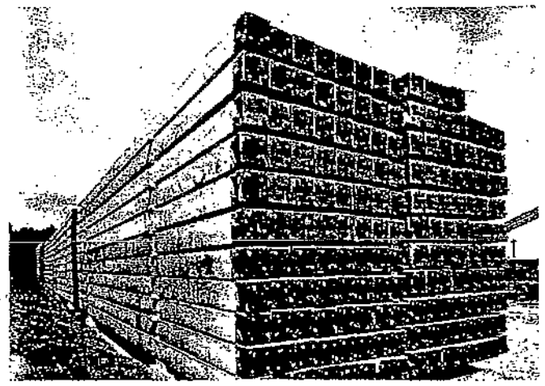
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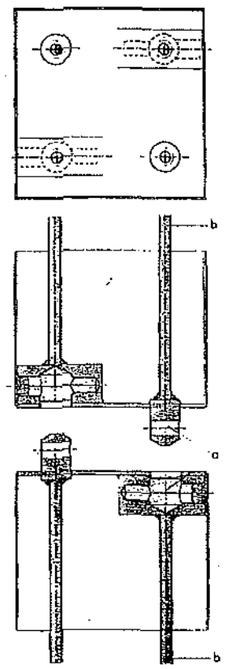
LOCKING PIN

The ball catch does not carry any load and therefore holds the pin in place regardless of the stress imposed on the pile.

STANDARD DIMENSIONS OF THE ABB JOINT

	25×25 mm	30×30 mm	Remarks
Number of joint blocks	4	4	Joints provided with central hole if required
External dimensions	248×248 mm	298×298 mm	
Height of pile cap	200 mm	200 mm	
Anchor rod	Ø 16 mm	Ø 16 mm	650 mm long
or	Ø 19 mm	Ø 19 mm	710 mm long
or	Ø 22 mm	Ø 22 mm	850 mm long

1. Aligning the upper section of the pile prior to making the joint.
2. Both ends in correct position for jointing.
3. Driving in the locking pins.
4. A stock of pile sections with ABB joints.



JOINT

Each half of the joint is identical, thus simplifying the problems of stocking and handling at site.

Fase 1ª: Presentación del pilote para su unión

Fase 2ª: Introducción de pernos

La junta ABB es el elemento que permite la unión de diferentes tramos de pilotes para alcanzar la profundidad necesaria.

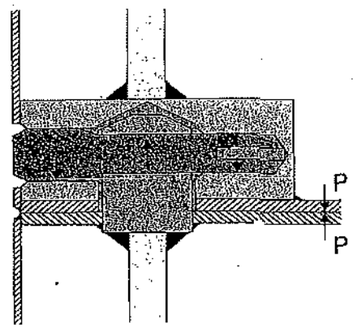
Las juntas se fabrican con materiales de alta calidad. Están calculadas para resistir mayores esfuerzos incluso que la propia sección tipo de pilote, como han demostrado los distintos ensayos a flexión, compresión y tracción realizados a las mismas.

Todos los elementos que la componen quedan totalmente recubiertos por hormigón y protegidos del medio circundante, a excepción de la chapa exterior que carece de función estructural una vez hormigonado el pilote.

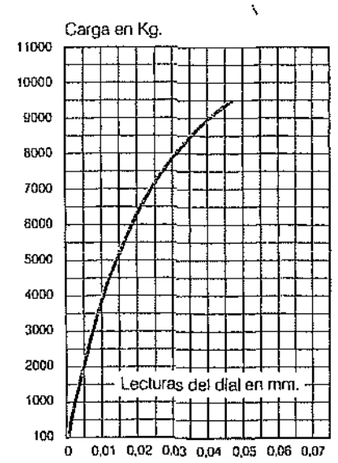
Juntas ABB

Además todos los elementos de conexión se encuentran embebidos en una grasa protectora contra la corrosió (certificada por el Instituto de Técnica Aeroespacial), y ajustadas las piezas que la componen, de forma que una ve unidos los diferentes elementos, se genera una pretensión que asegura una perfecta transmisión de esfuerzos.

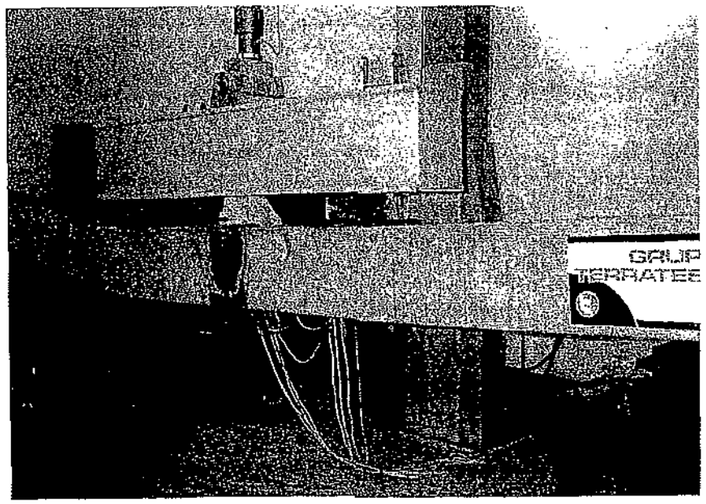
Las cualidades anteriores, junto con su fácil puesta en obra y la posibilidad de inspección visual de la junta, hacen de este elemento constructivo (patentado en numerosos paises) una garantía de calidad en consonancia con la del propio pilote, como demuestra en la práctica su uso continuado desde hace más de 50 años.



Compresión entre tramos en la conexión de la Junta



Extracto del Certificado U 60-1088 14.3 1960-AP



Ensayo de rotura a una junta

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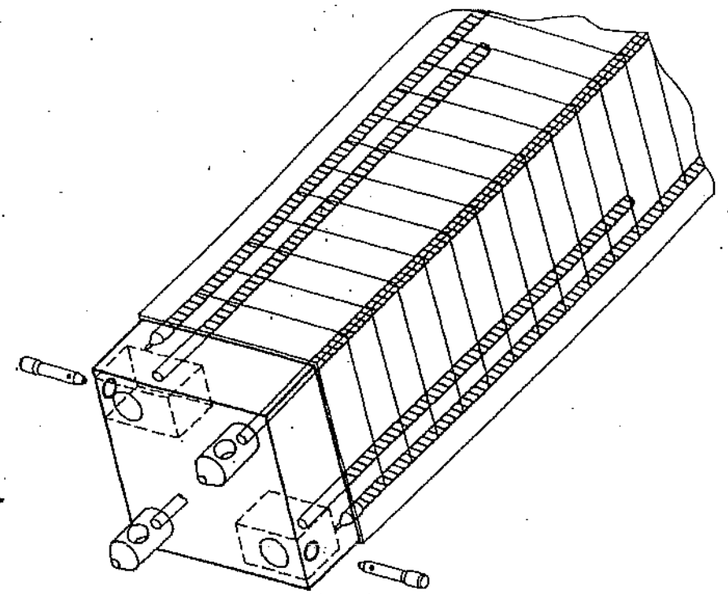
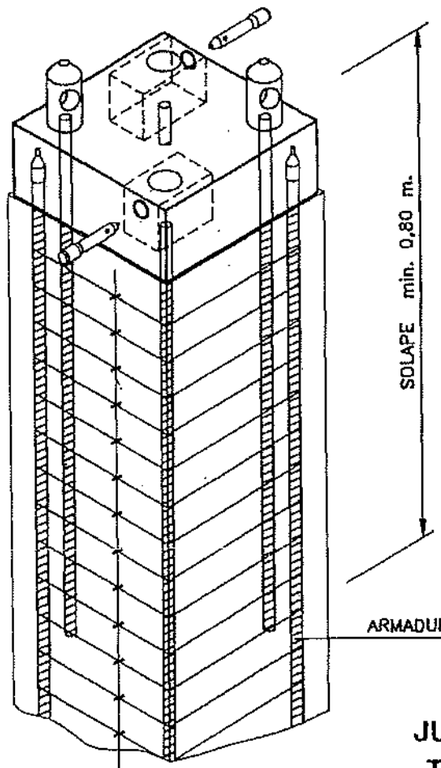
TERRATEST

GRUPO TERRATEST



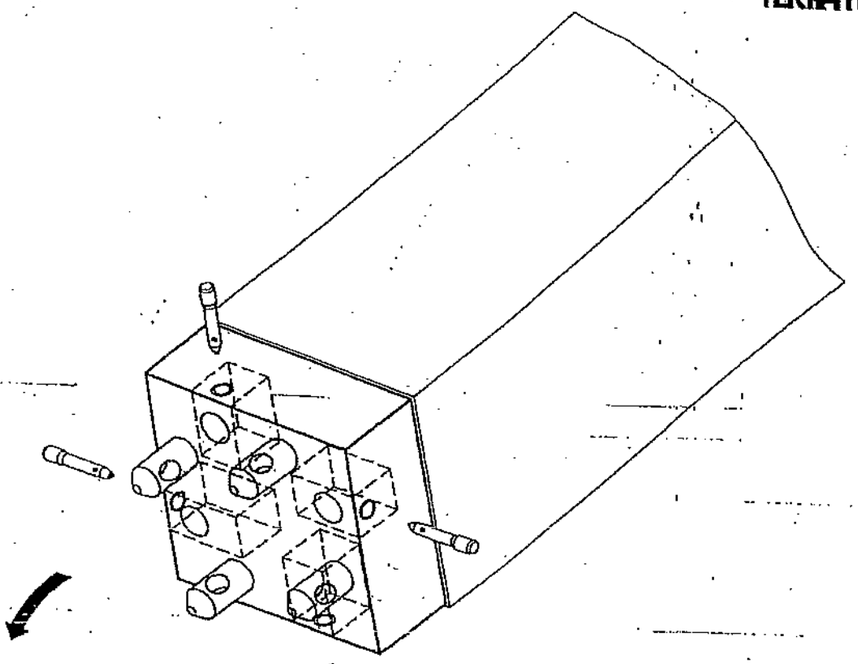


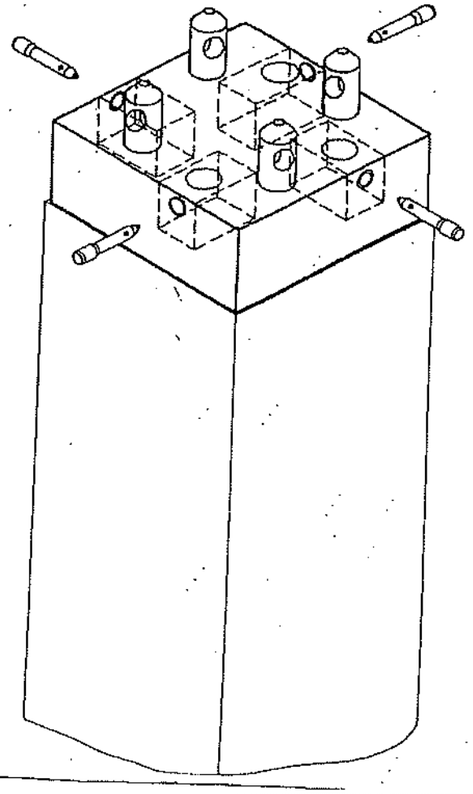
JUNTA DE UNION PARA PILOTES
TERRA 200 - 235 - 270 - 300

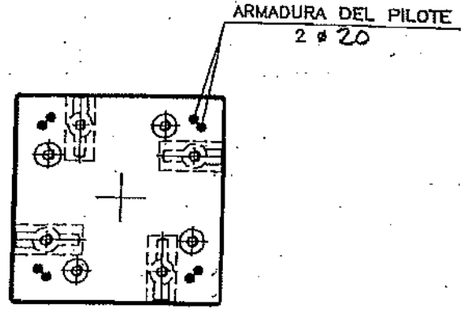
32

TERRATEST

GRUPO TERRATEST







JUNTA DE UNION PARA
PILOTES TERRA 350
TERRA 400

30

3. COMPROBACIONES EN ESTADO LÍMITE ÚLTIMO

3 COMPROBACIONES EN ESTADO LÍMITE ÚLTIMO

Se incluye a continuación:

- Definición del modelo de cálculo utilizado.
- Entrada de datos del programa de ordenador STATIK.
- Salida de resultados del programa STATIK:
    - Esfuerzos en la sección más desfavorable de los pilotes coincidente con el extremo superior (empotramiento con encepado) para todas las hipótesis.
    - Envolvente pésima de los esfuerzos anteriores.
- Comprobación con el programa FAGUS de la armadura vertical de los pilotes considerando la envolvente de esfuerzos pésimos anteriores (axil y momentos en dos direcciones perpendiculares).
- Comprobación con hoja de cálculo EXCEL de la armadura de cortante de los pilotes con la envolvente pésima de esfuerzos de cortante y axil.
- Dimensionamiento de la armadura necesaria en los encepados.

ESTUDIO DE CIMENTACIONES
DE LOS ESTRIBOS
DEL VIADUCTO SOBRE EL RÍO LLOBREGAT

ESTRIBO 2

CARACTERISTICAS DEL TERRENO

Como caracterización del terreno vamos a tomar los mismos parámetros que figuran en el proyecto, para ello vamos a tener que:

Formación	Profundidad	k_{30} (kg/cm³)	ka	3* Ka (kN/m²)
Rellenos Antrópicos	0.00	2	15312,5	4593,75
Arenas Limpias	7.00	5	38281,25	114843,75
Limos y Arenas Finas Limosas	35.00	5	38281,25	114843,75

Coeficiente de Reacción Horizontal de Pilotes

Comportamiento Granular:

$$k = k_{30}\left(\frac{b+0,30}{2b}\right)^2$$

Lado Pilote Hincado: 0,40 m

Los valores de la tabla anterior son los que vamos a emplear en nuestros cálculos como valores del coeficiente de reacción horizontal:

- Arenas Limpias ⇒ 11484,375 Tn/m² · 0,40 = 4593,75 T/m²
- Limos y Arenas ⇒ 11484,375 Tn/m² · 0,40 = 4593,75 T/m²

LONGITUD DE PILOTES

De acuerdo con las Directrices de la Guía de Cimentaciones en Obras de Carreteras": para combinación característica de acciones y ejecución de pilotes hincados con control de avance y aplicación de la ecuación de onda, el coeficiente de seguridad frente al hundimiento (tabla 5.6) debe cumplir:

$$(4-s) \geq 2,2$$

siendo s el avance por golpe (en mm) al final de la hinca.

Por tanto el número de golpes en el último metro debe ser:

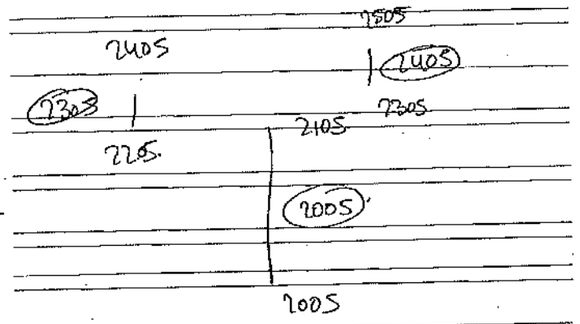
$$s \leq 4-2,2 = 1,8 \text{ mm} \Rightarrow \text{nº golpes} = \frac{1000}{1,8} = 560$$

De acuerdo con las estimaciones realizadas por TEC dicho número de golpes se puede alcanzar en el entorno de los 48 m, siendo este el valor que hemos tenido para la realización de nuestro modelo de cálculo.

ESTRIBO E-2 (ESTRIBO MOVIL)

Como datos de partida hemos de tener los datos del proyecto de adjudicación según los cuales en el punto medio entre los dos apoyos:

LAV SANT BOI ELS BARRA		Fz (kN)	Fy (kN)	Fx (kN)	Mx (m.kN)	My (m.kN)	Mz (m.kN)
BARRA	2005						
	2005	11316.80>>	-81.68	41.62	261.6	-166.6	-1532.4
	2005	5213.65<<	16.23	-8.27	-51.9	32.9	-82.3
	2005	7652.63	178.03>>	-90.70	-224.8	362.9	4780.8
	2005	7652.63	-192.63<<	98.15	271.6	-393.0	-6215.2
	2005	9008.71	-192.63	98.15>>	271.6	362.9	4780.8
	2005	9008.71	178.03	-90.70<<	-224.8	-333.8	-1107.6
	2005	6106.76	-163.73	-71.26	-447.8<<	284.9	405.3
	2005	6280.29	139.87	-70.10	-224.8	362,9>>	4780.8
	2005	7652.63	178.03	-90.70	271.6	-393,0<<	-6215.2
	2005	9008.71	-192.63	98.15	271.6	280.6	6855.3>>
	2005	8420.07	137.59	-70.10	-93.3	-337,4	-9279.6<<
	2005	8140.98	-165.31	84.23	186.1		
	2105	11316.80>>	-81.68	41.62	261.6	-0,1	-1205.7
	2105	5213.65<<	16.23	-8.27	-51.9	0,0	-147.4
	2105	7652.63	178.03>>	-90.70	-224.8	0,2	4068.5
	2105	9008.71	-192.63<<	98.15	271.6	-0,3	-5444.8
	2105	9008.71	-192.63	98.15>>	271.6	-0,3	-5444.8
	2105	7652.63	178.03	-90.70<<	-224.8	0,2	4068.5
	2105	6106.76	-163.73	83.43	524.3>>	0,0	-452.8
	2105	6280.29	139.87	-71.26	-447.8<<	0,0	-151.4
	2105	8367.66	-8.82	4.50	28.3	0,3>>	6134.2
	2105	8050.90	-4.70	2.40	15.1	-0,4<<	-7363.5
	2105	8419.82	-76.49	40.00	-99.8	0.3	6305.9>>
	2105	8141.73	50.48	-25.72	183.6	-0.4	-7618.6<<



RESTO DE CARGAS

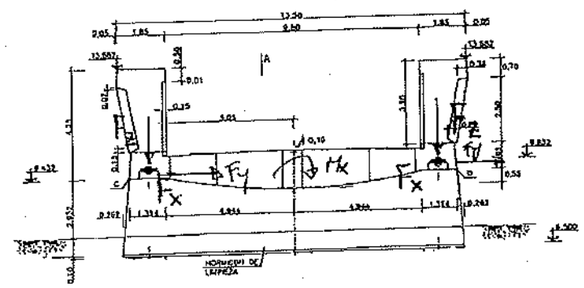
1) Peso propio del Estribo. $\gamma_H = 25\ kN/m^3$

2) Empuje de Tierras.
$\gamma_t = 20\ kN/m^3$
Kactivo = 0,330

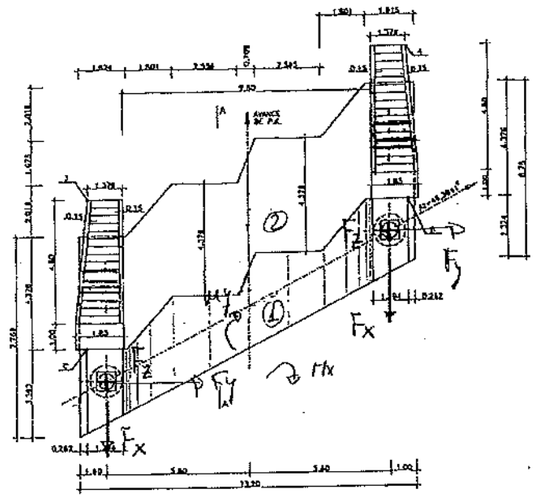
3) Sobrecargas en Estribo y Terraplén
- 30 kN/m² sobre Muerte
- 5 kN/m² sobre Escaleras

4) Empuje debido a sobrecargas:
30 kN/m² Kactivo = 0,330

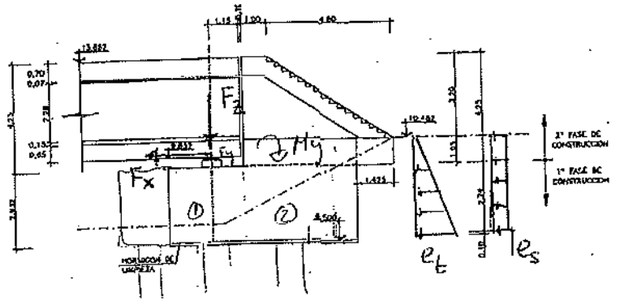
Combinaciones en anejo 4 Listado



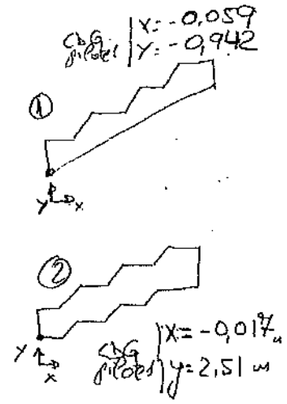
ALZADO FRONTAL ESTRIBO-2
ESCALA 1:150



PLANTA
ESCALA 1:150



SECCION A-A
ESCALA 1:150



e_t ≡ empuje de tierras
e_s ≡ empuje de sobrecarga

1) Peso propio del Estribo

Volumen Hormigón: zona 1: 58,008 m² → Canto zona 1: canto medio: 2,657 m | 154,12 m³

zona 2: 32,861 m² → Canto zona 2: 3,982 m | 130,85 m³

Zona Escaleras $1,85 \cdot 1 \cdot 3,20 + \frac{(1,85+13,79)}{2} \cdot 3,20 \cdot \frac{4,8}{2} = 18,32\ m^3 \times 2 = 36,64\ m^3$

δ_{Total} (154,12 + 130,85 + 36,64) 2,5 = 804,03 Tn

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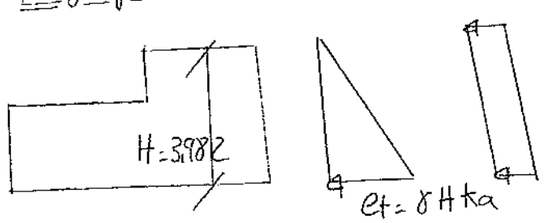
Tarou escaleras 2 · 3,070 · 1,05 · 1,394 · 2,5 = 22,62 Tn

δ_{Total} 826,65 T

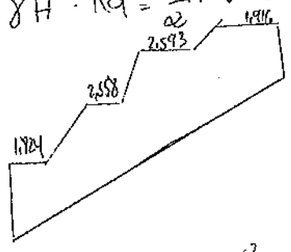
2) Empuje de Tierras



γ = 2 Tn/m³
ka = 0,33

$E_{Tierras} = \frac{1}{2}\gamma H^2 \cdot ka = \frac{1}{2} \cdot 2 \cdot 3{,}982^2 \cdot 0{,}33 = 5{,}29$ Tn/m

$M_{Tierras} = 5{,}29 \cdot \frac{3{,}982}{3} = 7{,}03$ mT/m



Datos a considerar el ancho de 13,20 m

$E_{Tierras} = 69{,}83$ T

$M_{Tierras} = 92{,}80$ mT

3) Sobrecargas en Estribo: $S_{c\,estribo} = 3$ Tn/m² ; $S_{c\,escalera} = 0{,}5$ Tn/m²

$S_{c\,Estribo} = 23{,}669 \cdot 3 = 71{,}007$ Tn

(23,669 = superficie de sobrecarga)

6 pilotes | x = 0,018 m ; x = 2,478 m

$S_{c\,escalera} = 2 \cdot \left(\frac{(1{,}339 + 1{,}85)}{2} \cdot 4{,}80 + 1{,}85 \cdot 1\right) \cdot 0{,}5 = 9{,}60$ Tn

Escalera 1 - 6 pilotes | x = -5,932 m ; y = 1,144 m

Escalera 2 - 6 pilotes | x = +5,735 m ; y = 6,85 m

4) Empuje debido a sobrecargas:

$E_s = 3 \cdot 0{,}33 \cdot 3{,}982 \cdot 13{,}20 = 52{,}04$ Tn

$M_s = 52{,}04 \cdot \frac{3{,}982}{2} = 103{,}61$ mTn

A continuación vamos a repartir las cargas del CDG de los pilotes:

1) Peso propio del Estribo

- Zona 1 - $P_1 = 385{,}30$ Tn → x = -0,059 → $M_x = -22{,}74$ mT ; y = 0,994 m → $M_y = +382{,}96$ mT
- Zona 2 - $P_2 = 327{,}13$ Tn → x = -0,017 → $M_x = -5{,}57$ mT ; y = 2,51 m → $M_y = -821{,}10$ mT
- Escalera 1 - $E_{sc\,1} = 45{,}8$ Tn → x = -5,732 → $M_x = -262{,}53$ mT ; y = 1,144 → $M_y = -52{,}40$ mT
- Escalera 2 - $E_{sc\,2} = 45{,}8$ Tn → x = 5,735 → $M_x = +262{,}62$ mT ; y = 6,85 m → $M_y = -313{,}73$ mT
- Dado Esc 1 - 11,31 T → x = -5,749 m ⇒ $M_x = -65{,}02$ mT ; y = 2,652 m ⇒ $M_y = -29{,}99$ mT
- Dado Esc 2 - 11,31 T → x = 5,175 ⇒ $M_x = 65{,}03$ mT ; y = 8,359 m ⇒ $M_y = -94{,}54$ mT

$P_T = 826{,}65$ T

$M_x = -28{,}21$ mT $M_y = -948,$

2) Empuje de Tierras: $F_x = -69{,}83$ T ; $M_y = 92{,}80$ mT

3) Sobrecargas en Estribo:

$S_{c\,estribo}$: 71,007 T → x = -0,018 m → $M_x = -1{,}28$ mT ; y = 2,478 m → $M_y = -175{,}96$ mT

- Escalera 1 : 4,80 Tn → x = -5,932 m ⇒ $M_x = -27{,}52$ mT ; y = 1,144 m ⇒ $M_y = -5{,}49$ mT
- Escalera 2 : 4,80 Tn → x = 5,735 m ⇒ $M_x = +27{,}52$ mT ; y = 6,85 m ⇒ $M_y = -32{,}88$ mT

$P_{sc} = 80{,}607$ Tn $M_x = -1{,}28$ mT $M_y = -214$

4) Empuje debido a sobrecargas

$F_x = -52{,}04$ T

$M_y = 103{,}61$ mT

Si unicamente consideramos las acciones de peso y tierras, tenemos:

$Fz = 907,25$ T $\Rightarrow tz = 92,18$

$Fx = -121,87$ T $\rightarrow tx = Ty = -10,88$ T

$My = -956,72$ mT $\rightarrow my = -86,31$

$Mx = -29,49$ mT $\Rightarrow$ $-0,47$ / $-0,282$ / $-0,094$

Vamos a considerar las cargas puntuales que figuran en el Anejo de cálculo del proyecto, con una fuerza horizontal por apoyo de valor:

$Fx = 30,336$ T que es la que figura en dicho proyecto.

$My = 30,336 \cdot 3,33 = 101,02$ mT $\times mx$

LAV SANT BOI ELS RARA

BARRA 2305	Fx (kN)	Fy (kN)	Fz (kN)	Mx (m.kN)	My (m.kN)	Mz (m.kN)
2305	5568.05>>	0.00	0.00	0.0	0.0	0.0
2305	2594.58<<	0.00	0.00	0.0	0.0	0.0
2305	4713.06	0.00>>	0.00	0.0	0.0	0.0
2305	2940.99	0.00<<	0.00	0.0	0.0	0.0
2305	4713.06	0.00	0.00>>	0.0	0.0	0.0
2305	2940.99	0.00	0.00<<	0.0	0.0	0.0
2305	4713.06	0.00	0.00	0.0>>	0.0	0.0
2305	2940.99	0.00	0.00	0.0<<	0.0	0.0
2305	4713.06	0.00	0.00	0.0	0.0>>	0.0
2305	2940.99	0.00	0.00	0.0	0.0<<	0.0
2305	4713.06	0.00	0.00	0.0	0.0	0.0>>
2305	2940.99	0.00	0.00	0.0	0.0	0.0<<
2405	5568.05>>	0.00	0.00	0.0	0.0	0.0
2405	2594.58<<	0.00	0.00	0.0	0.0	0.0
2405	4713.06	0.00>>	0.00	0.0	0.0	0.0
2405	2940.99	0.00<<	0.00	0.0	0.0	0.0
2405	4713.06	0.00	0.00>>	0.0	0.0	0.0
2405	2940.99	0.00	0.00<<	0.0	0.0	0.0
2405	4713.06	0.00	0.00	0.0>>	0.0	0.0
2405	2940.99	0.00	0.00	0.0<<	0.0	0.0
2405	4713.06	0.00	0.00	0.0	0.0>>	0.0
2405	2940.99	0.00	0.00	0.0	0.0<<	0.0
2405	4713.06	0.00	0.00	0.0	0.0	0.0>>
2405	2940.99	0.00	0.00	0.0	0.0	0.0<<

Apoyo 1

LAV SANT BOI ELS RARA

BARRA 2405	Fx (kN)	Fy (kN)	Fz (kN)	Mx (m.kN)	My (m.kN)	Mz (m.kN)
2305	5754.33>>	-91.72	0.00	0.0	0.0	0.0
2305	2618.46<<	18.04	0.00	0.0	0.0	0.0
2305	3152.42	156.96>>	0.00	0.0	0.0	0.0
2305	3089.40	-183.77<<	0.00	0.0	0.0	0.0
2305	4855.19	-1.28	0.00>>	0.0	0.0	0.0
2305	2990.55	-1.15	0.00<<	0.0	0.0	0.0
2305	4855.19	-1.28	0.00	0.0>>	0.0	0.0
2305	2990.55	-1.15	0.00	0.0<<	0.0	0.0
2305	4855.19	-1.28	0.00	0.0	0.0>>	0.0
2305	2990.55	-1.15	0.00	0.0	0.0<<	0.0
2305	4855.19	-1.28	0.00	0.0	0.0	0.0>>
2305	2990.55	-1.15	0.00	0.0	0.0	0.0<<
2505	5754.33>>	-91.72	0.00	0.0	0.0	9.1
2505	2618.46<<	18.04	0.00	0.0	0.0	-1.9
2505	3152.42	156.96>>	0.00	0.0	0.0	-15.8
2505	3089.40	-183.77<<	0.00	0.0	0.0	18.3
2505	4855.19	-1.28	0.00>>	0.0	0.0	-0.0
2505	2990.55	-1.15	0.00<<	0.0	0.0	0.0
2505	4855.19	-1.28	0.00	0.0>>	0.0	0.0
2505	2990.55	-1.15	0.00	0.0<<	0.0	0.0
2505	4855.19	-1.28	0.00	0.0	0.0>>	0.0
2505	2990.55	-1.15	0.00	0.0	0.0<<	0.0
2505	3089.40	-183.77	0.00	0.0	0.0	18.3>>
2505	3152.42	156.96	0.00	0.0	0.0	-15.8<<

Apoyo 2

DATOS DEL TABLERO

Carga en el Punto Medio de los Apoyos

Barra 2005		Fz (Tn)	Fy (Tn)	Fx (Tn)	Mz (m·Tn)	My (m·Tn)	Mx (m·Tn)
Nudo 2105	HIPOTESIS 1	1131.680	-8.168	4.162	26.160	0.000	-120.570
Nudo 2105	HIPOTESIS 2	521.365	1.623	-0.827	-5.190	0.000	-14.740
Nudo 2105	HIPOTESIS 3	765.263	17.803	-9.070	-22.480	0.000	406.850
Nudo 2105	HIPOTESIS 4	900.871	-19.263	9.816	27.160	0.000	-544.480
Nudo 2105	HIPOTESIS 5	610.676	-16.373	8.343	52.430	0.000	-45.280
Nudo 2105	HIPOTESIS 6	628.029	13.987	-7.126	-44.780	0.000	-15.440
Nudo 2105	HIPOTESIS 7	836.766	-0.882	0.450	2.830	0.000	613.420
Nudo 2105	HIPOTESIS 8	805.090	-0.470	0.240	1.510	0.000	-736.350
Nudo 2105	HIPOTESIS 9	841.982	-7.849	4.000	-9.380	0.000	630.580
Nudo 2105	HIPOTESIS 10	814.173	5.048	-2.572	18.360	0.000	-761.860

Distancia al CDG pilotes: x= **0.000** m
(en Planta) y= **0.000** m

Distancia a la cara inferior del encepado **3.983** m

Cargas Tablero en el CDG de los pilotes. Cara Inferior de Encepado

	Fz (Tn)	Fy (Tn)	Fx (Tn)	My (m·Tn)	Mx (m·Tn)
HIPOTESIS 1	1131.680	-8.168	4.162	-16.577	-153.103
HIPOTESIS 2	521.365	1.623	-0.827	3.294	-8.276
HIPOTESIS 3	765.263	17.803	-9.070	36.126	477.759
HIPOTESIS 4	900.871	-19.263	9.816	-39.093	-621.205
HIPOTESIS 5	610.676	-16.373	8.343	-33.230	-110.494
HIPOTESIS 6	628.029	13.987	-7.126	28.383	40.270
HIPOTESIS 7	836.766	-0.882	0.450	-1.792	609.907
HIPOTESIS 8	805.090	-0.470	0.240	-0.956	-738.222
HIPOTESIS 9	841.982	-7.849	4.000	-15.932	599.317
HIPOTESIS 10	814.173	5.048	-2.572	10.244	-741.754

1) Peso Propio del Estribo y del Encepado:

Fz (Tn)	My (m·Tn)	Mx (m·Tn)
826.650	-948.800	-28.210

2) Empuje de Tierras:

Fx (Tn)		My (m·Tn)
-69.830		92.800

3) Sobrecarga en Estribo:

Fz (Tn)	My (m·Tn)	Mx (m·Tn)
80.607	-214.330	-1.280

4) Empuje debido a sobrecarga:

Fx (Tn)		My (m·Tn)
-52.040		103.610

Con Sobrecarga

Cargas Totales en el CDG de los pilotes. Cara Inferior de Encepado

	Fz (Tn)	Fy (Tn)	Fx (Tn)	MY (m·Tn)	Mx (m·Tn)
HIPOTESIS 1	2038.937	-8.168	-117.708	-983.297	-1182.593
HIPOTESIS 2	1428.622	1.623	-122.697	-963.426	-37.766
HIPOTESIS 3	1672.520	17.803	-130.940	-930.594	-448.269
HIPOTESIS 4	1808.128	-19.263	-112.055	-1005.813	-660.685
HIPOTESIS 5	1517.933	-16.373	-113.527	-990.950	-139.984
HIPOTESIS 6	1535.286	13.987	-128.996	-938.337	10.780
HIPOTESIS 7	1744.023	-0.882	-121.420	-968.512	-580.417
HIPOTESIS 8	1712.347	-0.470	-121.630	-967.676	-767.712
HIPOTESIS 9	1749.239	-7.849	-117.870	-982.652	569.827
HIPOTESIS 10	1721.430	5.048	-124.442	-956.476	-771.244

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DATOS DEL TABLERO

Carga en el Punto Medio de los Apoyos

		Fz (Tn)	Fy (Tn)	Fx (Tn)	Mz (m·Tn)	My (m·Tn)	Mx (m·Tn)
Barra 2005							
Nudo 2105	HIPOTESIS 1	1131.680	-8.168	4.162	26.160	0.000	-120.570
Nudo 2105	HIPOTESIS 2	521.365	1.623	-0.827	-5.190	0.000	-14.740
Nudo 2105	HIPOTESIS 3	765.263	17.803	-9.070	-22.480	0.000	406.850
Nudo 2105	HIPOTESIS 4	900.871	-19.263	9.815	27.160	0.000	-544.480
Nudo 2105	HIPOTESIS 5	610.676	-16.373	8.343	52.430	0.000	-45.280
Nudo 2105	HIPOTESIS 6	628.029	13.987	-7.126	-44.780	0.000	-15.440
Nudo 2105	HIPOTESIS 7	836.766	-0.882	0.450	2.830	0.000	613.420
Nudo 2105	HIPOTESIS 8	805.090	-0.470	0.240	1.510	0.000	-736.350
Nudo 2105	HIPOTESIS 9	841.982	-7.849	4.000	-9.380	0.000	630.580
Nudo 2105	HIPOTESIS 10	814.173	5.048	-2.572	18.360	0.000	-761.860

Distancia al CDG pilotes: x= **0.000** m
(en Planta) y= **0.000** m

Distancia a la cara inferior del encepado **3.983** m

Cargas Tablero en el CDG de los pilotes. Cara Inferior de Encepado

	Fz (Tn)	Fy (Tn)	Fx (Tn)	My (m·Tn)	Mx (m·Tn)
HIPOTESIS 1	1131.680	-8.168	4.162	-16.577	-153.103
HIPOTESIS 2	521.365	1.623	-0.827	3.294	-8.276
HIPOTESIS 3	765.263	17.803	-9.070	36.126	477.759
HIPOTESIS 4	900.871	-19.263	9.815	-39.093	-621.205
HIPOTESIS 5	610.676	-16.373	8.343	-33.230	-110.494
HIPOTESIS 6	628.029	13.987	-7.126	28.383	40.270
HIPOTESIS 7	836.766	-0.882	0.450	-1.792	609.907
HIPOTESIS 8	805.090	-0.470	0.240	-0.956	-738.222
HIPOTESIS 9	841.982	-7.849	4.000	-15.932	599.317
HIPOTESIS 10	814.173	5.048	-2.572	10.244	-741.754

1) Peso Propio del Estribo y del Encepado:

Fz (Tn)	My (m·Tn)	Mx (m·Tn)
826.650	-948.800	-28.210

2) Empuje de Tierras:

Fx (Tn)		My (m·Tn)
-69.830		92.800

3) Sobrecarga en Estribo:

Fz (Tn)	My (m·Tn)	Mx (m·Tn)
0.000	0.000	0.000

Sin Sobrecarga

4) Empuje debido a sobrecarga:

Fx (Tn)		My (m·Tn)
0.000		0.000

Cargas Totales en el CDG de los pilotes. Cara Inferior de Encepado

	Fz (Tn)	Fy (Tn)	Fx (Tn)	My (m·Tn)	Mx (m·Tn)
HIPOTESIS 1	1958.330	-8.168	-65.668	-872.577	-181.313
HIPOTESIS 2	1348.015	1.623	-70.657	-852.706	-36.486
HIPOTESIS 3	1591.913	17.803	-78.900	-819.874	449.549
HIPOTESIS 4	1727.521	-19.263	-60.015	-895.093	-649.415
HIPOTESIS 5	1437.326	-16.373	-61.487	-889.230	-138.704
HIPOTESIS 6	1454.679	13.987	-76.956	-827.617	12.060
HIPOTESIS 7	1663.416	-0.882	-69.380	-857.792	581.697
HIPOTESIS 8	1631.740	-0.470	-69.590	-856.956	-766.432
HIPOTESIS 9	1668.632	-7.849	-65.830	-871.932	571.107
HIPOTESIS 10	1640.823	5.048	-72.402	-845.756	-769.964

CARGAS EN CIMENTACION EN CDG DEL ENCEPADO

	N (Tn)	Mx (m·Tn)	My (m·Tn)	Fx (Tn)	Fy (Tn)	N
HIPOTESIS 1	2038.937	-182.593	-983.297	-117.708	-8.168	0
HIPOTESIS 2	1428.622	-37.766	-963.426	-122.687	1.623	0
HIPOTESIS 3	1672.520	448.269	-930.594	-130.940	17.803	0
HIPOTESIS 4	1808.128	-550.695	-1005.813	-112.055	-19.263	0
HIPOTESIS 5	1517.933	-139.984	-999.950	-113.527	-16.373	0
HIPOTESIS 6	1535.286	10.780	-936.337	-128.996	13.987	0
HIPOTESIS 7	1744.023	580.417	-968.512	-121.420	-0.882	0
HIPOTESIS 8	1712.347	-767.712	-967.676	-121.630	-0.470	0
HIPOTESIS 9	1749.239	569.827	-982.652	-117.870	-7.849	0
HIPOTESIS 10	1721.430	-771.244	-956.476	-124.442	5.048	0

POSICION DEL CDG DE CADA PILOTE

	X	Y
PILOTE 1	-5.600	-0.854
PILOTE 2	-5.600	-2.854
PILOTE 3	-5.600	-4.854
PILOTE 4	-3.360	0.288
PILOTE 5	-3.360	-1.712
PILOTE 6	-3.360	-3.712
PILOTE 7	-1.120	1.429
PILOTE 8	-1.120	-0.571
PILOTE 9	-1.120	-2.571
PILOTE 10	1.120	2.571
PILOTE 11	1.120	0.571
PILOTE 12	1.120	1.429
PILOTE 13	3.360	3.712
PILOTE 14	3.360	1.712
PILOTE 15	3.360	-0.288
PILOTE 16	5.600	4.854
PILOTE 17	5.600	2.854
PILOTE 18	*5.600*	*0.854*

Momento de Inercia Ix= 263.42 m4

Momento de Inercia Iy= 116.40 m4

PILOTES DE TERRATEST . TOPE ESTRUCTURAL

T-235	71 Tn	Cuadrado 235 mm de lado
T-270	94 Tn	Cuadrado 270 mm de lado
T-300	115 Tn	Cuadrado 300 mm de lado
T-350	154 Tn	Cuadrado 350 mm de lado
T-400	205 Tn	Cuadrado 400 mm de lado

Numero de pilotes

	NizC1	NizC2	NizC3	NizC4	NizC5	NizC6	NizC7	NizC8	NizC9	NizC10
	124.37	87.24	90.21	121.66	94.64	91.95	91.65	118.55	92.27	119.01
	141.26	103.79	106.20	136.94	111.82	108.07	108.29	135.17	109.16	135.41
	158.16	120.34	122.19	156.22	129.00	124.19	124.94	151.80	126.04	151.91
	113.17	77.47	84.90	106.26	83.64	82.84	87.09	102.53	87.48	103.11
	130.07	94.02	100.89	123.55	100.82	98.96	103.73	119.16	104.37	119.54
	146.96	110.57	116.88	140.83	118.01	115.08	120.37	135.78	121.25	135.96
	101.98	67.70	79.58	90.87	72.65	73.73	82.53	86.51	82.69	87.17
	118.87	84.25	95.57	108.15	89.83	89.85	99.17	103.14	99.58	103.60
	135.77	100.81	111.56	125.43	107.01	105.97	115.81	119.77	116.46	120.04
	90.78	57.93	74.27	75.47	61.65	54.62	77.97	70.49	77.90	71.23
	107.68	74.48	90.26	92.75	78.83	80.74	94.61	87.12	94.78	87.67
	100.42	67.38	83.40	85.33	71.46	73.82	87.47	79.98	87.54	80.61
	79.59	48.16	68.96	60.07	50.65	55.51	73.41	54.48	73.11	55.29
	96.48	64.71	84.95	77.36	67.84	71.63	90.05	71.10	89.99	71.73
	113.38	81.27	100.94	94.64	85.02	87.75	106.69	87.73	106.88	88.16
	68.39	38.39	63.64	44.68	39.56	46.40	68.84	38.46	68.32	39.36
	85.29	54.95	79.63	61.96	56.84	62.52	85.49	55.09	85.20	55.79
18	*102.18*	71.50	95.62	79.24	74.02	78.64	102.13	71.71	102.09	72.23

158.16 Tn
38.39 Tn

	FISURACION 0.2	FISURACION 0.1	CORTANTE (Servicio)
	19	12	2.93 Tn
	28.40	17.6 Tn	3.83 Tn
	30.5	15.2 Tn	4.34 Tn
	33.4	16.7 Tn	5.49 Tn
	54.8	19.6 Tn	10.69 Tn

	TRACCION
MAXIMO	19 Tn
MINIMO	29.7 Tn
	36.9 Tn
	47.3 Tn
	74.2 Tn

Combinación de Seguridad
Pilote tipo Terratest
T-400 (400 mm de lado)
T296 Tn
TODOS COMPRIMIDOS

GAS EN C ...TACION EN CDG DEL ENCEPADO

	N (Tn)	Mx (m·Tn)	My (m·Tn)	Fx (Tn)	Fy (Tn)	N
)TESIS 1	1958.330	-181.313	-872.577	-65.668	-8.168	0
)TESIS 2	1348.015	-36.486	-852.706	-70.657	1.623	0
)TESIS 3	1591.913	449.549	-819.874	-78.900	17.803	0
)TESIS 4	1727.521	-649.415	-895.093	-60.015	-19.263	0
)TESIS 5	1437.326	-138.704	-889.230	-61.487	-16.373	0
)TESIS 6	1454.679	12.060	-827.617	-76.956	13.987	0
)TESIS 7	1663.416	581.697	-857.792	-69.380	-0.882	0
)TESIS 8	1631.740	-766.432	-856.956	-69.590	-0.470	0
)TESIS 9	1668.632	571.107	-871.932	-65.830	-7.849	0
)TESIS 10	1640.823	-769.964	-845.756	-72.402	5.048	0

ICION DEL CDG DE CADA PILOTE — Numero de pilotes 18

	X	Y	NizC1	NizC2	NizC3	NizC4	NizC5	NizC6	NizC7	NizC8	NizC9	NizC10
)TE 1	-5.600	-0.854	119.05	81.92	84.89	116.34	89.32	86.63	86.34	113.23	86.95	113.73
)TE 2	-5.600	-2.854	134.04	96.57	98.98	131.72	104.60	100.85	101.08	127.95	101.94	128.26
)TE 3	-5.600	-4.854	149.04	111.22	113.07	147.10	119.88	115.07	115.81	142.68	116.92	142.79
)TE 4	-3.360	0.288	108.95	73.25	80.68	102.04	79.42	76.61	82.87	98.31	83.26	98.89
)TE 5	-3.360	-1.712	123.94	87.90	94.77	117.42	94.70	92.84	97.61	113.03	98.24	113.42
)TE 6	-3.360	-3.712	138.94	102.55	108.85	132.80	109.98	107.06	112.35	127.76	113.22	127.95
)TE 7	-1.120	1.429	98.85	64.57	76.46	87.74	69.52	70.60	79.41	83.39	79.57	84.04
)TE 8	-1.120	-0.571	113.85	79.23	90.55	103.12	84.80	84.82	94.14	98.11	94.55	98.58
)TE 9	-1.120	-2.571	128.84	93.88	104.64	118.50	100.08	99.04	108.88	112.84	109.53	113.11
)TE 10	1.120	2.571	88.75	55.90	72.24	73.44	59.62	62.59	75.94	68.47	75.87	69.20
)TE 11	*1.120*	*0.571*	*103.75*	*70.55*	*86.33*	*88.82*	*74.90*	*76.81*	*90.68*	*83.19*	*90.85*	*83.74*
)TE 12	1.120	1.429	97.31	64.26	80.28	82.22	68.34	70.70	84.35	76.87	84.42	77.50
)TE 13	3.360	3.712	78.66	47.23	68.03	59.14	49.72	54.58	72.48	53.55	72.18	54.36
)TE 14	3.360	1.712	93.65	61.88	82.11	74.52	65.00	68.80	87.21	68.27	87.16	68.90
)TE 15	3.360	-0.288	108.64	76.53	96.20	89.90	80.28	83.02	101.95	83.00	102.14	83.43
)TE 16	5.600	4.854	68.56	38.56	63.81	44.84	39.82	46.56	69.01	38.63	68.48	39.52
)TE 17	5.600	2.854	83.55	53.21	77.90	60.22	55.10	60.78	83.75	53.35	83.47	54.05
)TE 18	5.600	0.854	98.54	67.86	91.98	75.60	70.38	75.00	96.49	68.08	98.45	68.59

iento de Inercia Ix= 263.42 m4

iento de Inercia Iy= 116.40 m4

MAXIMO 149.04 Tn
MINIMO 38.56 Tn

Coeficiente de Seguridad Frente al Tope Estructural del 1.400
1.376
TODOS COMPRIMIDOS

)TES DE TERRATEST . TOPE ESTRUCTURAL

			TRACCION	FISURACION 0.2	FISURACION 0.1	CORTANTE (Servicio)
T-235	71 Tn	Cuadrado 235 mm de lado	19 Tn	19	12 Tn	2.93 Tn
T-270	94 Tn	Cuadrado 270 mm de lado	29.7 Tn	28.40	17.6 Tn	3.83 Tn
T-300	115 Tn	Cuadrado 300 mm de lado	36.9 Tn	30.5	15.2 Tn	4.34 Tn
T-350	154 Tn	Cuadrado 350 mm de lado	47.3 Tn	33.4	16.7 Tn	5.49 Tn
T-400	205 Tn	Cuadrado 400 mm de lado	74.2 Tn	54.8	19.6 Tn	10.69 Tn

DATOS DEL TABLERO

Carga en el Punto Medio de los Apoyos

Barra 2005	Fz (Tn)	Fy (Tn)	Fx (Tn)	Mz (m·Tn)	My (m·Tn)	Mx (m·Tn)
Nudo 2105	0.000	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 2	0.000	0.000	0.000	0.000	0.000	0.000
Nudo 2105	0.000	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 3	0.000	0.000	0.000	0.000	0.000	0.000
Nudo 2105	0.000	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 4	0.000	0.000	0.000	0.000	0.000	0.000
Nudo 2105	0.000	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 5	0.000	0.000	0.000	0.000	0.000	0.000
Nudo 2105	0.000	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 6	0.000	0.000	0.000	0.000	0.000	0.000
Nudo 2105	0.000	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 7	0.000	0.000	0.000	0.000	0.000	0.000
Nudo 2105	0.000	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 8	0.000	0.000	0.000	0.000	0.000	0.000
Nudo 2105	0.000	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 9	0.000	0.000	0.000	0.000	0.000	0.000
Nudo 2105	0.000	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 10	0.000	0.000	0.000	0.000	0.000	0.000

Distancia al CDG pilotes: x= 0.000 m
(en Planta) y= 0.000 m

Distancia a la cara inferior del encepado 3.983 m

Cargas Tablero en el CDG de los pilotes. Cara inferior de Encepado

	Fz (Tn)	Fy (Tn)	Fx (Tn)	My (m·Tn)	Mx (m·Tn)
HIPOTESIS 1	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 2	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 3	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 4	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 5	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 6	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 7	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 8	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 9	0.000	0.000	0.000	0.000	0.000
HIPOTESIS 10	0.000	0.000	0.000	0.000	0.000

1) Peso Propio del Estribo y del Encepado:

Fz (Tn)	My (m·Tn)	Mx (m·Tn)
826.650	-948.800	-28.210

2) Empuje de Tierras:

Fx (Tn)	My (m·Tn)
-69.830	92.800

3) Sobrecarga en Estribo:

Fz (Tn)	My (m·Tn)	Mx (m·Tn)
80.607	-214.330	-1.260

4) Empuje debido a sobrecarga:

Fx (Tn)	My (m·Tn)
-52.040	103.610

Cargas Totales en el CDG de los pilotes. Cara Inferior de Encepado

	Fz (Tn)	My (m·Tn)	Mx (m·Tn)
HIPOTESIS 1	1958.330	-872.577	-181.313
HIPOTESIS 2	1348.015	-852.706	-36.486
HIPOTESIS 3	1591.913	-819.874	449.549
HIPOTESIS 4	1727.521	-895.093	-649.415
HIPOTESIS 5	1437.326	-889.230	-138.704
HIPOTESIS 6	1454.679	-827.617	12.060
HIPOTESIS 7	1663.416	-857.792	581.697
HIPOTESIS 8	1631.740	-856.956	-766.432
HIPOTESIS 9	1668.632	-871.932	571.107
HIPOTESIS 10	1640.823	-845.756	-769.964

OTESIS	907.257	-29.490	-966.720	-121.87	0
OTESIS 2	907.257	-29.490	-966.720	-121.87	0
OTESIS 3	907.257	-29.490	-966.720	-121.87	0
OTESIS 4	907.257	-29.490	-966.720	-121.87	0
OTESIS 5	907.257	-29.490	-966.720	-121.87	0
OTESIS 6	907.257	-29.490	-966.720	-121.87	0
OTESIS 7	907.257	-29.490	-966.720	-121.87	0
OTESIS 8	907.257	-29.490	-966.720	-121.87	0
OTESIS 9	907.257	-29.490	-966.720	-121.87	0
OTESIS 10	907.257	-29.490	-966.720	-121.87	0

3.360
5.600

ANcho 12.5700539
Longitud 11.2 m
Ancho 4 m

87.808 m4

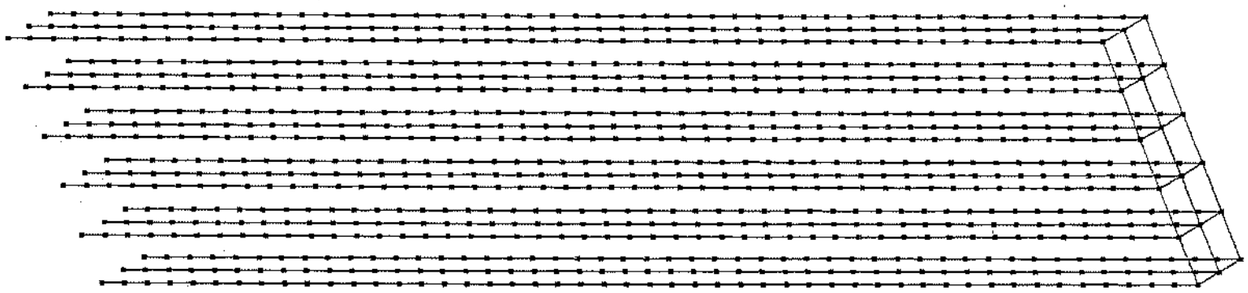
1.120 3.360 5.600 0.000 0.000 0.000

	kzt	kx	ky	kzl1	kzl2	kzl3	kzl4	kzl5	kzl6	my
	Tn/m	Tn/m	Tn/m	Tn/m	Tn/m	Tn/m	Tn/m	Tn/m	Tn/m	m·Tn/m
HIPOTESIS 1	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31
HIPOTESIS 2	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31
HIPOTESIS 3	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31
HIPOTESIS 4	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31
HIPOTESIS 5	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31
HIPOTESIS 6	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31
HIPOTESIS 7	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31
HIPOTESIS 8	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31
HIPOTESIS 9	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31
HIPOTESIS 10	72.18	-10.88	0.00	-0.094	-0.282	-0.470	0.000	0.000	0.000	-86.31

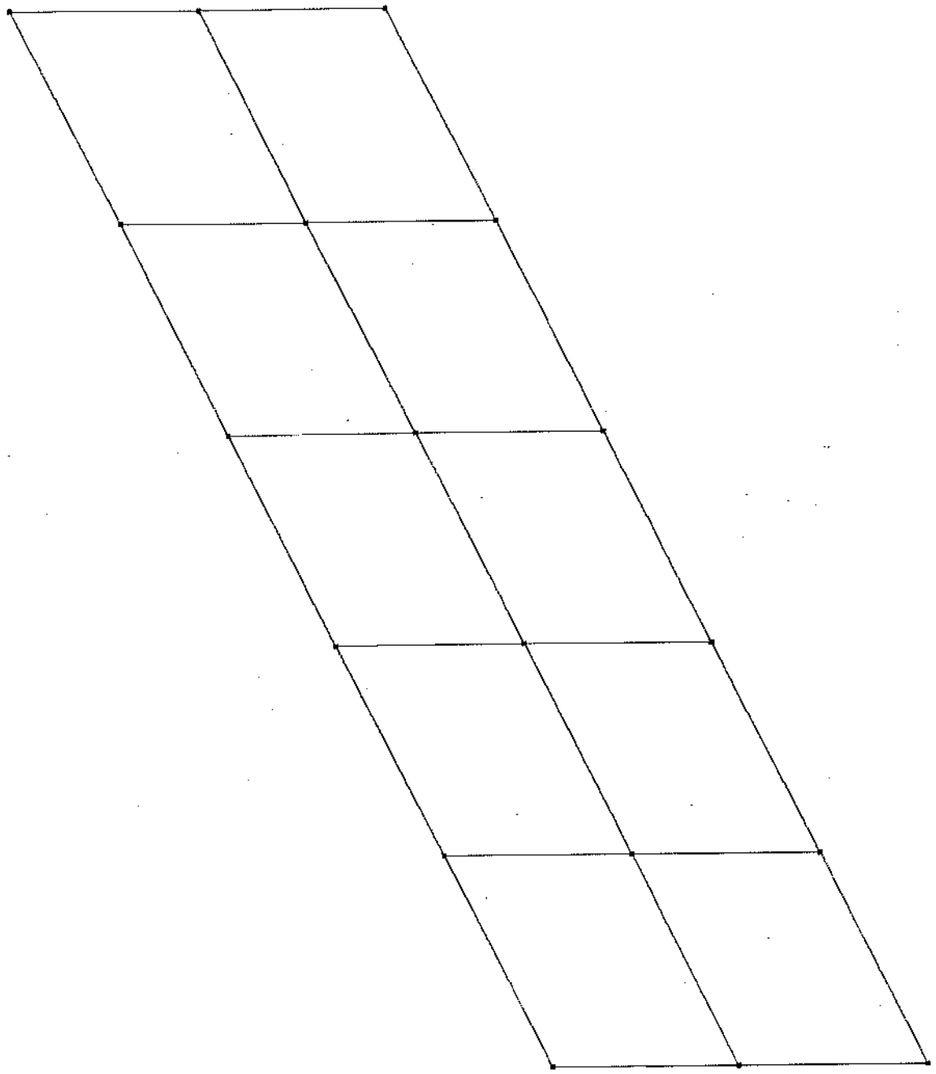
Reparto de Cargas

S T A T I K - 3 V.2.68
Corsán-Corviam S.A.
SANT BOI DE LLOBREGAT
ESTRIBO E-2

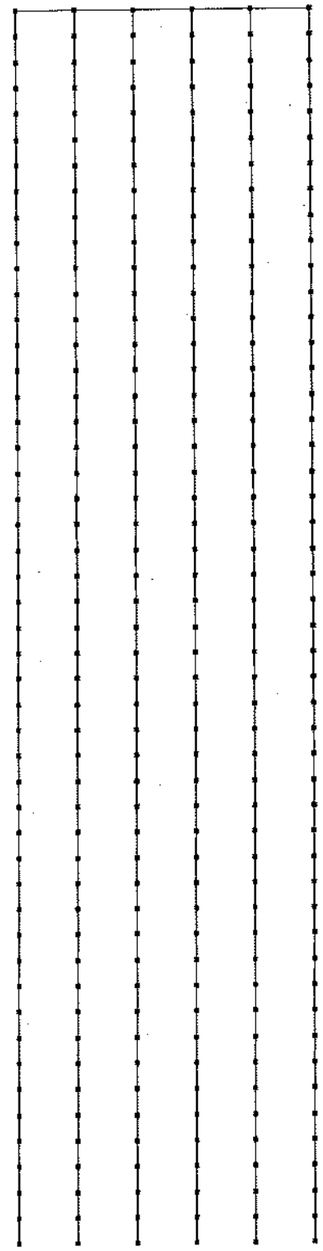
Escala 1 : 231.7
Structure - VISTA 3-D



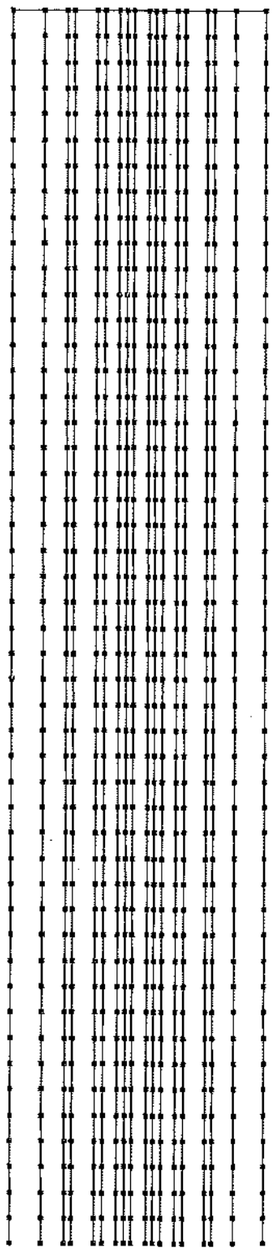
Escala 1 : 63.3
Structure - PLANTA



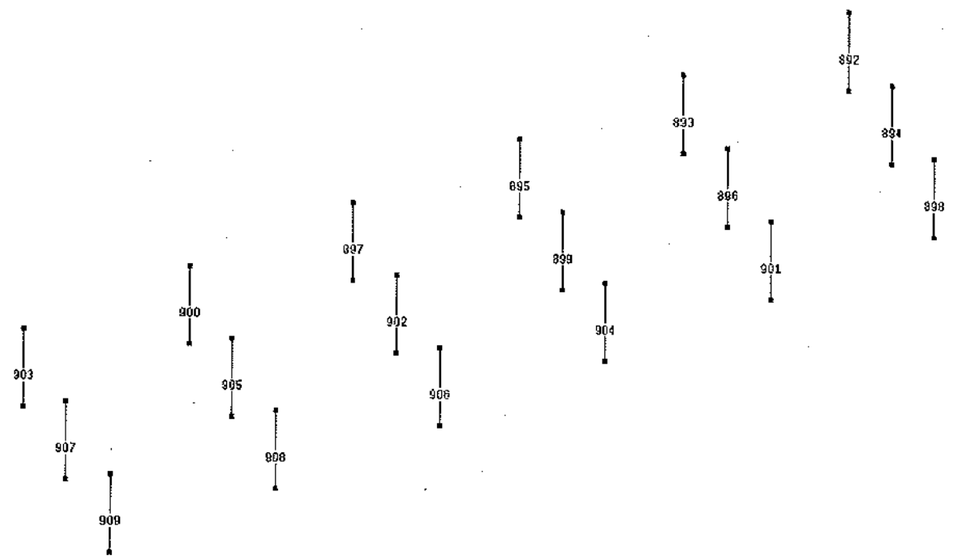
Escala 1 : 228.4
Structure - VISTA TRANSVERSAL



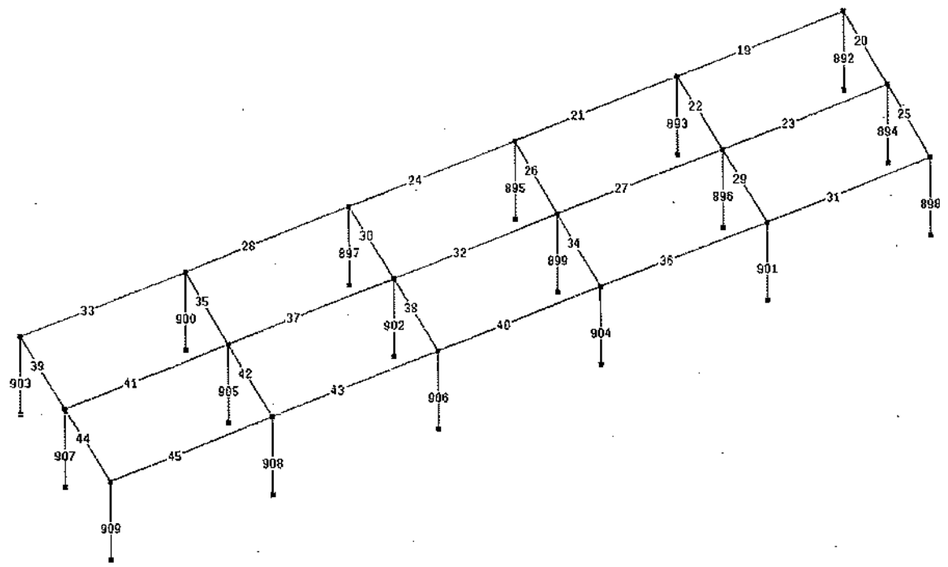
Escala 1 : 228.4
Structure - VISTA LONGITUDINAL



Escala 1 : 67.9
Structure - BARRAS SUPERIORES



Escala 1 : 67.9
Structure - ENCEPADO-BARSUPER



****
* DATOS - ESTRUCTURA *
****

Titulo proy.: ESTRIBO E-2

D A T O S D E N U D O S: (882 Nudo)

Nudo	X [M]	Y [M]	Z [M]	Apoyo V XYZ	Apoyo R XYZ	Especial
1	-5.60000	-4.85345	-47.00000	BBB	FFF	
2	-3.36000	-3.71207	-47.00000	BBB	FFF	
3	-5.60000	-2.85345	-47.00000	BBB	FFF	
4	-1.12000	-2.57069	-47.00000	BBB	FFF	
5	-3.36000	-1.71207	-47.00000	BBB	FFF	
6	1.12000	-1.42931	-47.00000	BBB	FFF	
7	-5.60000	-0.85345	-47.00000	BBB	FFF	
8	-1.12000	-0.57069	-47.00000	BBB	FFF	
9	3.36000	-0.28793	-47.00000	BBB	FFF	
10	-3.36000	0.28793	-47.00000	BBB	FFF	
11	1.12000	0.57069	-47.00000	BBB	FFF	
12	5.60000	0.85345	-47.00000	BBB	FFF	
13	-1.12000	1.42931	-47.00000	BBB	FFF	
14	3.36000	1.71207	-47.00000	BBB	FFF	
15	1.12000	2.57069	-47.00000	BBB	FFF	
16	5.60000	2.85345	-47.00000	BBB	FFF	
17	3.36000	3.71207	-47.00000	BBB	FFF	
18	5.60000	4.85345	-47.00000	BBB	FFF	
19	-5.60000	-4.85345	0.00000			
20	-3.36000	-3.71207	0.00000			
21	-5.60000	-2.85345	0.00000			
22	-1.12000	-2.57069	0.00000			
23	-3.36000	-1.71207	0.00000			
24	1.12000	-1.42931	0.00000			
25	-5.60000	-0.85345	0.00000			
26	-1.12000	-0.57069	0.00000			
27	3.36000	-0.28793	0.00000			
28	-3.36000	0.28793	0.00000			
29	1.12000	0.57069	0.00000			
30	5.60000	0.85345	0.00000			
31	-1.12000	1.42931	0.00000			
32	3.36000	1.71207	0.00000			
33	1.12000	2.57069	0.00000			
34	5.60000	2.85345	0.00000			
35	3.36000	3.71207	0.00000			
36	5.60000	4.85345	0.00000			
37	-5.60000	-4.85345	-46.02083	SSF	FFF	
38	-3.36000	-3.71207	-46.02083	SSF	FFF	
39	-5.60000	-2.85345	-46.02083	SSF	FFF	
40	-1.12000	-2.57069	-46.02083	SSF	FFF	
41	-3.36000	-1.71207	-46.02083	SSF	FFF	

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
42	1.12000	-1.42931	-46.02083	SSF	FFF
43	-5.60000	-0.85345	-46.02083	SSF	FFF
44	-1.12000	-0.57069	-46.02083	SSF	FFF
45	3.36000	-0.28793	-46.02083	SSF	FFF
46	-3.36000	0.28793	-46.02083	SSF	FFF
47	1.12000	0.57069	-46.02083	SSF	FFF
48	5.60000	0.85345	-46.02083	SSF	FFF
49	-1.12000	1.42931	-46.02083	SSF	FFF
50	3.36000	1.71207	-46.02083	SSF	FFF
51	1.12000	2.57069	-46.02083	SSF	FFF
52	5.60000	2.85345	-46.02083	SSF	FFF
53	3.36000	3.71207	-46.02083	SSF	FFF
54	5.60000	4.85345	-46.02083	SSF	FFF
55	-5.60000	-4.85345	-45.04167	SSF	FFF
56	-3.36000	-3.71207	-45.04167	SSF	FFF
57	-5.60000	-2.85345	-45.04167	SSF	FFF
58	-1.12000	-2.57069	-45.04167	SSF	FFF
59	-3.36000	-1.71207	-45.04167	SSF	FFF
60	1.12000	-1.42931	-45.04167	SSF	FFF
61	-5.60000	-0.85345	-45.04167	SSF	FFF
62	-1.12000	-0.57069	-45.04167	SSF	FFF
63	3.36000	-0.28793	-45.04167	SSF	FFF
64	-3.36000	0.28793	-45.04167	SSF	FFF
65	1.12000	0.57069	-45.04167	SSF	FFF
66	5.60000	0.85345	-45.04167	SSF	FFF
67	-1.12000	1.42931	-45.04167	SSF	FFF
68	3.36000	1.71207	-45.04167	SSF	FFF
69	1.12000	2.57069	-45.04167	SSF	FFF
70	5.60000	2.85345	-45.04167	SSF	FFF
71	3.36000	3.71207	-45.04167	SSF	FFF
72	5.60000	4.85345	-45.04167	SSF	FFF
73	-5.60000	-4.85345	-44.06250	SSF	FFF
74	-3.36000	-3.71207	-44.06250	SSF	FFF
75	-5.60000	-2.85345	-44.06250	SSF	FFF
76	-1.12000	-2.57069	-44.06250	SSF	FFF
77	-3.36000	-1.71207	-44.06250	SSF	FFF
78	1.12000	-1.42931	-44.06250	SSF	FFF
79	-5.60000	-0.85345	-44.06250	SSF	FFF
80	-1.12000	-0.57069	-44.06250	SSF	FFF
81	3.36000	-0.28793	-44.06250	SSF	FFF
82	-3.36000	0.28793	-44.06250	SSF	FFF
83	1.12000	0.57069	-44.06250	SSF	FFF
84	5.60000	0.85345	-44.06250	SSF	FFF
85	-1.12000	1.42931	-44.06250	SSF	FFF
86	3.36000	1.71207	-44.06250	SSF	FFF
87	1.12000	2.57069	-44.06250	SSF	FFF
88	5.60000	2.85345	-44.06250	SSF	FFF
89	3.36000	3.71207	-44.06250	SSF	FFF
90	5.60000	4.85345	-44.06250	SSF	FFF
91	-5.60000	-4.85345	-43.08333	SSF	FFF
92	-3.36000	-3.71207	-43.08333	SSF	FFF
93	-5.60000	-2.85345	-43.08333	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
94	-1.12000	-2.57069	-43.08333	SSF	FFF
95	-3.36000	-1.71207	-43.08333	SSF	FFF
96	1.12000	-1.42931	-43.08333	SSF	FFF
97	-5.60000	-0.85345	-43.08333	SSF	FFF
98	-1.12000	-0.57069	-43.08333	SSF	FFF
99	3.36000	-0.28793	-43.08333	SSF	FFF
100	-3.36000	0.28793	-43.08333	SSF	FFF
101	1.12000	0.57069	-43.08333	SSF	FFF
102	5.60000	0.85345	-43.08333	SSF	FFF
103	-1.12000	1.42931	-43.08333	SSF	FFF
104	3.36000	1.71207	-43.08333	SSF	FFF
105	1.12000	2.57069	-43.08333	SSF	FFF
106	5.60000	2.85345	-43.08333	SSF	FFF
107	3.36000	3.71207	-43.08333	SSF	FFF
108	5.60000	4.85345	-43.08333	SSF	FFF
109	-5.60000	-4.85345	-42.10417	SSF	FFF
110	-3.36000	-3.71207	-42.10417	SSF	FFF
111	-5.60000	-2.85345	-42.10417	SSF	FFF
112	-1.12000	-2.57069	-42.10417	SSF	FFF
113	-3.36000	-1.71207	-42.10417	SSF	FFF
114	1.12000	-1.42931	-42.10417	SSF	FFF
115	-5.60000	-0.85345	-42.10417	SSF	FFF
116	-1.12000	-0.57069	-42.10417	SSF	FFF
117	3.36000	-0.28793	-42.10417	SSF	FFF
118	-3.36000	0.28793	-42.10417	SSF	FFF
119	1.12000	0.57069	-42.10417	SSF	FFF
120	5.60000	0.85345	-42.10417	SSF	FFF
121	-1.12000	1.42931	-42.10417	SSF	FFF
122	3.36000	1.71207	-42.10417	SSF	FFF
123	1.12000	2.57069	-42.10417	SSF	FFF
124	5.60000	2.85345	-42.10417	SSF	FFF
125	3.36000	3.71207	-42.10417	SSF	FFF
126	5.60000	4.85345	-42.10417	SSF	FFF
127	-5.60000	-4.85345	-41.12500	SSF	FFF
128	-3.36000	-3.71207	-41.12500	SSF	FFF
129	-5.60000	-2.85345	-41.12500	SSF	FFF
130	-1.12000	-2.57069	-41.12500	SSF	FFF
131	-3.36000	-1.71207	-41.12500	SSF	FFF
132	1.12000	-1.42931	-41.12500	SSF	FFF
133	-5.60000	-0.85345	-41.12500	SSF	FFF
134	-1.12000	-0.57069	-41.12500	SSF	FFF
135	3.36000	-0.28793	-41.12500	SSF	FFF
136	-3.36000	0.28793	-41.12500	SSF	FFF
137	1.12000	0.57069	-41.12500	SSF	FFF
138	5.60000	0.85345	-41.12500	SSF	FFF
139	-1.12000	1.42931	-41.12500	SSF	FFF
140	3.36000	1.71207	-41.12500	SSF	FFF
141	1.12000	2.57069	-41.12500	SSF	FFF
142	5.60000	2.85345	-41.12500	SSF	FFF
143	3.36000	3.71207	-41.12500	SSF	FFF
144	5.60000	4.85345	-41.12500	SSF	FFF
145	-5.60000	-4.85345	-40.14583	SSF	FFF

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Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
146	-3.36000	-3.71207	-40.14583	SSF	FFF
147	-5.60000	-2.85345	-40.14583	SSF	FFF
148	-1.12000	-2.57069	-40.14583	SSF	FFF
149	-3.36000	-1.71207	-40.14583	SSF	FFF
150	1.12000	-1.42931	-40.14583	SSF	FFF
151	-5.60000	-0.85345	-40.14583	SSF	FFF
152	-1.12000	-0.57069	-40.14583	SSF	FFF
153	3.36000	-0.28793	-40.14583	SSF	FFF
154	-3.36000	0.28793	-40.14583	SSF	FFF
155	1.12000	0.57069	-40.14583	SSF	FFF
156	5.60000	0.85345	-40.14583	SSF	FFF
157	-1.12000	1.42931	-40.14583	SSF	FFF
158	3.36000	1.71207	-40.14583	SSF	FFF
159	1.12000	2.57069	-40.14583	SSF	FFF
160	5.60000	2.85345	-40.14583	SSF	FFF
161	3.36000	3.71207	-40.14583	SSF	FFF
162	5.60000	4.85345	-40.14583	SSF	FFF
163	-5.60000	-4.85345	-39.16667	SSF	FFF
164	-3.36000	-3.71207	-39.16667	SSF	FFF
165	-5.60000	-2.85345	-39.16667	SSF	FFF
166	-1.12000	-2.57069	-39.16667	SSF	FFF
167	-3.36000	-1.71207	-39.16667	SSF	FFF
168	1.12000	-1.42931	-39.16667	SSF	FFF
169	-5.60000	-0.85345	-39.16667	SSF	FFF
170	-1.12000	-0.57069	-39.16667	SSF	FFF
171	3.36000	-0.28793	-39.16667	SSF	FFF
172	-3.36000	0.28793	-39.16667	SSF	FFF
173	1.12000	0.57069	-39.16667	SSF	FFF
174	5.60000	0.85345	-39.16667	SSF	FFF
175	-1.12000	1.42931	-39.16667	SSF	FFF
176	3.36000	1.71207	-39.16667	SSF	FFF
177	1.12000	2.57069	-39.16667	SSF	FFF
178	5.60000	2.85345	-39.16667	SSF	FFF
179	3.36000	3.71207	-39.16667	SSF	FFF
180	5.60000	4.85345	-39.16667	SSF	FFF
181	-5.60000	-4.85345	-38.18750	SSF	FFF
182	-3.36000	-3.71207	-38.18750	SSF	FFF
183	-5.60000	-2.85345	-38.18750	SSF	FFF
184	-1.12000	-2.57069	-38.18750	SSF	FFF
185	-3.36000	-1.71207	-38.18750	SSF	FFF
186	1.12000	-1.42931	-38.18750	SSF	FFF
187	-5.60000	-0.85345	-38.18750	SSF	FFF
188	-1.12000	-0.57069	-38.18750	SSF	FFF
189	3.36000	-0.28793	-38.18750	SSF	FFF
190	-3.36000	0.28793	-38.18750	SSF	FFF
191	1.12000	0.57069	-38.18750	SSF	FFF
192	5.60000	0.85345	-38.18750	SSF	FFF
193	-1.12000	1.42931	-38.18750	SSF	FFF
194	3.36000	1.71207	-38.18750	SSF	FFF
195	1.12000	2.57069	-38.18750	SSF	FFF
196	5.60000	2.85345	-38.18750	SSF	FFF
197	3.36000	3.71207	-38.18750	SSF	FFF

S T A T I K - 3 V.2.68
Corsán-Corviam S.A.
SANT BOI DE LLOBREGAT
ESTRIBO E-2

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Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
198	5.60000	4.85345	-38.18750	SSF	FFF
199	-5.60000	-4.85345	-37.20833	SSF	FFF
200	-3.36000	-3.71207	-37.20833	SSF	FFF
201	-5.60000	-2.85345	-37.20833	SSF	FFF
202	-1.12000	-2.57069	-37.20833	SSF	FFF
203	-3.36000	-1.71207	-37.20833	SSF	FFF
204	1.12000	-1.42931	-37.20833	SSF	FFF
205	-5.60000	-0.85345	-37.20833	SSF	FFF
206	-1.12000	-0.57069	-37.20833	SSF	FFF
207	3.36000	-0.28793	-37.20833	SSF	FFF
208	-3.36000	0.28793	-37.20833	SSF	FFF
209	1.12000	0.57069	-37.20833	SSF	FFF
210	5.60000	0.85345	-37.20833	SSF	FFF
211	-1.12000	1.42931	-37.20833	SSF	FFF
212	3.36000	1.71207	-37.20833	SSF	FFF
213	1.12000	2.57069	-37.20833	SSF	FFF
214	5.60000	2.85345	-37.20833	SSF	FFF
215	3.36000	3.71207	-37.20833	SSF	FFF
216	5.60000	4.85345	-37.20833	SSF	FFF
217	-5.60000	-4.85345	-36.22917	SSF	FFF
218	-3.36000	-3.71207	-36.22917	SSF	FFF
219	-5.60000	-2.85345	-36.22917	SSF	FFF
220	-1.12000	-2.57069	-36.22917	SSF	FFF
221	-3.36000	-1.71207	-36.22917	SSF	FFF
222	1.12000	-1.42931	-36.22917	SSF	FFF
223	-5.60000	-0.85345	-36.22917	SSF	FFF
224	-1.12000	-0.57069	-36.22917	SSF	FFF
225	3.36000	-0.28793	-36.22917	SSF	FFF
226	-3.36000	0.28793	-36.22917	SSF	FFF
227	1.12000	0.57069	-36.22917	SSF	FFF
228	5.60000	0.85345	-36.22917	SSF	FFF
229	-1.12000	1.42931	-36.22917	SSF	FFF
230	3.36000	1.71207	-36.22917	SSF	FFF
231	1.12000	2.57069	-36.22917	SSF	FFF
232	5.60000	2.85345	-36.22917	SSF	FFF
233	3.36000	3.71207	-36.22917	SSF	FFF
234	5.60000	4.85345	-36.22917	SSF	FFF
235	-5.60000	-4.85345	-35.25000	SSF	FFF
236	-3.36000	-3.71207	-35.25000	SSF	FFF
237	-5.60000	-2.85345	-35.25000	SSF	FFF
238	-1.12000	-2.57069	-35.25000	SSF	FFF
239	-3.36000	-1.71207	-35.25000	SSF	FFF
240	1.12000	-1.42931	-35.25000	SSF	FFF
241	-5.60000	-0.85345	-35.25000	SSF	FFF
242	-1.12000	-0.57069	-35.25000	SSF	FFF
243	3.36000	-0.28793	-35.25000	SSF	FFF
244	-3.36000	0.28793	-35.25000	SSF	FFF
245	1.12000	0.57069	-35.25000	SSF	FFF
246	5.60000	0.85345	-35.25000	SSF	FFF
247	-1.12000	1.42931	-35.25000	SSF	FFF
248	3.36000	1.71207	-35.25000	SSF	FFF
249	1.12000	2.57069	-35.25000	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
250	5.60000	2.85345	-35.25000	SSF	FFF
251	3.36000	3.71207	-35.25000	SSF	FFF
252	5.60000	4.85345	-35.25000	SSF	FFF
253	-5.60000	-4.85345	-34.27083	SSF	FFF
254	-3.36000	-3.71207	-34.27083	SSF	FFF
255	-5.60000	-2.85345	-34.27083	SSF	FFF
256	-1.12000	-2.57069	-34.27083	SSF	FFF
257	-3.36000	-1.71207	-34.27083	SSF	FFF
258	1.12000	-1.42931	-34.27083	SSF	FFF
259	-5.60000	-0.85345	-34.27083	SSF	FFF
260	-1.12000	-0.57069	-34.27083	SSF	FFF
261	3.36000	-0.28793	-34.27083	SSF	FFF
262	-3.36000	0.28793	-34.27083	SSF	FFF
263	1.12000	0.57069	-34.27083	SSF	FFF
264	5.60000	0.85345	-34.27083	SSF	FFF
265	-1.12000	1.42931	-34.27083	SSF	FFF
266	3.36000	1.71207	-34.27083	SSF	FFF
267	1.12000	2.57069	-34.27083	SSF	FFF
268	5.60000	2.85345	-34.27083	SSF	FFF
269	3.36000	3.71207	-34.27083	SSF	FFF
270	5.60000	4.85345	-34.27083	SSF	FFF
271	-5.60000	-4.85345	-33.29167	SSF	FFF
272	-3.36000	-3.71207	-33.29167	SSF	FFF
273	-5.60000	-2.85345	-33.29167	SSF	FFF
274	-1.12000	-2.57069	-33.29167	SSF	FFF
275	-3.36000	-1.71207	-33.29167	SSF	FFF
276	1.12000	-1.42931	-33.29167	SSF	FFF
277	-5.60000	-0.85345	-33.29167	SSF	FFF
278	-1.12000	-0.57069	-33.29167	SSF	FFF
279	3.36000	-0.28793	-33.29167	SSF	FFF
280	-3.36000	0.28793	-33.29167	SSF	FFF
281	1.12000	0.57069	-33.29167	SSF	FFF
282	5.60000	0.85345	-33.29167	SSF	FFF
283	-1.12000	1.42931	-33.29167	SSF	FFF
284	3.36000	1.71207	-33.29167	SSF	FFF
285	1.12000	2.57069	-33.29167	SSF	FFF
286	5.60000	2.85345	-33.29167	SSF	FFF
287	3.36000	3.71207	-33.29167	SSF	FFF
288	5.60000	4.85345	-33.29167	SSF	FFF
289	-5.60000	-4.85345	-32.31250	SSF	FFF
290	-3.36000	-3.71207	-32.31250	SSF	FFF
291	-5.60000	-2.85345	-32.31250	SSF	FFF
292	-1.12000	-2.57069	-32.31250	SSF	FFF
293	-3.36000	-1.71207	-32.31250	SSF	FFF
294	1.12000	-1.42931	-32.31250	SSF	FFF
295	-5.60000	-0.85345	-32.31250	SSF	FFF
296	-1.12000	-0.57069	-32.31250	SSF	FFF
297	3.36000	-0.28793	-32.31250	SSF	FFF
298	-3.36000	0.28793	-32.31250	SSF	FFF
299	1.12000	0.57069	-32.31250	SSF	FFF
300	5.60000	0.85345	-32.31250	SSF	FFF
301	-1.12000	1.42931	-32.31250	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
302	3.36000	1.71207	-32.31250	SSF	FFF
303	1.12000	2.57069	-32.31250	SSF	FFF
304	5.60000	2.85345	-32.31250	SSF	FFF
305	3.36000	3.71207	-32.31250	SSF	FFF
306	5.60000	4.85345	-32.31250	SSF	FFF
307	-5.60000	-4.85345	-31.33333	SSF	FFF
308	-3.36000	-3.71207	-31.33333	SSF	FFF
309	-5.60000	-2.85345	-31.33333	SSF	FFF
310	-1.12000	-2.57069	-31.33333	SSF	FFF
311	-3.36000	-1.71207	-31.33333	SSF	FFF
312	1.12000	-1.42931	-31.33333	SSF	FFF
313	-5.60000	-0.85345	-31.33333	SSF	FFF
314	-1.12000	-0.57069	-31.33333	SSF	FFF
315	3.36000	-0.28793	-31.33333	SSF	FFF
316	-3.36000	0.28793	-31.33333	SSF	FFF
317	1.12000	0.57069	-31.33333	SSF	FFF
318	5.60000	0.85345	-31.33333	SSF	FFF
319	-1.12000	1.42931	-31.33333	SSF	FFF
320	3.36000	1.71207	-31.33333	SSF	FFF
321	1.12000	2.57069	-31.33333	SSF	FFF
322	5.60000	2.85345	-31.33333	SSF	FFF
323	3.36000	3.71207	-31.33333	SSF	FFF
324	5.60000	4.85345	-31.33333	SSF	FFF
325	-5.60000	-4.85345	-30.35417	SSF	FFF
326	-3.36000	-3.71207	-30.35417	SSF	FFF
327	-5.60000	-2.85345	-30.35417	SSF	FFF
328	-1.12000	-2.57069	-30.35417	SSF	FFF
329	-3.36000	-1.71207	-30.35417	SSF	FFF
330	1.12000	-1.42931	-30.35417	SSF	FFF
331	-5.60000	-0.85345	-30.35417	SSF	FFF
332	-1.12000	-0.57069	-30.35417	SSF	FFF
333	3.36000	-0.28793	-30.35417	SSF	FFF
334	-3.36000	0.28793	-30.35417	SSF	FFF
335	1.12000	0.57069	-30.35417	SSF	FFF
336	5.60000	0.85345	-30.35417	SSF	FFF
337	-1.12000	1.42931	-30.35417	SSF	FFF
338	3.36000	1.71207	-30.35417	SSF	FFF
339	1.12000	2.57069	-30.35417	SSF	FFF
340	5.60000	2.85345	-30.35417	SSF	FFF
341	3.36000	3.71207	-30.35417	SSF	FFF
342	5.60000	4.85345	-30.35417	SSF	FFF
343	-5.60000	-4.85345	-29.37500	SSF	FFF
344	-3.36000	-3.71207	-29.37500	SSF	FFF
345	-5.60000	-2.85345	-29.37500	SSF	FFF
346	-1.12000	-2.57069	-29.37500	SSF	FFF
347	-3.36000	-1.71207	-29.37500	SSF	FFF
348	1.12000	-1.42931	-29.37500	SSF	FFF
349	-5.60000	-0.85345	-29.37500	SSF	FFF
350	-1.12000	-0.57069	-29.37500	SSF	FFF
351	3.36000	-0.28793	-29.37500	SSF	FFF
352	-3.36000	0.28793	-29.37500	SSF	FFF
353	1.12000	0.57069	-29.37500	SSF	FFF

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Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
354	5.60000	0.85345	-29.37500	SSF	FFF
355	-1.12000	1.42931	-29.37500	SSF	FFF
356	3.36000	1.71207	-29.37500	SSF	FFF
357	1.12000	2.57069	-29.37500	SSF	FFF
358	5.60000	2.85345	-29.37500	SSF	FFF
359	3.36000	3.71207	-29.37500	SSF	FFF
360	5.60000	4.85345	-29.37500	SSF	FFF
361	-5.60000	-4.85345	-28.39583	SSF	FFF
362	-3.36000	-3.71207	-28.39583	SSF	FFF
363	-5.60000	-2.85345	-28.39583	SSF	FFF
364	-1.12000	-2.57069	-28.39583	SSF	FFF
365	-3.36000	-1.71207	-28.39583	SSF	FFF
366	1.12000	-1.42931	-28.39583	SSF	FFF
367	-5.60000	-0.85345	-28.39583	SSF	FFF
368	-1.12000	-0.57069	-28.39583	SSF	FFF
369	3.36000	-0.28793	-28.39583	SSF	FFF
370	-3.36000	0.28793	-28.39583	SSF	FFF
371	1.12000	0.57069	-28.39583	SSF	FFF
372	5.60000	0.85345	-28.39583	SSF	FFF
373	-1.12000	1.42931	-28.39583	SSF	FFF
374	3.36000	1.71207	-28.39583	SSF	FFF
375	1.12000	2.57069	-28.39583	SSF	FFF
376	5.60000	2.85345	-28.39583	SSF	FFF
377	3.36000	3.71207	-28.39583	SSF	FFF
378	5.60000	4.85345	-28.39583	SSF	FFF
379	-5.60000	-4.85345	-27.41667	SSF	FFF
380	-3.36000	-3.71207	-27.41667	SSF	FFF
381	-5.60000	-2.85345	-27.41667	SSF	FFF
382	-1.12000	-2.57069	-27.41667	SSF	FFF
383	-3.36000	-1.71207	-27.41667	SSF	FFF
384	1.12000	-1.42931	-27.41667	SSF	FFF
385	-5.60000	-0.85345	-27.41667	SSF	FFF
386	-1.12000	-0.57069	-27.41667	SSF	FFF
387	3.36000	-0.28793	-27.41667	SSF	FFF
388	-3.36000	0.28793	-27.41667	SSF	FFF
389	1.12000	0.57069	-27.41667	SSF	FFF
390	5.60000	0.85345	-27.41667	SSF	FFF
391	-1.12000	1.42931	-27.41667	SSF	FFF
392	3.36000	1.71207	-27.41667	SSF	FFF
393	1.12000	2.57069	-27.41667	SSF	FFF
394	5.60000	2.85345	-27.41667	SSF	FFF
395	3.36000	3.71207	-27.41667	SSF	FFF
396	5.60000	4.85345	-27.41667	SSF	FFF
397	-5.60000	-4.85345	-26.43750	SSF	FFF
398	-3.36000	-3.71207	-26.43750	SSF	FFF
399	-5.60000	-2.85345	-26.43750	SSF	FFF
400	-1.12000	-2.57069	-26.43750	SSF	FFF
401	-3.36000	-1.71207	-26.43750	SSF	FFF
402	1.12000	-1.42931	-26.43750	SSF	FFF
403	-5.60000	-0.85345	-26.43750	SSF	FFF
404	-1.12000	-0.57069	-26.43750	SSF	FFF
405	3.36000	-0.28793	-26.43750	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
406	-3.36000	0.28793	-26.43750	SSF	FFF
407	1.12000	0.57069	-26.43750	SSF	FFF
408	5.60000	0.85345	-26.43750	SSF	FFF
409	-1.12000	1.42931	-26.43750	SSF	FFF
410	3.36000	1.71207	-26.43750	SSF	FFF
411	1.12000	2.57069	-26.43750	SSF	FFF
412	5.60000	2.85345	-26.43750	SSF	FFF
413	3.36000	3.71207	-26.43750	SSF	FFF
414	5.60000	4.85345	-26.43750	SSF	FFF
415	-5.60000	-4.85345	-25.45833	SSF	FFF
416	-3.36000	-3.71207	-25.45833	SSF	FFF
417	-5.60000	-2.85345	-25.45833	SSF	FFF
418	-1.12000	-2.57069	-25.45833	SSF	FFF
419	-3.36000	-1.71207	-25.45833	SSF	FFF
420	1.12000	-1.42931	-25.45833	SSF	FFF
421	-5.60000	-0.85345	-25.45833	SSF	FFF
422	-1.12000	-0.57069	-25.45833	SSF	FFF
423	3.36000	-0.28793	-25.45833	SSF	FFF
424	-3.36000	0.28793	-25.45833	SSF	FFF
425	1.12000	0.57069	-25.45833	SSF	FFF
426	5.60000	0.85345	-25.45833	SSF	FFF
427	-1.12000	1.42931	-25.45833	SSF	FFF
428	3.36000	1.71207	-25.45833	SSF	FFF
429	1.12000	2.57069	-25.45833	SSF	FFF
430	5.60000	2.85345	-25.45833	SSF	FFF
431	3.36000	3.71207	-25.45833	SSF	FFF
432	5.60000	4.85345	-25.45833	SSF	FFF
433	-5.60000	-4.85345	-24.47917	SSF	FFF
434	-3.36000	-3.71207	-24.47917	SSF	FFF
435	-5.60000	-2.85345	-24.47917	SSF	FFF
436	-1.12000	-2.57069	-24.47917	SSF	FFF
437	-3.36000	-1.71207	-24.47917	SSF	FFF
438	1.12000	-1.42931	-24.47917	SSF	FFF
439	-5.60000	-0.85345	-24.47917	SSF	FFF
440	-1.12000	-0.57069	-24.47917	SSF	FFF
441	3.36000	-0.28793	-24.47917	SSF	FFF
442	-3.36000	0.28793	-24.47917	SSF	FFF
443	1.12000	0.57069	-24.47917	SSF	FFF
444	5.60000	0.85345	-24.47917	SSF	FFF
445	-1.12000	1.42931	-24.47917	SSF	FFF
446	3.36000	1.71207	-24.47917	SSF	FFF
447	1.12000	2.57069	-24.47917	SSF	FFF
448	5.60000	2.85345	-24.47917	SSF	FFF
449	3.36000	3.71207	-24.47917	SSF	FFF
450	5.60000	4.85345	-24.47917	SSF	FFF
451	-5.60000	-4.85345	-23.50000	SSF	FFF
452	-3.36000	-3.71207	-23.50000	SSF	FFF
453	-5.60000	-2.85345	-23.50000	SSF	FFF
454	-1.12000	-2.57069	-23.50000	SSF	FFF
455	-3.36000	-1.71207	-23.50000	SSF	FFF
456	1.12000	-1.42931	-23.50000	SSF	FFF
457	-5.60000	-0.85345	-23.50000	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
458	-1.12000	-0.57069	-23.50000	SSF	FFF
459	3.36000	-0.28793	-23.50000	SSF	FFF
460	-3.36000	0.28793	-23.50000	SSF	FFF
461	1.12000	0.57069	-23.50000	SSF	FFF
462	5.60000	0.85345	-23.50000	SSF	FFF
463	-1.12000	1.42931	-23.50000	SSF	FFF
464	3.36000	1.71207	-23.50000	SSF	FFF
465	1.12000	2.57069	-23.50000	SSF	FFF
466	5.60000	2.85345	-23.50000	SSF	FFF
467	3.36000	3.71207	-23.50000	SSF	FFF
468	5.60000	4.85345	-23.50000	SSF	FFF
469	-5.60000	-4.85345	-22.52083	SSF	FFF
470	-3.36000	-3.71207	-22.52083	SSF	FFF
471	-5.60000	-2.85345	-22.52083	SSF	FFF
472	-1.12000	-2.57069	-22.52083	SSF	FFF
473	-3.36000	-1.71207	-22.52083	SSF	FFF
474	1.12000	-1.42931	-22.52083	SSF	FFF
475	-5.60000	-0.85345	-22.52083	SSF	FFF
476	-1.12000	-0.57069	-22.52083	SSF	FFF
477	3.36000	-0.28793	-22.52083	SSF	FFF
478	-3.36000	0.28793	-22.52083	SSF	FFF
479	1.12000	0.57069	-22.52083	SSF	FFF
480	5.60000	0.85345	-22.52083	SSF	FFF
481	-1.12000	1.42931	-22.52083	SSF	FFF
482	3.36000	1.71207	-22.52083	SSF	FFF
483	1.12000	2.57069	-22.52083	SSF	FFF
484	5.60000	2.85345	-22.52083	SSF	FFF
485	3.36000	3.71207	-22.52083	SSF	FFF
486	5.60000	4.85345	-22.52083	SSF	FFF
487	-5.60000	-4.85345	-21.54167	SSF	FFF
488	-3.36000	-3.71207	-21.54167	SSF	FFF
489	-5.60000	-2.85345	-21.54167	SSF	FFF
490	-1.12000	-2.57069	-21.54167	SSF	FFF
491	-3.36000	-1.71207	-21.54167	SSF	FFF
492	1.12000	-1.42931	-21.54167	SSF	FFF
493	-5.60000	-0.85345	-21.54167	SSF	FFF
494	-1.12000	-0.57069	-21.54167	SSF	FFF
495	3.36000	-0.28793	-21.54167	SSF	FFF
496	-3.36000	0.28793	-21.54167	SSF	FFF
497	1.12000	0.57069	-21.54167	SSF	FFF
498	5.60000	0.85345	-21.54167	SSF	FFF
499	-1.12000	1.42931	-21.54167	SSF	FFF
500	3.36000	1.71207	-21.54167	SSF	FFF
501	1.12000	2.57069	-21.54167	SSF	FFF
502	5.60000	2.85345	-21.54167	SSF	FFF
503	3.36000	3.71207	-21.54167	SSF	FFF
504	5.60000	4.85345	-21.54167	SSF	FFF
505	-5.60000	-4.85345	-20.56250	SSF	FFF
506	-3.36000	-3.71207	-20.56250	SSF	FFF
507	-5.60000	-2.85345	-20.56250	SSF	FFF
508	-1.12000	-2.57069	-20.56250	SSF	FFF
509	-3.36000	-1.71207	-20.56250	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
510	1.12000	-1.42931	-20.56250	SSF	FFF
511	-5.60000	-0.85345	-20.56250	SSF	FFF
512	-1.12000	-0.57069	-20.56250	SSF	FFF
513	3.36000	-0.28793	-20.56250	SSF	FFF
514	-3.36000	0.28793	-20.56250	SSF	FFF
515	1.12000	0.57069	-20.56250	SSF	FFF
516	5.60000	0.85345	-20.56250	SSF	FFF
517	-1.12000	1.42931	-20.56250	SSF	FFF
518	3.36000	1.71207	-20.56250	SSF	FFF
519	1.12000	2.57069	-20.56250	SSF	FFF
520	5.60000	2.85345	-20.56250	SSF	FFF
521	3.36000	3.71207	-20.56250	SSF	FFF
522	5.60000	4.85345	-20.56250	SSF	FFF
523	-5.60000	-4.85345	-19.58333	SSF	FFF
524	-3.36000	-3.71207	-19.58333	SSF	FFF
525	-5.60000	-2.85345	-19.58333	SSF	FFF
526	-1.12000	-2.57069	-19.58333	SSF	FFF
527	-3.36000	-1.71207	-19.58333	SSF	FFF
528	1.12000	-1.42931	-19.58333	SSF	FFF
529	-5.60000	-0.85345	-19.58333	SSF	FFF
530	-1.12000	-0.57069	-19.58333	SSF	FFF
531	3.36000	-0.28793	-19.58333	SSF	FFF
532	-3.36000	0.28793	-19.58333	SSF	FFF
533	1.12000	0.57069	-19.58333	SSF	FFF
534	5.60000	0.85345	-19.58333	SSF	FFF
535	-1.12000	1.42931	-19.58333	SSF	FFF
536	3.36000	1.71207	-19.58333	SSF	FFF
537	1.12000	2.57069	-19.58333	SSF	FFF
538	5.60000	2.85345	-19.58333	SSF	FFF
539	3.36000	3.71207	-19.58333	SSF	FFF
540	5.60000	4.85345	-19.58333	SSF	FFF
541	-5.60000	-4.85345	-18.60417	SSF	FFF
542	-3.36000	-3.71207	-18.60417	SSF	FFF
543	-5.60000	-2.85345	-18.60417	SSF	FFF
544	-1.12000	-2.57069	-18.60417	SSF	FFF
545	-3.36000	-1.71207	-18.60417	SSF	FFF
546	1.12000	-1.42931	-18.60417	SSF	FFF
547	-5.60000	-0.85345	-18.60417	SSF	FFF
548	-1.12000	-0.57069	-18.60417	SSF	FFF
549	3.36000	-0.28793	-18.60417	SSF	FFF
550	-3.36000	0.28793	-18.60417	SSF	FFF
551	1.12000	0.57069	-18.60417	SSF	FFF
552	5.60000	0.85345	-18.60417	SSF	FFF
553	-1.12000	1.42931	-18.60417	SSF	FFF
554	3.36000	1.71207	-18.60417	SSF	FFF
555	1.12000	2.57069	-18.60417	SSF	FFF
556	5.60000	2.85345	-18.60417	SSF	FFF
557	3.36000	3.71207	-18.60417	SSF	FFF
558	5.60000	4.85345	-18.60417	SSF	FFF
559	-5.60000	-4.85345	-17.62500	SSF	FFF
560	-3.36000	-3.71207	-17.62500	SSF	FFF
561	-5.60000	-2.85345	-17.62500	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
562	-1.12000	-2.57069	-17.62500	SSF	FFF
563	-3.36000	-1.71207	-17.62500	SSF	FFF
564	1.12000	-1.42931	-17.62500	SSF	FFF
565	-5.60000	-0.85345	-17.62500	SSF	FFF
566	-1.12000	-0.57069	-17.62500	SSF	FFF
567	3.36000	-0.28793	-17.62500	SSF	FFF
568	-3.36000	0.28793	-17.62500	SSF	FFF
569	1.12000	0.57069	-17.62500	SSF	FFF
570	5.60000	0.85345	-17.62500	SSF	FFF
571	-1.12000	1.42931	-17.62500	SSF	FFF
572	3.36000	1.71207	-17.62500	SSF	FFF
573	1.12000	2.57069	-17.62500	SSF	FFF
574	5.60000	2.85345	-17.62500	SSF	FFF
575	3.36000	3.71207	-17.62500	SSF	FFF
576	5.60000	4.85345	-17.62500	SSF	FFF
577	-5.60000	-4.85345	-16.64583	SSF	FFF
578	-3.36000	-3.71207	-16.64583	SSF	FFF
579	-5.60000	-2.85345	-16.64583	SSF	FFF
580	-1.12000	-2.57069	-16.64583	SSF	FFF
581	-3.36000	-1.71207	-16.64583	SSF	FFF
582	1.12000	-1.42931	-16.64583	SSF	FFF
583	-5.60000	-0.85345	-16.64583	SSF	FFF
584	-1.12000	-0.57069	-16.64583	SSF	FFF
585	3.36000	-0.28793	-16.64583	SSF	FFF
586	-3.36000	0.28793	-16.64583	SSF	FFF
587	1.12000	0.57069	-16.64583	SSF	FFF
588	5.60000	0.85345	-16.64583	SSF	FFF
589	-1.12000	1.42931	-16.64583	SSF	FFF
590	3.36000	1.71207	-16.64583	SSF	FFF
591	1.12000	2.57069	-16.64583	SSF	FFF
592	5.60000	2.85345	-16.64583	SSF	FFF
593	3.36000	3.71207	-16.64583	SSF	FFF
594	5.60000	4.85345	-16.64583	SSF	FFF
595	-5.60000	-4.85345	-15.66667	SSF	FFF
596	-3.36000	-3.71207	-15.66667	SSF	FFF
597	-5.60000	-2.85345	-15.66667	SSF	FFF
598	-1.12000	-2.57069	-15.66667	SSF	FFF
599	-3.36000	-1.71207	-15.66667	SSF	FFF
600	1.12000	-1.42931	-15.66667	SSF	FFF
601	-5.60000	-0.85345	-15.66667	SSF	FFF
602	-1.12000	-0.57069	-15.66667	SSF	FFF
603	3.36000	-0.28793	-15.66667	SSF	FFF
604	-3.36000	0.28793	-15.66667	SSF	FFF
605	1.12000	0.57069	-15.66667	SSF	FFF
606	5.60000	0.85345	-15.66667	SSF	FFF
607	-1.12000	1.42931	-15.66667	SSF	FFF
608	3.36000	1.71207	-15.66667	SSF	FFF
609	1.12000	2.57069	-15.66667	SSF	FFF
610	5.60000	2.85345	-15.66667	SSF	FFF
611	3.36000	3.71207	-15.66667	SSF	FFF
612	5.60000	4.85345	-15.66667	SSF	FFF
613	-5.60000	-4.85345	-14.68750	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
614	-3.36000	-3.71207	-14.68750	SSF	FFF
615	-5.60000	-2.85345	-14.68750	SSF	FFF
616	-1.12000	-2.57069	-14.68750	SSF	FFF
617	-3.36000	-1.71207	-14.68750	SSF	FFF
618	1.12000	-1.42931	-14.68750	SSF	FFF
619	-5.60000	-0.85345	-14.68750	SSF	FFF
620	-1.12000	-0.57069	-14.68750	SSF	FFF
621	3.36000	-0.28793	-14.68750	SSF	FFF
622	-3.36000	0.28793	-14.68750	SSF	FFF
623	1.12000	0.57069	-14.68750	SSF	FFF
624	5.60000	0.85345	-14.68750	SSF	FFF
625	-1.12000	1.42931	-14.68750	SSF	FFF
626	3.36000	1.71207	-14.68750	SSF	FFF
627	1.12000	2.57069	-14.68750	SSF	FFF
628	5.60000	2.85345	-14.68750	SSF	FFF
629	3.36000	3.71207	-14.68750	SSF	FFF
630	5.60000	4.85345	-14.68750	SSF	FFF
631	-5.60000	-4.85345	-13.70833	SSF	FFF
632	-3.36000	-3.71207	-13.70833	SSF	FFF
633	-5.60000	-2.85345	-13.70833	SSF	FFF
634	-1.12000	-2.57069	-13.70833	SSF	FFF
635	-3.36000	-1.71207	-13.70833	SSF	FFF
636	1.12000	-1.42931	-13.70833	SSF	FFF
637	-5.60000	-0.85345	-13.70833	SSF	FFF
638	-1.12000	-0.57069	-13.70833	SSF	FFF
639	3.36000	-0.28793	-13.70833	SSF	FFF
640	-3.36000	0.28793	-13.70833	SSF	FFF
641	1.12000	0.57069	-13.70833	SSF	FFF
642	5.60000	0.85345	-13.70833	SSF	FFF
643	-1.12000	1.42931	-13.70833	SSF	FFF
644	3.36000	1.71207	-13.70833	SSF	FFF
645	1.12000	2.57069	-13.70833	SSF	FFF
646	5.60000	2.85345	-13.70833	SSF	FFF
647	3.36000	3.71207	-13.70833	SSF	FFF
648	5.60000	4.85345	-13.70833	SSF	FFF
649	-5.60000	-4.85345	-12.72917	SSF	FFF
650	-3.36000	-3.71207	-12.72917	SSF	FFF
651	-5.60000	-2.85345	-12.72917	SSF	FFF
652	-1.12000	-2.57069	-12.72917	SSF	FFF
653	-3.36000	-1.71207	-12.72917	SSF	FFF
654	1.12000	-1.42931	-12.72917	SSF	FFF
655	-5.60000	-0.85345	-12.72917	SSF	FFF
656	-1.12000	-0.57069	-12.72917	SSF	FFF
657	3.36000	-0.28793	-12.72917	SSF	FFF
658	-3.36000	0.28793	-12.72917	SSF	FFF
659	1.12000	0.57069	-12.72917	SSF	FFF
660	5.60000	0.85345	-12.72917	SSF	FFF
661	-1.12000	1.42931	-12.72917	SSF	FFF
662	3.36000	1.71207	-12.72917	SSF	FFF
663	1.12000	2.57069	-12.72917	SSF	FFF
664	5.60000	2.85345	-12.72917	SSF	FFF
665	3.36000	3.71207	-12.72917	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
666	5.60000	4.85345	-12.72917	SSF	FFF
667	-5.60000	-4.85345	-11.75000	SSF	FFF
668	-3.36000	-3.71207	-11.75000	SSF	FFF
669	-5.60000	-2.85345	-11.75000	SSF	FFF
670	-1.12000	-2.57069	-11.75000	SSF	FFF
671	-3.36000	-1.71207	-11.75000	SSF	FFF
672	1.12000	-1.42931	-11.75000	SSF	FFF
673	-5.60000	-0.85345	-11.75000	SSF	FFF
674	-1.12000	-0.57069	-11.75000	SSF	FFF
675	3.36000	-0.28793	-11.75000	SSF	FFF
676	-3.36000	0.28793	-11.75000	SSF	FFF
677	1.12000	0.57069	-11.75000	SSF	FFF
678	5.60000	0.85345	-11.75000	SSF	FFF
679	-1.12000	1.42931	-11.75000	SSF	FFF
680	3.36000	1.71207	-11.75000	SSF	FFF
681	1.12000	2.57069	-11.75000	SSF	FFF
682	5.60000	2.85345	-11.75000	SSF	FFF
683	3.36000	3.71207	-11.75000	SSF	FFF
684	5.60000	4.85345	-11.75000	SSF	FFF
685	-5.60000	-4.85345	-10.77083	SSF	FFF
686	-3.36000	-3.71207	-10.77083	SSF	FFF
687	-5.60000	-2.85345	-10.77083	SSF	FFF
688	-1.12000	-2.57069	-10.77083	SSF	FFF
689	-3.36000	-1.71207	-10.77083	SSF	FFF
690	1.12000	-1.42931	-10.77083	SSF	FFF
691	-5.60000	-0.85345	-10.77083	SSF	FFF
692	-1.12000	-0.57069	-10.77083	SSF	FFF
693	3.36000	-0.28793	-10.77083	SSF	FFF
694	-3.36000	0.28793	-10.77083	SSF	FFF
695	1.12000	0.57069	-10.77083	SSF	FFF
696	5.60000	0.85345	-10.77083	SSF	FFF
697	-1.12000	1.42931	-10.77083	SSF	FFF
698	3.36000	1.71207	-10.77083	SSF	FFF
699	1.12000	2.57069	-10.77083	SSF	FFF
700	5.60000	2.85345	-10.77083	SSF	FFF
701	3.36000	3.71207	-10.77083	SSF	FFF
702	5.60000	4.85345	-10.77083	SSF	FFF
703	-5.60000	-4.85345	-9.79167	SSF	FFF
704	-3.36000	-3.71207	-9.79167	SSF	FFF
705	-5.60000	-2.85345	-9.79167	SSF	FFF
706	-1.12000	-2.57069	-9.79167	SSF	FFF
707	-3.36000	-1.71207	-9.79167	SSF	FFF
708	1.12000	-1.42931	-9.79167	SSF	FFF
709	-5.60000	-0.85345	-9.79167	SSF	FFF
710	-1.12000	-0.57069	-9.79167	SSF	FFF
711	3.36000	-0.28793	-9.79167	SSF	FFF
712	-3.36000	0.28793	-9.79167	SSF	FFF
713	1.12000	0.57069	-9.79167	SSF	FFF
714	5.60000	0.85345	-9.79167	SSF	FFF
715	-1.12000	1.42931	-9.79167	SSF	FFF
716	3.36000	1.71207	-9.79167	SSF	FFF
717	1.12000	2.57069	-9.79167	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
718	5.60000	2.85345	-9.79167	SSF	FFF
719	3.36000	3.71207	-9.79167	SSF	FFF
720	5.60000	4.85345	-9.79167	SSF	FFF
721	-5.60000	-4.85345	-8.81250	SSF	FFF
722	-3.36000	-3.71207	-8.81250	SSF	FFF
723	-5.60000	-2.85345	-8.81250	SSF	FFF
724	-1.12000	-2.57069	-8.81250	SSF	FFF
725	-3.36000	-1.71207	-8.81250	SSF	FFF
726	1.12000	-1.42931	-8.81250	SSF	FFF
727	-5.60000	-0.85345	-8.81250	SSF	FFF
728	-1.12000	-0.57069	-8.81250	SSF	FFF
729	3.36000	-0.28793	-8.81250	SSF	FFF
730	-3.36000	0.28793	-8.81250	SSF	FFF
731	1.12000	0.57069	-8.81250	SSF	FFF
732	5.60000	0.85345	-8.81250	SSF	FFF
733	-1.12000	1.42931	-8.81250	SSF	FFF
734	3.36000	1.71207	-8.81250	SSF	FFF
735	1.12000	2.57069	-8.81250	SSF	FFF
736	5.60000	2.85345	-8.81250	SSF	FFF
737	3.36000	3.71207	-8.81250	SSF	FFF
738	5.60000	4.85345	-8.81250	SSF	FFF
739	-5.60000	-4.85345	-7.83333	SSF	FFF
740	-3.36000	-3.71207	-7.83333	SSF	FFF
741	-5.60000	-2.85345	-7.83333	SSF	FFF
742	-1.12000	-2.57069	-7.83333	SSF	FFF
743	-3.36000	-1.71207	-7.83333	SSF	FFF
744	1.12000	-1.42931	-7.83333	SSF	FFF
745	-5.60000	-0.85345	-7.83333	SSF	FFF
746	-1.12000	-0.57069	-7.83333	SSF	FFF
747	3.36000	-0.28793	-7.83333	SSF	FFF
748	-3.36000	0.28793	-7.83333	SSF	FFF
749	1.12000	0.57069	-7.83333	SSF	FFF
750	5.60000	0.85345	-7.83333	SSF	FFF
751	-1.12000	1.42931	-7.83333	SSF	FFF
752	3.36000	1.71207	-7.83333	SSF	FFF
753	1.12000	2.57069	-7.83333	SSF	FFF
754	5.60000	2.85345	-7.83333	SSF	FFF
755	3.36000	3.71207	-7.83333	SSF	FFF
756	5.60000	4.85345	-7.83333	SSF	FFF
757	-5.60000	-4.85345	-6.85417	SSF	FFF
758	-3.36000	-3.71207	-6.85417	SSF	FFF
759	-5.60000	-2.85345	-6.85417	SSF	FFF
760	-1.12000	-2.57069	-6.85417	SSF	FFF
761	-3.36000	-1.71207	-6.85417	SSF	FFF
762	1.12000	-1.42931	-6.85417	SSF	FFF
763	-5.60000	-0.85345	-6.85417	SSF	FFF
764	-1.12000	-0.57069	-6.85417	SSF	FFF
765	3.36000	-0.28793	-6.85417	SSF	FFF
766	-3.36000	0.28793	-6.85417	SSF	FFF
767	1.12000	0.57069	-6.85417	SSF	FFF
768	5.60000	0.85345	-6.85417	SSF	FFF
769	-1.12000	1.42931	-6.85417	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
770	3.36000	1.71207	-6.85417	SSF	FFF
771	1.12000	2.57069	-6.85417	SSF	FFF
772	5.60000	2.85345	-6.85417	SSF	FFF
773	3.36000	3.71207	-6.85417	SSF	FFF
774	5.60000	4.85345	-6.85417	SSF	FFF
775	-5.60000	-4.85345	-5.87500	SSF	FFF
776	-3.36000	-3.71207	-5.87500	SSF	FFF
777	-5.60000	-2.85345	-5.87500	SSF	FFF
778	-1.12000	-2.57069	-5.87500	SSF	FFF
779	-3.36000	-1.71207	-5.87500	SSF	FFF
780	1.12000	-1.42931	-5.87500	SSF	FFF
781	-5.60000	-0.85345	-5.87500	SSF	FFF
782	-1.12000	-0.57069	-5.87500	SSF	FFF
783	3.36000	-0.28793	-5.87500	SSF	FFF
784	-3.36000	0.28793	-5.87500	SSF	FFF
785	1.12000	0.57069	-5.87500	SSF	FFF
786	5.60000	0.85345	-5.87500	SSF	FFF
787	-1.12000	1.42931	-5.87500	SSF	FFF
788	3.36000	1.71207	-5.87500	SSF	FFF
789	1.12000	2.57069	-5.87500	SSF	FFF
790	5.60000	2.85345	-5.87500	SSF	FFF
791	3.36000	3.71207	-5.87500	SSF	FFF
792	5.60000	4.85345	-5.87500	SSF	FFF
793	-5.60000	-4.85345	-4.89583	SSF	FFF
794	-3.36000	-3.71207	-4.89583	SSF	FFF
795	-5.60000	-2.85345	-4.89583	SSF	FFF
796	-1.12000	-2.57069	-4.89583	SSF	FFF
797	-3.36000	-1.71207	-4.89583	SSF	FFF
798	1.12000	-1.42931	-4.89583	SSF	FFF
799	-5.60000	-0.85345	-4.89583	SSF	FFF
800	-1.12000	-0.57069	-4.89583	SSF	FFF
801	3.36000	-0.28793	-4.89583	SSF	FFF
802	-3.36000	0.28793	-4.89583	SSF	FFF
803	1.12000	0.57069	-4.89583	SSF	FFF
804	5.60000	0.85345	-4.89583	SSF	FFF
805	-1.12000	1.42931	-4.89583	SSF	FFF
806	3.36000	1.71207	-4.89583	SSF	FFF
807	1.12000	2.57069	-4.89583	SSF	FFF
808	5.60000	2.85345	-4.89583	SSF	FFF
809	3.36000	3.71207	-4.89583	SSF	FFF
810	5.60000	4.85345	-4.89583	SSF	FFF
811	-5.60000	-4.85345	-3.91667	SSF	FFF
812	-3.36000	-3.71207	-3.91667	SSF	FFF
813	-5.60000	-2.85345	-3.91667	SSF	FFF
814	-1.12000	-2.57069	-3.91667	SSF	FFF
815	-3.36000	-1.71207	-3.91667	SSF	FFF
816	1.12000	-1.42931	-3.91667	SSF	FFF
817	-5.60000	-0.85345	-3.91667	SSF	FFF
818	-1.12000	-0.57069	-3.91667	SSF	FFF
819	3.36000	-0.28793	-3.91667	SSF	FFF
820	-3.36000	0.28793	-3.91667	SSF	FFF
821	1.12000	0.57069	-3.91667	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
822	5.60000	0.85345	-3.91667	SSF	FFF
823	-1.12000	1.42931	-3.91667	SSF	FFF
824	3.36000	1.71207	-3.91667	SSF	FFF
825	1.12000	2.57069	-3.91667	SSF	FFF
826	5.60000	2.85345	-3.91667	SSF	FFF
827	3.36000	3.71207	-3.91667	SSF	FFF
828	5.60000	4.85345	-3.91667	SSF	FFF
829	-5.60000	-4.85345	-2.93750	SSF	FFF
830	-3.36000	-3.71207	-2.93750	SSF	FFF
831	-5.60000	-2.85345	-2.93750	SSF	FFF
832	-1.12000	-2.57069	-2.93750	SSF	FFF
833	-3.36000	-1.71207	-2.93750	SSF	FFF
834	1.12000	-1.42931	-2.93750	SSF	FFF
835	-5.60000	-0.85345	-2.93750	SSF	FFF
836	-1.12000	-0.57069	-2.93750	SSF	FFF
837	3.36000	-0.28793	-2.93750	SSF	FFF
838	-3.36000	0.28793	-2.93750	SSF	FFF
839	1.12000	0.57069	-2.93750	SSF	FFF
840	5.60000	0.85345	-2.93750	SSF	FFF
841	-1.12000	1.42931	-2.93750	SSF	FFF
842	3.36000	1.71207	-2.93750	SSF	FFF
843	1.12000	2.57069	-2.93750	SSF	FFF
844	5.60000	2.85345	-2.93750	SSF	FFF
845	3.36000	3.71207	-2.93750	SSF	FFF
846	5.60000	4.85345	-2.93750	SSF	FFF
847	-5.60000	-4.85345	-1.95833	SSF	FFF
848	-3.36000	-3.71207	-1.95833	SSF	FFF
849	-5.60000	-2.85345	-1.95833	SSF	FFF
850	-1.12000	-2.57069	-1.95833	SSF	FFF
851	-3.36000	-1.71207	-1.95833	SSF	FFF
852	1.12000	-1.42931	-1.95833	SSF	FFF
853	-5.60000	-0.85345	-1.95833	SSF	FFF
854	-1.12000	-0.57069	-1.95833	SSF	FFF
855	3.36000	-0.28793	-1.95833	SSF	FFF
856	-3.36000	0.28793	-1.95833	SSF	FFF
857	1.12000	0.57069	-1.95833	SSF	FFF
858	5.60000	0.85345	-1.95833	SSF	FFF
859	-1.12000	1.42931	-1.95833	SSF	FFF
860	3.36000	1.71207	-1.95833	SSF	FFF
861	1.12000	2.57069	-1.95833	SSF	FFF
862	5.60000	2.85345	-1.95833	SSF	FFF
863	3.36000	3.71207	-1.95833	SSF	FFF
864	5.60000	4.85345	-1.95833	SSF	FFF
865	-5.60000	-4.85345	-0.97917	SSF	FFF
866	-3.36000	-3.71207	-0.97917	SSF	FFF
867	-5.60000	-2.85345	-0.97917	SSF	FFF
868	-1.12000	-2.57069	-0.97917	SSF	FFF
869	-3.36000	-1.71207	-0.97917	SSF	FFF
870	1.12000	-1.42931	-0.97917	SSF	FFF
871	-5.60000	-0.85345	-0.97917	SSF	FFF
872	-1.12000	-0.57069	-0.97917	SSF	FFF
873	3.36000	-0.28793	-0.97917	SSF	FFF

Nudo	X [M]	Y [M]	Z [M]	V XYZ	R XYZ
874	-3.36000	0.28793	-0.97917	SSF	FFF
875	1.12000	0.57069	-0.97917	SSF	FFF
876	5.60000	0.85345	-0.97917	SSF	FFF
877	-1.12000	1.42931	-0.97917	SSF	FFF
878	3.36000	1.71207	-0.97917	SSF	FFF
879	1.12000	2.57069	-0.97917	SSF	FFF
880	5.60000	2.85345	-0.97917	SSF	FFF
881	3.36000	3.71207	-0.97917	SSF	FFF
882	5.60000	4.85345	-0.97917	SSF	FFF

NUDOS CON APOYO ELASTICO: ("B"=Bloqueado "F"=Libre)

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
37	4.594E+03	4.594E+03	F	F	F	F
38	4.594E+03	4.594E+03	F	F	F	F
39	4.594E+03	4.594E+03	F	F	F	F
40	4.594E+03	4.594E+03	F	F	F	F
41	4.594E+03	4.594E+03	F	F	F	F
42	4.594E+03	4.594E+03	F	F	F	F
43	4.594E+03	4.594E+03	F	F	F	F
44	4.594E+03	4.594E+03	F	F	F	F
45	4.594E+03	4.594E+03	F	F	F	F
46	4.594E+03	4.594E+03	F	F	F	F
47	4.594E+03	4.594E+03	F	F	F	F
48	4.594E+03	4.594E+03	F	F	F	F
49	4.594E+03	4.594E+03	F	F	F	F
50	4.594E+03	4.594E+03	F	F	F	F
51	4.594E+03	4.594E+03	F	F	F	F
52	4.594E+03	4.594E+03	F	F	F	F
53	4.594E+03	4.594E+03	F	F	F	F
54	4.594E+03	4.594E+03	F	F	F	F
55	4.594E+03	4.594E+03	F	F	F	F
56	4.594E+03	4.594E+03	F	F	F	F
57	4.594E+03	4.594E+03	F	F	F	F
58	4.594E+03	4.594E+03	F	F	F	F
59	4.594E+03	4.594E+03	F	F	F	F
60	4.594E+03	4.594E+03	F	F	F	F
61	4.594E+03	4.594E+03	F	F	F	F
62	4.594E+03	4.594E+03	F	F	F	F
63	4.594E+03	4.594E+03	F	F	F	F
64	4.594E+03	4.594E+03	F	F	F	F
65	4.594E+03	4.594E+03	F	F	F	F
66	4.594E+03	4.594E+03	F	F	F	F
67	4.594E+03	4.594E+03	F	F	F	F
68	4.594E+03	4.594E+03	F	F	F	F
69	4.594E+03	4.594E+03	F	F	F	F
70	4.594E+03	4.594E+03	F	F	F	F
71	4.594E+03	4.594E+03	F	F	F	F
72	4.594E+03	4.594E+03	F	F	F	F

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
73	4.594E+03	4.594E+03	F	F	F	F
74	4.594E+03	4.594E+03	F	F	F	F
75	4.594E+03	4.594E+03	F	F	F	F
76	4.594E+03	4.594E+03	F	F	F	F
77	4.594E+03	4.594E+03	F	F	F	F
78	4.594E+03	4.594E+03	F	F	F	F
79	4.594E+03	4.594E+03	F	F	F	F
80	4.594E+03	4.594E+03	F	F	F	F
81	4.594E+03	4.594E+03	F	F	F	F
82	4.594E+03	4.594E+03	F	F	F	F
83	4.594E+03	4.594E+03	F	F	F	F
84	4.594E+03	4.594E+03	F	F	F	F
85	4.594E+03	4.594E+03	F	F	F	F
86	4.594E+03	4.594E+03	F	F	F	F
87	4.594E+03	4.594E+03	F	F	F	F
88	4.594E+03	4.594E+03	F	F	F	F
89	4.594E+03	4.594E+03	F	F	F	F
90	4.594E+03	4.594E+03	F	F	F	F
91	4.594E+03	4.594E+03	F	F	F	F
92	4.594E+03	4.594E+03	F	F	F	F
93	4.594E+03	4.594E+03	F	F	F	F
94	4.594E+03	4.594E+03	F	F	F	F
95	4.594E+03	4.594E+03	F	F	F	F
96	4.594E+03	4.594E+03	F	F	F	F
97	4.594E+03	4.594E+03	F	F	F	F
98	4.594E+03	4.594E+03	F	F	F	F
99	4.594E+03	4.594E+03	F	F	F	F
100	4.594E+03	4.594E+03	F	F	F	F
101	4.594E+03	4.594E+03	F	F	F	F
102	4.594E+03	4.594E+03	F	F	F	F
103	4.594E+03	4.594E+03	F	F	F	F
104	4.594E+03	4.594E+03	F	F	F	F
105	4.594E+03	4.594E+03	F	F	F	F
106	4.594E+03	4.594E+03	F	F	F	F
107	4.594E+03	4.594E+03	F	F	F	F
108	4.594E+03	4.594E+03	F	F	F	F
109	4.594E+03	4.594E+03	F	F	F	F
110	4.594E+03	4.594E+03	F	F	F	F
111	4.594E+03	4.594E+03	F	F	F	F
112	4.594E+03	4.594E+03	F	F	F	F
113	4.594E+03	4.594E+03	F	F	F	F
114	4.594E+03	4.594E+03	F	F	F	F
115	4.594E+03	4.594E+03	F	F	F	F
116	4.594E+03	4.594E+03	F	F	F	F
117	4.594E+03	4.594E+03	F	F	F	F
118	4.594E+03	4.594E+03	F	F	F	F
119	4.594E+03	4.594E+03	F	F	F	F
120	4.594E+03	4.594E+03	F	F	F	F
121	4.594E+03	4.594E+03	F	F	F	F
122	4.594E+03	4.594E+03	F	F	F	F
123	4.594E+03	4.594E+03	F	F	F	F
124	4.594E+03	4.594E+03	F	F	F	F

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
125	4.594E+03	4.594E+03	F	F	F	F
126	4.594E+03	4.594E+03	F	F	F	F
127	4.594E+03	4.594E+03	F	F	F	F
128	4.594E+03	4.594E+03	F	F	F	F
129	4.594E+03	4.594E+03	F	F	F	F
130	4.594E+03	4.594E+03	F	F	F	F
131	4.594E+03	4.594E+03	F	F	F	F
132	4.594E+03	4.594E+03	F	F	F	F
133	4.594E+03	4.594E+03	F	F	F	F
134	4.594E+03	4.594E+03	F	F	F	F
135	4.594E+03	4.594E+03	F	F	F	F
136	4.594E+03	4.594E+03	F	F	F	F
137	4.594E+03	4.594E+03	F	F	F	F
138	4.594E+03	4.594E+03	F	F	F	F
139	4.594E+03	4.594E+03	F	F	F	F
140	4.594E+03	4.594E+03	F	F	F	F
141	4.594E+03	4.594E+03	F	F	F	F
142	4.594E+03	4.594E+03	F	F	F	F
143	4.594E+03	4.594E+03	F	F	F	F
144	4.594E+03	4.594E+03	F	F	F	F
145	4.594E+03	4.594E+03	F	F	F	F
146	4.594E+03	4.594E+03	F	F	F	F
147	4.594E+03	4.594E+03	F	F	F	F
148	4.594E+03	4.594E+03	F	F	F	F
149	4.594E+03	4.594E+03	F	F	F	F
150	4.594E+03	4.594E+03	F	F	F	F
151	4.594E+03	4.594E+03	F	F	F	F
152	4.594E+03	4.594E+03	F	F	F	F
153	4.594E+03	4.594E+03	F	F	F	F
154	4.594E+03	4.594E+03	F	F	F	F
155	4.594E+03	4.594E+03	F	F	F	F
156	4.594E+03	4.594E+03	F	F	F	F
157	4.594E+03	4.594E+03	F	F	F	F
158	4.594E+03	4.594E+03	F	F	F	F
159	4.594E+03	4.594E+03	F	F	F	F
160	4.594E+03	4.594E+03	F	F	F	F
161	4.594E+03	4.594E+03	F	F	F	F
162	4.594E+03	4.594E+03	F	F	F	F
163	4.594E+03	4.594E+03	F	F	F	F
164	4.594E+03	4.594E+03	F	F	F	F
165	4.594E+03	4.594E+03	F	F	F	F
166	4.594E+03	4.594E+03	F	F	F	F
167	4.594E+03	4.594E+03	F	F	F	F
168	4.594E+03	4.594E+03	F	F	F	F
169	4.594E+03	4.594E+03	F	F	F	F
170	4.594E+03	4.594E+03	F	F	F	F
171	4.594E+03	4.594E+03	F	F	F	F
172	4.594E+03	4.594E+03	F	F	F	F
173	4.594E+03	4.594E+03	F	F	F	F
174	4.594E+03	4.594E+03	F	F	F	F
175	4.594E+03	4.594E+03	F	F	F	F
176	4.594E+03	4.594E+03	F	F	F	F

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R [TM/AR
177	4.594E+03	4.594E+03	F	F	F	
178	4.594E+03	4.594E+03	F	F	F	
179	4.594E+03	4.594E+03	F	F	F	
180	4.594E+03	4.594E+03	F	F	F	
181	4.594E+03	4.594E+03	F	F	F	
182	4.594E+03	4.594E+03	F	F	F	
183	4.594E+03	4.594E+03	F	F	F	
184	4.594E+03	4.594E+03	F	F	F	
185	4.594E+03	4.594E+03	F	F	F	
186	4.594E+03	4.594E+03	F	F	F	
187	4.594E+03	4.594E+03	F	F	F	
188	4.594E+03	4.594E+03	F	F	F	
189	4.594E+03	4.594E+03	F	F	F	
190	4.594E+03	4.594E+03	F	F	F	
191	4.594E+03	4.594E+03	F	F	F	
192	4.594E+03	4.594E+03	F	F	F	
193	4.594E+03	4.594E+03	F	F	F	
194	4.594E+03	4.594E+03	F	F	F	
195	4.594E+03	4.594E+03	F	F	F	
196	4.594E+03	4.594E+03	F	F	F	
197	4.594E+03	4.594E+03	F	F	F	
198	4.594E+03	4.594E+03	F	F	F	
199	4.594E+03	4.594E+03	F	F	F	
200	4.594E+03	4.594E+03	F	F	F	
201	4.594E+03	4.594E+03	F	F	F	
202	4.594E+03	4.594E+03	F	F	F	
203	4.594E+03	4.594E+03	F	F	F	
204	4.594E+03	4.594E+03	F	F	F	
205	4.594E+03	4.594E+03	F	F	F	
206	4.594E+03	4.594E+03	F	F	F	
207	4.594E+03	4.594E+03	F	F	F	
208	4.594E+03	4.594E+03	F	F	F	
209	4.594E+03	4.594E+03	F	F	F	
210	4.594E+03	4.594E+03	F	F	F	
211	4.594E+03	4.594E+03	F	F	F	
212	4.594E+03	4.594E+03	F	F	F	
213	4.594E+03	4.594E+03	F	F	F	
214	4.594E+03	4.594E+03	F	F	F	
215	4.594E+03	4.594E+03	F	F	F	
216	4.594E+03	4.594E+03	F	F	F	
217	4.594E+03	4.594E+03	F	F	F	
218	4.594E+03	4.594E+03	F	F	F	
219	4.594E+03	4.594E+03	F	F	F	
220	4.594E+03	4.594E+03	F	F	F	
221	4.594E+03	4.594E+03	F	F	F	
222	4.594E+03	4.594E+03	F	F	F	
223	4.594E+03	4.594E+03	F	F	F	
224	4.594E+03	4.594E+03	F	F	F	
225	4.594E+03	4.594E+03	F	F	F	
226	4.594E+03	4.594E+03	F	F	F	
227	4.594E+03	4.594E+03	F	F	F	
228	4.594E+03	4.594E+03	F	F	F	

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
229	4.594E+03	4.594E+03	F	F	F	F
230	4.594E+03	4.594E+03	F	F	F	F
231	4.594E+03	4.594E+03	F	F	F	F
232	4.594E+03	4.594E+03	F	F	F	F
233	4.594E+03	4.594E+03	F	F	F	F
234	4.594E+03	4.594E+03	F	F	F	F
235	4.594E+03	4.594E+03	F	F	F	F
236	4.594E+03	4.594E+03	F	F	F	F
237	4.594E+03	4.594E+03	F	F	F	F
238	4.594E+03	4.594E+03	F	F	F	F
239	4.594E+03	4.594E+03	F	F	F	F
240	4.594E+03	4.594E+03	F	F	F	F
241	4.594E+03	4.594E+03	F	F	F	F
242	4.594E+03	4.594E+03	F	F	F	F
243	4.594E+03	4.594E+03	F	F	F	F
244	4.594E+03	4.594E+03	F	F	F	F
245	4.594E+03	4.594E+03	F	F	F	F
246	4.594E+03	4.594E+03	F	F	F	F
247	4.594E+03	4.594E+03	F	F	F	F
248	4.594E+03	4.594E+03	F	F	F	F
249	4.594E+03	4.594E+03	F	F	F	F
250	4.594E+03	4.594E+03	F	F	F	F
251	4.594E+03	4.594E+03	F	F	F	F
252	4.594E+03	4.594E+03	F	F	F	F
253	4.594E+03	4.594E+03	F	F	F	F
254	4.594E+03	4.594E+03	F	F	F	F
255	4.594E+03	4.594E+03	F	F	F	F
256	4.594E+03	4.594E+03	F	F	F	F
257	4.594E+03	4.594E+03	F	F	F	F
258	4.594E+03	4.594E+03	F	F	F	F
259	4.594E+03	4.594E+03	F	F	F	F
260	4.594E+03	4.594E+03	F	F	F	F
261	4.594E+03	4.594E+03	F	F	F	F
262	4.594E+03	4.594E+03	F	F	F	F
263	4.594E+03	4.594E+03	F	F	F	F
264	4.594E+03	4.594E+03	F	F	F	F
265	4.594E+03	4.594E+03	F	F	F	F
266	4.594E+03	4.594E+03	F	F	F	F
267	4.594E+03	4.594E+03	F	F	F	F
268	4.594E+03	4.594E+03	F	F	F	F
269	4.594E+03	4.594E+03	F	F	F	F
270	4.594E+03	4.594E+03	F	F	F	F
271	4.594E+03	4.594E+03	F	F	F	F
272	4.594E+03	4.594E+03	F	F	F	F
273	4.594E+03	4.594E+03	F	F	F	F
274	4.594E+03	4.594E+03	F	F	F	F
275	4.594E+03	4.594E+03	F	F	F	F
276	4.594E+03	4.594E+03	F	F	F	F
277	4.594E+03	4.594E+03	F	F	F	F
278	4.594E+03	4.594E+03	F	F	F	F
279	4.594E+03	4.594E+03	F	F	F	F
280	4.594E+03	4.594E+03	F	F	F	F

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
281	4.594E+03	4.594E+03	F	F	F	F
282	4.594E+03	4.594E+03	F	F	F	F
283	4.594E+03	4.594E+03	F	F	F	F
284	4.594E+03	4.594E+03	F	F	F	F
285	4.594E+03	4.594E+03	F	F	F	F
286	4.594E+03	4.594E+03	F	F	F	F
287	4.594E+03	4.594E+03	F	F	F	F
288	4.594E+03	4.594E+03	F	F	F	F
289	4.594E+03	4.594E+03	F	F	F	F
290	4.594E+03	4.594E+03	F	F	F	F
291	4.594E+03	4.594E+03	F	F	F	F
292	4.594E+03	4.594E+03	F	F	F	F
293	4.594E+03	4.594E+03	F	F	F	F
294	4.594E+03	4.594E+03	F	F	F	F
295	4.594E+03	4.594E+03	F	F	F	F
296	4.594E+03	4.594E+03	F	F	F	F
297	4.594E+03	4.594E+03	F	F	F	F
298	4.594E+03	4.594E+03	F	F	F	F
299	4.594E+03	4.594E+03	F	F	F	F
300	4.594E+03	4.594E+03	F	F	F	F
301	4.594E+03	4.594E+03	F	F	F	F
302	4.594E+03	4.594E+03	F	F	F	F
303	4.594E+03	4.594E+03	F	F	F	F
304	4.594E+03	4.594E+03	F	F	F	F
305	4.594E+03	4.594E+03	F	F	F	F
306	4.594E+03	4.594E+03	F	F	F	F
307	4.594E+03	4.594E+03	F	F	F	F
308	4.594E+03	4.594E+03	F	F	F	F
309	4.594E+03	4.594E+03	F	F	F	F
310	4.594E+03	4.594E+03	F	F	F	F
311	4.594E+03	4.594E+03	F	F	F	F
312	4.594E+03	4.594E+03	F	F	F	F
313	4.594E+03	4.594E+03	F	F	F	F
314	4.594E+03	4.594E+03	F	F	F	F
315	4.594E+03	4.594E+03	F	F	F	F
316	4.594E+03	4.594E+03	F	F	F	F
317	4.594E+03	4.594E+03	F	F	F	F
318	4.594E+03	4.594E+03	F	F	F	F
319	4.594E+03	4.594E+03	F	F	F	F
320	4.594E+03	4.594E+03	F	F	F	F
321	4.594E+03	4.594E+03	F	F	F	F
322	4.594E+03	4.594E+03	F	F	F	F
323	4.594E+03	4.594E+03	F	F	F	F
324	4.594E+03	4.594E+03	F	F	F	F
325	4.594E+03	4.594E+03	F	F	F	F
326	4.594E+03	4.594E+03	F	F	F	F
327	4.594E+03	4.594E+03	F	F	F	F
328	4.594E+03	4.594E+03	F	F	F	F
329	4.594E+03	4.594E+03	F	F	F	F
330	4.594E+03	4.594E+03	F	F	F	F
331	4.594E+03	4.594E+03	F	F	F	F
332	4.594E+03	4.594E+03	F	F	F	4851

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
333	4.594E+03	4.594E+03	F	F	F	F
334	4.594E+03	4.594E+03	F	F	F	F
335	4.594E+03	4.594E+03	F	F	F	F
336	4.594E+03	4.594E+03	F	F	F	F
337	4.594E+03	4.594E+03	F	F	F	F
338	4.594E+03	4.594E+03	F	F	F	F
339	4.594E+03	4.594E+03	F	F	F	F
340	4.594E+03	4.594E+03	F	F	F	F
341	4.594E+03	4.594E+03	F	F	F	F
342	4.594E+03	4.594E+03	F	F	F	F
343	4.594E+03	4.594E+03	F	F	F	F
344	4.594E+03	4.594E+03	F	F	F	F
345	4.594E+03	4.594E+03	F	F	F	F
346	4.594E+03	4.594E+03	F	F	F	F
347	4.594E+03	4.594E+03	F	F	F	F
348	4.594E+03	4.594E+03	F	F	F	F
349	4.594E+03	4.594E+03	F	F	F	F
350	4.594E+03	4.594E+03	F	F	F	F
351	4.594E+03	4.594E+03	F	F	F	F
352	4.594E+03	4.594E+03	F	F	F	F
353	4.594E+03	4.594E+03	F	F	F	F
354	4.594E+03	4.594E+03	F	F	F	F
355	4.594E+03	4.594E+03	F	F	F	F
356	4.594E+03	4.594E+03	F	F	F	F
357	4.594E+03	4.594E+03	F	F	F	F
358	4.594E+03	4.594E+03	F	F	F	F
359	4.594E+03	4.594E+03	F	F	F	F
360	4.594E+03	4.594E+03	F	F	F	F
361	4.594E+03	4.594E+03	F	F	F	F
362	4.594E+03	4.594E+03	F	F	F	F
363	4.594E+03	4.594E+03	F	F	F	F
364	4.594E+03	4.594E+03	F	F	F	F
365	4.594E+03	4.594E+03	F	F	F	F
366	4.594E+03	4.594E+03	F	F	F	F
367	4.594E+03	4.594E+03	F	F	F	F
368	4.594E+03	4.594E+03	F	F	F	F
369	4.594E+03	4.594E+03	F	F	F	F
370	4.594E+03	4.594E+03	F	F	F	F
371	4.594E+03	4.594E+03	F	F	F	F
372	4.594E+03	4.594E+03	F	F	F	F
373	4.594E+03	4.594E+03	F	F	F	F
374	4.594E+03	4.594E+03	F	F	F	F
375	4.594E+03	4.594E+03	F	F	F	F
376	4.594E+03	4.594E+03	F	F	F	F
377	4.594E+03	4.594E+03	F	F	F	F
378	4.594E+03	4.594E+03	F	F	F	F
379	4.594E+03	4.594E+03	F	F	F	F
380	4.594E+03	4.594E+03	F	F	F	F
381	4.594E+03	4.594E+03	F	F	F	F
382	4.594E+03	4.594E+03	F	F	F	F
383	4.594E+03	4.594E+03	F	F	F	F
384	4.594E+03	4.594E+03	F	F	F	F

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R [TM/AR
385	4.594E+03	4.594E+03	F	F	F	
386	4.594E+03	4.594E+03	F	F	F	
387	4.594E+03	4.594E+03	F	F	F	
388	4.594E+03	4.594E+03	F	F	F	
389	4.594E+03	4.594E+03	F	F	F	
390	4.594E+03	4.594E+03	F	F	F	
391	4.594E+03	4.594E+03	F	F	F	
392	4.594E+03	4.594E+03	F	F	F	
393	4.594E+03	4.594E+03	F	F	F	
394	4.594E+03	4.594E+03	F	F	F	
395	4.594E+03	4.594E+03	F	F	F	
396	4.594E+03	4.594E+03	F	F	F	
397	4.594E+03	4.594E+03	F	F	F	
398	4.594E+03	4.594E+03	F	F	F	
399	4.594E+03	4.594E+03	F	F	F	
400	4.594E+03	4.594E+03	F	F	F	
401	4.594E+03	4.594E+03	F	F	F	
402	4.594E+03	4.594E+03	F	F	F	
403	4.594E+03	4.594E+03	F	F	F	
404	4.594E+03	4.594E+03	F	F	F	
405	4.594E+03	4.594E+03	F	F	F	
406	4.594E+03	4.594E+03	F	F	F	
407	4.594E+03	4.594E+03	F	F	F	
408	4.594E+03	4.594E+03	F	F	F	
409	4.594E+03	4.594E+03	F	F	F	
410	4.594E+03	4.594E+03	F	F	F	
411	4.594E+03	4.594E+03	F	F	F	
412	4.594E+03	4.594E+03	F	F	F	
413	4.594E+03	4.594E+03	F	F	F	
414	4.594E+03	4.594E+03	F	F	F	
415	4.594E+03	4.594E+03	F	F	F	
416	4.594E+03	4.594E+03	F	F	F	
417	4.594E+03	4.594E+03	F	F	F	
418	4.594E+03	4.594E+03	F	F	F	
419	4.594E+03	4.594E+03	F	F	F	
420	4.594E+03	4.594E+03	F	F	F	
421	4.594E+03	4.594E+03	F	F	F	
422	4.594E+03	4.594E+03	F	F	F	
423	4.594E+03	4.594E+03	F	F	F	
424	4.594E+03	4.594E+03	F	F	F	
425	4.594E+03	4.594E+03	F	F	F	
426	4.594E+03	4.594E+03	F	F	F	
427	4.594E+03	4.594E+03	F	F	F	
428	4.594E+03	4.594E+03	F	F	F	
429	4.594E+03	4.594E+03	F	F	F	
430	4.594E+03	4.594E+03	F	F	F	
431	4.594E+03	4.594E+03	F	F	F	
432	4.594E+03	4.594E+03	F	F	F	
433	4.594E+03	4.594E+03	F	F	F	
434	4.594E+03	4.594E+03	F	F	F	
435	4.594E+03	4.594E+03	F	F	F	
436	4.594E+03	4.594E+03	F	F	F	

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
437	4.594E+03	4.594E+03	F	F	F	F
438	4.594E+03	4.594E+03	F	F	F	F
439	4.594E+03	4.594E+03	F	F	F	F
440	4.594E+03	4.594E+03	F	F	F	F
441	4.594E+03	4.594E+03	F	F	F	F
442	4.594E+03	4.594E+03	F	F	F	F
443	4.594E+03	4.594E+03	F	F	F	F
444	4.594E+03	4.594E+03	F	F	F	F
445	4.594E+03	4.594E+03	F	F	F	F
446	4.594E+03	4.594E+03	F	F	F	F
447	4.594E+03	4.594E+03	F	F	F	F
448	4.594E+03	4.594E+03	F	F	F	F
449	4.594E+03	4.594E+03	F	F	F	F
450	4.594E+03	4.594E+03	F	F	F	F
451	4.594E+03	4.594E+03	F	F	F	F
452	4.594E+03	4.594E+03	F	F	F	F
453	4.594E+03	4.594E+03	F	F	F	F
454	4.594E+03	4.594E+03	F	F	F	F
455	4.594E+03	4.594E+03	F	F	F	F
456	4.594E+03	4.594E+03	F	F	F	F
457	4.594E+03	4.594E+03	F	F	F	F
458	4.594E+03	4.594E+03	F	F	F	F
459	4.594E+03	4.594E+03	F	F	F	F
460	4.594E+03	4.594E+03	F	F	F	F
461	4.594E+03	4.594E+03	F	F	F	F
462	4.594E+03	4.594E+03	F	F	F	F
463	4.594E+03	4.594E+03	F	F	F	F
464	4.594E+03	4.594E+03	F	F	F	F
465	4.594E+03	4.594E+03	F	F	F	F
466	4.594E+03	4.594E+03	F	F	F	F
467	4.594E+03	4.594E+03	F	F	F	F
468	4.594E+03	4.594E+03	F	F	F	F
469	4.594E+03	4.594E+03	F	F	F	F
470	4.594E+03	4.594E+03	F	F	F	F
471	4.594E+03	4.594E+03	F	F	F	F
472	4.594E+03	4.594E+03	F	F	F	F
473	4.594E+03	4.594E+03	F	F	F	F
474	4.594E+03	4.594E+03	F	F	F	F
475	4.594E+03	4.594E+03	F	F	F	F
476	4.594E+03	4.594E+03	F	F	F	F
477	4.594E+03	4.594E+03	F	F	F	F
478	4.594E+03	4.594E+03	F	F	F	F
479	4.594E+03	4.594E+03	F	F	F	F
480	4.594E+03	4.594E+03	F	F	F	F
481	4.594E+03	4.594E+03	F	F	F	F
482	4.594E+03	4.594E+03	F	F	F	F
483	4.594E+03	4.594E+03	F	F	F	F
484	4.594E+03	4.594E+03	F	F	F	F
485	4.594E+03	4.594E+03	F	F	F	F
486	4.594E+03	4.594E+03	F	F	F	F
487	4.594E+03	4.594E+03	F	F	F	F
488	4.594E+03	4.594E+03	F	F	F	F

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
489	4.594E+03	4.594E+03	F	F	F	F
490	4.594E+03	4.594E+03	F	F	F	F
491	4.594E+03	4.594E+03	F	F	F	F
492	4.594E+03	4.594E+03	F	F	F	F
493	4.594E+03	4.594E+03	F	F	F	F
494	4.594E+03	4.594E+03	F	F	F	F
495	4.594E+03	4.594E+03	F	F	F	F
496	4.594E+03	4.594E+03	F	F	F	F
497	4.594E+03	4.594E+03	F	F	F	F
498	4.594E+03	4.594E+03	F	F	F	F
499	4.594E+03	4.594E+03	F	F	F	F
500	4.594E+03	4.594E+03	F	F	F	F
501	4.594E+03	4.594E+03	F	F	F	F
502	4.594E+03	4.594E+03	F	F	F	F
503	4.594E+03	4.594E+03	F	F	F	F
504	4.594E+03	4.594E+03	F	F	F	F
505	4.594E+03	4.594E+03	F	F	F	F
506	4.594E+03	4.594E+03	F	F	F	F
507	4.594E+03	4.594E+03	F	F	F	F
508	4.594E+03	4.594E+03	F	F	F	F
509	4.594E+03	4.594E+03	F	F	F	F
510	4.594E+03	4.594E+03	F	F	F	F
511	4.594E+03	4.594E+03	F	F	F	F
512	4.594E+03	4.594E+03	F	F	F	F
513	4.594E+03	4.594E+03	F	F	F	F
514	4.594E+03	4.594E+03	F	F	F	F
515	4.594E+03	4.594E+03	F	F	F	F
516	4.594E+03	4.594E+03	F	F	F	F
517	4.594E+03	4.594E+03	F	F	F	F
518	4.594E+03	4.594E+03	F	F	F	F
519	4.594E+03	4.594E+03	F	F	F	F
520	4.594E+03	4.594E+03	F	F	F	F
521	4.594E+03	4.594E+03	F	F	F	F
522	4.594E+03	4.594E+03	F	F	F	F
523	4.594E+03	4.594E+03	F	F	F	F
524	4.594E+03	4.594E+03	F	F	F	F
525	4.594E+03	4.594E+03	F	F	F	F
526	4.594E+03	4.594E+03	F	F	F	F
527	4.594E+03	4.594E+03	F	F	F	F
528	4.594E+03	4.594E+03	F	F	F	F
529	4.594E+03	4.594E+03	F	F	F	F
530	4.594E+03	4.594E+03	F	F	F	F
531	4.594E+03	4.594E+03	F	F	F	F
532	4.594E+03	4.594E+03	F	F	F	F
533	4.594E+03	4.594E+03	F	F	F	F
534	4.594E+03	4.594E+03	F	F	F	F
535	4.594E+03	4.594E+03	F	F	F	F
536	4.594E+03	4.594E+03	F	F	F	F
537	4.594E+03	4.594E+03	F	F	F	F
538	4.594E+03	4.594E+03	F	F	F	F
539	4.594E+03	4.594E+03	F	F	F	F
540	4.594E+03	4.594E+03	F	F	F	F

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
541	4.594E+03	4.594E+03	F	F	F	F
542	4.594E+03	4.594E+03	F	F	F	F
543	4.594E+03	4.594E+03	F	F	F	F
544	4.594E+03	4.594E+03	F	F	F	F
545	4.594E+03	4.594E+03	F	F	F	F
546	4.594E+03	4.594E+03	F	F	F	F
547	4.594E+03	4.594E+03	F	F	F	F
548	4.594E+03	4.594E+03	F	F	F	F
549	4.594E+03	4.594E+03	F	F	F	F
550	4.594E+03	4.594E+03	F	F	F	F
551	4.594E+03	4.594E+03	F	F	F	F
552	4.594E+03	4.594E+03	F	F	F	F
553	4.594E+03	4.594E+03	F	F	F	F
554	4.594E+03	4.594E+03	F	F	F	F
555	4.594E+03	4.594E+03	F	F	F	F
556	4.594E+03	4.594E+03	F	F	F	F
557	4.594E+03	4.594E+03	F	F	F	F
558	4.594E+03	4.594E+03	F	F	F	F
559	4.594E+03	4.594E+03	F	F	F	F
560	4.594E+03	4.594E+03	F	F	F	F
561	4.594E+03	4.594E+03	F	F	F	F
562	4.594E+03	4.594E+03	F	F	F	F
563	4.594E+03	4.594E+03	F	F	F	F
564	4.594E+03	4.594E+03	F	F	F	F
565	4.594E+03	4.594E+03	F	F	F	F
566	4.594E+03	4.594E+03	F	F	F	F
567	4.594E+03	4.594E+03	F	F	F	F
568	4.594E+03	4.594E+03	F	F	F	F
569	4.594E+03	4.594E+03	F	F	F	F
570	4.594E+03	4.594E+03	F	F	F	F
571	4.594E+03	4.594E+03	F	F	F	F
572	4.594E+03	4.594E+03	F	F	F	F
573	4.594E+03	4.594E+03	F	F	F	F
574	4.594E+03	4.594E+03	F	F	F	F
575	4.594E+03	4.594E+03	F	F	F	F
576	4.594E+03	4.594E+03	F	F	F	F
577	4.594E+03	4.594E+03	F	F	F	F
578	4.594E+03	4.594E+03	F	F	F	F
579	4.594E+03	4.594E+03	F	F	F	F
580	4.594E+03	4.594E+03	F	F	F	F
581	4.594E+03	4.594E+03	F	F	F	F
582	4.594E+03	4.594E+03	F	F	F	F
583	4.594E+03	4.594E+03	F	F	F	F
584	4.594E+03	4.594E+03	F	F	F	F
585	4.594E+03	4.594E+03	F	F	F	F
586	4.594E+03	4.594E+03	F	F	F	F
587	4.594E+03	4.594E+03	F	F	F	F
588	4.594E+03	4.594E+03	F	F	F	F
589	4.594E+03	4.594E+03	F	F	F	F
590	4.594E+03	4.594E+03	F	F	F	F
591	4.594E+03	4.594E+03	F	F	F	F
592	4.594E+03	4.594E+03	F	F	F	F

S T A T I K - 3 V.2.68
Corsán-Corviam S.A.
SANT BOI DE LLOBREGAT
ESTRIBO E-2

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R [TM/AR
593	4.594E+03	4.594E+03	F	F	F	
594	4.594E+03	4.594E+03	F	F	F	
595	4.594E+03	4.594E+03	F	F	F	
596	4.594E+03	4.594E+03	F	F	F	
597	4.594E+03	4.594E+03	F	F	F	
598	4.594E+03	4.594E+03	F	F	F	
599	4.594E+03	4.594E+03	F	F	F	
600	4.594E+03	4.594E+03	F	F	F	
601	4.594E+03	4.594E+03	F	F	F	
602	4.594E+03	4.594E+03	F	F	F	
603	4.594E+03	4.594E+03	F	F	F	
604	4.594E+03	4.594E+03	F	F	F	
605	4.594E+03	4.594E+03	F	F	F	
606	4.594E+03	4.594E+03	F	F	F	
607	4.594E+03	4.594E+03	F	F	F	
608	4.594E+03	4.594E+03	F	F	F	
609	4.594E+03	4.594E+03	F	F	F	
610	4.594E+03	4.594E+03	F	F	F	
611	4.594E+03	4.594E+03	F	F	F	
612	4.594E+03	4.594E+03	F	F	F	
613	4.594E+03	4.594E+03	F	F	F	
614	4.594E+03	4.594E+03	F	F	F	
615	4.594E+03	4.594E+03	F	F	F	
616	4.594E+03	4.594E+03	F	F	F	
617	4.594E+03	4.594E+03	F	F	F	
618	4.594E+03	4.594E+03	F	F	F	
619	4.594E+03	4.594E+03	F	F	F	
620	4.594E+03	4.594E+03	F	F	F	
621	4.594E+03	4.594E+03	F	F	F	
622	4.594E+03	4.594E+03	F	F	F	
623	4.594E+03	4.594E+03	F	F	F	
624	4.594E+03	4.594E+03	F	F	F	
625	4.594E+03	4.594E+03	F	F	F	
626	4.594E+03	4.594E+03	F	F	F	
627	4.594E+03	4.594E+03	F	F	F	
628	4.594E+03	4.594E+03	F	F	F	
629	4.594E+03	4.594E+03	F	F	F	
630	4.594E+03	4.594E+03	F	F	F	
631	4.594E+03	4.594E+03	F	F	F	
632	4.594E+03	4.594E+03	F	F	F	
633	4.594E+03	4.594E+03	F	F	F	
634	4.594E+03	4.594E+03	F	F	F	
635	4.594E+03	4.594E+03	F	F	F	
636	4.594E+03	4.594E+03	F	F	F	
637	4.594E+03	4.594E+03	F	F	F	
638	4.594E+03	4.594E+03	F	F	F	
639	4.594E+03	4.594E+03	F	F	F	
640	4.594E+03	4.594E+03	F	F	F	
641	4.594E+03	4.594E+03	F	F	F	
642	4.594E+03	4.594E+03	F	F	F	
643	4.594E+03	4.594E+03	F	F	F	
644	4.594E+03	4.594E+03	F	F	F	

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
645	4.594E+03	4.594E+03	F	F	F	F
646	4.594E+03	4.594E+03	F	F	F	F
647	4.594E+03	4.594E+03	F	F	F	F
648	4.594E+03	4.594E+03	F	F	F	F
649	4.594E+03	4.594E+03	F	F	F	F
650	4.594E+03	4.594E+03	F	F	F	F
651	4.594E+03	4.594E+03	F	F	F	F
652	4.594E+03	4.594E+03	F	F	F	F
653	4.594E+03	4.594E+03	F	F	F	F
654	4.594E+03	4.594E+03	F	F	F	F
655	4.594E+03	4.594E+03	F	F	F	F
656	4.594E+03	4.594E+03	F	F	F	F
657	4.594E+03	4.594E+03	F	F	F	F
658	4.594E+03	4.594E+03	F	F	F	F
659	4.594E+03	4.594E+03	F	F	F	F
660	4.594E+03	4.594E+03	F	F	F	F
661	4.594E+03	4.594E+03	F	F	F	F
662	4.594E+03	4.594E+03	F	F	F	F
663	4.594E+03	4.594E+03	F	F	F	F
664	4.594E+03	4.594E+03	F	F	F	F
665	4.594E+03	4.594E+03	F	F	F	F
666	4.594E+03	4.594E+03	F	F	F	F
667	4.594E+03	4.594E+03	F	F	F	F
668	4.594E+03	4.594E+03	F	F	F	F
669	4.594E+03	4.594E+03	F	F	F	F
670	4.594E+03	4.594E+03	F	F	F	F
671	4.594E+03	4.594E+03	F	F	F	F
672	4.594E+03	4.594E+03	F	F	F	F
673	4.594E+03	4.594E+03	F	F	F	F
674	4.594E+03	4.594E+03	F	F	F	F
675	4.594E+03	4.594E+03	F	F	F	F
676	4.594E+03	4.594E+03	F	F	F	F
677	4.594E+03	4.594E+03	F	F	F	F
678	4.594E+03	4.594E+03	F	F	F	F
679	4.594E+03	4.594E+03	F	F	F	F
680	4.594E+03	4.594E+03	F	F	F	F
681	4.594E+03	4.594E+03	F	F	F	F
682	4.594E+03	4.594E+03	F	F	F	F
683	4.594E+03	4.594E+03	F	F	F	F
684	4.594E+03	4.594E+03	F	F	F	F
685	4.594E+03	4.594E+03	F	F	F	F
686	4.594E+03	4.594E+03	F	F	F	F
687	4.594E+03	4.594E+03	F	F	F	F
688	4.594E+03	4.594E+03	F	F	F	F
689	4.594E+03	4.594E+03	F	F	F	F
690	4.594E+03	4.594E+03	F	F	F	F
691	4.594E+03	4.594E+03	F	F	F	F
692	4.594E+03	4.594E+03	F	F	F	F
693	4.594E+03	4.594E+03	F	F	F	F
694	4.594E+03	4.594E+03	F	F	F	F
695	4.594E+03	4.594E+03	F	F	F	F
696	4.594E+03	4.594E+03	F	F	F	F

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
697	4.594E+03	4.594E+03	F	F	F	F
698	4.594E+03	4.594E+03	F	F	F	F
699	4.594E+03	4.594E+03	F	F	F	F
700	4.594E+03	4.594E+03	F	F	F	F
701	4.594E+03	4.594E+03	F	F	F	F
702	4.594E+03	4.594E+03	F	F	F	F
703	4.594E+03	4.594E+03	F	F	F	F
704	4.594E+03	4.594E+03	F	F	F	F
705	4.594E+03	4.594E+03	F	F	F	F
706	4.594E+03	4.594E+03	F	F	F	F
707	4.594E+03	4.594E+03	F	F	F	F
708	4.594E+03	4.594E+03	F	F	F	F
709	4.594E+03	4.594E+03	F	F	F	F
710	4.594E+03	4.594E+03	F	F	F	F
711	4.594E+03	4.594E+03	F	F	F	F
712	4.594E+03	4.594E+03	F	F	F	F
713	4.594E+03	4.594E+03	F	F	F	F
714	4.594E+03	4.594E+03	F	F	F	F
715	4.594E+03	4.594E+03	F	F	F	F
716	4.594E+03	4.594E+03	F	F	F	F
717	4.594E+03	4.594E+03	F	F	F	F
718	4.594E+03	4.594E+03	F	F	F	F
719	4.594E+03	4.594E+03	F	F	F	F
720	4.594E+03	4.594E+03	F	F	F	F
721	4.594E+03	4.594E+03	F	F	F	F
722	4.594E+03	4.594E+03	F	F	F	F
723	4.594E+03	4.594E+03	F	F	F	F
724	4.594E+03	4.594E+03	F	F	F	F
725	4.594E+03	4.594E+03	F	F	F	F
726	4.594E+03	4.594E+03	F	F	F	F
727	4.594E+03	4.594E+03	F	F	F	F
728	4.594E+03	4.594E+03	F	F	F	F
729	4.594E+03	4.594E+03	F	F	F	F
730	4.594E+03	4.594E+03	F	F	F	F
731	4.594E+03	4.594E+03	F	F	F	F
732	4.594E+03	4.594E+03	F	F	F	F
733	4.594E+03	4.594E+03	F	F	F	F
734	4.594E+03	4.594E+03	F	F	F	F
735	4.594E+03	4.594E+03	F	F	F	F
736	4.594E+03	4.594E+03	F	F	F	F
737	4.594E+03	4.594E+03	F	F	F	F
738	4.594E+03	4.594E+03	F	F	F	F
739	4.594E+03	4.594E+03	F	F	F	F
740	4.594E+03	4.594E+03	F	F	F	F
741	4.594E+03	4.594E+03	F	F	F	F
742	4.594E+03	4.594E+03	F	F	F	F
743	4.594E+03	4.594E+03	F	F	F	F
744	4.594E+03	4.594E+03	F	F	F	F
745	4.594E+03	4.594E+03	F	F	F	F
746	4.594E+03	4.594E+03	F	F	F	F
747	4.594E+03	4.594E+03	F	F	F	F
748	4.594E+03	4.594E+03	F	F	F	4B55

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
749	4.594E+03	4.594E+03	F	F	F	F
750	4.594E+03	4.594E+03	F	F	F	F
751	4.594E+03	4.594E+03	F	F	F	F
752	4.594E+03	4.594E+03	F	F	F	F
753	4.594E+03	4.594E+03	F	F	F	F
754	4.594E+03	4.594E+03	F	F	F	F
755	4.594E+03	4.594E+03	F	F	F	F
756	4.594E+03	4.594E+03	F	F	F	F
757	4.594E+03	4.594E+03	F	F	F	F
758	4.594E+03	4.594E+03	F	F	F	F
759	4.594E+03	4.594E+03	F	F	F	F
760	4.594E+03	4.594E+03	F	F	F	F
761	4.594E+03	4.594E+03	F	F	F	F
762	4.594E+03	4.594E+03	F	F	F	F
763	4.594E+03	4.594E+03	F	F	F	F
764	4.594E+03	4.594E+03	F	F	F	F
765	4.594E+03	4.594E+03	F	F	F	F
766	4.594E+03	4.594E+03	F	F	F	F
767	4.594E+03	4.594E+03	F	F	F	F
768	4.594E+03	4.594E+03	F	F	F	F
769	4.594E+03	4.594E+03	F	F	F	F
770	4.594E+03	4.594E+03	F	F	F	F
771	4.594E+03	4.594E+03	F	F	F	F
772	4.594E+03	4.594E+03	F	F	F	F
773	4.594E+03	4.594E+03	F	F	F	F
774	4.594E+03	4.594E+03	F	F	F	F
775	4.594E+03	4.594E+03	F	F	F	F
776	4.594E+03	4.594E+03	F	F	F	F
777	4.594E+03	4.594E+03	F	F	F	F
778	4.594E+03	4.594E+03	F	F	F	F
779	4.594E+03	4.594E+03	F	F	F	F
780	4.594E+03	4.594E+03	F	F	F	F
781	4.594E+03	4.594E+03	F	F	F	F
782	4.594E+03	4.594E+03	F	F	F	F
783	4.594E+03	4.594E+03	F	F	F	F
784	4.594E+03	4.594E+03	F	F	F	F
785	4.594E+03	4.594E+03	F	F	F	F
786	4.594E+03	4.594E+03	F	F	F	F
787	4.594E+03	4.594E+03	F	F	F	F
788	4.594E+03	4.594E+03	F	F	F	F
789	4.594E+03	4.594E+03	F	F	F	F
790	4.594E+03	4.594E+03	F	F	F	F
791	4.594E+03	4.594E+03	F	F	F	F
792	4.594E+03	4.594E+03	F	F	F	F
793	4.594E+03	4.594E+03	F	F	F	F
794	4.594E+03	4.594E+03	F	F	F	F
795	4.594E+03	4.594E+03	F	F	F	F
796	4.594E+03	4.594E+03	F	F	F	F
797	4.594E+03	4.594E+03	F	F	F	F
798	4.594E+03	4.594E+03	F	F	F	F
799	4.594E+03	4.594E+03	F	F	F	F
800	4.594E+03	4.594E+03	F	F	F	F

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Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R [TM/AR
801	4.594E+03	4.594E+03	F	F	F	
802	4.594E+03	4.594E+03	F	F	F	
803	4.594E+03	4.594E+03	F	F	F	
804	4.594E+03	4.594E+03	F	F	F	
805	4.594E+03	4.594E+03	F	F	F	
806	4.594E+03	4.594E+03	F	F	F	
807	4.594E+03	4.594E+03	F	F	F	
808	4.594E+03	4.594E+03	F	F	F	
809	4.594E+03	4.594E+03	F	F	F	
810	4.594E+03	4.594E+03	F	F	F	
811	4.594E+03	4.594E+03	F	F	F	
812	4.594E+03	4.594E+03	F	F	F	
813	4.594E+03	4.594E+03	F	F	F	
814	4.594E+03	4.594E+03	F	F	F	
815	4.594E+03	4.594E+03	F	F	F	
816	4.594E+03	4.594E+03	F	F	F	
817	4.594E+03	4.594E+03	F	F	F	
818	4.594E+03	4.594E+03	F	F	F	
819	4.594E+03	4.594E+03	F	F	F	
820	4.594E+03	4.594E+03	F	F	F	
821	4.594E+03	4.594E+03	F	F	F	
822	4.594E+03	4.594E+03	F	F	F	
823	4.594E+03	4.594E+03	F	F	F	
824	4.594E+03	4.594E+03	F	F	F	
825	4.594E+03	4.594E+03	F	F	F	
826	4.594E+03	4.594E+03	F	F	F	
827	4.594E+03	4.594E+03	F	F	F	
828	4.594E+03	4.594E+03	F	F	F	
829	4.594E+03	4.594E+03	F	F	F	
830	4.594E+03	4.594E+03	F	F	F	
831	4.594E+03	4.594E+03	F	F	F	
832	4.594E+03	4.594E+03	F	F	F	
833	4.594E+03	4.594E+03	F	F	F	
834	4.594E+03	4.594E+03	F	F	F	
835	4.594E+03	4.594E+03	F	F	F	
836	4.594E+03	4.594E+03	F	F	F	
837	4.594E+03	4.594E+03	F	F	F	
838	4.594E+03	4.594E+03	F	F	F	
839	4.594E+03	4.594E+03	F	F	F	
840	4.594E+03	4.594E+03	F	F	F	
841	4.594E+03	4.594E+03	F	F	F	
842	4.594E+03	4.594E+03	F	F	F	
843	4.594E+03	4.594E+03	F	F	F	
844	4.594E+03	4.594E+03	F	F	F	
845	4.594E+03	4.594E+03	F	F	F	
846	4.594E+03	4.594E+03	F	F	F	
847	4.594E+03	4.594E+03	F	F	F	
848	4.594E+03	4.594E+03	F	F	F	
849	4.594E+03	4.594E+03	F	F	F	
850	4.594E+03	4.594E+03	F	F	F	
851	4.594E+03	4.594E+03	F	F	F	
852	4.594E+03	4.594E+03	F	F	F	

Nudo	D-X [T/M]	D-Y [T/M]	D-Z [T/M]	R-X [TM/ARC]	R-Y [TM/ARC]	R-Z [TM/ARC]
853	4.594E+03	4.594E+03	F	F	F	F
854	4.594E+03	4.594E+03	F	F	F	F
855	4.594E+03	4.594E+03	F	F	F	F
856	4.594E+03	4.594E+03	F	F	F	F
857	4.594E+03	4.594E+03	F	F	F	F
858	4.594E+03	4.594E+03	F	F	F	F
859	4.594E+03	4.594E+03	F	F	F	F
860	4.594E+03	4.594E+03	F	F	F	F
861	4.594E+03	4.594E+03	F	F	F	F
862	4.594E+03	4.594E+03	F	F	F	F
863	4.594E+03	4.594E+03	F	F	F	F
864	4.594E+03	4.594E+03	F	F	F	F
865	4.594E+03	4.594E+03	F	F	F	F
866	4.594E+03	4.594E+03	F	F	F	F
867	4.594E+03	4.594E+03	F	F	F	F
868	4.594E+03	4.594E+03	F	F	F	F
869	4.594E+03	4.594E+03	F	F	F	F
870	4.594E+03	4.594E+03	F	F	F	F
871	4.594E+03	4.594E+03	F	F	F	F
872	4.594E+03	4.594E+03	F	F	F	F
873	4.594E+03	4.594E+03	F	F	F	F
874	4.594E+03	4.594E+03	F	F	F	F
875	4.594E+03	4.594E+03	F	F	F	F
876	4.594E+03	4.594E+03	F	F	F	F
877	4.594E+03	4.594E+03	F	F	F	F
878	4.594E+03	4.594E+03	F	F	F	F
879	4.594E+03	4.594E+03	F	F	F	F
880	4.594E+03	4.594E+03	F	F	F	F
881	4.594E+03	4.594E+03	F	F	F	F
882	4.594E+03	4.594E+03	F	F	F	F

DATOS BARRAS: (891 Barras)

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Especial Inicio	Fin
19	19	20	2.51403	1X238	oS	
20	21	19	2.00000	125X238	oS	
21	20	22	2.51403	1X238	oS	
22	23	20	2.00000	251X238	oS	
23	21	23	2.51403	2X238	oS	
24	22	24	2.51403	1X238	oS	
25	25	21	2.00000	125X238	oS	
26	26	22	2.00000	251X238	oS	
27	23	26	2.51403	2X238	oS	
28	24	27	2.51403	1X238	oS	
29	28	23	2.00000	251X238	oS	
30	29	24	2.00000	251X238	oS	
31	25	28	2.51403	1X238	oS	
32	26	29	2.51403	2X238	oS	

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Especial Inicio	Fin
33	27	30	2.51403	1X238	oS	
34	31	26	2.00000	251X238	oS	
35	32	27	2.00000	251X238	oS	
36	28	31	2.51403	1X238	oS	
37	29	32	2.51403	2X238	oS	
38	33	29	2.00000	251X238	oS	
39	34	30	2.00000	125X238	oS	
40	31	33	2.51403	1X238	oS	
41	32	34	2.51403	2X238	oS	
42	35	32	2.00000	251X238	oS	
43	33	35	2.51403	1X238	oS	
44	36	34	2.00000	125X238	oS	
45	35	36	2.51403	1X238	oS	
46*	37	1	0.97917	PILOTE	oS	
47*	38	2	0.97917	PILOTE	oS	
48*	39	3	0.97917	PILOTE	oS	
49*	40	4	0.97917	PILOTE	oS	
50*	41	5	0.97917	PILOTE	oS	
51*	42	6	0.97917	PILOTE	oS	
52*	43	7	0.97917	PILOTE	oS	
53*	44	8	0.97917	PILOTE	oS	
54*	45	9	0.97917	PILOTE	oS	
55*	46	10	0.97917	PILOTE	oS	
56*	47	11	0.97917	PILOTE	oS	
57*	48	12	0.97917	PILOTE	oS	
58*	49	13	0.97917	PILOTE	oS	
59*	50	14	0.97917	PILOTE	oS	
60*	51	15	0.97917	PILOTE	oS	
61*	52	16	0.97917	PILOTE	oS	
62*	53	17	0.97917	PILOTE	oS	
63*	54	18	0.97917	PILOTE	oS	
64*	55	37	0.97917	PILOTE	oS	
65*	56	38	0.97917	PILOTE	oS	
66*	57	39	0.97917	PILOTE	oS	
67*	58	40	0.97917	PILOTE	oS	
68*	59	41	0.97917	PILOTE	oS	
69*	60	42	0.97917	PILOTE	oS	
70*	61	43	0.97917	PILOTE	oS	
71*	62	44	0.97917	PILOTE	oS	
72*	63	45	0.97917	PILOTE	oS	
73*	64	46	0.97917	PILOTE	oS	
74*	65	47	0.97917	PILOTE	oS	
75*	66	48	0.97917	PILOTE	oS	
76*	67	49	0.97917	PILOTE	oS	
77*	68	50	0.97917	PILOTE	oS	
78*	69	51	0.97917	PILOTE	oS	
79*	70	52	0.97917	PILOTE	oS	
80*	71	53	0.97917	PILOTE	oS	
81*	72	54	0.97917	PILOTE	oS	
82*	73	55	0.97917	PILOTE	oS	
83*	74	56	0.97917	PILOTE	oS	
84*	75	57	0.97917	PILOTE	oS	

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Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
85*	76	58	0.97917	PILOTE			oS
86*	77	59	0.97917	PILOTE			oS
87*	78	60	0.97917	PILOTE			oS
88*	79	61	0.97917	PILOTE			oS
89*	80	62	0.97917	PILOTE			oS
90*	81	63	0.97917	PILOTE			oS
91*	82	64	0.97917	PILOTE			oS
92*	83	65	0.97917	PILOTE			oS
93*	84	66	0.97917	PILOTE			oS
94*	85	67	0.97917	PILOTE			oS
95*	86	68	0.97917	PILOTE			oS
96*	87	69	0.97917	PILOTE			oS
97*	88	70	0.97917	PILOTE			oS
98*	89	71	0.97917	PILOTE			oS
99*	90	72	0.97917	PILOTE			oS
100*	91	73	0.97917	PILOTE			oS
101*	92	74	0.97917	PILOTE			oS
102*	93	75	0.97917	PILOTE			oS
103*	94	76	0.97917	PILOTE			oS
104*	95	77	0.97917	PILOTE			oS
105*	96	78	0.97917	PILOTE			oS
106*	97	79	0.97917	PILOTE			oS
107*	98	80	0.97917	PILOTE			oS
108*	99	81	0.97917	PILOTE			oS
109*	100	82	0.97917	PILOTE			oS
110*	101	83	0.97917	PILOTE			oS
111*	102	84	0.97917	PILOTE			oS
112*	103	85	0.97917	PILOTE			oS
113*	104	86	0.97917	PILOTE			oS
114*	105	87	0.97917	PILOTE			oS
115*	106	88	0.97917	PILOTE			oS
116*	107	89	0.97917	PILOTE			oS
117*	108	90	0.97917	PILOTE			oS
118*	109	91	0.97917	PILOTE			oS
119*	110	92	0.97917	PILOTE			oS
120*	111	93	0.97917	PILOTE			oS
121*	112	94	0.97917	PILOTE			oS
122*	113	95	0.97917	PILOTE			oS
123*	114	96	0.97917	PILOTE			oS
124*	115	97	0.97917	PILOTE			oS
125*	116	98	0.97917	PILOTE			oS
126*	117	99	0.97917	PILOTE			oS
127*	118	100	0.97917	PILOTE			oS
128*	119	101	0.97917	PILOTE			oS
129*	120	102	0.97917	PILOTE			oS
130*	121	103	0.97917	PILOTE			oS
131*	122	104	0.97917	PILOTE			oS
132*	123	105	0.97917	PILOTE			oS
133*	124	106	0.97917	PILOTE			oS
134*	125	107	0.97917	PILOTE			oS
135*	126	108	0.97917	PILOTE			oS
136*	127	109	0.97917	PILOTE			oS

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Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especi
137*	128	110	0.97917	PILOTE			oS
138*	129	111	0.97917	PILOTE			oS
139*	130	112	0.97917	PILOTE			oS
140*	131	113	0.97917	PILOTE			oS
141*	132	114	0.97917	PILOTE			oS
142*	133	115	0.97917	PILOTE			oS
143*	134	116	0.97917	PILOTE			oS
144*	135	117	0.97917	PILOTE			oS
145*	136	118	0.97917	PILOTE			oS
146*	137	119	0.97917	PILOTE			oS
147*	138	120	0.97917	PILOTE			oS
148*	139	121	0.97917	PILOTE			oS
149*	140	122	0.97917	PILOTE			oS
150*	141	123	0.97917	PILOTE			oS
151*	142	124	0.97917	PILOTE			oS
152*	143	125	0.97917	PILOTE			oS
153*	144	126	0.97917	PILOTE			oS
154*	145	127	0.97917	PILOTE			oS
155*	146	128	0.97917	PILOTE			oS
156*	147	129	0.97917	PILOTE			oS
157*	148	130	0.97917	PILOTE			oS
158*	149	131	0.97917	PILOTE			oS
159*	150	132	0.97917	PILOTE			oS
160*	151	133	0.97917	PILOTE			oS
161*	152	134	0.97917	PILOTE			oS
162*	153	135	0.97917	PILOTE			oS
163*	154	136	0.97917	PILOTE			oS
164*	155	137	0.97917	PILOTE			oS
165*	156	138	0.97917	PILOTE			oS
166*	157	139	0.97917	PILOTE			oS
167*	158	140	0.97917	PILOTE			oS
168*	159	141	0.97917	PILOTE			oS
169*	160	142	0.97917	PILOTE			oS
170*	161	143	0.97917	PILOTE			oS
171*	162	144	0.97917	PILOTE			oS
172*	163	145	0.97917	PILOTE			oS
173*	164	146	0.97917	PILOTE			oS
174*	165	147	0.97917	PILOTE			oS
175*	166	148	0.97917	PILOTE			oS
176*	167	149	0.97917	PILOTE			oS
177*	168	150	0.97917	PILOTE			oS
178*	169	151	0.97917	PILOTE			oS
179*	170	152	0.97917	PILOTE			oS
180*	171	153	0.97917	PILOTE			oS
181*	172	154	0.97917	PILOTE			oS
182*	173	155	0.97917	PILOTE			oS
183*	174	156	0.97917	PILOTE			oS
184*	175	157	0.97917	PILOTE			oS
185*	176	158	0.97917	PILOTE			oS
186*	177	159	0.97917	PILOTE			oS
187*	178	160	0.97917	PILOTE			oS
188*	179	161	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
189*	180	162	0.97917	PILOTE			oS
190*	181	163	0.97917	PILOTE			oS
191*	182	164	0.97917	PILOTE			oS
192*	183	165	0.97917	PILOTE			oS
193*	184	166	0.97917	PILOTE			oS
194*	185	167	0.97917	PILOTE			oS
195*	186	168	0.97917	PILOTE			oS
196*	187	169	0.97917	PILOTE			oS
197*	188	170	0.97917	PILOTE			oS
198*	189	171	0.97917	PILOTE			oS
199*	190	172	0.97917	PILOTE			oS
200*	191	173	0.97917	PILOTE			oS
201*	192	174	0.97917	PILOTE			oS
202*	193	175	0.97917	PILOTE			oS
203*	194	176	0.97917	PILOTE			oS
204*	195	177	0.97917	PILOTE			oS
205*	196	178	0.97917	PILOTE			oS
206*	197	179	0.97917	PILOTE			oS
207*	198	180	0.97917	PILOTE			oS
208*	199	181	0.97917	PILOTE			oS
209*	200	182	0.97917	PILOTE			oS
210*	201	183	0.97917	PILOTE			oS
211*	202	184	0.97917	PILOTE			oS
212*	203	185	0.97917	PILOTE			oS
213*	204	186	0.97917	PILOTE			oS
214*	205	187	0.97917	PILOTE			oS
215*	206	188	0.97917	PILOTE			oS
216*	207	189	0.97917	PILOTE			oS
217*	208	190	0.97917	PILOTE			oS
218*	209	191	0.97917	PILOTE			oS
219*	210	192	0.97917	PILOTE			oS
220*	211	193	0.97917	PILOTE			oS
221*	212	194	0.97917	PILOTE			oS
222*	213	195	0.97917	PILOTE			oS
223*	214	196	0.97917	PILOTE			oS
224*	215	197	0.97917	PILOTE			oS
225*	216	198	0.97917	PILOTE			oS
226*	217	199	0.97917	PILOTE			oS
227*	218	200	0.97917	PILOTE			oS
228*	219	201	0.97917	PILOTE			oS
229*	220	202	0.97917	PILOTE			oS
230*	221	203	0.97917	PILOTE			oS
231*	222	204	0.97917	PILOTE			oS
232*	223	205	0.97917	PILOTE			oS
233*	224	206	0.97917	PILOTE			oS
234*	225	207	0.97917	PILOTE			oS
235*	226	208	0.97917	PILOTE			oS
236*	227	209	0.97917	PILOTE			oS
237*	228	210	0.97917	PILOTE			oS
238*	229	211	0.97917	PILOTE			oS
239*	230	212	0.97917	PILOTE			oS
240*	231	213	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
241*	232	214	0.97917	PILOTE			oS
242*	233	215	0.97917	PILOTE			oS
243*	234	216	0.97917	PILOTE			oS
244*	235	217	0.97917	PILOTE			oS
245*	236	218	0.97917	PILOTE			oS
246*	237	219	0.97917	PILOTE			oS
247*	238	220	0.97917	PILOTE			oS
248*	239	221	0.97917	PILOTE			oS
249*	240	222	0.97917	PILOTE			oS
250*	241	223	0.97917	PILOTE			oS
251*	242	224	0.97917	PILOTE			oS
252*	243	225	0.97917	PILOTE			oS
253*	244	226	0.97917	PILOTE			oS
254*	245	227	0.97917	PILOTE			oS
255*	246	228	0.97917	PILOTE			oS
256*	247	229	0.97917	PILOTE			oS
257*	248	230	0.97917	PILOTE			oS
258*	249	231	0.97917	PILOTE			oS
259*	250	232	0.97917	PILOTE			oS
260*	251	233	0.97917	PILOTE			oS
261*	252	234	0.97917	PILOTE			oS
262*	253	235	0.97917	PILOTE			oS
263*	254	236	0.97917	PILOTE			oS
264*	255	237	0.97917	PILOTE			oS
265*	256	238	0.97917	PILOTE			oS
266*	257	239	0.97917	PILOTE			oS
267*	258	240	0.97917	PILOTE			oS
268*	259	241	0.97917	PILOTE			oS
269*	260	242	0.97917	PILOTE			oS
270*	261	243	0.97917	PILOTE			oS
271*	262	244	0.97917	PILOTE			oS
272*	263	245	0.97917	PILOTE			oS
273*	264	246	0.97917	PILOTE			oS
274*	265	247	0.97917	PILOTE			oS
275*	266	248	0.97917	PILOTE			oS
276*	267	249	0.97917	PILOTE			oS
277*	268	250	0.97917	PILOTE			oS
278*	269	251	0.97917	PILOTE			oS
279*	270	252	0.97917	PILOTE			oS
280*	271	253	0.97917	PILOTE			oS
281*	272	254	0.97917	PILOTE			oS
282*	273	255	0.97917	PILOTE			oS
283*	274	256	0.97917	PILOTE			oS
284*	275	257	0.97917	PILOTE			oS
285*	276	258	0.97917	PILOTE			oS
286*	277	259	0.97917	PILOTE			oS
287*	278	260	0.97917	PILOTE			oS
288*	279	261	0.97917	PILOTE			oS
289*	280	262	0.97917	PILOTE			oS
290*	281	263	0.97917	PILOTE			oS
291*	282	264	0.97917	PILOTE			oS
292*	283	265	0.97917	PILOTE			oS

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Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
293*	284	266	0.97917	PILOTE			oS
294*	285	267	0.97917	PILOTE			oS
295*	286	268	0.97917	PILOTE			oS
296*	287	269	0.97917	PILOTE			oS
297*	288	270	0.97917	PILOTE			oS
298*	289	271	0.97917	PILOTE			oS
299*	290	272	0.97917	PILOTE			oS
300*	291	273	0.97917	PILOTE			oS
301*	292	274	0.97917	PILOTE			oS
302*	293	275	0.97917	PILOTE			oS
303*	294	276	0.97917	PILOTE			oS
304*	295	277	0.97917	PILOTE			oS
305*	296	278	0.97917	PILOTE			oS
306*	297	279	0.97917	PILOTE			oS
307*	298	280	0.97917	PILOTE			oS
308*	299	281	0.97917	PILOTE			oS
309*	300	282	0.97917	PILOTE			oS
310*	301	283	0.97917	PILOTE			oS
311*	302	284	0.97917	PILOTE			oS
312*	303	285	0.97917	PILOTE			oS
313*	304	286	0.97917	PILOTE			oS
314*	305	287	0.97917	PILOTE			oS
315*	306	288	0.97917	PILOTE			oS
316*	307	289	0.97917	PILOTE			oS
317*	308	290	0.97917	PILOTE			oS
318*	309	291	0.97917	PILOTE			oS
319*	310	292	0.97917	PILOTE			oS
320*	311	293	0.97917	PILOTE			oS
321*	312	294	0.97917	PILOTE			oS
322*	313	295	0.97917	PILOTE			oS
323*	314	296	0.97917	PILOTE			oS
324*	315	297	0.97917	PILOTE			oS
325*	316	298	0.97917	PILOTE			oS
326*	317	299	0.97917	PILOTE			oS
327*	318	300	0.97917	PILOTE			oS
328*	319	301	0.97917	PILOTE			oS
329*	320	302	0.97917	PILOTE			oS
330*	321	303	0.97917	PILOTE			oS
331*	322	304	0.97917	PILOTE			oS
332*	323	305	0.97917	PILOTE			oS
333*	324	306	0.97917	PILOTE			oS
334*	325	307	0.97917	PILOTE			oS
335*	326	308	0.97917	PILOTE			oS
336*	327	309	0.97917	PILOTE			oS
337*	328	310	0.97917	PILOTE			oS
338*	329	311	0.97917	PILOTE			oS
339*	330	312	0.97917	PILOTE			oS
340*	331	313	0.97917	PILOTE			oS
341*	332	314	0.97917	PILOTE			oS
342*	333	315	0.97917	PILOTE			oS
343*	334	316	0.97917	PILOTE			oS
344*	335	317	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especi
345*	336	318	0.97917	PILOTE			oS
346*	337	319	0.97917	PILOTE			oS
347*	338	320	0.97917	PILOTE			oS
348*	339	321	0.97917	PILOTE			oS
349*	340	322	0.97917	PILOTE			oS
350*	341	323	0.97917	PILOTE			oS
351*	342	324	0.97917	PILOTE			oS
352*	343	325	0.97917	PILOTE			oS
353*	344	326	0.97917	PILOTE			oS
354*	345	327	0.97917	PILOTE			oS
355*	346	328	0.97917	PILOTE			oS
356*	347	329	0.97917	PILOTE			oS
357*	348	330	0.97917	PILOTE			oS
358*	349	331	0.97917	PILOTE			oS
359*	350	332	0.97917	PILOTE			oS
360*	351	333	0.97917	PILOTE			oS
361*	352	334	0.97917	PILOTE			oS
362*	353	335	0.97917	PILOTE			oS
363*	354	336	0.97917	PILOTE			oS
364*	355	337	0.97917	PILOTE			oS
365*	356	338	0.97917	PILOTE			oS
366*	357	339	0.97917	PILOTE			oS
367*	358	340	0.97917	PILOTE			oS
368*	359	341	0.97917	PILOTE			oS
369*	360	342	0.97917	PILOTE			oS
370*	361	343	0.97917	PILOTE			oS
371*	362	344	0.97917	PILOTE			oS
372*	363	345	0.97917	PILOTE			oS
373*	364	346	0.97917	PILOTE			oS
374*	365	347	0.97917	PILOTE			oS
375*	366	348	0.97917	PILOTE			oS
376*	367	349	0.97917	PILOTE			oS
377*	368	350	0.97917	PILOTE			oS
378*	369	351	0.97917	PILOTE			oS
379*	370	352	0.97917	PILOTE			oS
380*	371	353	0.97917	PILOTE			oS
381*	372	354	0.97917	PILOTE			oS
382*	373	355	0.97917	PILOTE			oS
383*	374	356	0.97917	PILOTE			oS
384*	375	357	0.97917	PILOTE			oS
385*	376	358	0.97917	PILOTE			oS
386*	377	359	0.97917	PILOTE			oS
387*	378	360	0.97917	PILOTE			oS
388*	379	361	0.97917	PILOTE			oS
389*	380	362	0.97917	PILOTE			oS
390*	381	363	0.97917	PILOTE			oS
391*	382	364	0.97917	PILOTE			oS
392*	383	365	0.97917	PILOTE			oS
393*	384	366	0.97917	PILOTE			oS
394*	385	367	0.97917	PILOTE			oS
395*	386	368	0.97917	PILOTE			oS
396*	387	369	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
397*	388	370	0.97917	PILOTE			oS
398*	389	371	0.97917	PILOTE			oS
399*	390	372	0.97917	PILOTE			oS
400*	391	373	0.97917	PILOTE			oS
401*	392	374	0.97917	PILOTE			oS
402*	393	375	0.97917	PILOTE			oS
403*	394	376	0.97917	PILOTE			oS
404*	395	377	0.97917	PILOTE			oS
405*	396	378	0.97917	PILOTE			oS
406*	397	379	0.97917	PILOTE			oS
407*	398	380	0.97917	PILOTE			oS
408*	399	381	0.97917	PILOTE			oS
409*	400	382	0.97917	PILOTE			oS
410*	401	383	0.97917	PILOTE			oS
411*	402	384	0.97917	PILOTE			oS
412*	403	385	0.97917	PILOTE			oS
413*	404	386	0.97917	PILOTE			oS
414*	405	387	0.97917	PILOTE			oS
415*	406	388	0.97917	PILOTE			oS
416*	407	389	0.97917	PILOTE			oS
417*	408	390	0.97917	PILOTE			oS
418*	409	391	0.97917	PILOTE			oS
419*	410	392	0.97917	PILOTE			oS
420*	411	393	0.97917	PILOTE			oS
421*	412	394	0.97917	PILOTE			oS
422*	413	395	0.97917	PILOTE			oS
423*	414	396	0.97917	PILOTE			oS
424*	415	397	0.97917	PILOTE			oS
425*	416	398	0.97917	PILOTE			oS
426*	417	399	0.97917	PILOTE			oS
427*	418	400	0.97917	PILOTE			oS
428*	419	401	0.97917	PILOTE			oS
429*	420	402	0.97917	PILOTE			oS
430*	421	403	0.97917	PILOTE			oS
431*	422	404	0.97917	PILOTE			oS
432*	423	405	0.97917	PILOTE			oS
433*	424	406	0.97917	PILOTE			oS
434*	425	407	0.97917	PILOTE			oS
435*	426	408	0.97917	PILOTE			oS
436*	427	409	0.97917	PILOTE			oS
437*	428	410	0.97917	PILOTE			oS
438*	429	411	0.97917	PILOTE			oS
439*	430	412	0.97917	PILOTE			oS
440*	431	413	0.97917	PILOTE			oS
441*	432	414	0.97917	PILOTE			oS
442*	433	415	0.97917	PILOTE			oS
443*	434	416	0.97917	PILOTE			oS
444*	435	417	0.97917	PILOTE			oS
445*	436	418	0.97917	PILOTE			oS
446*	437	419	0.97917	PILOTE			oS
447*	438	420	0.97917	PILOTE			oS
448*	439	421	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
449*	440	422	0.97917	PILOTE			oS
450*	441	423	0.97917	PILOTE			oS
451*	442	424	0.97917	PILOTE			oS
452*	443	425	0.97917	PILOTE			oS
453*	444	426	0.97917	PILOTE			oS
454*	445	427	0.97917	PILOTE			oS
455*	446	428	0.97917	PILOTE			oS
456*	447	429	0.97917	PILOTE			oS
457*	448	430	0.97917	PILOTE			oS
458*	449	431	0.97917	PILOTE			oS
459*	450	432	0.97917	PILOTE			oS
460*	451	433	0.97917	PILOTE			oS
461*	452	434	0.97917	PILOTE			oS
462*	453	435	0.97917	PILOTE			oS
463*	454	436	0.97917	PILOTE			oS
464*	455	437	0.97917	PILOTE			oS
465*	456	438	0.97917	PILOTE			oS
466*	457	439	0.97917	PILOTE			oS
467*	458	440	0.97917	PILOTE			oS
468*	459	441	0.97917	PILOTE			oS
469*	460	442	0.97917	PILOTE			oS
470*	461	443	0.97917	PILOTE			oS
471*	462	444	0.97917	PILOTE			oS
472*	463	445	0.97917	PILOTE			oS
473*	464	446	0.97917	PILOTE			oS
474*	465	447	0.97917	PILOTE			oS
475*	466	448	0.97917	PILOTE			oS
476*	467	449	0.97917	PILOTE			oS
477*	468	450	0.97917	PILOTE			oS
478*	469	451	0.97917	PILOTE			oS
479*	470	452	0.97917	PILOTE			oS
480*	471	453	0.97917	PILOTE			oS
481*	472	454	0.97917	PILOTE			oS
482*	473	455	0.97917	PILOTE			oS
483*	474	456	0.97917	PILOTE			oS
484*	475	457	0.97917	PILOTE			oS
485*	476	458	0.97917	PILOTE			oS
486*	477	459	0.97917	PILOTE			oS
487*	478	460	0.97917	PILOTE			oS
488*	479	461	0.97917	PILOTE			oS
489*	480	462	0.97917	PILOTE			oS
490*	481	463	0.97917	PILOTE			oS
491*	482	464	0.97917	PILOTE			oS
492*	483	465	0.97917	PILOTE			oS
493*	484	466	0.97917	PILOTE			oS
494*	485	467	0.97917	PILOTE			oS
495*	486	468	0.97917	PILOTE			oS
496*	487	469	0.97917	PILOTE			oS
497*	488	470	0.97917	PILOTE			oS
498*	489	471	0.97917	PILOTE			oS
499*	490	472	0.97917	PILOTE			oS
500*	491	473	0.97917	PILOTE			oS

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Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
501*	492	474	0.97917	PILOTE			oS
502*	493	475	0.97917	PILOTE			oS
503*	494	476	0.97917	PILOTE			oS
504*	495	477	0.97917	PILOTE			oS
505*	496	478	0.97917	PILOTE			oS
506*	497	479	0.97917	PILOTE			oS
507*	498	480	0.97917	PILOTE			oS
508*	499	481	0.97917	PILOTE			oS
509*	500	482	0.97917	PILOTE			oS
510*	501	483	0.97917	PILOTE			oS
511*	502	484	0.97917	PILOTE			oS
512*	503	485	0.97917	PILOTE			oS
513*	504	486	0.97917	PILOTE			oS
514*	505	487	0.97917	PILOTE			oS
515*	506	488	0.97917	PILOTE			oS
516*	507	489	0.97917	PILOTE			oS
517*	508	490	0.97917	PILOTE			oS
518*	509	491	0.97917	PILOTE			oS
519*	510	492	0.97917	PILOTE			oS
520*	511	493	0.97917	PILOTE			oS
521*	512	494	0.97917	PILOTE			oS
522*	513	495	0.97917	PILOTE			oS
523*	514	496	0.97917	PILOTE			oS
524*	515	497	0.97917	PILOTE			oS
525*	516	498	0.97917	PILOTE			oS
526*	517	499	0.97917	PILOTE			oS
527*	518	500	0.97917	PILOTE			oS
528*	519	501	0.97917	PILOTE			oS
529*	520	502	0.97917	PILOTE			oS
530*	521	503	0.97917	PILOTE			oS
531*	522	504	0.97917	PILOTE			oS
532*	523	505	0.97917	PILOTE			oS
533*	524	506	0.97917	PILOTE			oS
534*	525	507	0.97917	PILOTE			oS
535*	526	508	0.97917	PILOTE			oS
536*	527	509	0.97917	PILOTE			oS
537*	528	510	0.97917	PILOTE			oS
538*	529	511	0.97917	PILOTE			oS
539*	530	512	0.97917	PILOTE			oS
540*	531	513	0.97917	PILOTE			oS
541*	532	514	0.97917	PILOTE			oS
542*	533	515	0.97917	PILOTE			oS
543*	534	516	0.97917	PILOTE			oS
544*	535	517	0.97917	PILOTE			oS
545*	536	518	0.97917	PILOTE			oS
546*	537	519	0.97917	PILOTE			oS
547*	538	520	0.97917	PILOTE			oS
548*	539	521	0.97917	PILOTE			oS
549*	540	522	0.97917	PILOTE			oS
550*	541	523	0.97917	PILOTE			oS
551*	542	524	0.97917	PILOTE			oS
552*	543	525	0.97917	PILOTE			oS

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Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especi
553*	544	526	0.97917	PILOTE			oS
554*	545	527	0.97917	PILOTE			oS
555*	546	528	0.97917	PILOTE			oS
556*	547	529	0.97917	PILOTE			oS
557*	548	530	0.97917	PILOTE			oS
558*	549	531	0.97917	PILOTE			oS
559*	550	532	0.97917	PILOTE			oS
560*	551	533	0.97917	PILOTE			oS
561*	552	534	0.97917	PILOTE			oS
562*	553	535	0.97917	PILOTE			oS
563*	554	536	0.97917	PILOTE			oS
564*	555	537	0.97917	PILOTE			oS
565*	556	538	0.97917	PILOTE			oS
566*	557	539	0.97917	PILOTE			oS
567*	558	540	0.97917	PILOTE			oS
568*	559	541	0.97917	PILOTE			oS
569*	560	542	0.97917	PILOTE			oS
570*	561	543	0.97917	PILOTE			oS
571*	562	544	0.97917	PILOTE			oS
572*	563	545	0.97917	PILOTE			oS
573*	564	546	0.97917	PILOTE			oS
574*	565	547	0.97917	PILOTE			oS
575*	566	548	0.97917	PILOTE			oS
576*	567	549	0.97917	PILOTE			oS
577*	568	550	0.97917	PILOTE			oS
578*	569	551	0.97917	PILOTE			oS
579*	570	552	0.97917	PILOTE			oS
580*	571	553	0.97917	PILOTE			oS
581*	572	554	0.97917	PILOTE			oS
582*	573	555	0.97917	PILOTE			oS
583*	574	556	0.97917	PILOTE			oS
584*	575	557	0.97917	PILOTE			oS
585*	576	558	0.97917	PILOTE			oS
586*	577	559	0.97917	PILOTE			oS
587*	578	560	0.97917	PILOTE			oS
588*	579	561	0.97917	PILOTE			oS
589*	580	562	0.97917	PILOTE			oS
590*	581	563	0.97917	PILOTE			oS
591*	582	564	0.97917	PILOTE			oS
592*	583	565	0.97917	PILOTE			oS
593*	584	566	0.97917	PILOTE			oS
594*	585	567	0.97917	PILOTE			oS
595*	586	568	0.97917	PILOTE			oS
596*	587	569	0.97917	PILOTE			oS
597*	588	570	0.97917	PILOTE			oS
598*	589	571	0.97917	PILOTE			oS
599*	590	572	0.97917	PILOTE			oS
600*	591	573	0.97917	PILOTE			oS
601*	592	574	0.97917	PILOTE			oS
602*	593	575	0.97917	PILOTE			oS
603*	594	576	0.97917	PILOTE			oS
604*	595	577	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
605*	596	578	0.97917	PILOTE			oS
606*	597	579	0.97917	PILOTE			oS
607*	598	580	0.97917	PILOTE			oS
608*	599	581	0.97917	PILOTE			oS
609*	600	582	0.97917	PILOTE			oS
610*	601	583	0.97917	PILOTE			oS
611*	602	584	0.97917	PILOTE			oS
612*	603	585	0.97917	PILOTE			oS
613*	604	586	0.97917	PILOTE			oS
614*	605	587	0.97917	PILOTE			oS
615*	606	588	0.97917	PILOTE			oS
616*	607	589	0.97917	PILOTE			oS
617*	608	590	0.97917	PILOTE			oS
618*	609	591	0.97917	PILOTE			oS
619*	610	592	0.97917	PILOTE			oS
620*	611	593	0.97917	PILOTE			oS
621*	612	594	0.97917	PILOTE			oS
622*	613	595	0.97917	PILOTE			oS
623*	614	596	0.97917	PILOTE			oS
624*	615	597	0.97917	PILOTE			oS
625*	616	598	0.97917	PILOTE			oS
626*	617	599	0.97917	PILOTE			oS
627*	618	600	0.97917	PILOTE			oS
628*	619	601	0.97917	PILOTE			oS
629*	620	602	0.97917	PILOTE			oS
630*	621	603	0.97917	PILOTE			oS
631*	622	604	0.97917	PILOTE			oS
632*	623	605	0.97917	PILOTE			oS
633*	624	606	0.97917	PILOTE			oS
634*	625	607	0.97917	PILOTE			oS
635*	626	608	0.97917	PILOTE			oS
636*	627	609	0.97917	PILOTE			oS
637*	628	610	0.97917	PILOTE			oS
638*	629	611	0.97917	PILOTE			oS
639*	630	612	0.97917	PILOTE			oS
640*	631	613	0.97917	PILOTE			oS
641*	632	614	0.97917	PILOTE			oS
642*	633	615	0.97917	PILOTE			oS
643*	634	616	0.97917	PILOTE			oS
644*	635	617	0.97917	PILOTE			oS
645*	636	618	0.97917	PILOTE			oS
646*	637	619	0.97917	PILOTE			oS
647*	638	620	0.97917	PILOTE			oS
648*	639	621	0.97917	PILOTE			oS
649*	640	622	0.97917	PILOTE			oS
650*	641	623	0.97917	PILOTE			oS
651*	642	624	0.97917	PILOTE			oS
652*	643	625	0.97917	PILOTE			oS
653*	644	626	0.97917	PILOTE			oS
654*	645	627	0.97917	PILOTE			oS
655*	646	628	0.97917	PILOTE			oS
656*	647	629	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
657*	648	630	0.97917	PILOTE			oS
658*	649	631	0.97917	PILOTE			oS
659*	650	632	0.97917	PILOTE			oS
660*	651	633	0.97917	PILOTE			oS
661*	652	634	0.97917	PILOTE			oS
662*	653	635	0.97917	PILOTE			oS
663*	654	636	0.97917	PILOTE			oS
664*	655	637	0.97917	PILOTE			oS
665*	656	638	0.97917	PILOTE			oS
666*	657	639	0.97917	PILOTE			oS
667*	658	640	0.97917	PILOTE			oS
668*	659	641	0.97917	PILOTE			oS
669*	660	642	0.97917	PILOTE			oS
670*	661	643	0.97917	PILOTE			oS
671*	662	644	0.97917	PILOTE			oS
672*	663	645	0.97917	PILOTE			oS
673*	664	646	0.97917	PILOTE			oS
674*	665	647	0.97917	PILOTE			oS
675*	666	648	0.97917	PILOTE			oS
676*	667	649	0.97917	PILOTE			oS
677*	668	650	0.97917	PILOTE			oS
678*	669	651	0.97917	PILOTE			oS
679*	670	652	0.97917	PILOTE			oS
680*	671	653	0.97917	PILOTE			oS
681*	672	654	0.97917	PILOTE			oS
682*	673	655	0.97917	PILOTE			oS
683*	674	656	0.97917	PILOTE			oS
684*	675	657	0.97917	PILOTE			oS
685*	676	658	0.97917	PILOTE			oS
686*	677	659	0.97917	PILOTE			oS
687*	678	660	0.97917	PILOTE			oS
688*	679	661	0.97917	PILOTE			oS
689*	680	662	0.97917	PILOTE			oS
690*	681	663	0.97917	PILOTE			oS
691*	682	664	0.97917	PILOTE			oS
692*	683	665	0.97917	PILOTE			oS
693*	684	666	0.97917	PILOTE			oS
694*	685	667	0.97917	PILOTE			oS
695*	686	668	0.97917	PILOTE			oS
696*	687	669	0.97917	PILOTE			oS
697*	688	670	0.97917	PILOTE			oS
698*	689	671	0.97917	PILOTE			oS
699*	690	672	0.97917	PILOTE			oS
700*	691	673	0.97917	PILOTE			oS
701*	692	674	0.97917	PILOTE			oS
702*	693	675	0.97917	PILOTE			oS
703*	694	676	0.97917	PILOTE			oS
704*	695	677	0.97917	PILOTE			oS
705*	696	678	0.97917	PILOTE			oS
706*	697	679	0.97917	PILOTE			oS
707*	698	680	0.97917	PILOTE			oS
708*	699	681	0.97917	PILOTE			oS

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Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
709*	700	682	0.97917	PILOTE			oS
710*	701	683	0.97917	PILOTE			oS
711*	702	684	0.97917	PILOTE			oS
712*	703	685	0.97917	PILOTE			oS
713*	704	686	0.97917	PILOTE			oS
714*	705	687	0.97917	PILOTE			oS
715*	706	688	0.97917	PILOTE			oS
716*	707	689	0.97917	PILOTE			oS
717*	708	690	0.97917	PILOTE			oS
718*	709	691	0.97917	PILOTE			oS
719*	710	692	0.97917	PILOTE			oS
720*	711	693	0.97917	PILOTE			oS
721*	712	694	0.97917	PILOTE			oS
722*	713	695	0.97917	PILOTE			oS
723*	714	696	0.97917	PILOTE			oS
724*	715	697	0.97917	PILOTE			oS
725*	716	698	0.97917	PILOTE			oS
726*	717	699	0.97917	PILOTE			oS
727*	718	700	0.97917	PILOTE			oS
728*	719	701	0.97917	PILOTE			oS
729*	720	702	0.97917	PILOTE			oS
730*	721	703	0.97917	PILOTE			oS
731*	722	704	0.97917	PILOTE			oS
732*	723	705	0.97917	PILOTE			oS
733*	724	706	0.97917	PILOTE			oS
734*	725	707	0.97917	PILOTE			oS
735*	726	708	0.97917	PILOTE			oS
736*	727	709	0.97917	PILOTE			oS
737*	728	710	0.97917	PILOTE			oS
738*	729	711	0.97917	PILOTE			oS
739*	730	712	0.97917	PILOTE			oS
740*	731	713	0.97917	PILOTE			oS
741*	732	714	0.97917	PILOTE			oS
742*	733	715	0.97917	PILOTE			oS
743*	734	716	0.97917	PILOTE			oS
744*	735	717	0.97917	PILOTE			oS
745*	736	718	0.97917	PILOTE			oS
746*	737	719	0.97917	PILOTE			oS
747*	738	720	0.97917	PILOTE			oS
748*	739	721	0.97917	PILOTE			oS
749*	740	722	0.97917	PILOTE			oS
750*	741	723	0.97917	PILOTE			oS
751*	742	724	0.97917	PILOTE			oS
752*	743	725	0.97917	PILOTE			oS
753*	744	726	0.97917	PILOTE			oS
754*	745	727	0.97917	PILOTE			oS
755*	746	728	0.97917	PILOTE			oS
756*	747	729	0.97917	PILOTE			oS
757*	748	730	0.97917	PILOTE			oS
758*	749	731	0.97917	PILOTE			oS
759*	750	732	0.97917	PILOTE			oS
760*	751	733	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especi
761*	752	734	0.97917	PILOTE			oS
762*	753	735	0.97917	PILOTE			oS
763*	754	736	0.97917	PILOTE			oS
764*	755	737	0.97917	PILOTE			oS
765*	756	738	0.97917	PILOTE			oS
766*	757	739	0.97917	PILOTE			oS
767*	758	740	0.97917	PILOTE			oS
768*	759	741	0.97917	PILOTE			oS
769*	760	742	0.97917	PILOTE			oS
770*	761	743	0.97917	PILOTE			oS
771*	762	744	0.97917	PILOTE			oS
772*	763	745	0.97917	PILOTE			oS
773*	764	746	0.97917	PILOTE			oS
774*	765	747	0.97917	PILOTE			oS
775*	766	748	0.97917	PILOTE			oS
776*	767	749	0.97917	PILOTE			oS
777*	768	750	0.97917	PILOTE			oS
778*	769	751	0.97917	PILOTE			oS
779*	770	752	0.97917	PILOTE			oS
780*	771	753	0.97917	PILOTE			oS
781*	772	754	0.97917	PILOTE			oS
782*	773	755	0.97917	PILOTE			oS
783*	774	756	0.97917	PILOTE			oS
784*	775	757	0.97917	PILOTE			oS
785*	776	758	0.97917	PILOTE			oS
786*	777	759	0.97917	PILOTE			oS
787*	778	760	0.97917	PILOTE			oS
788*	779	761	0.97917	PILOTE			oS
789*	780	762	0.97917	PILOTE			oS
790*	781	763	0.97917	PILOTE			oS
791*	782	764	0.97917	PILOTE			oS
792*	783	765	0.97917	PILOTE			oS
793*	784	766	0.97917	PILOTE			oS
794*	785	767	0.97917	PILOTE			oS
795*	786	768	0.97917	PILOTE			oS
796*	787	769	0.97917	PILOTE			oS
797*	788	770	0.97917	PILOTE			oS
798*	789	771	0.97917	PILOTE			oS
799*	790	772	0.97917	PILOTE			oS
800*	791	773	0.97917	PILOTE			oS
801*	792	774	0.97917	PILOTE			oS
802*	793	775	0.97917	PILOTE			oS
803*	794	776	0.97917	PILOTE			oS
804*	795	777	0.97917	PILOTE			oS
805*	796	778	0.97917	PILOTE			oS
806*	797	779	0.97917	PILOTE			oS
807*	798	780	0.97917	PILOTE			oS
808*	799	781	0.97917	PILOTE			oS
809*	800	782	0.97917	PILOTE			oS
810*	801	783	0.97917	PILOTE			oS
811*	802	784	0.97917	PILOTE			oS
812*	803	785	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
813*	804	786	0.97917	PILOTE			oS
814*	805	787	0.97917	PILOTE			oS
815*	806	788	0.97917	PILOTE			oS
816*	807	789	0.97917	PILOTE			oS
817*	808	790	0.97917	PILOTE			oS
818*	809	791	0.97917	PILOTE			oS
819*	810	792	0.97917	PILOTE			oS
820*	811	793	0.97917	PILOTE			oS
821*	812	794	0.97917	PILOTE			oS
822*	813	795	0.97917	PILOTE			oS
823*	814	796	0.97917	PILOTE			oS
824*	815	797	0.97917	PILOTE			oS
825*	816	798	0.97917	PILOTE			oS
826*	817	799	0.97917	PILOTE			oS
827*	818	800	0.97917	PILOTE			oS
828*	819	801	0.97917	PILOTE			oS
829*	820	802	0.97917	PILOTE			oS
830*	821	803	0.97917	PILOTE			oS
831*	822	804	0.97917	PILOTE			oS
832*	823	805	0.97917	PILOTE			oS
833*	824	806	0.97917	PILOTE			oS
834*	825	807	0.97917	PILOTE			oS
835*	826	808	0.97917	PILOTE			oS
836*	827	809	0.97917	PILOTE			oS
837*	828	810	0.97917	PILOTE			oS
838*	829	811	0.97917	PILOTE			oS
839*	830	812	0.97917	PILOTE			oS
840*	831	813	0.97917	PILOTE			oS
841*	832	814	0.97917	PILOTE			oS
842*	833	815	0.97917	PILOTE			oS
843*	834	816	0.97917	PILOTE			oS
844*	835	817	0.97917	PILOTE			oS
845*	836	818	0.97917	PILOTE			oS
846*	837	819	0.97917	PILOTE			oS
847*	838	820	0.97917	PILOTE			oS
848*	839	821	0.97917	PILOTE			oS
849*	840	822	0.97917	PILOTE			oS
850*	841	823	0.97917	PILOTE			oS
851*	842	824	0.97917	PILOTE			oS
852*	843	825	0.97917	PILOTE			oS
853*	844	826	0.97917	PILOTE			oS
854*	845	827	0.97917	PILOTE			oS
855*	846	828	0.97917	PILOTE			oS
856*	847	829	0.97917	PILOTE			oS
857*	848	830	0.97917	PILOTE			oS
858*	849	831	0.97917	PILOTE			oS
859*	850	832	0.97917	PILOTE			oS
860*	851	833	0.97917	PILOTE			oS
861*	852	834	0.97917	PILOTE			oS
862*	853	835	0.97917	PILOTE			oS
863*	854	836	0.97917	PILOTE			oS
864*	855	837	0.97917	PILOTE			oS

Barra	Incidencias Inicio	Fin	Long.Barras [M]	Nombre-sec. (Cant.var)	Articulaciones Inicio	Fin	Especial
865*	856	838	0.97917	PILOTE			oS
866*	857	839	0.97917	PILOTE			oS
867*	858	840	0.97917	PILOTE			oS
868*	859	841	0.97917	PILOTE			oS
869*	860	842	0.97917	PILOTE			oS
870*	861	843	0.97917	PILOTE			oS
871*	862	844	0.97917	PILOTE			oS
872*	863	845	0.97917	PILOTE			oS
873*	864	846	0.97917	PILOTE			oS
874*	865	847	0.97917	PILOTE			oS
875*	866	848	0.97917	PILOTE			oS
876*	867	849	0.97917	PILOTE			oS
877*	868	850	0.97917	PILOTE			oS
878*	869	851	0.97917	PILOTE			oS
879*	870	852	0.97917	PILOTE			oS
880*	871	853	0.97917	PILOTE			oS
881*	872	854	0.97917	PILOTE			oS
882*	873	855	0.97917	PILOTE			oS
883*	874	856	0.97917	PILOTE			oS
884*	875	857	0.97917	PILOTE			oS
885*	876	858	0.97917	PILOTE			oS
886*	877	859	0.97917	PILOTE			oS
887*	878	860	0.97917	PILOTE			oS
888*	879	861	0.97917	PILOTE			oS
889*	880	862	0.97917	PILOTE			oS
890*	881	863	0.97917	PILOTE			oS
891*	882	864	0.97917	PILOTE			oS
892*	19	865	0.97917	PILOTE			oS
893*	20	866	0.97917	PILOTE			oS
894*	21	867	0.97917	PILOTE			oS
895*	22	868	0.97917	PILOTE			oS
896*	23	869	0.97917	PILOTE			oS
897*	24	870	0.97917	PILOTE			oS
898*	25	871	0.97917	PILOTE			oS
899*	26	872	0.97917	PILOTE			oS
900*	27	873	0.97917	PILOTE			oS
901*	28	874	0.97917	PILOTE			oS
902*	29	875	0.97917	PILOTE			oS
903*	30	876	0.97917	PILOTE			oS
904*	31	877	0.97917	PILOTE			oS
905*	32	878	0.97917	PILOTE			oS
906*	33	879	0.97917	PILOTE			oS
907*	34	880	0.97917	PILOTE			oS
908*	35	881	0.97917	PILOTE			oS
909*	36	882	0.97917	PILOTE			oS

Die mit "*" markierten Stabachsen (ohne Exzentr.) sind vertikal.
Ihre lokalen y-Achsen zeigen in die globale Y-Richtung
(vor einer allf. Drehung mit der "ORIENTIERUNG..."-Anweisung

oS = Stäbe ohne Schubverformung

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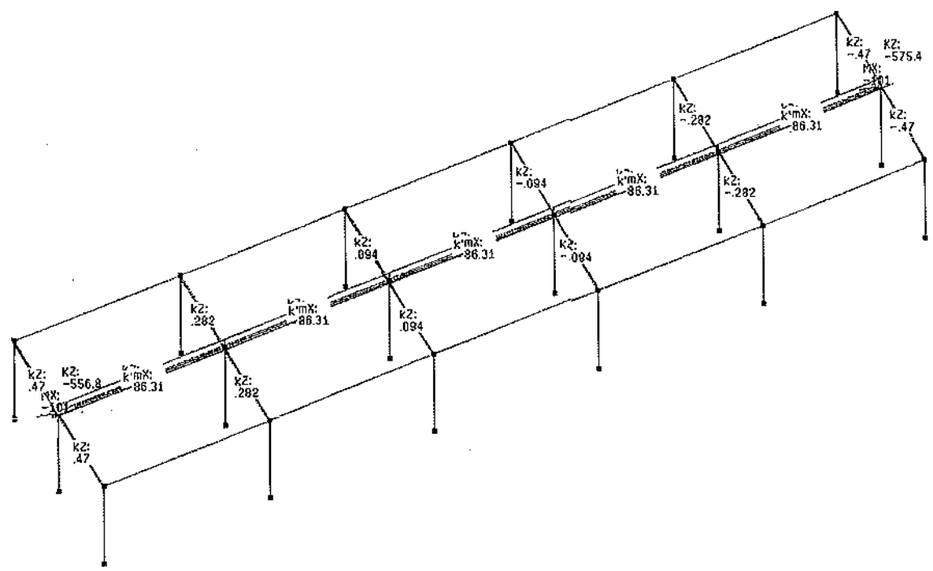
CARACTERISTICAS DE SEC. / Nombre Sec.	Ax [M2] / Ix [M4] / zi [M1]	Iy [M4] / Fy [M2] / zs [M1]	Iz [M4] / Fz [M2] / yi [M1]	Phi[grados] / yd [M1]
125X238	2.9869E+00	1.4099E+00	3.9204E-01	0.00
	1.0505E+00	2.4891E+00	2.4891E+00	
	-1.1900	1.1900	-0.6275	0.6275
1X238	2.3800E+00	1.1234E+00	1.9833E-01	0.00
	5.8387E-01	1.9833E+00	1.9833E+00	
	-1.1900	1.1900	-0.5000	0.5000
251X238	5.9738E+00	2.8198E+00	3.1363E+00	0.00
	4.9910E+00	4.9781E+00	4.9781E+00	
	-1.1900	1.1900	-1.2550	1.2550
2X238	4.7600E+00	2.2469E+00	1.5867E+00	0.00
	3.1250E+00	3.9667E+00	3.9667E+00	
	-1.1900	1.1900	-1.0000	1.0000
PILOTE	1.6000E-01	2.1333E-03	2.1333E-03	0.00
	3.6011E-03	1.3333E-01	1.3333E-01	
	-0.2000	0.2000	-0.2000	0.2000

MATERIALES:

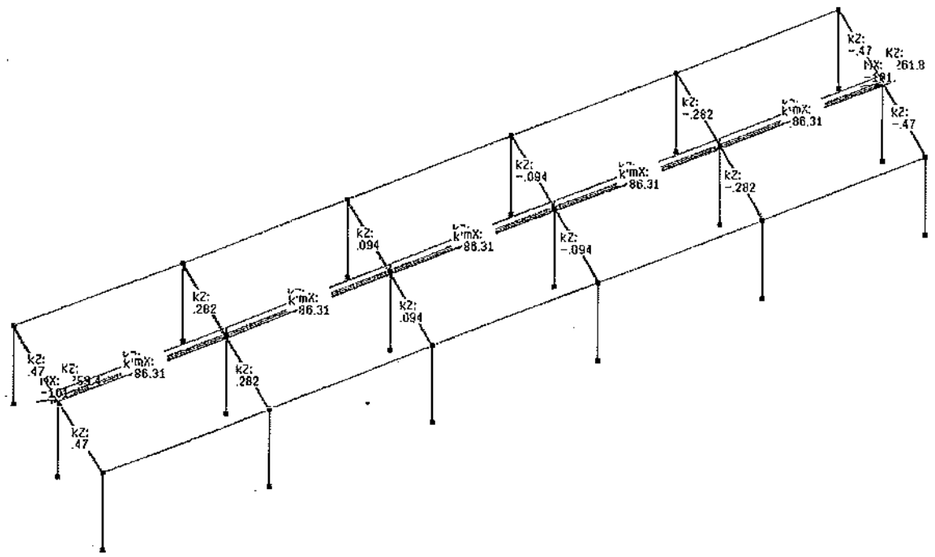
Barra (hasta barra)	E-Módulo [T/ M2]	G-Módulo [T/ M2]
19 .. 45	2.8577E+06	1.1907E+06
46 .. 909	3.1928E+06	1.3304E+06

STS-cálculo ok

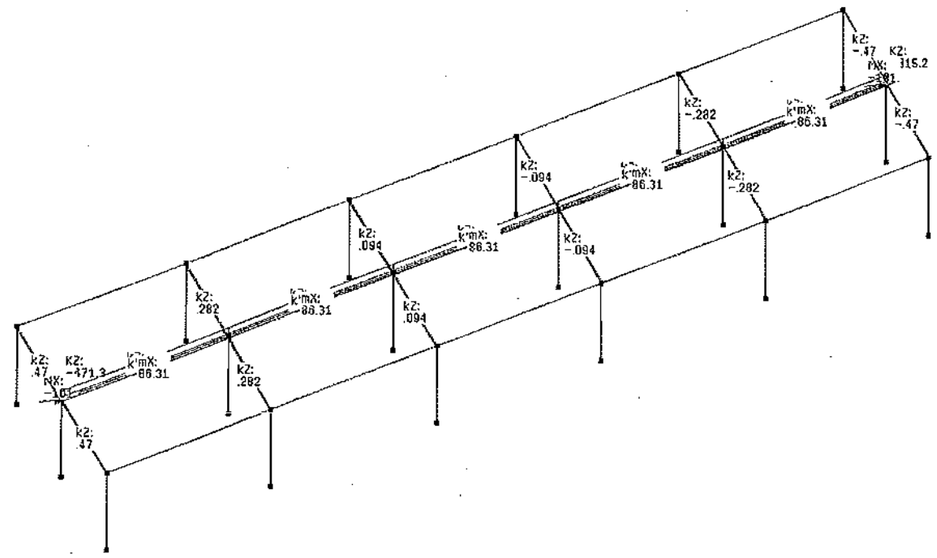
Escala 1 : 67.9
Loadcase 1 - HIPOTESIS 1



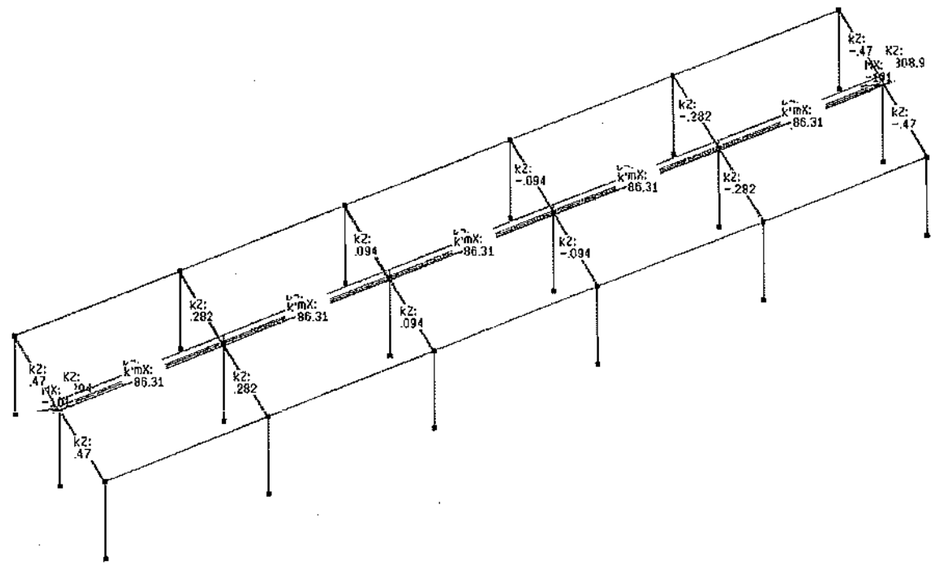
Escala 1 : 67.9
Loadcase 2 - HIPOTESIS 2



Escala 1 : 67.9
Loadcase 3 - HIPOTESIS 3



Escala 1 : 67.9
Loadcase 4 - HIPOTESIS 4



Hipótesis 1: HIPOTESIS 1

Tipo de carga			Valor(a)	Distancia Valor(b)	Números nudos/barras	
Fuerza	Y		-30.336		Nudo	21
Fuerza	Z		-556.805		Nudo	21
Momento	X		101.020		Nudo	21
Fuerza	X		-9.172		Nudo	34
Fuerza	Y		-30.336		Nudo	34
Fuerza	Z		-575.433		Nudo	34
Momento	X		101.020		Nudo	34
Momento	Y		-30.540		Nudo	34
Fuerza	Z	glconst.	-0.470000		Stab	20
Fuerza	Z	glconst.	-0.282000		Stab	22
Fuerza	Z	glconst.	-72.180		Stab	23
Fuerza	Y	glconst.	-10.880		Stab	23
Momento	X	glconst.	86.310		Stab	23
Fuerza	Z	glconst.	-0.470000		Stab	25
Fuerza	Z	glconst.	-0.094000		Stab	26
Fuerza	Z	glconst.	-72.180		Stab	27
Fuerza	Y	glconst.	-10.880		Stab	27
Momento	X	glconst.	86.310		Stab	27
Fuerza	Z	glconst.	-0.282000		Stab	29
Fuerza	Z	glconst.	0.094000		Stab	30
Fuerza	Z	glconst.	-72.180		Stab	32
Fuerza	Y	glconst.	-10.880		Stab	32
Momento	X	glconst.	86.310		Stab	32
Fuerza	Z	glconst.	-0.094000		Stab	34
Fuerza	Z	glconst.	0.282000		Stab	35
Fuerza	Z	glconst.	-72.180		Stab	37
Fuerza	Y	glconst.	-10.880		Stab	37
Momento	X	glconst.	86.310		Stab	37
Fuerza	Z	glconst.	0.094000		Stab	38
Fuerza	Z	glconst.	0.470000		Stab	39
Fuerza	Z	glconst.	-72.180		Stab	41
Fuerza	Y	glconst.	-10.880		Stab	41
Momento	X	glconst.	86.310		Stab	41
Fuerza	Z	glconst.	0.282000		Stab	42
Fuerza	Z	glconst.	0.470000		Stab	44

Hipótesis 2: HIPOTESIS 2

Tipo de carga			Valor(a)	Distancia Valor(b)	Números nudos/barras	
Fuerza	Y		-30.336		Nudo	21
Fuerza	Z		-259.458		Nudo	21
Momento	X		101.020		Nudo	21
Fuerza	X		1.804		Nudo	34
Fuerza	Y		-30.336		Nudo	34
Fuerza	Z		-261.846		Nudo	34
Momento	X		101.020		Nudo	34
Momento	Y		6.007		Nudo	34
Fuerza	Z	glconst.	-0.470000		Stab	20
Fuerza	Z	glconst.	-0.282000		Stab	22
Fuerza	Z	glconst.	-72.180		Stab	23
Fuerza	Y	glconst.	-10.880		Stab	23
Momento	X	glconst.	86.310		Stab	23
Fuerza	Z	glconst.	-0.470000		Stab	25
Fuerza	Z	glconst.	-0.094000		Stab	26
Fuerza	Z	glconst.	-72.180		Stab	27
Fuerza	Y	glconst.	-10.880		Stab	27
Momento	X	glconst.	86.310		Stab	27
Fuerza	Z	glconst.	-0.282000		Stab	29
Fuerza	Z	glconst.	0.094000		Stab	30
Fuerza	Z	glconst.	-72.180		Stab	32
Fuerza	Y	glconst.	-10.880		Stab	32
Momento	X	glconst.	86.310		Stab	32
Fuerza	Z	glconst.	-0.094000		Stab	34
Fuerza	Z	glconst.	0.282000		Stab	35
Fuerza	Z	glconst.	-72.180		Stab	37
Fuerza	Y	glconst.	-10.880		Stab	37
Momento	X	glconst.	86.310		Stab	37
Fuerza	Z	glconst.	0.094000		Stab	38
Fuerza	Z	glconst.	0.470000		Stab	39
Fuerza	Z	glconst.	-72.180		Stab	41
Fuerza	Y	glconst.	-10.880		Stab	41
Momento	X	glconst.	86.310		Stab	41
Fuerza	Z	glconst.	0.282000		Stab	42
Fuerza	Z	glconst.	0.470000		Stab	44

Hipótesis 3: HIPOTESIS 3

Tipo de carga			Valor(a)	Distancia Valor(b)	Números nudos/barras	
Fuerza	Y		-30.336		Nudo	21
Fuerza	Z		-471.306		Nudo	21
Momento	X		101.020		Nudo	21
Fuerza	X		15.696		Nudo	34
Fuerza	Y		-30.336		Nudo	34
Fuerza	Z		-315.242		Nudo	34
Momento	X		101.020		Nudo	34
Momento	Y		52.270		Nudo	34
Fuerza	Z	glconst.	-0.470000		Stab	20
Fuerza	Z	glconst.	-0.282000		Stab	22
Fuerza	Z	glconst.	-72.180		Stab	23
Fuerza	Y	glconst.	-10.880		Stab	23
Momento	X	glconst.	86.310		Stab	23
Fuerza	Z	glconst.	-0.470000		Stab	25
Fuerza	Z	glconst.	-0.094000		Stab	26
Fuerza	Z	glconst.	-72.180		Stab	27
Fuerza	Y	glconst.	-10.880		Stab	27
Momento	X	glconst.	86.310		Stab	27
Fuerza	Z	glconst.	-0.282000		Stab	29
Fuerza	Z	glconst.	0.094000		Stab	30
Fuerza	Z	glconst.	-72.180		Stab	32
Fuerza	Y	glconst.	-10.880		Stab	32
Momento	X	glconst.	86.310		Stab	32
Fuerza	Z	glconst.	-0.094000		Stab	34
Fuerza	Z	glconst.	0.282000		Stab	35
Fuerza	Z	glconst.	-72.180		Stab	37
Fuerza	Y	glconst.	-10.880		Stab	37
Momento	X	glconst.	86.310		Stab	37
Fuerza	Z	glconst.	0.094000		Stab	38
Fuerza	Z	glconst.	0.470000		Stab	39
Fuerza	Z	glconst.	-72.180		Stab	41
Fuerza	Y	glconst.	-10.880		Stab	41
Momento	X	glconst.	86.310		Stab	41
Fuerza	Z	glconst.	0.282000		Stab	42
Fuerza	Z	glconst.	0.470000		Stab	44

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Hipótesis 4: HIPOTESIS 4
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Tipo de carga			Valor(a)	Distancia Valor(b)	Números nudos/barras	
Fuerza	Y		-30.336		Nudo	21
Fuerza	Z		-294.099		Nudo	21
Momento	X		101.020		Nudo	21
Fuerza	X		-18.377		Nudo	34
Fuerza	Y		-30.336		Nudo	34
Fuerza	Z		-308.940		Nudo	34
Momento	X		101.020		Nudo	34
Momento	Y		-61.200		Nudo	34
Fuerza	Z	glconst.	-0.470000		Stab	20
Fuerza	Z	glconst.	-0.282000		Stab	22
Fuerza	Z	glconst.	-72.180		Stab	23
Fuerza	Y	glconst.	-10.880		Stab	23
Momento	X	glconst.	86.310		Stab	23
Fuerza	Z	glconst.	-0.470000		Stab	25
Fuerza	Z	glconst.	-0.094000		Stab	26
Fuerza	Z	glconst.	-72.180		Stab	27
Fuerza	Y	glconst.	-10.880		Stab	27
Momento	X	glconst.	86.310		Stab	27
Fuerza	Z	glconst.	-0.282000		Stab	29
Fuerza	Z	glconst.	0.094000		Stab	30
Fuerza	Z	glconst.	-72.180		Stab	32
Fuerza	Y	glconst.	-10.880		Stab	32
Momento	X	glconst.	86.310		Stab	32
Fuerza	Z	glconst.	-0.094000		Stab	34
Fuerza	Z	glconst.	0.282000		Stab	35
Fuerza	Z	glconst.	-72.180		Stab	37
Fuerza	Y	glconst.	-10.880		Stab	37
Momento	X	glconst.	86.310		Stab	37
Fuerza	Z	glconst.	0.094000		Stab	38
Fuerza	Z	glconst.	0.470000		Stab	39
Fuerza	Z	glconst.	-72.180		Stab	41
Fuerza	Y	glconst.	-10.880		Stab	41
Momento	X	glconst.	86.310		Stab	41
Fuerza	Z	glconst.	0.282000		Stab	42
Fuerza	Z	glconst.	0.470000		Stab	44

BELASTUNG: 'HIPOTESIS 1'

Lastfall	Faktor	Bauzustd. Vorv.	Titel
1	1.0000		HIPOTESIS 1

ESFUERZOS: "SUPERIOR"

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	[t
892	0	-175.431	-11.070	1.232	-3.94E-17	1.570	3.5
892	0.979	-175.431	-11.070	1.232	-3.94E-17	2.777	-6.9
893	0	-167.446	-10.835	0.859912	-1.64E-15	2.196	3.5
893	0.979	-167.446	-10.835	0.859912	-1.64E-15	3.038	-7.0
894	0	-121.645	-10.552	1.159	-8.49E-15	1.711	3.0
894	0.979	-121.645	-10.552	1.159	-8.49E-15	2.846	-7.2
895	0	-161.930	-10.903	0.048806	-4.13E-16	3.547	3.6
895	0.979	-161.930	-10.903	0.048806	-4.13E-16	3.595	-7.0
896	0	-112.981	-10.633	0.817020	-2.05E-15	2.287	3.1
896	0.979	-112.981	-10.633	0.817020	-2.05E-15	3.087	-7.2
897	0	-161.038	-11.105	-0.958798	8.78E-16	5.228	3.9
897	0.979	-161.038	-11.105	-0.958798	8.78E-16	4.290	-6.9
898	0	-65.692	-10.316	0.969125	-3.42E-16	2.045	2.6
898	0.979	-65.692	-10.316	0.969125	-3.42E-16	2.994	-7.4
899	0	-107.746	-10.795	-0.056073	3.22E-15	3.748	3.4
899	0.979	-107.746	-10.795	-0.056073	3.22E-15	3.693	-7.1
900	0	-165.021	-11.353	-1.771	-3.65E-15	6.592	4.2
900	0.979	-165.021	-11.353	-1.771	-3.65E-15	4.858	-6.8
901	0	-57.845	-10.599	0.737519	-4.06E-17	2.440	3.1
901	0.979	-57.845	-10.599	0.737519	-4.06E-17	3.162	-7.2
902	0	-107.465	-11.008	-1.062	1.45E-16	5.435	3.7
902	0.979	-107.465	-11.008	-1.062	1.45E-16	4.394	-7.0
903	0	-172.026	-11.737	-1.907	1.18E-15	6.843	4.8
903	0.979	-172.026	-11.737	-1.907	1.18E-15	4.976	-6.6
904	0	-53.223	-10.800	-0.103068	4.10E-15	3.853	3.4
904	0.979	-53.223	-10.800	-0.103068	4.10E-15	3.752	-7.1
905	0	-112.093	-11.217	-1.896	5.84E-15	6.839	4.0
905	0.979	-112.093	-11.217	-1.896	5.84E-15	4.983	-6.9
906	0	-53.560	-11.006	-1.089	7.93E-16	5.515	3.7

ESFUERZOS: "SUPERIOR"

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
906	0.979	-53.560	-11.006	-1.089	7.93E-16	4.448	-7.034
907	0	-119.973	-11.327	-2.183	-5.35E-15	7.337	4.168
907	0.979	-119.973	-11.327	-2.183	-5.35E-15	5.200	-6.923
908	0	-58.521	-11.133	-1.846	-2.29E-15	6.800	3.906
908	0.979	-58.521	-11.133	-1.846	-2.29E-15	4.992	-6.995
909	0	-65.916	-11.046	-2.123	-1.59E-15	7.288	3.709
909	0.979	-65.916	-11.046	-2.123	-1.59E-15	5.208	-7.106

BELASTUNG: 'HIPOTESIS 2'

Lastfall	Faktor	Bauzustd.	Vorv.	Titel
2	1.0000			HIPOTESIS 2

ESFUERZOS: "SUPERIOR"

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
892	0	-138.086	-10.963	0.537212	-1.11E-16	3.034	3.703
892	0.979	-138.086	-10.963	0.537212	-1.11E-16	3.560	-7.031
893	0	-135.033	-10.874	0.430382	3.69E-15	3.236	3.506
893	0.979	-135.033	-10.874	0.430382	3.69E-15	3.658	-7.142
894	0	-83.791	-10.613	0.538483	-4.87E-15	3.083	3.116
894	0.979	-83.791	-10.613	0.538483	-4.87E-15	3.610	-7.276
895	0	-132.696	-10.943	0.185172	1.56E-15	3.666	3.562
895	0.979	-132.696	-10.943	0.185172	1.56E-15	3.848	-7.154
896	0	-80.250	-10.702	0.473708	2.66E-15	3.217	3.218
896	0.979	-80.250	-10.702	0.473708	2.66E-15	3.681	-7.262
897	0	-131.901	-11.092	-0.126990	2.67E-15	4.212	3.735
897	0.979	-131.901	-11.092	-0.126990	2.67E-15	4.088	-7.126
898	0	-28.196	-10.504	0.566986	2.84E-15	3.086	2.944
898	0.979	-28.196	-10.504	0.566986	2.84E-15	3.641	-7.341
899	0	-77.878	-10.821	0.208016	2.94E-15	3.689	3.355
899	0.979	-77.878	-10.821	0.208016	2.94E-15	3.892	-7.240

ESFUERZOS: "SUPERIOR"

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
900	0	-132.754	-11.279	-0.353539	3.64E-16	4.625	3.959
900	0.979	-132.754	-11.279	-0.353539	3.64E-16	4.279	-7.086
901	0	-24.899	-10.669	0.531430	2.28E-15	3.174	3.166
901	0.979	-24.899	-10.669	0.531430	2.28E-15	3.695	-7.280
902	0	-77.204	-10.975	-0.093955	5.56E-15	4.227	3.537
902	0.979	-77.204	-10.975	-0.093955	5.56E-15	4.135	-7.209
903	0	-134.565	-11.557	-0.311610	1.55E-15	4.602	4.323
903	0.979	-134.565	-11.557	-0.311610	1.55E-15	4.297	-6.993
904	0	-22.662	-10.806	0.293096	2.02E-15	3.609	3.335
904	0.979	-22.662	-10.806	0.293096	2.02E-15	3.896	-7.246
905	0	-78.208	-11.145	-0.326757	6.82E-15	4.658	3.732
905	0.979	-78.208	-11.145	-0.326757	6.82E-15	4.338	-7.181
906	0	-22.117	-10.959	0.010354	3.58E-15	4.126	3.514
906	0.979	-22.117	-10.959	0.010354	3.58E-15	4.136	-7.216
907	0	-80.309	-11.272	-0.366446	7.32E-15	4.774	3.842
907	0.979	-80.309	-11.272	-0.366446	7.32E-15	4.415	-7.195
908	0	-23.140	-11.097	-0.183319	-5.11E-16	4.499	3.655
908	0.979	-23.140	-11.097	-0.183319	-5.11E-16	4.320	-7.210
909	0	-24.929	-11.166	-0.208221	-3.75E-16	4.591	3.674
909	0.979	-24.929	-11.166	-0.208221	-3.75E-16	4.387	-7.259

4671

BELASTUNG: 'HIPOTESIS 3'

Lastfall	Faktor	Bauzustd. Vorv.	Titel
3	1.0000		HIPOTESIS 3

ESFUERZOS: "SUPERIOR"

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
892	0	-173.932	-10.263	1.262	-4.22E-16	1.103	2.789
892	0.979	-173.932	-10.263	1.262	-4.22E-16	2.339	-7.261
893	0	-161.373	-10.386	1.165	-1.07E-15	1.382	2.762
893	0.979	-161.373	-10.386	1.165	-1.07E-15	2.523	-7.408
894	0	-118.264	-9.785	1.530	3.92E-16	0.871331	1.988
894	0.979	-118.264	-9.785	1.530	3.92E-16	2.370	-7.593
895	0	-150.478	-10.765	0.775242	-3.33E-15	2.144	3.151
895	0.979	-150.478	-10.765	0.775242	-3.33E-15	2.903	-7.390
896	0	-104.985	-10.187	1.470	-2.38E-16	1.090	2.428
896	0.979	-104.985	-10.187	1.470	-2.38E-16	2.530	-7.546
897	0	-142.700	-11.254	0.285141	-1.39E-15	3.078	3.706
897	0.979	-142.700	-11.254	0.285141	-1.39E-15	3.358	-7.313
898	0	-60.642	-9.579	1.721	1.52E-15	0.766806	1.656
898	0.979	-60.642	-9.579	1.721	1.52E-15	2.452	-7.724
899	0	-94.145	-10.645	1.043	-1.29E-15	1.923	2.950
899	0.979	-94.145	-10.645	1.043	-1.29E-15	2.945	-7.474
900	0	-138.077	-11.781	-0.045756	-9.19E-16	3.759	4.307
900	0.979	-138.077	-11.781	-0.045756	-9.19E-16	3.715	-7.229
901	0	-47.928	-10.146	1.752	-1.26E-15	0.838670	2.364
901	0.979	-47.928	-10.146	1.752	-1.26E-15	2.554	-7.570
902	0	-86.649	-11.144	0.571091	-3.67E-15	2.840	3.521
902	0.979	-86.649	-11.144	0.571091	-3.67E-15	3.399	-7.392
903	0	-135.379	-12.414	0.055341	1.09E-15	3.736	5.071
903	0.979	-135.379	-12.414	0.055341	1.09E-15	3.790	-7.085
904	0	-37.426	-10.636	1.369	9.08E-16	1.607	2.938
904	0.979	-37.426	-10.636	1.369	9.08E-16	2.948	-7.477
905	0	-82.294	-11.651	0.246650	5.53E-15	3.521	4.087
905	0.979	-82.294	-11.651	0.246650	5.53E-15	3.763	-7.322
906	0	-30.227	-11.133	0.926124	3.41E-15	2.488	3.505

ESFUERZOS: "SUPERIOR"

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	[t
906	0.979	-30.227	-11.133	0.926124	3.41E-15	3.395	-7.3
907	0	-80.016	-12.101	0.231251	4.31E-16	3.699	4.9
907	0.979	-80.016	-12.101	0.231251	4.31E-16	3.926	-7.3
908	0	-25.997	-11.604	0.656728	-1.10E-15	3.088	4.0
908	0.979	-25.997	-11.604	0.656728	-1.10E-15	3.731	-7.3
909	0	-23.351	-11.962	0.681043	-1.40E-15	3.195	4.3
909	0.979	-23.351	-11.962	0.681043	-1.40E-15	3.862	-7.3

BELASTUNG: 'HIPOTESIS 4'

Lastfall	Faktor	Bauzustd. Vorv.	Titel
4	1.0000		HIPOTESIS 4

ESFUERZOS: "SUPERIOR"

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	[t
892	0	-141.919	-11.771	0.245323	2.65E-16	3.140	4.7
892	0.979	-141.919	-11.771	0.245323	2.65E-16	3.380	-6.7
893	0	-138.203	-11.349	-0.054346	1.82E-16	3.560	4.2
893	0.979	-138.203	-11.349	-0.054346	1.82E-16	3.507	-6.8
894	0	-89.099	-11.405	-0.059560	-3.38E-15	3.517	4.1
894	0.979	-89.099	-11.405	-0.059560	-3.38E-15	3.458	-7.0
895	0	-135.385	-11.102	-0.517375	-5.95E-15	4.249	3.9
895	0.979	-135.385	-11.102	-0.517375	-5.95E-15	3.743	-6.9
896	0	-84.907	-11.177	-0.319991	-1.36E-15	3.872	3.9
896	0.979	-84.907	-11.177	-0.319991	-1.36E-15	3.559	-7.0
897	0	-134.400	-10.937	-1.051	-3.35E-15	5.058	3.8
897	0.979	-134.400	-10.937	-1.051	-3.35E-15	4.029	-6.8
898	0	-34.881	-11.281	-0.355610	-8.40E-16	3.878	3.9
898	0.979	-34.881	-11.281	-0.355610	-8.40E-16	3.530	-7.0
899	0	-82.136	-10.984	-0.813863	-2.98E-15	4.618	3.7
899	0.979	-82.136	-10.984	-0.813863	-2.98E-15	3.821	-6.9

ESFUERZOS: "SUPERIOR"

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
900	0	-135.300	-10.809	-1.472	-4.87E-15	5.686	3.726
900	0.979	-135.300	-10.809	-1.472	-4.87E-15	4.245	-6.857
901	0	-31.039	-11.145	-0.577795	-5.19E-15	4.172	3.886
901	0.979	-31.039	-11.145	-0.577795	-5.19E-15	3.607	-7.027
902	0	-81.387	-10.826	-1.346	-6.58E-15	5.431	3.628
902	0.979	-81.387	-10.826	-1.346	-6.58E-15	4.113	-6.972
903	0	-137.189	-10.755	-1.582	-4.01E-15	5.805	3.757
903	0.979	-137.189	-10.755	-1.582	-4.01E-15	4.256	-6.774
904	0	-28.508	-10.975	-1.049	-2.36E-15	4.886	3.746
904	0.979	-28.508	-10.975	-1.049	-2.36E-15	3.859	-7.000
905	0	-82.565	-10.675	-1.785	-5.75E-16	6.092	3.500
905	0.979	-82.565	-10.675	-1.785	-5.75E-16	4.344	-6.952
906	0	-28.000	-10.814	-1.567	-3.35E-16	5.682	3.611
906	0.979	-28.000	-10.814	-1.567	-3.35E-16	4.148	-6.977
907	0	-84.846	-10.468	-1.956	-6.34E-15	6.307	3.272
907	0.979	-84.846	-10.468	-1.956	-6.34E-15	4.392	-6.977
908	0	-29.278	-10.617	-1.965	6.23E-16	6.281	3.408
908	0.979	-29.278	-10.617	-1.965	6.23E-16	4.357	-6.988
909	0	-31.315	-10.345	-2.151	-4.14E-16	6.529	3.075
909	0.979	-31.315	-10.345	-2.151	-4.14E-16	4.423	-7.054

ENVOLVENTE: AE 'ENVOLVENTE'

Grupo	Espe.	Hipótesis	Factor	Etapa	Título
A	PERM.	1	1.000		HIPOTESIS 1
B	O	2	1.000		HIPOTESIS 2
C	O	3	1.000		HIPOTESIS 3
D	O	4	1.000		HIPOTESIS 4

ENVOLVENTE para < N > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		Min: D			Max: A		
892	0	-175.431	-11.070	1.232	-3.94E-17	1.570	3.921
		-138.086	-10.963	0.537212	-1.11E-16	3.034	3.703
		Min: A			Max: B		
892	0.979	-175.431	-11.070	1.232	-3.94E-17	2.777	-6.918
		-138.086	-10.963	0.537212	-1.11E-16	3.560	-7.031
		Min: A			Max: B		
893	0	-167.446	-10.835	0.859912	-1.64E-15	2.196	3.515
		-135.033	-10.874	0.430382	3.69E-15	3.236	3.506
		Min: A			Max: B		
893	0.979	-167.446	-10.835	0.859912	-1.64E-15	3.038	-7.094
		-135.033	-10.874	0.430382	3.69E-15	3.658	-7.142
		Min: A			Max: B		
894	0	-121.645	-10.552	1.159	-8.49E-15	1.711	3.055
		-83.791	-10.613	0.538483	-4.87E-15	3.083	3.116
		Min: A			Max: B		
894	0.979	-121.645	-10.552	1.159	-8.49E-15	2.846	-7.278
		-83.791	-10.613	0.538483	-4.87E-15	3.610	-7.276
		Min: A			Max: B		
895	0	-161.930	-10.903	0.048806	-4.13E-16	3.547	3.605
		-132.696	-10.943	0.185172	1.56E-15	3.666	3.562
		Min: A			Max: B		
895	0.979	-161.930	-10.903	0.048806	-4.13E-16	3.595	-7.070
		-132.696	-10.943	0.185172	1.56E-15	3.848	-7.154
		Min: A			Max: B		
896	0	-112.981	-10.633	0.817020	-2.05E-15	2.287	3.177
		-80.250	-10.702	0.473708	2.66E-15	3.217	3.218
		Min: A			Max: B		
896	0.979	-112.981	-10.633	0.817020	-2.05E-15	3.087	-7.234
		-80.250	-10.702	0.473708	2.66E-15	3.681	-7.262
		Min: A			Max: B		
897	0	-161.038	-11.105	-0.958798	8.78E-16	5.228	3.907
		-131.901	-11.092	-0.126990	2.67E-15	4.212	3.735
		Min: A			Max: B		
897	0.979	-161.038	-11.105	-0.958798	8.78E-16	4.290	-6.967
		-131.901	-11.092	-0.126990	2.67E-15	4.088	-7.126

ENVOLVENTE para < N > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		Min: A			Max: B		
898	0	-65.692	-10.316	0.969125	-3.42E-16	2.045	2.672
		-28.196	-10.504	0.566986	2.84E-15	3.086	2.944
		Min: A			Max: B		
898	0.979	-65.692	-10.316	0.969125	-3.42E-16	2.994	-7.429
		-28.196	-10.504	0.566986	2.84E-15	3.641	-7.341
		Min: A			Max: B		
899	0	-107.746	-10.795	-0.056073	3.22E-15	3.748	3.424
		-77.878	-10.821	0.208016	2.94E-15	3.689	3.355
		Min: A			Max: B		
899	0.979	-107.746	-10.795	-0.056073	3.22E-15	3.693	-7.146
		-77.878	-10.821	0.208016	2.94E-15	3.892	-7.240
		Min: A			Max: B		
900	0	-165.021	-11.353	-1.771	-3.65E-15	6.592	4.271
		-132.754	-11.279	-0.353539	3.64E-16	4.625	3.959
		Min: A			Max: B		
900	0.979	-165.021	-11.353	-1.771	-3.65E-15	4.858	-6.845
		-132.754	-11.279	-0.353539	3.64E-16	4.279	-7.086
		Min: A			Max: B		
901	0	-57.845	-10.599	0.737519	-4.06E-17	2.440	3.126
		-24.899	-10.669	0.531430	2.28E-15	3.174	3.166
		Min: A			Max: B		
901	0.979	-57.845	-10.599	0.737519	-4.06E-17	3.162	-7.253
		-24.899	-10.669	0.531430	2.28E-15	3.695	-7.280
		Min: A			Max: B		
902	0	-107.465	-11.008	-1.062	1.45E-16	5.435	3.743
		-77.204	-10.975	-0.093955	5.56E-15	4.227	3.537
		Min: A			Max: B		
902	0.979	-107.465	-11.008	-1.062	1.45E-16	4.394	-7.036
		-77.204	-10.975	-0.093955	5.56E-15	4.135	-7.209
		Min: A			Max: B		
903	0	-172.026	-11.737	-1.907	1.18E-15	6.843	4.856
		-134.565	-11.557	-0.311610	1.55E-15	4.602	4.323
		Min: A			Max: B		
903	0.979	-172.026	-11.737	-1.907	1.18E-15	4.976	-6.636
		-134.565	-11.557	-0.311610	1.55E-15	4.297	-6.993
		Min: A			Max: B		
904	0	-53.223	-10.800	-0.103068	4.10E-15	3.853	3.436
		-22.662	-10.806	0.293096	2.02E-15	3.609	3.335
		Min: A			Max: B		
904	0.979	-53.223	-10.800	-0.103068	4.10E-15	3.752	-7.139
		-22.662	-10.806	0.293096	2.02E-15	3.896	-7.246
		Min: A			Max: B		
905	0	-112.093	-11.217	-1.896	5.84E-15	6.839	4.043
		-78.208	-11.145	-0.326757	6.82E-15	4.658	3.732
		Min: A			Max: B		
905	0.979	-112.093	-11.217	-1.896	5.84E-15	4.983	-6.941
		-78.208	-11.145	-0.326757	6.82E-15	4.338	-7.181
		Min: A			Max: B		

ENVOLVENTE para < N > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	[t
906	0	-53.560	-11.006	-1.089	7.93E-16	5.515	3.7
		-22.117	-10.959	0.010354	3.58E-15	4.126	3.5
		Min: A			Max: B		
906	0.979	-53.560	-11.006	-1.089	7.93E-16	4.448	-7.0
		-22.117	-10.959	0.010354	3.58E-15	4.136	-7.2
		Min: A			Max: B		
907	0	-119.973	-11.327	-2.183	-5.35E-15	7.337	4.1
		-80.016	-12.101	0.231251	4.31E-16	3.699	4.5
		Min: A			Max: C		
907	0.979	-119.973	-11.327	-2.183	-5.35E-15	5.200	-6.9
		-80.016	-12.101	0.231251	4.31E-16	3.926	-7.3
		Min: A			Max: C		
908	0	-58.521	-11.133	-1.846	-2.29E-15	6.800	3.9
		-23.140	-11.097	-0.183319	-5.11E-16	4.499	3.6
		Min: A			Max: B		
908	0.979	-58.521	-11.133	-1.846	-2.29E-15	4.992	-6.9
		-23.140	-11.097	-0.183319	-5.11E-16	4.320	-7.2
		Min: A			Max: B		
909	0	-65.916	-11.046	-2.123	-1.59E-15	7.288	3.7
		-23.351	-11.962	0.681043	-1.40E-15	3.195	4.3
		Min: A			Max: C		
909	0.979	-65.916	-11.046	-2.123	-1.59E-15	5.208	-7.1
		-23.351	-11.962	0.681043	-1.40E-15	3.862	-7.3
		Min: A			Max: C		

ENVOLVENTE para < Vy > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	[t
		Min: C			Max: D		
892	0	-141.919	-11.771	0.245323	2.65E-16	3.140	4.7
		-173.932	-10.263	1.262	-4.22E-16	1.103	2.7
		Min: D			Max: C		
892	0.979	-141.919	-11.771	0.245323	2.65E-16	3.380	-6.7
		-173.932	-10.263	1.262	-4.22E-16	2.339	-7.2
		Min: D			Max: C		
893	0	-138.203	-11.349	-0.054346	1.82E-16	3.560	4.2
		-161.373	-10.386	1.165	-1.07E-15	1.382	2.7
		Min: D			Max: C		
893	0.979	-138.203	-11.349	-0.054346	1.82E-16	3.507	-6.8
		-161.373	-10.386	1.165	-1.07E-15	2.523	-7.4
		Min: D			Max: C		
894	0	-89.099	-11.405	-0.059560	-3.38E-15	3.517	4.1
		-118.264	-9.785	1.530	3.92E-16	0.871331	1.9
		Min: D			Max: C		

ENVOLVENTE para < Vy > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
894	0.979	-89.099	-11.405	-0.059560	-3.38E-15	3.458	-7.008
		-118.264	-9.785	1.530	3.92E-16	2.370	-7.593
		Min: D			Max: C		
895	0	-135.385	-11.102	-0.517375	-5.95E-15	4.249	3.956
		-150.478	-10.765	0.775242	-3.33E-15	2.144	3.151
		Min: D			Max: C		
895	0.979	-135.385	-11.102	-0.517375	-5.95E-15	3.743	-6.914
		-150.478	-10.765	0.775242	-3.33E-15	2.903	-7.390
		Min: D			Max: C		
896	0	-84.907	-11.177	-0.319991	-1.36E-15	3.872	3.934
		-104.985	-10.187	1.470	-2.38E-16	1.090	2.428
		Min: D			Max: C		
896	0.979	-84.907	-11.177	-0.319991	-1.36E-15	3.559	-7.010
		-104.985	-10.187	1.470	-2.38E-16	2.530	-7.546
		Min: D			Max: C		
897	0	-142.700	-11.254	0.285141	-1.39E-15	3.078	3.706
		-134.400	-10.937	-1.051	-3.35E-15	5.058	3.816
		Min: C			Max: D		
897	0.979	-142.700	-11.254	0.285141	-1.39E-15	3.358	-7.313
		-134.400	-10.937	-1.051	-3.35E-15	4.029	-6.893
		Min: C			Max: D		
898	0	-34.881	-11.281	-0.355610	-8.40E-16	3.878	3.963
		-60.642	-9.579	1.721	1.52E-15	0.766806	1.656
		Min: D			Max: C		
898	0.979	-34.881	-11.281	-0.355610	-8.40E-16	3.530	-7.084
		-60.642	-9.579	1.721	1.52E-15	2.452	-7.724
		Min: D			Max: C		
899	0	-82.136	-10.984	-0.813863	-2.98E-15	4.618	3.758
		-94.145	-10.645	1.043	-1.29E-15	1.923	2.950
		Min: D			Max: C		
899	0.979	-82.136	-10.984	-0.813863	-2.98E-15	3.821	-6.997
		-94.145	-10.645	1.043	-1.29E-15	2.945	-7.474
		Min: D			Max: C		
900	0	-138.077	-11.781	-0.045756	-9.19E-16	3.759	4.307
		-135.300	-10.809	-1.472	-4.87E-15	5.686	3.726
		Min: C			Max: D		
900	0.979	-138.077	-11.781	-0.045756	-9.19E-16	3.715	-7.229
		-135.300	-10.809	-1.472	-4.87E-15	4.245	-6.857
		Min: C			Max: D		
901	0	-31.039	-11.145	-0.577795	-5.19E-15	4.172	3.886
		-47.928	-10.146	1.752	-1.26E-15	0.838670	2.364
		Min: D			Max: C		
901	0.979	-31.039	-11.145	-0.577795	-5.19E-15	3.607	-7.027
		-47.928	-10.146	1.752	-1.26E-15	2.554	-7.570
		Min: D			Max: C		
902	0	-86.649	-11.144	0.571091	-3.67E-15	2.840	3.521
		-81.387	-10.826	-1.346	-6.58E-15	5.431	3.628
		Min: C			Max: D		
902	0.979	-86.649	-11.144	0.571091	-3.67E-15	3.399	-7.392

ENVOLVENTE para < Vy > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		-81.387	-10.826	-1.346	-6.58E-15	4.113	-6.972
		Min: C			Max: D		
903	0	-135.379	-12.414	0.055341	1.09E-15	3.736	5.071
		-137.189	-10.755	-1.582	-4.01E-15	5.805	3.757
		Min: C			Max: D		
903	0.979	-135.379	-12.414	0.055341	1.09E-15	3.790	-7.085
		-137.189	-10.755	-1.582	-4.01E-15	4.256	-6.774
		Min: C			Max: D		
904	0	-28.508	-10.975	-1.049	-2.36E-15	4.886	3.746
		-37.426	-10.636	1.369	9.08E-16	1.607	2.938
		Min: D			Max: C		
904	0.979	-28.508	-10.975	-1.049	-2.36E-15	3.859	-7.000
		-37.426	-10.636	1.369	9.08E-16	2.948	-7.477
		Min: D			Max: C		
905	0	-82.294	-11.651	0.246650	5.53E-15	3.521	4.087
		-82.565	-10.675	-1.785	-5.75E-16	6.092	3.500
		Min: C			Max: D		
905	0.979	-82.294	-11.651	0.246650	5.53E-15	3.763	-7.322
		-82.565	-10.675	-1.785	-5.75E-16	4.344	-6.952
		Min: C			Max: D		
906	0	-30.227	-11.133	0.926124	3.41E-15	2.488	3.505
		-28.000	-10.814	-1.567	-3.35E-16	5.682	3.611
		Min: C			Max: D		
906	0.979	-30.227	-11.133	0.926124	3.41E-15	3.395	-7.396
		-28.000	-10.814	-1.567	-3.35E-16	4.148	-6.977
		Min: C			Max: D		
907	0	-80.016	-12.101	0.231251	4.31E-16	3.699	4.542
		-84.846	-10.468	-1.956	-6.34E-15	6.307	3.272
		Min: C			Max: D		
907	0.979	-80.016	-12.101	0.231251	4.31E-16	3.926	-7.307
		-84.846	-10.468	-1.956	-6.34E-15	4.392	-6.977
		Min: C			Max: D		
908	0	-25.997	-11.604	0.656728	-1.10E-15	3.088	4.011
		-29.278	-10.617	-1.965	6.23E-16	6.281	3.408
		Min: C			Max: D		
908	0.979	-25.997	-11.604	0.656728	-1.10E-15	3.731	-7.351
		-29.278	-10.617	-1.965	6.23E-16	4.357	-6.988
		Min: C			Max: D		
909	0	-23.351	-11.962	0.681043	-1.40E-15	3.195	4.320
		-31.315	-10.345	-2.151	-4.14E-16	6.529	3.075
		Min: C			Max: D		
909	0.979	-23.351	-11.962	0.681043	-1.40E-15	3.862	-7.392
		-31.315	-10.345	-2.151	-4.14E-16	4.423	-7.054
		Min: C			Max: D		

ENVOLVENTE para < Vz > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]		N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		Min: A			Max: B			
892	0		-141.919	-11.771	0.245323	2.65E-16	3.140	4.774
			-173.932	-10.263	1.262	-4.22E-16	1.103	2.789
		Min: D			Max: C			
892	0.979		-141.919	-11.771	0.245323	2.65E-16	3.380	-6.752
			-173.932	-10.263	1.262	-4.22E-16	2.339	-7.261
		Min: D			Max: C			
893	0		-138.203	-11.349	-0.054346	1.82E-16	3.560	4.224
			-161.373	-10.386	1.165	-1.07E-15	1.382	2.762
		Min: D			Max: C			
893	0.979		-138.203	-11.349	-0.054346	1.82E-16	3.507	-6.889
			-161.373	-10.386	1.165	-1.07E-15	2.523	-7.408
		Min: D			Max: C			
894	0		-89.099	-11.405	-0.059560	-3.38E-15	3.517	4.160
			-118.264	-9.785	1.530	3.92E-16	0.871331	1.988
		Min: D			Max: C			
894	0.979		-89.099	-11.405	-0.059560	-3.38E-15	3.458	-7.008
			-118.264	-9.785	1.530	3.92E-16	2.370	-7.593
		Min: D			Max: C			
895	0		-135.385	-11.102	-0.517375	-5.95E-15	4.249	3.956
			-150.478	-10.765	0.775242	-3.33E-15	2.144	3.151
		Min: D			Max: C			
895	0.979		-135.385	-11.102	-0.517375	-5.95E-15	3.743	-6.914
			-150.478	-10.765	0.775242	-3.33E-15	2.903	-7.390
		Min: D			Max: C			
896	0		-84.907	-11.177	-0.319991	-1.36E-15	3.872	3.934
			-104.985	-10.187	1.470	-2.38E-16	1.090	2.428
		Min: D			Max: C			
896	0.979		-84.907	-11.177	-0.319991	-1.36E-15	3.559	-7.010
			-104.985	-10.187	1.470	-2.38E-16	2.530	-7.546
		Min: D			Max: C			
897	0		-134.400	-10.937	-1.051	-3.35E-15	5.058	3.816
			-142.700	-11.254	0.285141	-1.39E-15	3.078	3.706
		Min: D			Max: C			
897	0.979		-134.400	-10.937	-1.051	-3.35E-15	4.029	-6.893
			-142.700	-11.254	0.285141	-1.39E-15	3.358	-7.313
		Min: D			Max: C			
898	0		-34.881	-11.281	-0.355610	-8.40E-16	3.878	3.963
			-60.642	-9.579	1.721	1.52E-15	0.766806	1.656
		Min: D			Max: C			
898	0.979		-34.881	-11.281	-0.355610	-8.40E-16	3.530	-7.084
			-60.642	-9.579	1.721	1.52E-15	2.452	-7.724
		Min: D			Max: C			
899	0		-82.136	-10.984	-0.813863	-2.98E-15	4.618	3.758
			-94.145	-10.645	1.043	-1.29E-15	1.923	2.950
		Min: D			Max: C			
899	0.979		-82.136	-10.984	-0.813863	-2.98E-15	3.821	-6.997
			-94.145	-10.645	1.043	-1.29E-15	2.945	-7.474
		Min: D			Max: C			

ENVOLVENTE para < Vz > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]		N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	[t
900	0		-165.021	-11.353	-1.771	-3.65E-15	6.592	4.2
			-138.077	-11.781	-0.045756	-9.19E-16	3.759	4.3
		Min: A			Max: C			
900	0.979		-165.021	-11.353	-1.771	-3.65E-15	4.858	-6.8
			-138.077	-11.781	-0.045756	-9.19E-16	3.715	-7.2
		Min: A			Max: C			
901	0		-31.039	-11.145	-0.577795	-5.19E-15	4.172	3.8
			-47.928	-10.146	1.752	-1.26E-15	0.838670	2.3
		Min: D			Max: C			
901	0.979		-31.039	-11.145	-0.577795	-5.19E-15	3.607	-7.0
			-47.928	-10.146	1.752	-1.26E-15	2.554	-7.5
		Min: D			Max: C			
902	0		-81.387	-10.826	-1.346	-6.58E-15	5.431	3.6
			-86.649	-11.144	0.571091	-3.67E-15	2.840	3.5
		Min: D			Max: C			
902	0.979		-81.387	-10.826	-1.346	-6.58E-15	4.113	-6.9
			-86.649	-11.144	0.571091	-3.67E-15	3.399	-7.3
		Min: D			Max: C			
903	0		-172.026	-11.737	-1.907	1.18E-15	6.843	4.8
			-135.379	-12.414	0.055341	1.09E-15	3.736	5.0
		Min: A			Max: C			
903	0.979		-172.026	-11.737	-1.907	1.18E-15	4.976	-6.6
			-135.379	-12.414	0.055341	1.09E-15	3.790	-7.0
		Min: A			Max: C			
904	0		-28.508	-10.975	-1.049	-2.36E-15	4.886	3.7
			-37.426	-10.636	1.369	9.08E-16	1.607	2.9
		Min: D			Max: C			
904	0.979		-28.508	-10.975	-1.049	-2.36E-15	3.859	-7.0
			-37.426	-10.636	1.369	9.08E-16	2.948	-7.4
		Min: D			Max: C			
905	0		-112.093	-11.217	-1.896	5.84E-15	6.839	4.0
			-82.294	-11.651	0.246650	5.53E-15	3.521	4.0
		Min: A			Max: C			
905	0.979		-112.093	-11.217	-1.896	5.84E-15	4.983	-6.9
			-82.294	-11.651	0.246650	5.53E-15	3.763	-7.3
		Min: A			Max: C			
906	0		-28.000	-10.814	-1.567	-3.35E-16	5.682	3.6
			-30.227	-11.133	0.926124	3.41E-15	2.488	3.5
		Min: D			Max: C			
906	0.979		-28.000	-10.814	-1.567	-3.35E-16	4.148	-6.9
			-30.227	-11.133	0.926124	3.41E-15	3.395	-7.3
		Min: D			Max: C			
907	0		-119.973	-11.327	-2.183	-5.35E-15	7.337	4.1
			-80.016	-12.101	0.231251	4.31E-16	3.699	4.5
		Min: A			Max: C			
907	0.979		-119.973	-11.327	-2.183	-5.35E-15	5.200	-6.9
			-80.016	-12.101	0.231251	4.31E-16	3.926	-7.3
		Min: A			Max: C			
908	0		-29.278	-10.617	-1.965	6.23E-16	6.281	3.4

ENVOLVENTE para < Vz > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		-25.997	-11.604	0.656728	-1.10E-15	3.088	4.011
		Min: D			Max: C		
908	0.979	-29.278	-10.617	-1.965	6.23E-16	4.357	-6.988
		-25.997	-11.604	0.656728	-1.10E-15	3.731	-7.351
		Min: D			Max: C		
909	0	-31.315	-10.345	-2.151	-4.14E-16	6.529	3.075
		-23.351	-11.962	0.681043	-1.40E-15	3.195	4.320
		Min: D			Max: C		
909	0.979	-31.315	-10.345	-2.151	-4.14E-16	4.423	-7.054
		-23.351	-11.962	0.681043	-1.40E-15	3.862	-7.392
		Min: D			Max: C		

ENVOLVENTE para < My > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		Min: B			Max: A		
892	0	-173.932	-10.263	1.262	-4.22E-16	1.103	2.789
		-141.919	-11.771	0.245323	2.65E-16	3.140	4.774
		Min: C			Max: D		
892	0.979	-173.932	-10.263	1.262	-4.22E-16	2.339	-7.261
		-138.086	-10.963	0.537212	-1.11E-16	3.560	-7.031
		Min: C			Max: B		
893	0	-161.373	-10.386	1.165	-1.07E-15	1.382	2.762
		-138.203	-11.349	-0.054346	1.82E-16	3.560	4.224
		Min: C			Max: D		
893	0.979	-161.373	-10.386	1.165	-1.07E-15	2.523	-7.408
		-135.033	-10.874	0.430382	3.69E-15	3.658	-7.142
		Min: C			Max: B		
894	0	-118.264	-9.785	1.530	3.92E-16	0.871331	1.988
		-89.099	-11.405	-0.059560	-3.38E-15	3.517	4.160
		Min: C			Max: D		
894	0.979	-118.264	-9.785	1.530	3.92E-16	2.370	-7.593
		-83.791	-10.613	0.538483	-4.87E-15	3.610	-7.276
		Min: C			Max: B		
895	0	-150.478	-10.765	0.775242	-3.33E-15	2.144	3.151
		-135.385	-11.102	-0.517375	-5.95E-15	4.249	3.956
		Min: C			Max: D		
895	0.979	-150.478	-10.765	0.775242	-3.33E-15	2.903	-7.390
		-132.696	-10.943	0.185172	1.56E-15	3.848	-7.154
		Min: C			Max: B		
896	0	-104.985	-10.187	1.470	-2.38E-16	1.090	2.428
		-84.907	-11.177	-0.319991	-1.36E-15	3.872	3.934
		Min: C			Max: D		
896	0.979	-104.985	-10.187	1.470	-2.38E-16	2.530	-7.546

ENVOLVENTE para < My > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		-80.250	-10.702	0.473708	2.66E-15	3.681	-7.262
		Min: C			Max: B		
897	0	-142.700	-11.254	0.285141	-1.39E-15	3.078	3.706
		-161.038	-11.105	-0.958798	8.78E-16	5.228	3.907
		Min: C			Max: A		
897	0.979	-142.700	-11.254	0.285141	-1.39E-15	3.358	-7.313
		-161.038	-11.105	-0.958798	8.78E-16	4.290	-6.967
		Min: C			Max: A		
898	0	-60.642	-9.579	1.721	1.52E-15	0.766806	1.656
		-34.881	-11.281	-0.355610	-8.40E-16	3.878	3.963
		Min: C			Max: D		
898	0.979	-60.642	-9.579	1.721	1.52E-15	2.452	-7.724
		-28.196	-10.504	0.566986	2.84E-15	3.641	-7.341
		Min: C			Max: B		
899	0	-94.145	-10.645	1.043	-1.29E-15	1.923	2.950
		-82.136	-10.984	-0.813863	-2.98E-15	4.618	3.758
		Min: C			Max: D		
899	0.979	-94.145	-10.645	1.043	-1.29E-15	2.945	-7.474
		-77.878	-10.821	0.208016	2.94E-15	3.892	-7.240
		Min: C			Max: B		
900	0	-138.077	-11.781	-0.045756	-9.19E-16	3.759	4.307
		-165.021	-11.353	-1.771	-3.65E-15	6.592	4.271
		Min: C			Max: A		
900	0.979	-138.077	-11.781	-0.045756	-9.19E-16	3.715	-7.229
		-165.021	-11.353	-1.771	-3.65E-15	4.858	-6.845
		Min: C			Max: A		
901	0	-47.928	-10.146	1.752	-1.26E-15	0.838670	2.364
		-31.039	-11.145	-0.577795	-5.19E-15	4.172	3.886
		Min: C			Max: D		
901	0.979	-47.928	-10.146	1.752	-1.26E-15	2.554	-7.570
		-24.899	-10.669	0.531430	2.28E-15	3.695	-7.280
		Min: C			Max: B		
902	0	-86.649	-11.144	0.571091	-3.67E-15	2.840	3.521
		-107.465	-11.008	-1.062	1.45E-16	5.435	3.743
		Min: C			Max: A		
902	0.979	-86.649	-11.144	0.571091	-3.67E-15	3.399	-7.392
		-107.465	-11.008	-1.062	1.45E-16	4.394	-7.036
		Min: C			Max: A		
903	0	-135.379	-12.414	0.055341	1.09E-15	3.736	5.071
		-172.026	-11.737	-1.907	1.18E-15	6.843	4.856
		Min: C			Max: A		
903	0.979	-135.379	-12.414	0.055341	1.09E-15	3.790	-7.085
		-172.026	-11.737	-1.907	1.18E-15	4.976	-6.636
		Min: C			Max: A		
904	0	-37.426	-10.636	1.369	9.08E-16	1.607	2.938
		-28.508	-10.975	-1.049	-2.36E-15	4.886	3.746
		Min: C			Max: D		
904	0.979	-37.426	-10.636	1.369	9.08E-16	2.948	-7.477
		-22.662	-10.806	0.293096	2.02E-15	3.896	-7.244677

ENVOLVENTE para < My > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]		N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		Min: C			Max: B			
905	0		-82.294	-11.651	0.246650	5.53E-15	3.521	4.087
			-112.093	-11.217	-1.896	5.84E-15	6.839	4.043
		Min: C			Max: A			
905	0.979		-82.294	-11.651	0.246650	5.53E-15	3.763	-7.322
			-112.093	-11.217	-1.896	5.84E-15	4.983	-6.941
		Min: C			Max: A			
906	0		-30.227	-11.133	0.926124	3.41E-15	2.488	3.505
			-28.000	-10.814	-1.567	-3.35E-16	5.682	3.611
		Min: C			Max: D			
906	0.979		-30.227	-11.133	0.926124	3.41E-15	3.395	-7.396
			-53.560	-11.006	-1.089	7.93E-16	4.448	-7.034
		Min: C			Max: A			
907	0		-80.016	-12.101	0.231251	4.31E-16	3.699	4.542
			-119.973	-11.327	-2.183	-5.35E-15	7.337	4.168
		Min: C			Max: A			
907	0.979		-80.016	-12.101	0.231251	4.31E-16	3.926	-7.307
			-119.973	-11.327	-2.183	-5.35E-15	5.200	-6.923
		Min: C			Max: A			
908	0		-25.997	-11.604	0.656728	-1.10E-15	3.088	4.011
			-58.521	-11.133	-1.846	-2.29E-15	6.800	3.906
		Min: C			Max: A			
908	0.979		-25.997	-11.604	0.656728	-1.10E-15	3.731	-7.351
			-58.521	-11.133	-1.846	-2.29E-15	4.992	-6.995
		Min: C			Max: A			
909	0		-23.351	-11.962	0.681043	-1.40E-15	3.195	4.320
			-65.916	-11.046	-2.123	-1.59E-15	7.288	3.709
		Min: C			Max: A			
909	0.979		-23.351	-11.962	0.681043	-1.40E-15	3.862	-7.392
			-65.916	-11.046	-2.123	-1.59E-15	5.208	-7.106
		Min: C			Max: A			

ENVOLVENTE para < Mz > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]		N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		Min: D			Max: C			
892	0		-173.932	-10.263	1.262	-4.22E-16	1.103	2.789
			-141.919	-11.771	0.245323	2.65E-16	3.140	4.774
		Min: C			Max: D			
892	0.979		-173.932	-10.263	1.262	-4.22E-16	2.339	-7.261
			-141.919	-11.771	0.245323	2.65E-16	3.380	-6.752
		Min: C			Max: D			
893	0		-161.373	-10.386	1.165	-1.07E-15	1.382	2.762
			-138.203	-11.349	-0.054346	1.82E-16	3.560	4.224

ENVOLVENTE para < Mz > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]		N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	[t
		Min: C			Max: D			
893	0.979		-161.373	-10.386	1.165	-1.07E-15	2.523	-7.4
			-138.203	-11.349	-0.054346	1.82E-16	3.507	-6.8
		Min: C			Max: D			
894	0		-118.264	-9.785	1.530	3.92E-16	0.871331	1.9
			-89.099	-11.405	-0.059560	-3.38E-15	3.517	4.1
		Min: C			Max: D			
894	0.979		-118.264	-9.785	1.530	3.92E-16	2.370	-7.5
			-89.099	-11.405	-0.059560	-3.38E-15	3.458	-7.0
		Min: C			Max: D			
895	0		-150.478	-10.765	0.775242	-3.33E-15	2.144	3.1
			-135.385	-11.102	-0.517375	-5.95E-15	4.249	3.9
		Min: C			Max: D			
895	0.979		-150.478	-10.765	0.775242	-3.33E-15	2.903	-7.3
			-135.385	-11.102	-0.517375	-5.95E-15	3.743	-6.9
		Min: C			Max: D			
896	0		-104.985	-10.187	1.470	-2.38E-16	1.090	2.4
			-84.907	-11.177	-0.319991	-1.36E-15	3.872	3.9
		Min: C			Max: D			
896	0.979		-104.985	-10.187	1.470	-2.38E-16	2.530	-7.5
			-84.907	-11.177	-0.319991	-1.36E-15	3.559	-7.0
		Min: C			Max: D			
897	0		-142.700	-11.254	0.285141	-1.39E-15	3.078	3.7
			-161.038	-11.105	-0.958798	8.78E-16	5.228	3.9
		Min: C			Max: A			
897	0.979		-142.700	-11.254	0.285141	-1.39E-15	3.358	-7.3
			-134.400	-10.937	-1.051	-3.35E-15	4.029	-6.8
		Min: C			Max: D			
898	0		-60.642	-9.579	1.721	1.52E-15	0.766806	1.6
			-34.881	-11.281	-0.355610	-8.40E-16	3.878	3.9
		Min: C			Max: D			
898	0.979		-60.642	-9.579	1.721	1.52E-15	2.452	-7.7
			-34.881	-11.281	-0.355610	-8.40E-16	3.530	-7.0
		Min: C			Max: D			
899	0		-94.145	-10.645	1.043	-1.29E-15	1.923	2.9
			-82.136	-10.984	-0.813863	-2.98E-15	4.618	3.7
		Min: C			Max: D			
899	0.979		-94.145	-10.645	1.043	-1.29E-15	2.945	-7.4
			-82.136	-10.984	-0.813863	-2.98E-15	3.821	-6.9
		Min: C			Max: D			
900	0		-135.300	-10.809	-1.472	-4.87E-15	5.686	3.7
			-138.077	-11.781	-0.045756	-9.19E-16	3.759	4.3
		Min: D			Max: C			
900	0.979		-138.077	-11.781	-0.045756	-9.19E-16	3.715	-7.2
			-165.021	-11.353	-1.771	-3.65E-15	4.858	-6.8
		Min: C			Max: A			
901	0		-47.928	-10.146	1.752	-1.26E-15	0.838670	2.3
			-31.039	-11.145	-0.577795	-5.19E-15	4.172	3.8
		Min: C			Max: D			

ENVOLVENTE para < Mz > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

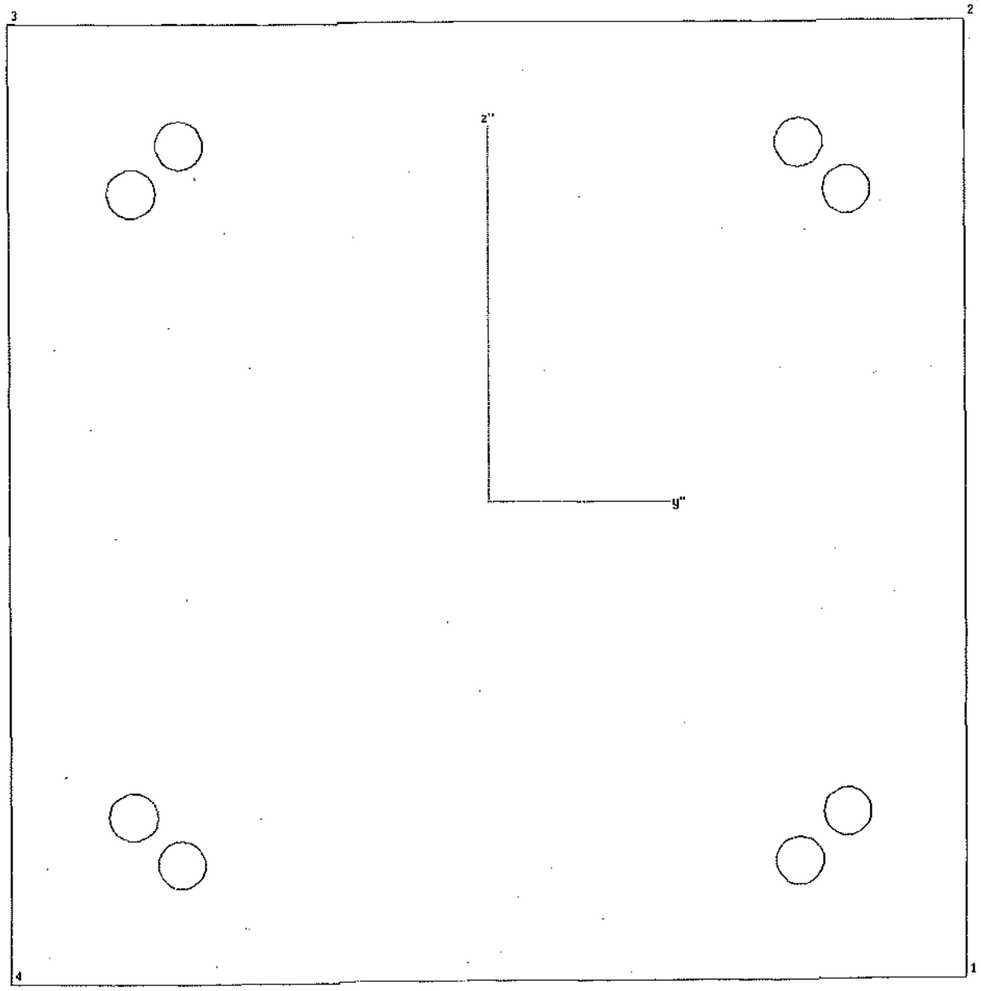
Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
901	0.979	-47.928	-10.146	1.752	-1.26E-15	2.554	-7.570
		-31.039	-11.145	-0.577795	-5.19E-15	3.607	-7.027
		Min: C			Max: D		
902	0	-86.649	-11.144	0.571091	-3.67E-15	2.840	3.521
		-107.465	-11.008	-1.062	1.45E-16	5.435	3.743
		Min: C			Max: A		
902	0.979	-86.649	-11.144	0.571091	-3.67E-15	3.399	-7.392
		-81.387	-10.826	-1.346	-6.58E-15	4.113	-6.972
		Min: C			Max: D		
903	0	-137.189	-10.755	-1.582	-4.01E-15	5.805	3.757
		-135.379	-12.414	0.055341	1.09E-15	3.736	5.071
		Min: D			Max: C		
903	0.979	-135.379	-12.414	0.055341	1.09E-15	3.790	-7.085
		-172.026	-11.737	-1.907	1.18E-15	4.976	-6.636
		Min: C			Max: A		
904	0	-37.426	-10.636	1.369	9.08E-16	1.607	2.938
		-28.508	-10.975	-1.049	-2.36E-15	4.886	3.746
		Min: C			Max: D		
904	0.979	-37.426	-10.636	1.369	9.08E-16	2.948	-7.477
		-28.508	-10.975	-1.049	-2.36E-15	3.859	-7.000
		Min: C			Max: D		
905	0	-82.565	-10.675	-1.785	-5.75E-16	6.092	3.500
		-82.294	-11.651	0.246650	5.53E-15	3.521	4.087
		Min: D			Max: C		
905	0.979	-82.294	-11.651	0.246650	5.53E-15	3.763	-7.322
		-112.093	-11.217	-1.896	5.84E-15	4.983	-6.941
		Min: C			Max: A		
906	0	-30.227	-11.133	0.926124	3.41E-15	2.488	3.505
		-53.560	-11.006	-1.089	7.93E-16	5.515	3.743
		Min: C			Max: A		
906	0.979	-30.227	-11.133	0.926124	3.41E-15	3.395	-7.396
		-28.000	-10.814	-1.567	-3.35E-16	4.148	-6.977
		Min: C			Max: D		
907	0	-84.846	-10.468	-1.956	-6.34E-15	6.307	3.272
		-80.016	-12.101	0.231251	4.31E-16	3.699	4.542
		Min: D			Max: C		
907	0.979	-80.016	-12.101	0.231251	4.31E-16	3.926	-7.307
		-119.973	-11.327	-2.183	-5.35E-15	5.200	-6.923
		Min: C			Max: A		
908	0	-29.278	-10.617	-1.965	6.23E-16	6.281	3.408
		-25.997	-11.604	0.656728	-1.10E-15	3.088	4.011
		Min: D			Max: C		
908	0.979	-25.997	-11.604	0.656728	-1.10E-15	3.731	-7.351
		-29.278	-10.617	-1.965	6.23E-16	4.357	-6.988
		Min: C			Max: D		
909	0	-31.315	-10.345	-2.151	-4.14E-16	6.529	3.075
		-23.351	-11.962	0.681043	-1.40E-15	3.195	4.320
		Min: D			Max: C		
909	0.979	-23.351	-11.962	0.681043	-1.40E-15	3.862	-7.392

ENVOLVENTE para < Mz > (y valores concomitantes) "SUPERIOR"
(1. línea: MIN., 2. línea: MAX., 3. línea: Grupos de Hip. decicivos)

Barra	Dist. [m]	N [t]	Vy [t]	Vz [t]	T [tm]	My [tm]	Mz [tm]
		-31.315	-10.345	-2.151	-4.14E-16	4.423	-7.054
		Min: C			Max: D		

4679

Mstb. 1 : 2.5



Sección :"PILOTEMY" Armadura :"B1"
Tipo : tipo pila/ Rectángulo Unidades :[cm]
Material :"H450"

Ancho = 40.00 cm Canto = 40.00 cm

Características mecánicas de la sección:
Area ; Ax= 0.160000 [m2]
Momentos de inercia ; Iy= 0.002133 [m4] Iz= 0.002133 [m4]
Inercia a torsión ; Ix= 0.003601 [m4]

Posición del centro de gravedad: ys= 0.000 [m] zs= 0.200000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-0.200	-0.010667	0.067
dch.	Iz	0.200	0.010667	-0.067
abajo	Iy	-0.200	-0.010667	0.067
arriba	Iy	0.200	0.010667	-0.067

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-13.00	5.00		
2	AEH500	(1)	3.14	13.00	5.00		
3	AEH500	(1)	3.14	13.00	35.00		
4	AEH500	(1)	3.14	-13.00	35.00		
5	AEH500	(1)	3.14	-15.00	7.00		
6	AEH500	(1)	3.14	-15.00	33.00		
7	AEH500	(1)	3.14	15.00	7.00		
8	AEH500	(1)	3.14	15.00	33.00		
	Total:		25.12	Cuantía de armadura: 1.570 [o/o]			

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccion.
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

Dimens. a cortante (valores por defecto): (Acero"AEH500"/Hormigón"H450"

Cortante	Area mín.cercos	Ancho alma ideal	Canto útil	Incl.bielas
Vz	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00
Vy	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00

Características del material:

Nom.Mat.	Módulo E [t/m2]	0.85*fcd,fyd [t/m2]	eps-fc [o/oo]	fct [t/m2]	fcv [t/m2]	fcw,mín [t/m2]
"H450"	4.00E+06	-2550.000	-2.000	0.0	86.600	4500.000
"AEH500"	2.10E+07	44347.0				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-260.898				1.655	4.184

Coeficiente de seguridad 1.766

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-212.879				4.710	7.161

Coeficiente de seguridad 1.874

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-260.898				3.509	-10.892

Coeficiente de seguridad 1.509

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.129				5.340	-10.547

Coeficiente de seguridad 1.732

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.060				2.073	4.143

Coeficiente de seguridad 1.877

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.305				5.340	6.336

Coeficiente de seguridad 1.924

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.060				3.785	-11.112

Coeficiente de seguridad 1.583

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-202.500				5.487	-10.713

Coeficiente de seguridad 1.742

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-177.396				1.307	2.982

Coeficiente de seguridad 2.577

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-133.649				5.276	6.240

Coeficiente de seguridad 2.580

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-177.396				3.555	-11.390

Coeficiente de seguridad 1.917

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-125.687				5.415	-10.914

Coeficiente de seguridad 2.158

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-225.717				3.216	4.727

Coeficiente de seguridad 1.933

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-203.078				6.374	5.934

Coeficiente de seguridad 1.929

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-225.717				4.355	-11.085

Coeficiente de seguridad 1.649

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-199.044				5.772	-10.731

Coeficiente de seguridad 1.748

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-157.478				1.635	3.642

Coeficiente de seguridad 2.780

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-127.361				5.808	5.901

Coeficiente de seguridad 2.630

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-157.478				3.795	-11.319

Coeficiente de seguridad 2.032

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-120.375				5.522	-10.893

Coeficiente de seguridad 2.182

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-214.050				4.617	5.559

Coeficiente de seguridad 1.935

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.557				7.842	5.861

Coeficiente de seguridad 1.647

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-214.050				5.037	-10.970

Coeficiente de seguridad 1.689

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.557				6.435	-10.451

Coeficiente de seguridad 1.545

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-90.963				1.150	2.484

Coeficiente de seguridad 4.676

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-52.322				5.817	5.945

Coeficiente de seguridad 3.394

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-90.963				3.678	-11.586

Coeficiente de seguridad 2.420

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-42.294				5.462	-11.012

Coeficiente de seguridad 2.210

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-141.218				2.885	4.425

Coeficiente de seguridad 2.875

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-123.204				6.927	5.637

Coeficiente de seguridad 2.577

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-141.218				4.418	-11.211

Coeficiente de seguridad 2.107

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-116.817				5.838	-10.860

Coeficiente de seguridad 2.179

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.116				5.639	6.461

Coeficiente de seguridad 1.909

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-247.532				9.888	6.407

Coeficiente de seguridad 1.540

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.116				5.573	-10.844

Coeficiente de seguridad 1.710

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-247.532				7.287	-10.268

Coeficiente de seguridad 1.503

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-71.892				1.258	3.546

Coeficiente de seguridad 5.202

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-46.559				6.258	5.829

Coeficiente de seguridad 3.320

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-71.892				3.831	-11.355

Coeficiente de seguridad 2.533

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-37.349				5.543	-10.920

Coeficiente de seguridad 2.166

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-129.974				4.260	5.282

Coeficiente de seguridad 2.831

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.198				8.153	5.615

Coeficiente de seguridad 2.142

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-129.974				5.099	-11.088

Coeficiente de seguridad 2.140

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.198				6.591	-10.554

Coeficiente de seguridad 1.916

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-203.069				5.604	7.607

Coeficiente de seguridad 1.888

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-258.039				10.265	7.284

Coeficiente de seguridad 1.463

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-203.069				5.685	-10.628

Coeficiente de seguridad 1.736

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-258.039				7.464	-9.954

Coeficiente de seguridad 1.468

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-56.139				2.411	4.407

Coeficiente de seguridad 5.066

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-42.762				7.329	5.619

Coeficiente de seguridad 3.005

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-56.139				4.422	-11.216

Coeficiente de seguridad 2.443

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-33.993				5.844	-10.869

Coeficiente de seguridad 2.100

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-123.441				5.282	6.131

Coeficiente de seguridad 2.704

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-168.140				10.259	6.065

Coeficiente de seguridad 1.926

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-123.441				5.645	-10.983

Coeficiente de seguridad 2.147

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-168.140				7.475	-10.412

Coeficiente de seguridad 1.842

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-45.341				3.732	5.258

Coeficiente de seguridad 4.360

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-42.000				8.523	5.417

Coeficiente de seguridad 2.723

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-45.341				5.093	-11.094

Coeficiente de seguridad 2.277

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.340				6.672	-10.551

Coeficiente de seguridad 2.291

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-120.024				5.549	6.813

Coeficiente de seguridad 2.631

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-179.960				11.006	6.252

Coeficiente de seguridad 1.809

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-120.024				5.889	-10.961

Coeficiente de seguridad 2.148

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-179.960				7.800	-10.385

Coeficiente de seguridad 1.771

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-38.996				4.632	6.017

Coeficiente de seguridad 3.724

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-87.782				10.200	5.859

Coeficiente de seguridad 2.397

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-38.996				5.597	-11.027

Coeficiente de seguridad 2.157

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-87.782				7.488	-10.493

Coeficiente de seguridad 2.189

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-35.027				4.793	6.480

Coeficiente de seguridad 3.407

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-98.874				10.932	5.564

Coeficiente de seguridad 2.284

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-35.027				5.793	-11.088

Coeficiente de seguridad 2.083

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-98.874				7.812	-10.659

Coeficiente de seguridad 2.105

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-173.932				1.655	4.184

Coeficiente de seguridad 2.512

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-141.919				4.710	7.161

Coeficiente de seguridad 2.453

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-173.932				3.509	-10.892

Coeficiente de seguridad 1.972

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.086				5.340	-10.547

Coeficiente de seguridad 2.124

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.373				2.073	4.143

Coeficiente de seguridad 2.656

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.203				5.340	6.336

Coeficiente de seguridad 2.517

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.373				3.785	-11.112

Coeficiente de seguridad 2.023

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.033				5.487	-10.713

Coeficiente de seguridad 2.118

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-118.264				1.307	2.982

Coeficiente de seguridad 3.654

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-89.099				5.276	6.240

Coeficiente de seguridad 3.095

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-118.264				3.555	-11.390

Coeficiente de seguridad 2.292

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-83.791				5.415	-10.914

Coeficiente de seguridad 2.368

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-150.478				3.216	4.727

Coeficiente de seguridad 2.687

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.385				6.374	5.934

Coeficiente de seguridad 2.487

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-150.478				4.355	-11.085

Coeficiente de seguridad 2.064

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-132.696				5.772	-10.731

Coeficiente de seguridad 2.110

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-104.985				1.635	3.642

Coeficiente de seguridad 3.869

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-84.907				5.808	5.901

Coeficiente de seguridad 3.110

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-104.985				3.795	-11.319

Coeficiente de seguridad 2.364

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.250				5.522	-10.893

Coeficiente de seguridad 2.373

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-142.700				4.617	5.559

Coeficiente de seguridad 2.607

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.038				7.842	5.861

Coeficiente de seguridad 2.150

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-142.700				5.037	-10.970

Coeficiente de seguridad 2.080

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.038				6.435	-10.451

Coeficiente de seguridad 1.933

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-60.642				1.150	2.484

Coeficiente de seguridad 6.421

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-34.881				5.817	5.945

Coeficiente de seguridad 3.251

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-60.642				3.678	-11.586

Coeficiente de seguridad 2.509

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-28.196				5.462	-11.012

Coeficiente de seguridad 2.058

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-94.145				2.885	4.425

Coeficiente de seguridad 3.814

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-82.136				6.927	5.637

Coeficiente de seguridad 2.978

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-94.145				4.418	-11.211

Coeficiente de seguridad 2.382

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-77.878				5.838	-10.860

Coeficiente de seguridad 2.351

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.077				5.639	6.461

Coeficiente de seguridad 2.479

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-165.021				9.888	6.407

Coeficiente de seguridad 1.950

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.077				5.573	-10.844

Coeficiente de seguridad 2.083

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-165.021				7.287	-10.268

Coeficiente de seguridad 1.877

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-47.928				1.258	3.546

Coeficiente de seguridad 6.538

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-31.039				6.258	5.829

Coeficiente de seguridad 3.070

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-47.928				3.831	-11.355

Coeficiente de seguridad 2.439

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-24.899				5.543	-10.920

Coeficiente de seguridad 2.017

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-86.649				4.260	5.282

Coeficiente de seguridad 3.512

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-107.465				8.153	5.615

Coeficiente de seguridad 2.573

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-86.649				5.099	-11.088

Coeficiente de seguridad 2.366

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-107.465				6.591	-10.554

Coeficiente de seguridad 2.192

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.379				5.604	7.607

Coeficiente de seguridad 2.397

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-172.026				10.265	7.284

Coeficiente de seguridad 1.842

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.379				5.685	-10.628

Coeficiente de seguridad 2.110

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-172.026				7.464	-9.954

Coeficiente de seguridad 1.851

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-37.426				2.411	4.407

Coeficiente de seguridad 5.632

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-28.508				7.329	5.619

Coeficiente de seguridad 2.773

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-37.426				4.422	-11.216

Coeficiente de seguridad 2.277

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-22.662				5.844	-10.869

Coeficiente de seguridad 1.960

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-82.294				5.282	6.131

Coeficiente de seguridad 3.194

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-112.093				10.259	6.065

Coeficiente de seguridad 2.247

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-82.294				5.645	-10.983

Coeficiente de seguridad 2.340

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-112.093				7.475	-10.412

Coeficiente de seguridad 2.109

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-30.227				3.732	5.258

Coeficiente de seguridad 4.332

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-28.000				8.523	5.417

Coeficiente de seguridad 2.524

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-30.227				5.093	-11.094

Coeficiente de seguridad 2.117

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-53.560				6.672	-10.551

Coeficiente de seguridad 2.217

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.016				5.549	6.813

Coeficiente de seguridad 3.034

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-119.973				11.006	6.252

Coeficiente de seguridad 2.116

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.016				5.889	-10.961

Coeficiente de seguridad 2.325

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-119.973				7.800	-10.385

Coeficiente de seguridad 2.050

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-25.997				4.632	6.017

Coeficiente de seguridad 3.439

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-58.521				10.200	5.859

Coeficiente de seguridad 2.438

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-25.997				5.597	-11.027

Coeficiente de seguridad 2.009

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-58.521				7.488	-10.493

Coeficiente de seguridad 2.153

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-23.351				4.793	6.480

Coeficiente de seguridad 3.148

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-65.916				10.932	5.564

Coeficiente de seguridad 2.392

Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-23.351				5.793	-11.088

Coeficiente de seguridad 1.942

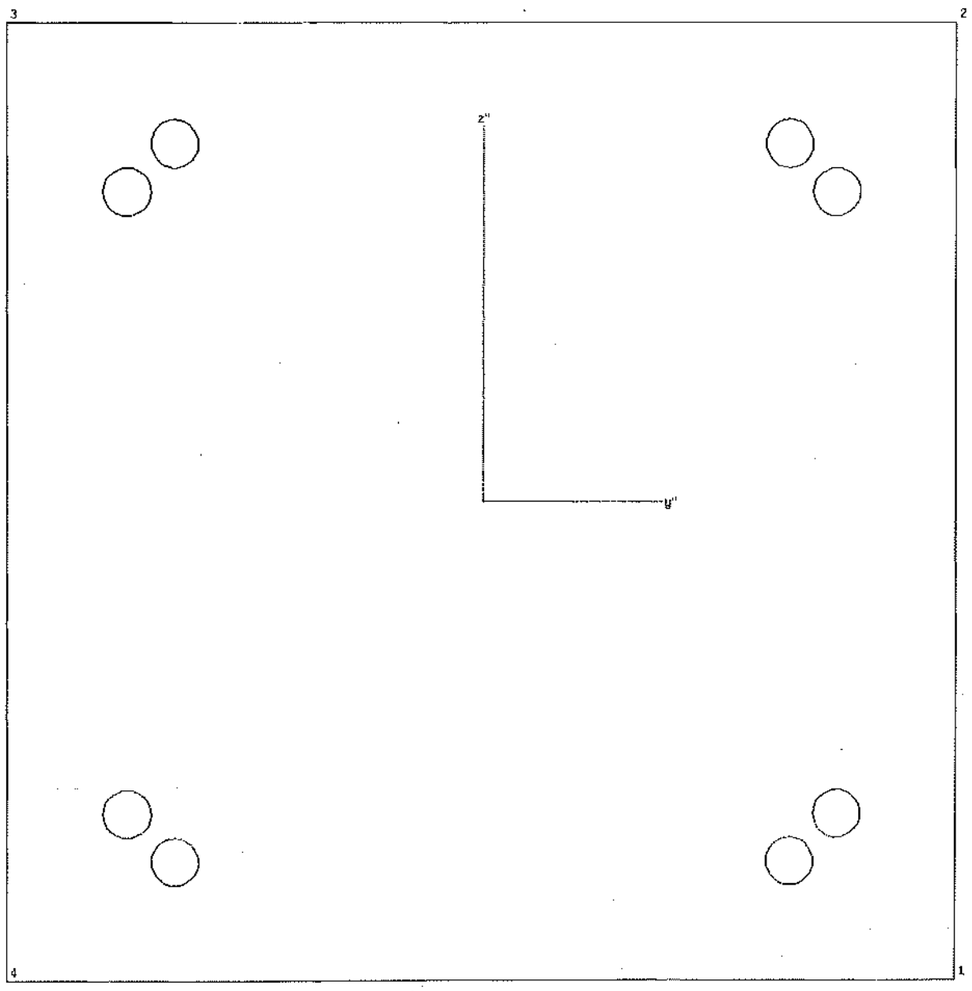
Cálculo Resistencia Ultima: Pila "PILOTEMY"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-65.916				7.812	-10.659

Coeficiente de seguridad 2.134

Mstb. 1 : 2.5



Sección :"PILOTEN" Armadura :"B1"
Tipo : tipo pila/ Rectángulo Unidades :[cm]
Material :"H450"

Ancho = 40.00 cm Canto = 40.00 cm

Características mecánicas de la sección:
Area : Ax= 0.160000 [m2]
Momentos de inercia : Iy= 0.002133 [m4] Iz= 0.002133 [m4]
Inercia a torsión : Ix= 0.003601 [m4]

Posición del centro de gravedad: ys= 0.000 [m] zs= 0.200000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-0.200	-0.010667	0.067
dch.	Iz	0.200	0.010667	-0.067
abajo	Iy	-0.200	-0.010667	0.067
arriba	Iy	0.200	0.010667	-0.067

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-13.00	5.00		
2	AEH500	(1)	3.14	13.00	5.00		
3	AEH500	(1)	3.14	13.00	35.00		
4	AEH500	(1)	3.14	-13.00	35.00		
5	AEH500	(1)	3.14	-15.00	7.00		
6	AEH500	(1)	3.14	-15.00	33.00		
7	AEH500	(1)	3.14	15.00	7.00		
8	AEH500	(1)	3.14	15.00	33.00		
Total:			25.12	Cuantía de armadura: 1.570 [o/o]			

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

Dimens. a cortante (valores por defecto): (Acero"AEH500"/Hormigón"H450")

Cortante	Area mín.cercos	Ancho alma ideal	Canto útil	Incl.bielas
Vz	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00
Vy	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00

Características del material:

Nom.Mat.	Módulo E [t/m2]	0.85*fcd,fyd [t/m2]	eps-fc [o/oo]	fct [t/m2]	fcv [t/m2]	fcw,mín [t/m2]
"H450"	4.00E+06	-2550.000	-2.000	0.0	86.600	4500.000
"AEH500"	2.10E+07	44347.0				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-260.898				1.655	4.184

Coeficiente de seguridad 1.766

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-212.879				4.710	7.161

Coeficiente de seguridad 1.874

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-260.898				3.509	-10.892

Coeficiente de seguridad 1.509

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-212.879				5.070	-10.128

Coeficiente de seguridad 1.732

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.060				2.073	4.143

Coeficiente de seguridad 1.877

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.305				5.340	6.336

Coeficiente de seguridad 1.924

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.060				3.785	-11.112

Coeficiente de seguridad 1.583

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.305				5.261	-10.334

Coeficiente de seguridad 1.745

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-177.396				1.307	2.982

Coeficiente de seguridad 2.577

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-133.649				5.276	6.240

Coeficiente de seguridad 2.580

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-177.396				3.555	-11.390

Coeficiente de seguridad 1.917

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-133.649				5.187	-10.512

Coeficiente de seguridad 2.165

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-225.717				3.216	4.727

Coeficiente de seguridad 1.933

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-203.078				6.374	5.934

Coeficiente de seguridad 1.929

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-225.717				4.355	-11.085

Coeficiente de seguridad 1.649

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-203.078				5.615	-10.371

Coeficiente de seguridad 1.751

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-157.478				1.635	3.642

Coeficiente de seguridad 2.780

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-127.361				5.808	5.901

Coeficiente de seguridad 2.630

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-157.478				3.795	-11.319

Coeficiente de seguridad 2.032

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-127.361				5.339	-10.515

Coeficiente de seguridad 2.193

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-214.050				4.617	5.559

Coeficiente de seguridad 1.935

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.557				7.842	5.861

Coeficiente de seguridad 1.647

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-214.050				5.037	-10.970

Coeficiente de seguridad 1.689

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-201.600				6.044	-10.340

Coeficiente de seguridad 1.744

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-90.963				1.150	2.484

Coeficiente de seguridad 4.676

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-52.322				5.817	5.945

Coeficiente de seguridad 3.394

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-90.963				3.678	-11.586

Coeficiente de seguridad 2.420

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-52.322				5.295	-10.625

Coeficiente de seguridad 2.395

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-141.218				2.885	4.425

Coeficiente de seguridad 2.875

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-123.204				6.927	5.637

Coeficiente de seguridad 2.577

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-141.218				4.418	-11.211

Coeficiente de seguridad 2.107

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-123.204				5.732	-10.496

Coeficiente de seguridad 2.189

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-202.950				8.529	5.589

Coeficiente de seguridad 1.844

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.116				5.639	6.461

Coeficiente de seguridad 1.909

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.116				5.573	-10.844

Coeficiente de seguridad 1.710

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-247.532				7.287	-10.268

Coeficiente de seguridad 1.503

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-71.892				1.258	3.546

Coeficiente de seguridad 5.202

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-46.559				6.258	5.829

Coeficiente de seguridad 3.320

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-71.892				3.831	-11.355

Coeficiente de seguridad 2.533

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-46.559				5.411	-10.541

Coeficiente de seguridad 2.341

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-129.974				4.260	5.282

Coeficiente de seguridad 2.831

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.198				8.153	5.615

Coeficiente de seguridad 2.142

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-129.974				5.099	-11.088

Coeficiente de seguridad 2.140

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-122.081				6.170	-10.458

Coeficiente de seguridad 2.164

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-205.784				8.708	5.636

Coeficiente de seguridad 1.817

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-203.069				5.604	7.607

Coeficiente de seguridad 1.888

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-203.609				5.685	-10.628

Coeficiente de seguridad 1.734

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-258.039				7.464	-9.954

Coeficiente de seguridad 1.468

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-56.139				2.411	4.407

Coeficiente de seguridad 5.066

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-42.762				7.329	5.619

Coeficiente de seguridad 3.005

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-56.139				4.422	-11.216

Coeficiente de seguridad 2.443

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-42.762				5.789	-10.500

Coeficiente de seguridad 2.255

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-123.848				9.138	5.250

Coeficiente de seguridad 2.364

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-123.441				5.282	6.131

Coeficiente de seguridad 2.704

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-123.441				5.645	-10.983

Coeficiente de seguridad 2.147

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-168.140				7.475	-10.412

Coeficiente de seguridad 1.842

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-45.341				3.732	5.258

Coeficiente de seguridad 4.360

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.340				8.273	5.615

Coeficiente de seguridad 2.757

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-45.341				5.093	-11.094

Coeficiente de seguridad 2.277

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-42.000				6.222	-10.466

Coeficiente de seguridad 2.190

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-127.269				9.461	4.908

Coeficiente de seguridad 2.333

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-120.024				5.549	6.813

Coeficiente de seguridad 2.631

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-120.024				5.889	-10.961

Coeficiente de seguridad 2.148

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-179.960				7.800	-10.385

Coeficiente de seguridad 1.771

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-43.917				9.422	5.112

Coeficiente de seguridad 2.594

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-38.996				4.632	6.017

Coeficiente de seguridad 3.724

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-38.996				5.597	-11.027

Coeficiente de seguridad 2.157

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-43.917				6.536	-10.482

Coeficiente de seguridad 2.162

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-46.973				9.794	4.613

Coeficiente de seguridad 2.635

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-35.027				4.793	6.480

Coeficiente de seguridad 3.407

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-35.027				5.793	-11.088

Coeficiente de seguridad 2.083

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-46.973				6.635	-10.581

Coeficiente de seguridad 2.161

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-173.932				1.655	4.184

Coeficiente de seguridad 2.512

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-141.919				4.710	7.161

Coeficiente de seguridad 2.453

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-173.932				3.509	-10.892

Coeficiente de seguridad 1.972

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-141.919				5.070	-10.128

Coeficiente de seguridad 2.155

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.373				2.073	4.143

Coeficiente de seguridad 2.656

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.203				5.340	6.336

Coeficiente de seguridad 2.517

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.373				3.785	-11.112

Coeficiente de seguridad 2.023

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.203				5.261	-10.334

Coeficiente de seguridad 2.148

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-118.264				1.307	2.982

Coeficiente de seguridad 3.654

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-89.099				5.276	6.240

Coeficiente de seguridad 3.095

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-118.264				3.555	-11.390

Coeficiente de seguridad 2.292

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-89.099				5.187	-10.512

Coeficiente de seguridad 2.422

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-150.478				3.216	4.727

Coeficiente de seguridad 2.687

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.385				6.374	5.934

Coeficiente de seguridad 2.487

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-150.478				4.355	-11.085

Coeficiente de seguridad 2.064

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.385				5.615	-10.371

Coeficiente de seguridad 2.137

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-104.985				1.635	3.642

Coeficiente de seguridad 3.869

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-84.907				5.808	5.901

Coeficiente de seguridad 3.110

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-104.985				3.795	-11.319

Coeficiente de seguridad 2.364

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-84.907				5.339	-10.515

Coeficiente de seguridad 2.425

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-142.700				4.617	5.559

Coeficiente de seguridad 2.607

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.038				7.842	5.861

Coeficiente de seguridad 2.150

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-142.700				5.037	-10.970

Coeficiente de seguridad 2.080

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-134.400				6.044	-10.340

Coeficiente de seguridad 2.115

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-60.642				1.150	2.484

Coeficiente de seguridad 6.421

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-34.881				5.817	5.945

Coeficiente de seguridad 3.251

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-60.642				3.678	-11.586

Coeficiente de seguridad 2.509

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-34.881				5.295	-10.625

Coeficiente de seguridad 2.225

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-94.145				2.885	4.425

Coeficiente de seguridad 3.814

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-82.136				6.927	5.637

Coeficiente de seguridad 2.978

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-94.145				4.418	-11.211

Coeficiente de seguridad 2.382

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-82.136				5.732	-10.496

Coeficiente de seguridad 2.396

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.300				8.529	5.589

Coeficiente de seguridad 2.310

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.077				5.639	6.461

Coeficiente de seguridad 2.479

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.077				5.573	-10.844

Coeficiente de seguridad 2.083

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-165.021				7.287	-10.268

Coeficiente de seguridad 1.877

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-47.928				1.258	3.546

Coeficiente de seguridad 6.538

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-31.039				6.258	5.829

Coeficiente de seguridad 3.070

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-47.928				3.831	-11.355

Coeficiente de seguridad 2.439

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-31.039				5.411	-10.541

Coeficiente de seguridad 2.181

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-86.649				4.260	5.282

Coeficiente de seguridad 3.512

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-107.465				8.153	5.615

Coeficiente de seguridad 2.573

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-86.649				5.099	-11.088

Coeficiente de seguridad 2.366

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-81.387				6.170	-10.458

Coeficiente de seguridad 2.354

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-137.189				8.708	5.636

Coeficiente de seguridad 2.275

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.379				5.604	7.607

Coeficiente de seguridad 2.397

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.379				5.685	-10.628

Coeficiente de seguridad 2.110

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-172.026				7.464	-9.954

Coeficiente de seguridad 1.851

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-37.426				2.411	4.407

Coeficiente de seguridad 5.632

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-28.508				7.329	5.619

Coeficiente de seguridad 2.773

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-37.426				4.422	-11.216

Coeficiente de seguridad 2.277

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-28.508				5.789	-10.500

Coeficiente de seguridad 2.105

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-82.565				9.138	5.250

Coeficiente de seguridad 2.653

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-82.294				5.282	6.131

Coeficiente de seguridad 3.194

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-82.294				5.645	-10.983

Coeficiente de seguridad 2.340

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-112.093				7.475	-10.412

Coeficiente de seguridad 2.109

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-30.227				3.732	5.258

Coeficiente de seguridad 4.332

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-53.560				8.273	5.615

Coeficiente de seguridad 2.867

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-30.227				5.093	-11.094

Coeficiente de seguridad 2.117

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-28.000				6.222	-10.466

Coeficiente de seguridad 2.046

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-84.846				9.461	4.908

Coeficiente de seguridad 2.632

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.016				5.549	6.813

Coeficiente de seguridad 3.034

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.016				5.889	-10.961

Coeficiente de seguridad 2.325

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-119.973				7.800	-10.385

Coeficiente de seguridad 2.050

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-29.278				9.422	5.112

Coeficiente de seguridad 2.411

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-25.997				4.632	6.017

Coeficiente de seguridad 3.439

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-25.997				5.597	-11.027

Coeficiente de seguridad 2.009

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-29.278				6.536	-10.482

Coeficiente de seguridad 2.017

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-31.315				9.794	4.613

Coeficiente de seguridad 2.450

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-23.351				4.793	6.480

Coeficiente de seguridad 3.148

Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-23.351				5.793	-11.088

Coeficiente de seguridad 1.942

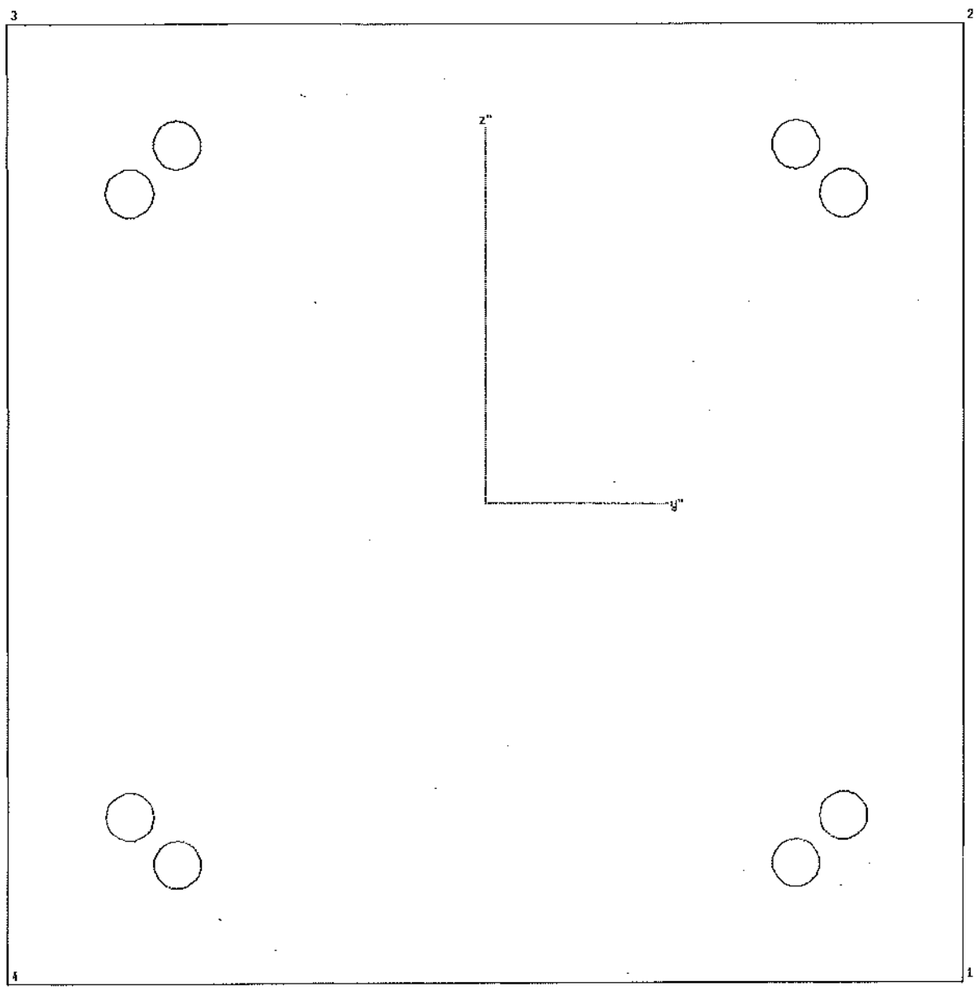
Cálculo Resistencia Ultima: Pila "PILOTEMZ"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-31.315				6.635	-10.581

Coeficiente de seguridad 2.011

Mstb. 1 : 2.5



Sección :"PILOTEN" Armadura :"B1"
Tipo : tipo pila/ Rectángulo Unidades :[cm]
Material :"H450"

Ancho = 40.00 cm Canto = 40.00 cm

Características mecánicas de la sección:
Àrea : Ax= 0.160000 [m2]
Momentos de inercia : Iy= 0.002133 [m4] Iz= 0.002133 [m4]
Inercia a torsión : Ix= 0.003601 [m4]

Posición del centro de gravedad: ys= 0.000 [m] zs= 0.200000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-0.200	-0.010667	0.067
dch.	Iz	0.200	0.010667	-0.067
abajo	Iy	-0.200	-0.010667	0.067
arriba	Iy	0.200	0.010667	-0.067

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-13.00	5.00		
2	AEH500	(1)	3.14	13.00	5.00		
3	AEH500	(1)	3.14	13.00	35.00		
4	AEH500	(1)	3.14	-13.00	35.00		
5	AEH500	(1)	3.14	-15.00	7.00		
6	AEH500	(1)	3.14	-15.00	33.00		
7	AEH500	(1)	3.14	15.00	7.00		
8	AEH500	(1)	3.14	15.00	33.00		
Total:			25.12	Cuantía de armadura: 1.570 [o/o]			

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccion
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

Dimens. a cortante (valores por defecto): (Acero"AEH500"/Hormigón"H450"

Cortante	Area mín.cercos	Ancho alma ideal	Canto útil	Incl.bielas
Vz	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00
Vy	0.00 [cm2/m]	40.00 [cm]	36.00 [cm]	0.00

Características del material:

Nom.Mat.	Módulo E [t/m2]	0.85*fcd,fyd [t/m2]	eps-fc [o/oo]	fct [t/m2]	fcv [t/m2]	fcw,mín [t/m2]
"H450"	4.00E+06	-2550.000	-2.000	0.0	86.600	4500.000
"AEH500"	2.10E+07	44347.0				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-263.147				2.355	5.882

Coeficiente de seguridad 1.678

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.129				4.551	5.555

Coeficiente de seguridad 1.989

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-263.147				4.166	-10.377

Coeficiente de seguridad 1.506

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-207.129				5.340	-10.547

Coeficiente de seguridad 1.732

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-251.169				3.294	5.273

Coeficiente de seguridad 1.744

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-202.550				4.854	5.259

Coeficiente de seguridad 2.025

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-251.169				4.557	-10.641

Coeficiente de seguridad 1.544

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-202.550				5.487	-10.713

Coeficiente de seguridad 1.742

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-182.468				2.567	4.583

Coeficiente de seguridad 2.345

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-125.687				4.625	4.674

Coeficiente de seguridad 2.922

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-182.468				4.269	-10.917

Coeficiente de seguridad 1.887

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-125.687				5.415	-10.914

Coeficiente de seguridad 2.158

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.895				5.321	5.408

Coeficiente de seguridad 1.730

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-199.044				5.499	5.343

Coeficiente de seguridad 2.021

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-242.895				5.393	-10.605

Coeficiente de seguridad 1.562

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-199.044				5.772	-10.731

Coeficiente de seguridad 1.748

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-169.472				3.431	4.766

Coeficiente de seguridad 2.433

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-120.375				4.826	4.827

Coeficiente de seguridad 2.956

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-169.472				4.631	-10.851

Coeficiente de seguridad 1.951

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-120.375				5.522	-10.893

Coeficiente de seguridad 2.182

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.557				7.842	5.861

Coeficiente de seguridad 1.647

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-197.852				6.318	5.603

Coeficiente de seguridad 1.983

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-241.557				6.435	-10.451

Coeficiente de seguridad 1.545

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-197.852				6.132	-10.689

Coeficiente de seguridad 1.742

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-98.538				3.068	4.008

Coeficiente de seguridad 3.763

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-42.294				4.629	4.416

Coeficiente de seguridad 4.390

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-98.538				4.491	-11.144

Coeficiente de seguridad 2.361

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-42.294				5.462	-11.012

Coeficiente de seguridad 2.210

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.619				5.622	5.136

Coeficiente de seguridad 2.359

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-116.817				5.534	5.033

Coeficiente de seguridad 2.888

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.619				5.540	-10.719

Coeficiente de seguridad 1.960

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-116.817				5.838	-10.860

Coeficiente de seguridad 2.179

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-247.532				9.888	6.407

Coeficiente de seguridad 1.540

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-199.131				6.938	5.939

Coeficiente de seguridad 1.932

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-247.532				7.287	-10.268

Coeficiente de seguridad 1.503

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-199.131				6.419	-10.629

Coeficiente de seguridad 1.728

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-86.768				3.660	4.689

Coeficiente de seguridad 3.769

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-37.349				4.761	4.749

Coeficiente de seguridad 4.232

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-86.768				4.743	-10.880

Coeficiente de seguridad 2.431

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-37.349				5.543	-10.920

Coeficiente de seguridad 2.166

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.198				8.153	5.615

Coeficiente de seguridad 2.142

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-115.806				6.341	5.306

Coeficiente de seguridad 2.763

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.198				6.591	-10.554

Coeficiente de seguridad 1.916

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-115.806				6.203	-10.814

Coeficiente de seguridad 2.159

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-258.039				10.265	7.284

Coeficiente de seguridad 1.463

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-201.848				6.903	6.485

Coeficiente de seguridad 1.891

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-258.039				7.464	-9.954

Coeficiente de seguridad 1.468

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-201.848				6.446	-10.490

Coeficiente de seguridad 1.720

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-79.835				5.780	5.154

Coeficiente de seguridad 3.323

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-33.993				5.414	5.003

Coeficiente de seguridad 3.741

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-79.835				5.628	-10.709

Coeficiente de seguridad 2.388

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-33.993				5.844	-10.869

Coeficiente de seguridad 2.100

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-168.140				10.259	6.065

Coeficiente de seguridad 1.926

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-117.312				6.987	5.598

Coeficiente de seguridad 2.632

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-168.140				7.475	-10.412

Coeficiente de seguridad 1.842

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-117.312				6.507	-10.772

Coeficiente de seguridad 2.131

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.340				8.273	5.615

Coeficiente de seguridad 2.757

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-33.176				6.189	5.271

Coeficiente de seguridad 3.315

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.340				6.672	-10.551

Coeficiente de seguridad 2.291

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-33.176				6.204	-10.824

Coeficiente de seguridad 2.051

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-179.960				11.006	6.252

Coeficiente de seguridad 1.809

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-120.024				5.549	6.813

Coeficiente de seguridad 2.631

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-179.960				7.800	-10.385

Coeficiente de seguridad 1.771

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-120.024				5.889	-10.961

Coeficiente de seguridad 2.148

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-87.782				10.200	5.859

Coeficiente de seguridad 2.397

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-34.710				6.749	5.483

Coeficiente de seguridad 3.090

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-87.782				7.488	-10.493

Coeficiente de seguridad 2.189

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-34.710				6.480	-10.815

Coeficiente de seguridad 2.031

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-98.874				10.932	5.564

Coeficiente de seguridad 2.284

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-35.027				4.793	6.480

Coeficiente de seguridad 3.407

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-98.874				7.812	-10.659

Coeficiente de seguridad 2.105

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-35.027				5.793	-11.088

Coeficiente de seguridad 2.083

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-175.431				2.355	5.882

Coeficiente de seguridad 2.345

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.086				4.551	5.555

Coeficiente de seguridad 2.668

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-175.431				4.166	-10.377

Coeficiente de seguridad 1.968

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-138.086				5.340	-10.547

Coeficiente de seguridad 2.124

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-167.446				3.294	5.273

Coeficiente de seguridad 2.429

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.033				4.854	5.259

Coeficiente de seguridad 2.707

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-167.446				4.557	-10.641

Coeficiente de seguridad 1.981

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-135.033				5.487	-10.713

Coeficiente de seguridad 2.118

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-121.645				2.567	4.583

Coeficiente de seguridad 3.229

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-83.791				4.625	4.674

Coeficiente de seguridad 3.620

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-121.645				4.269	-10.917

Coeficiente de seguridad 2.268

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-83.791				5.415	-10.914

Coeficiente de seguridad 2.368

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.930				5.321	5.408

Coeficiente de seguridad 2.358

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-132.696				5.499	5.343

Coeficiente de seguridad 2.661

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.930				5.393	-10.605

Coeficiente de seguridad 1.974

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-132.696				5.772	-10.731

Coeficiente de seguridad 2.110

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-112.981				3.431	4.766

Coeficiente de seguridad 3.267

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.250				4.826	4.827

Coeficiente de seguridad 3.602

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-112.981				4.631	-10.851

Coeficiente de seguridad 2.301

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.250				5.522	-10.893

Coeficiente de seguridad 2.373

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.038				7.842	5.861

Coeficiente de seguridad 2.150

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-131.901				6.318	5.603

Coeficiente de seguridad 2.559

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-161.038				6.435	-10.451

Coeficiente de seguridad 1.933

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-131.901				6.132	-10.689

Coeficiente de seguridad 2.092

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-65.692				3.068	4.008

Coeficiente de seguridad 4.687

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-28.196				4.629	4.416

Coeficiente de seguridad 4.270

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-65.692				4.491	-11.144

Coeficiente de seguridad 2.503

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-28.196				5.462	-11.012

Coeficiente de seguridad 2.058

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-107.746				5.622	5.136

Coeficiente de seguridad 2.982

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-77.878				5.534	5.033

Coeficiente de seguridad 3.428

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-107.746				5.540	-10.719

Coeficiente de seguridad 2.267

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-77.878				5.838	-10.860

Coeficiente de seguridad 2.351

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-165.021				9.888	6.407

Coeficiente de seguridad 1.950

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-132.754				6.938	5.939

Coeficiente de seguridad 2.456

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-165.021				7.287	-10.268

Coeficiente de seguridad 1.877

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-132.754				6.419	-10.629

Coeficiente de seguridad 2.072

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-57.845				3.660	4.689

Coeficiente de seguridad 4.412

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-24.899				4.761	4.749

Coeficiente de seguridad 3.918

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-57.845				4.743	-10.880

Coeficiente de seguridad 2.473

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación — Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-24.899				5.543	-10.920

Coeficiente de seguridad 2.017

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-107.465				8.153	5.615

Coeficiente de seguridad 2.573

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-77.204				6.341	5.306

Coeficiente de seguridad 3.203

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-107.465				6.591	-10.554

Coeficiente de seguridad 2.192

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-77.204				6.203	-10.814

Coeficiente de seguridad 2.319

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-172.026				10.265	7.284

Coeficiente de seguridad 1.842

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-134.565				6.903	6.485

Coeficiente de seguridad 2.393

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-172.026				7.464	-9.954

Coeficiente de seguridad 1.851

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-134.565				6.446	-10.490

Coeficiente de seguridad 2.073

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-53.223				5.780	5.154

Coeficiente de seguridad 3.614

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-22.662				5.414	5.003

Coeficiente de seguridad 3.447

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-53.223				5.628	-10.709

Coeficiente de seguridad 2.337

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-22.662				5.844	-10.869

Coeficiente de seguridad 1.960

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-112.093				10.259	6.065

Coeficiente de seguridad 2.247

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-78.208				6.987	5.598

Coeficiente de seguridad 3.008

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-112.093				7.475	-10.412

Coeficiente de seguridad 2.109

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-78.208				6.507	-10.772

Coeficiente de seguridad 2.288

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-53.560				8.273	5.615

Coeficiente de seguridad 2.867

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-22.117				6.189	5.271

Coeficiente de seguridad 3.065

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-53.560				6.672	-10.551

Coeficiente de seguridad 2.217

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-22.117				6.204	-10.824

Coeficiente de seguridad 1.921

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-119.973				11.006	6.252

Coeficiente de seguridad 2.116

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.016				5.549	6.813

Coeficiente de seguridad 3.034

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-119.973				7.800	-10.385

Coeficiente de seguridad 2.050

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-80.016				5.889	-10.961

Coeficiente de seguridad 2.325

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-58.521				10.200	5.859

Coeficiente de seguridad 2.438

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-23.140				6.749	5.483

Coeficiente de seguridad 2.860

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-58.521				7.488	-10.493

Coeficiente de seguridad 2.153

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-23.140				6.480	-10.815

Coeficiente de seguridad 1.906

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-65.916				10.932	5.564

Coeficiente de seguridad 2.392

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-23.351				4.793	6.480

Coeficiente de seguridad 3.148

Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-65.916				7.812	-10.659

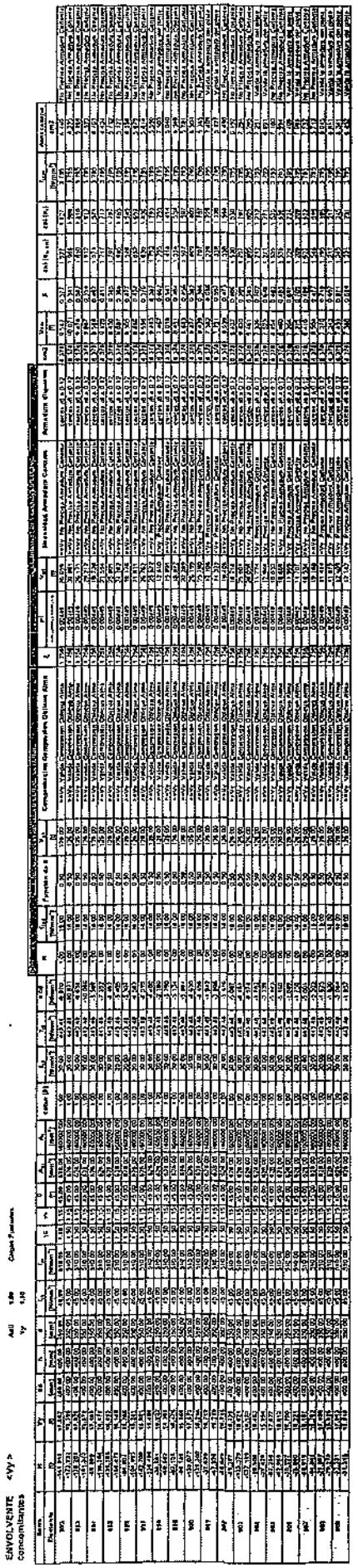
Coeficiente de seguridad 2.134

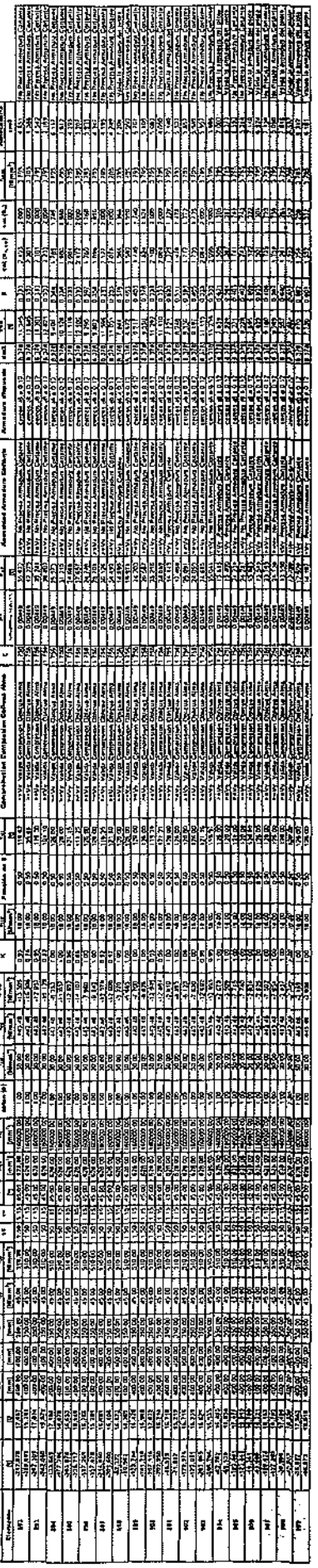
Cálculo Resistencia Ultima: Pila "PILOTEN"/"B1"

Solicitación Unidades : [tm]

N	Vy	Vz	Mx	My	Mz
-23.351				5.793	-11.088

Coeficiente de seguridad 1.942





ENVOLVENTE <N-Vy > Axil 1.50 Cargas Puntuales
concomitantes Vy 1.50

Barra Elemento	N [kN]	Vy [kN]	b0 [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	Ø [°]	A_{sl} [mm²]	A_c [mm²]	cotan(θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [kN]	Comprobación Compresión Oblicua Alma	ξ	ρl	V_{cu} [kN]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vsu [kN]	β	cot(θe...)	cot(θe)	$f_{yα,d}$ [N/mm²]	Asα/st cm2	
[illegible]	-263.747	14.896	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-16.447	0.79	18.00	0.50	94.87	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	47.378	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	15.744	0.333	2.305	2.000	3.795	2.231	No Precisa Armadura Cortante
	-287.179	16.449	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-17.046	0.95	18.00	0.50	113.36	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	35.274	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	11.753	0.333	2.100	2.000	3.795	4.088	No Precisa Armadura Cortante
[illegible]	-251.184	16.263	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-15.806	0.77	18.00	0.50	100.41	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	45.296	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	13.779	0.333	2.266	2.000	3.795	3.481	No Precisa Armadura Cortante
	-292.249	16.179	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-17.457	0.96	18.00	0.50	121.38	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	31.847	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	11.092	0.333	2.047	2.000	3.795	4.447	No Precisa Armadura Cortante
[illegible]	-182.458	18.821	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-11.404	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	21.181	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	10.277	0.333	2.001	2.000	3.795	4.455	No Precisa Armadura Cortante
	-123.587	15.930	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-7.615	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	24.578	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.261	0.399	1.732	1.732	3.795	5.283	No Precisa Armadura Cortante
[illegible]	-243.181	16.265	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-15.181	0.82	18.00	0.50	103.73	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	39.812	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	12.839	0.333	2.316	2.000	3.795	2.775	No Precisa Armadura Cortante
	-189.644	16.115	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-17.640	0.88	18.00	0.50	117.93	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	34.157	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	10.879	0.333	2.060	2.000	3.795	4.345	No Precisa Armadura Cortante
[illegible]	-161.472	15.859	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-10.587	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	30.725	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.994	0.346	1.941	1.941	3.795	4.772	No Precisa Armadura Cortante
	-126.379	15.813	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-7.573	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	23.631	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.166	0.400	1.727	1.727	3.795	5.666	No Precisa Armadura Cortante
[illegible]	-189.567	14.558	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-15.098	0.82	18.00	0.50	105.12	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	35.736	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	12.791	0.333	2.258	2.000	3.795	3.862	No Precisa Armadura Cortante
	-197.857	16.836	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-17.364	0.94	18.00	0.50	123.44	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	34.000	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	10.682	0.333	2.058	2.000	3.795	4.382	No Precisa Armadura Cortante
[illegible]	-94.150	15.476	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-8.137	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	20.965	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.760	0.447	1.915	1.915	3.795	5.124	No Precisa Armadura Cortante
	-43.784	15.796	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-2.842	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	13.580	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.029	0.675	1.302	1.302	3.795	6.450	Valida la armadura del pilar
[illegible]	-151.519	16.332	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-10.101	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	23.245	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.671	0.354	1.913	1.913	3.795	5.017	No Precisa Armadura Cortante
	-116.842	16.937	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-7.301	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	22.306	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.303	0.413	1.710	1.710	3.795	5.656	No Precisa Armadura Cortante
[illegible]	-247.322	17.038	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-15.471	0.81	18.00	0.50	101.70	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	40.524	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	13.065	0.333	2.252	2.000	3.795	3.158	No Precisa Armadura Cortante
	-198.535	16.919	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-12.446	0.99	18.00	0.50	122.48	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	34.108	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	10.943	0.333	2.099	2.000	3.795	4.742	No Precisa Armadura Cortante
[illegible]	-44.768	15.489	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-3.033	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	15.420	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	6.541	0.617	1.551	1.554	3.795	5.819	No Precisa Armadura Cortante
	-37.349	15.606	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-2.334	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	12.934	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.521	0.644	1.271	1.271	3.795	6.722	Valida la armadura del pilar
[illegible]	-161.195	16.572	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-15.075	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	29.168	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.864	0.354	1.917	1.912	3.795	5.316	No Precisa Armadura Cortante
	-115.906	16.463	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-7.734	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	23.272	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.086	0.415	1.705	1.705	3.795	5.856	No Precisa Armadura Cortante
[illegible]	-254.938	17.619	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-16.177	0.77	18.00	0.50	97.11	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	41.500	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	13.520	0.333	2.291	2.000	3.795	2.747	No Precisa Armadura Cortante
	-201.849	17.338	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-12.615	0.97	18.00	0.50	121.69	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	34.525	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	11.067	0.333	2.075	2.002	3.795	4.478	No Precisa Armadura Cortante
[illegible]	-71.015	16.298	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-4.990	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	15.510	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.808	0.450	1.527	1.521	3.795	6.166	No Precisa Armadura Cortante
	-33.012	16.294	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-2.132	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	12.684	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.449	[illegible]	1.219	1.219	3.795	[illegible]	Valida la armadura del pilar
[illegible]	-181.140	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	20.100	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	No Precisa Armadura Cortante
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	[illegible]	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	[illegible]	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	No Precisa Armadura Cortante
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	12.786	>Vy Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Valida la armadura del pilar
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	31.852	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	10.187	0.333	1.991	1.991	[illegible]	[illegible]	No Precisa Armadura Cortante
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	23.785	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	9.100	[illegible]	1.725	1.725	[illegible]	7.106	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	19.553	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	8.561	0.470	1.564	1.564	[illegible]	6.459	No Precisa Armadura Cortante
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	12.548	>Vy Precisa Armadura Cortante	[illegible]	[illegible]	7.461	0.800	1.254	1.254	[illegible]	7.281	Valida la armadura del pilar
[illegible]	-48.876	18.361	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	21.082	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	0.446	1.621	1.621	3.795	[illegible]	No Precisa Armadura Cortante
	[illegible]	17.963	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	12.829	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	[illegible]	[illegible]	1.256	1.256	3.795	8.312	Valida la armadura del pilar

Envolvente N-Vy

ENVOLVENTE <N-Vy > Axil 1.50 Cargas Puntuales
concomitantes Vy 1.50

Barra Elemento	N [kN]	Vy [kN]	b0 [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	Ø [°]	A_{sl} [mm²]	A_c [mm²]	cotan(θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [kN]	Comprobación Compresión Oblicua Alma	ξ	ρl	V_{cu} [kN]	Necesidad Armadura Cortante	Armadura dispuesta	cm2	Vsu [kN]	β	cot(θe...)	cot(θe)	$f_{yα,d}$ [N/mm²]	Asα/st cm2	
[illegible]	-176.421	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-10.964	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	31.057	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	10.095	0.340	1.972	1.972	3.795	5.107	No Precisa Armadura Cortante
	[illegible]	14.441	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	26.164	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	6.477	[illegible]	1.607	1.606	3.795	5.537	No Precisa Armadura Cortante
[illegible]	-167.445	16.353	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-10.465	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	30.006	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.968	0.346	1.934	1.934	3.795	4.565	No Precisa Armadura Cortante
	-133.873	15.315	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	23.750	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.434	0.366	1.785	1.785	3.795	5.356	No Precisa Armadura Cortante
[illegible]	[illegible]	15.826	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-7.402	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	[illegible]	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.149	0.406	1.731	1.731	3.795	5.249	No Precisa Armadura Cortante
	-83.291	15.870	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	[illegible]	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.444	0.480	1.547	1.547	3.795	5.901	No Precisa Armadura Cortante
[illegible]	-161.838	16.266	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-10.151	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	29.785	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.876	0.353	1.915	1.915	3.795	4.161	No Precisa Armadura Cortante
	-133.896	16.615	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	25.441	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.384	0.381	1.785	1.785	3.795	5.540	No Precisa Armadura Cortante
[illegible]	[illegible]	15.954	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-7.061	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	[illegible]	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.021	0.420	1.694	1.691	3.795	5.445	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	18.565	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	[illegible]	0.488	1.524	1.524	3.795	6.063	No Precisa Armadura Cortante
[illegible]	[illegible]	16.538	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	29.164	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.867	0.354	1.911	1.911	3.795	5.761	No Precisa Armadura Cortante
	[illegible]	16.426	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	25.364	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	[illegible]	0.390	[illegible]	[illegible]	3.795	5.766	No Precisa Armadura Cortante
[illegible]	-65.683	15.474	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	16.634	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.133	0.535	1.443	1.443	3.795	5.833	No Precisa Armadura Cortante
	[illegible]	15.358	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-1.787	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	11.722	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.313	[illegible]	1.202	[illegible]	3.795	[illegible]	Valida la armadura del pilar
[illegible]	[illegible]	16.193	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	22.574	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.837	0.379	1.666	1.666	3.795	5.753	No Precisa Armadura Cortante
	-77.471	16.232	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	18.234	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	[illegible]	0.493	1.511	1.511	3.795	6.211	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-10.254	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	29.881	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	[illegible]	0.350	1.936	[illegible]	3.795	[illegible]	No Precisa Armadura Cortante
	-132.754	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-8.297	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	25.450	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.315	0.389	[illegible]	1.783	3.795	5.973	No Precisa Armadura Cortante
[illegible]	-57.945	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	[illegible]	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.950	0.551	1.397	1.397	3.795	6.500	Valida la armadura del pilar
	[illegible]	14.984	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-1.556	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	11.392	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.245	0.727	1.161	1.161	3.795	[illegible]	Valida la armadura del pilar
[illegible]	-107.485	15.817	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	22.177	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	[illegible]	0.429	1.644	1.644	3.795	[illegible]	No Precisa Armadura Cortante
	-77.294	16.445	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-4.825	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	18.169	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	[illegible]	0.496	1.507	1.507	3.795	[illegible]	No Precisa Armadura Cortante
[illegible]	[illegible]	17.446	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	-10.757	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	30.611	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	10.040	0.343	1.954	1.954	3.795	5.004	No Precisa Armadura Cortante
	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	25.866	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	9.446	0.381	1.765	1.765	3.795	[illegible]	No Precisa Armadura Cortante
[illegible]	[illegible]	16.269	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	15.018	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	[illegible]	0.575	1.370	1.370	3.795	6.817	Valida la armadura del pilar
	[illegible]	16.209	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	[illegible]	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.180	0.744	[illegible]	[illegible]	3.795	[illegible]	Valida la armadura del pilar
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	22.744	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	No Precisa Armadura Cortante
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	[illegible]	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	[illegible]	>Vy Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Valida la armadura del pilar
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	[illegible]	>Vy Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Valida la armadura del pilar
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	[illegible]	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	No Precisa Armadura Cortante
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	19.534	>Vy No Precisa Armadura Cortante	[illegible]	[illegible]	8.410	[illegible]	1.522	1.522	[illegible]	[illegible]	No Precisa Armadura Cortante
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	13.713	>Vy Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	0.655	1.401	1.401	[illegible]	6.225	Valida la armadura del pilar
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	>Vy Valida Compresion Oblicua Alma	[illegible]	[illegible]	[illegible]	>Vy Precisa Armadura Cortante	[illegible]	[illegible]	[illegible]	0.741	1.175	1.175	[illegible]	[illegible]	Valida la armadura del pilar
[illegible]	[illegible]	[illegible]	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	[illegible]	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	[illegible]	>Vy No Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	8.127	0.520	1.444	1.444	3.795	4.700	No Precisa Armadura Cortante
	[illegible]	17.963	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	160000.00	1.00	30.00	443.48	[illegible]	1.00	18.00	0.50	126.00	>Vy Valida Compresion Oblicua Alma	1.756	0.00449	12.409	>Vy Precisa Armadura Cortante	cercos Ø 6 a 0.12	8.378	7.412	0.871	[illegible]	[illegible]	3.795	8.341	Valida la armadura del pilar

Envolvente N-Vy

ENVOLVENTE <Vz > Axil 1.50 Cargas Puntuales
concomitantes Vz 1.50

Barra / Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{s1} [mm²]	A_s [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	z	pl	V_{u2} [t]	Necesidad Armadura Cortante
892	-212.870	0.368	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-13.305	0.93	18.00	0.50	116.87	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	35.072	>=Vy No Precisa Armadura Cortante
893	-280.892	1.893	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-16.306	0.76	18.00	0.50	95.86	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	42.275	>=Vy No Precisa Armadura Cortante
893	-297.305	0.082	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-12.957	0.95	18.00	0.50	119.50	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	35.241	>=Vy No Precisa Armadura Cortante
894	-242.069	1.748	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-15.129	0.83	18.00	0.50	104.10	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	38.802	>=Vy No Precisa Armadura Cortante
894	-153.649	0.089	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-9.353	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	25.573	>=Vy No Precisa Armadura Cortante
895	-177.393	2.265	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-11.087	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	31.315	>=Vy No Precisa Armadura Cortante
895	-203.079	0.776	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-12.692	0.96	18.00	0.50	121.15	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	34.686	>=Vy No Precisa Armadura Cortante
896	-225.717	1.163	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-14.107	0.86	18.00	0.50	111.25	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	37.657	>=Vy No Precisa Armadura Cortante
896	-127.361	0.480	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-7.960	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	24.746	>=Vy No Precisa Armadura Cortante
897	-157.478	2.205	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-9.842	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	28.701	>=Vy No Precisa Armadura Cortante
897	-201.600	1.577	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-12.600	0.87	18.00	0.50	121.80	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	34.492	>=Vy No Precisa Armadura Cortante
898	-214.050	0.428	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-13.378	0.92	18.00	0.50	118.35	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	36.126	>=Vy No Precisa Armadura Cortante
898	-52.322	0.535	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-3.270	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	14.599	>=Vy No Precisa Armadura Cortante
899	-90.983	2.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-5.685	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	19.971	>=Vy No Precisa Armadura Cortante
899	-123.264	1.221	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-7.700	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	24.209	>=Vy No Precisa Armadura Cortante
900	-141.218	1.665	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-8.826	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	26.567	>=Vy No Precisa Armadura Cortante
900	-247.532	2.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-15.471	0.81	18.00	0.50	101.70	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	40.521	>=Vy No Precisa Armadura Cortante
901	-307.114	0.089	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-12.965	0.95	18.00	0.50	119.39	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	35.216	>=Vy No Precisa Armadura Cortante
901	-46.559	0.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.910	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	14.143	>=Vy No Precisa Armadura Cortante
902	-71.892	2.626	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-4.493	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	17.486	>=Vy No Precisa Armadura Cortante
902	-122.061	2.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-7.630	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	24.055	>=Vy No Precisa Armadura Cortante
903	-129.974	0.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-8.123	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	25.091	>=Vy No Precisa Armadura Cortante
903	-288.039	2.861	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-16.127	0.77	18.00	0.50	97.11	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	41.000	>=Vy No Precisa Armadura Cortante
904	-203.069	0.085	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-12.692	0.96	18.00	0.50	121.16	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	34.685	>=Vy No Precisa Armadura Cortante
904	-42.762	1.574	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.673	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	13.645	>=Vy No Precisa Armadura Cortante
905	-56.139	2.056	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-3.509	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	15.400	>=Vy No Precisa Armadura Cortante
905	-188.148	2.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-10.509	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	30.109	>=Vy No Precisa Armadura Cortante
906	-123.441	0.375	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-7.715	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	24.234	>=Vy No Precisa Armadura Cortante
906	-42.030	2.351	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	13.345	>=Vy No Precisa Armadura Cortante
907	-46.341	1.389	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.834	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	13.983	>=Vy No Precisa Armadura Cortante
907	-178.580	2.775	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-11.247	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	31.652	>=Vy No Precisa Armadura Cortante
908	-120.024	0.347	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-7.502	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	23.785	>=Vy No Precisa Armadura Cortante
908	-43.917	2.948	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.745	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	13.706	>=Vy No Precisa Armadura Cortante
909	-34.896	0.985	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.437	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	13.159	>=Vy No Precisa Armadura Cortante
909	-46.873	3.227	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.928	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	14.197	>=Vy No Precisa Armadura Cortante
	-35.027	1.022	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.189	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	12.829	>=Vy No Precisa Armadura Cortante

Envolvente Vz

ENVOLVENTE <Vz > Axil 1.00 Cargas Puntuales
concomitantes Vz 1.50

Barra / Elemento	N [t]	Vz [t]	bo [mm]	h [mm]	d [mm]	f_{ck} [N/mm²]	f_{yk} [N/mm²]	γc	γs	θ [°]	A_{s1} [mm²]	A_s [mm²]	cotan (θ)	f_{cd} [N/mm²]	f_{yd} [N/mm²]	σ'cd [N/mm²]	K	f_{1cd} [N/mm²]	Función de θ	V_{u1} [t]	Comprobacion Compresion Oblicua Alma	z	pl	V_{u2} [t]	Necesidad Armadura Cortante
892	-141.919	0.368	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-8.870	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	26.659	>=Vy No Precisa Armadura Cortante
893	-173.932	1.893	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-10.871	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	30.851	>=Vy No Precisa Armadura Cortante
893	-138.201	0.082	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-8.638	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	26.171	>=Vy No Precisa Armadura Cortante
894	-161.373	1.748	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-10.086	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	29.212	>=Vy No Precisa Armadura Cortante
894	-89.099	0.089	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-5.569	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	19.726	>=Vy No Precisa Armadura Cortante
895	-118.264	2.265	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-7.392	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	23.554	>=Vy No Precisa Armadura Cortante
895	-135.325	0.776	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-8.462	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	25.601	>=Vy No Precisa Armadura Cortante
896	-150.478	1.163	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-9.405	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	27.762	>=Vy No Precisa Armadura Cortante
896	-84.907	0.480	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-5.307	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	19.178	>=Vy No Precisa Armadura Cortante
897	-104.985	2.205	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-6.562	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	21.811	>=Vy No Precisa Armadura Cortante
897	-134.400	1.577	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-8.400	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	25.672	>=Vy No Precisa Armadura Cortante
898	-142.700	0.428	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-8.919	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	26.762	>=Vy No Precisa Armadura Cortante
898	-34.881	0.535	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.180	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	12.810	>=Vy No Precisa Armadura Cortante
899	-60.642	2.582	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-3.790	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	15.991	>=Vy No Precisa Armadura Cortante
899	-82.136	1.221	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-5.134	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	18.812	>=Vy No Precisa Armadura Cortante
900	-94.145	1.665	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-5.884	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	20.369	>=Vy No Precisa Armadura Cortante
900	-165.021	2.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-10.314	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	29.691	>=Vy No Precisa Armadura Cortante
901	-138.077	0.059	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-8.630	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	26.155	>=Vy No Precisa Armadura Cortante
901	-31.039	0.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-1.940	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	12.106	>=Vy No Precisa Armadura Cortante
902	-47.528	2.626	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.996	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	14.323	>=Vy No Precisa Armadura Cortante
902	-81.387	2.019	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-5.087	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	18.714	>=Vy No Precisa Armadura Cortante
903	-86.649	0.857	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-5.418	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	19.486	>=Vy No Precisa Armadura Cortante
903	-172.028	2.861	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-10.752	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	30.911	>=Vy No Precisa Armadura Cortante
904	-135.378	0.063	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-8.461	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	25.601	>=Vy No Precisa Armadura Cortante
904	-28.568	1.574	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-1.782	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	11.774	>=Vy No Precisa Armadura Cortante
905	-37.426	2.034	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-2.339	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	12.944	>=Vy No Precisa Armadura Cortante
905	-112.095	2.844	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-7.006	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	22.744	>=Vy No Precisa Armadura Cortante
906	-82.294	0.370	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-5.143	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	18.853	>=Vy No Precisa Armadura Cortante
906	-28.000	2.351	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-1.750	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	11.707	>=Vy No Precisa Armadura Cortante
907	-39.227	1.389	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-1.885	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	11.889	>=Vy No Precisa Armadura Cortante
907	-119.973	2.775	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-7.498	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	23.779	>=Vy No Precisa Armadura Cortante
908	-80.076	0.347	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-5.001	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	18.534	>=Vy No Precisa Armadura Cortante
908	-29.276	2.948	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-1.830	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	11.875	>=Vy No Precisa Armadura Cortante
909	-25.997	0.985	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-1.625	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	11.444	>=Vy No Precisa Armadura Cortante
909	-31.315	3.227	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-1.957	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	12.142	>=Vy No Precisa Armadura Cortante
	-23.351	1.022	400.00	400.00	350.00	45.00	510.00	1.50	1.15	45.00	628.00	150000.00	1.00	30.00	443.48	-1.459	1.00	18.00	0.50	126.00	>=Vy Valida Compresion Oblicua Alma	1.758	0.00449	11.097	>=Vy No Precisa Armadura Cortante

Envolvente Vz

ENVOLVENTE <N - Vz > Axil 1,00 Cargas Puntuales
concomitantes Vz 1,50

Barra	N	Vz	bo	h	d	f_{cd}	f_{yd}	γc	γs	θ	A_{s1}	A_c	cotan (θ)	f_{cd}	f_{yd}	σ'cd	K	f_{1cd}	Función de θ	V_{u1}	Comprobacion Compresion Oblicua Alma	ξ	pl	V_{su}	Necesidad Armadura Cortante
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[mm²]	[mm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]	
892	-175,431	1,848	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,984	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	31,057	>=Vy No Precisa Armadura Cortante
892	-138,086	0,806	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-8,630	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	28,156	>=Vy No Precisa Armadura Cortante
893	-147,648	1,290	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,485	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	30,009	>=Vy No Precisa Armadura Cortante
893	-135,033	0,648	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-8,440	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	25,755	>=Vy No Precisa Armadura Cortante
894	-121,645	1,735	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,883	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	23,986	>=Vy No Precisa Armadura Cortante
894	-83,791	0,808	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-5,237	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	19,030	>=Vy No Precisa Armadura Cortante
895	-161,930	0,073	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,121	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	29,265	>=Vy No Precisa Armadura Cortante
895	-132,696	0,278	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-8,294	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	25,448	>=Vy No Precisa Armadura Cortante
896	-112,981	1,226	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,061	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	22,461	>=Vy No Precisa Armadura Cortante
896	-80,250	0,711	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-5,016	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	18,565	>=Vy No Precisa Armadura Cortante
897	-161,038	1,438	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,065	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	29,164	>=Vy No Precisa Armadura Cortante
897	-131,801	0,199	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-8,244	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	25,344	>=Vy No Precisa Armadura Cortante
898	-66,682	1,454	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-4,168	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	18,654	>=Vy No Precisa Armadura Cortante
898	-28,196	0,650	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-1,762	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	11,733	>=Vy No Precisa Armadura Cortante
899	-107,746	0,084	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-6,734	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	22,174	>=Vy No Precisa Armadura Cortante
899	-77,578	0,312	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-4,867	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	18,254	>=Vy No Precisa Armadura Cortante
900	-165,021	2,657	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,314	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	29,691	>=Vy No Precisa Armadura Cortante
900	-132,754	0,538	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-8,297	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	25,456	>=Vy No Precisa Armadura Cortante
901	-57,845	1,198	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-3,615	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	15,824	>=Vy No Precisa Armadura Cortante
901	-24,899	0,797	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-1,556	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	11,300	>=Vy No Precisa Armadura Cortante
902	-107,465	1,593	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-6,717	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	22,137	>=Vy No Precisa Armadura Cortante
902	-77,204	0,141	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-4,825	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	18,185	>=Vy No Precisa Armadura Cortante
903	-172,026	2,851	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,752	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	30,611	>=Vy No Precisa Armadura Cortante
903	-134,565	0,467	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-8,410	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	25,894	>=Vy No Precisa Armadura Cortante
904	-53,220	0,155	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-3,326	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	15,018	>=Vy No Precisa Armadura Cortante
904	-22,552	0,440	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-1,415	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	11,097	>=Vy No Precisa Armadura Cortante
905	-112,093	2,884	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,006	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	22,744	>=Vy No Precisa Armadura Cortante
905	-78,208	0,490	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-4,886	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	18,297	>=Vy No Precisa Armadura Cortante
906	-53,509	1,834	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-3,346	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	15,092	>=Vy No Precisa Armadura Cortante
906	-22,117	0,915	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-1,382	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	10,975	>=Vy No Precisa Armadura Cortante
907	-119,973	3,376	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,498	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	22,916	>=Vy No Precisa Armadura Cortante
907	-80,519	0,347	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-5,031	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	18,534	>=Vy No Precisa Armadura Cortante
908	-58,621	3,768	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-3,658	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	15,713	>=Vy No Precisa Armadura Cortante
908	-22,140	0,204	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-1,449	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	11,097	>=Vy No Precisa Armadura Cortante
909	-93,916	3,145	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-4,920	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	18,634	>=Vy No Precisa Armadura Cortante
909	-23,551	1,022	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-1,459	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	11,097	>=Vy No Precisa Armadura Cortante

Envolvente N - Vz

ENVOLVENTE <N - Vz > Axil 1,50 Cargas Puntuales
concomitantes Vz 1,50

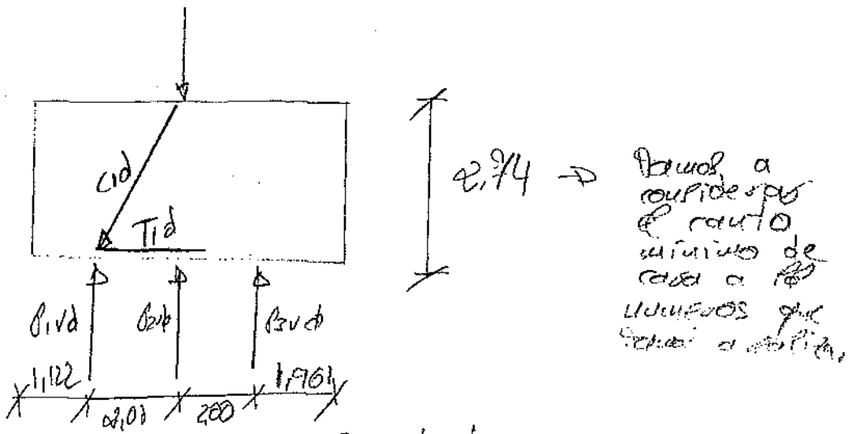
Barra	N	Vz	bo	h	d	f_{cd}	f_{yd}	γc	γs	θ	A_{s1}	A_c	cotan (θ)	f_{cd}	f_{yd}	σ'cd	K	f_{1cd}	Función de θ	V_{u1}	Comprobacion Compresion Oblicua Alma	ξ	pl	V_{su}	Necesidad Armadura Cortante
Elemento	[t]	[t]	[mm]	[mm]	[mm]	[N/mm²]	[N/mm²]			[°]	[mm²]	[mm²]		[N/mm²]	[N/mm²]	[N/mm²]		[N/mm²]		[t]				[t]	
892	-265,147	1,848	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-16,447	0,75	18,00	0,50	94,97	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	42,570	>=Vy No Precisa Armadura Cortante
892	-207,129	0,806	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-12,948	0,95	18,00	0,50	119,38	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	35,218	>=Vy No Precisa Armadura Cortante
893	-251,159	1,290	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-15,698	0,79	18,00	0,50	100,31	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	40,995	>=Vy No Precisa Armadura Cortante
893	-202,595	0,648	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-12,659	0,96	18,00	0,50	121,38	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	34,617	>=Vy No Precisa Armadura Cortante
894	-182,468	1,739	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-11,404	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	31,981	>=Vy No Precisa Armadura Cortante
894	-125,647	0,808	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,855	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	24,526	>=Vy No Precisa Armadura Cortante
895	-242,895	0,073	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-15,181	0,82	18,00	0,50	103,73	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	38,912	>=Vy No Precisa Armadura Cortante
895	-199,044	0,278	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-12,440	0,98	18,00	0,50	122,92	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	34,157	>=Vy No Precisa Armadura Cortante
896	-169,472	1,226	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,592	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	30,275	>=Vy No Precisa Armadura Cortante
896	-120,375	0,711	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,523	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	23,831	>=Vy No Precisa Armadura Cortante
897	-241,557	1,438	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-15,097	0,83	18,00	0,50	104,32	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	39,738	>=Vy No Precisa Armadura Cortante
897	-197,852	0,199	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-12,366	0,98	18,00	0,50	123,44	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	34,000	>=Vy No Precisa Armadura Cortante
898	-98,538	1,454	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-6,159	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	20,965	>=Vy No Precisa Armadura Cortante
898	-42,294	0,650	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-2,643	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	13,583	>=Vy No Precisa Armadura Cortante
899	-161,619	0,084	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,101	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	29,245	>=Vy No Precisa Armadura Cortante
899	-116,367	0,312	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,301	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	23,364	>=Vy No Precisa Armadura Cortante
900	-247,552	2,657	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-15,471	0,81	18,00	0,50	101,70	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	40,521	>=Vy No Precisa Armadura Cortante
900	-199,131	0,538	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-12,446	0,98	18,00	0,50	122,88	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	34,166	>=Vy No Precisa Armadura Cortante
901	-86,768	1,198	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-5,423	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	19,420	>=Vy No Precisa Armadura Cortante
901	-37,349	0,797	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-2,334	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	12,934	>=Vy No Precisa Armadura Cortante
902	-161,198	1,593	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,075	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	29,189	>=Vy No Precisa Armadura Cortante
902	-115,806	0,141	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,238	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	23,232	>=Vy No Precisa Armadura Cortante
903	-258,029	2,851	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-16,127	0,77	18,00	0,50	97,11	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	41,900	>=Vy No Precisa Armadura Cortante
903	-201,848	0,467	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-12,515	0,97	18,00	0,50	121,69	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	34,525	>=Vy No Precisa Armadura Cortante
904	-79,833	0,155	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-4,990	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	16,510	>=Vy No Precisa Armadura Cortante
904	-33,828	0,440	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-2,125	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	12,494	>=Vy No Precisa Armadura Cortante
905	-168,140	2,884	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-10,509	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	30,100	>=Vy No Precisa Armadura Cortante
905	-117,312	0,490	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,332	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	23,428	>=Vy No Precisa Armadura Cortante
906	-80,280	1,834	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-5,017	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	18,377	>=Vy No Precisa Armadura Cortante
906	-33,176	0,915	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-2,073	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	11,652	>=Vy No Precisa Armadura Cortante
907	-179,960	3,376	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-11,247	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	33,765	>=Vy No Precisa Armadura Cortante
907	-120,824	0,347	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-7,502	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	23,583	>=Vy No Precisa Armadura Cortante
908	-87,782	2,768	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-5,486	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	19,588	>=Vy No Precisa Armadura Cortante
908	-34,710	0,275	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-2,168	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	21,009	>=Vy No Precisa Armadura Cortante
909	-88,874	3,186	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-5,160	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	17,828	>=Vy No Precisa Armadura Cortante
909	-35,027	1,022	400,00	400,00	350,00	45,00	510,00	1,50	1,15	45,00	628,00	160000,00	1,00	30,00	443,48	-2,169	1,00	18,00	0,50	126,00	>=Vy Valida Compresion Oblicua Alma	1,756	0,00449	11,097	>=Vy No Precisa Armadura Cortante

Envolvente N - Vz

CALCULO DEL ENCEPADO

Calculo Longitudinal

Para el cálculo longitudinal vamos a considerar la reacción maxima que se origina en la Bandal de pilotes y en base a ella vamos a disponer la armadura, mayorando dicha reacción por un coeficiente de 1,5.



Caracteristicas Mecanicas y Resistentes

$r = 0,10$ m

$d = 2,74 - 0,10 = 2,64$ m

$z = 0,95 \cdot d = 2,244$ m

Hormigon HA-30 ⇒ $f_{ck} = 3000$ T/m²
$\gamma_c = 1,50$

Acero B500S ⇒ $f_{yk} = 5,1$ T/cm²
$f_{yd} = 4,00$ T/cm²

La reacción Maxima es de 175,4 T

$R_{vd} = 175,4 \cdot 1,5 = 263,1$ T

$T_{id} = \frac{R_{vd} \cdot \bar{e}}{z} = \frac{263,1 \cdot \bar{e}}{2,244} = 234,49$ T

Armadura Bandas sobre pilotes.

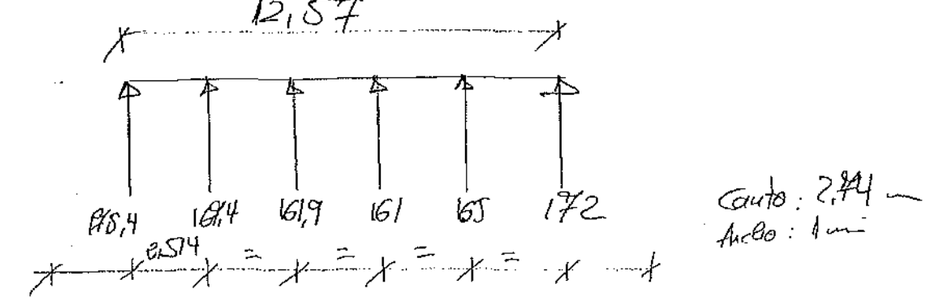
$A_{sl} = \frac{234,49}{4,00} = 58,63$ cm² ⇒ 2 capas de 2x5Φ20

$A_{disp} = 62,8$ cm²

Armadura entre Bandas: $\frac{A_{sl}}{4} = 14,66$ cm² ⇒ Φ20 a 0,20

Armadura Direccion Transversal

Para determinar la armadura transversal a disponer en las Bandas de pilotes vamos a plantear en primer lugar un modelo como viga:



$M_{max} = 1230,65$ m T ⇒ $M_d = 1845,975$ m T ⇒ 171,88 cm²

$M_{max_2} = 877,29$ m T ⇒ $M_d = 1315,94$ m T ⇒ 119,28 cm²

$M_{max_3} = 530,92$ m T ⇒ $M_d = 796,08$ m T ⇒ 96,32 cm²

Ver las hojas adjuntas de SAP2000 donde se puede ver los esfuerzos

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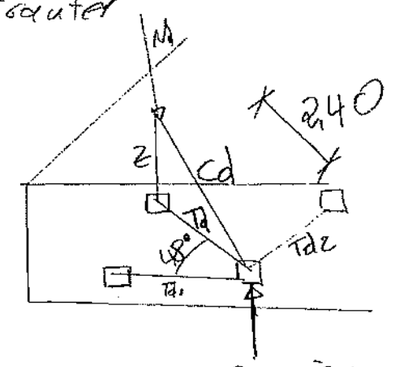
Bielas y Tirantes



$z = 2,244$

Tenemos: 175,4 T

$$Td = \frac{175,4 \cdot 1,5 - 2,40}{2 \cdot 2,44} = 281,39 \text{ T}$$

$\cos 48° = \frac{Td_1}{Td} \Rightarrow Td_1 = \cos 48° \cdot 281,39 = 188,29 \text{ T} \Rightarrow 47,1 \text{ cm}^2$ → 2 capas de 2x5φ20

$Td_2 = \text{sen } 48° \cdot 281,39 = 209,12 \text{ T} \Rightarrow 52,3 \text{ cm}^2$

2 capas de 2x5φ20

Adop: $62,8 \text{ cm}^2$

La armadura mínima a disponer por mínimos geométricos:

$$0,9 \text{ ‰ } Ac = \frac{0,9}{1000} \cdot 1 \cdot 2,74 = 24,66 \text{ cm}^2/\text{m}$$

⇓

φ25 a 0,15
φ20 a 0,10

Armadura Secundaria Vertical

De acuerdo con los datos de proyecto, el axil marino que hemos de tener es:

$N = 2038,94 \text{ Tn} \cdot 1,5 = 3058,41 \text{ Tn}$

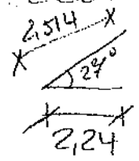
$N_d = \frac{3058,41}{1,5} = 2038,94 \text{ Tn} \Rightarrow 509,74 \text{ cm}^2$

Por pilote ⇒ $V_i = \frac{2038,94}{18} = 113,27 \text{ T/pilote}$.

Por lo tanto habría que disponer 113,27 T/pilote o un total $509,74 \text{ cm}^2$ en zonas de cortante.

Supongamos que vamos a separar los cercos a 0,20

- En dirección longitudinal: $\frac{2 - 0,7}{0,20} = 6,5 \Rightarrow 7$ cercos
- En dirección Transversal $\frac{2,24 - 0,78}{0,20} = 7,3 \Rightarrow 8$ cercos



Nº Total cercos: $(7+8) \cdot 5 \cdot 6 = 450$ cercos

Nº Total barras: 900 barras

Diámetro Necesario: $\frac{509,74}{900} = 0,57 \text{ cm}^2$

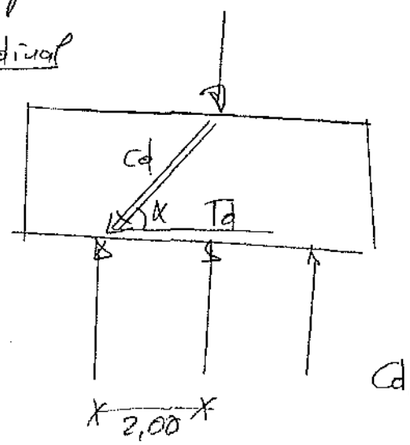
Vamos a disponer cercos de φ12 para cumplir mínimos de cortante

COMPROBACION DE NUDOS EN PILOTES PREFABRICADOS

Parámetros de Cálculo

R_V → Carga Vertical en pilote.
θ → Angulo Inclinación de Biela.
C_d → Valor de cálculo de la compresión existente en la Biela
T_d → Tracción de cálculo correspondiente al Tirante
f_{cd} → $0,7\, f_{cd}$ → Tensión máxima en nudos en tirantes anclados
S_{nec} → Superficie necesaria en nudos

Dirección Longitudinal



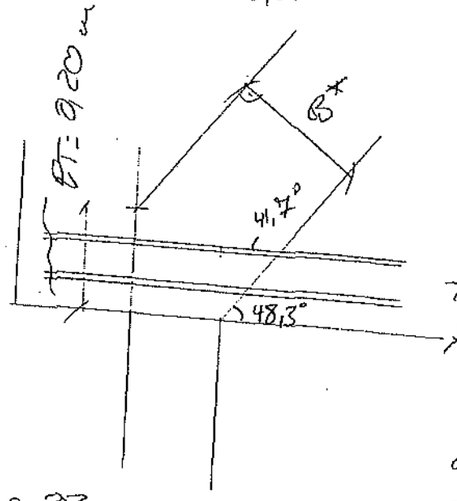
$d = 2,64$ m

$z = 0,85\, d = 2,244$ m

$\alpha = \text{arc tg}\left(\frac{2,244}{2,00}\right) = 48,3°$

$C_{d_1} = \frac{175,4 \cdot 1,5}{\text{sen}\,\alpha_1} = 352,38$ Tn

NUDO



$\text{tg}\ 48,3 = \frac{0,2}{x} \Rightarrow x = 0,178$

$\cos 41,7 = \frac{y}{0,578} \Rightarrow y = 0,432$ m

$B^* = 0,432$ m

Consideramos $L = 0,60$ m ya que es la distancia del CDG de la armadura

$S_{nec} = 0,432 \cdot 0,6 = 0,259$ m

$\sigma_1 = \frac{352,38}{0,259} = 136954$ Tn/m² $< \frac{3000}{1,5} \cdot 0,7 = 1400$ Tn/m²

Dirección Transversal

Al ser la componente de la Biela mucho en esta dirección, el nudo también ha cumplir la condición de $0,7 \cdot f_{cd}$, por lo que no es necesario comprobarla en esta dirección

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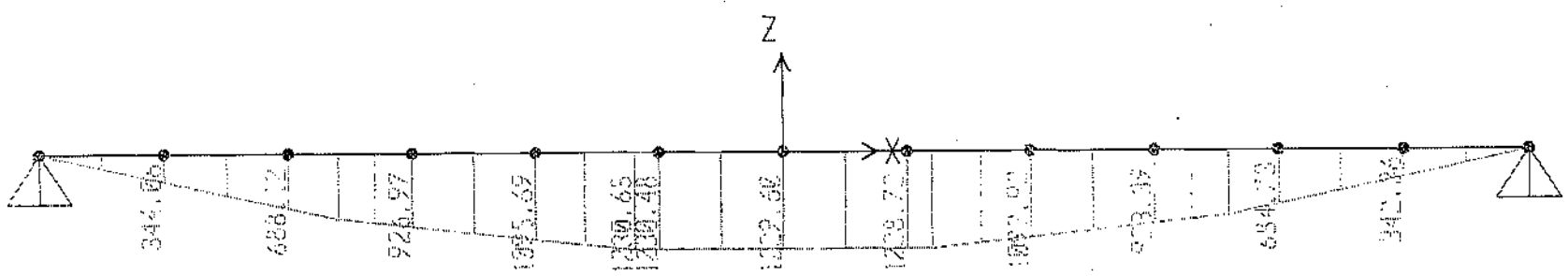

SAP2000 v8.2.3 - File:viga - Moment 3-3 Diagram (DEAD) - Ton, m, C Units

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SAP2000 v8.2.3 - File:viga - Frame Span Loads (DEAD) (Global CSys) - Ton, m, C Units

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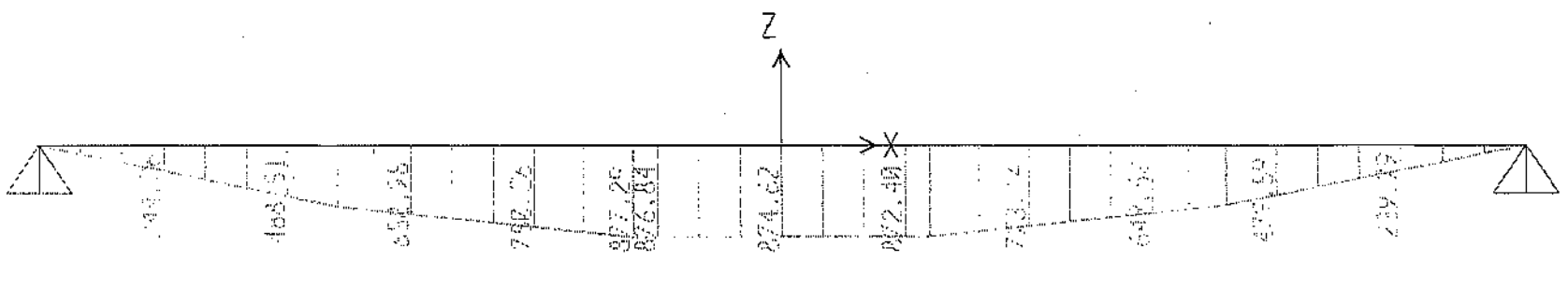

SAP2000 v8.2.3 - File:viga2 - Moment 3-3 Diagram (DEAD) - Ton, m, C Units

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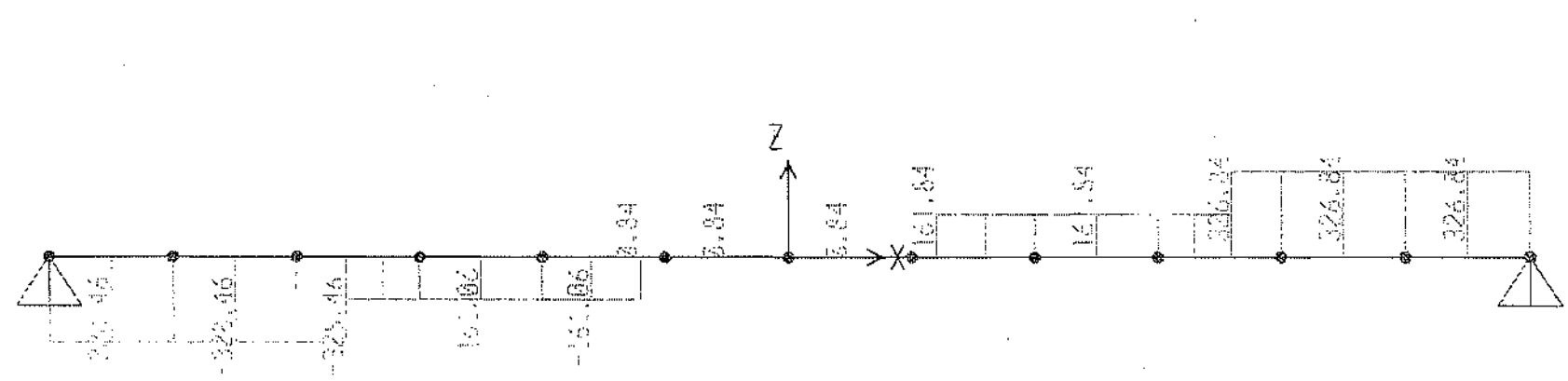

SAP2000 v8.2.3 - File:viga - Shear Force 2-2 Diagram (DEAD) - Ton, m, C Units

SAP2000

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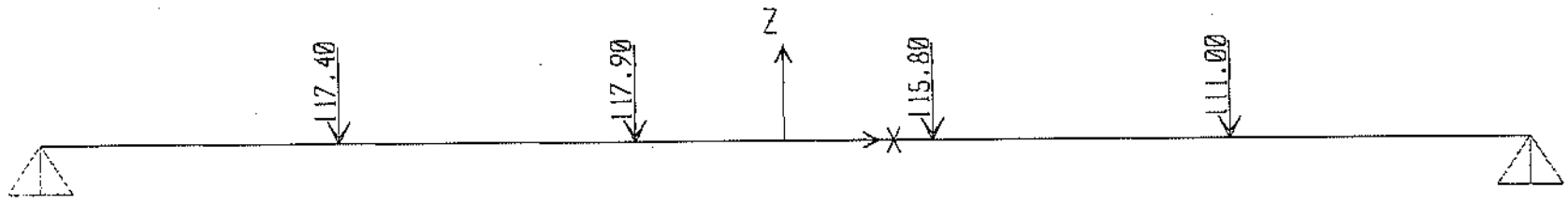
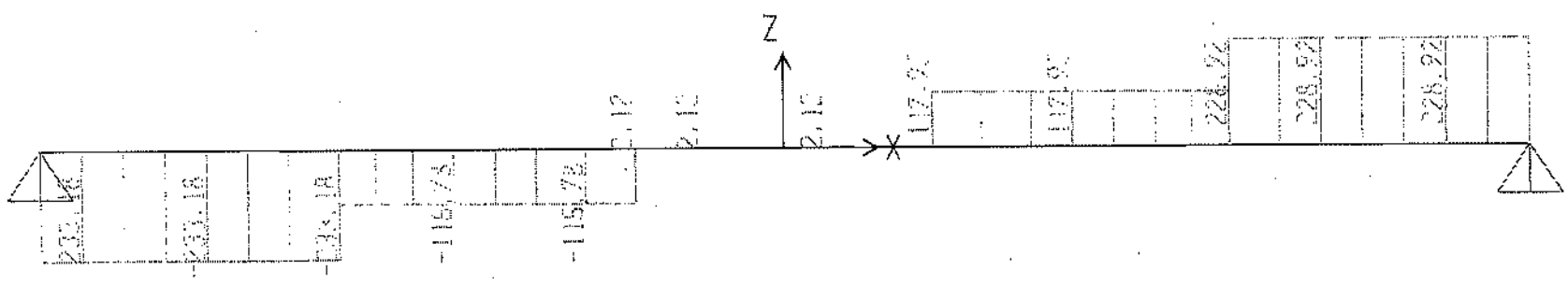


SAP2000 v8.2.3 - File:viga2 - Frame Span Loads (DEAD) (Global CSys) - Ton, m, C Units

SAP2000

12/20/05 18:22:41



SAP2000 v8.2.3 - File:viga2 - Shear Force 2-2 Diagram (DEAD) - Ton, m, C Units

4747

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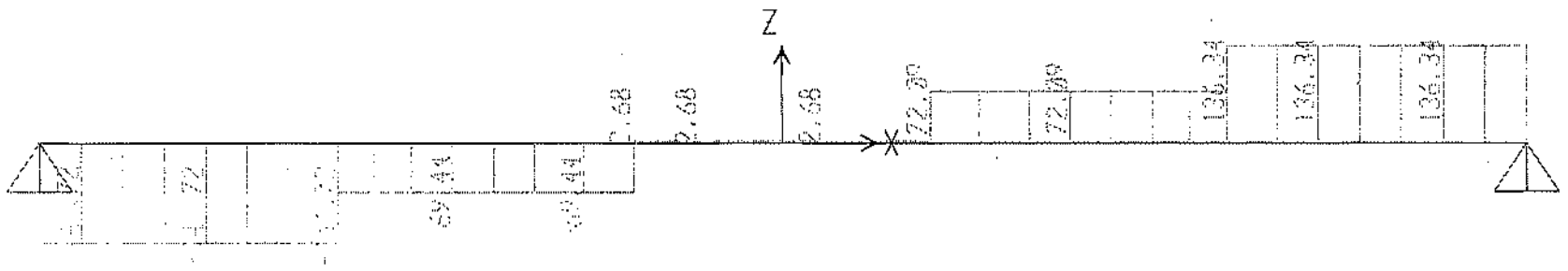

SAP2000 v8.2.3 - File:viga3 - Shear Force 2-2 Diagram (DEAD) - Ton, m, C Units

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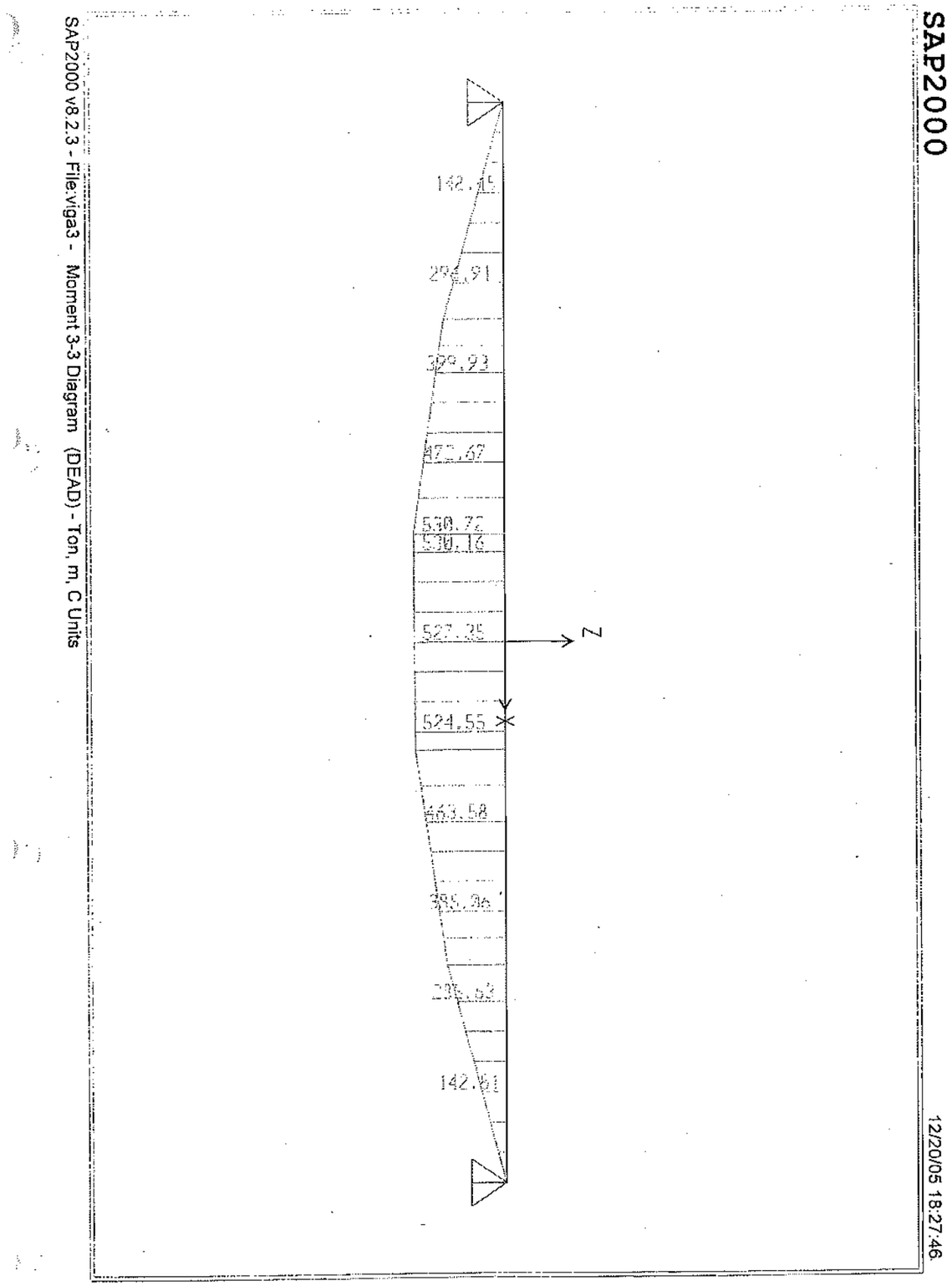
SAP2000 v8.2.3 - File:viga3 - Frame Span Loads (DEAD) (Global CSys) - Ton, m, C Units



SECCION RECTANGULAR SOMETIDA A FLEXION SIMPLE

Método aproximado Anejo 8 EHE

DATOS			
f_{ck} =	30	N/mm²	Resistencia característica del hormigón
f_{yk} =	500	N/mm²	Límite elástico del acero
γ_c =	1.5		Coeficiente de minoración de resistencia del hormigón
γ_s =	1.15		Coeficiente de minoración de resistencia del acero
M_d =	7960.8	m kN	
b =	1,000	mm	Anchura de la sección
h =	2,740	mm	Canto de la sección
r =	50	mm	Recubrimiento mecánico inferior
r' =	50	mm	Recubrimiento mecánico superior
ρ_1 =	2.8	‰	Cuantía geométrica mínima armadura tracción
ρ_2 =	0.84	‰	Cuantía geométrica mínima armadura compresión

d =	2690	mm		
d' =	50	mm	<= 391	= h/7
f_{cd} =	20.00	N/mm²		Resistencia de cálculo del hormigón
f_{yd} =	435	N/mm²		Resistencia de cálculo del acero
U_0 =	45,730	kN		
0,375 U_0 d =	46,130.14	m kN		
A_c =	2,740,000	mm²		

No se precisa armadura de compresión

U_{s1} =	3,061.9	kN	
U_{s2} =	0.0	kN	

Cuantía mínima geométrica

A_{s1g} =	7,672	mm²	U_{s1g} =	3335.7 kN
A_{s2g} =	2,302	mm²	U_{s2g} =	1000.7 kN

Capacidad mecánica necesaria teniendo en cuenta la cuantía geométrica

U_{s1} =	3,335.7	kN
U_{s2} =	1,000.7	kN

Cuantía mecánica mínima

U_{s1} >= 0,04 A_c f_{cd} = 2192.0 kN

Capacidad mecánica necesaria teniendo en cuenta la cuantía mecánica

U_{s1} =	3335.7	kN
U_{s2} =	1,000.7	kN

Secciones de armadura necesarias

A_{s1} =	7672	mm²	=	76.72 cm²
A_{s2} =	2301.6	mm²	=	23.02 cm²

Posibles combinaciones de armadura

Armadura de tracción

A_{s1} = 7672 mm²

ϕ	6	8	10	12	14	16	20	25	32	40
$A_{1\phi}$ (mm²)	28	50	79	113	154	201	314	491	804	1257
nº ϕ	271	153	98	68	50	38	24	16	10	6
A_{s1} (mm²)	7662	7691	7697	7691	7697	7640	7540	7854	8042	7540
U_{s1} (kN)	3331.5	3343.7	3346.5	3343.7	3346.5	3321.9	3278.2	####	####	####

Armadura de compresión

A_{s2} = 2301.6 mm²

ϕ	6	8	10	12	14	16	20	25	32	40
$A_{1\phi}$ (mm²)	28	50	79	113	154	201	314	491	804	1257
nº ϕ	81	46	29	20	15	11	7	5	3	2
A_{s1} (mm²)	2290	2312	2278	2262	2309	2212	2199	2454	2413	2513
U_{s1} (kN)	995.7	1005.3	990.3	983.5	1003.9	961.6	956.1	####	####	####

SECCION RECTANGULAR SOMETIDA A FLEXION SIMPLE
Método aproximado Anejo 8 EHE

DATOS			
f_{ck} =	30	N/mm²	Resistencia característica del hormigón
f_{yk} =	500	N/mm²	Límite elástico del acero
γ_c =	1.5		Coeficiente de minoración de resistencia del hormigón
γ_s =	1.15		Coeficiente de minoración de resistencia del acero
M_d =	13159.4	m kN	
b =	1,000	mm	Anchura de la sección
h =	2,740	mm	Canto de la sección
r =	50	mm	Recubrimiento mecánico inferior
r' =	50	mm	Recubrimiento mecánico superior
ρ_1 =	2.8	‰	Cuantía geométrica mínima armadura tracción
ρ_2 =	0.84	‰	Cuantía geométrica mínima armadura compresión

d = 2690 mm
d' = 50 mm <= 391 = h/7
f_{cd} = 20.00 N/mm² Resistencia de cálculo del hormigón
f_{yd} = 435 N/mm² Resistencia de cálculo del acero
U_0 = 45,730 kN
0,375 U_0 d = 46,130.14 m kN
A_c = 2,740,000 mm²
No se precisa armadura de compresión
U_{s1} = 5,186.0 kN
U_{s2} = 0.0 kN

Cuantía mínima geométrica
A_{s1g} = 7,672 mm² U_{s1g} = 3335.7 kN
A_{s2g} = 2,302 mm² U_{s2g} = 1000.7 kN

Capacidad mecánica necesaria teniendo en cuenta la cuantía geométrica
U_{s1} = 5,186.0 kN
U_{s2} = 1,000.7 kN

Cuantía mecánica mínima
U_{s1} >= 0,04 A_c f_{cd} = 2192.0 kN
Capacidad mecánica necesaria teniendo en cuenta la cuantía mecánica
U_{s1} = 5186.0 kN
U_{s2} = 1,000.7 kN

Secciones de armadura necesarias
A_{s1} = 11927.87 mm² = 119.28 cm²
A_{s2} = 2301.6 mm² = 23.02 cm²

Posibles combinaciones de armadura

Armadura de tracción
A_{s1} = 11927.87 mm²

ϕ	6	8	10	12	14	16	20	25	32	40
$A_{1\phi}$ (mm²)	28	50	79	113	154	201	314	491	804	1257
nº ϕ	422	237	152	105	77	59	38	24	15	9
A_{s1} (mm²)	11932	11913	11938	11875	11853	11863	11938	####	####	####
U_{s1} (kN)	5187.7	5179.5	5190.5	5163.1	5153.6	5157.7	5190.5	####	####	####

Armadura de compresión
A_{s2} = 2301.6 mm²

ϕ	6	8	10	12	14	16	20	25	32	40
$A_{1\phi}$ (mm²)	28	50	79	113	154	201	314	491	804	1257
nº ϕ	81	46	29	20	15	11	7	5	3	2
A_{s1} (mm²)	2290	2312	2278	2262	2309	2212	2199	2454	2413	2513
U_{s1} (kN)	995.7	1005.3	990.3	983.5	1003.9	961.6	956.1	####	####	####

Secc rect flex simp EHE.xls 20/12/2005

SECCION RECTANGULAR SOMETIDA A FLEXION SIMPLE
Método aproximado Anejo 8 EHE

DATOS			
f_{ck} =	30	N/mm²	Resistencia característica del hormigón
f_{yk} =	500	N/mm²	Límite elástico del acero
γ_c =	1.5		Coeficiente de minoración de resistencia del hormigón
γ_s =	1.15		Coeficiente de minoración de resistencia del acero
M_d =	18459.75	m kN	
b =	1,000	mm	Anchura de la sección
h =	2,740	mm	Canto de la sección
r =	50	mm	Recubrimiento mecánico inferior
r' =	50	mm	Recubrimiento mecánico superior
ρ_1 =	2.8	‰	Cuantía geométrica mínima armadura tracción
ρ_2 =	0.84	‰	Cuantía geométrica mínima armadura compresión

d = 2690 mm
d' = 50 mm <= 391 = h/7
f_{cd} = 20.00 N/mm² Resistencia de cálculo del hormigón
f_{yd} = 435 N/mm² Resistencia de cálculo del acero
U_0 = 45,730 kN
0,375 U_0 d = 46,130.14 m kN
A_c = 2,740,000 mm²
No se precisa armadura de compresión
U_{s1} = 7,473.0 kN
U_{s2} = 0.0 kN

Cuantía mínima geométrica
A_{s1g} = 7,672 mm² U_{s1g} = 3335.7 kN
A_{s2g} = 2,302 mm² U_{s2g} = 1000.7 kN

Capacidad mecánica necesaria teniendo en cuenta la cuantía geométrica
U_{s1} = 7,473.0 kN
U_{s2} = 1,000.7 kN

Cuantía mecánica mínima
U_{s1} >= 0,04 A_c f_{cd} = 2192.0 kN
Capacidad mecánica necesaria teniendo en cuenta la cuantía mecánica
U_{s1} = 7473.0 kN
U_{s2} = 1,000.7 kN

Secciones de armadura necesarias
A_{s1} = 17187.8 mm² = 171.88 cm²
A_{s2} = 2301.6 mm² = 23.02 cm²

Posibles combinaciones de armadura

Armadura de tracción
A_{s1} = 17187.8 mm²

ϕ	6	8	10	12	14	16	20	25	32	40
$A_{1\phi}$ (mm²)	28	50	79	113	154	201	314	491	804	1257
nº ϕ	608	342	219	152	112	85	55	35	21	14
A_{s1} (mm²)	17191	17191	17200	17191	17241	17090	17279	####	####	####
U_{s1} (kN)	7474.3	7474.3	7478.4	7474.3	7496.1	7430.5	7512.5	####	####	####

Armadura de compresión
A_{s2} = 2301.6 mm²

ϕ	6	8	10	12	14	16	20	25	32	40
$A_{1\phi}$ (mm²)	28	50	79	113	154	201	314	491	804	1257
nº ϕ	81	46	29	20	15	11	7	5	3	2
A_{s1} (mm²)	2290	2312	2278	2262	2309	2212	2199	2454	2413	2513
U_{s1} (kN)	995.7	1005.3	990.3	983.5	1003.9	961.6	956.1	####	####	####

CALCULO A CORTANTE EHE (Art.44)

Armadura de cortante vertical, compuesta por cercos (α = 90º)

f_{ck} =	30	N/mm²	Resistencia característica del hormigón
f_{yk} =	500	N/mm²	Límite elástico del acero
γ_c =	1.5		Coeficiente de minoración de resistencia del hormigón
γ_s =	1.15		Coeficiente de minoración de resistencia del acero
V_{rd1} =	3284.6	kN	Esfuerzo cortante de cálculo al borde del apoyo
V_{rd2} =	3284.6	kN	Esfuerzo cortante de cálculo a un canto útil del apoyo
N_d =	0	kN	Esfuerzo axil de cálculo incluyendo pretensado (tracción positiva)
b_0 =	1,000	mm	Anchura del alma de cálculo
h =	2,740	mm	Canto de la sección
b =	1,000	mm	Anchura media de la sección
r =	50	mm	Recubrimiento mecánico inferior
θ =	45 º		Angulo de inclinación bielas de cortante
A_{s1} =	17188	mm²	Armadura longitudinal traccionada anclada a >= d

A_c =	2,740,000	mm²	
θ =	0.785	rad	cotan (θ) = 1.00
f_{cd} =	20.00	N/mm²	
f_{yd} =	434.78	N/mm²	
σ'_{cd} =	0.00	N/mm²	
d =	2690	mm	

Agotamiento por compresión oblicua del alma

K =	1.00				
f_{1cd} =	12.00	N/mm²			
función de θ =	0.5				
V_{cu1} =	16140	kN	>=	V_{rd1} =	3284.6 kN

LA SECCION ES VALIDA RESPECTO A LA COMPRESION OBLICUA DEL ALMA

Agotamiento por tracción en el alma

Caso 1: Sin armadura de cortante

ξ =	1.27				
ρ_l =	0.00639	Cuantía geométrica armadura longitudinal, limitada a 0,02			
V_{cu2} =	1099.6	kN	<	V_{rd2} =	3284.6 kN

SE PRECISA ARMADURA DE CORTANTE

Caso 2: Con armadura de cortante

Contribución del hormigón

cot ($\theta_{e,cal}$) =	1.00	cot (θ_e) =	1.00
$f_{ct,m}$ =	2.90	N/mm²	
β =	1.000		
V_{cu} =	916.2	kN	

Armadura necesaria

$V_{su,nec}$ =	$V_{rd2} - V_{cu}$ =	2368.4	kN

Valor aproximado del brazo mecánico (0,9 d)

z =	2421	mm
$A_{90} f_{y90,d}$ =	978.3	kN/m
$f_{y90,d}$ =	400	N/mm²

Cuantía mínima (En general, debe disponerse en elementos lineales)

$(A_{90} f_{y90,d})_{min}$ =	400.0	kN/m

Armadura teniendo en cuenta la cuantía mínima

$A_{90} f_{y90,d}$ =	978.3	kN/m

ARMADURA

A_{90} =	2445.66	mm²/m

CALCULO A CORTANTE EHE (Art.44)

Armadura de cortante vertical, compuesta por cercos (α = 90º)

f_{ck} =	30	N/mm²	Resistencia característica del hormigón
f_{yk} =	500	N/mm²	Límite elástico del acero
γ_c =	1.5		Coeficiente de minoración de resistencia del hormigón
γ_s =	1.15		Coeficiente de minoración de resistencia del acero
V_{rd1} =	2331.8	kN	Esfuerzo cortante de cálculo al borde del apoyo
V_{rd2} =	2331.8	kN	Esfuerzo cortante de cálculo a un canto útil del apoyo
N_d =	0	kN	Esfuerzo axil de cálculo incluyendo pretensado (tracción positiva)
b_0 =	1,000	mm	Anchura del alma de cálculo
h =	2,740	mm	Canto de la sección
b =	1,000	mm	Anchura media de la sección
r =	50	mm	Recubrimiento mecánico inferior
θ =	45 º		Angulo de inclinación bielas de cortante
A_{s1} =	1192.8	mm²	Armadura longitudinal traccionada anclada a >= d

A_c =	2,740,000	mm²	
θ =	0.785	rad	cotan (θ) = 1.00
f_{cd} =	20.00	N/mm²	
f_{yd} =	434.78	N/mm²	
σ'_{cd} =	0.00	N/mm²	
d =	2690	mm	

Agotamiento por compresión oblicua del alma

K =	1.00				
f_{1cd} =	12.00	N/mm²			
función de θ =	0.5				
V_{cu1} =	16140	kN	>=	V_{rd1} =	2331.8 kN

LA SECCION ES VALIDA RESPECTO A LA COMPRESION OBLICUA DEL ALMA

Agotamiento por tracción en el alma

Caso 1: Sin armadura de cortante

ξ =	1.27				
ρ_l =	0.00044	Cuantía geométrica armadura longitudinal, limitada a 0,02			
V_{cu2} =	451.8	kN	<	V_{rd2} =	2331.8 kN

SE PRECISA ARMADURA DE CORTANTE

Caso 2: Con armadura de cortante

Contribución del hormigón

cot ($\theta_{e,cal}$) =	1.00	cot (θ_e) =	1.00
$f_{ct,m}$ =	2.90	N/mm²	
β =	1.000		
V_{cu} =	376.5	kN	

Armadura necesaria

$V_{su,nec}$ =	$V_{rd2} - V_{cu}$ =	1955.3	kN

Valor aproximado del brazo mecánico (0,9 d)

z =	2421	mm
$A_{90} f_{y90,d}$ =	807.6	kN/m
$f_{y90,d}$ =	400	N/mm²

Cuantía mínima (En general, debe disponerse en elementos lineales)

$(A_{90} f_{y90,d})_{min}$ =	400.0	kN/m

Armadura teniendo en cuenta la cuantía mínima

$A_{90} f_{y90,d}$ =	807.6	kN/m

ARMADURA

A_{90} =	2019.09	mm²/m

CALCULO A CORTANTE EHE (Art.44)

Armadura de cortante vertical, compuesta por cercos (α = 90º)

f_{ck} =	30	N/mm²	Resistencia característica del hormigón
f_{yk} =	500	N/mm²	Límite elástico del acero
γ_c =	1.5		Coeficiente de minoración de resistencia del hormigón
γ_s =	1.15		Coeficiente de minoración de resistencia del acero
V_{rd1} =	1417.2	kN	Esfuerzo cortante de cálculo al borde del apoyo
V_{rd2} =	1417.2	kN	Esfuerzo cortante de cálculo a un canto útil del apoyo
N_d =	0	kN	Esfuerzo axil de cálculo incluyendo pretensado (tracción positiva)
b_0 =	1,000	mm	Anchura del alma de cálculo
h =	2,740	mm	Canto de la sección
b =	1,000	mm	Anchura media de la sección
r =	50	mm	Recubrimiento mecánico inferior
θ =	45	º	Angulo de inclinación bielas de cortante
A_{s1} =	7672	mm²	Armadura longitudinal traccionada anclada a >= d

A_c =	2,740,000	mm²	
θ =	0.785	rad	cotan (θ) = 1.00
f_{cd} =	20.00	N/mm²	
f_{yd} =	434.78	N/mm²	
σ'_{cd} =	0.00	N/mm²	
d =	2690	mm	

Agotamiento por compresión oblicua del alma

K =	1.00				
f_{1cd} =	12.00	N/mm²			
función de θ =	0.5				
V_{u1} =	16140	kN	>=	V_{rd1} =	1417.2 kN

LA SECCION ES VALIDA RESPECTO A LA COMPRESION OBLICUA DEL ALMA

Agotamiento por tracción en el alma

Caso 1: Sin armadura de cortante

ξ =	1.27				
ρ_l =	0.00285	Cuantía geométrica armadura longitudinal, limitada a 0,02			
V_{u2} =	840.3	kN	<	V_{rd2} =	1417.2 kN

SE PRECISA ARMADURA DE CORTANTE

Caso 2: Con armadura de cortante

Contribución del hormigón

cot ($\theta_{e,cal}$) =	1.00		cot (θ_e) =	1.00	
$f_{ct,m}$ =	2.90	N/mm²			
β =	1.000				
V_{cu} =	700.2	kN			

Armadura necesaria

$V_{su,nec}$ = $V_{rd2} - V_{cu}$ = 717.0 kN

Valor aproximado del brazo mecánico (0,9 d)

z =	2421	mm
$A_{90} f_{y90,d}$ =	296.2	kN/m
$f_{y90,d}$ =	400	N/mm²

Cuantía mínima (En general, debe disponerse en elementos lineales)

$(A_{90} f_{y90,d})_{min}$ = 400.0 kN/m

Armadura teniendo en cuenta la cuantía mínima

$A_{90} f_{y90,d}$ = 400.0 kN/m

ARMADURA

A_{90} = 1000.00 mm²/m

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ESTUDIO DE CIMENTACIONES
DE LOS ESTRIBOS
DEL VIADUCTO SOBRE EL RÍO LLOBREGAT

ANEJO 2: ESTUDIO GEOTÉCNICO

ÍNDICE

1 INFORMACION GEOTECNICA

2 ESTUDIO DE SIMULACIÓN DEL PROCESO DE HINCADO

1. INFORMACIÓN GEOTÉCNICA

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

INFORME DE LA CAMPAÑA DE SONDEOS

PARTE 1: TESTIFICACIÓN

"Línea de Alta Velocidad Madrid - Zaragoza - Barcelona - Frontera Francesa.
Tramo Sant Boi de Llobregat - Hospitalet de Llobregat"

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

COORDENADAS DE SONDEOS

SONDEO	X (UTM)	Y (UTM)	Z
SOCC-01	423194,13	4575778,25	6,75
SOCC-02	423278,10	4575771,08	6,32
SOCC-03	423979,58	4576134,68	6,79
SOCC-04	424057,92	4576163,24	6,65
SOCC-05-01	424922,18	4576547,09	8,30
SOCC-05-02	424893,96	4576468,83	6,45
SOCC-06	424986,07	4576500,14	8,22
SOCC-07	-	-	1,00 aprox
SOCC-09	425118,35	4576594,71	6,60
SOCC-10	-	-	-
SOCC-12	423415,68	4575879,80	6,86
SOCC-13	423591,15	4575953,14	7,28
SOCC-14	423918,66	4576103,43	6,59
SOCC-15	424151,18	4576204,46	6,67
SOCC-17	424405,96	4576282,44	6,12
SOCC-18	424504,32	4576326,19	6,34
SOCC-19	-	-	-

→ JUNTO A PILA-1 ANCHO IB
→ JUNTO A ESTRIBO E-1

→ JUNTO A PILA-2 ANCHO UIC
→ JUNTO A ESTRIBO E-2.

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REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 1 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
0.00				Relleno con restos de aglomerado											
2,45				Arena fina con grava y restos de raíces	SPT	4-5-7-5			P-0081						113
5,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 3 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
10,00				Arena con limo	SPT	10-13-14-13			P-0082						
10,15				Arena media con limo											
11,05				Limo arcilloso ligeramente arenoso											
11,60				Arena muy fina gris oscura											
12,05				Arena gris oscura											
12,75				Arena fina gris oscura											
13,52				Arena media gris oscura											
14,12			14,00	Limo arenoso											113
15,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 4 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
15,00				Limo arenoso	MI	10-14-17-12									
15,30															
				Limo arcilloso											
16,35															
				Limo arenoso											
17,75															
				Arena fina	SPT	9-10-9-18			P-0083						113
19,05															
				Limo											
19,50															
				Arena limosa											
20,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 5 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
20,00				Arena limosa											
20,70				Limo arenoso											
21,10					MI	14-17-21-22			I-0086						
				Arena limosa con intercalaciones máximas de 10 cm de limo arenoso											113
					SPT	7-5-8-10			P-0084						
24,45				Limo											
24,85				Arena limosa con niveles milimétricos de limo arenoso											
25,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 6 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD (cm/s)	BATERIA, CORONA Y REVESTIMIENT
25,00				Arena limosa con niveles milimétricos de limo arenoso											
26,10				Arena ligeramente limosa											
26,45				Arena limosa con intercalaciones de limo arenoso	MI	4-3-10-12									113
28,33				Limo											
29,35				Limo arenoso											
29,73				Limo											
30,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 7 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
30.00				Limo	SPT	2-3-6-7			P-0085						
31,17				Arena limosa											
32,85				Limo	M I	9-14-17-32			I-0087						113
33,30				Arena limosa											
33,83				Limo arenoso											
34,15				Arena con niveles milimétricos de limo											
35,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 8 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
35,00				Arena con niveles milimétricos de limo											
36,30				Arena fina	MI	16-29-41-37			I-0088						
37,00				Arena limosa											
37,45				Limo											113
37,93				Arena limosa											
38,90				Limo arcilloso											
39,15				Grava de 5 cm con matriz arcillosa	SPT	18-30-49-54			P-0086						
40,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 9 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERÍA, CORONA Y REVESTIMIENT
40,00				Grava de 5 cm con matriz arcillosa											
40,60				Grava de 3 cm con matriz arcillosa											
41,50				Grava con matriz areno-limosa	SPT	R10									113
45,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 10 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
45.00				Grava con matriz areno-limosa	SPT	R10									
45,70				Grava de 2 cm con Matriz limosa											
47,65				Arena marrón-rojiza											
48,40					MI	16-25-37-54			I-0089						113
50,00				Arena limosa marrón clara											

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: PARKING EN A. M. CLARET

SOCC-05-02

FECHA: del 10 al 18 de agosto de 2005 | PROFUNDIDAD: 55 m | HOJA: 11 de 11

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD (cm/s)	BATERIA, CORONA Y REVESTIMIENT
50,00															
					SPT	7-8-9-13			P-0087						
				Arena limosa marrón clara											113
					MI	40-R5			I-0090						
55,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

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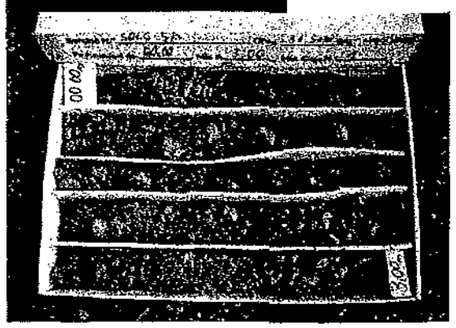

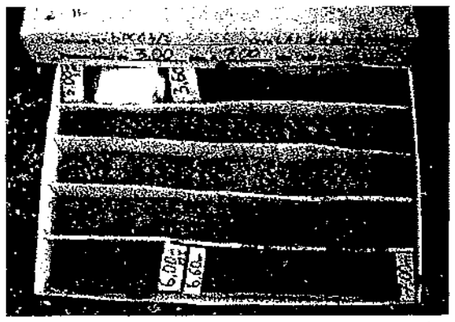

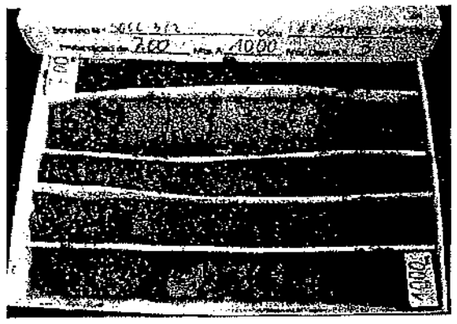

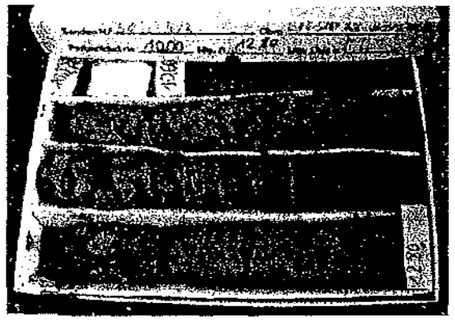

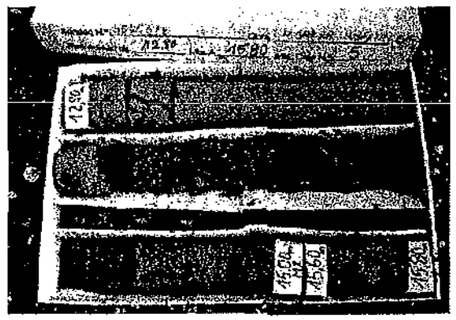

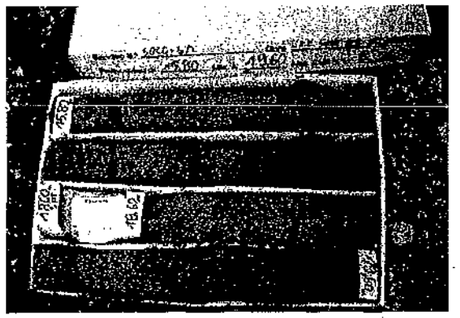

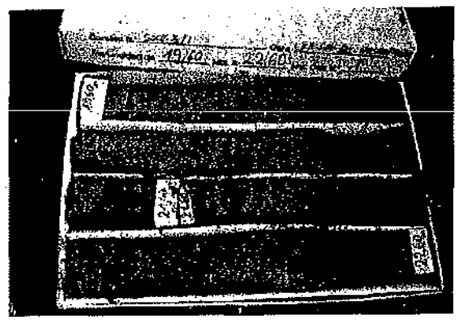

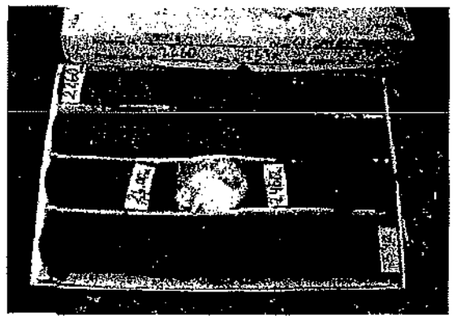

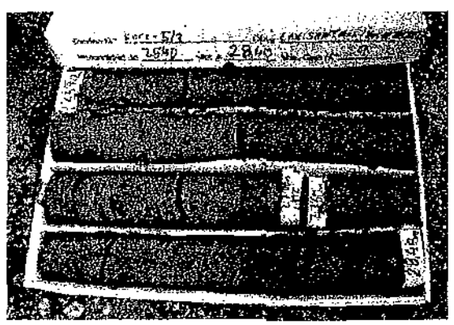

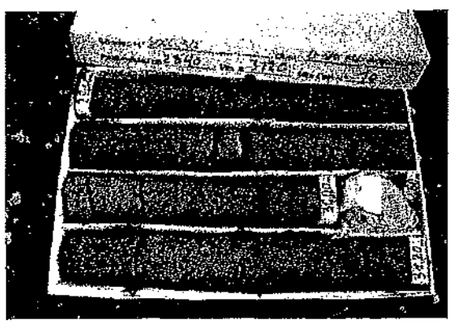

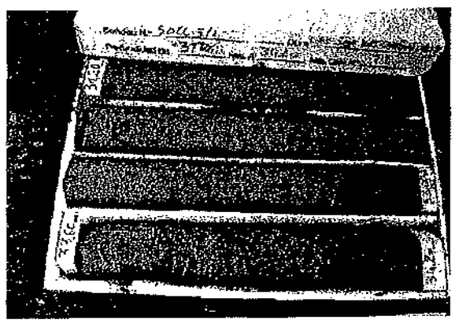

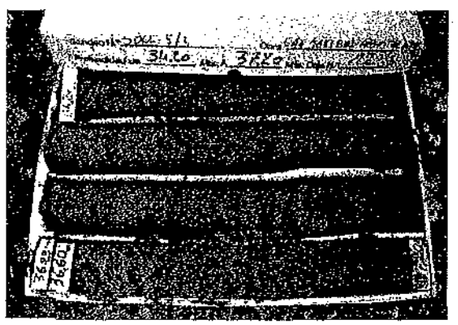

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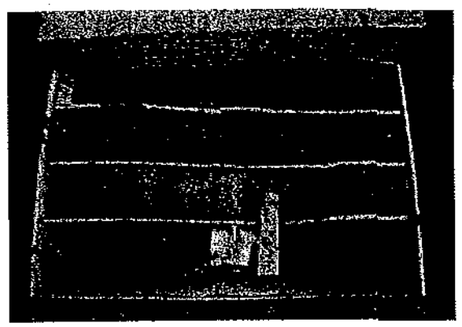

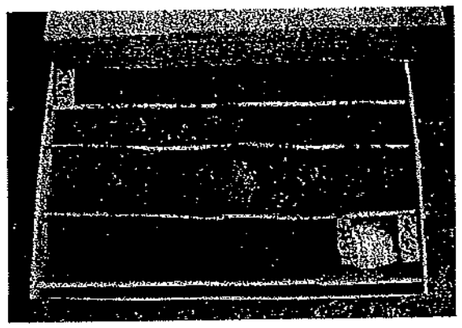

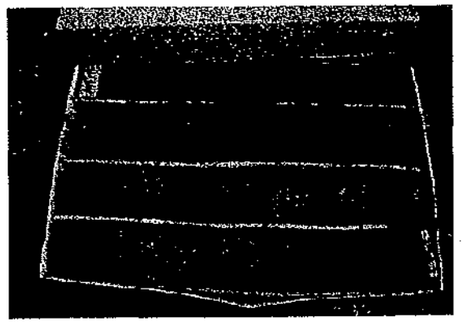

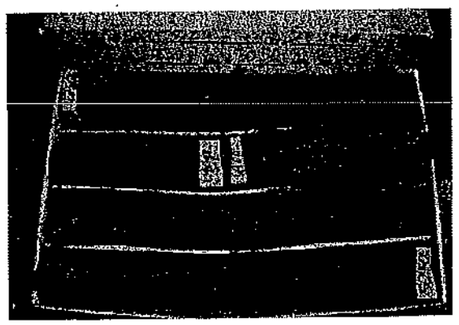

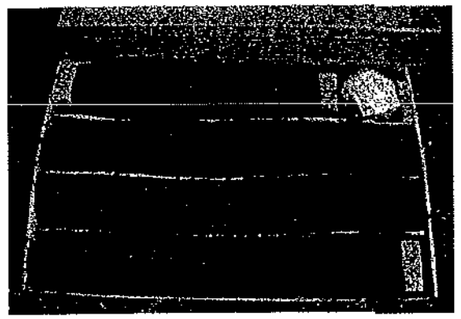

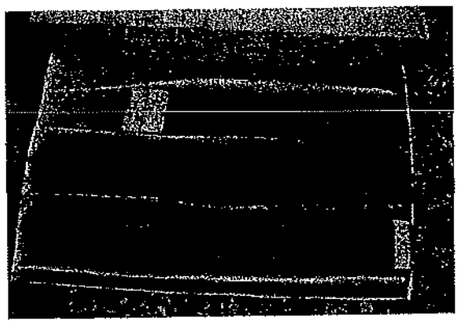

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GEOTECNIA Y CIMIENTOS, S.A.

SOCC-09

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GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005

PROFUNDIDAD: 65 m

HOJA: 1 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GgolpES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
0.00				Material de relleno muy contaminado											
1,40				Limo arenoso	SPT	3-3-3-4			P-0026						113
3,70				Arena limosa											
4,50				Limo arenoso											
5,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 2 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD (cm/s)	BATERIA, CORONA Y REVESTIMIENT
5,00				Limo arenoso											
5,30															
				Arena	MI	9-7-8-10			I-0031						
7,60		N.F 7,50		Arena gruesa											113
9,60				Arena gruesa con limo											
10,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

4771

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 3 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
10,00				Arena gruesa con limo	SPT	9-11-11-13			P-0027						
10,80				Arena limosa											
12,80				Arena											
13,60				Limo arcilloso gris	M I	8-7-12-22			I-0032						113
15,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 4 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
15,00				Limo arcilloso gris											
15,60				Limo arcilloso marrón											
16,50				Limo											
16,87				Limo arenoso											113
17,70				Arena fina limosa	SPT	6-6-7-10			P-0028						
20,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

4773

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 5 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
20,00				Arena fina limosa											
20,60				Limo arenosa	MI	6-14-27-24			I-0033						
21,60				Limo arcilloso											
22,20				Arerena limosa											113
22,90				Limo											
23,20				Arena limosa	SPT	3-1-1-2			P-0029						
24,70				Limo											
25,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 6 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GgolpES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
25,00				Arena limosa											
25,70				Limo arenoso											
26,10				Arena limosa											
27,15				Limo arenoso	M I	5-10-8-10			I-0034						113
27,80				Arena limosa											
28,50				Limo arcilloso											
29,80				Arena limosa											
30,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 7 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL (%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
30,00				Arena limosa											
30,30					SPT	2-3-6-5			P-0030						
				Limo											
30,80															
				Limo arenoso											
31,70															
				Arena limosa											
32,20															113
				Limo arenoso	MI	8-8-12-12			I-0035						
34,70															
				Arena limosa											
35,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 8 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
35,00				Arena limosa											
36,30					MI	7-14-14-47			I-0036						
				Arena											
37,00				Arena limosa											113
37,50															
				Arena											
39,40					SPT	4-7-8-13			P-0031						
				Arena limosa											
40,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005

PROFUNDIDAD: 65 m

HOJA: 9 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
40,00				Arena limosa											
41,90				Grava con matriz limosa	MI	R10									113
42,30				Arena limosa											
42,80				Grava de hasta 15 cm de diámetro con arena y matriz limosa											
45,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 10 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
45,00				Grava de hasta 15 cm de diámetro con arena y matriz limosa	SPT	34-28-55-37			P-0032						
46,00															
46,20				Arena											
				Grava de hasta 10 cm de diámetro con arena y matriz limosa											
47,90					SPT	R20									113
				Grava de hasta 10 cm de diámetro con arena											
50,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 11 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
50,00				Grava de hasta 10 cm de diámetro con arena											
50,50				Arena fina marrón claro											
51,40				Arena limosa marrón claro											
51,90				Arena fina marrón claro con grava											
52,30				Arena fina marrón claro	SPT	8-20-25-23			P-0033						113
55,00															

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 12 de 13

PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD D (cm/s)	BATERIA, CORONA Y REVESTIMIENT
55,00					MI	14-31-36-R5			I-0037						
57,30				Arena fina marrón claro											
58,70				Arena fina algo limosa											113
59,05				Arena fina marrón claro con grava											
59,35				Arena fina marrón claro											
60,00				Grava con matriz limosa											

OBSERVACIONES:

MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

GEOCISA GEOTECNIA Y CIMIENTOS, S.A.

REGISTRO DE SONDEO

PROYECTO: L.A.V. SANT BOI DE LLOBREGAT - HOSPITALET

SITUACIÓN: ANTIGUO ACCESO A FÁBRICA BAYER

SOCC-09

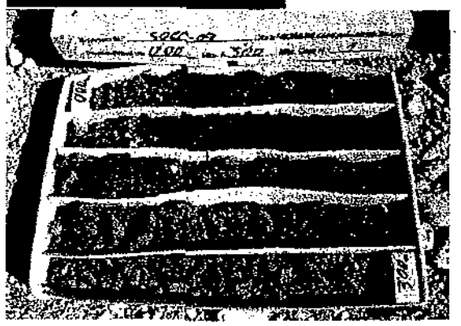
FECHA: del 21 al 24 de junio de 2005 | PROFUNDIDAD: 65 m | HOJA: 13 de 13

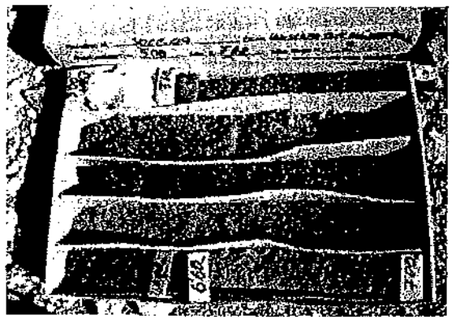
PROFUNDIDAD (m)	COLUMNA	N. F. (m)	LONGITUD TRAMO (m)	DESCRIPCIÓN DEL TESTIGO	MUESTRAS	Nº DE GOLPES SPT/MI	LIMITES DE ATTEMBERG LL (%)	LIMITES DE ATTEMBERG LP (%)	INFORME	RETENIDO 0,008 mm (%)	HUMEDAD NATURAL(%)	DENSIDAD SECA (gr/cm³)	CORTE DIRECTO (kPa y °)	PERMEABILIDAD (cm/s)	BATERÍA, CORONA Y REVESTIMIENT
60,00					SPT	29-31-36-R9			P-0034						
				Grava con matriz limosa											
61,75															
				Arcilla limosa marrón clara											113
62,50															
					MI	42-32-37-44			I-0038						
				Arena marrón clara											
65,00															

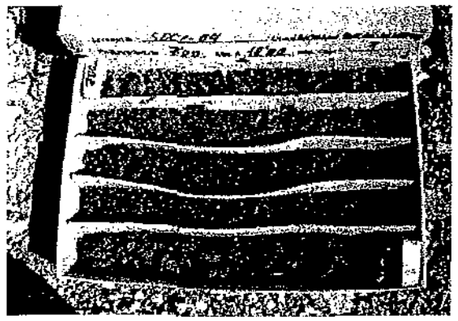
OBSERVACIONES:

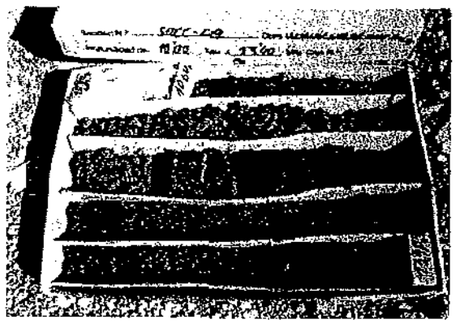
MI: Muestra inalterada. MA: Muestra alterada. SPT: Ensayo de penetración. LF: Lefranc. PS: Presiómetro. N.F: Nivel freático.

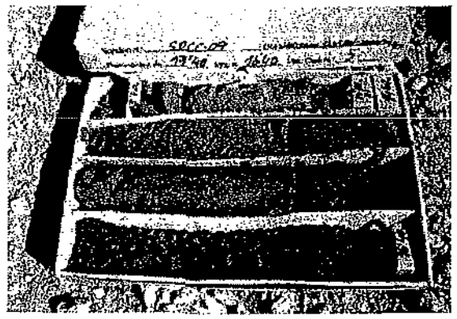
GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

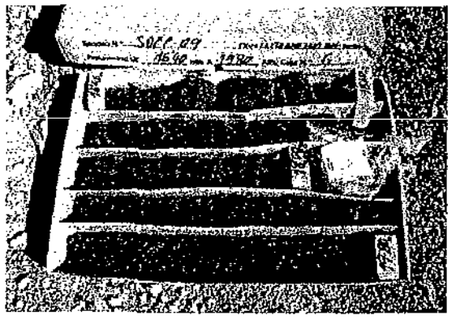


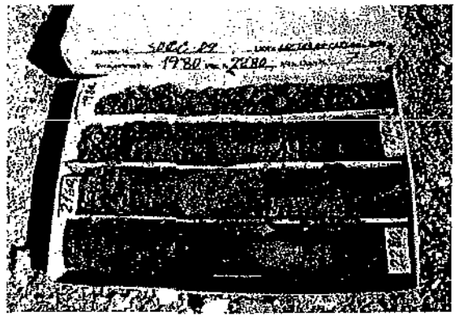


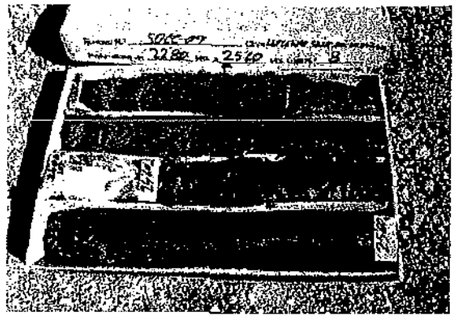


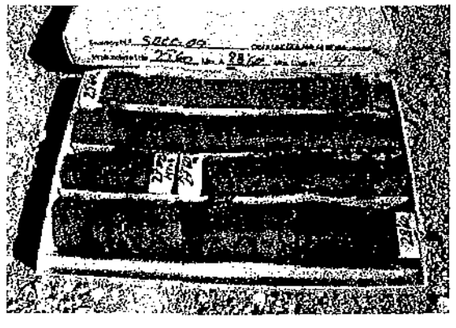


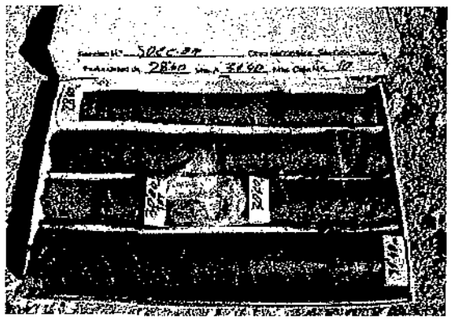


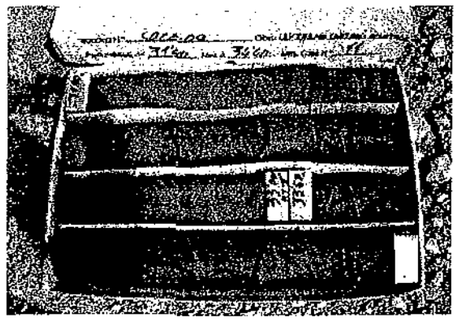


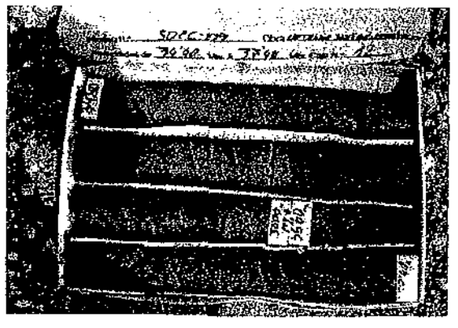






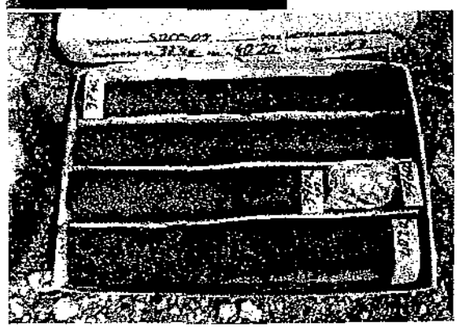


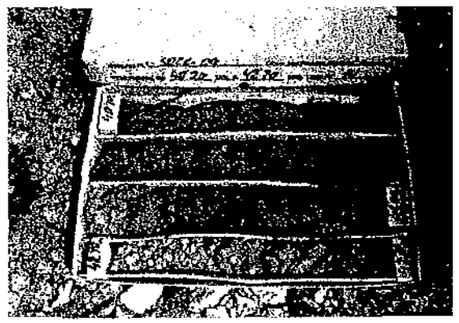


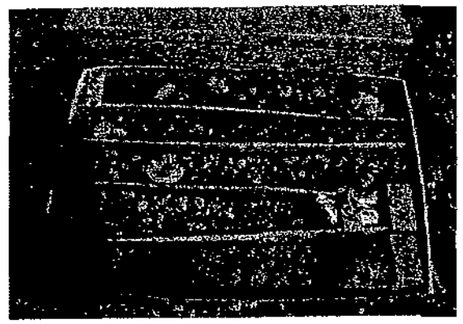


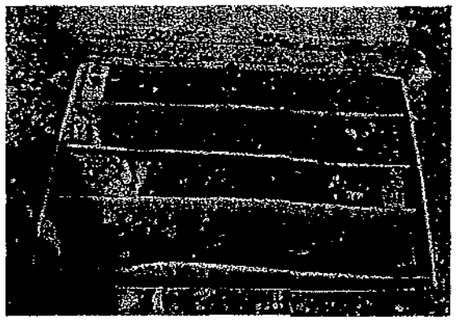
4783

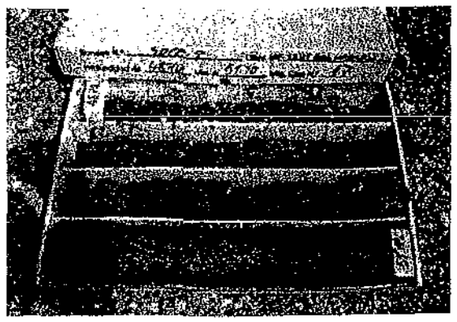
GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

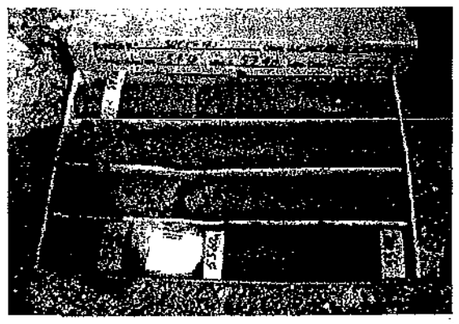


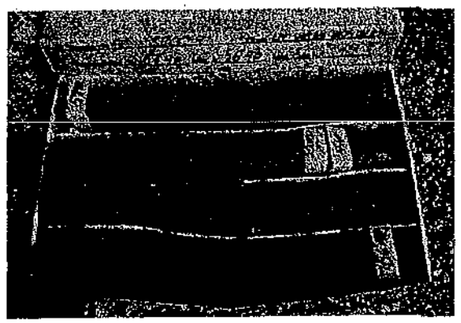


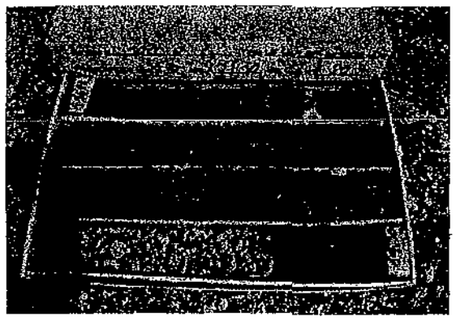


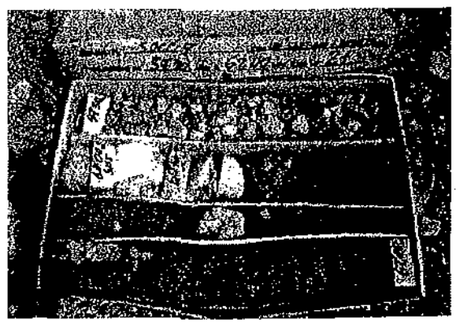


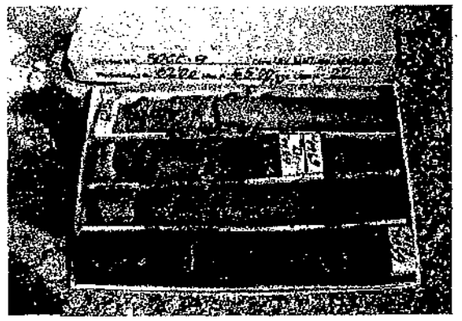












GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

SOCC-05-02

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0081 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

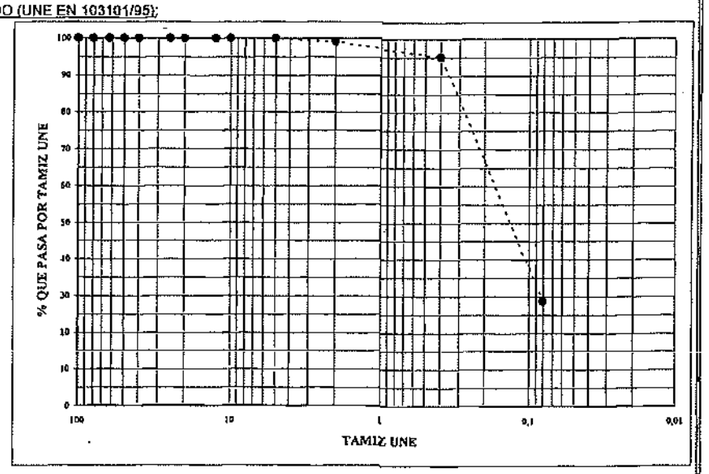
PROFUNDIDAD: DE 03,00 A 03,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	99,1
0,400	95,1
0,08	28,7



PORCENTAJE RETENIDO POR TAMIZ 0,080	71,3
DENSIDAD SECA (UNE EN 103301/94):	-
HUMEDAD NATURAL (UNE EN 103300/93):	-
LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):	
Límite líquido	-
Límite plástico	-
Índice de plasticidad	-

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

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GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0082** FECHA: **19/08/2005**

PROCEDENCIA: **SOCC-05-02** TIPO DE MUESTRA: **SPT**

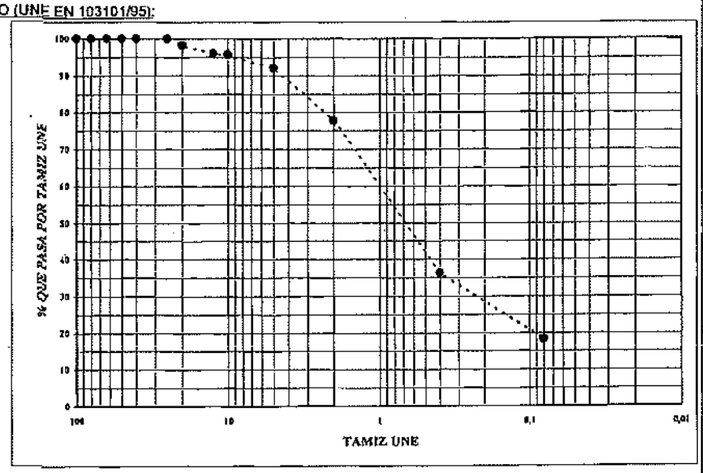
PROFUNDIDAD: **DE 10,00 A 10,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	98,1
12,5	96,1
10,0	95,6
5,0	92,0
2,0	77,9
0,400	36,3
0,08	18,2



PORCENTAJE RETENIDO POR TAMIZ 0,080: **81,8**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0083** FECHA: **19/08/2005**

PROCEDENCIA: **SOCC-05-02** TIPO DE MUESTRA: **SPT**

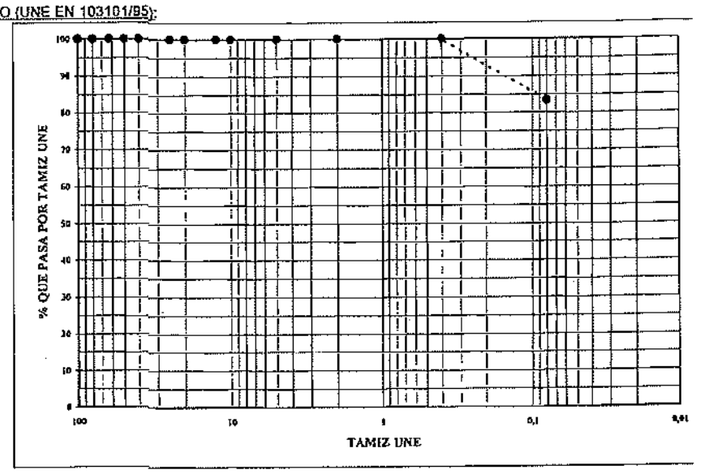
PROFUNDIDAD: **DE 18,00 A 18,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	83,3



PORCENTAJE RETENIDO POR TAMIZ 0,080: **16,7**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0084 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

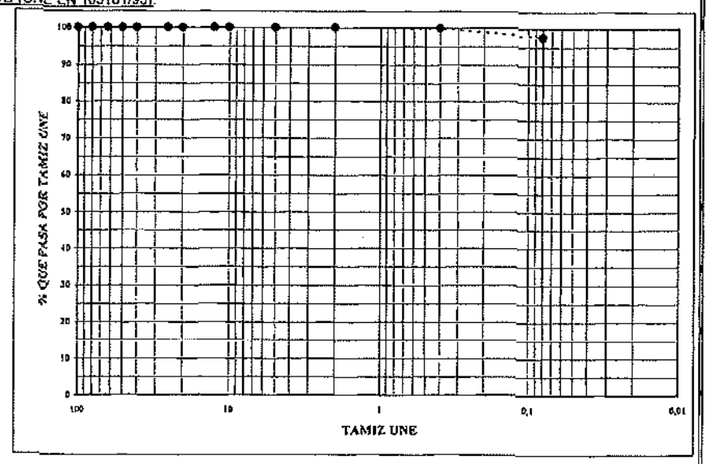
PROFUNDIDAD: DE 24,00 A 24,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	97,6



PORCENTAJE RETENIDO POR TAMIZ 0,080: 2,4

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0085 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

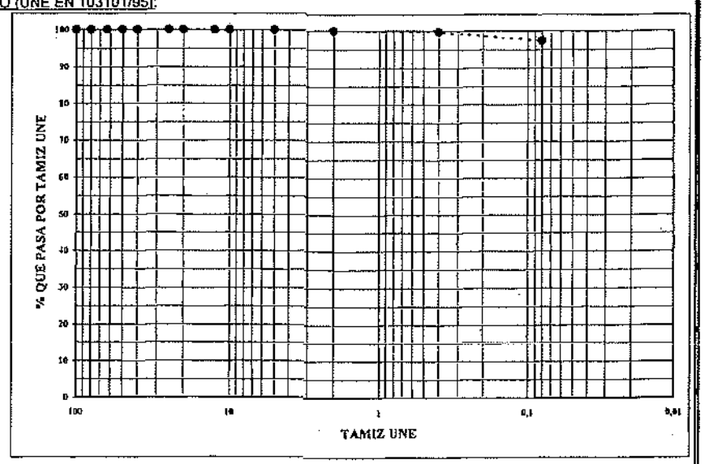
PROFUNDIDAD: DE 30,00 A 30,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,8
0,08	97,3



PORCENTAJE RETENIDO POR TAMIZ 0,080: 2,7

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0086 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

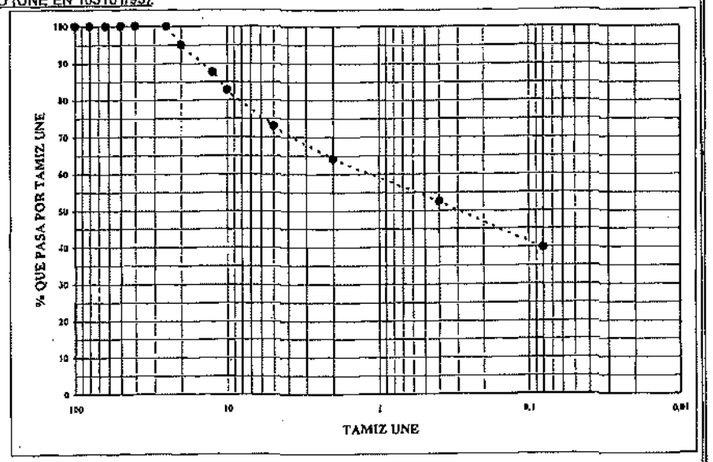
PROFUNDIDAD: DE 39,00 A 39,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	94,9
12,5	87,6
10,0	82,7
5,0	72,9
2,0	64,1
0,400	52,4
0,08	39,8



PORCENTAJE RETENIDO POR TAMIZ 0,080: 60,2

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0087 FECHA: 19/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: SPT

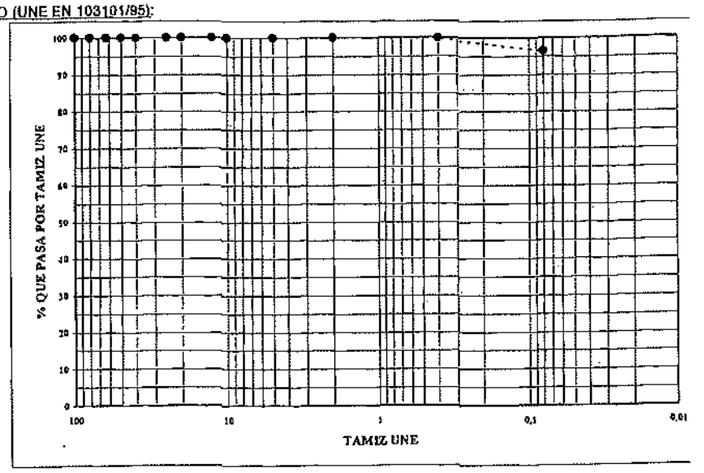
PROFUNDIDAD: DE 51,00 A 51,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	99,9
0,400	99,9
0,08	96,4



PORCENTAJE RETENIDO POR TAMIZ 0,080: 3,6

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0085 FECHA: 18/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: MUESTRA INALTERADA

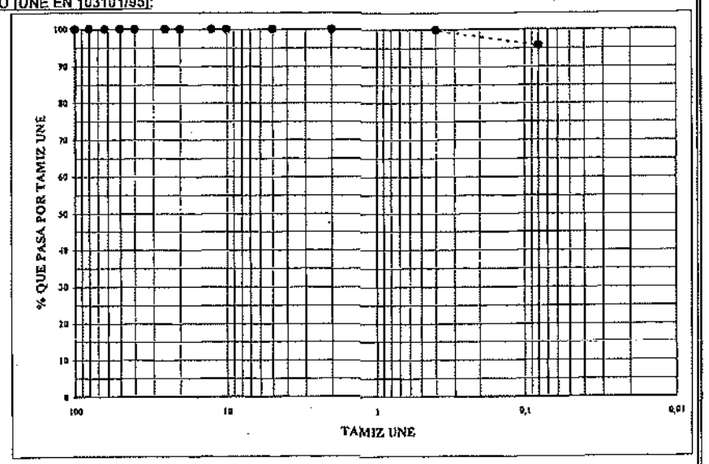
PROFUNDIDAD: DE 06,00 A 06,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,8
0,08	95,7



PORCENTAJE RETENIDO POR TAMIZ 0,080: 4,3

DENSIDAD SECA (gr/cm³), (UNE EN 103301/94): 1,7

HUMEDAD NATURAL (%) (UNE EN 103300/93): 30,2

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido	31	
Límite plástico	23	
Índice de plasticidad	8	*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : CL-ML

OBSERVACIONES:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0086 FECHA: 18/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: MUESTRA INALTERADA

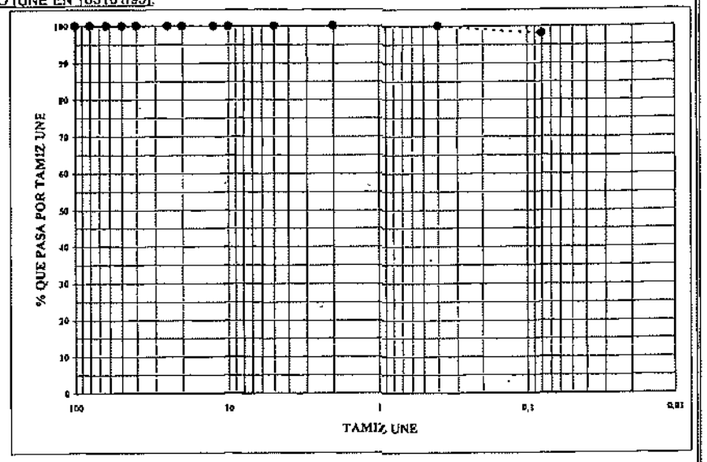
PROFUNDIDAD: DE 21,00 A 21,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	98,0



PORCENTAJE RETENIDO POR TAMIZ 0,080: 2,0

DENSIDAD SECA (gr/cm³), (UNE EN 103301/94): 1,6

HUMEDAD NATURAL (%) (UNE EN 103300/93): 25,2

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido	N.P.	
Límite plástico	N.P.	
Índice de plasticidad	N.P.	*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : ML

MÓDULO EDOMÉTRICO (kPa) (UNE 103405/94): 12080,259

OBSERVACIONES:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0087
PROCEDENCIA: SOCC-05-02
PROFUNDIDAD: DE 33,00 A 33,60

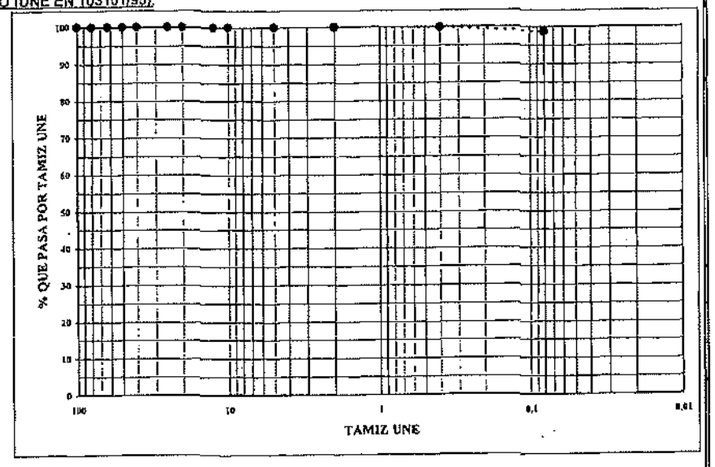
FECHA: 18/08/2005
TIPO DE MUESTRA: MUESTRA INALTERADA

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	98,7



PORCENTAJE RETENIDO POR TAMIZ 0,080: 1,3

DENSIDAD SECA (gr/cm³), (UNE EN 103301/94): 1,7

HUMEDAD NATURAL (%) (UNE EN 103300/93): 23,0

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido	N.P.
Límite plástico	N.P.
Indice de plasticidad	N.P.

*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : ML

OBSERVACIONES:

BARCELONA 03/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0088
PROCEDENCIA: SOCC-05-02
PROFUNDIDAD: DE 36,00 A 36,60

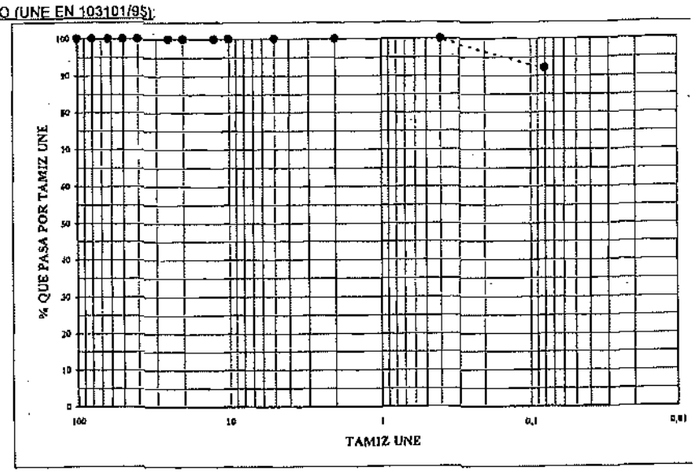
FECHA: 18/08/2005
TIPO DE MUESTRA: MUESTRA INALTERADA

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	92,0



PORCENTAJE RETENIDO POR TAMIZ 0,080: 8,0

DENSIDAD SECA (gr/cm³), (UNE EN 103301/94): 1,7

HUMEDAD NATURAL (%) (UNE EN 103300/93): 26,8

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido	N.P.
Límite plástico	N.P.
Indice de plasticidad	N.P.

*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : ML

MÓDULO EDOMÉTRICO (kPa) (UNE 103405/94):

OBSERVACIONES:

BARCELONA 07/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0088 FECHA: 18/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: MUESTRA INALTERADA

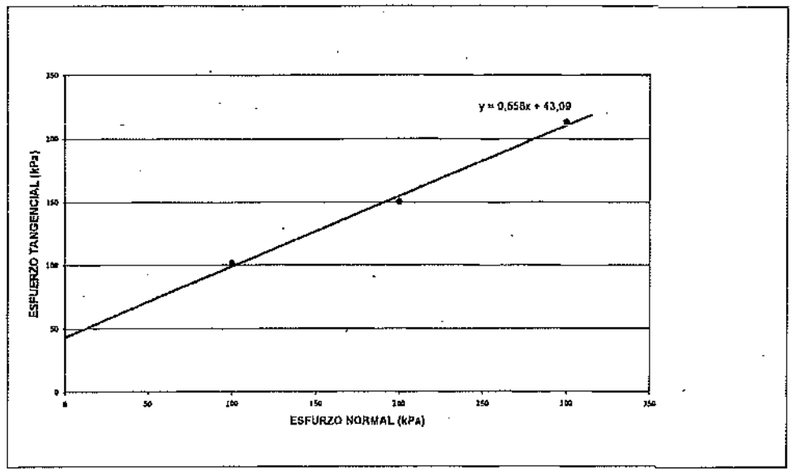
PROFUNDIDAD: DE 36,00 A 36,60

ENSAYOS EN SUELOS

Ensayo:

1. ENSAYO DE CORTE DIRECTO CONSOLIDADO Y DRENADO (UNE 103401/98)

RESULTADOS FASE DE CORTE					
CARGA AXIAL 100 kPa		CARGA AXIAL 200 kPa		CARGA AXIAL 300 kPa	
Sh (mm)	Pmax (Kpa)	Sh (mm)	Pmax (Kpa)	Sh (mm)	Pmax (Kpa)
4,29	101,22	4,29	150,01	5,28	212,81



RESULTADOS DEL ENSAYO	
COHESIÓN en kPa	43,09
ÁNGULO ROZAMIENTO INTERNO EN °	29,16

OBSERVACIONES:

BARCELONA
07/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: I-0090 FECHA: 18/08/2005

PROCEDENCIA: SOCC-05-02 TIPO DE MUESTRA: MUESTRA INALTERADA

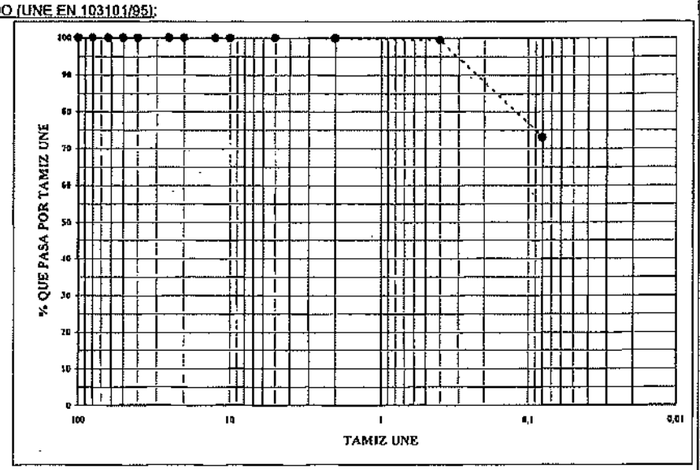
PROFUNDIDAD: DE 55,00 A 55,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	99,9
0,400	99,4
0,08	73,0



PORCENTAJE RETENIDO POR TAMIZ 0,080: 27,0

DENSIDAD SECA (gr/cm³), (UNE EN 103301/94): -

HUMEDAD NATURAL (%) (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

*(N.P. = NO PRESENTA)

IDENTIFICACIÓN : -

OBSERVACIONES:

BARCELONA 03/11/2005

V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

SOCC-09

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0026
PROCEDENCIA: SOCC-09
PROFUNDIDAD: DE 03,00 A 03,60

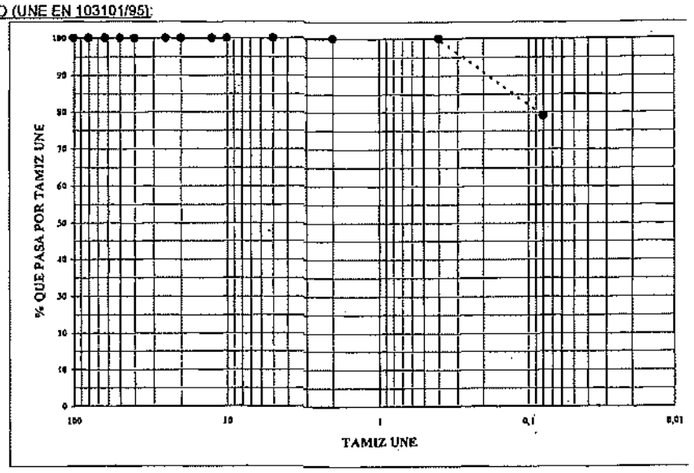
FECHA: 22/06/2005
TIPO DE MUESTRA: SPT

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	79,0



PORCENTAJE RETENIDO POR TAMIZ 0,080: 21,0

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005

Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0027** FECHA: **22/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

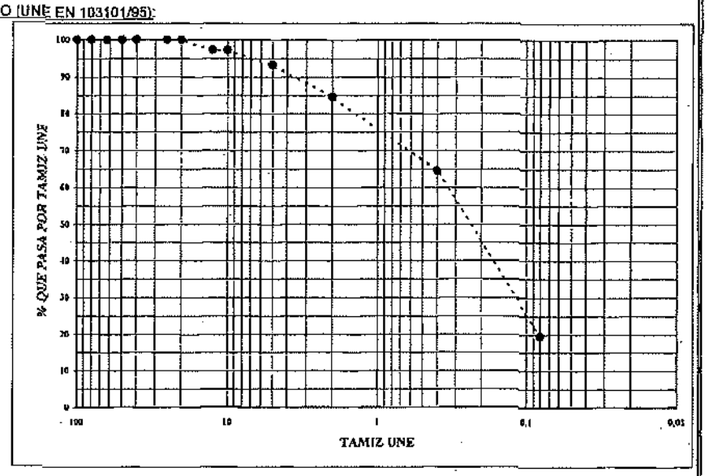
PROFUNDIDAD: **DE 10,00 A 10,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	97,2
10,0	97,2
5,0	93,1
2,0	84,6
0,400	64,5
0,08	19,4



PORCENTAJE RETENIDO POR TAMIZ 0,080: **80,6**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido -
Límite plástico -
Índice de plasticidad -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0028** FECHA: **22/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

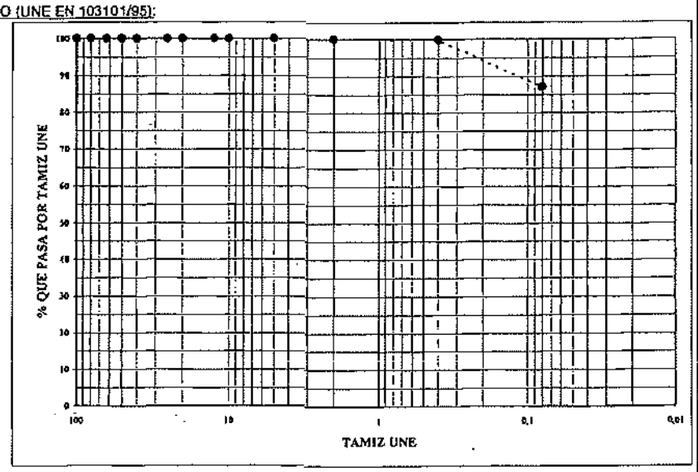
PROFUNDIDAD: **DE 18,00 A 18,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	87,0



PORCENTAJE RETENIDO POR TAMIZ 0,080: **13,0**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido -
Límite plástico -
Índice de plasticidad -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

4793

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0029 FECHA: 22/06/2005

PROCEDENCIA: SOCC-09 TIPO DE MUESTRA: SPT

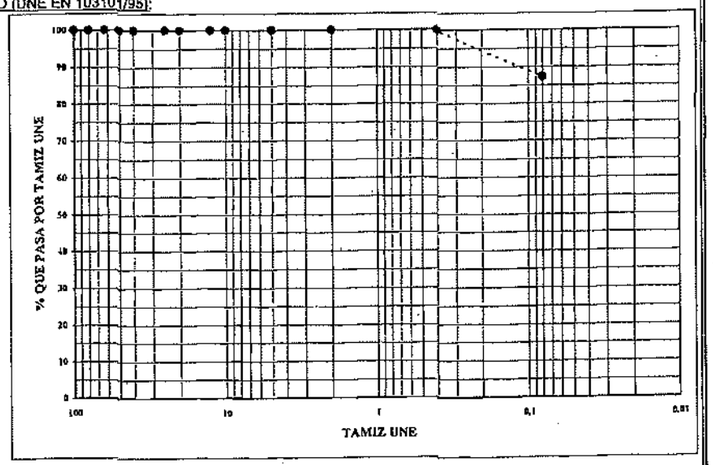
PROFUNDIDAD: DE 24,00 A 24,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	87,2



PORCENTAJE RETENIDO POR TAMIZ 0,080	12,8
DENSIDAD SECA (UNE EN 103301/94):	-
HUMEDAD NATURAL (UNE EN 103300/93):	-
LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):	
Límite líquido	-
Límite plástico	-
Indice de plasticidad	-

IDENTIFICACIÓN:

BARCELONA 03/11/2005 Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: P-0030 FECHA: 22/06/2005

PROCEDENCIA: SOCC-09 TIPO DE MUESTRA: SPT

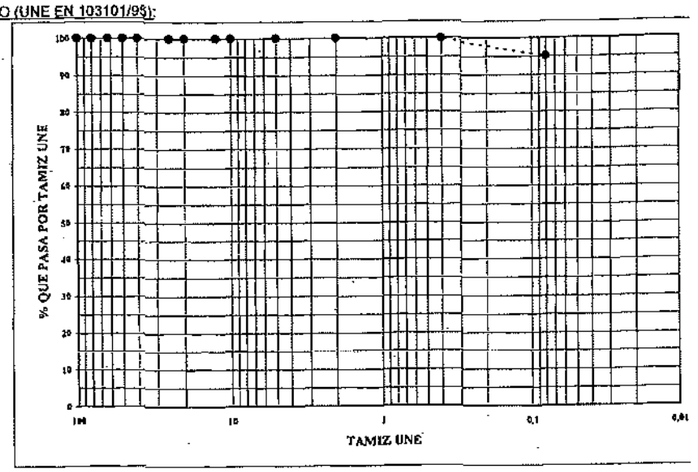
PROFUNDIDAD: DE 30,00 A 30,60

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,9
0,08	94,9



PORCENTAJE RETENIDO POR TAMIZ 0,080	5,1
DENSIDAD SECA (UNE EN 103301/94):	-
HUMEDAD NATURAL (UNE EN 103300/93):	-
LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):	
Límite líquido	-
Límite plástico	-
Indice de plasticidad	-

IDENTIFICACIÓN:

BARCELONA 03/11/2005 Vº Bº JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0031** FECHA: **27/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

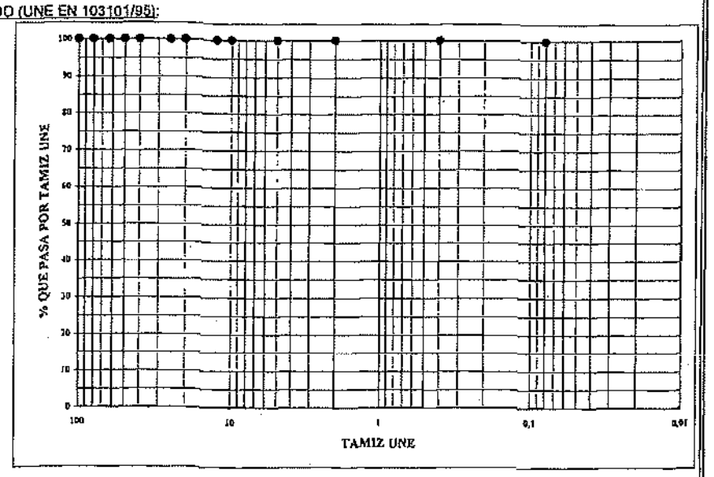
PROFUNDIDAD: **DE 39,00 A 39,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	100,0
0,08	99,8



PORCENTAJE RETENIDO POR TAMIZ 0,080: **0,2**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0032** FECHA: **27/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

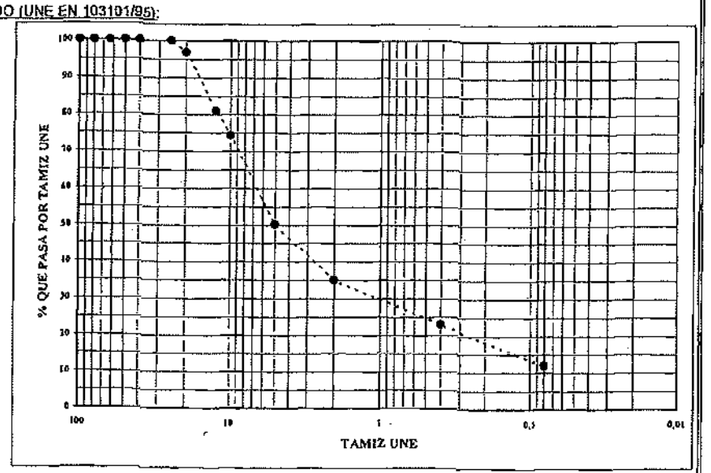
PROFUNDIDAD: **DE 45,00 A 45,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	96,9
12,5	81,0
10,0	74,4
5,0	50,2
2,0	35,0
0,400	22,9
0,08	12,1



PORCENTAJE RETENIDO POR TAMIZ 0,080: **87,9**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0033** FECHA: **27/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

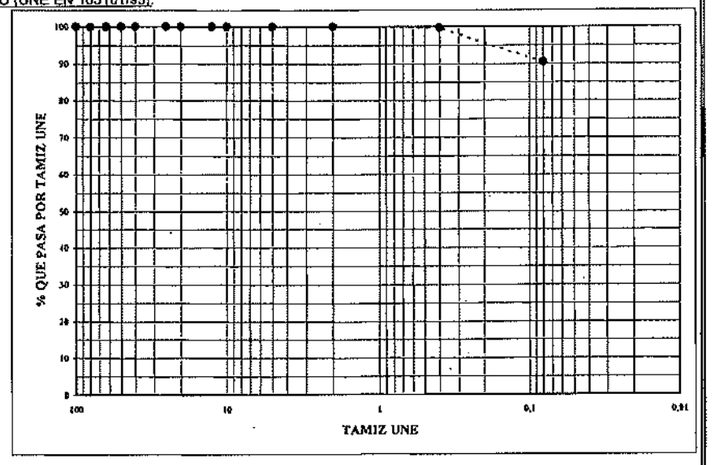
PROFUNDIDAD: **DE 53,00 A 53,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	99,7
0,08	90,4



PORCENTAJE RETENIDO POR TAMIZ 0,080: **9,6**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

GEOCISA
GEOTECNIA Y CIMIENTOS, S.A.

OBRA: Proyecto L.A.V. Madrid-Zaragoza-Barcelona-Frontera Francesa

SUBTRAMO: Sant Boi de Llobregat - Hospitalet de Llobregat

PETICIONARIO: CORSAN-CORVIAM

Nº MUESTRA: **P-0034** FECHA: **27/06/2005**

PROCEDENCIA: **SOCC-09** TIPO DE MUESTRA: **SPT**

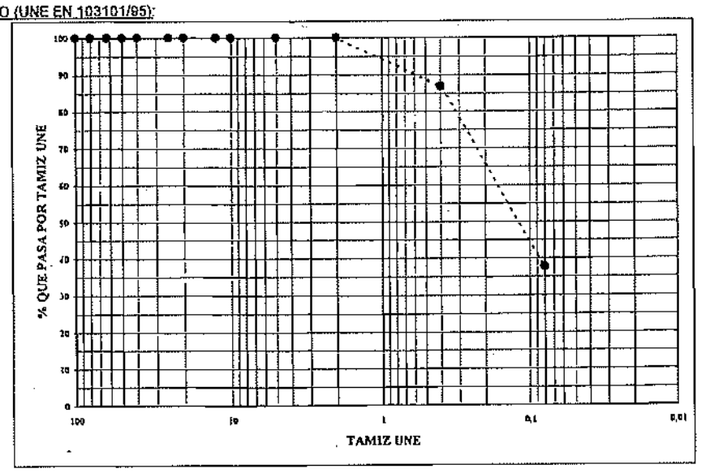
PROFUNDIDAD: **DE 60,00 A 60,60**

ENSAYOS EN SUELOS

Ensayo: **Especificación:**

1.- ANÁLISIS GRANULOMÉTRICO POR TAMIZADO (UNE EN 103101/95):

TAMIZ UNE (mm)	% Que pasa
125,0	100,0
100,0	100,0
80,0	100,0
63,0	100,0
50,0	100,0
40,0	100,0
25,0	100,0
20,0	100,0
12,5	100,0
10,0	100,0
5,0	100,0
2,0	100,0
0,400	86,7
0,08	37,7



PORCENTAJE RETENIDO POR TAMIZ 0,080: **62,3**

DENSIDAD SECA (UNE EN 103301/94): -

HUMEDAD NATURAL (UNE EN 103300/93): -

LÍMITES ATTERBERG (UNE EN 103103/94 103104/93):

Límite líquido: -
Límite plástico: -
Indice de plasticidad: -

IDENTIFICACIÓN:

BARCELONA 03/11/2005 V° B° JEFE DE LABORATORIO

Estos resultados hacen referencia únicamente a la muestra ensayada

2. ESTUDIO DE SIMULACIÓN DEL PROCESO DE HINCADO

TERRATEST
TECNICAS ESPECIALES

CLIENTE: CORSAN-CORVIAN

CIMENTACION DE VIADUCTO DEL TRAMO DE AVE: SANT BOI - HOSPITALET

RESULTADOS DEL PROGRAMA DE ANALISIS DE ECUACION DE LA ONDA (WEAP) EN PILOTES PREFABRICADOS HINCADOS

Diciembre, 2005

Expediente nº: T05567

1.- INTRODUCCION

GRL'S Wave Equation Analysis of Pile Driving (WEAP) es un programa que simula la hinca de un pilote bajo la acción de un martillo, al mismo tiempo que calcula para dicho pilote:

- El rechazo, es decir, la penetración del pilote para un número determinado de golpes, normalmente diez (10) golpes, bajo uno o más valores supuestos de resistencia última y otros parámetros dinámicos de resistencia del suelo.
- La resistencia o carga axil en el pilote correspondiente a la cantidad de golpes calculada.
- La energía transferida al pilote.

Basándonos en estos resultados podemos deducir:

- La capacidad de carga del pilote durante la hinca o en rehinca, con su correspondiente rechazo.
- Los esfuerzos que se originan durante la hinca del pilote, así como la resistencia por fuste y por punta del pilote y el rechazo asociado a éstas resistencias.

Previamente al cálculo que realiza el programa WEAP es necesario introducir una serie de parámetros relativos a los distintos elementos del modelo, puesto que dicho programa está basando en un modelo matemático, en el que están representados la maza, el sistema de almohadillado y sufridera, pilote y suelo.

Una vez introducidas los datos, el cálculo comienza por una integración para obtener velocidades y desplazamientos en un segmento de pilote *i* y en un intervalo de tiempo *j*. A continuación, calcula la fuerza que actúa sobre el segmento *i*, y con ello un nuevo valor de la aceleración, y por integración nuevos valores de velocidad y desplazamiento.

Este proceso iterativo continua hasta un número de pasos especificado por el usuario o hasta que convergen las velocidades en la parte superior e inferior del segmento de pilote. Finalizado este proceso iterativo calcula los valores de las fuerzas de resistencia y, bien continua en el siguiente incremento de tiempo, bien da por finalizado el análisis.

2.- DATOS

Se proyecta la cimentación un viaducto para la línea de AVE, en el tramo Sant Boi – Hospitalet. La cimentación se efectuará mediante pilotes de sección T-400, hincados mediante un equipo Banut de 7 Tons. y altura de caída entre 0.2 y 1.2 m., en un terreno cuyas características extraídas del Estudio Geotécnico se detallan a continuación:

Profundidad (m)	Descripción	Ensayo SPT	Parámetros del suelo					
			Resistencia unitaria		Quake (mm)		Damping (s/m)	
			Fuste (T/m²)	Punta (Tons)	Fuste	Punta	Fuste	Punta
0 - 14.2	Arenas	10	25	400	2	8	0.05	0.05
14.2 – 40.4	Arenas con intercalaciones de arcillas	17	45	600	2	8	0.1	0.05
40.4 - 48	Gravas	38/R	120	2000	2.5	6	0.4	0.6

3.- RESULTADOS

Los resultados del programa WEAP figuran en las hojas siguientes y su contenido por páginas es el siguiente:

Página 1: Tabla de resultados donde se indican, para cada profundidad, la resistencia última, la resistencia por fuste y por punta, el número de golpes por metro, los esfuerzos que se originan a tracción y compresión y el tiempo de hinca del pilote.

Página 2 y 3: Salida gráfica de los resultados del programa.

Página 4 - 31: Salida numérica correspondiente a las distintas profundidades del análisis

Madrid, a 15 de Diciembre de 2.005

TERRATEST TÉCNICAS ESPECIALES, S.A.

Juan Carlos Sánchez
Geólogo

Borja Sainz de Baranda
Geólogo

Teratest Tecnicas Especiales SA
AVE (SantBcl–Hospitalet)

2005 Dec 15
GRLWEAP(TM) Version 2003

Gain/Loss 1 at Shaft and Toe 1.000 / 1.000

Depth m	Ultimate Capacity kN	Friction kN	End Bearing kN	Set mm/10 bl	Comp. Stress MPa	Tension Stress MPa	Stroke m	ENTHRU kJ
2.0	448.8	48.8	400.0	160.3	30.376	-3.011	1.20	67.7
4.0	498.8	98.8	400.0	157.0	30.099	-4.319	1.20	67.7
6.0	548.8	148.8	400.0	156.3	29.847	-4.833	1.20	67.7
8.0	598.8	198.8	400.0	156.0	29.716	-5.152	1.20	67.7
10.0	648.8	248.8	400.0	155.5	29.510	-5.394	1.20	67.7
12.0	698.8	298.8	400.0	155.0	29.347	-5.580	1.20	67.7
14.0	748.8	348.8	400.0	154.6	29.256	-5.730	1.20	67.7
16.0	1034.7	434.7	600.0	71.8	39.036	-7.252	1.20	67.8
18.0	1124.7	524.7	600.0	72.3	38.410	-7.078	1.20	67.8
20.0	1214.7	614.7	600.0	72.4	37.781	-6.876	1.20	67.8
22.0	1304.7	704.7	600.0	72.3	37.149	-6.169	1.20	67.8
24.0	1394.7	794.7	600.0	72.0	36.529	-5.861	1.20	67.7
26.0	1484.7	884.7	600.0	71.5	35.921	-5.764	1.20	67.7
28.0	1574.7	974.7	600.0	70.9	35.320	-5.867	1.20	67.7
30.0	1664.7	1064.7	600.0	70.2	34.724	-5.977	1.20	67.7
32.0	1754.7	1154.7	600.0	69.3	34.134	-6.074	1.20	67.7
34.0	1844.7	1244.7	600.0	68.4	33.548	-6.242	1.20	67.6
36.0	1934.7	1334.7	600.0	67.5	32.967	-6.480	1.20	67.6
38.0	2024.7	1424.7	600.0	66.6	32.390	-6.781	1.20	67.6
40.0	2114.6	1514.6	600.0	65.7	31.813	-7.107	1.20	67.5
42.0	3724.3	1724.3	2000.0	1.0	40.466	-5.537	1.20	67.5
44.0	3964.3	1964.3	2000.0	1.0	38.778	-5.843	1.20	67.4
46.0	4204.3	2204.3	2000.0	1.0	36.722	-5.806	1.20	67.2
48.0	4444.3	2444.3	2000.0	1.0	34.568	-5.684	1.20	66.8

Refusal occured; no driving time output possible

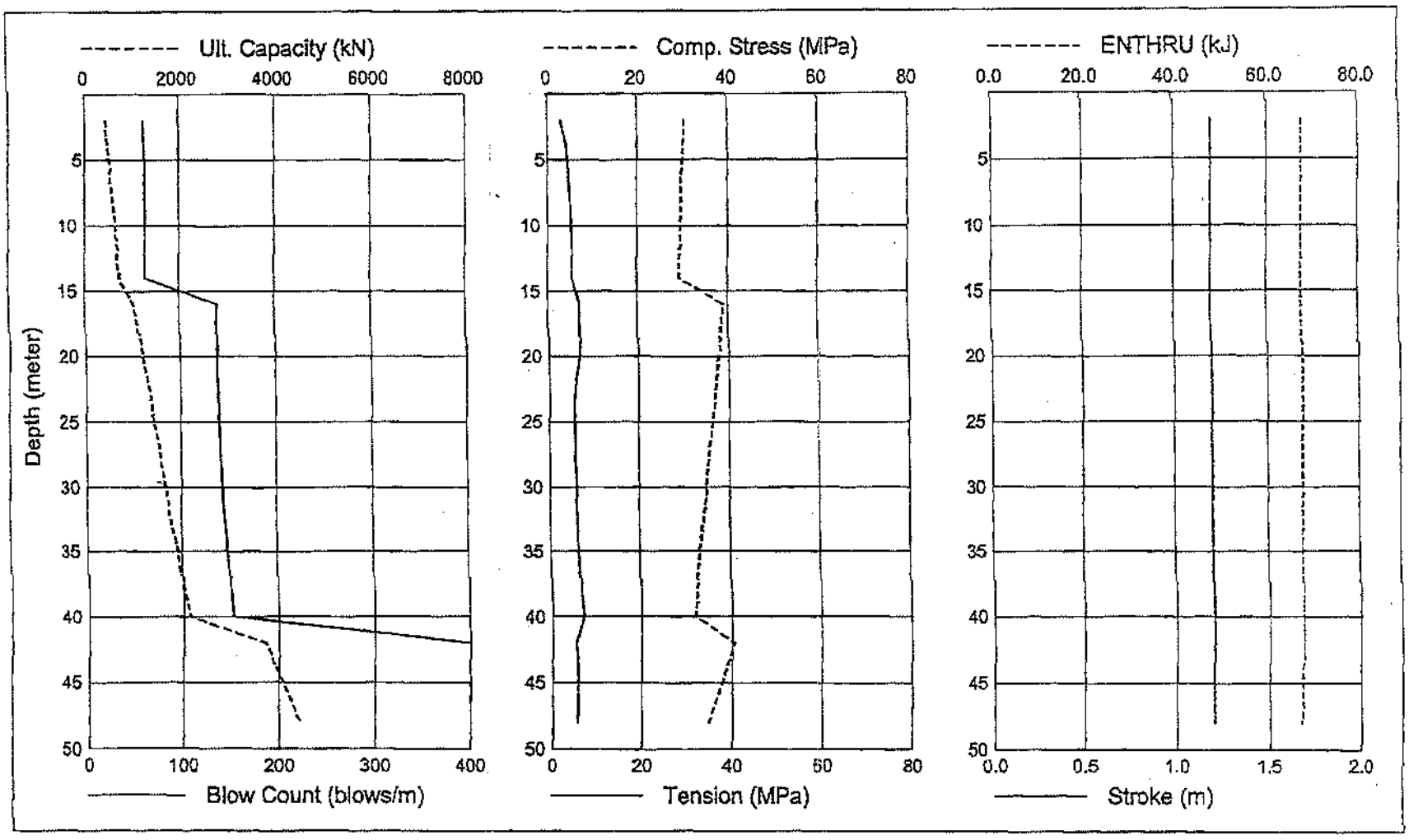
Terratest Tecnicas Especiales SA

2005 Dec 16

AVE (SantBoi--Hospitalet)

Gain/Loss 1 at Shaft and Toe 1.000 / 1.000

GRLWEAP(TM) Version 2003



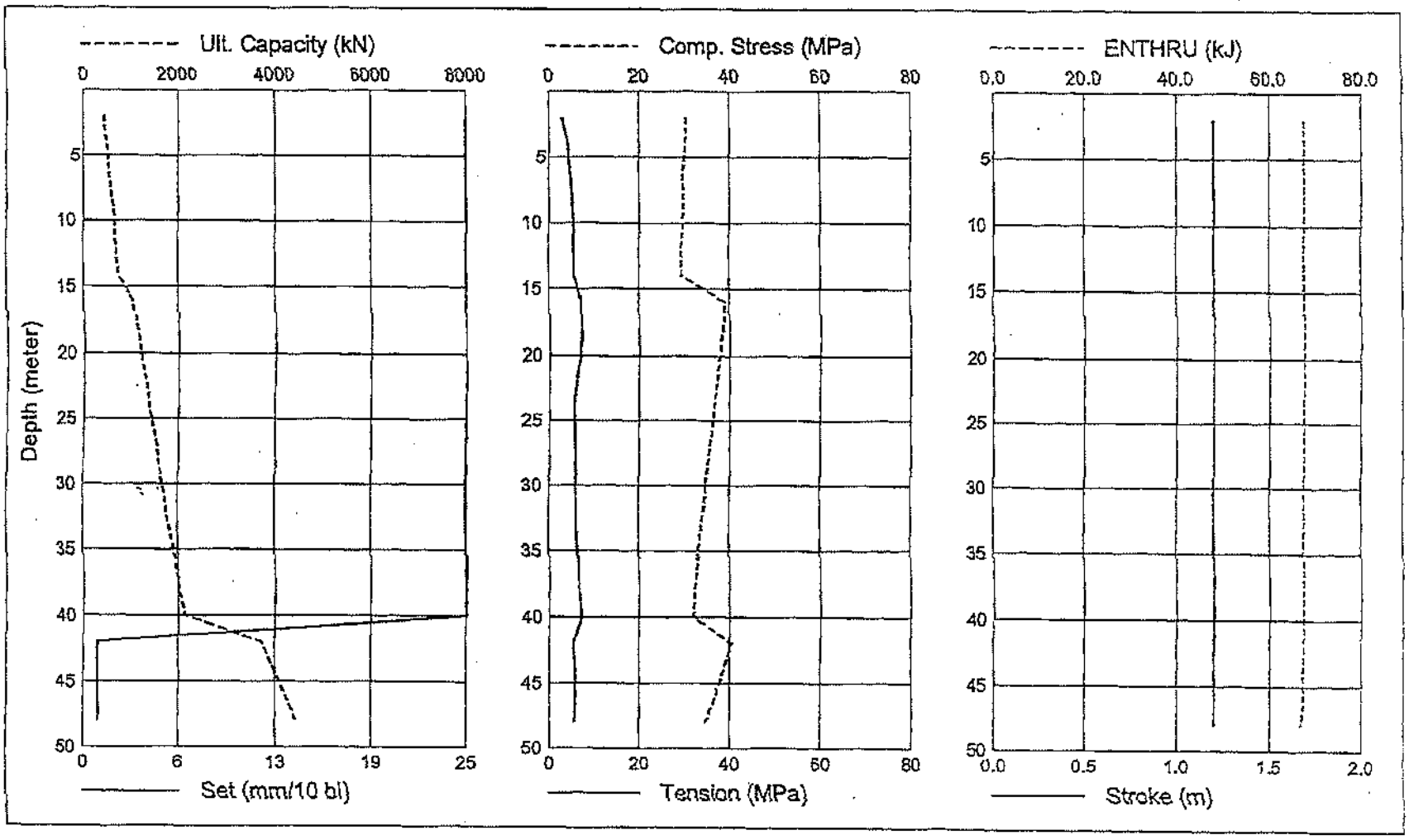
Terratest Tecnicas Especiales SA

2005 Dec 16

AVE (SantBoi--Hospitalet)

Gain/Loss 1 at Shaft and Toe 1.000 / 1.000

GRLWEAP(TM) Version 2003



13:24:06 16-12-2005 8/37

4801

204

GRLWEAP: WAVE EQUATION ANALYSIS OF PILE FOUNDATIONS
Version 2003
SI Units

AVE (SantBoi--Hospitalet)

Hammer Model: 7 Tonnes Made by: BANUT

No.	Weight kN	Stiffn kN/mm	CoR	C-Slk mm	Dampg kN/m/s
1	17.166				
2	17.166	39024.5	1.000	3.0480	
3	17.166	39024.5	1.000	3.0480	
4	17.166	39024.5	1.000	3.0480	46.4
Cushion		1321.6	1.000	3.0480	

Assembly	Weight kN	Stiffn kN/mm	CoR	C-Slk mm
1	6.377	262.8		
2	6.377	262.8	0.800	3.0480

HAMMER OPTIONS:
Hammer File ID No. 545

HAMMER DATA:

Ram Weight	(kN)	68.66	Ram Length	(mm)	4025.14
Maximum (Eq) Stroke	(m)	0.80	Actual (Eq) Stroke	(m)	1.20
			Efficiency		0.900
Rated Energy	(kJ)	54.92	Potential Energy	(kJ)	82.40
Kinetic Energy	(kJ)	74.16	Impact Velocity	(m/s)	4.60

HAMMER CUSHION			PILE CUSHION		
Cross Sect. Area	(cm2)	1600.00	Cross Sect. Area	(cm2)	1600.00
Elastic-Modulus	(MPa)	1206.0	Elastic-Modulus	(MPa)	413.0
Thickness	(mm)	100.00	Thickness	(mm)	50.00
Coeff of Restitution		0.920	Coeff of Restitution		0.500
RoundOut	(mm)	3.0	RoundOut	(mm)	3.0
Stiffness	(kN/mm)	1929.6	Stiffness	(kN/mm)	1321.6

TERRATEST TÉCNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 2.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut(kN) 448.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR kN	Soil-S s/m	Soil-S mm	Soil-D m	Quake m	LbTop m	Circm Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
3	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	47.00	1.0	1600.0
4	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

PILE, SOIL, ANALYSIS OPTIONS:
Uniform pile Pile Segments: Automatic
No. of Slacks/Splices 0 Pile Damping (%) 3
Pile Penetration (m) 400.00 Pile Damping Fact.(kN/m/s) 94.383

Driveability Analysis
Soil Damping Option Smith
Max No Analysis Iterations 0 Time Increment/Critical 160
Output Time Interval 1 Analysis Time-Input (ms) 0
Output Level: Normal
Gravity Mass, Pile, Hammer: 9.810 9.810 9.810
Output Segment Generation: Automatic

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
2.00	1.20	0.900	1322.	0.500

CLIENTE: CORSAN-CORVION Expediente nº: T05567

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 4.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model — Total Capacity Rut (kN) 498.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
45	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	45.00	1.0	1600.0
46	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	46.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
4.00	1.20	0.900	1322.	0.500

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 6.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model — Total Capacity Rut (kN) 548.8

Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR kN	Soil-S s/m	Soil-D mm	Quake m	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
43	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	43.00	1.0	1600.0
44	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	44.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
6.00	1.20	0.900	1322.	0.500

TERRATEST TÉCNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

Depth (m) 6.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model — Total Capacity Rut (kN) 548.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
43	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	43.00	1.0	1600.0
44	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	44.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
6.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
548.8	64.0	1.20	-4.83	9	24	29.85	48	16	67.7
439.0	51.1	1.20	-5.77	9	24	28.98	38	14	67.7

TERRATEST TÉCNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

Depth (m) 8.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model — Total Capacity Rut (kN) 598.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
41	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	41.00	1.0	1600.0
42	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	42.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
8.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
598.8	64.1	1.20	-5.15	8	24	29.72	48	16	67.7
479.0	51.8	1.20	-6.19	9	24	29.03	38	14	67.7

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 10.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
	0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
	48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 648.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
39	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	39.00	1.0	1600.0
40	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	40.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
10.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
648.8	64.3	1.20	-5.39	8	25	29.51	48	16	67.7
519.0	52.5	1.20	-6.47	8	25	29.10	38	14	67.7

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 12.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
	0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
	48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 698.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
37	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	37.00	1.0	1600.
38	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	38.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
12.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
698.8	64.5	1.20	-5.58	8	25	29.35	48	16	67.7
559.0	53.2	1.20	-6.68	8	25	29.15	37	14	67.7

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 28.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1574.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
21	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	21.00	1.0	1600.0
22	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	22.00	1.0	1600.0
35	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	35.00	1.0	1600.0
36	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	36.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
28.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1574.7	141.0	1.20	-5.87	21	33	35.32	48	17	67.7
1259.7	111.0	1.20	-6.25	21	33	34.86	48	17	67.7

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 30.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor
1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1664.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
19	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	19.00	1.0	1600.0
20	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	20.00	1.0	1600.0
33	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	33.00	1.0	1600.0
34	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	34.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
30.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1664.7	142.5	1.20	-5.98	19	33	34.72	48	17	67.7
1331.7	111.9	1.20	-6.23	19	33	34.38	48	17	67.7

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 32.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L m	b Top cm2	Area	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	573.06	
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	573.06	

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1754.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
17	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	17.00	1.0	1600.0
18	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	18.00	1.0	1600.0
31	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	31.00	1.0	1600.0
32	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	32.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
32.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1754.7	144.2	1.20	-6.07	18	32	34.13	48	17	67.7
1403.7	113.0	1.20	-6.23	19	33	33.91	48	17	67.7

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 14.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L m	b Top cm2	Area	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06	
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06	

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 748.8

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
35	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	35.00	1.0	1600.0
36	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	36.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	48.00	1.0	1600.0
Toe						400.0	4.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
14.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
748.8	64.7	1.20	-5.73	8	25	29.26	35	13	67.7
599.0	53.9	1.20	-6.84	8	25	29.14	35	13	67.7

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

Depth (m) 16.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1034.7

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m	cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
33	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	33.00	1.0 1600.0
34	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	34.00	1.0 1600.0
47	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	47.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
16.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
1034.7	139.2	1.20	-7.25	48	40	39.04	48	17	67.8
827.7	109.4	1.20	-6.50	48	40	37.83	48	17	67.8

TERRATEST TECNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

Depth (m) 18.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1124.7

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m	cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
31	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	31.00	1.0 1600.0
32	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	32.00	1.0 1600.0
45	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	45.00	1.0 1600.0
46	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	46.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
18.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
1124.7	138.3	1.20	-7.08	48	40	38.41	48	17	67.8
899.7	108.9	1.20	-6.40	48	40	37.34	48	17	67.8

CLIENTE: CORSAN-CORVION Expediente nº: T05567

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 20.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1214.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
29	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	29.00	1.0	1600.0
30	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	30.00	1.0	1600.0
43	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	43.00	1.0	1600.0
44	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	44.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
20.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1214.7	138.1	1.20	-6.88	48	40	37.78	48	17	67.8
971.7	108.9	1.20	-6.27	48	40	36.83	48	17	67.8

AVE (SantBoi--Hospitalet)
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Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 22.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1304.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
27	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	27.00	1.0	1600.0
28	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	28.00	1.0	1600.0
41	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	41.00	1.0	1600.0
42	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	42.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
22.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1304.7	138.4	1.20	-6.17	48	40	37.15	48	17	67.8
1043.7	109.2	1.20	-6.11	48	40	36.33	48	17	67.8

AVE (SantBoi--Hospitalet)
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Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 24.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b	Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
		m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00			1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00			1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1394.7

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
25	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	25.00	1.0 1600.0
26	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	26.00	1.0 1600.0
39	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	39.00	1.0 1600.0
40	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	40.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
24.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
1394.7	138.9	1.20	-5.68	25	34	36.53	48	17	67.7
1115.7	109.6	1.20	-5.93	48	40	35.83	48	17	67.7

AVE (SantBoi--Hospitalet)
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Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 26.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b	Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
		m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00			1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00			1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1484.7

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
23	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	23.00	1.0 1600.0
24	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	24.00	1.0 1600.0
37	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	37.00	1.0 1600.0
38	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	38.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0 1600.0
Toe						600.0	7.000	8.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
26.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
1484.7	139.8	1.20	-5.76	23	34	35.92	48	17	67.7
1187.7	110.2	1.20	-6.06	23	34	35.34	48	17	67.7

AVE (SantBoi--Hospitalet)
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Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 34.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b	Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	A/c kN/m/s
0.00			1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00			1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1844.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
15	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	15.00	1.0	1600.0
16	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	16.00	1.0	1600.0
29	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	29.00	1.0	1600.0
30	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	30.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
34.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1844.7	146.1	1.20	-6.24	18	32	33.55	48	17	67.6
1475.7	114.2	1.20	-6.31	19	33	33.44	48	17	67.7

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Depth (m) 36.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L	b	Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00			1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00			1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 1934.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
13	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	13.00	1.0	1600.0
14	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	14.00	1.0	1600.0
27	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	27.00	1.0	1600.0
28	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	28.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
36.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
1934.7	148.1	1.20	-6.48	18	32	32.97	48	17	67.6
1547.7	115.4	1.20	-6.46	19	33	32.98	48	17	67.6

AVE (SantBoi--Hospitalet)
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Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth m) 38.0
Shaft Gain/Loss Factor .000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 2024.7

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
11	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	11.00	1.0	1600.0
12	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	12.00	1.0	1600.0
25	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	25.00	1.0	1600.0
26	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	26.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
38.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
2024.7	150.1	1.20	-6.78	18	32	32.39	48	17	67.6
1619.7	116.7	1.20	-6.67	19	33	32.52	48	17	67.6

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Depth (m) 40.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
8.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 2114.6

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
9	3.856	6295.	0.000	0.000	1.00	23.7	0.050	2.00	9.00	1.0	1600.0
10	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	10.00	1.0	1600.0
23	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	23.00	1.0	1600.0
24	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	24.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	48.00	1.0	1600.0
Toe						600.0	7.000	8.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
40.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
2114.6	152.3	1.20	-7.11	18	32	31.81	48	17	67.5
1691.7	118.1	1.20	-6.92	19	33	32.06	48	17	67.6

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Depth (m) 42.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor
1.000

PILE PROFILE:

L	b Top Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 3724.3

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m	cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
7	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	7.00	1.0 1600.0
8	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	8.00	1.0 1600.0
21	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	21.00	1.0 1600.0
22	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	22.00	1.0 1600.0
47	3.856	6295.	0.000	0.000	1.00	89.6	0.338	2.40	47.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	48.00	1.0 1600.0
Toe						2000.0	15.000	6.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
42.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
3724.3	9999.0	1.20	-5.54	21	32	40.47	47	17	67.5
2979.4	9999.0	1.20	-5.27	22	32	42.03	48	17	67.5

TERRATEST TÉCNICAS ESPECIALES, S.A.

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 44.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor
1.000

PILE PROFILE:

L	b Top Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 3964.3

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m	cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0 1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0 1600.0
5	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	5.00	1.0 1600.0
6	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	6.00	1.0 1600.0
19	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	19.00	1.0 1600.0
20	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	20.00	1.0 1600.0
45	3.856	6295.	0.000	0.000	1.00	89.6	0.338	2.40	45.00	1.0 1600.0
46	3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	46.00	1.0 1600.0
48	3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	48.00	1.0 1600.0
Toe						2000.0	15.000	6.00		

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
44.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
3964.3	9999.0	1.20	-5.84	19	31	38.78	47	17	67.4
3171.4	9999.0	1.20	-5.32	21	32	40.54	47	17	67.5

CLIENTE: CORSAN-CORVION Expediente nº: T05567

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA **GRLWEAP(TM) Version 2003**

Depth (m) 46.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top m	Area cm2	E-Mod MPa	Spec Wt kN/m3	Circmf m	Strength MPa	Wave Sp m/s	EA/c kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 4204.3

No.	Weight kN	Stiffn kN/mm	C-Slk mm	T-Slk mm	CoR	Soil-S kN	Soil-D s/m	Quake mm	LbTop m	Circm m	Area cm2
1	3.856	6295.	3.000	0.000	1.00	0.0	0.000	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	0.0	0.000	2.00	2.00	1.0	1600.0
3	3.856	6295.	0.000	0.000	1.00	23.8	0.050	2.00	3.00	1.0	1600.0
4	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	4.00	1.0	1600.0
17	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	17.00	1.0	1600.0
18	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	18.00	1.0	1600.0
43	3.856	6295.	0.000	0.000	1.00	89.6	0.338	2.40	43.00	1.0	1600.0
44	3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	44.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	48.00	1.0	1600.0
Toe						2000.0	15.000	6.00			

Depth m	Stroke m	Efficy	PileC.St. kN/mm	PileC.CoR
46.00	1.20	0.900	1322.	0.500

Rut kN	Bl Ct b/m	Stroke(eq.) m	Ten Str MPa	i	t	CompStr MPa	i	t	ENTHRU kJ
4204.3	9999.0	1.20	-5.81	19	31	36.72	46	17	67.2
3363.4	9999.0	1.20	-5.19	20	32	38.82	47	17	67.3

G/L at Shaft and Toe: 0.800 0.800

Depth m	Rut kN	Frictn kN	End Bg kN	Bl Ct bl/m	Com Str MPa	Ten Str MPa	Stroke m	ENTHRU kJ
2.0	359.0	39.0	320.0	48.9	28.979	-3.407	1.2	67.7
4.0	399.0	79.0	320.0	50.1	28.978	-4.509	1.2	67.7
6.0	439.0	119.0	320.0	51.1	28.980	-5.769	1.2	67.7
8.0	479.0	159.0	320.0	51.8	29.028	-6.192	1.2	67.7
10.0	519.0	199.0	320.0	52.5	29.097	-6.467	1.2	67.7
12.0	559.0	239.0	320.0	53.2	29.147	-6.680	1.2	67.7
14.0	599.0	279.0	320.0	53.9	29.135	-6.844	1.2	67.7
16.0	827.7	347.7	480.0	109.4	37.833	-6.502	1.2	67.8
18.0	899.7	419.7	480.0	108.9	37.340	-6.395	1.2	67.8
20.0	971.7	491.7	480.0	108.9	36.830	-6.271	1.2	67.8
22.0	1043.7	563.7	480.0	109.2	36.330	-6.114	1.2	67.8
24.0	1115.7	635.7	480.0	109.6	35.830	-5.933	1.2	67.7
26.0	1187.7	707.7	480.0	110.2	35.341	-6.057	1.2	67.7
28.0	1259.7	779.7	480.0	111.0	34.858	-6.249	1.2	67.7
30.0	1331.7	851.7	480.0	111.9	34.381	-6.226	1.2	67.7
32.0	1403.7	923.7	480.0	113.0	33.909	-6.230	1.2	67.7
34.0	1475.7	995.7	480.0	114.2	33.442	-6.306	1.2	67.7
36.0	1547.7	1067.7	480.0	115.4	32.978	-6.458	1.2	67.6
38.0	1619.7	1139.7	480.0	116.7	32.517	-6.668	1.2	67.6
40.0	1691.7	1211.7	480.0	118.1	32.057	-6.922	1.2	67.6
42.0	2979.4	1379.4	1600.0	9999.0	42.028	-5.270	1.2	67.5
44.0	3171.4	1571.4	1600.0	9999.0	40.542	-5.324	1.2	67.5
46.0	3363.4	1763.4	1600.0	9999.0	38.822	-5.185	1.2	67.3
48.0	3555.4	1955.4	1600.0	9999.0	36.978	-5.030	1.2	67.0

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Table of Depths Analyzed with Driving System Modifiers

Depth	Length	Wait Time	Equivalent Stroke	Pressure Ratio	Efficy.	Stiffn. Factor	Cushion CoR
m	m	hr	m				
2.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
4.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
6.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
8.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
10.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
12.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
14.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
16.00	48.00	0.00	1.20	0.00	0.90	1.00	0.5
18.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
20.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
22.00	48.00	0.00	1.20	0.00	0.90	1.00	0.5
24.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
26.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
28.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
30.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
32.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
34.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
36.00	48.00	0.00	1.20	0.00	0.90	1.00	0.5
38.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
40.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
42.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
44.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
46.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50
48.00	48.00	0.00	1.20	0.00	0.90	1.00	0.50

Soil Layer Resistance Values

Shaft Depth	End Res.	Shaft Bearing	Toe Quake	Shaft Quake	Toe Damping	Soil Setup	Relative Energy		Setup Time
	kPa	kN	mm	mm	s/m	s/m	Normlzd	m	hrs
0.10	25.00	400.00	2.000	8.000	0.050	4.000	1.000	0.000	0.000
14.20	25.00	400.00	2.000	8.000	0.050	4.000	1.000	0.000	0.000
14.21	45.00	600.00	2.000	8.000	0.100	7.000	1.000	0.000	0.000
40.40	45.00	600.00	2.000	8.000	0.100	7.000	1.000	0.000	0.000
40.41	120.00	2000.00	2.500	6.000	0.400	15.000	1.000	0.000	0.000
48.00	120.00	2000.00	2.500	6.000	0.400	15.000	1.000	0.000	0.000

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

Depth (m) 48.0
Shaft Gain/Loss Factor 1.000 Toe Gain/Loss Factor 1.000

PILE PROFILE:

L b Top	Area	E-Mod	Spec Wt	Circmf	Strength	Wave Sp	EA/c
m	cm2	MPa	kN/m3	m	MPa	m/s	kN/m/s
0.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06
48.00	1600.0	39346.	24.10	1.000	28.00	4002.	1573.06

Wave Travel Time 2L/c (ms) 23.988

Pile and Soil Model Total Capacity Rut (kN) 4444.3

No.	Weight	Stiffn	C-Slk	T-Slk	CoR	Soil-S	Soil-D	Quake	LbTop	Circm Area
	kN	kN/mm	mm	mm		kN	s/m	mm	m	m	cm2
1	3.856	6295.	3.000	0.000	1.00	23.8	0.050	2.00	1.00	1.0	1600.0
2	3.856	6295.	0.000	0.000	1.00	25.0	0.050	2.00	2.00	1.0	1600.0
15	3.856	6295.	0.000	0.000	1.00	40.9	0.094	2.00	15.00	1.0	1600.0
16	3.856	6295.	0.000	0.000	1.00	45.0	0.100	2.00	16.00	1.0	1600.0
41	3.856	6295.	0.000	0.000	1.00	89.6	0.338	2.40	41.00	1.0	1600.0
42	3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	42.00	1.0	1600.0
48	3.856	6295.	0.000	0.000	1.00	120.0	0.400	2.50	48.00	1.0	1600.0
Toe						2000.0	15.000	6.00			

Depth	Stroke	Efficy	PileC.St.	PileC.CoR
m	m		kN/mm	
48.00	1.20	0.900	1322.	0.500

Rut	Bl Ct	Stroke(eq.)	Ten Str	i	t	CompStr	i	t	ENTHRU
kN	b/m	m	MPa			MPa			kJ
4444.3	9999.0	1.20	-5.68	18	31	34.57	46	17	66.8
3555.4	9999.0	1.20	-5.03	20	31	36.98	47	17	67.0

AVE (SantBoi--Hospitalet)
2005/12/15
Terratest Tecnicas Especiales SA GRLWEAP(TM) Version 2003

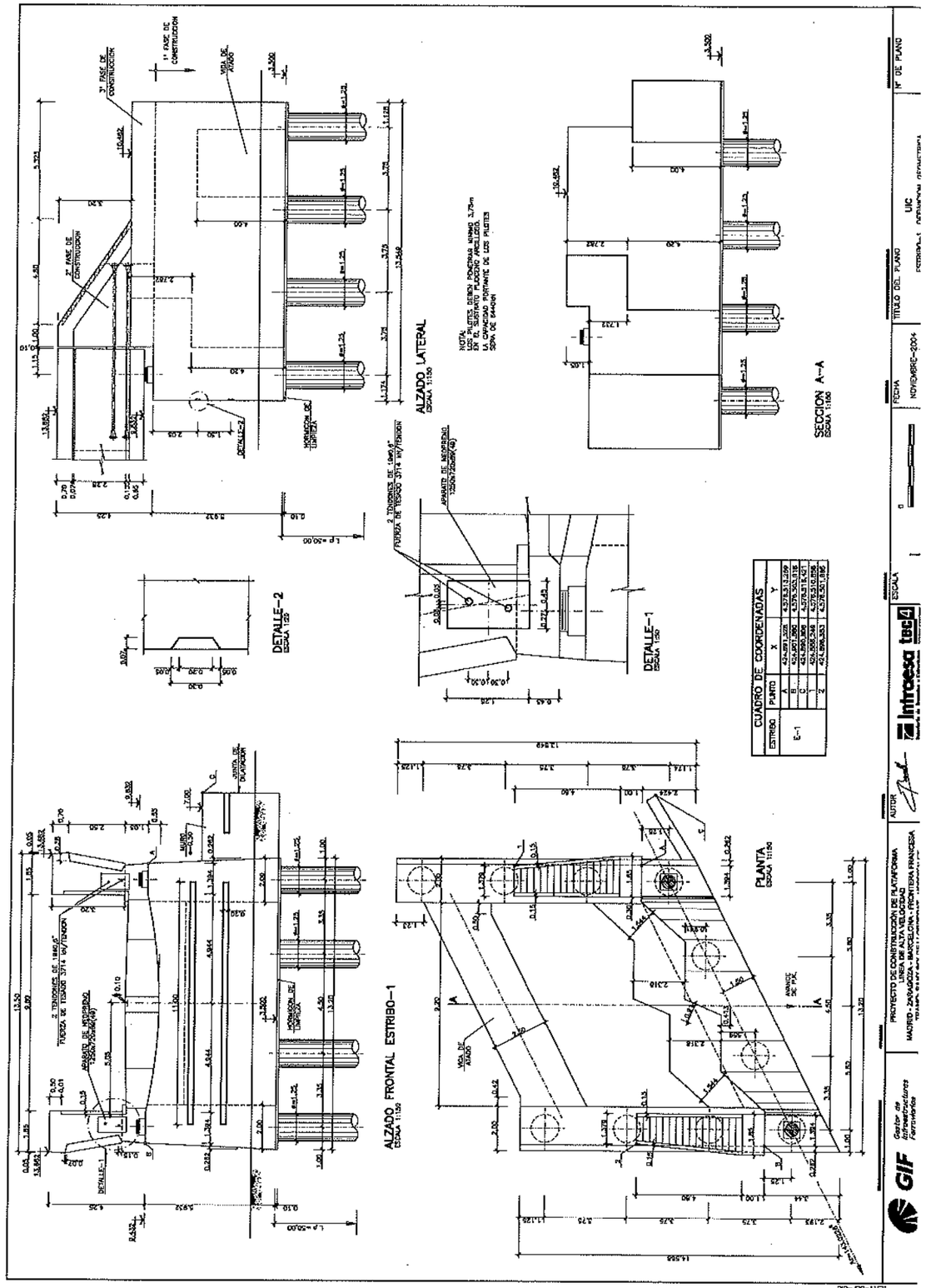
SUMMARY OVER DEPTHS

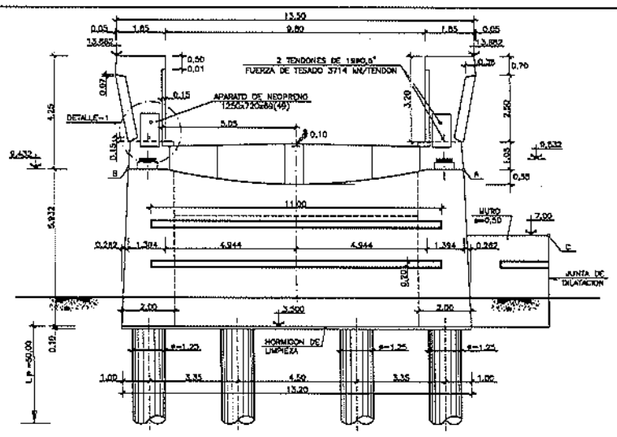
G/L at Shaft and Toe: 1.000 1.000

Depth	Rut	Frictn	End Bg	Bl Ct	Com Str	Ten Str	Stroke	ENTHRU
m	kN	kN	kN	bl/m	MPa	MPa	m	kJ
2.0	448.8	48.8	400.0	62.4	30.376	-3.011	1.2	67.7
4.0	498.8	98.8	400.0	63.7	30.099	-4.319	1.2	67.7
6.0	548.8	148.8	400.0	64.0	29.847	-4.833	1.2	67.7
8.0	598.8	198.8	400.0	64.1	29.716	-5.152	1.2	67.7
10.0	648.8	248.8	400.0	64.3	29.510	-5.394	1.2	67.7
12.0	698.8	298.8	400.0	64.5	29.347	-5.580	1.2	67.7
14.0	748.8	348.8	400.0	64.7	29.256	-5.730	1.2	67.7
16.0	1034.7	434.7	600.0	139.2	39.036	-7.252	1.2	67.8
18.0	1124.7	524.7	600.0	138.3	38.410	-7.078	1.2	67.8
20.0	1214.7	614.7	600.0	138.1	37.781	-6.876	1.2	67.8
22.0	1304.7	704.7	600.0	138.4	37.149	-6.169	1.2	67.8
24.0	1394.7	794.7	600.0	138.9	36.529	-5.681	1.2	67.7
26.0	1484.7	884.7	600.0	139.8	35.921	-5.764	1.2	67.7
28.0	1574.7	974.7	600.0	141.0	35.320	-5.867	1.2	67.7
30.0	1664.7	1064.7	600.0	142.5	34.724	-5.977	1.2	67.7
32.0	1754.7	1154.7	600.0	144.2	34.134	-6.074	1.2	67.7
34.0	1844.7	1244.7	600.0	146.1	33.548	-6.242	1.2	67.6
36.0	1934.7	1334.7	600.0	148.1	32.967	-6.480	1.2	67.6
38.0	2024.7	1424.7	600.0	150.1	32.390	-6.781	1.2	67.6
40.0	2114.6	1514.6	600.0	152.3	31.813	-7.107	1.2	67.5
42.0	3724.3	1724.3	2000.0	9999.0	40.466	-5.537	1.2	67.5
44.0	3964.3	1964.3	2000.0	9999.0	38.778	-5.843	1.2	67.4
46.0	4204.3	2204.3	2000.0	9999.0	36.722	-5.806	1.2	67.2
48.0	4444.3	2444.3	2000.0	9999.0	34.568	-5.684	1.2	66.8

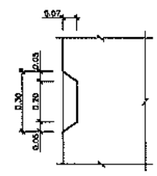
6. ESTRIBOS

6.1. DEFINICIÓN GENERAL

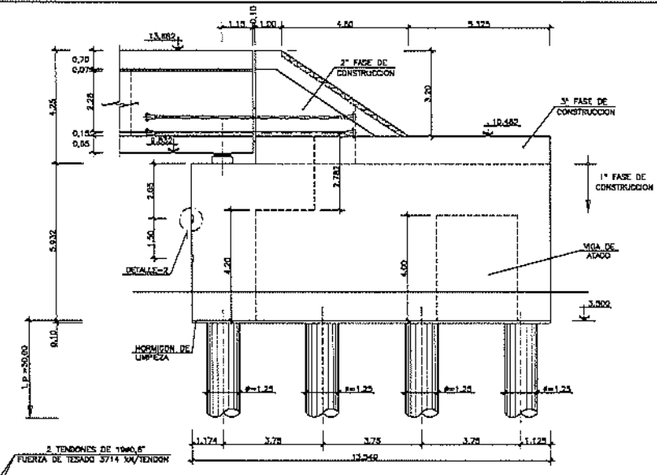




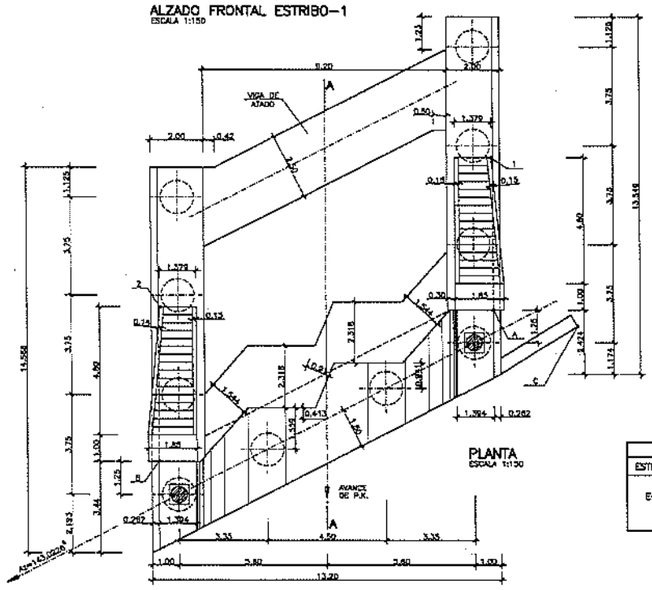
ALZADO FRONTAL ESTRIBO–1
ESCALA 1:150



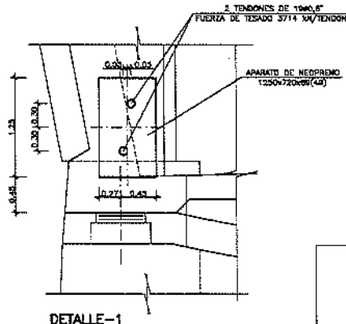
DETALLE–2
ESCALA 1:20



ALZADO LATERAL
ESCALA 1:150

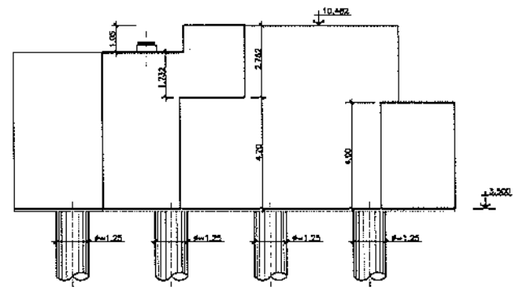


PLANTA
ESCALA 1:150



DETALLE–1
ESCALA 1:50

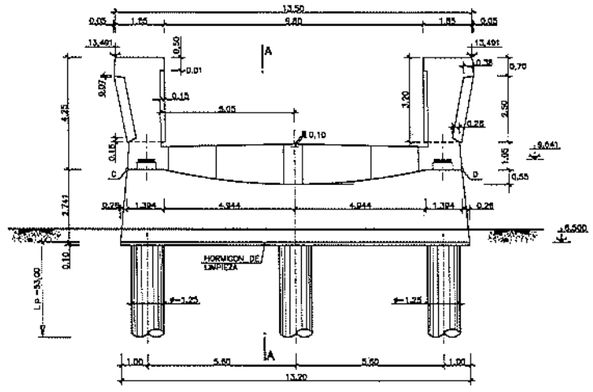
NOTA:
LOS PILOTES DEBEN PENETRAR MINIMO 3,75m EN EL SUSTRATO PLIOCENO ARCILLOSO.
LA CAPACIDAD PORTANTE DE LOS PILOTES SERA DE 5440kN



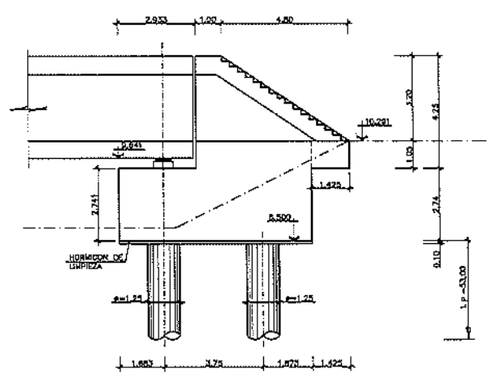
SECCION A–A
ESCALA 1:150

CUADRO DE COORDENADAS			
ESTRIBO	PUNTO	X	Y
E–1	A	424.891,328	4.576.513,299
	B	424.901,890	4.576.503,918
	C	424.890,508	4.576.518,421
	1	424.886,249	4.576.510,656
	2	424.896,553	4.576.501,535

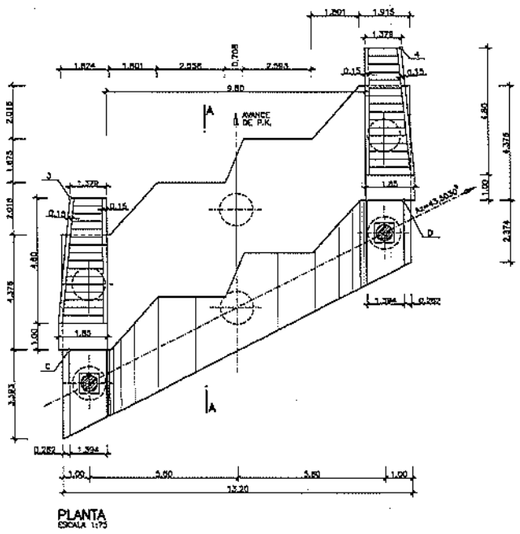
GIF Gestor de Infraestructuras Ferroviarias	PROYECTO DE CONSTRUCCIÓN DE PLATAFORMA LINEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	AUTOR EDUARDO BORRELL ARQUE Intraesa tec4	ESCALA Numérica 0 Gráfica	FECHA NOVIEMBRE–2004	TITULO DEL PLANO UIC ESTRIBO–1. DEFINICION GEOMETRICA	Nº DE PLANO Hoja de



ALZADO FRONTAL ESTRIBO–2
ESCALA 1:75



SECCION A–A
ESCALA 1:75



PLANTA
ESCALA 1:75

CUADRO DE COORDENADAS			
ESTRIBO	PUNTO	X	Y
E–2	C	425.065,592	4.576.599,228
	D	425.093,931	4.576.589,946
	3	425.093,927	4.576.601,591
	4	425.101,230	4.576.592,353

GIF Gestor de Infraestructuras Ferroviarias	PROYECTO DE CONSTRUCCIÓN DE PLATAFORMA LINEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	AUTOR EDUARDO BORRELL ARQUE Intraesa tec4	ESCALA Numérica 0 Gráfica	FECHA NOVIEMBRE–2004	TITULO DEL PLANO UIC ESTRIBO–2. DEFINICION GEOMETRICA	Nº DE PLANO Hoja de

6.2. ESFUERZOS DE CÁLCULO

Proyecto de construcción de plataforma. Línea de Alta Velocidad Madrid – Zaragoza – Barcelona – Frontera Francesa. Tramo: Sant Boi de Llobregat - Hospitalet

VIADUCTO SOBRE EL LLOBREGAT

6.2.1. Combinaciones

TITULO
=======
SANT BOI RARA{t=0}:1.00*G+1.10*P+1.0*UIC+0.6*(GT+Vc)

FICHERO DE GEOMETRIA COMPLETA
=============================
GEOM.GEO

NUMERO DE FICHEROS DE RESULTADOS
================================
 6

Fich	Num. Nudos	Num. barras	Num. hipotesis	NOMBRE FICHERO
1	869	1138	2	CP.TXT
2	869	1138	394	SC.TXT
3	869	1138	2	ROZ.TXT
4	869	1138	1	TEMP.TXT
5	869	1138	4	VIENTO.TXT
6	869	1138	55	PRET.TXT

Fich	Hipotesis	Caracter	Coeficiente
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1	2	1	1.00
2	1	2	0.50
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6	1	1	10.0140
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4823

TITULO
======
SANT BOI RARA{r-1}:1.00*G+0.90*P+1.0*UIC+0.6*(GT+Vc)

FICHERO DE GEOMETRIA COMPLETA
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GEOM.GEO

NUMERO DE FICHEROS DE RESULTADOS
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Fich	Num. Nudos	Num. barras	Num. hipotesis	NOMBRE FICHERO
1	869	1138	2	CP.TXT
2	869	1138	394	SC.TXT
3	869	1138	2	ROZ.TXT
4	869	1138	1	TEMP.TXT
5	869	1138	4	VIENTO.TXT
6	869	1138	55	PRET.TXT

Fich	Hipotesis	Caracter	Coeficiente
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1	2	1	1.00
2	1	2	0.50
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TITULO
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SANT BOI RARA(t=0):1.00*G+1.10*P+0.8*UIC+1.0*G?+0.6*Vc

FICHERO DE GEOMETRIA COMPLETA
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GEOM.GEO

NUMERO DE FICHEROS DE RESULTADOS
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6

Fich	Num. Nudos	Num. barras	Num. hipotesis	NOMBRE FICHERO
1	869	1138	2	CP.TXT
2	869	1138	394	SC.TXT
3	869	1138	2	ROZ.TXT
4	869	1138	1	TEMP.TXT
5	869	1138	4	VIENTO.TXT
6	869	1138	55	PRET.TXT

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6	3	1	7.5105
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6	45	1	5.4509
6	46	1	3.1939
6	47	1	5.1102
6	48	1	3.1939
6	49	1	5.1102
6	50	1	3.1294
6	51	1	3.1294
6	52	1	6.2588
6	53	1	3.1294
6	54	1	0.0000
6	55	1	0.0000

TITULO
SANT BOI RARA(r=1):1.00*G+0.90*P+0.8*UIC+1.0*GT+0.6*Vc

FICHERO DE GEOMETRIA COMPLETA
GEOM.GEO

NUMERO DE FICHEROS DE RESULTADOS
6

Fich	Num. Nudos	Num. barras	Num. hipotesis	NOMBRE FICHERO
1	869	1138	2	CP.TXT
2	869	1138	394	SC.TXT
3	869	1138	2	ROZ.TXT
4	869	1138	1	TEMP.TXT
5	869	1138	4	VIENTO.TXT
6	869	1138	55	PRET.TXT

Fich	Hipotesis	Caracter	Coeficiente
1	1	1	1.00
1	2	1	1.00
2	1	2	0.40
2	2	2	0.40
2	3	2	0.40
2	4	2	0.40
2	5	2	0.40
2	6	2	0.40
2	7	2	0.40
2	8	2	0.40
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2	10	2	0.40
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2	393	8	0.80
2	394	8	0.80
3	1	6	1.00
3	2	6	1.00
4	1	2	1.00
5	1	7	0.00
5	2	7	0.00
5	3	7	0.60
5	4	7	0.60
6	1	1	7.0462
6	2	1	7.0462
6	3	1	5.2847
6	4	1	5.2847
6	5	1	5.2847
6	6	1	5.2847
6	7	1	7.0462
6	8	1	5.2847
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6	10	1	5.2847
6	11	1	5.2847
6	12	1	6.6058
6	13	1	6.6058
6	14	1	6.6058
6	15	1	6.6058
6	16	1	6.6058
6	17	1	6.6058
6	18	1	4.4039
6	19	1	4.4039
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6	22	1	4.4039
6	23	1	2.2019
6	24	1	2.2019
6	25	1	0.0000
6	26	1	0.0000
6	27	1	0.0000
6	28	1	0.0000
6	29	1	4.4039
6	30	1	2.2019
6	31	1	2.2019
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6	39	1	3.7909
6	40	1	3.7909
6	41	1	3.7909
6	42	1	3.7909
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6	45	1	3.7909
6	46	1	2.2212
6	47	1	3.5539
6	48	1	2.2212
6	49	1	3.5539
6	50	1	2.2019
6	51	1	2.2019
6	52	1	4.4039
6	53	1	2.2019
6	54	1	0.0000
6	55	1	0.0000

TITULO
=======
SANT BOI RARA[t=0]:1.00*G+1.10*P+0.6*GT+1.0*Vd

FICHERO DE GEOMETRIA COMPLETA
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GEOM.GEO

NUMERO DE FICHEROS DE RESULTADOS
================================
6

Fich	Num. Nudos	Num. barras	Num. hipotesis	NOMBRE FICHERO
1	869	1138	2	CP.TXT
2	869	1138	394	SC.TXT
3	869	1138	2	ROZ.TXT
4	869	1138	1	TEMP.TXT
5	869	1138	4	VIENTO.TXT
6	869	1138	55	PRET.TXT

Fich	Hipotesis	Caracter	Coeficiente
1	1	1	1.00
1	2	1	1.00
2	1	2	0.00
2	2	2	0.00
2	3	2	0.00
2	4	2	0.00
2	5	2	0.00
2	6	2	0.00
2	7	2	0.00
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6	47	1	5.1102
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6	55	1	0.0000

TITULO

SANT BOI RARA(t=I):1.00*G+0.90*P+0.6*GT+1.0*Vd

FICHERO DE GEOMETRIA COMPLETA

GEOM.GEO

NUMERO DE FICHEROS DE RESULTADOS

6

Fich	Num. Nudos	Num. barras	Num. hipotesis	NOMBRE FICHERO
1	869	1138	2	CP.TXT
2	869	1138	394	SC.TXT
3	869	1138	2	ROZ.TXT
4	869	1138	1	TEMP.TXT
5	869	1138	4	VIENTO.TXT
6	869	1138	55	PRET.TXT

Fich	Hipotesis	Caracter	Coeficiente
1	1	1	1.00
1	2	1	1.00
2	1	2	0.00
2	2	2	0.00
2	3	2	0.00
2	4	2	0.00
2	5	2	0.00
2	6	2	0.00
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6	31	1	2.2019
6	32	1	2.2019
6	33	1	2.2019
6	34	1	3.7909
6	35	1	3.7909
6	36	1	3.7909
6	37	1	3.7909
6	38	1	3.7909
6	39	1	3.7909
6	40	1	3.7909
6	41	1	3.7909
6	42	1	3.7909
6	43	1	3.7909
6	44	1	3.7909
6	45	1	3.7909
6	46	1	2.2212
6	47	1	3.5539
6	48	1	2.2212
6	49	1	3.5539
6	50	1	2.2019
6	51	1	2.2019
6	52	1	4.4039
6	53	1	2.2019
6	54	1	0.0000
6	55	1	0.0000

VIADUCTO SOBRE EL LLOBREGAT

```
TITULO
======
LAV SANT BOI ELS RARA

NUMERO DE FICHEROS DE RESULTADOS
================================
  6

NUMERO DE BARRAS EN LOS FICHEROS
================================
1138

Fich       NOMBRE FICHERO
==========================
  1     RARASCO.PNE
  2     RARASCI.PNE
  3     RARAGTO.PNE
  4     RARAGTI.PNE
  5      RARAVO.PNE
  6      RARAVI.PNE
```

6.2.2. Envolvente de esfuerzos

4839

LAV SANT BOI ELS RARA

BARRA 2000	Fx (kN)	Fy (kN)	Fz (kN)	Mx (m.kN)	My (m.kN)	Mz (m.kN)
2000	9491.50>>	4599.19	9150.93	-1724.5	-54905.6	28721.0
2000	3681.59<<	-4640.47	-9129.83	181.9	54778.9	-27814.2
2000	4157.63	4874.96>>	9010.42	1536.6	-54062.5	29895.9
2000	9179.69	-4912.42<<	-8991.26	-2925.5	53947.5	-28942.0
2000	9261.55	4427.41	9238.46>>	-2095.4	-55430.9	27097.7
2000	4075.78	-4464.87	-9219.31<<	706.5	55315.8	-26143.8
2000	4285.63	4757.39	9070.33	1822.2>>	-54422.0	29667.6
2000	9051.70	-4794.86	-9051.17	-3211.1<<	54307.0	-28713.7
2000	4075.78	-4464.87	-9219.31	706.5	55315.8>>	-26143.8
2000	9261.55	4427.41	9238.46	-2095.4	-55430.9<<	27097.7
2000	6524.77	4600.90	9048.15	382.7	-54288.6	35925.9>>
2000	6711.57	-4654.92	-9020.55	-2055.0	54123.0	-35173.6<<
2100	9491.50>>	4599.19	9150.93	-1724.5	0.1	1125.9
2100	3681.59<<	-4640.47	-9129.83	181.9	0.0	28.6
2100	4157.63	4874.96>>	9010.42	1536.6	0.0	646.2
2100	9179.69	-4912.42<<	-8991.26	-2925.5	0.0	532.6
2100	9261.55	4427.41	9238.46>>	-2095.4	0.0	533.3
2100	4075.78	-4464.87	-9219.31<<	706.5	0.0	645.5
2100	4285.63	4757.39	9070.33	1822.2>>	0.1	1123.3
2100	9051.70	-4794.86	-9051.17	-3211.1<<	0.0	55.5
2100	6754.32	-11.52	5.91	-129.3	0.4>>	6949.1
2100	6439.49	-42.48	21.69	-1225.0	-0.3<<	-5803.6
2100	6461.93	-1186.79	-2076.53	-276.0	0.4	7166.3>>
2100	6734.56	1119.66	2110.80	-1541.1	-0.3	-6045.3<<

LAV SANT BOI ELS RARA

BARRA 2300	Fx (kN)	Fy (kN)	Fz (kN)	Mx (m.kN)	My (m.kN)	Mz (m.kN)
2200	4835.35>>	0.00	5288.66	0.0	0.0	0.0
2200	1843.07<<	0.00	-5138.71	0.0	0.0	0.0
2200	3847.57	0.00>>	47.35	0.0	0.0	0.0
2200	2343.41	0.00<<	14.46	0.0	0.0	0.0
2200	4571.27	0.00	5363.24>>	0.0	0.0	0.0
2200	2191.21	0.00	-5228.49<<	0.0	0.0	0.0
2200	3847.57	0.00	47.35	0.0>>	0.0	0.0
2200	2343.41	0.00	14.46	0.0<<	0.0	0.0
2200	3847.57	0.00	47.35	0.0	0.0>>	0.0
2200	2343.41	0.00	14.46	0.0	0.0<<	0.0
2200	3847.57	0.00	47.35	0.0	0.0	0.0>>
2200	2343.41	0.00	14.46	0.0	0.0	0.0<<
2400	4835.35>>	0.00	5288.66	0.0	528.9	0.0
2400	1843.07<<	0.00	-5138.71	0.0	-513.8	0.0
2400	3847.57	0.00>>	47.35	0.0	4.8	0.0
2400	2343.41	0.00<<	14.46	0.0	1.5	0.0
2400	4571.27	0.00	5363.24>>	0.0	536.4	0.0
2400	2191.21	0.00	-5228.49<<	0.0	-522.8	0.0
2400	3847.57	0.00	47.35	0.0>>	4.8	0.0
2400	2343.41	0.00	14.46	0.0<<	1.5	0.0
2400	4571.27	0.00	5363.24	0.0	536.4>>	0.0
2400	2191.21	0.00	-5228.49	0.0	-522.8<<	0.0
2400	3847.57	0.00	47.35	0.0	4.8	0.0>>
2400	2343.41	0.00	14.46	0.0	1.5	0.0<<

BARRA 2400	Fx (kN)	Fy (kN)	Fz (kN)	Mx (m.kN)	My (m.kN)	Mz (m.kN)
2300	4660.43>>	-127.02	4895.84	0.0	0.0	0.0
2300	1838.15<<	11.92	-5098.53	0.0	0.0	0.0
2300	2027.39	133.54>>	5293.73	0.0	0.0	0.0
2300	4547.49	-175.63<<	-5428.46	0.0	0.0	0.0
2300	2053.45	121.01	5314.27>>	0.0	0.0	0.0
2300	4521.43	-163.11	-5449.00<<	0.0	0.0	0.0
2300	3725.19	-23.43	-47.33	0.0>>	0.0	0.0
2300	2305.28	-8.08	-14.44	0.0<<	0.0	0.0
2300	3725.19	-23.43	-47.33	0.0	0.0>>	0.0
2300	2305.28	-8.08	-14.44	0.0	0.0<<	0.0
2300	3725.19	-23.43	-47.33	0.0	0.0	0.0>>
2300	2305.28	-8.08	-14.44	0.0	0.0	0.0<<
2500	4660.43>>	-127.02	4895.84	0.0	489.6	12.7
2500	1838.15<<	11.92	-5098.53	0.0	-509.9	-1.2
2500	2027.39	133.54>>	5293.73	0.0	529.4	-13.4
2500	4547.49	-175.63<<	-5428.46	0.0	-542.9	17.5
2500	2053.45	121.01	5314.27>>	0.0	531.4	-12.1
2500	4521.43	-163.11	-5449.00<<	0.0	-544.9	16.3
2500	3725.19	-23.43	-47.33	0.0>>	-4.8	2.3
2500	2305.28	-8.08	-14.44	0.0<<	-1.5	0.8
2500	2053.88	121.03	5314.25	0.0	531.4>>	-12.1
2500	4521.00	-163.12	-5448.98	0.0	-544.9<<	16.3
2500	4550.09	-175.61	-5428.32	0.0	-542.9	17.5>>
2500	2012.70	133.48	5295.68	0.0	529.5	-13.4<<

LAV SANT BOI ELS RARA

BARRA 2005	Fx (kN)	Fy (kN)	Fz (kN)	Mx (m.kN)	My (m.kN)	Mz (m.kN)
2005	11316.80>>	-81.68	41.62	261.6	-166.6	-1532.4
2005	5213.65<<	16.23	-8.27	-51.9	32.9	-82.3
2005	7652.63	178.03>>	-90.70	-224.8	362.9	4780.8
2005	9008.71	-192.63<<	98.15	271.6	-393.0	-6215.2
2005	9008.71	-192.63	98.15>>	271.6	-393.0	-6215.2
2005	7652.63	178.03	-90.70<<	-224.8	362.9	4780.8
2005	6106.76	-163.73	83.43	524.3>>	-333.8	-1107.6
2005	6280.29	139.87	-71.26	-447.8<<	284.9	405.3
2005	7652.63	178.03	-90.70	-224.8	362.9>>	4780.8
2005	9008.71	-192.63	98.15	271.6	-393.0<<	-6215.2
2005	8420.07	137.59	-70.10	-95.3	280.6	6855.3>>
2005	8140.98	-165.31	84.23	184.1	-337.4	-8279.6<<
2105	11316.80>>	-81.68	41.62	261.6	-0.1	-1205.7
2105	5213.65<<	16.23	-8.27	-51.9	0.0	-147.4
2105	7652.63	178.03>>	-90.70	-224.8	0.2	4068.5
2105	9008.71	-192.63<<	98.15	271.6	-0.3	-5444.8
2105	9008.71	-192.63	98.15>>	271.6	-0.3	-5444.8
2105	7652.63	178.03	-90.70<<	-224.8	0.2	4068.5
2105	6106.76	-163.73	83.43	524.3>>	0.0	-452.8
2105	6280.29	139.87	-71.26	-447.8<<	0.0	-154.4
2105	8367.66	-8.82	4.50	28.3	0.3>>	6134.2
2105	8050.90	-4.70	2.40	15.1	-0.4<<	-7363.5
2105	8419.82	-78.49	40.00	-93.8	0.3	6305.8>>
2105	8141.73	50.48	-25.72	183.6	-0.4	-7618.6<<

LAV SANT BOI ELS RARA

BARRA 2305	Fx (kN)	Fy (kN)	Fz (kN)	Mx (m.kN)	My (m.kN)	Mz (m.kN)
2205	5568.05>>	0.00	0.00	0.0	0.0	0.0
2205	2594.58<<	0.00	0.00	0.0	0.0	0.0
2205	4713.06	0.00>>	0.00	0.0	0.0	0.0
2205	2940.99	0.00<<	0.00	0.0	0.0	0.0
2205	4713.06	0.00	0.00>>	0.0	0.0	0.0
2205	2940.99	0.00	0.00<<	0.0	0.0	0.0
2205	4713.06	0.00	0.00	0.0>>	0.0	0.0
2205	2940.99	0.00	0.00	0.0<<	0.0	0.0
2205	4713.06	0.00	0.00	0.0	0.0>>	0.0
2205	2940.99	0.00	0.00	0.0	0.0<<	0.0
2205	4713.06	0.00	0.00	0.0	0.0	0.0>>
2205	2940.99	0.00	0.00	0.0	0.0	0.0<<
2405	5568.05>>	0.00	0.00	0.0	0.0	0.0
2405	2594.58<<	0.00	0.00	0.0	0.0	0.0
2405	4713.06	0.00>>	0.00	0.0	0.0	0.0
2405	2940.99	0.00<<	0.00	0.0	0.0	0.0
2405	4713.06	0.00	0.00>>	0.0	0.0	0.0
2405	2940.99	0.00	0.00<<	0.0	0.0	0.0
2405	4713.06	0.00	0.00	0.0>>	0.0	0.0
2405	2940.99	0.00	0.00	0.0<<	0.0	0.0
2405	4713.06	0.00	0.00	0.0	0.0>>	0.0
2405	2940.99	0.00	0.00	0.0	0.0<<	0.0
2405	4713.06	0.00	0.00	0.0	0.0	0.0>>
2405	2940.99	0.00	0.00	0.0	0.0	0.0<<

LAV SANT BOI ELS RARA

BARRA		Fx (kN)	Fy (kN)	Fz (kN)	Mx (m.kN)	My (m.kN)	Mz (m.kN)
	2305	5754.33>>	-91.72	0.00	0.0	0.0	0.0
	2305	2618.46<<	18.04	0.00	0.0	0.0	0.0
	2305	3152.42	156.96>>	0.00	0.0	0.0	0.0
	2305	3089.40	-183.77<<	0.00	0.0	0.0	0.0
	2305	4855.19	-1.28	0.00>>	0.0	0.0	0.0
	2305	2990.55	-1.15	0.00<<	0.0	0.0	0.0
	2305	4855.19	-1.28	0.00	0.0>>	0.0	0.0
	2305	2990.55	-1.15	0.00	0.0<<	0.0	0.0
	2305	4855.19	-1.28	0.00	0.0	0.0>>	0.0
	2305	2990.55	-1.15	0.00	0.0	0.0<<	0.0
	2305	4855.19	-1.28	0.00	0.0	0.0	0.0>>
	2305	2990.55	-1.15	0.00	0.0	0.0	0.0<<
	2505	5754.33>>	-91.72	0.00	0.0	0.0	9.1
	2505	2618.46<<	18.04	0.00	0.0	0.0	-1.9
	2505	3152.42	156.96>>	0.00	0.0	0.0	-15.8
	2505	3089.40	-183.77<<	0.00	0.0	0.0	18.3
	2505	4855.19	-1.28	0.00>>	0.0	0.0	0.0
	2505	2990.55	-1.15	0.00<<	0.0	0.0	0.0
	2505	4855.19	-1.28	0.00	0.0>>	0.0	0.0
	2505	2990.55	-1.15	0.00	0.0<<	0.0	0.0
	2505	4855.19	-1.28	0.00	0.0	0.0>>	0.0
	2505	2990.55	-1.15	0.00	0.0	0.0<<	0.0
	2505	3089.40	-183.77	0.00	0.0	0.0	18.3>>
	2505	3152.42	156.96	0.00	0.0	0.0	-15.8<<

6.2.3. Sismo

Esfuerzos - Casos: 2A12 : Envolvente: 1

- Casos: 2A12

Filtrar	Barra	Caso	Modo
Lista completa	1A184 201A384	1A12	1A100
Selección	2000 2005 2300	2A12	1A100 CQC
Número total	1138	12	
Número seleccionado	6	11	

- Casos: 2A12

Barra/Nudo/Caso/Modo	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
2000/ 2000/ 4/ CQC	**498.8226>>**	67.9977	94.2870	94.9571	-566.3555	372.4763
2000/ 2000/ 7 (C) (SRSS)/	**-266.1568<<**	-4684.3880	-9192.7177	-91.7675	55163.9144	-28120.0833
2000/ 2000/ 2/ CQC	22.7646	**4740.4739>>**	9306.7230	80.3596	-55848.0172	28457.4028
2000/ 2000/ 7 (C) (SRSS)/	-266.1568	**-4684.3880<<**	-9192.7177	-91.7675	55163.9144	-28120.0833
2000/ 2000/ 2/ CQC	22.7646	4740.4739	**9306.7230>>**	80.3596	-55848.0172	28457.4028
2000/ 2000/ 7 (C) (SRSS)/	-266.1568	-4684.3880	**-9192.7177<<**	-91.7675	55163.9144	-28120.0833
2000/ 2000/ 4/ CQC	498.8226	67.9977	94.2870	**94.9571>>**	-566.3555	372.4763
2000/ 2000/ 7 (C) (SRSS)/	-266.1568	-4684.3880	-9192.7177	**-91.7675<<**	55163.9144	-28120.0833
2000/ 2000/ 7 (C) (SRSS)/	-266.1568	-4684.3880	-9192.7177	-91.7675	**55163.9144>>**	-28120.0833
2000/ 2000/ 2/ CQC	22.7646	4740.4739	9306.7230	80.3596	**-55848.0172<<**	28457.4028
2000/ 2000/ 2/ CQC	22.7646	4740.4739	9306.7230	80.3596	-55848.0172	**28457.4028>>**
2000/ 2000/ 7 (C) (SRSS)/	-266.1568	-4684.3880	-9192.7177	-91.7675	55163.9144	**-28120.0833<<**
2005/ 2005/ 4/ CQC	**453.0615>>**	24.4124	13.0784	77.4654	-51.7094	170.4439
2005/ 2005/ 7 (C) (SRSS)/	**-287.2999<<**	-8.0653	-4.3401	-23.6873	17.2461	-872.7016
2005/ 2005/ 4/ CQC	453.0615	**24.4124>>**	13.0784	77.4654	-51.7094	170.4439
2005/ 2005/ 7 (C) (SRSS)/	-287.2999	**-8.0653<<**	-4.3401	-23.6873	17.2461	-872.7016
2005/ 2005/ 4/ CQC	453.0615	24.4124	**13.0784>>**	77.4654	-51.7094	170.4439
2005/ 2005/ 7 (C) (SRSS)/	-287.2999	-8.0653	**-4.3401<<**	-23.6873	17.2461	-872.7016
2005/ 2005/ 4/ CQC	453.0615	24.4124	13.0784	**77.4654>>**	-51.7094	170.4439
2005/ 2005/ 7 (C) (SRSS)/	-287.2999	-8.0653	-4.3401	**-23.6873<<**	17.2461	-872.7016

Barra/Nudo/Caso/Modo	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
2005/ 2005/ 7 (C) (SRSS)/	-287.2999	-8.0653	-4.3401	-23.6873	**17.2461>>**	-872.7016
2005/ 2005/ 4/ CQC	453.0615	24.4124	13.0784	77.4654	**-51.7094<<**	170.4439
2005/ 2105/ 5 (C) (SRSS)/	147.1649	-0.1510	0.0298	-2.6030	-0.0737	**253.5197>>**
2005/ 2005/ 7 (C) (SRSS)/	-287.2999	-8.0653	-4.3401	-23.6873	17.2461	**-872.7016<<**
2300/ 2200/ 4/ CQC	**244.6282>>**	0.0000	50.7096	0.0000	-0.0000	0.0000
2300/ 2200/ 7 (C) (SRSS)/	**-130.0313<<**	-0.0000	-5145.5631	-0.0000	0.0000	-0.0000
2300/ 2200/ 4/ CQC	244.6282	**0.0000>>**	50.7096	0.0000	-0.0000	0.0000
2300/ 2200/ 7 (C) (SRSS)/	-130.0313	**-0.0000<<**	-5145.5631	-0.0000	0.0000	-0.0000
2300/ 2200/ 2/ CQC	11.5565	0.0000	**5207.6042>>**	0.0000	-0.0000	0.0000
2300/ 2200/ 7 (C) (SRSS)/	-130.0313	-0.0000	**-5145.5631<<**	-0.0000	0.0000	-0.0000
2300/ 2200/ 4/ CQC	244.6282	0.0000	50.7096	**0.0000>>**	-0.0000	0.0000
2300/ 2200/ 7 (C) (SRSS)/	-130.0313	-0.0000	-5145.5631	**-0.0000<<**	0.0000	-0.0000
2300/ 2400/ 7 (C) (SRSS)/	-130.0313	-0.0000	-5145.5631	-0.0000	**514.5563>>**	-0.0000
2300/ 2400/ 2/ CQC	11.5565	0.0000	5207.6042	0.0000	**-520.7604<<**	0.0000
2300/ 2200/ 4/ CQC	244.6282	0.0000	50.7096	0.0000	-0.0000	**0.0000>>**
2300/ 2200/ 7 (C) (SRSS)/	-130.0313	-0.0000	-5145.5631	-0.0000	0.0000	**-0.0000<<**
2305/ 2205/ 4/ CQC	**224.8792>>**	0.0000	0.0000	0.0000	-0.0000	0.0000
2305/ 2205/ 7 (C) (SRSS)/	**-182.6019<<**	-0.0000	-0.0000	-0.0000	0.0000	-0.0000
2305/ 2205/ 4/ CQC	224.8792	**0.0000>>**	0.0000	0.0000	-0.0000	0.0000
2305/ 2205/ 7 (C) (SRSS)/	-182.6019	**-0.0000<<**	-0.0000	-0.0000	0.0000	-0.0000
2305/ 2205/ 2/ CQC	16.3501	0.0000	**0.0000>>**	0.0000	-0.0000	0.0000
2305/ 2205/ 7 (C) (SRSS)/	-182.6019	-0.0000	**-0.0000<<**	-0.0000	0.0000	-0.0000
2305/ 2205/ 5 (C) (SRSS)/	84.7355	0.0000	0.0000	**0.0000>>**	-0.0000	0.0000
2305/ 2205/ 7 (C) (SRSS)/	-182.6019	-0.0000	-0.0000	**-0.0000<<**	0.0000	-0.0000
2305/ 2205/ 7 (C) (SRSS)/	-182.6019	-0.0000	-0.0000	-0.0000	**0.0000>>**	-0.0000
2305/ 2205/ 2/ CQC	16.3501	0.0000	0.0000	0.0000	**-0.0000<<**	0.0000
2305/ 2405/ 4/ CQC	224.8792	0.0000	0.0000	0.0000	-0.0000	**0.0000>>**
2305/ 2405/ 7 (C) (SRSS)/	-182.6019	-0.0000	-0.0000	-0.0000	0.0000	**-0.0000<<**
2400/ 2300/ 4/ CQC	**252.2364>>**	30.9447	63.8118	0.0000	-0.0000	0.0000
2400/ 2300/ 7 (C) (SRSS)/	**-151.7330<<**	-11.7960	-5156.4923	-0.0000	0.0000	-0.0000
2400/ 2300/ 4/ CQC	252.2364	**30.9447>>**	63.8118	0.0000	-0.0000	0.0000
2400/ 2300/ 7 (C) (SRSS)/	-151.7330	**-11.7960<<**	-5156.4923	-0.0000	0.0000	-0.0000

Barra/Nudo/Caso/Modo	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
2400/ 2300/ 2/ CQC	11.4640	3.0881	**5221.4972>>**	0.0000	-0.0000	0.0000
2400/ 2300/ 7 (C) (SRSS)/	-151.7330	-11.7960	**-5156.4923<<**	-0.0000	0.0000	-0.0000
2400/ 2300/ 5 (C) (SRSS)/	0.0226	-3.1102	5080.6123	**0.0000>>**	-0.0000	0.0000
2400/ 2300/ 7 (C) (SRSS)/	-151.7330	-11.7960	-5156.4923	**-0.0000<<**	0.0000	-0.0000
2400/ 2500/ 7 (C) (SRSS)/	-151.7330	-11.7960	-5156.4923	-0.0000	**515.6492>>**	-1.1796
2400/ 2500/ 2/ CQC	11.4640	3.0881	5221.4972	0.0000	**-522.1497<<**	0.3088
2400/ 2500/ 4/ CQC	252.2364	30.9447	63.8118	0.0000	-6.3812	**3.0945>>**
2400/ 2500/ 7 (C) (SRSS)/	-151.7330	-11.7960	-5156.4923	-0.0000	515.6492	**-1.1796<<**
2405/ 2305/ 4/ CQC	**227.8494>>**	26.8597	0.0000	0.0000	-0.0000	0.0000
2405/ 2305/ 7 (C) (SRSS)/	**-134.5083<<**	-8.9417	-0.0000	-0.0000	0.0000	-0.0000
2405/ 2305/ 4/ CQC	227.8494	**26.8597>>**	0.0000	0.0000	-0.0000	0.0000
2405/ 2305/ 7 (C) (SRSS)/	-134.5083	**-8.9417<<**	-0.0000	-0.0000	0.0000	-0.0000
2405/ 2305/ 2/ CQC	17.4824	4.3518	**0.0000>>**	0.0000	-0.0000	0.0000
2405/ 2305/ 7 (C) (SRSS)/	-134.5083	-8.9417	**-0.0000<<**	-0.0000	0.0000	-0.0000
2405/ 2305/ 4/ CQC	227.8494	26.8597	0.0000	**0.0000>>**	-0.0000	0.0000
2405/ 2305/ 7 (C) (SRSS)/	-134.5083	-8.9417	-0.0000	**-0.0000<<**	0.0000	-0.0000
2405/ 2305/ 7 (C) (SRSS)/	-134.5083	-8.9417	-0.0000	-0.0000	**0.0000>>**	-0.0000
2405/ 2305/ 2/ CQC	17.4824	4.3518	0.0000	0.0000	**-0.0000<<**	0.0000
2405/ 2505/ 4/ CQC	227.8494	26.8597	0.0000	0.0000	-0.0000	**2.6860>>**
2405/ 2505/ 7 (C) (SRSS)/	-134.5083	-8.9417	-0.0000	-0.0000	0.0000	**-0.8942<<**

6.2.4. Acción del terreno en hipótesis sísmica

Coeficientes de empuje de Mononobe-Okabe

IAP art 3.2.4.2.4.

Proyecto: LAV SANT BOI

Datos:

Coeficiente de aceleración vertical		K_v =	0	
Aceleración de cálculo	m/s²	a_c =	0.07 g	
Existen restricciones importantes en el movimiento del estribo			0	Si = 1, No = 0
Ángulo de rozamiento interno	°	ϕ =	30	
Ángulo de rozamiento tierras-estribo	°	δ =	0	
Ángulo de inclinación de intradós de estribo	°	β =	0	
Talud de las tierras en trasdós e intrados	°	i =	0	

NOTA: el criterio de signos de δ, β, i es el definido en la figura 21 de la IAP

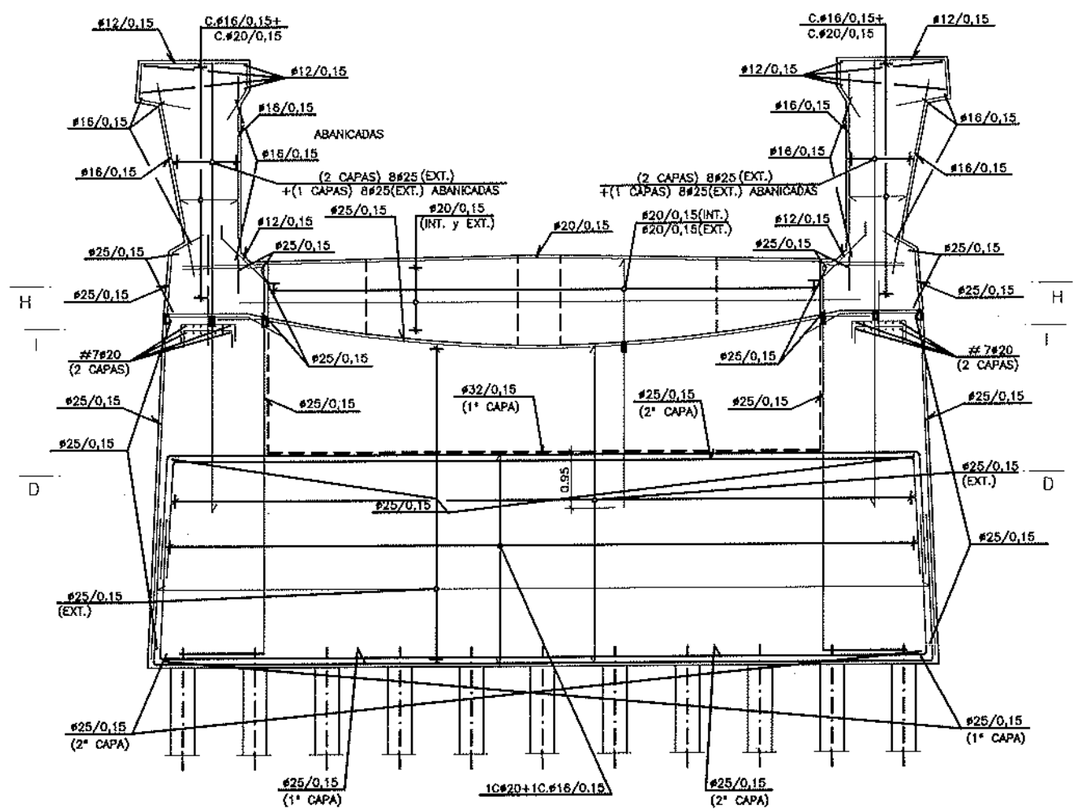
Cálculos previos:

Coeficiente de aceleracion horizontal		K_h =	0.035
	rad	θ =	0.035

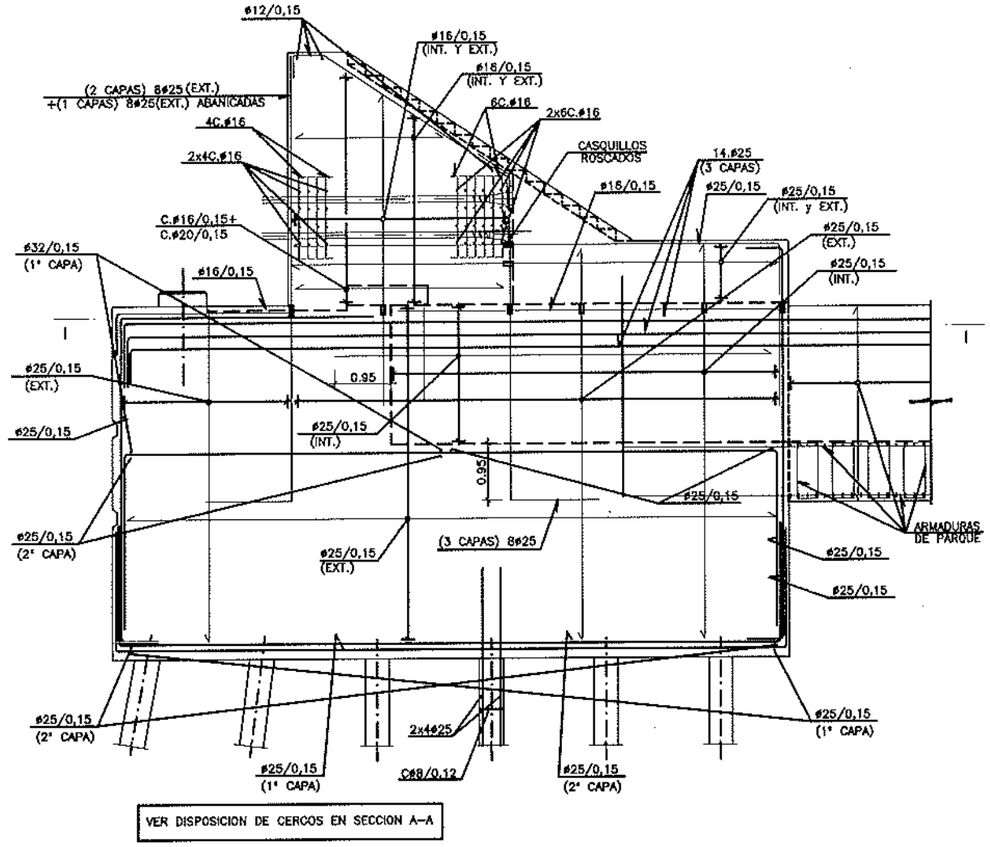
Resultados:

Coeficiente de empuje activo modificado	K_{ea} =	0.354
Coeficiente de mayoración de empujes	K_{ea} / K_a =	1.268
Coeficiente de empuje pasivo modificado	K_{ep} =	2.939
Coeficiente de mayoración de empujes	K_{ep} / K_p =	10.519
Coeficiente de empuje al reposo modificado	K_o =	0.575
Coeficiente de mayoración de empujes	K_o / K_o =	2.057

4845

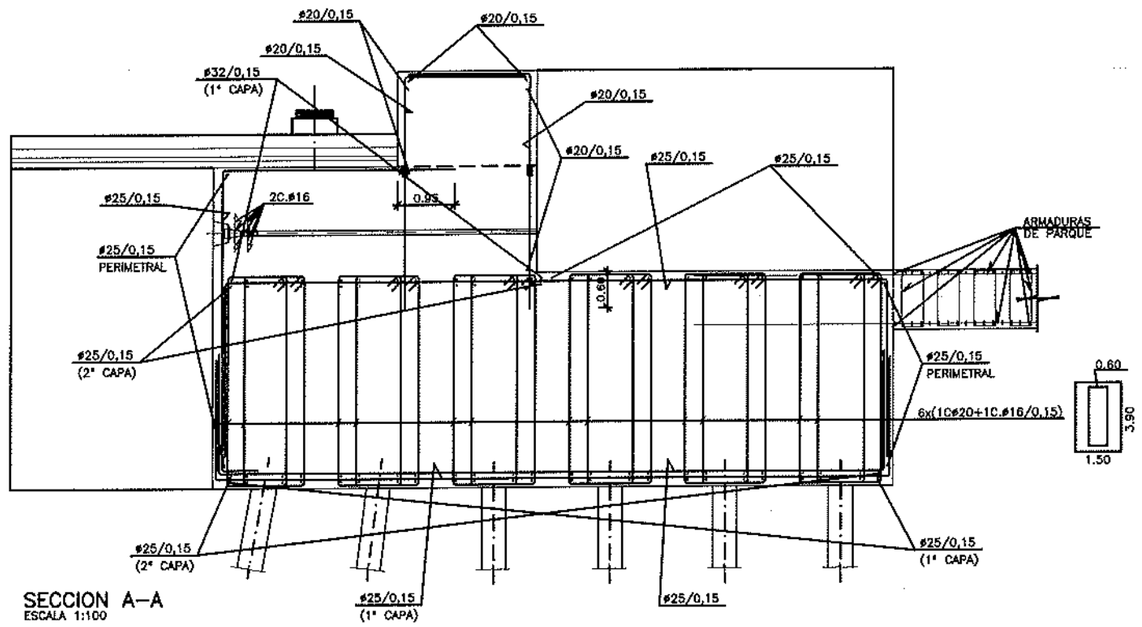


ESCALA 1:100
ARMADURAS DE ESTRIBO 1

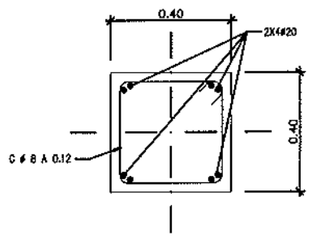


ALZADO LATERAL DE ESTRIBO 1
ESCALA 1:100

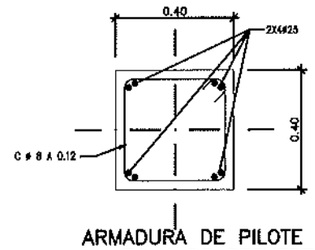
NOTA:
LA ARMADURA DE CONEXION
DE LA PLACA DE FRENADO, ESTA
INDICADA EN LOS PLANOS DEL PARQUE.



SECCION A-A
ESCALA 1:100



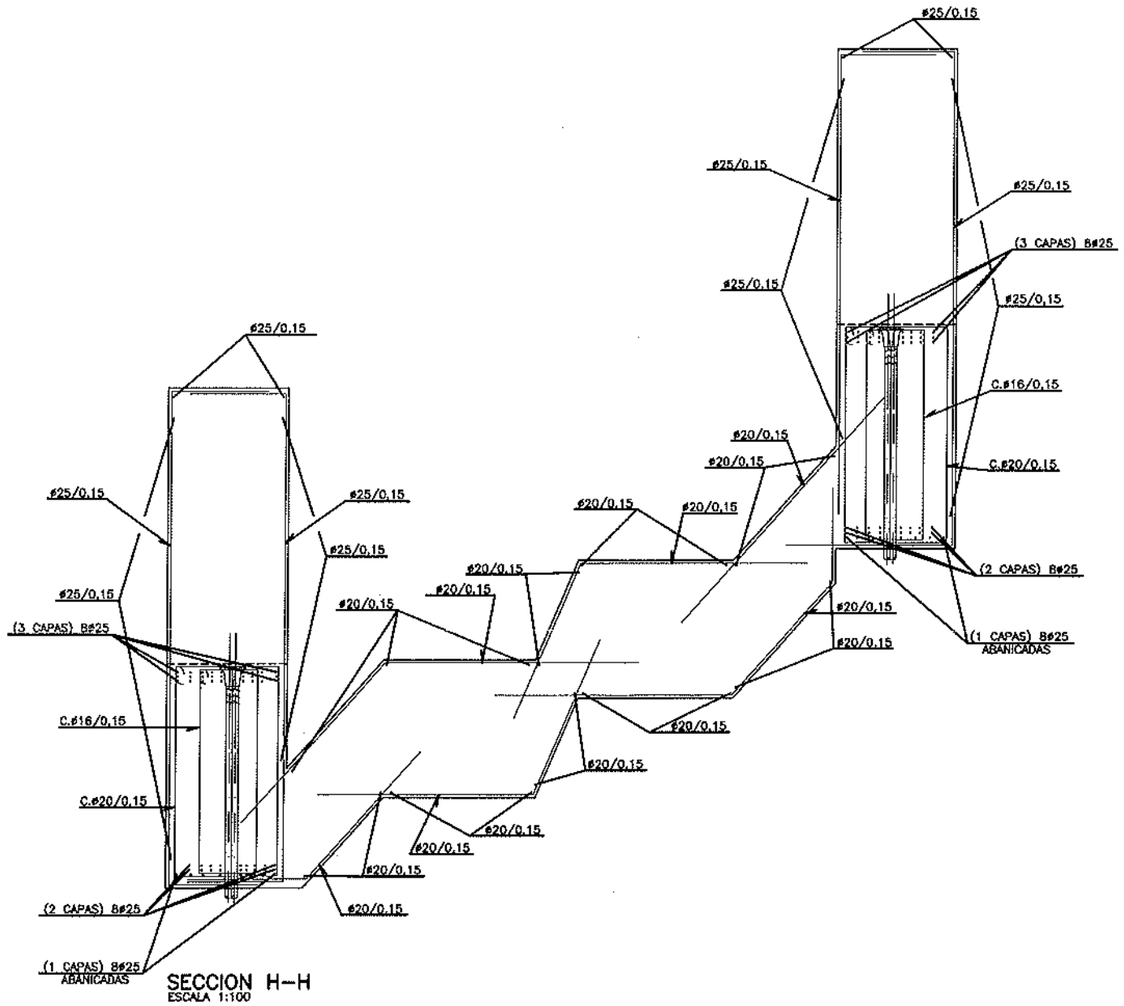
ARMADURA DE PILOTE
ESCALA 1:20



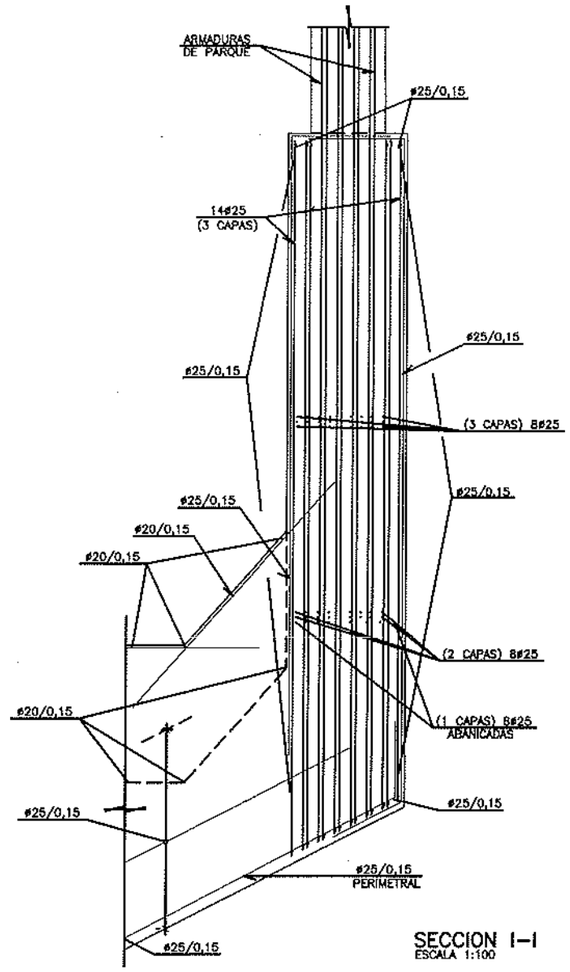
ARMADURA DE PILOTE EN ZONA DE REFUERZO
ESCALA 1:20

NOTA:
VER DETALLE DE ARMADURAS EN CABEZA
DE ESTRIBO EN PLANO 2.9.2.8 (HOJA 8 DE 8)

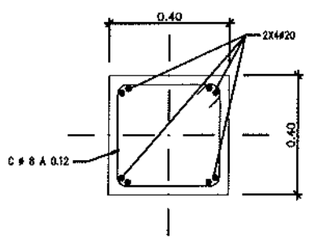
adif	PROYECTO MODIFICADO Nº1 DE CONSTRUCCIÓN DE PLATAFORMA LINEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	EL INGENIERO AUTOR DEL PROYECTO MODIFICADO Nº1 Fdo: MAURO BRAVO DOMINGUEZ	CONFORME EL CONTRATISTA: Fdo: EDUARDO PARCET HERNÁNDEZ	ESCALA VARIAS Numérica / Gráfica	0	FECHA MAYO 2008	TÍTULO DEL PLANO VIADUCTO UIC (S/RIO LLOBREGAT) ESTRIBO-1. ARMADURAS (1)	Nº DE PLANO 2.9.1.4.2 Hoja 2 de 8



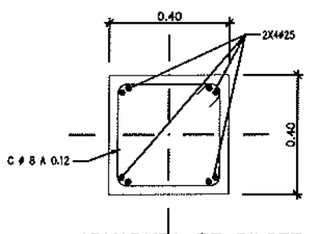
SECCION H–H
ESCALA 1:100



SECCION I–I
ESCALA 1:100



ARMADURA DE PILOTE
ESCALA 1:20



ARMADURA DE PILOTE
EN ZONA DE REFUERZO
ESCALA 1:20

NOTA DE MATERIALES

NIVELES DE CONTROL Y COEFICIENTES DE SEGURIDAD:

- Acero para armar, nivel normal (γ_s=1,15)
- Hormigón nivel estadístico (γ_c=1,50)
- Ejecución (toda la obra) nivel intenso
- Los coeficientes de seguridad de las acciones son los correspondientes a la IAP–98 y EC–1

ACERO (ARMADURAS):

- B 500 S fy = 500 N/mm2

PARA ANCLAJES Y SOLAPES, SE SEGUIRAN LAS PRESCRIPCIONES CONTENIDAS EN EL ARTICULO 66 DE LA INSTRUCCION EHE

LOS RECUBRIMIENTOS SE DETERMINARAN SEGUN EL ARTICULO 37 DE LA INSTRUCCION EHE PARA UN AMBIENTE IIIa Y IIa.

HORMIGONES:

HORMIGON TIPO	fck(N/mm2)	ELEMENTO ESTRUCTURAL	RECUBRIMIENTO NOMINAL(cm)
HP–50 F 20 IIIa	50	Tablero	3,5
HA–30 B 20 IIIa	30	Alzados de Pilas	4,0
HA–30 B 20 IIa	30	Alzados de Estribos	4,0
HA–30 B 20 IIb	30	Encepados	3,0
HA–45 F 25 IIb	45	Pilotes Prefabricados	2,5
HA–25 B 20 IIIa	25	Parque de empuje y hormigonado	4,0
HM–15	15	Capas de regularización	–

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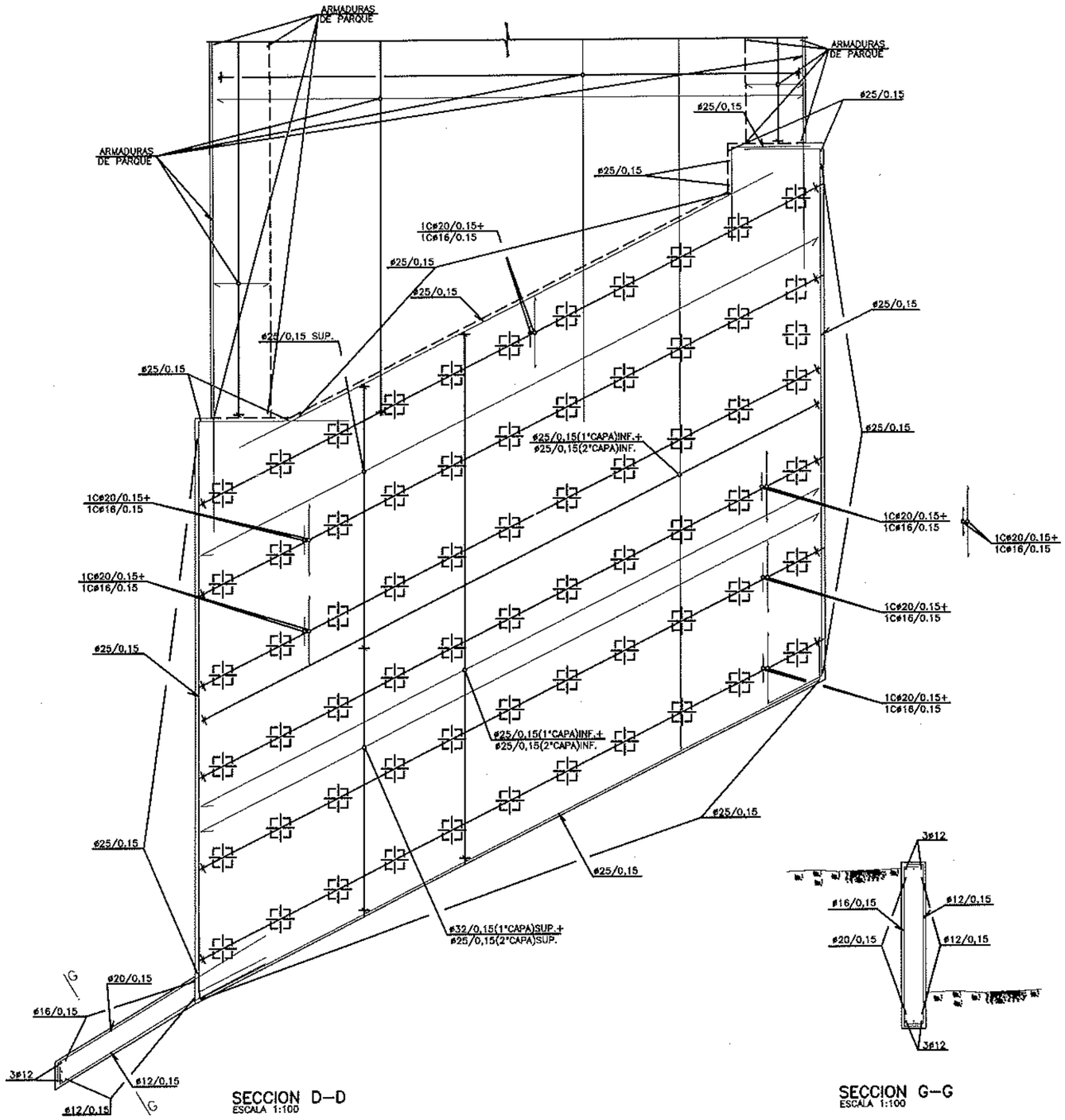
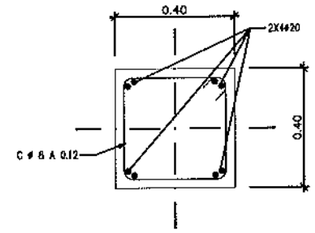
adif	PROYECTO MODIFICADO Nº1 DE CONSTRUCCIÓN DE PLATAFORMA LINEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	EL INGENIERO AUTOR DEL PROYECTO MODIFICADO Nº1 Fdo: MAURO BRAVO DOMINGUEZ	CONFORME EL CONTRATISTA: Fdo: EDUARDO PARCET HERNÁNDEZ	ESCALA VARIAS Numérica / Gráfica 0	FECHA MAYO 2008	TÍTULO DEL PLANO VIADUCTO UIC (S/RIO LLOBREGAT) ESTRIBO–1. ARMADURAS (3)	Nº DE PLANO 2.9.1.4.2 Hoja 4 de 6

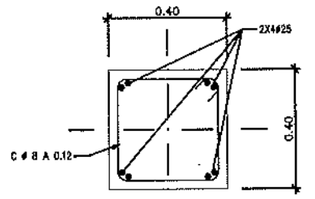


SECCION D–D
ESCALA 1:100

SECCION G–G
ESCALA 1:100



ARMADURA DE PILOTE
ESCALA 1:20



ARMADURA DE PILOTE
EN ZONA DE REFUERZO
ESCALA 1:20

NOTA DE MATERIALES

NIVELES DE CONTROL Y COEFICIENTES DE SEGURIDAD:

- Acero para armar, nivel normal (γ=1,15)
- Hormigón nivel estadístico (γ=1,50)
- Ejecución (toda la obra) nivel intenso
- Los coeficientes de seguridad de las acciones son los correspondientes a la IAP–98 y EC–1

ACERO (ARMADURAS):

– B 500 S fy = 500 N/mm2

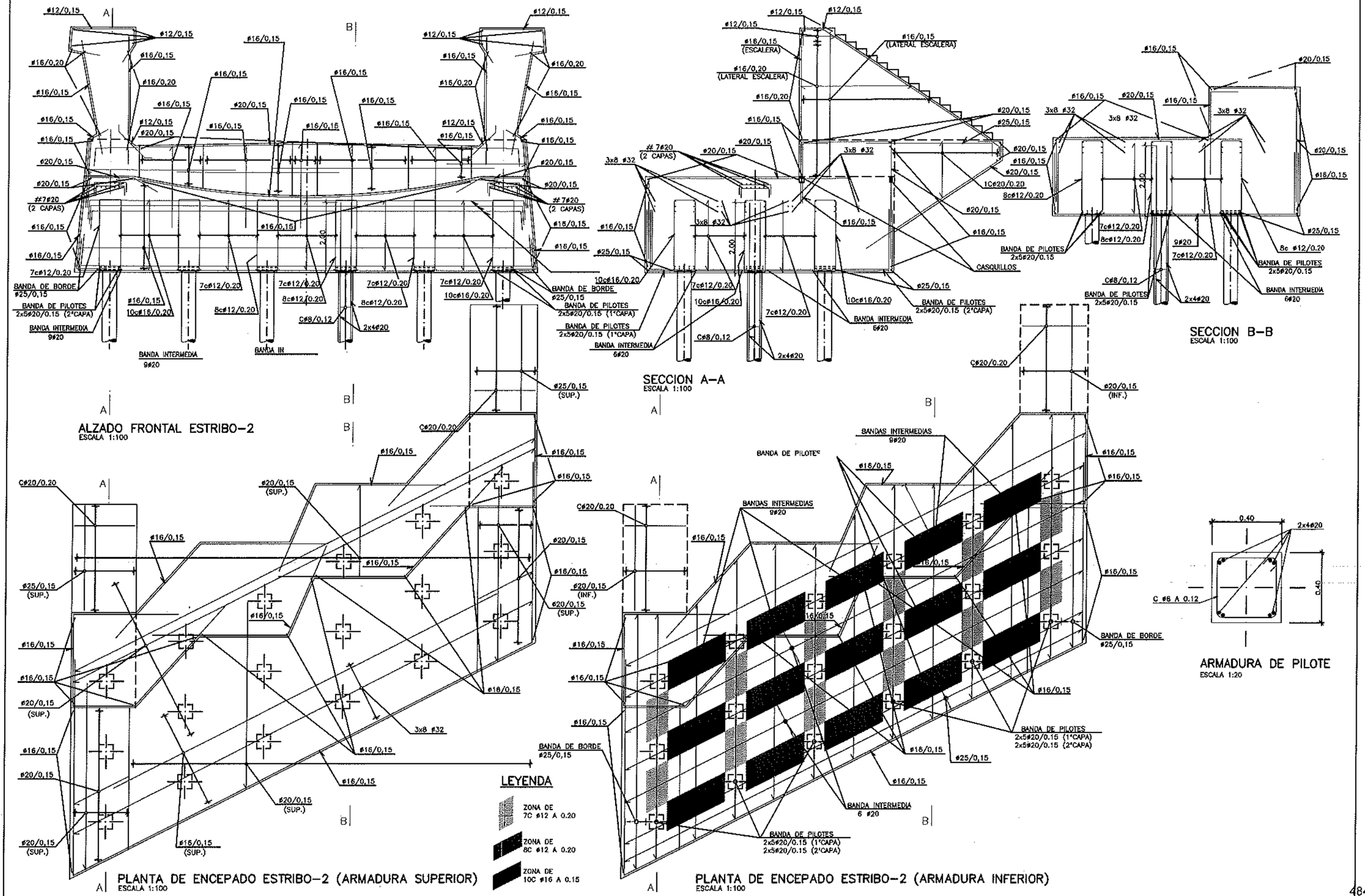
PARA ANCLAJES Y SOLAPES, SE SEGUIRAN LAS PRESCRIPCIONES CONTENIDAS EN EL ARTICULO 66 DE LA INSTRUCCION EHE

LOS RECUBRIMIENTOS SE DETERMINARAN SEGUN EL ARTICULO 37 DE LA INSTRUCCION EHE PARA UN AMBIENTE IIa Y IIa.

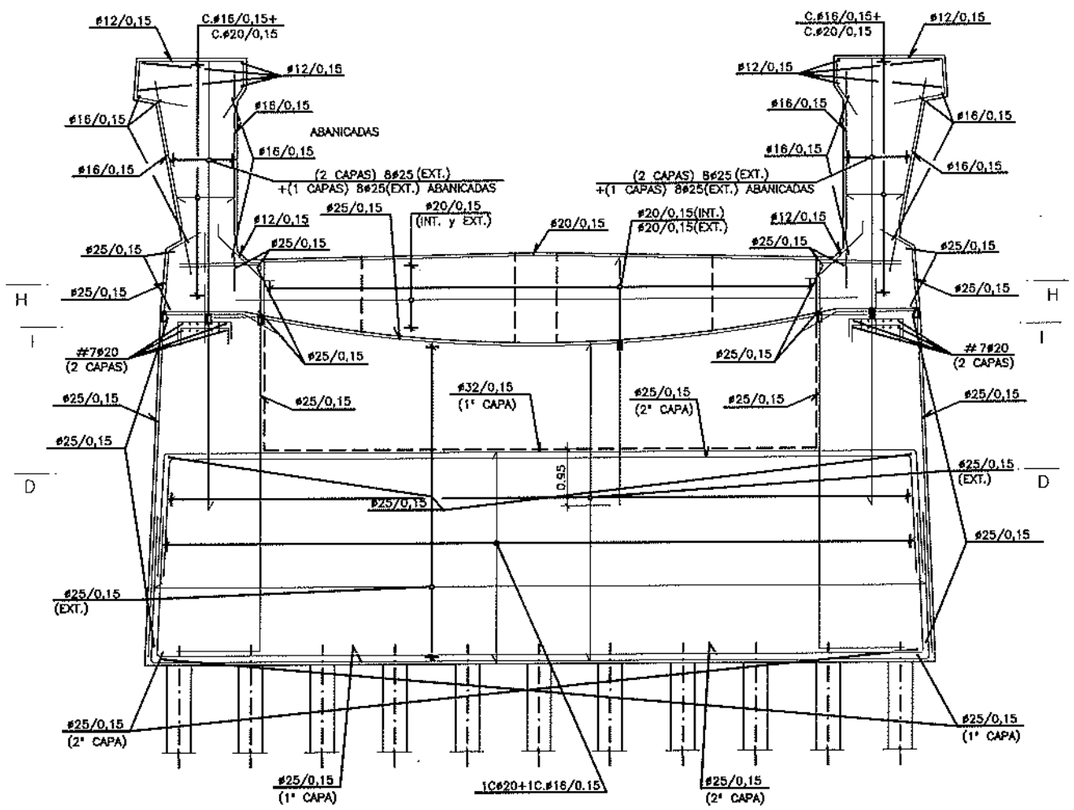
HORMIGONES:

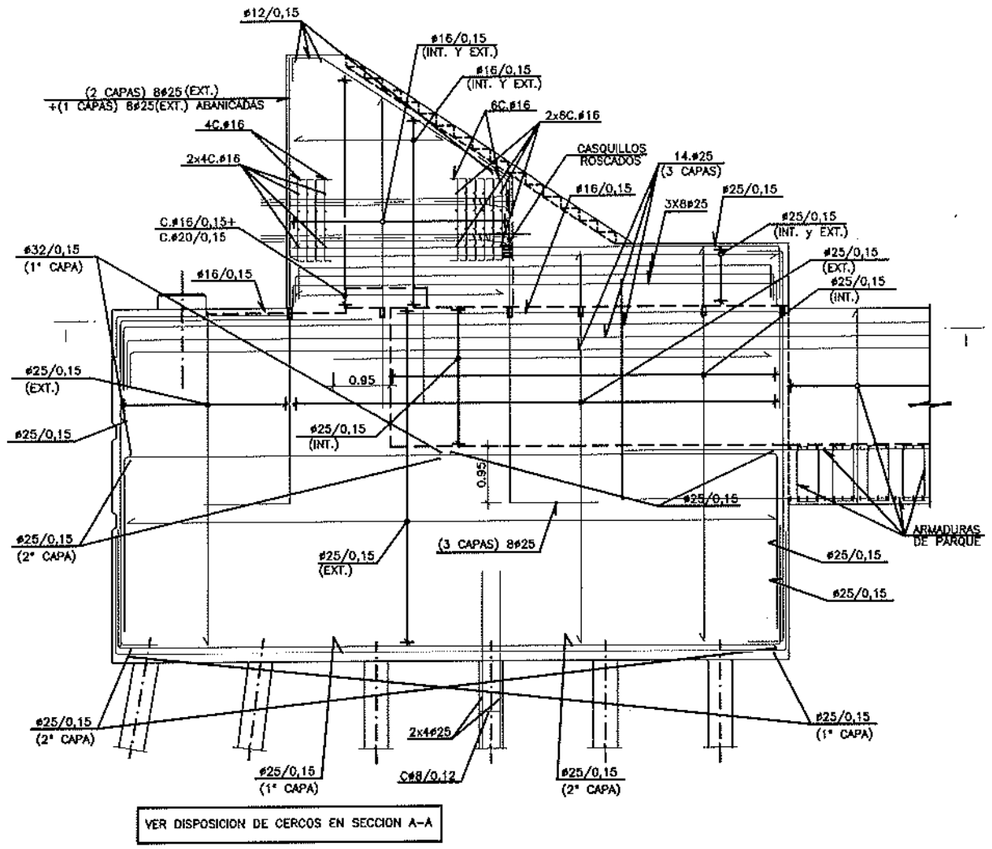
HORMIGON TIPO	fck(N/mm2)	ELEMENTO ESTRUCTURAL	RECUBRIMIENTO NOMINAL(cm)
HP–50 F 20 IIa	50	Tablero	3,5
HA–30 B 20 IIa	30	Alzados de Pilas	4,0
HA–30 B 20 IIa	30	Alzados de Estribos	4,0
HA–30 B 20 IIb	30	Encepados	3,0
HA–45 F 25 IIb	45	Pilotes Prefabricados	2,5
HA–25 B 20 IIa	25	Parque de empuje y hormigonado	4,0
HM–15	15	Capas de regularización	–

adif	PROYECTO MODIFICADO Nº1 DE CONSTRUCCIÓN DE PLATAFORMA LINEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	EL INGENIERO AUTOR DEL PROYECTO MODIFICADO Nº1 Fdo: MAURO BRAVO DOMINGUEZ	CONFORME EL CONTRATISTA: Fdo: EDUARDO PARCET HERNÁNDEZ	ESCALA VARIAS Numérica / Gráfica	FECHA MAYO 2008	TÍTULO DEL PLANO VIADUCTO UIC (S/RIO LLOBREGAT) ESTRIBO–1. ARMADURAS (2)	Nº DE PLANO 2.9.1.4.2 Hoja 3 de



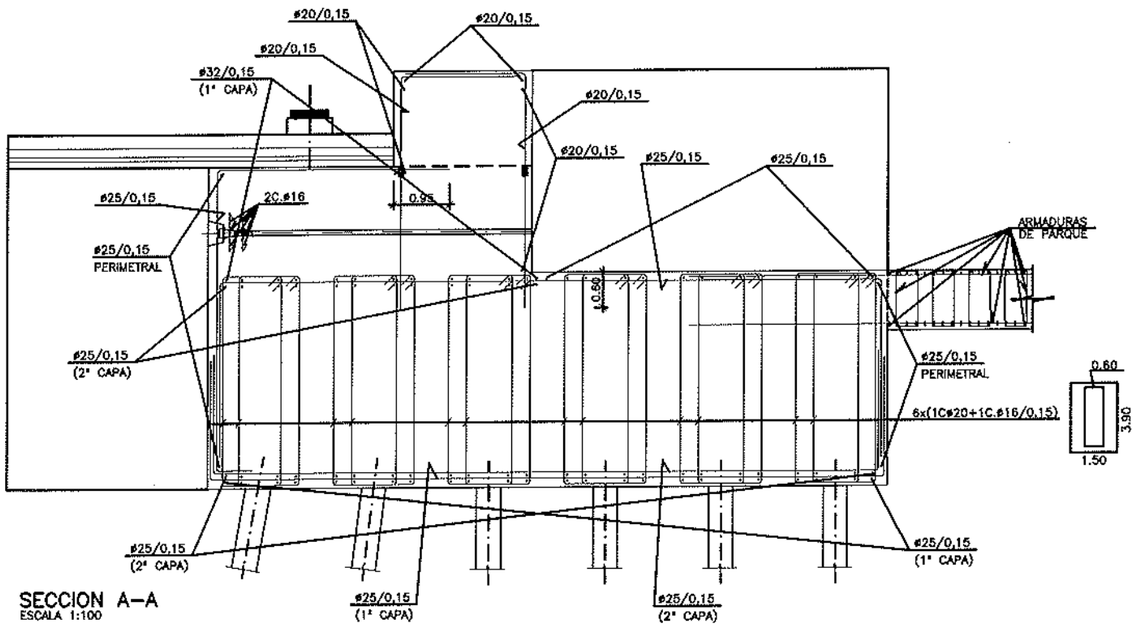
adif	PROYECTO MODIFICADO Nº1 DE CONSTRUCCIÓN DE PLATAFORMA LÍNEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	EL INGENIERO AUTOR DEL PROYECTO MODIFICADO Nº1 Fdo: MAURO BRAVO DOMINGUEZ	CONFORME EL CONTRATISTA: Fdo: EDUARDO PARCET HERNÁNDEZ	ESCALA VARIAS Numérica / Gráfica	FECHA MAYO 2008	TÍTULO DEL PLANO VIADUCTO UIC (S/RIO LLOBREGAT) ESTRIBO-2. ARMADURAS	Nº DE PLANO 2.9.1.4.2 Hoja 6 de 6





VER DISPOSICION DE CERCOS EN SECCION A-A

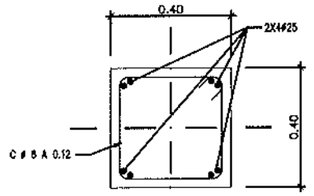
ARMADURAS DE ESTRIBO 1
ESCALA 1:100



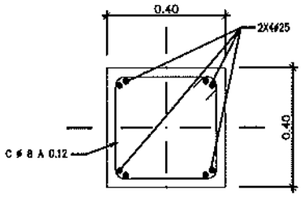
SECCION A-A
ESCALA 1:100

ALZADO LATERAL DE ESTRIBO 1
ESCALA 1:100

NOTA:
LA ARMADURA DE CONEXION
DE LA PLACA DE FRENADO, ESTA
INDICADA EN LOS PLANOS DEL PARQUE.



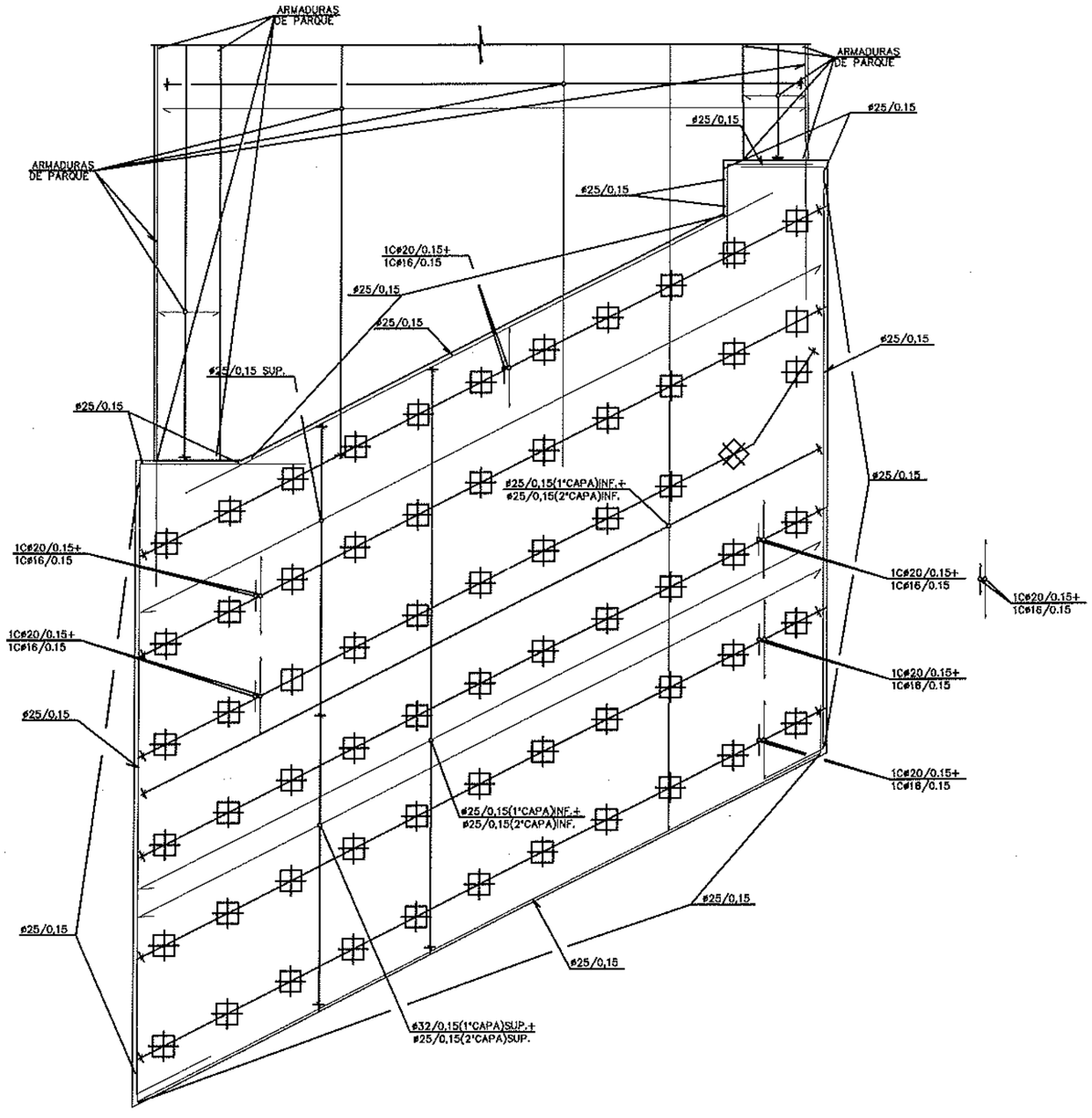
ARMADURA DE PILOTE
ESCALA 1:20



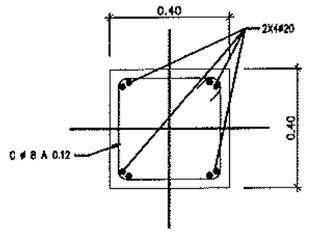
ARMADURA DE PILOTE EN ZONA DE REFUERZO
ESCALA 1:20

NOTA:
VER DETALLE DE ARMADURAS EN CABEZA
DE ESTRIBO EN PLANO 2.9.2.8 (HOJA 8 DE 8)

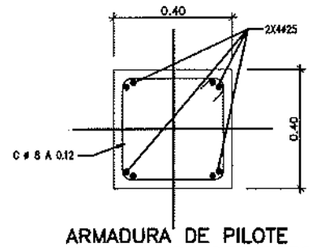
adif	PROYECTO MODIFICADO Nº1 DE CONSTRUCCIÓN DE PLATAFORMA LÍNEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	EL INGENIERO AUTOR DEL PROYECTO MODIFICADO Nº1 Fdo: MAURO BRAVO DOMINGUEZ	CONFORME EL CONTRATISTA: Fdo: EDUARDO PARCET HERNÁNDEZ	ESCALA VARIAS Numérico / Gráfica	0	FECHA MAYO 2008	TÍTULO DEL PLANO VIADUCTO IB (S/RIO LLOBREGAT) ESTRIBO-1. ARMADURAS (1)	Nº DE PLANO 2.9.2.4.2 Hoja 2 de 6



SECCION D–D
ESCALA 1:100



ARMADURA DE PILOTE
ESCALA 1:20



ARMADURA DE PILOTE EN ZONA DE REFUERZO
ESCALA 1:20

NOTA DE MATERIALES

NIVELES DE CONTROL Y COEFICIENTES DE SEGURIDAD:

- Acero para armar, nivel normal (γ=1,15)
- Hormigón nivel estadístico (γ=1,50)
- Ejecución (toda la obra) nivel intenso
- Los coeficientes de seguridad de las acciones son los correspondientes a la IAP–98 y EC–1

ACERO (ARMADURAS):

- B 500 S fy = 500 N/mm2

PARA ANCLAJES Y SOLAPES, SE SEGUIRAN LAS PRESCRIPCIONES CONTENIDAS EN EL ARTICULO 66 DE LA INSTRUCCION EHE

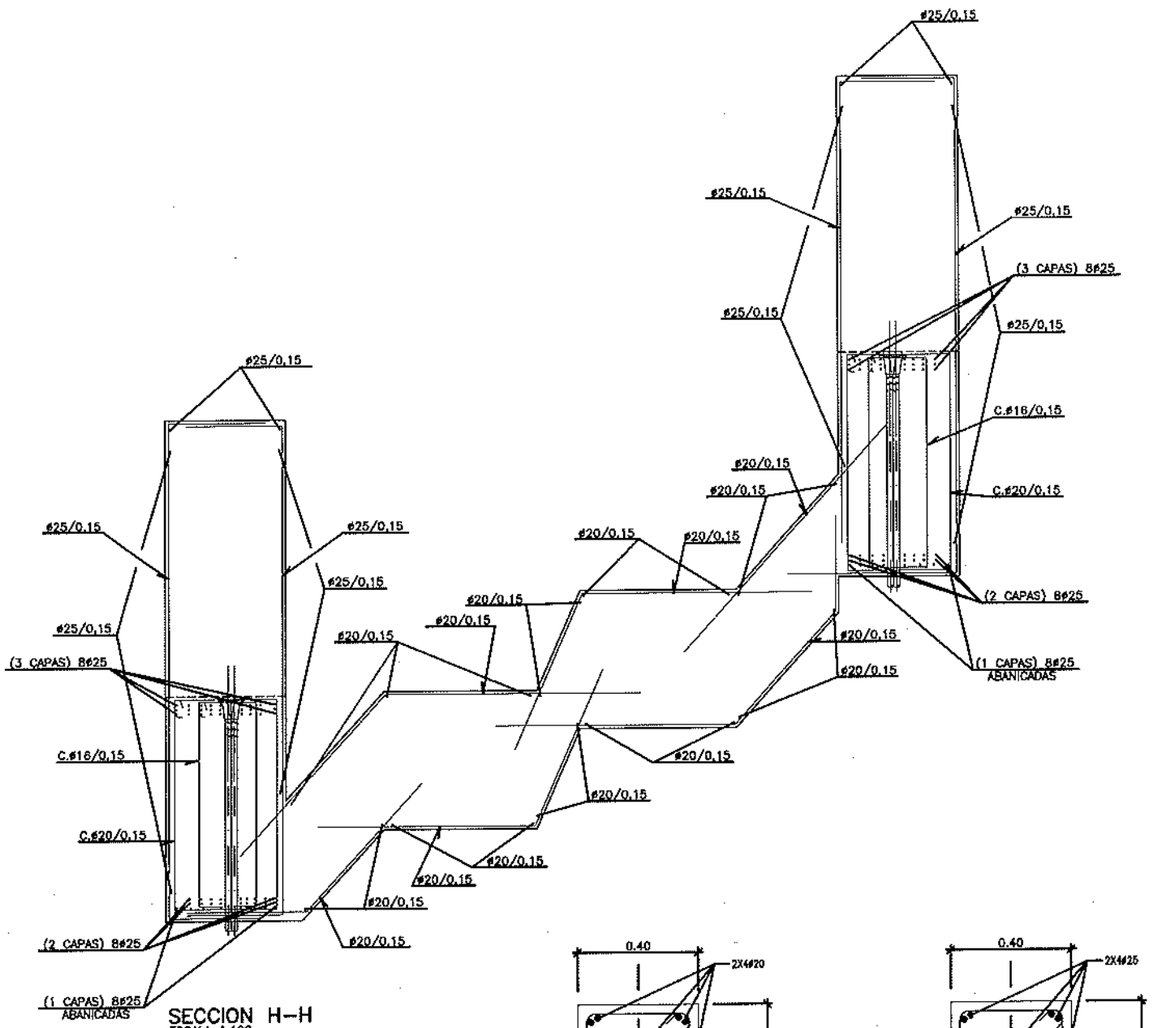
LOS RECUBRIMIENTOS SE DETERMINARAN SEGUN EL ARTICULO 37 DE LA INSTRUCCION EHE PARA UN AMBIENTE IIa Y IIa.

HORMIGONES:

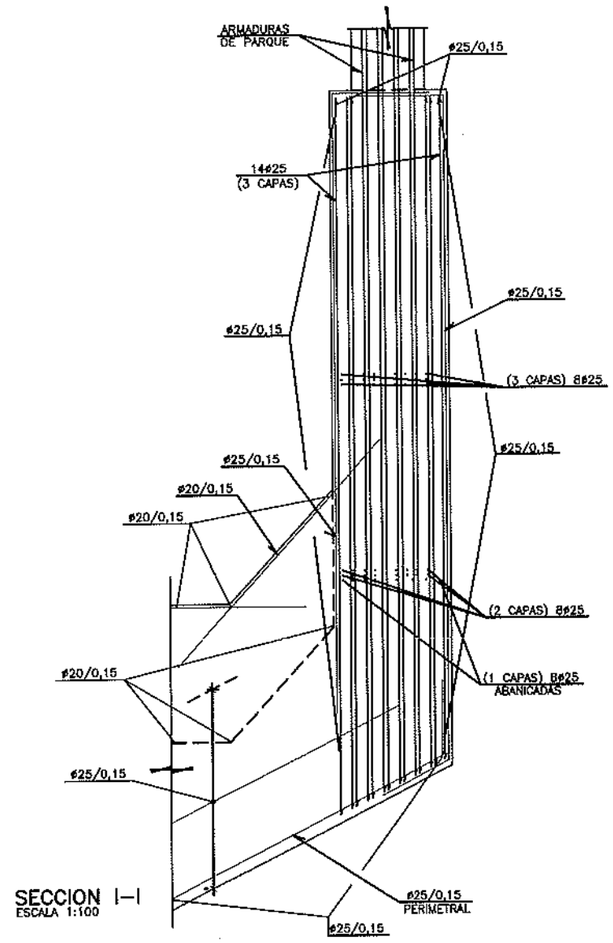
HORMIGON TIPO	fck(N/mm2)	ELEMENTO ESTRUCTURAL	RECUBRIMIENTO NOMINAL(cm)
HP–50 F 20 IIa	50	Tablero	3,5
HA–30 B 20 IIa	30	Alzados de Pilas	4,0
HA–30 B 20 IIa	30	Alzados de Estribos	4,0
HA–30 B 20 IIb	30	Encepados	3,0
HA–45 F 25 IIb	45	Pilotes Prefabricados	2,5
HA–25 B 20 IIa	25	Parque de empuje y hormigonado	4,0
HM–15	15	Capas de regularización	–

4851

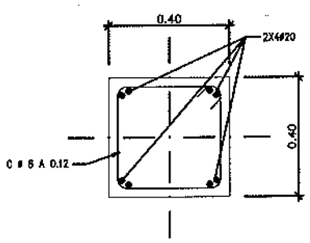
adif	PROYECTO MODIFICADO Nº1 DE CONSTRUCCIÓN DE PLATAFORMA LINEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	EL INGENIERO AUTOR DEL PROYECTO MODIFICADO Nº1 Fdo: MAURO BRAVO DOMINGUEZ	CONFORME EL CONTRATISTA: Fdo: EDUARDO PARCET HERNÁNDEZ	ESCALA VARIAS Numérica / Gráfica 0	FECHA MAYO 2008	TÍTULO DEL PLANO VIADUCTO IB (S/RIO LLOBREGAT) ESTRIBO–1. ARMADURAS (2)	Nº DE PLANO 2.9.2.4.2 Hoja 3 de 6



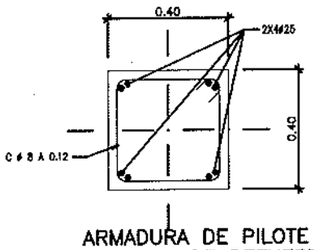
SECCION H–H
ESCALA 1:100



SECCION I–I
ESCALA 1:100



ARMADURA DE PILOTE
ESCALA 1:20



ARMADURA DE PILOTE
EN ZONA DE REFUERZO
ESCALA 1:20

NOTA DE MATERIALES

NIVELES DE CONTROL Y COEFICIENTES DE SEGURIDAD:

- Acero para armar, nivel normal (γ=1,15)
- Hormigón nivel estadístico (γ=1,60)
- Ejecución (toda la obra) nivel intenso
- Los coeficientes de seguridad de las acciones son los correspondientes a la IAP–98 y EC–1

ACERO (ARMADURAS):

- B 500 S fy = 500 N/mm2

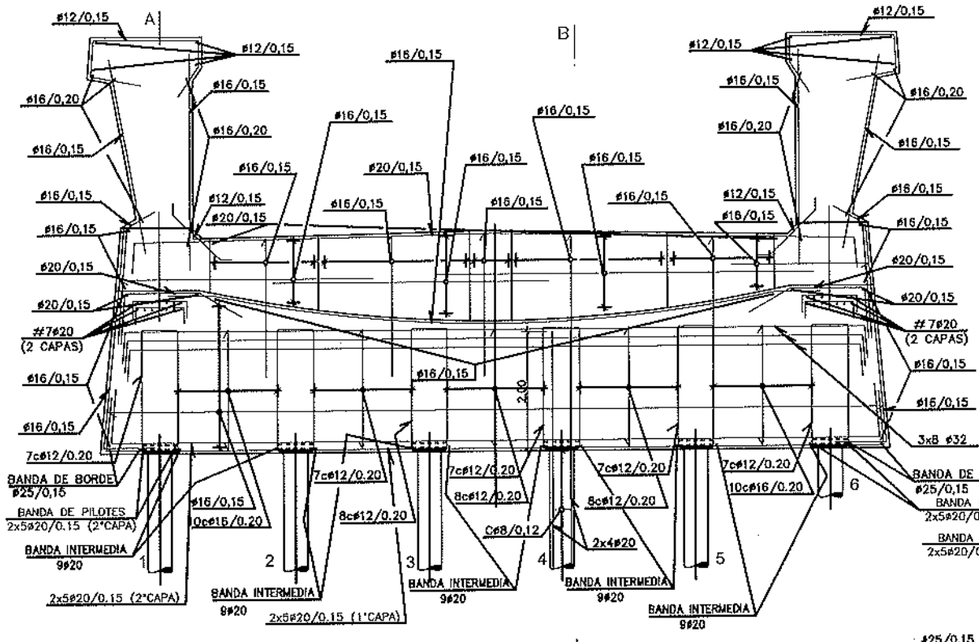
PARA ANCLAJES Y SOLAPES, SE SEGUIRAN LAS PRESCRIPCIONES CONTENIDAS EN EL ARTICULO 66 DE LA INSTRUCCION EHE

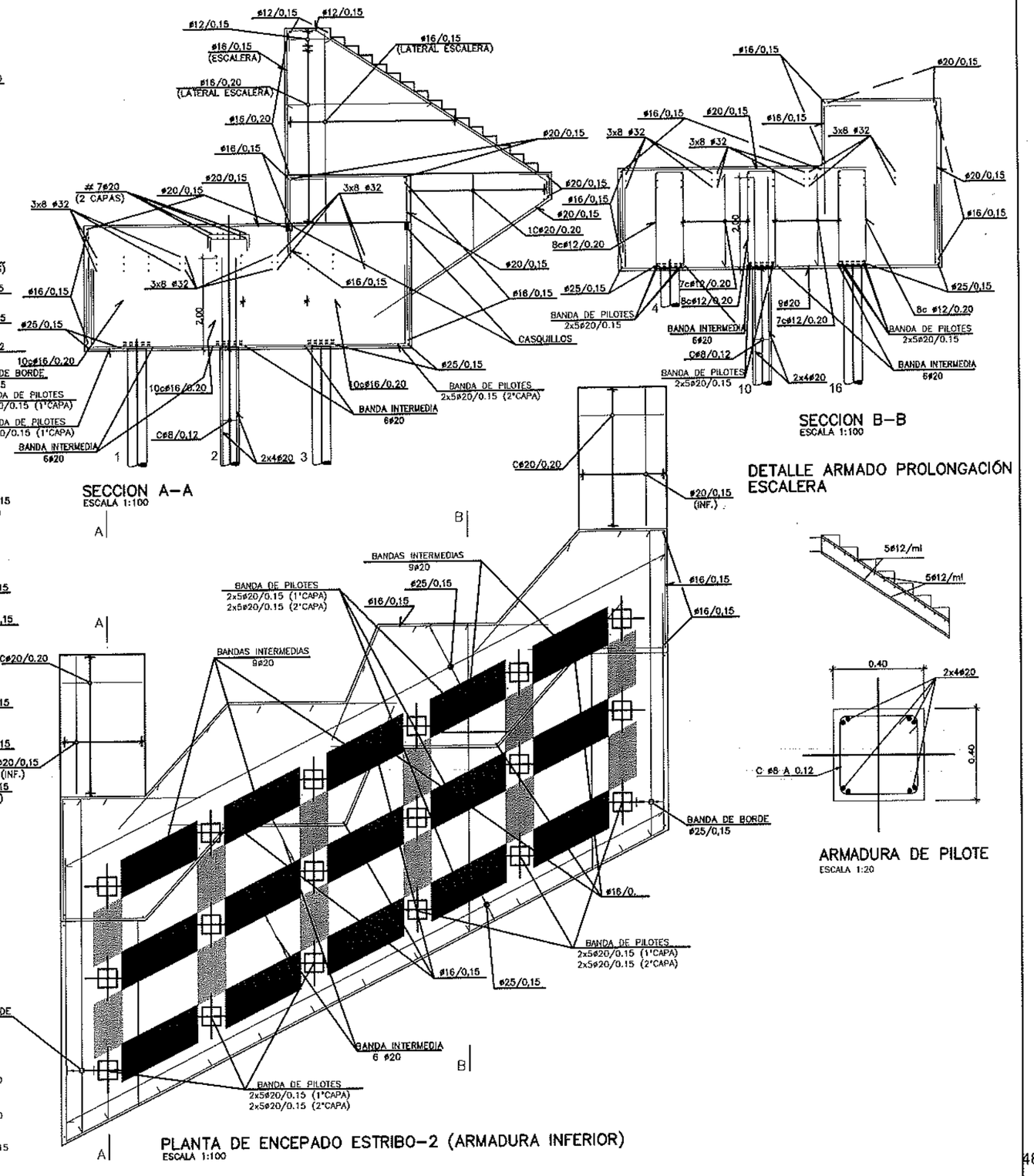
LOS RECUBRIMIENTOS SE DETERMINARAN SEGUN EL ARTICULO 37 DE LA INSTRUCCION EHE PARA UN AMBIENTE IIa Y IIa.

HORMIGONES:

HORMIGON TIPO	fck(N/mm2)	ELEMENTO ESTRUCTURAL	RECUBRIMIENTO NOMINAL(cm)
HP–50 F 20 IIa	50	Tablero	3,5
HA–30 B 20 IIa	30	Alzados de Pilas	4,0
HA–30 B 20 IIa	30	Alzados de Estribos	4,0
HA–30 B 20 IIb	30	Encepados	3,0
HA–45 F 25 IIb	45	Pilotes Prefabricados	2,5
HA–25 B 20 IIa	25	Parque de empuje y hormigonado	4,0
HM–15	15	Capas de regularización	—

adif	PROYECTO MODIFICADO Nº1 DE CONSTRUCCIÓN DE PLATAFORMA LINEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	EL INGENIERO AUTOR DEL PROYECTO MODIFICADO Nº1 Fdo: MAURO BRAVO DOMINGUEZ	CONFORME EL CONTRATISTA: Fdo: EDUARDO PARCET HERNÁNDEZ	ESCALA VARIAS Numérica / Gráfica 0	FECHA MAYO 2008	TÍTULO DEL PLANO VIADUCTO IB (S/RIO LLOBREGAT) ESTRIBO–1. ARMADURAS (3)	Nº DE PLANO 2.9.2.4.2 Hoja 4 de





adif	PROYECTO MODIFICADO Nº1 DE CONSTRUCCIÓN DE PLATAFORMA LINEA DE ALTA VELOCIDAD MADRID - ZARAGOZA - BARCELONA - FRONTERA FRANCESA TRAMO: SANT BOI DE LLOBREGAT - HOSPITALET	EL INGENIERO AUTOR DEL PROYECTO MODIFICADO Nº1 Fdo: MAURO BRAVO DOMINGUEZ	CONFORME EL CONTRATISTA: Fdo: EDUARDO PARCET HERNÁNDEZ	ESCALA VARIAS Numérica / Gráfica 0	FECHA MAYO 2008	TITULO DEL PLANO VIADUCTO IB (S/RIO LLOBREGAT) ESTRIBO-2. ARMADURAS	Nº DE PLANO 2.9.2.4.2 Hoja 6 de 6

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7. ANEJOS: LISTADOS

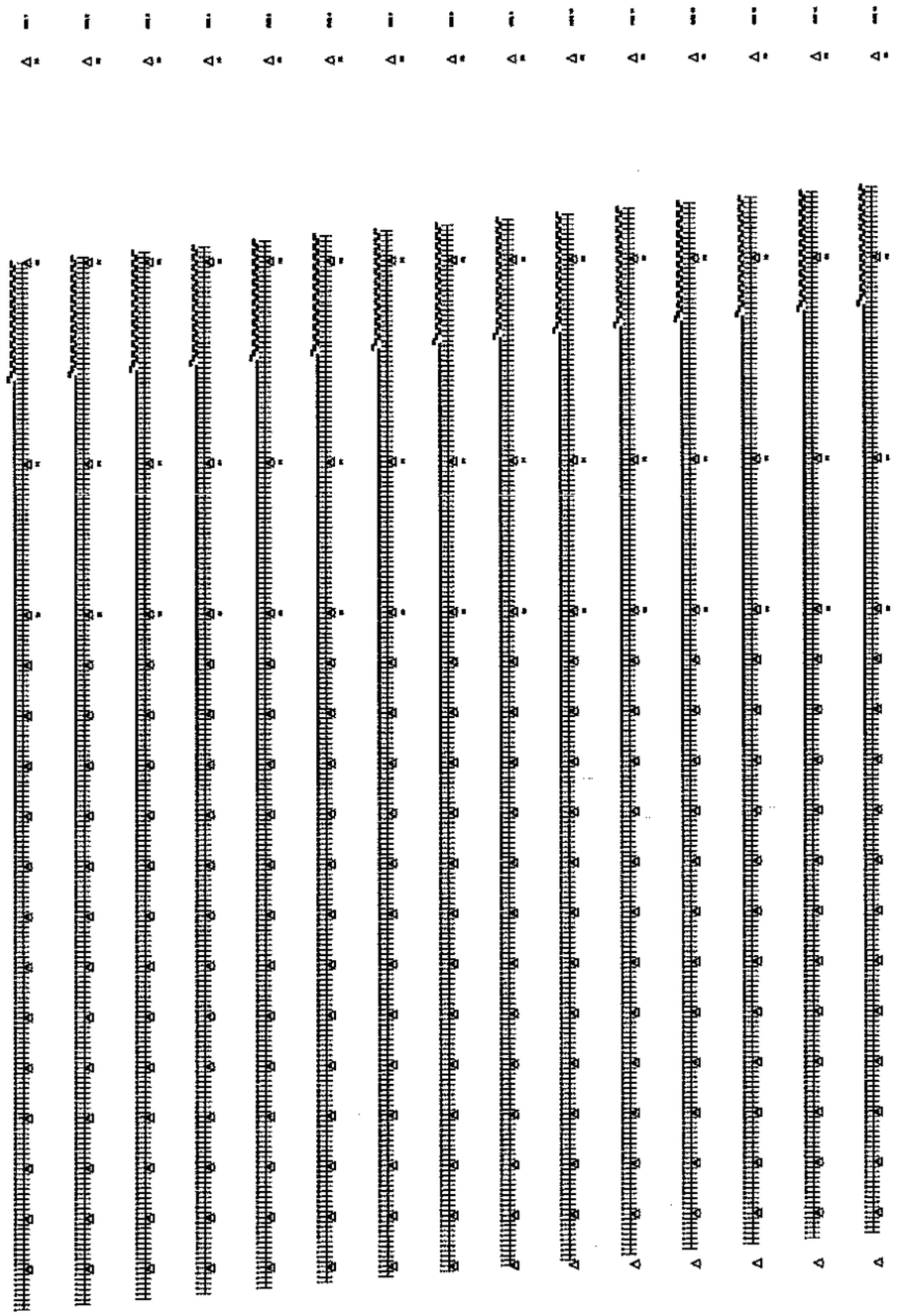
7.1. MODELOS DE CÁLCULO

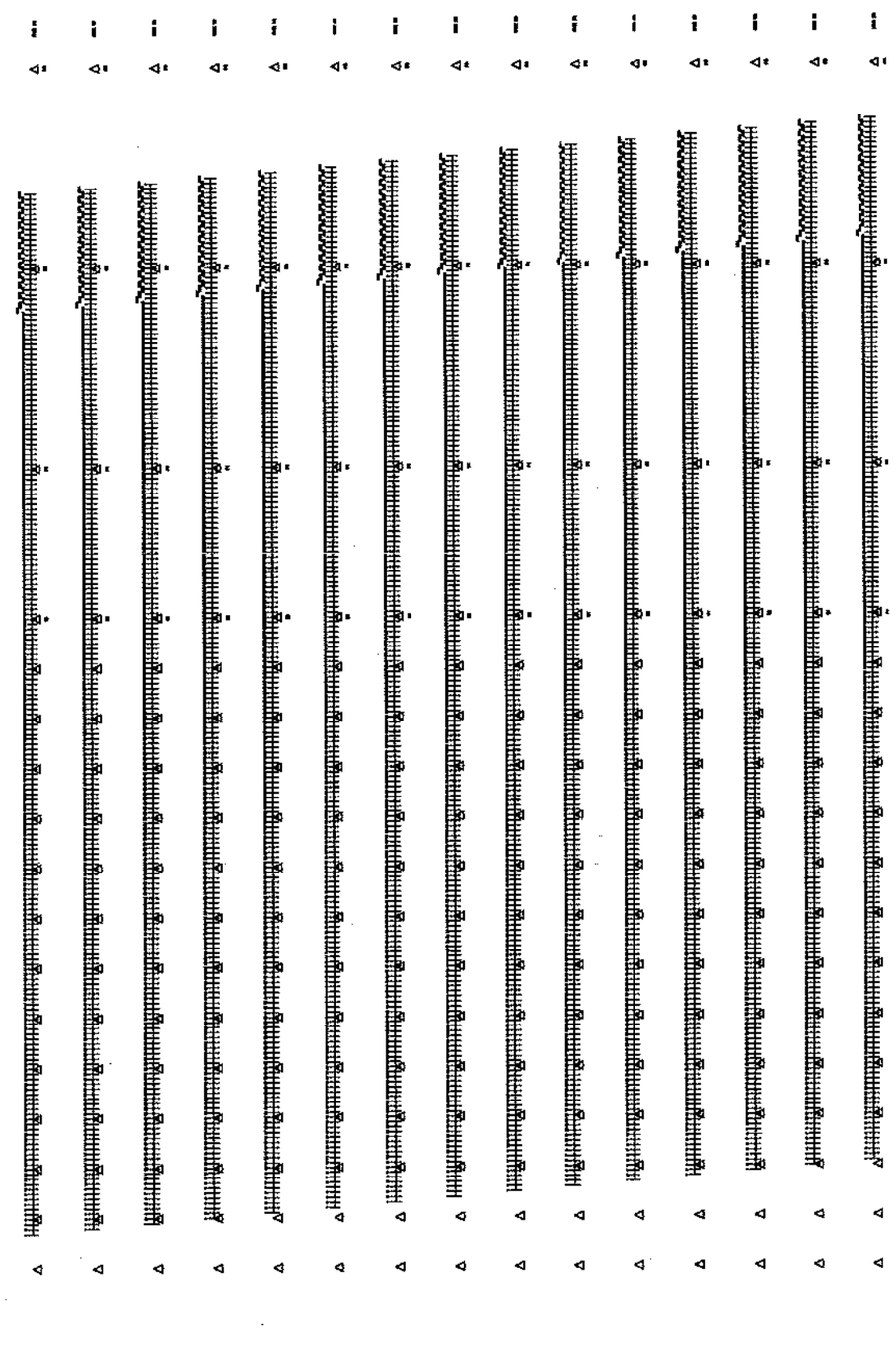
7.1.1. Discretización: Nudos, Barras, Apoyos y Características Mecánicas

Proyecto de construcción de plataforma. Línea de Alta Velocidad Madrid – Zaragoza – Barcelona – Frontera Francesa. Tramo: Sant Boi de Llobregat - Hospitalet

VIADUCTO SOBRE EL LLOBREGAT

7.1.1.1. Modelo de Empuje





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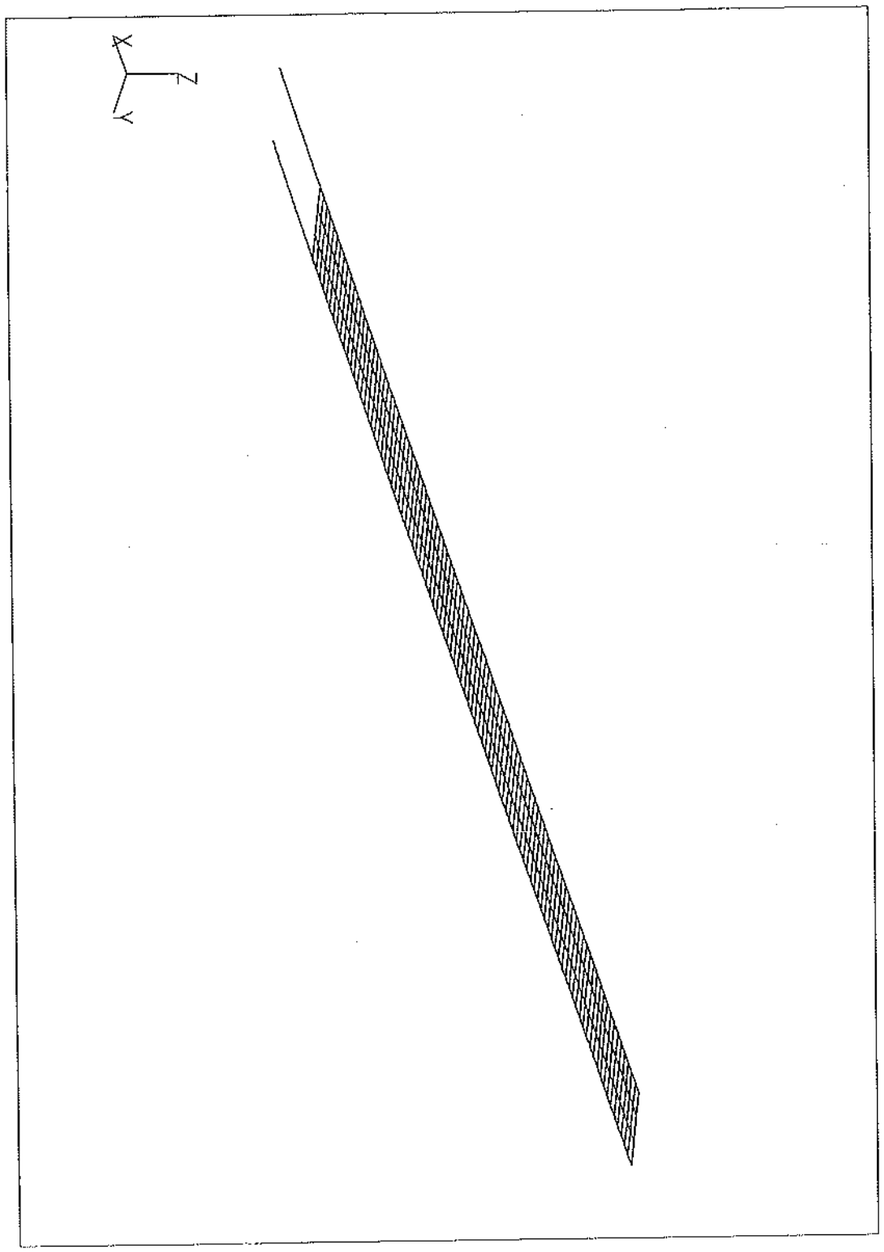

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Caso : #1 : PESO PROPIO		STATI

Especificación de nudos

Nudo todo
1A3124

Nudo	X (m)	Y (m)	Z (m)
1	2.853	-5.600	0.0
2	4.003	-5.600	0.0
3	5.153	-5.600	0.0
4	6.303	-5.600	0.0
5	7.453	-5.600	0.0
6	8.603	-5.600	0.0
7	9.753	-5.600	0.0
8	10.903	-5.600	0.0
9	12.053	-5.600	0.0
10	13.203	-5.600	0.0
11	14.353	-5.600	0.0
12	15.503	-5.600	0.0
13	16.653	-5.600	0.0
14	17.803	-5.600	0.0
15	18.953	-5.600	0.0
16	20.103	-5.600	0.0
17	21.253	-5.600	0.0
18	22.403	-5.600	0.0
19	23.553	-5.600	0.0
20	24.703	-5.600	0.0
21	25.853	-5.600	0.0
22	27.003	-5.600	0.0
23	28.153	-5.600	0.0
24	29.303	-5.600	0.0
25	30.453	-5.600	0.0
26	31.603	-5.600	0.0
27	32.753	-5.600	0.0
28	33.903	-5.600	0.0
29	35.053	-5.600	0.0
30	36.203	-5.600	0.0
31	37.353	-5.600	0.0
32	38.503	-5.600	0.0
33	39.653	-5.600	0.0
34	40.803	-5.600	0.0
35	41.953	-5.600	0.0
36	43.103	-5.600	0.0
37	44.253	-5.600	0.0
38	45.403	-5.600	0.0
39	46.553	-5.600	0.0
40	47.703	-5.600	0.0
41	48.853	-5.600	0.0
42	50.003	-5.600	0.0
43	51.153	-5.600	0.0
44	52.303	-5.600	0.0
45	53.453	-5.600	0.0
46	54.603	-5.600	0.0
47	55.753	-5.600	0.0
48	56.903	-5.600	0.0
49	58.053	-5.600	0.0
50	59.203	-5.600	0.0
51	60.353	-5.600	0.0
52	61.503	-5.600	0.0
53	62.653	-5.600	0.0
54	63.803	-5.600	0.0
55	64.953	-5.600	0.0
56	66.103	-5.600	0.0
57	67.253	-5.600	0.0
58	68.403	-5.600	0.0
59	69.553	-5.600	0.0
60	70.703	-5.600	0.0
61	71.853	-5.600	0.0
62	73.003	-5.600	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
63	74.153	-5.600	0.0
64	75.303	-5.600	0.0
65	76.453	-5.600	0.0
66	77.603	-5.600	0.0
67	78.753	-5.600	0.0
68	79.903	-5.600	0.0
69	81.053	-5.600	0.0
70	82.203	-5.600	0.0
71	83.353	-5.600	0.0
72	84.503	-5.600	0.0
73	85.653	-5.600	0.0
74	86.803	-5.600	0.0
75	87.953	-5.600	0.0
76	89.103	-5.600	0.0
77	90.253	-5.600	0.0
78	91.403	-5.600	0.0
79	92.553	-5.600	0.0
80	93.703	-5.600	0.0
81	94.853	-5.600	0.0
82	96.003	-5.600	0.0
83	97.153	-5.600	0.0
84	98.303	-5.600	0.0
85	99.453	-5.600	0.0
86	100.603	-5.600	0.0
87	101.753	-5.600	0.0
88	102.903	-5.600	0.0
89	104.053	-5.600	0.0
90	105.203	-5.600	0.0
91	106.353	-5.600	0.0
92	107.503	-5.600	0.0
93	108.653	-5.600	0.0
94	109.803	-5.600	0.0
95	110.953	-5.600	0.0
96	112.103	-5.600	0.0
97	113.253	-5.600	0.0
98	114.403	-5.600	0.0
99	115.553	-5.600	0.0
100	116.703	-5.600	0.0
101	117.853	-5.600	0.0
102	119.003	-5.600	0.0
103	120.153	-5.600	0.0
104	121.303	-5.600	0.0
105	122.453	-5.600	0.0
106	123.603	-5.600	0.0
107	124.753	-5.600	0.0
108	125.903	-5.600	0.0
109	127.053	-5.600	0.0
110	128.203	-5.600	0.0
111	129.353	-5.600	0.0
112	130.503	-5.600	0.0
113	131.653	-5.600	0.0
114	132.803	-5.600	0.0
115	133.953	-5.600	0.0
116	135.103	-5.600	0.0
117	136.253	-5.600	0.0
118	137.403	-5.600	0.0
119	138.553	-5.600	0.0
120	139.703	-5.600	0.0
121	140.853	-5.600	0.0
122	142.003	-5.600	0.0
123	143.153	-5.600	0.0
124	144.303	-5.600	0.0
125	145.453	-5.600	0.0
126	146.603	-5.600	0.0
127	147.753	-5.600	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
128	148.903	-5.600	0.0
129	150.053	-5.600	0.0
130	151.203	-5.600	0.0
131	152.353	-5.600	0.0
132	153.503	-5.600	0.0
133	154.653	-5.600	0.0
134	155.803	-5.600	0.0
135	156.953	-5.600	0.0
136	158.103	-5.600	0.0
137	159.253	-5.600	0.0
138	160.403	-5.600	0.0
139	161.553	-5.600	0.0
140	162.703	-5.600	0.0
141	163.853	-5.600	0.0
142	165.003	-5.600	0.0
143	166.153	-5.600	0.0
144	167.303	-5.600	0.0
145	168.453	-5.600	0.0
146	169.603	-5.600	0.0
147	170.753	-5.600	0.0
148	171.903	-5.600	0.0
149	173.053	-5.600	0.0
150	174.203	-5.600	0.0
151	175.353	-5.600	0.0
152	176.503	-5.600	0.0
153	177.653	-5.600	0.0
154	178.803	-5.600	0.0
155	179.953	-5.600	0.0
156	181.103	-5.600	0.0
157	182.253	-5.600	0.0
158	183.403	-5.600	0.0
159	184.553	-5.600	0.0
160	185.703	-5.600	0.0
161	186.853	-5.600	0.0
162	188.003	-5.600	0.0
163	189.153	-5.600	0.0
164	190.303	-5.600	0.0
165	191.453	-5.600	0.0
166	192.603	-5.600	0.0
167	193.753	-5.600	0.0
168	194.903	-5.600	0.0
169	196.053	-5.600	0.0
170	197.203	-5.600	0.0
171	198.353	-5.600	0.0
172	199.503	-5.600	0.0
173	200.653	-5.600	0.0
174	201.803	-5.600	0.0
175	202.953	-5.600	0.0
176	204.103	-5.600	0.0
177	205.253	-5.600	0.0
178	206.403	-5.600	0.0
179	207.553	-5.600	0.0
180	208.703	-5.600	0.0
181	209.853	-5.600	0.0
182	211.003	-5.600	0.0
183	212.153	-5.600	0.0
184	213.303	-5.600	0.0
185	214.453	-5.600	0.0
201	1.019	-2.000	0.0
202	2.169	-2.000	0.0
203	3.319	-2.000	0.0
204	4.469	-2.000	0.0
205	5.619	-2.000	0.0
206	6.769	-2.000	0.0
207	7.919	-2.000	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
208	9.069	-2.000	0.0
209	10.219	-2.000	0.0
210	11.369	-2.000	0.0
211	12.519	-2.000	0.0
212	13.669	-2.000	0.0
213	14.819	-2.000	0.0
214	15.969	-2.000	0.0
215	17.119	-2.000	0.0
216	18.269	-2.000	0.0
217	19.419	-2.000	0.0
218	20.569	-2.000	0.0
219	21.719	-2.000	0.0
220	22.869	-2.000	0.0
221	24.019	-2.000	0.0
222	25.169	-2.000	0.0
223	26.319	-2.000	0.0
224	27.469	-2.000	0.0
225	28.619	-2.000	0.0
226	29.769	-2.000	0.0
227	30.919	-2.000	0.0
228	32.069	-2.000	0.0
229	33.219	-2.000	0.0
230	34.369	-2.000	0.0
231	35.519	-2.000	0.0
232	36.669	-2.000	0.0
233	37.819	-2.000	0.0
234	38.969	-2.000	0.0
235	40.119	-2.000	0.0
236	41.269	-2.000	0.0
237	42.419	-2.000	0.0
238	43.569	-2.000	0.0
239	44.719	-2.000	0.0
240	45.869	-2.000	0.0
241	47.019	-2.000	0.0
242	48.169	-2.000	0.0
243	49.319	-2.000	0.0
244	50.469	-2.000	0.0
245	51.619	-2.000	0.0
246	52.769	-2.000	0.0
247	53.919	-2.000	0.0
248	55.069	-2.000	0.0
249	56.219	-2.000	0.0
250	57.369	-2.000	0.0
251	58.519	-2.000	0.0
252	59.669	-2.000	0.0
253	60.819	-2.000	0.0
254	61.969	-2.000	0.0
255	63.119	-2.000	0.0
256	64.269	-2.000	0.0
257	65.419	-2.000	0.0
258	66.569	-2.000	0.0
259	67.719	-2.000	0.0
260	68.869	-2.000	0.0
261	70.019	-2.000	0.0
262	71.169	-2.000	0.0
263	72.319	-2.000	0.0
264	73.469	-2.000	0.0
265	74.619	-2.000	0.0
266	75.769	-2.000	0.0
267	76.919	-2.000	0.0
268	78.069	-2.000	0.0
269	79.219	-2.000	0.0
270	80.369	-2.000	0.0
271	81.519	-2.000	0.0
272	82.669	-2.000	0.0

349	171.219	-2.000	0.0
350	172.369	-2.000	0.0
351	173.519	-2.000	0.0
352	174.669	-2.000	0.0

Nudo	X	Y	Z
359	182.719	-2.000	0.0
360	183.869	-2.000	0.0
361	185.019	-2.000	0.0
362	186.169	-2.000	0.0
363	187.319	-2.000	0.0
364	188.469	-2.000	0.0
277	88.419	-2.000	0.0
278	89.569	-2.000	0.0
279	90.719	-2.000	0.0
280	91.869	-2.000	0.0
281	93.019	-2.000	0.0
282	94.169	-2.000	0.0
371	198.519	-2.000	0.0
372	197.669	-2.000	0.0
373	198.819	-2.000	0.0
374	199.969	-2.000	0.0
375	201.119	-2.000	0.0
376	202.269	-2.000	0.0
289	102.219	-2.000	0.0
290	103.369	-2.000	0.0
291	104.519	-2.000	0.0
292	105.669	-2.000	0.0
293	106.819	-2.000	0.0
294	107.969	-2.000	0.0
385	210.319	-2.000	0.0
384	211.469	-2.000	0.0
385	212.619	-2.000	0.0
401	0.0	0.0	0.0
403	2.300	0.0	0.0
405	4.600	0.0	0.0
307	116.019	-2.000	0.0
302	117.169	-2.000	0.0
303	118.319	-2.000	0.0
304	119.469	-2.000	0.0
305	120.619	-2.000	0.0
306	121.769	-2.000	0.0
307	122.919	-2.000	0.0
421	23.000	0.0	0.0
423	25.300	0.0	0.0
425	27.600	0.0	0.0
427	29.900	0.0	0.0
429	32.200	0.0	0.0
431	34.500	0.0	0.0
314	130.969	-2.000	0.0
315	132.119	-2.000	0.0
316	133.269	-2.000	0.0
317	134.419	-2.000	0.0
318	135.569	-2.000	0.0
319	136.719	-2.000	0.0

Nudo	X (m)	Y (m)	Z (m)
338	158.569	-2.000	0.0
339	159.719	-2.000	0.0
340	160.869	-2.000	0.0
327	145.919	-2.000	0.0
328	147.069	-2.000	0.0
329	148.219	-2.000	0.0
330	149.369	-2.000	0.0
331	150.519	-2.000	0.0
345	166.619	-2.000	0.0
346	167.769	-2.000	0.0
347	168.919	-2.000	0.0
348	170.069	-2.000	0.0
336	156.269	-2.000	0.0
337	157.419	-2.000	0.0

Especificación de nudos

320	137.869	-2.000	0.0
321	139.019	-2.000	0.0
322	140.169	-2.000	0.0
323	141.319	-2.000	0.0
324	142.469	-2.000	0.0
325	143.619	-2.000	0.0
326	144.769	-2.000	0.0
340	160.069	-2.000	0.0
341	162.019	-2.000	0.0
342	163.169	-2.000	0.0
343	164.319	-2.000	0.0
344	165.469	-2.000	0.0
345	166.619	-2.000	0.0
332	151.669	-2.000	0.0
333	152.819	-2.000	0.0
334	153.969	-2.000	0.0
335	155.119	-2.000	0.0

353	175.819	-2.000	0.0
354	176.969	-2.000	0.0
355	178.119	-2.000	0.0
356	179.269	-2.000	0.0
357	180.419	-2.000	0.0
358	181.569	-2.000	0.0
	(m)	(m)	(m)
273	83.819	-2.000	0.0
274	84.969	-2.000	0.0
275	86.119	-2.000	0.0
276	87.269	-2.000	0.0
365	189.619	-2.000	0.0
366	190.769	-2.000	0.0
367	191.919	-2.000	0.0
368	193.069	-2.000	0.0
369	194.219	-2.000	0.0
370	195.369	-2.000	0.0
283	95.319	-2.000	0.0
284	96.469	-2.000	0.0
285	97.619	-2.000	0.0
286	98.769	-2.000	0.0
287	99.919	-2.000	0.0
288	101.069	-2.000	0.0
377	203.419	-2.000	0.0
378	204.569	-2.000	0.0
379	205.719	-2.000	0.0
380	206.869	-2.000	0.0
381	208.019	-2.000	0.0
382	209.169	-2.000	0.0
293	109.719	-2.000	0.0
296	110.269	-2.000	0.0
297	111.419	-2.000	0.0
298	112.569	-2.000	0.0
299	113.719	-2.000	0.0
300	114.869	-2.000	0.0
301	116.019	-2.000	0.0
409	9.200	0.0	0.0
411	11.500	0.0	0.0
413	13.800	0.0	0.0
415	16.100	0.0	0.0
417	18.400	0.0	0.0
419	20.700	0.0	0.0
308	124.069	-2.000	0.0
309	125.219	-2.000	0.0
310	126.369	-2.000	0.0
311	127.519	-2.000	0.0
312	128.669	-2.000	0.0
313	129.819	-2.000	0.0
433	36.800	0.0	0.0

585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
601	-1.019	2.000	0.0

Especificación de nudos

608	7.031	2.000	0.0
609	8.181	2.000	0.0
610	9.331	2.000	0.0
611	10.481	2.000	0.0
612	11.631	2.000	0.0
613	12.781	2.000	0.0
614	13.931	2.000	0.0
439	43.700	0.0	0.0
441	46.000	0.0	0.0
443	48.300	0.0	0.0
445	50.600	0.0	0.0
447	52.900	0.0	0.0
449	55.200	0.0	0.0
621	21.981	2.000	0.0
622	23.131	2.000	0.0
623	24.281	2.000	0.0
624	25.431	2.000	0.0
625	26.581	2.000	0.0
626	27.731	2.000	0.0
521	138.000	0.0	0.0
465	73.600	0.0	0.0
467	75.900	0.0	0.0
469	78.200	0.0	0.0
471	80.500	0.0	0.0
473	82.800	0.0	0.0
633	35.781	2.000	0.0
634	36.931	2.000	0.0
635	38.081	2.000	0.0
636	39.231	2.000	0.0
637	40.381	2.000	0.0
638	41.531	2.000	0.0
545	165.600	0.0	0.0
547	167.900	0.0	0.0
489	101.200	0.0	0.0
491	103.500	0.0	0.0
493	105.800	0.0	0.0
495	108.100	0.0	0.0
497	110.400	0.0	0.0
616	16.231	2.000	0.0
617	17.381	2.000	0.0
618	18.531	2.000	0.0
619	19.681	2.000	0.0
620	20.831	2.000	0.0
509	124.200	0.0	0.0
511	126.500	0.0	0.0
513	128.800	0.0	0.0
515	131.100	0.0	0.0
517	133.400	0.0	0.0
519	135.700	0.0	0.0
463	71.300	0.0	0.0
628	30.031	2.000	0.0
629	31.181	2.000	0.0
630	32.331	2.000	0.0
631	33.481	2.000	0.0
632	34.631	2.000	0.0
533	151.800	0.0	0.0
535	154.100	0.0	0.0
537	156.400	0.0	0.0
539	158.700	0.0	0.0
541	161.000	0.0	0.0
543	163.300	0.0	0.0
487	98.900	0.0	0.0
640	43.831	2.000	0.0
641	44.981	2.000	0.0
642	46.131	2.000	0.0
643	47.281	2.000	0.0
644	48.431	2.000	0.0
645	49.581	2.000	0.0
646	50.731	2.000	0.0
647	51.881	2.000	0.0
648	53.031	2.000	0.0
649	54.181	2.000	0.0
650	55.331	2.000	0.0

585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0

585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
652	57.031	2.000	0.0
653	58.181	2.000	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
565	188.600	0.0	0.0
567	190.900	0.0	0.0
569	193.200	0.0	0.0
571	195.500	0.0	0.0
573	197.800	0.0	0.0
575	200.100	0.0	0.0
577	202.400	0.0	0.0
579	204.700	0.0	0.0
581	207.000	0.0	0.0
583	209.300	0.0	0.0

602	0.131	2.000	0.0
603	1.281	2.000	0.0
604	2.431	2.000	0.0
605	3.581	2.000	0.0
606	4.731	2.000	0.0
607	5.881	2.000	0.0
608	7.031	2.000	0.0

Nudo	X (m)	Y (m)	Z (m)
435	39.100	0.0	0.0
614	13.931	2.000	0.0
615	15.081	2.000	0.0
499	112.700	0.0	0.0
501	115.000	0.0	0.0
503	117.300	0.0	0.0
505	119.600	0.0	0.0
507	121.900	0.0	0.0
451	57.500	0.0	0.0
453	59.800	0.0	0.0
455	62.100	0.0	0.0
457	64.400	0.0	0.0
459	66.700	0.0	0.0
461	69.000	0.0	0.0
627	28.881	2.000	0.0
523	140.300	0.0	0.0
525	142.600	0.0	0.0
527	144.900	0.0	0.0
529	147.200	0.0	0.0
531	149.500	0.0	0.0
475	85.100	0.0	0.0
477	87.400	0.0	0.0
479	89.700	0.0	0.0
481	92.000	0.0	0.0
483	94.300	0.0	0.0
485	96.600	0.0	0.0
639	42.681	2.000	0.0
547	167.900	0.0	0.0
549	170.200	0.0	0.0
551	172.500	0.0	0.0
553	174.800	0.0	0.0
555	177.100	0.0	0.0
557	179.400	0.0	0.0
559	181.700	0.0	0.0
561	184.000	0.0	0.0
563	186.300	0.0	0.0

651	56.481	2.000	0.0
652	57.631	2.000	0.0

585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0
585	211.600	0.0	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
655	61.081	2.000	0.0
656	62.231	2.000	0.0
657	63.381	2.000	0.0
658	64.531	2.000	0.0
659	65.681	2.000	0.0
660	66.831	2.000	0.0
661	67.981	2.000	0.0
662	69.131	2.000	0.0
663	70.281	2.000	0.0
664	71.431	2.000	0.0
665	72.581	2.000	0.0
666	73.731	2.000	0.0
667	74.881	2.000	0.0
668	76.031	2.000	0.0
669	77.181	2.000	0.0
670	78.331	2.000	0.0
671	79.481	2.000	0.0
672	80.631	2.000	0.0
673	81.781	2.000	0.0
674	82.931	2.000	0.0
675	84.081	2.000	0.0
676	85.231	2.000	0.0
677	86.381	2.000	0.0
678	87.531	2.000	0.0
679	88.681	2.000	0.0
680	89.831	2.000	0.0
681	90.981	2.000	0.0
682	92.131	2.000	0.0
683	93.281	2.000	0.0
684	94.431	2.000	0.0
685	95.581	2.000	0.0
686	96.731	2.000	0.0
687	97.881	2.000	0.0
688	99.031	2.000	0.0
689	100.181	2.000	0.0
690	101.331	2.000	0.0
691	102.481	2.000	0.0
692	103.631	2.000	0.0
693	104.781	2.000	0.0
694	105.931	2.000	0.0
695	107.081	2.000	0.0
696	108.231	2.000	0.0
697	109.381	2.000	0.0
698	110.531	2.000	0.0
699	111.681	2.000	0.0
700	112.831	2.000	0.0
701	113.981	2.000	0.0
702	115.131	2.000	0.0
703	116.281	2.000	0.0
704	117.431	2.000	0.0
705	118.581	2.000	0.0
706	119.731	2.000	0.0
707	120.881	2.000	0.0
708	122.031	2.000	0.0
709	123.181	2.000	0.0
710	124.331	2.000	0.0
711	125.481	2.000	0.0
712	126.631	2.000	0.0
713	127.781	2.000	0.0
714	128.931	2.000	0.0
715	130.081	2.000	0.0
716	131.231	2.000	0.0
717	132.381	2.000	0.0
718	133.531	2.000	0.0
719	134.681	2.000	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
720	135.831	2.000	0.0
721	136.981	2.000	0.0
722	138.131	2.000	0.0
723	139.281	2.000	0.0
724	140.431	2.000	0.0
725	141.581	2.000	0.0
726	142.731	2.000	0.0
727	143.881	2.000	0.0
728	145.031	2.000	0.0
729	146.181	2.000	0.0
730	147.331	2.000	0.0
731	148.481	2.000	0.0
732	149.631	2.000	0.0
733	150.781	2.000	0.0
734	151.931	2.000	0.0
735	153.081	2.000	0.0
736	154.231	2.000	0.0
737	155.381	2.000	0.0
738	156.531	2.000	0.0
739	157.681	2.000	0.0
740	158.831	2.000	0.0
741	159.981	2.000	0.0
742	161.131	2.000	0.0
743	162.281	2.000	0.0
744	163.431	2.000	0.0
745	164.581	2.000	0.0
746	165.731	2.000	0.0
747	166.881	2.000	0.0
748	168.031	2.000	0.0
749	169.181	2.000	0.0
750	170.331	2.000	0.0
751	171.481	2.000	0.0
752	172.631	2.000	0.0
753	173.781	2.000	0.0
754	174.931	2.000	0.0
755	176.081	2.000	0.0
756	177.231	2.000	0.0
757	178.381	2.000	0.0
758	179.531	2.000	0.0
759	180.681	2.000	0.0
760	181.831	2.000	0.0
761	182.981	2.000	0.0
762	184.131	2.000	0.0
763	185.281	2.000	0.0
764	186.431	2.000	0.0
765	187.581	2.000	0.0
766	188.731	2.000	0.0
767	189.881	2.000	0.0
768	191.031	2.000	0.0
769	192.181	2.000	0.0
770	193.331	2.000	0.0
771	194.481	2.000	0.0
772	195.631	2.000	0.0
773	196.781	2.000	0.0
774	197.931	2.000	0.0
775	199.081	2.000	0.0
776	200.231	2.000	0.0
777	201.381	2.000	0.0
778	202.531	2.000	0.0
779	203.681	2.000	0.0
780	204.831	2.000	0.0
781	205.981	2.000	0.0
782	207.131	2.000	0.0
783	208.281	2.000	0.0
784	209.431	2.000	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
785	210.581	2.000	0.0
801	-2.853	5.600	0.0
802	-1.703	5.600	0.0
803	-0.553	5.600	0.0
804	0.597	5.600	0.0
805	1.747	5.600	0.0
806	2.897	5.600	0.0
807	4.047	5.600	0.0
808	5.197	5.600	0.0
809	6.347	5.600	0.0
810	7.497	5.600	0.0
811	8.647	5.600	0.0
812	9.797	5.600	0.0
813	10.947	5.600	0.0
814	12.097	5.600	0.0
815	13.247	5.600	0.0
816	14.397	5.600	0.0
817	15.547	5.600	0.0
818	16.697	5.600	0.0
819	17.847	5.600	0.0
820	18.997	5.600	0.0
821	20.147	5.600	0.0
822	21.297	5.600	0.0
823	22.447	5.600	0.0
824	23.597	5.600	0.0
825	24.747	5.600	0.0
826	25.897	5.600	0.0
827	27.047	5.600	0.0
828	28.197	5.600	0.0
829	29.347	5.600	0.0
830	30.497	5.600	0.0
831	31.647	5.600	0.0
832	32.797	5.600	0.0
833	33.947	5.600	0.0
834	35.097	5.600	0.0
835	36.247	5.600	0.0
836	37.397	5.600	0.0
837	38.547	5.600	0.0
838	39.697	5.600	0.0
839	40.847	5.600	0.0
840	41.997	5.600	0.0
841	43.147	5.600	0.0
842	44.297	5.600	0.0
843	45.447	5.600	0.0
844	46.597	5.600	0.0
845	47.747	5.600	0.0
846	48.897	5.600	0.0
847	50.047	5.600	0.0
848	51.197	5.600	0.0
849	52.347	5.600	0.0
850	53.497	5.600	0.0
851	54.647	5.600	0.0
852	55.797	5.600	0.0
853	56.947	5.600	0.0
854	58.097	5.600	0.0
855	59.247	5.600	0.0
856	60.397	5.600	0.0
857	61.547	5.600	0.0
858	62.697	5.600	0.0
859	63.847	5.600	0.0
860	64.997	5.600	0.0
861	66.147	5.600	0.0
862	67.297	5.600	0.0
863	68.447	5.600	0.0
864	69.597	5.600	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
865	70.747	5.600	0.0
866	71.897	5.600	0.0
867	73.047	5.600	0.0
868	74.197	5.600	0.0
869	75.347	5.600	0.0
870	76.497	5.600	0.0
871	77.647	5.600	0.0
872	78.797	5.600	0.0
873	79.947	5.600	0.0
874	81.097	5.600	0.0
875	82.247	5.600	0.0
876	83.397	5.600	0.0
877	84.547	5.600	0.0
878	85.697	5.600	0.0
879	86.847	5.600	0.0
880	87.997	5.600	0.0
881	89.147	5.600	0.0
882	90.297	5.600	0.0
883	91.447	5.600	0.0
884	92.597	5.600	0.0
885	93.747	5.600	0.0
886	94.897	5.600	0.0
887	96.047	5.600	0.0
888	97.197	5.600	0.0
889	98.347	5.600	0.0
890	99.497	5.600	0.0
891	100.647	5.600	0.0
892	101.797	5.600	0.0
893	102.947	5.600	0.0
894	104.097	5.600	0.0
895	105.247	5.600	0.0
896	106.397	5.600	0.0
897	107.547	5.600	0.0
898	108.697	5.600	0.0
899	109.847	5.600	0.0
900	110.997	5.600	0.0
901	112.147	5.600	0.0
902	113.297	5.600	0.0
903	114.447	5.600	0.0
904	115.597	5.600	0.0
905	116.747	5.600	0.0
906	117.897	5.600	0.0
907	119.047	5.600	0.0
908	120.197	5.600	0.0
909	121.347	5.600	0.0
910	122.497	5.600	0.0
911	123.647	5.600	0.0
912	124.797	5.600	0.0
913	125.947	5.600	0.0
914	127.097	5.600	0.0
915	128.247	5.600	0.0
916	129.397	5.600	0.0
917	130.547	5.600	0.0
918	131.697	5.600	0.0
919	132.847	5.600	0.0
920	133.997	5.600	0.0
921	135.147	5.600	0.0
922	136.297	5.600	0.0
923	137.447	5.600	0.0
924	138.597	5.600	0.0
925	139.747	5.600	0.0
926	140.897	5.600	0.0
927	142.047	5.600	0.0
928	143.197	5.600	0.0
929	144.347	5.600	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
930	145.497	5.600	0.0
931	146.647	5.600	0.0
932	147.797	5.600	0.0
933	148.947	5.600	0.0
934	150.097	5.600	0.0
935	151.247	5.600	0.0
936	152.397	5.600	0.0
937	153.547	5.600	0.0
938	154.697	5.600	0.0
939	155.847	5.600	0.0
940	156.997	5.600	0.0
941	158.147	5.600	0.0
942	159.297	5.600	0.0
943	160.447	5.600	0.0
944	161.597	5.600	0.0
945	162.747	5.600	0.0
946	163.897	5.600	0.0
947	165.047	5.600	0.0
948	166.197	5.600	0.0
949	167.347	5.600	0.0
950	168.497	5.600	0.0
951	169.647	5.600	0.0
952	170.797	5.600	0.0
953	171.947	5.600	0.0
954	173.097	5.600	0.0
955	174.247	5.600	0.0
956	175.397	5.600	0.0
957	176.547	5.600	0.0
958	177.697	5.600	0.0
959	178.847	5.600	0.0
960	179.997	5.600	0.0
961	181.147	5.600	0.0
962	182.297	5.600	0.0
963	183.447	5.600	0.0
964	184.597	5.600	0.0
965	185.747	5.600	0.0
966	186.897	5.600	0.0
967	188.047	5.600	0.0
968	189.197	5.600	0.0
969	190.347	5.600	0.0
970	191.497	5.600	0.0
971	192.647	5.600	0.0
972	193.797	5.600	0.0
973	194.947	5.600	0.0
974	196.097	5.600	0.0
975	197.247	5.600	0.0
976	198.397	5.600	0.0
977	199.547	5.600	0.0
978	200.697	5.600	0.0
979	201.847	5.600	0.0
980	202.997	5.600	0.0
981	204.147	5.600	0.0
982	205.297	5.600	0.0
983	206.447	5.600	0.0
984	207.597	5.600	0.0
985	208.747	5.600	0.0
3001	215.603	-5.600	0.0
3002	216.753	-5.600	0.0
3003	217.903	-5.600	0.0
3004	219.053	-5.600	0.0
3005	220.203	-5.600	0.0
3006	221.353	-5.600	0.0
3007	222.503	-5.600	0.0
3008	223.653	-5.600	0.0
3009	224.803	-5.600	0.0

Especificación de nudos

Nudo	X (m)	Y (m)	Z (m)
3010	225.953	-5.600	0.0
3011	227.103	-5.600	0.0
3012	228.253	-5.600	0.0
3013	229.403	-5.600	0.0
3014	230.553	-5.600	0.0
3015	231.703	-5.600	0.0
3016	232.853	-5.600	0.0
3017	234.003	-5.600	0.0
3018	235.153	-5.600	0.0
3019	236.303	-5.600	0.0
3020	237.453	-5.600	0.0
3021	238.603	-5.600	0.0
3022	239.753	-5.600	0.0
3023	240.903	-5.600	0.0
3024	242.053	-5.600	0.0
3101	209.897	5.600	0.0
3102	211.047	5.600	0.0
3103	212.197	5.600	0.0
3104	213.347	5.600	0.0
3105	214.497	5.600	0.0
3106	215.647	5.600	0.0
3107	216.797	5.600	0.0
3108	217.947	5.600	0.0
3109	219.097	5.600	0.0
3110	220.247	5.600	0.0
3111	221.397	5.600	0.0
3112	222.547	5.600	0.0
3113	223.697	5.600	0.0
3114	224.847	5.600	0.0
3115	225.997	5.600	0.0
3116	227.147	5.600	0.0
3117	228.297	5.600	0.0
3118	229.447	5.600	0.0
3119	230.597	5.600	0.0
3120	231.747	5.600	0.0
3121	232.897	5.600	0.0
3122	234.047	5.600	0.0
3123	235.197	5.600	0.0
3124	236.347	5.600	0.0

Especificación de elementos

Elemento todo
1A3124

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
1	1	2	1.150	NS_01 8.08
2	2	3	1.150	NS_01 8.08
3	3	4	1.150	NS_01 8.08
4	4	5	1.150	NS_02 7.31
5	5	6	1.150	NS_02 7.31
6	6	7	1.150	NS_02 7.31
7	7	8	1.150	NS_02 7.31
8	8	9	1.150	NS_02 7.31
9	9	10	1.150	NS_02 7.31
10	10	11	1.150	NS_02 7.31
11	11	12	1.150	NS_02 7.31
12	12	13	1.150	NS_02 7.31
13	13	14	1.150	NS_02 7.31
14	14	15	1.150	NS_02 7.31
15	15	16	1.150	NS_02 7.31
16	16	17	1.150	NS_02 7.31
17	17	18	1.150	NS_02 7.31
18	18	19	1.150	NS_02 7.31
19	19	20	1.150	NS_02 7.31
20	20	21	1.150	NS_02 7.31
21	21	22	1.150	NS_02 7.31
22	22	23	1.150	NS_02 7.31
23	23	24	1.150	NS_02 7.31
24	24	25	1.150	NS_02 7.31
25	25	26	1.150	NS_02 7.31
26	26	27	1.150	NS_02 7.31
27	27	28	1.150	NS_02 7.31
28	28	29	1.150	NS_01 8.08
29	29	30	1.150	NS_01 8.08
30	30	31	1.150	NS_01 8.08
31	31	32	1.150	NS_01 8.08
32	32	33	1.150	NS_01 8.08
33	33	34	1.150	NS_01 8.08
34	34	35	1.150	NS_02 7.31
35	35	36	1.150	NS_02 7.31
36	36	37	1.150	NS_02 7.31
37	37	38	1.150	NS_02 7.31
38	38	39	1.150	NS_02 7.31
39	39	40	1.150	NS_02 7.31
40	40	41	1.150	NS_02 7.31
41	41	42	1.150	NS_02 7.31
42	42	43	1.150	NS_02 7.31
43	43	44	1.150	NS_02 7.31
44	44	45	1.150	NS_02 7.31
45	45	46	1.150	NS_02 7.31
46	46	47	1.150	NS_02 7.31
47	47	48	1.150	NS_02 7.31
48	48	49	1.150	NS_02 7.31
49	49	50	1.150	NS_02 7.31
50	50	51	1.150	NS_02 7.31
51	51	52	1.150	NS_02 7.31
52	52	53	1.150	NS_02 7.31
53	53	54	1.150	NS_02 7.31
54	54	55	1.150	NS_02 7.31
55	55	56	1.150	NS_02 7.31
56	56	57	1.150	NS_02 7.31
57	57	58	1.150	NS_02 7.31
58	58	59	1.150	NS_02 7.31
59	59	60	1.150	NS_02 7.31
60	60	61	1.150	NS_02 7.31
61	61	62	1.150	NS_02 7.31
62	62	63	1.150	NS_02 7.31

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
63	63	64	1.150	NS_02 7.31
64	64	65	1.150	NS_02 7.31
65	65	66	1.150	NS_02 7.31
66	66	67	1.150	NS_02 7.31
67	67	68	1.150	NS_02 7.31
68	68	69	1.150	NS_01 8.08
69	69	70	1.150	NS_01 8.08
70	70	71	1.150	NS_01 8.08
71	71	72	1.150	NS_01 8.08
72	72	73	1.150	NS_01 8.08
73	73	74	1.150	NS_01 8.08
74	74	75	1.150	NS_02 7.31
75	75	76	1.150	NS_02 7.31
76	76	77	1.150	NS_02 7.31
77	77	78	1.150	NS_02 7.31
78	78	79	1.150	NS_02 7.31
79	79	80	1.150	NS_02 7.31
80	80	81	1.150	NS_02 7.31
81	81	82	1.150	NS_02 7.31
82	82	83	1.150	NS_02 7.31
83	83	84	1.150	NS_02 7.31
84	84	85	1.150	NS_02 7.31
85	85	86	1.150	NS_02 7.31
86	86	87	1.150	NS_02 7.31
87	87	88	1.150	NS_02 7.31
88	88	89	1.150	NS_02 7.31
89	89	90	1.150	NS_02 7.31
90	90	91	1.150	NS_02 7.31
91	91	92	1.150	NS_02 7.31
92	92	93	1.150	NS_02 7.31
93	93	94	1.150	NS_02 7.31
94	94	95	1.150	NS_02 7.31
95	95	96	1.150	NS_02 7.31
96	96	97	1.150	NS_02 7.31
97	97	98	1.150	NS_02 7.31
98	98	99	1.150	NS_02 7.31
99	99	100	1.150	NS_02 7.31
100	100	101	1.150	NS_02 7.31
101	101	102	1.150	NS_02 7.31
102	102	103	1.150	NS_02 7.31
103	103	104	1.150	NS_02 7.31
104	104	105	1.150	NS_02 7.31
105	105	106	1.150	NS_02 7.31
106	106	107	1.150	NS_02 7.31
107	107	108	1.150	NS_02 7.31
108	108	109	1.150	NS_01 8.08
109	109	110	1.150	NS_01 8.08
110	110	111	1.150	NS_01 8.08
111	111	112	1.150	NS_01 8.08
112	112	113	1.150	NS_01 8.08
113	113	114	1.150	NS_01 8.08
114	114	115	1.150	NS_02 7.31
115	115	116	1.150	NS_02 7.31
116	116	117	1.150	NS_02 7.31
117	117	118	1.150	NS_02 7.31
118	118	119	1.150	NS_02 7.31
119	119	120	1.150	NS_02 7.31
120	120	121	1.150	NS_02 7.31
121	121	122	1.150	NS_02 7.31
122	122	123	1.150	NS_02 7.31
123	123	124	1.150	NS_02 7.31
124	124	125	1.150	NS_02 7.31
125	125	126	1.150	NS_02 7.31
126	126	127	1.150	NS_02 7.31
127	127	128	1.150	NS_02 7.31

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
128	128	129	1.150	NS_02 7.31
129	129	130	1.150	NS_02 7.31
130	130	131	1.150	NS_02 7.31
131	131	132	1.150	NS_02 7.31
132	132	133	1.150	NS_02 7.31
133	133	134	1.150	NS_02 7.31
134	134	135	1.150	NS_02 7.31
135	135	136	1.150	NS_02 7.31
136	136	137	1.150	NS_02 7.31
137	137	138	1.150	NS_02 7.31
138	138	139	1.150	NS_02 7.31
139	139	140	1.150	NS_02 7.31
140	140	141	1.150	NS_02 7.31
141	141	142	1.150	NS_02 7.31
142	142	143	1.150	NS_02 7.31
143	143	144	1.150	NS_02 7.31
144	144	145	1.150	NS_02 7.31
145	145	146	1.150	NS_02 7.31
146	146	147	1.150	NS_01 8.08
147	147	148	1.150	NS_01 8.08
148	148	149	1.150	NS_01 8.08
149	149	150	1.150	NS_01 8.08
150	150	151	1.150	NS_01 8.08
151	151	152	1.150	NS_01 8.08
152	152	153	1.150	NS_02 7.31
153	153	154	1.150	NS_02 7.31
154	154	155	1.150	NS_02 7.31
155	155	156	1.150	NS_02 7.31
156	156	157	1.150	NS_02 7.31
157	157	158	1.150	NS_02 7.31
158	158	159	1.150	NS_02 7.31
159	159	160	1.150	NS_02 7.31
160	160	161	1.150	NS_02 7.31
161	161	162	1.150	NS_02 7.31
162	162	163	1.150	NS_02 7.31
163	163	164	1.150	NS_02 7.31
164	164	165	1.150	NS_02 7.31
165	165	166	1.150	NS_02 7.31
166	166	167	1.150	NS_02 7.31
167	167	168	1.150	NS_02 7.31
168	168	169	1.150	NS_02 7.31
169	169	170	1.150	NS_02 7.31
170	170	171	1.150	NS_02 7.31
171	171	172	1.150	NS_02 7.31
172	172	173	1.150	NS_02 7.31
173	173	174	1.150	NS_02 7.31
174	174	175	1.150	NS_02 7.31
175	175	176	1.150	NS_02 7.31
176	176	177	1.150	NS_02 7.31
177	177	178	1.150	NS_02 7.31
178	178	179	1.150	NS_02 7.31
179	179	180	1.150	NS_02 7.31
180	180	181	1.150	NS_02 7.31
181	181	182	1.150	NS_02 7.31
182	182	183	1.150	NS_01 8.08
183	183	184	1.150	NS_01 8.08
184	184	185	1.150	NS_01 8.08
201	201	202	1.150	NS_03 .014
202	202	203	1.150	NS_03 .014
203	203	204	1.150	NS_03 .014
204	204	205	1.150	NS_03 .014
205	205	206	1.150	NS_03 .014
206	206	207	1.150	NS_03 .014
207	207	208	1.150	NS_03 .014
208	208	209	1.150	NS_03 .014

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
209	209	210	1.150	NS_03 .014
210	210	211	1.150	NS_03 .014
211	211	212	1.150	NS_03 .014
212	212	213	1.150	NS_03 .014
213	213	214	1.150	NS_03 .014
214	214	215	1.150	NS_03 .014
215	215	216	1.150	NS_03 .014
216	216	217	1.150	NS_03 .014
217	217	218	1.150	NS_03 .014
218	218	219	1.150	NS_03 .014
219	219	220	1.150	NS_03 .014
220	220	221	1.150	NS_03 .014
221	221	222	1.150	NS_03 .014
222	222	223	1.150	NS_03 .014
223	223	224	1.150	NS_03 .014
224	224	225	1.150	NS_03 .014
225	225	226	1.150	NS_03 .014
226	226	227	1.150	NS_03 .014
227	227	228	1.150	NS_03 .014
228	228	229	1.150	NS_03 .014
229	229	230	1.150	NS_03 .014
230	230	231	1.150	NS_03 .014
231	231	232	1.150	NS_03 .014
232	232	233	1.150	NS_03 .014
233	233	234	1.150	NS_03 .014
234	234	235	1.150	NS_03 .014
235	235	236	1.150	NS_03 .014
236	236	237	1.150	NS_03 .014
237	237	238	1.150	NS_03 .014
238	238	239	1.150	NS_03 .014
239	239	240	1.150	NS_03 .014
240	240	241	1.150	NS_03 .014
241	241	242	1.150	NS_03 .014
242	242	243	1.150	NS_03 .014
243	243	244	1.150	NS_03 .014
244	244	245	1.150	NS_03 .014
245	245	246	1.150	NS_03 .014
246	246	247	1.150	NS_03 .014
247	247	248	1.150	NS_03 .014
248	248	249	1.150	NS_03 .014
249	249	250	1.150	NS_03 .014
250	250	251	1.150	NS_03 .014
251	251	252	1.150	NS_03 .014
252	252	253	1.150	NS_03 .014
253	253	254	1.150	NS_03 .014
254	254	255	1.150	NS_03 .014
255	255	256	1.150	NS_03 .014
256	256	257	1.150	NS_03 .014
257	257	258	1.150	NS_03 .014
258	258	259	1.150	NS_03 .014
259	259	260	1.150	NS_03 .014
260	260	261	1.150	NS_03 .014
261	261	262	1.150	NS_03 .014
262	262	263	1.150	NS_03 .014
263	263	264	1.150	NS_03 .014
264	264	265	1.150	NS_03 .014
265	265	266	1.150	NS_03 .014
266	266	267	1.150	NS_03 .014
267	267	268	1.150	NS_03 .014
268	268	269	1.150	NS_03 .014
269	269	270	1.150	NS_03 .014
270	270	271	1.150	NS_03 .014
271	271	272	1.150	NS_03 .014
272	272	273	1.150	NS_03 .014
273	273	274	1.150	NS_03 .014

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
274	274	275	1.150	NS_03 .014
275	275	276	1.150	NS_03 .014
276	276	277	1.150	NS_03 .014
277	277	278	1.150	NS_03 .014
278	278	279	1.150	NS_03 .014
279	279	280	1.150	NS_03 .014
280	280	281	1.150	NS_03 .014
281	281	282	1.150	NS_03 .014
282	282	283	1.150	NS_03 .014
283	283	284	1.150	NS_03 .014
284	284	285	1.150	NS_03 .014
285	285	286	1.150	NS_03 .014
286	286	287	1.150	NS_03 .014
287	287	288	1.150	NS_03 .014
288	288	289	1.150	NS_03 .014
289	289	290	1.150	NS_03 .014
290	290	291	1.150	NS_03 .014
291	291	292	1.150	NS_03 .014
292	292	293	1.150	NS_03 .014
293	293	294	1.150	NS_03 .014
294	294	295	1.150	NS_03 .014
295	295	296	1.150	NS_03 .014
296	296	297	1.150	NS_03 .014
297	297	298	1.150	NS_03 .014
298	298	299	1.150	NS_03 .014
299	299	300	1.150	NS_03 .014
300	300	301	1.150	NS_03 .014
301	301	302	1.150	NS_03 .014
302	302	303	1.150	NS_03 .014
303	303	304	1.150	NS_03 .014
304	304	305	1.150	NS_03 .014
305	305	306	1.150	NS_03 .014
306	306	307	1.150	NS_03 .014
307	307	308	1.150	NS_03 .014
308	308	309	1.150	NS_03 .014
309	309	310	1.150	NS_03 .014
310	310	311	1.150	NS_03 .014
311	311	312	1.150	NS_03 .014
312	312	313	1.150	NS_03 .014
313	313	314	1.150	NS_03 .014
314	314	315	1.150	NS_03 .014
315	315	316	1.150	NS_03 .014
316	316	317	1.150	NS_03 .014
317	317	318	1.150	NS_03 .014
318	318	319	1.150	NS_03 .014
319	319	320	1.150	NS_03 .014
320	320	321	1.150	NS_03 .014
321	321	322	1.150	NS_03 .014
322	322	323	1.150	NS_03 .014
323	323	324	1.150	NS_03 .014
324	324	325	1.150	NS_03 .014
325	325	326	1.150	NS_03 .014
326	326	327	1.150	NS_03 .014
327	327	328	1.150	NS_03 .014
328	328	329	1.150	NS_03 .014
329	329	330	1.150	NS_03 .014
330	330	331	1.150	NS_03 .014
331	331	332	1.150	NS_03 .014
332	332	333	1.150	NS_03 .014
333	333	334	1.150	NS_03 .014
334	334	335	1.150	NS_03 .014
335	335	336	1.150	NS_03 .014
336	336	337	1.150	NS_03 .014
337	337	338	1.150	NS_03 .014
338	338	339	1.150	NS_03 .014

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
339	339	340	1.150	NS_03 .014
340	340	341	1.150	NS_03 .014
341	341	342	1.150	NS_03 .014
342	342	343	1.150	NS_03 .014
343	343	344	1.150	NS_03 .014
344	344	345	1.150	NS_03 .014
345	345	346	1.150	NS_03 .014
346	346	347	1.150	NS_03 .014
347	347	348	1.150	NS_03 .014
348	348	349	1.150	NS_03 .014
349	349	350	1.150	NS_03 .014
350	350	351	1.150	NS_03 .014
351	351	352	1.150	NS_03 .014
352	352	353	1.150	NS_03 .014
353	353	354	1.150	NS_03 .014
354	354	355	1.150	NS_03 .014
355	355	356	1.150	NS_03 .014
356	356	357	1.150	NS_03 .014
357	357	358	1.150	NS_03 .014
358	358	359	1.150	NS_03 .014
359	359	360	1.150	NS_03 .014
360	360	361	1.150	NS_03 .014
361	361	362	1.150	NS_03 .014
362	362	363	1.150	NS_03 .014
363	363	364	1.150	NS_03 .014
364	364	365	1.150	NS_03 .014
365	365	366	1.150	NS_03 .014
366	366	367	1.150	NS_03 .014
367	367	368	1.150	NS_03 .014
368	368	369	1.150	NS_03 .014
369	369	370	1.150	NS_03 .014
370	370	371	1.150	NS_03 .014
371	371	372	1.150	NS_03 .014
372	372	373	1.150	NS_03 .014
373	373	374	1.150	NS_03 .014
374	374	375	1.150	NS_03 .014
375	375	376	1.150	NS_03 .014
376	376	377	1.150	NS_03 .014
377	377	378	1.150	NS_03 .014
378	378	379	1.150	NS_03 .014
379	379	380	1.150	NS_03 .014
380	380	381	1.150	NS_03 .014
381	381	382	1.150	NS_03 .014
382	382	383	1.150	NS_03 .014
383	383	384	1.150	NS_03 .014
384	384	385	1.150	NS_03 .014
601	601	602	1.150	NS_03 .014
602	602	603	1.150	NS_03 .014
603	603	604	1.150	NS_03 .014
604	604	605	1.150	NS_03 .014
605	605	606	1.150	NS_03 .014
606	606	607	1.150	NS_03 .014
607	607	608	1.150	NS_03 .014
608	608	609	1.150	NS_03 .014
609	609	610	1.150	NS_03 .014
610	610	611	1.150	NS_03 .014
611	611	612	1.150	NS_03 .014
612	612	613	1.150	NS_03 .014
613	613	614	1.150	NS_03 .014
614	614	615	1.150	NS_03 .014
615	615	616	1.150	NS_03 .014
616	616	617	1.150	NS_03 .014
617	617	618	1.150	NS_03 .014
618	618	619	1.150	NS_03 .014
619	619	620	1.150	NS_03 .014

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
620	620	621	1.150	NS_03 .014
621	621	622	1.150	NS_03 .014
622	622	623	1.150	NS_03 .014
623	623	624	1.150	NS_03 .014
624	624	625	1.150	NS_03 .014
625	625	626	1.150	NS_03 .014
626	626	627	1.150	NS_03 .014
627	627	628	1.150	NS_03 .014
628	628	629	1.150	NS_03 .014
629	629	630	1.150	NS_03 .014
630	630	631	1.150	NS_03 .014
631	631	632	1.150	NS_03 .014
632	632	633	1.150	NS_03 .014
633	633	634	1.150	NS_03 .014
634	634	635	1.150	NS_03 .014
635	635	636	1.150	NS_03 .014
636	636	637	1.150	NS_03 .014
637	637	638	1.150	NS_03 .014
638	638	639	1.150	NS_03 .014
639	639	640	1.150	NS_03 .014
640	640	641	1.150	NS_03 .014
641	641	642	1.150	NS_03 .014
642	642	643	1.150	NS_03 .014
643	643	644	1.150	NS_03 .014
644	644	645	1.150	NS_03 .014
645	645	646	1.150	NS_03 .014
646	646	647	1.150	NS_03 .014
647	647	648	1.150	NS_03 .014
648	648	649	1.150	NS_03 .014
649	649	650	1.150	NS_03 .014
650	650	651	1.150	NS_03 .014
651	651	652	1.150	NS_03 .014
652	652	653	1.150	NS_03 .014
653	653	654	1.150	NS_03 .014
654	654	655	1.150	NS_03 .014
655	655	656	1.150	NS_03 .014
656	656	657	1.150	NS_03 .014
657	657	658	1.150	NS_03 .014
658	658	659	1.150	NS_03 .014
659	659	660	1.150	NS_03 .014
660	660	661	1.150	NS_03 .014
661	661	662	1.150	NS_03 .014
662	662	663	1.150	NS_03 .014
663	663	664	1.150	NS_03 .014
664	664	665	1.150	NS_03 .014
665	665	666	1.150	NS_03 .014
666	666	667	1.150	NS_03 .014
667	667	668	1.150	NS_03 .014
668	668	669	1.150	NS_03 .014
669	669	670	1.150	NS_03 .014
670	670	671	1.150	NS_03 .014
671	671	672	1.150	NS_03 .014
672	672	673	1.150	NS_03 .014
673	673	674	1.150	NS_03 .014
674	674	675	1.150	NS_03 .014
675	675	676	1.150	NS_03 .014
676	676	677	1.150	NS_03 .014
677	677	678	1.150	NS_03 .014
678	678	679	1.150	NS_03 .014
679	679	680	1.150	NS_03 .014
680	680	681	1.150	NS_03 .014
681	681	682	1.150	NS_03 .014
682	682	683	1.150	NS_03 .014
683	683	684	1.150	NS_03 .014
684	684	685	1.150	NS_03 .014

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
685	685	686	1.150	NS_03 .014
686	686	687	1.150	NS_03 .014
687	687	688	1.150	NS_03 .014
688	688	689	1.150	NS_03 .014
689	689	690	1.150	NS_03 .014
690	690	691	1.150	NS_03 .014
691	691	692	1.150	NS_03 .014
692	692	693	1.150	NS_03 .014
693	693	694	1.150	NS_03 .014
694	694	695	1.150	NS_03 .014
695	695	696	1.150	NS_03 .014
696	696	697	1.150	NS_03 .014
697	697	698	1.150	NS_03 .014
698	698	699	1.150	NS_03 .014
699	699	700	1.150	NS_03 .014
700	700	701	1.150	NS_03 .014
701	701	702	1.150	NS_03 .014
702	702	703	1.150	NS_03 .014
703	703	704	1.150	NS_03 .014
704	704	705	1.150	NS_03 .014
705	705	706	1.150	NS_03 .014
706	706	707	1.150	NS_03 .014
707	707	708	1.150	NS_03 .014
708	708	709	1.150	NS_03 .014
709	709	710	1.150	NS_03 .014
710	710	711	1.150	NS_03 .014
711	711	712	1.150	NS_03 .014
712	712	713	1.150	NS_03 .014
713	713	714	1.150	NS_03 .014
714	714	715	1.150	NS_03 .014
715	715	716	1.150	NS_03 .014
716	716	717	1.150	NS_03 .014
717	717	718	1.150	NS_03 .014
718	718	719	1.150	NS_03 .014
719	719	720	1.150	NS_03 .014
720	720	721	1.150	NS_03 .014
721	721	722	1.150	NS_03 .014
722	722	723	1.150	NS_03 .014
723	723	724	1.150	NS_03 .014
724	724	725	1.150	NS_03 .014
725	725	726	1.150	NS_03 .014
726	726	727	1.150	NS_03 .014
727	727	728	1.150	NS_03 .014
728	728	729	1.150	NS_03 .014
729	729	730	1.150	NS_03 .014
730	730	731	1.150	NS_03 .014
731	731	732	1.150	NS_03 .014
732	732	733	1.150	NS_03 .014
733	733	734	1.150	NS_03 .014
734	734	735	1.150	NS_03 .014
735	735	736	1.150	NS_03 .014
736	736	737	1.150	NS_03 .014
737	737	738	1.150	NS_03 .014
738	738	739	1.150	NS_03 .014
739	739	740	1.150	NS_03 .014
740	740	741	1.150	NS_03 .014
741	741	742	1.150	NS_03 .014
742	742	743	1.150	NS_03 .014
743	743	744	1.150	NS_03 .014
744	744	745	1.150	NS_03 .014
745	745	746	1.150	NS_03 .014
746	746	747	1.150	NS_03 .014
747	747	748	1.150	NS_03 .014
748	748	749	1.150	NS_03 .014
749	749	750	1.150	NS_03 .014

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
750	750	751	1.150	NS_03 .014
751	751	752	1.150	NS_03 .014
752	752	753	1.150	NS_03 .014
753	753	754	1.150	NS_03 .014
754	754	755	1.150	NS_03 .014
755	755	756	1.150	NS_03 .014
756	756	757	1.150	NS_03 .014
757	757	758	1.150	NS_03 .014
758	758	759	1.150	NS_03 .014
759	759	760	1.150	NS_03 .014
760	760	761	1.150	NS_03 .014
761	761	762	1.150	NS_03 .014
762	762	763	1.150	NS_03 .014
763	763	764	1.150	NS_03 .014
764	764	765	1.150	NS_03 .014
765	765	766	1.150	NS_03 .014
766	766	767	1.150	NS_03 .014
767	767	768	1.150	NS_03 .014
768	768	769	1.150	NS_03 .014
769	769	770	1.150	NS_03 .014
770	770	771	1.150	NS_03 .014
771	771	772	1.150	NS_03 .014
772	772	773	1.150	NS_03 .014
773	773	774	1.150	NS_03 .014
774	774	775	1.150	NS_03 .014
775	775	776	1.150	NS_03 .014
776	776	777	1.150	NS_03 .014
777	777	778	1.150	NS_03 .014
778	778	779	1.150	NS_03 .014
779	779	780	1.150	NS_03 .014
780	780	781	1.150	NS_03 .014
781	781	782	1.150	NS_03 .014
782	782	783	1.150	NS_03 .014
783	783	784	1.150	NS_03 .014
784	784	785	1.150	NS_03 .014
801	801	802	1.150	NS_01 8.08
802	802	803	1.150	NS_01 8.08
803	803	804	1.150	NS_01 8.08
804	804	805	1.150	NS_02 7.31
805	805	806	1.150	NS_02 7.31
806	806	807	1.150	NS_02 7.31
807	807	808	1.150	NS_02 7.31
808	808	809	1.150	NS_02 7.31
809	809	810	1.150	NS_02 7.31
810	810	811	1.150	NS_02 7.31
811	811	812	1.150	NS_02 7.31
812	812	813	1.150	NS_02 7.31
813	813	814	1.150	NS_02 7.31
814	814	815	1.150	NS_02 7.31
815	815	816	1.150	NS_02 7.31
816	816	817	1.150	NS_02 7.31
817	817	818	1.150	NS_02 7.31
818	818	819	1.150	NS_02 7.31
819	819	820	1.150	NS_02 7.31
820	820	821	1.150	NS_02 7.31
821	821	822	1.150	NS_02 7.31
822	822	823	1.150	NS_02 7.31
823	823	824	1.150	NS_02 7.31
824	824	825	1.150	NS_02 7.31
825	825	826	1.150	NS_02 7.31
826	826	827	1.150	NS_02 7.31
827	827	828	1.150	NS_02 7.31
828	828	829	1.150	NS_01 8.08
829	829	830	1.150	NS_01 8.08
830	830	831	1.150	NS_01 8.08

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
831	831	832	1.150	NS_01 8.08
832	832	833	1.150	NS_01 8.08
833	833	834	1.150	NS_01 8.08
834	834	835	1.150	NS_02 7.31
835	835	836	1.150	NS_02 7.31
836	836	837	1.150	NS_02 7.31
837	837	838	1.150	NS_02 7.31
838	838	839	1.150	NS_02 7.31
839	839	840	1.150	NS_02 7.31
840	840	841	1.150	NS_02 7.31
841	841	842	1.150	NS_02 7.31
842	842	843	1.150	NS_02 7.31
843	843	844	1.150	NS_02 7.31
844	844	845	1.150	NS_02 7.31
845	845	846	1.150	NS_02 7.31
846	846	847	1.150	NS_02 7.31
847	847	848	1.150	NS_02 7.31
848	848	849	1.150	NS_02 7.31
849	849	850	1.150	NS_02 7.31
850	850	851	1.150	NS_02 7.31
851	851	852	1.150	NS_02 7.31
852	852	853	1.150	NS_02 7.31
853	853	854	1.150	NS_02 7.31
854	854	855	1.150	NS_02 7.31
855	855	856	1.150	NS_02 7.31
856	856	857	1.150	NS_02 7.31
857	857	858	1.150	NS_02 7.31
858	858	859	1.150	NS_02 7.31
859	859	860	1.150	NS_02 7.31
860	860	861	1.150	NS_02 7.31
861	861	862	1.150	NS_02 7.31
862	862	863	1.150	NS_02 7.31
863	863	864	1.150	NS_02 7.31
864	864	865	1.150	NS_02 7.31
865	865	866	1.150	NS_02 7.31
866	866	867	1.150	NS_02 7.31
867	867	868	1.150	NS_02 7.31
868	868	869	1.150	NS_01 8.08
869	869	870	1.150	NS_01 8.08
870	870	871	1.150	NS_01 8.08
871	871	872	1.150	NS_01 8.08
872	872	873	1.150	NS_01 8.08
873	873	874	1.150	NS_01 8.08
874	874	875	1.150	NS_02 7.31
875	875	876	1.150	NS_02 7.31
876	876	877	1.150	NS_02 7.31
877	877	878	1.150	NS_02 7.31
878	878	879	1.150	NS_02 7.31
879	879	880	1.150	NS_02 7.31
880	880	881	1.150	NS_02 7.31
881	881	882	1.150	NS_02 7.31
882	882	883	1.150	NS_02 7.31
883	883	884	1.150	NS_02 7.31
884	884	885	1.150	NS_02 7.31
885	885	886	1.150	NS_02 7.31
886	886	887	1.150	NS_02 7.31
887	887	888	1.150	NS_02 7.31
888	888	889	1.150	NS_02 7.31
889	889	890	1.150	NS_02 7.31
890	890	891	1.150	NS_02 7.31
891	891	892	1.150	NS_02 7.31
892	892	893	1.150	NS_02 7.31
893	893	894	1.150	NS_02 7.31
894	894	895	1.150	NS_02 7.31
895	895	896	1.150	NS_02 7.31

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
896	896	897	1.150	NS_02 7.31
897	897	898	1.150	NS_02 7.31
898	898	899	1.150	NS_02 7.31
899	899	900	1.150	NS_02 7.31
900	900	901	1.150	NS_02 7.31
901	901	902	1.150	NS_02 7.31
902	902	903	1.150	NS_02 7.31
903	903	904	1.150	NS_02 7.31
904	904	905	1.150	NS_02 7.31
905	905	906	1.150	NS_02 7.31
906	906	907	1.150	NS_02 7.31
907	907	908	1.150	NS_02 7.31
908	908	909	1.150	NS_01 8.08
909	909	910	1.150	NS_01 8.08
910	910	911	1.150	NS_01 8.08
911	911	912	1.150	NS_01 8.08
912	912	913	1.150	NS_01 8.08
913	913	914	1.150	NS_01 8.08
914	914	915	1.150	NS_02 7.31
915	915	916	1.150	NS_02 7.31
916	916	917	1.150	NS_02 7.31
917	917	918	1.150	NS_02 7.31
918	918	919	1.150	NS_02 7.31
919	919	920	1.150	NS_02 7.31
920	920	921	1.150	NS_02 7.31
921	921	922	1.150	NS_02 7.31
922	922	923	1.150	NS_02 7.31
923	923	924	1.150	NS_02 7.31
924	924	925	1.150	NS_02 7.31
925	925	926	1.150	NS_02 7.31
926	926	927	1.150	NS_02 7.31
927	927	928	1.150	NS_02 7.31
928	928	929	1.150	NS_02 7.31
929	929	930	1.150	NS_02 7.31
930	930	931	1.150	NS_02 7.31
931	931	932	1.150	NS_02 7.31
932	932	933	1.150	NS_02 7.31
933	933	934	1.150	NS_02 7.31
934	934	935	1.150	NS_02 7.31
935	935	936	1.150	NS_02 7.31
936	936	937	1.150	NS_02 7.31
937	937	938	1.150	NS_02 7.31
938	938	939	1.150	NS_02 7.31
939	939	940	1.150	NS_02 7.31
940	940	941	1.150	NS_02 7.31
941	941	942	1.150	NS_02 7.31
942	942	943	1.150	NS_02 7.31
943	943	944	1.150	NS_02 7.31
944	944	945	1.150	NS_02 7.31
945	945	946	1.150	NS_02 7.31
946	946	947	1.150	NS_01 8.08
947	947	948	1.150	NS_01 8.08
948	948	949	1.150	NS_01 8.08
949	949	950	1.150	NS_01 8.08
950	950	951	1.150	NS_01 8.08
951	951	952	1.150	NS_01 8.08
952	952	953	1.150	NS_02 7.31
953	953	954	1.150	NS_02 7.31
954	954	955	1.150	NS_02 7.31
955	955	956	1.150	NS_02 7.31
956	956	957	1.150	NS_02 7.31
957	957	958	1.150	NS_02 7.31
958	958	959	1.150	NS_02 7.31
959	959	960	1.150	NS_02 7.31
960	960	961	1.150	NS_02 7.31

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
961	961	962	1.150	NS_02 7.31
962	962	963	1.150	NS_02 7.31
963	963	964	1.150	NS_02 7.31
964	964	965	1.150	NS_02 7.31
965	965	966	1.150	NS_02 7.31
966	966	967	1.150	NS_02 7.31
967	967	968	1.150	NS_02 7.31
968	968	969	1.150	NS_02 7.31
969	969	970	1.150	NS_02 7.31
970	970	971	1.150	NS_02 7.31
971	971	972	1.150	NS_02 7.31
972	972	973	1.150	NS_02 7.31
973	973	974	1.150	NS_02 7.31
974	974	975	1.150	NS_02 7.31
975	975	976	1.150	NS_02 7.31
976	976	977	1.150	NS_02 7.31
977	977	978	1.150	NS_02 7.31
978	978	979	1.150	NS_02 7.31
979	979	980	1.150	NS_02 7.31
980	980	981	1.150	NS_02 7.31
981	981	982	1.150	NS_02 7.31
982	982	983	1.150	NS_01 8.08
983	983	984	1.150	NS_01 8.08
984	984	985	1.150	NS_01 8.08
1001	1	201	4.040	NS_04 .027
1003	3	203	4.040	NS_04 .027
1005	5	205	4.040	NS_04 .027
1007	7	207	4.040	NS_04 .027
1009	9	209	4.040	NS_04 .027
1011	11	211	4.040	NS_04 .027
1013	13	213	4.040	NS_04 .027
1015	15	215	4.040	NS_04 .027
1017	17	217	4.040	NS_04 .027
1019	19	219	4.040	NS_04 .027
1021	21	221	4.040	NS_04 .027
1023	23	223	4.040	NS_04 .027
1025	25	225	4.040	NS_04 .027
1027	27	227	4.040	NS_04 .027
1029	29	229	4.040	NS_04 .027
1031	31	231	4.040	NS_04 .027
1033	33	233	4.040	NS_04 .027
1035	35	235	4.040	NS_04 .027
1037	37	237	4.040	NS_04 .027
1039	39	239	4.040	NS_04 .027
1041	41	241	4.040	NS_04 .027
1043	43	243	4.040	NS_04 .027
1045	45	245	4.040	NS_04 .027
1047	47	247	4.040	NS_04 .027
1049	49	249	4.040	NS_04 .027
1051	51	251	4.040	NS_04 .027
1053	53	253	4.040	NS_04 .027
1055	55	255	4.040	NS_04 .027
1057	57	257	4.040	NS_04 .027
1059	59	259	4.040	NS_04 .027
1061	61	261	4.040	NS_04 .027
1063	63	263	4.040	NS_04 .027
1065	65	265	4.040	NS_04 .027
1067	67	267	4.040	NS_04 .027
1069	69	269	4.040	NS_04 .027
1071	71	271	4.040	NS_04 .027
1073	73	273	4.040	NS_04 .027
1075	75	275	4.040	NS_04 .027
1077	77	277	4.040	NS_04 .027
1079	79	279	4.040	NS_04 .027
1081	81	281	4.040	NS_04 .027

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
1083	83	283	4.040	NS_04 .027
1085	85	285	4.040	NS_04 .027
1087	87	287	4.040	NS_04 .027
1089	89	289	4.040	NS_04 .027
1091	91	291	4.040	NS_04 .027
1093	93	293	4.040	NS_04 .027
1095	95	295	4.040	NS_04 .027
1097	97	297	4.040	NS_04 .027
1099	99	299	4.040	NS_04 .027
1101	101	301	4.040	NS_04 .027
1103	103	303	4.040	NS_04 .027
1105	105	305	4.040	NS_04 .027
1107	107	307	4.040	NS_04 .027
1109	109	309	4.040	NS_04 .027
1111	111	311	4.040	NS_04 .027
1113	113	313	4.040	NS_04 .027
1115	115	315	4.040	NS_04 .027
1117	117	317	4.040	NS_04 .027
1119	119	319	4.040	NS_04 .027
1121	121	321	4.040	NS_04 .027
1123	123	323	4.040	NS_04 .027
1125	125	325	4.040	NS_04 .027
1127	127	327	4.040	NS_04 .027
1129	129	329	4.040	NS_04 .027
1131	131	331	4.040	NS_04 .027
1133	133	333	4.040	NS_04 .027
1135	135	335	4.040	NS_04 .027
1137	137	337	4.040	NS_04 .027
1139	139	339	4.040	NS_04 .027
1141	141	341	4.040	NS_04 .027
1143	143	343	4.040	NS_04 .027
1145	145	345	4.040	NS_04 .027
1147	147	347	4.040	NS_04 .027
1149	149	349	4.040	NS_04 .027
1151	151	351	4.040	NS_04 .027
1153	153	353	4.040	NS_04 .027
1155	155	355	4.040	NS_04 .027
1157	157	357	4.040	NS_04 .027
1159	159	359	4.040	NS_04 .027
1161	161	361	4.040	NS_04 .027
1163	163	363	4.040	NS_04 .027
1165	165	365	4.040	NS_04 .027
1167	167	367	4.040	NS_04 .027
1169	169	369	4.040	NS_04 .027
1171	171	371	4.040	NS_04 .027
1173	173	373	4.040	NS_04 .027
1175	175	375	4.040	NS_04 .027
1177	177	377	4.040	NS_04 .027
1179	179	379	4.040	NS_04 .027
1181	181	381	4.040	NS_04 .027
1183	183	383	4.040	NS_04 .027
1185	185	385	4.040	NS_04 .027
1201	201	401	2.245	NS_05 .092
1203	203	403	2.245	NS_05 .092
1205	205	405	2.245	NS_05 .092
1207	207	407	2.245	NS_05 .092
1209	209	409	2.245	NS_05 .092
1211	211	411	2.245	NS_05 .092
1213	213	413	2.245	NS_05 .092
1215	215	415	2.245	NS_05 .092
1217	217	417	2.245	NS_05 .092
1219	219	419	2.245	NS_05 .092
1221	221	421	2.245	NS_05 .092
1223	223	423	2.245	NS_05 .092
1225	225	425	2.245	NS_05 .092

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
1227	227	427	2.245	NS_05 .092
1229	229	429	2.245	NS_05 .092
1231	231	431	2.245	NS_05 .092
1233	233	433	2.245	NS_05 .092
1235	235	435	2.245	NS_05 .092
1237	237	437	2.245	NS_05 .092
1239	239	439	2.245	NS_05 .092
1241	241	441	2.245	NS_05 .092
1243	243	443	2.245	NS_05 .092
1245	245	445	2.245	NS_05 .092
1247	247	447	2.245	NS_05 .092
1249	249	449	2.245	NS_05 .092
1251	251	451	2.245	NS_05 .092
1253	253	453	2.245	NS_05 .092
1255	255	455	2.245	NS_05 .092
1257	257	457	2.245	NS_05 .092
1259	259	459	2.245	NS_05 .092
1261	261	461	2.245	NS_05 .092
1263	263	463	2.245	NS_05 .092
1265	265	465	2.245	NS_05 .092
1267	267	467	2.245	NS_05 .092
1269	269	469	2.245	NS_05 .092
1271	271	471	2.245	NS_05 .092
1273	273	473	2.245	NS_05 .092
1275	275	475	2.245	NS_05 .092
1277	277	477	2.245	NS_05 .092
1279	279	479	2.245	NS_05 .092
1281	281	481	2.245	NS_05 .092
1283	283	483	2.245	NS_05 .092
1285	285	485	2.245	NS_05 .092
1287	287	487	2.245	NS_05 .092
1289	289	489	2.245	NS_05 .092
1291	291	491	2.245	NS_05 .092
1293	293	493	2.245	NS_05 .092
1295	295	495	2.245	NS_05 .092
1297	297	497	2.245	NS_05 .092
1299	299	499	2.245	NS_05 .092
1301	301	501	2.245	NS_05 .092
1303	303	503	2.245	NS_05 .092
1305	305	505	2.245	NS_05 .092
1307	307	507	2.245	NS_05 .092
1309	309	509	2.245	NS_05 .092
1311	311	511	2.245	NS_05 .092
1313	313	513	2.245	NS_05 .092
1315	315	515	2.245	NS_05 .092
1317	317	517	2.245	NS_05 .092
1319	319	519	2.245	NS_05 .092
1321	321	521	2.245	NS_05 .092
1323	323	523	2.245	NS_05 .092
1325	325	525	2.245	NS_05 .092
1327	327	527	2.245	NS_05 .092
1329	329	529	2.245	NS_05 .092
1331	331	531	2.245	NS_05 .092
1333	333	533	2.245	NS_05 .092
1335	335	535	2.245	NS_05 .092
1337	337	537	2.245	NS_05 .092
1339	339	539	2.245	NS_05 .092
1341	341	541	2.245	NS_05 .092
1343	343	543	2.245	NS_05 .092
1345	345	545	2.245	NS_05 .092
1347	347	547	2.245	NS_05 .092
1349	349	549	2.245	NS_05 .092
1351	351	551	2.245	NS_05 .092
1353	353	553	2.245	NS_05 .092
1355	355	555	2.245	NS_05 .092

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
1357	357	557	2.245	NS_05 .092
1359	359	559	2.245	NS_05 .092
1361	361	561	2.245	NS_05 .092
1363	363	563	2.245	NS_05 .092
1365	365	565	2.245	NS_05 .092
1367	367	567	2.245	NS_05 .092
1369	369	569	2.245	NS_05 .092
1371	371	571	2.245	NS_05 .092
1373	373	573	2.245	NS_05 .092
1375	375	575	2.245	NS_05 .092
1377	377	577	2.245	NS_05 .092
1379	379	579	2.245	NS_05 .092
1381	381	581	2.245	NS_05 .092
1383	383	583	2.245	NS_05 .092
1385	385	585	2.245	NS_05 .092
1401	401	601	2.245	NS_05 .092
1403	403	603	2.245	NS_05 .092
1405	405	605	2.245	NS_05 .092
1407	407	607	2.245	NS_05 .092
1409	409	609	2.245	NS_05 .092
1411	411	611	2.245	NS_05 .092
1413	413	613	2.245	NS_05 .092
1415	415	615	2.245	NS_05 .092
1417	417	617	2.245	NS_05 .092
1419	419	619	2.245	NS_05 .092
1421	421	621	2.245	NS_05 .092
1423	423	623	2.245	NS_05 .092
1425	425	625	2.245	NS_05 .092
1427	427	627	2.245	NS_05 .092
1429	429	629	2.245	NS_05 .092
1431	431	631	2.245	NS_05 .092
1433	433	633	2.245	NS_05 .092
1435	435	635	2.245	NS_05 .092
1437	437	637	2.245	NS_05 .092
1439	439	639	2.245	NS_05 .092
1441	441	641	2.245	NS_05 .092
1443	443	643	2.245	NS_05 .092
1445	445	645	2.245	NS_05 .092
1447	447	647	2.245	NS_05 .092
1449	449	649	2.245	NS_05 .092
1451	451	651	2.245	NS_05 .092
1453	453	653	2.245	NS_05 .092
1455	455	655	2.245	NS_05 .092
1457	457	657	2.245	NS_05 .092
1459	459	659	2.245	NS_05 .092
1461	461	661	2.245	NS_05 .092
1463	463	663	2.245	NS_05 .092
1465	465	665	2.245	NS_05 .092
1467	467	667	2.245	NS_05 .092
1469	469	669	2.245	NS_05 .092
1471	471	671	2.245	NS_05 .092
1473	473	673	2.245	NS_05 .092
1475	475	675	2.245	NS_05 .092
1477	477	677	2.245	NS_05 .092
1479	479	679	2.245	NS_05 .092
1481	481	681	2.245	NS_05 .092
1483	483	683	2.245	NS_05 .092
1485	485	685	2.245	NS_05 .092
1487	487	687	2.245	NS_05 .092
1489	489	689	2.245	NS_05 .092
1491	491	691	2.245	NS_05 .092
1493	493	693	2.245	NS_05 .092
1495	495	695	2.245	NS_05 .092
1497	497	697	2.245	NS_05 .092
1499	499	699	2.245	NS_05 .092

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
1501	501	701	2.245	NS_05 .092
1503	503	703	2.245	NS_05 .092
1505	505	705	2.245	NS_05 .092
1507	507	707	2.245	NS_05 .092
1509	509	709	2.245	NS_05 .092
1511	511	711	2.245	NS_05 .092
1513	513	713	2.245	NS_05 .092
1515	515	715	2.245	NS_05 .092
1517	517	717	2.245	NS_05 .092
1519	519	719	2.245	NS_05 .092
1521	521	721	2.245	NS_05 .092
1523	523	723	2.245	NS_05 .092
1525	525	725	2.245	NS_05 .092
1527	527	727	2.245	NS_05 .092
1529	529	729	2.245	NS_05 .092
1531	531	731	2.245	NS_05 .092
1533	533	733	2.245	NS_05 .092
1535	535	735	2.245	NS_05 .092
1537	537	737	2.245	NS_05 .092
1539	539	739	2.245	NS_05 .092
1541	541	741	2.245	NS_05 .092
1543	543	743	2.245	NS_05 .092
1545	545	745	2.245	NS_05 .092
1547	547	747	2.245	NS_05 .092
1549	549	749	2.245	NS_05 .092
1551	551	751	2.245	NS_05 .092
1553	553	753	2.245	NS_05 .092
1555	555	755	2.245	NS_05 .092
1557	557	757	2.245	NS_05 .092
1559	559	759	2.245	NS_05 .092
1561	561	761	2.245	NS_05 .092
1563	563	763	2.245	NS_05 .092
1565	565	765	2.245	NS_05 .092
1567	567	767	2.245	NS_05 .092
1569	569	769	2.245	NS_05 .092
1571	571	771	2.245	NS_05 .092
1573	573	773	2.245	NS_05 .092
1575	575	775	2.245	NS_05 .092
1577	577	777	2.245	NS_05 .092
1579	579	779	2.245	NS_05 .092
1581	581	781	2.245	NS_05 .092
1583	583	783	2.245	NS_05 .092
1585	585	785	2.245	NS_05 .092
1601	601	801	4.040	NS_04 .027
1603	603	803	4.040	NS_04 .027
1605	605	805	4.040	NS_04 .027
1607	607	807	4.040	NS_04 .027
1609	609	809	4.040	NS_04 .027
1611	611	811	4.040	NS_04 .027
1613	613	813	4.040	NS_04 .027
1615	615	815	4.040	NS_04 .027
1617	617	817	4.040	NS_04 .027
1619	619	819	4.040	NS_04 .027
1621	621	821	4.040	NS_04 .027
1623	623	823	4.040	NS_04 .027
1625	625	825	4.040	NS_04 .027
1627	627	827	4.040	NS_04 .027
1629	629	829	4.040	NS_04 .027
1631	631	831	4.040	NS_04 .027
1633	633	833	4.040	NS_04 .027
1635	635	835	4.040	NS_04 .027
1637	637	837	4.040	NS_04 .027
1639	639	839	4.040	NS_04 .027
1641	641	841	4.040	NS_04 .027
1643	643	843	4.040	NS_04 .027

Especificación de elementos

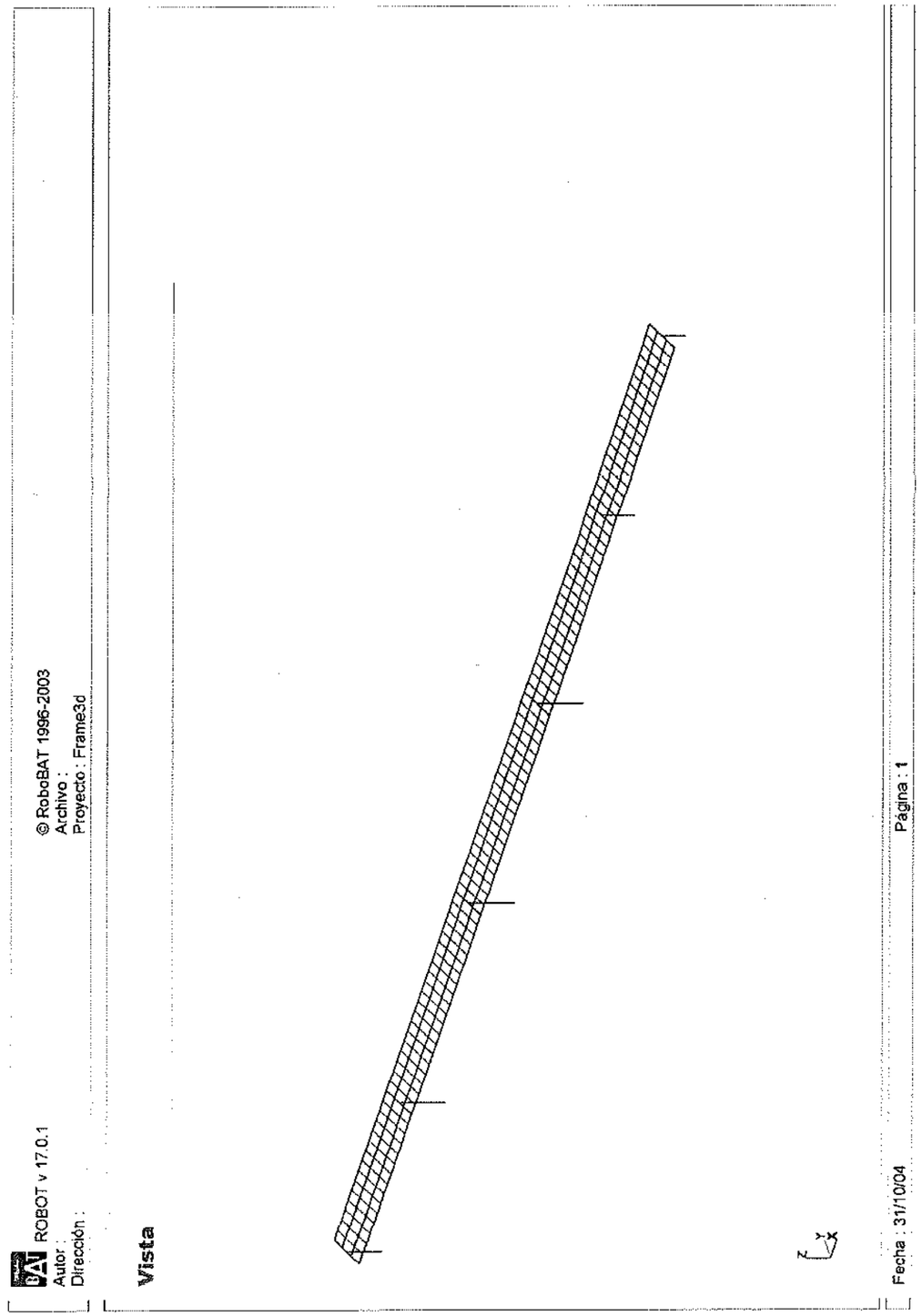
Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
1645	645	845	4.040	NS_04 .027
1647	647	847	4.040	NS_04 .027
1649	649	849	4.040	NS_04 .027
1651	651	851	4.040	NS_04 .027
1653	653	853	4.040	NS_04 .027
1655	655	855	4.040	NS_04 .027
1657	657	857	4.040	NS_04 .027
1659	659	859	4.040	NS_04 .027
1661	661	861	4.040	NS_04 .027
1663	663	863	4.040	NS_04 .027
1665	665	865	4.040	NS_04 .027
1667	667	867	4.040	NS_04 .027
1669	669	869	4.040	NS_04 .027
1671	671	871	4.040	NS_04 .027
1673	673	873	4.040	NS_04 .027
1675	675	875	4.040	NS_04 .027
1677	677	877	4.040	NS_04 .027
1679	679	879	4.040	NS_04 .027
1681	681	881	4.040	NS_04 .027
1683	683	883	4.040	NS_04 .027
1685	685	885	4.040	NS_04 .027
1687	687	887	4.040	NS_04 .027
1689	689	889	4.040	NS_04 .027
1691	691	891	4.040	NS_04 .027
1693	693	893	4.040	NS_04 .027
1695	695	895	4.040	NS_04 .027
1697	697	897	4.040	NS_04 .027
1699	699	899	4.040	NS_04 .027
1701	701	901	4.040	NS_04 .027
1703	703	903	4.040	NS_04 .027
1705	705	905	4.040	NS_04 .027
1707	707	907	4.040	NS_04 .027
1709	709	909	4.040	NS_04 .027
1711	711	911	4.040	NS_04 .027
1713	713	913	4.040	NS_04 .027
1715	715	915	4.040	NS_04 .027
1717	717	917	4.040	NS_04 .027
1719	719	919	4.040	NS_04 .027
1721	721	921	4.040	NS_04 .027
1723	723	923	4.040	NS_04 .027
1725	725	925	4.040	NS_04 .027
1727	727	927	4.040	NS_04 .027
1729	729	929	4.040	NS_04 .027
1731	731	931	4.040	NS_04 .027
1733	733	933	4.040	NS_04 .027
1735	735	935	4.040	NS_04 .027
1737	737	937	4.040	NS_04 .027
1739	739	939	4.040	NS_04 .027
1741	741	941	4.040	NS_04 .027
1743	743	943	4.040	NS_04 .027
1745	745	945	4.040	NS_04 .027
1747	747	947	4.040	NS_04 .027
1749	749	949	4.040	NS_04 .027
1751	751	951	4.040	NS_04 .027
1753	753	953	4.040	NS_04 .027
1755	755	955	4.040	NS_04 .027
1757	757	957	4.040	NS_04 .027
1759	759	959	4.040	NS_04 .027
1761	761	961	4.040	NS_04 .027
1763	763	963	4.040	NS_04 .027
1765	765	965	4.040	NS_04 .027
1767	767	967	4.040	NS_04 .027
1769	769	969	4.040	NS_04 .027
1771	771	971	4.040	NS_04 .027
1773	773	973	4.040	NS_04 .027

Especificación de elementos

Elem.	Nudos1	Nudos2	Longitud (m)	Sección trans.
1775	775	975	4.040	NS_04 .027
1777	777	977	4.040	NS_04 .027
1779	779	979	4.040	NS_04 .027
1781	781	981	4.040	NS_04 .027
1783	783	983	4.040	NS_04 .027
1785	785	985	4.040	NS_04 .027
3001	185	3001	1.150	NS_06 .182
3002	3001	3002	1.150	NS_07 .173
3003	3002	3003	1.150	NS_08 .165
3004	3003	3004	1.150	NS_09 .157
3005	3004	3005	1.150	NS_10 .149
3006	3005	3006	1.150	NS_11 .142
3007	3006	3007	1.150	NS_12 .134
3008	3007	3008	1.150	NS_13 .127
3009	3008	3009	1.150	NS_14 .120
3010	3009	3010	1.150	NS_15 .114
3011	3010	3011	1.150	NS_16 .108
3012	3011	3012	1.150	NS_17 .101
3013	3012	3013	1.150	NS_18 .087
3014	3013	3014	1.150	NS_19 .082
3015	3014	3015	1.150	NS_20 .077
3016	3015	3016	1.150	NS_21 .072
3017	3016	3017	1.150	NS_22 .068
3018	3017	3018	1.150	NS_23 .063
3019	3018	3019	1.150	NS_24 .059
3020	3019	3020	1.150	NS_25 .055
3021	3020	3021	1.150	NS_26 .051
3022	3021	3022	1.150	NS_27 .047
3023	3022	3023	1.150	NS_28 .044
3024	3023	3024	1.150	NS_29 .040
3101	985	3101	1.150	NS_06 .182
3102	3101	3102	1.150	NS_07 .173
3103	3102	3103	1.150	NS_08 .165
3104	3103	3104	1.150	NS_09 .157
3105	3104	3105	1.150	NS_10 .149
3106	3105	3106	1.150	NS_11 .142
3107	3106	3107	1.150	NS_12 .134
3108	3107	3108	1.150	NS_13 .127
3109	3108	3109	1.150	NS_14 .120
3110	3109	3110	1.150	NS_15 .114
3111	3110	3111	1.150	NS_16 .108
3112	3111	3112	1.150	NS_17 .101
3113	3112	3113	1.150	NS_18 .087
3114	3113	3114	1.150	NS_19 .082
3115	3114	3115	1.150	NS_20 .077
3116	3115	3116	1.150	NS_21 .072
3117	3116	3117	1.150	NS_22 .068
3118	3117	3118	1.150	NS_23 .063
3119	3118	3119	1.150	NS_24 .059
3120	3119	3120	1.150	NS_25 .055
3121	3120	3121	1.150	NS_26 .051
3122	3121	3122	1.150	NS_27 .047
3123	3122	3123	1.150	NS_28 .044
3124	3123	3124	1.150	NS_29 .040

VIADUCTO SOBRE EL LLOBREGAT

7.1.1.2. Modelo para cálculo del tablero



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Nudos

Filtrar	Nudo
Lista compl	1A185 201
Selección	1A185 201
Número tot	869
Número sel	869

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
1	2.853	-5.600	-1.897		2400 - CP_COM 1(UX UY UZ RX RY RZ)
2	4.003	-5.600	-1.897		
3	5.153	-5.600	-1.897		
4	6.303	-5.600	-1.933		
5	7.453	-5.600	-1.970		
6	8.603	-5.600	-1.970		
7	9.753	-5.600	-1.970		
8	10.903	-5.600	-1.970		
9	12.053	-5.600	-1.970		
10	13.203	-5.600	-1.970		
11	14.353	-5.600	-1.970		
12	15.503	-5.600	-1.970		
13	16.653	-5.600	-1.970		
14	17.803	-5.600	-1.970		
15	18.953	-5.600	-1.970		
16	20.103	-5.600	-1.970		
17	21.253	-5.600	-1.970		
18	22.403	-5.600	-1.970		
19	23.553	-5.600	-1.970		
20	24.703	-5.600	-1.970		
21	25.853	-5.600	-1.970		
22	27.003	-5.600	-1.970		
23	28.153	-5.600	-1.970		
24	29.303	-5.600	-1.970		
25	30.453	-5.600	-1.970		
26	31.603	-5.600	-1.970		
27	32.753	-5.600	-1.970		
28	33.903	-5.600	-1.933		
29	35.053	-5.600	-1.897		
30	36.203	-5.600	-1.897		
31	37.353	-5.600	-1.897		2401 - CP_COM 1(UX UY UZ RX RY RZ)
32	38.503	-5.600	-1.897		
33	39.653	-5.600	-1.897		
34	40.803	-5.600	-1.933		
35	41.953	-5.600	-1.970		
36	43.103	-5.600	-1.970		
37	44.253	-5.600	-1.970		
38	45.403	-5.600	-1.970		
39	46.553	-5.600	-1.970		
40	47.703	-5.600	-1.970		
41	48.853	-5.600	-1.970		
42	50.003	-5.600	-1.970		
43	51.153	-5.600	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
44	52.303	-5.600	-1.970		
45	53.453	-5.600	-1.970		
46	54.603	-5.600	-1.970		
47	55.753	-5.600	-1.970		
48	56.903	-5.600	-1.970		
49	58.053	-5.600	-1.970		
50	59.203	-5.600	-1.970		
51	60.353	-5.600	-1.970		
52	61.503	-5.600	-1.970		
53	62.653	-5.600	-1.970		
54	63.803	-5.600	-1.970		
55	64.953	-5.600	-1.970		
56	66.103	-5.600	-1.970		
57	67.253	-5.600	-1.970		
58	68.403	-5.600	-1.970		
59	69.553	-5.600	-1.970		
60	70.703	-5.600	-1.970		
61	71.853	-5.600	-1.970		
62	73.003	-5.600	-1.970		
63	74.153	-5.600	-1.970		
64	75.303	-5.600	-1.970		
65	76.453	-5.600	-1.970		
66	77.603	-5.600	-1.970		
67	78.753	-5.600	-1.970		
68	79.903	-5.600	-1.933		
69	81.053	-5.600	-1.897		
70	82.203	-5.600	-1.897		
71	83.353	-5.600	-1.897		2402 - CP_COM 1(UX UY UZ RX RY RZ)
72	84.503	-5.600	-1.897		
73	85.653	-5.600	-1.897		
74	86.803	-5.600	-1.933		
75	87.953	-5.600	-1.970		
76	89.103	-5.600	-1.970		
77	90.253	-5.600	-1.970		
78	91.403	-5.600	-1.970		
79	92.553	-5.600	-1.970		
80	93.703	-5.600	-1.970		
81	94.853	-5.600	-1.970		
82	96.003	-5.600	-1.970		
83	97.153	-5.600	-1.970		
84	98.303	-5.600	-1.970		
85	99.453	-5.600	-1.970		
86	100.603	-5.600	-1.970		
87	101.753	-5.600	-1.970		
88	102.903	-5.600	-1.970		
89	104.053	-5.600	-1.970		
90	105.203	-5.600	-1.970		
91	106.353	-5.600	-1.970		
92	107.503	-5.600	-1.970		
93	108.653	-5.600	-1.970		
94	109.803	-5.600	-1.970		
95	110.953	-5.600	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
96	112.103	-5.600	-1.970		
97	113.253	-5.600	-1.970		
98	114.403	-5.600	-1.970		
99	115.553	-5.600	-1.970		
100	116.703	-5.600	-1.970		
101	117.853	-5.600	-1.970		
102	119.003	-5.600	-1.970		
103	120.153	-5.600	-1.970		
104	121.303	-5.600	-1.970		
105	122.453	-5.600	-1.970		
106	123.603	-5.600	-1.970		
107	124.753	-5.600	-1.970		
108	125.903	-5.600	-1.933		
109	127.053	-5.600	-1.897		
110	128.203	-5.600	-1.897		
111	129.353	-5.600	-1.897		2403 - CP_COM 1(UX UY UZ RX RY RZ)
112	130.503	-5.600	-1.897		
113	131.653	-5.600	-1.897		
114	132.803	-5.600	-1.933		
115	133.953	-5.600	-1.970		
116	135.103	-5.600	-1.970		
117	136.253	-5.600	-1.970		
118	137.403	-5.600	-1.970		
119	138.553	-5.600	-1.970		
120	139.703	-5.600	-1.970		
121	140.853	-5.600	-1.970		
122	142.003	-5.600	-1.970		
123	143.153	-5.600	-1.970		
124	144.303	-5.600	-1.970		
125	145.453	-5.600	-1.970		
126	146.603	-5.600	-1.970		
127	147.753	-5.600	-1.970		
128	148.903	-5.600	-1.970		
129	150.053	-5.600	-1.970		
130	151.203	-5.600	-1.970		
131	152.353	-5.600	-1.970		
132	153.503	-5.600	-1.970		
133	154.653	-5.600	-1.970		
134	155.803	-5.600	-1.970		
135	156.953	-5.600	-1.970		
136	158.103	-5.600	-1.970		
137	159.253	-5.600	-1.970		
138	160.403	-5.600	-1.970		
139	161.553	-5.600	-1.970		
140	162.703	-5.600	-1.970		
141	163.853	-5.600	-1.970		
142	165.003	-5.600	-1.970		
143	166.153	-5.600	-1.970		
144	167.303	-5.600	-1.970		
145	168.453	-5.600	-1.970		
146	169.603	-5.600	-1.933		
147	170.753	-5.600	-1.897		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
148	171.903	-5.600	-1.897		
149	173.053	-5.600	-1.897		2404 - CP_COM 1(UX UY UZ RX RY RZ)
150	174.203	-5.600	-1.897		
151	175.353	-5.600	-1.897		
152	176.503	-5.600	-1.933		
153	177.653	-5.600	-1.970		
154	178.803	-5.600	-1.970		
155	179.953	-5.600	-1.970		
156	181.103	-5.600	-1.970		
157	182.253	-5.600	-1.970		
158	183.403	-5.600	-1.970		
159	184.553	-5.600	-1.970		
160	185.703	-5.600	-1.970		
161	186.853	-5.600	-1.970		
162	188.003	-5.600	-1.970		
163	189.153	-5.600	-1.970		
164	190.303	-5.600	-1.970		
165	191.453	-5.600	-1.970		
166	192.603	-5.600	-1.970		
167	193.753	-5.600	-1.970		
168	194.903	-5.600	-1.970		
169	196.053	-5.600	-1.970		
170	197.203	-5.600	-1.970		
171	198.353	-5.600	-1.970		
172	199.503	-5.600	-1.970		
173	200.653	-5.600	-1.970		
174	201.803	-5.600	-1.970		
175	202.953	-5.600	-1.970		
176	204.103	-5.600	-1.970		
177	205.253	-5.600	-1.970		
178	206.403	-5.600	-1.970		
179	207.553	-5.600	-1.970		
180	208.703	-5.600	-1.970		
181	209.853	-5.600	-1.970		
182	211.003	-5.600	-1.933		
183	212.153	-5.600	-1.897		
184	213.303	-5.600	-1.897		
185	214.453	-5.600	-1.897		2405 - CP_COM 1(UX UY UZ RX RY RZ)
201	1.019	-2.000	-1.897		
202	2.169	-2.000	-1.897		
203	3.319	-2.000	-1.897		
204	4.469	-2.000	-1.933		
205	5.619	-2.000	-1.970		
206	6.769	-2.000	-1.970		
207	7.919	-2.000	-1.970		
208	9.069	-2.000	-1.970		
209	10.219	-2.000	-1.970		
210	11.369	-2.000	-1.970		
211	12.519	-2.000	-1.970		
212	13.669	-2.000	-1.970		
213	14.819	-2.000	-1.970		
214	15.969	-2.000	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
215	17.119	-2.000	-1.970		
216	18.269	-2.000	-1.970		
217	19.419	-2.000	-1.970		
218	20.569	-2.000	-1.970		
219	21.719	-2.000	-1.970		
220	22.869	-2.000	-1.970		
221	24.019	-2.000	-1.970		
222	25.169	-2.000	-1.970		
223	26.319	-2.000	-1.970		
224	27.469	-2.000	-1.970		
225	28.619	-2.000	-1.970		
226	29.769	-2.000	-1.970		
227	30.919	-2.000	-1.970		
228	32.069	-2.000	-1.933		
229	33.219	-2.000	-1.897		
230	34.369	-2.000	-1.897		
231	35.519	-2.000	-1.897		
232	36.669	-2.000	-1.897		
233	37.819	-2.000	-1.897		
234	38.969	-2.000	-1.933		
235	40.119	-2.000	-1.970		
236	41.269	-2.000	-1.970		
237	42.419	-2.000	-1.970		
238	43.569	-2.000	-1.970		
239	44.719	-2.000	-1.970		
240	45.869	-2.000	-1.970		
241	47.019	-2.000	-1.970		
242	48.169	-2.000	-1.970		
243	49.319	-2.000	-1.970		
244	50.469	-2.000	-1.970		
245	51.619	-2.000	-1.970		
246	52.769	-2.000	-1.970		
247	53.919	-2.000	-1.970		
248	55.069	-2.000	-1.970		
249	56.219	-2.000	-1.970		
250	57.369	-2.000	-1.970		
251	58.519	-2.000	-1.970		
252	59.669	-2.000	-1.970		
253	60.819	-2.000	-1.970		
254	61.969	-2.000	-1.970		
255	63.119	-2.000	-1.970		
256	64.269	-2.000	-1.970		
257	65.419	-2.000	-1.970		
258	66.569	-2.000	-1.970		
259	67.719	-2.000	-1.970		
260	68.869	-2.000	-1.970		
261	70.019	-2.000	-1.970		
262	71.169	-2.000	-1.970		
263	72.319	-2.000	-1.970		
264	73.469	-2.000	-1.970		
265	74.619	-2.000	-1.970		
266	75.769	-2.000	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
267	76.919	-2.000	-1.970		
268	78.069	-2.000	-1.933		
269	79.219	-2.000	-1.897		
270	80.369	-2.000	-1.897		
271	81.519	-2.000	-1.897		
272	82.669	-2.000	-1.897		
273	83.819	-2.000	-1.897		
274	84.969	-2.000	-1.933		
275	86.119	-2.000	-1.970		
276	87.269	-2.000	-1.970		
277	88.419	-2.000	-1.970		
278	89.569	-2.000	-1.970		
279	90.719	-2.000	-1.970		
280	91.869	-2.000	-1.970		
281	93.019	-2.000	-1.970		
282	94.169	-2.000	-1.970		
283	95.319	-2.000	-1.970		
284	96.469	-2.000	-1.970		
285	97.619	-2.000	-1.970		
286	98.769	-2.000	-1.970		
287	99.919	-2.000	-1.970		
288	101.069	-2.000	-1.970		
289	102.219	-2.000	-1.970		
290	103.369	-2.000	-1.970		
291	104.519	-2.000	-1.970		
292	105.669	-2.000	-1.970		
293	106.819	-2.000	-1.970		
294	107.969	-2.000	-1.970		
295	109.119	-2.000	-1.970		
296	110.269	-2.000	-1.970		
297	111.419	-2.000	-1.970		
298	112.569	-2.000	-1.970		
299	113.719	-2.000	-1.970		
300	114.869	-2.000	-1.970		
301	116.019	-2.000	-1.970		
302	117.169	-2.000	-1.970		
303	118.319	-2.000	-1.970		
304	119.469	-2.000	-1.970		
305	120.619	-2.000	-1.970		
306	121.769	-2.000	-1.970		
307	122.919	-2.000	-1.970		
308	124.069	-2.000	-1.933		
309	125.219	-2.000	-1.897		
310	126.369	-2.000	-1.897		
311	127.519	-2.000	-1.897		
312	128.669	-2.000	-1.897		
313	129.819	-2.000	-1.897		
314	130.969	-2.000	-1.933		
315	132.119	-2.000	-1.970		
316	133.269	-2.000	-1.970		
317	134.419	-2.000	-1.970		
318	135.569	-2.000	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
319	136.719	-2.000	-1.970		
320	137.869	-2.000	-1.970		
321	139.019	-2.000	-1.970		
322	140.169	-2.000	-1.970		
323	141.319	-2.000	-1.970		
324	142.469	-2.000	-1.970		
325	143.619	-2.000	-1.970		
326	144.769	-2.000	-1.970		
327	145.919	-2.000	-1.970		
328	147.069	-2.000	-1.970		
329	148.219	-2.000	-1.970		
330	149.369	-2.000	-1.970		
331	150.519	-2.000	-1.970		
332	151.669	-2.000	-1.970		
333	152.819	-2.000	-1.970		
334	153.969	-2.000	-1.970		
335	155.119	-2.000	-1.970		
336	156.269	-2.000	-1.970		
337	157.419	-2.000	-1.970		
338	158.569	-2.000	-1.970		
339	159.719	-2.000	-1.970		
340	160.869	-2.000	-1.970		
341	162.019	-2.000	-1.970		
342	163.169	-2.000	-1.970		
343	164.319	-2.000	-1.970		
344	165.469	-2.000	-1.970		
345	166.619	-2.000	-1.970		
346	167.769	-2.000	-1.933		
347	168.919	-2.000	-1.897		
348	170.069	-2.000	-1.897		
349	171.219	-2.000	-1.897		
350	172.369	-2.000	-1.897		
351	173.519	-2.000	-1.897		
352	174.669	-2.000	-1.933		
353	175.819	-2.000	-1.970		
354	176.969	-2.000	-1.970		
355	178.119	-2.000	-1.970		
356	179.269	-2.000	-1.970		
357	180.419	-2.000	-1.970		
358	181.569	-2.000	-1.970		
359	182.719	-2.000	-1.970		
360	183.869	-2.000	-1.970		
361	185.019	-2.000	-1.970		
362	186.169	-2.000	-1.970		
363	187.319	-2.000	-1.970		
364	188.469	-2.000	-1.970		
365	189.619	-2.000	-1.970		
366	190.769	-2.000	-1.970		
367	191.919	-2.000	-1.970		
368	193.069	-2.000	-1.970		
369	194.219	-2.000	-1.970		
370	195.369	-2.000	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
371	196.519	-2.000	-1.970		
372	197.669	-2.000	-1.970		
373	198.819	-2.000	-1.970		
374	199.969	-2.000	-1.970		
375	201.119	-2.000	-1.970		
376	202.269	-2.000	-1.970		
377	203.419	-2.000	-1.970		
378	204.569	-2.000	-1.970		
379	205.719	-2.000	-1.970		
380	206.869	-2.000	-1.970		
381	208.019	-2.000	-1.970		
382	209.169	-2.000	-1.933		
383	210.319	-2.000	-1.897		
384	211.469	-2.000	-1.897		
385	212.619	-2.000	-1.897		
401	0.0	0.0	-1.897		
403	2.300	0.0	-1.897		
405	4.600	0.0	-1.970		
407	6.900	0.0	-1.970		
409	9.200	0.0	-1.970		
411	11.500	0.0	-1.970		
413	13.800	0.0	-1.970		
415	16.100	0.0	-1.970		
417	18.400	0.0	-1.970		
419	20.700	0.0	-1.970		
421	23.000	0.0	-1.970		
423	25.300	0.0	-1.970		
425	27.600	0.0	-1.970		
427	29.900	0.0	-1.970		
429	32.200	0.0	-1.897		
431	34.500	0.0	-1.897		
433	36.800	0.0	-1.897		
435	39.100	0.0	-1.970		
437	41.400	0.0	-1.970		
439	43.700	0.0	-1.970		
441	46.000	0.0	-1.970		
443	48.300	0.0	-1.970		
445	50.600	0.0	-1.970		
447	52.900	0.0	-1.970		
449	55.200	0.0	-1.970		
451	57.500	0.0	-1.970		
453	59.800	0.0	-1.970		
455	62.100	0.0	-1.970		
457	64.400	0.0	-1.970		
459	66.700	0.0	-1.970		
461	69.000	0.0	-1.970		
463	71.300	0.0	-1.970		
465	73.600	0.0	-1.970		
467	75.900	0.0	-1.970		
469	78.200	0.0	-1.897		
471	80.500	0.0	-1.897		
473	82.800	0.0	-1.897		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
475	85.100	0.0	-1.970		
477	87.400	0.0	-1.970		
479	89.700	0.0	-1.970		
481	92.000	0.0	-1.970		
483	94.300	0.0	-1.970		
485	96.600	0.0	-1.970		
487	98.900	0.0	-1.970		
489	101.200	0.0	-1.970		
491	103.500	0.0	-1.970		
493	105.800	0.0	-1.970		
495	108.100	0.0	-1.970		
497	110.400	0.0	-1.970		
499	112.700	0.0	-1.970		
501	115.000	0.0	-1.970		
503	117.300	0.0	-1.970		
505	119.600	0.0	-1.970		
507	121.900	0.0	-1.970		
509	124.200	0.0	-1.897		
511	126.500	0.0	-1.897		
513	128.800	0.0	-1.897		
515	131.100	0.0	-1.970		
517	133.400	0.0	-1.970		
519	135.700	0.0	-1.970		
521	138.000	0.0	-1.970		
523	140.300	0.0	-1.970		
525	142.600	0.0	-1.970		
527	144.900	0.0	-1.970		
529	147.200	0.0	-1.970		
531	149.500	0.0	-1.970		
533	151.800	0.0	-1.970		
535	154.100	0.0	-1.970		
537	156.400	0.0	-1.970		
539	158.700	0.0	-1.970		
541	161.000	0.0	-1.970		
543	163.300	0.0	-1.970		
545	165.600	0.0	-1.970		
547	167.900	0.0	-1.897		
549	170.200	0.0	-1.897		
551	172.500	0.0	-1.897		
553	174.800	0.0	-1.970		
555	177.100	0.0	-1.970		
557	179.400	0.0	-1.970		
559	181.700	0.0	-1.970		
561	184.000	0.0	-1.970		
563	186.300	0.0	-1.970		
565	188.600	0.0	-1.970		
567	190.900	0.0	-1.970		
569	193.200	0.0	-1.970		
571	195.500	0.0	-1.970		
573	197.800	0.0	-1.970		
575	200.100	0.0	-1.970		
577	202.400	0.0	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
579	204.700	0.0	-1.970		
581	207.000	0.0	-1.970		
583	209.300	0.0	-1.897		
585	211.600	0.0	-1.897		
601	-1.019	2.000	-1.897		
602	0.131	2.000	-1.897		
603	1.281	2.000	-1.897		
604	2.431	2.000	-1.933		
605	3.581	2.000	-1.970		
606	4.731	2.000	-1.970		
607	5.881	2.000	-1.970		
608	7.031	2.000	-1.970		
609	8.181	2.000	-1.970		
610	9.331	2.000	-1.970		
611	10.481	2.000	-1.970		
612	11.631	2.000	-1.970		
613	12.781	2.000	-1.970		
614	13.931	2.000	-1.970		
615	15.081	2.000	-1.970		
616	16.231	2.000	-1.970		
617	17.381	2.000	-1.970		
618	18.531	2.000	-1.970		
619	19.681	2.000	-1.970		
620	20.831	2.000	-1.970		
621	21.981	2.000	-1.970		
622	23.131	2.000	-1.970		
623	24.281	2.000	-1.970		
624	25.431	2.000	-1.970		
625	26.581	2.000	-1.970		
626	27.731	2.000	-1.970		
627	28.881	2.000	-1.970		
628	30.031	2.000	-1.933		
629	31.181	2.000	-1.897		
630	32.331	2.000	-1.897		
631	33.481	2.000	-1.897		
632	34.631	2.000	-1.897		
633	35.781	2.000	-1.897		
634	36.931	2.000	-1.933		
635	38.081	2.000	-1.970		
636	39.231	2.000	-1.970		
637	40.381	2.000	-1.970		
638	41.531	2.000	-1.970		
639	42.681	2.000	-1.970		
640	43.831	2.000	-1.970		
641	44.981	2.000	-1.970		
642	46.131	2.000	-1.970		
643	47.281	2.000	-1.970		
644	48.431	2.000	-1.970		
645	49.581	2.000	-1.970		
646	50.731	2.000	-1.970		
647	51.881	2.000	-1.970		
648	53.031	2.000	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
649	54.181	2.000	-1.970		
650	55.331	2.000	-1.970		
651	56.481	2.000	-1.970		
652	57.631	2.000	-1.970		
653	58.781	2.000	-1.970		
654	59.931	2.000	-1.970		
655	61.081	2.000	-1.970		
656	62.231	2.000	-1.970		
657	63.381	2.000	-1.970		
658	64.531	2.000	-1.970		
659	65.681	2.000	-1.970		
660	66.831	2.000	-1.970		
661	67.981	2.000	-1.970		
662	69.131	2.000	-1.970		
663	70.281	2.000	-1.970		
664	71.431	2.000	-1.970		
665	72.581	2.000	-1.970		
666	73.731	2.000	-1.970		
667	74.881	2.000	-1.970		
668	76.031	2.000	-1.933		
669	77.181	2.000	-1.897		
670	78.331	2.000	-1.897		
671	79.481	2.000	-1.897		
672	80.631	2.000	-1.897		
673	81.781	2.000	-1.897		
674	82.931	2.000	-1.933		
675	84.081	2.000	-1.970		
676	85.231	2.000	-1.970		
677	86.381	2.000	-1.970		
678	87.531	2.000	-1.970		
679	88.681	2.000	-1.970		
680	89.831	2.000	-1.970		
681	90.981	2.000	-1.970		
682	92.131	2.000	-1.970		
683	93.281	2.000	-1.970		
684	94.431	2.000	-1.970		
685	95.581	2.000	-1.970		
686	96.731	2.000	-1.970		
687	97.881	2.000	-1.970		
688	99.031	2.000	-1.970		
689	100.181	2.000	-1.970		
690	101.331	2.000	-1.970		
691	102.481	2.000	-1.970		
692	103.631	2.000	-1.970		
693	104.781	2.000	-1.970		
694	105.931	2.000	-1.970		
695	107.081	2.000	-1.970		
696	108.231	2.000	-1.970		
697	109.381	2.000	-1.970		
698	110.531	2.000	-1.970		
699	111.681	2.000	-1.970		
700	112.831	2.000	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
701	113.981	2.000	-1.970		
702	115.131	2.000	-1.970		
703	116.281	2.000	-1.970		
704	117.431	2.000	-1.970		
705	118.581	2.000	-1.970		
706	119.731	2.000	-1.970		
707	120.881	2.000	-1.970		
708	122.031	2.000	-1.933		
709	123.181	2.000	-1.897		
710	124.331	2.000	-1.897		
711	125.481	2.000	-1.897		
712	126.631	2.000	-1.897		
713	127.781	2.000	-1.897		
714	128.931	2.000	-1.933		
715	130.081	2.000	-1.970		
716	131.231	2.000	-1.970		
717	132.381	2.000	-1.970		
718	133.531	2.000	-1.970		
719	134.681	2.000	-1.970		
720	135.831	2.000	-1.970		
721	136.981	2.000	-1.970		
722	138.131	2.000	-1.970		
723	139.281	2.000	-1.970		
724	140.431	2.000	-1.970		
725	141.581	2.000	-1.970		
726	142.731	2.000	-1.970		
727	143.881	2.000	-1.970		
728	145.031	2.000	-1.970		
729	146.181	2.000	-1.970		
730	147.331	2.000	-1.970		
731	148.481	2.000	-1.970		
732	149.631	2.000	-1.970		
733	150.781	2.000	-1.970		
734	151.931	2.000	-1.970		
735	153.081	2.000	-1.970		
736	154.231	2.000	-1.970		
737	155.381	2.000	-1.970		
738	156.531	2.000	-1.970		
739	157.681	2.000	-1.970		
740	158.831	2.000	-1.970		
741	159.981	2.000	-1.970		
742	161.131	2.000	-1.970		
743	162.281	2.000	-1.970		
744	163.431	2.000	-1.970		
745	164.581	2.000	-1.970		
746	165.731	2.000	-1.933		
747	166.881	2.000	-1.897		
748	168.031	2.000	-1.897		
749	169.181	2.000	-1.897		
750	170.331	2.000	-1.897		
751	171.481	2.000	-1.897		
752	172.631	2.000	-1.933		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
753	173.781	2.000	-1.970		
754	174.931	2.000	-1.970		
755	176.081	2.000	-1.970		
756	177.231	2.000	-1.970		
757	178.381	2.000	-1.970		
758	179.531	2.000	-1.970		
759	180.681	2.000	-1.970		
760	181.831	2.000	-1.970		
761	182.981	2.000	-1.970		
762	184.131	2.000	-1.970		
763	185.281	2.000	-1.970		
764	186.431	2.000	-1.970		
765	187.581	2.000	-1.970		
766	188.731	2.000	-1.970		
767	189.881	2.000	-1.970		
768	191.031	2.000	-1.970		
769	192.181	2.000	-1.970		
770	193.331	2.000	-1.970		
771	194.481	2.000	-1.970		
772	195.631	2.000	-1.970		
773	196.781	2.000	-1.970		
774	197.931	2.000	-1.970		
775	199.081	2.000	-1.970		
776	200.231	2.000	-1.970		
777	201.381	2.000	-1.970		
778	202.531	2.000	-1.970		
779	203.681	2.000	-1.970		
780	204.831	2.000	-1.970		
781	205.981	2.000	-1.970		
782	207.131	2.000	-1.933		
783	208.281	2.000	-1.897		
784	209.431	2.000	-1.897		
785	210.581	2.000	-1.897		
801	-2.853	5.600	-1.897		2500 - CP_COM 1(UX UY UZ RX RY RZ)
802	-1.703	5.600	-1.897		
803	-0.553	5.600	-1.897		
804	0.597	5.600	-1.933		
805	1.747	5.600	-1.970		
806	2.897	5.600	-1.970		
807	4.047	5.600	-1.970		
808	5.197	5.600	-1.970		
809	6.347	5.600	-1.970		
810	7.497	5.600	-1.970		
811	8.647	5.600	-1.970		
812	9.797	5.600	-1.970		
813	10.947	5.600	-1.970		
814	12.097	5.600	-1.970		
815	13.247	5.600	-1.970		
816	14.397	5.600	-1.970		
817	15.547	5.600	-1.970		
818	16.697	5.600	-1.970		
819	17.847	5.600	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
820	18.997	5.600	-1.970		
821	20.147	5.600	-1.970		
822	21.297	5.600	-1.970		
823	22.447	5.600	-1.970		
824	23.597	5.600	-1.970		
825	24.747	5.600	-1.970		
826	25.897	5.600	-1.970		
827	27.047	5.600	-1.970		
828	28.197	5.600	-1.933		
829	29.347	5.600	-1.897		
830	30.497	5.600	-1.897		
831	31.647	5.600	-1.897		2501 - CP_COM 1(UX UY UZ RX RY RZ)
832	32.797	5.600	-1.897		
833	33.947	5.600	-1.897		
834	35.097	5.600	-1.933		
835	36.247	5.600	-1.970		
836	37.397	5.600	-1.970		
837	38.547	5.600	-1.970		
838	39.697	5.600	-1.970		
839	40.847	5.600	-1.970		
840	41.997	5.600	-1.970		
841	43.147	5.600	-1.970		
842	44.297	5.600	-1.970		
843	45.447	5.600	-1.970		
844	46.597	5.600	-1.970		
845	47.747	5.600	-1.970		
846	48.897	5.600	-1.970		
847	50.047	5.600	-1.970		
848	51.197	5.600	-1.970		
849	52.347	5.600	-1.970		
850	53.497	5.600	-1.970		
851	54.647	5.600	-1.970		
852	55.797	5.600	-1.970		
853	56.947	5.600	-1.970		
854	58.097	5.600	-1.970		
855	59.247	5.600	-1.970		
856	60.397	5.600	-1.970		
857	61.547	5.600	-1.970		
858	62.697	5.600	-1.970		
859	63.847	5.600	-1.970		
860	64.997	5.600	-1.970		
861	66.147	5.600	-1.970		
862	67.297	5.600	-1.970		
863	68.447	5.600	-1.970		
864	69.597	5.600	-1.970		
865	70.747	5.600	-1.970		
866	71.897	5.600	-1.970		
867	73.047	5.600	-1.970		
868	74.197	5.600	-1.933		
869	75.347	5.600	-1.897		
870	76.497	5.600	-1.897		
871	77.647	5.600	-1.897		2502 - CP_COM 1(UX UY UZ RX RY RZ)

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
872	78.797	5.600	-1.897		
873	79.947	5.600	-1.897		
874	81.097	5.600	-1.933		
875	82.247	5.600	-1.970		
876	83.397	5.600	-1.970		
877	84.547	5.600	-1.970		
878	85.697	5.600	-1.970		
879	86.847	5.600	-1.970		
880	87.997	5.600	-1.970		
881	89.147	5.600	-1.970		
882	90.297	5.600	-1.970		
883	91.447	5.600	-1.970		
884	92.597	5.600	-1.970		
885	93.747	5.600	-1.970		
886	94.897	5.600	-1.970		
887	96.047	5.600	-1.970		
888	97.197	5.600	-1.970		
889	98.347	5.600	-1.970		
890	99.497	5.600	-1.970		
891	100.647	5.600	-1.970		
892	101.797	5.600	-1.970		
893	102.947	5.600	-1.970		
894	104.097	5.600	-1.970		
895	105.247	5.600	-1.970		
896	106.397	5.600	-1.970		
897	107.547	5.600	-1.970		
898	108.697	5.600	-1.970		
899	109.847	5.600	-1.970		
900	110.997	5.600	-1.970		
901	112.147	5.600	-1.970		
902	113.297	5.600	-1.970		
903	114.447	5.600	-1.970		
904	115.597	5.600	-1.970		
905	116.747	5.600	-1.970		
906	117.897	5.600	-1.970		
907	119.047	5.600	-1.970		
908	120.197	5.600	-1.933		
909	121.347	5.600	-1.897		
910	122.497	5.600	-1.897		
911	123.647	5.600	-1.897		2503 - CP_COM 1(UX UY UZ RX RY RZ)
912	124.797	5.600	-1.897		
913	125.947	5.600	-1.897		
914	127.097	5.600	-1.933		
915	128.247	5.600	-1.970		
916	129.397	5.600	-1.970		
917	130.547	5.600	-1.970		
918	131.697	5.600	-1.970		
919	132.847	5.600	-1.970		
920	133.997	5.600	-1.970		
921	135.147	5.600	-1.970		
922	136.297	5.600	-1.970		
923	137.447	5.600	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
924	138.597	5.600	-1.970		
925	139.747	5.600	-1.970		
926	140.897	5.600	-1.970		
927	142.047	5.600	-1.970		
928	143.197	5.600	-1.970		
929	144.347	5.600	-1.970		
930	145.497	5.600	-1.970		
931	146.647	5.600	-1.970		
932	147.797	5.600	-1.970		
933	148.947	5.600	-1.970		
934	150.097	5.600	-1.970		
935	151.247	5.600	-1.970		
936	152.397	5.600	-1.970		
937	153.547	5.600	-1.970		
938	154.697	5.600	-1.970		
939	155.847	5.600	-1.970		
940	156.997	5.600	-1.970		
941	158.147	5.600	-1.970		
942	159.297	5.600	-1.970		
943	160.447	5.600	-1.970		
944	161.597	5.600	-1.970		
945	162.747	5.600	-1.970		
946	163.897	5.600	-1.933		
947	165.047	5.600	-1.897		
948	166.197	5.600	-1.897		
949	167.347	5.600	-1.897		2504 - CP_COM 1(UX UY UZ RX RY RZ)
950	168.497	5.600	-1.897		
951	169.647	5.600	-1.897		
952	170.797	5.600	-1.933		
953	171.947	5.600	-1.970		
954	173.097	5.600	-1.970		
955	174.247	5.600	-1.970		
956	175.397	5.600	-1.970		
957	176.547	5.600	-1.970		
958	177.697	5.600	-1.970		
959	178.847	5.600	-1.970		
960	179.997	5.600	-1.970		
961	181.147	5.600	-1.970		
962	182.297	5.600	-1.970		
963	183.447	5.600	-1.970		
964	184.597	5.600	-1.970		
965	185.747	5.600	-1.970		
966	186.897	5.600	-1.970		
967	188.047	5.600	-1.970		
968	189.197	5.600	-1.970		
969	190.347	5.600	-1.970		
970	191.497	5.600	-1.970		
971	192.647	5.600	-1.970		
972	193.797	5.600	-1.970		
973	194.947	5.600	-1.970		
974	196.097	5.600	-1.970		
975	197.247	5.600	-1.970		

Nudo	X (m)	Y (m)	Z (m)	Apoyo - código	Compatibles
976	198.397	5.600	-1.970		
977	199.547	5.600	-1.970		
978	200.697	5.600	-1.970		
979	201.847	5.600	-1.970		
980	202.997	5.600	-1.970		
981	204.147	5.600	-1.970		
982	205.297	5.600	-1.933		
983	206.447	5.600	-1.897		
984	207.597	5.600	-1.897		
985	208.747	5.600	-1.897		2505 - CP_COM 1(UX UY UZ RX RY RZ)
2000	0.0	0.0	-7.997	ffffff	
2001	34.500	0.0	-9.997	ffffff	
2002	80.500	0.0	-9.997	ffffff	
2003	126.500	0.0	-9.997	ffffff	
2004	170.200	0.0	-7.997	ffffff	
2005	211.600	0.0	-5.997	ffffff	
2100	0.0	0.0	-1.997		
2101	34.500	0.0	-1.997		
2102	80.500	0.0	-1.997		
2103	126.500	0.0	-1.997		
2104	170.200	0.0	-1.997		
2105	211.600	0.0	-1.997		
2200	2.853	-5.600	-1.997		
2201	37.353	-5.600	-1.997		
2202	83.353	-5.600	-1.997		
2203	129.353	-5.600	-1.997		
2204	173.053	-5.600	-1.997		
2205	214.453	-5.600	-1.997		
2300	-2.853	5.600	-1.997		
2301	31.647	5.600	-1.997		
2302	77.647	5.600	-1.997		
2303	123.647	5.600	-1.997		
2304	167.347	5.600	-1.997		
2305	208.747	5.600	-1.997		
2400	2.853	-5.600	-1.897		1 - CP_COM 1(UX UY UZ RX RY RZ)
2401	37.353	-5.600	-1.897		31 - CP_COM 1(UX UY UZ RX RY RZ)
2402	83.353	-5.600	-1.897		71 - CP_COM 1(UX UY UZ RX RY RZ)
2403	129.353	-5.600	-1.897		111 - CP_COM 1(UX UY UZ RX RY RZ)
2404	173.053	-5.600	-1.897		149 - CP_COM 1(UX UY UZ RX RY RZ)
2405	214.453	-5.600	-1.897		185 - CP_COM 1(UX UY UZ RX RY RZ)
2500	-2.853	5.600	-1.897		801 - CP_COM 1(UX UY UZ RX RY RZ)
2501	31.647	5.600	-1.897		831 - CP_COM 1(UX UY UZ RX RY RZ)
2502	77.647	5.600	-1.897		871 - CP_COM 1(UX UY UZ RX RY RZ)
2503	123.647	5.600	-1.897		911 - CP_COM 1(UX UY UZ RX RY RZ)
2504	167.347	5.600	-1.897		949 - CP_COM 1(UX UY UZ RX RY RZ)
2505	208.747	5.600	-1.897		985 - CP_COM 1(UX UY UZ RX RY RZ)

Barras

Filtrar	Barra	Elemento
Lista compl	1A184 201	1A184 201
Selección	1A184 201	1A184 201
Número tot	1138	1138
Número sel	1138	1138

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
1	1	2	NS 1	1.150	0.0	
2	2	3	NS 1	1.150	0.0	
3	3	4	NS 1	1.151	0.0	
4	4	5	NS 2	1.151	0.0	
5	5	6	NS 2	1.150	0.0	
6	6	7	NS 2	1.150	0.0	
7	7	8	NS 2	1.150	0.0	
8	8	9	NS 2	1.150	0.0	
9	9	10	NS 2	1.150	0.0	
10	10	11	NS 2	1.150	0.0	
11	11	12	NS 2	1.150	0.0	
12	12	13	NS 2	1.150	0.0	
13	13	14	NS 2	1.150	0.0	
14	14	15	NS 2	1.150	0.0	
15	15	16	NS 2	1.150	0.0	
16	16	17	NS 2	1.150	0.0	
17	17	18	NS 2	1.150	0.0	
18	18	19	NS 2	1.150	0.0	
19	19	20	NS 2	1.150	0.0	
20	20	21	NS 2	1.150	0.0	
21	21	22	NS 2	1.150	0.0	
22	22	23	NS 2	1.150	0.0	
23	23	24	NS 2	1.150	0.0	
24	24	25	NS 2	1.150	0.0	
25	25	26	NS 2	1.150	0.0	
26	26	27	NS 2	1.150	0.0	
27	27	28	NS 2	1.151	0.0	
28	28	29	NS 1	1.151	0.0	
29	29	30	NS 1	1.150	0.0	
30	30	31	NS 1	1.150	0.0	
31	31	32	NS 1	1.150	0.0	
32	32	33	NS 1	1.150	0.0	
33	33	34	NS 1	1.151	0.0	
34	34	35	NS 2	1.151	0.0	
35	35	36	NS 2	1.150	0.0	
36	36	37	NS 2	1.150	0.0	
37	37	38	NS 2	1.150	0.0	
38	38	39	NS 2	1.150	0.0	
39	39	40	NS 2	1.150	0.0	
40	40	41	NS 2	1.150	0.0	
41	41	42	NS 2	1.150	0.0	
42	42	43	NS 2	1.150	0.0	
43	43	44	NS 2	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
44	44	45	NS 2	1.150	0.0	
45	45	46	NS 2	1.150	0.0	
46	46	47	NS 2	1.150	0.0	
47	47	48	NS 2	1.150	0.0	
48	48	49	NS 2	1.150	0.0	
49	49	50	NS 2	1.150	0.0	
50	50	51	NS 2	1.150	0.0	
51	51	52	NS 2	1.150	0.0	
52	52	53	NS 2	1.150	0.0	
53	53	54	NS 2	1.150	0.0	
54	54	55	NS 2	1.150	0.0	
55	55	56	NS 2	1.150	0.0	
56	56	57	NS 2	1.150	0.0	
57	57	58	NS 2	1.150	0.0	
58	58	59	NS 2	1.150	0.0	
59	59	60	NS 2	1.150	0.0	
60	60	61	NS 2	1.150	0.0	
61	61	62	NS 2	1.150	0.0	
62	62	63	NS 2	1.150	0.0	
63	63	64	NS 2	1.150	0.0	
64	64	65	NS 2	1.150	0.0	
65	65	66	NS 2	1.150	0.0	
66	66	67	NS 2	1.150	0.0	
67	67	68	NS 2	1.151	0.0	
68	68	69	NS 1	1.151	0.0	
69	69	70	NS 1	1.150	0.0	
70	70	71	NS 1	1.150	0.0	
71	71	72	NS 1	1.150	0.0	
72	72	73	NS 1	1.150	0.0	
73	73	74	NS 1	1.151	0.0	
74	74	75	NS 2	1.151	0.0	
75	75	76	NS 2	1.150	0.0	
76	76	77	NS 2	1.150	0.0	
77	77	78	NS 2	1.150	0.0	
78	78	79	NS 2	1.150	0.0	
79	79	80	NS 2	1.150	0.0	
80	80	81	NS 2	1.150	0.0	
81	81	82	NS 2	1.150	0.0	
82	82	83	NS 2	1.150	0.0	
83	83	84	NS 2	1.150	0.0	
84	84	85	NS 2	1.150	0.0	
85	85	86	NS 2	1.150	0.0	
86	86	87	NS 2	1.150	0.0	
87	87	88	NS 2	1.150	0.0	
88	88	89	NS 2	1.150	0.0	
89	89	90	NS 2	1.150	0.0	
90	90	91	NS 2	1.150	0.0	
91	91	92	NS 2	1.150	0.0	
92	92	93	NS 2	1.150	0.0	
93	93	94	NS 2	1.150	0.0	
94	94	95	NS 2	1.150	0.0	
95	95	96	NS 2	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
96	96	97	NS 2	1.150	0.0	
97	97	98	NS 2	1.150	0.0	
98	98	99	NS 2	1.150	0.0	
99	99	100	NS 2	1.150	0.0	
100	100	101	NS 2	1.150	0.0	
101	101	102	NS 2	1.150	0.0	
102	102	103	NS 2	1.150	0.0	
103	103	104	NS 2	1.150	0.0	
104	104	105	NS 2	1.150	0.0	
105	105	106	NS 2	1.150	0.0	
106	106	107	NS 2	1.150	0.0	
107	107	108	NS 2	1.151	0.0	
108	108	109	NS 1	1.151	0.0	
109	109	110	NS 1	1.150	0.0	
110	110	111	NS 1	1.150	0.0	
111	111	112	NS 1	1.150	0.0	
112	112	113	NS 1	1.150	0.0	
113	113	114	NS 1	1.151	0.0	
114	114	115	NS 2	1.151	0.0	
115	115	116	NS 2	1.150	0.0	
116	116	117	NS 2	1.150	0.0	
117	117	118	NS 2	1.150	0.0	
118	118	119	NS 2	1.150	0.0	
119	119	120	NS 2	1.150	0.0	
120	120	121	NS 2	1.150	0.0	
121	121	122	NS 2	1.150	0.0	
122	122	123	NS 2	1.150	0.0	
123	123	124	NS 2	1.150	0.0	
124	124	125	NS 2	1.150	0.0	
125	125	126	NS 2	1.150	0.0	
126	126	127	NS 2	1.150	0.0	
127	127	128	NS 2	1.150	0.0	
128	128	129	NS 2	1.150	0.0	
129	129	130	NS 2	1.150	0.0	
130	130	131	NS 2	1.150	0.0	
131	131	132	NS 2	1.150	0.0	
132	132	133	NS 2	1.150	0.0	
133	133	134	NS 2	1.150	0.0	
134	134	135	NS 2	1.150	0.0	
135	135	136	NS 2	1.150	0.0	
136	136	137	NS 2	1.150	0.0	
137	137	138	NS 2	1.150	0.0	
138	138	139	NS 2	1.150	0.0	
139	139	140	NS 2	1.150	0.0	
140	140	141	NS 2	1.150	0.0	
141	141	142	NS 2	1.150	0.0	
142	142	143	NS 2	1.150	0.0	
143	143	144	NS 2	1.150	0.0	
144	144	145	NS 2	1.150	0.0	
145	145	146	NS 2	1.151	0.0	
146	146	147	NS 1	1.151	0.0	
147	147	148	NS 1	1.150	0.0	

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Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
148	148	149	NS 1	1.150	0.0	
149	149	150	NS 1	1.150	0.0	
150	150	151	NS 1	1.150	0.0	
151	151	152	NS 1	1.151	0.0	
152	152	153	NS 2	1.151	0.0	
153	153	154	NS 2	1.150	0.0	
154	154	155	NS 2	1.150	0.0	
155	155	156	NS 2	1.150	0.0	
156	156	157	NS 2	1.150	0.0	
157	157	158	NS 2	1.150	0.0	
158	158	159	NS 2	1.150	0.0	
159	159	160	NS 2	1.150	0.0	
160	160	161	NS 2	1.150	0.0	
161	161	162	NS 2	1.150	0.0	
162	162	163	NS 2	1.150	0.0	
163	163	164	NS 2	1.150	0.0	
164	164	165	NS 2	1.150	0.0	
165	165	166	NS 2	1.150	0.0	
166	166	167	NS 2	1.150	0.0	
167	167	168	NS 2	1.150	0.0	
168	168	169	NS 2	1.150	0.0	
169	169	170	NS 2	1.150	0.0	
170	170	171	NS 2	1.150	0.0	
171	171	172	NS 2	1.150	0.0	
172	172	173	NS 2	1.150	0.0	
173	173	174	NS 2	1.150	0.0	
174	174	175	NS 2	1.150	0.0	
175	175	176	NS 2	1.150	0.0	
176	176	177	NS 2	1.150	0.0	
177	177	178	NS 2	1.150	0.0	
178	178	179	NS 2	1.150	0.0	
179	179	180	NS 2	1.150	0.0	
180	180	181	NS 2	1.150	0.0	
181	181	182	NS 2	1.151	0.0	
182	182	183	NS 1	1.151	0.0	
183	183	184	NS 1	1.150	0.0	
184	184	185	NS 1	1.150	0.0	
201	201	202	NS 3	1.150	0.0	
202	202	203	NS 3	1.150	0.0	
203	203	204	NS 3	1.151	0.0	
204	204	205	NS 3	1.151	0.0	
205	205	206	NS 3	1.150	0.0	
206	206	207	NS 3	1.150	0.0	
207	207	208	NS 3	1.150	0.0	
208	208	209	NS 3	1.150	0.0	
209	209	210	NS 3	1.150	0.0	
210	210	211	NS 3	1.150	0.0	
211	211	212	NS 3	1.150	0.0	
212	212	213	NS 3	1.150	0.0	
213	213	214	NS 3	1.150	0.0	
214	214	215	NS 3	1.150	0.0	
215	215	216	NS 3	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
216	216	217	NS 3	1.150	0.0	
217	217	218	NS 3	1.150	0.0	
218	218	219	NS 3	1.150	0.0	
219	219	220	NS 3	1.150	0.0	
220	220	221	NS 3	1.150	0.0	
221	221	222	NS 3	1.150	0.0	
222	222	223	NS 3	1.150	0.0	
223	223	224	NS 3	1.150	0.0	
224	224	225	NS 3	1.150	0.0	
225	225	226	NS 3	1.150	0.0	
226	226	227	NS 3	1.150	0.0	
227	227	228	NS 3	1.151	0.0	
228	228	229	NS 3	1.151	0.0	
229	229	230	NS 3	1.150	0.0	
230	230	231	NS 3	1.150	0.0	
231	231	232	NS 3	1.150	0.0	
232	232	233	NS 3	1.150	0.0	
233	233	234	NS 3	1.151	0.0	
234	234	235	NS 3	1.151	0.0	
235	235	236	NS 3	1.150	0.0	
236	236	237	NS 3	1.150	0.0	
237	237	238	NS 3	1.150	0.0	
238	238	239	NS 3	1.150	0.0	
239	239	240	NS 3	1.150	0.0	
240	240	241	NS 3	1.150	0.0	
241	241	242	NS 3	1.150	0.0	
242	242	243	NS 3	1.150	0.0	
243	243	244	NS 3	1.150	0.0	
244	244	245	NS 3	1.150	0.0	
245	245	246	NS 3	1.150	0.0	
246	246	247	NS 3	1.150	0.0	
247	247	248	NS 3	1.150	0.0	
248	248	249	NS 3	1.150	0.0	
249	249	250	NS 3	1.150	0.0	
250	250	251	NS 3	1.150	0.0	
251	251	252	NS 3	1.150	0.0	
252	252	253	NS 3	1.150	0.0	
253	253	254	NS 3	1.150	0.0	
254	254	255	NS 3	1.150	0.0	
255	255	256	NS 3	1.150	0.0	
256	256	257	NS 3	1.150	0.0	
257	257	258	NS 3	1.150	0.0	
258	258	259	NS 3	1.150	0.0	
259	259	260	NS 3	1.150	0.0	
260	260	261	NS 3	1.150	0.0	
261	261	262	NS 3	1.150	0.0	
262	262	263	NS 3	1.150	0.0	
263	263	264	NS 3	1.150	0.0	
264	264	265	NS 3	1.150	0.0	
265	265	266	NS 3	1.150	0.0	
266	266	267	NS 3	1.150	0.0	
267	267	268	NS 3	1.151	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
268	268	269	NS 3	1.151	0.0	
269	269	270	NS 3	1.150	0.0	
270	270	271	NS 3	1.150	0.0	
271	271	272	NS 3	1.150	0.0	
272	272	273	NS 3	1.150	0.0	
273	273	274	NS 3	1.151	0.0	
274	274	275	NS 3	1.151	0.0	
275	275	276	NS 3	1.150	0.0	
276	276	277	NS 3	1.150	0.0	
277	277	278	NS 3	1.150	0.0	
278	278	279	NS 3	1.150	0.0	
279	279	280	NS 3	1.150	0.0	
280	280	281	NS 3	1.150	0.0	
281	281	282	NS 3	1.150	0.0	
282	282	283	NS 3	1.150	0.0	
283	283	284	NS 3	1.150	0.0	
284	284	285	NS 3	1.150	0.0	
285	285	286	NS 3	1.150	0.0	
286	286	287	NS 3	1.150	0.0	
287	287	288	NS 3	1.150	0.0	
288	288	289	NS 3	1.150	0.0	
289	289	290	NS 3	1.150	0.0	
290	290	291	NS 3	1.150	0.0	
291	291	292	NS 3	1.150	0.0	
292	292	293	NS 3	1.150	0.0	
293	293	294	NS 3	1.150	0.0	
294	294	295	NS 3	1.150	0.0	
295	295	296	NS 3	1.150	0.0	
296	296	297	NS 3	1.150	0.0	
297	297	298	NS 3	1.150	0.0	
298	298	299	NS 3	1.150	0.0	
299	299	300	NS 3	1.150	0.0	
300	300	301	NS 3	1.150	0.0	
301	301	302	NS 3	1.150	0.0	
302	302	303	NS 3	1.150	0.0	
303	303	304	NS 3	1.150	0.0	
304	304	305	NS 3	1.150	0.0	
305	305	306	NS 3	1.150	0.0	
306	306	307	NS 3	1.150	0.0	
307	307	308	NS 3	1.151	0.0	
308	308	309	NS 3	1.151	0.0	
309	309	310	NS 3	1.150	0.0	
310	310	311	NS 3	1.150	0.0	
311	311	312	NS 3	1.150	0.0	
312	312	313	NS 3	1.150	0.0	
313	313	314	NS 3	1.151	0.0	
314	314	315	NS 3	1.151	0.0	
315	315	316	NS 3	1.150	0.0	
316	316	317	NS 3	1.150	0.0	
317	317	318	NS 3	1.150	0.0	
318	318	319	NS 3	1.150	0.0	
319	319	320	NS 3	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
320	320	321	NS 3	1.150	0.0	
321	321	322	NS 3	1.150	0.0	
322	322	323	NS 3	1.150	0.0	
323	323	324	NS 3	1.150	0.0	
324	324	325	NS 3	1.150	0.0	
325	325	326	NS 3	1.150	0.0	
326	326	327	NS 3	1.150	0.0	
327	327	328	NS 3	1.150	0.0	
328	328	329	NS 3	1.150	0.0	
329	329	330	NS 3	1.150	0.0	
330	330	331	NS 3	1.150	0.0	
331	331	332	NS 3	1.150	0.0	
332	332	333	NS 3	1.150	0.0	
333	333	334	NS 3	1.150	0.0	
334	334	335	NS 3	1.150	0.0	
335	335	336	NS 3	1.150	0.0	
336	336	337	NS 3	1.150	0.0	
337	337	338	NS 3	1.150	0.0	
338	338	339	NS 3	1.150	0.0	
339	339	340	NS 3	1.150	0.0	
340	340	341	NS 3	1.150	0.0	
341	341	342	NS 3	1.150	0.0	
342	342	343	NS 3	1.150	0.0	
343	343	344	NS 3	1.150	0.0	
344	344	345	NS 3	1.150	0.0	
345	345	346	NS 3	1.151	0.0	
346	346	347	NS 3	1.151	0.0	
347	347	348	NS 3	1.150	0.0	
348	348	349	NS 3	1.150	0.0	
349	349	350	NS 3	1.150	0.0	
350	350	351	NS 3	1.150	0.0	
351	351	352	NS 3	1.151	0.0	
352	352	353	NS 3	1.151	0.0	
353	353	354	NS 3	1.150	0.0	
354	354	355	NS 3	1.150	0.0	
355	355	356	NS 3	1.150	0.0	
356	356	357	NS 3	1.150	0.0	
357	357	358	NS 3	1.150	0.0	
358	358	359	NS 3	1.150	0.0	
359	359	360	NS 3	1.150	0.0	
360	360	361	NS 3	1.150	0.0	
361	361	362	NS 3	1.150	0.0	
362	362	363	NS 3	1.150	0.0	
363	363	364	NS 3	1.150	0.0	
364	364	365	NS 3	1.150	0.0	
365	365	366	NS 3	1.150	0.0	
366	366	367	NS 3	1.150	0.0	
367	367	368	NS 3	1.150	0.0	
368	368	369	NS 3	1.150	0.0	
369	369	370	NS 3	1.150	0.0	
370	370	371	NS 3	1.150	0.0	
371	371	372	NS 3	1.150	0.0	

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Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
372	372	373	NS 3	1.150	0.0	
373	373	374	NS 3	1.150	0.0	
374	374	375	NS 3	1.150	0.0	
375	375	376	NS 3	1.150	0.0	
376	376	377	NS 3	1.150	0.0	
377	377	378	NS 3	1.150	0.0	
378	378	379	NS 3	1.150	0.0	
379	379	380	NS 3	1.150	0.0	
380	380	381	NS 3	1.150	0.0	
381	381	382	NS 3	1.151	0.0	
382	382	383	NS 3	1.151	0.0	
383	383	384	NS 3	1.150	0.0	
384	384	385	NS 3	1.150	0.0	
601	601	602	NS 3	1.150	0.0	
602	602	603	NS 3	1.150	0.0	
603	603	604	NS 3	1.151	0.0	
604	604	605	NS 3	1.151	0.0	
605	605	606	NS 3	1.150	0.0	
606	606	607	NS 3	1.150	0.0	
607	607	608	NS 3	1.150	0.0	
608	608	609	NS 3	1.150	0.0	
609	609	610	NS 3	1.150	0.0	
610	610	611	NS 3	1.150	0.0	
611	611	612	NS 3	1.150	0.0	
612	612	613	NS 3	1.150	0.0	
613	613	614	NS 3	1.150	0.0	
614	614	615	NS 3	1.150	0.0	
615	615	616	NS 3	1.150	0.0	
616	616	617	NS 3	1.150	0.0	
617	617	618	NS 3	1.150	0.0	
618	618	619	NS 3	1.150	0.0	
619	619	620	NS 3	1.150	0.0	
620	620	621	NS 3	1.150	0.0	
621	621	622	NS 3	1.150	0.0	
622	622	623	NS 3	1.150	0.0	
623	623	624	NS 3	1.150	0.0	
624	624	625	NS 3	1.150	0.0	
625	625	626	NS 3	1.150	0.0	
626	626	627	NS 3	1.150	0.0	
627	627	628	NS 3	1.151	0.0	
628	628	629	NS 3	1.151	0.0	
629	629	630	NS 3	1.150	0.0	
630	630	631	NS 3	1.150	0.0	
631	631	632	NS 3	1.150	0.0	
632	632	633	NS 3	1.150	0.0	
633	633	634	NS 3	1.151	0.0	
634	634	635	NS 3	1.151	0.0	
635	635	636	NS 3	1.150	0.0	
636	636	637	NS 3	1.150	0.0	
637	637	638	NS 3	1.150	0.0	
638	638	639	NS 3	1.150	0.0	
639	639	640	NS 3	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
640	640	641	NS 3	1.150	0.0	
641	641	642	NS 3	1.150	0.0	
642	642	643	NS 3	1.150	0.0	
643	643	644	NS 3	1.150	0.0	
644	644	645	NS 3	1.150	0.0	
645	645	646	NS 3	1.150	0.0	
646	646	647	NS 3	1.150	0.0	
647	647	648	NS 3	1.150	0.0	
648	648	649	NS 3	1.150	0.0	
649	649	650	NS 3	1.150	0.0	
650	650	651	NS 3	1.150	0.0	
651	651	652	NS 3	1.150	0.0	
652	652	653	NS 3	1.150	0.0	
653	653	654	NS 3	1.150	0.0	
654	654	655	NS 3	1.150	0.0	
655	655	656	NS 3	1.150	0.0	
656	656	657	NS 3	1.150	0.0	
657	657	658	NS 3	1.150	0.0	
658	658	659	NS 3	1.150	0.0	
659	659	660	NS 3	1.150	0.0	
660	660	661	NS 3	1.150	0.0	
661	661	662	NS 3	1.150	0.0	
662	662	663	NS 3	1.150	0.0	
663	663	664	NS 3	1.150	0.0	
664	664	665	NS 3	1.150	0.0	
665	665	666	NS 3	1.150	0.0	
666	666	667	NS 3	1.150	0.0	
667	667	668	NS 3	1.151	0.0	
668	668	669	NS 3	1.151	0.0	
669	669	670	NS 3	1.150	0.0	
670	670	671	NS 3	1.150	0.0	
671	671	672	NS 3	1.150	0.0	
672	672	673	NS 3	1.150	0.0	
673	673	674	NS 3	1.151	0.0	
674	674	675	NS 3	1.151	0.0	
675	675	676	NS 3	1.150	0.0	
676	676	677	NS 3	1.150	0.0	
677	677	678	NS 3	1.150	0.0	
678	678	679	NS 3	1.150	0.0	
679	679	680	NS 3	1.150	0.0	
680	680	681	NS 3	1.150	0.0	
681	681	682	NS 3	1.150	0.0	
682	682	683	NS 3	1.150	0.0	
683	683	684	NS 3	1.150	0.0	
684	684	685	NS 3	1.150	0.0	
685	685	686	NS 3	1.150	0.0	
686	686	687	NS 3	1.150	0.0	
687	687	688	NS 3	1.150	0.0	
688	688	689	NS 3	1.150	0.0	
689	689	690	NS 3	1.150	0.0	
690	690	691	NS 3	1.150	0.0	
691	691	692	NS 3	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
692	692	693	NS 3	1.150	0.0	
693	693	694	NS 3	1.150	0.0	
694	694	695	NS 3	1.150	0.0	
695	695	696	NS 3	1.150	0.0	
696	696	697	NS 3	1.150	0.0	
697	697	698	NS 3	1.150	0.0	
698	698	699	NS 3	1.150	0.0	
699	699	700	NS 3	1.150	0.0	
700	700	701	NS 3	1.150	0.0	
701	701	702	NS 3	1.150	0.0	
702	702	703	NS 3	1.150	0.0	
703	703	704	NS 3	1.150	0.0	
704	704	705	NS 3	1.150	0.0	
705	705	706	NS 3	1.150	0.0	
706	706	707	NS 3	1.150	0.0	
707	707	708	NS 3	1.151	0.0	
708	708	709	NS 3	1.151	0.0	
709	709	710	NS 3	1.150	0.0	
710	710	711	NS 3	1.150	0.0	
711	711	712	NS 3	1.150	0.0	
712	712	713	NS 3	1.150	0.0	
713	713	714	NS 3	1.151	0.0	
714	714	715	NS 3	1.151	0.0	
715	715	716	NS 3	1.150	0.0	
716	716	717	NS 3	1.150	0.0	
717	717	718	NS 3	1.150	0.0	
718	718	719	NS 3	1.150	0.0	
719	719	720	NS 3	1.150	0.0	
720	720	721	NS 3	1.150	0.0	
721	721	722	NS 3	1.150	0.0	
722	722	723	NS 3	1.150	0.0	
723	723	724	NS 3	1.150	0.0	
724	724	725	NS 3	1.150	0.0	
725	725	726	NS 3	1.150	0.0	
726	726	727	NS 3	1.150	0.0	
727	727	728	NS 3	1.150	0.0	
728	728	729	NS 3	1.150	0.0	
729	729	730	NS 3	1.150	0.0	
730	730	731	NS 3	1.150	0.0	
731	731	732	NS 3	1.150	0.0	
732	732	733	NS 3	1.150	0.0	
733	733	734	NS 3	1.150	0.0	
734	734	735	NS 3	1.150	0.0	
735	735	736	NS 3	1.150	0.0	
736	736	737	NS 3	1.150	0.0	
737	737	738	NS 3	1.150	0.0	
738	738	739	NS 3	1.150	0.0	
739	739	740	NS 3	1.150	0.0	
740	740	741	NS 3	1.150	0.0	
741	741	742	NS 3	1.150	0.0	
742	742	743	NS 3	1.150	0.0	
743	743	744	NS 3	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
744	744	745	NS 3	1.150	0.0	
745	745	746	NS 3	1.151	0.0	
746	746	747	NS 3	1.151	0.0	
747	747	748	NS 3	1.150	0.0	
748	748	749	NS 3	1.150	0.0	
749	749	750	NS 3	1.150	0.0	
750	750	751	NS 3	1.150	0.0	
751	751	752	NS 3	1.151	0.0	
752	752	753	NS 3	1.151	0.0	
753	753	754	NS 3	1.150	0.0	
754	754	755	NS 3	1.150	0.0	
755	755	756	NS 3	1.150	0.0	
756	756	757	NS 3	1.150	0.0	
757	757	758	NS 3	1.150	0.0	
758	758	759	NS 3	1.150	0.0	
759	759	760	NS 3	1.150	0.0	
760	760	761	NS 3	1.150	0.0	
761	761	762	NS 3	1.150	0.0	
762	762	763	NS 3	1.150	0.0	
763	763	764	NS 3	1.150	0.0	
764	764	765	NS 3	1.150	0.0	
765	765	766	NS 3	1.150	0.0	
766	766	767	NS 3	1.150	0.0	
767	767	768	NS 3	1.150	0.0	
768	768	769	NS 3	1.150	0.0	
769	769	770	NS 3	1.150	0.0	
770	770	771	NS 3	1.150	0.0	
771	771	772	NS 3	1.150	0.0	
772	772	773	NS 3	1.150	0.0	
773	773	774	NS 3	1.150	0.0	
774	774	775	NS 3	1.150	0.0	
775	775	776	NS 3	1.150	0.0	
776	776	777	NS 3	1.150	0.0	
777	777	778	NS 3	1.150	0.0	
778	778	779	NS 3	1.150	0.0	
779	779	780	NS 3	1.150	0.0	
780	780	781	NS 3	1.150	0.0	
781	781	782	NS 3	1.151	0.0	
782	782	783	NS 3	1.151	0.0	
783	783	784	NS 3	1.150	0.0	
784	784	785	NS 3	1.150	0.0	
801	801	802	NS 1	1.150	0.0	
802	802	803	NS 1	1.150	0.0	
803	803	804	NS 1	1.151	0.0	
804	804	805	NS 2	1.151	0.0	
805	805	806	NS 2	1.150	0.0	
806	806	807	NS 2	1.150	0.0	
807	807	808	NS 2	1.150	0.0	
808	808	809	NS 2	1.150	0.0	
809	809	810	NS 2	1.150	0.0	
810	810	811	NS 2	1.150	0.0	
811	811	812	NS 2	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
812	812	813	NS 2	1.150	0.0	
813	813	814	NS 2	1.150	0.0	
814	814	815	NS 2	1.150	0.0	
815	815	816	NS 2	1.150	0.0	
816	816	817	NS 2	1.150	0.0	
817	817	818	NS 2	1.150	0.0	
818	818	819	NS 2	1.150	0.0	
819	819	820	NS 2	1.150	0.0	
820	820	821	NS 2	1.150	0.0	
821	821	822	NS 2	1.150	0.0	
822	822	823	NS 2	1.150	0.0	
823	823	824	NS 2	1.150	0.0	
824	824	825	NS 2	1.150	0.0	
825	825	826	NS 2	1.150	0.0	
826	826	827	NS 2	1.150	0.0	
827	827	828	NS 2	1.151	0.0	
828	828	829	NS 1	1.151	0.0	
829	829	830	NS 1	1.150	0.0	
830	830	831	NS 1	1.150	0.0	
831	831	832	NS 1	1.150	0.0	
832	832	833	NS 1	1.150	0.0	
833	833	834	NS 1	1.151	0.0	
834	834	835	NS 2	1.151	0.0	
835	835	836	NS 2	1.150	0.0	
836	836	837	NS 2	1.150	0.0	
837	837	838	NS 2	1.150	0.0	
838	838	839	NS 2	1.150	0.0	
839	839	840	NS 2	1.150	0.0	
840	840	841	NS 2	1.150	0.0	
841	841	842	NS 2	1.150	0.0	
842	842	843	NS 2	1.150	0.0	
843	843	844	NS 2	1.150	0.0	
844	844	845	NS 2	1.150	0.0	
845	845	846	NS 2	1.150	0.0	
846	846	847	NS 2	1.150	0.0	
847	847	848	NS 2	1.150	0.0	
848	848	849	NS 2	1.150	0.0	
849	849	850	NS 2	1.150	0.0	
850	850	851	NS 2	1.150	0.0	
851	851	852	NS 2	1.150	0.0	
852	852	853	NS 2	1.150	0.0	
853	853	854	NS 2	1.150	0.0	
854	854	855	NS 2	1.150	0.0	
855	855	856	NS 2	1.150	0.0	
856	856	857	NS 2	1.150	0.0	
857	857	858	NS 2	1.150	0.0	
858	858	859	NS 2	1.150	0.0	
859	859	860	NS 2	1.150	0.0	
860	860	861	NS 2	1.150	0.0	
861	861	862	NS 2	1.150	0.0	
862	862	863	NS 2	1.150	0.0	
863	863	864	NS 2	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
864	864	865	NS 2	1.150	0.0	
865	865	866	NS 2	1.150	0.0	
866	866	867	NS 2	1.150	0.0	
867	867	868	NS 2	1.151	0.0	
868	868	869	NS 1	1.151	0.0	
869	869	870	NS 1	1.150	0.0	
870	870	871	NS 1	1.150	0.0	
871	871	872	NS 1	1.150	0.0	
872	872	873	NS 1	1.150	0.0	
873	873	874	NS 1	1.151	0.0	
874	874	875	NS 2	1.151	0.0	
875	875	876	NS 2	1.150	0.0	
876	876	877	NS 2	1.150	0.0	
877	877	878	NS 2	1.150	0.0	
878	878	879	NS 2	1.150	0.0	
879	879	880	NS 2	1.150	0.0	
880	880	881	NS 2	1.150	0.0	
881	881	882	NS 2	1.150	0.0	
882	882	883	NS 2	1.150	0.0	
883	883	884	NS 2	1.150	0.0	
884	884	885	NS 2	1.150	0.0	
885	885	886	NS 2	1.150	0.0	
886	886	887	NS 2	1.150	0.0	
887	887	888	NS 2	1.150	0.0	
888	888	889	NS 2	1.150	0.0	
889	889	890	NS 2	1.150	0.0	
890	890	891	NS 2	1.150	0.0	
891	891	892	NS 2	1.150	0.0	
892	892	893	NS 2	1.150	0.0	
893	893	894	NS 2	1.150	0.0	
894	894	895	NS 2	1.150	0.0	
895	895	896	NS 2	1.150	0.0	
896	896	897	NS 2	1.150	0.0	
897	897	898	NS 2	1.150	0.0	
898	898	899	NS 2	1.150	0.0	
899	899	900	NS 2	1.150	0.0	
900	900	901	NS 2	1.150	0.0	
901	901	902	NS 2	1.150	0.0	
902	902	903	NS 2	1.150	0.0	
903	903	904	NS 2	1.150	0.0	
904	904	905	NS 2	1.150	0.0	
905	905	906	NS 2	1.150	0.0	
906	906	907	NS 2	1.150	0.0	
907	907	908	NS 2	1.151	0.0	
908	908	909	NS 1	1.151	0.0	
909	909	910	NS 1	1.150	0.0	
910	910	911	NS 1	1.150	0.0	
911	911	912	NS 1	1.150	0.0	
912	912	913	NS 1	1.150	0.0	
913	913	914	NS 1	1.151	0.0	
914	914	915	NS 2	1.151	0.0	
915	915	916	NS 2	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
916	916	917	NS 2	1.150	0.0	
917	917	918	NS 2	1.150	0.0	
918	918	919	NS 2	1.150	0.0	
919	919	920	NS 2	1.150	0.0	
920	920	921	NS 2	1.150	0.0	
921	921	922	NS 2	1.150	0.0	
922	922	923	NS 2	1.150	0.0	
923	923	924	NS 2	1.150	0.0	
924	924	925	NS 2	1.150	0.0	
925	925	926	NS 2	1.150	0.0	
926	926	927	NS 2	1.150	0.0	
927	927	928	NS 2	1.150	0.0	
928	928	929	NS 2	1.150	0.0	
929	929	930	NS 2	1.150	0.0	
930	930	931	NS 2	1.150	0.0	
931	931	932	NS 2	1.150	0.0	
932	932	933	NS 2	1.150	0.0	
933	933	934	NS 2	1.150	0.0	
934	934	935	NS 2	1.150	0.0	
935	935	936	NS 2	1.150	0.0	
936	936	937	NS 2	1.150	0.0	
937	937	938	NS 2	1.150	0.0	
938	938	939	NS 2	1.150	0.0	
939	939	940	NS 2	1.150	0.0	
940	940	941	NS 2	1.150	0.0	
941	941	942	NS 2	1.150	0.0	
942	942	943	NS 2	1.150	0.0	
943	943	944	NS 2	1.150	0.0	
944	944	945	NS 2	1.150	0.0	
945	945	946	NS 2	1.151	0.0	
946	946	947	NS 1	1.151	0.0	
947	947	948	NS 1	1.150	0.0	
948	948	949	NS 1	1.150	0.0	
949	949	950	NS 1	1.150	0.0	
950	950	951	NS 1	1.150	0.0	
951	951	952	NS 1	1.151	0.0	
952	952	953	NS 2	1.151	0.0	
953	953	954	NS 2	1.150	0.0	
954	954	955	NS 2	1.150	0.0	
955	955	956	NS 2	1.150	0.0	
956	956	957	NS 2	1.150	0.0	
957	957	958	NS 2	1.150	0.0	
958	958	959	NS 2	1.150	0.0	
959	959	960	NS 2	1.150	0.0	
960	960	961	NS 2	1.150	0.0	
961	961	962	NS 2	1.150	0.0	
962	962	963	NS 2	1.150	0.0	
963	963	964	NS 2	1.150	0.0	
964	964	965	NS 2	1.150	0.0	
965	965	966	NS 2	1.150	0.0	
966	966	967	NS 2	1.150	0.0	
967	967	968	NS 2	1.150	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
968	968	969	NS 2	1.150	0.0	
969	969	970	NS 2	1.150	0.0	
970	970	971	NS 2	1.150	0.0	
971	971	972	NS 2	1.150	0.0	
972	972	973	NS 2	1.150	0.0	
973	973	974	NS 2	1.150	0.0	
974	974	975	NS 2	1.150	0.0	
975	975	976	NS 2	1.150	0.0	
976	976	977	NS 2	1.150	0.0	
977	977	978	NS 2	1.150	0.0	
978	978	979	NS 2	1.150	0.0	
979	979	980	NS 2	1.150	0.0	
980	980	981	NS 2	1.150	0.0	
981	981	982	NS 2	1.151	0.0	
982	982	983	NS 1	1.151	0.0	
983	983	984	NS 1	1.150	0.0	
984	984	985	NS 1	1.150	0.0	
1001	1	201	NS 4	4.040	0.0	
1003	3	203	NS 4	4.040	0.0	
1005	5	205	NS 4	4.040	0.0	
1007	7	207	NS 4	4.040	0.0	
1009	9	209	NS 4	4.040	0.0	
1011	11	211	NS 4	4.040	0.0	
1013	13	213	NS 4	4.040	0.0	
1015	15	215	NS 4	4.040	0.0	
1017	17	217	NS 4	4.040	0.0	
1019	19	219	NS 4	4.040	0.0	
1021	21	221	NS 4	4.040	0.0	
1023	23	223	NS 4	4.040	0.0	
1025	25	225	NS 4	4.040	0.0	
1027	27	227	NS 4	4.040	0.0	
1029	29	229	NS 4	4.040	0.0	
1031	31	231	NS 4	4.040	0.0	
1033	33	233	NS 4	4.040	0.0	
1035	35	235	NS 4	4.040	0.0	
1037	37	237	NS 4	4.040	0.0	
1039	39	239	NS 4	4.040	0.0	
1041	41	241	NS 4	4.040	0.0	
1043	43	243	NS 4	4.040	0.0	
1045	45	245	NS 4	4.040	0.0	
1047	47	247	NS 4	4.040	0.0	
1049	49	249	NS 4	4.040	0.0	
1051	51	251	NS 4	4.040	0.0	
1053	53	253	NS 4	4.040	0.0	
1055	55	255	NS 4	4.040	0.0	
1057	57	257	NS 4	4.040	0.0	
1059	59	259	NS 4	4.040	0.0	
1061	61	261	NS 4	4.040	0.0	
1063	63	263	NS 4	4.040	0.0	
1065	65	265	NS 4	4.040	0.0	
1067	67	267	NS 4	4.040	0.0	
1069	69	269	NS 4	4.040	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
1071	71	271	NS 4	4.040	0.0	
1073	73	273	NS 4	4.040	0.0	
1075	75	275	NS 4	4.040	0.0	
1077	77	277	NS 4	4.040	0.0	
1079	79	279	NS 4	4.040	0.0	
1081	81	281	NS 4	4.040	0.0	
1083	83	283	NS 4	4.040	0.0	
1085	85	285	NS 4	4.040	0.0	
1087	87	287	NS 4	4.040	0.0	
1089	89	289	NS 4	4.040	0.0	
1091	91	291	NS 4	4.040	0.0	
1093	93	293	NS 4	4.040	0.0	
1095	95	295	NS 4	4.040	0.0	
1097	97	297	NS 4	4.040	0.0	
1099	99	299	NS 4	4.040	0.0	
1101	101	301	NS 4	4.040	0.0	
1103	103	303	NS 4	4.040	0.0	
1105	105	305	NS 4	4.040	0.0	
1107	107	307	NS 4	4.040	0.0	
1109	109	309	NS 4	4.040	0.0	
1111	111	311	NS 4	4.040	0.0	
1113	113	313	NS 4	4.040	0.0	
1115	115	315	NS 4	4.040	0.0	
1117	117	317	NS 4	4.040	0.0	
1119	119	319	NS 4	4.040	0.0	
1121	121	321	NS 4	4.040	0.0	
1123	123	323	NS 4	4.040	0.0	
1125	125	325	NS 4	4.040	0.0	
1127	127	327	NS 4	4.040	0.0	
1129	129	329	NS 4	4.040	0.0	
1131	131	331	NS 4	4.040	0.0	
1133	133	333	NS 4	4.040	0.0	
1135	135	335	NS 4	4.040	0.0	
1137	137	337	NS 4	4.040	0.0	
1139	139	339	NS 4	4.040	0.0	
1141	141	341	NS 4	4.040	0.0	
1143	143	343	NS 4	4.040	0.0	
1145	145	345	NS 4	4.040	0.0	
1147	147	347	NS 4	4.040	0.0	
1149	149	349	NS 4	4.040	0.0	
1151	151	351	NS 4	4.040	0.0	
1153	153	353	NS 4	4.040	0.0	
1155	155	355	NS 4	4.040	0.0	
1157	157	357	NS 4	4.040	0.0	
1159	159	359	NS 4	4.040	0.0	
1161	161	361	NS 4	4.040	0.0	
1163	163	363	NS 4	4.040	0.0	
1165	165	365	NS 4	4.040	0.0	
1167	167	367	NS 4	4.040	0.0	
1169	169	369	NS 4	4.040	0.0	
1171	171	371	NS 4	4.040	0.0	
1173	173	373	NS 4	4.040	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
1175	175	375	NS 4	4.040	0.0	
1177	177	377	NS 4	4.040	0.0	
1179	179	379	NS 4	4.040	0.0	
1181	181	381	NS 4	4.040	0.0	
1183	183	383	NS 4	4.040	0.0	
1185	185	385	NS 4	4.040	0.0	
1201	201	401	NS 5	2.245	0.0	
1203	203	403	NS 5	2.245	0.0	
1205	205	405	NS 5	2.245	0.0	
1207	207	407	NS 5	2.245	0.0	
1209	209	409	NS 5	2.245	0.0	
1211	211	411	NS 5	2.245	0.0	
1213	213	413	NS 5	2.245	0.0	
1215	215	415	NS 5	2.245	0.0	
1217	217	417	NS 5	2.245	0.0	
1219	219	419	NS 5	2.245	0.0	
1221	221	421	NS 5	2.245	0.0	
1223	223	423	NS 5	2.245	0.0	
1225	225	425	NS 5	2.245	0.0	
1227	227	427	NS 5	2.245	0.0	
1229	229	429	NS 5	2.245	0.0	
1231	231	431	NS 5	2.245	0.0	
1233	233	433	NS 5	2.245	0.0	
1235	235	435	NS 5	2.245	0.0	
1237	237	437	NS 5	2.245	0.0	
1239	239	439	NS 5	2.245	0.0	
1241	241	441	NS 5	2.245	0.0	
1243	243	443	NS 5	2.245	0.0	
1245	245	445	NS 5	2.245	0.0	
1247	247	447	NS 5	2.245	0.0	
1249	249	449	NS 5	2.245	0.0	
1251	251	451	NS 5	2.245	0.0	
1253	253	453	NS 5	2.245	0.0	
1255	255	455	NS 5	2.245	0.0	
1257	257	457	NS 5	2.245	0.0	
1259	259	459	NS 5	2.245	0.0	
1261	261	461	NS 5	2.245	0.0	
1263	263	463	NS 5	2.245	0.0	
1265	265	465	NS 5	2.245	0.0	
1267	267	467	NS 5	2.245	0.0	
1269	269	469	NS 5	2.245	0.0	
1271	271	471	NS 5	2.245	0.0	
1273	273	473	NS 5	2.245	0.0	
1275	275	475	NS 5	2.245	0.0	
1277	277	477	NS 5	2.245	0.0	
1279	279	479	NS 5	2.245	0.0	
1281	281	481	NS 5	2.245	0.0	
1283	283	483	NS 5	2.245	0.0	
1285	285	485	NS 5	2.245	0.0	
1287	287	487	NS 5	2.245	0.0	
1289	289	489	NS 5	2.245	0.0	
1291	291	491	NS 5	2.245	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
1293	293	493	NS 5	2.245	0.0	
1295	295	495	NS 5	2.245	0.0	
1297	297	497	NS 5	2.245	0.0	
1299	299	499	NS 5	2.245	0.0	
1301	301	501	NS 5	2.245	0.0	
1303	303	503	NS 5	2.245	0.0	
1305	305	505	NS 5	2.245	0.0	
1307	307	507	NS 5	2.245	0.0	
1309	309	509	NS 5	2.245	0.0	
1311	311	511	NS 5	2.245	0.0	
1313	313	513	NS 5	2.245	0.0	
1315	315	515	NS 5	2.245	0.0	
1317	317	517	NS 5	2.245	0.0	
1319	319	519	NS 5	2.245	0.0	
1321	321	521	NS 5	2.245	0.0	
1323	323	523	NS 5	2.245	0.0	
1325	325	525	NS 5	2.245	0.0	
1327	327	527	NS 5	2.245	0.0	
1329	329	529	NS 5	2.245	0.0	
1331	331	531	NS 5	2.245	0.0	
1333	333	533	NS 5	2.245	0.0	
1335	335	535	NS 5	2.245	0.0	
1337	337	537	NS 5	2.245	0.0	
1339	339	539	NS 5	2.245	0.0	
1341	341	541	NS 5	2.245	0.0	
1343	343	543	NS 5	2.245	0.0	
1345	345	545	NS 5	2.245	0.0	
1347	347	547	NS 5	2.245	0.0	
1349	349	549	NS 5	2.245	0.0	
1351	351	551	NS 5	2.245	0.0	
1353	353	553	NS 5	2.245	0.0	
1355	355	555	NS 5	2.245	0.0	
1357	357	557	NS 5	2.245	0.0	
1359	359	559	NS 5	2.245	0.0	
1361	361	561	NS 5	2.245	0.0	
1363	363	563	NS 5	2.245	0.0	
1365	365	565	NS 5	2.245	0.0	
1367	367	567	NS 5	2.245	0.0	
1369	369	569	NS 5	2.245	0.0	
1371	371	571	NS 5	2.245	0.0	
1373	373	573	NS 5	2.245	0.0	
1375	375	575	NS 5	2.245	0.0	
1377	377	577	NS 5	2.245	0.0	
1379	379	579	NS 5	2.245	0.0	
1381	381	581	NS 5	2.245	0.0	
1383	383	583	NS 5	2.245	0.0	
1385	385	585	NS 5	2.245	0.0	
1401	401	601	NS 5	2.245	0.0	
1403	403	603	NS 5	2.245	0.0	
1405	405	605	NS 5	2.245	0.0	
1407	407	607	NS 5	2.245	0.0	
1409	409	609	NS 5	2.245	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
1411	411	611	NS 5	2.245	0.0	
1413	413	613	NS 5	2.245	0.0	
1415	415	615	NS 5	2.245	0.0	
1417	417	617	NS 5	2.245	0.0	
1419	419	619	NS 5	2.245	0.0	
1421	421	621	NS 5	2.245	0.0	
1423	423	623	NS 5	2.245	0.0	
1425	425	625	NS 5	2.245	0.0	
1427	427	627	NS 5	2.245	0.0	
1429	429	629	NS 5	2.245	0.0	
1431	431	631	NS 5	2.245	0.0	
1433	433	633	NS 5	2.245	0.0	
1435	435	635	NS 5	2.245	0.0	
1437	437	637	NS 5	2.245	0.0	
1439	439	639	NS 5	2.245	0.0	
1441	441	641	NS 5	2.245	0.0	
1443	443	643	NS 5	2.245	0.0	
1445	445	645	NS 5	2.245	0.0	
1447	447	647	NS 5	2.245	0.0	
1449	449	649	NS 5	2.245	0.0	
1451	451	651	NS 5	2.245	0.0	
1453	453	653	NS 5	2.245	0.0	
1455	455	655	NS 5	2.245	0.0	
1457	457	657	NS 5	2.245	0.0	
1459	459	659	NS 5	2.245	0.0	
1461	461	661	NS 5	2.245	0.0	
1463	463	663	NS 5	2.245	0.0	
1465	465	665	NS 5	2.245	0.0	
1467	467	667	NS 5	2.245	0.0	
1469	469	669	NS 5	2.245	0.0	
1471	471	671	NS 5	2.245	0.0	
1473	473	673	NS 5	2.245	0.0	
1475	475	675	NS 5	2.245	0.0	
1477	477	677	NS 5	2.245	0.0	
1479	479	679	NS 5	2.245	0.0	
1481	481	681	NS 5	2.245	0.0	
1483	483	683	NS 5	2.245	0.0	
1485	485	685	NS 5	2.245	0.0	
1487	487	687	NS 5	2.245	0.0	
1489	489	689	NS 5	2.245	0.0	
1491	491	691	NS 5	2.245	0.0	
1493	493	693	NS 5	2.245	0.0	
1495	495	695	NS 5	2.245	0.0	
1497	497	697	NS 5	2.245	0.0	
1499	499	699	NS 5	2.245	0.0	
1501	501	701	NS 5	2.245	0.0	
1503	503	703	NS 5	2.245	0.0	
1505	505	705	NS 5	2.245	0.0	
1507	507	707	NS 5	2.245	0.0	
1509	509	709	NS 5	2.245	0.0	
1511	511	711	NS 5	2.245	0.0	
1513	513	713	NS 5	2.245	0.0	

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Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
1515	515	715	NS 5	2.245	0.0	
1517	517	717	NS 5	2.245	0.0	
1519	519	719	NS 5	2.245	0.0	
1521	521	721	NS 5	2.245	0.0	
1523	523	723	NS 5	2.245	0.0	
1525	525	725	NS 5	2.245	0.0	
1527	527	727	NS 5	2.245	0.0	
1529	529	729	NS 5	2.245	0.0	
1531	531	731	NS 5	2.245	0.0	
1533	533	733	NS 5	2.245	0.0	
1535	535	735	NS 5	2.245	0.0	
1537	537	737	NS 5	2.245	0.0	
1539	539	739	NS 5	2.245	0.0	
1541	541	741	NS 5	2.245	0.0	
1543	543	743	NS 5	2.245	0.0	
1545	545	745	NS 5	2.245	0.0	
1547	547	747	NS 5	2.245	0.0	
1549	549	749	NS 5	2.245	0.0	
1551	551	751	NS 5	2.245	0.0	
1553	553	753	NS 5	2.245	0.0	
1555	555	755	NS 5	2.245	0.0	
1557	557	757	NS 5	2.245	0.0	
1559	559	759	NS 5	2.245	0.0	
1561	561	761	NS 5	2.245	0.0	
1563	563	763	NS 5	2.245	0.0	
1565	565	765	NS 5	2.245	0.0	
1567	567	767	NS 5	2.245	0.0	
1569	569	769	NS 5	2.245	0.0	
1571	571	771	NS 5	2.245	0.0	
1573	573	773	NS 5	2.245	0.0	
1575	575	775	NS 5	2.245	0.0	
1577	577	777	NS 5	2.245	0.0	
1579	579	779	NS 5	2.245	0.0	
1581	581	781	NS 5	2.245	0.0	
1583	583	783	NS 5	2.245	0.0	
1585	585	785	NS 5	2.245	0.0	
1601	601	801	NS 4	4.040	0.0	
1603	603	803	NS 4	4.040	0.0	
1605	605	805	NS 4	4.040	0.0	
1607	607	807	NS 4	4.040	0.0	
1609	609	809	NS 4	4.040	0.0	
1611	611	811	NS 4	4.040	0.0	
1613	613	813	NS 4	4.040	0.0	
1615	615	815	NS 4	4.040	0.0	
1617	617	817	NS 4	4.040	0.0	
1619	619	819	NS 4	4.040	0.0	
1621	621	821	NS 4	4.040	0.0	
1623	623	823	NS 4	4.040	0.0	
1625	625	825	NS 4	4.040	0.0	
1627	627	827	NS 4	4.040	0.0	
1629	629	829	NS 4	4.040	0.0	
1631	631	831	NS 4	4.040	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
1633	633	833	NS 4	4.040	0.0	
1635	635	835	NS 4	4.040	0.0	
1637	637	837	NS 4	4.040	0.0	
1639	639	839	NS 4	4.040	0.0	
1641	641	841	NS 4	4.040	0.0	
1643	643	843	NS 4	4.040	0.0	
1645	645	845	NS 4	4.040	0.0	
1647	647	847	NS 4	4.040	0.0	
1649	649	849	NS 4	4.040	0.0	
1651	651	851	NS 4	4.040	0.0	
1653	653	853	NS 4	4.040	0.0	
1655	655	855	NS 4	4.040	0.0	
1657	657	857	NS 4	4.040	0.0	
1659	659	859	NS 4	4.040	0.0	
1661	661	861	NS 4	4.040	0.0	
1663	663	863	NS 4	4.040	0.0	
1665	665	865	NS 4	4.040	0.0	
1667	667	867	NS 4	4.040	0.0	
1669	669	869	NS 4	4.040	0.0	
1671	671	871	NS 4	4.040	0.0	
1673	673	873	NS 4	4.040	0.0	
1675	675	875	NS 4	4.040	0.0	
1677	677	877	NS 4	4.040	0.0	
1679	679	879	NS 4	4.040	0.0	
1681	681	881	NS 4	4.040	0.0	
1683	683	883	NS 4	4.040	0.0	
1685	685	885	NS 4	4.040	0.0	
1687	687	887	NS 4	4.040	0.0	
1689	689	889	NS 4	4.040	0.0	
1691	691	891	NS 4	4.040	0.0	
1693	693	893	NS 4	4.040	0.0	
1695	695	895	NS 4	4.040	0.0	
1697	697	897	NS 4	4.040	0.0	
1699	699	899	NS 4	4.040	0.0	
1701	701	901	NS 4	4.040	0.0	
1703	703	903	NS 4	4.040	0.0	
1705	705	905	NS 4	4.040	0.0	
1707	707	907	NS 4	4.040	0.0	
1709	709	909	NS 4	4.040	0.0	
1711	711	911	NS 4	4.040	0.0	
1713	713	913	NS 4	4.040	0.0	
1715	715	915	NS 4	4.040	0.0	
1717	717	917	NS 4	4.040	0.0	
1719	719	919	NS 4	4.040	0.0	
1721	721	921	NS 4	4.040	0.0	
1723	723	923	NS 4	4.040	0.0	
1725	725	925	NS 4	4.040	0.0	
1727	727	927	NS 4	4.040	0.0	
1729	729	929	NS 4	4.040	0.0	
1731	731	931	NS 4	4.040	0.0	
1733	733	933	NS 4	4.040	0.0	
1735	735	935	NS 4	4.040	0.0	

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
1737	737	937	NS 4	4.040	0.0	
1739	739	939	NS 4	4.040	0.0	
1741	741	941	NS 4	4.040	0.0	
1743	743	943	NS 4	4.040	0.0	
1745	745	945	NS 4	4.040	0.0	
1747	747	947	NS 4	4.040	0.0	
1749	749	949	NS 4	4.040	0.0	
1751	751	951	NS 4	4.040	0.0	
1753	753	953	NS 4	4.040	0.0	
1755	755	955	NS 4	4.040	0.0	
1757	757	957	NS 4	4.040	0.0	
1759	759	959	NS 4	4.040	0.0	
1761	761	961	NS 4	4.040	0.0	
1763	763	963	NS 4	4.040	0.0	
1765	765	965	NS 4	4.040	0.0	
1767	767	967	NS 4	4.040	0.0	
1769	769	969	NS 4	4.040	0.0	
1771	771	971	NS 4	4.040	0.0	
1773	773	973	NS 4	4.040	0.0	
1775	775	975	NS 4	4.040	0.0	
1777	777	977	NS 4	4.040	0.0	
1779	779	979	NS 4	4.040	0.0	
1781	781	981	NS 4	4.040	0.0	
1783	783	983	NS 4	4.040	0.0	
1785	785	985	NS 4	4.040	0.0	
2000	2000	2100	RE 4	6.000	27.0000	
2001	2001	2101	RE 1	8.000	27.0000	
2002	2002	2102	RE 1	8.000	27.0000	
2003	2003	2103	RE 1	8.000	27.0000	
2004	2004	2104	RE 1	6.000	27.0000	
2005	2005	2105	RE 4	4.000	27.0000	
2100	2200	2100	RE 3	6.285	0.0	
2101	2201	2101	RE 3	6.285	0.0	
2102	2202	2102	RE 3	6.285	0.0	
2103	2203	2103	RE 3	6.285	0.0	
2104	2204	2104	RE 3	6.285	0.0	
2105	2205	2105	RE 3	6.285	0.0	
2200	2100	2300	RE 3	6.285	0.0	
2201	2101	2301	RE 3	6.285	0.0	
2202	2102	2302	RE 3	6.285	0.0	
2203	2103	2303	RE 3	6.285	0.0	
2204	2104	2304	RE 3	6.285	0.0	
2205	2105	2305	RE 3	6.285	0.0	
2300	2200	2400	RE 2	0.100	0.0	fffff ffffff
2301	2201	2401	RE 2	0.100	0.0	fffff ffffff
2302	2202	2402	RE 2	0.100	0.0	fffff ffffff
2303	2203	2403	RE 2	0.100	0.0	fffff ffffff
2304	2204	2404	RE 2	0.100	0.0	fffff ffffff
2305	2205	2405	RE 2	0.100	0.0	fffff ffffff
2400	2300	2500	RE 2	0.100	0.0	ffffff ffffff
2401	2301	2501	RE 2	0.100	0.0	fffff ffffff
2402	2302	2502	RE 2	0.100	0.0	fffff ffffff

Barra	Nudos	Nudo 2	Sección	Longitud (m)	Gama (Deg)	Relajación - código
2403	2303	2503	RE 2	0.100	0.0	fffff ffffff
2404	2304	2504	RE 2	0.100	0.0	fffff ffffff
2405	2305	2505	RE 2	0.100	0.0	fffff ffffff

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Características Mecánicas:

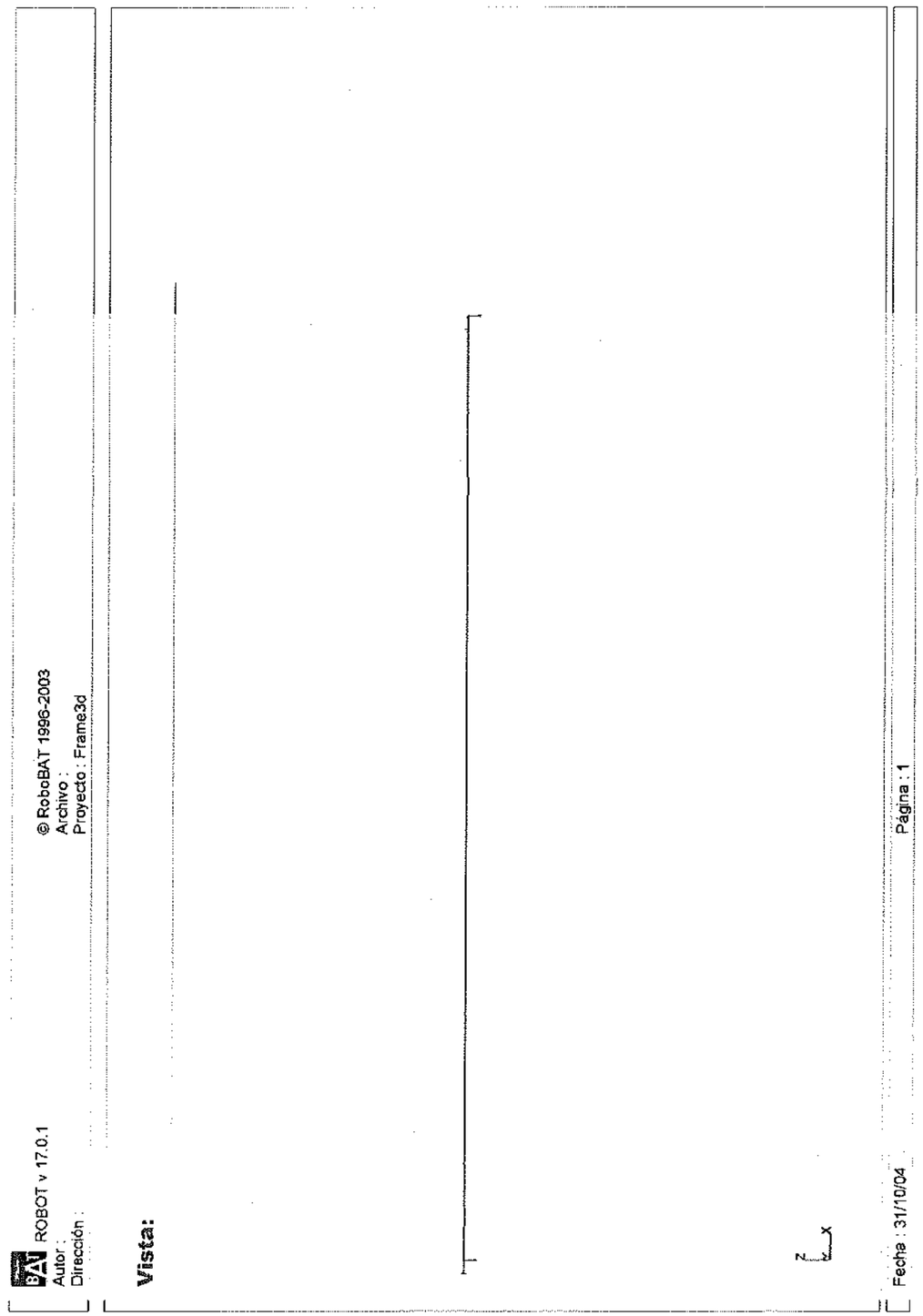
Nombre de la sección	SX (m2)	SY (m2)	SZ (m2)	IX (m4)	IY (m4)	IZ (m4)	HY (m)	HZ (m)	VY (m)	VZ (m)	VPY (m)	VPZ (m)
NS 1	6.77980	0.0	0.0	1.67100	8.08750	1.66620	3.130	3.850	1.917	1.897	1.213	1.953
NS 2	5.21760	0.0	0.0	0.20800	7.31810	1.83280	3.371	3.850	2.216	1.970	1.155	1.880
NS 3	0.00010	0.0	0.0	0.04570	0.01430	0.49480	2.500	0.380	1.250	0.190	1.250	0.190
NS 4	0.85330	0.0	0.0	0.02950	0.02690	0.23500	2.049	0.709	1.025	0.241	1.025	0.468
NS 5	1.12360	0.0	0.0	0.04470	0.09230	0.27900	2.049	1.073	1.025	0.355	1.025	0.718
RE 1	95.00000	79.16667	79.16667	189.71054	49.47917	11431.6666	38.000	2.500	19.000	1.250	19.000	1.250
RE 2	25.00000	20.83333	20.83333	87.86443	52.08333	52.08333	5.000	5.000	2.500	2.500	2.500	2.500
RE 3	400.00000	333.33333	333.33333	22493.2940	13333.3333	13333.3333	20.000	20.000	10.000	10.000	10.000	10.000
RE 4	67.50000	56.25000	56.25000	431.25608	140.62500	1025.15625	13.500	5.000	6.750	2.500	6.750	2.500

Apoyos:

Nombre del apoyo	Lista de nudos	Condiciones de apoyo
CP_APO 1	2000A2005	UX UY UZ RX RY RZ

VIADUCTO SOBRE EL LLOBREGAT

7.1.1.3. Modelo para cálculo nervios transversales



Nudos:

Filtrar	Nudo
Lista compl	1A13
Selección	1A13
Número tot	13
Número sel	13

Nudo	X [m]	Y [m]	Z [m]	Apoyo - código
1	-6.285	0.0	0.0	fffff
2	-5.000	0.0	0.0	
3	-4.000	0.0	0.0	
4	-3.000	0.0	0.0	
5	-2.000	0.0	0.0	
6	-1.000	0.0	0.0	
7	0.0	0.0	0.0	
8	1.000	0.0	0.0	
9	2.000	0.0	0.0	
10	3.000	0.0	0.0	
11	4.000	0.0	0.0	
12	5.000	0.0	0.0	
13	6.285	0.0	0.0	fffff

Barras:

Filtrar	Barra	Elemento
Lista compl	1A12	1A12
Selección	1A12	1A12
Número tot	12	12
Número sel	12	12

Barra	Nudos	Nudo 2	Sección	Longitud [m]
1	1	2	NS 1	1.285
2	2	3	NS 2	1.000
3	3	4	NS 3	1.000
4	4	5	NS 4	1.000
5	5	6	NS 5	1.000
6	6	7	NS 6	1.000
7	7	8	NS 6	1.000
8	8	9	NS 5	1.000
9	9	10	NS 4	1.000
10	10	11	NS 3	1.000
11	11	12	NS 2	1.000
12	12	13	NS 1	1.285

Características Mecánicas

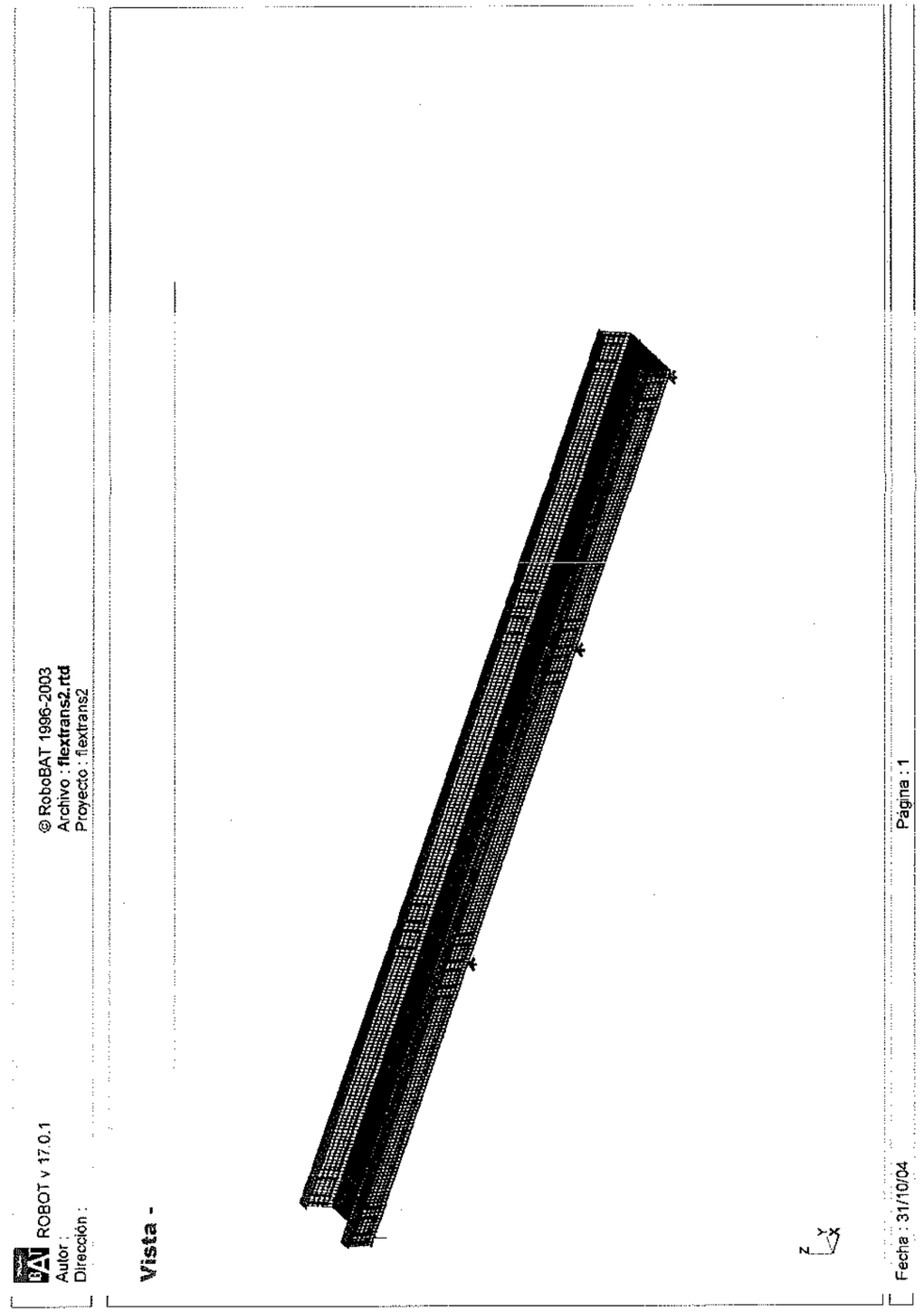
Nombre de la sección	SX (m2)	SY (m2)	SZ (m2)	IX (m4)	IY (m4)	IZ (m4)	HY (m)	HZ (m)	VY (m)	VZ (m)	VPY (m)	VPZ (m)
NS 1	0.89000	0.0	0.0	1.00000	0.01600	2.00000	2.000	2.000	1.000	1.000	1.000	1.000
NS 2	0.99600	0.0	0.0	1.00000	0.03300	2.00000	2.000	2.000	1.000	1.000	1.000	1.000
NS 3	1.06900	0.0	0.0	1.00000	0.05500	2.00000	2.000	2.000	1.000	1.000	1.000	1.000
NS 4	1.12300	0.0	0.0	1.00000	0.07600	2.00000	2.000	2.000	1.000	1.000	1.000	1.000
NS 5	1.15900	0.0	0.0	1.00000	0.09400	2.00000	2.000	2.000	1.000	1.000	1.000	1.000
NS 6	1.17700	0.0	0.0	1.00000	0.10400	2.00000	2.000	2.000	1.000	1.000	1.000	1.000

Apoyos:

	Nombre del apoyo	Lista de nudos	Condiciones de apoyo
	vigatrans230_APO 1	1	UX UY UZ RX
	vigatrans230_APO 2	13	UY UZ RX

VIADUCTO SOBRE EL LLOBREGAT

7.1.1.4. Modelo para cálculo flexión transversal



Apoyos:

	Nombre del apoyo	Lista de nudos	Condiciones de apoyo
	Apoyo_Fijo	16	UX UY UZ
	Apoyo_Libretrans	24	UX UZ
	Apoyo_Librelong	61 106 151	UY UZ
	Apoyo_Libre	69 114 159	UZ

7.1.2. Casos de Carga

7.1.2.1. Empuje

ROBOTV6 v. 4.2 | eipsa 754 | Página: 316
(c) RoboBAT | c:\temp\emputo~1 | Fecha:31-10-2004
Proyecto: | modificación de carga: 13-10-2004 | Hora: 11:41:40

Especificación de cargas

Caso todo
1

Tipo de carga

Caso	Tipo de carga	Valor de carga
1	Peso propio	PZ Menos
	en los elementos:	1A184
1	Peso propio	PZ Menos
	en los elementos:	801A984
1	Fuerza nodal	FZ=-3.71(kN)
	en los nudos:	1A185CA2
1	Fuerza nodal	FZ=-19.92(kN)
	en los nudos:	201A385CA2
1	Fuerza nodal	FZ=-17.76(kN)
	en los nudos:	401A585
1	Fuerza nodal	FZ=-19.92(kN)
	en los nudos:	601A785CA2
1	Fuerza nodal	FZ=-3.71(kN)
	en los nudos:	801A985CA2
1	Peso propio	PZ Menos
	en los elementos:	3001A3024
1	Peso propio	PZ Menos
	en los elementos:	3101A3124
1	Fuerza nodal	FZ=-20.00(kN)
	en los nudos:	185 985
1	Uniforme-barras	PZ=-4.00(kN/m)
	en los elementos:	3001A3124
1	Uniforme-barras	PZ=-0.93(kN/m)
	en los elementos:	1A184 801A984
1	Uniforme-barras	PZ=-1.15(kN/m)
	en los elementos:	1001A1785
1	Uniforme-barras	PZ=-0.50(kN/m)
	en los elementos:	3001A3124

7.1.2.2. Carga Permanente

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Autor : Archivo :
Dirección : Proyecto : Frame3d

Cargas - Casos: 1 2 : Valores: 1

Caso	Nombre del caso	Naturaleza	tipo de análisis
1	PESO PROPIO	permanente	Estático lineal
2	CARGA MUERTA	permanente	Estático lineal

	Caso	Tipo de carga	Lista	Valores de carga
	1	peso propio	1A184	PZ Menos Coef=1.000
	1	peso propio	801A984	PZ Menos Coef=1.000
	1	fuerza nodal	1A185CA2	FZ=-3.712(kN)
	1	fuerza nodal	201A385CA2	FZ=-19.925(kN)
	1	fuerza nodal	401A585CA2	FZ=-17.762(kN)
	1	fuerza nodal	601A785CA2	FZ=-19.925(kN)
	1	fuerza nodal	801A985CA2	FZ=-3.712(kN)
	2	sobrecarga uniforme	201A384 601A784	PZ=-27.275(kN/m)
	2	sobrecarga uniforme	201A384 601A784	PZ=-1.200(kN/m)
	2	sobrecarga uniforme	1A184 801A984	PZ=-3.000(kN/m)
	2	sobrecarga uniforme	1A184 801A984	PZ=-2.000(kN/m)

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7.1.2.3. Pretensado

Cargas - Casos: 1A55 : Valores: 1

Caso	Nombre del caso	Naturaleza	tipo de análisis
1	EMPUJE. TENDONES INFERIORES IMP	permanente	Estático lineal
2	EMPUJE. TENDONES INFERIORES IMP	permanente	Estático lineal
3	EMPUJE. TENDONES INFERIORES IMP	permanente	Estático lineal
4	EMPUJE. TENDONES INFERIORES IMP	permanente	Estático lineal
5	EMPUJE. TENDONES INFERIORES IMP	permanente	Estático lineal
6	EMPUJE. TENDONES INFERIORES IMP	permanente	Estático lineal
7	EMPUJE. TENDONES INFERIORES PAR	permanente	Estático lineal
8	EMPUJE. TENDONES INFERIORES PAR	permanente	Estático lineal
9	EMPUJE. TENDONES INFERIORES PAR	permanente	Estático lineal
10	EMPUJE. TENDONES INFERIORES PAR	permanente	Estático lineal
11	EMPUJE. TENDONES INFERIORES PAR	permanente	Estático lineal
12	EMPUJE. TENDONES SUPERIORES IMP	permanente	Estático lineal
13	EMPUJE. TENDONES SUPERIORES IMP	permanente	Estático lineal
14	EMPUJE. TENDONES SUPERIORES IMP	permanente	Estático lineal
15	EMPUJE. TENDONES SUPERIORES IMP	permanente	Estático lineal
16	EMPUJE. TENDONES SUPERIORES IMP	permanente	Estático lineal
17	EMPUJE. TENDONES SUPERIORES IMP	permanente	Estático lineal
18	EMPUJE. TENDONES SUPERIORES PA	permanente	Estático lineal
19	EMPUJE. TENDONES SUPERIORES PA	permanente	Estático lineal
20	EMPUJE. TENDONES SUPERIORES PA	permanente	Estático lineal
21	EMPUJE. TENDONES SUPERIORES PA	permanente	Estático lineal
22	EMPUJE. TENDONES SUPERIORES PA	permanente	Estático lineal
23	EMPUJE. TENDONES SUPERIORES b IM	permanente	Estático lineal
24	EMPUJE. TENDONES SUPERIORES b IM	permanente	Estático lineal
25	EMPUJE. TENDONES SUPERIORES b IM	permanente	Estático lineal
26	EMPUJE. TENDONES SUPERIORES b IM	permanente	Estático lineal
27	EMPUJE. TENDONES SUPERIORES b IM	permanente	Estático lineal
28	EMPUJE. TENDONES SUPERIORES b IM	permanente	Estático lineal
29	EMPUJE. TENDONES SUPERIORES b P	permanente	Estático lineal
30	EMPUJE. TENDONES SUPERIORES b P	permanente	Estático lineal
31	EMPUJE. TENDONES SUPERIORES b P	permanente	Estático lineal
32	EMPUJE. TENDONES SUPERIORES b P	permanente	Estático lineal
33	EMPUJE. TENDONES SUPERIORES b P	permanente	Estático lineal
34	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
35	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
36	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
37	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
38	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
39	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
40	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
41	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
42	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
43	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
44	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
45	TENDONES DE SEGUNDA FASE. TEND	permanente	Estático lineal
46	CHULETAS PILA 1. Est A	permanente	Estático lineal
47	CHULETAS PILA 2. Est A	permanente	Estático lineal
48	CHULETAS PILA 3. Est A	permanente	Estático lineal
49	CHULETAS PILA 4. Est A	permanente	Estático lineal
50	EMPUJE. TENDONES SUPERIORES RE	permanente	Estático lineal

Caso	Nombre del caso	Naturaleza	tipo de análisis
51	EMPUJE. TENDONES SUPERIORES RE	permanente	Estático lineal
52	EMPUJE. TENDONES SUPERIORES RE	permanente	Estático lineal
53	EMPUJE. TENDONES SUPERIORES RE	permanente	Estático lineal
54	EMPUJE. TENDONES INFERIORES REF	permanente	Estático lineal
55	EMPUJE. TENDONES INFERIORES REF	permanente	Estático lineal

Caso	Tipo de carga	Lista	Valores de carga
1	fuerza nodal	985	FX=-944.413(kN) CY=1521.827(kNm)
1	fuerza nodal	984	FX=1.697(kN) CY=-2.735(kNm)
1	fuerza nodal	983	FX=1.700(kN) CY=-2.739(kNm)
1	fuerza nodal	982	FX=1.703(kN) CY=-2.681(kNm)
1	fuerza nodal	981	FX=1.706(kN) CY=-2.623(kNm)
1	fuerza nodal	980	FX=1.709(kN) CY=-2.628(kNm)
1	fuerza nodal	979	FX=1.712(kN) CY=-2.632(kNm)
1	fuerza nodal	978	FX=1.715(kN) CY=-2.637(kNm)
1	fuerza nodal	977	FX=1.718(kN) CY=-2.641(kNm)
1	fuerza nodal	976	FX=1.721(kN) CY=-2.646(kNm)
1	fuerza nodal	975	FX=1.724(kN) CY=-2.650(kNm)
1	fuerza nodal	974	FX=927.311(kN) CY=-1426.018(kNm)
1	fuerza nodal	174	FX=927.311(kN) CY=-1426.018(kNm)
1	fuerza nodal	175	FX=1.724(kN) CY=-2.650(kNm)
1	fuerza nodal	176	FX=1.721(kN) CY=-2.646(kNm)
1	fuerza nodal	177	FX=1.718(kN) CY=-2.641(kNm)
1	fuerza nodal	178	FX=1.715(kN) CY=-2.637(kNm)
1	fuerza nodal	179	FX=1.712(kN) CY=-2.632(kNm)
1	fuerza nodal	180	FX=1.709(kN) CY=-2.628(kNm)
1	fuerza nodal	181	FX=1.706(kN) CY=-2.623(kNm)
1	fuerza nodal	182	FX=1.703(kN) CY=-2.681(kNm)
1	fuerza nodal	183	FX=1.700(kN) CY=-2.739(kNm)
1	fuerza nodal	184	FX=1.697(kN) CY=-2.735(kNm)
1	fuerza nodal	185	FX=-944.413(kN) CY=1521.827(kNm)
2	fuerza nodal	953	FX=0.759(kN) CY=-1.167(kNm)
2	fuerza nodal	952	FX=1.674(kN) CY=-2.635(kNm)
2	fuerza nodal	951	FX=1.677(kN) CY=-2.702(kNm)
2	fuerza nodal	950	FX=1.680(kN) CY=-2.706(kNm)
2	fuerza nodal	949	FX=1.682(kN) CY=-2.711(kNm)
2	fuerza nodal	948	FX=1.685(kN) CY=-2.716(kNm)
2	fuerza nodal	947	FX=1.688(kN) CY=-2.720(kNm)
2	fuerza nodal	946	FX=1.691(kN) CY=-2.663(kNm)
2	fuerza nodal	945	FX=1.694(kN) CY=-2.605(kNm)
2	fuerza nodal	944	FX=1.697(kN) CY=-2.610(kNm)
2	fuerza nodal	943	FX=1.700(kN) CY=-2.614(kNm)
2	fuerza nodal	942	FX=1.703(kN) CY=-2.619(kNm)
2	fuerza nodal	941	FX=1.706(kN) CY=-2.623(kNm)
2	fuerza nodal	940	FX=1.709(kN) CY=-2.628(kNm)
2	fuerza nodal	939	FX=1.712(kN) CY=-2.632(kNm)
2	fuerza nodal	938	FX=1.715(kN) CY=-2.637(kNm)
2	fuerza nodal	937	FX=1.718(kN) CY=-2.641(kNm)
2	fuerza nodal	936	FX=1.721(kN) CY=-2.646(kNm)
2	fuerza nodal	935	FX=1.724(kN) CY=-2.650(kNm)
2	fuerza nodal	934	FX=936.425(kN) CY=-1440.034(kNm)
2	fuerza nodal	974	FX=-934.938(kN) CY=1437.748(kNm)

Caso	Tipo de carga	Lista	Valores de carga
2	fuerza nodal	973	FX=-1.614(kN) CY=2.482(kNm)
2	fuerza nodal	972	FX=-1.617(kN) CY=2.486(kNm)
2	fuerza nodal	971	FX=-1.620(kN) CY=2.491(kNm)
2	fuerza nodal	970	FX=-1.623(kN) CY=2.495(kNm)
2	fuerza nodal	969	FX=-1.625(kN) CY=2.499(kNm)
2	fuerza nodal	968	FX=-1.628(kN) CY=2.504(kNm)
2	fuerza nodal	967	FX=-1.631(kN) CY=2.508(kNm)
2	fuerza nodal	966	FX=-1.634(kN) CY=2.512(kNm)
2	fuerza nodal	965	FX=-1.637(kN) CY=2.517(kNm)
2	fuerza nodal	964	FX=-1.639(kN) CY=2.521(kNm)
2	fuerza nodal	963	FX=-1.642(kN) CY=2.525(kNm)
2	fuerza nodal	962	FX=-1.645(kN) CY=2.530(kNm)
2	fuerza nodal	961	FX=-1.648(kN) CY=2.534(kNm)
2	fuerza nodal	960	FX=-1.651(kN) CY=2.539(kNm)
2	fuerza nodal	959	FX=-1.654(kN) CY=2.543(kNm)
2	fuerza nodal	958	FX=-1.657(kN) CY=2.547(kNm)
2	fuerza nodal	957	FX=-1.659(kN) CY=2.552(kNm)
2	fuerza nodal	956	FX=-1.662(kN) CY=2.556(kNm)
2	fuerza nodal	955	FX=-1.665(kN) CY=2.561(kNm)
2	fuerza nodal	954	FX=-1.668(kN) CY=2.565(kNm)
2	fuerza nodal	153	FX=0.759(kN) CY=-1.167(kNm)
2	fuerza nodal	152	FX=1.674(kN) CY=-2.635(kNm)
2	fuerza nodal	151	FX=1.677(kN) CY=-2.702(kNm)
2	fuerza nodal	150	FX=1.680(kN) CY=-2.706(kNm)
2	fuerza nodal	149	FX=1.682(kN) CY=-2.711(kNm)
2	fuerza nodal	148	FX=1.685(kN) CY=-2.716(kNm)
2	fuerza nodal	147	FX=1.688(kN) CY=-2.720(kNm)
2	fuerza nodal	146	FX=1.691(kN) CY=-2.663(kNm)
2	fuerza nodal	145	FX=1.694(kN) CY=-2.605(kNm)
2	fuerza nodal	144	FX=1.697(kN) CY=-2.610(kNm)
2	fuerza nodal	143	FX=1.700(kN) CY=-2.614(kNm)
2	fuerza nodal	142	FX=1.703(kN) CY=-2.619(kNm)
2	fuerza nodal	141	FX=1.706(kN) CY=-2.623(kNm)
2	fuerza nodal	140	FX=1.709(kN) CY=-2.628(kNm)
2	fuerza nodal	139	FX=1.712(kN) CY=-2.632(kNm)
2	fuerza nodal	138	FX=1.715(kN) CY=-2.637(kNm)
2	fuerza nodal	137	FX=1.718(kN) CY=-2.641(kNm)
2	fuerza nodal	136	FX=1.721(kN) CY=-2.646(kNm)
2	fuerza nodal	135	FX=1.724(kN) CY=-2.650(kNm)
2	fuerza nodal	134	FX=936.425(kN) CY=-1440.034(kNm)
2	fuerza nodal	174	FX=-934.938(kN) CY=1437.748(kNm)
2	fuerza nodal	173	FX=-1.614(kN) CY=2.482(kNm)
2	fuerza nodal	172	FX=-1.617(kN) CY=2.486(kNm)
2	fuerza nodal	171	FX=-1.620(kN) CY=2.491(kNm)
2	fuerza nodal	170	FX=-1.623(kN) CY=2.495(kNm)
2	fuerza nodal	169	FX=-1.625(kN) CY=2.499(kNm)
2	fuerza nodal	168	FX=-1.628(kN) CY=2.504(kNm)
2	fuerza nodal	167	FX=-1.631(kN) CY=2.508(kNm)
2	fuerza nodal	166	FX=-1.634(kN) CY=2.512(kNm)
2	fuerza nodal	165	FX=-1.637(kN) CY=2.517(kNm)
2	fuerza nodal	154	FX=-1.668(kN) CY=2.565(kNm)
2	fuerza nodal	155	FX=-1.665(kN) CY=2.561(kNm)

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Caso	Tipo de carga	Lista	Valores de carga
2	fuerza nodal	156	FX=-1.662(kN) CY=2.556(kNm)
2	fuerza nodal	157	FX=-1.659(kN) CY=2.552(kNm)
2	fuerza nodal	158	FX=-1.657(kN) CY=2.547(kNm)
2	fuerza nodal	159	FX=-1.654(kN) CY=2.543(kNm)
2	fuerza nodal	160	FX=-1.651(kN) CY=2.539(kNm)
2	fuerza nodal	161	FX=-1.648(kN) CY=2.534(kNm)
2	fuerza nodal	162	FX=-1.645(kN) CY=2.530(kNm)
2	fuerza nodal	163	FX=-1.642(kN) CY=2.525(kNm)
2	fuerza nodal	164	FX=-1.639(kN) CY=2.521(kNm)
3	fuerza nodal	914	FX=1.674(kN) CY=-2.635(kNm)
3	fuerza nodal	913	FX=1.677(kN) CY=-2.702(kNm)
3	fuerza nodal	912	FX=1.680(kN) CY=-2.706(kNm)
3	fuerza nodal	911	FX=1.682(kN) CY=-2.711(kNm)
3	fuerza nodal	910	FX=1.685(kN) CY=-2.716(kNm)
3	fuerza nodal	909	FX=1.688(kN) CY=-2.720(kNm)
3	fuerza nodal	908	FX=1.691(kN) CY=-2.663(kNm)
3	fuerza nodal	907	FX=1.694(kN) CY=-2.605(kNm)
3	fuerza nodal	906	FX=1.697(kN) CY=-2.610(kNm)
3	fuerza nodal	905	FX=1.700(kN) CY=-2.614(kNm)
3	fuerza nodal	904	FX=1.703(kN) CY=-2.619(kNm)
3	fuerza nodal	903	FX=1.706(kN) CY=-2.623(kNm)
3	fuerza nodal	902	FX=1.709(kN) CY=-2.628(kNm)
3	fuerza nodal	901	FX=1.712(kN) CY=-2.632(kNm)
3	fuerza nodal	900	FX=1.715(kN) CY=-2.637(kNm)
3	fuerza nodal	899	FX=1.718(kN) CY=-2.641(kNm)
3	fuerza nodal	898	FX=1.721(kN) CY=-2.646(kNm)
3	fuerza nodal	897	FX=1.724(kN) CY=-2.650(kNm)
3	fuerza nodal	896	FX=936.425(kN) CY=-1440.034(kNm)
3	fuerza nodal	934	FX=-938.169(kN) CY=1442.717(kNm)
3	fuerza nodal	933	FX=-1.620(kN) CY=2.491(kNm)
3	fuerza nodal	932	FX=-1.623(kN) CY=2.495(kNm)
3	fuerza nodal	931	FX=-1.625(kN) CY=2.499(kNm)
3	fuerza nodal	930	FX=-1.628(kN) CY=2.504(kNm)
3	fuerza nodal	929	FX=-1.631(kN) CY=2.508(kNm)
3	fuerza nodal	928	FX=-1.634(kN) CY=2.512(kNm)
3	fuerza nodal	927	FX=-1.637(kN) CY=2.517(kNm)
3	fuerza nodal	926	FX=-1.639(kN) CY=2.521(kNm)
3	fuerza nodal	925	FX=-1.642(kN) CY=2.525(kNm)
3	fuerza nodal	924	FX=-1.645(kN) CY=2.530(kNm)
3	fuerza nodal	923	FX=-1.648(kN) CY=2.534(kNm)
3	fuerza nodal	922	FX=-1.651(kN) CY=2.539(kNm)
3	fuerza nodal	921	FX=-1.654(kN) CY=2.543(kNm)
3	fuerza nodal	920	FX=-1.657(kN) CY=2.547(kNm)
3	fuerza nodal	919	FX=-1.659(kN) CY=2.552(kNm)
3	fuerza nodal	918	FX=-1.662(kN) CY=2.556(kNm)
3	fuerza nodal	917	FX=-1.665(kN) CY=2.561(kNm)
3	fuerza nodal	916	FX=-1.668(kN) CY=2.565(kNm)
3	fuerza nodal	915	FX=0.759(kN) CY=-1.167(kNm)
3	fuerza nodal	114	FX=1.674(kN) CY=-2.635(kNm)
3	fuerza nodal	113	FX=1.677(kN) CY=-2.702(kNm)
3	fuerza nodal	112	FX=1.680(kN) CY=-2.706(kNm)
3	fuerza nodal	111	FX=1.682(kN) CY=-2.711(kNm)

Caso	Tipo de carga	Lista	Valores de carga
3	fuerza nodal	110	FX=1.685(kN) CY=-2.716(kNm)
3	fuerza nodal	109	FX=1.688(kN) CY=-2.720(kNm)
3	fuerza nodal	108	FX=1.691(kN) CY=-2.663(kNm)
3	fuerza nodal	107	FX=1.694(kN) CY=-2.605(kNm)
3	fuerza nodal	106	FX=1.697(kN) CY=-2.610(kNm)
3	fuerza nodal	105	FX=1.700(kN) CY=-2.614(kNm)
3	fuerza nodal	104	FX=1.703(kN) CY=-2.619(kNm)
3	fuerza nodal	103	FX=1.706(kN) CY=-2.623(kNm)
3	fuerza nodal	102	FX=1.709(kN) CY=-2.628(kNm)
3	fuerza nodal	101	FX=1.712(kN) CY=-2.632(kNm)
3	fuerza nodal	100	FX=1.715(kN) CY=-2.637(kNm)
3	fuerza nodal	99	FX=1.718(kN) CY=-2.641(kNm)
3	fuerza nodal	98	FX=1.721(kN) CY=-2.646(kNm)
3	fuerza nodal	97	FX=1.724(kN) CY=-2.650(kNm)
3	fuerza nodal	96	FX=936.425(kN) CY=-1440.034(kNm)
3	fuerza nodal	134	FX=-938.169(kN) CY=1442.717(kNm)
3	fuerza nodal	133	FX=-1.620(kN) CY=2.491(kNm)
3	fuerza nodal	132	FX=-1.623(kN) CY=2.495(kNm)
3	fuerza nodal	131	FX=-1.625(kN) CY=2.499(kNm)
3	fuerza nodal	130	FX=-1.628(kN) CY=2.504(kNm)
3	fuerza nodal	129	FX=-1.631(kN) CY=2.508(kNm)
3	fuerza nodal	128	FX=-1.634(kN) CY=2.512(kNm)
3	fuerza nodal	127	FX=-1.637(kN) CY=2.517(kNm)
3	fuerza nodal	126	FX=-1.639(kN) CY=2.521(kNm)
3	fuerza nodal	125	FX=-1.642(kN) CY=2.525(kNm)
3	fuerza nodal	124	FX=-1.645(kN) CY=2.530(kNm)
3	fuerza nodal	123	FX=-1.648(kN) CY=2.534(kNm)
3	fuerza nodal	122	FX=-1.651(kN) CY=2.539(kNm)
3	fuerza nodal	121	FX=-1.654(kN) CY=2.543(kNm)
3	fuerza nodal	120	FX=-1.657(kN) CY=2.547(kNm)
3	fuerza nodal	119	FX=-1.659(kN) CY=2.552(kNm)
3	fuerza nodal	118	FX=-1.662(kN) CY=2.556(kNm)
3	fuerza nodal	117	FX=-1.665(kN) CY=2.561(kNm)
3	fuerza nodal	116	FX=-1.668(kN) CY=2.565(kNm)
3	fuerza nodal	115	FX=0.759(kN) CY=-1.167(kNm)
4	fuerza nodal	866	FX=1.697(kN) CY=-2.610(kNm)
4	fuerza nodal	867	FX=1.694(kN) CY=-2.605(kNm)
4	fuerza nodal	868	FX=1.691(kN) CY=-2.663(kNm)
4	fuerza nodal	869	FX=1.688(kN) CY=-2.720(kNm)
4	fuerza nodal	870	FX=1.685(kN) CY=-2.716(kNm)
4	fuerza nodal	871	FX=1.682(kN) CY=-2.711(kNm)
4	fuerza nodal	872	FX=1.680(kN) CY=-2.706(kNm)
4	fuerza nodal	873	FX=1.677(kN) CY=-2.702(kNm)
4	fuerza nodal	874	FX=1.674(kN) CY=-2.635(kNm)
4	fuerza nodal	875	FX=0.759(kN) CY=-1.167(kNm)
4	fuerza nodal	865	FX=1.700(kN) CY=-2.614(kNm)
4	fuerza nodal	864	FX=1.703(kN) CY=-2.619(kNm)
4	fuerza nodal	863	FX=1.706(kN) CY=-2.623(kNm)
4	fuerza nodal	862	FX=1.709(kN) CY=-2.628(kNm)
4	fuerza nodal	861	FX=1.712(kN) CY=-2.632(kNm)
4	fuerza nodal	860	FX=1.715(kN) CY=-2.637(kNm)
4	fuerza nodal	859	FX=1.718(kN) CY=-2.641(kNm)

Caso	Tipo de carga	Lista	Valores de carga
4	fuerza nodal	858	FX=1.721(kN) CY=-2.646(kNm)
4	fuerza nodal	857	FX=1.724(kN) CY=-2.650(kNm)
4	fuerza nodal	856	FX=936.425(kN) CY=-1440.034(kNm)
4	fuerza nodal	896	FX=-934.938(kN) CY=1437.748(kNm)
4	fuerza nodal	895	FX=-1.614(kN) CY=2.482(kNm)
4	fuerza nodal	894	FX=-1.617(kN) CY=2.486(kNm)
4	fuerza nodal	893	FX=-1.620(kN) CY=2.491(kNm)
4	fuerza nodal	892	FX=-1.623(kN) CY=2.495(kNm)
4	fuerza nodal	891	FX=-1.625(kN) CY=2.499(kNm)
4	fuerza nodal	890	FX=-1.628(kN) CY=2.504(kNm)
4	fuerza nodal	889	FX=-1.631(kN) CY=2.508(kNm)
4	fuerza nodal	888	FX=-1.634(kN) CY=2.512(kNm)
4	fuerza nodal	887	FX=-1.637(kN) CY=2.517(kNm)
4	fuerza nodal	886	FX=-1.639(kN) CY=2.521(kNm)
4	fuerza nodal	885	FX=-1.642(kN) CY=2.525(kNm)
4	fuerza nodal	884	FX=-1.645(kN) CY=2.530(kNm)
4	fuerza nodal	883	FX=-1.648(kN) CY=2.534(kNm)
4	fuerza nodal	882	FX=-1.651(kN) CY=2.539(kNm)
4	fuerza nodal	881	FX=-1.654(kN) CY=2.543(kNm)
4	fuerza nodal	880	FX=-1.657(kN) CY=2.547(kNm)
4	fuerza nodal	879	FX=-1.659(kN) CY=2.552(kNm)
4	fuerza nodal	878	FX=-1.662(kN) CY=2.556(kNm)
4	fuerza nodal	877	FX=-1.665(kN) CY=2.561(kNm)
4	fuerza nodal	876	FX=-1.668(kN) CY=2.565(kNm)
4	fuerza nodal	75	FX=0.759(kN) CY=-1.167(kNm)
4	fuerza nodal	74	FX=1.674(kN) CY=-2.635(kNm)
4	fuerza nodal	73	FX=1.677(kN) CY=-2.702(kNm)
4	fuerza nodal	72	FX=1.680(kN) CY=-2.706(kNm)
4	fuerza nodal	71	FX=1.682(kN) CY=-2.711(kNm)
4	fuerza nodal	70	FX=1.685(kN) CY=-2.716(kNm)
4	fuerza nodal	69	FX=1.688(kN) CY=-2.720(kNm)
4	fuerza nodal	68	FX=1.691(kN) CY=-2.663(kNm)
4	fuerza nodal	67	FX=1.694(kN) CY=-2.605(kNm)
4	fuerza nodal	66	FX=1.697(kN) CY=-2.610(kNm)
4	fuerza nodal	65	FX=1.700(kN) CY=-2.614(kNm)
4	fuerza nodal	64	FX=1.703(kN) CY=-2.619(kNm)
4	fuerza nodal	63	FX=1.706(kN) CY=-2.623(kNm)
4	fuerza nodal	62	FX=1.709(kN) CY=-2.628(kNm)
4	fuerza nodal	61	FX=1.712(kN) CY=-2.632(kNm)
4	fuerza nodal	60	FX=1.715(kN) CY=-2.637(kNm)
4	fuerza nodal	59	FX=1.718(kN) CY=-2.641(kNm)
4	fuerza nodal	58	FX=1.721(kN) CY=-2.646(kNm)
4	fuerza nodal	57	FX=1.724(kN) CY=-2.650(kNm)
4	fuerza nodal	56	FX=936.425(kN) CY=-1440.034(kNm)
4	fuerza nodal	96	FX=-934.938(kN) CY=1437.748(kNm)
4	fuerza nodal	95	FX=-1.614(kN) CY=2.482(kNm)
4	fuerza nodal	94	FX=-1.617(kN) CY=2.486(kNm)
4	fuerza nodal	93	FX=-1.620(kN) CY=2.491(kNm)
4	fuerza nodal	92	FX=-1.623(kN) CY=2.495(kNm)
4	fuerza nodal	91	FX=-1.625(kN) CY=2.499(kNm)
4	fuerza nodal	90	FX=-1.628(kN) CY=2.504(kNm)
4	fuerza nodal	89	FX=-1.631(kN) CY=2.508(kNm)

Caso	Tipo de carga	Lista	Valores de carga
4	fuerza nodal	88	FX=-1.634(kN) CY=2.512(kNm)
4	fuerza nodal	87	FX=-1.637(kN) CY=2.517(kNm)
4	fuerza nodal	76	FX=-1.668(kN) CY=2.565(kNm)
4	fuerza nodal	77	FX=-1.665(kN) CY=2.561(kNm)
4	fuerza nodal	78	FX=-1.662(kN) CY=2.556(kNm)
4	fuerza nodal	79	FX=-1.659(kN) CY=2.552(kNm)
4	fuerza nodal	80	FX=-1.657(kN) CY=2.547(kNm)
4	fuerza nodal	81	FX=-1.654(kN) CY=2.543(kNm)
4	fuerza nodal	82	FX=-1.651(kN) CY=2.539(kNm)
4	fuerza nodal	83	FX=-1.648(kN) CY=2.534(kNm)
4	fuerza nodal	84	FX=-1.645(kN) CY=2.530(kNm)
4	fuerza nodal	85	FX=-1.642(kN) CY=2.525(kNm)
4	fuerza nodal	86	FX=-1.639(kN) CY=2.521(kNm)
5	fuerza nodal	835	FX=0.759(kN) CY=-1.167(kNm)
5	fuerza nodal	834	FX=1.674(kN) CY=-2.635(kNm)
5	fuerza nodal	833	FX=1.677(kN) CY=-2.702(kNm)
5	fuerza nodal	832	FX=1.680(kN) CY=-2.706(kNm)
5	fuerza nodal	831	FX=1.682(kN) CY=-2.711(kNm)
5	fuerza nodal	830	FX=1.685(kN) CY=-2.716(kNm)
5	fuerza nodal	829	FX=1.688(kN) CY=-2.720(kNm)
5	fuerza nodal	828	FX=1.691(kN) CY=-2.663(kNm)
5	fuerza nodal	827	FX=1.694(kN) CY=-2.605(kNm)
5	fuerza nodal	826	FX=1.697(kN) CY=-2.610(kNm)
5	fuerza nodal	825	FX=1.700(kN) CY=-2.614(kNm)
5	fuerza nodal	824	FX=1.703(kN) CY=-2.619(kNm)
5	fuerza nodal	823	FX=1.706(kN) CY=-2.623(kNm)
5	fuerza nodal	822	FX=1.709(kN) CY=-2.628(kNm)
5	fuerza nodal	821	FX=1.712(kN) CY=-2.632(kNm)
5	fuerza nodal	820	FX=1.715(kN) CY=-2.637(kNm)
5	fuerza nodal	819	FX=1.718(kN) CY=-2.641(kNm)
5	fuerza nodal	818	FX=1.721(kN) CY=-2.646(kNm)
5	fuerza nodal	817	FX=1.724(kN) CY=-2.650(kNm)
5	fuerza nodal	816	FX=936.425(kN) CY=-1440.034(kNm)
5	fuerza nodal	856	FX=-934.938(kN) CY=1437.748(kNm)
5	fuerza nodal	855	FX=-1.614(kN) CY=2.482(kNm)
5	fuerza nodal	854	FX=-1.617(kN) CY=2.486(kNm)
5	fuerza nodal	853	FX=-1.620(kN) CY=2.491(kNm)
5	fuerza nodal	852	FX=-1.623(kN) CY=2.495(kNm)
5	fuerza nodal	851	FX=-1.625(kN) CY=2.499(kNm)
5	fuerza nodal	850	FX=-1.628(kN) CY=2.504(kNm)
5	fuerza nodal	849	FX=-1.631(kN) CY=2.508(kNm)
5	fuerza nodal	848	FX=-1.634(kN) CY=2.512(kNm)
5	fuerza nodal	847	FX=-1.637(kN) CY=2.517(kNm)
5	fuerza nodal	846	FX=-1.639(kN) CY=2.521(kNm)
5	fuerza nodal	845	FX=-1.642(kN) CY=2.525(kNm)
5	fuerza nodal	844	FX=-1.645(kN) CY=2.530(kNm)
5	fuerza nodal	843	FX=-1.648(kN) CY=2.534(kNm)
5	fuerza nodal	842	FX=-1.651(kN) CY=2.539(kNm)
5	fuerza nodal	841	FX=-1.654(kN) CY=2.543(kNm)
5	fuerza nodal	840	FX=-1.657(kN) CY=2.547(kNm)
5	fuerza nodal	839	FX=-1.659(kN) CY=2.552(kNm)
5	fuerza nodal	838	FX=-1.662(kN) CY=2.556(kNm)

Caso	Tipo de carga	Lista	Valores de carga
5	fuerza nodal	837	FX=-1.665(kN) CY=2.561(kNm)
5	fuerza nodal	836	FX=-1.668(kN) CY=2.565(kNm)
5	fuerza nodal	35	FX=0.759(kN) CY=-1.167(kNm)
5	fuerza nodal	34	FX=1.674(kN) CY=-2.635(kNm)
5	fuerza nodal	33	FX=1.677(kN) CY=-2.702(kNm)
5	fuerza nodal	32	FX=1.680(kN) CY=-2.706(kNm)
5	fuerza nodal	31	FX=1.682(kN) CY=-2.711(kNm)
5	fuerza nodal	30	FX=1.685(kN) CY=-2.716(kNm)
5	fuerza nodal	29	FX=1.688(kN) CY=-2.720(kNm)
5	fuerza nodal	28	FX=1.691(kN) CY=-2.663(kNm)
5	fuerza nodal	27	FX=1.694(kN) CY=-2.605(kNm)
5	fuerza nodal	26	FX=1.697(kN) CY=-2.610(kNm)
5	fuerza nodal	25	FX=1.700(kN) CY=-2.614(kNm)
5	fuerza nodal	24	FX=1.703(kN) CY=-2.619(kNm)
5	fuerza nodal	23	FX=1.706(kN) CY=-2.623(kNm)
5	fuerza nodal	22	FX=1.709(kN) CY=-2.628(kNm)
5	fuerza nodal	21	FX=1.712(kN) CY=-2.632(kNm)
5	fuerza nodal	20	FX=1.715(kN) CY=-2.637(kNm)
5	fuerza nodal	19	FX=1.718(kN) CY=-2.641(kNm)
5	fuerza nodal	18	FX=1.721(kN) CY=-2.646(kNm)
5	fuerza nodal	17	FX=1.724(kN) CY=-2.650(kNm)
5	fuerza nodal	16	FX=936.425(kN) CY=-1440.034(kNm)
5	fuerza nodal	56	FX=-934.938(kN) CY=1437.748(kNm)
5	fuerza nodal	55	FX=-1.614(kN) CY=2.482(kNm)
5	fuerza nodal	54	FX=-1.617(kN) CY=2.486(kNm)
5	fuerza nodal	53	FX=-1.620(kN) CY=2.491(kNm)
5	fuerza nodal	52	FX=-1.623(kN) CY=2.495(kNm)
5	fuerza nodal	51	FX=-1.625(kN) CY=2.499(kNm)
5	fuerza nodal	50	FX=-1.628(kN) CY=2.504(kNm)
5	fuerza nodal	49	FX=-1.631(kN) CY=2.508(kNm)
5	fuerza nodal	48	FX=-1.634(kN) CY=2.512(kNm)
5	fuerza nodal	47	FX=-1.637(kN) CY=2.517(kNm)
5	fuerza nodal	36	FX=-1.668(kN) CY=2.565(kNm)
5	fuerza nodal	37	FX=-1.665(kN) CY=2.561(kNm)
5	fuerza nodal	38	FX=-1.662(kN) CY=2.556(kNm)
5	fuerza nodal	39	FX=-1.659(kN) CY=2.552(kNm)
5	fuerza nodal	40	FX=-1.657(kN) CY=2.547(kNm)
5	fuerza nodal	41	FX=-1.654(kN) CY=2.543(kNm)
5	fuerza nodal	42	FX=-1.651(kN) CY=2.539(kNm)
5	fuerza nodal	43	FX=-1.648(kN) CY=2.534(kNm)
5	fuerza nodal	44	FX=-1.645(kN) CY=2.530(kNm)
5	fuerza nodal	45	FX=-1.642(kN) CY=2.525(kNm)
5	fuerza nodal	46	FX=-1.639(kN) CY=2.521(kNm)
6	fuerza nodal	801	FX=934.869(kN) CY=-1506.448(kNm)
6	fuerza nodal	802	FX=1.724(kN) CY=-2.777(kNm)
6	fuerza nodal	803	FX=1.721(kN) CY=-2.773(kNm)
6	fuerza nodal	804	FX=1.718(kN) CY=-2.704(kNm)
6	fuerza nodal	805	FX=1.715(kN) CY=-2.637(kNm)
6	fuerza nodal	806	FX=1.712(kN) CY=-2.632(kNm)
6	fuerza nodal	807	FX=1.709(kN) CY=-2.628(kNm)
6	fuerza nodal	808	FX=1.706(kN) CY=-2.623(kNm)
6	fuerza nodal	809	FX=1.703(kN) CY=-2.619(kNm)

Caso	Tipo de carga	Lista	Valores de carga
6	fuerza nodal	810	FX=1.700(kN) CY=-2.614(kNm)
6	fuerza nodal	811	FX=1.697(kN) CY=-2.610(kNm)
6	fuerza nodal	812	FX=1.694(kN) CY=-2.605(kNm)
6	fuerza nodal	813	FX=1.691(kN) CY=-2.601(kNm)
6	fuerza nodal	814	FX=1.688(kN) CY=-2.596(kNm)
6	fuerza nodal	815	FX=1.685(kN) CY=-2.592(kNm)
6	fuerza nodal	816	FX=-958.730(kN) CY=1474.334(kNm)
6	fuerza nodal	1	FX=934.869(kN) CY=-1506.448(kNm)
6	fuerza nodal	2	FX=1.724(kN) CY=-2.777(kNm)
6	fuerza nodal	3	FX=1.721(kN) CY=-2.773(kNm)
6	fuerza nodal	4	FX=1.718(kN) CY=-2.704(kNm)
6	fuerza nodal	5	FX=1.715(kN) CY=-2.637(kNm)
6	fuerza nodal	6	FX=1.712(kN) CY=-2.632(kNm)
6	fuerza nodal	7	FX=1.709(kN) CY=-2.628(kNm)
6	fuerza nodal	8	FX=1.706(kN) CY=-2.623(kNm)
6	fuerza nodal	9	FX=1.703(kN) CY=-2.619(kNm)
6	fuerza nodal	10	FX=1.700(kN) CY=-2.614(kNm)
6	fuerza nodal	11	FX=1.697(kN) CY=-2.610(kNm)
6	fuerza nodal	12	FX=1.694(kN) CY=-2.605(kNm)
6	fuerza nodal	13	FX=1.691(kN) CY=-2.601(kNm)
6	fuerza nodal	14	FX=1.688(kN) CY=-2.596(kNm)
6	fuerza nodal	15	FX=1.685(kN) CY=-2.592(kNm)
6	fuerza nodal	16	FX=-958.730(kN) CY=1474.334(kNm)
7	fuerza nodal	969	FX=1.682(kN) CY=-2.587(kNm)
7	fuerza nodal	968	FX=1.685(kN) CY=-2.592(kNm)
7	fuerza nodal	967	FX=1.688(kN) CY=-2.596(kNm)
7	fuerza nodal	966	FX=1.691(kN) CY=-2.601(kNm)
7	fuerza nodal	965	FX=1.694(kN) CY=-2.605(kNm)
7	fuerza nodal	964	FX=1.697(kN) CY=-2.610(kNm)
7	fuerza nodal	963	FX=1.700(kN) CY=-2.614(kNm)
7	fuerza nodal	962	FX=1.703(kN) CY=-2.619(kNm)
7	fuerza nodal	961	FX=1.706(kN) CY=-2.623(kNm)
7	fuerza nodal	960	FX=1.709(kN) CY=-2.628(kNm)
7	fuerza nodal	959	FX=1.712(kN) CY=-2.632(kNm)
7	fuerza nodal	958	FX=1.715(kN) CY=-2.637(kNm)
7	fuerza nodal	957	FX=1.718(kN) CY=-2.641(kNm)
7	fuerza nodal	956	FX=1.721(kN) CY=-2.646(kNm)
7	fuerza nodal	955	FX=1.724(kN) CY=-2.650(kNm)
7	fuerza nodal	954	FX=936.425(kN) CY=-1440.034(kNm)
7	fuerza nodal	970	FX=1.680(kN) CY=-2.583(kNm)
7	fuerza nodal	971	FX=1.677(kN) CY=-2.578(kNm)
7	fuerza nodal	972	FX=1.674(kN) CY=-2.574(kNm)
7	fuerza nodal	973	FX=0.759(kN) CY=-1.167(kNm)
7	fuerza nodal	974	FX=-1.668(kN) CY=2.565(kNm)
7	fuerza nodal	975	FX=-1.665(kN) CY=2.561(kNm)
7	fuerza nodal	976	FX=-1.662(kN) CY=2.556(kNm)
7	fuerza nodal	977	FX=-1.659(kN) CY=2.552(kNm)
7	fuerza nodal	978	FX=-1.657(kN) CY=2.547(kNm)
7	fuerza nodal	979	FX=-1.654(kN) CY=2.543(kNm)
7	fuerza nodal	980	FX=-1.651(kN) CY=2.539(kNm)
7	fuerza nodal	981	FX=-1.648(kN) CY=2.534(kNm)
7	fuerza nodal	982	FX=-1.645(kN) CY=2.530(kNm)

Caso	Tipo de carga	Lista	Valores de carga
7	fuerza nodal	983	FX=-1.642(kN) CY=2.646(kNm)
7	fuerza nodal	984	FX=-1.639(kN) CY=2.642(kNm)
7	fuerza nodal	985	FX=-949.566(kN) CY=1530.131(kNm)
7	fuerza nodal	154	FX=936.425(kN) CY=-1440.034(kNm)
7	fuerza nodal	155	FX=1.724(kN) CY=-2.650(kNm)
7	fuerza nodal	156	FX=1.721(kN) CY=-2.646(kNm)
7	fuerza nodal	157	FX=1.718(kN) CY=-2.641(kNm)
7	fuerza nodal	158	FX=1.715(kN) CY=-2.637(kNm)
7	fuerza nodal	159	FX=1.712(kN) CY=-2.632(kNm)
7	fuerza nodal	160	FX=1.709(kN) CY=-2.628(kNm)
7	fuerza nodal	161	FX=1.706(kN) CY=-2.623(kNm)
7	fuerza nodal	162	FX=1.703(kN) CY=-2.619(kNm)
7	fuerza nodal	163	FX=1.700(kN) CY=-2.614(kNm)
7	fuerza nodal	164	FX=1.697(kN) CY=-2.610(kNm)
7	fuerza nodal	165	FX=1.694(kN) CY=-2.605(kNm)
7	fuerza nodal	166	FX=1.691(kN) CY=-2.601(kNm)
7	fuerza nodal	167	FX=1.688(kN) CY=-2.596(kNm)
7	fuerza nodal	168	FX=1.685(kN) CY=-2.592(kNm)
7	fuerza nodal	169	FX=1.682(kN) CY=-2.587(kNm)
7	fuerza nodal	185	FX=-949.566(kN) CY=1530.131(kNm)
7	fuerza nodal	184	FX=-1.639(kN) CY=2.642(kNm)
7	fuerza nodal	183	FX=-1.642(kN) CY=2.646(kNm)
7	fuerza nodal	182	FX=-1.645(kN) CY=2.590(kNm)
7	fuerza nodal	181	FX=-1.648(kN) CY=2.534(kNm)
7	fuerza nodal	180	FX=-1.651(kN) CY=2.539(kNm)
7	fuerza nodal	179	FX=-1.654(kN) CY=2.543(kNm)
7	fuerza nodal	178	FX=-1.657(kN) CY=2.547(kNm)
7	fuerza nodal	177	FX=-1.659(kN) CY=2.552(kNm)
7	fuerza nodal	176	FX=-1.662(kN) CY=2.556(kNm)
7	fuerza nodal	175	FX=-1.665(kN) CY=2.561(kNm)
7	fuerza nodal	174	FX=-1.668(kN) CY=2.565(kNm)
7	fuerza nodal	173	FX=0.759(kN) CY=-1.167(kNm)
7	fuerza nodal	172	FX=1.674(kN) CY=-2.574(kNm)
7	fuerza nodal	171	FX=1.677(kN) CY=-2.578(kNm)
7	fuerza nodal	170	FX=1.680(kN) CY=-2.583(kNm)
8	fuerza nodal	926	FX=1.697(kN) CY=-2.610(kNm)
8	fuerza nodal	927	FX=1.694(kN) CY=-2.605(kNm)
8	fuerza nodal	928	FX=1.691(kN) CY=-2.601(kNm)
8	fuerza nodal	929	FX=1.688(kN) CY=-2.596(kNm)
8	fuerza nodal	930	FX=1.685(kN) CY=-2.592(kNm)
8	fuerza nodal	931	FX=1.682(kN) CY=-2.587(kNm)
8	fuerza nodal	932	FX=1.680(kN) CY=-2.583(kNm)
8	fuerza nodal	933	FX=1.677(kN) CY=-2.578(kNm)
8	fuerza nodal	934	FX=1.674(kN) CY=-2.574(kNm)
8	fuerza nodal	925	FX=1.700(kN) CY=-2.614(kNm)
8	fuerza nodal	924	FX=1.703(kN) CY=-2.619(kNm)
8	fuerza nodal	923	FX=1.706(kN) CY=-2.623(kNm)
8	fuerza nodal	922	FX=1.709(kN) CY=-2.628(kNm)
8	fuerza nodal	921	FX=1.712(kN) CY=-2.632(kNm)
8	fuerza nodal	920	FX=1.715(kN) CY=-2.637(kNm)
8	fuerza nodal	919	FX=1.718(kN) CY=-2.641(kNm)
8	fuerza nodal	918	FX=1.721(kN) CY=-2.646(kNm)

Caso	Tipo de carga	Lista	Valores de carga
8	fuerza nodal	917	FX=1.724(kN) CY=-2.650(kNm)
8	fuerza nodal	916	FX=936.425(kN) CY=-1440.034(kNm)
8	fuerza nodal	954	FX=-938.169(kN) CY=1442.717(kNm)
8	fuerza nodal	953	FX=-1.620(kN) CY=2.491(kNm)
8	fuerza nodal	952	FX=-1.623(kN) CY=2.555(kNm)
8	fuerza nodal	951	FX=-1.625(kN) CY=2.619(kNm)
8	fuerza nodal	950	FX=-1.628(kN) CY=2.624(kNm)
8	fuerza nodal	949	FX=-1.631(kN) CY=2.628(kNm)
8	fuerza nodal	948	FX=-1.634(kN) CY=2.633(kNm)
8	fuerza nodal	947	FX=-1.637(kN) CY=2.637(kNm)
8	fuerza nodal	946	FX=-1.639(kN) CY=2.581(kNm)
8	fuerza nodal	945	FX=-1.642(kN) CY=2.525(kNm)
8	fuerza nodal	944	FX=-1.645(kN) CY=2.530(kNm)
8	fuerza nodal	943	FX=-1.648(kN) CY=2.534(kNm)
8	fuerza nodal	942	FX=-1.651(kN) CY=2.539(kNm)
8	fuerza nodal	941	FX=-1.654(kN) CY=2.543(kNm)
8	fuerza nodal	940	FX=-1.657(kN) CY=2.547(kNm)
8	fuerza nodal	939	FX=-1.659(kN) CY=2.552(kNm)
8	fuerza nodal	938	FX=-1.662(kN) CY=2.556(kNm)
8	fuerza nodal	937	FX=-1.665(kN) CY=2.561(kNm)
8	fuerza nodal	936	FX=-1.668(kN) CY=2.565(kNm)
8	fuerza nodal	935	FX=0.759(kN) CY=-1.167(kNm)
8	fuerza nodal	134	FX=1.674(kN) CY=-2.574(kNm)
8	fuerza nodal	133	FX=1.677(kN) CY=-2.578(kNm)
8	fuerza nodal	132	FX=1.680(kN) CY=-2.583(kNm)
8	fuerza nodal	131	FX=1.682(kN) CY=-2.587(kNm)
8	fuerza nodal	130	FX=1.685(kN) CY=-2.592(kNm)
8	fuerza nodal	129	FX=1.688(kN) CY=-2.596(kNm)
8	fuerza nodal	128	FX=1.691(kN) CY=-2.601(kNm)
8	fuerza nodal	127	FX=1.694(kN) CY=-2.605(kNm)
8	fuerza nodal	126	FX=1.697(kN) CY=-2.610(kNm)
8	fuerza nodal	125	FX=1.700(kN) CY=-2.614(kNm)
8	fuerza nodal	124	FX=1.703(kN) CY=-2.619(kNm)
8	fuerza nodal	123	FX=1.706(kN) CY=-2.623(kNm)
8	fuerza nodal	122	FX=1.709(kN) CY=-2.628(kNm)
8	fuerza nodal	121	FX=1.712(kN) CY=-2.632(kNm)
8	fuerza nodal	120	FX=1.715(kN) CY=-2.637(kNm)
8	fuerza nodal	119	FX=1.718(kN) CY=-2.641(kNm)
8	fuerza nodal	118	FX=1.721(kN) CY=-2.646(kNm)
8	fuerza nodal	117	FX=1.724(kN) CY=-2.650(kNm)
8	fuerza nodal	116	FX=936.425(kN) CY=-1440.034(kNm)
8	fuerza nodal	154	FX=-938.169(kN) CY=1442.717(kNm)
8	fuerza nodal	153	FX=-1.620(kN) CY=2.491(kNm)
8	fuerza nodal	152	FX=-1.623(kN) CY=2.555(kNm)
8	fuerza nodal	151	FX=-1.625(kN) CY=2.619(kNm)
8	fuerza nodal	150	FX=-1.628(kN) CY=2.624(kNm)
8	fuerza nodal	149	FX=-1.631(kN) CY=2.628(kNm)
8	fuerza nodal	148	FX=-1.634(kN) CY=2.633(kNm)
8	fuerza nodal	147	FX=-1.637(kN) CY=2.637(kNm)
8	fuerza nodal	146	FX=-1.639(kN) CY=2.581(kNm)
8	fuerza nodal	145	FX=-1.642(kN) CY=2.525(kNm)
8	fuerza nodal	144	FX=-1.645(kN) CY=2.530(kNm)

Caso	Tipo de carga	Lista	Valores de carga
8	fuerza nodal	143	FX=-1.648(kN) CY=2.534(kNm)
8	fuerza nodal	142	FX=-1.651(kN) CY=2.539(kNm)
8	fuerza nodal	141	FX=-1.654(kN) CY=2.543(kNm)
8	fuerza nodal	140	FX=-1.657(kN) CY=2.547(kNm)
8	fuerza nodal	139	FX=-1.659(kN) CY=2.552(kNm)
8	fuerza nodal	138	FX=-1.662(kN) CY=2.556(kNm)
8	fuerza nodal	137	FX=-1.665(kN) CY=2.561(kNm)
8	fuerza nodal	136	FX=-1.668(kN) CY=2.565(kNm)
8	fuerza nodal	135	FX=0.759(kN) CY=-1.167(kNm)
9	fuerza nodal	886	FX=1.697(kN) CY=-2.610(kNm)
9	fuerza nodal	887	FX=1.694(kN) CY=-2.605(kNm)
9	fuerza nodal	888	FX=1.691(kN) CY=-2.601(kNm)
9	fuerza nodal	889	FX=1.688(kN) CY=-2.596(kNm)
9	fuerza nodal	890	FX=1.685(kN) CY=-2.592(kNm)
9	fuerza nodal	891	FX=1.682(kN) CY=-2.587(kNm)
9	fuerza nodal	892	FX=1.680(kN) CY=-2.583(kNm)
9	fuerza nodal	893	FX=1.677(kN) CY=-2.578(kNm)
9	fuerza nodal	894	FX=1.674(kN) CY=-2.574(kNm)
9	fuerza nodal	895	FX=0.759(kN) CY=-1.167(kNm)
9	fuerza nodal	885	FX=1.700(kN) CY=-2.614(kNm)
9	fuerza nodal	884	FX=1.703(kN) CY=-2.619(kNm)
9	fuerza nodal	883	FX=1.706(kN) CY=-2.623(kNm)
9	fuerza nodal	882	FX=1.709(kN) CY=-2.628(kNm)
9	fuerza nodal	881	FX=1.712(kN) CY=-2.632(kNm)
9	fuerza nodal	880	FX=1.715(kN) CY=-2.637(kNm)
9	fuerza nodal	879	FX=1.718(kN) CY=-2.641(kNm)
9	fuerza nodal	878	FX=1.721(kN) CY=-2.646(kNm)
9	fuerza nodal	877	FX=1.724(kN) CY=-2.650(kNm)
9	fuerza nodal	876	FX=936.425(kN) CY=-1440.034(kNm)
9	fuerza nodal	916	FX=-934.938(kN) CY=1437.748(kNm)
9	fuerza nodal	915	FX=-1.614(kN) CY=2.482(kNm)
9	fuerza nodal	914	FX=-1.617(kN) CY=2.546(kNm)
9	fuerza nodal	913	FX=-1.620(kN) CY=2.610(kNm)
9	fuerza nodal	912	FX=-1.623(kN) CY=2.615(kNm)
9	fuerza nodal	911	FX=-1.625(kN) CY=2.619(kNm)
9	fuerza nodal	910	FX=-1.628(kN) CY=2.624(kNm)
9	fuerza nodal	909	FX=-1.631(kN) CY=2.628(kNm)
9	fuerza nodal	908	FX=-1.634(kN) CY=2.573(kNm)
9	fuerza nodal	907	FX=-1.637(kN) CY=2.517(kNm)
9	fuerza nodal	906	FX=-1.639(kN) CY=2.521(kNm)
9	fuerza nodal	905	FX=-1.642(kN) CY=2.525(kNm)
9	fuerza nodal	904	FX=-1.645(kN) CY=2.530(kNm)
9	fuerza nodal	903	FX=-1.648(kN) CY=2.534(kNm)
9	fuerza nodal	902	FX=-1.651(kN) CY=2.539(kNm)
9	fuerza nodal	901	FX=-1.654(kN) CY=2.543(kNm)
9	fuerza nodal	900	FX=-1.657(kN) CY=2.547(kNm)
9	fuerza nodal	899	FX=-1.659(kN) CY=2.552(kNm)
9	fuerza nodal	898	FX=-1.662(kN) CY=2.556(kNm)
9	fuerza nodal	897	FX=-1.665(kN) CY=2.561(kNm)
9	fuerza nodal	896	FX=-1.668(kN) CY=2.565(kNm)
9	fuerza nodal	95	FX=0.759(kN) CY=-1.167(kNm)
9	fuerza nodal	94	FX=1.674(kN) CY=-2.574(kNm)

Caso	Tipo de carga	Lista	Valores de carga
9	fuerza nodal	93	FX=1.677(kN) CY=-2.578(kNm)
9	fuerza nodal	92	FX=1.680(kN) CY=-2.583(kNm)
9	fuerza nodal	91	FX=1.682(kN) CY=-2.587(kNm)
9	fuerza nodal	90	FX=1.685(kN) CY=-2.592(kNm)
9	fuerza nodal	89	FX=1.688(kN) CY=-2.596(kNm)
9	fuerza nodal	88	FX=1.691(kN) CY=-2.601(kNm)
9	fuerza nodal	87	FX=1.694(kN) CY=-2.605(kNm)
9	fuerza nodal	86	FX=1.697(kN) CY=-2.610(kNm)
9	fuerza nodal	85	FX=1.700(kN) CY=-2.614(kNm)
9	fuerza nodal	84	FX=1.703(kN) CY=-2.619(kNm)
9	fuerza nodal	83	FX=1.706(kN) CY=-2.623(kNm)
9	fuerza nodal	82	FX=1.709(kN) CY=-2.628(kNm)
9	fuerza nodal	81	FX=1.712(kN) CY=-2.632(kNm)
9	fuerza nodal	80	FX=1.715(kN) CY=-2.637(kNm)
9	fuerza nodal	79	FX=1.718(kN) CY=-2.641(kNm)
9	fuerza nodal	78	FX=1.721(kN) CY=-2.646(kNm)
9	fuerza nodal	77	FX=1.724(kN) CY=-2.650(kNm)
9	fuerza nodal	76	FX=936.425(kN) CY=-1440.034(kNm)
9	fuerza nodal	116	FX=-934.938(kN) CY=1437.748(kNm)
9	fuerza nodal	115	FX=-1.614(kN) CY=2.482(kNm)
9	fuerza nodal	114	FX=-1.617(kN) CY=2.546(kNm)
9	fuerza nodal	113	FX=-1.620(kN) CY=2.610(kNm)
9	fuerza nodal	112	FX=-1.623(kN) CY=2.615(kNm)
9	fuerza nodal	111	FX=-1.625(kN) CY=2.619(kNm)
9	fuerza nodal	110	FX=-1.628(kN) CY=2.624(kNm)
9	fuerza nodal	109	FX=-1.631(kN) CY=2.628(kNm)
9	fuerza nodal	108	FX=-1.634(kN) CY=2.573(kNm)
9	fuerza nodal	107	FX=-1.637(kN) CY=2.517(kNm)
9	fuerza nodal	96	FX=-1.668(kN) CY=2.565(kNm)
9	fuerza nodal	97	FX=-1.665(kN) CY=2.561(kNm)
9	fuerza nodal	98	FX=-1.662(kN) CY=2.556(kNm)
9	fuerza nodal	99	FX=-1.659(kN) CY=2.552(kNm)
9	fuerza nodal	100	FX=-1.657(kN) CY=2.547(kNm)
9	fuerza nodal	101	FX=-1.654(kN) CY=2.543(kNm)
9	fuerza nodal	102	FX=-1.651(kN) CY=2.539(kNm)
9	fuerza nodal	103	FX=-1.648(kN) CY=2.534(kNm)
9	fuerza nodal	104	FX=-1.645(kN) CY=2.530(kNm)
9	fuerza nodal	105	FX=-1.642(kN) CY=2.525(kNm)
9	fuerza nodal	106	FX=-1.639(kN) CY=2.521(kNm)
10	fuerza nodal	855	FX=0.759(kN) CY=-1.167(kNm)
10	fuerza nodal	854	FX=1.674(kN) CY=-2.574(kNm)
10	fuerza nodal	853	FX=1.677(kN) CY=-2.578(kNm)
10	fuerza nodal	852	FX=1.680(kN) CY=-2.583(kNm)
10	fuerza nodal	851	FX=1.682(kN) CY=-2.587(kNm)
10	fuerza nodal	850	FX=1.685(kN) CY=-2.592(kNm)
10	fuerza nodal	849	FX=1.688(kN) CY=-2.596(kNm)
10	fuerza nodal	848	FX=1.691(kN) CY=-2.601(kNm)
10	fuerza nodal	847	FX=1.694(kN) CY=-2.605(kNm)
10	fuerza nodal	846	FX=1.697(kN) CY=-2.610(kNm)
10	fuerza nodal	845	FX=1.700(kN) CY=-2.614(kNm)
10	fuerza nodal	844	FX=1.703(kN) CY=-2.619(kNm)
10	fuerza nodal	843	FX=1.706(kN) CY=-2.623(kNm)

Caso	Tipo de carga	Lista	Valores de carga
10	fuerza nodal	842	FX=1.709(kN) CY=-2.628(kNm)
10	fuerza nodal	841	FX=1.712(kN) CY=-2.632(kNm)
10	fuerza nodal	840	FX=1.715(kN) CY=-2.637(kNm)
10	fuerza nodal	839	FX=1.718(kN) CY=-2.641(kNm)
10	fuerza nodal	838	FX=1.721(kN) CY=-2.646(kNm)
10	fuerza nodal	837	FX=1.724(kN) CY=-2.650(kNm)
10	fuerza nodal	836	FX=936.425(kN) CY=-1440.034(kNm)
10	fuerza nodal	876	FX=-934.938(kN) CY=1437.748(kNm)
10	fuerza nodal	875	FX=-1.614(kN) CY=2.482(kNm)
10	fuerza nodal	874	FX=-1.617(kN) CY=2.546(kNm)
10	fuerza nodal	873	FX=-1.620(kN) CY=2.610(kNm)
10	fuerza nodal	872	FX=-1.623(kN) CY=2.615(kNm)
10	fuerza nodal	871	FX=-1.625(kN) CY=2.619(kNm)
10	fuerza nodal	870	FX=-1.628(kN) CY=2.624(kNm)
10	fuerza nodal	869	FX=-1.631(kN) CY=2.628(kNm)
10	fuerza nodal	868	FX=-1.634(kN) CY=2.573(kNm)
10	fuerza nodal	867	FX=-1.637(kN) CY=2.517(kNm)
10	fuerza nodal	866	FX=-1.639(kN) CY=2.521(kNm)
10	fuerza nodal	865	FX=-1.642(kN) CY=2.525(kNm)
10	fuerza nodal	864	FX=-1.645(kN) CY=2.530(kNm)
10	fuerza nodal	863	FX=-1.648(kN) CY=2.534(kNm)
10	fuerza nodal	862	FX=-1.651(kN) CY=2.539(kNm)
10	fuerza nodal	861	FX=-1.654(kN) CY=2.543(kNm)
10	fuerza nodal	860	FX=-1.657(kN) CY=2.547(kNm)
10	fuerza nodal	859	FX=-1.659(kN) CY=2.552(kNm)
10	fuerza nodal	858	FX=-1.662(kN) CY=2.556(kNm)
10	fuerza nodal	857	FX=-1.665(kN) CY=2.561(kNm)
10	fuerza nodal	856	FX=-1.668(kN) CY=2.565(kNm)
10	fuerza nodal	55	FX=0.759(kN) CY=-1.167(kNm)
10	fuerza nodal	54	FX=1.674(kN) CY=-2.574(kNm)
10	fuerza nodal	53	FX=1.677(kN) CY=-2.578(kNm)
10	fuerza nodal	52	FX=1.680(kN) CY=-2.583(kNm)
10	fuerza nodal	51	FX=1.682(kN) CY=-2.587(kNm)
10	fuerza nodal	50	FX=1.685(kN) CY=-2.592(kNm)
10	fuerza nodal	49	FX=1.688(kN) CY=-2.596(kNm)
10	fuerza nodal	48	FX=1.691(kN) CY=-2.601(kNm)
10	fuerza nodal	47	FX=1.694(kN) CY=-2.605(kNm)
10	fuerza nodal	46	FX=1.697(kN) CY=-2.610(kNm)
10	fuerza nodal	45	FX=1.700(kN) CY=-2.614(kNm)
10	fuerza nodal	44	FX=1.703(kN) CY=-2.619(kNm)
10	fuerza nodal	43	FX=1.706(kN) CY=-2.623(kNm)
10	fuerza nodal	42	FX=1.709(kN) CY=-2.628(kNm)
10	fuerza nodal	41	FX=1.712(kN) CY=-2.632(kNm)
10	fuerza nodal	40	FX=1.715(kN) CY=-2.637(kNm)
10	fuerza nodal	39	FX=1.718(kN) CY=-2.641(kNm)
10	fuerza nodal	38	FX=1.721(kN) CY=-2.646(kNm)
10	fuerza nodal	37	FX=1.724(kN) CY=-2.650(kNm)
10	fuerza nodal	36	FX=936.425(kN) CY=-1440.034(kNm)
10	fuerza nodal	76	FX=-934.938(kN) CY=1437.748(kNm)
10	fuerza nodal	75	FX=-1.614(kN) CY=2.482(kNm)
10	fuerza nodal	74	FX=-1.617(kN) CY=2.546(kNm)
10	fuerza nodal	73	FX=-1.620(kN) CY=2.610(kNm)

Caso	Tipo de carga	Lista	Valores de carga
10	fuerza nodal	72	FX=-1.623(kN) CY=2.615(kNm)
10	fuerza nodal	71	FX=-1.625(kN) CY=2.619(kNm)
10	fuerza nodal	70	FX=-1.628(kN) CY=2.624(kNm)
10	fuerza nodal	69	FX=-1.631(kN) CY=2.628(kNm)
10	fuerza nodal	68	FX=-1.634(kN) CY=2.573(kNm)
10	fuerza nodal	67	FX=-1.637(kN) CY=2.517(kNm)
10	fuerza nodal	56	FX=-1.668(kN) CY=2.565(kNm)
10	fuerza nodal	57	FX=-1.665(kN) CY=2.561(kNm)
10	fuerza nodal	58	FX=-1.662(kN) CY=2.556(kNm)
10	fuerza nodal	59	FX=-1.659(kN) CY=2.552(kNm)
10	fuerza nodal	60	FX=-1.657(kN) CY=2.547(kNm)
10	fuerza nodal	61	FX=-1.654(kN) CY=2.543(kNm)
10	fuerza nodal	62	FX=-1.651(kN) CY=2.539(kNm)
10	fuerza nodal	63	FX=-1.648(kN) CY=2.534(kNm)
10	fuerza nodal	64	FX=-1.645(kN) CY=2.530(kNm)
10	fuerza nodal	65	FX=-1.642(kN) CY=2.525(kNm)
10	fuerza nodal	66	FX=-1.639(kN) CY=2.521(kNm)
11	fuerza nodal	818	FX=1.677(kN) CY=-2.578(kNm)
11	fuerza nodal	817	FX=1.680(kN) CY=-2.583(kNm)
11	fuerza nodal	816	FX=1.682(kN) CY=-2.587(kNm)
11	fuerza nodal	815	FX=1.685(kN) CY=-2.592(kNm)
11	fuerza nodal	814	FX=1.688(kN) CY=-2.596(kNm)
11	fuerza nodal	813	FX=1.691(kN) CY=-2.601(kNm)
11	fuerza nodal	812	FX=1.694(kN) CY=-2.605(kNm)
11	fuerza nodal	811	FX=1.697(kN) CY=-2.610(kNm)
11	fuerza nodal	810	FX=1.700(kN) CY=-2.614(kNm)
11	fuerza nodal	809	FX=1.703(kN) CY=-2.619(kNm)
11	fuerza nodal	808	FX=1.706(kN) CY=-2.623(kNm)
11	fuerza nodal	807	FX=1.709(kN) CY=-2.628(kNm)
11	fuerza nodal	806	FX=1.712(kN) CY=-2.632(kNm)
11	fuerza nodal	805	FX=1.715(kN) CY=-2.637(kNm)
11	fuerza nodal	804	FX=1.718(kN) CY=-2.704(kNm)
11	fuerza nodal	803	FX=1.721(kN) CY=-2.773(kNm)
11	fuerza nodal	802	FX=1.724(kN) CY=-2.777(kNm)
11	fuerza nodal	801	FX=936.425(kN) CY=-1508.955(kNm)
11	fuerza nodal	836	FX=-943.037(kN) CY=1450.202(kNm)
11	fuerza nodal	835	FX=-1.628(kN) CY=2.504(kNm)
11	fuerza nodal	834	FX=-1.631(kN) CY=2.568(kNm)
11	fuerza nodal	833	FX=-1.634(kN) CY=2.633(kNm)
11	fuerza nodal	832	FX=-1.637(kN) CY=2.637(kNm)
11	fuerza nodal	831	FX=-1.639(kN) CY=2.642(kNm)
11	fuerza nodal	830	FX=-1.642(kN) CY=2.646(kNm)
11	fuerza nodal	829	FX=-1.645(kN) CY=2.651(kNm)
11	fuerza nodal	828	FX=-1.648(kN) CY=2.595(kNm)
11	fuerza nodal	827	FX=-1.651(kN) CY=2.539(kNm)
11	fuerza nodal	826	FX=-1.654(kN) CY=2.543(kNm)
11	fuerza nodal	825	FX=-1.657(kN) CY=2.547(kNm)
11	fuerza nodal	824	FX=-1.659(kN) CY=2.552(kNm)
11	fuerza nodal	823	FX=-1.662(kN) CY=2.556(kNm)
11	fuerza nodal	822	FX=-1.665(kN) CY=2.561(kNm)
11	fuerza nodal	821	FX=-1.668(kN) CY=2.565(kNm)
11	fuerza nodal	820	FX=0.759(kN) CY=-1.167(kNm)

Caso	Tipo de carga	Lista	Valores de carga
11	fuerza nodal	819	FX=1.674(kN) CY=-2.574(kNm)
11	fuerza nodal	18	FX=1.677(kN) CY=-2.578(kNm)
11	fuerza nodal	17	FX=1.680(kN) CY=-2.583(kNm)
11	fuerza nodal	16	FX=1.682(kN) CY=-2.587(kNm)
11	fuerza nodal	15	FX=1.685(kN) CY=-2.592(kNm)
11	fuerza nodal	14	FX=1.688(kN) CY=-2.596(kNm)
11	fuerza nodal	13	FX=1.691(kN) CY=-2.601(kNm)
11	fuerza nodal	12	FX=1.694(kN) CY=-2.605(kNm)
11	fuerza nodal	11	FX=1.697(kN) CY=-2.610(kNm)
11	fuerza nodal	10	FX=1.700(kN) CY=-2.614(kNm)
11	fuerza nodal	9	FX=1.703(kN) CY=-2.619(kNm)
11	fuerza nodal	8	FX=1.706(kN) CY=-2.623(kNm)
11	fuerza nodal	7	FX=1.709(kN) CY=-2.628(kNm)
11	fuerza nodal	6	FX=1.712(kN) CY=-2.632(kNm)
11	fuerza nodal	5	FX=1.715(kN) CY=-2.637(kNm)
11	fuerza nodal	4	FX=1.718(kN) CY=-2.704(kNm)
11	fuerza nodal	3	FX=1.721(kN) CY=-2.773(kNm)
11	fuerza nodal	2	FX=1.724(kN) CY=-2.777(kNm)
11	fuerza nodal	1	FX=936.425(kN) CY=-1508.955(kNm)
11	fuerza nodal	36	FX=-943.037(kN) CY=1450.202(kNm)
11	fuerza nodal	35	FX=-1.628(kN) CY=2.504(kNm)
11	fuerza nodal	34	FX=-1.631(kN) CY=2.568(kNm)
11	fuerza nodal	33	FX=-1.634(kN) CY=2.633(kNm)
11	fuerza nodal	32	FX=-1.637(kN) CY=2.637(kNm)
11	fuerza nodal	31	FX=-1.639(kN) CY=2.642(kNm)
11	fuerza nodal	30	FX=-1.642(kN) CY=2.646(kNm)
11	fuerza nodal	29	FX=-1.645(kN) CY=2.651(kNm)
11	fuerza nodal	28	FX=-1.648(kN) CY=2.595(kNm)
11	fuerza nodal	27	FX=-1.651(kN) CY=2.539(kNm)
11	fuerza nodal	26	FX=-1.654(kN) CY=2.543(kNm)
11	fuerza nodal	25	FX=-1.657(kN) CY=2.547(kNm)
11	fuerza nodal	24	FX=-1.659(kN) CY=2.552(kNm)
11	fuerza nodal	23	FX=-1.662(kN) CY=2.556(kNm)
11	fuerza nodal	22	FX=-1.665(kN) CY=2.561(kNm)
11	fuerza nodal	21	FX=-1.668(kN) CY=2.565(kNm)
11	fuerza nodal	20	FX=0.759(kN) CY=-1.167(kNm)
11	fuerza nodal	19	FX=1.674(kN) CY=-2.574(kNm)
12	fuerza nodal	974	FX=927.311(kN) CY=1641.525(kNm)
12	fuerza nodal	975	FX=1.724(kN) CY=3.051(kNm)
12	fuerza nodal	976	FX=1.721(kN) CY=3.046(kNm)
12	fuerza nodal	977	FX=1.718(kN) CY=3.041(kNm)
12	fuerza nodal	978	FX=1.715(kN) CY=3.035(kNm)
12	fuerza nodal	979	FX=1.712(kN) CY=3.030(kNm)
12	fuerza nodal	980	FX=1.709(kN) CY=3.025(kNm)
12	fuerza nodal	981	FX=1.706(kN) CY=3.019(kNm)
12	fuerza nodal	982	FX=1.703(kN) CY=2.952(kNm)
12	fuerza nodal	983	FX=1.700(kN) CY=2.884(kNm)
12	fuerza nodal	984	FX=1.697(kN) CY=2.879(kNm)
12	fuerza nodal	985	FX=-944.413(kN) CY=-1602.291(kNm)
12	fuerza nodal	174	FX=927.311(kN) CY=1641.525(kNm)
12	fuerza nodal	175	FX=1.724(kN) CY=3.051(kNm)
12	fuerza nodal	176	FX=1.721(kN) CY=3.046(kNm)

Caso	Tipo de carga	Lista	Valores de carga
12	fuerza nodal	177	FX=1.718(kN) CY=3.041(kNm)
12	fuerza nodal	178	FX=1.715(kN) CY=3.035(kNm)
12	fuerza nodal	179	FX=1.712(kN) CY=3.030(kNm)
12	fuerza nodal	180	FX=1.709(kN) CY=3.025(kNm)
12	fuerza nodal	181	FX=1.706(kN) CY=3.019(kNm)
12	fuerza nodal	182	FX=1.703(kN) CY=2.952(kNm)
12	fuerza nodal	183	FX=1.700(kN) CY=2.884(kNm)
12	fuerza nodal	184	FX=1.697(kN) CY=2.879(kNm)
12	fuerza nodal	185	FX=-944.413(kN) CY=-1602.291(kNm)
13	fuerza nodal	953	FX=0.759(kN) CY=1.343(kNm)
13	fuerza nodal	952	FX=1.674(kN) CY=2.901(kNm)
13	fuerza nodal	951	FX=1.677(kN) CY=2.845(kNm)
13	fuerza nodal	950	FX=1.680(kN) CY=2.849(kNm)
13	fuerza nodal	949	FX=1.682(kN) CY=2.854(kNm)
13	fuerza nodal	948	FX=1.685(kN) CY=2.859(kNm)
13	fuerza nodal	947	FX=1.688(kN) CY=2.864(kNm)
13	fuerza nodal	946	FX=1.691(kN) CY=2.931(kNm)
13	fuerza nodal	945	FX=1.694(kN) CY=2.999(kNm)
13	fuerza nodal	944	FX=1.697(kN) CY=3.004(kNm)
13	fuerza nodal	943	FX=1.700(kN) CY=3.009(kNm)
13	fuerza nodal	942	FX=1.703(kN) CY=3.014(kNm)
13	fuerza nodal	941	FX=1.706(kN) CY=3.019(kNm)
13	fuerza nodal	940	FX=1.709(kN) CY=3.025(kNm)
13	fuerza nodal	939	FX=1.712(kN) CY=3.030(kNm)
13	fuerza nodal	938	FX=1.715(kN) CY=3.035(kNm)
13	fuerza nodal	937	FX=1.718(kN) CY=3.041(kNm)
13	fuerza nodal	936	FX=1.721(kN) CY=3.046(kNm)
13	fuerza nodal	935	FX=1.724(kN) CY=3.051(kNm)
13	fuerza nodal	934	FX=936.425(kN) CY=1657.659(kNm)
13	fuerza nodal	974	FX=-934.938(kN) CY=-1655.027(kNm)
13	fuerza nodal	973	FX=-1.614(kN) CY=-2.857(kNm)
13	fuerza nodal	972	FX=-1.617(kN) CY=-2.862(kNm)
13	fuerza nodal	971	FX=-1.620(kN) CY=-2.867(kNm)
13	fuerza nodal	970	FX=-1.623(kN) CY=-2.872(kNm)
13	fuerza nodal	969	FX=-1.625(kN) CY=-2.877(kNm)
13	fuerza nodal	968	FX=-1.628(kN) CY=-2.882(kNm)
13	fuerza nodal	967	FX=-1.631(kN) CY=-2.887(kNm)
13	fuerza nodal	966	FX=-1.634(kN) CY=-2.892(kNm)
13	fuerza nodal	965	FX=-1.637(kN) CY=-2.897(kNm)
13	fuerza nodal	964	FX=-1.639(kN) CY=-2.902(kNm)
13	fuerza nodal	963	FX=-1.642(kN) CY=-2.907(kNm)
13	fuerza nodal	962	FX=-1.645(kN) CY=-2.912(kNm)
13	fuerza nodal	961	FX=-1.648(kN) CY=-2.917(kNm)
13	fuerza nodal	960	FX=-1.651(kN) CY=-2.922(kNm)
13	fuerza nodal	959	FX=-1.654(kN) CY=-2.927(kNm)
13	fuerza nodal	958	FX=-1.657(kN) CY=-2.932(kNm)
13	fuerza nodal	957	FX=-1.659(kN) CY=-2.937(kNm)
13	fuerza nodal	956	FX=-1.662(kN) CY=-2.942(kNm)
13	fuerza nodal	955	FX=-1.665(kN) CY=-2.948(kNm)
13	fuerza nodal	954	FX=-1.668(kN) CY=-2.953(kNm)
13	fuerza nodal	153	FX=0.759(kN) CY=1.343(kNm)
13	fuerza nodal	152	FX=1.674(kN) CY=2.901(kNm)

Caso	Tipo de carga	Lista	Valores de carga
13	fuerza nodal	151	FX=1.677(kN) CY=2.845(kNm)
13	fuerza nodal	150	FX=1.680(kN) CY=2.849(kNm)
13	fuerza nodal	149	FX=1.682(kN) CY=2.854(kNm)
13	fuerza nodal	148	FX=1.685(kN) CY=2.859(kNm)
13	fuerza nodal	147	FX=1.688(kN) CY=2.864(kNm)
13	fuerza nodal	146	FX=1.691(kN) CY=2.931(kNm)
13	fuerza nodal	145	FX=1.694(kN) CY=2.999(kNm)
13	fuerza nodal	144	FX=1.697(kN) CY=3.004(kNm)
13	fuerza nodal	143	FX=1.700(kN) CY=3.009(kNm)
13	fuerza nodal	142	FX=1.703(kN) CY=3.014(kNm)
13	fuerza nodal	141	FX=1.706(kN) CY=3.019(kNm)
13	fuerza nodal	140	FX=1.709(kN) CY=3.025(kNm)
13	fuerza nodal	139	FX=1.712(kN) CY=3.030(kNm)
13	fuerza nodal	138	FX=1.715(kN) CY=3.035(kNm)
13	fuerza nodal	137	FX=1.718(kN) CY=3.041(kNm)
13	fuerza nodal	136	FX=1.721(kN) CY=3.046(kNm)
13	fuerza nodal	135	FX=1.724(kN) CY=3.051(kNm)
13	fuerza nodal	134	FX=936.425(kN) CY=1657.659(kNm)
13	fuerza nodal	174	FX=-934.938(kN) CY=-1655.027(kNm)
13	fuerza nodal	173	FX=-1.614(kN) CY=-2.857(kNm)
13	fuerza nodal	172	FX=-1.617(kN) CY=-2.862(kNm)
13	fuerza nodal	171	FX=-1.620(kN) CY=-2.867(kNm)
13	fuerza nodal	170	FX=-1.623(kN) CY=-2.872(kNm)
13	fuerza nodal	169	FX=-1.625(kN) CY=-2.877(kNm)
13	fuerza nodal	168	FX=-1.628(kN) CY=-2.882(kNm)
13	fuerza nodal	167	FX=-1.631(kN) CY=-2.887(kNm)
13	fuerza nodal	166	FX=-1.634(kN) CY=-2.892(kNm)
13	fuerza nodal	165	FX=-1.637(kN) CY=-2.897(kNm)
13	fuerza nodal	154	FX=-1.668(kN) CY=-2.953(kNm)
13	fuerza nodal	155	FX=-1.665(kN) CY=-2.948(kNm)
13	fuerza nodal	156	FX=-1.662(kN) CY=-2.942(kNm)
13	fuerza nodal	157	FX=-1.659(kN) CY=-2.937(kNm)
13	fuerza nodal	158	FX=-1.657(kN) CY=-2.932(kNm)
13	fuerza nodal	159	FX=-1.654(kN) CY=-2.927(kNm)
13	fuerza nodal	160	FX=-1.651(kN) CY=-2.922(kNm)
13	fuerza nodal	161	FX=-1.648(kN) CY=-2.917(kNm)
13	fuerza nodal	162	FX=-1.645(kN) CY=-2.912(kNm)
13	fuerza nodal	163	FX=-1.642(kN) CY=-2.907(kNm)
13	fuerza nodal	164	FX=-1.639(kN) CY=-2.902(kNm)
14	fuerza nodal	914	FX=1.674(kN) CY=2.901(kNm)
14	fuerza nodal	913	FX=1.677(kN) CY=2.845(kNm)
14	fuerza nodal	912	FX=1.680(kN) CY=2.849(kNm)
14	fuerza nodal	911	FX=1.682(kN) CY=2.854(kNm)
14	fuerza nodal	910	FX=1.685(kN) CY=2.859(kNm)
14	fuerza nodal	909	FX=1.688(kN) CY=2.864(kNm)
14	fuerza nodal	908	FX=1.691(kN) CY=2.931(kNm)
14	fuerza nodal	907	FX=1.694(kN) CY=2.999(kNm)
14	fuerza nodal	906	FX=1.697(kN) CY=3.004(kNm)
14	fuerza nodal	905	FX=1.700(kN) CY=3.009(kNm)
14	fuerza nodal	904	FX=1.703(kN) CY=3.014(kNm)
14	fuerza nodal	903	FX=1.706(kN) CY=3.019(kNm)
14	fuerza nodal	902	FX=1.709(kN) CY=3.025(kNm)

Caso	Tipo de carga	Lista	Valores de carga
14	fuerza nodal	901	FX=1.712(kN) CY=3.030(kNm)
14	fuerza nodal	900	FX=1.715(kN) CY=3.035(kNm)
14	fuerza nodal	899	FX=1.718(kN) CY=3.041(kNm)
14	fuerza nodal	898	FX=1.721(kN) CY=3.046(kNm)
14	fuerza nodal	897	FX=1.724(kN) CY=3.051(kNm)
14	fuerza nodal	896	FX=936.425(kN) CY=1657.659(kNm)
14	fuerza nodal	934	FX=-938.169(kN) CY=-1660.747(kNm)
14	fuerza nodal	933	FX=-1.620(kN) CY=-2.867(kNm)
14	fuerza nodal	932	FX=-1.623(kN) CY=-2.872(kNm)
14	fuerza nodal	931	FX=-1.625(kN) CY=-2.877(kNm)
14	fuerza nodal	930	FX=-1.628(kN) CY=-2.882(kNm)
14	fuerza nodal	929	FX=-1.631(kN) CY=-2.887(kNm)
14	fuerza nodal	928	FX=-1.634(kN) CY=-2.892(kNm)
14	fuerza nodal	927	FX=-1.637(kN) CY=-2.897(kNm)
14	fuerza nodal	926	FX=-1.639(kN) CY=-2.902(kNm)
14	fuerza nodal	925	FX=-1.642(kN) CY=-2.907(kNm)
14	fuerza nodal	924	FX=-1.645(kN) CY=-2.912(kNm)
14	fuerza nodal	923	FX=-1.648(kN) CY=-2.917(kNm)
14	fuerza nodal	922	FX=-1.651(kN) CY=-2.922(kNm)
14	fuerza nodal	921	FX=-1.654(kN) CY=-2.927(kNm)
14	fuerza nodal	920	FX=-1.657(kN) CY=-2.932(kNm)
14	fuerza nodal	919	FX=-1.659(kN) CY=-2.937(kNm)
14	fuerza nodal	918	FX=-1.662(kN) CY=-2.942(kNm)
14	fuerza nodal	917	FX=-1.665(kN) CY=-2.948(kNm)
14	fuerza nodal	916	FX=-1.668(kN) CY=-2.953(kNm)
14	fuerza nodal	915	FX=0.759(kN) CY=1.343(kNm)
14	fuerza nodal	114	FX=1.674(kN) CY=2.901(kNm)
14	fuerza nodal	113	FX=1.677(kN) CY=2.845(kNm)
14	fuerza nodal	112	FX=1.680(kN) CY=2.849(kNm)
14	fuerza nodal	111	FX=1.682(kN) CY=2.854(kNm)
14	fuerza nodal	110	FX=1.685(kN) CY=2.859(kNm)
14	fuerza nodal	109	FX=1.688(kN) CY=2.864(kNm)
14	fuerza nodal	108	FX=1.691(kN) CY=2.931(kNm)
14	fuerza nodal	107	FX=1.694(kN) CY=2.999(kNm)
14	fuerza nodal	106	FX=1.697(kN) CY=3.004(kNm)
14	fuerza nodal	105	FX=1.700(kN) CY=3.009(kNm)
14	fuerza nodal	104	FX=1.703(kN) CY=3.014(kNm)
14	fuerza nodal	103	FX=1.706(kN) CY=3.019(kNm)
14	fuerza nodal	102	FX=1.709(kN) CY=3.025(kNm)
14	fuerza nodal	101	FX=1.712(kN) CY=3.030(kNm)
14	fuerza nodal	100	FX=1.715(kN) CY=3.035(kNm)
14	fuerza nodal	99	FX=1.718(kN) CY=3.041(kNm)
14	fuerza nodal	98	FX=1.721(kN) CY=3.046(kNm)
14	fuerza nodal	97	FX=1.724(kN) CY=3.051(kNm)
14	fuerza nodal	96	FX=936.425(kN) CY=1657.659(kNm)
14	fuerza nodal	134	FX=-938.169(kN) CY=-1660.747(kNm)
14	fuerza nodal	133	FX=-1.620(kN) CY=-2.867(kNm)
14	fuerza nodal	132	FX=-1.623(kN) CY=-2.872(kNm)
14	fuerza nodal	131	FX=-1.625(kN) CY=-2.877(kNm)
14	fuerza nodal	130	FX=-1.628(kN) CY=-2.882(kNm)
14	fuerza nodal	129	FX=-1.631(kN) CY=-2.887(kNm)
14	fuerza nodal	128	FX=-1.634(kN) CY=-2.892(kNm)

Caso	Tipo de carga	Lista	Valores de carga
14	fuerza nodal	127	FX=-1.637(kN) CY=-2.897(kNm)
14	fuerza nodal	126	FX=-1.639(kN) CY=-2.902(kNm)
14	fuerza nodal	125	FX=-1.642(kN) CY=-2.907(kNm)
14	fuerza nodal	124	FX=-1.645(kN) CY=-2.912(kNm)
14	fuerza nodal	123	FX=-1.648(kN) CY=-2.917(kNm)
14	fuerza nodal	122	FX=-1.651(kN) CY=-2.922(kNm)
14	fuerza nodal	121	FX=-1.654(kN) CY=-2.927(kNm)
14	fuerza nodal	120	FX=-1.657(kN) CY=-2.932(kNm)
14	fuerza nodal	119	FX=-1.659(kN) CY=-2.937(kNm)
14	fuerza nodal	118	FX=-1.662(kN) CY=-2.942(kNm)
14	fuerza nodal	117	FX=-1.665(kN) CY=-2.948(kNm)
14	fuerza nodal	116	FX=-1.668(kN) CY=-2.953(kNm)
14	fuerza nodal	115	FX=0.759(kN) CY=1.343(kNm)
15	fuerza nodal	866	FX=1.697(kN) CY=3.004(kNm)
15	fuerza nodal	867	FX=1.694(kN) CY=2.999(kNm)
15	fuerza nodal	868	FX=1.691(kN) CY=2.931(kNm)
15	fuerza nodal	869	FX=1.688(kN) CY=2.864(kNm)
15	fuerza nodal	870	FX=1.685(kN) CY=2.859(kNm)
15	fuerza nodal	871	FX=1.682(kN) CY=2.854(kNm)
15	fuerza nodal	872	FX=1.680(kN) CY=2.849(kNm)
15	fuerza nodal	873	FX=1.677(kN) CY=2.845(kNm)
15	fuerza nodal	874	FX=1.674(kN) CY=2.901(kNm)
15	fuerza nodal	875	FX=0.759(kN) CY=1.343(kNm)
15	fuerza nodal	865	FX=1.700(kN) CY=3.009(kNm)
15	fuerza nodal	864	FX=1.703(kN) CY=3.014(kNm)
15	fuerza nodal	863	FX=1.706(kN) CY=3.019(kNm)
15	fuerza nodal	862	FX=1.709(kN) CY=3.025(kNm)
15	fuerza nodal	861	FX=1.712(kN) CY=3.030(kNm)
15	fuerza nodal	860	FX=1.715(kN) CY=3.035(kNm)
15	fuerza nodal	859	FX=1.718(kN) CY=3.041(kNm)
15	fuerza nodal	858	FX=1.721(kN) CY=3.046(kNm)
15	fuerza nodal	857	FX=1.724(kN) CY=3.051(kNm)
15	fuerza nodal	856	FX=936.425(kN) CY=1657.659(kNm)
15	fuerza nodal	896	FX=-934.938(kN) CY=-1655.027(kNm)
15	fuerza nodal	895	FX=-1.614(kN) CY=-2.857(kNm)
15	fuerza nodal	894	FX=-1.617(kN) CY=-2.862(kNm)
15	fuerza nodal	893	FX=-1.620(kN) CY=-2.867(kNm)
15	fuerza nodal	892	FX=-1.623(kN) CY=-2.872(kNm)
15	fuerza nodal	891	FX=-1.625(kN) CY=-2.877(kNm)
15	fuerza nodal	890	FX=-1.628(kN) CY=-2.882(kNm)
15	fuerza nodal	889	FX=-1.631(kN) CY=-2.887(kNm)
15	fuerza nodal	888	FX=-1.634(kN) CY=-2.892(kNm)
15	fuerza nodal	887	FX=-1.637(kN) CY=-2.897(kNm)
15	fuerza nodal	886	FX=-1.639(kN) CY=-2.902(kNm)
15	fuerza nodal	885	FX=-1.642(kN) CY=-2.907(kNm)
15	fuerza nodal	884	FX=-1.645(kN) CY=-2.912(kNm)
15	fuerza nodal	883	FX=-1.648(kN) CY=-2.917(kNm)
15	fuerza nodal	882	FX=-1.651(kN) CY=-2.922(kNm)
15	fuerza nodal	881	FX=-1.654(kN) CY=-2.927(kNm)
15	fuerza nodal	880	FX=-1.657(kN) CY=-2.932(kNm)
15	fuerza nodal	879	FX=-1.659(kN) CY=-2.937(kNm)
15	fuerza nodal	878	FX=-1.662(kN) CY=-2.942(kNm)

Caso	Tipo de carga	Lista	Valores de carga
15	fuerza nodal	877	FX=-1.665(kN) CY=-2.948(kNm)
15	fuerza nodal	876	FX=-1.668(kN) CY=-2.953(kNm)
15	fuerza nodal	75	FX=0.759(kN) CY=1.343(kNm)
15	fuerza nodal	74	FX=1.674(kN) CY=2.901(kNm)
15	fuerza nodal	73	FX=1.677(kN) CY=2.845(kNm)
15	fuerza nodal	72	FX=1.680(kN) CY=2.849(kNm)
15	fuerza nodal	71	FX=1.682(kN) CY=2.854(kNm)
15	fuerza nodal	70	FX=1.685(kN) CY=2.859(kNm)
15	fuerza nodal	69	FX=1.688(kN) CY=2.864(kNm)
15	fuerza nodal	68	FX=1.691(kN) CY=2.931(kNm)
15	fuerza nodal	67	FX=1.694(kN) CY=2.999(kNm)
15	fuerza nodal	66	FX=1.697(kN) CY=3.004(kNm)
15	fuerza nodal	65	FX=1.700(kN) CY=3.009(kNm)
15	fuerza nodal	64	FX=1.703(kN) CY=3.014(kNm)
15	fuerza nodal	63	FX=1.706(kN) CY=3.019(kNm)
15	fuerza nodal	62	FX=1.709(kN) CY=3.025(kNm)
15	fuerza nodal	61	FX=1.712(kN) CY=3.030(kNm)
15	fuerza nodal	60	FX=1.715(kN) CY=3.035(kNm)
15	fuerza nodal	59	FX=1.718(kN) CY=3.041(kNm)
15	fuerza nodal	58	FX=1.721(kN) CY=3.046(kNm)
15	fuerza nodal	57	FX=1.724(kN) CY=3.051(kNm)
15	fuerza nodal	56	FX=936.425(kN) CY=1657.659(kNm)
15	fuerza nodal	96	FX=-934.938(kN) CY=-1655.027(kNm)
15	fuerza nodal	95	FX=-1.614(kN) CY=-2.857(kNm)
15	fuerza nodal	94	FX=-1.617(kN) CY=-2.862(kNm)
15	fuerza nodal	93	FX=-1.620(kN) CY=-2.867(kNm)
15	fuerza nodal	92	FX=-1.623(kN) CY=-2.872(kNm)
15	fuerza nodal	91	FX=-1.625(kN) CY=-2.877(kNm)
15	fuerza nodal	90	FX=-1.628(kN) CY=-2.882(kNm)
15	fuerza nodal	89	FX=-1.631(kN) CY=-2.887(kNm)
15	fuerza nodal	88	FX=-1.634(kN) CY=-2.892(kNm)
15	fuerza nodal	87	FX=-1.637(kN) CY=-2.897(kNm)
15	fuerza nodal	76	FX=-1.668(kN) CY=-2.953(kNm)
15	fuerza nodal	77	FX=-1.665(kN) CY=-2.948(kNm)
15	fuerza nodal	78	FX=-1.662(kN) CY=-2.942(kNm)
15	fuerza nodal	79	FX=-1.659(kN) CY=-2.937(kNm)
15	fuerza nodal	80	FX=-1.657(kN) CY=-2.932(kNm)
15	fuerza nodal	81	FX=-1.654(kN) CY=-2.927(kNm)
15	fuerza nodal	82	FX=-1.651(kN) CY=-2.922(kNm)
15	fuerza nodal	83	FX=-1.648(kN) CY=-2.917(kNm)
15	fuerza nodal	84	FX=-1.645(kN) CY=-2.912(kNm)
15	fuerza nodal	85	FX=-1.642(kN) CY=-2.907(kNm)
15	fuerza nodal	86	FX=-1.639(kN) CY=-2.902(kNm)
16	fuerza nodal	835	FX=0.759(kN) CY=1.343(kNm)
16	fuerza nodal	834	FX=1.674(kN) CY=2.901(kNm)
16	fuerza nodal	833	FX=1.677(kN) CY=2.845(kNm)
16	fuerza nodal	832	FX=1.680(kN) CY=2.849(kNm)
16	fuerza nodal	831	FX=1.682(kN) CY=2.854(kNm)
16	fuerza nodal	830	FX=1.685(kN) CY=2.859(kNm)
16	fuerza nodal	829	FX=1.688(kN) CY=2.864(kNm)
16	fuerza nodal	828	FX=1.691(kN) CY=2.931(kNm)
16	fuerza nodal	827	FX=1.694(kN) CY=2.999(kNm)

Caso	Tipo de carga	Lista	Valores de carga
16	fuerza nodal	826	FX=1.697(kN) CY=3.004(kNm)
16	fuerza nodal	825	FX=1.700(kN) CY=3.009(kNm)
16	fuerza nodal	824	FX=1.703(kN) CY=3.014(kNm)
16	fuerza nodal	823	FX=1.706(kN) CY=3.019(kNm)
16	fuerza nodal	822	FX=1.709(kN) CY=3.025(kNm)
16	fuerza nodal	821	FX=1.712(kN) CY=3.030(kNm)
16	fuerza nodal	820	FX=1.715(kN) CY=3.035(kNm)
16	fuerza nodal	819	FX=1.718(kN) CY=3.041(kNm)
16	fuerza nodal	818	FX=1.721(kN) CY=3.046(kNm)
16	fuerza nodal	817	FX=1.724(kN) CY=3.051(kNm)
16	fuerza nodal	816	FX=936.425(kN) CY=1657.659(kNm)
16	fuerza nodal	856	FX=-934.938(kN) CY=-1655.027(kNm)
16	fuerza nodal	855	FX=-1.614(kN) CY=-2.857(kNm)
16	fuerza nodal	854	FX=-1.617(kN) CY=-2.862(kNm)
16	fuerza nodal	853	FX=-1.620(kN) CY=-2.867(kNm)
16	fuerza nodal	852	FX=-1.623(kN) CY=-2.872(kNm)
16	fuerza nodal	851	FX=-1.625(kN) CY=-2.877(kNm)
16	fuerza nodal	850	FX=-1.628(kN) CY=-2.882(kNm)
16	fuerza nodal	849	FX=-1.631(kN) CY=-2.887(kNm)
16	fuerza nodal	848	FX=-1.634(kN) CY=-2.892(kNm)
16	fuerza nodal	847	FX=-1.637(kN) CY=-2.897(kNm)
16	fuerza nodal	846	FX=-1.639(kN) CY=-2.902(kNm)
16	fuerza nodal	845	FX=-1.642(kN) CY=-2.907(kNm)
16	fuerza nodal	844	FX=-1.645(kN) CY=-2.912(kNm)
16	fuerza nodal	843	FX=-1.648(kN) CY=-2.917(kNm)
16	fuerza nodal	842	FX=-1.651(kN) CY=-2.922(kNm)
16	fuerza nodal	841	FX=-1.654(kN) CY=-2.927(kNm)
16	fuerza nodal	840	FX=-1.657(kN) CY=-2.932(kNm)
16	fuerza nodal	839	FX=-1.659(kN) CY=-2.937(kNm)
16	fuerza nodal	838	FX=-1.662(kN) CY=-2.942(kNm)
16	fuerza nodal	837	FX=-1.665(kN) CY=-2.948(kNm)
16	fuerza nodal	836	FX=-1.668(kN) CY=-2.953(kNm)
16	fuerza nodal	35	FX=0.759(kN) CY=1.343(kNm)
16	fuerza nodal	34	FX=1.674(kN) CY=2.901(kNm)
16	fuerza nodal	33	FX=1.677(kN) CY=2.845(kNm)
16	fuerza nodal	32	FX=1.680(kN) CY=2.849(kNm)
16	fuerza nodal	31	FX=1.682(kN) CY=2.854(kNm)
16	fuerza nodal	30	FX=1.685(kN) CY=2.859(kNm)
16	fuerza nodal	29	FX=1.688(kN) CY=2.864(kNm)
16	fuerza nodal	28	FX=1.691(kN) CY=2.931(kNm)
16	fuerza nodal	27	FX=1.694(kN) CY=2.999(kNm)
16	fuerza nodal	26	FX=1.697(kN) CY=3.004(kNm)
16	fuerza nodal	25	FX=1.700(kN) CY=3.009(kNm)
16	fuerza nodal	24	FX=1.703(kN) CY=3.014(kNm)
16	fuerza nodal	23	FX=1.706(kN) CY=3.019(kNm)
16	fuerza nodal	22	FX=1.709(kN) CY=3.025(kNm)
16	fuerza nodal	21	FX=1.712(kN) CY=3.030(kNm)
16	fuerza nodal	20	FX=1.715(kN) CY=3.035(kNm)
16	fuerza nodal	19	FX=1.718(kN) CY=3.041(kNm)
16	fuerza nodal	18	FX=1.721(kN) CY=3.046(kNm)
16	fuerza nodal	17	FX=1.724(kN) CY=3.051(kNm)
16	fuerza nodal	16	FX=936.425(kN) CY=1657.659(kNm)

Caso	Tipo de carga	Lista	Valores de carga
16	fuerza nodal	56	FX=-934.938(kN) CY=-1655.027(kNm)
16	fuerza nodal	55	FX=-1.614(kN) CY=-2.857(kNm)
16	fuerza nodal	54	FX=-1.617(kN) CY=-2.862(kNm)
16	fuerza nodal	53	FX=-1.620(kN) CY=-2.867(kNm)
16	fuerza nodal	52	FX=-1.623(kN) CY=-2.872(kNm)
16	fuerza nodal	51	FX=-1.625(kN) CY=-2.877(kNm)
16	fuerza nodal	50	FX=-1.628(kN) CY=-2.882(kNm)
16	fuerza nodal	49	FX=-1.631(kN) CY=-2.887(kNm)
16	fuerza nodal	48	FX=-1.634(kN) CY=-2.892(kNm)
16	fuerza nodal	47	FX=-1.637(kN) CY=-2.897(kNm)
16	fuerza nodal	36	FX=-1.668(kN) CY=-2.953(kNm)
16	fuerza nodal	37	FX=-1.665(kN) CY=-2.948(kNm)
16	fuerza nodal	38	FX=-1.662(kN) CY=-2.942(kNm)
16	fuerza nodal	39	FX=-1.659(kN) CY=-2.937(kNm)
16	fuerza nodal	40	FX=-1.657(kN) CY=-2.932(kNm)
16	fuerza nodal	41	FX=-1.654(kN) CY=-2.927(kNm)
16	fuerza nodal	42	FX=-1.651(kN) CY=-2.922(kNm)
16	fuerza nodal	43	FX=-1.648(kN) CY=-2.917(kNm)
16	fuerza nodal	44	FX=-1.645(kN) CY=-2.912(kNm)
16	fuerza nodal	45	FX=-1.642(kN) CY=-2.907(kNm)
16	fuerza nodal	46	FX=-1.639(kN) CY=-2.902(kNm)
17	fuerza nodal	801	FX=934.869(kN) CY=1586.098(kNm)
17	fuerza nodal	802	FX=1.724(kN) CY=2.924(kNm)
17	fuerza nodal	803	FX=1.721(kN) CY=2.919(kNm)
17	fuerza nodal	804	FX=1.718(kN) CY=2.977(kNm)
17	fuerza nodal	805	FX=1.715(kN) CY=3.035(kNm)
17	fuerza nodal	806	FX=1.712(kN) CY=3.030(kNm)
17	fuerza nodal	807	FX=1.709(kN) CY=3.025(kNm)
17	fuerza nodal	808	FX=1.706(kN) CY=3.019(kNm)
17	fuerza nodal	809	FX=1.703(kN) CY=3.014(kNm)
17	fuerza nodal	810	FX=1.700(kN) CY=3.009(kNm)
17	fuerza nodal	811	FX=1.697(kN) CY=3.004(kNm)
17	fuerza nodal	812	FX=1.694(kN) CY=2.999(kNm)
17	fuerza nodal	813	FX=1.691(kN) CY=2.994(kNm)
17	fuerza nodal	814	FX=1.688(kN) CY=2.989(kNm)
17	fuerza nodal	815	FX=1.685(kN) CY=2.983(kNm)
17	fuerza nodal	816	FX=-958.730(kN) CY=-1697.143(kNm)
17	fuerza nodal	1	FX=934.869(kN) CY=1586.098(kNm)
17	fuerza nodal	2	FX=1.724(kN) CY=2.924(kNm)
17	fuerza nodal	3	FX=1.721(kN) CY=2.919(kNm)
17	fuerza nodal	4	FX=1.718(kN) CY=2.977(kNm)
17	fuerza nodal	5	FX=1.715(kN) CY=3.035(kNm)
17	fuerza nodal	6	FX=1.712(kN) CY=3.030(kNm)
17	fuerza nodal	7	FX=1.709(kN) CY=3.025(kNm)
17	fuerza nodal	8	FX=1.706(kN) CY=3.019(kNm)
17	fuerza nodal	9	FX=1.703(kN) CY=3.014(kNm)
17	fuerza nodal	10	FX=1.700(kN) CY=3.009(kNm)
17	fuerza nodal	11	FX=1.697(kN) CY=3.004(kNm)
17	fuerza nodal	12	FX=1.694(kN) CY=2.999(kNm)
17	fuerza nodal	13	FX=1.691(kN) CY=2.994(kNm)
17	fuerza nodal	14	FX=1.688(kN) CY=2.989(kNm)
17	fuerza nodal	15	FX=1.685(kN) CY=2.983(kNm)

Caso	Tipo de carga	Lista	Valores de carga
17	fuerza nodal	16	FX=-958.730(kN) CY=-1697.143(kNm)
18	fuerza nodal	969	FX=1.682(kN) CY=2.978(kNm)
18	fuerza nodal	968	FX=1.685(kN) CY=2.983(kNm)
18	fuerza nodal	967	FX=1.688(kN) CY=2.989(kNm)
18	fuerza nodal	966	FX=1.691(kN) CY=2.994(kNm)
18	fuerza nodal	965	FX=1.694(kN) CY=2.999(kNm)
18	fuerza nodal	964	FX=1.697(kN) CY=3.004(kNm)
18	fuerza nodal	963	FX=1.700(kN) CY=3.009(kNm)
18	fuerza nodal	962	FX=1.703(kN) CY=3.014(kNm)
18	fuerza nodal	961	FX=1.706(kN) CY=3.019(kNm)
18	fuerza nodal	960	FX=1.709(kN) CY=3.025(kNm)
18	fuerza nodal	959	FX=1.712(kN) CY=3.030(kNm)
18	fuerza nodal	958	FX=1.715(kN) CY=3.035(kNm)
18	fuerza nodal	957	FX=1.718(kN) CY=3.041(kNm)
18	fuerza nodal	956	FX=1.721(kN) CY=3.046(kNm)
18	fuerza nodal	955	FX=1.724(kN) CY=3.051(kNm)
18	fuerza nodal	954	FX=936.425(kN) CY=1657.659(kNm)
18	fuerza nodal	970	FX=1.680(kN) CY=2.973(kNm)
18	fuerza nodal	971	FX=1.677(kN) CY=2.968(kNm)
18	fuerza nodal	972	FX=1.674(kN) CY=2.963(kNm)
18	fuerza nodal	973	FX=0.759(kN) CY=1.343(kNm)
18	fuerza nodal	974	FX=-1.668(kN) CY=-2.953(kNm)
18	fuerza nodal	975	FX=-1.665(kN) CY=-2.948(kNm)
18	fuerza nodal	976	FX=-1.662(kN) CY=-2.942(kNm)
18	fuerza nodal	977	FX=-1.659(kN) CY=-2.937(kNm)
18	fuerza nodal	978	FX=-1.657(kN) CY=-2.932(kNm)
18	fuerza nodal	979	FX=-1.654(kN) CY=-2.927(kNm)
18	fuerza nodal	980	FX=-1.651(kN) CY=-2.922(kNm)
18	fuerza nodal	981	FX=-1.648(kN) CY=-2.917(kNm)
18	fuerza nodal	982	FX=-1.645(kN) CY=-2.852(kNm)
18	fuerza nodal	983	FX=-1.642(kN) CY=-2.786(kNm)
18	fuerza nodal	984	FX=-1.639(kN) CY=-2.781(kNm)
18	fuerza nodal	985	FX=-949.566(kN) CY=-1611.034(kNm)
18	fuerza nodal	154	FX=936.425(kN) CY=1657.659(kNm)
18	fuerza nodal	155	FX=1.724(kN) CY=3.051(kNm)
18	fuerza nodal	156	FX=1.721(kN) CY=3.046(kNm)
18	fuerza nodal	157	FX=1.718(kN) CY=3.041(kNm)
18	fuerza nodal	158	FX=1.715(kN) CY=3.035(kNm)
18	fuerza nodal	159	FX=1.712(kN) CY=3.030(kNm)
18	fuerza nodal	160	FX=1.709(kN) CY=3.025(kNm)
18	fuerza nodal	161	FX=1.706(kN) CY=3.019(kNm)
18	fuerza nodal	162	FX=1.703(kN) CY=3.014(kNm)
18	fuerza nodal	163	FX=1.700(kN) CY=3.009(kNm)
18	fuerza nodal	164	FX=1.697(kN) CY=3.004(kNm)
18	fuerza nodal	165	FX=1.694(kN) CY=2.999(kNm)
18	fuerza nodal	166	FX=1.691(kN) CY=2.994(kNm)
18	fuerza nodal	167	FX=1.688(kN) CY=2.989(kNm)
18	fuerza nodal	168	FX=1.685(kN) CY=2.983(kNm)
18	fuerza nodal	169	FX=1.682(kN) CY=2.978(kNm)
18	fuerza nodal	185	FX=-949.566(kN) CY=-1611.034(kNm)
18	fuerza nodal	184	FX=-1.639(kN) CY=-2.781(kNm)
18	fuerza nodal	183	FX=-1.642(kN) CY=-2.786(kNm)

Caso	Tipo de carga	Lista	Valores de carga
18	fuerza nodal	182	FX=-1.645(kN) CY=-2.852(kNm)
18	fuerza nodal	181	FX=-1.648(kN) CY=-2.917(kNm)
18	fuerza nodal	180	FX=-1.651(kN) CY=-2.922(kNm)
18	fuerza nodal	179	FX=-1.654(kN) CY=-2.927(kNm)
18	fuerza nodal	178	FX=-1.657(kN) CY=-2.932(kNm)
18	fuerza nodal	177	FX=-1.659(kN) CY=-2.937(kNm)
18	fuerza nodal	176	FX=-1.662(kN) CY=-2.942(kNm)
18	fuerza nodal	175	FX=-1.665(kN) CY=-2.948(kNm)
18	fuerza nodal	174	FX=-1.668(kN) CY=-2.953(kNm)
18	fuerza nodal	173	FX=0.759(kN) CY=1.343(kNm)
18	fuerza nodal	172	FX=1.674(kN) CY=2.963(kNm)
18	fuerza nodal	171	FX=1.677(kN) CY=2.968(kNm)
18	fuerza nodal	170	FX=1.680(kN) CY=2.973(kNm)
19	fuerza nodal	926	FX=1.697(kN) CY=3.004(kNm)
19	fuerza nodal	927	FX=1.694(kN) CY=2.999(kNm)
19	fuerza nodal	928	FX=1.691(kN) CY=2.994(kNm)
19	fuerza nodal	929	FX=1.688(kN) CY=2.989(kNm)
19	fuerza nodal	930	FX=1.685(kN) CY=2.983(kNm)
19	fuerza nodal	931	FX=1.682(kN) CY=2.978(kNm)
19	fuerza nodal	932	FX=1.680(kN) CY=2.973(kNm)
19	fuerza nodal	933	FX=1.677(kN) CY=2.968(kNm)
19	fuerza nodal	934	FX=1.674(kN) CY=2.963(kNm)
19	fuerza nodal	925	FX=1.700(kN) CY=3.009(kNm)
19	fuerza nodal	924	FX=1.703(kN) CY=3.014(kNm)
19	fuerza nodal	923	FX=1.706(kN) CY=3.019(kNm)
19	fuerza nodal	922	FX=1.709(kN) CY=3.025(kNm)
19	fuerza nodal	921	FX=1.712(kN) CY=3.030(kNm)
19	fuerza nodal	920	FX=1.715(kN) CY=3.035(kNm)
19	fuerza nodal	919	FX=1.718(kN) CY=3.041(kNm)
19	fuerza nodal	918	FX=1.721(kN) CY=3.046(kNm)
19	fuerza nodal	917	FX=1.724(kN) CY=3.051(kNm)
19	fuerza nodal	916	FX=936.425(kN) CY=1657.659(kNm)
19	fuerza nodal	954	FX=-938.169(kN) CY=-1660.747(kNm)
19	fuerza nodal	953	FX=-1.620(kN) CY=-2.867(kNm)
19	fuerza nodal	952	FX=-1.623(kN) CY=-2.813(kNm)
19	fuerza nodal	951	FX=-1.625(kN) CY=-2.757(kNm)
19	fuerza nodal	950	FX=-1.628(kN) CY=-2.762(kNm)
19	fuerza nodal	949	FX=-1.631(kN) CY=-2.767(kNm)
19	fuerza nodal	948	FX=-1.634(kN) CY=-2.772(kNm)
19	fuerza nodal	947	FX=-1.637(kN) CY=-2.777(kNm)
19	fuerza nodal	946	FX=-1.639(kN) CY=-2.842(kNm)
19	fuerza nodal	945	FX=-1.642(kN) CY=-2.907(kNm)
19	fuerza nodal	944	FX=-1.645(kN) CY=-2.912(kNm)
19	fuerza nodal	943	FX=-1.648(kN) CY=-2.917(kNm)
19	fuerza nodal	942	FX=-1.651(kN) CY=-2.922(kNm)
19	fuerza nodal	941	FX=-1.654(kN) CY=-2.927(kNm)
19	fuerza nodal	940	FX=-1.657(kN) CY=-2.932(kNm)
19	fuerza nodal	939	FX=-1.659(kN) CY=-2.937(kNm)
19	fuerza nodal	938	FX=-1.662(kN) CY=-2.942(kNm)
19	fuerza nodal	937	FX=-1.665(kN) CY=-2.948(kNm)
19	fuerza nodal	936	FX=-1.668(kN) CY=-2.953(kNm)
19	fuerza nodal	935	FX=0.759(kN) CY=1.343(kNm)

Caso	Tipo de carga	Lista	Valores de carga
19	fuerza nodal	134	FX=1.674(kN) CY=2.963(kNm)
19	fuerza nodal	133	FX=1.677(kN) CY=2.968(kNm)
19	fuerza nodal	132	FX=1.680(kN) CY=2.973(kNm)
19	fuerza nodal	131	FX=1.682(kN) CY=2.978(kNm)
19	fuerza nodal	130	FX=1.685(kN) CY=2.983(kNm)
19	fuerza nodal	129	FX=1.688(kN) CY=2.989(kNm)
19	fuerza nodal	128	FX=1.691(kN) CY=2.994(kNm)
19	fuerza nodal	127	FX=1.694(kN) CY=2.999(kNm)
19	fuerza nodal	126	FX=1.697(kN) CY=3.004(kNm)
19	fuerza nodal	125	FX=1.700(kN) CY=3.009(kNm)
19	fuerza nodal	124	FX=1.703(kN) CY=3.014(kNm)
19	fuerza nodal	123	FX=1.706(kN) CY=3.019(kNm)
19	fuerza nodal	122	FX=1.709(kN) CY=3.025(kNm)
19	fuerza nodal	121	FX=1.712(kN) CY=3.030(kNm)
19	fuerza nodal	120	FX=1.715(kN) CY=3.035(kNm)
19	fuerza nodal	119	FX=1.718(kN) CY=3.041(kNm)
19	fuerza nodal	118	FX=1.721(kN) CY=3.046(kNm)
19	fuerza nodal	117	FX=1.724(kN) CY=3.051(kNm)
19	fuerza nodal	116	FX=936.425(kN) CY=1657.659(kNm)
19	fuerza nodal	154	FX=-938.169(kN) CY=-1660.747(kNm)
19	fuerza nodal	153	FX=-1.620(kN) CY=-2.867(kNm)
19	fuerza nodal	152	FX=-1.623(kN) CY=-2.813(kNm)
19	fuerza nodal	151	FX=-1.625(kN) CY=-2.757(kNm)
19	fuerza nodal	150	FX=-1.628(kN) CY=-2.762(kNm)
19	fuerza nodal	149	FX=-1.631(kN) CY=-2.767(kNm)
19	fuerza nodal	148	FX=-1.634(kN) CY=-2.772(kNm)
19	fuerza nodal	147	FX=-1.637(kN) CY=-2.777(kNm)
19	fuerza nodal	146	FX=-1.639(kN) CY=-2.842(kNm)
19	fuerza nodal	145	FX=-1.642(kN) CY=-2.907(kNm)
19	fuerza nodal	144	FX=-1.645(kN) CY=-2.912(kNm)
19	fuerza nodal	143	FX=-1.648(kN) CY=-2.917(kNm)
19	fuerza nodal	142	FX=-1.651(kN) CY=-2.922(kNm)
19	fuerza nodal	141	FX=-1.654(kN) CY=-2.927(kNm)
19	fuerza nodal	140	FX=-1.657(kN) CY=-2.932(kNm)
19	fuerza nodal	139	FX=-1.659(kN) CY=-2.937(kNm)
19	fuerza nodal	138	FX=-1.662(kN) CY=-2.942(kNm)
19	fuerza nodal	137	FX=-1.665(kN) CY=-2.948(kNm)
19	fuerza nodal	136	FX=-1.668(kN) CY=-2.953(kNm)
19	fuerza nodal	135	FX=0.759(kN) CY=1.343(kNm)
20	fuerza nodal	886	FX=1.697(kN) CY=3.004(kNm)
20	fuerza nodal	887	FX=1.694(kN) CY=2.999(kNm)
20	fuerza nodal	888	FX=1.691(kN) CY=2.994(kNm)
20	fuerza nodal	889	FX=1.688(kN) CY=2.989(kNm)
20	fuerza nodal	890	FX=1.685(kN) CY=2.983(kNm)
20	fuerza nodal	891	FX=1.682(kN) CY=2.978(kNm)
20	fuerza nodal	892	FX=1.680(kN) CY=2.973(kNm)
20	fuerza nodal	893	FX=1.677(kN) CY=2.968(kNm)
20	fuerza nodal	894	FX=1.674(kN) CY=2.963(kNm)
20	fuerza nodal	895	FX=0.759(kN) CY=1.343(kNm)
20	fuerza nodal	885	FX=1.700(kN) CY=3.009(kNm)
20	fuerza nodal	884	FX=1.703(kN) CY=3.014(kNm)
20	fuerza nodal	883	FX=1.706(kN) CY=3.019(kNm)

Caso	Tipo de carga	Lista	Valores de carga
20	fuerza nodal	882	FX=1.709(kN) CY=3.025(kNm)
20	fuerza nodal	881	FX=1.712(kN) CY=3.030(kNm)
20	fuerza nodal	880	FX=1.715(kN) CY=3.035(kNm)
20	fuerza nodal	879	FX=1.718(kN) CY=3.041(kNm)
20	fuerza nodal	878	FX=1.721(kN) CY=3.046(kNm)
20	fuerza nodal	877	FX=1.724(kN) CY=3.051(kNm)
20	fuerza nodal	876	FX=936.425(kN) CY=1657.659(kNm)
20	fuerza nodal	916	FX=-934.938(kN) CY=-1655.027(kNm)
20	fuerza nodal	915	FX=-1.614(kN) CY=-2.857(kNm)
20	fuerza nodal	914	FX=-1.617(kN) CY=-2.803(kNm)
20	fuerza nodal	913	FX=-1.620(kN) CY=-2.748(kNm)
20	fuerza nodal	912	FX=-1.623(kN) CY=-2.753(kNm)
20	fuerza nodal	911	FX=-1.625(kN) CY=-2.757(kNm)
20	fuerza nodal	910	FX=-1.628(kN) CY=-2.762(kNm)
20	fuerza nodal	909	FX=-1.631(kN) CY=-2.767(kNm)
20	fuerza nodal	908	FX=-1.634(kN) CY=-2.832(kNm)
20	fuerza nodal	907	FX=-1.637(kN) CY=-2.897(kNm)
20	fuerza nodal	906	FX=-1.639(kN) CY=-2.902(kNm)
20	fuerza nodal	905	FX=-1.642(kN) CY=-2.907(kNm)
20	fuerza nodal	904	FX=-1.645(kN) CY=-2.912(kNm)
20	fuerza nodal	903	FX=-1.648(kN) CY=-2.917(kNm)
20	fuerza nodal	902	FX=-1.651(kN) CY=-2.922(kNm)
20	fuerza nodal	901	FX=-1.654(kN) CY=-2.927(kNm)
20	fuerza nodal	900	FX=-1.657(kN) CY=-2.932(kNm)
20	fuerza nodal	899	FX=-1.659(kN) CY=-2.937(kNm)
20	fuerza nodal	898	FX=-1.662(kN) CY=-2.942(kNm)
20	fuerza nodal	897	FX=-1.665(kN) CY=-2.948(kNm)
20	fuerza nodal	896	FX=-1.668(kN) CY=-2.953(kNm)
20	fuerza nodal	95	FX=0.759(kN) CY=1.343(kNm)
20	fuerza nodal	94	FX=1.674(kN) CY=2.963(kNm)
20	fuerza nodal	93	FX=1.677(kN) CY=2.968(kNm)
20	fuerza nodal	92	FX=1.680(kN) CY=2.973(kNm)
20	fuerza nodal	91	FX=1.682(kN) CY=2.978(kNm)
20	fuerza nodal	90	FX=1.685(kN) CY=2.983(kNm)
20	fuerza nodal	89	FX=1.688(kN) CY=2.989(kNm)
20	fuerza nodal	88	FX=1.691(kN) CY=2.994(kNm)
20	fuerza nodal	87	FX=1.694(kN) CY=2.999(kNm)
20	fuerza nodal	86	FX=1.697(kN) CY=3.004(kNm)
20	fuerza nodal	85	FX=1.700(kN) CY=3.009(kNm)
20	fuerza nodal	84	FX=1.703(kN) CY=3.014(kNm)
20	fuerza nodal	83	FX=1.706(kN) CY=3.019(kNm)
20	fuerza nodal	82	FX=1.709(kN) CY=3.025(kNm)
20	fuerza nodal	81	FX=1.712(kN) CY=3.030(kNm)
20	fuerza nodal	80	FX=1.715(kN) CY=3.035(kNm)
20	fuerza nodal	79	FX=1.718(kN) CY=3.041(kNm)
20	fuerza nodal	78	FX=1.721(kN) CY=3.046(kNm)
20	fuerza nodal	77	FX=1.724(kN) CY=3.051(kNm)
20	fuerza nodal	76	FX=936.425(kN) CY=1657.659(kNm)
20	fuerza nodal	116	FX=-934.938(kN) CY=-1655.027(kNm)
20	fuerza nodal	115	FX=-1.614(kN) CY=-2.857(kNm)
20	fuerza nodal	114	FX=-1.617(kN) CY=-2.803(kNm)
20	fuerza nodal	113	FX=-1.620(kN) CY=-2.748(kNm)

21	fuerza nodal	76	FX=-934.938(kN) CY=-1655.027(kNm)
21	fuerza nodal	75	FX=-1.614(kN) CY=-2.857(kNm)
21	fuerza nodal	40	FX=1.715(kN) CY=3.035(kNm)
21	fuerza nodal	41	FX=1.712(kN) CY=3.030(kNm)
21	fuerza nodal	39	FX=1.718(kN) CY=3.041(kNm)
21	fuerza nodal	858	FX=-1.662(kN) CY=-2.942(kNm)
21	fuerza nodal	857	FX=-1.665(kN) CY=-2.948(kNm)
21	fuerza nodal	856	FX=-1.668(kN) CY=-2.953(kNm)
20	fuerza nodal	97	FX=-1.665(kN) CY=-2.948(kNm)
21	fuerza nodal	54	FX=1.674(kN) CY=2.963(kNm)
21	fuerza nodal	53	FX=1.677(kN) CY=2.968(kNm)
21	fuerza nodal	73	FX=1.620(kN) CY=-2.748(kNm)
21	fuerza nodal	72	FX=-1.623(kN) CY=-2.753(kNm)
21	fuerza nodal	51	FX=1.682(kN) CY=2.978(kNm)
21	fuerza nodal	50	FX=1.685(kN) CY=2.983(kNm)
21	fuerza nodal	49	FX=1.688(kN) CY=2.989(kNm)
21	fuerza nodal	48	FX=1.691(kN) CY=2.994(kNm)
21	fuerza nodal	47	FX=1.694(kN) CY=2.999(kNm)
21	fuerza nodal	55	FX=1.642(kN) CY=2.907(kNm)
21	fuerza nodal	56	FX=-1.668(kN) CY=-2.953(kNm)
21	fuerza nodal	57	FX=-1.665(kN) CY=-2.948(kNm)
21	fuerza nodal	58	FX=-1.662(kN) CY=-2.942(kNm)
21	fuerza nodal	59	FX=-1.659(kN) CY=-2.937(kNm)
21	fuerza nodal	60	FX=-1.657(kN) CY=-2.932(kNm)
21	fuerza nodal	851	FX=1.682(kN) CY=2.978(kNm)
21	fuerza nodal	850	FX=1.685(kN) CY=2.983(kNm)
21	fuerza nodal	849	FX=1.688(kN) CY=2.989(kNm)
21	fuerza nodal	848	FX=1.691(kN) CY=2.994(kNm)
21	fuerza nodal	65	FX=-1.642(kN) CY=-2.907(kNm)
21	fuerza nodal	66	FX=-1.639(kN) CY=-2.902(kNm)
22	fuerza nodal	818	FX=1.677(kN) CY=2.968(kNm)
22	fuerza nodal	817	FX=1.680(kN) CY=2.973(kNm)
21	fuerza nodal	843	FX=1.706(kN) CY=3.019(kNm)
21	fuerza nodal	842	FX=1.709(kN) CY=3.025(kNm)
21	fuerza nodal	841	FX=1.712(kN) CY=3.030(kNm)
21	fuerza nodal	840	FX=1.715(kN) CY=3.035(kNm)
21	fuerza nodal	839	FX=1.718(kN) CY=3.041(kNm)
21	fuerza nodal	838	FX=1.721(kN) CY=3.046(kNm)
21	fuerza nodal	837	FX=1.724(kN) CY=3.051(kNm)
21	fuerza nodal	836	FX=936.425(kN) CY=1657.659(kNm)
21	fuerza nodal	876	FX=-934.938(kN) CY=-1655.027(kNm)
21	fuerza nodal	875	FX=-1.614(kN) CY=-2.857(kNm)
21	fuerza nodal	874	FX=-1.617(kN) CY=-2.803(kNm)
21	fuerza nodal	873	FX=-1.620(kN) CY=-2.748(kNm)
21	fuerza nodal	872	FX=-1.623(kN) CY=-2.753(kNm)
21	fuerza nodal	871	FX=-1.625(kN) CY=-2.757(kNm)
21	fuerza nodal	870	FX=-1.628(kN) CY=-2.762(kNm)
21	fuerza nodal	869	FX=-1.631(kN) CY=-2.767(kNm)
21	fuerza nodal	868	FX=-1.634(kN) CY=-2.832(kNm)
21	fuerza nodal	867	FX=-1.637(kN) CY=-2.897(kNm)
21	fuerza nodal	866	FX=-1.639(kN) CY=-2.902(kNm)
21	fuerza nodal	865	FX=-1.642(kN) CY=-2.907(kNm)
21	fuerza nodal	864	FX=-1.645(kN) CY=-2.912(kNm)
21	fuerza nodal	863	FX=-1.648(kN) CY=-2.917(kNm)
21	fuerza nodal	43	FX=1.706(kN) CY=3.019(kNm)
21	fuerza nodal	42	FX=1.709(kN) CY=3.025(kNm)
21	fuerza nodal	74	FX=-1.617(kN) CY=-2.803(kNm)

21	fuerza nodal	71	FX=-1.625(kN) CY=-2.757(kNm)

21	fuerza nodal	76	FX=-934.938(kN) CY=-1655.027(kNm)
21	fuerza nodal	75	FX=-1.614(kN) CY=-2.857(kNm)
21	fuerza nodal	861	FX=-1.654(kN) CY=-2.927(kNm)
21	fuerza nodal	860	FX=-1.657(kN) CY=-2.932(kNm)
21	fuerza nodal	859	FX=-1.659(kN) CY=-2.937(kNm)
20	fuerza nodal	108	FX=-1.634(kN) CY=-2.832(kNm)
20	fuerza nodal	107	FX=-1.637(kN) CY=-2.897(kNm)
20	fuerza nodal	96	FX=-1.668(kN) CY=-2.953(kNm)
21	fuerza nodal	55	FX=0.759(kN) CY=1.343(kNm)
20	fuerza nodal	98	FX=-1.662(kN) CY=-2.942(kNm)
20	fuerza nodal	99	FX=-1.659(kN) CY=-2.937(kNm)
21	fuerza nodal	52	FX=1.680(kN) CY=2.973(kNm)
20	fuerza nodal	101	FX=-1.654(kN) CY=-2.927(kNm)
20	fuerza nodal	102	FX=-1.651(kN) CY=-2.922(kNm)
20	fuerza nodal	103	FX=-1.648(kN) CY=-2.917(kNm)
20	fuerza nodal	104	FX=-1.645(kN) CY=-2.912(kNm)
20	fuerza nodal	105	FX=-1.642(kN) CY=-2.907(kNm)
21	fuerza nodal	46	FX=1.697(kN) CY=3.004(kNm)
21	fuerza nodal	45	FX=1.700(kN) CY=3.009(kNm)
21	fuerza nodal	44	FX=1.703(kN) CY=3.014(kNm)
21	fuerza nodal	862	FX=-1.651(kN) CY=-2.922(kNm)
20	fuerza nodal	111	FX=-1.625(kN) CY=-2.757(kNm)
20	fuerza nodal	112	FX=-1.623(kN) CY=-2.753(kNm)
20	fuerza nodal	110	FX=-1.628(kN) CY=-2.762(kNm)
21	fuerza nodal	38	FX=1.721(kN) CY=3.046(kNm)
21	fuerza nodal	37	FX=1.724(kN) CY=3.051(kNm)
21	fuerza nodal	36	FX=936.425(kN) CY=1657.659(kNm)

Caso	Tipo de carga	Lista	Valores de carga
20	fuerza nodal	99	FX=-1.659(kN) CY=-2.937(kNm)
20	fuerza nodal	100	FX=-1.657(kN) CY=-2.932(kNm)
21	fuerza nodal	70	FX=-1.628(kN) CY=-2.762(kNm)
21	fuerza nodal	69	FX=-1.631(kN) CY=-2.767(kNm)
21	fuerza nodal	68	FX=-1.634(kN) CY=-2.832(kNm)
21	fuerza nodal	67	FX=-1.637(kN) CY=-2.897(kNm)
20	fuerza nodal	106	FX=-1.639(kN) CY=-2.902(kNm)
21	fuerza nodal	855	FX=0.759(kN) CY=1.343(kNm)
21	fuerza nodal	854	FX=1.674(kN) CY=2.963(kNm)
21	fuerza nodal	853	FX=1.677(kN) CY=2.968(kNm)
21	fuerza nodal	852	FX=1.680(kN) CY=2.973(kNm)
21	fuerza nodal	60	FX=-1.657(kN) CY=-2.932(kNm)
21	fuerza nodal	61	FX=-1.654(kN) CY=-2.927(kNm)
21	fuerza nodal	62	FX=-1.651(kN) CY=-2.922(kNm)
21	fuerza nodal	63	FX=-1.648(kN) CY=-2.917(kNm)
21	fuerza nodal	64	FX=-1.645(kN) CY=-2.912(kNm)
21	fuerza nodal	847	FX=1.694(kN) CY=2.999(kNm)
21	fuerza nodal	846	FX=1.697(kN) CY=3.004(kNm)
21	fuerza nodal	845	FX=1.700(kN) CY=3.009(kNm)
21	fuerza nodal	844	FX=1.703(kN) CY=3.014(kNm)
22	fuerza nodal	816	FX=1.682(kN) CY=2.978(kNm)
22	fuerza nodal	815	FX=1.685(kN) CY=2.983(kNm)
22	fuerza nodal	814	FX=1.688(kN) CY=2.989(kNm)
21	fuerza nodal	74	FX=-1.617(kN) CY=-2.803(kNm)

21	fuerza nodal	71	FX=-1.625(kN) CY=-2.757(kNm)

Caso	Tipo de carga	Lista	Valores de carga
22	fuerza nodal	813	FX=1.691(kN) CY=2.994(kNm)
22	fuerza nodal	812	FX=1.694(kN) CY=2.999(kNm)
22	fuerza nodal	811	FX=1.697(kN) CY=3.004(kNm)
22	fuerza nodal	810	FX=1.700(kN) CY=3.009(kNm)
22	fuerza nodal	809	FX=1.703(kN) CY=3.014(kNm)
22	fuerza nodal	808	FX=1.706(kN) CY=3.019(kNm)
22	fuerza nodal	807	FX=1.709(kN) CY=3.025(kNm)
22	fuerza nodal	806	FX=1.712(kN) CY=3.030(kNm)
22	fuerza nodal	805	FX=1.715(kN) CY=3.035(kNm)
22	fuerza nodal	804	FX=1.718(kN) CY=2.977(kNm)
22	fuerza nodal	803	FX=1.721(kN) CY=2.919(kNm)
22	fuerza nodal	802	FX=1.724(kN) CY=2.924(kNm)
22	fuerza nodal	801	FX=936.425(kN) CY=1588.738(kNm)
22	fuerza nodal	836	FX=-943.037(kN) CY=-1669.364(kNm)
22	fuerza nodal	835	FX=-1.628(kN) CY=-2.882(kNm)
22	fuerza nodal	834	FX=-1.631(kN) CY=-2.827(kNm)
22	fuerza nodal	833	FX=-1.634(kN) CY=-2.772(kNm)
22	fuerza nodal	832	FX=-1.637(kN) CY=-2.777(kNm)
22	fuerza nodal	831	FX=-1.639(kN) CY=-2.781(kNm)
22	fuerza nodal	830	FX=-1.642(kN) CY=-2.786(kNm)
22	fuerza nodal	829	FX=-1.645(kN) CY=-2.791(kNm)
22	fuerza nodal	828	FX=-1.648(kN) CY=-2.857(kNm)
22	fuerza nodal	827	FX=-1.651(kN) CY=-2.922(kNm)
22	fuerza nodal	826	FX=-1.654(kN) CY=-2.927(kNm)
22	fuerza nodal	825	FX=-1.657(kN) CY=-2.932(kNm)
22	fuerza nodal	824	FX=-1.659(kN) CY=-2.937(kNm)
22	fuerza nodal	823	FX=-1.662(kN) CY=-2.942(kNm)
22	fuerza nodal	822	FX=-1.665(kN) CY=-2.948(kNm)
22	fuerza nodal	821	FX=-1.668(kN) CY=-2.953(kNm)
22	fuerza nodal	820	FX=0.759(kN) CY=1.343(kNm)
22	fuerza nodal	819	FX=1.674(kN) CY=2.963(kNm)
22	fuerza nodal	18	FX=1.677(kN) CY=2.968(kNm)
22	fuerza nodal	17	FX=1.680(kN) CY=2.973(kNm)
22	fuerza nodal	16	FX=1.682(kN) CY=2.978(kNm)
22	fuerza nodal	15	FX=1.685(kN) CY=2.983(kNm)
22	fuerza nodal	14	FX=1.688(kN) CY=2.989(kNm)
22	fuerza nodal	13	FX=1.691(kN) CY=2.994(kNm)
22	fuerza nodal	12	FX=1.694(kN) CY=2.999(kNm)
22	fuerza nodal	11	FX=1.697(kN) CY=3.004(kNm)
22	fuerza nodal	10	FX=1.700(kN) CY=3.009(kNm)
22	fuerza nodal	9	FX=1.703(kN) CY=3.014(kNm)
22	fuerza nodal	8	FX=1.706(kN) CY=3.019(kNm)
22	fuerza nodal	7	FX=1.709(kN) CY=3.025(kNm)
22	fuerza nodal	6	FX=1.712(kN) CY=3.030(kNm)
22	fuerza nodal	5	FX=1.715(kN) CY=3.035(kNm)
22	fuerza nodal	4	FX=1.718(kN) CY=2.977(kNm)
22	fuerza nodal	3	FX=1.721(kN) CY=2.919(kNm)
22	fuerza nodal	2	FX=1.724(kN) CY=2.924(kNm)
22	fuerza nodal	1	FX=936.425(kN) CY=1588.738(kNm)
22	fuerza nodal	36	FX=-943.037(kN) CY=-1669.364(kNm)
22	fuerza nodal	35	FX=-1.628(kN) CY=-2.882(kNm)
22	fuerza nodal	34	FX=-1.631(kN) CY=-2.827(kNm)

Caso	Tipo de carga	Lista	Valores de carga
22	fuerza nodal	33	FX=-1.634(kN) CY=-2.772(kNm)
22	fuerza nodal	32	FX=-1.637(kN) CY=-2.777(kNm)
22	fuerza nodal	31	FX=-1.639(kN) CY=-2.781(kNm)
22	fuerza nodal	30	FX=-1.642(kN) CY=-2.786(kNm)
22	fuerza nodal	29	FX=-1.645(kN) CY=-2.791(kNm)
22	fuerza nodal	28	FX=-1.648(kN) CY=-2.857(kNm)
22	fuerza nodal	27	FX=-1.651(kN) CY=-2.922(kNm)
22	fuerza nodal	26	FX=-1.654(kN) CY=-2.927(kNm)
22	fuerza nodal	25	FX=-1.657(kN) CY=-2.932(kNm)
22	fuerza nodal	24	FX=-1.659(kN) CY=-2.937(kNm)
22	fuerza nodal	23	FX=-1.662(kN) CY=-2.942(kNm)
22	fuerza nodal	22	FX=-1.665(kN) CY=-2.948(kNm)
22	fuerza nodal	21	FX=-1.668(kN) CY=-2.953(kNm)
22	fuerza nodal	20	FX=0.759(kN) CY=1.343(kNm)
22	fuerza nodal	19	FX=1.674(kN) CY=2.963(kNm)
23	fuerza nodal	974	FX=927.311(kN) CY=1324.385(kNm)
23	fuerza nodal	975	FX=1.724(kN) CY=2.462(kNm)
23	fuerza nodal	976	FX=1.721(kN) CY=2.457(kNm)
23	fuerza nodal	977	FX=1.718(kN) CY=2.453(kNm)
23	fuerza nodal	978	FX=1.715(kN) CY=2.449(kNm)
23	fuerza nodal	979	FX=1.712(kN) CY=2.445(kNm)
23	fuerza nodal	980	FX=1.709(kN) CY=2.440(kNm)
23	fuerza nodal	981	FX=1.706(kN) CY=2.436(kNm)
23	fuerza nodal	982	FX=1.703(kN) CY=2.369(kNm)
23	fuerza nodal	983	FX=1.700(kN) CY=2.303(kNm)
23	fuerza nodal	984	FX=1.697(kN) CY=2.299(kNm)
23	fuerza nodal	985	FX=-944.413(kN) CY=-1279.302(kNm)
23	fuerza nodal	174	FX=927.311(kN) CY=1324.385(kNm)
23	fuerza nodal	175	FX=1.724(kN) CY=2.462(kNm)
23	fuerza nodal	176	FX=1.721(kN) CY=2.457(kNm)
23	fuerza nodal	177	FX=1.718(kN) CY=2.453(kNm)
23	fuerza nodal	178	FX=1.715(kN) CY=2.449(kNm)
23	fuerza nodal	179	FX=1.712(kN) CY=2.445(kNm)
23	fuerza nodal	180	FX=1.709(kN) CY=2.440(kNm)
23	fuerza nodal	181	FX=1.706(kN) CY=2.436(kNm)
23	fuerza nodal	182	FX=1.703(kN) CY=2.369(kNm)
23	fuerza nodal	183	FX=1.700(kN) CY=2.303(kNm)
23	fuerza nodal	184	FX=1.697(kN) CY=2.299(kNm)
23	fuerza nodal	185	FX=-944.413(kN) CY=-1279.302(kNm)
24	fuerza nodal	953	FX=0.759(kN) CY=1.083(kNm)
24	fuerza nodal	952	FX=1.674(kN) CY=2.329(kNm)
24	fuerza nodal	951	FX=1.677(kN) CY=2.271(kNm)
24	fuerza nodal	950	FX=1.680(kN) CY=2.275(kNm)
24	fuerza nodal	949	FX=1.682(kN) CY=2.279(kNm)
24	fuerza nodal	948	FX=1.685(kN) CY=2.283(kNm)
24	fuerza nodal	947	FX=1.688(kN) CY=2.287(kNm)
24	fuerza nodal	946	FX=1.691(kN) CY=2.353(kNm)
24	fuerza nodal	945	FX=1.694(kN) CY=2.419(kNm)
24	fuerza nodal	944	FX=1.697(kN) CY=2.424(kNm)
24	fuerza nodal	943	FX=1.700(kN) CY=2.428(kNm)
24	fuerza nodal	942	FX=1.703(kN) CY=2.432(kNm)
24	fuerza nodal	941	FX=1.706(kN) CY=2.436(kNm)

Caso	Tipo de carga	Lista	Valores de carga
24	fuerza nodal	940	FX=1.709(kN) CY=2.440(kNm)
24	fuerza nodal	939	FX=1.712(kN) CY=2.445(kNm)
24	fuerza nodal	938	FX=1.715(kN) CY=2.449(kNm)
24	fuerza nodal	937	FX=1.718(kN) CY=2.453(kNm)
24	fuerza nodal	936	FX=1.721(kN) CY=2.457(kNm)
24	fuerza nodal	935	FX=1.724(kN) CY=2.462(kNm)
24	fuerza nodal	934	FX=936.425(kN) CY=1337.402(kNm)
24	fuerza nodal	974	FX=-934.938(kN) CY=-1335.279(kNm)
24	fuerza nodal	973	FX=-1.614(kN) CY=-2.305(kNm)
24	fuerza nodal	972	FX=-1.617(kN) CY=-2.309(kNm)
24	fuerza nodal	971	FX=-1.620(kN) CY=-2.313(kNm)
24	fuerza nodal	970	FX=-1.623(kN) CY=-2.317(kNm)
24	fuerza nodal	969	FX=-1.625(kN) CY=-2.321(kNm)
24	fuerza nodal	968	FX=-1.628(kN) CY=-2.325(kNm)
24	fuerza nodal	967	FX=-1.631(kN) CY=-2.329(kNm)
24	fuerza nodal	966	FX=-1.634(kN) CY=-2.333(kNm)
24	fuerza nodal	965	FX=-1.637(kN) CY=-2.337(kNm)
24	fuerza nodal	964	FX=-1.639(kN) CY=-2.341(kNm)
24	fuerza nodal	963	FX=-1.642(kN) CY=-2.345(kNm)
24	fuerza nodal	962	FX=-1.645(kN) CY=-2.349(kNm)
24	fuerza nodal	961	FX=-1.648(kN) CY=-2.354(kNm)
24	fuerza nodal	960	FX=-1.651(kN) CY=-2.358(kNm)
24	fuerza nodal	959	FX=-1.654(kN) CY=-2.362(kNm)
24	fuerza nodal	958	FX=-1.657(kN) CY=-2.366(kNm)
24	fuerza nodal	957	FX=-1.659(kN) CY=-2.370(kNm)
24	fuerza nodal	956	FX=-1.662(kN) CY=-2.374(kNm)
24	fuerza nodal	955	FX=-1.665(kN) CY=-2.378(kNm)
24	fuerza nodal	954	FX=-1.668(kN) CY=-2.382(kNm)
24	fuerza nodal	153	FX=0.759(kN) CY=1.083(kNm)
24	fuerza nodal	152	FX=1.674(kN) CY=2.329(kNm)
24	fuerza nodal	151	FX=1.677(kN) CY=2.271(kNm)
24	fuerza nodal	150	FX=1.680(kN) CY=2.275(kNm)
24	fuerza nodal	149	FX=1.682(kN) CY=2.279(kNm)
24	fuerza nodal	148	FX=1.685(kN) CY=2.283(kNm)
24	fuerza nodal	147	FX=1.688(kN) CY=2.287(kNm)
24	fuerza nodal	146	FX=1.691(kN) CY=2.353(kNm)
24	fuerza nodal	145	FX=1.694(kN) CY=2.419(kNm)
24	fuerza nodal	144	FX=1.697(kN) CY=2.424(kNm)
24	fuerza nodal	143	FX=1.700(kN) CY=2.428(kNm)
24	fuerza nodal	142	FX=1.703(kN) CY=2.432(kNm)
24	fuerza nodal	141	FX=1.706(kN) CY=2.436(kNm)
24	fuerza nodal	140	FX=1.709(kN) CY=2.440(kNm)
24	fuerza nodal	139	FX=1.712(kN) CY=2.445(kNm)
24	fuerza nodal	138	FX=1.715(kN) CY=2.449(kNm)
24	fuerza nodal	137	FX=1.718(kN) CY=2.453(kNm)
24	fuerza nodal	136	FX=1.721(kN) CY=2.457(kNm)
24	fuerza nodal	135	FX=1.724(kN) CY=2.462(kNm)
24	fuerza nodal	134	FX=936.425(kN) CY=1337.402(kNm)
24	fuerza nodal	174	FX=-934.938(kN) CY=-1335.279(kNm)
24	fuerza nodal	173	FX=-1.614(kN) CY=-2.305(kNm)
24	fuerza nodal	172	FX=-1.617(kN) CY=-2.309(kNm)
24	fuerza nodal	171	FX=-1.620(kN) CY=-2.313(kNm)

Caso	Tipo de carga	Lista	Valores de carga
24	fuerza nodal	170	FX=-1.623(kN) CY=-2.317(kNm)
24	fuerza nodal	169	FX=-1.625(kN) CY=-2.321(kNm)
24	fuerza nodal	168	FX=-1.628(kN) CY=-2.325(kNm)
24	fuerza nodal	167	FX=-1.631(kN) CY=-2.329(kNm)
24	fuerza nodal	166	FX=-1.634(kN) CY=-2.333(kNm)
24	fuerza nodal	165	FX=-1.637(kN) CY=-2.337(kNm)
24	fuerza nodal	154	FX=-1.668(kN) CY=-2.382(kNm)
24	fuerza nodal	155	FX=-1.665(kN) CY=-2.378(kNm)
24	fuerza nodal	156	FX=-1.662(kN) CY=-2.374(kNm)
24	fuerza nodal	157	FX=-1.659(kN) CY=-2.370(kNm)
24	fuerza nodal	158	FX=-1.657(kN) CY=-2.366(kNm)
24	fuerza nodal	159	FX=-1.654(kN) CY=-2.362(kNm)
24	fuerza nodal	160	FX=-1.651(kN) CY=-2.358(kNm)
24	fuerza nodal	161	FX=-1.648(kN) CY=-2.354(kNm)
24	fuerza nodal	162	FX=-1.645(kN) CY=-2.349(kNm)
24	fuerza nodal	163	FX=-1.642(kN) CY=-2.345(kNm)
24	fuerza nodal	164	FX=-1.639(kN) CY=-2.341(kNm)
25	fuerza nodal	914	FX=1.674(kN) CY=2.329(kNm)
25	fuerza nodal	913	FX=1.677(kN) CY=2.271(kNm)
25	fuerza nodal	912	FX=1.680(kN) CY=2.275(kNm)
25	fuerza nodal	911	FX=1.682(kN) CY=2.279(kNm)
25	fuerza nodal	910	FX=1.685(kN) CY=2.283(kNm)
25	fuerza nodal	909	FX=1.688(kN) CY=2.287(kNm)
25	fuerza nodal	908	FX=1.691(kN) CY=2.353(kNm)
25	fuerza nodal	907	FX=1.694(kN) CY=2.419(kNm)
25	fuerza nodal	906	FX=1.697(kN) CY=2.424(kNm)
25	fuerza nodal	905	FX=1.700(kN) CY=2.428(kNm)
25	fuerza nodal	904	FX=1.703(kN) CY=2.432(kNm)
25	fuerza nodal	903	FX=1.706(kN) CY=2.436(kNm)
25	fuerza nodal	902	FX=1.709(kN) CY=2.440(kNm)
25	fuerza nodal	901	FX=1.712(kN) CY=2.445(kNm)
25	fuerza nodal	900	FX=1.715(kN) CY=2.449(kNm)
25	fuerza nodal	899	FX=1.718(kN) CY=2.453(kNm)
25	fuerza nodal	898	FX=1.721(kN) CY=2.457(kNm)
25	fuerza nodal	897	FX=1.724(kN) CY=2.462(kNm)
25	fuerza nodal	896	FX=936.425(kN) CY=1337.402(kNm)
25	fuerza nodal	934	FX=-938.169(kN) CY=-1339.893(kNm)
25	fuerza nodal	933	FX=-1.620(kN) CY=-2.313(kNm)
25	fuerza nodal	932	FX=-1.623(kN) CY=-2.317(kNm)
25	fuerza nodal	931	FX=-1.625(kN) CY=-2.321(kNm)
25	fuerza nodal	930	FX=-1.628(kN) CY=-2.325(kNm)
25	fuerza nodal	929	FX=-1.631(kN) CY=-2.329(kNm)
25	fuerza nodal	928	FX=-1.634(kN) CY=-2.333(kNm)
25	fuerza nodal	927	FX=-1.637(kN) CY=-2.337(kNm)
25	fuerza nodal	926	FX=-1.639(kN) CY=-2.341(kNm)
25	fuerza nodal	925	FX=-1.642(kN) CY=-2.345(kNm)
25	fuerza nodal	924	FX=-1.645(kN) CY=-2.349(kNm)
25	fuerza nodal	923	FX=-1.648(kN) CY=-2.354(kNm)
25	fuerza nodal	922	FX=-1.651(kN) CY=-2.358(kNm)
25	fuerza nodal	921	FX=-1.654(kN) CY=-2.362(kNm)
25	fuerza nodal	920	FX=-1.657(kN) CY=-2.366(kNm)
25	fuerza nodal	919	FX=-1.659(kN) CY=-2.370(kNm)

Caso	Tipo de carga	Lista	Valores de carga
25	fuerza nodal	918	FX=-1.662(kN) CY=-2.374(kNm)
25	fuerza nodal	917	FX=-1.665(kN) CY=-2.378(kNm)
25	fuerza nodal	916	FX=-1.668(kN) CY=-2.382(kNm)
25	fuerza nodal	915	FX=0.759(kN) CY=1.083(kNm)
25	fuerza nodal	114	FX=1.674(kN) CY=2.329(kNm)
25	fuerza nodal	113	FX=1.677(kN) CY=2.271(kNm)
25	fuerza nodal	112	FX=1.680(kN) CY=2.275(kNm)
25	fuerza nodal	111	FX=1.682(kN) CY=2.279(kNm)
25	fuerza nodal	110	FX=1.685(kN) CY=2.283(kNm)
25	fuerza nodal	109	FX=1.688(kN) CY=2.287(kNm)
25	fuerza nodal	108	FX=1.691(kN) CY=2.353(kNm)
25	fuerza nodal	107	FX=1.694(kN) CY=2.419(kNm)
25	fuerza nodal	106	FX=1.697(kN) CY=2.424(kNm)
25	fuerza nodal	105	FX=1.700(kN) CY=2.428(kNm)
25	fuerza nodal	104	FX=1.703(kN) CY=2.432(kNm)
25	fuerza nodal	103	FX=1.706(kN) CY=2.436(kNm)
25	fuerza nodal	102	FX=1.709(kN) CY=2.440(kNm)
25	fuerza nodal	101	FX=1.712(kN) CY=2.445(kNm)
25	fuerza nodal	100	FX=1.715(kN) CY=2.449(kNm)
25	fuerza nodal	99	FX=1.718(kN) CY=2.453(kNm)
25	fuerza nodal	98	FX=1.721(kN) CY=2.457(kNm)
25	fuerza nodal	97	FX=1.724(kN) CY=2.462(kNm)
25	fuerza nodal	96	FX=936.425(kN) CY=1337.402(kNm)
25	fuerza nodal	134	FX=-938.169(kN) CY=-1339.893(kNm)
25	fuerza nodal	133	FX=-1.620(kN) CY=-2.313(kNm)
25	fuerza nodal	132	FX=-1.623(kN) CY=-2.317(kNm)
25	fuerza nodal	131	FX=-1.625(kN) CY=-2.321(kNm)
25	fuerza nodal	130	FX=-1.628(kN) CY=-2.325(kNm)
25	fuerza nodal	129	FX=-1.631(kN) CY=-2.329(kNm)
25	fuerza nodal	128	FX=-1.634(kN) CY=-2.333(kNm)
25	fuerza nodal	127	FX=-1.637(kN) CY=-2.337(kNm)
25	fuerza nodal	126	FX=-1.639(kN) CY=-2.341(kNm)
25	fuerza nodal	125	FX=-1.642(kN) CY=-2.345(kNm)
25	fuerza nodal	124	FX=-1.645(kN) CY=-2.349(kNm)
25	fuerza nodal	123	FX=-1.648(kN) CY=-2.354(kNm)
25	fuerza nodal	122	FX=-1.651(kN) CY=-2.358(kNm)
25	fuerza nodal	121	FX=-1.654(kN) CY=-2.362(kNm)
25	fuerza nodal	120	FX=-1.657(kN) CY=-2.366(kNm)
25	fuerza nodal	119	FX=-1.659(kN) CY=-2.370(kNm)
25	fuerza nodal	118	FX=-1.662(kN) CY=-2.374(kNm)
25	fuerza nodal	117	FX=-1.665(kN) CY=-2.378(kNm)
25	fuerza nodal	116	FX=-1.668(kN) CY=-2.382(kNm)
25	fuerza nodal	115	FX=0.759(kN) CY=1.083(kNm)
26	fuerza nodal	866	FX=1.697(kN) CY=2.424(kNm)
26	fuerza nodal	867	FX=1.694(kN) CY=2.419(kNm)
26	fuerza nodal	868	FX=1.691(kN) CY=2.353(kNm)
26	fuerza nodal	869	FX=1.688(kN) CY=2.287(kNm)
26	fuerza nodal	870	FX=1.685(kN) CY=2.283(kNm)
26	fuerza nodal	871	FX=1.682(kN) CY=2.279(kNm)
26	fuerza nodal	872	FX=1.680(kN) CY=2.275(kNm)
26	fuerza nodal	873	FX=1.677(kN) CY=2.271(kNm)
26	fuerza nodal	874	FX=1.674(kN) CY=2.329(kNm)

Caso	Tipo de carga	Lista	Valores de carga
26	fuerza nodal	875	FX=0.759(kN) CY=1.083(kNm)
26	fuerza nodal	865	FX=1.700(kN) CY=2.428(kNm)
26	fuerza nodal	864	FX=1.703(kN) CY=2.432(kNm)
26	fuerza nodal	863	FX=1.706(kN) CY=2.436(kNm)
26	fuerza nodal	862	FX=1.709(kN) CY=2.440(kNm)
26	fuerza nodal	861	FX=1.712(kN) CY=2.445(kNm)
26	fuerza nodal	860	FX=1.715(kN) CY=2.449(kNm)
26	fuerza nodal	859	FX=1.718(kN) CY=2.453(kNm)
26	fuerza nodal	858	FX=1.721(kN) CY=2.457(kNm)
26	fuerza nodal	857	FX=1.724(kN) CY=2.462(kNm)
26	fuerza nodal	856	FX=936.425(kN) CY=1337.402(kNm)
26	fuerza nodal	896	FX=-934.938(kN) CY=-1335.279(kNm)
26	fuerza nodal	895	FX=-1.614(kN) CY=-2.305(kNm)
26	fuerza nodal	894	FX=-1.617(kN) CY=-2.309(kNm)
26	fuerza nodal	893	FX=-1.620(kN) CY=-2.313(kNm)
26	fuerza nodal	892	FX=-1.623(kN) CY=-2.317(kNm)
26	fuerza nodal	891	FX=-1.625(kN) CY=-2.321(kNm)
26	fuerza nodal	890	FX=-1.628(kN) CY=-2.325(kNm)
26	fuerza nodal	889	FX=-1.631(kN) CY=-2.329(kNm)
26	fuerza nodal	888	FX=-1.634(kN) CY=-2.333(kNm)
26	fuerza nodal	887	FX=-1.637(kN) CY=-2.337(kNm)
26	fuerza nodal	886	FX=-1.639(kN) CY=-2.341(kNm)
26	fuerza nodal	885	FX=-1.642(kN) CY=-2.345(kNm)
26	fuerza nodal	884	FX=-1.645(kN) CY=-2.349(kNm)
26	fuerza nodal	883	FX=-1.648(kN) CY=-2.354(kNm)
26	fuerza nodal	882	FX=-1.651(kN) CY=-2.358(kNm)
26	fuerza nodal	881	FX=-1.654(kN) CY=-2.362(kNm)
26	fuerza nodal	880	FX=-1.657(kN) CY=-2.366(kNm)
26	fuerza nodal	879	FX=-1.659(kN) CY=-2.370(kNm)
26	fuerza nodal	878	FX=-1.662(kN) CY=-2.374(kNm)
26	fuerza nodal	877	FX=-1.665(kN) CY=-2.378(kNm)
26	fuerza nodal	876	FX=-1.668(kN) CY=-2.382(kNm)
26	fuerza nodal	75	FX=0.759(kN) CY=1.083(kNm)
26	fuerza nodal	74	FX=1.674(kN) CY=2.329(kNm)
26	fuerza nodal	73	FX=1.677(kN) CY=2.271(kNm)
26	fuerza nodal	72	FX=1.680(kN) CY=2.275(kNm)
26	fuerza nodal	71	FX=1.682(kN) CY=2.279(kNm)
26	fuerza nodal	70	FX=1.685(kN) CY=2.283(kNm)
26	fuerza nodal	69	FX=1.688(kN) CY=2.287(kNm)
26	fuerza nodal	68	FX=1.691(kN) CY=2.353(kNm)
26	fuerza nodal	67	FX=1.694(kN) CY=2.419(kNm)
26	fuerza nodal	66	FX=1.697(kN) CY=2.424(kNm)
26	fuerza nodal	65	FX=1.700(kN) CY=2.428(kNm)
26	fuerza nodal	64	FX=1.703(kN) CY=2.432(kNm)
26	fuerza nodal	63	FX=1.706(kN) CY=2.436(kNm)
26	fuerza nodal	62	FX=1.709(kN) CY=2.440(kNm)
26	fuerza nodal	61	FX=1.712(kN) CY=2.445(kNm)
26	fuerza nodal	60	FX=1.715(kN) CY=2.449(kNm)
26	fuerza nodal	59	FX=1.718(kN) CY=2.453(kNm)
26	fuerza nodal	58	FX=1.721(kN) CY=2.457(kNm)
26	fuerza nodal	57	FX=1.724(kN) CY=2.462(kNm)
26	fuerza nodal	56	FX=936.425(kN) CY=1337.402(kNm)

Caso	Tipo de carga	Lista	Valores de carga
26	fuerza nodal	96	FX=-934.938(kN) CY=-1335.279(kNm)
26	fuerza nodal	95	FX=-1.614(kN) CY=-2.305(kNm)
26	fuerza nodal	94	FX=-1.617(kN) CY=-2.309(kNm)
26	fuerza nodal	93	FX=-1.620(kN) CY=-2.313(kNm)
26	fuerza nodal	92	FX=-1.623(kN) CY=-2.317(kNm)
26	fuerza nodal	91	FX=-1.625(kN) CY=-2.321(kNm)
26	fuerza nodal	90	FX=-1.628(kN) CY=-2.325(kNm)
26	fuerza nodal	89	FX=-1.631(kN) CY=-2.329(kNm)
26	fuerza nodal	88	FX=-1.634(kN) CY=-2.333(kNm)
26	fuerza nodal	87	FX=-1.637(kN) CY=-2.337(kNm)
26	fuerza nodal	76	FX=-1.668(kN) CY=-2.382(kNm)
26	fuerza nodal	77	FX=-1.665(kN) CY=-2.378(kNm)
26	fuerza nodal	78	FX=-1.662(kN) CY=-2.374(kNm)
26	fuerza nodal	79	FX=-1.659(kN) CY=-2.370(kNm)
26	fuerza nodal	80	FX=-1.657(kN) CY=-2.366(kNm)
26	fuerza nodal	81	FX=-1.654(kN) CY=-2.362(kNm)
26	fuerza nodal	82	FX=-1.651(kN) CY=-2.358(kNm)
26	fuerza nodal	83	FX=-1.648(kN) CY=-2.354(kNm)
26	fuerza nodal	84	FX=-1.645(kN) CY=-2.349(kNm)
26	fuerza nodal	85	FX=-1.642(kN) CY=-2.345(kNm)
26	fuerza nodal	86	FX=-1.639(kN) CY=-2.341(kNm)
27	fuerza nodal	835	FX=0.759(kN) CY=1.083(kNm)
27	fuerza nodal	834	FX=1.674(kN) CY=2.329(kNm)
27	fuerza nodal	833	FX=1.677(kN) CY=2.271(kNm)
27	fuerza nodal	832	FX=1.680(kN) CY=2.275(kNm)
27	fuerza nodal	831	FX=1.682(kN) CY=2.279(kNm)
27	fuerza nodal	830	FX=1.685(kN) CY=2.283(kNm)
27	fuerza nodal	829	FX=1.688(kN) CY=2.287(kNm)
27	fuerza nodal	828	FX=1.691(kN) CY=2.353(kNm)
27	fuerza nodal	827	FX=1.694(kN) CY=2.419(kNm)
27	fuerza nodal	826	FX=1.697(kN) CY=2.424(kNm)
27	fuerza nodal	825	FX=1.700(kN) CY=2.428(kNm)
27	fuerza nodal	824	FX=1.703(kN) CY=2.432(kNm)
27	fuerza nodal	823	FX=1.706(kN) CY=2.436(kNm)
27	fuerza nodal	822	FX=1.709(kN) CY=2.440(kNm)
27	fuerza nodal	821	FX=1.712(kN) CY=2.445(kNm)
27	fuerza nodal	820	FX=1.715(kN) CY=2.449(kNm)
27	fuerza nodal	819	FX=1.718(kN) CY=2.453(kNm)
27	fuerza nodal	818	FX=1.721(kN) CY=2.457(kNm)
27	fuerza nodal	817	FX=1.724(kN) CY=2.462(kNm)
27	fuerza nodal	816	FX=936.425(kN) CY=1337.402(kNm)
27	fuerza nodal	856	FX=-934.938(kN) CY=-1335.279(kNm)
27	fuerza nodal	855	FX=-1.614(kN) CY=-2.305(kNm)
27	fuerza nodal	854	FX=-1.617(kN) CY=-2.309(kNm)
27	fuerza nodal	853	FX=-1.620(kN) CY=-2.313(kNm)
27	fuerza nodal	852	FX=-1.623(kN) CY=-2.317(kNm)
27	fuerza nodal	851	FX=-1.625(kN) CY=-2.321(kNm)
27	fuerza nodal	850	FX=-1.628(kN) CY=-2.325(kNm)
27	fuerza nodal	849	FX=-1.631(kN) CY=-2.329(kNm)
27	fuerza nodal	848	FX=-1.634(kN) CY=-2.333(kNm)
27	fuerza nodal	847	FX=-1.637(kN) CY=-2.337(kNm)
27	fuerza nodal	846	FX=-1.639(kN) CY=-2.341(kNm)

Caso	Tipo de carga	Lista	Valores de carga
27	fuerza nodal	845	FX=-1.642(kN) CY=-2.345(kNm)
27	fuerza nodal	844	FX=-1.645(kN) CY=-2.349(kNm)
27	fuerza nodal	843	FX=-1.648(kN) CY=-2.354(kNm)
27	fuerza nodal	842	FX=-1.651(kN) CY=-2.358(kNm)
27	fuerza nodal	841	FX=-1.654(kN) CY=-2.362(kNm)
27	fuerza nodal	840	FX=-1.657(kN) CY=-2.366(kNm)
27	fuerza nodal	839	FX=-1.659(kN) CY=-2.370(kNm)
27	fuerza nodal	838	FX=-1.662(kN) CY=-2.374(kNm)
27	fuerza nodal	837	FX=-1.665(kN) CY=-2.378(kNm)
27	fuerza nodal	836	FX=-1.668(kN) CY=-2.382(kNm)
27	fuerza nodal	35	FX=0.759(kN) CY=1.083(kNm)
27	fuerza nodal	34	FX=1.674(kN) CY=2.329(kNm)
27	fuerza nodal	33	FX=1.677(kN) CY=2.271(kNm)
27	fuerza nodal	32	FX=1.680(kN) CY=2.275(kNm)
27	fuerza nodal	31	FX=1.682(kN) CY=2.279(kNm)
27	fuerza nodal	30	FX=1.685(kN) CY=2.283(kNm)
27	fuerza nodal	29	FX=1.688(kN) CY=2.287(kNm)
27	fuerza nodal	28	FX=1.691(kN) CY=2.353(kNm)
27	fuerza nodal	27	FX=1.694(kN) CY=2.419(kNm)
27	fuerza nodal	26	FX=1.697(kN) CY=2.424(kNm)
27	fuerza nodal	25	FX=1.700(kN) CY=2.428(kNm)
27	fuerza nodal	24	FX=1.703(kN) CY=2.432(kNm)
27	fuerza nodal	23	FX=1.706(kN) CY=2.436(kNm)
27	fuerza nodal	22	FX=1.709(kN) CY=2.440(kNm)
27	fuerza nodal	21	FX=1.712(kN) CY=2.445(kNm)
27	fuerza nodal	20	FX=1.715(kN) CY=2.449(kNm)
27	fuerza nodal	19	FX=1.718(kN) CY=2.453(kNm)
27	fuerza nodal	18	FX=1.721(kN) CY=2.457(kNm)
27	fuerza nodal	17	FX=1.724(kN) CY=2.462(kNm)
27	fuerza nodal	16	FX=936.425(kN) CY=1337.402(kNm)
27	fuerza nodal	56	FX=-934.938(kN) CY=-1335.279(kNm)
27	fuerza nodal	55	FX=-1.614(kN) CY=-2.305(kNm)
27	fuerza nodal	54	FX=-1.617(kN) CY=-2.309(kNm)
27	fuerza nodal	53	FX=-1.620(kN) CY=-2.313(kNm)
27	fuerza nodal	52	FX=-1.623(kN) CY=-2.317(kNm)
27	fuerza nodal	51	FX=-1.625(kN) CY=-2.321(kNm)
27	fuerza nodal	50	FX=-1.628(kN) CY=-2.325(kNm)
27	fuerza nodal	49	FX=-1.631(kN) CY=-2.329(kNm)
27	fuerza nodal	48	FX=-1.634(kN) CY=-2.333(kNm)
27	fuerza nodal	47	FX=-1.637(kN) CY=-2.337(kNm)
27	fuerza nodal	36	FX=-1.668(kN) CY=-2.382(kNm)
27	fuerza nodal	37	FX=-1.665(kN) CY=-2.378(kNm)
27	fuerza nodal	38	FX=-1.662(kN) CY=-2.374(kNm)
27	fuerza nodal	39	FX=-1.659(kN) CY=-2.370(kNm)
27	fuerza nodal	40	FX=-1.657(kN) CY=-2.366(kNm)
27	fuerza nodal	41	FX=-1.654(kN) CY=-2.362(kNm)
27	fuerza nodal	42	FX=-1.651(kN) CY=-2.358(kNm)
27	fuerza nodal	43	FX=-1.648(kN) CY=-2.354(kNm)
27	fuerza nodal	44	FX=-1.645(kN) CY=-2.349(kNm)
27	fuerza nodal	45	FX=-1.642(kN) CY=-2.345(kNm)
27	fuerza nodal	46	FX=-1.639(kN) CY=-2.341(kNm)
28	fuerza nodal	801	FX=934.869(kN) CY=1266.373(kNm)

Caso	Tipo de carga	Lista	Valores de carga
28	fuerza nodal	802	FX=1.724(kN) CY=2.335(kNm)
28	fuerza nodal	803	FX=1.721(kN) CY=2.331(kNm)
28	fuerza nodal	804	FX=1.718(kN) CY=2.390(kNm)
28	fuerza nodal	805	FX=1.715(kN) CY=2.449(kNm)
28	fuerza nodal	806	FX=1.712(kN) CY=2.445(kNm)
28	fuerza nodal	807	FX=1.709(kN) CY=2.440(kNm)
28	fuerza nodal	808	FX=1.706(kN) CY=2.436(kNm)
28	fuerza nodal	809	FX=1.703(kN) CY=2.432(kNm)
28	fuerza nodal	810	FX=1.700(kN) CY=2.428(kNm)
28	fuerza nodal	811	FX=1.697(kN) CY=2.424(kNm)
28	fuerza nodal	812	FX=1.694(kN) CY=2.419(kNm)
28	fuerza nodal	813	FX=1.691(kN) CY=2.415(kNm)
28	fuerza nodal	814	FX=1.688(kN) CY=2.411(kNm)
28	fuerza nodal	815	FX=1.685(kN) CY=2.407(kNm)
28	fuerza nodal	816	FX=-958.730(kN) CY=-1369.257(kNm)
28	fuerza nodal	1	FX=934.869(kN) CY=1266.373(kNm)
28	fuerza nodal	2	FX=1.724(kN) CY=2.335(kNm)
28	fuerza nodal	3	FX=1.721(kN) CY=2.331(kNm)
28	fuerza nodal	4	FX=1.718(kN) CY=2.390(kNm)
28	fuerza nodal	5	FX=1.715(kN) CY=2.449(kNm)
28	fuerza nodal	6	FX=1.712(kN) CY=2.445(kNm)
28	fuerza nodal	7	FX=1.709(kN) CY=2.440(kNm)
28	fuerza nodal	8	FX=1.706(kN) CY=2.436(kNm)
28	fuerza nodal	9	FX=1.703(kN) CY=2.432(kNm)
28	fuerza nodal	10	FX=1.700(kN) CY=2.428(kNm)
28	fuerza nodal	11	FX=1.697(kN) CY=2.424(kNm)
28	fuerza nodal	12	FX=1.694(kN) CY=2.419(kNm)
28	fuerza nodal	13	FX=1.691(kN) CY=2.415(kNm)
28	fuerza nodal	14	FX=1.688(kN) CY=2.411(kNm)
28	fuerza nodal	15	FX=1.685(kN) CY=2.407(kNm)
28	fuerza nodal	16	FX=-958.730(kN) CY=-1369.257(kNm)
29	fuerza nodal	969	FX=1.682(kN) CY=2.403(kNm)
29	fuerza nodal	968	FX=1.685(kN) CY=2.407(kNm)
29	fuerza nodal	967	FX=1.688(kN) CY=2.411(kNm)
29	fuerza nodal	966	FX=1.691(kN) CY=2.415(kNm)
29	fuerza nodal	965	FX=1.694(kN) CY=2.419(kNm)
29	fuerza nodal	964	FX=1.697(kN) CY=2.424(kNm)
29	fuerza nodal	963	FX=1.700(kN) CY=2.428(kNm)
29	fuerza nodal	962	FX=1.703(kN) CY=2.432(kNm)
29	fuerza nodal	961	FX=1.706(kN) CY=2.436(kNm)
29	fuerza nodal	960	FX=1.709(kN) CY=2.440(kNm)
29	fuerza nodal	959	FX=1.712(kN) CY=2.445(kNm)
29	fuerza nodal	958	FX=1.715(kN) CY=2.449(kNm)
29	fuerza nodal	957	FX=1.718(kN) CY=2.453(kNm)
29	fuerza nodal	956	FX=1.721(kN) CY=2.457(kNm)
29	fuerza nodal	955	FX=1.724(kN) CY=2.462(kNm)
29	fuerza nodal	954	FX=936.425(kN) CY=1337.402(kNm)
29	fuerza nodal	970	FX=1.680(kN) CY=2.399(kNm)
29	fuerza nodal	971	FX=1.677(kN) CY=2.394(kNm)
29	fuerza nodal	972	FX=1.674(kN) CY=2.390(kNm)
29	fuerza nodal	973	FX=0.759(kN) CY=1.083(kNm)
29	fuerza nodal	974	FX=-1.668(kN) CY=-2.382(kNm)

Caso	Tipo de carga	Lista	Valores de carga
29	fuerza nodal	975	FX=-1.665(kN) CY=-2.378(kNm)
29	fuerza nodal	976	FX=-1.662(kN) CY=-2.374(kNm)
29	fuerza nodal	977	FX=-1.659(kN) CY=-2.370(kNm)
29	fuerza nodal	978	FX=-1.657(kN) CY=-2.366(kNm)
29	fuerza nodal	979	FX=-1.654(kN) CY=-2.362(kNm)
29	fuerza nodal	980	FX=-1.651(kN) CY=-2.358(kNm)
29	fuerza nodal	981	FX=-1.648(kN) CY=-2.354(kNm)
29	fuerza nodal	982	FX=-1.645(kN) CY=-2.289(kNm)
29	fuerza nodal	983	FX=-1.642(kN) CY=-2.225(kNm)
29	fuerza nodal	984	FX=-1.639(kN) CY=-2.221(kNm)
29	fuerza nodal	985	FX=-949.566(kN) CY=-1286.282(kNm)
29	fuerza nodal	154	FX=936.425(kN) CY=1337.402(kNm)
29	fuerza nodal	155	FX=1.724(kN) CY=2.462(kNm)
29	fuerza nodal	156	FX=1.721(kN) CY=2.457(kNm)
29	fuerza nodal	157	FX=1.718(kN) CY=2.453(kNm)
29	fuerza nodal	158	FX=1.715(kN) CY=2.449(kNm)
29	fuerza nodal	159	FX=1.712(kN) CY=2.445(kNm)
29	fuerza nodal	160	FX=1.709(kN) CY=2.440(kNm)
29	fuerza nodal	161	FX=1.706(kN) CY=2.436(kNm)
29	fuerza nodal	162	FX=1.703(kN) CY=2.432(kNm)
29	fuerza nodal	163	FX=1.700(kN) CY=2.428(kNm)
29	fuerza nodal	164	FX=1.697(kN) CY=2.424(kNm)
29	fuerza nodal	165	FX=1.694(kN) CY=2.419(kNm)
29	fuerza nodal	166	FX=1.691(kN) CY=2.415(kNm)
29	fuerza nodal	167	FX=1.688(kN) CY=2.411(kNm)
29	fuerza nodal	168	FX=1.685(kN) CY=2.407(kNm)
29	fuerza nodal	169	FX=1.682(kN) CY=2.403(kNm)
29	fuerza nodal	185	FX=-949.566(kN) CY=-1286.282(kNm)
29	fuerza nodal	184	FX=-1.639(kN) CY=-2.221(kNm)
29	fuerza nodal	183	FX=-1.642(kN) CY=-2.225(kNm)
29	fuerza nodal	182	FX=-1.645(kN) CY=-2.289(kNm)
29	fuerza nodal	181	FX=-1.648(kN) CY=-2.354(kNm)
29	fuerza nodal	180	FX=-1.651(kN) CY=-2.358(kNm)
29	fuerza nodal	179	FX=-1.654(kN) CY=-2.362(kNm)
29	fuerza nodal	178	FX=-1.657(kN) CY=-2.366(kNm)
29	fuerza nodal	177	FX=-1.659(kN) CY=-2.370(kNm)
29	fuerza nodal	176	FX=-1.662(kN) CY=-2.374(kNm)
29	fuerza nodal	175	FX=-1.665(kN) CY=-2.378(kNm)
29	fuerza nodal	174	FX=-1.668(kN) CY=-2.382(kNm)
29	fuerza nodal	173	FX=0.759(kN) CY=1.083(kNm)
29	fuerza nodal	172	FX=1.674(kN) CY=2.390(kNm)
29	fuerza nodal	171	FX=1.677(kN) CY=2.394(kNm)
29	fuerza nodal	170	FX=1.680(kN) CY=2.399(kNm)
30	fuerza nodal	926	FX=1.697(kN) CY=2.424(kNm)
30	fuerza nodal	927	FX=1.694(kN) CY=2.419(kNm)
30	fuerza nodal	928	FX=1.691(kN) CY=2.415(kNm)
30	fuerza nodal	929	FX=1.688(kN) CY=2.411(kNm)
30	fuerza nodal	930	FX=1.685(kN) CY=2.407(kNm)
30	fuerza nodal	931	FX=1.682(kN) CY=2.403(kNm)
30	fuerza nodal	932	FX=1.680(kN) CY=2.399(kNm)
30	fuerza nodal	933	FX=1.677(kN) CY=2.394(kNm)
30	fuerza nodal	934	FX=1.674(kN) CY=2.390(kNm)

Caso	Tipo de carga	Lista	Valores de carga
30	fuerza nodal	925	FX=1.700(kN) CY=2.428(kNm)
30	fuerza nodal	924	FX=1.703(kN) CY=2.432(kNm)
30	fuerza nodal	923	FX=1.706(kN) CY=2.436(kNm)
30	fuerza nodal	922	FX=1.709(kN) CY=2.440(kNm)
30	fuerza nodal	921	FX=1.712(kN) CY=2.445(kNm)
30	fuerza nodal	920	FX=1.715(kN) CY=2.449(kNm)
30	fuerza nodal	919	FX=1.718(kN) CY=2.453(kNm)
30	fuerza nodal	918	FX=1.721(kN) CY=2.457(kNm)
30	fuerza nodal	917	FX=1.724(kN) CY=2.462(kNm)
30	fuerza nodal	916	FX=936.425(kN) CY=1337.402(kNm)
30	fuerza nodal	954	FX=-938.169(kN) CY=-1339.893(kNm)
30	fuerza nodal	953	FX=-1.620(kN) CY=-2.313(kNm)
30	fuerza nodal	952	FX=-1.623(kN) CY=-2.258(kNm)
30	fuerza nodal	951	FX=-1.625(kN) CY=-2.202(kNm)
30	fuerza nodal	950	FX=-1.628(kN) CY=-2.206(kNm)
30	fuerza nodal	949	FX=-1.631(kN) CY=-2.209(kNm)
30	fuerza nodal	948	FX=-1.634(kN) CY=-2.213(kNm)
30	fuerza nodal	947	FX=-1.637(kN) CY=-2.217(kNm)
30	fuerza nodal	946	FX=-1.639(kN) CY=-2.281(kNm)
30	fuerza nodal	945	FX=-1.642(kN) CY=-2.345(kNm)
30	fuerza nodal	944	FX=-1.645(kN) CY=-2.349(kNm)
30	fuerza nodal	943	FX=-1.648(kN) CY=-2.354(kNm)
30	fuerza nodal	942	FX=-1.651(kN) CY=-2.358(kNm)
30	fuerza nodal	941	FX=-1.654(kN) CY=-2.362(kNm)
30	fuerza nodal	940	FX=-1.657(kN) CY=-2.366(kNm)
30	fuerza nodal	939	FX=-1.659(kN) CY=-2.370(kNm)
30	fuerza nodal	938	FX=-1.662(kN) CY=-2.374(kNm)
30	fuerza nodal	937	FX=-1.665(kN) CY=-2.378(kNm)
30	fuerza nodal	936	FX=-1.668(kN) CY=-2.382(kNm)
30	fuerza nodal	935	FX=0.759(kN) CY=1.083(kNm)
30	fuerza nodal	134	FX=1.674(kN) CY=2.390(kNm)
30	fuerza nodal	133	FX=1.677(kN) CY=2.394(kNm)
30	fuerza nodal	132	FX=1.680(kN) CY=2.399(kNm)
30	fuerza nodal	131	FX=1.682(kN) CY=2.403(kNm)
30	fuerza nodal	130	FX=1.685(kN) CY=2.407(kNm)
30	fuerza nodal	129	FX=1.688(kN) CY=2.411(kNm)
30	fuerza nodal	128	FX=1.691(kN) CY=2.415(kNm)
30	fuerza nodal	127	FX=1.694(kN) CY=2.419(kNm)
30	fuerza nodal	126	FX=1.697(kN) CY=2.424(kNm)
30	fuerza nodal	125	FX=1.700(kN) CY=2.428(kNm)
30	fuerza nodal	124	FX=1.703(kN) CY=2.432(kNm)
30	fuerza nodal	123	FX=1.706(kN) CY=2.436(kNm)
30	fuerza nodal	122	FX=1.709(kN) CY=2.440(kNm)
30	fuerza nodal	121	FX=1.712(kN) CY=2.445(kNm)
30	fuerza nodal	120	FX=1.715(kN) CY=2.449(kNm)
30	fuerza nodal	119	FX=1.718(kN) CY=2.453(kNm)
30	fuerza nodal	118	FX=1.721(kN) CY=2.457(kNm)
30	fuerza nodal	117	FX=1.724(kN) CY=2.462(kNm)
30	fuerza nodal	116	FX=936.425(kN) CY=1337.402(kNm)
30	fuerza nodal	154	FX=-938.169(kN) CY=-1339.893(kNm)
30	fuerza nodal	153	FX=-1.620(kN) CY=-2.313(kNm)
30	fuerza nodal	152	FX=-1.623(kN) CY=-2.258(kNm)

Caso	Tipo de carga	Lista	Valores de carga
30	fuerza nodal	151	FX=-1.625(kN) CY=-2.202(kNm)
30	fuerza nodal	150	FX=-1.628(kN) CY=-2.206(kNm)
30	fuerza nodal	149	FX=-1.631(kN) CY=-2.209(kNm)
30	fuerza nodal	148	FX=-1.634(kN) CY=-2.213(kNm)
30	fuerza nodal	147	FX=-1.637(kN) CY=-2.217(kNm)
30	fuerza nodal	146	FX=-1.639(kN) CY=-2.281(kNm)
30	fuerza nodal	145	FX=-1.642(kN) CY=-2.345(kNm)
30	fuerza nodal	144	FX=-1.645(kN) CY=-2.349(kNm)
30	fuerza nodal	143	FX=-1.648(kN) CY=-2.354(kNm)
30	fuerza nodal	142	FX=-1.651(kN) CY=-2.358(kNm)
30	fuerza nodal	141	FX=-1.654(kN) CY=-2.362(kNm)
30	fuerza nodal	140	FX=-1.657(kN) CY=-2.366(kNm)
30	fuerza nodal	139	FX=-1.659(kN) CY=-2.370(kNm)
30	fuerza nodal	138	FX=-1.662(kN) CY=-2.374(kNm)
30	fuerza nodal	137	FX=-1.665(kN) CY=-2.378(kNm)
30	fuerza nodal	136	FX=-1.668(kN) CY=-2.382(kNm)
30	fuerza nodal	135	FX=0.759(kN) CY=1.083(kNm)
31	fuerza nodal	886	FX=1.697(kN) CY=2.424(kNm)
31	fuerza nodal	887	FX=1.694(kN) CY=2.419(kNm)
31	fuerza nodal	888	FX=1.691(kN) CY=2.415(kNm)
31	fuerza nodal	889	FX=1.688(kN) CY=2.411(kNm)
31	fuerza nodal	890	FX=1.685(kN) CY=2.407(kNm)
31	fuerza nodal	891	FX=1.682(kN) CY=2.403(kNm)
31	fuerza nodal	892	FX=1.680(kN) CY=2.399(kNm)
31	fuerza nodal	893	FX=1.677(kN) CY=2.394(kNm)
31	fuerza nodal	894	FX=1.674(kN) CY=2.390(kNm)
31	fuerza nodal	895	FX=0.759(kN) CY=1.083(kNm)
31	fuerza nodal	885	FX=1.700(kN) CY=2.428(kNm)
31	fuerza nodal	884	FX=1.703(kN) CY=2.432(kNm)
31	fuerza nodal	883	FX=1.706(kN) CY=2.436(kNm)
31	fuerza nodal	882	FX=1.709(kN) CY=2.440(kNm)
31	fuerza nodal	881	FX=1.712(kN) CY=2.445(kNm)
31	fuerza nodal	880	FX=1.715(kN) CY=2.449(kNm)
31	fuerza nodal	879	FX=1.718(kN) CY=2.453(kNm)
31	fuerza nodal	878	FX=1.721(kN) CY=2.457(kNm)
31	fuerza nodal	877	FX=1.724(kN) CY=2.462(kNm)
31	fuerza nodal	876	FX=936.425(kN) CY=1337.402(kNm)
31	fuerza nodal	916	FX=-934.938(kN) CY=-1335.279(kNm)
31	fuerza nodal	915	FX=-1.614(kN) CY=-2.305(kNm)
31	fuerza nodal	914	FX=-1.617(kN) CY=-2.250(kNm)
31	fuerza nodal	913	FX=-1.620(kN) CY=-2.194(kNm)
31	fuerza nodal	912	FX=-1.623(kN) CY=-2.198(kNm)
31	fuerza nodal	911	FX=-1.625(kN) CY=-2.202(kNm)
31	fuerza nodal	910	FX=-1.628(kN) CY=-2.206(kNm)
31	fuerza nodal	909	FX=-1.631(kN) CY=-2.209(kNm)
31	fuerza nodal	908	FX=-1.634(kN) CY=-2.273(kNm)
31	fuerza nodal	907	FX=-1.637(kN) CY=-2.337(kNm)
31	fuerza nodal	906	FX=-1.639(kN) CY=-2.341(kNm)
31	fuerza nodal	905	FX=-1.642(kN) CY=-2.345(kNm)
31	fuerza nodal	904	FX=-1.645(kN) CY=-2.349(kNm)
31	fuerza nodal	903	FX=-1.648(kN) CY=-2.354(kNm)
31	fuerza nodal	902	FX=-1.651(kN) CY=-2.358(kNm)

Caso	Tipo de carga	Lista	Valores de carga
31	fuerza nodal	901	FX=-1.654(kN) CY=-2.362(kNm)
31	fuerza nodal	900	FX=-1.657(kN) CY=-2.366(kNm)
31	fuerza nodal	899	FX=-1.659(kN) CY=-2.370(kNm)
31	fuerza nodal	898	FX=-1.662(kN) CY=-2.374(kNm)
31	fuerza nodal	897	FX=-1.665(kN) CY=-2.378(kNm)
31	fuerza nodal	896	FX=-1.668(kN) CY=-2.382(kNm)
31	fuerza nodal	95	FX=0.759(kN) CY=1.083(kNm)
31	fuerza nodal	94	FX=1.674(kN) CY=2.390(kNm)
31	fuerza nodal	93	FX=1.677(kN) CY=2.394(kNm)
31	fuerza nodal	92	FX=1.680(kN) CY=2.399(kNm)
31	fuerza nodal	91	FX=1.682(kN) CY=2.403(kNm)
31	fuerza nodal	90	FX=1.685(kN) CY=2.407(kNm)
31	fuerza nodal	89	FX=1.688(kN) CY=2.411(kNm)
31	fuerza nodal	88	FX=1.691(kN) CY=2.415(kNm)
31	fuerza nodal	87	FX=1.694(kN) CY=2.419(kNm)
31	fuerza nodal	86	FX=1.697(kN) CY=2.424(kNm)
31	fuerza nodal	85	FX=1.700(kN) CY=2.428(kNm)
31	fuerza nodal	84	FX=1.703(kN) CY=2.432(kNm)
31	fuerza nodal	83	FX=1.706(kN) CY=2.436(kNm)
31	fuerza nodal	82	FX=1.709(kN) CY=2.440(kNm)
31	fuerza nodal	81	FX=1.712(kN) CY=2.445(kNm)
31	fuerza nodal	80	FX=1.715(kN) CY=2.449(kNm)
31	fuerza nodal	79	FX=1.718(kN) CY=2.453(kNm)
31	fuerza nodal	78	FX=1.721(kN) CY=2.457(kNm)
31	fuerza nodal	77	FX=1.724(kN) CY=2.462(kNm)
31	fuerza nodal	76	FX=936.425(kN) CY=1337.402(kNm)
31	fuerza nodal	116	FX=-934.938(kN) CY=-1335.279(kNm)
31	fuerza nodal	115	FX=-1.614(kN) CY=-2.305(kNm)
31	fuerza nodal	114	FX=-1.617(kN) CY=-2.250(kNm)
31	fuerza nodal	113	FX=-1.620(kN) CY=-2.194(kNm)
31	fuerza nodal	112	FX=-1.623(kN) CY=-2.198(kNm)
31	fuerza nodal	111	FX=-1.625(kN) CY=-2.202(kNm)
31	fuerza nodal	110	FX=-1.628(kN) CY=-2.206(kNm)
31	fuerza nodal	109	FX=-1.631(kN) CY=-2.209(kNm)
31	fuerza nodal	108	FX=-1.634(kN) CY=-2.273(kNm)
31	fuerza nodal	107	FX=-1.637(kN) CY=-2.337(kNm)
31	fuerza nodal	96	FX=-1.668(kN) CY=-2.382(kNm)
31	fuerza nodal	97	FX=-1.665(kN) CY=-2.378(kNm)
31	fuerza nodal	98	FX=-1.662(kN) CY=-2.374(kNm)
31	fuerza nodal	99	FX=-1.659(kN) CY=-2.370(kNm)
31	fuerza nodal	100	FX=-1.657(kN) CY=-2.366(kNm)
31	fuerza nodal	101	FX=-1.654(kN) CY=-2.362(kNm)
31	fuerza nodal	102	FX=-1.651(kN) CY=-2.358(kNm)
31	fuerza nodal	103	FX=-1.648(kN) CY=-2.354(kNm)
31	fuerza nodal	104	FX=-1.645(kN) CY=-2.349(kNm)
31	fuerza nodal	105	FX=-1.642(kN) CY=-2.345(kNm)
31	fuerza nodal	106	FX=-1.639(kN) CY=-2.341(kNm)
32	fuerza nodal	855	FX=0.759(kN) CY=1.083(kNm)
32	fuerza nodal	854	FX=1.674(kN) CY=2.390(kNm)
32	fuerza nodal	853	FX=1.677(kN) CY=2.394(kNm)
32	fuerza nodal	852	FX=1.680(kN) CY=2.399(kNm)
32	fuerza nodal	851	FX=1.682(kN) CY=2.403(kNm)

Caso	Tipo de carga	Lista	Valores de carga
32	fuerza nodal	850	FX=1.685(kN) CY=2.407(kNm)
32	fuerza nodal	849	FX=1.688(kN) CY=2.411(kNm)
32	fuerza nodal	848	FX=1.691(kN) CY=2.415(kNm)
32	fuerza nodal	847	FX=1.694(kN) CY=2.419(kNm)
32	fuerza nodal	846	FX=1.697(kN) CY=2.424(kNm)
32	fuerza nodal	845	FX=1.700(kN) CY=2.428(kNm)
32	fuerza nodal	844	FX=1.703(kN) CY=2.432(kNm)
32	fuerza nodal	843	FX=1.706(kN) CY=2.436(kNm)
32	fuerza nodal	842	FX=1.709(kN) CY=2.440(kNm)
32	fuerza nodal	841	FX=1.712(kN) CY=2.445(kNm)
32	fuerza nodal	840	FX=1.715(kN) CY=2.449(kNm)
32	fuerza nodal	839	FX=1.718(kN) CY=2.453(kNm)
32	fuerza nodal	838	FX=1.721(kN) CY=2.457(kNm)
32	fuerza nodal	837	FX=1.724(kN) CY=2.462(kNm)
32	fuerza nodal	836	FX=936.425(kN) CY=1337.402(kNm)
32	fuerza nodal	876	FX=-934.938(kN) CY=-1335.279(kNm)
32	fuerza nodal	875	FX=-1.614(kN) CY=-2.305(kNm)
32	fuerza nodal	874	FX=-1.617(kN) CY=-2.250(kNm)
32	fuerza nodal	873	FX=-1.620(kN) CY=-2.194(kNm)
32	fuerza nodal	872	FX=-1.623(kN) CY=-2.198(kNm)
32	fuerza nodal	871	FX=-1.625(kN) CY=-2.202(kNm)
32	fuerza nodal	870	FX=-1.628(kN) CY=-2.206(kNm)
32	fuerza nodal	869	FX=-1.631(kN) CY=-2.209(kNm)
32	fuerza nodal	868	FX=-1.634(kN) CY=-2.273(kNm)
32	fuerza nodal	867	FX=-1.637(kN) CY=-2.337(kNm)
32	fuerza nodal	866	FX=-1.639(kN) CY=-2.341(kNm)
32	fuerza nodal	865	FX=-1.642(kN) CY=-2.345(kNm)
32	fuerza nodal	864	FX=-1.645(kN) CY=-2.349(kNm)
32	fuerza nodal	863	FX=-1.648(kN) CY=-2.354(kNm)
32	fuerza nodal	862	FX=-1.651(kN) CY=-2.358(kNm)
32	fuerza nodal	861	FX=-1.654(kN) CY=-2.362(kNm)
32	fuerza nodal	860	FX=-1.657(kN) CY=-2.366(kNm)
32	fuerza nodal	859	FX=-1.659(kN) CY=-2.370(kNm)
32	fuerza nodal	858	FX=-1.662(kN) CY=-2.374(kNm)
32	fuerza nodal	857	FX=-1.665(kN) CY=-2.378(kNm)
32	fuerza nodal	856	FX=-1.668(kN) CY=-2.382(kNm)
32	fuerza nodal	55	FX=0.759(kN) CY=1.083(kNm)
32	fuerza nodal	54	FX=1.674(kN) CY=2.390(kNm)
32	fuerza nodal	53	FX=1.677(kN) CY=2.394(kNm)
32	fuerza nodal	52	FX=1.680(kN) CY=2.399(kNm)
32	fuerza nodal	51	FX=1.682(kN) CY=2.403(kNm)
32	fuerza nodal	50	FX=1.685(kN) CY=2.407(kNm)
32	fuerza nodal	49	FX=1.688(kN) CY=2.411(kNm)
32	fuerza nodal	48	FX=1.691(kN) CY=2.415(kNm)
32	fuerza nodal	47	FX=1.694(kN) CY=2.419(kNm)
32	fuerza nodal	46	FX=1.697(kN) CY=2.424(kNm)
32	fuerza nodal	45	FX=1.700(kN) CY=2.428(kNm)
32	fuerza nodal	44	FX=1.703(kN) CY=2.432(kNm)
32	fuerza nodal	43	FX=1.706(kN) CY=2.436(kNm)
32	fuerza nodal	42	FX=1.709(kN) CY=2.440(kNm)
32	fuerza nodal	41	FX=1.712(kN) CY=2.445(kNm)
32	fuerza nodal	40	FX=1.715(kN) CY=2.449(kNm)

Caso	Tipo de carga	Lista	Valores de carga
32	fuerza nodal	39	FX=1.718(kN) CY=2.453(kNm)
32	fuerza nodal	38	FX=1.721(kN) CY=2.457(kNm)
32	fuerza nodal	37	FX=1.724(kN) CY=2.462(kNm)
32	fuerza nodal	36	FX=936.425(kN) CY=1337.402(kNm)
32	fuerza nodal	76	FX=-934.938(kN) CY=-1335.279(kNm)
32	fuerza nodal	75	FX=-1.614(kN) CY=-2.305(kNm)
32	fuerza nodal	74	FX=-1.617(kN) CY=-2.250(kNm)
32	fuerza nodal	73	FX=-1.620(kN) CY=-2.194(kNm)
32	fuerza nodal	72	FX=-1.623(kN) CY=-2.198(kNm)
32	fuerza nodal	71	FX=-1.625(kN) CY=-2.202(kNm)
32	fuerza nodal	70	FX=-1.628(kN) CY=-2.206(kNm)
32	fuerza nodal	69	FX=-1.631(kN) CY=-2.209(kNm)
32	fuerza nodal	68	FX=-1.634(kN) CY=-2.273(kNm)
32	fuerza nodal	67	FX=-1.637(kN) CY=-2.337(kNm)
32	fuerza nodal	56	FX=-1.668(kN) CY=-2.382(kNm)
32	fuerza nodal	57	FX=-1.665(kN) CY=-2.378(kNm)
32	fuerza nodal	58	FX=-1.662(kN) CY=-2.374(kNm)
32	fuerza nodal	59	FX=-1.659(kN) CY=-2.370(kNm)
32	fuerza nodal	60	FX=-1.657(kN) CY=-2.366(kNm)
32	fuerza nodal	61	FX=-1.654(kN) CY=-2.362(kNm)
32	fuerza nodal	62	FX=-1.651(kN) CY=-2.358(kNm)
32	fuerza nodal	63	FX=-1.648(kN) CY=-2.354(kNm)
32	fuerza nodal	64	FX=-1.645(kN) CY=-2.349(kNm)
32	fuerza nodal	65	FX=-1.642(kN) CY=-2.345(kNm)
32	fuerza nodal	66	FX=-1.639(kN) CY=-2.341(kNm)
33	fuerza nodal	818	FX=1.677(kN) CY=2.394(kNm)
33	fuerza nodal	817	FX=1.680(kN) CY=2.399(kNm)
33	fuerza nodal	816	FX=1.682(kN) CY=2.403(kNm)
33	fuerza nodal	815	FX=1.685(kN) CY=2.407(kNm)
33	fuerza nodal	814	FX=1.688(kN) CY=2.411(kNm)
33	fuerza nodal	813	FX=1.691(kN) CY=2.415(kNm)
33	fuerza nodal	812	FX=1.694(kN) CY=2.419(kNm)
33	fuerza nodal	811	FX=1.697(kN) CY=2.424(kNm)
33	fuerza nodal	810	FX=1.700(kN) CY=2.428(kNm)
33	fuerza nodal	809	FX=1.703(kN) CY=2.432(kNm)
33	fuerza nodal	808	FX=1.706(kN) CY=2.436(kNm)
33	fuerza nodal	807	FX=1.709(kN) CY=2.440(kNm)
33	fuerza nodal	806	FX=1.712(kN) CY=2.445(kNm)
33	fuerza nodal	805	FX=1.715(kN) CY=2.449(kNm)
33	fuerza nodal	804	FX=1.718(kN) CY=2.390(kNm)
33	fuerza nodal	803	FX=1.721(kN) CY=2.331(kNm)
33	fuerza nodal	802	FX=1.724(kN) CY=2.335(kNm)
33	fuerza nodal	801	FX=936.425(kN) CY=1268.481(kNm)
33	fuerza nodal	836	FX=-943.037(kN) CY=-1346.845(kNm)
33	fuerza nodal	835	FX=-1.628(kN) CY=-2.325(kNm)
33	fuerza nodal	834	FX=-1.631(kN) CY=-2.269(kNm)
33	fuerza nodal	833	FX=-1.634(kN) CY=-2.213(kNm)
33	fuerza nodal	832	FX=-1.637(kN) CY=-2.217(kNm)
33	fuerza nodal	831	FX=-1.639(kN) CY=-2.221(kNm)
33	fuerza nodal	830	FX=-1.642(kN) CY=-2.225(kNm)
33	fuerza nodal	829	FX=-1.645(kN) CY=-2.228(kNm)
33	fuerza nodal	828	FX=-1.648(kN) CY=-2.293(kNm)

Caso	Tipo de carga	Lista	Valores de carga
33	fuerza nodal	827	FX=-1.651(kN) CY=-2.358(kNm)
33	fuerza nodal	826	FX=-1.654(kN) CY=-2.362(kNm)
33	fuerza nodal	825	FX=-1.657(kN) CY=-2.366(kNm)
33	fuerza nodal	824	FX=-1.659(kN) CY=-2.370(kNm)
33	fuerza nodal	823	FX=-1.662(kN) CY=-2.374(kNm)
33	fuerza nodal	822	FX=-1.665(kN) CY=-2.378(kNm)
33	fuerza nodal	821	FX=-1.668(kN) CY=-2.382(kNm)
33	fuerza nodal	820	FX=0.759(kN) CY=1.083(kNm)
33	fuerza nodal	819	FX=1.674(kN) CY=2.390(kNm)
33	fuerza nodal	18	FX=1.677(kN) CY=2.394(kNm)
33	fuerza nodal	17	FX=1.680(kN) CY=2.399(kNm)
33	fuerza nodal	16	FX=1.682(kN) CY=2.403(kNm)
33	fuerza nodal	15	FX=1.685(kN) CY=2.407(kNm)
33	fuerza nodal	14	FX=1.688(kN) CY=2.411(kNm)
33	fuerza nodal	13	FX=1.691(kN) CY=2.415(kNm)
33	fuerza nodal	12	FX=1.694(kN) CY=2.419(kNm)
33	fuerza nodal	11	FX=1.697(kN) CY=2.424(kNm)
33	fuerza nodal	10	FX=1.700(kN) CY=2.428(kNm)
33	fuerza nodal	9	FX=1.703(kN) CY=2.432(kNm)
33	fuerza nodal	8	FX=1.706(kN) CY=2.436(kNm)
33	fuerza nodal	7	FX=1.709(kN) CY=2.440(kNm)
33	fuerza nodal	6	FX=1.712(kN) CY=2.445(kNm)
33	fuerza nodal	5	FX=1.715(kN) CY=2.449(kNm)
33	fuerza nodal	4	FX=1.718(kN) CY=2.390(kNm)
33	fuerza nodal	3	FX=1.721(kN) CY=2.331(kNm)
33	fuerza nodal	2	FX=1.724(kN) CY=2.335(kNm)
33	fuerza nodal	1	FX=936.425(kN) CY=1268.481(kNm)
33	fuerza nodal	36	FX=-943.037(kN) CY=-1346.845(kNm)
33	fuerza nodal	35	FX=-1.628(kN) CY=-2.325(kNm)
33	fuerza nodal	34	FX=-1.631(kN) CY=-2.269(kNm)
33	fuerza nodal	33	FX=-1.634(kN) CY=-2.213(kNm)
33	fuerza nodal	32	FX=-1.637(kN) CY=-2.217(kNm)
33	fuerza nodal	31	FX=-1.639(kN) CY=-2.221(kNm)
33	fuerza nodal	30	FX=-1.642(kN) CY=-2.225(kNm)
33	fuerza nodal	29	FX=-1.645(kN) CY=-2.228(kNm)
33	fuerza nodal	28	FX=-1.648(kN) CY=-2.293(kNm)
33	fuerza nodal	19	FX=1.674(kN) CY=2.390(kNm)
33	fuerza nodal	20	FX=0.759(kN) CY=1.083(kNm)
33	fuerza nodal	21	FX=-1.668(kN) CY=-2.382(kNm)
33	fuerza nodal	22	FX=-1.665(kN) CY=-2.378(kNm)
33	fuerza nodal	23	FX=-1.662(kN) CY=-2.374(kNm)
33	fuerza nodal	24	FX=-1.659(kN) CY=-2.370(kNm)
33	fuerza nodal	25	FX=-1.657(kN) CY=-2.366(kNm)
33	fuerza nodal	26	FX=-1.654(kN) CY=-2.362(kNm)
33	fuerza nodal	27	FX=-1.651(kN) CY=-2.358(kNm)
34	fuerza nodal	817	FX=-5.079(kN) FZ=13.503(kN) CY=5.654(kNm)
34	fuerza nodal	816	FX=-4.867(kN) FZ=13.497(kN) CY=5.625(kNm)
34	fuerza nodal	815	FX=-4.728(kN) FZ=13.804(kN) CY=5.585(kNm)
34	fuerza nodal	814	FX=-4.710(kN) FZ=14.762(kN) CY=5.604(kNm)
34	fuerza nodal	813	FX=-4.682(kN) FZ=15.896(kN) CY=5.526(kNm)
34	fuerza nodal	812	FX=0.314(kN) FZ=15.761(kN) CY=-0.361(kNm)
34	fuerza nodal	811	FX=5.780(kN) FZ=15.513(kN) CY=-6.376(kNm)

Caso	Tipo de carga	Lista	Valores de carga
34	fuerza nodal	810	FX=6.052(kN) FZ=15.298(kN) CY=-6.269(kNm)
34	fuerza nodal	809	FX=6.292(kN) FZ=14.992(kN) CY=-5.971(kNm)
34	fuerza nodal	808	FX=6.545(kN) FZ=14.755(kN) CY=-5.518(kNm)
34	fuerza nodal	807	FX=6.816(kN) FZ=14.582(kN) CY=-4.894(kNm)
34	fuerza nodal	806	FX=7.052(kN) FZ=14.319(kN) CY=-4.046(kNm)
34	fuerza nodal	805	FX=7.249(kN) FZ=13.973(kN) CY=-2.972(kNm)
34	fuerza nodal	804	FX=7.462(kN) FZ=13.693(kN) CY=-1.969(kNm)
34	fuerza nodal	803	FX=7.697(kN) FZ=13.476(kN) CY=-0.759(kNm)
34	fuerza nodal	802	FX=6.500(kN) FZ=10.188(kN) CY=0.798(kNm)
34	fuerza nodal	801	FX=877.061(kN) FZ=-180.293(kN) CY=315.040(kNm)
34	fuerza nodal	834	FX=-868.656(kN) CY=-793.431(kNm)
34	fuerza nodal	833	FX=-1.724(kN) CY=-1.511(kNm)
34	fuerza nodal	832	FX=-1.721(kN) CY=-1.508(kNm)
34	fuerza nodal	831	FX=-10.898(kN) FZ=-43.613(kN) CY=-9.553(kNm)
34	fuerza nodal	830	FX=-12.958(kN) FZ=-89.067(kN) CY=-10.623(kNm)
34	fuerza nodal	829	FX=-3.862(kN) FZ=-58.082(kN) CY=-2.508(kNm)
34	fuerza nodal	828	FX=-6.018(kN) FZ=9.594(kN) CY=-2.663(kNm)
34	fuerza nodal	827	FX=-6.926(kN) FZ=12.187(kN) CY=-1.727(kNm)
34	fuerza nodal	826	FX=-6.763(kN) FZ=12.421(kN) CY=-0.246(kNm)
34	fuerza nodal	825	FX=-0.858(kN) FZ=13.460(kN) CY=0.137(kNm)
34	fuerza nodal	824	FX=2.428(kN) FZ=13.947(kN) CY=-0.821(kNm)
34	fuerza nodal	823	FX=2.618(kN) FZ=13.899(kN) CY=-1.309(kNm)
34	fuerza nodal	822	FX=2.816(kN) FZ=13.923(kN) CY=-1.816(kNm)
34	fuerza nodal	821	FX=2.998(kN) FZ=13.778(kN) CY=-2.316(kNm)
34	fuerza nodal	820	FX=-0.588(kN) FZ=13.397(kN) CY=0.519(kNm)
34	fuerza nodal	819	FX=-5.390(kN) FZ=13.094(kN) CY=5.266(kNm)
34	fuerza nodal	818	FX=-5.249(kN) FZ=13.341(kN) CY=5.530(kNm)
34	fuerza nodal	17	FX=-5.079(kN) FZ=13.503(kN) CY=5.654(kNm)
34	fuerza nodal	16	FX=-4.867(kN) FZ=13.497(kN) CY=5.625(kNm)
34	fuerza nodal	15	FX=-4.728(kN) FZ=13.804(kN) CY=5.585(kNm)
34	fuerza nodal	14	FX=-4.710(kN) FZ=14.762(kN) CY=5.604(kNm)
34	fuerza nodal	13	FX=-4.682(kN) FZ=15.896(kN) CY=5.526(kNm)
34	fuerza nodal	12	FX=0.314(kN) FZ=15.761(kN) CY=-0.361(kNm)
34	fuerza nodal	11	FX=5.780(kN) FZ=15.513(kN) CY=-6.376(kNm)
34	fuerza nodal	10	FX=6.052(kN) FZ=15.298(kN) CY=-6.269(kNm)
34	fuerza nodal	9	FX=6.292(kN) FZ=14.992(kN) CY=-5.971(kNm)
34	fuerza nodal	8	FX=6.545(kN) FZ=14.755(kN) CY=-5.518(kNm)
34	fuerza nodal	7	FX=6.816(kN) FZ=14.582(kN) CY=-4.894(kNm)
34	fuerza nodal	6	FX=7.052(kN) FZ=14.319(kN) CY=-4.046(kNm)
34	fuerza nodal	5	FX=7.249(kN) FZ=13.973(kN) CY=-2.972(kNm)
34	fuerza nodal	4	FX=7.462(kN) FZ=13.693(kN) CY=-1.969(kNm)
34	fuerza nodal	3	FX=7.697(kN) FZ=13.476(kN) CY=-0.759(kNm)
34	fuerza nodal	2	FX=6.500(kN) FZ=10.188(kN) CY=0.798(kNm)
34	fuerza nodal	1	FX=877.061(kN) FZ=-180.293(kN) CY=315.040(kNm)
34	fuerza nodal	34	FX=-868.656(kN) CY=-793.431(kNm)
34	fuerza nodal	33	FX=-1.724(kN) CY=-1.511(kNm)
34	fuerza nodal	32	FX=-1.721(kN) CY=-1.508(kNm)
34	fuerza nodal	31	FX=-10.898(kN) FZ=-43.613(kN) CY=-9.553(kNm)
34	fuerza nodal	30	FX=-12.958(kN) FZ=-89.067(kN) CY=-10.623(kNm)
34	fuerza nodal	29	FX=-3.862(kN) FZ=-58.082(kN) CY=-2.508(kNm)
34	fuerza nodal	28	FX=-6.018(kN) FZ=9.594(kN) CY=-2.663(kNm)
34	fuerza nodal	27	FX=-6.926(kN) FZ=12.187(kN) CY=-1.727(kNm)

Caso	Tipo de carga	Lista	Valores de carga
34	fuerza nodal	18	FX=-5.249(kN) FZ=13.341(kN) CY=5.530(kNm)
34	fuerza nodal	19	FX=-5.390(kN) FZ=13.094(kN) CY=5.266(kNm)
34	fuerza nodal	20	FX=-0.588(kN) FZ=13.397(kN) CY=0.519(kNm)
34	fuerza nodal	21	FX=2.998(kN) FZ=13.778(kN) CY=-2.316(kNm)
34	fuerza nodal	22	FX=2.816(kN) FZ=13.923(kN) CY=-1.816(kNm)
34	fuerza nodal	23	FX=2.618(kN) FZ=13.899(kN) CY=-1.309(kNm)
34	fuerza nodal	24	FX=2.428(kN) FZ=13.947(kN) CY=-0.821(kNm)
34	fuerza nodal	25	FX=-0.858(kN) FZ=13.460(kN) CY=0.137(kNm)
34	fuerza nodal	26	FX=-6.763(kN) FZ=12.421(kN) CY=-0.246(kNm)
35	fuerza nodal	817	FX=-4.666(kN) FZ=12.093(kN) CY=6.257(kNm)
35	fuerza nodal	816	FX=-4.528(kN) FZ=12.219(kN) CY=6.245(kNm)
35	fuerza nodal	815	FX=-4.423(kN) FZ=12.503(kN) CY=6.201(kNm)
35	fuerza nodal	814	FX=-4.391(kN) FZ=13.196(kN) CY=6.191(kNm)
35	fuerza nodal	813	FX=-4.711(kN) FZ=14.069(kN) CY=6.601(kNm)
35	fuerza nodal	812	FX=4.985(kN) FZ=13.768(kN) CY=-6.858(kNm)
35	fuerza nodal	811	FX=5.224(kN) FZ=13.690(kN) CY=-6.966(kNm)
35	fuerza nodal	810	FX=5.439(kN) FZ=13.522(kN) CY=-6.930(kNm)
35	fuerza nodal	809	FX=5.649(kN) FZ=13.344(kN) CY=-6.765(kNm)
35	fuerza nodal	808	FX=5.828(kN) FZ=13.079(kN) CY=-6.435(kNm)
35	fuerza nodal	807	FX=6.049(kN) FZ=12.963(kN) CY=-6.012(kNm)
35	fuerza nodal	806	FX=6.240(kN) FZ=12.760(kN) CY=-5.408(kNm)
35	fuerza nodal	805	FX=6.425(kN) FZ=12.550(kN) CY=-4.641(kNm)
35	fuerza nodal	804	FX=6.602(kN) FZ=12.333(kN) CY=-3.947(kNm)
35	fuerza nodal	803	FX=6.742(kN) FZ=12.036(kN) CY=-3.076(kNm)
35	fuerza nodal	802	FX=5.755(kN) FZ=9.175(kN) CY=-1.503(kNm)
35	fuerza nodal	801	FX=884.406(kN) FZ=-160.270(kN) CY=-46.608(kNm)
35	fuerza nodal	834	FX=-873.678(kN) CY=-413.599(kNm)
35	fuerza nodal	833	FX=-1.724(kN) CY=-0.753(kNm)
35	fuerza nodal	832	FX=-1.721(kN) CY=-0.751(kNm)
35	fuerza nodal	831	FX=-10.047(kN) FZ=-39.267(kN) CY=-4.386(kNm)
35	fuerza nodal	830	FX=-12.650(kN) FZ=-80.292(kN) CY=-4.879(kNm)
35	fuerza nodal	829	FX=-4.620(kN) FZ=-52.521(kN) CY=-1.076(kNm)
35	fuerza nodal	828	FX=-5.469(kN) FZ=8.850(kN) CY=-0.278(kNm)
35	fuerza nodal	827	FX=-6.205(kN) FZ=11.075(kN) CY=0.736(kNm)
35	fuerza nodal	826	FX=-6.066(kN) FZ=11.261(kN) CY=1.878(kNm)
35	fuerza nodal	825	FX=-5.895(kN) FZ=11.366(kN) CY=2.861(kNm)
35	fuerza nodal	824	FX=3.009(kN) FZ=12.808(kN) CY=-1.943(kNm)
35	fuerza nodal	823	FX=2.695(kN) FZ=12.531(kN) CY=-2.131(kNm)
35	fuerza nodal	822	FX=2.855(kN) FZ=12.556(kN) CY=-2.629(kNm)
35	fuerza nodal	821	FX=2.998(kN) FZ=12.413(kN) CY=-3.105(kNm)
35	fuerza nodal	820	FX=-0.333(kN) FZ=12.249(kN) CY=0.378(kNm)
35	fuerza nodal	819	FX=-4.933(kN) FZ=11.823(kN) CY=6.012(kNm)
35	fuerza nodal	818	FX=-4.843(kN) FZ=12.119(kN) CY=6.236(kNm)
35	fuerza nodal	17	FX=-4.666(kN) FZ=12.093(kN) CY=6.257(kNm)
35	fuerza nodal	16	FX=-4.528(kN) FZ=12.219(kN) CY=6.245(kNm)
35	fuerza nodal	15	FX=-4.423(kN) FZ=12.503(kN) CY=6.201(kNm)
35	fuerza nodal	14	FX=-4.391(kN) FZ=13.196(kN) CY=6.191(kNm)
35	fuerza nodal	13	FX=-4.711(kN) FZ=14.069(kN) CY=6.601(kNm)
35	fuerza nodal	12	FX=4.985(kN) FZ=13.768(kN) CY=-6.858(kNm)
35	fuerza nodal	11	FX=5.224(kN) FZ=13.690(kN) CY=-6.966(kNm)
35	fuerza nodal	10	FX=5.439(kN) FZ=13.522(kN) CY=-6.930(kNm)
35	fuerza nodal	9	FX=5.649(kN) FZ=13.344(kN) CY=-6.765(kNm)

Caso	Tipo de carga	Lista	Valores de carga
35	fuerza nodal	8	FX=5.828(kN) FZ=13.079(kN) CY=-6.435(kNm)
35	fuerza nodal	7	FX=6.049(kN) FZ=12.963(kN) CY=-6.012(kNm)
35	fuerza nodal	6	FX=6.240(kN) FZ=12.760(kN) CY=-5.408(kNm)
35	fuerza nodal	5	FX=6.425(kN) FZ=12.550(kN) CY=-4.641(kNm)
35	fuerza nodal	4	FX=6.602(kN) FZ=12.333(kN) CY=-3.947(kNm)
35	fuerza nodal	3	FX=6.742(kN) FZ=12.036(kN) CY=-3.076(kNm)
35	fuerza nodal	2	FX=5.755(kN) FZ=9.175(kN) CY=-1.503(kNm)
35	fuerza nodal	1	FX=884.406(kN) FZ=-160.270(kN) CY=-46.608(kNm)
35	fuerza nodal	34	FX=-873.678(kN) CY=-413.599(kNm)
35	fuerza nodal	33	FX=-1.724(kN) CY=-0.753(kNm)
35	fuerza nodal	32	FX=-1.721(kN) CY=-0.751(kNm)
35	fuerza nodal	31	FX=-10.047(kN) FZ=-39.267(kN) CY=-4.386(kNm)
35	fuerza nodal	30	FX=-12.650(kN) FZ=-80.292(kN) CY=-4.879(kNm)
35	fuerza nodal	29	FX=-4.620(kN) FZ=-52.521(kN) CY=-1.076(kNm)
35	fuerza nodal	28	FX=-5.469(kN) FZ=8.850(kN) CY=-0.278(kNm)
35	fuerza nodal	27	FX=-6.205(kN) FZ=11.075(kN) CY=0.736(kNm)
35	fuerza nodal	26	FX=-6.066(kN) FZ=11.261(kN) CY=1.878(kNm)
35	fuerza nodal	25	FX=-5.895(kN) FZ=11.366(kN) CY=2.861(kNm)
35	fuerza nodal	24	FX=3.009(kN) FZ=12.808(kN) CY=-1.943(kNm)
35	fuerza nodal	23	FX=2.695(kN) FZ=12.531(kN) CY=-2.131(kNm)
35	fuerza nodal	22	FX=2.855(kN) FZ=12.556(kN) CY=-2.629(kNm)
35	fuerza nodal	21	FX=2.998(kN) FZ=12.413(kN) CY=-3.105(kNm)
35	fuerza nodal	20	FX=-0.333(kN) FZ=12.249(kN) CY=0.378(kNm)
35	fuerza nodal	19	FX=-4.933(kN) FZ=11.823(kN) CY=6.012(kNm)
35	fuerza nodal	18	FX=-4.843(kN) FZ=12.119(kN) CY=6.236(kNm)
36	fuerza nodal	828	FX=-6.275(kN) FZ=10.052(kN) CY=-3.853(kNm)
36	fuerza nodal	827	FX=-7.150(kN) FZ=12.438(kN) CY=-2.841(kNm)
36	fuerza nodal	826	FX=-7.050(kN) FZ=12.765(kN) CY=-1.145(kNm)
36	fuerza nodal	825	FX=-6.909(kN) FZ=13.019(kN) CY=0.370(kNm)
36	fuerza nodal	824	FX=-6.760(kN) FZ=13.268(kN) CY=1.695(kNm)
36	fuerza nodal	823	FX=-6.576(kN) FZ=13.438(kN) CY=2.822(kNm)
36	fuerza nodal	822	FX=-6.463(kN) FZ=13.821(kN) CY=3.805(kNm)
36	fuerza nodal	821	FX=-6.237(kN) FZ=13.901(kN) CY=4.550(kNm)
36	fuerza nodal	820	FX=-6.080(kN) FZ=14.196(kN) CY=5.178(kNm)
36	fuerza nodal	829	FX=-2.166(kN) FZ=-60.257(kN) CY=-1.833(kNm)
36	fuerza nodal	830	FX=-10.630(kN) FZ=-92.706(kN) CY=-10.992(kNm)
36	fuerza nodal	831	FX=-15.988(kN) FZ=-73.138(kN) CY=-17.533(kNm)
36	fuerza nodal	832	FX=-11.494(kN) FZ=-54.071(kN) CY=-12.158(kNm)
36	fuerza nodal	833	FX=5.457(kN) FZ=-55.379(kN) CY=5.138(kNm)
36	fuerza nodal	834	FX=2.069(kN) FZ=-25.740(kN) CY=1.623(kNm)
36	fuerza nodal	835	FX=5.284(kN) FZ=8.867(kN) CY=3.126(kNm)
36	fuerza nodal	836	FX=5.215(kN) FZ=9.007(kN) CY=1.961(kNm)
36	fuerza nodal	837	FX=5.143(kN) FZ=9.145(kN) CY=0.896(kNm)
36	fuerza nodal	801	FX=877.061(kN) FZ=-180.293(kN) CY=315.040(kNm)
36	fuerza nodal	802	FX=6.500(kN) FZ=10.188(kN) CY=0.798(kNm)
36	fuerza nodal	803	FX=7.697(kN) FZ=13.476(kN) CY=-0.759(kNm)
36	fuerza nodal	804	FX=7.462(kN) FZ=13.693(kN) CY=-1.969(kNm)
36	fuerza nodal	805	FX=7.249(kN) FZ=13.973(kN) CY=-2.972(kNm)
36	fuerza nodal	806	FX=7.052(kN) FZ=14.319(kN) CY=-4.046(kNm)
36	fuerza nodal	807	FX=6.816(kN) FZ=14.582(kN) CY=-4.894(kNm)
36	fuerza nodal	808	FX=6.545(kN) FZ=14.755(kN) CY=-5.518(kNm)
36	fuerza nodal	809	FX=6.292(kN) FZ=14.992(kN) CY=-5.971(kNm)

Caso	Tipo de carga	Lista	Valores de carga
36	fuerza nodal	810	FX=6.052(kN) FZ=15.298(kN) CY=-6.269(kNm)
36	fuerza nodal	811	FX=5.780(kN) FZ=15.513(kN) CY=-6.376(kNm)
36	fuerza nodal	812	FX=0.314(kN) FZ=15.761(kN) CY=-0.361(kNm)
36	fuerza nodal	813	FX=-4.682(kN) FZ=15.896(kN) CY=5.526(kNm)
36	fuerza nodal	814	FX=-4.870(kN) FZ=15.493(kN) CY=5.794(kNm)
36	fuerza nodal	815	FX=-5.059(kN) FZ=15.166(kN) CY=5.972(kNm)
36	fuerza nodal	816	FX=-5.257(kN) FZ=14.912(kN) CY=6.057(kNm)
36	fuerza nodal	817	FX=-5.508(kN) FZ=14.886(kN) CY=6.088(kNm)
36	fuerza nodal	818	FX=-5.670(kN) FZ=14.534(kN) CY=5.894(kNm)
36	fuerza nodal	819	FX=-5.889(kN) FZ=14.409(kN) CY=5.624(kNm)
36	fuerza nodal	857	FX=3.011(kN) FZ=10.189(kN) CY=-2.899(kNm)
36	fuerza nodal	858	FX=2.921(kN) FZ=10.328(kN) CY=-2.572(kNm)
36	fuerza nodal	859	FX=2.800(kN) FZ=10.221(kN) CY=-2.200(kNm)
36	fuerza nodal	860	FX=2.716(kN) FZ=10.433(kN) CY=-1.844(kNm)
36	fuerza nodal	861	FX=2.605(kN) FZ=10.400(kN) CY=-1.456(kNm)
36	fuerza nodal	862	FX=2.509(kN) FZ=10.526(kN) CY=-1.070(kNm)
36	fuerza nodal	863	FX=2.393(kN) FZ=10.404(kN) CY=-0.672(kNm)
36	fuerza nodal	864	FX=-0.569(kN) FZ=10.179(kN) CY=0.070(kNm)
36	fuerza nodal	865	FX=-5.249(kN) FZ=9.341(kN) CY=-0.247(kNm)
36	fuerza nodal	866	FX=-5.347(kN) FZ=9.209(kN) CY=-1.230(kNm)
36	fuerza nodal	867	FX=-5.442(kN) FZ=9.075(kN) CY=-2.316(kNm)
36	fuerza nodal	868	FX=-2.908(kN) FZ=-26.160(kN) CY=-1.736(kNm)
36	fuerza nodal	869	FX=-7.138(kN) FZ=-56.351(kN) CY=-5.253(kNm)
36	fuerza nodal	870	FX=-10.857(kN) FZ=-55.435(kN) CY=-9.135(kNm)
36	fuerza nodal	871	FX=-7.672(kN) FZ=-27.297(kN) CY=-6.725(kNm)
36	fuerza nodal	872	FX=-1.721(kN) CY=-1.508(kNm)
36	fuerza nodal	873	FX=-1.724(kN) CY=-1.511(kNm)
36	fuerza nodal	874	FX=-880.705(kN) CY=-804.436(kNm)
36	fuerza nodal	838	FX=5.067(kN) FZ=9.281(kN) CY=-0.069(kNm)
36	fuerza nodal	839	FX=4.988(kN) FZ=9.414(kN) CY=-0.936(kNm)
36	fuerza nodal	840	FX=4.931(kN) FZ=9.616(kN) CY=-1.715(kNm)
36	fuerza nodal	841	FX=4.820(kN) FZ=9.675(kN) CY=-2.381(kNm)
36	fuerza nodal	842	FX=4.731(kN) FZ=9.800(kN) CY=-2.962(kNm)
36	fuerza nodal	843	FX=4.639(kN) FZ=9.923(kN) CY=-3.453(kNm)
36	fuerza nodal	844	FX=4.544(kN) FZ=10.043(kN) CY=-3.857(kNm)
36	fuerza nodal	845	FX=4.467(kN) FZ=10.233(kN) CY=-4.196(kNm)
36	fuerza nodal	846	FX=4.325(kN) FZ=10.198(kN) CY=-4.393(kNm)
36	fuerza nodal	847	FX=4.262(kN) FZ=10.457(kN) CY=-4.596(kNm)
36	fuerza nodal	848	FX=4.136(kN) FZ=10.488(kN) CY=-4.662(kNm)
36	fuerza nodal	849	FX=4.045(kN) FZ=10.667(kN) CY=-4.700(kNm)
36	fuerza nodal	850	FX=3.899(kN) FZ=10.611(kN) CY=-4.612(kNm)
36	fuerza nodal	851	FX=3.708(kN) FZ=10.315(kN) CY=-4.412(kNm)
36	fuerza nodal	852	FX=3.498(kN) FZ=9.851(kN) CY=-4.140(kNm)
36	fuerza nodal	853	FX=3.418(kN) FZ=10.004(kN) CY=-3.980(kNm)
36	fuerza nodal	854	FX=3.306(kN) FZ=9.996(kN) CY=-3.746(kNm)
36	fuerza nodal	855	FX=3.209(kN) FZ=10.064(kN) CY=-3.494(kNm)
36	fuerza nodal	856	FX=3.111(kN) FZ=10.128(kN) CY=-3.210(kNm)
36	fuerza nodal	20	FX=-6.080(kN) FZ=14.196(kN) CY=5.178(kNm)
36	fuerza nodal	21	FX=-6.237(kN) FZ=13.901(kN) CY=4.550(kNm)
36	fuerza nodal	22	FX=-6.463(kN) FZ=13.821(kN) CY=3.805(kNm)
36	fuerza nodal	23	FX=-6.576(kN) FZ=13.438(kN) CY=2.822(kNm)
36	fuerza nodal	24	FX=-6.760(kN) FZ=13.268(kN) CY=1.695(kNm)

Caso	Tipo de carga	Lista	Valores de carga
36	fuerza nodal	25	FX=-6.909(kN) FZ=13.019(kN) CY=0.370(kNm)
36	fuerza nodal	26	FX=-7.050(kN) FZ=12.765(kN) CY=-1.146(kNm)
36	fuerza nodal	27	FX=-7.150(kN) FZ=12.438(kN) CY=-2.841(kNm)
36	fuerza nodal	28	FX=-6.275(kN) FZ=10.052(kN) CY=-3.853(kNm)
36	fuerza nodal	29	FX=-2.166(kN) FZ=-60.257(kN) CY=-1.833(kNm)
36	fuerza nodal	30	FX=-10.630(kN) FZ=-92.706(kN) CY=-10.992(kNm)
36	fuerza nodal	31	FX=-15.988(kN) FZ=-73.138(kN) CY=-17.533(kNm)
36	fuerza nodal	32	FX=-11.494(kN) FZ=-54.071(kN) CY=-12.158(kNm)
36	fuerza nodal	33	FX=5.457(kN) FZ=-55.379(kN) CY=5.138(kNm)
36	fuerza nodal	34	FX=2.069(kN) FZ=-25.740(kN) CY=1.623(kNm)
36	fuerza nodal	35	FX=5.284(kN) FZ=8.867(kN) CY=3.126(kNm)
36	fuerza nodal	36	FX=5.215(kN) FZ=9.007(kN) CY=1.961(kNm)
36	fuerza nodal	37	FX=5.143(kN) FZ=9.145(kN) CY=0.896(kNm)
36	fuerza nodal	1	FX=877.061(kN) FZ=-180.293(kN) CY=315.040(kNm)
36	fuerza nodal	2	FX=6.500(kN) FZ=10.188(kN) CY=0.798(kNm)
36	fuerza nodal	3	FX=7.697(kN) FZ=13.476(kN) CY=-0.759(kNm)
36	fuerza nodal	4	FX=7.462(kN) FZ=13.693(kN) CY=-1.969(kNm)
36	fuerza nodal	5	FX=7.249(kN) FZ=13.973(kN) CY=-2.972(kNm)
36	fuerza nodal	6	FX=7.052(kN) FZ=14.319(kN) CY=-4.046(kNm)
36	fuerza nodal	7	FX=6.816(kN) FZ=14.582(kN) CY=-4.894(kNm)
36	fuerza nodal	8	FX=6.545(kN) FZ=14.755(kN) CY=-5.516(kNm)
36	fuerza nodal	9	FX=6.292(kN) FZ=14.992(kN) CY=-5.971(kNm)
36	fuerza nodal	10	FX=6.052(kN) FZ=15.298(kN) CY=-6.269(kNm)
36	fuerza nodal	11	FX=5.780(kN) FZ=15.513(kN) CY=-6.376(kNm)
36	fuerza nodal	12	FX=0.314(kN) FZ=15.761(kN) CY=-0.361(kNm)
36	fuerza nodal	13	FX=-4.682(kN) FZ=15.896(kN) CY=5.526(kNm)
36	fuerza nodal	14	FX=-4.870(kN) FZ=15.493(kN) CY=5.794(kNm)
36	fuerza nodal	15	FX=-5.059(kN) FZ=15.166(kN) CY=5.972(kNm)
36	fuerza nodal	16	FX=-5.257(kN) FZ=14.912(kN) CY=6.057(kNm)
36	fuerza nodal	17	FX=-5.508(kN) FZ=14.886(kN) CY=6.088(kNm)
36	fuerza nodal	18	FX=-5.670(kN) FZ=14.534(kN) CY=5.894(kNm)
36	fuerza nodal	19	FX=-5.889(kN) FZ=14.409(kN) CY=5.624(kNm)
36	fuerza nodal	57	FX=3.011(kN) FZ=10.189(kN) CY=-2.899(kNm)
36	fuerza nodal	58	FX=2.921(kN) FZ=10.328(kN) CY=-2.572(kNm)
36	fuerza nodal	59	FX=2.800(kN) FZ=10.221(kN) CY=-2.200(kNm)
36	fuerza nodal	60	FX=2.716(kN) FZ=10.433(kN) CY=-1.844(kNm)
36	fuerza nodal	61	FX=2.605(kN) FZ=10.400(kN) CY=-1.456(kNm)
36	fuerza nodal	62	FX=2.509(kN) FZ=10.526(kN) CY=-1.070(kNm)
36	fuerza nodal	63	FX=2.393(kN) FZ=10.404(kN) CY=-0.672(kNm)
36	fuerza nodal	64	FX=-0.569(kN) FZ=10.179(kN) CY=0.070(kNm)
36	fuerza nodal	65	FX=-5.249(kN) FZ=9.341(kN) CY=-0.247(kNm)
36	fuerza nodal	66	FX=-5.347(kN) FZ=9.209(kN) CY=-1.230(kNm)
36	fuerza nodal	67	FX=-5.442(kN) FZ=9.075(kN) CY=-2.316(kNm)
36	fuerza nodal	68	FX=-2.908(kN) FZ=-26.160(kN) CY=-1.736(kNm)
36	fuerza nodal	69	FX=-7.138(kN) FZ=-56.351(kN) CY=-5.253(kNm)
36	fuerza nodal	70	FX=-10.857(kN) FZ=-55.435(kN) CY=-9.135(kNm)
36	fuerza nodal	71	FX=-7.672(kN) FZ=-27.297(kN) CY=-6.725(kNm)
36	fuerza nodal	72	FX=-1.721(kN) CY=-1.508(kNm)
36	fuerza nodal	73	FX=-1.724(kN) CY=-1.511(kNm)
36	fuerza nodal	74	FX=-880.705(kN) CY=-804.436(kNm)
36	fuerza nodal	38	FX=5.067(kN) FZ=9.281(kN) CY=-0.069(kNm)
36	fuerza nodal	39	FX=4.988(kN) FZ=9.414(kN) CY=-0.936(kNm)

Caso	Tipo de carga	Lista	Valores de carga
36	fuerza nodal	40	FX=4.931(kN) FZ=9.616(kN) CY=-1.715(kNm)
36	fuerza nodal	41	FX=4.820(kN) FZ=9.675(kN) CY=-2.381(kNm)
36	fuerza nodal	42	FX=4.731(kN) FZ=9.800(kN) CY=-2.962(kNm)
36	fuerza nodal	43	FX=4.639(kN) FZ=9.923(kN) CY=-3.453(kNm)
36	fuerza nodal	44	FX=4.544(kN) FZ=10.043(kN) CY=-3.857(kNm)
36	fuerza nodal	45	FX=4.467(kN) FZ=10.233(kN) CY=-4.196(kNm)
36	fuerza nodal	46	FX=4.325(kN) FZ=10.198(kN) CY=-4.393(kNm)
36	fuerza nodal	56	FX=3.111(kN) FZ=10.128(kN) CY=-3.210(kNm)
36	fuerza nodal	55	FX=3.209(kN) FZ=10.064(kN) CY=-3.494(kNm)
36	fuerza nodal	54	FX=3.306(kN) FZ=9.996(kN) CY=-3.746(kNm)
36	fuerza nodal	53	FX=3.418(kN) FZ=10.004(kN) CY=-3.980(kNm)
36	fuerza nodal	52	FX=3.498(kN) FZ=9.851(kN) CY=-4.140(kNm)
36	fuerza nodal	51	FX=3.708(kN) FZ=10.315(kN) CY=-4.412(kNm)
36	fuerza nodal	50	FX=3.899(kN) FZ=10.611(kN) CY=-4.612(kNm)
36	fuerza nodal	49	FX=4.045(kN) FZ=10.667(kN) CY=-4.700(kNm)
36	fuerza nodal	48	FX=4.136(kN) FZ=10.488(kN) CY=-4.662(kNm)
36	fuerza nodal	47	FX=4.262(kN) FZ=10.457(kN) CY=-4.596(kNm)
37	fuerza nodal	820	FX=-5.575(kN) FZ=12.984(kN) CY=6.151(kNm)
37	fuerza nodal	821	FX=-5.727(kN) FZ=12.802(kN) CY=5.684(kNm)
37	fuerza nodal	822	FX=-5.899(kN) FZ=12.690(kN) CY=5.102(kNm)
37	fuerza nodal	823	FX=-6.015(kN) FZ=12.420(kN) CY=4.331(kNm)
37	fuerza nodal	824	FX=-6.149(kN) FZ=12.222(kN) CY=3.432(kNm)
37	fuerza nodal	825	FX=-6.277(kN) FZ=12.018(kN) CY=2.381(kNm)
37	fuerza nodal	826	FX=-6.426(kN) FZ=11.881(kN) CY=1.180(kNm)
37	fuerza nodal	827	FX=-6.542(kN) FZ=11.666(kN) CY=-0.192(kNm)
37	fuerza nodal	828	FX=-5.652(kN) FZ=9.194(kN) CY=-1.258(kNm)
37	fuerza nodal	829	FX=-3.113(kN) FZ=-55.450(kN) CY=-1.337(kNm)
37	fuerza nodal	830	FX=-10.756(kN) FZ=-85.140(kN) CY=-6.451(kNm)
37	fuerza nodal	831	FX=-14.907(kN) FZ=-67.265(kN) CY=-9.788(kNm)
37	fuerza nodal	832	FX=-11.958(kN) FZ=-49.668(kN) CY=-7.430(kNm)
37	fuerza nodal	833	FX=5.791(kN) FZ=-51.062(kN) CY=2.988(kNm)
37	fuerza nodal	834	FX=2.425(kN) FZ=-23.695(kN) CY=0.914(kNm)
37	fuerza nodal	835	FX=4.855(kN) FZ=8.245(kN) CY=0.998(kNm)
37	fuerza nodal	836	FX=4.796(kN) FZ=8.361(kN) CY=0.048(kNm)
37	fuerza nodal	837	FX=4.734(kN) FZ=8.475(kN) CY=-0.819(kNm)
37	fuerza nodal	801	FX=884.406(kN) FZ=-160.270(kN) CY=-46.608(kNm)
37	fuerza nodal	802	FX=5.755(kN) FZ=9.175(kN) CY=-1.503(kNm)
37	fuerza nodal	803	FX=6.742(kN) FZ=12.036(kN) CY=-3.076(kNm)
37	fuerza nodal	804	FX=6.602(kN) FZ=12.333(kN) CY=-3.947(kNm)
37	fuerza nodal	805	FX=6.425(kN) FZ=12.550(kN) CY=-4.641(kNm)
37	fuerza nodal	806	FX=6.240(kN) FZ=12.760(kN) CY=-5.408(kNm)
37	fuerza nodal	807	FX=6.049(kN) FZ=12.963(kN) CY=-6.012(kNm)
37	fuerza nodal	808	FX=5.828(kN) FZ=13.079(kN) CY=-6.435(kNm)
37	fuerza nodal	809	FX=5.649(kN) FZ=13.344(kN) CY=-6.765(kNm)
37	fuerza nodal	810	FX=5.439(kN) FZ=13.522(kN) CY=-6.930(kNm)
37	fuerza nodal	811	FX=5.224(kN) FZ=13.690(kN) CY=-6.966(kNm)
37	fuerza nodal	812	FX=4.985(kN) FZ=13.768(kN) CY=-6.858(kNm)
37	fuerza nodal	813	FX=-4.711(kN) FZ=14.069(kN) CY=6.601(kNm)
37	fuerza nodal	814	FX=-4.551(kN) FZ=13.931(kN) CY=6.416(kNm)
37	fuerza nodal	815	FX=-4.752(kN) FZ=13.873(kN) CY=6.659(kNm)
37	fuerza nodal	816	FX=-4.891(kN) FZ=13.565(kN) CY=6.729(kNm)
37	fuerza nodal	817	FX=-5.105(kN) FZ=13.571(kN) CY=6.806(kNm)

Caso	Tipo de carga	Lista	Valores de carga
37	fuerza nodal	818	FX=-5.275(kN) FZ=13.408(kN) CY=6.718(kNm)
37	fuerza nodal	819	FX=-5.417(kN) FZ=13.160(kN) CY=6.484(kNm)
37	fuerza nodal	857	FX=2.943(kN) FZ=9.194(kN) CY=-3.550(kNm)
37	fuerza nodal	858	FX=2.864(kN) FZ=9.246(kN) CY=-3.243(kNm)
37	fuerza nodal	859	FX=2.793(kN) FZ=9.377(kN) CY=-2.926(kNm)
37	fuerza nodal	860	FX=2.701(kN) FZ=9.343(kN) CY=-2.569(kNm)
37	fuerza nodal	861	FX=2.611(kN) FZ=9.306(kN) CY=-2.203(kNm)
37	fuerza nodal	862	FX=2.554(kN) FZ=9.594(kN) CY=-1.851(kNm)
37	fuerza nodal	863	FX=2.566(kN) FZ=9.402(kN) CY=-1.525(kNm)
37	fuerza nodal	864	FX=-4.713(kN) FZ=8.648(kN) CY=2.135(kNm)
37	fuerza nodal	865	FX=-4.744(kN) FZ=8.389(kN) CY=1.424(kNm)
37	fuerza nodal	866	FX=-4.912(kN) FZ=8.511(kN) CY=0.668(kNm)
37	fuerza nodal	867	FX=-4.878(kN) FZ=8.100(kN) CY=-0.193(kNm)
37	fuerza nodal	868	FX=-3.193(kN) FZ=-23.545(kN) CY=-0.605(kNm)
37	fuerza nodal	869	FX=-7.221(kN) FZ=-50.617(kN) CY=-2.241(kNm)
37	fuerza nodal	870	FX=-10.269(kN) FZ=-50.066(kN) CY=-4.160(kNm)
37	fuerza nodal	871	FX=-7.086(kN) FZ=-24.532(kN) CY=-3.094(kNm)
37	fuerza nodal	872	FX=-1.721(kN) CY=-0.751(kNm)
37	fuerza nodal	873	FX=-1.724(kN) CY=-0.753(kNm)
37	fuerza nodal	874	FX=-885.091(kN) CY=-419.002(kNm)
37	fuerza nodal	838	FX=4.694(kN) FZ=8.658(kN) CY=-1.612(kNm)
37	fuerza nodal	839	FX=4.577(kN) FZ=8.628(kN) CY=-2.293(kNm)
37	fuerza nodal	840	FX=4.556(kN) FZ=8.879(kN) CY=-2.945(kNm)
37	fuerza nodal	841	FX=4.460(kN) FZ=8.915(kN) CY=-3.473(kNm)
37	fuerza nodal	842	FX=4.408(kN) FZ=9.092(kN) CY=-3.961(kNm)
37	fuerza nodal	843	FX=4.286(kN) FZ=9.049(kN) CY=-4.311(kNm)
37	fuerza nodal	844	FX=4.251(kN) FZ=9.296(kN) CY=-4.678(kNm)
37	fuerza nodal	845	FX=4.148(kN) FZ=9.320(kN) CY=-4.905(kNm)
37	fuerza nodal	846	FX=4.064(kN) FZ=9.415(kN) CY=-5.089(kNm)
37	fuerza nodal	847	FX=3.979(kN) FZ=9.507(kN) CY=-5.208(kNm)
37	fuerza nodal	848	FX=3.892(kN) FZ=9.597(kN) CY=-5.266(kNm)
37	fuerza nodal	849	FX=3.821(kN) FZ=9.761(kN) CY=-5.290(kNm)
37	fuerza nodal	850	FX=3.711(kN) FZ=9.768(kN) CY=-5.209(kNm)
37	fuerza nodal	851	FX=3.523(kN) FZ=9.378(kN) CY=-4.966(kNm)
37	fuerza nodal	852	FX=3.315(kN) FZ=8.820(kN) CY=-4.655(kNm)
37	fuerza nodal	853	FX=3.285(kN) FZ=9.120(kN) CY=-4.557(kNm)
37	fuerza nodal	854	FX=3.164(kN) FZ=8.944(kN) CY=-4.300(kNm)
37	fuerza nodal	855	FX=3.101(kN) FZ=9.083(kN) CY=-4.091(kNm)
37	fuerza nodal	856	FX=3.035(kN) FZ=9.220(kN) CY=-3.850(kNm)
37	fuerza nodal	20	FX=-5.575(kN) FZ=12.984(kN) CY=6.151(kNm)
37	fuerza nodal	21	FX=-5.727(kN) FZ=12.802(kN) CY=5.684(kNm)
37	fuerza nodal	22	FX=-5.899(kN) FZ=12.690(kN) CY=5.102(kNm)
37	fuerza nodal	23	FX=-6.015(kN) FZ=12.420(kN) CY=4.331(kNm)
37	fuerza nodal	24	FX=-6.149(kN) FZ=12.222(kN) CY=3.432(kNm)
37	fuerza nodal	25	FX=-6.277(kN) FZ=12.018(kN) CY=2.381(kNm)
37	fuerza nodal	26	FX=-6.426(kN) FZ=11.881(kN) CY=1.180(kNm)
37	fuerza nodal	27	FX=-6.542(kN) FZ=11.666(kN) CY=-0.192(kNm)
37	fuerza nodal	28	FX=-5.652(kN) FZ=9.194(kN) CY=-1.258(kNm)
37	fuerza nodal	29	FX=-3.113(kN) FZ=-55.450(kN) CY=-1.337(kNm)
37	fuerza nodal	30	FX=-10.756(kN) FZ=-85.140(kN) CY=-6.451(kNm)
37	fuerza nodal	31	FX=-14.907(kN) FZ=-67.265(kN) CY=-9.788(kNm)
37	fuerza nodal	32	FX=-11.958(kN) FZ=-49.668(kN) CY=-7.430(kNm)

Caso	Tipo de carga	Lista	Valores de carga
37	fuerza nodal	33	FX=5.791(kN) FZ=-51.062(kN) CY=2.988(kNm)
37	fuerza nodal	34	FX=2.425(kN) FZ=-23.695(kN) CY=0.914(kNm)
37	fuerza nodal	35	FX=4.855(kN) FZ=8.245(kN) CY=0.998(kNm)
37	fuerza nodal	36	FX=4.796(kN) FZ=8.361(kN) CY=0.048(kNm)
37	fuerza nodal	37	FX=4.734(kN) FZ=8.475(kN) CY=-0.819(kNm)
37	fuerza nodal	1	FX=884.406(kN) FZ=-160.270(kN) CY=-46.608(kNm)
37	fuerza nodal	2	FX=5.755(kN) FZ=9.175(kN) CY=-1.503(kNm)
37	fuerza nodal	3	FX=6.742(kN) FZ=12.036(kN) CY=-3.076(kNm)
37	fuerza nodal	4	FX=6.602(kN) FZ=12.333(kN) CY=-3.947(kNm)
37	fuerza nodal	5	FX=6.425(kN) FZ=12.550(kN) CY=-4.641(kNm)
37	fuerza nodal	6	FX=6.240(kN) FZ=12.760(kN) CY=-5.408(kNm)
37	fuerza nodal	7	FX=6.049(kN) FZ=12.963(kN) CY=-6.012(kNm)
37	fuerza nodal	8	FX=5.828(kN) FZ=13.079(kN) CY=-6.435(kNm)
37	fuerza nodal	9	FX=5.649(kN) FZ=13.344(kN) CY=-6.765(kNm)
37	fuerza nodal	10	FX=5.439(kN) FZ=13.522(kN) CY=-6.930(kNm)
37	fuerza nodal	11	FX=5.224(kN) FZ=13.690(kN) CY=-6.966(kNm)
37	fuerza nodal	12	FX=4.985(kN) FZ=13.768(kN) CY=-6.858(kNm)
37	fuerza nodal	13	FX=-4.711(kN) FZ=14.069(kN) CY=6.601(kNm)
37	fuerza nodal	14	FX=-4.551(kN) FZ=13.931(kN) CY=6.416(kNm)
37	fuerza nodal	15	FX=-4.752(kN) FZ=13.873(kN) CY=6.659(kNm)
37	fuerza nodal	16	FX=-4.891(kN) FZ=13.565(kN) CY=6.729(kNm)
37	fuerza nodal	17	FX=-5.105(kN) FZ=13.571(kN) CY=6.806(kNm)
37	fuerza nodal	18	FX=-5.275(kN) FZ=13.408(kN) CY=6.718(kNm)
37	fuerza nodal	19	FX=-5.417(kN) FZ=13.160(kN) CY=6.484(kNm)
37	fuerza nodal	57	FX=2.943(kN) FZ=9.194(kN) CY=-3.550(kNm)
37	fuerza nodal	58	FX=2.864(kN) FZ=9.246(kN) CY=-3.243(kNm)
37	fuerza nodal	59	FX=2.793(kN) FZ=9.377(kN) CY=-2.926(kNm)
37	fuerza nodal	60	FX=2.701(kN) FZ=9.343(kN) CY=-2.569(kNm)
37	fuerza nodal	61	FX=2.611(kN) FZ=9.306(kN) CY=-2.203(kNm)
37	fuerza nodal	62	FX=2.554(kN) FZ=9.594(kN) CY=-1.851(kNm)
37	fuerza nodal	63	FX=2.566(kN) FZ=9.402(kN) CY=-1.525(kNm)
37	fuerza nodal	64	FX=-4.713(kN) FZ=8.648(kN) CY=2.135(kNm)
37	fuerza nodal	65	FX=-4.744(kN) FZ=8.389(kN) CY=1.424(kNm)
37	fuerza nodal	66	FX=-4.912(kN) FZ=8.511(kN) CY=0.668(kNm)
37	fuerza nodal	67	FX=-4.878(kN) FZ=8.100(kN) CY=-0.193(kNm)
37	fuerza nodal	68	FX=-3.193(kN) FZ=-23.545(kN) CY=-0.605(kNm)
37	fuerza nodal	69	FX=-7.221(kN) FZ=-50.617(kN) CY=-2.241(kNm)
37	fuerza nodal	70	FX=-10.269(kN) FZ=-50.066(kN) CY=-4.160(kNm)
37	fuerza nodal	71	FX=-7.086(kN) FZ=-24.532(kN) CY=-3.094(kNm)
37	fuerza nodal	72	FX=-1.721(kN) CY=-0.751(kNm)
37	fuerza nodal	73	FX=-1.724(kN) CY=-0.753(kNm)
37	fuerza nodal	74	FX=-885.091(kN) CY=-419.002(kNm)
37	fuerza nodal	38	FX=4.694(kN) FZ=8.658(kN) CY=-1.612(kNm)
37	fuerza nodal	39	FX=4.577(kN) FZ=8.628(kN) CY=-2.293(kNm)
37	fuerza nodal	40	FX=4.556(kN) FZ=8.879(kN) CY=-2.945(kNm)
37	fuerza nodal	41	FX=4.460(kN) FZ=8.915(kN) CY=-3.473(kNm)
37	fuerza nodal	42	FX=4.408(kN) FZ=9.092(kN) CY=-3.961(kNm)
37	fuerza nodal	43	FX=4.286(kN) FZ=9.049(kN) CY=-4.311(kNm)
37	fuerza nodal	44	FX=4.251(kN) FZ=9.296(kN) CY=-4.678(kNm)
37	fuerza nodal	45	FX=4.148(kN) FZ=9.320(kN) CY=-4.905(kNm)
37	fuerza nodal	46	FX=4.064(kN) FZ=9.415(kN) CY=-5.089(kNm)
37	fuerza nodal	47	FX=3.979(kN) FZ=9.507(kN) CY=-5.208(kNm)

Caso	Tipo de carga	Lista	Valores de carga
37	fuerza nodal	48	FX=3.892(kN) FZ=9.597(kN) CY=-5.266(kNm)
37	fuerza nodal	49	FX=3.821(kN) FZ=9.761(kN) CY=-5.290(kNm)
37	fuerza nodal	50	FX=3.711(kN) FZ=9.768(kN) CY=-5.209(kNm)
37	fuerza nodal	51	FX=3.523(kN) FZ=9.378(kN) CY=-4.966(kNm)
37	fuerza nodal	52	FX=3.315(kN) FZ=8.820(kN) CY=-4.655(kNm)
37	fuerza nodal	53	FX=3.285(kN) FZ=9.120(kN) CY=-4.557(kNm)
37	fuerza nodal	54	FX=3.164(kN) FZ=8.944(kN) CY=-4.300(kNm)
37	fuerza nodal	55	FX=3.101(kN) FZ=9.083(kN) CY=-4.091(kNm)
37	fuerza nodal	56	FX=3.035(kN) FZ=9.220(kN) CY=-3.850(kNm)
38	fuerza nodal	859	FX=-4.526(kN) FZ=9.680(kN) CY=3.369(kNm)
38	fuerza nodal	858	FX=-4.433(kN) FZ=9.797(kN) CY=3.763(kNm)
38	fuerza nodal	857	FX=-4.358(kN) FZ=9.983(kN) CY=4.093(kNm)
38	fuerza nodal	856	FX=-4.219(kN) FZ=9.948(kN) CY=4.286(kNm)
38	fuerza nodal	855	FX=-4.157(kN) FZ=10.201(kN) CY=4.484(kNm)
38	fuerza nodal	854	FX=-4.034(kN) FZ=10.231(kN) CY=4.548(kNm)
38	fuerza nodal	853	FX=-3.946(kN) FZ=10.406(kN) CY=4.585(kNm)
38	fuerza nodal	852	FX=-3.803(kN) FZ=10.352(kN) CY=4.499(kNm)
38	fuerza nodal	851	FX=-3.726(kN) FZ=10.594(kN) CY=4.433(kNm)
38	fuerza nodal	850	FX=-3.583(kN) FZ=10.530(kN) CY=4.238(kNm)
38	fuerza nodal	860	FX=-4.615(kN) FZ=9.561(kN) CY=2.890(kNm)
38	fuerza nodal	861	FX=-4.702(kN) FZ=9.438(kN) CY=2.322(kNm)
38	fuerza nodal	862	FX=-4.810(kN) FZ=9.381(kN) CY=1.673(kNm)
38	fuerza nodal	863	FX=-4.866(kN) FZ=9.184(kN) CY=0.913(kNm)
38	fuerza nodal	864	FX=-4.943(kN) FZ=9.054(kN) CY=0.068(kNm)
38	fuerza nodal	865	FX=-5.017(kN) FZ=8.921(kN) CY=-0.874(kNm)
38	fuerza nodal	866	FX=-5.088(kN) FZ=8.787(kN) CY=-1.913(kNm)
38	fuerza nodal	867	FX=-5.155(kN) FZ=8.651(kN) CY=-3.050(kNm)
38	fuerza nodal	868	FX=-2.019(kN) FZ=-25.110(kN) CY=-1.584(kNm)
38	fuerza nodal	869	FX=-5.323(kN) FZ=-54.025(kN) CY=-5.012(kNm)
38	fuerza nodal	870	FX=-1.913(kN) FZ=-53.192(kN) CY=-2.023(kNm)
38	fuerza nodal	828	FX=850.378(kN) FZ=69.657(kN) CY=776.736(kNm)
38	fuerza nodal	829	FX=2.634(kN) FZ=-2.603(kN) CY=2.557(kNm)
38	fuerza nodal	830	FX=13.866(kN) FZ=-40.369(kN) CY=14.715(kNm)
38	fuerza nodal	831	FX=14.850(kN) FZ=-56.434(kN) CY=16.285(kNm)
38	fuerza nodal	832	FX=11.177(kN) FZ=-60.551(kN) CY=11.823(kNm)
38	fuerza nodal	833	FX=6.691(kN) FZ=-61.302(kN) CY=6.299(kNm)
38	fuerza nodal	834	FX=2.447(kN) FZ=-28.493(kN) CY=1.920(kNm)
38	fuerza nodal	835	FX=5.887(kN) FZ=9.799(kN) CY=3.483(kNm)
38	fuerza nodal	836	FX=5.779(kN) FZ=9.960(kN) CY=2.173(kNm)
38	fuerza nodal	837	FX=-4.111(kN) FZ=11.716(kN) CY=-0.716(kNm)
38	fuerza nodal	838	FX=-2.152(kN) FZ=11.320(kN) CY=0.030(kNm)
38	fuerza nodal	839	FX=-2.276(kN) FZ=11.285(kN) CY=0.427(kNm)
38	fuerza nodal	840	FX=-2.406(kN) FZ=11.325(kN) CY=0.837(kNm)
38	fuerza nodal	841	FX=-2.523(kN) FZ=11.202(kN) CY=1.246(kNm)
38	fuerza nodal	842	FX=-2.646(kN) FZ=11.153(kN) CY=1.657(kNm)
38	fuerza nodal	843	FX=-2.769(kN) FZ=11.101(kN) CY=2.061(kNm)
38	fuerza nodal	844	FX=-2.890(kN) FZ=11.043(kN) CY=2.453(kNm)
38	fuerza nodal	845	FX=-3.022(kN) FZ=11.059(kN) CY=2.839(kNm)
38	fuerza nodal	846	FX=-3.120(kN) FZ=10.837(kN) CY=3.169(kNm)
38	fuerza nodal	847	FX=-3.262(kN) FZ=10.922(kN) CY=3.519(kNm)
38	fuerza nodal	848	FX=-3.368(kN) FZ=10.769(kN) CY=3.796(kNm)
38	fuerza nodal	849	FX=-3.498(kN) FZ=10.766(kN) CY=4.065(kNm)

Caso	Tipo de carga	Lista	Valores de carga
38	fuerza nodal	893	FX=3.418(kN) FZ=10.004(kN) CY=-3.980(kNm)
38	fuerza nodal	894	FX=3.306(kN) FZ=9.996(kN) CY=-3.746(kNm)
38	fuerza nodal	895	FX=3.209(kN) FZ=10.064(kN) CY=-3.494(kNm)
38	fuerza nodal	896	FX=3.111(kN) FZ=10.128(kN) CY=-3.210(kNm)
38	fuerza nodal	897	FX=3.011(kN) FZ=10.189(kN) CY=-2.899(kNm)
38	fuerza nodal	898	FX=2.921(kN) FZ=10.328(kN) CY=-2.572(kNm)
38	fuerza nodal	899	FX=2.800(kN) FZ=10.221(kN) CY=-2.200(kNm)
38	fuerza nodal	900	FX=2.716(kN) FZ=10.433(kN) CY=-1.844(kNm)
38	fuerza nodal	901	FX=2.605(kN) FZ=10.400(kN) CY=-1.456(kNm)
38	fuerza nodal	902	FX=2.509(kN) FZ=10.526(kN) CY=-1.070(kNm)
38	fuerza nodal	903	FX=2.393(kN) FZ=10.404(kN) CY=-0.672(kNm)
38	fuerza nodal	904	FX=-0.569(kN) FZ=10.179(kN) CY=0.070(kNm)
38	fuerza nodal	905	FX=-5.249(kN) FZ=9.341(kN) CY=-0.247(kNm)
38	fuerza nodal	906	FX=-5.347(kN) FZ=9.209(kN) CY=-1.230(kNm)
38	fuerza nodal	907	FX=-5.442(kN) FZ=9.075(kN) CY=-2.316(kNm)
38	fuerza nodal	908	FX=-2.908(kN) FZ=-26.160(kN) CY=-1.736(kNm)
38	fuerza nodal	909	FX=-7.138(kN) FZ=-56.351(kN) CY=-5.253(kNm)
38	fuerza nodal	910	FX=-10.857(kN) FZ=-55.435(kN) CY=-9.135(kNm)
38	fuerza nodal	911	FX=-7.672(kN) FZ=-27.297(kN) CY=-6.725(kNm)
38	fuerza nodal	912	FX=-1.721(kN) CY=-1.508(kNm)
38	fuerza nodal	913	FX=-1.724(kN) CY=-1.511(kNm)
38	fuerza nodal	914	FX=-880.705(kN) CY=-804.436(kNm)
38	fuerza nodal	871	FX=12.597(kN) FZ=-53.492(kN) CY=13.814(kNm)
38	fuerza nodal	872	FX=9.079(kN) FZ=-54.756(kN) CY=9.603(kNm)
38	fuerza nodal	873	FX=5.457(kN) FZ=-55.379(kN) CY=5.138(kNm)
38	fuerza nodal	874	FX=2.069(kN) FZ=-25.740(kN) CY=1.623(kNm)
38	fuerza nodal	875	FX=5.284(kN) FZ=8.867(kN) CY=3.126(kNm)
38	fuerza nodal	876	FX=5.215(kN) FZ=9.007(kN) CY=1.961(kNm)
38	fuerza nodal	877	FX=5.143(kN) FZ=9.145(kN) CY=0.896(kNm)
38	fuerza nodal	878	FX=5.067(kN) FZ=9.281(kN) CY=-0.069(kNm)
38	fuerza nodal	879	FX=4.988(kN) FZ=9.414(kN) CY=-0.936(kNm)
38	fuerza nodal	880	FX=4.931(kN) FZ=9.616(kN) CY=-1.715(kNm)
38	fuerza nodal	881	FX=4.820(kN) FZ=9.675(kN) CY=-2.381(kNm)
38	fuerza nodal	882	FX=4.731(kN) FZ=9.800(kN) CY=-2.962(kNm)
38	fuerza nodal	883	FX=4.639(kN) FZ=9.923(kN) CY=-3.453(kNm)
38	fuerza nodal	884	FX=4.544(kN) FZ=10.043(kN) CY=-3.857(kNm)
38	fuerza nodal	885	FX=4.467(kN) FZ=10.233(kN) CY=-4.196(kNm)
38	fuerza nodal	886	FX=4.325(kN) FZ=10.198(kN) CY=-4.393(kNm)
38	fuerza nodal	887	FX=4.262(kN) FZ=10.457(kN) CY=-4.596(kNm)
38	fuerza nodal	888	FX=4.136(kN) FZ=10.488(kN) CY=-4.662(kNm)
38	fuerza nodal	889	FX=4.045(kN) FZ=10.667(kN) CY=-4.700(kNm)
38	fuerza nodal	890	FX=3.899(kN) FZ=10.611(kN) CY=-4.612(kNm)
38	fuerza nodal	891	FX=3.708(kN) FZ=10.315(kN) CY=-4.412(kNm)
38	fuerza nodal	892	FX=3.498(kN) FZ=9.851(kN) CY=-4.140(kNm)
38	fuerza nodal	50	FX=-3.583(kN) FZ=10.530(kN) CY=4.238(kNm)
38	fuerza nodal	51	FX=-3.726(kN) FZ=10.594(kN) CY=4.433(kNm)
38	fuerza nodal	52	FX=-3.803(kN) FZ=10.352(kN) CY=4.499(kNm)
38	fuerza nodal	53	FX=-3.946(kN) FZ=10.406(kN) CY=4.585(kNm)
38	fuerza nodal	54	FX=-4.034(kN) FZ=10.231(kN) CY=4.548(kNm)
38	fuerza nodal	55	FX=-4.157(kN) FZ=10.201(kN) CY=4.484(kNm)
38	fuerza nodal	56	FX=-4.219(kN) FZ=9.948(kN) CY=4.286(kNm)
38	fuerza nodal	57	FX=-4.358(kN) FZ=9.983(kN) CY=4.093(kNm)

Caso	Tipo de carga	Lista	Valores de carga
38	fuerza nodal	58	FX=-4.433(kN) FZ=9.797(kN) CY=3.763(kNm)
38	fuerza nodal	59	FX=-4.526(kN) FZ=9.680(kN) CY=3.369(kNm)
38	fuerza nodal	60	FX=-4.615(kN) FZ=9.561(kN) CY=2.890(kNm)
38	fuerza nodal	61	FX=-4.702(kN) FZ=9.438(kN) CY=2.322(kNm)
38	fuerza nodal	62	FX=-4.810(kN) FZ=9.381(kN) CY=1.673(kNm)
38	fuerza nodal	63	FX=-4.866(kN) FZ=9.184(kN) CY=0.913(kNm)
38	fuerza nodal	64	FX=-4.943(kN) FZ=9.054(kN) CY=0.068(kNm)
38	fuerza nodal	65	FX=-5.017(kN) FZ=8.921(kN) CY=-0.874(kNm)
38	fuerza nodal	66	FX=-5.088(kN) FZ=8.787(kN) CY=-1.913(kNm)
38	fuerza nodal	67	FX=-5.155(kN) FZ=8.651(kN) CY=-3.050(kNm)
38	fuerza nodal	68	FX=-2.019(kN) FZ=-25.110(kN) CY=-1.584(kNm)
38	fuerza nodal	69	FX=-5.323(kN) FZ=-54.025(kN) CY=-5.012(kNm)
38	fuerza nodal	70	FX=-1.913(kN) FZ=-53.192(kN) CY=-2.023(kNm)
38	fuerza nodal	28	FX=850.379(kN) FZ=69.657(kN) CY=776.736(kNm)
38	fuerza nodal	29	FX=2.634(kN) FZ=-2.603(kN) CY=2.557(kNm)
38	fuerza nodal	30	FX=13.866(kN) FZ=-40.369(kN) CY=14.715(kNm)
38	fuerza nodal	31	FX=14.850(kN) FZ=-56.434(kN) CY=16.285(kNm)
38	fuerza nodal	32	FX=11.177(kN) FZ=-60.551(kN) CY=11.823(kNm)
38	fuerza nodal	33	FX=6.691(kN) FZ=-61.302(kN) CY=6.299(kNm)
38	fuerza nodal	34	FX=2.447(kN) FZ=-28.493(kN) CY=1.920(kNm)
38	fuerza nodal	35	FX=5.887(kN) FZ=9.799(kN) CY=3.483(kNm)
38	fuerza nodal	36	FX=5.779(kN) FZ=9.960(kN) CY=2.173(kNm)
38	fuerza nodal	37	FX=-4.111(kN) FZ=11.716(kN) CY=-0.716(kNm)
38	fuerza nodal	38	FX=-2.152(kN) FZ=11.320(kN) CY=0.030(kNm)
38	fuerza nodal	39	FX=-2.276(kN) FZ=11.285(kN) CY=0.427(kNm)
38	fuerza nodal	40	FX=-2.406(kN) FZ=11.325(kN) CY=0.837(kNm)
38	fuerza nodal	41	FX=-2.523(kN) FZ=11.202(kN) CY=1.246(kNm)
38	fuerza nodal	42	FX=-2.646(kN) FZ=11.153(kN) CY=1.657(kNm)
38	fuerza nodal	43	FX=-2.769(kN) FZ=11.101(kN) CY=2.061(kNm)
38	fuerza nodal	44	FX=-2.890(kN) FZ=11.043(kN) CY=2.453(kNm)
38	fuerza nodal	45	FX=-3.022(kN) FZ=11.059(kN) CY=2.839(kNm)
38	fuerza nodal	46	FX=-3.120(kN) FZ=10.837(kN) CY=3.169(kNm)
38	fuerza nodal	47	FX=-3.262(kN) FZ=10.922(kN) CY=3.519(kNm)
38	fuerza nodal	48	FX=-3.368(kN) FZ=10.769(kN) CY=3.796(kNm)
38	fuerza nodal	49	FX=-3.498(kN) FZ=10.766(kN) CY=4.065(kNm)
38	fuerza nodal	93	FX=3.418(kN) FZ=10.004(kN) CY=-3.980(kNm)
38	fuerza nodal	94	FX=3.306(kN) FZ=9.996(kN) CY=-3.746(kNm)
38	fuerza nodal	95	FX=3.209(kN) FZ=10.064(kN) CY=-3.494(kNm)
38	fuerza nodal	96	FX=3.111(kN) FZ=10.128(kN) CY=-3.210(kNm)
38	fuerza nodal	97	FX=3.011(kN) FZ=10.189(kN) CY=-2.899(kNm)
38	fuerza nodal	98	FX=2.921(kN) FZ=10.328(kN) CY=-2.572(kNm)
38	fuerza nodal	99	FX=2.800(kN) FZ=10.221(kN) CY=-2.200(kNm)
38	fuerza nodal	100	FX=2.716(kN) FZ=10.433(kN) CY=-1.844(kNm)
38	fuerza nodal	101	FX=2.605(kN) FZ=10.400(kN) CY=-1.456(kNm)
38	fuerza nodal	102	FX=2.509(kN) FZ=10.526(kN) CY=-1.070(kNm)
38	fuerza nodal	103	FX=2.393(kN) FZ=10.404(kN) CY=-0.672(kNm)
38	fuerza nodal	104	FX=-0.569(kN) FZ=10.179(kN) CY=0.070(kNm)
38	fuerza nodal	105	FX=-5.249(kN) FZ=9.341(kN) CY=-0.247(kNm)
38	fuerza nodal	106	FX=-5.347(kN) FZ=9.209(kN) CY=-1.230(kNm)
38	fuerza nodal	107	FX=-5.442(kN) FZ=9.075(kN) CY=-2.316(kNm)
38	fuerza nodal	108	FX=-2.908(kN) FZ=-26.160(kN) CY=-1.736(kNm)
38	fuerza nodal	109	FX=-7.138(kN) FZ=-56.351(kN) CY=-5.253(kNm)

Caso	Tipo de carga	Lista	Valores de carga
38	fuerza nodal	110	FX=-10.857(kN) FZ=-55.435(kN) CY=-9.135(kNm)
38	fuerza nodal	111	FX=-7.672(kN) FZ=-27.297(kN) CY=-6.725(kNm)
38	fuerza nodal	112	FX=-1.721(kN) CY=-1.508(kNm)
38	fuerza nodal	113	FX=-1.724(kN) CY=-1.511(kNm)
38	fuerza nodal	114	FX=-880.705(kN) CY=-804.436(kNm)
38	fuerza nodal	71	FX=12.597(kN) FZ=-53.492(kN) CY=13.814(kNm)
38	fuerza nodal	72	FX=9.079(kN) FZ=-54.766(kN) CY=9.603(kNm)
38	fuerza nodal	73	FX=5.457(kN) FZ=-55.379(kN) CY=5.138(kNm)
38	fuerza nodal	74	FX=2.069(kN) FZ=-25.740(kN) CY=1.623(kNm)
38	fuerza nodal	75	FX=5.284(kN) FZ=8.867(kN) CY=3.126(kNm)
38	fuerza nodal	76	FX=5.215(kN) FZ=9.007(kN) CY=1.961(kNm)
38	fuerza nodal	77	FX=5.143(kN) FZ=9.145(kN) CY=0.896(kNm)
38	fuerza nodal	78	FX=5.067(kN) FZ=9.281(kN) CY=-0.069(kNm)
38	fuerza nodal	79	FX=4.988(kN) FZ=9.414(kN) CY=-0.936(kNm)
38	fuerza nodal	80	FX=4.931(kN) FZ=9.616(kN) CY=-1.715(kNm)
38	fuerza nodal	81	FX=4.820(kN) FZ=9.675(kN) CY=-2.381(kNm)
38	fuerza nodal	92	FX=3.498(kN) FZ=9.851(kN) CY=-4.140(kNm)
38	fuerza nodal	91	FX=3.708(kN) FZ=10.315(kN) CY=-4.412(kNm)
38	fuerza nodal	90	FX=3.899(kN) FZ=10.611(kN) CY=-4.612(kNm)
38	fuerza nodal	89	FX=4.045(kN) FZ=10.667(kN) CY=-4.700(kNm)
38	fuerza nodal	88	FX=4.136(kN) FZ=10.488(kN) CY=-4.662(kNm)
38	fuerza nodal	87	FX=4.262(kN) FZ=10.457(kN) CY=-4.596(kNm)
38	fuerza nodal	86	FX=4.325(kN) FZ=10.198(kN) CY=-4.393(kNm)
38	fuerza nodal	85	FX=4.467(kN) FZ=10.233(kN) CY=-4.196(kNm)
38	fuerza nodal	84	FX=4.544(kN) FZ=10.043(kN) CY=-3.857(kNm)
38	fuerza nodal	83	FX=4.639(kN) FZ=9.923(kN) CY=-3.453(kNm)
38	fuerza nodal	82	FX=4.731(kN) FZ=9.800(kN) CY=-2.962(kNm)
39	fuerza nodal	850	FX=-3.438(kN) FZ=9.683(kN) CY=4.826(kNm)
39	fuerza nodal	851	FX=-3.530(kN) FZ=9.607(kN) CY=4.977(kNm)
39	fuerza nodal	852	FX=-3.620(kN) FZ=9.528(kN) CY=5.081(kNm)
39	fuerza nodal	853	FX=-3.727(kN) FZ=9.522(kN) CY=5.160(kNm)
39	fuerza nodal	854	FX=-3.796(kN) FZ=9.361(kN) CY=5.137(kNm)
39	fuerza nodal	855	FX=-3.882(kN) FZ=9.274(kN) CY=5.080(kNm)
39	fuerza nodal	856	FX=-3.965(kN) FZ=9.184(kN) CY=4.964(kNm)
39	fuerza nodal	857	FX=-4.046(kN) FZ=9.091(kN) CY=4.785(kNm)
39	fuerza nodal	858	FX=-4.146(kN) FZ=9.068(kN) CY=4.564(kNm)
39	fuerza nodal	859	FX=-4.181(kN) FZ=8.827(kN) CY=4.205(kNm)
39	fuerza nodal	860	FX=-4.300(kN) FZ=8.869(kN) CY=3.864(kNm)
39	fuerza nodal	861	FX=-4.350(kN) FZ=8.696(kN) CY=3.388(kNm)
39	fuerza nodal	862	FX=-4.444(kN) FZ=8.661(kN) CY=2.872(kNm)
39	fuerza nodal	863	FX=-4.465(kN) FZ=8.416(kN) CY=2.237(kNm)
39	fuerza nodal	864	FX=-4.579(kN) FZ=8.445(kN) CY=1.572(kNm)
39	fuerza nodal	865	FX=-4.618(kN) FZ=8.267(kN) CY=0.799(kNm)
39	fuerza nodal	866	FX=-4.678(kN) FZ=8.155(kN) CY=-0.047(kNm)
39	fuerza nodal	867	FX=-4.736(kN) FZ=8.042(kN) CY=-0.974(kNm)
39	fuerza nodal	868	FX=-2.365(kN) FZ=-23.114(kN) CY=-0.892(kNm)
39	fuerza nodal	869	FX=-5.649(kN) FZ=-49.809(kN) CY=-2.915(kNm)
39	fuerza nodal	870	FX=-0.417(kN) FZ=-48.819(kN) CY=-0.259(kNm)
39	fuerza nodal	828	FX=853.648(kN) FZ=69.925(kN) CY=404.117(kNm)
39	fuerza nodal	829	FX=2.635(kN) FZ=-2.614(kN) CY=1.399(kNm)
39	fuerza nodal	830	FX=13.875(kN) FZ=-40.526(kN) CY=8.619(kNm)
39	fuerza nodal	831	FX=14.302(kN) FZ=-53.858(kN) CY=9.390(kNm)

Caso	Tipo de carga	Lista	Valores de carga
39	fuerza nodal	832	FX=10.643(kN) FZ=-54.966(kN) CY=6.614(kNm)
39	fuerza nodal	833	FX=6.959(kN) FZ=-55.860(kN) CY=3.591(kNm)
39	fuerza nodal	834	FX=2.823(kN) FZ=-25.926(kN) CY=1.064(kNm)
39	fuerza nodal	835	FX=5.364(kN) FZ=9.002(kN) CY=1.103(kNm)
39	fuerza nodal	836	FX=5.269(kN) FZ=9.135(kN) CY=0.053(kNm)
39	fuerza nodal	837	FX=0.250(kN) FZ=9.994(kN) CY=-0.043(kNm)
39	fuerza nodal	838	FX=-2.262(kN) FZ=10.423(kN) CY=0.777(kNm)
39	fuerza nodal	839	FX=-2.352(kN) FZ=10.226(kN) CY=1.179(kNm)
39	fuerza nodal	840	FX=-2.466(kN) FZ=10.346(kN) CY=1.594(kNm)
39	fuerza nodal	841	FX=-2.561(kN) FZ=10.223(kN) CY=1.994(kNm)
39	fuerza nodal	842	FX=-2.670(kN) FZ=10.256(kN) CY=2.400(kNm)
39	fuerza nodal	843	FX=-2.752(kN) FZ=10.047(kN) CY=2.768(kNm)
39	fuerza nodal	844	FX=-2.871(kN) FZ=10.152(kN) CY=3.160(kNm)
39	fuerza nodal	845	FX=-2.960(kN) FZ=10.016(kN) CY=3.500(kNm)
39	fuerza nodal	846	FX=-3.058(kN) FZ=9.956(kN) CY=3.828(kNm)
39	fuerza nodal	847	FX=-3.154(kN) FZ=9.892(kN) CY=4.128(kNm)
39	fuerza nodal	848	FX=-3.250(kN) FZ=9.826(kN) CY=4.397(kNm)
39	fuerza nodal	849	FX=-3.359(kN) FZ=9.833(kN) CY=4.651(kNm)
39	fuerza nodal	893	FX=3.285(kN) FZ=9.120(kN) CY=-4.557(kNm)
39	fuerza nodal	894	FX=3.164(kN) FZ=8.944(kN) CY=-4.300(kNm)
39	fuerza nodal	895	FX=3.101(kN) FZ=9.083(kN) CY=-4.091(kNm)
39	fuerza nodal	896	FX=3.035(kN) FZ=9.220(kN) CY=-3.850(kNm)
39	fuerza nodal	897	FX=2.943(kN) FZ=9.194(kN) CY=-3.550(kNm)
39	fuerza nodal	898	FX=2.864(kN) FZ=9.246(kN) CY=-3.243(kNm)
39	fuerza nodal	899	FX=2.793(kN) FZ=9.377(kN) CY=-2.926(kNm)
39	fuerza nodal	900	FX=2.701(kN) FZ=9.343(kN) CY=-2.569(kNm)
39	fuerza nodal	901	FX=2.611(kN) FZ=9.306(kN) CY=-2.203(kNm)
39	fuerza nodal	902	FX=2.554(kN) FZ=9.594(kN) CY=-1.851(kNm)
39	fuerza nodal	903	FX=2.566(kN) FZ=9.402(kN) CY=-1.525(kNm)
39	fuerza nodal	904	FX=-4.713(kN) FZ=8.648(kN) CY=2.135(kNm)
39	fuerza nodal	905	FX=-4.744(kN) FZ=8.389(kN) CY=1.424(kNm)
39	fuerza nodal	906	FX=-4.912(kN) FZ=8.511(kN) CY=0.668(kNm)
39	fuerza nodal	907	FX=-4.878(kN) FZ=8.100(kN) CY=-0.193(kNm)
39	fuerza nodal	908	FX=-3.193(kN) FZ=-23.545(kN) CY=-0.605(kNm)
39	fuerza nodal	909	FX=-7.221(kN) FZ=-50.617(kN) CY=-2.241(kNm)
39	fuerza nodal	910	FX=-10.269(kN) FZ=-50.066(kN) CY=-4.160(kNm)
39	fuerza nodal	911	FX=-7.086(kN) FZ=-24.532(kN) CY=-3.094(kNm)
39	fuerza nodal	912	FX=-1.721(kN) CY=-0.751(kNm)
39	fuerza nodal	913	FX=-1.724(kN) CY=-0.753(kNm)
39	fuerza nodal	914	FX=-885.091(kN) CY=-419.002(kNm)
39	fuerza nodal	871	FX=11.734(kN) FZ=-49.279(kN) CY=7.705(kNm)
39	fuerza nodal	872	FX=8.793(kN) FZ=-50.303(kN) CY=5.464(kNm)
39	fuerza nodal	873	FX=5.791(kN) FZ=-51.062(kN) CY=2.988(kNm)
39	fuerza nodal	874	FX=2.425(kN) FZ=-23.695(kN) CY=0.914(kNm)
39	fuerza nodal	875	FX=4.855(kN) FZ=8.245(kN) CY=0.998(kNm)
39	fuerza nodal	876	FX=4.796(kN) FZ=8.361(kN) CY=0.048(kNm)
39	fuerza nodal	877	FX=4.734(kN) FZ=8.475(kN) CY=-0.819(kNm)
39	fuerza nodal	878	FX=4.694(kN) FZ=8.658(kN) CY=-1.612(kNm)
39	fuerza nodal	879	FX=4.577(kN) FZ=8.628(kN) CY=-2.293(kNm)
39	fuerza nodal	880	FX=4.556(kN) FZ=8.879(kN) CY=-2.945(kNm)
39	fuerza nodal	881	FX=4.460(kN) FZ=8.915(kN) CY=-3.473(kNm)
39	fuerza nodal	882	FX=4.408(kN) FZ=9.092(kN) CY=-3.961(kNm)

Caso	Tipo de carga	Lista	Valores de carga
39	fuerza nodal	883	FX=4.286(kN) FZ=9.049(kN) CY=-4.311(kNm)
39	fuerza nodal	884	FX=4.251(kN) FZ=9.296(kN) CY=-4.678(kNm)
39	fuerza nodal	885	FX=4.146(kN) FZ=9.320(kN) CY=-4.905(kNm)
39	fuerza nodal	886	FX=4.064(kN) FZ=9.415(kN) CY=-5.089(kNm)
39	fuerza nodal	887	FX=3.979(kN) FZ=9.507(kN) CY=-5.208(kNm)
39	fuerza nodal	888	FX=3.892(kN) FZ=9.597(kN) CY=-5.266(kNm)
39	fuerza nodal	889	FX=3.821(kN) FZ=9.761(kN) CY=-5.290(kNm)
39	fuerza nodal	890	FX=3.711(kN) FZ=9.768(kN) CY=-5.209(kNm)
39	fuerza nodal	891	FX=3.523(kN) FZ=9.378(kN) CY=-4.966(kNm)
39	fuerza nodal	892	FX=3.315(kN) FZ=8.820(kN) CY=-4.655(kNm)
39	fuerza nodal	50	FX=-3.438(kN) FZ=9.683(kN) CY=4.826(kNm)
39	fuerza nodal	51	FX=-3.530(kN) FZ=9.607(kN) CY=4.977(kNm)
39	fuerza nodal	52	FX=-3.620(kN) FZ=9.528(kN) CY=5.081(kNm)
39	fuerza nodal	53	FX=-3.727(kN) FZ=9.522(kN) CY=5.160(kNm)
39	fuerza nodal	54	FX=-3.796(kN) FZ=9.361(kN) CY=5.137(kNm)
39	fuerza nodal	55	FX=-3.882(kN) FZ=9.274(kN) CY=5.080(kNm)
39	fuerza nodal	56	FX=-3.965(kN) FZ=9.184(kN) CY=4.964(kNm)
39	fuerza nodal	57	FX=-4.046(kN) FZ=9.091(kN) CY=4.785(kNm)
39	fuerza nodal	58	FX=-4.146(kN) FZ=9.068(kN) CY=4.564(kNm)
39	fuerza nodal	59	FX=-4.181(kN) FZ=8.827(kN) CY=4.205(kNm)
39	fuerza nodal	60	FX=-4.300(kN) FZ=8.869(kN) CY=3.864(kNm)
39	fuerza nodal	61	FX=-4.350(kN) FZ=8.696(kN) CY=3.388(kNm)
39	fuerza nodal	62	FX=-4.444(kN) FZ=8.661(kN) CY=2.872(kNm)
39	fuerza nodal	63	FX=-4.465(kN) FZ=8.416(kN) CY=2.237(kNm)
39	fuerza nodal	64	FX=-4.579(kN) FZ=8.445(kN) CY=1.572(kNm)
39	fuerza nodal	65	FX=-4.618(kN) FZ=8.267(kN) CY=0.799(kNm)
39	fuerza nodal	66	FX=-4.678(kN) FZ=8.155(kN) CY=-0.047(kNm)
39	fuerza nodal	67	FX=-4.736(kN) FZ=8.042(kN) CY=-0.974(kNm)
39	fuerza nodal	68	FX=-2.365(kN) FZ=-23.114(kN) CY=-0.892(kNm)
39	fuerza nodal	69	FX=-5.649(kN) FZ=-49.809(kN) CY=-2.915(kNm)
39	fuerza nodal	70	FX=-0.417(kN) FZ=-48.819(kN) CY=-0.259(kNm)
39	fuerza nodal	28	FX=853.648(kN) FZ=69.925(kN) CY=404.117(kNm)
39	fuerza nodal	29	FX=2.635(kN) FZ=-2.614(kN) CY=1.399(kNm)
39	fuerza nodal	30	FX=13.875(kN) FZ=-40.526(kN) CY=8.619(kNm)
39	fuerza nodal	31	FX=14.302(kN) FZ=-53.858(kN) CY=9.390(kNm)
39	fuerza nodal	32	FX=10.643(kN) FZ=-54.966(kN) CY=6.614(kNm)
39	fuerza nodal	33	FX=6.959(kN) FZ=-55.860(kN) CY=3.591(kNm)
39	fuerza nodal	34	FX=2.823(kN) FZ=-25.926(kN) CY=1.064(kNm)
39	fuerza nodal	35	FX=5.364(kN) FZ=9.002(kN) CY=1.103(kNm)
39	fuerza nodal	36	FX=5.269(kN) FZ=9.135(kN) CY=0.053(kNm)
39	fuerza nodal	37	FX=0.250(kN) FZ=9.994(kN) CY=-0.043(kNm)
39	fuerza nodal	38	FX=-2.262(kN) FZ=10.423(kN) CY=0.777(kNm)
39	fuerza nodal	39	FX=-2.352(kN) FZ=10.226(kN) CY=1.179(kNm)
39	fuerza nodal	40	FX=-2.466(kN) FZ=10.346(kN) CY=1.594(kNm)
39	fuerza nodal	41	FX=-2.561(kN) FZ=10.223(kN) CY=1.994(kNm)
39	fuerza nodal	42	FX=-2.670(kN) FZ=10.256(kN) CY=2.400(kNm)
39	fuerza nodal	43	FX=-2.752(kN) FZ=10.047(kN) CY=2.768(kNm)
39	fuerza nodal	44	FX=-2.871(kN) FZ=10.152(kN) CY=3.160(kNm)
39	fuerza nodal	45	FX=-2.960(kN) FZ=10.016(kN) CY=3.500(kNm)
39	fuerza nodal	46	FX=-3.058(kN) FZ=9.956(kN) CY=3.828(kNm)
39	fuerza nodal	47	FX=-3.154(kN) FZ=9.892(kN) CY=4.128(kNm)
39	fuerza nodal	48	FX=-3.250(kN) FZ=9.826(kN) CY=4.397(kNm)

Caso	Tipo de carga	Lista	Valores de carga
39	fuerza nodal	49	FX=-3.359(kN) FZ=9.833(kN) CY=4.651(kNm)
39	fuerza nodal	93	FX=3.285(kN) FZ=9.120(kN) CY=-4.557(kNm)
39	fuerza nodal	94	FX=3.164(kN) FZ=8.944(kN) CY=-4.300(kNm)
39	fuerza nodal	95	FX=3.101(kN) FZ=9.083(kN) CY=-4.091(kNm)
39	fuerza nodal	96	FX=3.035(kN) FZ=9.220(kN) CY=-3.850(kNm)
39	fuerza nodal	97	FX=2.943(kN) FZ=9.194(kN) CY=-3.550(kNm)
39	fuerza nodal	98	FX=2.864(kN) FZ=9.246(kN) CY=-3.243(kNm)
39	fuerza nodal	99	FX=2.793(kN) FZ=9.377(kN) CY=-2.926(kNm)
39	fuerza nodal	100	FX=2.701(kN) FZ=9.343(kN) CY=-2.569(kNm)
39	fuerza nodal	101	FX=2.611(kN) FZ=9.306(kN) CY=-2.203(kNm)
39	fuerza nodal	102	FX=2.554(kN) FZ=9.594(kN) CY=-1.851(kNm)
39	fuerza nodal	103	FX=2.566(kN) FZ=9.402(kN) CY=-1.525(kNm)
39	fuerza nodal	104	FX=-4.713(kN) FZ=8.648(kN) CY=2.135(kNm)
39	fuerza nodal	105	FX=-4.744(kN) FZ=8.389(kN) CY=1.424(kNm)
39	fuerza nodal	106	FX=-4.912(kN) FZ=8.511(kN) CY=0.668(kNm)
39	fuerza nodal	107	FX=-4.878(kN) FZ=8.100(kN) CY=-0.193(kNm)
39	fuerza nodal	108	FX=-3.193(kN) FZ=-23.545(kN) CY=-0.605(kNm)
39	fuerza nodal	109	FX=-7.221(kN) FZ=-50.617(kN) CY=-2.241(kNm)
39	fuerza nodal	110	FX=-10.269(kN) FZ=-50.066(kN) CY=-4.160(kNm)
39	fuerza nodal	111	FX=-7.086(kN) FZ=-24.532(kN) CY=-3.094(kNm)
39	fuerza nodal	112	FX=-1.721(kN) CY=-0.751(kNm)
39	fuerza nodal	113	FX=-1.724(kN) CY=-0.753(kNm)
39	fuerza nodal	114	FX=-885.091(kN) CY=-419.002(kNm)
39	fuerza nodal	71	FX=11.734(kN) FZ=-49.279(kN) CY=7.705(kNm)
39	fuerza nodal	72	FX=8.793(kN) FZ=-50.303(kN) CY=5.464(kNm)
39	fuerza nodal	73	FX=5.791(kN) FZ=-51.062(kN) CY=2.988(kNm)
39	fuerza nodal	74	FX=2.425(kN) FZ=-23.695(kN) CY=0.914(kNm)
39	fuerza nodal	75	FX=4.855(kN) FZ=8.245(kN) CY=0.998(kNm)
39	fuerza nodal	76	FX=4.796(kN) FZ=8.361(kN) CY=0.048(kNm)
39	fuerza nodal	77	FX=4.734(kN) FZ=8.475(kN) CY=-0.819(kNm)
39	fuerza nodal	78	FX=4.694(kN) FZ=8.658(kN) CY=-1.612(kNm)
39	fuerza nodal	79	FX=4.577(kN) FZ=8.628(kN) CY=-2.293(kNm)
39	fuerza nodal	80	FX=4.556(kN) FZ=8.879(kN) CY=-2.945(kNm)
39	fuerza nodal	81	FX=4.460(kN) FZ=8.915(kN) CY=-3.473(kNm)
39	fuerza nodal	92	FX=3.315(kN) FZ=8.820(kN) CY=-4.655(kNm)
39	fuerza nodal	91	FX=3.523(kN) FZ=9.378(kN) CY=-4.966(kNm)
39	fuerza nodal	90	FX=3.711(kN) FZ=9.768(kN) CY=-5.209(kNm)
39	fuerza nodal	89	FX=3.821(kN) FZ=9.761(kN) CY=-5.290(kNm)
39	fuerza nodal	88	FX=3.892(kN) FZ=9.597(kN) CY=-5.266(kNm)
39	fuerza nodal	87	FX=3.979(kN) FZ=9.507(kN) CY=-5.208(kNm)
39	fuerza nodal	86	FX=4.064(kN) FZ=9.415(kN) CY=-5.089(kNm)
39	fuerza nodal	85	FX=4.148(kN) FZ=9.320(kN) CY=-4.905(kNm)
39	fuerza nodal	84	FX=4.251(kN) FZ=9.296(kN) CY=-4.678(kNm)
39	fuerza nodal	83	FX=4.286(kN) FZ=9.049(kN) CY=-4.311(kNm)
39	fuerza nodal	82	FX=4.408(kN) FZ=9.092(kN) CY=-3.961(kNm)
40	fuerza nodal	889	FX=-3.498(kN) FZ=10.766(kN) CY=4.065(kNm)
40	fuerza nodal	890	FX=-3.583(kN) FZ=10.530(kN) CY=4.238(kNm)
40	fuerza nodal	891	FX=-3.726(kN) FZ=10.594(kN) CY=4.433(kNm)
40	fuerza nodal	892	FX=-3.803(kN) FZ=10.352(kN) CY=4.499(kNm)
40	fuerza nodal	893	FX=-3.946(kN) FZ=10.406(kN) CY=4.585(kNm)
40	fuerza nodal	894	FX=-4.034(kN) FZ=10.231(kN) CY=4.548(kNm)
40	fuerza nodal	895	FX=-4.157(kN) FZ=10.201(kN) CY=4.484(kNm)

Caso	Tipo de carga	Lista	Valores de carga
40	fuerza nodal	896	FX=-4.219(kN) FZ=9.948(kN) CY=4.286(kNm)
40	fuerza nodal	897	FX=-4.358(kN) FZ=9.983(kN) CY=4.093(kNm)
40	fuerza nodal	898	FX=-4.433(kN) FZ=9.797(kN) CY=3.763(kNm)
40	fuerza nodal	899	FX=-4.526(kN) FZ=9.680(kN) CY=3.369(kNm)
40	fuerza nodal	900	FX=-4.615(kN) FZ=9.561(kN) CY=2.890(kNm)
40	fuerza nodal	901	FX=-4.702(kN) FZ=9.438(kN) CY=2.322(kNm)
40	fuerza nodal	902	FX=-4.810(kN) FZ=9.381(kN) CY=1.673(kNm)
40	fuerza nodal	903	FX=-4.866(kN) FZ=9.184(kN) CY=0.913(kNm)
40	fuerza nodal	904	FX=-4.943(kN) FZ=9.054(kN) CY=0.068(kNm)
40	fuerza nodal	905	FX=-5.017(kN) FZ=8.921(kN) CY=-0.874(kNm)
40	fuerza nodal	906	FX=-5.088(kN) FZ=8.787(kN) CY=-1.913(kNm)
40	fuerza nodal	907	FX=-5.155(kN) FZ=8.651(kN) CY=-3.050(kNm)
40	fuerza nodal	908	FX=-2.019(kN) FZ=-25.110(kN) CY=-1.584(kNm)
40	fuerza nodal	909	FX=-5.323(kN) FZ=-54.025(kN) CY=-5.012(kNm)
40	fuerza nodal	868	FX=850.379(kN) FZ=69.657(kN) CY=776.736(kNm)
40	fuerza nodal	869	FX=2.634(kN) FZ=-2.603(kN) CY=2.557(kNm)
40	fuerza nodal	870	FX=13.866(kN) FZ=-40.369(kN) CY=14.715(kNm)
40	fuerza nodal	871	FX=14.850(kN) FZ=-56.434(kN) CY=16.285(kNm)
40	fuerza nodal	872	FX=11.177(kN) FZ=-60.551(kN) CY=11.823(kNm)
40	fuerza nodal	873	FX=6.691(kN) FZ=-61.302(kN) CY=6.299(kNm)
40	fuerza nodal	874	FX=2.447(kN) FZ=-28.493(kN) CY=1.920(kNm)
40	fuerza nodal	875	FX=5.887(kN) FZ=9.799(kN) CY=3.483(kNm)
40	fuerza nodal	876	FX=5.779(kN) FZ=9.960(kN) CY=2.173(kNm)
40	fuerza nodal	877	FX=-4.111(kN) FZ=11.716(kN) CY=-0.716(kNm)
40	fuerza nodal	878	FX=-2.152(kN) FZ=11.320(kN) CY=0.030(kNm)
40	fuerza nodal	879	FX=-2.276(kN) FZ=11.285(kN) CY=0.427(kNm)
40	fuerza nodal	880	FX=-2.406(kN) FZ=11.325(kN) CY=0.837(kNm)
40	fuerza nodal	881	FX=-2.523(kN) FZ=11.202(kN) CY=1.246(kNm)
40	fuerza nodal	882	FX=-2.646(kN) FZ=11.153(kN) CY=1.657(kNm)
40	fuerza nodal	883	FX=-2.769(kN) FZ=11.101(kN) CY=2.061(kNm)
40	fuerza nodal	884	FX=-2.890(kN) FZ=11.043(kN) CY=2.453(kNm)
40	fuerza nodal	885	FX=-3.022(kN) FZ=11.059(kN) CY=2.839(kNm)
40	fuerza nodal	886	FX=-3.120(kN) FZ=10.837(kN) CY=3.169(kNm)
40	fuerza nodal	887	FX=-3.262(kN) FZ=10.922(kN) CY=3.519(kNm)
40	fuerza nodal	888	FX=-3.368(kN) FZ=10.769(kN) CY=3.796(kNm)
40	fuerza nodal	932	FX=3.532(kN) FZ=10.720(kN) CY=-4.106(kNm)
40	fuerza nodal	933	FX=3.419(kN) FZ=10.799(kN) CY=-3.858(kNm)
40	fuerza nodal	934	FX=3.304(kN) FZ=10.873(kN) CY=-3.571(kNm)
40	fuerza nodal	935	FX=3.200(kN) FZ=11.024(kN) CY=-3.262(kNm)
40	fuerza nodal	936	FX=3.070(kN) FZ=11.011(kN) CY=-2.899(kNm)
40	fuerza nodal	937	FX=2.961(kN) FZ=11.153(kN) CY=-2.534(kNm)
40	fuerza nodal	938	FX=2.832(kN) FZ=11.131(kN) CY=-2.134(kNm)
40	fuerza nodal	939	FX=2.712(kN) FZ=11.184(kN) CY=-1.729(kNm)
40	fuerza nodal	940	FX=2.599(kN) FZ=11.315(kN) CY=-1.320(kNm)
40	fuerza nodal	941	FX=2.470(kN) FZ=11.279(kN) CY=-0.901(kNm)
40	fuerza nodal	942	FX=-1.000(kN) FZ=10.823(kN) CY=0.208(kNm)
40	fuerza nodal	943	FX=-5.559(kN) FZ=10.150(kN) CY=0.210(kNm)
40	fuerza nodal	944	FX=-5.644(kN) FZ=9.923(kN) CY=-0.826(kNm)
40	fuerza nodal	945	FX=-5.753(kN) FZ=9.770(kN) CY=-1.980(kNm)
40	fuerza nodal	946	FX=-2.165(kN) FZ=0.944(kN) CY=-1.123(kNm)
40	fuerza nodal	947	FX=-5.696(kN) FZ=-61.127(kN) CY=-3.957(kNm)
40	fuerza nodal	948	FX=-12.197(kN) FZ=-71.847(kN) CY=-10.138(kNm)

Caso	Tipo de carga	Lista	Valores de carga
40	fuerza nodal	949	FX=-9.234(kN) FZ=-35.123(kN) CY=-8.094(kNm)
40	fuerza nodal	950	FX=-1.721(kN) CY=-1.508(kNm)
40	fuerza nodal	951	FX=-1.724(kN) CY=-1.511(kNm)
40	fuerza nodal	952	FX=-876.997(kN) CY=-801.049(kNm)
40	fuerza nodal	910	FX=-2.013(kN) FZ=-53.195(kN) CY=-2.130(kNm)
40	fuerza nodal	911	FX=13.940(kN) FZ=-61.394(kN) CY=15.287(kNm)
40	fuerza nodal	912	FX=9.964(kN) FZ=-71.100(kN) CY=10.428(kNm)
40	fuerza nodal	913	FX=3.903(kN) FZ=-60.332(kN) CY=3.498(kNm)
40	fuerza nodal	914	FX=1.969(kN) FZ=0.946(kN) CY=1.375(kNm)
40	fuerza nodal	915	FX=5.587(kN) FZ=9.514(kN) CY=2.804(kNm)
40	fuerza nodal	916	FX=5.562(kN) FZ=9.808(kN) CY=1.578(kNm)
40	fuerza nodal	917	FX=5.475(kN) FZ=9.968(kN) CY=0.442(kNm)
40	fuerza nodal	918	FX=5.359(kN) FZ=10.056(kN) CY=-0.575(kNm)
40	fuerza nodal	919	FX=5.265(kN) FZ=10.209(kN) CY=-1.475(kNm)
40	fuerza nodal	920	FX=5.192(kN) FZ=10.429(kN) CY=-2.274(kNm)
40	fuerza nodal	921	FX=5.065(kN) FZ=10.505(kN) CY=-2.942(kNm)
40	fuerza nodal	922	FX=4.959(kN) FZ=10.648(kN) CY=-3.514(kNm)
40	fuerza nodal	923	FX=4.849(kN) FZ=10.786(kN) CY=-3.983(kNm)
40	fuerza nodal	924	FX=4.778(kN) FZ=11.069(kN) CY=-4.392(kNm)
40	fuerza nodal	925	FX=4.596(kN) FZ=10.978(kN) CY=-4.605(kNm)
40	fuerza nodal	926	FX=4.517(kN) FZ=11.254(kN) CY=-4.830(kNm)
40	fuerza nodal	927	FX=4.372(kN) FZ=11.300(kN) CY=-4.906(kNm)
40	fuerza nodal	928	FX=4.245(kN) FZ=11.417(kN) CY=-4.923(kNm)
40	fuerza nodal	929	FX=4.133(kN) FZ=11.606(kN) CY=-4.886(kNm)
40	fuerza nodal	930	FX=3.871(kN) FZ=11.091(kN) CY=-4.606(kNm)
40	fuerza nodal	931	FX=3.659(kN) FZ=10.715(kN) CY=-4.329(kNm)
40	fuerza nodal	89	FX=-3.498(kN) FZ=10.766(kN) CY=4.065(kNm)
40	fuerza nodal	90	FX=-3.583(kN) FZ=10.530(kN) CY=4.238(kNm)
40	fuerza nodal	91	FX=-3.726(kN) FZ=10.594(kN) CY=4.433(kNm)
40	fuerza nodal	92	FX=-3.803(kN) FZ=10.352(kN) CY=4.499(kNm)
40	fuerza nodal	93	FX=-3.946(kN) FZ=10.406(kN) CY=4.585(kNm)
40	fuerza nodal	94	FX=-4.034(kN) FZ=10.231(kN) CY=4.548(kNm)
40	fuerza nodal	95	FX=-4.157(kN) FZ=10.201(kN) CY=4.484(kNm)
40	fuerza nodal	96	FX=-4.219(kN) FZ=9.948(kN) CY=4.286(kNm)
40	fuerza nodal	97	FX=-4.358(kN) FZ=9.983(kN) CY=4.093(kNm)
40	fuerza nodal	98	FX=-4.433(kN) FZ=9.797(kN) CY=3.763(kNm)
40	fuerza nodal	99	FX=-4.526(kN) FZ=9.680(kN) CY=3.369(kNm)
40	fuerza nodal	100	FX=-4.615(kN) FZ=9.561(kN) CY=2.890(kNm)
40	fuerza nodal	101	FX=-4.702(kN) FZ=9.438(kN) CY=2.322(kNm)
40	fuerza nodal	102	FX=-4.810(kN) FZ=9.381(kN) CY=1.673(kNm)
40	fuerza nodal	103	FX=-4.866(kN) FZ=9.184(kN) CY=0.913(kNm)
40	fuerza nodal	104	FX=-4.943(kN) FZ=9.054(kN) CY=0.068(kNm)
40	fuerza nodal	105	FX=-5.017(kN) FZ=8.921(kN) CY=-0.874(kNm)
40	fuerza nodal	106	FX=-5.088(kN) FZ=8.787(kN) CY=-1.913(kNm)
40	fuerza nodal	107	FX=-5.155(kN) FZ=8.651(kN) CY=-3.050(kNm)
40	fuerza nodal	108	FX=-2.019(kN) FZ=-25.110(kN) CY=-1.584(kNm)
40	fuerza nodal	109	FX=-5.323(kN) FZ=-54.025(kN) CY=-5.012(kNm)
40	fuerza nodal	68	FX=850.379(kN) FZ=69.657(kN) CY=776.736(kNm)
40	fuerza nodal	69	FX=2.634(kN) FZ=-2.603(kN) CY=2.557(kNm)
40	fuerza nodal	70	FX=13.866(kN) FZ=-40.369(kN) CY=14.715(kNm)
40	fuerza nodal	71	FX=14.850(kN) FZ=-56.434(kN) CY=16.285(kNm)
40	fuerza nodal	72	FX=11.177(kN) FZ=-60.551(kN) CY=11.823(kNm)

Caso	Tipo de carga	Lista	Valores de carga
40	fuerza nodal	73	FX=6.691(kN) FZ=-61.302(kN) CY=6.299(kNm)
40	fuerza nodal	74	FX=2.447(kN) FZ=-28.493(kN) CY=1.920(kNm)
40	fuerza nodal	75	FX=5.887(kN) FZ=9.799(kN) CY=3.483(kNm)
40	fuerza nodal	76	FX=5.779(kN) FZ=9.960(kN) CY=2.173(kNm)
40	fuerza nodal	77	FX=-4.111(kN) FZ=11.716(kN) CY=-0.716(kNm)
40	fuerza nodal	78	FX=-2.152(kN) FZ=11.320(kN) CY=0.030(kNm)
40	fuerza nodal	79	FX=-2.276(kN) FZ=11.285(kN) CY=0.427(kNm)
40	fuerza nodal	80	FX=-2.406(kN) FZ=11.325(kN) CY=0.837(kNm)
40	fuerza nodal	81	FX=-2.523(kN) FZ=11.202(kN) CY=1.246(kNm)
40	fuerza nodal	82	FX=-2.646(kN) FZ=11.153(kN) CY=1.657(kNm)
40	fuerza nodal	83	FX=-2.769(kN) FZ=11.101(kN) CY=2.061(kNm)
40	fuerza nodal	84	FX=-2.890(kN) FZ=11.043(kN) CY=2.453(kNm)
40	fuerza nodal	85	FX=-3.022(kN) FZ=11.059(kN) CY=2.839(kNm)
40	fuerza nodal	86	FX=-3.120(kN) FZ=10.837(kN) CY=3.169(kNm)
40	fuerza nodal	87	FX=-3.262(kN) FZ=10.922(kN) CY=3.519(kNm)
40	fuerza nodal	88	FX=-3.368(kN) FZ=10.769(kN) CY=3.796(kNm)
40	fuerza nodal	132	FX=3.532(kN) FZ=10.720(kN) CY=-4.106(kNm)
40	fuerza nodal	133	FX=3.419(kN) FZ=10.799(kN) CY=-3.858(kNm)
40	fuerza nodal	134	FX=3.304(kN) FZ=10.873(kN) CY=-3.571(kNm)
40	fuerza nodal	135	FX=3.200(kN) FZ=11.024(kN) CY=-3.262(kNm)
40	fuerza nodal	136	FX=3.070(kN) FZ=11.011(kN) CY=-2.899(kNm)
40	fuerza nodal	137	FX=2.961(kN) FZ=11.153(kN) CY=-2.534(kNm)
40	fuerza nodal	138	FX=2.832(kN) FZ=11.131(kN) CY=-2.134(kNm)
40	fuerza nodal	139	FX=2.712(kN) FZ=11.184(kN) CY=-1.729(kNm)
40	fuerza nodal	140	FX=2.599(kN) FZ=11.315(kN) CY=-1.320(kNm)
40	fuerza nodal	141	FX=2.470(kN) FZ=11.279(kN) CY=-0.901(kNm)
40	fuerza nodal	142	FX=-1.000(kN) FZ=10.823(kN) CY=0.208(kNm)
40	fuerza nodal	143	FX=-5.559(kN) FZ=10.150(kN) CY=0.210(kNm)
40	fuerza nodal	144	FX=-5.644(kN) FZ=9.923(kN) CY=-0.826(kNm)
40	fuerza nodal	145	FX=-5.753(kN) FZ=9.770(kN) CY=-1.980(kNm)
40	fuerza nodal	146	FX=-2.165(kN) FZ=0.944(kN) CY=-1.123(kNm)
40	fuerza nodal	147	FX=-5.696(kN) FZ=-61.127(kN) CY=-3.957(kNm)
40	fuerza nodal	148	FX=-12.197(kN) FZ=-71.847(kN) CY=-10.138(kNm)
40	fuerza nodal	149	FX=-9.234(kN) FZ=-35.123(kN) CY=-8.094(kNm)
40	fuerza nodal	150	FX=-1.721(kN) CY=-1.508(kNm)
40	fuerza nodal	151	FX=-1.724(kN) CY=-1.511(kNm)
40	fuerza nodal	152	FX=-876.997(kN) CY=-801.049(kNm)
40	fuerza nodal	110	FX=-2.013(kN) FZ=-53.195(kN) CY=-2.130(kNm)
40	fuerza nodal	111	FX=13.940(kN) FZ=-61.394(kN) CY=15.287(kNm)
40	fuerza nodal	112	FX=9.964(kN) FZ=-71.100(kN) CY=10.428(kNm)
40	fuerza nodal	113	FX=3.903(kN) FZ=-60.332(kN) CY=3.498(kNm)
40	fuerza nodal	114	FX=1.969(kN) FZ=0.946(kN) CY=1.375(kNm)
40	fuerza nodal	115	FX=5.587(kN) FZ=9.514(kN) CY=2.804(kNm)
40	fuerza nodal	116	FX=5.562(kN) FZ=9.808(kN) CY=1.578(kNm)
40	fuerza nodal	117	FX=5.475(kN) FZ=9.968(kN) CY=0.442(kNm)
40	fuerza nodal	118	FX=5.359(kN) FZ=10.056(kN) CY=-0.575(kNm)
40	fuerza nodal	119	FX=5.265(kN) FZ=10.209(kN) CY=-1.475(kNm)
40	fuerza nodal	120	FX=5.192(kN) FZ=10.429(kN) CY=-2.274(kNm)
40	fuerza nodal	131	FX=3.659(kN) FZ=10.715(kN) CY=-4.329(kNm)
40	fuerza nodal	130	FX=3.871(kN) FZ=11.091(kN) CY=-4.606(kNm)
40	fuerza nodal	129	FX=4.133(kN) FZ=11.606(kN) CY=-4.886(kNm)
40	fuerza nodal	128	FX=4.245(kN) FZ=11.417(kN) CY=-4.923(kNm)