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1.- MATERIALES

1.1.- Hormigones

HA-25; $f_{ck} = 25 \text{ MPa}$; $\gamma_c = 1.50$

1.2.- Aceros por elemento y posición

1.2.1.- Aceros en barras

Para todos los elementos estructurales de la obra: B 500 S; $f_{yk} = 500 \text{ MPa}$; $\gamma_s = 1.15$

1.2.2.- Aceros en perfiles

Tipo de acero para perfiles	Acero	Límite elástico (MPa)	Módulo de elasticidad (GPa)
Aceros conformados	S235	235	206
Aceros laminados	S275	275	206

2.- ARMADO DE PILARES Y PANTALLAS

2.1.- Pilares

■ Tramo: Nivel inicial / nivel final del tramo entre plantas.

■ Armaduras:

Primer sumando: Armadura de esquina.

Segundo sumando: Armadura de cara X.

Tercer sumando: Armadura de cara Y.

■ Estribos: Se indica solamente el estribo perimetral dispuesto. Si existen otros estribos y ramas debe consultar el dibujo del cuadro de pilares. Pueden existir distintas separaciones en cabeza, pie y nudo, que puede consultar en opciones y despiece de pilares.

■ Estado: Código identificativo del estado del pilar por incumplimiento de algún criterio normativo.

■ H: Altura libre del tramo de pilar sin arriostramiento intermedio.

■ H_{px}: Longitud de pandeo del tramo de pilar en dirección 'X'.

■ H_{py}: Longitud de pandeo del tramo de pilar en dirección 'Y'.

■ Pésimos: Esfuerzos pésimos (mayorados), correspondientes a la peor combinación que produce las mayores tensiones y/o deformaciones. Incluye la amplificación de esfuerzos debidos a los efectos de segundo orden y excentricidad adicional por pandeo.

■ Referencia: Esfuerzos pésimos (mayorados), correspondientes a la peor combinación que produce las mayores tensiones y/o deformaciones. Incluye la amplificación de esfuerzos debidos a los efectos de segundo orden (no incluye pandeo).

■ Nota:

Los esfuerzos están referidos a ejes locales del pilar.



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Pilar	Planta	Dimensión (cm)	Tramo (m)	Armaduras	Estribos	Estado	H (m)	Hpx (m)	Hpy (m)	Pésimos			Referencia		
										N (kN)	Mx (kN·m)	My (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)
A1	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	72.4	2.6	24.2	72.4	2.6	24.2
	Planta 1	25x25	-0.10/3.50	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	179.9	2.2	39.0	179.9	2.2	26.1
	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	155.3	18.6	32.8	155.3	8.4	21.7
A3	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	132.7	7.3	6.6	132.7	7.3	6.6
	Planta 1	25x25	-0.10/2.70	4Ø12	Ø6c/15 cm		3.80	3.80	3.80	306.2	0.0	25.7	306.2	0.0	12.6
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		3.80	3.80	3.80	308.6	5.3	31.5	308.6	5.3	17.7
A4	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	120.5	2.5	11.5	120.5	2.5	11.5
	Planta 1	25x25	-0.10/2.70	4Ø12	Ø6c/15 cm		3.80	3.80	3.80	263.4	2.8	36.0	263.4	2.8	23.7
	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		3.80	3.80	3.80	268.5	3.7	40.0	268.5	3.7	27.2
A5	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	74.1	1.2	6.4	74.1	1.2	6.4
	Planta 1	25x25	-0.10/3.50	4Ø12	Ø6c/15 cm		4.60	4.60	4.60	146.1	2.7	20.1	146.1	2.7	10.3
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.60	4.60	4.60	148.2	4.6	25.9	148.2	4.6	15.5
A7	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	64.9	7.3	1.3	64.9	7.3	1.3
	Planta 1	25x25	-0.10/2.70	4Ø12	Ø6c/15 cm		3.80	3.80	3.80	138.9	13.7	1.5	138.9	13.7	1.5
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		3.80	3.80	3.80	136.7	3.3	23.7	136.7	3.3	17.2
A8	Cubierta	25x25	3.80/6.50	4Ø12	Ø6c/15 cm		2.70	2.70	2.70	145.9	5.1	17.4	145.9	5.1	17.4
	Planta 1	25x25	-0.10/2.70	4Ø12	Ø6c/15 cm		3.80	3.80	3.80	311.8	27.7	22.1	311.8	14.2	9.4
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		3.80	3.80	3.80	349.7	2.8	37.6	349.7	2.8	21.9
A9	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	77.1	2.9	15.8	77.1	2.9	15.8
	Planta 1	25x25	-0.10/3.50	4Ø12	Ø6c/15 cm		4.60	4.60	4.60	176.8	0.8	28.5	176.8	0.8	16.3
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.60	4.60	4.60	164.7	18.3	22.2	164.7	7.8	11.2
B1	Cubierta	25x25	3.80/6.50	4Ø16	Ø6c/15 cm		2.70	2.70	2.70	235.7	28.7	23.9	235.7	28.7	23.9
	Planta 1	25x30	-0.10/3.50	4Ø25	Ø8c/14 cm		4.60	4.60	4.60	528.7	46.3	65.3	528.7	16.1	33.1
	Planta Baja	25x30	-1.10/-0.10	4Ø25	Ø8c/14 cm		4.60	4.60	4.60	503.6	39.8	59.8	503.6	12.1	29.4
B2	Tapa	25x25	8.60/10.30	4Ø12	Ø6c/15 cm		3.30	3.30	3.30	75.3	11.4	10.4	75.3	11.4	10.4
	Casetón	25x25	7.00/8.60	4Ø12	Ø6c/15 cm		3.30	3.30	3.30	81.6	16.3	8.8	81.6	16.3	8.8
B3	Tapa	25x25	8.60/10.30	4Ø12	Ø6c/15 cm		1.70	1.70	1.70	48.2	13.9	12.5	48.2	13.9	12.5
	Casetón	25x25	7.00/8.30	4Ø12	Ø6c/15 cm		1.30	1.30	1.30	131.9	22.3	10.2	131.9	22.3	10.2
	Cubierta	25x25	3.80/6.50	4Ø16 + ... +2Ø16	Ø6c/15 cm		2.70	2.70	2.70	465.6	42.1	20.4	465.6	30.6	20.4
	Planta 1	30x30	-0.10/3.50	4Ø25 + 2Ø25	Ø8c/18 cm		4.60	4.60	4.60	826.9	54.9	94.6	826.9	17.0	46.8
	Planta Baja	30x30	-1.10/-0.10	4Ø25 + 2Ø25	Ø8c/18 cm		4.60	4.60	4.60	840.6	11.7	90.8	840.6	11.7	42.9
B4	Casetón	25x25	7.00/8.30	4Ø12	Ø6c/15 cm		1.30	1.30	1.30	142.0	8.3	2.0	142.0	8.3	2.0
	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	134.2	1.9	13.3	134.2	1.9	13.3
	Planta 1	25x25	-0.10/3.50	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	476.2	0.2	47.9	476.2	0.2	18.3
	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	485.6	0.7	53.1	485.6	0.7	22.2
B5	Casetón	25x25	7.00/8.30	4Ø12	Ø6c/15 cm		1.30	1.30	1.30	153.9	10.1	7.1	153.9	10.1	7.1
	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	205.2	10.1	4.0	205.2	10.1	4.0
	Planta 1	25x25	-0.10/3.50	4Ø12	Ø6c/15 cm		4.60	4.60	4.60	380.2	0.0	33.0	380.2	0.0	10.7
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.60	4.60	4.60	382.3	0.8	39.2	382.3	0.8	15.4
B7	Cubierta	25x25	3.80/6.50	4Ø12	Ø6c/15 cm		2.70	2.70	2.70	108.5	14.7	0.1	108.5	14.7	0.1
	Planta 1	25x25	-0.10/3.50	4Ø12	Ø6c/15 cm		4.60	4.60	4.60	334.8	27.0	23.5	334.8	7.9	5.5
	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	344.3	23.9	34.6	344.3	5.4	13.2
B8	Casetón	25x25	7.00/8.30	4Ø12	Ø6c/15 cm		1.30	1.30	1.30	90.6	15.3	8.8	90.6	15.3	8.8
C8	Casetón	25x25	7.00/8.30	4Ø12	Ø6c/15 cm		1.30	1.30	1.30	27.9	5.3	14.8	27.9	5.3	14.8
	Cubierta	25x25	3.80/6.50	4Ø12	Ø6c/15 cm		2.70	2.70	2.70	224.4	4.1	24.4	224.4	4.1	24.4
	Planta 1	25x25	-0.10/3.50	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	530.8	2.1	51.6	530.8	2.1	18.9
C9	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	540.4	0.4	51.2	540.4	0.4	18.2
	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	146.7	5.8	12.0	146.7	5.8	12.0
	Planta 1	25x25	-0.10/3.50	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	287.0	21.2	38.6	287.0	5.3	19.3
D1	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	296.6	24.7	38.9	296.6	7.4	19.1
	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	130.0	3.4	16.8	130.0	3.4	16.8
	Planta 1	25x25	-0.10/3.50	4Ø16 + 2Ø16	Ø6c/15 cm		4.60	4.60	4.60	317.8	29.1	44.5	317.8	9.9	21.6
D2	Planta Baja	25x25	-1.10/-0.10	4Ø20	Ø6c/15 cm		4.60	4.60	4.60	327.3	27.0	46.4	327.3	8.0	24.1
	Tapa	25x25	8.60/10.30	4Ø12	Ø6c/15 cm		3.30	3.30	3.30	86.2	8.0	16.5	86.2	8.0	16.5
	Casetón	25x25	7.00/8.60	4Ø12	Ø6c/15 cm		3.30	3.30	3.30	93.2	6.9	10.4	93.2	6.9	10.4
	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	343.7	0.0	29.5	343.7	0.0	20.5
	Planta 1	25x25	-0.10/3.50	4Ø20	Ø6c/15 cm		4.60	4.60	4.60	585.0	1.7	59.4	585.0	1.7	22.7
D3	Planta Baja	25x25	-1.10/-0.10	4Ø20	Ø6c/15 cm		4.60	4.60	4.60	594.4	2.5	61.2	594.4	2.5	23.7
	Tapa	25x25	8.60/10.30	4Ø12	Ø6c/15 cm		1.70	1.70	1.70	69.3	10.7	10.4	69.3	10.7	10.4
	Casetón	25x25	7.00/8.30	4Ø12	Ø6c/15 cm		1.30	1.30	1.30	157.4	23.5	14.8	157.4	23.5	14.8
	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	366.2	8.0	41.7	366.2	8.0	31.7
	Planta 1	25x25	-0.10/3.50	4Ø20 + 2Ø20 + 2Ø20	Ø6c/15 cm		4.60	4.60	4.60	682.8	39.7	54.1	682.8	5.2	11.6



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Pilar	Planta	Dimensión (cm)	Tramo (m)	Armaduras	Estribos	Estado	H (m)	Hpx (m)	Hpy (m)	Pésimos			Referencia		
										N (kN)	Mx (kN·m)	My (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)
D4	Planta Baja	25x25	-1.10/-0.10	4Ø25 + 2Ø25	Ø8c/14 cm	Ce	4.60	4.60	4.60	692.3	53.6	42.5	692.3	6.2	5.5
	Casetón	25x25	7.00/8.30	4Ø12	Ø6c/15 cm		1.30	1.30	1.30	163.1	2.0	7.1	163.1	2.0	7.1
	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	251.6	4.0	9.7	251.6	4.0	9.7
	Planta 1	25x25	-0.10/3.50	4Ø12	Ø6c/15 cm		4.60	4.60	4.60	464.7	4.1	43.9	464.7	4.1	15.7
	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	523.8	0.8	49.0	523.8	0.8	17.2
D6	Casetón	25x25	7.00/8.30	4Ø12	Ø6c/15 cm		1.30	1.30	1.30	166.9	3.8	7.6	166.9	3.8	7.6
	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	263.6	5.9	7.6	263.6	5.9	7.6
	Planta 1	25x25	-0.10/3.50	4Ø20 + 2Ø20	Ø6c/15 cm		4.60	4.60	4.60	542.6	32.7	44.3	542.6	5.4	11.2
	Planta Baja	25x25	-1.10/-0.10	4Ø20 + 2Ø20	Ø6c/15 cm		4.60	4.60	4.60	554.0	2.3	52.2	554.0	2.3	16.4
	Casetón	25x25	7.00/8.30	4Ø12	Ø6c/15 cm		1.30	1.30	1.30	72.2	16.4	5.7	72.2	16.4	5.7
D8	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	238.8	6.6	35.1	238.8	6.6	28.4
	Planta 1	25x25	-0.10/3.50	4Ø25	Ø8c/14 cm		4.60	4.60	4.60	513.5	33.2	58.0	513.5	6.1	24.2
	Planta Baja	25x25	-1.10/-0.10	4Ø25	Ø8c/14 cm		4.60	4.60	4.60	518.4	33.3	40.1	518.4	6.1	7.7
	Cubierta	25x25	3.80/6.70	4Ø12	Ø6c/15 cm		2.90	2.90	2.90	111.1	2.3	12.2	111.1	2.3	12.2
	Planta 1	25x25	-0.10/3.50	4Ø12	Ø6c/15 cm		4.60	4.60	4.60	234.7	1.8	34.2	234.7	1.8	18.3
D9	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	241.8	20.2	29.6	241.8	6.1	13.7
	Cubierta	Diámetro: 25	3.80/6.70	6Ø12	Ø6c/15 cm		2.90	2.90	2.90	101.7	3.6	12.8	101.7	3.6	12.8
	Planta 1	25x25	-0.10/3.50	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	234.6	21.1	25.7	234.6	7.0	10.8
	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	212.1	19.5	39.5	212.1	6.7	24.5
	Cubierta	Diámetro: 25	3.80/6.70	6Ø12	Ø6c/15 cm		2.90	2.90	2.90	171.9	5.5	17.1	171.9	3.8	11.7
E2	Planta 1	25x25	-0.10/3.50	4Ø20	Ø6c/15 cm		4.60	4.60	4.60	378.2	33.3	40.8	378.2	10.7	16.6
	Planta Baja	25x25	-1.10/-0.10	4Ø20	Ø6c/15 cm		4.60	4.60	4.60	387.7	30.6	43.1	387.7	8.4	18.1
	Cubierta	Diámetro: 25	3.80/6.70	6Ø12	Ø6c/15 cm		2.90	2.90	2.90	125.0	1.6	8.7	125.0	1.6	8.7
	Planta 1	25x25	-0.10/3.50	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	312.0	22.1	36.6	312.0	5.2	16.3
	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	321.6	24.6	38.3	321.6	6.5	17.3
E4	Cubierta	Diámetro: 25	3.80/6.70	6Ø12	Ø6c/15 cm		2.90	2.90	2.90	230.4	3.4	3.1	230.4	3.2	2.9
	Planta 1	25x25	-0.10/2.70	4Ø16 + 2Ø16	Ø6c/15 cm		3.80	3.80	3.80	433.7	26.8	43.3	433.7	9.9	22.7
	Planta Baja	25x25	-1.10/-0.10	4Ø20	Ø6c/15 cm		3.80	3.80	3.80	441.6	28.4	44.7	441.6	10.8	24.8
	Cubierta	Diámetro: 25	3.80/6.70	6Ø12	Ø6c/15 cm		2.90	2.90	2.90	215.4	1.1	4.2	215.4	0.9	3.5
	Planta 1	25x25	-0.10/2.70	4Ø16	Ø6c/15 cm		3.80	3.80	3.80	532.3	6.2	45.0	532.3	6.2	22.1
E6	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		3.80	3.80	3.80	540.2	6.1	46.8	540.2	6.1	23.5
	Cubierta	Diámetro: 25	3.80/6.70	6Ø12	Ø6c/15 cm		2.90	2.90	2.90	233.6	2.8	3.8	233.6	1.0	1.3
	Planta 1	25x25	-0.10/2.70	4Ø16	Ø6c/15 cm		3.80	3.80	3.80	437.7	24.2	34.6	437.7	7.8	16.1
	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		3.80	3.80	3.80	445.6	25.5	38.9	445.6	8.6	19.6
	Cubierta	Diámetro: 25	3.80/6.70	6Ø12	Ø6c/15 cm		2.90	2.90	2.90	91.0	3.1	8.3	91.0	3.1	8.3
E9	Planta 1	25x25	-0.10/3.50	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	175.4	0.0	32.0	175.4	0.0	19.7
	Planta Baja	25x25	-1.10/-0.10	4Ø16	Ø6c/15 cm		4.60	4.60	4.60	187.6	18.7	29.5	187.6	7.1	16.5
	A3M	Planta 1	2xUPN-100(II)	-0.10/3.80			4.90	4.90	4.90	28.1	-1.2	-0.3	28.1	-1.2	-0.3
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.90	4.90	4.90	30.2	0.1	2.0	30.2	0.1	2.0
	A4M	Planta 1	2xUPN-100(II)	-0.10/3.80			4.90	4.90	4.90	14.6	-1.2	-0.2	14.6	-1.2	-0.2
E4M	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.90	4.90	4.90	12.3	0.0	1.8	12.3	0.0	1.8
	Planta 1	2xUPN-100(II)	-0.10/3.80				4.90	4.90	4.90	13.2	-1.2	-0.1	13.2	-1.2	-0.1
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.90	4.90	4.90	11.3	0.0	1.8	11.3	0.0	1.8
	E5M	Planta 1	2xUPN-100(II)	-0.10/3.80			4.90	4.90	4.90	26.7	-1.2	-0.3	26.7	-1.2	-0.3
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.90	4.90	4.90	28.8	0.1	2.0	28.8	0.1	2.0
E6M	Planta 1	2xUPN-100(II)	-0.10/3.80				4.90	4.90	4.90	26.7	-1.2	-0.3	26.7	-1.2	-0.3
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.90	4.90	4.90	28.8	0.1	2.0	28.8	0.1	2.0
	E7M	Planta 1	2xUPN-100(II)	-0.10/3.80			4.90	4.90	4.90	26.7	-1.2	-0.3	26.7	-1.2	-0.3
	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.90	4.90	4.90	28.8	0.1	2.0	28.8	0.1	2.0
	E8M	Planta 1	2xUPN-100(II)	-0.10/3.80			4.90	4.90	4.90	13.2	-1.2	-0.1	13.2	-1.2	-0.1
E8M	Planta Baja	25x25	-1.10/-0.10	4Ø12	Ø6c/15 cm		4.90	4.90	4.90	11.3	0.0	1.8	11.3	0.0	1.8

3.- ESFUERZOS DE PILARES, PANTALLAS Y MUROS POR HIPÓTESIS

■ Tramo: Nivel inicial / nivel final del tramo entre plantas.

■ Nota:

Los esfuerzos están referidos a ejes locales del pilar.

Soporte	Planta	Dimensión	Tramo	Hipótesis	Base	Cabeza
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Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

		(cm)	(m)		N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
A1	Cubierta	25x25	3.80/6.70	Carga permanente	42.8	0.1	-8.1	0.0	-4.0	-0.0	38.3	0.1	3.4	0.0	-4.0	-0.0
				Sobrecarga de uso	11.1	0.4	-2.7	0.2	-1.3	-0.0	11.1	-0.1	1.0	0.2	-1.3	-0.0
				Viento +X exc. +	-0.5	-1.3	-0.9	-0.7	-0.5	0.0	-0.5	0.8	0.5	-0.7	-0.5	0.0
				Viento +X exc. -	-0.5	-1.2	-0.6	-0.7	-0.3	-0.0	-0.5	0.8	0.4	-0.7	-0.3	-0.0
				Viento -X exc. +	0.5	1.3	0.9	0.7	0.5	-0.0	0.5	-0.8	-0.5	0.7	0.5	-0.0
				Viento -X exc. -	0.5	1.2	0.6	0.7	0.3	0.0	0.5	-0.8	-0.4	0.7	0.3	0.0
				Viento +Y exc. +	2.0	1.8	-5.5	1.0	-3.0	0.0	2.0	-1.1	3.2	1.0	-3.0	0.0
				Viento +Y exc. -	2.0	1.3	-7.0	0.7	-3.8	0.0	2.0	-0.8	4.1	0.7	-3.8	0.0
				Viento -Y exc. +	-2.0	-1.8	5.5	-1.0	3.0	-0.0	-2.0	1.1	-3.2	-1.0	3.0	-0.0
				Viento -Y exc. -	-2.0	-1.3	7.0	-0.7	3.8	-0.0	-2.0	0.8	-4.1	-0.7	3.8	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	103.6	-1.6	1.2	-0.8	-0.8	-0.0	98.1	1.3	4.1	-0.8	-0.8	-0.0
				Sobrecarga de uso	29.0	-0.5	0.2	-0.1	-0.4	-0.0	29.0	0.1	1.6	-0.1	-0.4	-0.0
				Viento +X exc. +	-2.4	-2.1	-1.5	-1.5	-1.0	0.0	-2.4	3.4	2.3	-1.5	-1.0	0.0
				Viento +X exc. -	-2.5	-2.0	-1.0	-1.4	-0.7	-0.0	-2.5	3.2	1.6	-1.4	-0.7	-0.0
				Viento -X exc. +	2.4	2.1	1.5	1.5	1.0	-0.0	2.4	-3.4	-2.3	1.5	1.0	-0.0
				Viento -X exc. -	2.5	2.0	1.0	1.4	0.7	0.0	2.5	-3.2	-1.6	1.4	0.7	0.0
				Viento +Y exc. +	10.6	2.3	-6.3	1.7	-4.4	0.0	10.6	-3.7	9.5	1.7	-4.4	0.0
				Viento +Y exc. -	11.4	1.7	-8.3	1.2	-5.8	0.0	11.4	-2.7	12.6	1.2	-5.8	0.0
				Viento -Y exc. +	-10.6	-2.3	6.3	-1.7	4.4	-0.0	-10.6	3.7	-9.5	-1.7	4.4	-0.0
				Viento -Y exc. -	-11.4	-1.7	8.3	-1.2	5.8	-0.0	-11.4	2.7	-12.6	-1.2	5.8	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	105.1	-2.4	0.4	-0.8	-0.8	-0.0	103.6	-1.6	1.2	-0.8	-0.8	-0.0
				Sobrecarga de uso	29.0	-0.6	-0.1	-0.1	-0.4	-0.0	29.0	-0.5	0.2	-0.1	-0.4	-0.0
				Viento +X exc. +	-2.4	-3.7	-2.5	-1.5	-1.0	0.0	-2.4	-2.1	-1.5	-1.5	-1.0	0.0
				Viento +X exc. -	-2.5	-3.4	-1.7	-1.4	-0.7	-0.0	-2.5	-2.0	-1.0	-1.4	-0.7	-0.0
				Viento -X exc. +	2.4	3.7	2.5	1.5	1.0	-0.0	2.4	2.1	1.5	1.5	1.0	-0.0
				Viento -X exc. -	2.5	3.4	1.7	1.4	0.7	0.0	2.5	2.0	1.0	1.4	0.7	0.0
				Viento +Y exc. +	10.6	4.0	-10.8	1.7	-4.4	0.0	10.6	2.3	-6.3	1.7	-4.4	0.0
				Viento +Y exc. -	11.4	3.0	-14.2	1.2	-5.8	0.0	11.4	1.7	-8.3	1.2	-5.8	0.0
				Viento -Y exc. +	-10.6	-4.0	10.8	-1.7	4.4	-0.0	-10.6	-2.3	6.3	-1.7	4.4	-0.0
				Viento -Y exc. -	-11.4	-3.0	14.2	-1.2	5.8	-0.0	-11.4	-1.7	8.3	-1.2	5.8	-0.0
A3	Cubierta	25x25	3.80/6.70	Carga permanente	76.7	2.1	0.9	1.6	1.4	-0.0	72.3	-2.4	-3.2	1.6	1.4	-0.0
				Sobrecarga de uso	26.5	0.3	0.4	0.3	0.5	-0.0	26.5	-0.6	-1.1	0.3	0.5	-0.0
				Viento +X exc. +	0.4	-2.0	1.6	-1.1	0.6	0.0	0.4	1.0	-0.3	-1.1	0.6	0.0
				Viento +X exc. -	0.4	-1.9	1.3	-1.0	0.6	-0.0	0.4	0.9	-0.3	-1.0	0.6	-0.0
				Viento -X exc. +	-0.4	2.0	-1.6	1.1	-0.6	-0.0	-0.4	-1.0	0.3	1.1	-0.6	-0.0
				Viento -X exc. -	-0.4	1.9	-1.3	1.0	-0.6	0.0	-0.4	-0.9	0.3	1.0	-0.6	0.0
				Viento +Y exc. +	0.6	3.3	2.1	1.4	0.3	0.0	0.6	-0.6	1.3	1.4	0.3	0.0
				Viento +Y exc. -	0.9	2.8	3.2	1.0	0.7	0.0	0.9	-0.2	1.3	1.0	0.7	0.0
				Viento -Y exc. +	-0.6	-3.3	-2.1	-1.4	-0.3	-0.0	-0.6	0.6	-1.3	-1.4	-0.3	-0.0
				Viento -Y exc. -	-0.9	-2.8	-3.2	-1.0	-0.7	-0.0	-0.9	0.2	-1.3	-1.0	-0.7	-0.0
	Planta 1	25x25	-0.10/2.70	Carga permanente	184.9	-0.6	1.2	-0.4	0.1	-0.0	180.6	0.6	0.8	-0.4	0.1	-0.0
				Sobrecarga de uso	58.7	-0.3	0.4	-0.4	0.0	-0.0	58.7	0.6	0.3	-0.4	0.0	-0.0
				Viento +X exc. +	-0.9	-3.2	0.2	-3.4	0.7	0.0	-0.9	6.3	-1.7	-3.4	0.7	0.0
				Viento +X exc. -	-1.0	-2.9	0.3	-3.1	0.7	-0.0	-1.0	5.8	-1.7	-3.1	0.7	-0.0
				Viento -X exc. +	0.9	3.2	-0.2	3.4	-0.7	-0.0	0.9	-6.3	1.7	3.4	-0.7	-0.0
				Viento -X exc. -	1.0	2.9	-0.3	3.1	-0.7	0.0	1.0	-5.8	1.7	3.1	-0.7	0.0
				Viento +Y exc. +	3.2	0.5	-6.2	1.7	-4.1	0.0	3.2	-4.1	5.2	1.7	-4.1	0.0
				Viento +Y exc. -	3.4	-0.9	-7.1	0.3	-4.4	0.0	3.4	-1.8	5.2	0.3	-4.4	0.0
				Viento -Y exc. +	-3.2	-0.5	6.2	-1.7	4.1	-0.0	-3.2	4.1	-5.2	-1.7	4.1	-0.0
				Viento -Y exc. -	-3.4	0.9	7.1	-0.3	4.4	-0.0	-3.4	1.8	-5.2	-0.3	4.4	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	186.5	-1.0	1.4	-0.4	0.1	-0.0	184.9	-0.6	1.2	-0.4	0.1	-0.0
				Sobrecarga de uso	58.7	-0.7	0.4	-0.4	0.0	-0.0	58.7	-0.3	0.4	-0.4	0.0	-0.0
				Viento +X exc. +	-0.9	-6.6	0.8	-3.4	0.7	0.0	-0.9	-3.2	0.2	-3.4	0.7	0.0
				Viento +X exc. -	-1.0	-6.0	1.1	-3.1	0.7	-0.0	-1.0	-2.9	0.3	-3.1	0.7	-0.0
				Viento -X exc. +	0.9	6.6	-0.8	3.4	-0.7	-0.0	0.9	3.2	-0.2	3.4	-0.7	-0.0
				Viento -X exc. -	1.0	6.0	-1.1	3.1	-0.7	0.0	1.0	2.9	-0.3	3.1	-0.7	0.0
				Viento +Y exc. +	3.2	2.2	-10.3	1.7	-4.1	0.0	3.2	0.5	-6.2	1.7	-4.1	0.0
				Viento +Y exc. -	3.4	-0.5	-11.4	0.3	-4.4	0.0	3.4	-0.9	-7.1	0.3	-4.4	0.0
				Viento -Y exc. +	-3.2	-2.2	10.3	-1.7	4.1	-0.0	-3.2	-0.5	6.2	-1.7	4.1	-0.0
				Viento -Y exc. -	-3.4	0.5	11.4	-0.3	4.4	-0.0	-3.4	0.9	7.1	-0.3	4.4	-0.0
A4	Cubierta	25x25	3.80/6.70	Carga permanente	78.0	-0.5	2.3	-0.3	1.4	-0.0	73.5	0.4	-1.8	-0.3	1.4	-0.0
				Sobrecarga de uso	23.5	-0.2	0.9	-0.2	0.5	-0.0	23.5	0.2	-0.6	-0.2	0.5	-0.0
				Viento +X exc. +	-0.3	-2.4	0.5	-1.3	0.2	0.0	-0.3	1.2	-0.1	-1.3	0.2	0.0
				Viento +X exc. -	-0.3	-2.2	0.5	-1.1	0.2	-0.0	-0.3	1.1	-0.1	-1.1	0.2	-0.0
				Viento -X exc. +	0.3	2.4	-0.5	1.3	-0.2	-0.0	0.3	-1.2	0.1	1.3	-0.2	-0.0
				Viento -X exc. -	0.3	2.2	-0.5	1.1	-0.2	0.0	0.3	-1.1	0.1	1.1	-0.2	0.0
				Viento +Y exc. +	6.3	1.0	-5.0	0.4	-3.0	0.0	6.3	-0.0	3.7	0.4	-3.0	0.0
				Viento +Y exc. -	6.4	0.2	-5.0	-0.1	-3.0	0.0	6.4	0.4	3.8	-0.1	-3.0	0.0
				Viento -Y exc. +	-6.3	-1.0	5.0	-0.4	3.0	-0.0	-6.3	0.0	-3.7	-0.4	3.0	-0.0
				Viento -Y exc. -	-6.4	-0.2	5.0	0.1	3.0	-0.0	-6.4	-0.4	-3.8	0.1	3.0	-0.0
	Planta 1	25x25	-0.10/2.70	Carga permanente	184.0	0.6	0.9	0.1	1.1	-0.0	179.7	0.4	-2.1	0.1	1.1	-0.0
				Sobrecarga de uso	48.0	0.1	0.2	0.0	0.4	-0.0	48.0	0.1	-0.8	0.0	0.4	-0.0
				Viento +X exc. +	3.2	-3.3	0.1	-3.6	0.2	0.0	3.2	6.8	-0.6	-3.6	0.2	0.0
				Viento +X exc. -	2.7	-3.1	0.2	-3.3	0.3	-0.0	2.7	6.3	-0.7	-3.3	0.3	-0.0
				Viento -X exc. +	-3.2	3.3	-0.1	3.6	-0.2	-0.0	-3.2	-6.8	0.6	3.6	-0.2	-0.0
				Viento -X exc. -	-2.7	3.1	-0.2	3.3	-0.3	0.0	-2.7	-6.3	0.7	3.3	-0.3	0.0
				Viento +Y exc. +	19.6	0.2	-7.8	0.6	-7.6	0.0	19.6	-1.4	13.3	0.6	-7.6	0.0
				Viento +Y exc. -	21.6	-1.0	-8.1	-0.7	-7.8	0.0	21.6	0.9	13.7	-0.7	-7.8	0.0
				Viento -Y exc. +	-19.6	-0.2	7.8	-0.6	7.6	-0.0	-19.6	1.4	-13.3	-0.6	7.6	-0.0
				Viento -Y exc. -	-21.6	1.0	8.1	0.7	7.8	-0.0	-21.6	-0.9	-13.7	0.7	7.8	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	185.5	0.7	2.0	0.1	1.1	-0.0	184.0	0.6	0.9	0.1	1.1	-0.0
				Sobrecarga de uso	48.0	0.1	0.6	0.0	0.4	-0.0	48.0	0.1	0.2	0.0	0.4	-0.0
				Viento +X exc. +	3.2	-7.0	0.3	-3.6	0.2	0.0	3.2	-3.3	0.1	-3.6	0.2	0.0
				Viento +X exc. -	2.7	-6.4	0.4	-3.3	0.3	-0.0	2.7	-3.1	0.2	-3.3	0.3	-0.0
				Viento -X exc. +	-3.2	7.0	-0.3	3.6	-0.2	-0.0	-3.2	3.3	-0.1	3.6	-0.2	-0.0
				Viento -X exc. -	-2.7	6.4	-0.4	3.3	-0.3	0.0	-2.7	3.1	-0.2	3.3	-0.3	0.0
				Viento +Y exc. +	19.6	0.7	-15.4	0.6	-7.6	0.0	19.6	0.2	-7.8	0.6	-7.6	0.0
				Viento +Y exc. -	21.6	-1.7	-15.9	-0.7	-7.8	0.0	21.6	-1.0	-8.1	-0.7	-7.8	0.0
				Viento -Y exc. +	-19.6	-0.7	15.4	-0.6	7.6	-0.0	-19.6	-0.2	7.8	-0.6	7.6	-0.0
				Viento -Y exc. -	-21.6	1.7	15.9	0.7	7.8	-0.0	-21.6	1.0	8.1	0.7	7.8	-0.0
A5	Cubierta	25x25	3.80/6.70	Carga permanente	44.9	0.7	1.9	0.4	1.3	-0.0	40.4	-0.4	-1.9	0.4	1.3	-0.0
				Sobrecarga de uso	12.2	0.2	0.6	0.1	0.4	-0.0	12.2	-0.1	-0.5	0.1	0.4	-0.0
				Viento +X exc. +	-0.1	-2.3	-0.1	-1.2	-0.0	0.0	-0.1	1.2	0.0	-1.2	-0.0	0.0
				Viento +X exc. -	-0.1	-2.1	-0.0	-1.1	-0.0	-0.0	-0.1	1.1	0.0	-1.1	-0.0	-0.0
				Viento -X exc. +	0.1	2.3	0.1	1.2	0.0	-0.0	0.1	-1.2	-0.0	1.2	0.0	-0.0
				Viento -X exc. -	0.1	2.1	0.0	1.1	0.0	0.0	0.1	-1.1	-0.0	1.1	0.0	0.0
				Viento +Y exc. +	0.6	-0.6	2.4	-0.3	0.5	0.0	0.6	0.2	1.0	-0.3	0.5	0.0
				Viento +Y exc. -	0.5	-1.5	2.2	-0.8	0.4	0.0	0.5	0.7	1.0	-0.8	0.4	0.0
				Viento -Y exc. +	-0.6	0.6	-2.4	0.3	-0.5	-0.0	-0.6	-0.2	-1.0	0.3	-0.5	-0.0
				Viento -Y exc. -	-0.5	1.5	-2.2	0.8	-0.4	-0.0	-0.5	-0.7	-1.0	0.8	-0.4	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	92.9	0.5	1.6	0.2	1.0	-0.0	87.4	-0.4	-1.8	0.2	1.0	-0.0
				Sobrecarga de uso	26.0	0.2	0.4	0.1	0.2	-0.0	26.0	-0.2	-0.4	0.1	0.2	-0.0
				Viento +X exc. +	-1.0	-2.7	0.0	-2.0	0.0	0.0	-1.0	4.6	-0.0	-2.0	0.0	0.0
				Viento +X exc. -	-0.9	-2.5	-0.0	-1.9	-0.0	-0.0	-0.9	4.2	0.0	-1.9	-0.0	-0.0
				Viento -X exc. +	1.0	2.7	-0.0	2.0	-0.0	-0.0	1.0	-4.6	0.0	2.0	-0.0	-0.0
				Viento -X exc. -	0.9	2.5	0.0	1.9	0.0	0.0	0.9	-4.2	-0.0	1.9	0.0	0.0
				Viento +Y exc. +	4.9	-0.2	-5.4	-0.2	-2.6	0.0	4.9	0.5	4.1	-0.2	-2.6	0.0
				Viento +Y exc. -	4.4	-1.2	-5.1	-0.9	-2.5	0.0	4.4	2.2	3.8	-0.9	-2.5	0.0
				Viento -Y exc. +	-4.9	0.2	5.4	0.2	2.6	-0.0	-4.9	-0.5	-4.1	0.2	2.6	-0.0
				Viento -Y exc. -	-4.4	1.2	5.1	0.9	2.5	-0.0	-4.4	-2.2	-3.8	0.9	2.5	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	94.5	0.7	2.6	0.2	1.0	-0.0	92.9	0.5	1.6	0.2	1.0	-0.0
				Sobrecarga de uso	26.0	0.3	0.6	0.1	0.2	-0.0	26.0	0.2	0.4	0.1	0.2	-0.0
				Viento +X exc. +	-1.0	-4.8	0.0	-2.0	0.0	0.0	-1.0	-2.7	0.0	-2.0	0.0	0.0
				Viento +X exc. -	-0.9	-4.4	-0.1	-1.9	-0.0	-0.0	-0.9	-2.5	-0.0	-1.9	-0.0	-0.0
				Viento -X exc. +	1.0	4.8	-0.0	2.0	-0.0	-0.0	1.0	2.7	-0.0	2.0	-0.0	-0.0
				Viento -X exc. -	0.9	4.4	0.1	1.9	0.0	0.0	0.9	2.5	0.0	1.9	0.0	0.0
				Viento +Y exc. +	4.9	-0.4	-8.1	-0.2	-2.6	0.0	4.9	-0.2	-5.4	-0.2	-2.6	0.0
				Viento +Y exc. -	4.4	-2.2	-7.6	-0.9	-2.5	0.0	4.4	-1.2	-5.1	-0.9	-2.5	0.0
				Viento -Y exc. +	-4.9	0.4	8.1	0.2	2.6	-0.0	-4.9	0.2	5.4	0.2	2.6	-0.0
				Viento -Y exc. -	-4.4	2.2	7.6	0.9	2.5	-0.0	-4.4	1.2	5.1	0.9	2.5	-0.0
A7	Cubierta	25x25	3.80/6.70	Carga permanente	38.9	2.1	0.7	1.0	0.8	-0.0	34.4	-0.8	-1.5	1.0	0.8	-0.0
				Sobrecarga de uso	12.2	0.6	0.2	0.3	0.2	-0.0	12.2	-0.3	-0.5	0.3	0.2	-0.0
				Viento +X exc. +	0.2	-2.6	-0.1	-1.3	-0.0	0.0	0.2	1.2	-0.0	-1.3	-0.0	0.0
				Viento +X exc. -	0.2	-2.3	0.0	-1.2	0.0	-0.0	0.2	1.1	0.0	-1.2	0.0	-0.0
				Viento -X exc. +	-0.2	2.6	0.1	1.3	0.0	-0.0	-0.2	-1.2	0.0	1.3	0.0	-0.0
				Viento -X exc. -	-0.2	2.3	-0.0	1.2	-0.0	0.0	-0.2	-1.1	-0.0	1.2	-0.0	0.0
				Viento +Y exc. +	1.0	-0.3	3.2	-0.2	0.8	0.0	1.0	0.2	0.9	-0.2	0.8	0.0
				Viento +Y exc. -	1.0	-1.3	2.7	-0.7	0.6	0.0	1.0	0.6	0.8	-0.7	0.6	0.0
				Viento -Y exc. +	-1.0	0.3	-3.2	0.2	-0.8	-0.0	-1.0	-0.2	-0.9	0.2	-0.8	-0.0
				Viento -Y exc. -	-1.0	1.3	-2.7	0.7	-0.6	-0.0	-1.0	-0.6	-0.8	0.7	-0.6	-0.0
	Planta 1	25x25	-0.10/2.70	Carga permanente	84.2	0.7	1.5	0.9	1.0	-0.0	80.0	-2.0	-1.2	0.9	1.0	-0.0
				Sobrecarga de uso	23.5	0.2	0.3	0.3	0.2	-0.0	23.5	-0.6	-0.1	0.3	0.2	-0.0
				Viento +X exc. +	-4.3	-3.3	0.1	-3.7	0.1	0.0	-4.3	6.9	-0.2	-3.7	0.1	0.0
				Viento +X exc. -	-3.8	-3.0	-0.0	-3.3	-0.0	-0.0	-3.8	6.4	-0.0	-3.3	-0.0	-0.0
				Viento -X exc. +	4.3	3.3	-0.1	3.7	-0.1	-0.0	4.3	-6.9	0.2	3.7	-0.1	-0.0
				Viento -X exc. -	3.8	3.0	0.0	3.3	0.0	0.0	3.8	-6.4	0.0	3.3	0.0	0.0
				Viento +Y exc. +	2.5	-0.2	-5.6	-0.2	-3.4	0.0	2.5	0.3	3.8	-0.2	-3.4	0.0
				Viento +Y exc. -	0.6	-1.4	-4.8	-1.5	-2.9	0.0	0.6	2.9	3.3	-1.5	-2.9	0.0
				Viento -Y exc. +	-2.5	0.2	5.6	0.2	3.4	-0.0	-2.5	-0.3	-3.8	0.2	3.4	-0.0
				Viento -Y exc. -	-0.6	1.4	4.8	1.5	2.9	-0.0	-0.6	-2.9	-3.3	1.5	2.9	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	85.8	1.6	2.5	0.9	1.0	-0.0	84.2	0.7	1.5	0.9	1.0	-0.0
				Sobrecarga de uso	23.5	0.6	0.4	0.3	0.2	-0.0	23.5	0.2	0.3	0.3	0.2	-0.0
				Viento +X exc. +	-4.3	-7.0	0.2	-3.7	0.1	0.0	-4.3	-3.3	0.1	-3.7	0.1	0.0
				Viento +X exc. -	-3.8	-6.4	-0.0	-3.3	-0.0	-0.0	-3.8	-3.0	-0.0	-3.3	-0.0	-0.0
				Viento -X exc. +	4.3	7.0	-0.2	3.7	-0.1	-0.0	4.3	3.3	-0.1	3.7	-0.1	-0.0
				Viento -X exc. -	3.8	6.4	0.0	3.3	0.0	0.0	3.8	3.0	0.0	3.3	0.0	0.0
				Viento +Y exc. +	2.5	-0.3	-8.9	-0.2	-3.4	0.0	2.5	-0.2	-5.6	-0.2	-3.4	0.0
				Viento +Y exc. -	0.6	-2.9	-7.7	-1.5	-2.9	0.0	0.6	-1.4	-4.8	-1.5	-2.9	0.0
				Viento -Y exc. +	-2.5	0.3	8.9	0.2	3.4	-0.0	-2.5	0.2	5.6	0.2	3.4	-0.0
				Viento -Y exc. -	-0.6	2.9	7.7	1.5	2.9	-0.0	-0.6	1.4	4.8	1.5	2.9	-0.0
A8	Cubierta	25x25	3.80/6.50	Carga permanente	84.3	3.5	-5.8	2.0	-3.0	-0.0	80.2	-2.0	2.2	2.0	-3.0	-0.0
				Sobrecarga de uso	24.2	0.8	-3.9	0.4	-1.9	-0.0	24.2	-0.4	1.3	0.4	-1.9	-0.0
				Viento +X exc. +	-0.1	-2.9	-0.0	-1.5	0.0	0.0	-0.1	1.3	-0.1	-1.5	0.0	0.0
				Viento +X exc. -	0.1	-2.6	-0.1	-1.4	-0.1	-0.0	0.1	1.2	0.0	-1.4	-0.1	-0.0
				Viento -X exc. +	0.1	2.9	0.0	1.5	-0.0	-0.0	0.1	-1.3	0.1	1.5	-0.0	-0.0
				Viento -X exc. -	-0.1	2.6	0.1	1.4	0.1	0.0	-0.1	-1.2	-0.0	1.4	0.1	0.0
				Viento +Y exc. +	4.4	-0.3	-3.6	-0.2	-2.6	0.0	4.4	0.2	3.4	-0.2	-2.6	0.0
				Viento +Y exc. -	3.6	-1.5	-3.1	-0.8	-2.2	0.0	3.6	0.7	2.8	-0.8	-2.2	0.0
				Viento -Y exc. +	-4.4	0.3	3.6	0.2	2.6	-0.0	-4.4	-0.2	-3.4	0.2	2.6	-0.0
				Viento -Y exc. -	-3.6	1.5	3.1	0.8	2.2	-0.0	-3.6	-0.7	-2.8	0.8	2.2	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
	Planta 1	25x25	-0.10/2.70	Carga permanente	197.5	0.8	0.7	1.1	-1.0	-0.0	193.3	-2.3	3.5	1.1	-1.0	-0.0
				Sobrecarga de uso	56.1	0.3	-0.5	0.3	-1.5	-0.0	56.1	-0.7	3.6	0.3	-1.5	-0.0
				Viento +X exc.+	5.1	-3.3	0.3	-3.6	0.3	0.0	5.1	6.9	-0.4	-3.6	0.3	0.0
				Viento +X exc.-	5.3	-3.0	-0.0	-3.3	-0.0	-0.0	5.3	6.3	0.1	-3.3	-0.0	-0.0
				Viento -X exc.+	-5.1	3.3	-0.3	3.6	-0.3	-0.0	-5.1	-6.9	0.4	3.6	-0.3	-0.0
				Viento -X exc.-	-5.3	3.0	0.0	3.3	0.0	0.0	-5.3	-6.3	-0.1	3.3	0.0	0.0
				Viento +Y exc.+	14.7	-0.2	-6.8	-0.2	-6.2	0.0	14.7	0.3	10.5	-0.2	-6.2	0.0
				Viento +Y exc.-	13.7	-1.4	-5.3	-1.5	-4.8	0.0	13.7	2.9	8.2	-1.5	-4.8	0.0
				Viento -Y exc.+	-14.7	0.2	6.8	0.2	6.2	-0.0	-14.7	-0.3	-10.5	0.2	6.2	-0.0
				Viento -Y exc.-	-13.7	1.4	5.3	1.5	4.8	-0.0	-13.7	-2.9	-8.2	1.5	4.8	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	199.1	2.0	-0.3	1.1	-1.0	-0.0	197.5	0.8	0.7	1.1	-1.0	-0.0
				Sobrecarga de uso	56.1	0.6	-1.9	0.3	-1.5	-0.0	56.1	0.3	-0.5	0.3	-1.5	-0.0
				Viento +X exc.+	5.1	-6.9	0.6	-3.6	0.3	0.0	5.1	-3.3	0.3	-3.6	0.3	0.0
				Viento +X exc.-	5.3	-6.3	-0.1	-3.3	-0.0	-0.0	5.3	-3.0	-0.0	-3.3	-0.0	-0.0
				Viento -X exc.+	-5.1	6.9	-0.6	3.6	-0.3	-0.0	-5.1	3.3	-0.3	3.6	-0.3	-0.0
				Viento -X exc.-	-5.3	6.3	0.1	3.3	0.0	0.0	-5.3	3.0	0.0	3.3	0.0	0.0
				Viento +Y exc.+	14.7	-0.3	-13.0	-0.2	-6.2	0.0	14.7	-0.2	-6.8	-0.2	-6.2	0.0
				Viento +Y exc.-	13.7	-2.9	-10.2	-1.5	-4.8	0.0	13.7	-1.4	-5.3	-1.5	-4.8	0.0
				Viento -Y exc.+	-14.7	0.3	13.0	0.2	6.2	-0.0	-14.7	0.2	6.8	0.2	6.2	-0.0
				Viento -Y exc.-	-13.7	2.9	10.2	1.5	4.8	-0.0	-13.7	1.4	5.3	1.5	4.8	-0.0
A9	Cubierta	25x25	3.80/6.70	Carga permanente	45.9	-1.9	-5.0	-0.9	-2.6	-0.0	41.4	0.7	2.5	-0.9	-2.6	-0.0
				Sobrecarga de uso	12.5	-0.2	-2.7	-0.1	-1.4	-0.0	12.5	0.0	1.3	-0.1	-1.4	-0.0
				Viento +X exc.+	0.4	-1.2	0.2	-0.7	0.1	0.0	0.4	0.9	-0.2	-0.7	0.1	0.0
				Viento +X exc.-	0.5	-1.0	-0.1	-0.6	-0.0	-0.0	0.5	0.8	0.0	-0.6	-0.0	-0.0
				Viento -X exc.+	-0.4	1.2	-0.2	0.7	-0.1	-0.0	-0.4	-0.9	0.2	0.7	-0.1	-0.0
				Viento -X exc.-	-0.5	1.0	0.1	0.6	0.0	0.0	-0.5	-0.8	-0.0	0.6	0.0	0.0
				Viento +Y exc.+	1.4	-0.1	-4.1	-0.1	-2.3	0.0	1.4	0.1	2.6	-0.1	-2.3	0.0
				Viento +Y exc.-	1.2	-0.7	-2.8	-0.4	-1.6	0.0	1.2	0.5	1.7	-0.4	-1.6	0.0
				Viento -Y exc.+	-1.4	0.1	4.1	0.1	2.3	-0.0	-1.4	-0.1	-2.6	0.1	2.3	-0.0
				Viento -Y exc.-	-1.2	0.7	2.8	0.4	1.6	-0.0	-1.2	-0.5	-1.7	0.4	1.6	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	105.5	2.5	1.3	0.8	0.1	-0.0	100.0	-0.4	1.1	0.8	0.1	-0.0
				Sobrecarga de uso	28.3	0.6	0.0	0.2	-0.4	-0.0	28.3	-0.2	1.3	0.2	-0.4	-0.0
				Viento +X exc.+	1.9	-2.4	0.5	-1.7	0.3	0.0	1.9	3.6	-0.7	-1.7	0.3	0.0
				Viento +X exc.-	2.3	-2.2	0.0	-1.5	0.0	-0.0	2.3	3.3	-0.0	-1.5	0.0	-0.0
				Viento -X exc.+	-1.9	2.4	-0.5	1.7	-0.3	-0.0	-1.9	-3.6	0.7	1.7	-0.3	-0.0
				Viento -X exc.-	-2.3	2.2	-0.0	1.5	-0.0	0.0	-2.3	-3.3	0.0	1.5	-0.0	0.0
				Viento +Y exc.+	8.1	-0.0	-5.9	-0.0	-4.1	0.0	8.1	0.1	9.0	-0.0	-4.1	0.0
				Viento +Y exc.-	6.4	-1.0	-3.8	-0.7	-2.7	0.0	6.4	1.5	5.8	-0.7	-2.7	0.0
				Viento -Y exc.+	-8.1	0.0	5.9	0.0	4.1	-0.0	-8.1	-0.1	-9.0	0.0	4.1	-0.0
				Viento -Y exc.-	-6.4	1.0	3.8	0.7	2.7	-0.0	-6.4	-1.5	-5.8	0.7	2.7	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	107.1	3.3	1.4	0.8	0.1	-0.0	105.5	2.5	1.3	0.8	0.1	-0.0
				Sobrecarga de uso	28.3	0.8	-0.4	0.2	-0.4	-0.0	28.3	0.6	0.0	0.2	-0.4	-0.0
				Viento +X exc.+	1.9	-4.1	0.8	-1.7	0.3	0.0	1.9	-2.4	0.5	-1.7	0.3	0.0
				Viento +X exc.-	2.3	-3.7	0.0	-1.5	0.0	-0.0	2.3	-2.2	0.0	-1.5	0.0	-0.0
				Viento -X exc.+	-1.9	4.1	-0.8	1.7	-0.3	-0.0	-1.9	2.4	-0.5	1.7	-0.3	-0.0
				Viento -X exc.-	-2.3	3.7	-0.0	1.5	-0.0	0.0	-2.3	2.2	-0.0	1.5	-0.0	0.0
				Viento +Y exc.+	8.1	-0.1	-10.1	-0.0	-4.1	0.0	8.1	-0.0	-5.9	-0.0	-4.1	0.0
				Viento +Y exc.-	6.4	-1.7	-6.5	-0.7	-2.7	0.0	6.4	-1.0	-3.8	-0.7	-2.7	0.0
				Viento -Y exc.+	-8.1	0.1	10.1	0.0	4.1	-0.0	-8.1	0.0	5.9	0.0	4.1	-0.0
				Viento -Y exc.-	-6.4	1.7	6.5	0.7	2.7	-0.0	-6.4	1.0	3.8	0.7	2.7	-0.0
B1	Cubierta	25x25	3.80/6.50	Carga permanente	143.6	16.1	5.8	8.9	3.0	-0.0	139.5	-7.9	-2.4	8.9	3.0	-0.0
				Sobrecarga de uso	41.9	8.3	1.7	4.1	0.8	-0.0	41.9	-2.8	-0.6	4.1	0.8	-0.0
				Viento +X exc.+	-1.3	-1.2	-1.3	-0.8	-0.8	0.0	-1.3	0.9	0.7	-0.8	-0.8	0.0
				Viento +X exc.-	-1.3	-1.2	-0.9	-0.8	-0.5	-0.0	-1.3	1.0	0.5	-0.8	-0.5	-0.0
				Viento -X exc.+	1.3	1.2	1.3	0.8	0.8	-0.0	1.3	-0.9	-0.7	0.8	0.8	-0.0
				Viento -X exc.-	1.3	1.2	0.9	0.8	0.5	0.0	1.3	-1.0	-0.5	0.8	0.5	0.0
				Viento +Y exc.+	1.5	1.2	-7.6	0.9	-4.4	0.0	1.5	-1.3	4.3	0.9	-4.4	0.0
				Viento +Y exc.-	1.6	1.1	-9.5	1.0	-5.5	0.0	1.6	-1.5	5.4	1.0	-5.5	0.0
				Viento -Y exc.+	-1.5	-1.2	7.6	-0.9	4.4	-0.0	-1.5	1.3	-4.3	-0.9	4.4	-0.0
				Viento -Y exc.-	-1.6	-1.1	9.5	-1.0	5.5	-0.0	-1.6	1.5	-5.4	-1.0	5.5	-0.0
	Planta 1	25x30	-0.10/3.50	Carga permanente	293.9	-0.8	3.1	2.0	2.8	-0.0	287.2	-8.0	-6.8	2.0	2.8	-0.0
				Sobrecarga de uso	95.6	0.3	0.8	1.7	0.8	-0.0	95.6	-5.8	-2.0	1.7	0.8	-0.0
				Viento +X exc.+	-4.1	-2.3	-2.5	-1.6	-1.8	0.0	-4.1	3.4	4.1	-1.6	-1.8	0.0
				Viento +X exc.-	-4.0	-2.4	-1.7	-1.6	-1.3	-0.0	-4.0	3.5	2.9	-1.6	-1.3	-0.0
				Viento -X exc.+	4.1	2.3	2.5	1.6	1.8	-0.0	4.1	-3.4	-4.1	1.6	1.8	-0.0
				Viento -X exc.-	4.0	2.4	1.7	1.6	1.3	0.0	4.0	-3.5	-2.9	1.6	1.3	0.0
				Viento +Y exc.+	2.8	3.1	-11.7	1.8	-8.2	0.0	2.8	-3.5	17.7	1.8	-8.2	0.0
				Viento +Y exc.-	2.7	3.5	-15.3	2.0	-10.7	0.1	2.7	-3.9	23.3	2.0	-10.7	0.1
				Viento -Y exc.+	-2.8	-3.1	11.7	-1.8	8.2	-0.0	-2.8	3.5	-17.7	-1.8	8.2	-0.0
				Viento -Y exc.-	-2.7	-3.5	15.3	-2.0	10.7	-0.1	-2.7	3.9	-23.3	-2.0	10.7	-0.1
	Planta Baja	25x30	-1.10/-0.10	Carga permanente	295.7	1.3	5.9	2.0	2.8	-0.0	293.9	-0.8	3.1	2.0	2.8	-0.0
				Sobrecarga de uso	95.6	2.1	1.5	1.7	0.8	-0.0	95.6	0.3	0.8	1.7	0.8	-0.0
				Viento +X exc.+	-4.1	-3.9	-4.4	-1.6	-1.8	0.0	-4.1	-2.3	-2.5	-1.6	-1.8	0.0
				Viento +X exc.-	-4.0	-4.0	-3.0	-1.6	-1.3	-0.0	-4.0	-2.4	-1.7	-1.6	-1.3	-0.0
				Viento -X exc.+	4.1	3.9	4.4	1.6	1.8	-0.0	4.1	2.3	2.5	1.6	1.8	-0.0
				Viento -X exc.-	4.0	4.0	3.0	1.6	1.3	0.0	4.0	2.4	1.7	1.6	1.3	0.0
				Viento +Y exc.+	2.8	4.9	-19.9	1.8	-8.2	0.0	2.8	3.1	-11.7	1.8	-8.2	0.0
				Viento +Y exc.-	2.7	5.5	-26.0	2.0	-10.7	0.1	2.7	3.5	-15.3	2.0	-10.7	0.1
				Viento -Y exc.+	-2.8	-4.9	19.9	-1.8	8.2	-0.0	-2.8	-3.1	11.7	-1.8	8.2	-0.0
				Viento -Y exc.-	-2.7	-5.5	26.0	-2.0	10.7	-0.1	-2.7	-3.5	15.3	-2.0	10.7	-0.1



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
B2	Tapa	25x25	8.60/10.30	Carga permanente	53.3	-1.4	0.8	-4.4	-2.4	-0.0	50.7	6.1	4.8	-4.4	-2.4	-0.0
				Sobrecarga de uso	4.2	-0.6	0.6	-1.3	0.4	-0.0	4.2	1.7	-0.1	-1.3	0.4	-0.0
				Viento +X exc.+	-0.7	-0.1	0.0	-0.3	-0.1	-0.0	-0.7	0.4	0.1	-0.3	-0.1	-0.0
				Viento +X exc.-	-0.6	-0.1	0.0	-0.2	-0.0	-0.0	-0.6	0.3	0.1	-0.2	-0.0	-0.0
				Viento -X exc.+	0.7	0.1	-0.0	0.3	0.1	0.0	0.7	-0.4	-0.1	0.3	0.1	0.0
				Viento -X exc.-	0.6	0.1	-0.0	0.2	0.0	0.0	0.6	-0.3	-0.1	0.2	0.0	0.0
				Viento +Y exc.+	0.9	-0.2	-0.5	-0.5	-1.7	0.0	0.9	0.7	2.4	-0.5	-1.7	0.0
				Viento +Y exc.-	0.7	-0.3	-0.5	-0.7	-1.9	0.0	0.7	0.9	2.7	-0.7	-1.9	0.0
				Viento -Y exc.+	-0.9	0.2	0.5	0.5	1.7	-0.0	-0.9	-0.7	-2.4	0.5	1.7	-0.0
				Viento -Y exc.-	-0.7	0.3	0.5	0.7	1.9	-0.0	-0.7	-0.9	-2.7	0.7	1.9	-0.0
	Casetón	25x25	7.00/8.60	Carga permanente	55.7	-8.5	-2.9	-4.4	-2.4	-0.0	53.3	-1.4	0.8	-4.4	-2.4	-0.0
				Sobrecarga de uso	4.2	-2.6	1.2	-1.3	0.4	-0.0	4.2	-0.6	0.6	-1.3	0.4	-0.0
				Viento +X exc.+	-0.7	-0.9	-0.1	-0.5	-0.1	0.0	-0.7	-0.1	0.0	-0.5	-0.1	0.0
				Viento +X exc.-	-0.6	-0.8	-0.0	-0.4	-0.0	-0.0	-0.6	-0.1	0.0	-0.4	-0.0	-0.0
				Viento -X exc.+	0.7	0.9	0.1	0.5	0.1	-0.0	0.7	0.1	-0.0	0.5	0.1	-0.0
				Viento -X exc.-	0.6	0.8	0.0	0.4	0.0	0.0	0.6	0.1	-0.0	0.4	0.0	0.0
				Viento +Y exc.+	0.9	-1.0	-3.7	-0.5	-2.0	0.0	0.9	-0.2	-0.5	-0.5	-2.0	0.0
				Viento +Y exc.-	0.7	-1.4	-4.1	-0.7	-2.2	0.0	0.7	-0.3	-0.5	-0.7	-2.2	0.0
			Viento -Y exc.+	-0.9	1.0	3.7	0.5	2.0	-0.0	-0.9	0.2	0.5	0.5	2.0	-0.0	
			Viento -Y exc.-	-0.7	1.4	4.1	0.7	2.2	-0.0	-0.7	0.3	0.5	0.7	2.2	-0.0	
B3	Tapa	25x25	8.60/10.30	Carga permanente	29.5	8.2	-6.6	2.2	-7.5	-0.0	26.9	4.4	6.1	2.2	-7.5	-0.0
				Sobrecarga de uso	3.9	2.6	-0.9	0.9	-0.8	-0.0	3.9	1.2	0.4	0.9	-0.8	-0.0
				Viento +X exc.+	0.8	-1.1	0.0	-1.0	0.0	0.0	0.8	0.5	-0.0	-1.0	0.0	0.0
				Viento +X exc.-	0.6	-0.9	-0.0	-0.8	0.0	-0.0	0.6	0.5	-0.0	-0.8	0.0	-0.0
				Viento -X exc.+	-0.8	1.1	-0.0	1.0	-0.0	-0.0	-0.8	-0.5	0.0	1.0	-0.0	-0.0
				Viento -X exc.-	-0.6	0.9	0.0	0.8	-0.0	0.0	-0.6	-0.5	0.0	0.8	-0.0	0.0
				Viento +Y exc.+	1.3	-1.1	-2.4	-1.0	-2.6	0.0	1.3	0.7	2.0	-1.0	-2.6	0.0
				Viento +Y exc.-	1.6	-1.6	-2.1	-1.5	-2.4	0.1	1.6	0.9	2.0	-1.5	-2.4	0.1
				Viento -Y exc.+	-1.3	1.1	2.4	1.0	2.6	-0.0	-1.3	-0.7	-2.0	1.0	2.6	-0.0
				Viento -Y exc.-	-1.6	1.6	2.1	1.5	2.4	-0.1	-1.6	-0.9	-2.0	1.5	2.4	-0.1
	Casetón	25x25	7.00/8.30	Carga permanente	82.4	-8.2	-4.0	4.0	-5.0	-0.0	80.4	-13.5	2.5	4.0	-5.0	-0.0
				Sobrecarga de uso	16.2	-2.0	0.4	1.6	0.5	-0.0	16.2	-4.0	-0.3	1.6	0.5	-0.0
				Viento +X exc.+	0.3	-0.3	0.0	-0.4	-0.0	-0.0	0.3	0.2	0.1	-0.4	-0.0	-0.0
				Viento +X exc.-	0.2	-0.3	0.0	-0.4	0.0	-0.0	0.2	0.2	-0.0	-0.4	0.0	-0.0
				Viento -X exc.+	-0.3	0.3	-0.0	0.4	0.0	0.0	-0.3	-0.2	-0.1	0.4	0.0	0.0
				Viento -X exc.-	-0.2	0.3	-0.0	0.4	-0.0	0.0	-0.2	-0.2	0.0	0.4	-0.0	0.0
				Viento +Y exc.+	3.9	-0.9	-3.0	-0.8	-5.5	0.0	3.9	0.1	4.1	-0.8	-5.5	0.0
				Viento +Y exc.-	4.2	-1.0	-3.2	-0.9	-6.1	0.0	4.2	0.1	4.7	-0.9	-6.1	0.0
				Viento -Y exc.+	-3.9	0.9	3.0	0.8	5.5	-0.0	-3.9	-0.1	-4.1	0.8	5.5	-0.0
				Viento -Y exc.-	-4.2	1.0	3.2	0.9	6.1	-0.0	-4.2	-0.1	-4.7	0.9	6.1	-0.0
	Cubierta	25x25	3.80/6.50	Carga permanente	285.2	-13.8	-11.4	-11.5	-6.5	-0.0	281.1	17.2	6.2	-11.5	-6.5	-0.0
				Sobrecarga de uso	71.1	-5.6	-1.4	-4.1	-0.6	-0.0	71.1	5.4	0.3	-4.1	-0.6	-0.0
				Viento +X exc.+	0.2	-2.5	-0.0	-2.1	-0.1	0.0	0.2	3.2	0.2	-2.1	-0.1	0.0
				Viento +X exc.-	0.0	-2.5	0.1	-2.0	0.0	-0.0	0.0	3.1	-0.0	-2.0	0.0	-0.0
				Viento -X exc.+	-0.2	2.5	0.0	2.1	0.1	-0.0	-0.2	-3.2	-0.2	2.1	0.1	-0.0
				Viento -X exc.-	-0.0	2.5	-0.1	2.0	-0.0	0.0	-0.0	-3.1	0.0	2.0	-0.0	0.0
				Viento +Y exc.+	7.3	-0.2	-4.4	-0.3	-4.2	0.0	7.3	0.5	6.8	-0.3	-4.2	0.0
				Viento +Y exc.-	8.0	-0.6	-5.0	-0.6	-4.7	0.0	8.0	1.1	7.8	-0.6	-4.7	0.0
				Viento -Y exc.+	-7.3	0.2	4.4	0.3	4.2	-0.0	-7.3	-0.5	-6.8	0.3	4.2	-0.0
				Viento -Y exc.-	-8.0	0.6	5.0	0.6	4.7	-0.0	-8.0	-1.1	-7.8	0.6	4.7	-0.0
Planta 1	30x30	-0.10/3.50	Carga permanente	489.2	-1.8	-0.1	-2.5	-3.5	-0.0	481.2	7.4	12.7	-2.5	-3.5	-0.0	
			Sobrecarga de uso	153.3	-1.1	0.2	-1.6	-0.5	-0.0	153.3	4.6	2.0	-1.6	-0.5	-0.0	
			Viento +X exc.+	0.7	-5.0	-0.5	-3.5	-0.3	0.0	0.7	7.4	0.5	-3.5	-0.3	0.0	
			Viento +X exc.-	0.5	-4.8	0.0	-3.3	0.0	-0.0	0.5	7.1	-0.1	-3.3	0.0	-0.0	
			Viento -X exc.+	-0.7	5.0	0.5	3.5	0.3	-0.0	-0.7	-7.4	-0.5	3.5	0.3	-0.0	
			Viento -X exc.-	-0.5	4.8	-0.0	3.3	-0.0	0.0	-0.5	-7.1	0.1	3.3	-0.0	0.0	
			Viento +Y exc.+	9.9	-0.3	-13.5	-0.1	-8.1	0.0	9.9	0.1	15.8	-0.1	-8.1	0.0	
			Viento +Y exc.-	10.9	-1.3	-15.7	-0.8	-9.5	0.1	10.9	1.4	18.3	-0.8	-9.5	0.1	
			Viento -Y exc.+	-9.9	0.3	13.5	0.1	8.1	-0.0	-9.9	-0.1	-15.8	0.1	8.1	-0.0	
			Viento -Y exc.-	-10.9	1.3	15.7	0.8	9.5	-0.1	-10.9	-1.4	-18.3	0.8	9.5	-0.1	
Planta Baja	30x30	-1.10/-0.10	Carga permanente	491.4	-4.3	-3.6	-2.5	-3.5	-0.0	489.2	-1.8	-0.1	-2.5	-3.5	-0.0	
			Sobrecarga de uso	153.3	-2.7	-0.3	-1.6	-0.5	-0.0	153.3	-1.1	0.2	-1.6	-0.5	-0.0	
			Viento +X exc.+	0.7	-8.5	-0.7	-3.5	-0.3	0.0	0.7	-5.0	-0.5	-3.5	-0.3	0.0	
			Viento +X exc.-	0.5	-8.1	0.1	-3.3	0.0	-0.0	0.5	-4.8	0.0	-3.3	0.0	-0.0	
			Viento -X exc.+	-0.7	8.5	0.7	3.5	0.3	-0.0	-0.7	5.0	0.5	3.5	0.3	-0.0	
			Viento -X exc.-	-0.5	8.1	-0.1	3.3	-0.0	0.0	-0.5	4.8	-0.0	3.3	-0.0	0.0	
			Viento +Y exc.+	9.9	-0.5	-21.7	-0.1	-8.1	0.0	9.9	-0.3	-13.5	-0.1	-8.1	0.0	
			Viento +Y exc.-	10.9	-2.0	-25.1	-0.8	-9.5	0.1	10.9	-1.3	-15.7	-0.8	-9.5	0.1	
			Viento -Y exc.+	-9.9	0.5	21.7	0.1	8.1	-0.0	-9.9	0.3	13.5	0.1	8.1	-0.0	
			Viento -Y exc.-	-10.9	2.0	25.1	0.8	9.5	-0.1	-10.9	1.3	15.7	0.8	9.5	-0.1	
B4	Casetón	25x25	7.00/8.30	Carga permanente	79.5	-1.8	1.1	-4.6	1.8	-0.0	77.5	4.1	-1.3	-4.6	1.8	-0.0
				Sobrecarga de uso	24.8	-1.1	0.3	-1.9	0.3	-0.0	24.8	1.4	-0.1	-1.9	0.3	-0.0
				Viento +X exc.+	0.2	-0.8	0.1	-1.1	0.1	-0.0	0.2	0.7	-0.0	-1.1	0.1	-0.0
				Viento +X exc.-	0.2	-0.8	0.1	-1.1	0.1	-0.0	0.2	0.6	-0.0	-1.1	0.1	-0.0
				Viento -X exc.+	-0.2	0.8	-0.1	1.1	-0.1	0.0	-0.2	-0.7	0.0	1.1	-0.1	0.0
				Viento -X exc.-	-0.2	0.8	-0.1	1.1	-0.1	0.0	-0.2	-0.6	0.0	1.1	-0.1	0.0
				Viento +Y exc.+	1.0	-0.6	-1.1	-0.8	-1.4	0.0	1.0	0.4	0.7	-0.8	-1.4	0.0
				Viento +Y exc.-	1.2	-0.9	-1.0	-1.2	-1.4	0.0	1.2	0.6	0.7	-1.2	-1.4	0.0
				Viento -Y exc.+	-1.0	0.6	1.1	0.8	1.4	-0.0	-1.0	-0.4	-0.7	0.8	1.4	-0.0
				Viento -Y exc.-	-1.2	0.9	1.0	1.2	1.4	-0.0	-1.2	-0.6	-0.7	1.2	1.4	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
	Cubierta	25x25	3.80/6.70	Carga permanente	130.8	-0.6	0.1	0.0	0.2	-0.0	126.4	-0.6	-0.5	0.0	0.2	-0.0
				Sobrecarga de uso	40.0	-0.3	-0.3	-0.1	-0.1	-0.0	40.0	-0.0	0.1	-0.1	-0.1	-0.0
				Viento +X exc.+	-0.3	-3.0	-0.2	-2.1	-0.1	0.0	-0.3	3.2	0.1	-2.1	-0.1	0.0
				Viento +X exc.-	-0.3	-2.9	-0.1	-2.0	-0.1	-0.0	-0.3	3.0	0.0	-2.0	-0.1	-0.0
				Viento -X exc.+	0.3	3.0	0.2	2.1	0.1	-0.0	0.3	-3.2	-0.1	2.1	0.1	-0.0
				Viento -X exc.-	0.3	2.9	0.1	2.0	0.1	0.0	0.3	-3.0	-0.0	2.0	0.1	0.0
				Viento +Y exc.+	-5.0	-0.3	-8.3	-0.2	-5.7	0.0	-5.0	0.2	8.2	-0.2	-5.7	0.0
				Viento +Y exc.-	-5.2	-0.9	-8.8	-0.6	-6.0	0.0	-5.2	0.8	8.6	-0.6	-6.0	0.0
				Viento -Y exc.+	5.0	0.3	8.3	0.2	5.7	-0.0	5.0	-0.2	-8.2	0.2	5.7	-0.0
				Viento -Y exc.-	5.2	0.9	8.8	0.6	6.0	-0.0	5.2	-0.8	-8.6	0.6	6.0	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	264.8	-0.2	1.4	-0.4	0.7	-0.0	259.3	1.2	-1.0	-0.4	0.7	-0.0
				Sobrecarga de uso	85.6	-0.0	0.3	-0.1	0.0	-0.0	85.6	0.4	0.1	-0.1	0.0	-0.0
				Viento +X exc.+	-1.2	-2.6	-0.1	-1.9	-0.1	0.0	-1.2	4.3	0.2	-1.9	-0.1	0.0
				Viento +X exc.-	-0.9	-2.5	-0.0	-1.8	-0.0	-0.0	-0.9	4.1	0.1	-1.8	-0.0	-0.0
				Viento -X exc.+	1.2	2.6	0.1	1.9	0.1	-0.0	1.2	-4.3	-0.2	1.9	0.1	-0.0
				Viento -X exc.-	0.9	2.5	0.0	1.8	0.0	0.0	0.9	-4.1	-0.1	1.8	0.0	0.0
				Viento +Y exc.+	-22.9	-0.1	-7.1	-0.1	-5.0	0.0	-22.9	0.3	10.9	-0.1	-5.0	0.0
				Viento +Y exc.-	-24.1	-0.6	-7.4	-0.5	-5.2	0.0	-24.1	1.1	11.4	-0.5	-5.2	0.0
				Viento -Y exc.+	22.9	0.1	7.1	0.1	5.0	-0.0	22.9	-0.3	-10.9	0.1	5.0	-0.0
				Viento -Y exc.-	24.1	0.6	7.4	0.5	5.2	-0.0	24.1	-1.1	-11.4	0.5	5.2	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	266.3	-0.6	2.1	-0.4	0.7	-0.0	264.8	-0.2	1.4	-0.4	0.7	-0.0
				Sobrecarga de uso	85.6	-0.1	0.3	-0.1	0.0	-0.0	85.6	-0.0	0.3	-0.1	0.0	-0.0
				Viento +X exc.+	-1.2	-4.5	-0.2	-1.9	-0.1	0.0	-1.2	-2.6	-0.1	-1.9	-0.1	0.0
				Viento +X exc.-	-0.9	-4.3	-0.0	-1.8	-0.0	-0.0	-0.9	-2.5	-0.0	-1.8	-0.0	-0.0
				Viento -X exc.+	1.2	4.5	0.2	1.9	0.1	-0.0	1.2	2.6	0.1	1.9	0.1	-0.0
				Viento -X exc.-	0.9	4.3	0.0	1.8	0.0	0.0	0.9	2.5	0.0	1.8	0.0	0.0
				Viento +Y exc.+	-22.9	-0.3	-12.1	-0.1	-5.0	0.0	-22.9	-0.1	-7.1	-0.1	-5.0	0.0
				Viento +Y exc.-	-24.1	-1.1	-12.7	-0.5	-5.2	0.0	-24.1	-0.6	-7.4	-0.5	-5.2	0.0
				Viento -Y exc.+	22.9	0.3	12.1	0.1	5.0	-0.0	22.9	0.1	7.1	0.1	5.0	-0.0
				Viento -Y exc.-	24.1	1.1	12.7	0.5	5.2	-0.0	24.1	0.6	7.4	0.5	5.2	-0.0
B5	Casetón	25x25	7.00/8.30	Carga permanente	86.0	2.7	1.1	6.4	-1.2	-0.0	84.0	-5.6	2.7	6.4	-1.2	-0.0
				Sobrecarga de uso	26.8	0.6	0.2	1.8	-1.0	-0.0	26.8	-1.7	1.4	1.8	-1.0	-0.0
				Viento +X exc.+	-0.0	-0.8	-0.0	-1.0	-0.0	-0.0	-0.0	0.6	0.0	-1.0	-0.0	-0.0
				Viento +X exc.-	-0.0	-0.7	0.0	-1.0	-0.0	-0.0	-0.0	0.5	0.0	-1.0	-0.0	-0.0
				Viento -X exc.+	0.0	0.8	0.0	1.0	0.0	0.0	0.0	-0.6	-0.0	1.0	0.0	0.0
				Viento -X exc.-	0.0	0.7	-0.0	1.0	0.0	0.0	0.0	-0.5	-0.0	1.0	0.0	0.0
				Viento +Y exc.+	0.3	-0.5	0.6	-0.5	-0.6	0.0	0.3	0.1	1.4	-0.5	-0.6	0.0
				Viento +Y exc.-	0.2	-0.7	0.5	-0.8	-0.6	0.0	0.2	0.3	1.4	-0.8	-0.6	0.0
				Viento -Y exc.+	-0.3	0.5	-0.6	0.5	0.6	-0.0	-0.3	-0.1	-1.4	0.5	0.6	-0.0
				Viento -Y exc.-	-0.2	0.7	-0.5	0.8	0.6	-0.0	-0.2	-0.3	-1.4	0.8	0.6	-0.0
Cubierta	25x25	3.80/6.70	Carga permanente	127.2	-3.3	0.1	-2.2	0.8	-0.0	122.7	3.1	-2.3	-2.2	0.8	-0.0	
			Sobrecarga de uso	37.5	-1.0	0.2	-0.7	0.3	-0.0	37.5	1.0	-0.8	-0.7	0.3	-0.0	
			Viento +X exc.+	0.1	-3.2	-0.0	-2.2	-0.0	0.0	0.1	3.3	-0.0	-2.2	-0.0	0.0	
			Viento +X exc.-	0.1	-3.1	-0.0	-2.1	-0.0	-0.0	0.1	3.1	0.0	-2.1	-0.0	-0.0	
			Viento -X exc.+	-0.1	3.2	0.0	2.2	0.0	-0.0	-0.1	-3.3	0.0	2.2	0.0	-0.0	
			Viento -X exc.-	-0.1	3.1	0.0	2.1	0.0	0.0	-0.1	-3.1	-0.0	2.1	0.0	0.0	
			Viento +Y exc.+	-1.5	-0.2	2.3	-0.1	0.2	0.0	-1.5	0.2	1.8	-0.1	0.2	0.0	
			Viento +Y exc.-	-1.4	-0.8	2.1	-0.5	0.1	0.0	-1.4	0.8	1.7	-0.5	0.1	0.0	
			Viento -Y exc.+	1.5	0.2	-2.3	0.1	-0.2	-0.0	1.5	-0.2	-1.8	0.1	-0.2	-0.0	
			Viento -Y exc.-	1.4	0.8	-2.1	0.5	-0.1	-0.0	1.4	-0.8	-1.7	0.5	-0.1	-0.0	
Planta 1	25x25	-0.10/3.50	Carga permanente	221.4	-0.2	1.5	-0.5	0.5	-0.0	215.9	1.7	-0.3	-0.5	0.5	-0.0	
			Sobrecarga de uso	71.8	0.0	0.3	-0.1	0.1	-0.0	71.8	0.4	0.0	-0.1	0.1	-0.0	
			Viento +X exc.+	-1.5	-2.6	0.0	-1.9	0.0	0.0	-1.5	4.4	-0.0	-1.9	0.0	0.0	
			Viento +X exc.-	-1.4	-2.5	-0.0	-1.9	-0.0	-0.0	-1.4	4.2	0.0	-1.9	-0.0	-0.0	
			Viento -X exc.+	1.5	2.6	-0.0	1.9	-0.0	-0.0	1.5	-4.4	0.0	1.9	-0.0	-0.0	
			Viento -X exc.-	1.4	2.5	0.0	1.9	0.0	0.0	1.4	-4.2	-0.0	1.9	0.0	0.0	
			Viento +Y exc.+	-3.9	-0.1	-5.6	-0.1	-2.7	0.0	-3.9	0.1	4.0	-0.1	-2.7	0.0	
			Viento +Y exc.-	-4.1	-0.6	-5.3	-0.4	-2.5	0.0	-4.1	0.9	3.8	-0.4	-2.5	0.0	
			Viento -Y exc.+	3.9	0.1	5.6	0.1	2.7	-0.0	3.9	-0.1	-4.0	0.1	2.7	-0.0	
			Viento -Y exc.-	4.1	0.6	5.3	0.4	2.5	-0.0	4.1	-0.9	-3.8	0.4	2.5	-0.0	
Planta Baja	25x25	-1.10/-0.10	Carga permanente	223.0	-0.7	2.0	-0.5	0.5	-0.0	221.4	-0.2	1.5	-0.5	0.5	-0.0	
			Sobrecarga de uso	71.8	-0.1	0.4	-0.1	0.1	-0.0	71.8	0.0	0.3	-0.1	0.1	-0.0	
			Viento +X exc.+	-1.5	-4.6	0.1	-1.9	0.0	0.0	-1.5	-2.6	0.0	-1.9	0.0	0.0	
			Viento +X exc.-	-1.4	-4.4	-0.0	-1.9	-0.0	-0.0	-1.4	-2.5	-0.0	-1.9	-0.0	-0.0	
			Viento -X exc.+	1.5	4.6	-0.1	1.9	-0.0	-0.0	1.5	2.6	-0.0	1.9	-0.0	-0.0	
			Viento -X exc.-	1.4	4.4	0.0	1.9	0.0	0.0	1.4	2.5	0.0	1.9	0.0	0.0	
			Viento +Y exc.+	-3.9	-0.1	-8.3	-0.1	-2.7	0.0	-3.9	-0.1	-5.6	-0.1	-2.7	0.0	
			Viento +Y exc.-	-4.1	-1.0	-7.8	-0.4	-2.5	0.0	-4.1	-0.6	-5.3	-0.4	-2.5	0.0	
			Viento -Y exc.+	3.9	0.1	8.3	0.1	2.7	-0.0	3.9	0.1	5.6	0.1	2.7	-0.0	
			Viento -Y exc.-	4.1	1.0	7.8	0.4	2.5	-0.0	4.1	0.6	5.3	0.4	2.5	-0.0	
B7	Cubierta	25x25	3.80/6.50	Carga permanente	65.7	7.1	-0.1	3.7	0.5	-0.0	61.5	-2.9	-1.5	3.7	0.5	-0.0
				Sobrecarga de uso	19.6	1.5	0.2	0.9	0.3	-0.0	19.6	-0.8	-0.5	0.9	0.3	-0.0
				Viento +X exc.+	0.5	-2.4	-0.1	-1.4	-0.0	0.0	0.5	1.3	-0.1	-1.4	-0.0	0.0
				Viento +X exc.-	0.5	-2.3	0.0	-1.3	0.0	-0.0	0.5	1.2	-0.0	-1.3	0.0	-0.0
				Viento -X exc.+	-0.5	2.4	0.1	1.4	0.0	-0.0	-0.5	-1.3	0.1	1.4	0.0	-0.0
				Viento -X exc.-	-0.5	2.3	-0.0	1.3	-0.0	0.0	-0.5	-1.2	0.0	1.3	-0.0	0.0
				Viento +Y exc.+	1.0	-0.2	2.4	-0.1	0.5	0.0	1.0	-0.0	1.0	-0.1	0.5	0.0
				Viento +Y exc.-	0.9	-0.7	2.0	-0.3	0.4	0.0	0.9	0.3	0.9	-0.3	0.4	0.0
				Viento -Y exc.+	-1.0	0.2	-2.4	0.1	-0.5	-0.0	-1.0	0.0	-1.0	0.1	-0.5	-0.0
				Viento -Y exc.-	-0.9	0.7	-2.0	0.3	-0.4	-0.0	-0.9	-0.3	-0.9	0.3	-0.4	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
	Planta 1	25x25	-0.10/3.50	Carga permanente	210.0	1.0	1.3	1.4	0.4	-0.0	204.5	-4.1	-0.2	1.4	0.4	-0.0
				Sobrecarga de uso	54.3	0.2	0.2	0.3	0.1	-0.0	54.3	-0.8	0.0	0.3	0.1	-0.0
				Viento +X exc. +	2.8	-2.6	0.1	-1.9	0.1	0.0	2.8	4.2	-0.1	-1.9	0.1	0.0
				Viento +X exc. -	2.6	-2.5	-0.0	-1.8	-0.0	-0.0	2.6	4.1	0.0	-1.8	-0.0	-0.0
				Viento -X exc. +	-2.8	2.6	-0.1	1.9	-0.1	-0.0	-2.8	-4.2	0.1	1.9	-0.1	-0.0
				Viento -X exc. -	-2.6	2.5	0.0	1.8	0.0	0.0	-2.6	-4.1	-0.0	1.8	0.0	0.0
				Viento +Y exc. +	-2.0	-0.1	-5.5	-0.1	-2.7	0.0	-2.0	0.2	4.2	-0.1	-2.7	0.0
				Viento +Y exc. -	-1.2	-0.6	-4.8	-0.5	-2.3	0.0	-1.2	1.0	3.6	-0.5	-2.3	0.0
				Viento -Y exc. +	2.0	0.1	5.5	0.1	2.7	-0.0	2.0	-0.2	-4.2	0.1	2.7	-0.0
				Viento -Y exc. -	1.2	0.6	4.8	0.5	2.3	-0.0	1.2	-1.0	-3.6	0.5	2.3	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	211.5	2.4	1.7	1.4	0.4	-0.0	210.0	1.0	1.3	1.4	0.4	-0.0
				Sobrecarga de uso	54.3	0.5	0.3	0.3	0.1	-0.0	54.3	0.2	0.2	0.3	0.1	-0.0
				Viento +X exc. +	2.8	-4.5	0.2	-1.9	0.1	0.0	2.8	-2.6	0.1	-1.9	0.1	0.0
				Viento +X exc. -	2.6	-4.3	-0.1	-1.8	-0.0	-0.0	2.6	-2.5	-0.0	-1.8	-0.0	-0.0
				Viento -X exc. +	-2.8	4.5	-0.2	1.9	-0.1	-0.0	-2.8	2.6	-0.1	1.9	-0.1	-0.0
				Viento -X exc. -	-2.6	4.3	0.1	1.8	0.0	0.0	-2.6	2.5	0.0	1.8	0.0	0.0
				Viento +Y exc. +	-2.0	-0.2	-8.2	-0.1	-2.7	0.0	-2.0	-0.1	-5.5	-0.1	-2.7	0.0
				Viento +Y exc. -	-1.2	-1.1	-7.1	-0.5	-2.3	0.0	-1.2	-0.6	-4.8	-0.5	-2.3	0.0
				Viento -Y exc. +	2.0	0.2	8.2	0.1	2.7	-0.0	2.0	0.1	5.5	0.1	2.7	-0.0
				Viento -Y exc. -	1.2	1.1	7.1	0.5	2.3	-0.0	1.2	0.6	4.8	0.5	2.3	-0.0
B8	Casetón	25x25	7.00/8.30	Carga permanente	50.8	-3.7	-0.4	-9.3	-3.3	-0.0	48.8	8.4	3.9	-9.3	-3.3	-0.0
				Sobrecarga de uso	15.8	-0.9	-0.1	-2.7	-1.4	-0.0	15.8	2.7	1.7	-2.7	-1.4	-0.0
				Viento +X exc. +	-0.1	-1.3	-0.0	-1.4	0.0	-0.0	-0.1	0.5	-0.0	-1.4	0.0	-0.0
				Viento +X exc. -	-0.0	-1.3	-0.0	-1.3	-0.0	-0.0	-0.0	0.4	0.0	-1.3	-0.0	-0.0
				Viento -X exc. +	0.1	1.3	0.0	1.4	-0.0	0.0	0.1	-0.5	0.0	1.4	-0.0	0.0
				Viento -X exc. -	0.0	1.3	0.0	1.3	0.0	0.0	0.0	-0.4	-0.0	1.3	0.0	0.0
				Viento +Y exc. +	0.8	0.3	-0.9	0.3	-1.4	0.0	0.8	-0.0	1.0	0.3	-1.4	0.0
				Viento +Y exc. -	0.7	-0.2	-0.7	-0.3	-1.2	0.0	0.7	0.1	0.8	-0.3	-1.2	0.0
				Viento -Y exc. +	-0.8	-0.3	0.9	-0.3	1.4	-0.0	-0.8	0.0	-1.0	-0.3	1.4	-0.0
				Viento -Y exc. -	-0.7	0.2	0.7	0.3	1.2	-0.0	-0.7	-0.1	-0.8	0.3	1.2	-0.0
	Cubierta	25x25	3.80/6.50	Carga permanente	140.3	-0.0	0.4	0.9	1.6	-0.0	136.1	-2.4	-4.0	0.9	1.6	-0.0
				Sobrecarga de uso	40.9	0.4	-0.3	0.6	0.2	-0.0	40.9	-1.1	-0.8	0.6	0.2	-0.0
				Viento +X exc. +	0.9	1.0	0.5	0.0	0.3	0.0	0.9	0.9	-0.5	0.0	0.3	0.0
				Viento +X exc. -	0.8	0.9	-0.0	0.0	-0.0	-0.0	0.8	0.8	0.1	0.0	-0.0	-0.0
				Viento -X exc. +	-0.9	-1.0	-0.5	-0.0	-0.3	-0.0	-0.9	-0.9	0.5	-0.0	-0.3	-0.0
				Viento -X exc. -	-0.8	-0.9	0.0	-0.0	0.0	0.0	-0.8	-0.8	-0.1	-0.0	0.0	0.0
				Viento +Y exc. +	1.6	0.1	-11.9	0.1	-8.9	0.0	1.6	-0.2	12.1	0.1	-8.9	0.0
				Viento +Y exc. -	1.5	0.2	-9.6	0.1	-7.2	0.0	1.5	-0.1	9.7	0.1	-7.2	0.0
				Viento -Y exc. +	-1.6	-0.1	11.9	-0.1	8.9	-0.0	-1.6	0.2	-12.1	-0.1	8.9	-0.0
				Viento -Y exc. -	-1.5	-0.2	9.6	-0.1	7.2	-0.0	-1.5	0.1	-9.7	-0.1	7.2	-0.0
C8	Planta 1	25x25	-0.10/3.50	Carga permanente	308.6	-0.0	0.4	-0.4	-0.1	-0.0	303.0	1.4	0.8	-0.4	-0.1	-0.0
				Sobrecarga de uso	115.9	0.1	-0.0	-0.0	-0.2	-0.0	115.9	0.2	0.6	-0.0	-0.2	-0.0
				Viento +X exc. +	1.7	-2.0	0.3	-1.0	0.2	0.0	1.7	1.6	-0.6	-1.0	0.2	0.0
				Viento +X exc. -	1.6	-2.0	-0.0	-1.0	-0.0	-0.0	1.6	1.6	0.0	-1.0	-0.0	-0.0
				Viento -X exc. +	-1.7	2.0	-0.3	1.0	-0.2	-0.0	-1.7	-1.6	0.6	1.0	-0.2	-0.0
				Viento -X exc. -	-1.6	2.0	0.0	1.0	0.0	0.0	-1.6	-1.6	-0.0	1.0	0.0	0.0
				Viento +Y exc. +	-0.0	-0.1	-6.9	-0.0	-5.1	0.0	-0.0	0.1	11.4	-0.0	-5.1	0.0
				Viento +Y exc. -	0.5	-0.3	-5.4	-0.1	-4.0	0.0	0.5	0.3	8.9	-0.1	-4.0	0.0
				Viento -Y exc. +	0.0	0.1	6.9	0.0	5.1	-0.0	0.0	-0.1	-11.4	0.0	5.1	-0.0
				Viento -Y exc. -	-0.5	0.3	5.4	0.1	4.0	-0.0	-0.5	-0.3	-8.9	0.1	4.0	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	310.1	-0.4	0.3	-0.4	-0.1	-0.0	308.6	-0.0	0.4	-0.4	-0.1	-0.0
				Sobrecarga de uso	115.9	0.0	-0.2	-0.0	-0.2	-0.0	115.9	0.1	-0.0	-0.0	-0.2	-0.0
				Viento +X exc. +	1.7	-3.0	0.5	-1.0	0.2	0.0	1.7	-2.0	0.3	-1.0	0.2	0.0
				Viento +X exc. -	1.6	-3.0	-0.0	-1.0	-0.0	-0.0	1.6	-2.0	-0.0	-1.0	-0.0	-0.0
				Viento -X exc. +	-1.7	3.0	-0.5	1.0	-0.2	-0.0	-1.7	2.0	-0.3	1.0	-0.2	-0.0
				Viento -X exc. -	-1.6	3.0	0.0	1.0	0.0	0.0	-1.6	2.0	0.0	1.0	0.0	0.0
				Viento +Y exc. +	-0.0	-0.1	-12.0	-0.0	-5.1	0.0	-0.0	-0.1	-6.9	-0.0	-5.1	0.0
				Viento +Y exc. -	0.5	-0.4	-9.4	-0.1	-4.0	0.0	0.5	-0.3	-5.4	-0.1	-4.0	0.0
				Viento -Y exc. +	0.0	0.1	12.0	0.0	5.1	-0.0	0.0	0.1	6.9	0.0	5.1	-0.0
				Viento -Y exc. -	-0.5	0.4	9.4	0.1	4.0	-0.0	-0.5	0.3	5.4	0.1	4.0	-0.0
C9	Cubierta	25x25	3.80/6.70	Carga permanente	84.9	3.5	1.3	2.2	0.6	-0.0	80.4	-2.7	-0.5	2.2	0.6	-0.0
				Sobrecarga de uso	30.9	0.9	0.2	0.6	0.1	-0.0	30.9	-0.7	-0.1	0.6	0.1	-0.0
				Viento +X exc. +	0.2	1.0	0.3	0.2	0.2	0.0	0.2	0.3	-0.2	0.2	0.2	0.0
				Viento +X exc. -	0.2	1.0	-0.2	0.2	-0.1	-0.0	0.2	0.3	0.1	0.2	-0.1	-0.0
				Viento -X exc. +	-0.2	-1.0	-0.3	-0.2	-0.2	-0.0	-0.2	-0.3	0.2	-0.2	-0.2	-0.0
				Viento -X exc. -	-0.2	-1.0	0.2	-0.2	0.1	0.0	-0.2	-0.3	-0.1	-0.2	0.1	0.0
				Viento +Y exc. +	0.2	-0.1	-6.7	-0.0	-3.5	0.0	0.2	0.0	3.3	-0.0	-3.5	0.0
				Viento +Y exc. -	0.2	0.1	-4.5	0.0	-2.3	0.0	0.2	0.0	2.3	0.0	-2.3	0.0
				Viento -Y exc. +	-0.2	0.1	6.7	0.0	3.5	-0.0	-0.2	-0.0	-3.3	0.0	3.5	-0.0
				Viento -Y exc. -	-0.2	-0.1	4.5	-0.0	2.3	-0.0	-0.2	-0.0	-2.3	-0.0	2.3	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
D1	Planta 1	25x25	-0.10/3.50	Carga permanente	164.4	2.8	0.5	1.7	0.6	-0.0	158.9	-3.2	-1.7	1.7	0.6	-0.0
				Sobrecarga de uso	65.9	0.7	0.0	0.4	0.1	-0.0	65.9	-0.8	-0.3	0.4	0.1	-0.0
				Viento +X exc. +	0.7	-2.0	0.5	-1.0	0.3	0.0	0.7	1.8	-0.8	-1.0	0.3	0.0
				Viento +X exc. -	0.5	-2.0	-0.1	-1.0	-0.1	-0.0	0.5	1.7	0.1	-1.0	-0.1	-0.0
				Viento -X exc. +	-0.7	2.0	-0.5	1.0	-0.3	-0.0	-0.7	-1.8	0.8	1.0	-0.3	-0.0
				Viento -X exc. -	-0.5	2.0	0.1	1.0	0.1	0.0	-0.5	-1.7	-0.1	1.0	0.1	0.0
				Viento +Y exc. +	-2.2	-0.1	-6.7	-0.1	-5.0	0.0	-2.2	0.1	11.2	-0.1	-5.0	0.0
				Viento +Y exc. -	-1.3	-0.3	-4.3	-0.1	-3.2	0.0	-1.3	0.3	7.2	-0.1	-3.2	0.0
				Viento -Y exc. +	2.2	0.1	6.7	0.1	5.0	-0.0	2.2	-0.1	-11.2	0.1	5.0	-0.0
				Viento -Y exc. -	1.3	0.3	4.3	0.1	3.2	-0.0	1.3	-0.3	-7.2	0.1	3.2	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	166.0	4.5	1.1	1.7	0.6	-0.0	164.4	2.8	0.5	1.7	0.6	-0.0
				Sobrecarga de uso	65.9	1.1	0.1	0.4	0.1	-0.0	65.9	0.7	0.0	0.4	0.1	-0.0
				Viento +X exc. +	0.7	-3.0	0.8	-1.0	0.3	0.0	0.7	-2.0	0.5	-1.0	0.3	0.0
				Viento +X exc. -	0.5	-3.0	-0.1	-1.0	-0.1	-0.0	0.5	-2.0	-0.1	-1.0	-0.1	-0.0
				Viento -X exc. +	-0.7	3.0	-0.8	1.0	-0.3	-0.0	-0.7	2.0	-0.5	1.0	-0.3	-0.0
				Viento -X exc. -	-0.5	3.0	0.1	1.0	0.1	0.0	-0.5	2.0	0.1	1.0	0.1	0.0
				Viento +Y exc. +	-2.2	-0.1	-11.6	-0.1	-5.0	0.0	-2.2	-0.1	-6.7	-0.1	-5.0	0.0
				Viento +Y exc. -	-1.3	-0.4	-7.5	-0.1	-3.2	0.0	-1.3	-0.3	-4.3	-0.1	-3.2	0.0
				Viento -Y exc. +	2.2	0.1	11.6	0.1	5.0	-0.0	2.2	0.1	6.7	0.1	5.0	-0.0
				Viento -Y exc. -	1.3	0.4	7.5	0.1	3.2	-0.0	1.3	0.3	4.3	0.1	3.2	-0.0
	Cubierta	25x25	3.80/6.70	Carga permanente	77.4	2.5	1.4	1.3	0.7	-0.0	72.9	-1.2	-0.6	1.3	0.7	-0.0
				Sobrecarga de uso	25.0	2.7	0.8	1.4	0.4	-0.0	25.0	-1.3	-0.3	1.4	0.4	-0.0
				Viento +X exc. +	-0.8	-1.0	-1.2	-0.6	-0.6	0.0	-0.8	0.7	0.6	-0.6	-0.6	0.0
				Viento +X exc. -	-0.8	-1.2	-0.8	-0.7	-0.4	-0.0	-0.8	0.8	0.4	-0.7	-0.4	-0.0
				Viento -X exc. +	0.8	1.0	1.2	0.6	0.6	-0.0	0.8	-0.7	-0.6	0.6	0.6	-0.0
				Viento -X exc. -	0.8	1.2	0.8	0.7	0.4	0.0	0.8	-0.8	-0.4	0.7	0.4	0.0
				Viento +Y exc. +	0.2	1.4	-7.5	0.9	-3.9	0.0	0.2	-1.1	3.7	0.9	-3.9	0.0
				Viento +Y exc. -	0.5	1.9	-9.3	1.2	-4.8	0.0	0.5	-1.6	4.7	1.2	-4.8	0.0
				Viento -Y exc. +	-0.2	-1.4	7.5	-0.9	3.9	-0.0	-0.2	1.1	-3.7	-0.9	3.9	-0.0
				Viento -Y exc. -	-0.5	-1.9	9.3	-1.2	4.8	-0.0	-0.5	1.6	-4.7	-1.2	4.8	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	184.3	-1.5	-0.6	-0.3	-0.2	-0.0	178.8	-0.3	-0.0	-0.3	-0.2	-0.0
				Sobrecarga de uso	58.3	-0.1	0.0	0.4	0.1	-0.0	58.3	-1.5	-0.3	0.4	0.1	-0.0
				Viento +X exc. +	-3.0	-1.8	-1.4	-1.2	-1.1	0.0	-3.0	2.7	2.5	-1.2	-1.1	0.0
				Viento +X exc. -	-3.7	-2.1	-1.0	-1.4	-0.7	-0.0	-3.7	3.1	1.7	-1.4	-0.7	-0.0
				Viento -X exc. +	3.0	1.8	1.4	1.2	1.1	-0.0	3.0	-2.7	-2.5	1.2	1.1	-0.0
				Viento -X exc. -	3.7	2.1	1.0	1.4	0.7	0.0	3.7	-3.1	-1.7	1.4	0.7	0.0
				Viento +Y exc. +	7.1	2.8	-6.8	1.7	-5.0	0.0	7.1	-3.5	11.2	1.7	-5.0	0.0
				Viento +Y exc. -	10.1	4.1	-8.9	2.6	-6.5	0.0	10.1	-5.3	14.6	2.6	-6.5	0.0
				Viento -Y exc. +	-7.1	-2.8	6.8	-1.7	5.0	-0.0	-7.1	3.5	-11.2	-1.7	5.0	-0.0
				Viento -Y exc. -	-10.1	-4.1	8.9	-2.6	6.5	-0.0	-10.1	5.3	-14.6	-2.6	6.5	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	185.8	-1.8	-0.8	-0.3	-0.2	-0.0	184.3	-1.5	-0.6	-0.3	-0.2	-0.0
				Sobrecarga de uso	58.3	0.3	0.1	0.4	0.1	-0.0	58.3	-0.1	0.0	0.4	0.1	-0.0
				Viento +X exc. +	-3.0	-3.0	-2.5	-1.2	-1.1	0.0	-3.0	-1.8	-1.4	-1.2	-1.1	0.0
				Viento +X exc. -	-3.7	-3.5	-1.7	-1.4	-0.7	-0.0	-3.7	-2.1	-1.0	-1.4	-0.7	-0.0
				Viento -X exc. +	3.0	3.0	2.5	1.2	1.1	-0.0	3.0	1.8	1.4	1.2	1.1	-0.0
				Viento -X exc. -	3.7	3.5	1.7	1.4	0.7	0.0	3.7	2.1	1.0	1.4	0.7	0.0
				Viento +Y exc. +	7.1	4.5	-11.8	1.7	-5.0	0.0	7.1	2.8	-6.8	1.7	-5.0	0.0
				Viento +Y exc. -	10.1	6.7	-15.4	2.6	-6.5	0.0	10.1	4.1	-8.9	2.6	-6.5	0.0
				Viento -Y exc. +	-7.1	-4.5	11.8	-1.7	5.0	-0.0	-7.1	-2.8	6.8	-1.7	5.0	-0.0
				Viento -Y exc. -	-10.1	-6.7	15.4	-2.6	6.5	-0.0	-10.1	-4.1	8.9	-2.6	6.5	-0.0
D2	Tapa	25x25	8.60/10.30	Carga permanente	61.2	0.0	-1.7	3.5	3.9	-0.0	58.6	-6.0	-8.4	3.5	3.9	-0.0
				Sobrecarga de uso	6.2	-0.2	-0.3	0.2	0.4	-0.0	6.2	-0.6	-1.1	0.2	0.4	-0.0
				Viento +X exc. +	-0.4	0.1	0.0	-0.2	-0.0	-0.0	-0.4	0.4	0.1	-0.2	-0.0	-0.0
				Viento +X exc. -	-0.4	0.1	0.0	-0.2	0.0	-0.0	-0.4	0.5	-0.0	-0.2	0.0	-0.0
				Viento -X exc. +	0.4	-0.1	-0.0	0.2	0.0	0.0	0.4	-0.4	-0.1	0.2	0.0	0.0
				Viento -X exc. -	0.4	-0.1	-0.0	0.2	-0.0	0.0	0.4	-0.5	0.0	0.2	-0.0	0.0
				Viento +Y exc. +	-0.5	0.2	0.1	0.2	-1.3	0.0	-0.5	-0.2	2.4	0.2	-1.3	0.0
				Viento +Y exc. -	-0.4	0.2	0.2	0.4	-1.4	0.0	-0.4	-0.4	2.7	0.4	-1.4	0.0
				Viento -Y exc. +	0.5	-0.2	-0.1	-0.2	1.3	-0.0	0.5	0.2	-2.4	-0.2	1.3	-0.0
				Viento -Y exc. -	0.4	-0.2	-0.2	-0.4	1.4	-0.0	0.4	0.4	-2.7	-0.4	1.4	-0.0
	Caseton	25x25	7.00/8.60	Carga permanente	63.7	5.6	4.6	3.5	3.9	-0.0	61.2	0.0	-1.7	3.5	3.9	-0.0
				Sobrecarga de uso	6.2	0.1	0.3	0.2	0.4	-0.0	6.2	-0.2	-0.3	0.2	0.4	-0.0
				Viento +X exc. +	-0.4	-0.6	0.0	-0.4	-0.0	0.0	-0.4	0.1	0.0	-0.4	-0.0	0.0
				Viento +X exc. -	-0.4	-0.7	0.0	-0.5	0.0	-0.0	-0.4	0.1	0.0	-0.5	0.0	-0.0
				Viento -X exc. +	0.4	0.6	-0.0	0.4	0.0	-0.0	0.4	-0.1	-0.0	0.4	0.0	-0.0
				Viento -X exc. -	0.4	0.7	-0.0	0.5	-0.0	0.0	0.4	-0.1	-0.0	0.5	-0.0	0.0
				Viento +Y exc. +	-0.5	0.5	-2.5	0.2	-1.7	0.0	-0.5	0.2	0.1	0.2	-1.7	0.0
				Viento +Y exc. -	-0.4	0.8	-2.6	0.4	-1.8	0.0	-0.4	0.2	0.2	0.4	-1.8	0.0
				Viento -Y exc. +	0.5	-0.5	2.5	-0.2	1.7	-0.0	0.5	-0.2	-0.1	-0.2	1.7	-0.0
				Viento -Y exc. -	0.4	-0.8	2.6	-0.4	1.8	-0.0	0.4	-0.2	-0.2	-0.4	1.8	-0.0
	Cubierta	25x25	3.80/6.70	Carga permanente	209.2	1.9	3.4	1.5	1.9	-0.0	204.8	-2.6	-2.1	1.5	1.9	-0.0
				Sobrecarga de uso	60.0	-0.5	2.1	-0.4	1.0	-0.0	60.0	0.6	-0.9	-0.4	1.0	-0.0
				Viento +X exc. +	-0.9	-2.8	-0.2	-1.9	-0.2	0.0	-0.9	2.8	0.3	-1.9	-0.2	0.0
				Viento +X exc. -	-1.0	-2.9	0.2	-2.0	0.1	-0.0	-1.0	3.0	-0.1	-2.0	0.1	-0.0
				Viento -X exc. +	0.9	2.8	0.2	1.9	0.2	-0.0	0.9	-2.8	-0.3	1.9	0.2	-0.0
				Viento -X exc. -	1.0	2.9	-0.2	2.0	-0.1	0.0	1.0	-3.0	0.1	2.0	-0.1	0.0
				Viento +Y exc. +	0.8	0.5	-7.6	0.3	-5.4	0.0	0.8	-0.3	8.2	0.3	-5.4	0.0
				Viento +Y exc. -	1.1	1.4	-9.1	0.8	-6.6	0.0	1.1	-1.0	10.0	0.8	-6.6	0.0
				Viento -Y exc. +	-0.8	-0.5	7.6	-0.3	5.4	-0.0	-0.8	0.3	-8.2	-0.3	5.4	-0.0
				Viento -Y exc. -	-1.1	-1.4	9.1	-0.8	6.6	-0.0	-1.1	1.0	-10.0	-0.8	6.6	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza						
					N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	
	Planta 1	25x25	-0.10/3.50	Carga permanente	342.8	-0.4	0.1	-0.1	0.5	-0.0	337.3	0.0	-1.6	-0.1	0.5	-0.0	
				Sobrecarga de uso	132.9	-0.2	0.2	-0.1	0.4	-0.0	132.9	0.2	-1.2	-0.1	0.4	-0.0	
				Viento +X exc. +	-0.1	-2.4	-0.4	-1.7	-0.2	0.0	-0.1	3.9	0.5	-1.7	-0.2	0.0	
				Viento +X exc. -	-0.4	-2.5	0.0	-1.8	0.0	-0.0	-0.4	4.1	-0.1	-1.8	0.0	-0.0	
				Viento -X exc. +	0.1	2.4	0.4	1.7	0.2	-0.0	0.1	-3.9	-0.5	1.7	0.2	-0.0	
				Viento -X exc. -	0.4	2.5	-0.0	1.8	-0.0	0.0	0.4	-4.1	0.1	1.8	-0.0	0.0	
				Viento +Y exc. +	5.5	0.0	-7.1	0.1	-4.8	0.0	5.5	-0.3	10.2	0.1	-4.8	0.0	
				Viento +Y exc. -	6.7	0.5	-8.9	0.5	-6.0	0.0	6.7	-1.2	12.8	0.5	-6.0	0.0	
				Viento -Y exc. +	-5.5	-0.0	7.1	-0.1	4.8	-0.0	-5.5	0.3	-10.2	-0.1	4.8	-0.0	
				Viento -Y exc. -	-6.7	-0.5	8.9	-0.5	6.0	-0.0	-6.7	1.2	-12.8	-0.5	6.0	-0.0	
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	344.4	-0.5	0.5	-0.1	0.5	-0.0	342.8	-0.4	0.1	-0.1	0.5	-0.0	
				Sobrecarga de uso	132.9	-0.3	0.6	-0.1	0.4	-0.0	132.9	-0.2	0.2	-0.1	0.4	-0.0	
				Viento +X exc. +	-0.1	-4.1	-0.6	-1.7	-0.2	0.0	-0.1	-2.4	-0.4	-1.7	-0.2	0.0	
				Viento +X exc. -	-0.4	-4.3	0.1	-1.8	0.0	-0.0	-0.4	-2.5	0.0	-1.8	0.0	-0.0	
				Viento -X exc. +	0.1	4.1	0.6	1.7	0.2	-0.0	0.1	2.4	0.4	1.7	0.2	-0.0	
				Viento -X exc. -	0.4	4.3	-0.1	1.8	-0.0	0.0	0.4	2.5	-0.0	1.8	-0.0	0.0	
				Viento +Y exc. +	5.5	0.1	-11.9	0.1	-4.8	0.0	5.5	0.0	-7.1	0.1	-4.8	0.0	
				Viento +Y exc. -	6.7	1.0	-14.9	0.5	-6.0	0.0	6.7	0.5	-8.9	0.5	-6.0	0.0	
				Viento -Y exc. +	-5.5	-0.1	11.9	-0.1	4.8	-0.0	-5.5	-0.0	7.1	-0.1	4.8	-0.0	
				Viento -Y exc. -	-6.7	-1.0	14.9	-0.5	6.0	-0.0	-6.7	-0.5	8.9	-0.5	6.0	-0.0	
	D3	Tapa	25x25	8.60/10.30	Carga permanente	48.1	3.8	4.6	-1.3	5.9	-0.0	45.5	6.0	-5.4	-1.3	5.9	-0.0
					Sobrecarga de uso	4.8	1.5	-0.1	0.2	-0.0	-0.0	4.8	1.1	-0.1	0.2	-0.0	-0.0
					Viento +X exc. +	0.3	-0.9	0.0	-0.8	0.0	0.0	0.3	0.5	-0.0	-0.8	0.0	0.0
					Viento +X exc. -	0.4	-1.1	-0.0	-1.0	-0.0	-0.0	0.4	0.6	0.0	-1.0	-0.0	-0.0
					Viento -X exc. +	-0.3	0.9	-0.0	0.8	-0.0	-0.0	-0.3	-0.5	0.0	0.8	-0.0	-0.0
					Viento -X exc. -	-0.4	1.1	0.0	1.0	0.0	0.0	-0.4	-0.6	-0.0	1.0	0.0	0.0
					Viento +Y exc. +	-1.7	1.5	-2.2	1.3	-2.5	0.0	-1.7	-0.7	2.0	1.3	-2.5	0.0
					Viento +Y exc. -	-1.9	2.0	-2.0	1.8	-2.3	0.1	-1.9	-1.0	2.0	1.8	-2.3	0.1
					Viento -Y exc. +	1.7	-1.5	2.2	-1.3	2.5	-0.0	1.7	0.7	-2.0	-1.3	2.5	-0.0
					Viento -Y exc. -	1.9	-2.0	2.0	-1.8	2.3	-0.1	1.9	1.0	-2.0	-1.8	2.3	-0.1
Casetón		25x25	7.00/8.30	Carga permanente	100.3	0.2	6.3	10.7	8.7	-0.0	98.3	-13.8	-5.0	10.7	8.7	-0.0	
				Sobrecarga de uso	17.0	0.8	0.2	4.0	0.8	-0.0	17.0	-4.5	-0.8	4.0	0.8	-0.0	
				Viento +X exc. +	-0.2	-0.6	0.0	-0.7	0.0	-0.0	-0.2	0.3	0.0	-0.7	0.0	-0.0	
				Viento +X exc. -	-0.1	-0.6	0.1	-0.7	0.1	-0.0	-0.1	0.3	-0.1	-0.7	0.1	-0.0	
				Viento -X exc. +	0.2	0.6	-0.0	0.7	-0.0	0.0	0.2	-0.3	-0.0	0.7	-0.0	0.0	
				Viento -X exc. -	0.1	0.6	-0.1	0.7	-0.1	0.0	0.1	-0.3	0.1	0.7	-0.1	0.0	
				Viento +Y exc. +	-4.3	0.3	-3.7	0.1	-6.0	0.0	-4.3	0.2	4.2	0.1	-6.0	0.0	
				Viento +Y exc. -	-4.5	0.5	-3.9	0.3	-6.7	0.0	-4.5	0.1	4.8	0.3	-6.7	0.0	
				Viento -Y exc. +	4.3	-0.3	3.7	-0.1	6.0	-0.0	4.3	-0.2	-4.2	-0.1	6.0	-0.0	
				Viento -Y exc. -	4.5	-0.5	3.9	-0.3	6.7	-0.0	4.5	-0.1	-4.8	-0.3	6.7	-0.0	
Cubierta		25x25	3.80/6.70	Carga permanente	225.0	-4.3	13.1	-3.9	7.7	-0.0	220.6	7.0	-9.1	-3.9	7.7	-0.0	
				Sobrecarga de uso	49.9	-1.0	2.0	-0.9	1.0	-0.0	49.9	1.6	-1.0	-0.9	1.0	-0.0	
				Viento +X exc. +	0.2	-2.8	-0.2	-2.0	-0.2	0.0	0.2	3.0	0.3	-2.0	-0.2	0.0	
				Viento +X exc. -	0.3	-2.9	-0.0	-2.1	-0.0	-0.0	0.3	3.2	0.0	-2.1	-0.0	-0.0	
				Viento -X exc. +	-0.2	2.8	0.2	2.0	0.2	-0.0	-0.2	-3.0	-0.3	2.0	0.2	-0.0	
				Viento -X exc. -	-0.3	2.9	0.0	2.1	0.0	0.0	-0.3	-3.2	-0.0	2.1	0.0	0.0	
				Viento +Y exc. +	-6.1	0.2	-7.0	0.1	-5.1	0.0	-6.1	-0.2	7.8	0.1	-5.1	0.0	
				Viento +Y exc. -	-6.7	0.8	-8.0	0.6	-5.8	0.0	-6.7	-1.0	8.9	0.6	-5.8	0.0	
				Viento -Y exc. +	6.1	-0.2	7.0	-0.1	5.1	-0.0	6.1	0.2	-7.8	-0.1	5.1	-0.0	
				Viento -Y exc. -	6.7	-0.8	8.0	-0.6	5.8	-0.0	6.7	1.0	-8.9	-0.6	5.8	-0.0	
Planta 1	25x25	-0.10/3.50	Carga permanente	389.7	-0.8	1.2	-0.5	2.4	-0.0	384.1	0.9	-7.4	-0.5	2.4	-0.0		
			Sobrecarga de uso	109.0	-0.2	0.1	-0.1	0.3	-0.0	109.0	0.2	-1.1	-0.1	0.3	-0.0		
			Viento +X exc. +	0.6	-2.4	-0.2	-1.7	-0.2	0.0	0.6	3.9	0.4	-1.7	-0.2	0.0		
			Viento +X exc. -	0.8	-2.5	0.0	-1.8	0.0	-0.0	0.8	4.1	0.0	-1.8	0.0	-0.0		
			Viento -X exc. +	-0.6	2.4	0.2	1.7	0.2	-0.0	-0.6	-3.9	-0.4	1.7	0.2	-0.0		
			Viento -X exc. -	-0.8	2.5	-0.0	1.8	-0.0	0.0	-0.8	-4.1	-0.0	1.8	-0.0	0.0		
			Viento +Y exc. +	-4.9	0.1	-7.0	0.0	-4.7	0.0	-4.9	-0.0	9.9	0.0	-4.7	0.0		
			Viento +Y exc. -	-5.4	0.6	-8.1	0.4	-5.4	0.0	-5.4	-0.8	11.5	0.4	-5.4	0.0		
			Viento -Y exc. +	4.9	-0.1	7.0	-0.0	4.7	-0.0	4.9	0.0	-9.9	-0.0	4.7	-0.0		
			Viento -Y exc. -	5.4	-0.6	8.1	-0.4	5.4	-0.0	5.4	0.8	-11.5	-0.4	5.4	-0.0		
Planta Baja	25x25	-1.10/-0.10	Carga permanente	391.2	-1.3	3.6	-0.5	2.4	-0.0	389.7	-0.8	1.2	-0.5	2.4	-0.0		
			Sobrecarga de uso	109.0	-0.4	0.4	-0.1	0.3	-0.0	109.0	-0.2	0.1	-0.1	0.3	-0.0		
			Viento +X exc. +	0.6	-4.2	-0.4	-1.7	-0.2	0.0	0.6	-2.4	-0.2	-1.7	-0.2	0.0		
			Viento +X exc. -	0.8	-4.3	0.0	-1.8	0.0	-0.0	0.8	-2.5	0.0	-1.8	0.0	-0.0		
			Viento -X exc. +	-0.6	4.2	0.4	1.7	0.2	-0.0	-0.6	2.4	0.2	1.7	0.2	-0.0		
			Viento -X exc. -	-0.8	4.3	-0.0	1.8	-0.0	0.0	-0.8	2.5	-0.0	1.8	-0.0	0.0		
			Viento +Y exc. +	-4.9	0.1	-11.7	0.0	-4.7	0.0	-4.9	0.1	-7.0	0.0	-4.7	0.0		
			Viento +Y exc. -	-5.4	0.9	-13.6	0.4	-5.4	0.0	-5.4	0.6	-8.1	0.4	-5.4	0.0		
			Viento -Y exc. +	4.9	-0.1	11.7	-0.0	4.7	-0.0	4.9	-0.1	7.0	-0.0	4.7	-0.0		
			Viento -Y exc. -	5.4	-0.9	13.6	-0.4	5.4	-0.0	5.4	-0.6	8.1	-0.4	5.4	-0.0		
D4	Casetón	25x25	7.00/8.30	Carga permanente	89.8	-0.7	-3.7	-2.3	-3.8	-0.0	87.8	2.3	1.3	-2.3	-3.8	-0.0	
				Sobrecarga de uso	27.7	-0.2	-1.5	-0.7	-1.2	-0.0	27.7	0.6	0.1	-0.7	-1.2	-0.0	
				Viento +X exc. +	0.4	-0.8	0.0	-1.1	0.0	-0.0	0.4	0.7	0.0	-1.1	0.0	-0.0	
				Viento +X exc. -	0.4	-0.8	0.0	-1.2	0.0	-0.0	0.4	0.7	0.0	-1.2	0.0	-0.0	
				Viento -X exc. +	-0.4	0.8	-0.0	1.1	-0.0	0.0	-0.4	-0.7	-0.0	1.1	-0.0	0.0	
				Viento -X exc. -	-0.4	0.8	-0.0	1.2	-0.0	0.0	-0.4	-0.7	-0.0	1.2	-0.0	0.0	
				Viento +Y exc. +	-0.9	0.8	-0.7	1.0	-1.1	0.0	-0.9	-0.5	0.8	1.0	-1.1	0.0	
				Viento +Y exc. -	-1.1	1.1	-0.7	1.4	-1.2	0.0	-1.1	-0.7	0.8	1.4	-1.2	0.0	
				Viento -Y exc. +	0.9	-0.8	0.7	-1.0	1.1	-0.0	0.9	0.5	-0.8	-1.0	1.1	-0.0	
				Viento -Y exc. -	1.1	-1.1	0.7	-1.4	1.2	-0.0	1.1	0.7	-0.8	-1.4	1.2	-0.0	



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
	Cubierta	25x25	3.80/6.70	Carga permanente	150.7	-1.5	1.1	-0.7	0.3	-0.0	146.2	0.5	0.3	-0.7	0.3	-0.0
				Sobrecarga de uso	49.8	-0.4	-0.6	-0.2	-0.6	-0.0	49.8	0.1	1.0	-0.2	-0.6	-0.0
				Viento +X exc.+	0.3	-2.6	-0.0	-1.9	-0.0	0.0	0.3	2.8	0.0	-1.9	-0.0	0.0
				Viento +X exc.-	0.3	-2.8	0.0	-2.0	0.0	-0.0	0.3	3.0	-0.0	-2.0	0.0	-0.0
				Viento -X exc.+	-0.3	2.6	0.0	1.9	0.0	-0.0	-0.3	-2.8	-0.0	1.9	0.0	-0.0
				Viento -X exc.-	-0.3	2.8	-0.0	2.0	-0.0	0.0	-0.3	-3.0	0.0	2.0	-0.0	0.0
				Viento +Y exc.+	2.7	0.3	-5.7	0.2	-4.2	0.0	2.7	-0.3	6.6	0.2	-4.2	0.0
				Viento +Y exc.-	2.7	1.0	-5.9	0.7	-4.4	0.0	2.7	-1.0	7.0	0.7	-4.4	0.0
				Viento -Y exc.+	-2.7	-0.3	5.7	-0.2	4.2	-0.0	-2.7	0.3	-6.6	-0.2	4.2	-0.0
				Viento -Y exc.-	-2.7	-1.0	5.9	-0.7	4.4	-0.0	-2.7	1.0	-7.0	-0.7	4.4	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	286.9	-0.8	0.1	-0.7	0.3	-0.0	281.3	1.7	-1.1	-0.7	0.3	-0.0
				Sobrecarga de uso	104.5	-0.2	-0.1	-0.2	-0.1	-0.0	104.5	0.4	0.2	-0.2	-0.1	-0.0
				Viento +X exc.+	0.3	-2.4	-0.1	-1.7	-0.0	0.0	0.3	3.8	0.1	-1.7	-0.0	0.0
				Viento +X exc.-	0.2	-2.5	0.0	-1.8	0.0	-0.0	0.2	4.0	-0.0	-1.8	0.0	-0.0
				Viento -X exc.+	-0.3	2.4	0.1	1.7	0.0	-0.0	-0.3	-3.8	-0.1	1.7	0.0	-0.0
				Viento -X exc.-	-0.2	2.5	-0.0	1.8	-0.0	0.0	-0.2	-4.0	0.0	1.8	-0.0	0.0
				Viento +Y exc.+	16.0	0.1	-6.8	0.1	-4.4	0.0	16.0	-0.1	9.2	0.1	-4.4	0.0
				Viento +Y exc.-	16.5	0.6	-7.1	0.4	-4.6	0.0	16.5	-0.9	9.6	0.4	-4.6	0.0
				Viento -Y exc.+	-16.0	-0.1	6.8	-0.1	4.4	-0.0	-16.0	0.1	-9.2	-0.1	4.4	-0.0
				Viento -Y exc.-	-16.5	-0.6	7.1	-0.4	4.6	-0.0	-16.5	0.9	-9.6	-0.4	4.6	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	288.4	-1.5	0.4	-0.7	0.3	-0.0	286.9	-0.8	0.1	-0.7	0.3	-0.0
				Sobrecarga de uso	104.5	-0.3	-0.2	-0.2	-0.1	-0.0	104.5	-0.2	-0.1	-0.2	-0.1	-0.0
				Viento +X exc.+	0.3	-4.1	-0.1	-1.7	-0.0	0.0	0.3	-2.4	-0.1	-1.7	-0.0	0.0
				Viento +X exc.-	0.2	-4.3	0.0	-1.8	0.0	-0.0	0.2	-2.5	0.0	-1.8	0.0	-0.0
				Viento -X exc.+	-0.3	4.1	0.1	1.7	0.0	-0.0	-0.3	2.4	0.1	1.7	0.0	-0.0
				Viento -X exc.-	-0.2	4.3	-0.0	1.8	-0.0	0.0	-0.2	2.5	-0.0	1.8	-0.0	0.0
				Viento +Y exc.+	16.0	0.2	-11.2	0.1	-4.4	0.0	16.0	0.1	-6.8	0.1	-4.4	0.0
				Viento +Y exc.-	16.5	1.0	-11.7	0.4	-4.6	0.0	16.5	0.6	-7.1	0.4	-4.6	0.0
				Viento -Y exc.+	-16.0	-0.2	11.2	-0.1	4.4	-0.0	-16.0	-0.1	6.8	-0.1	4.4	-0.0
				Viento -Y exc.-	-16.5	-1.0	11.7	-0.4	4.6	-0.0	-16.5	-0.6	7.1	-0.4	4.6	-0.0
D6	Casetón	25x25	7.00/8.30	Carga permanente	91.5	1.7	-4.1	3.7	-4.9	-0.0	89.5	-3.1	2.2	3.7	-4.9	-0.0
				Sobrecarga de uso	28.4	0.5	-1.4	1.1	-1.5	-0.0	28.4	-0.9	0.5	1.1	-1.5	-0.0
				Viento +X exc.+	-0.1	-0.7	-0.0	-1.0	-0.0	-0.0	-0.1	0.5	-0.0	-1.0	-0.0	-0.0
				Viento +X exc.-	-0.1	-0.8	-0.0	-1.0	-0.0	-0.0	-0.1	0.6	-0.0	-1.0	-0.0	-0.0
				Viento -X exc.+	0.1	0.7	0.0	1.0	0.0	0.0	0.1	-0.5	0.0	1.0	0.0	0.0
				Viento -X exc.-	0.1	0.8	0.0	1.0	0.0	0.0	0.1	-0.6	0.0	1.0	0.0	0.0
				Viento +Y exc.+	-0.4	0.5	-0.1	0.6	-0.4	0.0	-0.4	-0.2	0.4	0.6	-0.4	0.0
				Viento +Y exc.-	-0.3	0.9	-0.1	1.0	-0.4	0.0	-0.3	-0.4	0.4	1.0	-0.4	0.0
				Viento -Y exc.+	0.4	-0.5	0.1	-0.6	0.4	-0.0	0.4	0.2	-0.4	-0.6	0.4	-0.0
				Viento -Y exc.-	0.3	-0.9	0.1	-1.0	0.4	-0.0	0.3	0.4	-0.4	-1.0	0.4	-0.0
Cubierta	25x25	3.80/6.70	Carga permanente	153.1	3.0	0.5	1.2	-0.0	-0.0	148.7	-0.4	0.7	1.2	-0.0	-0.0	
			Sobrecarga de uso	50.3	0.2	-0.6	-0.0	-0.5	-0.0	50.3	0.2	1.0	-0.0	-0.5	-0.0	
			Viento +X exc.+	-0.1	-2.6	0.0	-1.9	0.0	0.0	-0.1	2.8	-0.0	-1.9	0.0	0.0	
			Viento +X exc.-	-0.1	-2.8	-0.0	-2.0	-0.0	-0.0	-0.1	3.0	0.1	-2.0	-0.0	-0.0	
			Viento -X exc.+	0.1	2.6	-0.0	1.9	-0.0	-0.0	0.1	-2.8	0.0	1.9	-0.0	-0.0	
			Viento -X exc.-	0.1	2.8	0.0	2.0	0.0	0.0	0.1	-3.0	-0.1	2.0	0.0	0.0	
			Viento +Y exc.+	2.8	0.4	-5.4	0.3	-4.1	0.0	2.8	-0.3	6.5	0.3	-4.1	0.0	
			Viento +Y exc.-	2.7	1.1	-5.1	0.7	-3.8	0.0	2.7	-1.0	6.1	0.7	-3.8	0.0	
			Viento -Y exc.+	-2.8	-0.4	5.4	-0.3	4.1	-0.0	-2.8	0.3	-6.5	-0.3	4.1	-0.0	
			Viento -Y exc.-	-2.7	-1.1	5.1	-0.7	3.8	-0.0	-2.7	1.0	-6.1	-0.7	3.8	-0.0	
Planta 1	25x25	-0.10/3.50	Carga permanente	307.6	0.6	-0.1	0.9	0.2	-0.0	302.1	-2.7	-0.9	0.9	0.2	-0.0	
			Sobrecarga de uso	106.1	0.1	-0.1	0.1	-0.1	-0.0	106.1	-0.3	0.1	0.1	-0.1	-0.0	
			Viento +X exc.+	-0.2	-2.4	0.1	-1.7	0.1	0.0	-0.2	3.8	-0.1	-1.7	0.1	0.0	
			Viento +X exc.-	0.0	-2.5	-0.0	-1.8	-0.0	-0.0	0.0	4.0	0.0	-1.8	-0.0	-0.0	
			Viento -X exc.+	0.2	2.4	-0.1	1.7	-0.1	-0.0	0.2	-3.8	0.1	1.7	-0.1	-0.0	
			Viento -X exc.-	-0.0	2.5	0.0	1.8	0.0	0.0	-0.0	-4.0	-0.0	1.8	0.0	0.0	
			Viento +Y exc.+	16.8	0.1	-6.6	0.1	-4.3	0.0	16.8	-0.2	9.0	0.1	-4.3	0.0	
			Viento +Y exc.-	15.6	0.6	-6.1	0.4	-4.0	0.0	15.6	-1.0	8.2	0.4	-4.0	0.0	
			Viento -Y exc.+	-16.8	-0.1	6.6	-0.1	4.3	-0.0	-16.8	0.2	-9.0	-0.1	4.3	-0.0	
			Viento -Y exc.-	-15.6	-0.6	6.1	-0.4	4.0	-0.0	-15.6	1.0	-8.2	-0.4	4.0	-0.0	
Planta Baja	25x25	-1.10/-0.10	Carga permanente	309.1	1.5	0.1	0.9	0.2	-0.0	307.6	0.6	-0.1	0.9	0.2	-0.0	
			Sobrecarga de uso	106.1	0.2	-0.1	0.1	-0.1	-0.0	106.1	0.1	-0.1	0.1	-0.1	-0.0	
			Viento +X exc.+	-0.2	-4.1	0.2	-1.7	0.1	0.0	-0.2	-2.4	0.1	-1.7	0.1	0.0	
			Viento +X exc.-	0.0	-4.3	-0.0	-1.8	-0.0	-0.0	0.0	-2.5	-0.0	-1.8	-0.0	-0.0	
			Viento -X exc.+	0.2	4.1	-0.2	1.7	-0.1	-0.0	0.2	2.4	-0.1	1.7	-0.1	-0.0	
			Viento -X exc.-	-0.0	4.3	0.0	1.8	0.0	0.0	-0.0	2.5	0.0	1.8	0.0	0.0	
			Viento +Y exc.+	16.8	0.2	-10.9	0.1	-4.3	0.0	16.8	0.1	-6.6	0.1	-4.3	0.0	
			Viento +Y exc.-	15.6	1.0	-10.0	0.4	-4.0	0.0	15.6	0.6	-6.1	0.4	-4.0	0.0	
			Viento -Y exc.+	-16.8	-0.2	10.9	-0.1	4.3	-0.0	-16.8	-0.1	6.6	-0.1	4.3	-0.0	
			Viento -Y exc.-	-15.6	-1.0	10.0	-0.4	4.0	-0.0	-15.6	-0.6	6.1	-0.4	4.0	-0.0	
D8	Casetón	25x25	7.00/8.30	Carga permanente	42.8	-3.3	2.5	-9.4	3.7	-0.0	40.8	8.9	-2.3	-9.4	3.7	-0.0
				Sobrecarga de uso	10.3	-0.9	1.1	-2.9	1.2	-0.0	10.3	2.8	-0.5	-2.9	1.2	-0.0
				Viento +X exc.+	0.2	-0.4	-0.1	-0.6	-0.1	-0.0	0.2	0.4	0.1	-0.6	-0.1	-0.0
				Viento +X exc.-	0.1	-0.4	-0.2	-0.7	-0.2	-0.0	0.1	0.4	0.1	-0.7	-0.2	-0.0
				Viento -X exc.+	-0.2	0.4	0.1	0.6	0.1	0.0	-0.2	-0.4	-0.1	0.6	0.1	0.0
				Viento -X exc.-	-0.1	0.4	0.2	0.7	0.2	0.0	-0.1	-0.4	-0.1	0.7	0.2	0.0
				Viento +Y exc.+	-1.8	0.3	-2.3	0.3	-3.3	0.0	-1.8	-0.1	2.0	0.3	-3.3	0.0
				Viento +Y exc.-	-1.6	0.5	-1.9	0.6	-2.7	0.0	-1.6	-0.3	1.6	0.6	-2.7	0.0
				Viento -Y exc.+	1.8	-0.3	2.3	-0.3	3.3	-0.0	1.8	0.1	-2.0	-0.3	3.3	-0.0
				Viento -Y exc.-	1.6	-0.5	1.9	-0.6	2.7	-0.0	1.6	0.3	-1.6	-0.6	2.7	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
	Cubierta	25x25	3.80/6.70	Carga permanente	125.0	-4.6	10.9	-1.6	5.6	-0.0	120.6	0.1	-5.4	-1.6	5.6	-0.0
				Sobrecarga de uso	43.3	-0.3	5.3	0.1	2.7	-0.0	43.3	-0.6	-2.6	0.1	2.7	-0.0
				Viento +X exc. +	0.5	-2.6	0.1	-1.9	0.1	0.0	0.5	2.8	-0.2	-1.9	0.1	0.0
				Viento +X exc. -	0.3	-2.8	-0.1	-2.0	-0.1	-0.0	0.3	2.9	0.1	-2.0	-0.1	-0.0
				Viento -X exc. +	-0.5	2.6	-0.1	1.9	-0.1	-0.0	-0.5	-2.8	0.2	1.9	-0.1	-0.0
				Viento -X exc. -	-0.3	2.8	0.1	2.0	0.1	0.0	-0.3	-2.9	-0.1	2.0	0.1	0.0
				Viento +Y exc. +	-5.7	-0.1	-6.5	-0.1	-4.9	0.0	-5.7	0.1	7.6	-0.1	-4.9	0.0
				Viento +Y exc. -	-4.9	0.6	-5.3	0.4	-4.0	0.0	-4.9	-0.7	6.2	0.4	-4.0	0.0
				Viento -Y exc. +	5.7	0.1	6.5	0.1	4.9	-0.0	5.7	-0.1	-7.6	0.1	4.9	-0.0
				Viento -Y exc. -	4.9	-0.6	5.3	-0.4	4.0	-0.0	4.9	0.7	-6.2	-0.4	4.0	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	267.4	-0.4	1.2	-1.2	2.5	-0.0	261.9	4.1	-7.7	-1.2	2.5	-0.0
				Sobrecarga de uso	103.3	-0.0	0.6	-0.1	1.2	-0.0	103.3	0.5	-3.7	-0.1	1.2	-0.0
				Viento +X exc. +	-0.1	-2.4	0.2	-1.7	0.2	0.0	-0.1	3.9	-0.4	-1.7	0.2	0.0
				Viento +X exc. -	-0.3	-2.5	-0.1	-1.8	-0.0	-0.0	-0.3	4.1	0.1	-1.8	-0.0	-0.0
				Viento -X exc. +	0.1	2.4	-0.2	1.7	-0.2	-0.0	0.1	-3.9	0.4	1.7	-0.2	-0.0
				Viento -X exc. -	0.3	2.5	0.1	1.8	0.0	0.0	0.3	-4.1	-0.1	1.8	0.0	0.0
				Viento +Y exc. +	-5.5	-0.0	-6.5	-0.0	-4.4	0.0	-5.5	0.1	9.3	-0.0	-4.4	0.0
				Viento +Y exc. -	-4.6	0.5	-5.1	0.3	-3.5	0.0	-4.6	-0.7	7.3	0.3	-3.5	0.0
				Viento -Y exc. +	5.5	0.0	6.5	0.0	4.4	-0.0	5.5	-0.1	-9.3	0.0	4.4	-0.0
				Viento -Y exc. -	4.6	-0.5	5.1	-0.3	3.5	-0.0	4.6	0.7	-7.3	-0.3	3.5	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	268.9	-1.6	3.6	-1.2	2.5	-0.0	267.4	-0.4	1.2	-1.2	2.5	-0.0
				Sobrecarga de uso	103.3	-0.2	1.8	-0.1	1.2	-0.0	103.3	-0.0	0.6	-0.1	1.2	-0.0
				Viento +X exc. +	-0.1	-4.1	0.4	-1.7	0.2	0.0	-0.1	-2.4	0.2	-1.7	0.2	0.0
				Viento +X exc. -	-0.3	-4.3	-0.1	-1.8	-0.0	-0.0	-0.3	-2.5	-0.1	-1.8	-0.0	-0.0
				Viento -X exc. +	0.1	4.1	-0.4	1.7	-0.2	-0.0	0.1	2.4	-0.2	1.7	-0.2	-0.0
				Viento -X exc. -	0.3	4.3	0.1	1.8	0.0	0.0	0.3	-2.5	0.1	1.8	0.0	0.0
				Viento +Y exc. +	-5.5	-0.1	-10.9	-0.0	-4.4	0.0	-5.5	-0.0	-6.5	-0.0	-4.4	0.0
				Viento +Y exc. -	-4.6	0.8	-8.6	0.3	-3.5	0.0	-4.6	0.5	-5.1	0.3	-3.5	0.0
				Viento -Y exc. +	5.5	0.1	10.9	0.0	4.4	-0.0	5.5	0.0	6.5	0.0	4.4	-0.0
				Viento -Y exc. -	4.6	-0.8	8.6	-0.3	3.5	-0.0	4.6	-0.5	5.1	-0.3	3.5	-0.0
D9	Cubierta	25x25	3.80/6.70	Carga permanente	65.6	-0.0	-2.1	-0.3	-1.0	-0.0	61.2	0.8	0.7	-0.3	-1.0	-0.0
				Sobrecarga de uso	22.6	-2.1	0.3	-1.1	0.2	-0.0	22.6	1.1	-0.1	-1.1	0.2	-0.0
				Viento +X exc. +	0.7	-1.1	0.2	-0.7	0.1	0.0	0.7	0.8	-0.1	-0.7	0.1	0.0
				Viento +X exc. -	0.6	-1.2	-0.3	-0.7	-0.1	-0.0	0.6	0.9	0.1	-0.7	-0.1	-0.0
				Viento -X exc. +	-0.7	1.1	-0.2	0.7	-0.1	-0.0	-0.7	-0.8	0.1	0.7	-0.1	-0.0
				Viento -X exc. -	-0.6	1.2	0.3	0.7	0.1	0.0	-0.6	-0.9	-0.1	0.7	0.1	0.0
				Viento +Y exc. +	-0.8	-0.0	-6.5	0.0	-3.4	0.0	-0.8	-0.1	3.3	0.0	-3.4	0.0
				Viento +Y exc. -	-0.7	0.4	-4.4	0.2	-2.3	0.0	-0.7	-0.3	2.2	0.2	-2.3	0.0
				Viento -Y exc. +	0.8	0.0	6.5	-0.0	3.4	-0.0	0.8	0.1	-3.3	-0.0	3.4	-0.0
				Viento -Y exc. -	0.7	-0.4	4.4	-0.2	2.3	-0.0	0.7	0.3	-2.2	-0.2	2.3	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	136.6	2.4	-1.0	1.2	-0.7	-0.0	131.1	-2.1	1.5	1.2	-0.7	-0.0
				Sobrecarga de uso	50.6	0.3	-0.1	-0.2	0.0	-0.0	50.6	0.9	-0.2	-0.2	0.0	-0.0
				Viento +X exc. +	2.5	-2.2	0.4	-1.5	0.3	0.0	2.5	3.2	-0.6	-1.5	0.3	0.0
				Viento +X exc. -	2.9	-2.3	-0.1	-1.6	-0.1	-0.0	2.9	3.4	0.2	-1.6	-0.1	-0.0
				Viento -X exc. +	-2.5	2.2	-0.4	1.5	-0.3	-0.0	-2.5	-3.2	0.6	1.5	-0.3	-0.0
				Viento -X exc. -	-2.9	2.3	0.1	1.6	0.1	0.0	-2.9	-3.4	-0.2	1.6	0.1	0.0
				Viento +Y exc. +	3.1	-0.0	-6.7	-0.0	-4.9	0.0	3.1	0.1	11.0	-0.0	-4.9	0.0
				Viento +Y exc. -	1.4	0.5	-4.3	0.3	-3.2	0.0	1.4	-0.6	7.2	0.3	-3.2	0.0
				Viento -Y exc. +	-3.1	0.0	6.7	0.0	4.9	-0.0	-3.1	-0.1	-11.0	0.0	4.9	-0.0
				Viento -Y exc. -	-1.4	-0.5	4.3	-0.3	3.2	-0.0	-1.4	0.6	-7.2	-0.3	3.2	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	138.1	3.6	-1.7	1.2	-0.7	-0.0	136.6	2.4	-1.0	1.2	-0.7	-0.0
				Sobrecarga de uso	50.6	0.1	-0.1	-0.2	0.0	-0.0	50.6	0.3	-0.1	-0.2	0.0	-0.0
				Viento +X exc. +	2.5	-3.7	0.7	-1.5	0.3	0.0	2.5	-2.2	0.4	-1.5	0.3	0.0
				Viento +X exc. -	2.9	-3.9	-0.2	-1.6	-0.1	-0.0	2.9	-2.3	-0.1	-1.6	-0.1	-0.0
				Viento -X exc. +	-2.5	3.7	-0.7	1.5	-0.3	-0.0	-2.5	2.2	-0.4	1.5	-0.3	-0.0
				Viento -X exc. -	-2.9	3.9	0.2	1.6	0.1	0.0	-2.9	2.3	0.1	1.6	0.1	0.0
				Viento +Y exc. +	3.1	-0.1	-11.6	-0.0	-4.9	0.0	3.1	-0.0	-6.7	-0.0	-4.9	0.0
				Viento +Y exc. -	1.4	0.8	-7.5	0.3	-3.2	0.0	1.4	0.5	-4.3	0.3	-3.2	0.0
				Viento -Y exc. +	-3.1	0.1	11.6	0.0	4.9	-0.0	-3.1	0.0	6.7	0.0	4.9	-0.0
				Viento -Y exc. -	-1.4	-0.8	7.5	-0.3	3.2	-0.0	-1.4	-0.5	4.3	-0.3	3.2	-0.0
E1	Cubierta	Diámetro: 25	3.80/6.70	Carga permanente	64.4	1.4	-2.9	0.8	-1.6	-0.0	61.0	-0.9	1.8	0.8	-1.6	-0.0
				Sobrecarga de uso	15.5	1.4	-0.6	0.7	-0.3	-0.0	15.5	-0.6	0.3	0.7	-0.3	-0.0
				Viento +X exc. +	-0.2	-0.9	-0.3	-0.5	-0.1	0.0	-0.2	0.5	0.1	-0.5	-0.1	0.0
				Viento +X exc. -	-0.1	-1.0	-0.0	-0.5	-0.0	-0.0	-0.1	0.6	-0.0	-0.5	-0.0	-0.0
				Viento -X exc. +	0.2	0.9	0.3	0.5	0.1	-0.0	0.2	-0.5	-0.1	0.5	0.1	-0.0
				Viento -X exc. -	0.1	1.0	0.0	0.5	0.0	0.0	0.1	-0.6	0.0	0.5	0.0	0.0
				Viento +Y exc. +	-0.7	-0.3	-4.3	-0.1	-2.3	0.0	-0.7	-0.0	2.3	-0.1	-2.3	0.0
				Viento +Y exc. -	-0.9	0.1	-5.5	0.1	-2.9	0.0	-0.9	-0.3	3.0	0.1	-2.9	0.0
				Viento -Y exc. +	0.7	0.3	4.3	0.1	2.3	-0.0	0.7	0.0	-2.3	0.1	2.3	-0.0
				Viento -Y exc. -	0.9	-0.1	5.5	-0.1	2.9	-0.0	0.9	0.3	-3.0	-0.1	2.9	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	135.3	-3.5	-2.3	-1.4	-1.8	-0.0	129.8	1.5	4.4	-1.4	-1.8	-0.0
				Sobrecarga de uso	36.6	-0.5	-0.4	0.2	-0.4	-0.0	36.6	-1.1	1.1	0.2	-0.4	-0.0
				Viento +X exc. +	-2.3	-2.0	-0.5	-1.5	-0.4	0.0	-2.3	3.4	1.0	-1.5	-0.4	0.0
				Viento +X exc. -	-1.9	-2.3	0.1	-1.7	0.0	-0.0	-1.9	3.7	0.0	-1.7	0.0	-0.0
				Viento -X exc. +	2.3	2.0	0.5	1.5	0.4	-0.0	2.3	-3.4	-1.0	1.5	0.4	-0.0
				Viento -X exc. -	1.9	2.3	-0.1	1.7	-0.0	0.0	1.9	-3.7	-0.0	1.7	-0.0	0.0
				Viento +Y exc. +	-7.4	0.2	-7.0	-0.1	-5.0	0.0	-7.4	0.4	11.2	-0.1	-5.0	0.0
				Viento +Y exc. -	-8.9	1.2	-9.5	0.6	-6.9	0.0	-8.9	-1.1	15.3	0.6	-6.9	0.0
				Viento -Y exc. +	7.4	-0.2	7.0	0.1	5.0	-0.0	7.4	-0.4	-11.2	0.1	5.0	-0.0
				Viento -Y exc. -	8.9	-1.2	9.5	-0.6	6.9	-0.0	8.9	1.1	-15.3	-0.6	6.9	-



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	136.9	-4.8	-4.1	-1.4	-1.8	-0.0	135.3	-3.5	-2.3	-1.4	-1.8	-0.0
				Sobrecarga de uso	36.6	-0.3	-0.9	0.2	-0.4	-0.0	36.6	-0.5	-0.4	0.2	-0.4	-0.0
				Viento +X exc. +	-2.3	-3.5	-0.9	-1.5	-0.4	0.0	-2.3	-2.0	-0.5	-1.5	-0.4	0.0
				Viento +X exc. -	-1.9	-3.9	0.1	-1.7	0.0	-0.0	-1.9	-2.3	0.1	-1.7	0.0	-0.0
				Viento -X exc. +	2.3	3.5	0.9	1.5	0.4	-0.0	2.3	2.0	0.5	1.5	0.4	-0.0
				Viento -X exc. -	1.9	3.9	-0.1	1.7	-0.0	0.0	1.9	2.3	-0.1	1.7	-0.0	0.0
				Viento +Y exc. +	-7.4	0.1	-12.0	-0.1	-5.0	0.0	-7.4	0.2	-7.0	-0.1	-5.0	0.0
				Viento +Y exc. -	-8.9	1.9	-16.4	0.6	-6.9	0.0	-8.9	1.2	-9.5	0.6	-6.9	0.0
				Viento -Y exc. +	7.4	-0.1	12.0	0.1	5.0	-0.0	7.4	-0.2	7.0	0.1	5.0	-0.0
				Viento -Y exc. -	8.9	-1.9	16.4	-0.6	6.9	-0.0	8.9	-1.2	9.5	-0.6	6.9	-0.0
E2	Cubierta	Diámetro: 25	3.80/6.70	Carga permanente	107.0	-3.4	-2.2	-1.8	-1.2	-0.0	103.5	1.7	1.3	-1.8	-1.2	-0.0
				Sobrecarga de uso	32.1	-1.1	-0.3	-0.6	-0.1	-0.0	32.1	0.5	0.1	-0.6	-0.1	-0.0
				Viento +X exc. +	-0.2	-1.2	-0.2	-0.6	-0.1	0.0	-0.2	0.6	0.1	-0.6	-0.1	0.0
				Viento +X exc. -	-0.1	-1.4	0.0	-0.7	0.0	-0.0	-0.1	0.7	-0.0	-0.7	0.0	-0.0
				Viento -X exc. +	0.2	1.2	0.2	0.6	0.1	-0.0	0.2	-0.6	-0.1	0.6	0.1	-0.0
				Viento -X exc. -	0.1	1.4	-0.0	0.7	-0.0	0.0	0.1	-0.7	0.0	0.7	-0.0	0.0
				Viento +Y exc. +	-3.7	0.5	-4.6	0.2	-2.5	0.0	-3.7	-0.2	2.5	0.2	-2.5	0.0
				Viento +Y exc. -	-4.2	1.3	-5.6	0.7	-3.0	0.0	-4.2	-0.6	3.0	0.7	-3.0	0.0
				Viento -Y exc. +	3.7	-0.5	4.6	-0.2	2.5	-0.0	3.7	0.2	-2.5	-0.2	2.5	-0.0
				Viento -Y exc. -	4.2	-1.3	5.6	-0.7	3.0	-0.0	4.2	0.6	-3.0	-0.7	3.0	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	208.1	-1.3	-1.8	-1.5	-1.4	-0.0	202.6	3.9	3.3	-1.5	-1.4	-0.0
				Sobrecarga de uso	72.5	-0.3	-0.5	-0.4	-0.4	-0.0	72.5	1.2	0.8	-0.4	-0.4	-0.0
				Viento +X exc. +	-0.8	-2.3	-0.4	-1.7	-0.3	0.0	-0.8	3.9	0.6	-1.7	-0.3	0.0
				Viento +X exc. -	0.0	-2.6	0.0	-1.9	0.0	-0.0	0.0	4.4	-0.1	-1.9	0.0	-0.0
				Viento -X exc. +	0.8	2.3	0.4	1.7	0.3	-0.0	0.8	-3.9	-0.6	1.7	0.3	-0.0
				Viento -X exc. -	-0.0	2.6	-0.0	1.9	-0.0	0.0	-0.0	-4.4	0.1	1.9	-0.0	0.0
				Viento +Y exc. +	-15.4	0.3	-7.2	0.2	-5.2	0.0	-15.4	-0.6	11.7	0.2	-5.2	0.0
				Viento +Y exc. -	-19.0	1.5	-9.0	1.2	-6.6	0.0	-19.0	-2.7	14.7	1.2	-6.6	0.0
				Viento -Y exc. +	15.4	-0.3	7.2	-0.2	5.2	-0.0	15.4	0.6	-11.7	-0.2	5.2	-0.0
				Viento -Y exc. -	19.0	-1.5	9.0	-1.2	6.6	-0.0	19.0	2.7	-14.7	-1.2	6.6	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	209.7	-2.8	-3.2	-1.5	-1.4	-0.0	208.1	-1.3	-1.8	-1.5	-1.4	-0.0
				Sobrecarga de uso	72.5	-0.7	-0.8	-0.4	-0.4	-0.0	72.5	-0.3	-0.5	-0.4	-0.4	-0.0
				Viento +X exc. +	-0.8	-4.0	-0.6	-1.7	-0.3	0.0	-0.8	-2.3	-0.4	-1.7	-0.3	0.0
				Viento +X exc. -	0.0	-4.5	0.1	-1.9	0.0	-0.0	0.0	-2.6	0.0	-1.9	0.0	-0.0
				Viento -X exc. +	0.8	4.0	0.6	1.7	0.3	-0.0	0.8	2.3	0.4	1.7	0.3	-0.0
				Viento -X exc. -	-0.0	4.5	-0.1	1.9	-0.0	0.0	-0.0	2.6	-0.0	1.9	-0.0	0.0
				Viento +Y exc. +	-15.4	0.5	-12.4	0.2	-5.2	0.0	-15.4	0.3	-7.2	0.2	-5.2	0.0
				Viento +Y exc. -	-19.0	2.6	-15.5	1.2	-6.6	0.0	-19.0	1.5	-9.0	1.2	-6.6	0.0
				Viento -Y exc. +	15.4	-0.5	12.4	-0.2	5.2	-0.0	15.4	-0.3	7.2	-0.2	5.2	-0.0
				Viento -Y exc. -	19.0	-2.6	15.5	-1.2	6.6	-0.0	19.0	-1.5	9.0	-1.2	6.6	-0.0
E3	Cubierta	Diámetro: 25	3.80/6.70	Carga permanente	94.8	-0.1	-1.3	-0.0	-0.7	-0.0	91.3	-0.0	0.8	-0.0	-0.7	-0.0
				Sobrecarga de uso	30.1	0.1	0.2	0.0	0.1	-0.0	30.1	-0.0	-0.1	0.0	0.1	-0.0
				Viento +X exc. +	-0.0	-1.3	-0.1	-0.7	-0.1	0.0	-0.0	0.6	0.1	-0.7	-0.1	0.0
				Viento +X exc. -	0.0	-1.4	0.0	-0.7	0.0	-0.0	0.0	0.7	-0.0	-0.7	0.0	-0.0
				Viento -X exc. +	0.0	1.3	0.1	0.7	0.1	-0.0	0.0	-0.6	-0.1	0.7	0.1	-0.0
				Viento -X exc. -	-0.0	1.4	-0.0	0.7	-0.0	0.0	-0.0	-0.7	0.0	0.7	-0.0	0.0
				Viento +Y exc. +	-1.7	0.4	-4.1	0.2	-2.2	0.0	-1.7	-0.2	2.3	0.2	-2.2	0.0
				Viento +Y exc. -	-2.0	1.1	-4.7	0.6	-2.5	0.0	-2.0	-0.6	2.6	0.6	-2.5	0.0
				Viento -Y exc. +	1.7	-0.4	4.1	-0.2	2.2	-0.0	1.7	0.2	-2.3	-0.2	2.2	-0.0
				Viento -Y exc. -	2.0	-1.1	4.7	-0.6	2.5	-0.0	2.0	0.6	-2.6	-0.6	2.5	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	173.8	-1.1	-1.4	-0.6	-1.0	-0.0	168.3	0.9	2.1	-0.6	-1.0	-0.0
				Sobrecarga de uso	68.1	-0.3	-0.4	-0.1	-0.2	-0.0	68.1	0.1	0.2	-0.1	-0.2	-0.0
				Viento +X exc. +	0.4	-2.4	-0.2	-1.8	-0.2	0.0	0.4	4.0	0.4	-1.8	-0.2	0.0
				Viento +X exc. -	0.7	-2.6	0.0	-2.0	0.0	-0.0	0.7	4.5	-0.0	-2.0	0.0	-0.0
				Viento -X exc. +	-0.4	2.4	0.2	1.8	0.2	-0.0	-0.4	-4.0	-0.4	1.8	0.2	-0.0
				Viento -X exc. -	-0.7	2.6	-0.0	2.0	-0.0	0.0	-0.7	-4.5	0.0	2.0	-0.0	0.0
				Viento +Y exc. +	-7.6	0.3	-7.1	0.2	-5.1	0.0	-7.6	-0.5	11.1	0.2	-5.1	0.0
				Viento +Y exc. -	-8.9	1.5	-8.2	1.1	-5.9	0.0	-8.9	-2.5	12.9	1.1	-5.9	0.0
				Viento -Y exc. +	7.6	-0.3	7.1	-0.2	5.1	-0.0	7.6	0.5	-11.1	-0.2	5.1	-0.0
				Viento -Y exc. -	8.9	-1.5	8.2	-1.1	5.9	-0.0	8.9	2.5	-12.9	-1.1	5.9	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	175.4	-1.6	-2.3	-0.6	-1.0	-0.0	173.8	-1.1	-1.4	-0.6	-1.0	-0.0
				Sobrecarga de uso	68.1	-0.4	-0.6	-0.1	-0.2	-0.0	68.1	-0.3	-0.4	-0.1	-0.2	-0.0
				Viento +X exc. +	0.4	-4.1	-0.4	-1.8	-0.2	0.0	0.4	-2.4	-0.2	-1.8	-0.2	0.0
				Viento +X exc. -	0.7	-4.6	0.0	-2.0	0.0	-0.0	0.7	-2.6	0.0	-2.0	0.0	-0.0
				Viento -X exc. +	-0.4	4.1	0.4	1.8	0.2	-0.0	-0.4	2.4	0.2	1.8	0.2	-0.0
				Viento -X exc. -	-0.7	4.6	-0.0	2.0	-0.0	0.0	-0.7	2.6	-0.0	2.0	-0.0	0.0
				Viento +Y exc. +	-7.6	0.5	-12.1	0.2	-5.1	0.0	-7.6	0.3	-7.1	0.2	-5.1	0.0
				Viento +Y exc. -	-8.9	2.6	-14.1	1.1	-5.9	0.0	-8.9	1.5	-8.2	1.1	-5.9	0.0
				Viento -Y exc. +	7.6	-0.5	12.1	-0.2	5.1	-0.0	7.6	-0.3	7.1	-0.2	5.1	-0.0
				Viento -Y exc. -	8.9	-2.6	14.1	-1.1	5.9	-0.0	8.9	-1.5	8.2	-1.1	5.9	-0.0
E4	Cubierta	Diámetro: 25	3.80/6.70	Carga permanente	124.1	-1.0	-1.0	-0.6	-0.6	-0.0	120.6	0.6	0.7	-0.6	-0.6	-0.0
				Sobrecarga de uso	39.5	-0.5	0.4	-0.3	0.2	-0.0	39.5	0.3	-0.2	-0.3	0.2	-0.0
				Viento +X exc. +	0.2	-1.4	-0.0	-0.7	-0.0	0.0	0.2	0.7	0.0	-0.7	-0.0	0.0
				Viento +X exc. -	0.2	-1.6	-0.0	-0.8	-0.0	-0.0	0.2	0.7	-0.0	-0.8	-0.0	-0.0
				Viento -X exc. +	-0.2	1.4	0.0	0.7	0.0	-0.0	-0.2	-0.7	-0.0	0.7	0.0	-0.0
				Viento -X exc. -	-0.2	1.6	0.0	0.8	0.0	0.0	-0.2	-0.7	0.0	0.8	0.0	0.0
				Viento +Y exc. +	-3.8	0.4	-3.8	0.2	-2.1	0.0	-3.8	-0.2	2.3	0.2	-2.1	0.0
				Viento +Y exc. -	-4.1	1.2	-4.0	0.6	-2.2	0.0	-4.1	-0.6	2.4	0.6	-2.2	0.0
				Viento -Y exc. +	3.8	-0.4	3.8	-0.2	2.1	-0.0	3.8	0.2	-2.3	-0.2	2.1	-0.0
				Viento -Y exc. -	4.1	-1.2	4.0	-0.6	2.2	-0.0	4.1	0.6	-2.4	-0.6	2.2	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
	Planta 1	25x25	-0.10/2.70	Carga permanente	242.0	-1.5	-0.6	-1.4	-0.7	-0.0	237.7	2.3	1.4	-1.4	-0.7	-0.0
				Sobrecarga de uso	84.2	-0.5	0.1	-0.5	0.3	-0.0	84.2	1.0	-0.7	-0.5	0.3	-0.0
				Viento +X exc. +	-2.2	-2.9	-0.1	-3.2	-0.1	0.0	-2.2	6.1	0.1	-3.2	-0.1	0.0
				Viento +X exc. -	-2.2	-3.2	0.0	-3.6	0.0	-0.0	-2.2	6.8	-0.0	-3.6	0.0	-0.0
				Viento -X exc. +	2.2	2.9	0.1	3.2	0.1	-0.0	2.2	-6.1	-0.1	3.2	0.1	-0.0
				Viento -X exc. -	2.2	3.2	-0.0	3.6	-0.0	0.0	2.2	-6.8	0.0	3.6	-0.0	0.0
				Viento +Y exc. +	-16.3	0.4	-8.2	0.4	-8.4	0.0	-16.3	-0.8	15.3	0.4	-8.4	0.0
				Viento +Y exc. -	-16.2	1.8	-8.6	2.0	-8.8	0.0	-16.2	-3.8	15.9	2.0	-8.8	0.0
				Viento -Y exc. +	16.3	-0.4	8.2	-0.4	8.4	-0.0	16.3	0.8	-15.3	-0.4	8.4	-0.0
				Viento -Y exc. -	16.2	-1.8	8.6	-2.0	8.8	-0.0	16.2	3.8	-15.9	-2.0	8.8	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	243.5	-2.9	-1.3	-1.4	-0.7	-0.0	242.0	-1.5	-0.6	-1.4	-0.7	-0.0
				Sobrecarga de uso	84.2	-1.1	0.4	-0.5	0.3	-0.0	84.2	-0.5	0.1	-0.5	0.3	-0.0
				Viento +X exc. +	-2.2	-6.1	-0.1	-3.2	-0.1	0.0	-2.2	-2.9	-0.1	-3.2	-0.1	0.0
				Viento +X exc. -	-2.2	-6.8	0.0	-3.6	0.0	-0.0	-2.2	-3.2	0.0	-3.6	0.0	-0.0
				Viento -X exc. +	2.2	6.1	0.1	3.2	0.1	-0.0	2.2	2.9	0.1	3.2	0.1	-0.0
				Viento -X exc. -	2.2	6.8	-0.0	3.6	-0.0	0.0	2.2	3.2	-0.0	3.6	-0.0	0.0
				Viento +Y exc. +	-16.3	0.8	-16.6	0.4	-8.4	0.0	-16.3	0.4	-8.2	0.4	-8.4	0.0
				Viento +Y exc. -	-16.2	3.9	-17.4	2.0	-8.8	0.0	-16.2	1.8	-8.6	2.0	-8.8	0.0
				Viento -Y exc. +	16.3	-0.8	16.6	-0.4	8.4	-0.0	16.3	-0.4	8.2	-0.4	8.4	-0.0
				Viento -Y exc. -	16.2	-3.9	17.4	-2.0	8.8	-0.0	16.2	-1.8	8.6	-2.0	8.8	-0.0
E6	Cubierta	Diámetro: 25	3.80/6.70	Carga permanente	115.8	-0.3	-0.6	-0.2	-0.4	-0.0	112.3	0.2	0.6	-0.2	-0.4	-0.0
				Sobrecarga de uso	37.4	-0.1	0.7	-0.1	0.3	-0.0	37.4	0.1	-0.3	-0.1	0.3	-0.0
				Viento +X exc. +	-0.1	-1.4	0.0	-0.7	0.0	0.0	-0.1	0.7	-0.0	-0.7	0.0	0.0
				Viento +X exc. -	-0.2	-1.6	-0.0	-0.8	-0.0	-0.0	-0.2	0.7	0.0	-0.8	-0.0	-0.0
				Viento -X exc. +	0.1	1.4	-0.0	0.7	-0.0	-0.0	0.1	-0.7	0.0	0.7	-0.0	-0.0
				Viento -X exc. -	0.2	1.6	0.0	0.8	0.0	0.0	0.2	-0.7	-0.0	0.8	0.0	0.0
				Viento +Y exc. +	-3.3	0.3	-3.7	0.2	-2.0	0.0	-3.3	-0.1	2.2	0.2	-2.0	0.0
				Viento +Y exc. -	-3.1	1.2	-3.4	0.6	-1.9	0.0	-3.1	-0.5	2.1	0.6	-1.9	0.0
				Viento -Y exc. +	3.3	-0.3	3.7	-0.2	2.0	-0.0	3.3	0.1	-2.2	-0.2	2.0	-0.0
				Viento -Y exc. -	3.1	-1.2	3.4	-0.6	1.9	-0.0	3.1	0.5	-2.1	-0.6	1.9	-0.0
	Planta 1	25x25	-0.10/2.70	Carga permanente	306.2	-0.2	-0.1	-0.2	-0.1	-0.0	301.9	0.4	0.1	-0.2	-0.1	-0.0
				Sobrecarga de uso	93.3	-0.1	0.4	-0.1	0.7	-0.0	93.3	0.1	-1.4	-0.1	0.7	-0.0
				Viento +X exc. +	0.4	-2.9	0.1	-3.2	0.1	0.0	0.4	6.2	-0.2	-3.2	0.1	0.0
				Viento +X exc. -	0.1	-3.2	-0.0	-3.6	-0.0	-0.0	0.1	6.9	0.1	-3.6	-0.0	-0.0
				Viento -X exc. +	-0.4	2.9	-0.1	3.2	-0.1	-0.0	-0.4	-6.2	0.2	3.2	-0.1	-0.0
				Viento -X exc. -	-0.1	3.2	0.0	3.6	0.0	0.0	-0.1	-6.9	-0.1	3.6	0.0	0.0
				Viento +Y exc. +	-19.2	0.3	-8.1	0.3	-8.3	0.0	-19.2	-0.6	15.1	0.3	-8.3	0.0
				Viento +Y exc. -	-17.9	1.7	-7.4	1.9	-7.6	0.0	-17.9	-3.7	13.8	1.9	-7.6	0.0
				Viento -Y exc. +	19.2	-0.3	8.1	-0.3	8.3	-0.0	19.2	0.6	-15.1	-0.3	8.3	-0.0
				Viento -Y exc. -	17.9	-1.7	7.4	-1.9	7.6	-0.0	17.9	3.7	-13.8	-1.9	7.6	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	307.7	-0.4	-0.1	-0.2	-0.1	-0.0	306.2	-0.2	-0.1	-0.2	-0.1	-0.0
				Sobrecarga de uso	93.3	-0.1	1.1	-0.1	0.7	-0.0	93.3	-0.1	0.4	-0.1	0.7	-0.0
				Viento +X exc. +	0.4	-6.2	0.2	-3.2	0.1	0.0	0.4	-2.9	0.1	-3.2	0.1	0.0
				Viento +X exc. -	0.1	-6.9	-0.1	-3.6	-0.0	-0.0	0.1	-3.2	-0.0	-3.6	-0.0	-0.0
				Viento -X exc. +	-0.4	6.2	-0.2	3.2	-0.1	-0.0	-0.4	2.9	-0.1	3.2	-0.1	-0.0
				Viento -X exc. -	-0.1	6.9	0.1	3.6	0.0	0.0	-0.1	3.2	0.0	3.6	0.0	0.0
				Viento +Y exc. +	-19.2	0.5	-16.4	0.3	-8.3	0.0	-19.2	0.3	-8.1	0.3	-8.3	0.0
				Viento +Y exc. -	-17.9	3.6	-15.0	1.9	-7.6	0.0	-17.9	1.7	-7.4	1.9	-7.6	0.0
				Viento -Y exc. +	19.2	-0.5	16.4	-0.3	8.3	-0.0	19.2	-0.3	8.1	-0.3	8.3	-0.0
				Viento -Y exc. -	17.9	-3.6	15.0	-1.9	7.6	-0.0	17.9	-1.7	7.4	-1.9	7.6	-0.0
E8	Cubierta	Diámetro: 25	3.80/6.70	Carga permanente	127.1	0.7	-1.3	0.4	-0.9	-0.0	123.6	-0.6	1.2	0.4	-0.9	-0.0
				Sobrecarga de uso	40.5	0.2	0.4	0.1	0.2	-0.0	40.5	-0.2	-0.1	0.1	0.2	-0.0
				Viento +X exc. +	0.1	-1.4	0.0	-0.7	0.0	0.0	0.1	0.6	-0.0	-0.7	0.0	0.0
				Viento +X exc. -	0.0	-1.6	-0.1	-0.8	-0.0	-0.0	0.0	0.7	0.0	-0.8	-0.0	-0.0
				Viento -X exc. +	-0.1	1.4	-0.0	0.7	-0.0	-0.0	-0.1	-0.6	0.0	0.7	-0.0	-0.0
				Viento -X exc. -	-0.0	1.6	0.1	0.8	0.0	0.0	-0.0	-0.7	-0.0	0.8	0.0	0.0
				Viento +Y exc. +	-1.3	0.3	-2.7	0.1	-1.6	0.0	-1.3	-0.1	1.8	0.1	-1.6	0.0
				Viento +Y exc. -	-1.0	1.1	-2.3	0.5	-1.3	0.0	-1.0	-0.5	1.5	0.5	-1.3	0.0
				Viento -Y exc. +	1.3	-0.3	2.7	-0.1	1.6	-0.0	1.3	0.1	-1.8	-0.1	1.6	-0.0
				Viento -Y exc. -	1.0	-1.1	2.3	-0.5	1.3	-0.0	1.0	0.5	-1.5	-0.5	1.3	-0.0
	Planta 1	25x25	-0.10/2.70	Carga permanente	264.5	1.1	-1.0	0.9	-0.7	-0.0	260.2	-1.5	1.1	0.9	-0.7	-0.0
				Sobrecarga de uso	92.5	0.3	0.1	0.3	0.4	-0.0	92.5	-0.6	-0.9	0.3	0.4	-0.0
				Viento +X exc. +	1.7	-2.8	0.3	-3.2	0.3	0.0	1.7	6.0	-0.5	-3.2	0.3	0.0
				Viento +X exc. -	1.4	-3.2	-0.1	-3.5	-0.1	-0.0	1.4	6.7	0.2	-3.5	-0.1	-0.0
				Viento -X exc. +	-1.7	2.8	-0.3	3.2	-0.3	-0.0	-1.7	-6.0	0.5	3.2	-0.3	-0.0
				Viento -X exc. -	-1.4	3.2	0.1	3.5	0.1	0.0	-1.4	-6.7	-0.2	3.5	0.1	0.0
				Viento +Y exc. +	-8.3	0.1	-7.6	0.2	-7.5	0.0	-8.3	-0.4	13.3	0.2	-7.5	0.0
				Viento +Y exc. -	-7.1	1.6	-5.9	1.8	-5.9	0.0	-7.1	-3.4	10.4	1.8	-5.9	0.0
				Viento -Y exc. +	8.3	-0.1	7.6	-0.2	7.5	-0.0	8.3	0.4	-13.3	-0.2	7.5	-0.0
				Viento -Y exc. -	7.1	-1.6	5.9	-1.8	5.9	-0.0	7.1	3.4	-10.4	-1.8	5.9	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	266.0	2.1	-1.7	0.9	-0.7	-0.0	264.5	1.1	-1.0	0.9	-0.7	-0.0
				Sobrecarga de uso	92.5	0.6	0.4	0.3	0.4	-0.0	92.5	0.3	0.1	0.3	0.4	-0.0
				Viento +X exc. +	1.7	-6.0	0.5	-3.2	0.3	0.0	1.7	-2.8	0.3	-3.2	0.3	0.0
				Viento +X exc. -	1.4	-6.7	-0.2	-3.5	-0.1	-0.0	1.4	-3.2	-0.1	-3.5	-0.1	-0.0
				Viento -X exc. +	-1.7	6.0	-0.5	3.2	-0.3	-0.0	-1.7	2.8	-0.3	3.2	-0.3	-0.0
				Viento -X exc. -	-1.4	6.7	0.2	3.5	0.1	0.0	-1.4	3.2	0.1	3.5	0.1	0.0
				Viento +Y exc. +	-8.3	0.3	-15.0	0.2	-7.5	0.0	-8.3	0.1	-7.6	0.2	-7.5	0.0
				Viento +Y exc. -	-7.1	3.4	-11.8	1.8	-5.9	0.0	-7.1	1.6	-5.9	1.8	-5.9	0.0
				Viento -Y exc. +	8.3	-0.3	15.0	-0.2	7.5	-0.0	8.3	-0.1	7.6	-0.2	7.5	-0.0
				Viento -Y exc. -	7.1	-3.4	11.8	-1.8	5.9	-0.0	7.1	-1.6	5.9	-1.8	5.9	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
E9	Cubierta	Diámetro: 25	3.80/6.70	Carga permanente	57.6	-1.4	-2.1	-0.8	-1.2	-0.0	54.1	0.9	1.3	-0.8	-1.2	-0.0
				Sobrecarga de uso	13.7	-1.5	-0.3	-0.7	-0.2	-0.0	13.7	0.7	0.2	-0.7	-0.2	-0.0
				Viento +X exc.+	0.2	-0.9	0.1	-0.5	0.0	0.0	0.2	0.5	-0.1	-0.5	0.0	0.0
				Viento +X exc.-	0.1	-1.0	-0.2	-0.5	-0.1	-0.0	0.1	0.6	0.1	-0.5	-0.1	-0.0
				Viento -X exc.+	-0.2	0.9	-0.1	0.5	-0.0	-0.0	-0.2	-0.5	0.1	0.5	-0.0	-0.0
				Viento -X exc.-	-0.1	1.0	0.2	0.5	0.1	0.0	-0.1	-0.6	-0.1	0.5	0.1	0.0
				Viento +Y exc.+	-0.8	0.2	-3.4	0.1	-1.8	0.0	-0.8	-0.1	1.8	0.1	-1.8	0.0
				Viento +Y exc.-	-0.7	0.8	-2.3	0.4	-1.2	0.0	-0.7	-0.4	1.2	0.4	-1.2	0.0
				Viento -Y exc.+	0.8	-0.2	3.4	-0.1	1.8	-0.0	0.8	0.1	-1.8	-0.1	1.8	-0.0
				Viento -Y exc.-	0.7	-0.8	2.3	-0.4	1.2	-0.0	0.7	0.4	-1.2	-0.4	1.2	-0.0
	Planta 1	25x25	-0.10/3.50	Carga permanente	120.4	2.3	-2.4	0.8	-1.4	-0.0	114.9	-0.7	2.8	0.8	-1.4	-0.0
				Sobrecarga de uso	32.2	0.2	-0.5	-0.2	-0.3	-0.0	32.2	1.1	0.5	-0.2	-0.3	-0.0
				Viento +X exc.+	2.1	-2.1	0.3	-1.5	0.3	0.0	2.1	3.4	-0.6	-1.5	0.3	0.0
				Viento +X exc.-	1.6	-2.4	-0.2	-1.7	-0.1	-0.0	1.6	3.8	0.2	-1.7	-0.1	-0.0
				Viento -X exc.+	-2.1	2.1	-0.3	1.5	-0.3	-0.0	-2.1	-3.4	0.6	1.5	-0.3	-0.0
				Viento -X exc.-	-1.6	2.4	0.2	1.7	0.1	0.0	-1.6	-3.8	-0.2	1.7	0.1	0.0
				Viento +Y exc.+	-9.0	-0.0	-6.3	0.0	-4.6	0.0	-9.0	-0.1	10.3	0.0	-4.6	0.0
				Viento +Y exc.-	-7.1	1.1	-4.1	0.8	-3.0	0.0	-7.1	-1.9	6.6	0.8	-3.0	0.0
				Viento -Y exc.+	9.0	0.0	6.3	-0.0	4.6	-0.0	9.0	0.1	-10.3	-0.0	4.6	-0.0
				Viento -Y exc.-	7.1	-1.1	4.1	-0.8	3.0	-0.0	7.1	1.9	-6.6	-0.8	3.0	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	121.9	3.1	-3.8	0.8	-1.4	-0.0	120.4	2.3	-2.4	0.8	-1.4	-0.0
				Sobrecarga de uso	32.2	0.0	-0.8	-0.2	-0.3	-0.0	32.2	0.2	-0.5	-0.2	-0.3	-0.0
				Viento +X exc.+	2.1	-3.6	0.6	-1.5	0.3	0.0	2.1	-2.1	0.3	-1.5	0.3	0.0
				Viento +X exc.-	1.6	-4.1	-0.3	-1.7	-0.1	-0.0	1.6	-2.4	-0.2	-1.7	-0.1	-0.0
				Viento -X exc.+	-2.1	3.6	-0.6	1.5	-0.3	-0.0	-2.1	2.1	-0.3	1.5	-0.3	-0.0
				Viento -X exc.-	-1.6	4.1	0.3	1.7	0.1	0.0	-1.6	2.4	0.2	1.7	0.1	0.0
				Viento +Y exc.+	-9.0	-0.0	-10.9	0.0	-4.6	0.0	-9.0	-0.0	-6.3	0.0	-4.6	0.0
				Viento +Y exc.-	-7.1	1.9	-7.0	0.8	-3.0	0.0	-7.1	1.1	-4.1	0.8	-3.0	0.0
				Viento -Y exc.+	9.0	0.0	10.9	-0.0	4.6	-0.0	9.0	0.0	6.3	-0.0	4.6	-0.0
				Viento -Y exc.-	7.1	-1.9	7.0	-0.8	3.0	-0.0	7.1	-1.1	4.1	-0.8	3.0	-0.0
A3M	Planta 1	2xUPN-100([I])	-0.10/3.80	Carga permanente	20.8	-0.1	-0.2	0.0	0.0	-0.0	20.0	-0.1	-0.2	0.0	0.0	-0.0
				Sobrecarga de uso	0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0
				Viento +X exc.+	0.0	-0.8	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	0.0
				Viento +X exc.-	0.0	-0.8	0.0	-0.2	0.0	-0.0	0.0	0.0	-0.0	-0.2	0.0	-0.0
				Viento -X exc.+	0.0	0.8	-0.0	0.2	-0.0	-0.0	0.0	0.0	-0.0	0.2	-0.0	-0.0
				Viento -X exc.-	-0.0	0.8	-0.0	0.2	-0.0	0.0	-0.0	-0.0	0.0	0.2	-0.0	0.0
				Viento +Y exc.+	0.0	0.0	-0.9	0.0	-0.2	-0.0	0.0	-0.0	0.0	0.0	-0.2	-0.0
				Viento +Y exc.-	-0.0	0.0	-0.9	0.0	-0.2	0.0	-0.0	-0.0	0.0	0.0	-0.2	0.0
				Viento -Y exc.+	-0.0	-0.0	0.9	-0.0	0.2	0.0	-0.0	0.0	-0.0	-0.0	0.2	0.0
				Viento -Y exc.-	0.0	-0.0	0.9	-0.0	0.2	-0.0	0.0	0.0	-0.0	-0.0	0.2	-0.0
Planta Baja	25x25	-1.10/-0.10	Carga permanente	22.3	-0.1	-0.2	0.0	-0.0	0.0	20.8	-0.1	-0.2	0.0	-0.0	0.0	
			Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	
			Viento +X exc.+	0.0	-1.0	0.0	-0.2	0.0	0.0	0.0	-0.8	-0.0	-0.2	0.0	0.0	
			Viento +X exc.-	0.0	-1.0	0.0	-0.2	0.0	-0.0	0.0	-0.8	0.0	-0.2	0.0	-0.0	
			Viento -X exc.+	0.0	1.0	0.0	0.2	-0.0	-0.0	0.0	0.8	0.0	0.2	-0.0	-0.0	
			Viento -X exc.-	0.0	1.0	-0.0	0.2	-0.0	0.0	0.0	0.8	-0.0	0.2	-0.0	0.0	
			Viento +Y exc.+	-0.0	0.0	-1.1	0.0	-0.2	-0.0	-0.0	-0.0	-0.9	0.0	-0.2	-0.0	
			Viento +Y exc.-	0.0	0.0	-1.1	0.0	-0.2	0.0	0.0	-0.0	-0.9	0.0	-0.2	0.0	
			Viento -Y exc.+	0.0	-0.0	1.1	-0.0	0.2	0.0	0.0	0.0	0.9	-0.0	0.2	0.0	
			Viento -Y exc.-	-0.0	-0.0	1.1	-0.0	0.2	-0.0	-0.0	0.0	0.9	-0.0	0.2	-0.0	
A4M	Planta 1	2xUPN-100([I])	-0.10/3.80	Carga permanente	10.8	-0.0	-0.1	0.0	-0.0	0.0	10.0	-0.0	-0.1	0.0	0.0	0.0
				Sobrecarga de uso	-0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	-0.0	0.0	0.0
				Viento +X exc.+	0.0	-0.8	0.0	-0.2	0.0	0.0	0.0	-0.0	0.0	-0.2	0.0	0.0
				Viento +X exc.-	0.0	-0.8	-0.0	-0.2	0.0	-0.0	0.0	-0.0	-0.0	-0.2	0.0	-0.0
				Viento -X exc.+	0.0	0.8	-0.0	0.2	0.0	-0.0	0.0	0.0	-0.0	0.2	0.0	-0.0
				Viento -X exc.-	-0.0	0.8	0.0	0.2	-0.0	0.0	-0.0	0.0	0.0	0.2	-0.0	0.0
				Viento +Y exc.+	-0.0	-0.0	-0.9	0.0	-0.2	-0.0	-0.0	-0.0	0.0	0.0	-0.2	-0.0
				Viento +Y exc.-	0.0	0.0	-0.9	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	-0.2	0.0
				Viento -Y exc.+	0.0	0.0	0.9	0.0	0.2	0.0	0.0	0.0	-0.0	0.0	0.2	0.0
				Viento -Y exc.-	-0.0	-0.0	0.9	0.0	0.2	-0.0	-0.0	-0.0	-0.0	0.0	0.2	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	12.3	-0.0	-0.1	0.0	0.0	-0.0	10.8	-0.0	-0.1	0.0	0.0	-0.0
				Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0
				Viento +X exc.+	-0.0	-1.0	0.0	-0.2	0.0	0.0	-0.0	-0.8	0.0	-0.2	0.0	-0.0
				Viento +X exc.-	0.0	-1.0	0.0	-0.2	0.0	-0.0	0.0	-0.8	0.0	-0.2	0.0	-0.0
				Viento -X exc.+	0.0	1.0	-0.0	0.2	0.0	-0.0	0.0	0.8	-0.0	0.2	0.0	-0.0
				Viento -X exc.-	0.0	1.0	-0.0	0.2	-0.0	0.0	0.0	0.8	-0.0	0.2	-0.0	0.0
				Viento +Y exc.+	0.0	-0.0	-1.1	0.0	-0.2	-0.0	0.0	-0.0	-0.9	0.0	-0.2	-0.0
				Viento +Y exc.-	-0.0	-0.0	-1.1	-0.0	-0.2	0.0	-0.0	0.0	-0.9	-0.0	-0.2	0.0
				Viento -Y exc.+	0.0	0.0	1.1	0.0	0.2	0.0	0.0	0.0	0.9	0.0	0.2	0.0
				Viento -Y exc.-	0.0	0.0	1.1	0.0	0.2	-0.0	0.0	-0.0	0.9	0.0	0.2	-0.0
E4M	Planta 1	2xUPN-100([I])	-0.10/3.80	Carga permanente	9.8	-0.0	-0.1	0.0	0.0	-0.0	9.0	-0.0	-0.1	0.0	0.0	-0.0
				Sobrecarga de uso	-0.0	-0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
				Viento +X exc.+	0.0	-0.8	-0.0	-0.2	-0.0	0.0	0.0	0.0	0.0	-0.2	-0.0	0.0
				Viento +X exc.-	0.0	-0.8	0.0	-0.2	0.0	-0.0	0.0	-0.0	-0.0	-0.2	0.0	-0.0
				Viento -X exc.+	-0.0	0.8	0.0	0.2	0.0	-0.0	-0.0	-0.0	-0.0	0.2	0.0	-0.0
				Viento -X exc.-	-0.0	0.8	-0.0	0.2	-0.0	0.0	-0.0	0.0	0.0	0.2	-0.0	0.0
				Viento +Y exc.+	0.0	-0.0	-0.9	0.0	-0.2	-0.0	0.0	-0.0	0.0	0.0	-0.2	-0.0
				Viento +Y exc.-	-0.0	0.0	-0.9	0.0	-0.2	0.0	-0.0	0.0	0.0	0.0	-0.2	0.0
				Viento -Y exc.+	-0.0	0.0	0.9	0.0	0.2	0.0	-0.0	0.0	-0.0	0.0	0.2	0.0
				Viento -Y exc.-	0.0	-0.0	0.9	-0.0	0.2	-0.0	0.0	-0.0	-0.0	-0.0	0.2	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	11.3	-0.0	-0.1	0.0	-0.0	0.0	9.8	-0.0	-0.1	0.0	-0.0	0.0
				Sobrecarga de uso	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0
				Viento +X exc.+	0.0	-1.0	-0.0	-0.2	-0.0	0.0	0.0	-0.8	-0.0	-0.2	-0.0	0.0
				Viento +X exc.-	-0.0	-1.0	0.0	-0.2	0.0	-0.0	-0.0	-0.8	0.0	-0.2	0.0	-0.0
				Viento -X exc.+	-0.0	1.0	0.0	0.2	0.0	-0.0	-0.0	0.8	0.0	0.2	0.0	-0.0
				Viento -X exc.-	0.0	1.0	-0.0	0.2	-0.0	0.0	0.0	0.8	-0.0	0.2	-0.0	0.0
				Viento +Y exc.+	-0.0	-0.0	-1.1	0.0	-0.2	-0.0	-0.0	-0.0	-0.9	0.0	-0.2	-0.0
				Viento +Y exc.-	-0.0	0.0	-1.1	0.0	-0.2	0.0	-0.0	0.0	-0.9	0.0	-0.2	0.0
				Viento -Y exc.+	0.0	0.0	1.1	-0.0	0.2	0.0	0.0	0.0	0.9	-0.0	0.2	0.0
				Viento -Y exc.-	0.0	-0.0	1.1	-0.0	0.2	-0.0	0.0	-0.0	0.9	-0.0	0.2	-0.0
E5M	Planta 1	2xUPN-100([I])	-0.10/3.80	Carga permanente	19.8	-0.1	-0.2	0.0	0.0	-0.0	19.0	-0.1	-0.2	0.0	0.0	-0.0
				Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
				Viento +X exc.+	-0.0	-0.8	0.0	-0.2	0.0	0.0	-0.0	-0.0	0.0	-0.2	0.0	0.0
				Viento +X exc.-	-0.0	-0.8	-0.0	-0.2	-0.0	-0.0	-0.0	0.0	0.0	-0.2	-0.0	-0.0
				Viento -X exc.+	0.0	0.8	-0.0	0.2	-0.0	-0.0	0.0	0.0	-0.0	0.2	-0.0	-0.0
				Viento -X exc.-	0.0	0.8	0.0	0.2	0.0	0.0	0.0	0.0	-0.0	0.2	0.0	0.0
				Viento +Y exc.+	-0.0	-0.0	-0.9	0.0	-0.2	-0.0	-0.0	-0.0	-0.0	0.0	-0.2	-0.0
				Viento +Y exc.-	0.0	0.0	-0.9	0.0	-0.2	0.0	0.0	-0.0	0.0	0.0	-0.2	0.0
				Viento -Y exc.+	0.0	0.0	0.9	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0
				Viento -Y exc.-	-0.0	-0.0	0.9	-0.0	0.2	-0.0	-0.0	0.0	-0.0	0.0	0.2	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	21.3	-0.1	-0.2	0.0	0.0	-0.0	19.8	-0.1	-0.2	0.0	0.0	-0.0
				Sobrecarga de uso	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	0.0	0.0	-0.0
				Viento +X exc.+	-0.0	-1.0	0.0	-0.2	-0.0	0.0	-0.0	-0.8	0.0	-0.2	-0.0	0.0
				Viento +X exc.-	-0.0	-1.0	-0.0	-0.2	-0.0	-0.0	-0.0	-0.8	-0.0	-0.2	-0.0	-0.0
				Viento -X exc.+	0.0	1.0	-0.0	0.2	0.0	-0.0	0.0	0.8	-0.0	0.2	0.0	-0.0
				Viento -X exc.-	0.0	1.0	0.0	0.2	0.0	0.0	0.0	0.8	0.0	0.2	0.0	0.0
				Viento +Y exc.+	0.0	-0.0	-1.1	0.0	-0.2	-0.0	0.0	-0.0	-0.9	0.0	-0.2	-0.0
				Viento +Y exc.-	0.0	0.0	-1.1	-0.0	-0.2	0.0	0.0	0.0	-0.9	-0.0	-0.2	0.0
				Viento -Y exc.+	-0.0	0.0	1.1	0.0	0.2	0.0	-0.0	0.0	0.9	0.0	0.2	0.0
				Viento -Y exc.-	-0.0	-0.0	1.1	0.0	0.2	-0.0	-0.0	-0.0	0.9	0.0	0.2	-0.0
E6M	Planta 1	2xUPN-100([I])	-0.10/3.80	Carga permanente	19.8	-0.1	-0.2	0.0	-0.0	0.0	19.0	-0.1	-0.2	0.0	0.0	0.0
				Sobrecarga de uso	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	0.0
				Viento +X exc.+	0.0	-0.8	-0.0	-0.2	-0.0	0.0	0.0	0.0	0.0	-0.2	-0.0	0.0
				Viento +X exc.-	0.0	-0.8	-0.0	-0.2	-0.0	-0.0	0.0	0.0	0.0	-0.2	-0.0	-0.0
				Viento -X exc.+	-0.0	0.8	0.0	0.2	0.0	-0.0	-0.0	-0.0	-0.0	0.2	0.0	-0.0
				Viento -X exc.-	-0.0	0.8	0.0	0.2	0.0	0.0	-0.0	-0.0	-0.0	0.2	0.0	0.0
				Viento +Y exc.+	0.0	0.0	-0.9	0.0	-0.2	-0.0	0.0	0.0	0.0	0.0	-0.2	-0.0
				Viento +Y exc.-	0.0	-0.0	-0.9	-0.0	-0.2	0.0	0.0	0.0	-0.0	-0.0	-0.2	0.0
				Viento -Y exc.+	-0.0	-0.0	0.9	0.0	0.2	0.0	-0.0	-0.0	-0.0	0.0	0.2	0.0
				Viento -Y exc.-	0.0	0.0	0.9	0.0	0.2	-0.0	0.0	-0.0	0.0	0.0	0.2	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	21.3	-0.1	-0.2	-0.0	0.0	-0.0	19.8	-0.1	-0.2	-0.0	0.0	-0.0
				Sobrecarga de uso	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	-0.0
				Viento +X exc.+	0.0	-1.0	-0.0	-0.2	-0.0	0.0	0.0	-0.8	-0.0	-0.2	-0.0	0.0
				Viento +X exc.-	0.0	-1.0	-0.0	-0.2	-0.0	-0.0	0.0	-0.8	-0.0	-0.2	-0.0	-0.0
				Viento -X exc.+	-0.0	1.0	0.0	0.2	0.0	-0.0	-0.0	0.8	0.0	0.2	0.0	-0.0
				Viento -X exc.-	-0.0	1.0	0.0	0.2	0.0	0.0	-0.0	0.8	0.0	0.2	0.0	0.0
				Viento +Y exc.+	0.0	0.0	-1.1	-0.0	-0.2	-0.0	0.0	0.0	-0.9	-0.0	-0.2	-0.0
				Viento +Y exc.-	0.0	-0.0	-1.1	-0.0	-0.2	0.0	0.0	-0.0	-0.9	-0.0	-0.2	0.0
				Viento -Y exc.+	-0.0	-0.0	1.1	0.0	0.2	0.0	-0.0	-0.0	0.9	0.0	0.2	0.0
				Viento -Y exc.-	-0.0	0.0	1.1	0.0	0.2	-0.0	-0.0	-0.0	0.9	0.0	0.2	-0.0
E7M	Planta 1	2xUPN-100([I])	-0.10/3.80	Carga permanente	19.8	-0.1	-0.2	0.0	0.0	-0.0	19.0	-0.1	-0.2	0.0	0.0	-0.0
				Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	-0.0
				Viento +X exc.+	-0.0	-0.8	-0.0	-0.2	-0.0	0.0	-0.0	-0.0	-0.0	-0.2	-0.0	0.0
				Viento +X exc.-	0.0	-0.8	0.0	-0.2	0.0	-0.0	0.0	0.0	0.0	-0.2	0.0	-0.0
				Viento -X exc.+	0.0	0.8	0.0	0.2	0.0	-0.0	0.0	0.0	0.0	0.2	0.0	-0.0
				Viento -X exc.-	-0.0	0.8	-0.0	0.2	-0.0	0.0	-0.0	-0.0	-0.0	0.2	-0.0	0.0
				Viento +Y exc.+	0.0	-0.0	-0.9	-0.0	-0.2	-0.0	0.0	0.0	0.0	-0.0	-0.2	-0.0
				Viento +Y exc.-	0.0	0.0	-0.9	0.0	-0.2	0.0	0.0	-0.0	0.0	0.0	-0.2	0.0
				Viento -Y exc.+	-0.0	0.0	0.9	0.0	0.2	0.0	-0.0	-0.0	-0.0	0.0	0.2	0.0
				Viento -Y exc.-	-0.0	-0.0	0.9	-0.0	0.2	-0.0	-0.0	0.0	-0.0	-0.0	0.2	-0.0
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	21.3	-0.1	-0.2	0.0	0.0	-0.0	19.8	-0.1	-0.2	0.0	0.0	-0.0
				Sobrecarga de uso	-0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
				Viento +X exc.+	-0.0	-1.0	-0.0	-0.2	0.0	0.0	-0.0	-0.8	-0.0	-0.2	0.0	0.0
				Viento +X exc.-	0.0	-1.0	0.0	-0.2	-0.0	-0.0	0.0	-0.8	0.0	-0.2	-0.0	-0.0
				Viento -X exc.+	0.0	1.0	0.0	0.2	-0.0	-0.0	0.0	0.8	0.0	0.2	-0.0	-0.0
				Viento -X exc.-	-0.0	1.0	-0.0	0.2	0.0	0.0	-0.0	0.8	-0.0	0.2	0.0	0.0
				Viento +Y exc.+	-0.0	-0.0	-1.1	-0.0	-0.2	-0.0	-0.0	-0.0	-0.9	-0.0	-0.2	-0.0
				Viento +Y exc.-	0.0	0.0	-1.1	-0.0	-0.2	0.0	0.0	0.0	-0.9	-0.0	-0.2	0.0
				Viento -Y exc.+	0.0	0.0	1.1	0.0	0.2	0.0	0.0	0.0	0.9	0.0	0.2	0.0
				Viento -Y exc.-	0.0	-0.0	1.1	0.0	0.2	-0.0	-0.0	0.0	-0.0	0.0	0.2	-0.0
E8M	Planta 1	2xUPN-100([I])	-0.10/3.80	Carga permanente	9.8	-0.0	-0.1	0.0	0.0	-0.0	9.0	-0.0	-0.1	0.0	0.0	-0.0
				Sobrecarga de uso	0.0	-0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	-0.0
				Viento +X exc.+	0.0	-0.8	0.0	-0.2	0.0	0.0	0.0	-0.0	-0.0	-0.2	0.0	0.0
				Viento +X exc.-	0.0	-0.8	-0.0	-0.2	-0.0	-0.0	0.0	0.0	0.0	-0.2	-0.0	-0.0
				Viento -X exc.+	0.0	0.8	-0.0	0.2	-0.0	-0.0	0.0	0.0	0.0	0.2	-0.0	-0.0
				Viento -X exc.-	-0.0	0.8	0.0	0.2	0.0	0.0	-0.0	0.0	-0.0	0.2	0.0	0.0
				Viento +Y exc.+	0.0	0.0	-0.9	0.0	-0.2	-0.0	0.0	0.0	0.0	0.0	-0.2	-0.0
				Viento +Y exc.-	-0.0	-0.0	-0.9	-0.0	-0.2	0.0	-0.0	0.0	-0.0	-0.0	-0.2	0.0
				Viento -Y exc.+	-0.0	-0.0	0.9	-0.0	0.2	0.0	-0.0	-0.0	-0.0	-0.0	0.2	0.0
				Viento -Y exc.-	0.0	0.0	0.9	0.0	0.2	-0.0	0.0	-0.0	-0.0	0.0	0.2	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Planta	Dimensión (cm)	Tramo (m)	Hipótesis	Base						Cabeza					
					N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
	Planta Baja	25x25	-1.10/-0.10	Carga permanente	11.3	-0.0	-0.1	0.0	-0.0	-0.0	9.8	-0.0	-0.1	0.0	-0.0	-0.0
				Sobrecarga de uso	0.0	0.0	-0.0	0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	-0.0	-0.0
				Viento +X exc.+	-0.0	-1.0	0.0	-0.2	0.0	0.0	-0.0	-0.8	0.0	-0.2	0.0	0.0
				Viento +X exc.-	0.0	-1.0	-0.0	-0.2	-0.0	-0.0	0.0	-0.8	-0.0	-0.2	-0.0	-0.0
				Viento -X exc.+	0.0	1.0	-0.0	0.2	-0.0	-0.0	0.0	0.8	-0.0	0.2	-0.0	-0.0
				Viento -X exc.-	-0.0	1.0	0.0	0.2	0.0	0.0	-0.0	0.8	0.0	0.2	0.0	0.0
				Viento +Y exc.+	-0.0	0.0	-1.1	0.0	-0.2	-0.0	-0.0	0.0	-0.9	0.0	-0.2	-0.0
				Viento +Y exc.-	0.0	-0.0	-1.1	0.0	-0.2	0.0	0.0	-0.0	-0.9	0.0	-0.2	0.0
				Viento -Y exc.+	0.0	-0.0	1.1	0.0	0.2	0.0	0.0	-0.0	0.9	0.0	0.2	0.0
				Viento -Y exc.-	-0.0	0.0	1.1	0.0	0.2	-0.0	-0.0	0.0	0.9	0.0	0.2	-0.0

4.- ARRANQUES DE PILARES, PANTALLAS Y MUROS POR HIPÓTESIS

■ Nota:

Los esfuerzos están referidos a ejes locales del pilar.

Soporte	Hipótesis	Esfuerzos en arranques					
		N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
A1	Carga permanente	105.1	-2.4	0.4	-0.8	-0.8	-0.0
	Sobrecarga de uso	29.0	-0.6	-0.1	-0.1	-0.4	-0.0
	Viento +X exc.+	-2.4	-3.7	-2.5	-1.5	-1.0	0.0
	Viento +X exc.-	-2.5	-3.4	-1.7	-1.4	-0.7	-0.0
	Viento -X exc.+	2.4	3.7	2.5	1.5	1.0	-0.0
	Viento -X exc.-	2.5	3.4	1.7	1.4	0.7	0.0
	Viento +Y exc.+	10.6	4.0	-10.8	1.7	-4.4	0.0
	Viento +Y exc.-	11.4	3.0	-14.2	1.2	-5.8	0.0
	Viento -Y exc.+	-10.6	-4.0	10.8	-1.7	4.4	-0.0
	Viento -Y exc.-	-11.4	-3.0	14.2	-1.2	5.8	-0.0
A3	Carga permanente	186.5	-1.0	1.4	-0.4	0.1	-0.0
	Sobrecarga de uso	58.7	-0.7	0.4	-0.4	0.0	-0.0
	Viento +X exc.+	-0.9	-6.6	0.8	-3.4	0.7	0.0
	Viento +X exc.-	-1.0	-6.0	1.1	-3.1	0.7	-0.0
	Viento -X exc.+	0.9	6.6	-0.8	3.4	-0.7	-0.0
	Viento -X exc.-	1.0	6.0	-1.1	3.1	-0.7	0.0
	Viento +Y exc.+	3.2	2.2	-10.3	1.7	-4.1	0.0
	Viento +Y exc.-	3.4	-0.5	-11.4	0.3	-4.4	0.0
	Viento -Y exc.+	-3.2	-2.2	10.3	-1.7	4.1	-0.0
	Viento -Y exc.-	-3.4	0.5	11.4	-0.3	4.4	-0.0
A4	Carga permanente	185.5	0.7	2.0	0.1	1.1	-0.0
	Sobrecarga de uso	48.0	0.1	0.6	0.0	0.4	-0.0
	Viento +X exc.+	3.2	-7.0	0.3	-3.6	0.2	0.0
	Viento +X exc.-	2.7	-6.4	0.4	-3.3	0.3	-0.0
	Viento -X exc.+	-3.2	7.0	-0.3	3.6	-0.2	-0.0
	Viento -X exc.-	-2.7	6.4	-0.4	3.3	-0.3	0.0
	Viento +Y exc.+	19.6	0.7	-15.4	0.6	-7.6	0.0
	Viento +Y exc.-	21.6	-1.7	-15.9	-0.7	-7.8	0.0
	Viento -Y exc.+	-19.6	-0.7	15.4	-0.6	7.6	-0.0
	Viento -Y exc.-	-21.6	1.7	15.9	0.7	7.8	-0.0
A5	Carga permanente	94.5	0.7	2.6	0.2	1.0	-0.0
	Sobrecarga de uso	26.0	0.3	0.6	0.1	0.2	-0.0
	Viento +X exc.+	-1.0	-4.8	0.0	-2.0	0.0	0.0
	Viento +X exc.-	-0.9	-4.4	-0.1	-1.9	-0.0	-0.0
	Viento -X exc.+	1.0	4.8	-0.0	2.0	-0.0	-0.0
	Viento -X exc.-	0.9	4.4	0.1	1.9	0.0	0.0
	Viento +Y exc.+	4.9	-0.4	-8.1	-0.2	-2.6	0.0
	Viento +Y exc.-	4.4	-2.2	-7.6	-0.9	-2.5	0.0
	Viento -Y exc.+	-4.9	0.4	8.1	0.2	2.6	-0.0
	Viento -Y exc.-	-4.4	2.2	7.6	0.9	2.5	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Hipótesis	Esfuerzos en arranques					
		N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
A7	Carga permanente	85.8	1.6	2.5	0.9	1.0	-0.0
	Sobrecarga de uso	23.5	0.6	0.4	0.3	0.2	-0.0
	Viento +X exc. +	-4.3	-7.0	0.2	-3.7	0.1	0.0
	Viento +X exc. -	-3.8	-6.4	-0.0	-3.3	-0.0	-0.0
	Viento -X exc. +	4.3	7.0	-0.2	3.7	-0.1	-0.0
	Viento -X exc. -	3.8	6.4	0.0	3.3	0.0	0.0
	Viento +Y exc. +	2.5	-0.3	-8.9	-0.2	-3.4	0.0
	Viento +Y exc. -	0.6	-2.9	-7.7	-1.5	-2.9	0.0
	Viento -Y exc. +	-2.5	0.3	8.9	0.2	3.4	-0.0
	Viento -Y exc. -	-0.6	2.9	7.7	1.5	2.9	-0.0
A8	Carga permanente	199.1	2.0	-0.3	1.1	-1.0	-0.0
	Sobrecarga de uso	56.1	0.6	-1.9	0.3	-1.5	-0.0
	Viento +X exc. +	5.1	-6.9	0.6	-3.6	0.3	0.0
	Viento +X exc. -	5.3	-6.3	-0.1	-3.3	-0.0	-0.0
	Viento -X exc. +	-5.1	6.9	-0.6	3.6	-0.3	-0.0
	Viento -X exc. -	-5.3	6.3	0.1	3.3	0.0	0.0
	Viento +Y exc. +	14.7	-0.3	-13.0	-0.2	-6.2	0.0
	Viento +Y exc. -	13.7	-2.9	-10.2	-1.5	-4.8	0.0
	Viento -Y exc. +	-14.7	0.3	13.0	0.2	6.2	-0.0
	Viento -Y exc. -	-13.7	2.9	10.2	1.5	4.8	-0.0
A9	Carga permanente	107.1	3.3	1.4	0.8	0.1	-0.0
	Sobrecarga de uso	28.3	0.8	-0.4	0.2	-0.4	-0.0
	Viento +X exc. +	1.9	-4.1	0.8	-1.7	0.3	0.0
	Viento +X exc. -	2.3	-3.7	0.0	-1.5	0.0	-0.0
	Viento -X exc. +	-1.9	4.1	-0.8	1.7	-0.3	-0.0
	Viento -X exc. -	-2.3	3.7	-0.0	1.5	-0.0	0.0
	Viento +Y exc. +	8.1	-0.1	-10.1	-0.0	-4.1	0.0
	Viento +Y exc. -	6.4	-1.7	-6.5	-0.7	-2.7	0.0
	Viento -Y exc. +	-8.1	0.1	10.1	0.0	4.1	-0.0
	Viento -Y exc. -	-6.4	1.7	6.5	0.7	2.7	-0.0
B1	Carga permanente	295.7	1.3	5.9	2.0	2.8	-0.0
	Sobrecarga de uso	95.6	2.1	1.5	1.7	0.8	-0.0
	Viento +X exc. +	-4.1	-3.9	-4.4	-1.6	-1.8	0.0
	Viento +X exc. -	-4.0	-4.0	-3.0	-1.6	-1.3	-0.0
	Viento -X exc. +	4.1	3.9	4.4	1.6	1.8	-0.0
	Viento -X exc. -	4.0	4.0	3.0	1.6	1.3	0.0
	Viento +Y exc. +	2.8	4.9	-19.9	1.8	-8.2	0.0
	Viento +Y exc. -	2.7	5.5	-26.0	2.0	-10.7	0.1
	Viento -Y exc. +	-2.8	-4.9	19.9	-1.8	8.2	-0.0
	Viento -Y exc. -	-2.7	-5.5	26.0	-2.0	10.7	-0.1
B3	Carga permanente	491.4	-4.3	-3.6	-2.5	-3.5	-0.0
	Sobrecarga de uso	153.3	-2.7	-0.3	-1.6	-0.5	-0.0
	Viento +X exc. +	0.7	-8.5	-0.7	-3.5	-0.3	0.0
	Viento +X exc. -	0.5	-8.1	0.1	-3.3	0.0	-0.0
	Viento -X exc. +	-0.7	8.5	0.7	3.5	0.3	-0.0
	Viento -X exc. -	-0.5	8.1	-0.1	3.3	-0.0	0.0
	Viento +Y exc. +	9.9	-0.5	-21.7	-0.1	-8.1	0.0
	Viento +Y exc. -	10.9	-2.0	-25.1	-0.8	-9.5	0.1
	Viento -Y exc. +	-9.9	0.5	21.7	0.1	8.1	-0.0
	Viento -Y exc. -	-10.9	2.0	25.1	0.8	9.5	-0.1



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Hipótesis	Esfuerzos en arranques					
		N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
B4	Carga permanente	266.3	-0.6	2.1	-0.4	0.7	-0.0
	Sobrecarga de uso	85.6	-0.1	0.3	-0.1	0.0	-0.0
	Viento +X exc. +	-1.2	-4.5	-0.2	-1.9	-0.1	0.0
	Viento +X exc. -	-0.9	-4.3	-0.0	-1.8	-0.0	-0.0
	Viento -X exc. +	1.2	4.5	0.2	1.9	0.1	-0.0
	Viento -X exc. -	0.9	4.3	0.0	1.8	0.0	0.0
	Viento +Y exc. +	-22.9	-0.3	-12.1	-0.1	-5.0	0.0
	Viento +Y exc. -	-24.1	-1.1	-12.7	-0.5	-5.2	0.0
	Viento -Y exc. +	22.9	0.3	12.1	0.1	5.0	-0.0
	Viento -Y exc. -	24.1	1.1	12.7	0.5	5.2	-0.0
B5	Carga permanente	223.0	-0.7	2.0	-0.5	0.5	-0.0
	Sobrecarga de uso	71.8	-0.1	0.4	-0.1	0.1	-0.0
	Viento +X exc. +	-1.5	-4.6	0.1	-1.9	0.0	0.0
	Viento +X exc. -	-1.4	-4.4	-0.0	-1.9	-0.0	-0.0
	Viento -X exc. +	1.5	4.6	-0.1	1.9	-0.0	-0.0
	Viento -X exc. -	1.4	4.4	0.0	1.9	0.0	0.0
	Viento +Y exc. +	-3.9	-0.1	-8.3	-0.1	-2.7	0.0
	Viento +Y exc. -	-4.1	-1.0	-7.8	-0.4	-2.5	0.0
	Viento -Y exc. +	3.9	0.1	8.3	0.1	2.7	-0.0
	Viento -Y exc. -	4.1	1.0	7.8	0.4	2.5	-0.0
B7	Carga permanente	211.5	2.4	1.7	1.4	0.4	-0.0
	Sobrecarga de uso	54.3	0.5	0.3	0.3	0.1	-0.0
	Viento +X exc. +	2.8	-4.5	0.2	-1.9	0.1	0.0
	Viento +X exc. -	2.6	-4.3	-0.1	-1.8	-0.0	-0.0
	Viento -X exc. +	-2.8	4.5	-0.2	1.9	-0.1	-0.0
	Viento -X exc. -	-2.6	4.3	0.1	1.8	0.0	0.0
	Viento +Y exc. +	-2.0	-0.2	-8.2	-0.1	-2.7	0.0
	Viento +Y exc. -	-1.2	-1.1	-7.1	-0.5	-2.3	0.0
	Viento -Y exc. +	2.0	0.2	8.2	0.1	2.7	-0.0
	Viento -Y exc. -	1.2	1.1	7.1	0.5	2.3	-0.0
C8	Carga permanente	310.1	-0.4	0.3	-0.4	-0.1	-0.0
	Sobrecarga de uso	115.9	0.0	-0.2	-0.0	-0.2	-0.0
	Viento +X exc. +	1.7	-3.0	0.5	-1.0	0.2	0.0
	Viento +X exc. -	1.6	-3.0	-0.0	-1.0	-0.0	-0.0
	Viento -X exc. +	-1.7	3.0	-0.5	1.0	-0.2	-0.0
	Viento -X exc. -	-1.6	3.0	0.0	1.0	0.0	0.0
	Viento +Y exc. +	-0.0	-0.1	-12.0	-0.0	-5.1	0.0
	Viento +Y exc. -	0.5	-0.4	-9.4	-0.1	-4.0	0.0
	Viento -Y exc. +	0.0	0.1	12.0	0.0	5.1	-0.0
	Viento -Y exc. -	-0.5	0.4	9.4	0.1	4.0	-0.0
C9	Carga permanente	166.0	4.5	1.1	1.7	0.6	-0.0
	Sobrecarga de uso	65.9	1.1	0.1	0.4	0.1	-0.0
	Viento +X exc. +	0.7	-3.0	0.8	-1.0	0.3	0.0
	Viento +X exc. -	0.5	-3.0	-0.1	-1.0	-0.1	-0.0
	Viento -X exc. +	-0.7	3.0	-0.8	1.0	-0.3	-0.0
	Viento -X exc. -	-0.5	3.0	0.1	1.0	0.1	0.0
	Viento +Y exc. +	-2.2	-0.1	-11.6	-0.1	-5.0	0.0
	Viento +Y exc. -	-1.3	-0.4	-7.5	-0.1	-3.2	0.0
	Viento -Y exc. +	2.2	0.1	11.6	0.1	5.0	-0.0
	Viento -Y exc. -	1.3	0.4	7.5	0.1	3.2	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Hipótesis	Esfuerzos en arranques					
		N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
D1	Carga permanente	185.8	-1.8	-0.8	-0.3	-0.2	-0.0
	Sobrecarga de uso	58.3	0.3	0.1	0.4	0.1	-0.0
	Viento +X exc. +	-3.0	-3.0	-2.5	-1.2	-1.1	0.0
	Viento +X exc. -	-3.7	-3.5	-1.7	-1.4	-0.7	-0.0
	Viento -X exc. +	3.0	3.0	2.5	1.2	1.1	-0.0
	Viento -X exc. -	3.7	3.5	1.7	1.4	0.7	0.0
	Viento +Y exc. +	7.1	4.5	-11.8	1.7	-5.0	0.0
	Viento +Y exc. -	10.1	6.7	-15.4	2.6	-6.5	0.0
	Viento -Y exc. +	-7.1	-4.5	11.8	-1.7	5.0	-0.0
	Viento -Y exc. -	-10.1	-6.7	15.4	-2.6	6.5	-0.0
D2	Carga permanente	344.4	-0.5	0.5	-0.1	0.5	-0.0
	Sobrecarga de uso	132.9	-0.3	0.6	-0.1	0.4	-0.0
	Viento +X exc. +	-0.1	-4.1	-0.6	-1.7	-0.2	0.0
	Viento +X exc. -	-0.4	-4.3	0.1	-1.8	0.0	-0.0
	Viento -X exc. +	0.1	4.1	0.6	1.7	0.2	-0.0
	Viento -X exc. -	0.4	4.3	-0.1	1.8	-0.0	0.0
	Viento +Y exc. +	5.5	0.1	-11.9	0.1	-4.8	0.0
	Viento +Y exc. -	6.7	1.0	-14.9	0.5	-6.0	0.0
	Viento -Y exc. +	-5.5	-0.1	11.9	-0.1	4.8	-0.0
	Viento -Y exc. -	-6.7	-1.0	14.9	-0.5	6.0	-0.0
D3	Carga permanente	391.2	-1.3	3.6	-0.5	2.4	-0.0
	Sobrecarga de uso	109.0	-0.4	0.4	-0.1	0.3	-0.0
	Viento +X exc. +	0.6	-4.2	-0.4	-1.7	-0.2	0.0
	Viento +X exc. -	0.8	-4.3	0.0	-1.8	0.0	-0.0
	Viento -X exc. +	-0.6	4.2	0.4	1.7	0.2	-0.0
	Viento -X exc. -	-0.8	4.3	-0.0	1.8	-0.0	0.0
	Viento +Y exc. +	-4.9	0.1	-11.7	0.0	-4.7	0.0
	Viento +Y exc. -	-5.4	0.9	-13.6	0.4	-5.4	0.0
	Viento -Y exc. +	4.9	-0.1	11.7	-0.0	4.7	-0.0
	Viento -Y exc. -	5.4	-0.9	13.6	-0.4	5.4	-0.0
D4	Carga permanente	288.4	-1.5	0.4	-0.7	0.3	-0.0
	Sobrecarga de uso	104.5	-0.3	-0.2	-0.2	-0.1	-0.0
	Viento +X exc. +	0.3	-4.1	-0.1	-1.7	-0.0	0.0
	Viento +X exc. -	0.2	-4.3	0.0	-1.8	0.0	-0.0
	Viento -X exc. +	-0.3	4.1	0.1	1.7	0.0	-0.0
	Viento -X exc. -	-0.2	4.3	-0.0	1.8	-0.0	0.0
	Viento +Y exc. +	16.0	0.2	-11.2	0.1	-4.4	0.0
	Viento +Y exc. -	16.5	1.0	-11.7	0.4	-4.6	0.0
	Viento -Y exc. +	-16.0	-0.2	11.2	-0.1	4.4	-0.0
	Viento -Y exc. -	-16.5	-1.0	11.7	-0.4	4.6	-0.0
D6	Carga permanente	309.1	1.5	0.1	0.9	0.2	-0.0
	Sobrecarga de uso	106.1	0.2	-0.1	0.1	-0.1	-0.0
	Viento +X exc. +	-0.2	-4.1	0.2	-1.7	0.1	0.0
	Viento +X exc. -	0.0	-4.3	-0.0	-1.8	-0.0	-0.0
	Viento -X exc. +	0.2	4.1	-0.2	1.7	-0.1	-0.0
	Viento -X exc. -	-0.0	4.3	0.0	1.8	0.0	0.0
	Viento +Y exc. +	16.8	0.2	-10.9	0.1	-4.3	0.0
	Viento +Y exc. -	15.6	1.0	-10.0	0.4	-4.0	0.0
	Viento -Y exc. +	-16.8	-0.2	10.9	-0.1	4.3	-0.0
	Viento -Y exc. -	-15.6	-1.0	10.0	-0.4	4.0	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Hipótesis	Esfuerzos en arranques					
		N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
D8	Carga permanente	268.9	-1.6	3.6	-1.2	2.5	-0.0
	Sobrecarga de uso	103.3	-0.2	1.8	-0.1	1.2	-0.0
	Viento +X exc. +	-0.1	-4.1	0.4	-1.7	0.2	0.0
	Viento +X exc. -	-0.3	-4.3	-0.1	-1.8	-0.0	-0.0
	Viento -X exc. +	0.1	4.1	-0.4	1.7	-0.2	-0.0
	Viento -X exc. -	0.3	4.3	0.1	1.8	0.0	0.0
	Viento +Y exc. +	-5.5	-0.1	-10.9	-0.0	-4.4	0.0
	Viento +Y exc. -	-4.6	0.8	-8.6	0.3	-3.5	0.0
	Viento -Y exc. +	5.5	0.1	10.9	0.0	4.4	-0.0
	Viento -Y exc. -	4.6	-0.8	8.6	-0.3	3.5	-0.0
D9	Carga permanente	138.1	3.6	-1.7	1.2	-0.7	-0.0
	Sobrecarga de uso	50.6	0.1	-0.1	-0.2	0.0	-0.0
	Viento +X exc. +	2.5	-3.7	0.7	-1.5	0.3	0.0
	Viento +X exc. -	2.9	-3.9	-0.2	-1.6	-0.1	-0.0
	Viento -X exc. +	-2.5	3.7	-0.7	1.5	-0.3	-0.0
	Viento -X exc. -	-2.9	3.9	0.2	1.6	0.1	0.0
	Viento +Y exc. +	3.1	-0.1	-11.6	-0.0	-4.9	0.0
	Viento +Y exc. -	1.4	0.8	-7.5	0.3	-3.2	0.0
	Viento -Y exc. +	-3.1	0.1	11.6	0.0	4.9	-0.0
	Viento -Y exc. -	-1.4	-0.8	7.5	-0.3	3.2	-0.0
E1	Carga permanente	136.9	-4.8	-4.1	-1.4	-1.8	-0.0
	Sobrecarga de uso	36.6	-0.3	-0.9	0.2	-0.4	-0.0
	Viento +X exc. +	-2.3	-3.5	-0.9	-1.5	-0.4	0.0
	Viento +X exc. -	-1.9	-3.9	0.1	-1.7	0.0	-0.0
	Viento -X exc. +	2.3	3.5	0.9	1.5	0.4	-0.0
	Viento -X exc. -	1.9	3.9	-0.1	1.7	-0.0	0.0
	Viento +Y exc. +	-7.4	0.1	-12.0	-0.1	-5.0	0.0
	Viento +Y exc. -	-8.9	1.9	-16.4	0.6	-6.9	0.0
	Viento -Y exc. +	7.4	-0.1	12.0	0.1	5.0	-0.0
	Viento -Y exc. -	8.9	-1.9	16.4	-0.6	6.9	-0.0
E2	Carga permanente	209.7	-2.8	-3.2	-1.5	-1.4	-0.0
	Sobrecarga de uso	72.5	-0.7	-0.8	-0.4	-0.4	-0.0
	Viento +X exc. +	-0.8	-4.0	-0.6	-1.7	-0.3	0.0
	Viento +X exc. -	0.0	-4.5	0.1	-1.9	0.0	-0.0
	Viento -X exc. +	0.8	4.0	0.6	1.7	0.3	-0.0
	Viento -X exc. -	-0.0	4.5	-0.1	1.9	-0.0	0.0
	Viento +Y exc. +	-15.4	0.5	-12.4	0.2	-5.2	0.0
	Viento +Y exc. -	-19.0	2.6	-15.5	1.2	-6.6	0.0
	Viento -Y exc. +	15.4	-0.5	12.4	-0.2	5.2	-0.0
	Viento -Y exc. -	19.0	-2.6	15.5	-1.2	6.6	-0.0
E3	Carga permanente	175.4	-1.6	-2.3	-0.6	-1.0	-0.0
	Sobrecarga de uso	68.1	-0.4	-0.6	-0.1	-0.2	-0.0
	Viento +X exc. +	0.4	-4.1	-0.4	-1.8	-0.2	0.0
	Viento +X exc. -	0.7	-4.6	0.0	-2.0	0.0	-0.0
	Viento -X exc. +	-0.4	4.1	0.4	1.8	0.2	-0.0
	Viento -X exc. -	-0.7	4.6	-0.0	2.0	-0.0	0.0
	Viento +Y exc. +	-7.6	0.5	-12.1	0.2	-5.1	0.0
	Viento +Y exc. -	-8.9	2.6	-14.1	1.1	-5.9	0.0
	Viento -Y exc. +	7.6	-0.5	12.1	-0.2	5.1	-0.0
	Viento -Y exc. -	8.9	-2.6	14.1	-1.1	5.9	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Hipótesis	Esfuerzos en arranques					
		N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
E4	Carga permanente	243.5	-2.9	-1.3	-1.4	-0.7	-0.0
	Sobrecarga de uso	84.2	-1.1	0.4	-0.5	0.3	-0.0
	Viento +X exc. +	-2.2	-6.1	-0.1	-3.2	-0.1	0.0
	Viento +X exc. -	-2.2	-6.8	0.0	-3.6	0.0	-0.0
	Viento -X exc. +	2.2	6.1	0.1	3.2	0.1	-0.0
	Viento -X exc. -	2.2	6.8	-0.0	3.6	-0.0	0.0
	Viento +Y exc. +	-16.3	0.8	-16.6	0.4	-8.4	0.0
	Viento +Y exc. -	-16.2	3.9	-17.4	2.0	-8.8	0.0
	Viento -Y exc. +	16.3	-0.8	16.6	-0.4	8.4	-0.0
	Viento -Y exc. -	16.2	-3.9	17.4	-2.0	8.8	-0.0
E6	Carga permanente	307.7	-0.4	-0.1	-0.2	-0.1	-0.0
	Sobrecarga de uso	93.3	-0.1	1.1	-0.1	0.7	-0.0
	Viento +X exc. +	0.4	-6.2	0.2	-3.2	0.1	0.0
	Viento +X exc. -	0.1	-6.9	-0.1	-3.6	-0.0	-0.0
	Viento -X exc. +	-0.4	6.2	-0.2	3.2	-0.1	-0.0
	Viento -X exc. -	-0.1	6.9	0.1	3.6	0.0	0.0
	Viento +Y exc. +	-19.2	0.5	-16.4	0.3	-8.3	0.0
	Viento +Y exc. -	-17.9	3.6	-15.0	1.9	-7.6	0.0
	Viento -Y exc. +	19.2	-0.5	16.4	-0.3	8.3	-0.0
	Viento -Y exc. -	17.9	-3.6	15.0	-1.9	7.6	-0.0
E8	Carga permanente	266.0	2.1	-1.7	0.9	-0.7	-0.0
	Sobrecarga de uso	92.5	0.6	0.4	0.3	0.4	-0.0
	Viento +X exc. +	1.7	-6.0	0.5	-3.2	0.3	0.0
	Viento +X exc. -	1.4	-6.7	-0.2	-3.5	-0.1	-0.0
	Viento -X exc. +	-1.7	6.0	-0.5	3.2	-0.3	-0.0
	Viento -X exc. -	-1.4	6.7	0.2	3.5	0.1	0.0
	Viento +Y exc. +	-8.3	0.3	-15.0	0.2	-7.5	0.0
	Viento +Y exc. -	-7.1	3.4	-11.8	1.8	-5.9	0.0
	Viento -Y exc. +	8.3	-0.3	15.0	-0.2	7.5	-0.0
	Viento -Y exc. -	7.1	-3.4	11.8	-1.8	5.9	-0.0
E9	Carga permanente	121.9	3.1	-3.8	0.8	-1.4	-0.0
	Sobrecarga de uso	32.2	0.0	-0.8	-0.2	-0.3	-0.0
	Viento +X exc. +	2.1	-3.6	0.6	-1.5	0.3	0.0
	Viento +X exc. -	1.6	-4.1	-0.3	-1.7	-0.1	-0.0
	Viento -X exc. +	-2.1	3.6	-0.6	1.5	-0.3	-0.0
	Viento -X exc. -	-1.6	4.1	0.3	1.7	0.1	0.0
	Viento +Y exc. +	-9.0	-0.0	-10.9	0.0	-4.6	0.0
	Viento +Y exc. -	-7.1	1.9	-7.0	0.8	-3.0	0.0
	Viento -Y exc. +	9.0	0.0	10.9	-0.0	4.6	-0.0
	Viento -Y exc. -	7.1	-1.9	7.0	-0.8	3.0	-0.0
A3M	Carga permanente	22.3	-0.1	-0.2	0.0	-0.0	0.0
	Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	0.0
	Viento +X exc. +	0.0	-1.0	0.0	-0.2	0.0	0.0
	Viento +X exc. -	0.0	-1.0	0.0	-0.2	0.0	-0.0
	Viento -X exc. +	0.0	1.0	0.0	0.2	-0.0	-0.0
	Viento -X exc. -	0.0	1.0	-0.0	0.2	-0.0	0.0
	Viento +Y exc. +	-0.0	0.0	-1.1	0.0	-0.2	-0.0
	Viento +Y exc. -	0.0	0.0	-1.1	0.0	-0.2	0.0
	Viento -Y exc. +	0.0	-0.0	1.1	-0.0	0.2	0.0
	Viento -Y exc. -	-0.0	-0.0	1.1	-0.0	0.2	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Hipótesis	Esfuerzos en arranques					
		N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
A4M	Carga permanente	12.3	-0.0	-0.1	0.0	0.0	-0.0
	Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	-0.0
	Viento +X exc. +	-0.0	-1.0	0.0	-0.2	0.0	0.0
	Viento +X exc. -	0.0	-1.0	0.0	-0.2	0.0	-0.0
	Viento -X exc. +	0.0	1.0	-0.0	0.2	0.0	-0.0
	Viento -X exc. -	0.0	1.0	-0.0	0.2	-0.0	0.0
	Viento +Y exc. +	0.0	-0.0	-1.1	0.0	-0.2	-0.0
	Viento +Y exc. -	-0.0	-0.0	-1.1	-0.0	-0.2	0.0
	Viento -Y exc. +	0.0	0.0	1.1	0.0	0.2	0.0
	Viento -Y exc. -	0.0	0.0	1.1	0.0	0.2	-0.0
E4M	Carga permanente	11.3	-0.0	-0.1	0.0	-0.0	0.0
	Sobrecarga de uso	0.0	0.0	-0.0	0.0	0.0	0.0
	Viento +X exc. +	0.0	-1.0	-0.0	-0.2	-0.0	0.0
	Viento +X exc. -	-0.0	-1.0	0.0	-0.2	0.0	-0.0
	Viento -X exc. +	-0.0	1.0	0.0	0.2	0.0	-0.0
	Viento -X exc. -	0.0	1.0	-0.0	0.2	-0.0	0.0
	Viento +Y exc. +	-0.0	-0.0	-1.1	0.0	-0.2	-0.0
	Viento +Y exc. -	-0.0	0.0	-1.1	0.0	-0.2	0.0
	Viento -Y exc. +	0.0	0.0	1.1	-0.0	0.2	0.0
	Viento -Y exc. -	0.0	-0.0	1.1	-0.0	0.2	-0.0
E5M	Carga permanente	21.3	-0.1	-0.2	0.0	0.0	-0.0
	Sobrecarga de uso	0.0	0.0	0.0	0.0	0.0	-0.0
	Viento +X exc. +	-0.0	-1.0	0.0	-0.2	-0.0	0.0
	Viento +X exc. -	-0.0	-1.0	-0.0	-0.2	-0.0	-0.0
	Viento -X exc. +	0.0	1.0	-0.0	0.2	0.0	-0.0
	Viento -X exc. -	0.0	1.0	0.0	0.2	0.0	0.0
	Viento +Y exc. +	0.0	-0.0	-1.1	0.0	-0.2	-0.0
	Viento +Y exc. -	0.0	0.0	-1.1	-0.0	-0.2	0.0
	Viento -Y exc. +	-0.0	0.0	1.1	0.0	0.2	0.0
	Viento -Y exc. -	-0.0	-0.0	1.1	0.0	0.2	-0.0
E6M	Carga permanente	21.3	-0.1	-0.2	-0.0	0.0	-0.0
	Sobrecarga de uso	0.0	0.0	0.0	0.0	0.0	-0.0
	Viento +X exc. +	0.0	-1.0	-0.0	-0.2	-0.0	0.0
	Viento +X exc. -	0.0	-1.0	-0.0	-0.2	-0.0	-0.0
	Viento -X exc. +	-0.0	1.0	0.0	0.2	0.0	-0.0
	Viento -X exc. -	-0.0	1.0	0.0	0.2	0.0	0.0
	Viento +Y exc. +	0.0	0.0	-1.1	-0.0	-0.2	-0.0
	Viento +Y exc. -	0.0	-0.0	-1.1	-0.0	-0.2	0.0
	Viento -Y exc. +	-0.0	-0.0	1.1	0.0	0.2	0.0
	Viento -Y exc. -	-0.0	0.0	1.1	0.0	0.2	-0.0
E7M	Carga permanente	21.3	-0.1	-0.2	0.0	0.0	-0.0
	Sobrecarga de uso	-0.0	0.0	-0.0	0.0	-0.0	-0.0
	Viento +X exc. +	-0.0	-1.0	-0.0	-0.2	0.0	0.0
	Viento +X exc. -	0.0	-1.0	0.0	-0.2	-0.0	-0.0
	Viento -X exc. +	0.0	1.0	0.0	0.2	-0.0	-0.0
	Viento -X exc. -	-0.0	1.0	-0.0	0.2	0.0	0.0
	Viento +Y exc. +	-0.0	-0.0	-1.1	-0.0	-0.2	-0.0
	Viento +Y exc. -	0.0	0.0	-1.1	-0.0	-0.2	0.0
	Viento -Y exc. +	0.0	0.0	1.1	0.0	0.2	0.0
	Viento -Y exc. -	0.0	-0.0	1.1	0.0	0.2	-0.0



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Soporte	Hipótesis	Esfuerzos en arranques					
		N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
E8M	Carga permanente	11.3	-0.0	-0.1	0.0	-0.0	-0.0
	Sobrecarga de uso	0.0	0.0	-0.0	0.0	-0.0	-0.0
	Viento +X exc. +	-0.0	-1.0	0.0	-0.2	0.0	0.0
	Viento +X exc. -	0.0	-1.0	-0.0	-0.2	-0.0	-0.0
	Viento -X exc. +	0.0	1.0	-0.0	0.2	-0.0	-0.0
	Viento -X exc. -	-0.0	1.0	0.0	0.2	0.0	0.0
	Viento +Y exc. +	-0.0	0.0	-1.1	0.0	-0.2	-0.0
	Viento +Y exc. -	0.0	-0.0	-1.1	0.0	-0.2	0.0
	Viento -Y exc. +	0.0	-0.0	1.1	0.0	0.2	0.0
	Viento -Y exc. -	-0.0	0.0	1.1	0.0	0.2	-0.0

5.- LISTADO DE MEDICIÓN DE PILARES

Acero en barras y estribos: B 500 S, Ys=1.15

Planta 1: Planta Baja Hormigón: HA-25, Yc=1.5

Referencia	Dimensiones m	Encofrado m2	Hormigón m3	Diam.	Nº	Longitud cm.	Total cm.	A.barras Kg.	A.estribos Kg.
A4 B7 D4 D9 (x4)	0.25x0.25	1.0	0.06	Ø16 Ø16 Ø6	4 4 18	140 115 89	560 460 1602	8.84 7.26 64.40	3.56 14.24
D1	0.25x0.25	1.0	0.06	Ø20 Ø20 Ø6	4 4 18	160 135 90	640 540 1620	15.78 13.32	3.60
D3	0.25x0.25	1.0	0.06	Ø25 Ø25 Ø8	6 6 18	195 169 91	1170 1014 1638	45.08 39.07	6.46
E4	0.25x0.25	1.0	0.06	Ø20 Ø20 Ø6	4 4 18	160 135 90	640 540 1620	15.78 13.32	3.60
A3M A4M E4M E5M E6M E7M E8M (x7)	0.25x0.25	1.0	0.06	Ø12 Ø12 Ø6	4 4 18	130 105 88	520 420 1584	4.62 3.73 58.45	3.52 24.64
Total planta 1		14.0	0.84					265.20	52.60

Acero en barras y estribos: B 500 S, Ys=1.15

Planta 2: Planta 1 Hormigón: HA-25, Yc=1.5

Referencia	Dimensiones m	Encofrado m2	Hormigón m3	Diam.	Nº	Longitud cm.	Total cm.	A.barras Kg.	A.estribos Kg.
A1	0.25x0.25	4.6	0.29	Ø16 Ø16 Ø6	4 4 41	535 115 89	2140 460 3649	33.78 7.26	8.10
A3 A7 A8 (x3)	0.25x0.25	3.8	0.24	Ø12 Ø12 Ø6	4 4 44	520 105 88	2080 420 3872	18.47 3.73	8.59 25.77
A4	0.25x0.25	2.8	0.18	Ø12 Ø6	4 37	420 88	1680 3256	14.92	7.23
A5 A9 B5 (x3)	0.25x0.25	4.6	0.29	Ø12 Ø12 Ø6	4 4 41	520 105 88	2080 420 3608	18.47 3.73	8.01 24.03



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Referencia	Dimensiones m	Encofrado m ²	Hormigón m ³	Diam.	Nº	Longitud cm.	Total cm.	A.barras Kg.	A.estribos Kg.
B1	0.25x0.30	5.1	0.35	Ø25 Ø25 Ø8	4 4 42	585 169 101	2340 676 4242	90.17 26.05	16.74
B3	0.30x0.30	5.5	0.41	Ø25 Ø25 Ø8	6 6 37	585 169 111	3510 1014 4107	135.25 39.07	16.21
B4 C8 C9 E1 E3 E9 (x6)	0.25x0.25	4.6 27.6	0.29 1.74	Ø16 Ø16 Ø6	4 4 41	535 115 89	2140 460 3649	33.78 7.26 246.24	8.10 48.60
B7 D4 D9 (x3)	0.25x0.25	3.6 10.8	0.23 0.69	Ø12 Ø6	4 34	420 88	1680 2992	14.92 44.76	6.64 19.92
D1	0.25x0.25	3.6	0.23	Ø16 Ø6	6 34	430 89	2580 3026	40.72	6.72
D2 E2 (x2)	0.25x0.25	4.6 9.2	0.29 0.58	Ø20 Ø20 Ø6	4 4 41	550 135 90	2200 540 3690	54.26 13.32 135.16	8.19 16.38
D3	0.25x0.25	3.6	0.23	Ø20 Ø6	8 34	450 90	3600 3060	88.78	6.79
D6	0.25x0.25	4.6	0.29	Ø20 Ø20 Ø6	6 6 41	550 135 90	3300 810 3690	81.38 19.98	8.19
D8	0.25x0.25	4.6	0.29	Ø25 Ø25 Ø8	4 4 42	585 169 91	2340 676 3822	90.17 26.05	15.08
E4	0.25x0.25	2.8	0.18	Ø16 Ø6	6 37	430 89	2580 3293	40.72	7.31
E6 E8 (x2)	0.25x0.25	3.8 7.6	0.24 0.48	Ø16 Ø16 Ø6	4 4 44	535 115 89	2140 460 3916	33.78 7.26 82.08	8.69 17.38
Total planta 2		117.6	7.53					1375.80	244.40

Acero en barras y estribos: B 500 S,

Ys=1.15

Planta 3: Cubierta Hormigón: HA-25, Yc=1.5

Referencia	Dimensiones m	Encofrado m ²	Hormigón m ³	Diam.	Nº	Longitud cm.	Total cm.	A.barras Kg.	A.estribos Kg.
A1 D1 (x2)	0.25x0.25	2.9 5.8	0.18 0.36	Ø12 Ø6	4 29	325 88	1300 2552	11.54 23.08	5.66 11.32
A3 A4 A5 A7 A9 C9 (x7)	0.25x0.25	2.9 20.3	0.18 1.26	Ø12 Ø6	4 29	318 88	1272 2552	11.29 79.03	5.66 39.62
A8 B7 (x2)	0.25x0.25	2.7 5.4	0.17 0.34	Ø12 Ø6	4 30	318 88	1272 2640	11.29 22.58	5.86 11.72
B1	0.25x0.25	2.7	0.17	Ø16 Ø6	4 30	318 89	1272 2670	20.08	5.93
B3	0.25x0.25	2.7	0.17	Ø16 Ø6	6 30	360 89	2160 2670	34.09	5.93



Esfuerzos y armados de pilares, pantallas y muros

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Fecha: 17/03/10

Referencia	Dimensiones m	Encofrado m2	Hormigón m3	Diam.	Nº	Longitud cm.	Total cm.	A.barras Kg.	A.estribos Kg.
B4 B5 D2 D3 D4 D6 D8 (x7)	0.25x0.25	2.9	0.18	Ø12 Ø6	4 29	350 88	1400 2552	12.43	5.66
		20.3	1.26					87.01	39.62
C8	0.25x0.25	2.7	0.17	Ø12 Ø6	4 30	350 88	1400 2640	12.43	5.86
E1 E2 E3 E4 E6 E8 E9 (x7)	Diám: 0.25	2.3	0.14	Ø12 Ø6	6 29	318 70	1908 2030	16.94	4.50
		16.1	0.98					118.58	31.50
Total planta	3	76.0	4.71					396.90	151.50

Acero en barras y estribos: B 500 S,

Ys=1.15

Planta 4: Casetón Hormigón: HA-25, Yc=1.5

Referencia	Dimensiones m	Encofrado m2	Hormigón m3	Diam.	Nº	Longitud cm.	Total cm.	A.barras Kg.	A.estribos Kg.
B4 B5 C8 D4 D6 D8 (x6)	0.25x0.25	1.3	0.08	Ø12 Ø6	4 19	157 88	628 1672	5.58	3.71
		7.8	0.48					33.48	22.26
B8	0.25x0.25	1.3	0.08	Ø12 Ø12 Ø6	4 4 19	157 105 88	628 420 1672	5.58 3.73	3.71
Total planta	4	9.1	0.56					42.80	26.00

Acero en barras y estribos: B 500 S,

Ys=1.15

Planta 5: Tapa Hormigón: HA-25, Yc=1.5

Referencia	Dimensiones m	Encofrado m2	Hormigón m3	Diam.	Nº	Longitud cm.	Total cm.	A.barras Kg.	A.estribos Kg.
B2	0.25x0.25	3.3	0.21	Ø12 Ø12 Ø6	4 4 32	358 105 88	1432 420 2816	12.71 3.73	6.25
B3 D3 (x2)	0.25x0.25	3.0	0.19	Ø12 Ø6	4 41	365 88	1460 3608	12.96	8.01
		6.0	0.38					25.92	16.02
D2	0.25x0.25	3.3	0.21	Ø12 Ø6	4 32	358 88	1432 2816	12.71	6.25
Total planta	5	12.6	0.80					55.00	28.50



Esfuerzos y armados de pilares, pantallas y muros

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Fecha: 17/03/10

Acero en barras y estribos: B 500 S, Ys=1.15

Resumen de medición (+10%)

Planta	Tipo acero	Diam.	Longitud (m)	Peso (Kg)	Encofrado m2	Hormigón m3
Planta 1	Acero en barras	Ø12	36.40	36		
		Ø16	22.40	39		
		Ø20	12.80	35		
		Ø25	11.70	50		
	Acero en estribos	Ø6	207.36	51		
		Ø8	16.38	7		
	Acero en arranques	Ø12	29.40	29		
		Ø16	18.40	32		
		Ø20	10.80	29		
		Ø25	10.14	43		
Total				351	14.00	0.84
Planta 2	Acero en barras	Ø12	192.00	188		
		Ø16	244.20	424		
		Ø20	113.00	307		
		Ø25	81.90	347		
	Acero en estribos	Ø6	884.96	216		
		Ø8	121.71	53		
	Acero en arranques	Ø12	25.20	25		
		Ø16	41.40	72		
		Ø20	18.90	51		
		Ø25	23.66	100		
Total				1783	117.60	7.53
Planta 3	Acero en barras	Ø12	386.04	377		
		Ø16	34.32	60		
	Acero en estribos	Ø6	683.02	167		
Total				604	76.00	4.71
Planta 4	Acero en barras	Ø12	43.96	43		
	Acero en estribos	Ø6	117.04	29		
	Acero en arranques	Ø12	4.20	4		
	Total					
Planta 5	Acero en barras	Ø12	57.84	56		
	Acero en estribos	Ø6	128.48	31		
	Acero en arranques	Ø12	4.20	4		
	Total					
Totales	Acero en barras	Ø12	716.24	700		
		Ø16	300.92	523		
		Ø20	125.80	342		
		Ø25	93.60	397		
	Acero en estribos	Ø6	2020.86	494		
		Ø8	138.09	60		
	Acero en arranques	Ø12	63.00	62		
		Ø16	59.80	104		
		Ø20	29.70	80		
		Ø25	33.80	143		
Total obra				2905	229.30	14.44



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Acero en perfiles conformados: S235
Acero en perfiles laminados: S275

Planta 2 Planta 1

Referencia	Tipo perfil	Longitud	Peso
Aceros laminados			
A3M A4M E4M	2xUPN-100([I])	3.90	82.71
E5M E6M E7M			
E8M (x7)		27.30	579.00
	Total		579.00
Total planta 2			579.00



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Acero en perfiles conformados: S235
Acero en perfiles laminados: S275

Resumen de medición

Tipo acero	Tipo perfil	Longitud (m)	Peso (Kg)
Aceros laminados	2xUPN-100([I])	27.30	579
	Total		579
Total obra			579

6.- SUMATORIO DE ESFUERZOS DE PILARES, PANTALLAS Y MUROS POR HIPÓTESIS Y PLANTA

■ Sólo se tienen en cuenta los esfuerzos de pilares, muros y pantallas, por lo que si la obra tiene vigas con vinculación exterior, vigas inclinadas, diagonales o estructuras 3D integradas, los esfuerzos de dichos elementos no se muestran en el siguiente listado.

■ Este listado es de utilidad para conocer las cargas actuantes por encima de la cota de la base de los soportes sobre una planta, por lo que para casos tales como pilares apeados traccionados, los esfuerzos de dichos pilares tendrán la influencia no sólo de las cargas por encima sino también la de las cargas que recibe de plantas inferiores.

■ Nota:

Junto a la referencia de cada soporte se indican las coordenadas X e Y del centro de gravedad (m) y en pilares, el ángulo (grados) de giro de los ejes locales respecto a los globales.

Tramo: Nivel inicial / nivel final del tramo entre plantas.

Planta: Casetón														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=8.60)					
			N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
B3 [2.547; -5.037; 0.0 grados] (25x25)	8.60/10.30	Carga permanente	29.5	8.2	-6.6	2.2	-7.5	-0.0	29.5	67.0	-142.0	-2.2	7.5	7.8
		Sobrecarga de uso	3.9	2.6	-0.9	0.9	-0.8	-0.0	3.9	7.3	-18.7	-0.9	0.8	-2.3
		Viento +X exc. +	0.8	-1.1	0.0	-1.0	0.0	0.0	0.8	3.0	-3.9	1.0	-0.0	4.7
		Viento +X exc. -	0.6	-0.9	-0.0	-0.8	0.0	-0.0	0.6	2.5	-3.2	0.8	-0.0	3.9
		Viento -X exc. +	-0.8	1.1	-0.0	1.0	-0.0	-0.0	-0.8	-3.0	3.9	-1.0	0.0	-4.7
		Viento -X exc. -	-0.6	0.9	0.0	0.8	-0.0	0.0	-0.6	-2.5	3.2	-0.8	0.0	-3.9
		Viento +Y exc. +	1.3	-1.1	-2.4	-1.0	-2.6	0.0	1.3	4.4	-4.2	1.0	2.6	11.8
		Viento +Y exc. -	1.6	-1.6	-2.1	-1.5	-2.4	0.1	1.6	5.6	-5.9	1.5	2.4	13.5
		Viento -Y exc. +	-1.3	1.1	2.4	1.0	2.6	-0.0	-1.3	-4.4	4.2	-1.0	-2.6	-11.8
		Viento -Y exc. -	-1.6	1.6	2.1	1.5	2.4	-0.1	-1.6	-5.6	5.9	-1.5	-2.4	-13.5
D2 [-1.303; -10.237; 0.0 grados] (25x25)	8.60/10.30	Carga permanente	61.2	0.0	-1.7	3.5	3.9	-0.0	61.2	-79.8	-625.1	-3.5	-3.9	-30.8
		Sobrecarga de uso	6.2	-0.2	-0.3	0.2	0.4	-0.0	6.2	-7.9	-63.1	-0.2	-0.4	-1.6
		Viento +X exc. +	-0.4	0.1	0.0	-0.2	-0.0	-0.0	-0.4	0.4	3.6	0.2	0.0	1.9
		Viento +X exc. -	-0.4	0.1	0.0	-0.2	0.0	-0.0	-0.4	0.4	4.0	0.2	-0.0	2.3
		Viento -X exc. +	0.4	-0.1	-0.0	0.2	0.0	0.0	0.4	-0.4	-3.6	-0.2	-0.0	-1.9
		Viento -X exc. -	0.4	-0.1	-0.0	0.2	-0.0	0.0	0.4	-0.4	-4.0	-0.2	0.0	-2.3
		Viento +Y exc. +	-0.5	0.2	0.1	0.2	-1.3	0.0	-0.5	0.4	4.6	-0.2	1.3	-4.2
		Viento +Y exc. -	-0.4	0.2	0.2	0.4	-1.4	0.0	-0.4	0.3	3.7	-0.4	1.4	-5.6
		Viento -Y exc. +	0.5	-0.2	-0.1	-0.2	1.3	-0.0	0.5	-0.4	-4.6	0.2	-1.3	4.2
		Viento -Y exc. -	0.4	-0.2	-0.2	-0.4	1.4	-0.0	0.4	-0.3	-3.7	0.4	-1.4	5.6
D3 [2.547; -10.237; 0.0 grados] (25x25)	8.60/10.30	Carga permanente	48.1	3.8	4.6	-1.3	5.9	-0.0	48.1	118.8	-497.3	1.3	-5.9	-1.6
		Sobrecarga de uso	4.8	1.5	-0.1	0.2	-0.0	-0.0	4.8	10.8	-49.0	-0.2	0.0	-2.3
		Viento +X exc. +	0.3	-0.9	0.0	-0.8	0.0	0.0	0.3	1.7	-3.4	0.8	-0.0	8.6
		Viento +X exc. -	0.4	-1.1	-0.0	-1.0	-0.0	-0.0	0.4	2.1	-3.9	1.0	0.0	10.5
		Viento -X exc. +	-0.3	0.9	-0.0	0.8	-0.0	-0.0	-0.3	-1.7	3.4	-0.8	0.0	-8.6
		Viento -X exc. -	-0.4	1.1	0.0	1.0	0.0	0.0	-0.4	-2.1	3.9	-1.0	-0.0	-10.5
		Viento +Y exc. +	-1.7	1.5	-2.2	1.3	-2.5	0.0	-1.7	-5.9	19.8	-1.3	2.5	-7.2
		Viento +Y exc. -	-1.9	2.0	-2.0	1.8	-2.3	0.1	-1.9	-6.8	21.4	-1.8	2.3	-12.2
		Viento -Y exc. +	1.7	-1.5	2.2	-1.3	2.5	-0.0	1.7	5.9	-19.8	1.3	-2.5	7.2
		Viento -Y exc. -	1.9	-2.0	2.0	-1.8	2.3	-0.1	1.9	6.8	-21.4	1.8	-2.3	12.2



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Casetón														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=8.60)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
B2 [0.941; -5.037; 0.0 grados] (25x25)	8.60/10.30	Carga permanente	53.3	-1.4	0.8	-4.4	-2.4	-0.0	53.3	51.6	-269.2	4.4	2.4	24.6
		Sobrecarga de uso	4.2	-0.6	0.6	-1.3	0.4	-0.0	4.2	4.5	-21.5	1.3	-0.4	6.2
		Viento +X exc.+	-0.7	-0.1	0.0	-0.3	-0.1	-0.0	-0.7	-0.6	3.7	0.3	0.1	1.4
		Viento +X exc.-	-0.6	-0.1	0.0	-0.2	-0.0	-0.0	-0.6	-0.5	3.2	0.2	0.0	1.1
		Viento -X exc.+	0.7	0.1	-0.0	0.3	0.1	0.0	0.7	0.6	-3.7	-0.3	-0.1	-1.4
		Viento -X exc.-	0.6	0.1	-0.0	0.2	0.0	0.0	0.6	0.5	-3.2	-0.2	-0.0	-1.1
		Viento +Y exc.+	0.9	-0.2	-0.5	-0.5	-1.7	0.0	0.9	1.0	-3.9	0.5	1.7	4.2
		Viento +Y exc.-	0.7	-0.3	-0.5	-0.7	-1.9	0.0	0.7	0.9	-3.0	0.7	1.9	5.1
		Viento -Y exc.+	-0.9	0.2	0.5	0.5	1.7	-0.0	-0.9	-1.0	3.9	-0.5	-1.7	-4.2
		Viento -Y exc.-	-0.7	0.3	0.5	0.7	1.9	-0.0	-0.7	-0.9	3.0	-0.7	-1.9	-5.1
Sumatorio		Carga permanente							192.1	157.6	-1534	-0.0	0.0	-0.0
		Sobrecarga de uso							19.0	14.6	-152.3	0.0	-0.0	0.0
		Viento +X exc.+							-0.0	4.5	0.0	2.3	-0.0	16.6
		Viento +X exc.-							-0.0	4.5	0.0	2.3	-0.0	17.9
		Viento -X exc.+							0.0	-4.5	-0.0	-2.3	0.0	-16.6
		Viento -X exc.-							0.0	-4.5	-0.0	-2.3	0.0	-17.9
		Viento +Y exc.+							0.0	-0.0	16.2	-0.0	8.1	4.6
		Viento +Y exc.-							0.0	0.0	16.2	-0.0	8.1	0.8
		Viento -Y exc.+							-0.0	0.0	-16.2	0.0	-8.1	-4.6
		Viento -Y exc.-							-0.0	-0.0	-16.2	0.0	-8.1	-0.8

Planta: Cubierta														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=7.00)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
B3 [2.547;-5.037;0.0 grados] (25x25)	7.00/8.30	Carga permanente	82.4	-8.2	-4.0	4.0	-5.0	-0.0	82.4	218.1	-411.2	-4.0	5.0	-7.6
		Sobrecarga de uso	16.2	-2.0	0.4	1.6	0.5	-0.0	16.2	43.3	-82.2	-1.6	-0.5	-9.3
		Viento +X exc. +	0.3	-0.3	0.0	-0.4	-0.0	-0.0	0.3	1.1	-1.6	0.4	0.0	2.1
		Viento +X exc. -	0.2	-0.3	0.0	-0.4	0.0	-0.0	0.2	0.9	-1.1	0.4	-0.0	2.2
		Viento -X exc. +	-0.3	0.3	-0.0	0.4	0.0	0.0	-0.3	-1.1	1.6	-0.4	-0.0	-2.1
		Viento -X exc. -	-0.2	0.3	-0.0	0.4	-0.0	0.0	-0.2	-0.9	1.1	-0.4	0.0	-2.2
		Viento +Y exc. +	3.9	-0.9	-3.0	-0.8	-5.5	0.0	3.9	10.7	-16.5	0.8	5.5	17.7
		Viento +Y exc. -	4.2	-1.0	-3.2	-0.9	-6.1	0.0	4.2	11.7	-18.0	0.9	6.1	19.9
		Viento -Y exc. +	-3.9	0.9	3.0	0.8	5.5	-0.0	-3.9	-10.7	16.5	-0.8	-5.5	-17.7
		Viento -Y exc. -	-4.2	1.0	3.2	0.9	6.1	-0.0	-4.2	-11.7	18.0	-0.9	-6.1	-19.9
B4 [7.247;-5.037;0.0 grados] (25x25)	7.00/8.30	Carga permanente	79.5	-1.8	1.1	-4.6	1.8	-0.0	79.5	577.7	-401.3	4.6	-1.8	9.9
		Sobrecarga de uso	24.8	-1.1	0.3	-1.9	0.3	-0.0	24.8	180.5	-125.0	1.9	-0.3	7.5
		Viento +X exc. +	0.2	-0.8	0.1	-1.1	0.1	-0.0	0.2	2.6	-1.3	1.1	-0.1	5.2
		Viento +X exc. -	0.2	-0.8	0.1	-1.1	0.1	-0.0	0.2	2.3	-1.1	1.1	-0.1	5.0
		Viento -X exc. +	-0.2	0.8	-0.1	1.1	-0.1	0.0	-0.2	-2.6	1.3	-1.1	0.1	-5.2
		Viento -X exc. -	-0.2	0.8	-0.1	1.1	-0.1	0.0	-0.2	-2.3	1.1	-1.1	0.1	-5.0
		Viento +Y exc. +	1.0	-0.6	-1.1	-0.8	-1.4	0.0	1.0	8.2	-4.2	0.8	1.4	14.1
		Viento +Y exc. -	1.2	-0.9	-1.0	-1.2	-1.4	0.0	1.2	9.5	-4.9	1.2	1.4	15.9
		Viento -Y exc. +	-1.0	0.6	1.1	0.8	1.4	-0.0	-1.0	-8.2	4.2	-0.8	-1.4	-14.1
		Viento -Y exc. -	-1.2	0.9	1.0	1.2	1.4	-0.0	-1.2	-9.5	4.9	-1.2	-1.4	-15.9
B5 [11.045;-5.037;0.0 grados] (25x25)	7.00/8.30	Carga permanente	86.0	2.7	1.1	6.4	-1.2	-0.0	86.0	947.3	-434.3	-6.4	1.2	-18.9
		Sobrecarga de uso	26.8	0.6	0.2	1.8	-1.0	-0.0	26.8	295.7	-135.3	-1.8	1.0	1.4
		Viento +X exc. +	-0.0	-0.8	-0.0	-1.0	-0.0	-0.0	-0.0	0.5	0.1	1.0	0.0	5.3
		Viento +X exc. -	-0.0	-0.7	0.0	-1.0	-0.0	-0.0	-0.0	0.6	0.0	1.0	0.0	5.0
		Viento -X exc. +	0.0	0.8	0.0	1.0	0.0	0.0	0.0	-0.5	-0.1	-1.0	-0.0	-5.3
		Viento -X exc. -	0.0	0.7	-0.0	1.0	0.0	0.0	0.0	-0.6	-0.0	-1.0	-0.0	-5.0
		Viento +Y exc. +	0.3	-0.5	0.6	-0.5	-0.6	0.0	0.3	3.6	-2.0	0.5	0.6	9.6
		Viento +Y exc. -	0.2	-0.7	0.5	-0.8	-0.6	0.0	0.2	3.0	-1.6	0.8	0.6	11.0
		Viento -Y exc. +	-0.3	0.5	-0.6	0.5	0.6	-0.0	-0.3	-3.6	2.0	-0.5	-0.6	-9.6
		Viento -Y exc. -	-0.2	0.7	-0.5	0.8	0.6	-0.0	-0.2	-3.0	1.6	-0.8	-0.6	-11.0
C8 [16.647;-6.362;0.0 grados] (25x25)	7.00/8.30	Carga permanente	21.1	3.2	4.7	1.6	2.4	-0.0	21.1	348.2	-139.0	-1.6	-2.4	-50.9
		Sobrecarga de uso	0.4	1.2	1.9	0.7	1.4	-0.0	0.4	5.6	-4.5	-0.7	-1.4	-27.1
		Viento +X exc. +	0.4	0.6	0.1	0.3	0.2	-0.0	0.4	5.3	-2.4	-0.3	-0.2	-5.4
		Viento +X exc. -	0.4	0.6	0.0	0.3	0.1	-0.0	0.4	5.7	-2.4	-0.3	-0.1	-3.3
		Viento -X exc. +	-0.4	-0.6	-0.1	-0.3	-0.2	0.0	-0.4	-5.3	2.4	0.3	0.2	5.4
		Viento -X exc. -	-0.4	-0.6	-0.0	-0.3	-0.1	0.0	-0.4	-5.7	2.4	0.3	0.1	3.3
		Viento +Y exc. +	1.1	0.2	-4.3	0.1	-4.9	0.0	1.1	18.6	-2.9	-0.1	4.9	81.8
		Viento +Y exc. -	1.0	0.1	-3.5	0.1	-4.0	0.0	1.0	16.9	-3.0	-0.1	4.0	66.5
		Viento -Y exc. +	-1.1	-0.2	4.3	-0.1	4.9	-0.0	-1.1	-18.6	2.9	0.1	-4.9	-81.8
		Viento -Y exc. -	-1.0	-0.1	3.5	-0.1	4.0	-0.0	-1.0	-16.9	3.0	0.1	-4.0	-66.5
D2 [-1.303;-10.237;0.0 grados] (25x25)	7.00/8.60	Carga permanente	63.7	5.6	4.6	3.5	3.9	-0.0	63.7	-88.6	-656.6	-3.5	-3.9	-30.8
		Sobrecarga de uso	6.2	0.1	0.3	0.2	0.4	-0.0	6.2	-8.2	-63.8	-0.2	-0.4	-1.6
		Viento +X exc. +	-0.4	-0.6	0.0	-0.4	-0.0	0.0	-0.4	1.0	3.6	0.4	0.0	4.2
		Viento +X exc. -	-0.4	-0.7	0.0	-0.5	0.0	-0.0	-0.4	1.2	3.9	0.5	0.0	4.6
		Viento -X exc. +	0.4	0.6	-0.0	0.4	0.0	-0.0	0.4	-1.0	-3.6	-0.4	-0.0	-4.2
		Viento -X exc. -	0.4	0.7	-0.0	0.5	-0.0	0.0	0.4	-1.2	-3.9	-0.5	0.0	-4.6
		Viento +Y exc. +	-0.5	0.5	-2.5	0.2	-1.7	0.0	-0.5	0.1	7.2	-0.2	1.7	-4.6
		Viento +Y exc. -	-0.4	0.8	-2.6	0.4	-1.8	0.0	-0.4	-0.3	6.6	-0.4	1.8	-6.1
		Viento -Y exc. +	0.5	-0.5	2.5	-0.2	1.7	-0.0	0.5	-0.1	-7.2	0.2	-1.7	4.6
		Viento -Y exc. -	0.4	-0.8	2.6	-0.4	1.8	-0.0	0.4	0.3	-6.6	0.4	-1.8	6.1



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Cubierta														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=7.00)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
D3 [2.547;-10.237;0.0 grados] (25x25)	7.00/8.30	Carga permanente	100.3	0.2	6.3	10.7	8.7	-0.0	100.3	255.3	-1033	-10.7	-8.7	-132.0
		Sobrecarga de uso	17.0	0.8	0.2	4.0	0.8	-0.0	17.0	42.6	-174.5	-4.0	-0.8	-43.3
		Viento +X exc.+	-0.2	-0.6	0.0	-0.7	0.0	-0.0	-0.2	0.2	1.5	0.7	-0.0	7.0
		Viento +X exc.-	-0.1	-0.6	0.1	-0.7	0.1	-0.0	-0.1	0.3	1.1	0.7	-0.1	6.4
		Viento -X exc.+	0.2	0.6	-0.0	0.7	-0.0	0.0	0.2	-0.2	-1.5	-0.7	0.0	-7.0
		Viento -X exc.-	0.1	0.6	-0.1	0.7	-0.1	0.0	0.1	-0.3	-1.1	-0.7	0.1	-6.4
		Viento +Y exc.+	-4.3	0.3	-3.7	0.1	-6.0	0.0	-4.3	-11.3	47.9	-0.1	6.0	14.2
		Viento +Y exc.-	-4.5	0.5	-3.9	0.3	-6.7	0.0	-4.5	-12.0	50.2	-0.3	6.7	14.0
		Viento -Y exc.+	4.3	-0.3	3.7	-0.1	6.0	-0.0	4.3	11.3	-47.9	0.1	-6.0	-14.2
		Viento -Y exc.-	4.5	-0.5	3.9	-0.3	6.7	-0.0	4.5	12.0	-50.2	0.3	-6.7	-14.0
D4 [7.247;-10.237;0.0 grados] (25x25)	7.00/8.30	Carga permanente	89.8	-0.7	-3.7	-2.3	-3.8	-0.0	89.8	651.4	-915.5	2.3	3.8	51.2
		Sobrecarga de uso	27.7	-0.2	-1.5	-0.7	-1.2	-0.0	27.7	200.8	-281.9	0.7	1.2	15.7
		Viento +X exc.+	0.4	-0.8	0.0	-1.1	0.0	-0.0	0.4	3.5	-3.8	1.1	-0.0	11.2
		Viento +X exc.-	0.4	-0.8	0.0	-1.2	0.0	-0.0	0.4	3.9	-4.3	1.2	-0.0	12.0
		Viento -X exc.+	-0.4	0.8	-0.0	1.1	-0.0	0.0	-0.4	-3.5	3.8	-1.1	0.0	-11.2
		Viento -X exc.-	-0.4	0.8	-0.0	1.2	-0.0	0.0	-0.4	-3.9	4.3	-1.2	0.0	-12.0
		Viento +Y exc.+	-0.9	0.8	-0.7	1.0	-1.1	0.0	-0.9	-7.6	10.3	-1.0	1.1	-1.8
		Viento +Y exc.-	-1.1	1.1	-0.7	1.4	-1.2	0.0	-1.1	-9.3	12.3	-1.4	1.2	-6.2
		Viento -Y exc.+	0.9	-0.8	0.7	-1.0	1.1	-0.0	0.9	7.6	-10.3	1.0	-1.1	1.8
		Viento -Y exc.-	1.1	-1.1	0.7	-1.4	1.2	-0.0	1.1	9.3	-12.3	1.4	-1.2	6.2
D6 [11.947;-10.237;0.0 grados] (25x25)	7.00/8.30	Carga permanente	91.5	1.7	-4.1	3.7	-4.9	-0.0	91.5	1091.5	-932.6	-3.7	4.9	20.2
		Sobrecarga de uso	28.4	0.5	-1.4	1.1	-1.5	-0.0	28.4	339.2	-289.7	-1.1	1.5	5.8
		Viento +X exc.+	-0.1	-0.7	-0.0	-1.0	-0.0	-0.0	-0.1	-0.8	1.3	1.0	0.0	10.0
		Viento +X exc.-	-0.1	-0.8	-0.0	-1.0	-0.0	-0.0	-0.1	-1.0	1.5	1.0	0.0	10.5
		Viento -X exc.+	0.1	0.7	0.0	1.0	0.0	0.0	0.1	0.8	-1.3	-1.0	-0.0	-10.0
		Viento -X exc.-	0.1	0.8	0.0	1.0	0.0	0.0	0.1	1.0	-1.5	-1.0	-0.0	-10.5
		Viento +Y exc.+	-0.4	0.5	-0.1	0.6	-0.4	0.0	-0.4	-5.9	4.7	-0.6	0.4	-1.7
		Viento +Y exc.-	-0.3	0.9	-0.1	1.0	-0.4	0.0	-0.3	-5.0	3.6	-1.0	0.4	-5.6
		Viento -Y exc.+	0.4	-0.5	0.1	-0.6	0.4	-0.0	0.4	5.9	-4.7	0.6	-0.4	1.7
		Viento -Y exc.-	0.3	-0.9	0.1	-1.0	0.4	-0.0	0.3	5.0	-3.6	1.0	-0.4	5.6
D8 [16.647;-10.237;0.0 grados] (25x25)	7.00/8.30	Carga permanente	42.8	-3.3	2.5	-9.4	3.7	-0.0	42.8	716.0	-440.7	9.4	-3.7	34.6
		Sobrecarga de uso	10.3	-0.9	1.1	-2.9	1.2	-0.0	10.3	173.0	-106.9	2.9	-1.2	8.8
		Viento +X exc.+	0.2	-0.4	-0.1	-0.6	-0.1	-0.0	0.2	3.0	-1.5	0.6	0.1	8.9
		Viento +X exc.-	0.1	-0.4	-0.2	-0.7	-0.2	-0.0	0.1	2.6	-1.2	0.7	0.2	10.5
		Viento -X exc.+	-0.2	0.4	0.1	0.6	0.1	0.0	-0.2	-3.0	1.5	-0.6	-0.1	-8.9
		Viento -X exc.-	-0.1	0.4	0.2	0.7	0.2	0.0	-0.1	-2.6	1.2	-0.7	-0.2	-10.5
		Viento +Y exc.+	-1.8	0.3	-2.3	0.3	-3.3	0.0	-1.8	-30.3	20.8	-0.3	3.3	51.2
		Viento +Y exc.-	-1.6	0.5	-1.9	0.6	-2.7	0.0	-1.6	-27.7	18.6	-0.6	2.7	38.7
		Viento -Y exc.+	1.8	-0.3	2.3	-0.3	3.3	-0.0	1.8	30.3	-20.8	0.3	-3.3	-51.2
		Viento -Y exc.-	1.6	-0.5	1.9	-0.6	2.7	-0.0	1.6	27.7	-18.6	0.6	-2.7	-38.7
B8 [15.796;-5.037;0.0 grados] (25x25)	7.00/8.30	Carga permanente	50.8	-3.7	-0.4	-9.3	-3.3	-0.0	50.8	805.6	-255.3	9.3	3.3	99.7
		Sobrecarga de uso	15.8	-0.9	-0.1	-2.7	-1.4	-0.0	15.8	250.5	-79.5	2.7	1.4	36.0
		Viento +X exc.+	-0.1	-1.3	-0.0	-1.4	0.0	-0.0	-0.1	0.4	0.3	1.4	-0.0	7.0
		Viento +X exc.-	-0.0	-1.3	-0.0	-1.3	-0.0	-0.0	-0.0	0.5	0.3	1.3	0.0	7.0
		Viento -X exc.+	0.1	1.3	0.0	1.4	-0.0	0.0	0.1	-0.4	-0.3	-1.4	0.0	-7.0
		Viento -X exc.-	0.0	1.3	0.0	1.3	0.0	0.0	0.0	-0.5	-0.3	-1.3	-0.0	-7.0
		Viento +Y exc.+	0.8	0.3	-0.9	0.3	-1.4	0.0	0.8	12.2	-3.1	-0.3	1.4	21.1
		Viento +Y exc.-	0.7	-0.2	-0.7	-0.3	-1.2	0.0	0.7	11.1	-2.7	0.3	1.2	20.6
		Viento -Y exc.+	-0.8	-0.3	0.9	-0.3	1.4	-0.0	-0.8	-12.2	3.1	0.3	-1.4	-21.1
		Viento -Y exc.-	-0.7	0.2	0.7	0.3	1.2	-0.0	-0.7	-11.1	2.7	-0.3	-1.2	-20.6
B2 [0.941;-5.037;0.0 grados] (25x25)	7.00/8.60	Carga permanente	55.7	-8.5	-2.9	-4.4	-2.4	-0.0	55.7	61.0	-277.8	4.4	2.4	24.6
		Sobrecarga de uso	4.2	-2.6	1.2	-1.3	0.4	-0.0	4.2	6.6	-22.1	1.3	-0.4	6.2
		Viento +X exc.+	-0.7	-0.9	-0.1	-0.5	-0.1	0.0	-0.7	0.2	3.8	0.5	0.1	2.5
		Viento +X exc.-	-0.6	-0.8	-0.0	-0.4	-0.0	-0.0	-0.6	0.2	3.2	0.4	0.0	2.3
		Viento -X exc.+	0.7	0.9	0.1	0.5	0.1	-0.0	0.7	-0.2	-3.8	-0.5	-0.1	-2.5
		Viento -X exc.-	0.6	0.8	0.0	0.4	0.0	0.0	0.6	-0.2	-3.2	-0.4	-0.0	-2.3
		Viento +Y exc.+	0.9	-1.0	-3.7	-0.5	-2.0	0.0	0.9	1.8	-0.7	0.5	2.0	4.5
		Viento +Y exc.-	0.7	-1.4	-4.1	-0.7	-2.2	0.0	0.7	2.0	0.6	0.7	2.2	5.5
		Viento -Y exc.+	-0.9	1.0	3.7	0.5	2.0	-0.0	-0.9	-1.8	0.7	-0.5	-2.0	-4.5
		Viento -Y exc.-	-0.7	1.4	4.1	0.7	2.2	-0.0	-0.7	-2.0	-0.6	-0.7	-2.2	-5.5
Sumatorio		Carga permanente							763.6	5583.5	-5897	0.0	0.0	0.0
		Sobrecarga de uso							177.9	1529.6	-1365	0.0	0.0	0.0
		Viento +X exc.+							-0.0	17.1	0.0	7.9	-0.0	58.0
		Viento +X exc.-							-0.0	17.1	0.0	7.9	0.0	62.2
		Viento -X exc.+							0.0	-17.1	-0.0	-7.9	0.0	-58.0
		Viento -X exc.-							0.0	-17.1	-0.0	-7.9	-0.0	-62.2
		Viento +Y exc.+							0.0	-0.0	61.6	0.0	28.3	206.0
		Viento +Y exc.-							0.0	0.0	61.6	-0.0	28.3	174.1
		Viento -Y exc.+							-0.0	0.0	-61.6	-0.0	-28.3	-206.0
		Viento -Y exc.-							-0.0	-0.0	-61.6	0.0	-28.3	-174.1

Planta: Planta 1													
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=3.80)				
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Planta 1															
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=3.80)						
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	
A1 [0.061;-0.166;-24.9 grados] (25x25)	3.80/6.70	Carga permanente	42.8	0.1	-8.1	0.0	-4.0	-0.0	42.8	5.9	0.3	1.7	3.6	0.5	
		Sobrecarga de uso	11.1	0.4	-2.7	0.2	-1.3	-0.0	11.1	1.4	0.8	0.4	1.2	0.1	
		Viento +X exc. +	-0.5	-1.3	-0.9	-0.7	-0.5	0.0	-0.5	1.5	0.4	0.9	0.1	0.2	
		Viento +X exc. -	-0.5	-1.2	-0.6	-0.7	-0.3	-0.0	-0.5	1.3	0.1	0.8	0.0	0.1	
		Viento -X exc. +	0.5	1.3	0.9	0.7	0.5	-0.0	0.5	-1.5	-0.4	-0.9	-0.1	-0.2	
		Viento -X exc. -	0.5	1.2	0.6	0.7	0.3	0.0	0.5	-1.3	-0.1	-0.8	-0.0	-0.1	
		Viento +Y exc. +	2.0	1.8	-5.5	1.0	-3.0	0.0	2.0	0.8	5.4	0.4	3.2	0.2	
		Viento +Y exc. -	2.0	1.3	-7.0	0.7	-3.8	0.0	2.0	1.8	6.5	0.9	3.8	0.4	
		Viento -Y exc. +	-2.0	-1.8	5.5	-1.0	3.0	-0.0	-2.0	-0.8	-5.4	-0.4	-3.2	-0.2	
		Viento -Y exc. -	-2.0	-1.3	7.0	-0.7	3.8	-0.0	-2.0	-1.8	-6.5	-0.9	-3.8	-0.4	
A3 [2.547;-1.024;0.0 grados] (25x25)	3.80/6.70	Carga permanente	76.7	2.1	0.9	1.6	1.4	-0.0	76.7	193.4	-79.5	-1.6	-1.4	-5.2	
		Sobrecarga de uso	26.5	0.3	0.4	0.3	0.5	-0.0	26.5	67.2	-27.5	-0.3	-0.5	-1.6	
		Viento +X exc. +	0.4	-2.0	1.6	-1.1	0.6	0.0	0.4	3.1	-2.0	1.1	-0.6	-0.6	
		Viento +X exc. -	0.4	-1.9	1.3	-1.0	0.6	-0.0	0.4	2.8	-1.7	1.0	-0.6	-0.4	
		Viento -X exc. +	-0.4	2.0	-1.6	1.1	-0.6	-0.0	-0.4	-3.1	2.0	-1.1	0.6	0.6	
		Viento -X exc. -	-0.4	1.9	-1.3	1.0	-0.6	0.0	-0.4	-2.8	1.7	-1.0	0.6	0.4	
		Viento +Y exc. +	0.6	3.3	2.1	1.4	0.3	0.0	0.6	-1.9	-2.7	-1.4	-0.3	-2.1	
		Viento +Y exc. -	0.9	2.8	3.2	1.0	0.7	0.0	0.9	-0.6	-4.1	-1.0	-0.7	-2.8	
		Viento -Y exc. +	-0.6	-3.3	-2.1	-1.4	-0.3	-0.0	-0.6	1.9	2.7	1.4	0.3	2.1	
		Viento -Y exc. -	-0.9	-2.8	-3.2	-1.0	-0.7	-0.0	-0.9	0.6	4.1	1.0	0.7	2.8	
A4 [7.247;-2.637;0.0 grados] (25x25)	3.80/6.70	Carga permanente	78.0	-0.5	2.3	-0.3	1.4	-0.0	78.0	565.6	-207.9	0.3	-1.4	-9.4	
		Sobrecarga de uso	23.5	-0.2	0.9	-0.2	0.5	-0.0	23.5	170.6	-62.9	0.2	-0.5	-3.3	
		Viento +X exc. +	-0.3	-2.4	0.5	-1.3	0.2	0.0	-0.3	0.4	0.2	1.3	-0.2	1.9	
		Viento +X exc. -	-0.3	-2.2	0.5	-1.1	0.2	-0.0	-0.3	0.0	0.3	1.1	-0.2	1.5	
		Viento -X exc. +	0.3	2.4	-0.5	1.3	-0.2	-0.0	0.3	-0.4	-0.2	-1.3	0.2	-1.9	
		Viento -X exc. -	0.3	2.2	-0.5	1.1	-0.2	0.0	0.3	-0.0	-0.3	-1.1	0.2	-1.5	
		Viento +Y exc. +	6.3	1.0	-5.0	0.4	-3.0	0.0	6.3	44.4	-11.5	-0.4	3.0	20.6	
		Viento +Y exc. -	6.4	0.2	-5.0	-0.1	-3.0	0.0	6.4	46.3	-11.9	0.1	3.0	22.2	
		Viento -Y exc. +	-6.3	-1.0	5.0	-0.4	3.0	-0.0	-6.3	-44.4	11.5	0.4	-3.0	-20.6	
		Viento -Y exc. -	-6.4	-0.2	5.0	0.1	3.0	-0.0	-6.4	-46.3	11.9	-0.1	-3.0	-22.2	
A5 [11.045;-2.637;0.0 grados] (25x25)	3.80/6.70	Carga permanente	44.9	0.7	1.9	0.4	1.3	-0.0	44.9	494.8	-120.1	-0.4	-1.3	-15.3	
		Sobrecarga de uso	12.2	0.2	0.6	0.1	0.4	-0.0	12.2	135.0	-32.8	-0.1	-0.4	-4.3	
		Viento +X exc. +	-0.1	-2.3	-0.1	-1.2	-0.0	0.0	-0.1	0.9	0.4	1.2	0.0	3.5	
		Viento +X exc. -	-0.1	-2.1	-0.0	-1.1	-0.0	-0.0	-0.1	1.0	0.3	1.1	0.0	3.1	
		Viento -X exc. +	0.1	2.3	0.1	1.2	0.0	-0.0	0.1	-0.9	-0.4	-1.2	-0.0	-3.5	
		Viento -X exc. -	0.1	2.1	0.0	1.1	0.0	0.0	0.1	-1.0	-0.3	-1.1	-0.0	-3.1	
		Viento +Y exc. +	0.6	-0.6	2.4	-0.3	0.5	0.0	0.6	6.7	-3.9	0.3	-0.5	-4.6	
		Viento +Y exc. -	0.5	-1.5	2.2	-0.8	0.4	0.0	0.5	6.6	-3.4	0.8	-0.4	-2.7	
		Viento -Y exc. +	-0.6	0.6	-2.4	0.3	-0.5	-0.0	-0.6	-6.7	3.9	-0.3	0.5	4.6	
		Viento -Y exc. -	-0.5	1.5	-2.2	0.8	-0.4	-0.0	-0.5	-6.6	3.4	-0.8	0.4	2.7	
A7 [13.747;-2.637;0.0 grados] (25x25)	3.80/6.70	Carga permanente	38.9	2.1	0.7	1.0	0.8	-0.0	38.9	532.1	-103.2	-1.0	-0.8	-13.2	
		Sobrecarga de uso	12.2	0.6	0.2	0.3	0.2	-0.0	12.2	166.5	-32.3	-0.3	-0.2	-4.1	
		Viento +X exc. +	0.2	-2.6	-0.1	-1.3	-0.0	0.0	0.2	5.8	-0.5	1.3	0.0	3.8	
		Viento +X exc. -	0.2	-2.3	0.0	-1.2	0.0	-0.0	0.2	5.5	-0.6	1.2	-0.0	3.1	
		Viento -X exc. +	-0.2	2.6	0.1	1.3	0.0	-0.0	-0.2	-5.8	0.5	-1.3	-0.0	-3.8	
		Viento -X exc. -	-0.2	2.3	-0.0	1.2	-0.0	0.0	-0.2	-5.5	0.6	-1.2	0.0	-3.1	
		Viento +Y exc. +	1.0	-0.3	3.2	-0.2	0.8	0.0	1.0	14.2	-5.8	0.2	-0.8	-10.2	
		Viento +Y exc. -	1.0	-1.3	2.7	-0.7	0.6	0.0	1.0	15.6	-5.4	0.7	-0.6	-6.9	
		Viento -Y exc. +	-1.0	0.3	-3.2	0.2	-0.8	-0.0	-1.0	-14.2	5.8	-0.2	0.8	10.2	
		Viento -Y exc. -	-1.0	1.3	-2.7	0.7	-0.6	-0.0	-1.0	-15.6	5.4	-0.7	0.6	6.9	
A8 [16.647;-2.637;0.0 grados] (25x25)	3.80/6.50	Carga permanente	84.3	3.5	-5.8	2.0	-3.0	-0.0	84.3	1400.4	-216.6	-2.0	3.0	44.1	
		Sobrecarga de uso	24.2	0.8	-3.9	0.4	-1.9	-0.0	24.2	401.2	-59.8	-0.4	1.9	31.0	
		Viento +X exc. +	-0.1	-2.9	-0.0	-1.5	0.0	0.0	-0.1	1.8	0.2	1.5	-0.0	3.5	
		Viento +X exc. -	0.1	-2.6	-0.1	-1.4	-0.1	-0.0	0.1	4.4	-0.2	1.4	0.1	4.7	
		Viento -X exc. +	0.1	2.9	0.0	1.5	-0.0	-0.0	0.1	-1.8	-0.2	-1.5	0.0	-3.5	
		Viento -X exc. -	-0.1	2.6	0.1	1.4	0.1	0.0	-0.1	-4.4	0.2	-1.4	-0.1	-4.7	
		Viento +Y exc. +	4.4	-0.3	-3.6	-0.2	-2.6	0.0	4.4	74.2	-8.1	0.2	2.6	43.6	
		Viento +Y exc. -	3.6	-1.5	-3.1	-0.8	-2.2	0.0	3.6	61.6	-6.5	0.8	2.2	38.0	
		Viento -Y exc. +	-4.4	0.3	3.6	0.2	2.6	-0.0	-4.4	-74.2	8.1	-0.2	-2.6	-43.6	
		Viento -Y exc. -	-3.6	1.5	3.1	0.8	2.2	-0.0	-3.6	-61.6	6.5	-0.8	-2.2	-38.0	
A9 [20.972;-2.637;0.0 grados] (25x25)	3.80/6.70	Carga permanente	45.9	-1.9	-5.0	-0.9	-2.6	-0.0	45.9	963.8	-115.9	0.9	2.6	56.5	
		Sobrecarga de uso	12.5	-0.2	-2.7	-0.1	-1.4	-0.0	12.5	262.4	-30.3	0.1	1.4	29.3	
		Viento +X exc. +	0.4	-1.2	0.2	-0.7	0.1	0.0	0.4	9.8	-1.3	0.7	-0.1	-1.0	
		Viento +X exc. -	0.5	-1.0	-0.1	-0.6	-0.0	-0.0	0.5	10.6	-1.2	0.6	0.0	2.2	
		Viento -X exc. +	-0.4	1.2	-0.2	0.7	-0.1	-0.0	-0.4	-9.8	1.3	-0.7	0.1	1.0	
		Viento -X exc. -	-0.5	1.0	0.1	0.6	0.0	0.0	-0.5	-10.6	1.2	-0.6	-0.0	-2.2	
		Viento +Y exc. +	1.4	-0.1	-4.1	-0.1	-2.3	0.0	1.4	29.2	0.5	0.1	2.3	48.5	
		Viento +Y exc. -	1.2	-0.7	-2.8	-0.4	-1.6	0.0	1.2	25.4	-0.3	0.4	1.6	33.6	
		Viento -Y exc. +	-1.4	0.1	4.1	0.1	2.3	-0.0	-1.4	-29.2	-0.5	-0.1	-2.3	-48.5	
		Viento -Y exc. -	-1.2	0.7	2.8	0.4	1.6	-0.0	-1.2	-25.4	0.3	-0.4	-1.6	-33.6	
B1 [-2.175;-4.979;-24.9 grados] (25x25)	3.80/6.50	Carga permanente	143.6	16.1	5.8	8.9	3.0	-0.0	143.6	-329.4	-713.7	-9.3	1.0	-48.5	
		Sobrecarga de uso	41.9	8.3	1.7	4.1	0.8	-0.0	41.9	-99.5	-206.9	-4.1	1.0	-22.4	
		Viento +X exc. +	-1.3	-1.2	-1.3	-0.8	-0.8	0.0	-1.3	4.4	7.0	1.0	0.4	4.3	
		Viento +X exc. -	-1.3	-1.2	-0.9	-0.8	-0.5	-0.0	-1.3	4.2	6.6	0.9	0.1	4.3	
		Viento -X exc. +	1.3	1.2	1.3	0.8	0.8	-0.0	1.3	-4.4	-7.0	-1.0	-0.4	-4.3	
		Viento -X exc. -	1.3	1.2	0.9	0.8	0.5	0.0	1.3	-4.2	-6.6	-0.9	-0.1	-4.3	
		Viento +Y exc. +	1.5	1.2	-7.6	0.9	-4.4	0.0	1.5	-1.2	-0.2	1.0	4.4	-4.4	
		Viento +Y exc. -	1.6	1.1	-9.5	1.0	-5.5	0.0	1.6	-0.5	1.2	1.5	5.4	-4.6	
		Viento -Y exc. +	-1.5	-1.2	7.6	-0.9	4.4	-0.0	-1.5	1.2	0.2	-1.0	-4.4	4.4	
		Viento -Y exc. -	-1.6	-1.1	9.5	-1.0	5.5	-0.0	-1.6	0.5	-1.2	-1.5	-5.4	4.6	



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Planta 1														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=3.80)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
B3 [2.547;-5.037;0.0 grados] (25x25)	3.80/6.50	Carga permanente	285.2	-13.8	-11.4	-11.5	-6.5	-0.0	285.2	740.3	-1425	11.5	6.5	74.4
		Sobrecarga de uso	71.1	-5.6	-1.4	-4.1	-0.6	-0.0	71.1	186.8	-357.0	4.1	0.6	22.1
		Viento +X exc.+	0.2	-2.5	-0.0	-2.1	-0.1	0.0	0.2	2.9	-0.7	2.1	0.1	10.9
		Viento +X exc.-	0.0	-2.5	0.1	-2.0	0.0	-0.0	0.0	2.5	-0.2	2.0	-0.0	10.2
		Viento -X exc.+	-0.2	2.5	0.0	2.1	0.1	-0.0	-0.2	-2.9	0.7	-2.1	-0.1	-10.9
		Viento -X exc.-	-0.0	2.5	-0.1	2.0	-0.0	0.0	-0.0	-2.5	0.2	-2.0	0.0	-10.2
		Viento +Y exc.+	7.3	-0.2	-4.4	-0.3	-4.2	0.0	7.3	18.9	-32.5	0.3	4.2	11.9
		Viento +Y exc.-	8.0	-0.6	-5.0	-0.6	-4.7	0.0	8.0	21.0	-35.2	0.6	4.7	15.3
		Viento -Y exc.+	-7.3	0.2	4.4	0.3	4.2	-0.0	-7.3	-18.9	32.5	-0.3	-4.2	-11.9
		Viento -Y exc.-	-8.0	0.6	5.0	0.6	4.7	-0.0	-8.0	-21.0	35.2	-0.6	-4.7	-15.3
B4 [7.247;-5.037;0.0 grados] (25x25)	3.80/6.70	Carga permanente	130.8	-0.6	0.1	0.0	0.2	-0.0	130.8	948.8	-659.1	-0.0	-0.2	-1.5
		Sobrecarga de uso	40.0	-0.3	-0.3	-0.1	-0.1	-0.0	40.0	290.0	-201.0	0.1	0.1	1.5
		Viento +X exc.+	-0.3	-3.0	-0.2	-2.1	-0.1	0.0	-0.3	0.8	1.8	2.1	0.1	11.6
		Viento +X exc.-	-0.3	-2.9	-0.1	-2.0	-0.1	-0.0	-0.3	1.0	1.5	2.0	0.1	10.7
		Viento -X exc.+	0.3	3.0	0.2	2.1	0.1	-0.0	0.3	-0.8	-1.8	-2.1	-0.1	-11.6
		Viento -X exc.-	0.3	2.9	0.1	2.0	0.1	0.0	0.3	-1.0	-1.5	-2.0	-0.1	-10.7
		Viento +Y exc.+	-5.0	-0.3	-8.3	-0.2	-5.7	0.0	-5.0	-35.6	33.3	0.2	5.7	42.1
		Viento +Y exc.-	-5.2	-0.9	-8.8	-0.6	-6.0	0.0	-5.2	-36.8	35.0	0.6	6.0	46.2
		Viento -Y exc.+	5.0	0.3	8.3	0.2	5.7	-0.0	5.0	35.6	-33.3	-0.2	-5.7	-42.1
		Viento -Y exc.-	5.2	0.9	8.8	0.6	6.0	-0.0	5.2	36.8	-35.0	-0.6	-6.0	-46.2
B5 [11.045;-5.037;0.0 grados] (25x25)	3.80/6.70	Carga permanente	127.2	-3.3	0.1	-2.2	0.8	-0.0	127.2	1408.2	-640.7	2.2	-0.8	2.1
		Sobrecarga de uso	37.5	-1.0	0.2	-0.7	0.3	-0.0	37.5	415.5	-189.2	0.7	-0.3	-0.3
		Viento +X exc.+	0.1	-3.2	-0.0	-2.2	-0.0	0.0	0.1	4.3	-0.4	2.2	0.0	11.4
		Viento +X exc.-	0.1	-3.1	-0.0	-2.1	-0.0	-0.0	0.1	4.0	-0.4	2.1	0.0	10.8
		Viento -X exc.+	-0.1	3.2	0.0	2.2	0.0	-0.0	-0.1	-4.3	0.4	-2.2	-0.0	-11.4
		Viento -X exc.-	-0.1	3.1	0.0	2.1	0.0	0.0	-0.1	-4.0	0.4	-2.1	-0.0	-10.8
		Viento +Y exc.+	-1.5	-0.2	2.3	-0.1	0.2	0.0	-1.5	-16.8	5.4	0.1	-0.2	-1.3
		Viento +Y exc.-	-1.4	-0.8	2.1	-0.5	0.1	0.0	-1.4	-15.2	5.2	0.5	-0.1	1.2
		Viento -Y exc.+	1.5	0.2	-2.3	0.1	-0.2	-0.0	1.5	16.8	-5.4	-0.1	0.2	1.3
		Viento -Y exc.-	1.4	0.8	-2.1	0.5	-0.1	-0.0	1.4	15.2	-5.2	-0.5	0.1	-1.2
B7 [13.747;-5.037;0.0 grados] (25x25)	3.80/6.50	Carga permanente	65.7	7.1	-0.1	3.7	0.5	-0.0	65.7	895.5	-330.6	-3.7	-0.5	-25.2
		Sobrecarga de uso	19.6	1.5	0.2	0.9	0.3	-0.0	19.6	268.4	-99.1	-0.9	-0.3	-7.8
		Viento +X exc.+	0.5	-2.4	-0.1	-1.4	-0.0	0.0	0.5	9.2	-2.4	1.4	0.0	6.9
		Viento +X exc.-	0.5	-2.3	0.0	-1.3	0.0	-0.0	0.5	9.3	-2.6	1.3	-0.0	6.3
		Viento -X exc.+	-0.5	2.4	0.1	1.4	0.0	-0.0	-0.5	-9.2	2.4	-1.4	-0.0	-6.9
		Viento -X exc.-	-0.5	2.3	-0.0	1.3	-0.0	0.0	-0.5	-9.3	2.6	-1.3	0.0	-6.3
		Viento +Y exc.+	1.0	-0.2	2.4	-0.1	0.5	0.0	1.0	14.3	-7.5	0.1	-0.5	-6.4
		Viento +Y exc.-	0.9	-0.7	2.0	-0.3	0.4	0.0	0.9	13.2	-6.6	0.3	-0.4	-3.7
		Viento -Y exc.+	-1.0	0.2	-2.4	0.1	-0.5	-0.0	-1.0	-14.3	7.5	-0.1	0.5	6.4
		Viento -Y exc.-	-0.9	0.7	-2.0	0.3	-0.4	-0.0	-0.9	-13.2	6.6	-0.3	0.4	3.7
C8 [16.647;-6.362;0.0 grados] (25x25)	3.80/6.50	Carga permanente	140.3	-0.0	0.4	0.9	1.6	-0.0	140.3	2335.3	-892.9	-0.9	-1.6	-32.8
		Sobrecarga de uso	40.9	0.4	-0.3	0.6	0.2	-0.0	40.9	679.8	-259.7	-0.6	-0.2	-6.7
		Viento +X exc.+	0.9	1.0	0.5	0.0	0.3	0.0	0.9	13.2	-5.9	-0.0	-0.3	-5.9
		Viento +X exc.-	0.8	0.9	-0.0	0.0	-0.0	-0.0	0.8	13.2	-5.4	-0.0	0.0	0.4
		Viento -X exc.+	-0.9	-1.0	-0.5	-0.0	-0.3	-0.0	-0.9	-13.2	5.9	0.0	0.3	5.9
		Viento -X exc.-	-0.8	-0.9	0.0	-0.0	0.0	0.0	-0.8	-13.2	5.4	0.0	-0.0	-0.4
		Viento +Y exc.+	1.6	0.1	-11.9	0.1	-8.9	0.0	1.6	25.8	2.0	-0.1	8.9	147.0
		Viento +Y exc.-	1.5	0.2	-9.6	0.1	-7.2	0.0	1.5	25.4	-0.2	-0.1	7.2	118.7
		Viento -Y exc.+	-1.6	-0.1	11.9	-0.1	8.9	-0.0	-1.6	-25.8	-2.0	0.1	-8.9	-147.0
		Viento -Y exc.-	-1.5	-0.2	9.6	-0.1	7.2	-0.0	-1.5	-25.4	0.2	0.1	-7.2	-118.7
C9 [20.972;-6.362;0.0 grados] (25x25)	3.80/6.70	Carga permanente	84.9	3.5	1.3	2.2	0.6	-0.0	84.9	1776.8	-541.4	-2.2	-0.6	-26.5
		Sobrecarga de uso	30.9	0.9	0.2	0.6	0.1	-0.0	30.9	648.0	-197.1	-0.6	-0.1	-5.8
		Viento +X exc.+	0.2	1.0	0.3	0.2	0.2	0.0	0.2	3.1	-1.6	-0.2	-0.2	-5.0
		Viento +X exc.-	0.2	1.0	-0.2	0.2	-0.1	-0.0	0.2	3.2	-1.1	-0.2	0.1	0.2
		Viento -X exc.+	-0.2	-1.0	0.3	-0.2	-0.2	-0.0	-0.2	-3.1	1.6	0.2	0.2	5.0
		Viento -X exc.-	-0.2	-1.0	0.2	-0.2	0.1	0.0	-0.2	-3.2	1.1	0.2	-0.1	-0.2
		Viento +Y exc.+	0.2	-0.1	-6.7	-0.0	-3.5	0.0	0.2	5.1	5.2	0.0	3.5	72.8
		Viento +Y exc.-	0.2	0.1	-4.5	0.0	-2.3	0.0	0.2	4.6	3.1	-0.0	2.3	49.0
		Viento -Y exc.+	-0.2	0.1	6.7	0.0	3.5	-0.0	-0.2	-5.1	-5.2	-0.0	-3.5	-72.8
		Viento -Y exc.-	-0.2	-0.1	4.5	-0.0	2.3	-0.0	-0.2	-4.6	-3.1	0.0	-2.3	-49.0
D1 [-4.634;-10.274;-24.9 grados] (25x25)	3.80/6.70	Carga permanente	77.4	2.5	1.4	1.3	0.7	-0.0	77.4	-361.4	-795.2	-1.4	-0.1	-14.3
		Sobrecarga de uso	25.0	2.7	0.8	1.4	0.4	-0.0	25.0	-118.8	-256.7	-1.4	0.3	-15.9
		Viento +X exc.+	-0.8	-1.0	-1.2	-0.6	-0.6	0.0	-0.8	5.1	8.6	0.8	0.3	6.9
		Viento +X exc.-	-0.8	-1.2	-0.8	-0.7	-0.4	-0.0	-0.8	5.3	8.8	0.8	0.1	7.8
		Viento -X exc.+	0.8	1.0	1.2	0.6	0.6	-0.0	0.8	-5.1	-8.6	-0.8	-0.3	-6.9
		Viento -X exc.-	0.8	1.2	0.8	0.7	0.4	0.0	0.8	-5.3	-8.8	-0.8	-0.1	-7.8
		Viento +Y exc.+	0.2	1.4	-7.5	0.9	-3.9	0.0	0.2	0.8	4.8	0.9	3.9	-9.2
		Viento +Y exc.-	0.5	1.9	-9.3	1.2	-4.8	0.0	0.5	-0.2	4.0	0.9	4.9	-13.1
		Viento -Y exc.+	-0.2	-1.4	7.5	-0.9	3.9	-0.0	-0.2	-0.8	-4.8	-0.9	-3.9	9.2
		Viento -Y exc.-	-0.5	-1.9	9.3	-1.2	4.8	-0.0	-0.5	0.2	-4.0	-0.9	-4.9	13.1
D2 [-1.303;-10.237;0.0 grados] (25x25)	3.80/6.70	Carga permanente	209.2	1.9	3.4	1.5	1.9	-0.0	209.2	-274.5	-2146	-1.5	-1.9	-13.3
		Sobrecarga de uso	60.0	-0.5	2.1	-0.4	1.0	-0.0	60.0	-77.6	-615.9	0.4	-1.0	5.4
		Viento +X exc.+	-0.9	-2.8	-0.2	-1.9	-0.2	0.0	-0.9	3.9	9.4	1.9	0.2	19.5
		Viento +X exc.-	-1.0	-2.9	0.2	-2.0	0.1	-0.0	-1.0	4.2	9.9	2.0	-0.1	21.1
		Viento -X exc.+	0.9	2.8	0.2	1.9	0.2	-0.0	0.9	-3.9	-9.4	-1.9	-0.2	-19.5
		Viento -X exc.-	1.0	2.9	-0.2	2.0	-0.1	0.0	1.0	-4.2	-9.9	-2.0	0.1	-21.1
		Viento +Y exc.+	0.8	0.5	-7.6	0.3	-5.4	0.0	0.8	-1.6	-0.7	-0.3	5.4	-9.9
		Viento +Y exc.-	1.1	1.4	-9.1	0.8	-6.6	0.0	1.1	-2.8	-2.5	-0.8	6.6	-17.1
		Viento -Y exc.+	-0.8	-0.5	7.6	-0.3	5.4	-0.0	-0.8	1.6	0.7	0.3	-5.4	9.9
		Viento -Y exc.-	-1.1	-1.4	9.1	-0.8	6.6	-0.0	-1.1	2.8	2.5	0.8	-6.6	17.1



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Planta 1															
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=3.80)						
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	
D3 [2.547;-10.237;0.0 grados] (25x25)	3.80/6.70	Carga permanente	225.0	-4.3	13.1	-3.9	7.7	-0.0	225.0	577.5	-2317	3.9	-7.7	20.4	
		Sobrecarga de uso	49.9	-1.0	2.0	-0.9	1.0	-0.0	49.9	128.1	-512.8	0.9	-1.0	6.5	
		Viento +X exc.+	0.2	-2.8	-0.2	-2.0	-0.2	0.0	0.2	3.2	-1.5	2.0	0.2	20.8	
		Viento +X exc.-	0.3	-2.9	-0.0	-2.1	-0.0	-0.0	0.3	3.6	-2.9	2.1	0.0	21.5	
		Viento -X exc.+	-0.2	2.8	0.2	2.0	0.2	-0.0	-0.2	-3.2	1.5	-2.0	-0.2	-20.8	
		Viento -X exc.-	-0.3	2.9	0.0	2.1	0.0	0.0	-0.3	-3.6	2.9	-2.1	-0.0	-21.5	
		Viento +Y exc.+	-6.1	0.2	-7.0	0.1	-5.1	0.0	-6.1	-15.8	69.9	-0.1	5.1	11.7	
		Viento +Y exc.-	-6.7	0.8	-8.0	0.6	-5.8	0.0	-6.7	-17.8	76.3	-0.6	5.8	8.5	
		Viento -Y exc.+	6.1	-0.2	7.0	-0.1	5.1	-0.0	6.1	15.8	-69.9	0.1	-5.1	-11.7	
		Viento -Y exc.-	6.7	-0.8	8.0	-0.6	5.8	-0.0	6.7	17.8	-76.3	0.6	-5.8	-8.5	
D4 [7.247;-10.237;0.0 grados] (25x25)	3.80/6.70	Carga permanente	150.7	-1.5	1.1	-0.7	0.3	-0.0	150.7	1093.5	-1543	0.7	-0.3	5.4	
		Sobrecarga de uso	49.8	-0.4	-0.6	-0.2	-0.6	-0.0	49.8	361.0	-508.8	0.2	0.6	5.8	
		Viento +X exc.+	0.3	-2.6	-0.0	-1.9	-0.0	0.0	0.3	4.9	-3.1	1.9	0.0	19.4	
		Viento +X exc.-	0.3	-2.8	0.0	-2.0	0.0	-0.0	0.3	5.0	-3.2	2.0	-0.0	20.1	
		Viento -X exc.+	-0.3	2.6	0.0	1.9	0.0	-0.0	-0.3	-4.9	3.1	-1.9	-0.0	-19.4	
		Viento -X exc.-	-0.3	2.8	-0.0	2.0	-0.0	0.0	-0.3	-5.0	3.2	-2.0	0.0	-20.1	
		Viento +Y exc.+	2.7	0.3	-5.7	0.2	-4.2	0.0	2.7	19.4	-22.2	-0.2	4.2	28.7	
		Viento +Y exc.-	2.7	1.0	-5.9	0.7	-4.4	0.0	2.7	18.7	-21.9	-0.7	4.4	25.3	
		Viento -Y exc.+	-2.7	-0.3	5.7	-0.2	4.2	-0.0	-2.7	-19.4	22.2	0.2	-4.2	-28.7	
		Viento -Y exc.-	-2.7	-1.0	5.9	-0.7	4.4	-0.0	-2.7	-18.7	21.9	0.7	-4.4	-25.3	
D6 [11.947;-10.237;0.0 grados] (25x25)	3.80/6.70	Carga permanente	153.1	3.0	0.5	1.2	-0.0	-0.0	153.1	1826.1	-1568	-1.2	0.0	-11.4	
		Sobrecarga de uso	50.3	0.2	-0.6	-0.0	-0.5	-0.0	50.3	600.2	-513.9	0.0	0.5	6.6	
		Viento +X exc.+	-0.1	-2.6	0.0	-1.9	0.0	0.0	-0.1	0.9	1.4	1.9	-0.0	18.9	
		Viento +X exc.-	-0.1	-2.8	-0.0	-2.0	-0.0	-0.0	-0.1	1.3	1.3	2.0	0.0	20.6	
		Viento -X exc.+	0.1	2.6	-0.0	1.9	-0.0	-0.0	0.1	-0.9	-1.4	-1.9	0.0	-18.9	
		Viento -X exc.-	0.1	2.8	0.0	2.0	0.0	0.0	0.1	-1.3	-1.3	-2.0	-0.0	-20.6	
		Viento +Y exc.+	2.8	0.4	-5.4	0.3	-4.1	0.0	2.8	33.2	-23.5	-0.3	4.1	46.4	
		Viento +Y exc.-	2.7	1.1	-5.1	0.7	-3.8	0.0	2.7	31.6	-22.9	-0.7	3.8	38.6	
		Viento -Y exc.+	-2.8	-0.4	5.4	-0.3	4.1	-0.0	-2.8	-33.2	23.5	0.3	-4.1	-46.4	
		Viento -Y exc.-	-2.7	-1.1	5.1	-0.7	3.8	-0.0	-2.7	-31.6	22.9	0.7	-3.8	-38.6	
D8 [16.647;-10.237;0.0 grados] (25x25)	3.80/6.70	Carga permanente	125.0	-4.6	10.9	-1.6	5.6	-0.0	125.0	2086.1	-1291	1.6	-5.6	-76.9	
		Sobrecarga de uso	43.3	-0.3	5.3	0.1	2.7	-0.0	43.3	720.3	-448.0	-0.1	-2.7	-46.5	
		Viento +X exc.+	0.5	-2.6	0.1	-1.9	0.1	0.0	0.5	10.7	-5.1	1.9	-0.1	17.2	
		Viento +X exc.-	0.3	-2.8	-0.1	-2.0	-0.1	-0.0	0.3	8.3	-3.3	2.0	0.1	21.8	
		Viento -X exc.+	-0.5	2.6	-0.1	1.9	-0.1	-0.0	-0.5	-10.7	5.1	-1.9	0.1	-17.2	
		Viento -X exc.-	-0.3	2.8	0.1	2.0	0.1	0.0	-0.3	-8.3	3.3	-2.0	-0.1	-21.8	
		Viento +Y exc.+	-5.7	-0.1	-6.5	-0.1	-4.9	0.0	-5.7	-95.2	65.1	0.1	4.9	81.5	
		Viento +Y exc.-	-4.9	0.6	-5.3	0.4	-4.0	0.0	-4.9	-82.9	55.9	-0.4	4.0	61.4	
		Viento -Y exc.+	5.7	0.1	6.5	0.1	4.9	-0.0	5.7	95.2	-65.1	-0.1	-4.9	-81.5	
		Viento -Y exc.-	4.9	-0.6	5.3	-0.4	4.0	-0.0	4.9	82.9	-55.9	0.4	-4.0	-61.4	
D9 [20.972;-10.237;0.0 grados] (25x25)	3.80/6.70	Carga permanente	65.6	-0.0	-2.1	-0.3	-1.0	-0.0	65.6	1375.8	-669.5	0.3	1.0	22.9	
		Sobrecarga de uso	22.6	-2.1	0.3	-1.1	0.2	-0.0	22.6	475.6	-231.5	1.1	-0.2	7.8	
		Viento +X exc.+	0.7	-1.1	0.2	-0.7	0.1	0.0	0.7	14.8	-6.9	0.7	-0.1	5.0	
		Viento +X exc.-	0.6	-1.2	-0.3	-0.7	-0.1	-0.0	0.6	14.8	-6.4	0.7	0.1	10.4	
		Viento -X exc.+	-0.7	1.1	-0.2	0.7	-0.1	-0.0	-0.7	-14.8	6.9	-0.7	0.1	-5.0	
		Viento -X exc.-	-0.6	1.2	0.3	0.7	0.1	0.0	-0.6	-14.8	6.4	-0.7	-0.1	-10.4	
		Viento +Y exc.+	-0.8	-0.0	-6.5	0.0	-3.4	0.0	-0.8	-15.7	14.2	-0.0	3.4	70.2	
		Viento +Y exc.-	-0.7	0.4	-4.4	0.2	-2.3	0.0	-0.7	-16.1	12.1	-0.2	2.3	45.4	
		Viento -Y exc.+	0.8	0.0	6.5	-0.0	3.4	-0.0	0.8	15.7	-14.2	0.0	-3.4	-70.2	
		Viento -Y exc.-	0.7	-0.4	4.4	-0.2	2.3	-0.0	0.7	16.1	-12.1	0.2	-2.3	-45.4	
E1 [-6.064;-13.437;0.0 grados] (Diámetro: 25)	3.80/6.70	Carga permanente	64.4	1.4	-2.9	0.8	-1.6	-0.0	64.4	-392.2	-863.1	-0.8	1.6	-20.2	
		Sobrecarga de uso	15.5	1.4	-0.6	0.7	-0.3	-0.0	15.5	-95.6	-208.0	-0.7	0.3	-11.4	
		Viento +X exc.+	-0.2	-0.9	-0.3	-0.5	-0.1	0.0	-0.2	1.9	2.5	0.5	0.1	5.5	
		Viento +X exc.-	-0.1	-1.0	-0.0	-0.5	-0.0	-0.0	-0.1	1.8	1.9	0.5	0.0	7.0	
		Viento -X exc.+	0.2	0.9	0.3	0.5	0.1	-0.0	0.2	-1.9	-2.5	-0.5	-0.1	-5.5	
		Viento -X exc.-	0.1	1.0	0.0	0.5	0.0	0.0	0.1	-1.8	-1.9	-0.5	-0.0	-7.0	
		Viento +Y exc.+	-0.7	-0.3	-4.3	-0.1	-2.3	0.0	-0.7	4.8	14.2	0.1	2.3	-12.7	
		Viento +Y exc.-	-0.9	0.1	-5.5	0.1	-2.9	0.0	-0.9	5.2	17.1	-0.1	2.9	-19.7	
		Viento -Y exc.+	0.7	0.3	4.3	0.1	2.3	-0.0	0.7	-4.8	-14.2	-0.1	-2.3	12.7	
		Viento -Y exc.-	0.9	-0.1	5.5	-0.1	2.9	-0.0	0.9	-5.2	-17.1	0.1	-2.9	19.7	
E2 [-1.303;-13.437;0.0 grados] (Diámetro: 25)	3.80/6.70	Carga permanente	107.0	-3.4	-2.2	-1.8	-1.2	-0.0	107.0	-136.0	-1436	1.8	1.2	22.1	
		Sobrecarga de uso	32.1	-1.1	-0.3	-0.6	-0.1	-0.0	32.1	-40.7	-431.2	0.6	0.1	7.4	
		Viento +X exc.+	-0.2	-1.2	-0.2	-0.6	-0.1	0.0	-0.2	1.6	3.5	0.6	0.1	8.4	
		Viento +X exc.-	-0.1	-1.4	0.0	-0.7	0.0	-0.0	-0.1	1.6	1.5	0.7	-0.0	9.7	
		Viento -X exc.+	0.2	1.2	0.2	0.6	0.1	-0.0	0.2	-1.6	-3.5	-0.6	-0.1	-8.4	
		Viento -X exc.-	0.1	1.4	-0.0	0.7	-0.0	0.0	0.1	-1.6	-1.5	-0.7	0.0	-9.7	
		Viento +Y exc.+	-3.7	0.5	-4.6	0.2	-2.5	0.0	-3.7	4.3	53.8	-0.2	2.5	-6.5	
		Viento +Y exc.-	-4.2	1.3	-5.6	0.7	-3.0	0.0	-4.2	4.2	62.7	-0.7	3.0	-12.7	
		Viento -Y exc.+	3.7	-0.5	4.6	-0.2	2.5	-0.0	3.7	-4.3	-53.8	0.2	-2.5	6.5	
		Viento -Y exc.-	4.2	-1.3	5.6	-0.7	3.0	-0.0	4.2	-4.2	-62.7	0.7	-3.0	12.7	
E3 [2.547;-13.437;0.0 grados] (Diámetro: 25)	3.80/6.70	Carga permanente	94.8	-0.1	-1.3	-0.0	-0.7	-0.0	94.8	241.6	-1272	0.0	0.7	2.2	
		Sobrecarga de uso	30.1	0.1	0.2	0.0	0.1	-0.0	30.1	76.6	-404.5	-0.0	-0.1	-0.7	
		Viento +X exc.+	-0.0	-1.3	-0.1	-0.7	-0.1	0.0	-0.0	1.3	0.1	0.7	0.1	9.0	
		Viento +X exc.-	0.0	-1.4	0.0	-0.7	0.0	-0.0	0.0	1.6	-0.7	0.7	-0.0	10.0	
		Viento -X exc.+	0.0	1.3	0.1	0.7	0.1	-0.0	0.0	-1.3	-0.1	-0.7	-0.1	-9.0	
		Viento -X exc.-	-0.0	1.4	-0.0	0.7	-0.0	0.0	-0.0	-1.6	0.7	-0.7	0.0	-10.0	
		Viento +Y exc.+	-1.7	0.4	-4.1	0.2	-2.2	0.0	-1.7	-4.7	27.1	-0.2	2.2	2.9	
		Viento +Y exc.-	-2.0	1.1	-4.7	0.6	-2.5	0.0	-2.0	-6.1	30.9	-0.6	2.5	-1.6	
		Viento -Y exc.+	1.7	-0.4	4.1	-0.2	2.2	-0.0	1.7	4.7	-27.1	0.2	-2.2	-2.9	
		Viento -Y exc.-	2.0	-1.1	4.7	-0.6	2.5	-0.0	2.0	6.1	-30.9	0.6	-2.5	1.6	



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Planta 1															
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=3.80)						
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	
E4 [7.247;-13.437;0.0 grados] (Diámetro: 25)	3.80/6.70	Carga permanente	124.1	-1.0	-1.0	-0.6	-0.6	-0.0	124.1	900.3	-1666	0.6	0.6	11.7	
		Sobrecarga de uso	39.5	-0.5	0.4	-0.3	0.2	-0.0	39.5	286.7	-531.2	0.3	-0.2	1.9	
		Viento +X exc.+	0.2	-1.4	-0.0	-0.7	-0.0	0.0	0.2	2.6	-2.3	0.7	0.0	9.7	
		Viento +X exc.-	0.2	-1.6	-0.0	-0.8	-0.0	-0.0	0.2	3.2	-3.0	0.8	0.0	10.8	
		Viento -X exc.+	-0.2	1.4	0.0	0.7	0.0	-0.0	-0.2	-2.6	2.3	-0.7	-0.0	-9.7	
		Viento -X exc.-	-0.2	1.6	0.0	0.8	0.0	0.0	-0.2	-3.2	3.0	-0.8	-0.0	-10.8	
		Viento +Y exc.+	-3.8	0.4	-3.8	0.2	-2.1	0.0	-3.8	-28.0	54.9	-0.2	2.1	12.4	
		Viento +Y exc.-	-4.1	1.2	-4.0	0.6	-2.2	0.0	-4.1	-30.7	58.7	-0.6	2.2	7.5	
		Viento -Y exc.+	3.8	-0.4	3.8	-0.2	2.1	-0.0	3.8	28.0	-54.9	0.2	-2.1	-12.4	
		Viento -Y exc.-	4.1	-1.2	4.0	-0.6	2.2	-0.0	4.1	30.7	-58.7	0.6	-2.2	-7.5	
E6 [11.947;-13.437;0.0 grados] (Diámetro: 25)	3.80/6.70	Carga permanente	115.8	-0.3	-0.6	-0.2	-0.4	-0.0	115.8	1383.6	-1555	0.2	0.4	7.4	
		Sobrecarga de uso	37.4	-0.1	0.7	-0.1	0.3	-0.0	37.4	447.0	-503.3	0.1	-0.3	-2.9	
		Viento +X exc.+	-0.1	-1.4	0.0	-0.7	0.0	0.0	-0.1	-0.2	1.8	0.7	-0.0	9.6	
		Viento +X exc.-	-0.2	-1.6	-0.0	-0.8	-0.0	-0.0	-0.2	-0.6	2.5	0.8	0.0	11.2	
		Viento -X exc.+	0.1	1.4	-0.0	0.7	-0.0	-0.0	0.1	0.2	-1.8	-0.7	0.0	-9.6	
		Viento -X exc.-	0.2	1.6	0.0	0.8	0.0	0.0	0.2	0.6	-2.5	-0.8	-0.0	-11.2	
		Viento +Y exc.+	-3.3	0.3	-3.7	0.2	-2.0	0.0	-3.3	-40.0	48.3	-0.2	2.0	21.9	
		Viento +Y exc.-	-3.1	1.2	-3.4	0.6	-1.9	0.0	-3.1	-38.0	44.9	-0.6	1.9	14.8	
		Viento -Y exc.+	3.3	-0.3	3.7	-0.2	2.0	-0.0	3.3	40.0	-48.3	0.2	-2.0	-21.9	
		Viento -Y exc.-	3.1	-1.2	3.4	-0.6	1.9	-0.0	3.1	38.0	-44.9	0.6	-1.9	-14.8	
E8 [16.647;-13.437;0.0 grados] (Diámetro: 25)	3.80/6.70	Carga permanente	127.1	0.7	-1.3	0.4	-0.9	-0.0	127.1	2115.8	-1707	-0.4	0.9	8.3	
		Sobrecarga de uso	40.5	0.2	0.4	0.1	0.2	-0.0	40.5	674.6	-545.0	-0.1	-0.2	-4.5	
		Viento +X exc.+	0.1	-1.4	0.0	-0.7	0.0	0.0	0.1	2.9	-1.2	0.7	-0.0	9.0	
		Viento +X exc.-	0.0	-1.6	-0.1	-0.8	-0.0	-0.0	0.0	2.0	-0.3	0.8	0.0	11.3	
		Viento -X exc.+	-0.1	1.4	-0.0	0.7	-0.0	-0.0	-0.1	-2.9	1.2	-0.7	0.0	-9.0	
		Viento -X exc.-	-0.0	1.6	0.1	0.8	0.0	0.0	-0.0	-2.0	0.3	-0.8	-0.0	-11.3	
		Viento +Y exc.+	-1.3	0.3	-2.7	0.1	-1.6	0.0	-1.3	-22.3	20.5	-0.1	1.6	24.6	
		Viento +Y exc.-	-1.0	1.1	-2.3	0.5	-1.3	0.0	-1.0	-18.4	16.2	-0.5	1.3	14.4	
		Viento -Y exc.+	1.3	-0.3	2.7	-0.1	1.6	-0.0	1.3	22.3	-20.5	0.1	-1.6	-24.6	
		Viento -Y exc.-	1.0	-1.1	2.3	-0.5	1.3	-0.0	1.0	18.4	-16.2	0.5	-1.3	-14.4	
E9 [20.972;-13.437;0.0 grados] (Diámetro: 25)	3.80/6.70	Carga permanente	57.6	-1.4	-2.1	-0.8	-1.2	-0.0	57.6	1208.6	-771.3	0.8	1.2	35.8	
		Sobrecarga de uso	13.7	-1.5	-0.3	-0.7	-0.2	-0.0	13.7	287.8	-183.2	0.7	0.2	13.0	
		Viento +X exc.+	0.2	-0.9	0.1	-0.5	0.0	0.0	0.2	4.4	-2.3	0.5	-0.0	5.4	
		Viento +X exc.-	0.1	-1.0	-0.2	-0.5	-0.1	-0.0	0.1	4.0	-1.7	0.5	0.1	9.0	
		Viento -X exc.+	-0.2	0.9	-0.1	0.5	-0.0	-0.0	-0.2	-4.4	2.3	-0.5	0.0	-5.4	
		Viento -X exc.-	-0.1	1.0	0.2	0.5	0.1	0.0	-0.1	-4.0	1.7	-0.5	-0.1	-9.0	
		Viento +Y exc.+	-0.8	0.2	-3.4	0.1	-1.8	0.0	-0.8	-17.1	14.3	-0.1	1.8	36.8	
		Viento +Y exc.-	-0.7	0.8	-2.3	0.4	-1.2	0.0	-0.7	-15.1	11.5	-0.4	1.2	20.3	
		Viento -Y exc.+	0.8	-0.2	3.4	-0.1	1.8	-0.0	0.8	17.1	-14.3	0.1	-1.8	-36.8	
		Viento -Y exc.-	0.7	-0.8	2.3	-0.4	1.2	-0.0	0.7	15.1	-11.5	0.4	-1.2	-20.3	
Sumatorio		Carga permanente							3086.0	23576	-25647	-0.0	0.0	0.0	
		Sobrecarga de uso							913.7	7318.7	-7649	-0.0	0.0	0.0	
		Viento +X exc.+							-0.0	119.2	-0.0	31.9	-0.0	210.0	
		Viento +X exc.-							-0.0	119.2	-0.0	31.9	0.0	249.7	
		Viento -X exc.+							0.0	-119.2	0.0	-31.9	0.0	-210.0	
		Viento -X exc.-							0.0	-119.2	0.0	-31.9	-0.0	-249.7	
		Viento +Y exc.+							0.0	-0.0	320.3	0.0	80.9	656.4	
		Viento +Y exc.-							0.0	-0.0	320.3	-0.0	80.9	475.9	
		Viento -Y exc.+							-0.0	0.0	-320.3	-0.0	-80.9	-656.4	
		Viento -Y exc.-							-0.0	0.0	-320.3	0.0	-80.9	-475.9	

Planta: Planta Baja															
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-0.10)						
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	
A1 [0.061;-0.166;-24.9 grados] (25x25)	-0.10/3.50	Carga permanente	103.6	-1.6	1.2	-0.8	-0.8	-0.0	103.6	7.2	-19.0	1.1	0.4	0.2	
		Sobrecarga de uso	29.0	-0.5	0.2	-0.1	-0.4	-0.0	29.0	2.1	-5.2	0.3	0.3	0.1	
		Viento +X exc. +	-2.4	-2.1	-1.5	-1.5	-1.0	0.0	-2.4	2.4	0.8	1.8	0.3	0.3	
		Viento +X exc. -	-2.5	-2.0	-1.0	-1.4	-0.7	-0.0	-2.5	2.1	0.5	1.6	0.0	0.3	
		Viento -X exc. +	2.4	2.1	1.5	1.5	1.0	-0.0	2.4	-2.4	-0.8	-1.8	-0.3	-0.3	
		Viento -X exc. -	2.5	2.0	1.0	1.4	0.7	0.0	2.5	-2.1	-0.5	-1.6	-0.0	-0.3	
		Viento +Y exc. +	10.6	2.3	-6.3	1.7	-4.4	0.0	10.6	1.2	5.0	0.3	4.7	0.3	
		Viento +Y exc. -	11.4	1.7	-8.3	1.2	-5.8	0.0	11.4	2.6	6.4	1.3	5.8	0.5	
		Viento -Y exc. +	-10.6	-2.3	6.3	-1.7	4.4	-0.0	-10.6	-1.2	-5.0	-0.3	-4.7	-0.3	
		Viento -Y exc. -	-11.4	-1.7	8.3	-1.2	5.8	-0.0	-11.4	-2.6	-6.4	-1.3	-5.8	-0.5	
A3 [2.547;-1.024;0.0 grados] (25x25)	-0.10/2.70	Carga permanente	184.9	-0.6	1.2	-0.4	0.1	-0.0	184.9	471.6	-190.5	0.4	-0.1	0.1	
		Sobrecarga de uso	58.7	-0.3	0.4	-0.4	0.0	-0.0	58.7	150.0	-60.5	0.4	-0.0	0.3	
		Viento +X exc. +	-0.9	-3.2	0.2	-3.4	0.7	0.0	-0.9	0.9	0.8	3.4	-0.7	1.8	
		Viento +X exc. -	-1.0	-2.9	0.3	-3.1	0.7	-0.0	-1.0	0.5	0.6	3.1	-0.7	1.3	
		Viento -X exc. +	0.9	3.2	-0.2	3.4	-0.7	-0.0	0.9	-0.9	-0.8	-3.4	0.7	-1.8	
		Viento -X exc. -	1.0	2.9	-0.3	3.1	-0.7	0.0	1.0	-0.5	-0.6	-3.1	0.7	-1.3	
		Viento +Y exc. +	3.2	0.5	-6.2	1.7	-4.1	0.0	3.2	7.7	2.9	-1.7	4.1	8.7	
		Viento +Y exc. -	3.4	-0.9	-7.1	0.3	-4.4	0.0	3.4	9.6	3.5	-0.3	4.4	10.7	
		Viento -Y exc. +	-3.2	-0.5	6.2	-1.7	4.1	-0.0	-3.2	-7.7	-2.9	1.7	-4.1	-8.7	
		Viento -Y exc. -	-3.4	0.9	7.1	-0.3	4.4	-0.0	-3.4	-9.6	-3.5	0.3	-4.4	-10.7	



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Planta Baja															
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-0.10)						
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	
A4 [7.247;-2.637;0.0 grados] (25x25)	-0.10/2.70	Carga permanente	184.0	0.6	0.9	0.1	1.1	-0.0	184.0	1332.6	-486.1	-0.1	-1.1	-8.2	
		Sobrecarga de uso	48.0	0.1	0.2	0.0	0.4	-0.0	48.0	347.9	-126.9	-0.0	-0.4	-2.6	
		Viento +X exc.+	3.2	-3.3	0.1	-3.6	0.2	0.0	3.2	26.3	-8.5	3.6	-0.2	7.8	
		Viento +X exc.-	2.7	-3.1	0.2	-3.3	0.3	-0.0	2.7	23.0	-7.4	3.3	-0.3	6.7	
		Viento -X exc.+	-3.2	3.3	-0.1	3.6	-0.2	-0.0	-3.2	-26.3	8.5	-3.6	0.2	-7.8	
		Viento -X exc.-	-2.7	3.1	-0.2	3.3	-0.3	0.0	-2.7	-23.0	7.4	-3.3	0.3	-6.7	
		Viento +Y exc.+	19.6	0.2	-7.8	0.6	-7.6	0.0	19.6	142.2	-44.0	-0.6	7.6	53.3	
		Viento +Y exc.-	21.6	-1.0	-8.1	-0.7	-7.8	0.0	21.6	157.3	-48.8	0.7	7.8	58.1	
		Viento -Y exc.+	-19.6	-0.2	7.8	-0.6	7.6	-0.0	-19.6	-142.2	44.0	0.6	-7.6	-53.3	
		Viento -Y exc.-	-21.6	1.0	8.1	0.7	7.8	-0.0	-21.6	-157.3	48.8	-0.7	-7.8	-58.1	
A5 [11.045;-2.637;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	92.9	0.5	1.6	0.2	1.0	-0.0	92.9	1026.0	-246.7	-0.2	-1.0	-11.1	
		Sobrecarga de uso	26.0	0.2	0.4	0.1	0.2	-0.0	26.0	287.0	-68.9	-0.1	-0.2	-2.8	
		Viento +X exc.+	-1.0	-2.7	0.0	-2.0	0.0	0.0	-1.0	-8.3	2.6	2.0	-0.0	5.2	
		Viento +X exc.-	-0.9	-2.5	-0.0	-1.9	-0.0	-0.0	-0.9	-7.4	2.4	1.9	0.0	5.1	
		Viento -X exc.+	1.0	2.7	-0.0	2.0	-0.0	-0.0	1.0	8.3	-2.6	-2.0	0.0	-5.2	
		Viento -X exc.-	0.9	2.5	0.0	1.9	0.0	0.0	0.9	7.4	-2.4	-1.9	-0.0	-5.1	
		Viento +Y exc.+	4.9	-0.2	-5.4	-0.2	-2.6	0.0	4.9	54.4	-7.5	0.2	2.6	29.8	
		Viento +Y exc.-	4.4	-1.2	-5.1	-0.9	-2.5	0.0	4.4	50.1	-6.5	0.9	2.5	30.0	
		Viento -Y exc.+	-4.9	0.2	5.4	0.2	2.6	-0.0	-4.9	-54.4	7.5	-0.2	-2.6	-29.8	
		Viento -Y exc.-	-4.4	1.2	5.1	0.9	2.5	-0.0	-4.4	-50.1	6.5	-0.9	-2.5	-30.0	
A7 [13.747;-2.637;0.0 grados] (25x25)	-0.10/2.70	Carga permanente	84.2	0.7	1.5	0.9	1.0	-0.0	84.2	1157.4	-223.7	-0.9	-1.0	-15.6	
		Sobrecarga de uso	23.5	0.2	0.3	0.3	0.2	-0.0	23.5	323.0	-62.3	-0.3	-0.2	-2.9	
		Viento +X exc.+	-4.3	-3.3	0.1	-3.7	0.1	0.0	-4.3	-55.1	11.1	3.7	-0.1	8.2	
		Viento +X exc.-	-3.8	-3.0	-0.0	-3.3	-0.0	-0.0	-3.8	-49.5	10.1	3.3	0.0	8.8	
		Viento -X exc.+	4.3	3.3	-0.1	3.7	-0.1	-0.0	4.3	55.1	-11.1	-3.7	0.1	-8.2	
		Viento -X exc.-	3.8	3.0	0.0	3.3	0.0	0.0	3.8	49.5	-10.1	-3.3	0.0	-8.8	
		Viento +Y exc.+	2.5	-0.2	-5.6	-0.2	-3.4	0.0	2.5	35.0	-1.1	0.2	3.4	46.6	
		Viento +Y exc.-	0.6	-1.4	-4.8	-1.5	-2.9	0.0	0.6	9.7	3.2	1.5	2.9	43.7	
		Viento -Y exc.+	-2.5	0.2	5.6	0.2	3.4	-0.0	-2.5	-35.0	1.1	-0.2	-3.4	-46.6	
		Viento -Y exc.-	-0.6	1.4	4.8	1.5	2.9	-0.0	-0.6	-9.7	-3.2	-1.5	-2.9	-43.7	
A8 [16.647;-2.637;0.0 grados] (25x25)	-0.10/2.70	Carga permanente	197.5	0.8	0.7	1.1	-1.0	-0.0	197.5	3287.7	-521.7	-1.1	1.0	13.7	
		Sobrecarga de uso	56.1	0.3	-0.5	0.3	-1.5	-0.0	56.1	934.0	-147.5	-0.3	1.5	23.5	
		Viento +X exc.+	5.1	-3.3	0.3	-3.6	0.3	0.0	5.1	87.7	-13.7	3.6	-0.3	5.1	
		Viento +X exc.-	5.3	-3.0	-0.0	-3.3	-0.0	-0.0	5.3	90.6	-13.9	3.3	0.0	9.4	
		Viento -X exc.+	-5.1	3.3	-0.3	3.6	-0.3	-0.0	-5.1	-87.7	13.7	-3.6	0.3	-5.1	
		Viento -X exc.-	-5.3	3.0	0.0	3.3	0.0	0.0	-5.3	-90.6	13.9	-3.3	0.0	-9.4	
		Viento +Y exc.+	14.7	-0.2	-6.8	-0.2	-6.2	0.0	14.7	244.1	-31.8	0.2	6.2	103.6	
		Viento +Y exc.-	13.7	-1.4	-5.3	-1.5	-4.8	0.0	13.7	230.1	-30.9	1.5	4.8	84.5	
		Viento -Y exc.+	-14.7	0.2	6.8	0.2	6.2	-0.0	-14.7	-244.1	31.8	-0.2	-6.2	-103.6	
		Viento -Y exc.-	-13.7	1.4	5.3	1.5	4.8	-0.0	-13.7	-230.1	30.9	-1.5	-4.8	-84.5	
A9 [20.972;-2.637;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	105.5	2.5	1.3	0.8	0.1	-0.0	105.5	2211.1	-279.7	-0.8	-0.1	-3.5	
		Sobrecarga de uso	28.3	0.6	0.0	0.2	-0.4	-0.0	28.3	592.1	-74.5	-0.2	0.4	7.0	
		Viento +X exc.+	1.9	-2.4	0.5	-1.7	0.3	0.0	1.9	42.0	-5.5	1.7	-0.3	-2.7	
		Viento +X exc.-	2.3	-2.2	0.0	-1.5	0.0	-0.0	2.3	49.8	-6.0	1.5	-0.0	4.0	
		Viento -X exc.+	-1.9	2.4	-0.5	1.7	-0.3	-0.0	-1.9	-42.0	5.5	-1.7	0.3	2.7	
		Viento -X exc.-	-2.3	2.2	-0.0	1.5	-0.0	0.0	-2.3	-49.8	6.0	-1.5	0.0	-4.0	
		Viento +Y exc.+	8.1	-0.0	-5.9	-0.0	-4.1	0.0	8.1	169.0	-15.3	0.0	4.1	86.9	
		Viento +Y exc.-	6.4	-1.0	-3.8	-0.7	-2.7	0.0	6.4	134.2	-12.9	0.7	2.7	57.5	
		Viento -Y exc.+	-8.1	0.0	5.9	0.0	4.1	-0.0	-8.1	-169.0	15.3	-0.0	-4.1	-86.9	
		Viento -Y exc.-	-6.4	1.0	3.8	0.7	2.7	-0.0	-6.4	-134.2	12.9	-0.7	-2.7	-57.5	
B1 [-2.185;-5.001;-24.9 grados] (25x30)	-0.10/3.50	Carga permanente	293.9	-0.8	3.1	2.0	2.8	-0.0	293.9	-642.8	-1473	-3.0	-1.7	-11.4	
		Sobrecarga de uso	95.6	0.3	0.8	1.7	0.8	-0.0	95.6	-209.5	-478.5	-1.9	0.0	-9.4	
		Viento +X exc.+	-4.1	-2.3	-2.5	-1.6	-1.8	0.0	-4.1	12.0	21.6	2.2	1.0	8.8	
		Viento +X exc.-	-4.0	-2.4	-1.7	-1.6	-1.3	-0.0	-4.0	11.7	20.7	2.0	0.5	9.1	
		Viento -X exc.+	4.1	2.3	2.5	1.6	1.8	-0.0	4.1	-12.0	-21.6	-2.2	-1.0	-8.8	
		Viento -X exc.-	4.0	2.4	1.7	1.6	1.3	0.0	4.0	-11.7	-20.7	-2.0	-0.5	-9.1	
		Viento +Y exc.+	2.8	3.1	-11.7	1.8	-8.2	0.0	2.8	-4.0	-2.1	1.8	8.2	-9.0	
		Viento +Y exc.-	2.7	3.5	-15.3	2.0	-10.7	0.1	2.7	-2.6	1.9	2.6	10.6	-9.9	
		Viento -Y exc.+	-2.8	-3.1	11.7	-1.8	8.2	-0.0	-2.8	4.0	2.1	-1.8	-8.2	9.0	
		Viento -Y exc.-	-2.7	-3.5	15.3	-2.0	10.7	-0.1	-2.7	2.6	-1.9	-2.6	-10.6	9.9	
B3 [2.547;-5.012;0.0 grados] (30x30)	-0.10/3.50	Carga permanente	489.2	-1.8	-0.1	-2.5	-3.5	-0.0	489.2	1247.7	-2452	2.5	3.5	21.8	
		Sobrecarga de uso	153.3	-1.1	0.2	-1.6	-0.5	-0.0	153.3	391.6	-768.5	1.6	0.5	9.3	
		Viento +X exc.+	0.7	-5.0	-0.5	-3.5	-0.3	0.0	0.7	6.7	-2.9	3.5	0.3	18.0	
		Viento +X exc.-	0.5	-4.8	0.0	-3.3	0.0	-0.0	0.5	6.0	-2.3	3.3	-0.0	16.5	
		Viento -X exc.+	-0.7	5.0	0.5	3.5	0.3	-0.0	-0.7	-6.7	2.9	-3.5	-0.3	-18.0	
		Viento -X exc.-	-0.5	4.8	-0.0	3.3	-0.0	0.0	-0.5	-6.0	2.3	-3.3	0.0	-16.5	
		Viento +Y exc.+	9.9	-0.3	-13.5	-0.1	-8.1	0.0	9.9	25.4	-35.9	0.1	8.1	21.3	
		Viento +Y exc.-	10.9	-1.3	-15.7	-0.8	-9.5	0.1	10.9	29.0	-38.8	0.8	9.5	27.8	
		Viento -Y exc.+	-9.9	0.3	13.5	0.1	8.1	-0.0	-9.9	-25.4	35.9	-0.1	-8.1	-21.3	
		Viento -Y exc.-	-10.9	1.3	15.7	0.8	9.5	-0.1	-10.9	-29.0	38.8	-0.8	-9.5	-27.8	
B4 [7.247;-5.037;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	264.8	-0.2	1.4	-0.4	0.7	-0.0	264.8	1919.3	-1335	0.4	-0.7	-2.9	
		Sobrecarga de uso	85.6	-0.0	0.3	-0.1	0.0	-0.0	85.6	620.7	-431.6	0.1	-0.0	0.2	
		Viento +X exc.+	-1.2	-2.6	-0.1	-1.9	-0.1	0.0	-1.2	-6.1	6.2	1.9	0.1	10.2	
		Viento +X exc.-	-0.9	-2.5	-0.0	-1.8	-0.0	-0.0	-0.9	-4.3	4.8	1.8	0.0	9.4	
		Viento -X exc.+	1.2	2.6	0.1	1.9	0.1	-0.0	1.2	6.1	-6.2	-1.9	-0.1	-10.2	
		Viento -X exc.-	0.9	2.5	0.0	1.8	0.0	0.0	0.9	4.3	-4.8	-1.8	-0.0	-9.4	
		Viento +Y exc.+	-22.9	-0.1	-7.1	-0.1	-5.0	0.0	-22.9	-165.5	122.2	0.1	5.0	36.9	
		Viento +Y exc.-	-24.1	-0.6	-7.4	-0.5	-5.2	0.0	-24.1	-173.9	128.7	0.5	5.2	40.3	
		Viento -Y exc.+	22.9	0.1	7.1	0.1	5.0	-0.0	22.9	165.5	-122.2	-0.1	-5.0	-36.9	
		Viento -Y exc.-	24.1	0.6	7.4	0.5	5.2	-0.0	24.1	173.9	-128.7	-0.5	-5.2	-40.3	



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Planta Baja														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-0.10)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
B5 [11.045;-5.037;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	221.4	-0.2	1.5	-0.5	0.5	-0.0	221.4	2445.9	-1117	0.5	-0.5	-2.9
		Sobrecarga de uso	71.8	0.0	0.3	-0.1	0.1	-0.0	71.8	793.2	-362.0	0.1	-0.1	-0.2
		Viento +X exc.+	-1.5	-2.6	0.0	-1.9	0.0	0.0	-1.5	-13.8	7.5	1.9	-0.0	9.5
		Viento +X exc.-	-1.4	-2.5	-0.0	-1.9	-0.0	-0.0	-1.4	-13.4	7.3	1.9	0.0	9.5
		Viento -X exc.+	1.5	2.6	-0.0	1.9	-0.0	-0.0	1.5	13.8	-7.5	-1.9	0.0	-9.5
		Viento -X exc.-	1.4	2.5	0.0	1.9	0.0	0.0	1.4	13.4	-7.3	-1.9	-0.0	-9.5
		Viento +Y exc.+	-3.9	-0.1	-5.6	-0.1	-2.7	0.0	-3.9	-43.2	25.3	0.1	2.7	29.8
		Viento +Y exc.-	-4.1	-0.6	-5.3	-0.4	-2.5	0.0	-4.1	-44.8	26.0	0.4	2.5	29.8
		Viento -Y exc.+	3.9	0.1	5.6	0.1	2.7	-0.0	3.9	43.2	-25.3	-0.1	-2.7	-29.8
		Viento -Y exc.-	4.1	0.6	5.3	0.4	2.5	-0.0	4.1	44.8	-26.0	-0.4	-2.5	-29.8
B7 [13.747;-5.037;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	210.0	1.0	1.3	1.4	0.4	-0.0	210.0	2885.8	-1059	-1.4	-0.4	-12.6
		Sobrecarga de uso	54.3	0.2	0.2	0.3	0.1	-0.0	54.3	745.9	-273.6	-0.3	-0.1	-2.2
		Viento +X exc.+	2.8	-2.6	0.1	-1.9	0.1	0.0	2.8	40.6	-14.0	1.9	-0.1	8.7
		Viento +X exc.-	2.6	-2.5	-0.0	-1.8	-0.0	-0.0	2.6	37.8	-12.9	1.8	0.0	9.4
		Viento -X exc.+	-2.8	2.6	-0.1	1.9	-0.1	-0.0	-2.8	-40.6	14.0	-1.9	0.1	-8.7
		Viento -X exc.-	-2.6	2.5	0.0	1.8	0.0	0.0	-2.6	-37.8	12.9	-1.8	-0.0	-9.4
		Viento +Y exc.+	-2.0	-0.1	-5.5	-0.1	-2.7	0.0	-2.0	-27.2	15.5	0.1	2.7	37.4
		Viento +Y exc.-	-1.2	-0.6	-4.8	-0.5	-2.3	0.0	-1.2	-15.5	10.7	0.5	2.3	34.1
		Viento -Y exc.+	2.0	0.1	5.5	0.1	2.7	-0.0	2.0	27.2	-15.5	-0.1	-2.7	-37.4
		Viento -Y exc.-	1.2	0.6	4.8	0.5	2.3	-0.0	1.2	15.5	-10.7	-0.5	-2.3	-34.1
C8 [16.647;-6.362;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	308.6	-0.0	0.4	-0.4	-0.1	-0.0	308.6	5136.8	-1964	0.4	0.1	4.4
		Sobrecarga de uso	115.9	0.1	-0.0	-0.0	-0.2	-0.0	115.9	1929.9	-737.5	0.0	0.2	3.2
		Viento +X exc.+	1.7	-2.0	0.3	-1.0	0.2	0.0	1.7	30.8	-11.3	1.0	-0.2	2.4
		Viento +X exc.-	1.6	-2.0	-0.0	-1.0	-0.0	-0.0	1.6	28.8	-10.2	1.0	0.0	6.5
		Viento -X exc.+	-1.7	2.0	-0.3	1.0	-0.2	-0.0	-1.7	-30.8	11.3	-1.0	0.2	-2.4
		Viento -X exc.-	-1.6	2.0	0.0	1.0	0.0	0.0	-1.6	-28.8	10.2	-1.0	-0.0	-6.5
		Viento +Y exc.+	-0.0	-0.1	-6.9	-0.0	-5.1	0.0	-0.0	-0.6	7.2	0.0	5.1	85.1
		Viento +Y exc.-	0.5	-0.3	-5.4	-0.1	-4.0	0.0	0.5	7.9	2.5	0.1	4.0	67.2
		Viento -Y exc.+	0.0	0.1	6.9	0.0	5.1	-0.0	0.0	0.6	-7.2	-0.0	-5.1	-85.1
		Viento -Y exc.-	-0.5	0.3	5.4	0.1	4.0	-0.0	-0.5	-7.9	-2.5	-0.1	-4.0	-67.2
C9 [20.972;-6.362;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	164.4	2.8	0.5	1.7	0.6	-0.0	164.4	3445.9	-1047	-1.7	-0.6	-23.7
		Sobrecarga de uso	65.9	0.7	0.0	0.4	0.1	-0.0	65.9	1382.4	-419.6	-0.4	-0.1	-4.4
		Viento +X exc.+	0.7	-2.0	0.5	-1.0	0.3	0.0	0.7	15.7	-4.6	1.0	-0.3	-0.5
		Viento +X exc.-	0.5	-2.0	-0.1	-1.0	-0.1	-0.0	0.5	11.7	-2.9	1.0	0.1	7.6
		Viento -X exc.+	-0.7	2.0	-0.5	1.0	-0.3	-0.0	-0.7	-15.7	4.6	-1.0	0.3	0.5
		Viento -X exc.-	-0.5	2.0	0.1	1.0	0.1	0.0	-0.5	-11.7	2.9	-1.0	-0.1	-7.6
		Viento +Y exc.+	-2.2	-0.1	-6.7	-0.1	-5.0	0.0	-2.2	-45.2	20.4	0.1	5.0	104.1
		Viento +Y exc.-	-1.3	-0.3	-4.3	-0.1	-3.2	0.0	-1.3	-27.3	12.7	0.1	3.2	68.3
		Viento -Y exc.+	2.2	0.1	6.7	0.1	5.0	-0.0	2.2	45.2	-20.4	-0.1	-5.0	-104.1
		Viento -Y exc.-	1.3	0.3	4.3	0.1	3.2	-0.0	1.3	27.3	-12.7	-0.1	-3.2	-68.3
D1 [-4.634;-10.274;-24.9 grados] (25x25)	-0.10/3.50	Carga permanente	184.3	-1.5	-0.6	-0.3	-0.2	-0.0	184.3	-852.5	-1893	0.3	0.0	3.5
		Sobrecarga de uso	58.3	-0.1	0.0	0.4	0.1	-0.0	58.3	-270.3	-599.4	-0.4	0.1	-4.4
		Viento +X exc.+	-3.0	-1.8	-1.4	-1.2	-1.1	0.0	-3.0	16.2	31.6	1.6	0.5	14.2
		Viento +X exc.-	-3.7	-2.1	-1.0	-1.4	-0.7	-0.0	-3.7	19.5	38.1	1.6	0.1	16.4
		Viento -X exc.+	3.0	1.8	1.4	1.2	1.1	-0.0	3.0	-16.2	-31.6	-1.6	-0.5	-14.2
		Viento -X exc.-	3.7	2.1	1.0	1.4	0.7	0.0	3.7	-19.5	-38.1	-1.6	-0.1	-16.4
		Viento +Y exc.+	7.1	2.8	-6.8	1.7	-5.0	0.0	7.1	-32.3	-65.1	0.5	5.3	-18.8
		Viento +Y exc.-	10.1	4.1	-8.9	2.6	-6.5	0.0	10.1	-46.9	-94.2	0.4	7.0	-28.5
		Viento -Y exc.+	-7.1	-2.8	6.8	-1.7	5.0	-0.0	-7.1	32.3	65.1	-0.5	-5.3	18.8
		Viento -Y exc.-	-10.1	-4.1	8.9	-2.6	6.5	-0.0	-10.1	46.9	94.2	-0.4	-7.0	28.5
D2 [-1.303;-10.237;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	342.8	-0.4	0.1	-0.1	0.5	-0.0	342.8	-446.3	-3510	0.1	-0.5	1.9
		Sobrecarga de uso	132.9	-0.2	0.2	-0.1	0.4	-0.0	132.9	-173.0	-1361	0.1	-0.4	1.7
		Viento +X exc.+	-0.1	-2.4	-0.4	-1.7	-0.2	0.0	-0.1	2.5	1.1	1.7	0.2	17.5
		Viento +X exc.-	-0.4	-2.5	0.0	-1.8	0.0	-0.0	-0.4	2.9	3.6	1.8	-0.0	18.7
		Viento -X exc.+	0.1	2.4	0.4	1.7	0.2	-0.0	0.1	-2.5	-1.1	-1.7	-0.2	-17.5
		Viento -X exc.-	0.4	2.5	-0.0	1.8	-0.0	0.0	0.4	-2.9	-3.6	-1.8	0.0	-18.7
		Viento +Y exc.+	5.5	0.0	-7.1	0.1	-4.8	0.0	5.5	-7.2	-49.1	-0.1	4.8	-7.3
		Viento +Y exc.-	6.7	0.5	-8.9	0.5	-6.0	0.0	6.7	-9.3	-59.7	-0.5	6.0	-12.8
		Viento -Y exc.+	-5.5	-0.0	7.1	-0.1	4.8	-0.0	-5.5	7.2	49.1	0.1	-4.8	7.3
		Viento -Y exc.-	-6.7	-0.5	8.9	-0.5	6.0	-0.0	-6.7	9.3	59.7	0.5	-6.0	12.8
D3 [2.547;-10.237;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	389.7	-0.8	1.2	-0.5	2.4	-0.0	389.7	993.3	-3990	0.5	-2.4	-1.2
		Sobrecarga de uso	109.0	-0.2	0.1	-0.1	0.3	-0.0	109.0	277.9	-1116	0.1	-0.3	0.4
		Viento +X exc.+	0.6	-2.4	-0.2	-1.7	-0.2	0.0	0.6	4.1	-6.4	1.7	0.2	18.3
		Viento +X exc.-	0.8	-2.5	0.0	-1.8	0.0	-0.0	0.8	4.4	-7.7	1.8	-0.0	18.7
		Viento -X exc.+	-0.6	2.4	0.2	1.7	0.2	-0.0	-0.6	-4.1	6.4	-1.7	-0.2	-18.3
		Viento -X exc.-	-0.8	2.5	-0.0	1.8	-0.0	0.0	-0.8	-4.4	7.7	-1.8	0.0	-18.7
		Viento +Y exc.+	-4.9	0.1	-7.0	0.0	-4.7	0.0	-4.9	-12.5	56.9	-0.0	4.7	11.7
		Viento +Y exc.-	-5.4	0.6	-8.1	0.4	-5.4	0.0	-5.4	-14.3	63.3	-0.4	5.4	10.0
		Viento -Y exc.+	4.9	-0.1	7.0	0.0	4.7	-0.0	4.9	12.5	-56.9	0.0	-4.7	-11.7
		Viento -Y exc.-	5.4	-0.6	8.1	-0.4	5.4	-0.0	5.4	14.3	-63.3	0.4	-5.4	-10.0
D4 [7.247;-10.237;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	286.9	-0.8	0.1	-0.7	0.3	-0.0	286.9	2079.7	-2937	0.7	-0.3	4.7
		Sobrecarga de uso	104.5	-0.2	-0.1	-0.2	-0.1	-0.0	104.5	757.5	-1070	0.2	0.1	2.2
		Viento +X exc.+	0.3	-2.4	-0.1	-1.7	-0.0	0.0	0.3	4.8	-3.3	1.7	0.0	18.0
		Viento +X exc.-	0.2	-2.5	0.0	-1.8	0.0	-0.0	0.2	4.0	-2.1	1.8	-0.0	18.5
		Viento -X exc.+	-0.3	2.4	0.1	1.7	0.0	-0.0	-0.3	-4.8	3.3	-1.7	-0.0	-18.0
		Viento -X exc.-	-0.2	2.5	-0.0	1.8	-0.0	0.0	-0.2	-4.0	2.1	-1.8	0.0	-18.5
		Viento +Y exc.+	16.0	0.1	-6.8	0.1	-4.4	0.0	16.0	115.6	-156.7	-0.1	4.4	31.4
		Viento +Y exc.-	16.5	0.6	-7.1	0.4	-4.6	0.0	16.5	119.2	-162.1	-0.4	4.6	29.1
		Viento -Y exc.+	-16.0	-0.1	6.8	-0.1	4.4	-0.0	-16.0	-115.6	156.7	0.1	-4.4	-31.4
		Viento -Y exc.-	-16.5	-0.6	7.1	-0.4	4.6	-0.0	-16.5	-119.2	162.1	0.4	-4.6	-29.1



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Planta Baja														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-0.10)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
D6 [11.947;-10.237;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	307.6	0.6	-0.1	0.9	0.2	-0.0	307.6	3674.2	-3149	-0.9	-0.2	-11.8
		Sobrecarga de uso	106.1	0.1	-0.1	0.1	-0.1	-0.0	106.1	1267.7	-1086	-0.1	0.1	-0.6
		Viento +X exc.+	-0.2	-2.4	0.1	-1.7	0.1	0.0	-0.2	-0.5	2.4	1.7	-0.1	16.8
		Viento +X exc.-	0.0	-2.5	-0.0	-1.8	-0.0	-0.0	0.0	2.9	-0.3	1.8	0.0	18.6
		Viento -X exc.+	0.2	2.4	-0.1	1.7	-0.1	-0.0	0.2	0.5	-2.4	-1.7	0.1	-16.8
		Viento -X exc.-	-0.0	2.5	0.0	1.8	0.0	0.0	-0.0	-2.9	0.3	-1.8	-0.0	-18.6
		Viento +Y exc.+	16.8	0.1	-6.6	0.1	-4.3	0.0	16.8	200.8	-165.6	-0.1	4.3	50.8
		Viento +Y exc.-	15.6	0.6	-6.1	0.4	-4.0	0.0	15.6	185.5	-153.4	-0.4	4.0	42.8
		Viento -Y exc.+	-16.8	-0.1	6.6	-0.1	4.3	-0.0	-16.8	-200.8	165.6	0.1	-4.3	-50.8
		Viento -Y exc.-	-15.6	-0.6	6.1	-0.4	4.0	-0.0	-15.6	-185.5	153.4	0.4	-4.0	-42.8
D8 [16.647;-10.237;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	267.4	-0.4	1.2	-1.2	2.5	-0.0	267.4	4452.0	-2739	1.2	-2.5	-28.2
		Sobrecarga de uso	103.3	-0.0	0.6	-0.1	1.2	-0.0	103.3	1720.4	-1059	0.1	-1.2	-18.4
		Viento +X exc.+	-0.1	-2.4	0.2	-1.7	0.2	0.0	-0.1	0.6	0.8	1.7	-0.2	14.9
		Viento +X exc.-	-0.3	-2.5	-0.1	-1.8	-0.0	-0.0	-0.3	-2.3	3.0	1.8	0.0	19.3
		Viento -X exc.+	0.1	2.4	-0.2	1.7	-0.2	-0.0	0.1	-0.6	-0.8	-1.7	0.2	-14.9
		Viento -X exc.-	0.3	2.5	0.1	1.8	0.0	0.0	0.3	2.3	-3.0	-1.8	-0.0	-19.3
		Viento +Y exc.+	-5.5	-0.0	-6.5	-0.0	-4.4	0.0	-5.5	-91.8	63.0	0.0	4.4	73.8
		Viento +Y exc.-	-4.6	0.5	-5.1	0.3	-3.5	0.0	-4.6	-77.1	52.2	-0.3	3.5	54.0
		Viento -Y exc.+	5.5	0.0	6.5	0.0	4.4	-0.0	5.5	91.8	-63.0	-0.0	-4.4	-73.8
		Viento -Y exc.-	4.6	-0.5	5.1	-0.3	3.5	-0.0	4.6	77.1	-52.2	0.3	-3.5	-54.0
D9 [20.972;-10.237;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	136.6	2.4	-1.0	1.2	-0.7	-0.0	136.6	2862.5	-1397	-1.2	0.7	1.9
		Sobrecarga de uso	50.6	0.3	-0.1	-0.2	0.0	-0.0	50.6	1061.6	-518.2	0.2	-0.0	1.1
		Viento +X exc.+	2.5	-2.2	0.4	-1.5	0.3	0.0	2.5	55.6	-26.4	1.5	-0.3	9.4
		Viento +X exc.-	2.9	-2.3	-0.1	-1.6	-0.1	-0.0	2.9	63.3	-29.7	1.6	0.1	18.3
		Viento -X exc.+	-2.5	2.2	-0.4	1.5	-0.3	-0.0	-2.5	-55.6	26.4	-1.5	0.3	-9.4
		Viento -X exc.-	-2.9	2.3	0.1	1.6	0.1	0.0	-2.9	-63.3	29.7	-1.6	-0.1	-18.3
		Viento +Y exc.+	3.1	-0.0	-6.7	-0.0	-4.9	0.0	3.1	64.2	-24.7	0.0	4.9	103.4
		Viento +Y exc.-	1.4	0.5	-4.3	0.3	-3.2	0.0	1.4	29.5	-10.3	-0.3	3.2	64.0
		Viento -Y exc.+	-3.1	0.0	6.7	0.0	4.9	-0.0	-3.1	-64.2	24.7	-0.0	-4.9	-103.4
		Viento -Y exc.-	-1.4	-0.5	4.3	-0.3	3.2	-0.0	-1.4	-29.5	10.3	0.3	-3.2	-64.0
E1 [-6.064;-13.437;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	135.3	-3.5	-2.3	-1.4	-1.8	-0.0	135.3	-817.3	-1816	1.4	1.8	7.3
		Sobrecarga de uso	36.6	-0.5	-0.4	0.2	-0.4	-0.0	36.6	-221.8	-492.0	-0.2	0.4	-4.8
		Viento +X exc.+	-2.3	-2.0	-0.5	-1.5	-0.4	0.0	-2.3	15.8	31.0	1.5	0.4	17.6
		Viento +X exc.-	-1.9	-2.3	0.1	-1.7	0.0	-0.0	-1.9	14.0	26.0	1.7	-0.0	22.3
		Viento -X exc.+	2.3	2.0	0.5	1.5	0.4	-0.0	2.3	-15.8	-31.0	-1.5	-0.4	-17.6
		Viento -X exc.-	1.9	2.3	-0.1	1.7	-0.0	0.0	1.9	-14.0	-26.0	-1.7	0.0	-22.3
		Viento +Y exc.+	-7.4	0.2	-7.0	-0.1	-5.0	0.0	-7.4	44.9	107.0	0.1	5.0	-29.8
		Viento +Y exc.-	-8.9	1.2	-9.5	0.6	-6.9	0.0	-8.9	52.9	129.5	-0.6	6.9	-50.5
		Viento -Y exc.+	7.4	-0.2	7.0	0.1	5.0	-0.0	7.4	-44.9	-107.0	-0.1	-5.0	29.8
		Viento -Y exc.-	8.9	-1.2	9.5	-0.6	6.9	-0.0	8.9	-52.9	-129.5	0.6	-6.9	50.5
E2 [-1.303;-13.437;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	208.1	-1.3	-1.8	-1.5	-1.4	-0.0	208.1	-269.8	-2795	1.5	1.4	17.8
		Sobrecarga de uso	72.5	-0.3	-0.5	-0.4	-0.4	-0.0	72.5	-94.1	-973.4	0.4	0.4	5.3
		Viento +X exc.+	-0.8	-2.3	-0.4	-1.7	-0.3	0.0	-0.8	3.3	11.2	1.7	0.3	22.9
		Viento +X exc.-	0.0	-2.6	0.0	-1.9	0.0	-0.0	0.0	2.6	-0.1	1.9	-0.0	26.0
		Viento -X exc.+	0.8	2.3	0.4	1.7	0.3	-0.0	0.8	-3.3	-11.2	-1.7	-0.3	-22.9
		Viento -X exc.-	-0.0	2.6	-0.0	1.9	-0.0	0.0	-0.0	-2.6	0.1	-1.9	0.0	-26.0
		Viento +Y exc.+	-15.4	0.3	-7.2	0.2	-5.2	0.0	-15.4	19.8	214.5	-0.2	5.2	-10.2
		Viento +Y exc.-	-19.0	1.5	-9.0	1.2	-6.6	0.0	-19.0	23.4	264.9	-1.2	6.6	-24.1
		Viento -Y exc.+	15.4	-0.3	7.2	-0.2	5.2	-0.0	15.4	-19.8	-214.5	0.2	-5.2	10.2
		Viento -Y exc.-	19.0	-1.5	9.0	-1.2	6.6	-0.0	19.0	-23.4	-264.9	1.2	-6.6	24.1
E3 [2.547;-13.437;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	173.8	-1.1	-1.4	-0.6	-1.0	-0.0	173.8	443.9	-2335	0.6	1.0	9.9
		Sobrecarga de uso	68.1	-0.3	-0.4	-0.1	-0.2	-0.0	68.1	173.7	-914.4	0.1	0.2	1.9
		Viento +X exc.+	0.4	-2.4	-0.2	-1.8	-0.2	0.0	0.4	3.4	-5.5	1.8	0.2	24.1
		Viento +X exc.-	0.7	-2.6	0.0	-2.0	0.0	-0.0	0.7	4.4	-9.5	2.0	-0.0	26.4
		Viento -X exc.+	-0.4	2.4	0.2	1.8	0.2	-0.0	-0.4	-3.4	5.5	-1.8	-0.2	-24.1
		Viento -X exc.-	-0.7	2.6	-0.0	2.0	-0.0	0.0	-0.7	-4.4	9.5	-2.0	0.0	-26.4
		Viento +Y exc.+	-7.6	0.3	-7.1	0.2	-5.1	0.0	-7.6	-19.8	109.9	-0.2	5.1	10.0
		Viento +Y exc.-	-8.9	1.5	-8.2	1.1	-5.9	0.0	-8.9	-24.2	127.7	-1.1	5.9	0.0
		Viento -Y exc.+	7.6	-0.3	7.1	-0.2	5.1	-0.0	7.6	19.8	-109.9	0.2	-5.1	-10.0
		Viento -Y exc.-	8.9	-1.5	8.2	-1.1	5.9	-0.0	8.9	24.2	-127.7	1.1	-5.9	-0.0
E4 [7.247;-13.437;0.0 grados] (25x25)	-0.10/2.70	Carga permanente	242.0	-1.5	-0.6	-1.4	-0.7	-0.0	242.0	1755.3	-3251	1.4	0.7	23.5
		Sobrecarga de uso	84.2	-0.5	0.1	-0.5	0.3	-0.0	84.2	611.1	-1132	0.5	-0.3	5.1
		Viento +X exc.+	-2.2	-2.9	-0.1	-3.2	-0.1	0.0	-2.2	-13.0	29.5	3.2	0.1	43.7
		Viento +X exc.-	-2.2	-3.2	0.0	-3.6	0.0	-0.0	-2.2	-12.9	29.8	3.6	-0.0	48.0
		Viento -X exc.+	2.2	2.9	0.1	3.2	0.1	-0.0	2.2	13.0	-29.5	-3.2	-0.1	-43.7
		Viento -X exc.-	2.2	3.2	-0.0	3.6	-0.0	0.0	2.2	12.9	-29.8	-3.6	0.0	-48.0
		Viento +Y exc.+	-16.3	0.4	-8.2	0.4	-8.4	0.0	-16.3	-118.6	227.5	-0.4	8.4	55.4
		Viento +Y exc.-	-16.2	1.8	-8.6	2.0	-8.8	0.0	-16.2	-119.4	226.6	-2.0	8.8	36.2
		Viento -Y exc.+	16.3	-0.4	8.2	-0.4	8.4	-0.0	16.3	118.6	-227.5	0.4	-8.4	-55.4
		Viento -Y exc.-	16.2	-1.8	8.6	-2.0	8.8	-0.0	16.2	119.4	-226.6	2.0	-8.8	-36.2
E6 [11.947;-13.437;0.0 grados] (25x25)	-0.10/2.70	Carga permanente	306.2	-0.2	-0.1	-0.2	-0.1	-0.0	306.2	3658.2	-4114	0.2	0.1	3.4
		Sobrecarga de uso	93.3	-0.1	0.4	-0.1	0.7	-0.0	93.3	1115.0	-1254	0.1	-0.7	-7.1
		Viento +X exc.+	0.4	-2.9	0.1	-3.2	0.1	0.0	0.4	7.8	-5.6	3.2	-0.1	42.3
		Viento +X exc.-	0.1	-3.2	-0.0	-3.6	-0.0	-0.0	0.1	4.5	-1.4	3.6	0.0	49.1
		Viento -X exc.+	-0.4	2.9	-0.1	3.2	-0.1	-0.0	-0.4	-7.8	5.6	-3.2	0.1	-42.3
		Viento -X exc.-	-0.1	3.2	0.0	3.6	0.0	0.0	-0.1	-4.5	1.4	-3.6	-0.0	-49.1
		Viento +Y exc.+	-19.2	0.3	-8.1	0.3	-8.3	0.0	-19.2	-230.1	266.6	-0.3	8.3	94.9
		Viento +Y exc.-	-17.9	1.7	-7.4	1.9	-7.6	0.0	-17.9	-215.1	247.4	-1.9	7.6	64.7
		Viento -Y exc.+	19.2	-0.3	8.1	-0.3	8.3	-0.0	19.2	230.1	-266.6	0.3	-8.3	-94.9
		Viento -Y exc.-	17.9	-1.7	7.4	-1.9	7.6	-0.0	17.9	215.1	-247.4	1.9	-7.6	-64.7



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Planta Baja														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-0.10)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
E8 [16.647;-13.437;0.0 grados] (25x25)	-0.10/2.70	Carga permanente	264.5	1.1	-1.0	0.9	-0.7	-0.0	264.5	4401.4	-3553	-0.9	0.7	-0.4
		Sobrecarga de uso	92.5	0.3	0.1	0.3	0.4	-0.0	92.5	1539.7	-1243	-0.3	-0.4	-10.1
		Viento +X exc.+	1.7	-2.8	0.3	-3.2	0.3	0.0	1.7	30.5	-22.5	3.2	-0.3	38.1
		Viento +X exc.-	1.4	-3.2	-0.1	-3.5	-0.1	-0.0	1.4	26.4	-18.6	3.5	0.1	49.1
		Viento -X exc.+	-1.7	2.8	-0.3	3.2	-0.3	-0.0	-1.7	-30.5	22.5	-3.2	0.3	-38.1
		Viento -X exc.-	-1.4	3.2	0.1	3.5	0.1	0.0	-1.4	-26.4	18.6	-3.5	-0.1	-49.1
		Viento +Y exc.+	-8.3	0.1	-7.6	0.2	-7.5	0.0	-8.3	-138.1	119.0	-0.2	7.5	121.9
		Viento +Y exc.-	-7.1	1.6	-5.9	1.8	-5.9	0.0	-7.1	-119.9	101.4	-1.8	5.9	73.2
		Viento -Y exc.+	8.3	-0.1	7.6	-0.2	7.5	-0.0	8.3	138.1	-119.0	0.2	-7.5	-121.9
		Viento -Y exc.-	7.1	-1.6	5.9	-1.8	5.9	-0.0	7.1	119.9	-101.4	1.8	-5.9	-73.2
E9 [20.972;-13.437;0.0 grados] (25x25)	-0.10/3.50	Carga permanente	120.4	2.3	-2.4	0.8	-1.4	-0.0	120.4	2522.2	-1615	-0.8	1.4	19.2
		Sobrecarga de uso	32.2	0.2	-0.5	-0.2	-0.3	-0.0	32.2	674.4	-431.7	0.2	0.3	8.8
		Viento +X exc.+	2.1	-2.1	0.3	-1.5	0.3	0.0	2.1	45.3	-28.0	1.5	-0.3	15.0
		Viento +X exc.-	1.6	-2.4	-0.2	-1.7	-0.1	-0.0	1.6	36.8	-21.9	1.7	0.1	25.2
		Viento -X exc.+	-2.1	2.1	-0.3	1.5	-0.3	-0.0	-2.1	-45.3	28.0	-1.5	0.3	-15.0
		Viento -X exc.-	-1.6	2.4	0.2	1.7	0.1	0.0	-1.6	-36.8	21.9	-1.7	-0.1	-25.2
		Viento +Y exc.+	-9.0	-0.0	-6.3	0.0	-4.6	0.0	-9.0	-188.4	127.0	-0.0	4.6	96.0
		Viento +Y exc.-	-7.1	1.1	-4.1	0.8	-3.0	0.0	-7.1	-150.7	99.9	-0.8	3.0	51.2
		Viento -Y exc.+	9.0	0.0	6.3	-0.0	4.6	-0.0	9.0	188.4	-127.0	0.0	-4.6	-96.0
		Viento -Y exc.-	7.1	-1.1	4.1	-0.8	3.0	-0.0	7.1	150.7	-99.9	0.8	-3.0	-51.2
A3M [4.897;-0.512;0.0 grados] (2xUPN-100([]))	-0.10/3.80	Carga permanente	20.8	-0.1	-0.2	0.0	0.0	-0.0	20.8	102.0	-10.4	0.0	0.0	0.0
		Sobrecarga de uso	0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
		Viento +X exc.+	0.0	-0.8	0.0	-0.2	0.0	0.0	0.0	0.8	-0.0	0.2	-0.0	0.1
		Viento +X exc.-	0.0	-0.8	0.0	-0.2	0.0	-0.0	0.0	0.8	-0.0	0.2	-0.0	0.1
		Viento -X exc.+	0.0	0.8	-0.0	0.2	-0.0	-0.0	0.0	-0.8	0.0	-0.2	0.0	-0.1
		Viento -X exc.-	-0.0	0.8	-0.0	0.2	-0.0	0.0	-0.0	-0.8	0.0	-0.2	0.0	-0.1
		Viento +Y exc.+	0.0	0.0	-0.9	0.0	-0.2	-0.0	0.0	0.0	0.9	-0.0	0.2	1.1
		Viento +Y exc.-	-0.0	0.0	-0.9	0.0	-0.2	0.0	-0.0	0.0	0.9	-0.0	0.2	1.1
		Viento -Y exc.+	-0.0	-0.0	0.9	-0.0	0.2	0.0	-0.0	-0.0	-0.9	0.0	-0.2	-1.1
		Viento -Y exc.-	0.0	-0.0	0.9	-0.0	0.2	-0.0	0.0	0.0	-0.9	0.0	-0.2	-1.1
A4M [7.347;-0.512;0.0 grados] (2xUPN-100([]))	-0.10/3.80	Carga permanente	10.8	-0.0	-0.1	0.0	-0.0	0.0	10.8	79.5	-5.4	0.0	0.0	0.0
		Sobrecarga de uso	-0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	-0.0
		Viento +X exc.+	0.0	-0.8	0.0	-0.2	0.0	0.0	0.0	0.8	-0.0	0.2	0.0	0.1
		Viento +X exc.-	0.0	-0.8	-0.0	-0.2	0.0	-0.0	0.0	0.8	-0.0	0.2	-0.0	0.1
		Viento -X exc.+	0.0	0.8	-0.0	0.2	0.0	-0.0	0.0	-0.8	0.0	-0.2	0.0	-0.1
		Viento -X exc.-	-0.0	0.8	-0.0	0.2	-0.0	0.0	-0.0	-0.8	0.0	-0.2	0.0	-0.1
		Viento +Y exc.+	-0.0	-0.0	-0.9	0.0	-0.2	-0.0	-0.0	-0.0	0.9	0.0	0.2	1.7
		Viento +Y exc.-	0.0	0.0	-0.9	0.0	-0.2	0.0	0.0	0.0	0.9	0.0	0.2	1.7
		Viento -Y exc.+	0.0	0.0	0.9	0.0	0.2	0.0	0.0	0.0	-0.9	0.0	-0.2	-1.7
		Viento -Y exc.-	-0.0	-0.0	0.9	0.0	0.2	-0.0	-0.0	-0.0	-0.9	0.0	-0.2	-1.7
E4M [7.247;-15.162;0.0 grados] (2xUPN-100([]))	-0.10/3.80	Carga permanente	9.8	-0.0	-0.1	0.0	0.0	-0.0	9.8	71.1	-148.6	0.0	0.0	0.0
		Sobrecarga de uso	-0.0	-0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0
		Viento +X exc.+	0.0	-0.8	-0.0	-0.2	-0.0	0.0	0.0	0.8	-0.0	0.2	0.0	3.0
		Viento +X exc.-	0.0	-0.8	0.0	-0.2	0.0	-0.0	0.0	0.8	-0.0	0.2	-0.0	3.0
		Viento -X exc.+	-0.0	0.8	0.0	0.2	0.0	-0.0	-0.0	-0.8	0.0	-0.2	-0.0	-3.0
		Viento -X exc.-	-0.0	0.8	-0.0	0.2	-0.0	0.0	-0.0	-0.8	0.0	-0.2	0.0	-3.0
		Viento +Y exc.+	0.0	-0.0	-0.9	0.0	-0.2	-0.0	0.0	0.0	0.9	0.0	0.2	1.7
		Viento +Y exc.-	-0.0	0.0	-0.9	0.0	-0.2	0.0	-0.0	-0.0	0.9	-0.0	0.2	1.7
		Viento -Y exc.+	-0.0	0.0	0.9	0.0	0.2	0.0	-0.0	-0.0	-0.9	0.0	-0.2	-1.7
		Viento -Y exc.-	0.0	-0.0	0.9	-0.0	0.2	-0.0	0.0	0.0	-0.9	0.0	-0.2	-1.7
E5M [9.597;-15.162;0.0 grados] (2xUPN-100([]))	-0.10/3.80	Carga permanente	19.8	-0.1	-0.2	0.0	0.0	-0.0	19.8	190.2	-300.1	0.0	0.0	0.0
		Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0
		Viento +X exc.+	-0.0	-0.8	0.0	-0.2	0.0	0.0	-0.0	0.8	0.0	0.2	-0.0	3.0
		Viento +X exc.-	-0.0	-0.8	-0.0	-0.2	-0.0	-0.0	-0.0	0.8	0.0	0.2	0.0	3.0
		Viento -X exc.+	0.0	0.8	-0.0	0.2	-0.0	-0.0	0.0	-0.8	-0.0	-0.2	0.0	-3.0
		Viento -X exc.-	0.0	0.8	0.0	0.2	0.0	0.0	0.0	-0.8	-0.0	-0.2	-0.0	-3.0
		Viento +Y exc.+	-0.0	-0.0	-0.9	0.0	-0.2	-0.0	-0.0	-0.0	0.9	0.0	0.2	2.2
		Viento +Y exc.-	0.0	0.0	-0.9	0.0	-0.2	0.0	0.0	0.0	0.9	-0.0	0.2	2.2
		Viento -Y exc.+	0.0	0.0	0.9	0.0	0.2	0.0	0.0	0.0	-0.9	0.0	-0.2	-2.2
		Viento -Y exc.-	-0.0	-0.0	0.9	-0.0	0.2	-0.0	-0.0	-0.0	-0.9	0.0	-0.2	-2.2
E6M [11.947;-15.162;0.0 grados] (2xUPN-100([]))	-0.10/3.80	Carga permanente	19.8	-0.1	-0.2	0.0	-0.0	0.0	19.8	236.7	-300.1	0.0	0.0	0.0
		Sobrecarga de uso	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0
		Viento +X exc.+	0.0	-0.8	-0.0	-0.2	-0.0	0.0	0.0	0.8	-0.0	0.2	0.0	3.0
		Viento +X exc.-	0.0	-0.8	-0.0	-0.2	-0.0	-0.0	0.0	0.8	-0.0	0.2	0.0	3.0
		Viento -X exc.+	-0.0	0.8	0.0	0.2	0.0	-0.0	-0.0	-0.8	0.0	-0.2	-0.0	-3.0
		Viento -X exc.-	-0.0	0.8	0.0	0.2	0.0	0.0	-0.0	-0.8	0.0	-0.2	-0.0	-3.0
		Viento +Y exc.+	0.0	0.0	-0.9	0.0	-0.2	-0.0	0.0	0.0	0.9	0.0	0.2	2.8
		Viento +Y exc.-	0.0	-0.0	-0.9	0.0	-0.2	0.0	0.0	0.0	0.9	0.0	0.2	2.8
		Viento -Y exc.+	-0.0	-0.0	0.9	0.0	0.2	0.0	-0.0	-0.0	-0.9	0.0	-0.2	-2.8
		Viento -Y exc.-	0.0	0.0	0.9	0.0	0.2	-0.0	0.0	-0.0	-0.9	-0.0	-0.2	-2.8
E7M [14.297;-15.162;0.0 grados] (2xUPN-100([]))	-0.10/3.80	Carga permanente	19.8	-0.1	-0.2	0.0	0.0	-0.0	19.8	283.3	-300.1	0.0	0.0	0.0
		Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0
		Viento +X exc.+	-0.0	-0.8	-0.0	-0.2	-0.0	0.0	-0.0	0.8	0.0	0.2	0.0	3.0
		Viento +X exc.-	0.0	-0.8	0.0	-0.2	0.0	-0.0	0.0	0.8	-0.0	0.2	-0.0	3.0
		Viento -X exc.+	0.0	0.8	-0.0	0.2	0.0	-0.0	0.0	-0.8	-0.0	-0.2	-0.0	-3.0
		Viento -X exc.-	-0.0	0.8	-0.0	0.2	-0.0	0.0	-0.0	-0.8	0.0	-0.2	0.0	-3.0
		Viento +Y exc.+	0.0	-0.0	-0.9	-0.0	-0.2	-0.0	0.0	0.0	0.9	0.0	0.2	3.3
		Viento +Y exc.-	0.0	0.0	-0.9	0.0	-0.2	0.0	0.0	0.0	0.9	-0.0	0.2	3.3
		Viento -Y exc.+	-0.0	0.0	0.9	0.0	0.2	0.0	-0.0	-0.0	-0.9	-0.0	-0.2	-3.3
		Viento -Y exc.-	-0.0	-0.0	0.9	-0.0	0.2	-0.0	-0.0	-0.0	-0.9	0.0	-0.2	-3.3



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Planta Baja														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-0.10)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
E8M [16.647;-15.162;0.0 grados] (2xUPN-100([]))	-0.10/3.80	Carga permanente	9.8	-0.0	-0.1	0.0	0.0	-0.0	9.8	163.3	-148.6	0.0	-0.0	-0.0
		Sobrecarga de uso	0.0	-0.0	0.0	0.0	0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0
		Viento +X exc. +	0.0	-0.8	0.0	-0.2	0.0	0.0	0.0	0.8	-0.0	0.2	-0.0	3.0
		Viento +X exc. -	0.0	-0.8	-0.0	-0.2	-0.0	-0.0	0.0	0.8	-0.0	0.2	0.0	3.0
		Viento -X exc. +	0.0	0.8	-0.0	0.2	-0.0	-0.0	0.0	-0.8	0.0	-0.2	0.0	-3.0
		Viento -X exc. -	-0.0	0.8	0.0	0.2	0.0	0.0	-0.0	-0.8	0.0	-0.2	-0.0	-3.0
		Viento +Y exc. +	0.0	0.0	-0.9	0.0	-0.2	-0.0	0.0	0.0	0.9	-0.0	0.2	3.9
		Viento +Y exc. -	-0.0	-0.0	-0.9	-0.0	-0.2	0.0	-0.0	-0.0	0.9	0.0	0.2	3.9
		Viento -Y exc. +	-0.0	-0.0	0.9	-0.0	0.2	0.0	-0.0	-0.0	-0.9	0.0	-0.2	-3.9
		Viento -Y exc. -	0.0	0.0	0.9	0.0	0.2	-0.0	0.0	0.0	-0.9	-0.0	-0.2	-3.9
Sumatorio		Carga permanente							6381.3	51515	-52719	-0.0	0.0	0.0
		Sobrecarga de uso							2056.4	16730	-17267	-0.0	0.0	0.0
		Viento +X exc. +							-0.0	363.5	-0.0	62.6	0.0	410.8
		Viento +X exc. -							-0.0	363.5	-0.0	62.6	0.0	493.6
		Viento -X exc. +							0.0	-363.5	0.0	-62.6	-0.0	-410.8
		Viento -X exc. -							0.0	-363.5	0.0	-62.6	-0.0	-493.6
		Viento +Y exc. +							0.0	0.0	897.3	0.0	147.9	1234.5
		Viento +Y exc. -							0.0	0.0	897.3	0.0	147.9	868.8
		Viento -Y exc. +							-0.0	-0.0	-897.3	-0.0	-147.9	-1235
Viento -Y exc. -							-0.0	-0.0	-897.3	-0.0	-147.9	-868.8		

Planta: Cimentación														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-1.10)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
A1 [0.061;-0.166;-24.9 grados] (25x25)	-1.10/-0.10	Carga permanente	105.1	-2.4	0.4	-0.8	-0.8	-0.0	105.1	8.4	-18.9	1.1	0.4	0.2
		Sobrecarga de uso	29.0	-0.6	-0.1	-0.1	-0.4	-0.0	29.0	2.4	-4.9	0.3	0.3	0.1
		Viento +X exc.+	-2.4	-3.7	-2.5	-1.5	-1.0	0.0	-2.4	4.2	1.1	1.8	0.3	0.3
		Viento +X exc.-	-2.5	-3.4	-1.7	-1.4	-0.7	-0.0	-2.5	3.7	0.5	1.6	0.0	0.3
		Viento -X exc.+	2.4	3.7	2.5	1.5	1.0	-0.0	2.4	-4.2	-1.1	-1.8	-0.3	-0.3
		Viento -X exc.-	2.5	3.4	1.7	1.4	0.7	0.0	2.5	-3.7	-0.5	-1.6	-0.0	-0.3
		Viento +Y exc.+	10.6	4.0	-10.8	1.7	-4.4	0.0	10.6	1.5	9.7	0.3	4.7	0.3
		Viento +Y exc.-	11.4	3.0	-14.2	1.2	-5.8	0.0	11.4	3.9	12.2	1.3	5.8	0.5
		Viento -Y exc.+	-10.6	-4.0	10.8	-1.7	4.4	-0.0	-10.6	-1.5	-9.7	-0.3	-4.7	-0.3
Viento -Y exc.-	-11.4	-3.0	14.2	-1.2	5.8	-0.0	-11.4	-3.9	-12.2	-1.3	-5.8	-0.5		
A3 [2.547;-1.024;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	186.5	-1.0	1.4	-0.4	0.1	-0.0	186.5	476.0	-192.2	0.4	-0.1	0.1
		Sobrecarga de uso	58.7	-0.7	0.4	-0.4	0.0	-0.0	58.7	150.3	-60.5	0.4	-0.0	0.3
		Viento +X exc.+	-0.9	-6.6	0.8	-3.4	0.7	0.0	-0.9	4.3	0.1	3.4	-0.7	1.8
		Viento +X exc.-	-1.0	-6.0	1.1	-3.1	0.7	-0.0	-1.0	3.6	-0.1	3.1	-0.7	1.3
		Viento -X exc.+	0.9	6.6	-0.8	3.4	-0.7	-0.0	0.9	-4.3	-0.1	-3.4	0.7	-1.8
		Viento -X exc.-	1.0	6.0	-1.1	3.1	-0.7	0.0	1.0	-3.6	0.1	-3.1	0.7	-1.3
		Viento +Y exc.+	3.2	2.2	-10.3	1.7	-4.1	0.0	3.2	6.0	7.0	-1.7	4.1	8.7
		Viento +Y exc.-	3.4	-0.5	-11.4	0.3	-4.4	0.0	3.4	9.2	7.9	-0.3	4.4	10.7
		Viento -Y exc.+	-3.2	-2.2	10.3	-1.7	4.1	-0.0	-3.2	-6.0	-7.0	1.7	-4.1	-8.7
Viento -Y exc.-	-3.4	0.5	11.4	-0.3	4.4	-0.0	-3.4	-9.2	-7.9	0.3	-4.4	-10.7		
A4 [7.247;-2.637;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	185.5	0.7	2.0	0.1	1.1	-0.0	185.5	1343.7	-491.2	-0.1	-1.1	-8.2
		Sobrecarga de uso	48.0	0.1	0.6	0.0	0.4	-0.0	48.0	347.8	-127.2	-0.0	-0.4	-2.6
		Viento +X exc.+	3.2	-7.0	0.3	-3.6	0.2	0.0	3.2	30.0	-8.7	3.6	-0.2	7.8
		Viento +X exc.-	2.7	-6.4	0.4	-3.3	0.3	-0.0	2.7	26.3	-7.7	3.3	-0.3	6.7
		Viento -X exc.+	-3.2	7.0	-0.3	3.6	-0.2	-0.0	-3.2	-30.0	8.7	-3.6	0.2	-7.8
		Viento -X exc.-	-2.7	6.4	-0.4	3.3	-0.3	0.0	-2.7	-26.3	7.7	-3.3	0.3	-6.7
		Viento +Y exc.+	19.6	0.7	-15.4	0.6	-7.6	0.0	19.6	141.7	-36.4	-0.6	7.6	53.3
		Viento +Y exc.-	21.6	-1.7	-15.9	-0.7	-7.8	0.0	21.6	158.0	-41.0	0.7	7.8	58.1
		Viento -Y exc.+	-19.6	-0.7	15.4	-0.6	7.6	-0.0	-19.6	-141.7	36.4	0.6	-7.6	-53.3
Viento -Y exc.-	-21.6	1.7	15.9	0.7	7.8	-0.0	-21.6	-158.0	41.0	-0.7	-7.8	-58.1		
A5 [11.045;-2.637;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	94.5	0.7	2.6	0.2	1.0	-0.0	94.5	1042.6	-251.7	-0.2	-1.0	-11.1
		Sobrecarga de uso	26.0	0.3	0.6	0.1	0.2	-0.0	26.0	286.9	-69.2	-0.1	-0.2	-2.8
		Viento +X exc.+	-1.0	-4.8	0.0	-2.0	0.0	0.0	-1.0	-6.3	2.6	2.0	-0.0	5.2
		Viento +X exc.-	-0.9	-4.4	-0.1	-1.9	-0.0	-0.0	-0.9	-5.5	2.4	1.9	0.0	5.1
		Viento -X exc.+	1.0	4.8	-0.0	2.0	-0.0	-0.0	1.0	6.3	-2.6	-2.0	0.0	-5.2
		Viento -X exc.-	0.9	4.4	0.1	1.9	0.0	0.0	0.9	5.5	-2.4	-1.9	-0.0	-5.1
		Viento +Y exc.+	4.9	-0.4	-8.1	-0.2	-2.6	0.0	4.9	54.6	-4.8	0.2	2.6	29.8
		Viento +Y exc.-	4.4	-2.2	-7.6	-0.9	-2.5	0.0	4.4	51.0	-4.0	0.9	2.5	30.0
		Viento -Y exc.+	-4.9	0.4	8.1	0.2	2.6	-0.0	-4.9	-54.6	4.8	-0.2	-2.6	-29.8
Viento -Y exc.-	-4.4	2.2	7.6	0.9	2.5	-0.0	-4.4	-51.0	4.0	-0.9	-2.5	-30.0		
A7 [13.747;-2.637;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	85.8	1.6	2.5	0.9	1.0	-0.0	85.8	1177.5	-228.7	-0.9	-1.0	-15.6
		Sobrecarga de uso	23.5	0.6	0.4	0.3	0.2	-0.0	23.5	322.7	-62.5	-0.3	-0.2	-2.9
		Viento +X exc.+	-4.3	-7.0	0.2	-3.7	0.1	0.0	-4.3	-51.5	11.0	3.7	-0.1	8.2
		Viento +X exc.-	-3.8	-6.4	-0.0	-3.3	-0.0	-0.0	-3.8	-46.1	10.1	3.3	0.0	8.8
		Viento -X exc.+	4.3	7.0	-0.2	3.7	-0.1	-0.0	4.3	51.5	-11.0	-3.7	0.1	-8.2
		Viento -X exc.-	3.8	6.4	0.0	3.3	0.0	0.0	3.8	46.1	-10.1	-3.3	-0.0	-8.8
		Viento +Y exc.+	2.5	-0.3	-8.9	-0.2	-3.4	0.0	2.5	35.2	2.2	0.2	3.4	46.6
		Viento +Y exc.-	0.6	-2.9	-7.7	-1.5	-2.9	0.0	0.6	11.3	6.1	1.5	2.9	43.7
		Viento -Y exc.+	-2.5	0.3	8.9	0.2	3.4	-0.0	-2.5	-35.2	-2.2	-0.2	-3.4	-46.6
Viento -Y exc.-	-0.6	2.9	7.7	1.5	2.9	-0.0	-0.6	-11.3	-6.1	-1.5	-2.9	-43.7		



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Cimentación														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-1.10)					
			N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
A8 [16.647;-2.637;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	199.1	2.0	-0.3	1.1	-1.0	-0.0	199.1	3312.1	-524.7	-1.1	1.0	13.7
		Sobrecarga de uso	56.1	0.6	-1.9	0.3	-1.5	-0.0	56.1	933.7	-146.1	-0.3	1.5	23.5
		Viento +X exc.+	5.1	-6.9	0.6	-3.6	0.3	0.0	5.1	91.4	-14.0	3.6	-0.3	5.1
		Viento +X exc.-	5.3	-6.3	-0.1	-3.3	-0.0	-0.0	5.3	94.0	-13.8	3.3	0.0	9.4
		Viento -X exc.+	-5.1	6.9	-0.6	3.6	-0.3	-0.0	-5.1	-91.4	14.0	-3.6	0.3	-5.1
		Viento -X exc.-	-5.3	6.3	0.1	3.3	0.0	0.0	-5.3	-94.0	13.8	-3.3	-0.0	-9.4
		Viento +Y exc.+	14.7	-0.3	-13.0	-0.2	-6.2	0.0	14.7	244.3	-25.6	0.2	6.2	103.6
		Viento +Y exc.-	13.7	-2.9	-10.2	-1.5	-4.8	0.0	13.7	231.7	-26.1	1.5	4.8	84.5
		Viento -Y exc.+	-14.7	0.3	13.0	0.2	6.2	-0.0	-14.7	-244.3	25.6	-0.2	-6.2	-103.6
		Viento -Y exc.-	-13.7	2.9	10.2	1.5	4.8	-0.0	-13.7	-231.7	26.1	-1.5	-4.8	-84.5
A9 [20.972;-2.637;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	107.1	3.3	1.4	0.8	0.1	-0.0	107.1	2242.4	-283.8	-0.8	-0.1	-3.5
		Sobrecarga de uso	28.3	0.8	-0.4	0.2	-0.4	-0.0	28.3	591.9	-74.2	-0.2	0.4	7.0
		Viento +X exc.+	1.9	-4.1	0.8	-1.7	0.3	0.0	1.9	43.6	-5.8	1.7	-0.3	-2.7
		Viento +X exc.-	2.3	-3.7	0.0	-1.5	0.0	-0.0	2.3	51.3	-6.0	1.5	-0.0	4.0
		Viento -X exc.+	-1.9	4.1	-0.8	1.7	-0.3	-0.0	-1.9	-43.6	5.8	-1.7	0.3	2.7
		Viento -X exc.-	-2.3	3.7	-0.0	1.5	-0.0	0.0	-2.3	-51.3	6.0	-1.5	0.0	-4.0
		Viento +Y exc.+	8.1	-0.1	-10.1	-0.0	-4.1	0.0	8.1	169.0	-11.2	0.0	4.1	86.9
		Viento +Y exc.-	6.4	-1.7	-6.5	-0.7	-2.7	0.0	6.4	134.8	-10.3	0.7	2.7	57.5
		Viento -Y exc.+	-8.1	0.1	10.1	0.0	4.1	-0.0	-8.1	-169.0	11.2	-0.0	-4.1	-86.9
		Viento -Y exc.-	-6.4	1.7	6.5	0.7	2.7	-0.0	-6.4	-134.8	10.3	-0.7	-2.7	-57.5
B1 [-2.185;-5.001;-24.9 grados] (25x30)	-1.10/-0.10	Carga permanente	295.7	1.3	5.9	2.0	2.8	-0.0	295.7	-649.8	-1484	-3.0	-1.7	-11.4
		Sobrecarga de uso	95.6	2.1	1.5	1.7	0.8	-0.0	95.6	-211.3	-478.5	-1.9	0.0	-9.4
		Viento +X exc.+	-4.1	-3.9	-4.4	-1.6	-1.8	0.0	-4.1	14.3	22.7	2.2	1.0	8.8
		Viento +X exc.-	-4.0	-4.0	-3.0	-1.6	-1.3	-0.0	-4.0	13.7	21.2	2.0	0.5	9.1
		Viento -X exc.+	4.1	3.9	4.4	1.6	1.8	-0.0	4.1	-14.3	-22.7	-2.2	-1.0	-8.8
		Viento -X exc.-	4.0	4.0	3.0	1.6	1.3	0.0	4.0	-13.7	-21.2	-2.0	-0.5	-9.1
		Viento +Y exc.+	2.8	4.9	-19.9	1.8	-8.2	0.0	2.8	-2.2	6.1	1.8	8.2	-9.0
		Viento +Y exc.-	2.7	5.5	-26.0	2.0	-10.7	0.1	2.7	0.1	12.5	2.6	10.6	-9.9
		Viento -Y exc.+	-2.8	-4.9	19.9	-1.8	8.2	-0.0	-2.8	2.2	-6.1	-1.8	-8.2	9.0
		Viento -Y exc.-	-2.7	-5.5	26.0	-2.0	10.7	-0.1	-2.7	-0.1	-12.5	-2.6	-10.6	9.9
B3 [2.547;-5.012;0.0 grados] (30x30)	-1.10/-0.10	Carga permanente	491.4	-4.3	-3.6	-2.5	-3.5	-0.0	491.4	1255.9	-2459	2.5	3.5	21.8
		Sobrecarga de uso	153.3	-2.7	-0.3	-1.6	-0.5	-0.0	153.3	393.2	-768.0	1.6	0.5	9.3
		Viento +X exc.+	0.7	-8.5	-0.7	-3.5	-0.3	0.0	0.7	10.2	-2.6	3.5	0.3	18.0
		Viento +X exc.-	0.5	-8.1	0.1	-3.3	0.0	-0.0	0.5	9.3	-2.3	3.3	-0.0	16.5
		Viento -X exc.+	-0.7	8.5	0.7	3.5	0.3	-0.0	-0.7	-10.2	2.6	-3.5	-0.3	-18.0
		Viento -X exc.-	-0.5	8.1	-0.1	3.3	-0.0	0.0	-0.5	-9.3	2.3	-3.3	0.0	-16.5
		Viento +Y exc.+	9.9	-0.5	-21.7	-0.1	-8.1	0.0	9.9	25.6	-27.7	0.1	8.1	21.3
		Viento +Y exc.-	10.9	-2.0	-25.1	-0.8	-9.5	0.1	10.9	29.8	-29.4	0.8	9.5	27.8
		Viento -Y exc.+	-9.9	0.5	21.7	0.1	8.1	-0.0	-9.9	-25.6	27.7	-0.1	-8.1	-21.3
		Viento -Y exc.-	-10.9	2.0	25.1	0.8	9.5	-0.1	-10.9	-29.8	29.4	-0.8	-9.5	-27.8
B4 [7.247;-5.037;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	266.3	-0.6	2.1	-0.4	0.7	-0.0	266.3	1930.8	-1344	0.4	-0.7	-2.9
		Sobrecarga de uso	85.6	-0.1	0.3	-0.1	0.0	-0.0	85.6	620.8	-431.7	0.1	-0.0	0.2
		Viento +X exc.+	-1.2	-4.5	-0.2	-1.9	-0.1	0.0	-1.2	-4.2	6.2	1.9	0.1	10.2
		Viento +X exc.-	-0.9	-4.3	-0.0	-1.8	-0.0	-0.0	-0.9	-2.5	4.8	1.8	0.0	9.4
		Viento -X exc.+	1.2	4.5	0.2	1.9	0.1	-0.0	1.2	4.2	-6.2	-1.9	-0.1	-10.2
		Viento -X exc.-	0.9	4.3	0.0	1.8	0.0	0.0	0.9	2.5	-4.8	-1.8	-0.0	-9.4
		Viento +Y exc.+	-22.9	-0.3	-12.1	-0.1	-5.0	0.0	-22.9	-165.4	127.3	0.1	5.0	36.9
		Viento +Y exc.-	-24.1	-1.1	-12.7	-0.5	-5.2	0.0	-24.1	-173.4	134.0	0.5	5.2	40.3
		Viento -Y exc.+	22.9	0.3	12.1	0.1	5.0	-0.0	22.9	165.4	-127.3	-0.1	-5.0	-36.9
		Viento -Y exc.-	24.1	1.1	12.7	0.5	5.2	-0.0	24.1	173.4	-134.0	-0.5	-5.2	-40.3
B5 [11.045;-5.037;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	223.0	-0.7	2.0	-0.5	0.5	-0.0	223.0	2463.3	-1125	0.5	-0.5	-2.9
		Sobrecarga de uso	71.8	-0.1	0.4	-0.1	0.1	-0.0	71.8	793.3	-362.1	0.1	-0.1	-0.2
		Viento +X exc.+	-1.5	-4.6	0.1	-1.9	0.0	0.0	-1.5	-11.9	7.4	1.9	-0.0	9.5
		Viento +X exc.-	-1.4	-4.4	-0.0	-1.9	-0.0	-0.0	-1.4	-11.5	7.3	1.9	0.0	9.5
		Viento -X exc.+	1.5	4.6	-0.1	1.9	-0.0	-0.0	1.5	11.9	-7.4	-1.9	0.0	-9.5
		Viento -X exc.-	1.4	4.4	0.0	1.9	0.0	0.0	1.4	11.5	-7.3	-1.9	-0.0	-9.5
		Viento +Y exc.+	-3.9	-0.1	-8.3	-0.1	-2.7	0.0	-3.9	-43.2	28.0	0.1	2.7	29.8
		Viento +Y exc.-	-4.1	-1.0	-7.8	-0.4	-2.5	0.0	-4.1	-44.4	28.5	0.4	2.5	29.8
		Viento -Y exc.+	3.9	0.1	8.3	0.1	2.7	-0.0	3.9	43.2	-28.0	-0.1	-2.7	-29.8
		Viento -Y exc.-	4.1	1.0	7.8	0.4	2.5	-0.0	4.1	44.4	-28.5	-0.4	-2.5	-29.8
B7 [13.747;-5.037;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	211.5	2.4	1.7	1.4	0.4	-0.0	211.5	2905.5	-1067	-1.4	-0.4	-12.6
		Sobrecarga de uso	54.3	0.5	0.3	0.3	0.1	-0.0	54.3	745.7	-273.7	-0.3	-0.1	-2.2
		Viento +X exc.+	2.8	-4.5	0.2	-1.9	0.1	0.0	2.8	42.5	-14.1	1.9	-0.1	8.7
		Viento +X exc.-	2.6	-4.3	-0.1	-1.8	-0.0	-0.0	2.6	39.6	-12.9	1.8	0.0	9.4
		Viento -X exc.+	-2.8	4.5	-0.2	1.9	-0.1	-0.0	-2.8	-42.5	14.1	-1.9	0.1	-8.7
		Viento -X exc.-	-2.6	4.3	0.1	1.8	0.0	0.0	-2.6	-39.6	12.9	-1.8	-0.0	-9.4
		Viento +Y exc.+	-2.0	-0.2	-8.2	-0.1	-2.7	0.0	-2.0	-27.1	18.2	0.1	2.7	37.4
		Viento +Y exc.-	-1.2	-1.1	-7.1	-0.5	-2.3	0.0	-1.2	-15.1	13.0	0.5	2.3	34.1
		Viento -Y exc.+	2.0	0.2	8.2	0.1	2.7	-0.0	2.0	27.1	-18.2	-0.1	-2.7	-37.4
		Viento -Y exc.-	1.2	1.1	7.1	0.5	2.3	-0.0	1.2	15.1	-13.0	-0.5	-2.3	-34.1
C8 [16.647;-6.362;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	310.1	-0.4	0.3	-0.4	-0.1	-0.0	310.1	5162.7	-1973	0.4	0.1	4.4
		Sobrecarga de uso	115.9	0.0	-0.2	-0.0	-0.2	-0.0	115.9	1929.9	-737.3	0.0	0.2	3.2
		Viento +X exc.+	1.7	-3.0	0.5	-1.0	0.2	0.0	1.7	31.8	-11.5	1.0	-0.2	2.4
		Viento +X exc.-	1.6	-3.0	-0.0	-1.0	-0.0	-0.0	1.6	29.8	-10.2	1.0	0.0	6.5
		Viento -X exc.+	-1.7	3.0	-0.5	1.0	-0.2	-0.0	-1.7	-31.8	11.5	-1.0	0.2	-2.4
		Viento -X exc.-	-1.6	3.0	0.0	1.0	0.0	0.0	-1.6	-29.8	10.2	-1.0	-0.0	-6.5
		Viento +Y exc.+	-0.0	-0.1	-12.0	-0.0	-5.1	0.0	-0.0	-0.6	12.3	0.0	5.1	85.1
		Viento +Y exc.-	0.5	-0.4	-9.4	-0.1	-4.0	0.0	0.5	8.1	6.5	0.1	4.0	67.2
		Viento -Y exc.+	0.0	0.1	12.0	0.0	5.1	-0.0	0.0	0.6	-12.3	-0.0	-5.1	-85.1
		Viento -Y exc.-	-0.5	0.4	9.4	0.1	4.0	-0.0	-0.5	-8.1	-6.5	-0.1	-4.0	-67.2



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Cimentación															
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-1.10)						
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	
C9 [20.972;-6.362;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	166.0	4.5	1.1	1.7	0.6	-0.0	166.0	3476.3	-1057	-1.7	-0.6	-23.7	
		Sobrecarga de uso	65.9	1.1	0.1	0.4	0.1	-0.0	65.9	1382.0	-419.7	-0.4	-0.1	-4.4	
		Viento +X exc.+	0.7	-3.0	0.8	-1.0	0.3	0.0	0.7	16.7	-5.0	1.0	-0.3	-0.5	
		Viento +X exc.-	0.5	-3.0	-0.1	-1.0	-0.1	-0.0	0.5	12.7	-2.8	1.0	0.1	7.6	
		Viento -X exc.+	-0.7	3.0	-0.8	1.0	-0.3	-0.0	-0.7	-16.7	5.0	-1.0	0.3	0.5	
		Viento -X exc.-	-0.5	3.0	0.1	1.0	0.1	0.0	-0.5	-12.7	2.8	-1.0	-0.1	-7.6	
		Viento +Y exc.+	-2.2	-0.1	-11.6	-0.1	-5.0	0.0	-2.2	-45.1	25.3	0.1	5.0	104.1	
		Viento +Y exc.-	-1.3	-0.4	-7.5	-0.1	-3.2	0.0	-1.3	-27.2	15.9	0.1	3.2	68.3	
		Viento -Y exc.+	2.2	0.1	11.6	0.1	5.0	-0.0	2.2	45.1	-25.3	-0.1	-5.0	-104.1	
		Viento -Y exc.-	1.3	0.4	7.5	0.1	3.2	-0.0	1.3	27.2	-15.9	-0.1	-3.2	-68.3	
D1 [-4.634;-10.274;-24.9 grados] (25x25)	-1.10/-0.10	Carga permanente	185.8	-1.8	-0.8	-0.3	-0.2	-0.0	185.8	-859.2	-1909	0.3	0.0	3.5	
		Sobrecarga de uso	58.3	0.3	0.1	0.4	0.1	-0.0	58.3	-270.7	-599.3	-0.4	0.1	-4.4	
		Viento +X exc.+	-3.0	-3.0	-2.5	-1.2	-1.1	0.0	-3.0	17.8	32.1	1.6	0.5	14.2	
		Viento +X exc.-	-3.7	-3.5	-1.7	-1.4	-0.7	-0.0	-3.7	21.1	38.2	1.6	0.1	16.4	
		Viento -X exc.+	3.0	3.0	2.5	1.2	1.1	-0.0	3.0	-17.8	-32.1	-1.6	-0.5	-14.2	
		Viento -X exc.-	3.7	3.5	1.7	1.4	0.7	0.0	3.7	-21.1	-38.2	-1.6	-0.1	-16.4	
		Viento +Y exc.+	7.1	4.5	-11.8	1.7	-5.0	0.0	7.1	-31.8	-59.8	0.5	5.3	-18.8	
		Viento +Y exc.-	10.1	6.7	-15.4	2.6	-6.5	0.0	10.1	-46.5	-87.2	0.4	7.0	-28.5	
		Viento -Y exc.+	-7.1	-4.5	11.8	-1.7	5.0	-0.0	-7.1	31.8	59.8	-0.5	-5.3	18.8	
		Viento -Y exc.-	-10.1	-6.7	15.4	-2.6	6.5	-0.0	-10.1	46.5	87.2	-0.4	-7.0	28.5	
D2 [-1.303;-10.237;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	344.4	-0.5	0.5	-0.1	0.5	-0.0	344.4	-448.1	-3526	0.1	-0.5	1.9	
		Sobrecarga de uso	132.9	-0.3	0.6	-0.1	0.4	-0.0	132.9	-172.9	-1361	0.1	-0.4	1.7	
		Viento +X exc.+	-0.1	-4.1	-0.6	-1.7	-0.2	0.0	-0.1	4.2	1.3	1.7	0.2	17.5	
		Viento +X exc.-	-0.4	-4.3	0.1	-1.8	0.0	-0.0	-0.4	4.8	3.5	1.8	-0.0	18.7	
		Viento -X exc.+	0.1	4.1	0.6	1.7	0.2	-0.0	0.1	-4.2	-1.3	-1.7	-0.2	-17.5	
		Viento -X exc.-	0.4	4.3	-0.1	1.8	-0.0	0.0	0.4	-4.8	-3.5	-1.8	0.0	-18.7	
		Viento +Y exc.+	5.5	0.1	-11.9	0.1	-4.8	0.0	5.5	-7.3	-44.3	-0.1	4.8	-7.3	
		Viento +Y exc.-	6.7	1.0	-14.9	0.5	-6.0	0.0	6.7	-9.8	-53.7	-0.5	6.0	-12.8	
		Viento -Y exc.+	-5.5	-0.1	11.9	-0.1	4.8	-0.0	-5.5	7.3	44.3	0.1	-4.8	7.3	
		Viento -Y exc.-	-6.7	-1.0	14.9	-0.5	6.0	-0.0	-6.7	9.8	53.7	0.5	-6.0	12.8	
D3 [2.547;-10.237;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	391.2	-1.3	3.6	-0.5	2.4	-0.0	391.2	997.7	-4008	0.5	-2.4	-1.2	
		Sobrecarga de uso	109.0	-0.4	0.4	-0.1	0.3	-0.0	109.0	278.0	-1116	0.1	-0.3	0.4	
		Viento +X exc.+	0.6	-4.2	-0.4	-1.7	-0.2	0.0	0.6	5.8	-6.2	1.7	0.2	18.3	
		Viento +X exc.-	0.8	-4.3	0.0	-1.8	0.0	-0.0	0.8	6.3	-7.7	1.8	-0.0	18.7	
		Viento -X exc.+	-0.6	4.2	0.4	1.7	0.2	-0.0	-0.6	-5.8	6.2	-1.7	-0.2	-18.3	
		Viento -X exc.-	-0.8	4.3	-0.0	1.8	-0.0	0.0	-0.8	-6.3	7.7	-1.8	0.0	-18.7	
		Viento +Y exc.+	-4.9	0.1	-11.7	0.0	-4.7	0.0	-4.9	-12.5	61.6	-0.0	4.7	11.7	
		Viento +Y exc.-	-5.4	0.9	-13.6	0.4	-5.4	0.0	-5.4	-14.7	68.8	-0.4	5.4	10.0	
		Viento -Y exc.+	4.9	-0.1	11.7	-0.0	4.7	-0.0	4.9	12.5	-61.6	0.0	-4.7	-11.7	
		Viento -Y exc.-	5.4	-0.9	13.6	-0.4	5.4	-0.0	5.4	14.7	-68.8	0.4	-5.4	-10.0	
D4 [7.247;-10.237;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	288.4	-1.5	0.4	-0.7	0.3	-0.0	288.4	2091.5	-2953	0.7	-0.3	4.7	
		Sobrecarga de uso	104.5	-0.3	-0.2	-0.2	-0.1	-0.0	104.5	757.7	-1070	0.2	0.1	2.2	
		Viento +X exc.+	0.3	-4.1	-0.1	-1.7	-0.0	0.0	0.3	6.5	-3.2	1.7	0.0	18.0	
		Viento +X exc.-	0.2	-4.3	0.0	-1.8	0.0	-0.0	0.2	5.8	-2.1	1.8	-0.0	18.5	
		Viento -X exc.+	-0.3	4.1	0.1	1.7	0.0	-0.0	-0.3	-6.5	3.2	-1.7	-0.0	-18.0	
		Viento -X exc.-	-0.2	4.3	-0.0	1.8	-0.0	0.0	-0.2	-5.8	2.1	-1.8	0.0	-18.5	
		Viento +Y exc.+	16.0	0.2	-11.2	0.1	-4.4	0.0	16.0	115.6	-152.2	-0.1	4.4	31.4	
		Viento +Y exc.-	16.5	1.0	-11.7	0.4	-4.6	0.0	16.5	118.7	-157.5	-0.4	4.6	29.1	
		Viento -Y exc.+	-16.0	-0.2	11.2	-0.1	4.4	-0.0	-16.0	-115.6	152.2	0.1	-4.4	-31.4	
		Viento -Y exc.-	-16.5	-1.0	11.7	-0.4	4.6	-0.0	-16.5	-118.7	157.5	0.4	-4.6	-29.1	
D6 [11.947;-10.237;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	309.1	1.5	0.1	0.9	0.2	-0.0	309.1	3691.6	-3165	-0.9	-0.2	-11.8	
		Sobrecarga de uso	106.1	0.2	-0.1	0.1	-0.1	-0.0	106.1	1267.6	-1086	-0.1	0.1	-0.6	
		Viento +X exc.+	-0.2	-4.1	0.2	-1.7	0.1	0.0	-0.2	1.2	2.3	1.7	-0.1	16.8	
		Viento +X exc.-	0.0	-4.3	-0.0	-1.8	-0.0	-0.0	0.0	4.7	-0.3	1.8	0.0	18.6	
		Viento -X exc.+	0.2	4.1	-0.2	1.7	-0.1	-0.0	0.2	-1.2	-2.3	-1.7	0.1	-16.8	
		Viento -X exc.-	-0.0	4.3	0.0	1.8	0.0	0.0	-0.0	-4.7	0.3	-1.8	-0.0	-18.6	
		Viento +Y exc.+	16.8	0.2	-10.9	0.1	-4.3	0.0	16.8	200.8	-161.2	-0.1	4.3	50.8	
		Viento +Y exc.-	15.6	1.0	-10.0	0.4	-4.0	0.0	15.6	185.1	-149.4	-0.4	4.0	42.8	
		Viento -Y exc.+	-16.8	-0.2	10.9	-0.1	4.3	-0.0	-16.8	-200.8	161.2	0.1	-4.3	-50.8	
		Viento -Y exc.-	-15.6	-1.0	10.0	-0.4	4.0	-0.0	-15.6	-185.1	149.4	0.4	-4.0	-42.8	
D8 [16.647;-10.237;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	268.9	-1.6	3.6	-1.2	2.5	-0.0	268.9	4478.8	-2757	1.2	-2.5	-28.2	
		Sobrecarga de uso	103.3	-0.2	1.8	-0.1	1.2	-0.0	103.3	1720.5	-1060	0.1	-1.2	-18.4	
		Viento +X exc.+	-0.1	-4.1	0.4	-1.7	0.2	0.0	-0.1	2.3	0.7	1.7	-0.2	14.9	
		Viento +X exc.-	-0.3	-4.3	-0.1	-1.8	-0.0	-0.0	-0.3	-0.4	3.0	1.8	0.0	19.3	
		Viento -X exc.+	0.1	4.1	-0.4	1.7	-0.2	-0.0	0.1	-2.3	-0.7	-1.7	-0.2	-14.9	
		Viento -X exc.-	0.3	4.3	0.1	1.8	0.0	0.0	0.3	0.4	-3.0	-1.8	-0.0	-19.3	
		Viento +Y exc.+	-5.5	-0.1	-10.9	-0.0	-4.4	0.0	-5.5	-91.7	67.4	0.0	4.4	73.8	
		Viento +Y exc.-	-4.6	0.8	-8.6	0.3	-3.5	0.0	-4.6	-77.4	55.7	-0.3	3.5	54.0	
		Viento -Y exc.+	5.5	0.1	10.9	0.0	4.4	-0.0	5.5	91.7	-67.4	-0.0	-4.4	-73.8	
		Viento -Y exc.-	4.6	-0.8	8.6	-0.3	3.5	-0.0	4.6	77.4	-55.7	0.3	-3.5	-54.0	
D9 [20.972;-10.237;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	138.1	3.6	-1.7	1.2	-0.7	-0.0	138.1	2893.4	-1412	-1.2	0.7	1.9	
		Sobrecarga de uso	50.6	0.1	-0.1	-0.2	0.0	-0.0	50.6	1061.7	-518.2	0.2	-0.0	1.1	
		Viento +X exc.+	2.5	-3.7	0.7	-1.5	0.3	0.0	2.5	57.1	-26.7	1.5	-0.3	9.4	
		Viento +X exc.-	2.9	-3.9	-0.2	-1.6	-0.1	-0.0	2.9	64.9	-29.6	1.6	0.1	18.3	
		Viento -X exc.+	-2.5	3.7	-0.7	1.5	-0.3	-0.0	-2.5	-57.1	26.7	-1.5	0.3	-9.4	
		Viento -X exc.-	-2.9	3.9	0.2	1.6	0.1	0.0	-2.9	-64.9	29.6	-1.6	-0.1	-18.3	
		Viento +Y exc.+	3.1	-0.1	-11.6	-0.0	-4.9	0.0	3.1	64.2	-19.8	0.0	4.9	103.4	
		Viento +Y exc.-	1.4	0.8	-7.5	0.3	-3.2	0.0	1.4	29.2	-7.1	-0.3	3.2	64.0	
		Viento -Y exc.+	-3.1	0.1	11.6	0.0	4.9	-0.0	-3.1	-64.2	19.8	-0.0	-4.9	-103.4	
		Viento -Y exc.-	-1.4	-0.8	7.5	-0.3	3.2	-0.0	-1.4	-29.2	7.1	0.3	-3.2	-64.0	



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Cimentación														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-1.10)					
			N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)	N (kN)	Mx (kN·m)	My (kN·m)	Qx (kN)	Qy (kN)	T (kN·m)
E1 [-6.064;-13.437;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	136.9	-4.8	-4.1	-1.4	-1.8	-0.0	136.9	-825.2	-1835	1.4	1.8	7.3
		Sobrecarga de uso	36.6	-0.3	-0.9	0.2	-0.4	-0.0	36.6	-221.9	-491.5	-0.2	0.4	-4.8
		Viento +X exc.+	-2.3	-3.5	-0.9	-1.5	-0.4	0.0	-2.3	17.3	31.4	1.5	0.4	17.6
		Viento +X exc.-	-1.9	-3.9	0.1	-1.7	0.0	-0.0	-1.9	15.7	26.0	1.7	-0.0	22.3
		Viento -X exc.+	2.3	3.5	0.9	1.5	0.4	-0.0	2.3	-17.3	-31.4	-1.5	-0.4	-17.6
		Viento -X exc.-	1.9	3.9	-0.1	1.7	-0.0	0.0	1.9	-15.7	-26.0	-1.7	0.0	-22.3
		Viento +Y exc.+	-7.4	0.1	-12.0	-0.1	-5.0	0.0	-7.4	45.0	112.0	0.1	5.0	-29.8
		Viento +Y exc.-	-8.9	1.9	-16.4	0.6	-6.9	0.0	-8.9	52.3	136.4	-0.6	6.9	-50.5
		Viento -Y exc.+	7.4	-0.1	12.0	0.1	5.0	-0.0	7.4	-45.0	-112.0	-0.1	-5.0	29.8
		Viento -Y exc.-	8.9	-1.9	16.4	-0.6	6.9	-0.0	8.9	-52.3	-136.4	0.6	-6.9	50.5
E2 [-1.303;-13.437;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	209.7	-2.8	-3.2	-1.5	-1.4	-0.0	209.7	-270.4	-2814	1.5	1.4	17.8
		Sobrecarga de uso	72.5	-0.7	-0.8	-0.4	-0.4	-0.0	72.5	-93.7	-973.1	0.4	0.4	5.3
		Viento +X exc.+	-0.8	-4.0	-0.6	-1.7	-0.3	0.0	-0.8	5.1	11.4	1.7	0.3	22.9
		Viento +X exc.-	0.0	-4.5	0.1	-1.9	0.0	-0.0	0.0	4.5	-0.1	1.9	-0.0	26.0
		Viento -X exc.+	0.8	4.0	0.6	1.7	0.3	-0.0	0.8	-5.1	-11.4	-1.7	-0.3	-22.9
		Viento -X exc.-	-0.0	4.5	-0.1	1.9	-0.0	0.0	-0.0	-4.5	0.1	-1.9	0.0	-26.0
		Viento +Y exc.+	-15.4	0.5	-12.4	0.2	-5.2	0.0	-15.4	19.6	219.8	-0.2	5.2	-10.2
		Viento +Y exc.-	-19.0	2.6	-15.5	1.2	-6.6	0.0	-19.0	22.2	271.5	-1.2	6.6	-24.1
		Viento -Y exc.+	15.4	-0.5	12.4	-0.2	5.2	-0.0	15.4	-19.6	-219.8	0.2	-5.2	10.2
		Viento -Y exc.-	19.0	-2.6	15.5	-1.2	6.6	-0.0	19.0	-22.2	-271.5	1.2	-6.6	24.1
E3 [2.547;-13.437;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	175.4	-1.6	-2.3	-0.6	-1.0	-0.0	175.4	448.3	-2354	0.6	1.0	9.9
		Sobrecarga de uso	68.1	-0.4	-0.6	-0.1	-0.2	-0.0	68.1	173.8	-914.2	0.1	0.2	1.9
		Viento +X exc.+	0.4	-4.1	-0.4	-1.8	-0.2	0.0	0.4	5.2	-5.3	1.8	0.2	24.1
		Viento +X exc.-	0.7	-4.6	0.0	-2.0	0.0	-0.0	0.7	6.4	-9.5	2.0	-0.0	26.4
		Viento -X exc.+	-0.4	4.1	0.4	1.8	0.2	-0.0	-0.4	-5.2	5.3	-1.8	-0.2	-24.1
		Viento -X exc.-	-0.7	4.6	-0.0	2.0	-0.0	0.0	-0.7	-6.4	9.5	-2.0	0.0	-26.4
		Viento +Y exc.+	-7.6	0.5	-12.1	0.2	-5.1	0.0	-7.6	-20.0	114.9	-0.2	5.1	10.0
		Viento +Y exc.-	-8.9	2.6	-14.1	1.1	-5.9	0.0	-8.9	-25.3	133.6	-1.1	5.9	0.0
		Viento -Y exc.+	7.6	-0.5	12.1	-0.2	5.1	-0.0	7.6	20.0	-114.9	0.2	-5.1	-10.0
		Viento -Y exc.-	8.9	-2.6	14.1	-1.1	5.9	-0.0	8.9	25.3	-133.6	1.1	-5.9	-0.0
E4 [7.247;-13.437;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	243.5	-2.9	-1.3	-1.4	-0.7	-0.0	243.5	1767.8	-3271	1.4	0.7	23.5
		Sobrecarga de uso	84.2	-1.1	0.4	-0.5	0.3	-0.0	84.2	611.6	-1132	0.5	-0.3	5.1
		Viento +X exc.+	-2.2	-6.1	-0.1	-3.2	-0.1	0.0	-2.2	-9.8	29.6	3.2	0.1	43.7
		Viento +X exc.-	-2.2	-6.8	0.0	-3.6	0.0	-0.0	-2.2	-9.3	29.8	3.6	-0.0	48.0
		Viento -X exc.+	2.2	6.1	0.1	3.2	0.1	-0.0	2.2	9.8	-29.6	-3.2	-0.1	-43.7
		Viento -X exc.-	2.2	6.8	-0.0	3.6	-0.0	0.0	2.2	9.3	-29.8	-3.6	0.0	-48.0
		Viento +Y exc.+	-16.3	0.8	-16.6	0.4	-8.4	0.0	-16.3	-119.1	235.9	-0.4	8.4	55.4
		Viento +Y exc.-	-16.2	3.9	-17.4	2.0	-8.8	0.0	-16.2	-121.4	235.3	-2.0	8.8	36.2
		Viento -Y exc.+	16.3	-0.8	16.6	-0.4	8.4	-0.0	16.3	119.1	-235.9	0.4	-8.4	-55.4
		Viento -Y exc.-	16.2	-3.9	17.4	-2.0	8.8	-0.0	16.2	121.4	-235.3	2.0	-8.8	-36.2
E6 [11.947;-13.437;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	307.7	-0.4	-0.1	-0.2	-0.1	-0.0	307.7	3676.7	-4135	0.2	0.1	3.4
		Sobrecarga de uso	93.3	-0.1	1.1	-0.1	0.7	-0.0	93.3	1115.0	-1255	0.1	-0.7	-7.1
		Viento +X exc.+	0.4	-6.2	0.2	-3.2	0.1	0.0	0.4	11.1	-5.8	3.2	-0.1	42.3
		Viento +X exc.-	0.1	-6.9	-0.1	-3.6	-0.0	-0.0	0.1	8.1	-1.3	3.6	0.0	49.1
		Viento -X exc.+	-0.4	6.2	-0.2	3.2	-0.1	-0.0	-0.4	-11.1	5.8	-3.2	0.1	-42.3
		Viento -X exc.-	-0.1	6.9	0.1	3.6	0.0	0.0	-0.1	-8.1	1.3	-3.6	-0.0	-49.1
		Viento +Y exc.+	-19.2	0.5	-16.4	0.3	-8.3	0.0	-19.2	-230.4	274.9	-0.3	8.3	94.9
		Viento +Y exc.-	-17.9	3.6	-15.0	1.9	-7.6	0.0	-17.9	-217.0	255.0	-1.9	7.6	64.7
		Viento -Y exc.+	19.2	-0.5	16.4	-0.3	8.3	-0.0	19.2	230.4	-274.9	0.3	-8.3	-94.9
		Viento -Y exc.-	17.9	-3.6	15.0	-1.9	7.6	-0.0	17.9	-217.0	-255.0	1.9	-7.6	-64.7
E8 [16.647;-13.437;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	266.0	2.1	-1.7	0.9	-0.7	-0.0	266.0	4426.0	-3572	-0.9	0.7	-0.4
		Sobrecarga de uso	92.5	0.6	0.4	0.3	0.4	-0.0	92.5	1539.4	-1243	-0.3	-0.4	-10.1
		Viento +X exc.+	1.7	-6.0	0.5	-3.2	0.3	0.0	1.7	33.6	-22.8	3.2	-0.3	38.1
		Viento +X exc.-	1.4	-6.7	-0.2	-3.5	-0.1	-0.0	1.4	29.9	-18.5	3.5	0.1	49.1
		Viento -X exc.+	-1.7	6.0	-0.5	3.2	-0.3	-0.0	-1.7	-33.6	22.8	-3.2	0.3	-38.1
		Viento -X exc.-	-1.4	6.7	0.2	3.5	0.1	0.0	-1.4	-29.9	18.5	-3.5	-0.1	-49.1
		Viento +Y exc.+	-8.3	0.3	-15.0	0.2	-7.5	0.0	-8.3	-138.3	126.4	-0.2	7.5	121.9
		Viento +Y exc.-	-7.1	3.4	-11.8	1.8	-5.9	0.0	-7.1	-121.7	107.3	-1.8	5.9	73.2
		Viento -Y exc.+	8.3	-0.3	15.0	-0.2	7.5	-0.0	8.3	138.3	-126.4	0.2	-7.5	-121.9
		Viento -Y exc.-	7.1	-3.4	11.8	-1.8	5.9	-0.0	7.1	121.7	-107.3	1.8	-5.9	-73.2
E9 [20.972;-13.437;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	121.9	3.1	-3.8	0.8	-1.4	-0.0	121.9	2553.5	-1634	-0.8	1.4	19.2
		Sobrecarga de uso	32.2	0.0	-0.8	-0.2	-0.3	-0.0	32.2	674.6	-431.5	0.2	0.3	8.8
		Viento +X exc.+	2.1	-3.6	0.6	-1.5	0.3	0.0	2.1	46.8	-28.2	1.5	-0.3	15.0
		Viento +X exc.-	1.6	-4.1	-0.3	-1.7	-0.1	-0.0	1.6	38.5	-21.8	1.7	0.1	25.2
		Viento -X exc.+	-2.1	3.6	-0.6	1.5	-0.3	-0.0	-2.1	-46.8	28.2	-1.5	0.3	-15.0
		Viento -X exc.-	-1.6	4.1	0.3	1.7	0.1	0.0	-1.6	-38.5	21.8	-1.7	-0.1	-25.2
		Viento +Y exc.+	-9.0	-0.0	-10.9	0.0	-4.6	0.0	-9.0	-188.4	131.6	-0.0	4.6	96.0
		Viento +Y exc.-	-7.1	1.9	-7.0	0.8	-3.0	0.0	-7.1	-151.5	102.9	-0.8	3.0	51.2
		Viento -Y exc.+	9.0	0.0	10.9	-0.0	4.6	-0.0	9.0	188.4	-131.6	0.0	-4.6	-96.0
		Viento -Y exc.-	7.1	-1.9	7.0	-0.8	3.0	-0.0	7.1	151.5	-102.9	0.8	-3.0	-51.2
A3M [4.897;-0.512;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	22.3	-0.1	-0.2	0.0	-0.0	0.0	22.3	109.5	-11.2	-0.0	0.0	0.0
		Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0
		Viento +X exc.+	0.0	-1.0	0.0	-0.2	0.0	0.0	0.0	1.0	0.0	0.2	-0.0	0.1
		Viento +X exc.-	0.0	-1.0	0.0	-0.2	0.0	-0.0	0.0	1.0	-0.0	0.2	-0.0	0.1
		Viento -X exc.+	0.0	1.0	0.0	0.2	-0.0	-0.0	0.0	-1.0	0.0	-0.2	0.0	-0.1
		Viento -X exc.-	0.0	1.0	-0.0	0.2	-0.0	0.0	0.0	-1.0	0.0	-0.2	0.0	-0.1
		Viento +Y exc.+	-0.0	0.0	-1.1	0.0	-0.2	-0.0	-0.0	-0.0	1.1	-0.0	0.2	1.1
		Viento +Y exc.-	0.0	0.0	-1.1	0.0	-0.2	0.0	0.0	0.0	1.1	-0.0	0.2	1.1
		Viento -Y exc.+	0.0	-0.0	1.1	-0.0	0.2	0.0	0.0	0.0	-1.1	0.0	-0.2	-1.1
		Viento -Y exc.-	-0.0	-0.0	1.1	-0.0	0.2	-0.0	-0.0	-0.0	-1.1	0.0	-0.2	-1.1



Esfuerzos y armados de pilares, pantallas y muros

Centro Emergencias San Martín de Valdeiglesias

Fecha: 17/03/10

Planta: Cimentación														
Soporte	Tramo (m)	Hipótesis	Esfuerzos locales en la base del soporte						Esfuerzos locales referidos al origen (X=0.00, Y=0.00, Z=-1.10)					
			N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)	N (kN)	Mx (kN-m)	My (kN-m)	Qx (kN)	Qy (kN)	T (kN-m)
A4M [7.347;-0.512;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	12.3	-0.0	-0.1	0.0	0.0	-0.0	12.3	90.7	-6.2	-0.0	-0.0	0.0
		Sobrecarga de uso	-0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0
		Viento +X exc. +	-0.0	-1.0	0.0	-0.2	0.0	0.0	-0.0	1.0	0.0	0.2	0.0	0.1
		Viento +X exc. -	0.0	-1.0	0.0	-0.2	0.0	-0.0	0.0	1.0	-0.0	0.2	-0.0	0.1
		Viento -X exc. +	0.0	1.0	-0.0	0.2	0.0	-0.0	0.0	-1.0	-0.0	-0.2	0.0	-0.1
		Viento -X exc. -	0.0	1.0	-0.0	0.2	-0.0	0.0	0.0	-1.0	0.0	-0.2	0.0	-0.1
		Viento +Y exc. +	0.0	-0.0	-1.1	0.0	-0.2	-0.0	0.0	0.0	1.1	0.0	0.2	1.7
		Viento +Y exc. -	-0.0	-0.0	-1.1	0.0	-0.2	0.0	-0.0	-0.0	1.1	0.0	0.2	1.7
		Viento -Y exc. +	0.0	0.0	1.1	0.0	0.2	0.0	0.0	-0.0	-1.1	0.0	-0.2	-1.7
		Viento -Y exc. -	0.0	0.0	1.1	0.0	0.2	-0.0	0.0	0.0	-1.1	-0.0	-0.2	-1.7
E4M [7.247;-15.162;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	11.3	-0.0	-0.1	0.0	-0.0	0.0	11.3	82.2	-171.9	-0.0	0.0	-0.0
		Sobrecarga de uso	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0
		Viento +X exc. +	0.0	-1.0	-0.0	-0.2	-0.0	0.0	0.0	1.0	-0.0	0.2	0.0	3.0
		Viento +X exc. -	-0.0	-1.0	0.0	-0.2	0.0	-0.0	-0.0	1.0	0.0	0.2	-0.0	3.0
		Viento -X exc. +	-0.0	1.0	0.0	0.2	0.0	-0.0	-0.0	-1.0	0.0	-0.2	-0.0	-3.0
		Viento -X exc. -	0.0	1.0	-0.0	0.2	-0.0	0.0	0.0	-1.0	-0.0	-0.2	0.0	-3.0
		Viento +Y exc. +	-0.0	-0.0	-1.1	0.0	-0.2	-0.0	-0.0	-0.0	1.1	-0.0	0.2	1.7
		Viento +Y exc. -	-0.0	0.0	-1.1	0.0	-0.2	0.0	-0.0	-0.0	1.1	-0.0	0.2	1.7
		Viento -Y exc. +	0.0	0.0	1.1	0.0	0.2	0.0	0.0	0.0	-1.1	0.0	-0.2	-1.7
		Viento -Y exc. -	0.0	-0.0	1.1	-0.0	0.2	-0.0	0.0	0.0	-1.1	0.0	-0.2	-1.7
E5M [9.597;-15.162;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	21.3	-0.1	-0.2	0.0	0.0	-0.0	21.3	204.9	-323.4	-0.0	-0.0	-0.0
		Sobrecarga de uso	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0
		Viento +X exc. +	-0.0	-1.0	0.0	-0.2	-0.0	0.0	-0.0	1.0	0.0	0.2	0.0	3.0
		Viento +X exc. -	-0.0	-1.0	-0.0	-0.2	-0.0	-0.0	-0.0	1.0	0.0	0.2	0.0	3.0
		Viento -X exc. +	0.0	1.0	-0.0	0.2	0.0	-0.0	0.0	-1.0	-0.0	-0.2	-0.0	-3.0
		Viento -X exc. -	0.0	1.0	0.0	0.2	0.0	0.0	0.0	-1.0	-0.0	-0.2	-0.0	-3.0
		Viento +Y exc. +	0.0	-0.0	-1.1	0.0	-0.2	-0.0	0.0	0.0	1.1	0.0	0.2	2.2
		Viento +Y exc. -	0.0	0.0	-1.1	0.0	-0.2	0.0	0.0	0.0	1.1	0.0	0.2	2.2
		Viento -Y exc. +	-0.0	0.0	1.1	0.0	0.2	0.0	-0.0	-0.0	-1.1	0.0	-0.2	-2.2
		Viento -Y exc. -	-0.0	-0.0	1.1	0.0	0.2	-0.0	-0.0	-0.0	-1.1	-0.0	-0.2	-2.2
E6M [11.947;-15.162;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	21.3	-0.1	-0.2	0.0	0.0	-0.0	21.3	255.1	-323.4	0.0	-0.0	0.0
		Sobrecarga de uso	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0
		Viento +X exc. +	0.0	-1.0	-0.0	-0.2	-0.0	0.0	0.0	1.0	-0.0	0.2	0.0	3.0
		Viento +X exc. -	0.0	-1.0	-0.0	-0.2	-0.0	-0.0	0.0	1.0	-0.0	0.2	0.0	3.0
		Viento -X exc. +	-0.0	1.0	0.0	0.2	0.0	-0.0	-0.0	-1.0	0.0	-0.2	-0.0	-3.0
		Viento -X exc. -	-0.0	1.0	0.0	0.2	0.0	0.0	-0.0	-1.0	0.0	-0.2	-0.0	-3.0
		Viento +Y exc. +	0.0	0.0	-1.1	-0.0	-0.2	-0.0	0.0	0.0	1.1	0.0	0.2	2.8
		Viento +Y exc. -	0.0	-0.0	-1.1	-0.0	-0.2	0.0	0.0	0.0	1.1	0.0	0.2	2.8
		Viento -Y exc. +	-0.0	-0.0	1.1	0.0	0.2	0.0	-0.0	-0.0	-1.1	-0.0	-0.2	-2.8
		Viento -Y exc. -	-0.0	0.0	1.1	0.0	0.2	-0.0	-0.0	-0.0	-1.1	-0.0	-0.2	-2.8
E7M [14.297;-15.162;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	21.3	-0.1	-0.2	0.0	0.0	-0.0	21.3	305.2	-323.4	0.0	0.0	0.0
		Sobrecarga de uso	-0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	-0.0	0.0	-0.0	0.0	-0.0
		Viento +X exc. +	-0.0	-1.0	-0.0	-0.2	0.0	0.0	-0.0	1.0	0.0	0.2	-0.0	3.0
		Viento +X exc. -	0.0	-1.0	0.0	-0.2	-0.0	-0.0	0.0	1.0	-0.0	0.2	0.0	3.0
		Viento -X exc. +	0.0	1.0	0.0	0.2	0.0	-0.0	0.0	-1.0	-0.0	-0.2	-0.0	-3.0
		Viento -X exc. -	-0.0	1.0	-0.0	0.2	0.0	0.0	-0.0	-1.0	0.0	-0.2	-0.0	-3.0
		Viento +Y exc. +	-0.0	-0.0	-1.1	-0.0	-0.2	-0.0	-0.0	-0.0	1.1	0.0	0.2	3.3
		Viento +Y exc. -	0.0	0.0	-1.1	-0.0	-0.2	0.0	0.0	-0.0	1.1	0.0	0.2	3.3
		Viento -Y exc. +	0.0	0.0	1.1	0.0	0.2	0.0	0.0	0.0	-1.1	-0.0	-0.2	-3.3
		Viento -Y exc. -	0.0	-0.0	1.1	0.0	0.2	-0.0	0.0	0.0	-1.1	-0.0	-0.2	-3.3
E8M [16.647;-15.162;0.0 grados] (25x25)	-1.10/-0.10	Carga permanente	11.3	-0.0	-0.1	0.0	-0.0	-0.0	11.3	188.9	-171.9	-0.0	0.0	-0.0
		Sobrecarga de uso	0.0	0.0	-0.0	0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0
		Viento +X exc. +	-0.0	-1.0	0.0	-0.2	0.0	0.0	-0.0	1.0	0.0	0.2	-0.0	3.0
		Viento +X exc. -	0.0	-1.0	-0.0	-0.2	-0.0	-0.0	0.0	1.0	-0.0	0.2	0.0	3.0
		Viento -X exc. +	0.0	1.0	-0.0	0.2	0.0	-0.0	0.0	-1.0	-0.0	-0.2	0.0	-3.0
		Viento -X exc. -	-0.0	1.0	0.0	0.2	0.0	0.0	-0.0	-1.0	0.0	-0.2	-0.0	-3.0
		Viento +Y exc. +	-0.0	0.0	-1.1	0.0	-0.2	-0.0	-0.0	-0.0	1.1	0.0	0.2	3.9
		Viento +Y exc. -	0.0	-0.0	-1.1	0.0	-0.2	0.0	0.0	0.0	1.1	0.0	0.2	3.9
		Viento -Y exc. +	0.0	-0.0	1.1	0.0	0.2	0.0	0.0	0.0	-1.1	0.0	-0.2	-3.9
		Viento -Y exc. -	-0.0	0.0	1.1	0.0	0.2	-0.0	-0.0	-0.0	-1.1	0.0	-0.2	-3.9
Sumatorio		Carga permanente							6435.9	52006	-53176	-0.0	0.0	0.0
		Sobrecarga de uso							2056.4	16730	-17267	-0.0	0.0	0.0
		Viento +X exc. +							-0.0	426.1	-0.0	62.6	0.0	410.8
		Viento +X exc. -							-0.0	426.1	-0.0	62.6	0.0	493.6
		Viento -X exc. +							0.0	-426.1	0.0	-62.6	-0.0	-410.8
		Viento -X exc. -							0.0	-426.1	0.0	-62.6	-0.0	-493.6
		Viento +Y exc. +							0.0	0.0	1045.3	0.0	147.9	1234.5
		Viento +Y exc. -							0.0	0.0	1045.3	0.0	147.9	868.8
		Viento -Y exc. +							-0.0	-0.0	-1045	-0.0	-147.9	-1235
		Viento -Y exc. -							-0.0	-0.0	-1045	-0.0	-147.9	-868.8