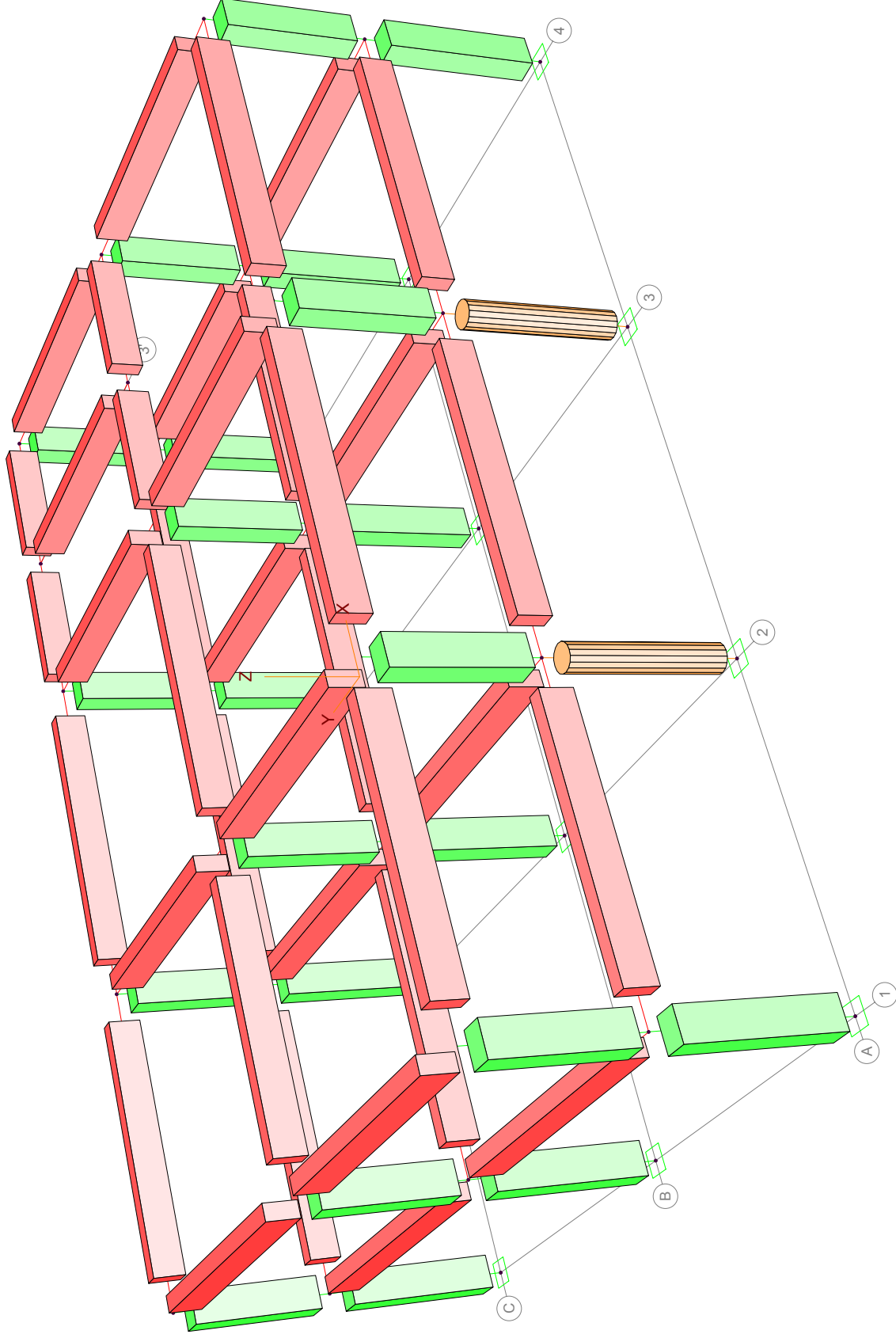
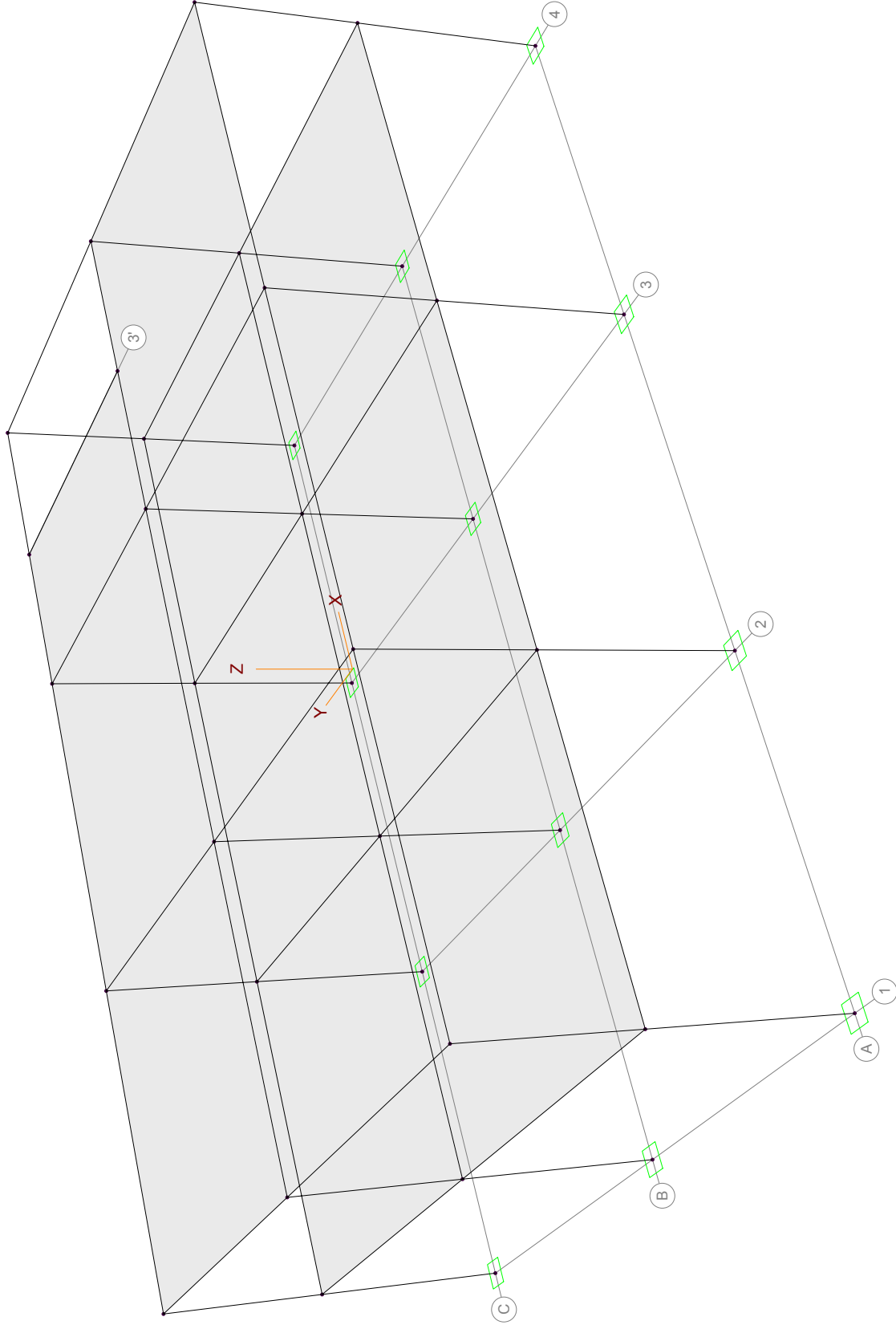


EJEMPLO DE IMPRESIONES

En las páginas siguientes se muestran algunos ejemplos de impresiones obtenidas para el edificio analizado y diseñado en el demo de **ECOGcW**.

Página	Descripción
2	El edificio en 3D con los elementos extruidos
3	El edificio en 3D
4 y 5	Resultados del análisis sísmico
6	Envolverte de reacciones
7 y 8	Desplazamientos relativos * Q /H
9 a 12	Tabla de resultados de diseño de elementos del nivel uno
13 y 14	Planta de niveles 1 y 2 con acero requerido en columnas
15	Grafica de acero longitudinal requerido en ejes A, B y C del nivel 1, incluyendo los cajones de las trabes con su armado propuesto
16	Diagrama de interacción adimensional obtenido con las ayudas de diseño.
17	Diagrama de interacción 3D obtenido con las ayudas de diseño para una columna de 60 x 60 con 3% de acero longitudinal





DATOS ANÁLISIS SISMICO

Reglamento: CFE.1993
 Tipo de análisis: Dinámico
 Cálculo de respuestas: Cortantes equivalentes
 Modos a calcular: 8
 Niveles sin masa: 0
 Grupo: B
 Zona: D
 Suelo: III
 Qx: 2
 Qy: 2
 kQ: 1 (regular)
 ex.accidental: 0.1 B
 c: 0.86
 a0: 0.86
 Ta: 0 seg
 Tb: 1.7 seg
 r: 1

ANÁLISIS SÍSMICO DINÁMICO [CFE1993]

Período (seg)	Aceleración espectral	Coef.Participación		Q'x	Q'y
		x	y		
1	0.331	0.860	-0.050	6.040	2.000
2	0.279	0.860	5.956	0.085	2.000
3	0.224	0.860	-0.838	0.248	2.000
4	0.095	0.860	-0.001	1.573	2.000
5	0.078	0.860	1.666	0.006	2.000
6	0.065	0.860	-0.259	0.018	2.000
7	0.013	0.860	-0.001	-0.005	2.000
8	0.009	0.860	-0.004	0.000	2.000

PESO TOTAL EN SISMO 382.79 T

CORTANTES BASALES

estático total X: 164.60 T
 Y: 164.60 T
 estático reducido X: 164.60 T
 Y: 164.60 T
 mínimo X: 131.68 T [factor: 0.8]
 Y: 131.68 T

Modo	Peso modal efectivo		% de peso total	
	x (T)	y (T)	x	y
1	0.02	357.85	0.01	93.48
2	347.99	0.07	90.91	0.02
3	6.89	0.60	1.80	0.16
4	0.00	24.26	0.00	6.34
5	27.23	0.00	7.11	0.00
6	0.66	0.00	0.17	0.00
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
Suma	382.79	382.79	100.00	100.00

Modo	Cortantes basales		Mz (T*m)	Alturas efectivas		Momentos de volteo	
	Vx (T)	Vy (T)		Hx (m)	Hy (m)	Mx (T*m)	My (T*m)
1	0.01	153.88	6.73	5.229	5.217	0.06	802.76
2	149.64	0.03	119.27	5.244	4.778	784.64	0.15
3	2.96	0.26	5706.47	5.298	4.007	15.70	1.04
4	0.00	10.43	8.03	-33.589	-0.897	0.00	-9.35
5	11.71	0.00	5.64	-0.515	-2.315	-6.03	0.00
6	0.28	0.00	501.21	0.736	-3.476	0.21	0.00
7	0.00	0.00	107.94	-0.499	-3.906	0.00	0.00
8	0.00	0.00	55.23	-2.251	0.394	0.00	0.00
Comb	150.67	154.30	5753.94			787.41	802.87

ESTIMACIÓN DE RIGIDECES DE ENTREPISO

Nivel	Cortante X (T)	Cortante Y (T)	Desplaz*Q en CM		Desplaz.Relativo		Rigidez de Entrepiso	
			X (m)	Y (m)	X (m)	Y (m)	X (T/m)	Y (T/m)
2	88.62	89.31	0.02000	0.02826	0.00858	0.01150	10325.97	7764.59
1	150.67	154.30	0.01142	0.01675	0.00858	0.01150	17556.27	13414.53

SISMO EN DIRECCION X

Nudo	Respuestas totales			Centro de masa		Ex.Accid. 0.1b (m)	Ex.Din ed (m)	Posición F. Sísmicas	
	Fx (T)	Fy (T)	Mz (T*m)	x (m)	y (m)			Y1 (m)	Y2 (m)
Df: 1+A/2	87.07	0.99	92.01	8.736	5.959	1.240	1.057	8.256	3.663
4+C/2	1.55	0.02		18.500	12.400	1.240		13.640	11.160
Df: 1+A/1	62.05	1.24	78.76	9.250	6.218	1.240	1.269	8.727	3.709
SUMA	150.67	2.25	170.77						

SISMO EN DIRECCION Y

Nudo	Respuestas totales			Centro de masa		Ex.Accid. 0.1b (m)	Ex.Din ed (m)	Posición F. Sísmicas	
	Fx (T)	Fy (T)	Mz (T*m)	x (m)	y (m)			X1 (m)	X2 (m)
Df: 1+A/2	1.29	87.75	27.17	8.736	5.959	1.850	0.310	10.895	6.576
4+C/2	0.02	1.56		18.500	12.400	1.850		20.350	16.650
Df: 1+A/1	0.94	64.99	22.23	9.250	6.218	1.850	0.342	11.442	7.058
SUMA	2.25	154.30	49.40						

ENVOLVENTE DE REACCIONES

NUDO	Comb	Fx (T)	Fy (T)	Fz (T)	Mx (T*m)	My (T*m)	Mz (T*m)
1+A/0	DI15	-19.799	10.251	15.494	-20.913	-45.334	-0.904
	DI16	21.100	-8.838	27.437	19.227	46.790	0.905
	DI29	0.223	18.831	36.192	-39.469	-0.028	-0.722
	DI31	-8.968	19.378	30.259	-40.502	-20.849	-0.812
	DI32	10.270	-17.964	12.673	38.816	22.305	0.813
1+B/0	DI1	1.562	0.085	50.128	-0.153	1.741	0.001
	DI6	-13.846	1.241	26.849	-2.236	-32.509	-0.872
	DI9	16.023	-1.120	47.590	2.020	34.935	0.873
	DI15	-13.739	11.635	26.938	-22.476	-32.260	-0.904
	DI16	15.916	-11.514	47.501	22.260	34.686	0.905
	DI31	-3.549	22.854	34.208	-44.435	-9.138	-0.812
	DI32	5.726	-22.734	40.231	44.219	11.565	0.813
1+C/0	DI10	-16.798	-8.310	15.106	17.256	-39.137	0.604
	DI13	18.033	7.118	27.672	-15.981	40.508	-0.603
	DI15	-8.262	8.940	7.380	-19.423	-19.857	-0.904
	DI16	9.497	-10.133	35.398	20.698	21.229	0.905
	DI31	1.122	18.052	6.863	-38.996	1.732	-0.812
	DI32	0.113	-19.245	35.916	40.271	-0.360	0.813
2+A/0	DI15	-10.930	5.232	44.427	-9.887	-21.252	-0.564
	DI16	11.111	-3.419	28.813	7.761	21.461	0.564
	DI31	-5.087	12.265	50.195	-24.336	-9.900	-0.506
	DI32	5.267	-10.452	23.046	22.210	10.108	0.507
2+B/0	DI1	0.373	0.052	91.562	-0.117	0.417	0.001
	DI6	-17.203	-2.997	69.584	5.881	-36.231	-0.872
	DI9	17.734	3.070	65.065	-6.046	36.824	0.873
	DI15	-17.074	7.182	69.701	-13.978	-35.957	-0.904
	DI16	17.605	-7.109	64.949	13.813	36.550	0.905
	DI31	-5.136	18.854	68.248	-36.785	-10.901	-0.812
	DI32	5.667	-18.781	66.402	36.620	11.493	0.813
2+C/0	DI10	-20.283	-6.605	44.894	13.020	-43.007	0.604
	DI13	20.566	4.463	29.999	-10.667	43.318	-0.603
	DI15	-10.333	4.836	34.444	-11.321	-22.157	-0.904
	DI16	10.616	-6.978	40.449	13.673	22.469	0.905
	DI26	-9.687	-16.463	51.134	33.940	-20.593	0.723
	DI31	0.700	14.433	25.093	-31.783	1.262	-0.812
	DI32	-0.417	-16.575	49.801	34.136	-0.951	0.813
3+A/0	DI15	-11.094	2.383	35.005	-4.139	-21.440	-0.564
	DI16	10.949	-0.574	38.247	2.016	21.276	0.564
	DI22	-5.131	-10.413	23.308	22.089	-9.829	-0.439
	DI25	4.986	12.222	49.945	-24.212	9.665	0.439
3+B/0	DI1	-0.382	0.095	90.789	-0.168	-0.425	0.001
	DI6	-17.729	-7.483	64.265	14.552	-36.817	-0.872
	DI9	17.177	7.618	69.331	-14.792	36.203	0.873
	DI15	-17.617	2.540	64.556	-4.996	-36.563	-0.904
	DI16	17.066	-2.404	69.039	4.756	35.949	0.905
	DI22	-6.071	-18.632	65.524	36.338	-12.377	-0.704
	DI25	5.520	18.767	68.071	-36.578	11.762	0.705
3+C/0	DI10	-20.595	-4.299	36.463	7.918	-43.354	0.604
	DI13	20.259	2.092	37.475	-5.494	42.975	-0.603
	DI15	-10.641	0.905	33.645	-3.141	-22.501	-0.904
	DI16	10.305	-3.113	40.293	5.565	22.122	0.905
	DI20	8.523	-16.130	50.376	33.217	18.102	-0.614
	DI22	-0.747	-16.485	49.227	33.923	-1.541	-0.704
	DI25	0.411	14.278	24.711	-31.499	1.162	0.705
4+A/0	DI15	-21.065	-0.939	33.920	2.384	-46.745	-0.904
	DI16	19.839	2.295	9.283	-4.012	45.385	0.905
	DI19	-0.394	18.140	35.815	-37.932	-0.479	0.614
	DI22	-10.023	-17.575	13.151	37.847	-21.701	-0.704
	DI25	8.797	18.931	30.052	-39.476	20.341	0.705
4+B/0	DI1	-1.545	0.301	45.472	-0.404	-1.721	0.001
	DI6	-16.022	-11.626	44.108	22.577	-34.936	-0.872
	DI9	13.880	12.065	23.492	-23.164	32.550	0.873
	DI15	-15.895	-1.665	44.114	3.208	-34.664	-0.904
	DI16	13.753	2.104	23.486	-3.794	32.278	0.905
	DI22	-6.104	-21.997	36.936	42.858	-12.419	-0.704
4+C/0	DI25	3.962	22.435	30.665	-43.445	10.033	0.705
	DI10	-18.111	-1.811	31.295	2.800	-40.602	0.604
	DI13	16.805	0.202	4.905	-1.061	39.143	-0.603
	DI15	-9.555	-2.429	25.736	4.077	-21.299	-0.904
	DI16	8.249	0.821	10.463	-2.338	19.840	0.905
	DI22	-1.039	-19.031	33.038	39.505	-1.867	-0.704
DI25	-0.267	17.422	3.162	-37.766	0.408	0.705	

DESPLAZAMIENTOS RELATIVOS

7

Columna	EC	Dir	NiX (cm)	NjX (cm)	Rx (cm)	NiY (cm)	NjY (cm)	Ry (cm)	Ry+0.3*RXy Rx+0.3*RYx	*Q'/H
1+A/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.456	0.456	0.000	0.164	0.164		
	4	X	0.000	0.756	0.756	0.000	-0.248	0.248	0.800	0.00457
	5	Y	0.000	0.135	0.135	0.000	0.667	0.667		
	6	Y	0.000	-0.146	0.146	0.000	1.054	1.054	1.128	0.00645
1+B/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.558	0.558	0.000	0.164	0.164		
	4	X	0.000	0.582	0.582	0.000	-0.248	0.248	0.587	0.00336
	5	Y	0.000	0.019	0.019	0.000	0.667	0.667		
	6	Y	0.000	-0.004	0.004	0.000	1.054	1.054	1.128	0.00645
1+C/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.660	0.660	0.000	0.164	0.164	0.702	0.00401
	4	X	0.000	0.408	0.408	0.000	-0.248	0.248		
	5	Y	0.000	-0.098	0.098	0.000	0.667	0.667		
	6	Y	0.000	0.139	0.139	0.000	1.054	1.054	1.128	0.00645
2+A/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.456	0.456	0.000	0.065	0.065		
	4	X	0.000	0.756	0.756	0.000	-0.080	0.080	0.800	0.00457
	5	Y	0.000	0.135	0.135	0.000	0.779	0.779		
	6	Y	0.000	-0.146	0.146	0.000	0.916	0.916	0.939	0.00537
2+B/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.558	0.558	0.000	0.065	0.065		
	4	X	0.000	0.582	0.582	0.000	-0.080	0.080	0.587	0.00336
	5	Y	0.000	0.019	0.019	0.000	0.779	0.779		
	6	Y	0.000	-0.004	0.004	0.000	0.916	0.916	0.939	0.00537
2+C/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.660	0.660	0.000	0.065	0.065	0.702	0.00401
	4	X	0.000	0.408	0.408	0.000	-0.080	0.080		
	5	Y	0.000	-0.098	0.098	0.000	0.779	0.779		
	6	Y	0.000	0.139	0.139	0.000	0.916	0.916	0.939	0.00537
3+A/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.456	0.456	0.000	-0.042	0.042		
	4	X	0.000	0.756	0.756	0.000	0.103	0.103	0.800	0.00457
	5	Y	0.000	0.135	0.135	0.000	0.902	0.902	0.933	0.00533
	6	Y	0.000	-0.146	0.146	0.000	0.766	0.766		
3+B/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.558	0.558	0.000	-0.042	0.042		
	4	X	0.000	0.582	0.582	0.000	0.103	0.103	0.587	0.00336
	5	Y	0.000	0.019	0.019	0.000	0.902	0.902	0.933	0.00533
	6	Y	0.000	-0.004	0.004	0.000	0.766	0.766		
3+C/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.660	0.660	0.000	-0.042	0.042	0.702	0.00401
	4	X	0.000	0.408	0.408	0.000	0.103	0.103		
	5	Y	0.000	-0.098	0.098	0.000	0.902	0.902	0.933	0.00533
	6	Y	0.000	0.139	0.139	0.000	0.766	0.766		
4+A/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.456	0.456	0.000	-0.140	0.140		
	4	X	0.000	0.756	0.756	0.000	0.272	0.272	0.800	0.00457
	5	Y	0.000	0.135	0.135	0.000	1.015	1.015	1.096	0.00626
	6	Y	0.000	-0.146	0.146	0.000	0.628	0.628		
4+B/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.558	0.558	0.000	-0.140	0.140		
	4	X	0.000	0.582	0.582	0.000	0.272	0.272	0.587	0.00336
	5	Y	0.000	0.019	0.019	0.000	1.015	1.015	1.096	0.00626
	6	Y	0.000	-0.004	0.004	0.000	0.628	0.628		
4+C/0-1 [Q'/H x:0.571 y:0.571]	3	X	0.000	0.660	0.660	0.000	-0.140	0.140	0.702	0.00401
	4	X	0.000	0.408	0.408	0.000	0.272	0.272		
	5	Y	0.000	-0.098	0.098	0.000	1.015	1.015	1.096	0.00626
	6	Y	0.000	0.139	0.139	0.000	0.628	0.628		
1+A/1-2 [Q'/H x:0.667 y:0.667]	3	X	0.456	0.795	0.339	0.164	0.304	0.140		
	4	X	0.756	1.288	0.532	-0.248	-0.393	0.145	0.561	0.00374
	5	Y	0.135	0.220	0.085	0.667	1.129	0.462		
	6	Y	-0.146	-0.244	0.098	1.054	1.785	0.731	0.775	0.00517
1+B/1-2 [Q'/H x:0.667 y:0.667]	3	X	0.558	0.986	0.428	0.164	0.304	0.140		
	4	X	0.582	1.012	0.430	-0.248	-0.393	0.145	0.432	0.00288
	5	Y	0.019	0.026	0.007	0.667	1.129	0.462		
	6	Y	-0.004	0.001	0.005	1.054	1.785	0.731	0.775	0.00517
1+C/1-2 [Q'/H x:0.667 y:0.667]	3	X	0.660	1.176	0.516	0.164	0.304	0.140	0.549	0.00366
	4	X	0.408	0.736	0.328	-0.248	-0.393	0.145		
	5	Y	-0.098	-0.168	0.070	0.667	1.129	0.462		
	6	Y	0.139	0.247	0.108	1.054	1.785	0.731	0.775	0.00517
2+A/1-2 [Q'/H x:0.667 y:0.667]	3	X	0.456	0.795	0.339	0.065	0.119	0.054		
	4	X	0.756	1.288	0.532	-0.080	-0.126	0.047	0.561	0.00374
	5	Y	0.135	0.220	0.085	0.779	1.316	0.537		
	6	Y	-0.146	-0.244	0.098	0.916	1.547	0.632	0.648	0.00432
2+B/1-2 [Q'/H x:0.667 y:0.667]	3	X	0.558	0.986	0.428	0.065	0.119	0.054		
	4	X	0.582	1.012	0.430	-0.080	-0.126	0.047	0.432	0.00288
	5	Y	0.019	0.026	0.007	0.779	1.316	0.537		
	6	Y	-0.004	0.001	0.005	0.916	1.547	0.632	0.648	0.00432
2+C/1-2 [Q'/H x:0.667 y:0.667]	3	X	0.660	1.176	0.516	0.065	0.119	0.054	0.549	0.00366
	4	X	0.408	0.736	0.328	-0.080	-0.126	0.047		
	5	Y	-0.098	-0.168	0.070	0.779	1.316	0.537		

DESPLAZAMIENTOS RELATIVOS

8

Columna	EC	Dir	NiX (cm)	NjX (cm)	Rx (cm)	NiY (cm)	NjY (cm)	Ry (cm)	Ry+0.3*RXy Rx+0.3*RYx	*Q'/H
	6	Y	0.139	0.247	0.108	0.916	1.547	0.632	0.648	0.00432
3+A/1-2	3	X	0.456	0.795	0.339	-0.042	-0.080	0.039		
[Q'/H x:0.667 y:0.667]	4	X	0.756	1.288	0.532	0.103	0.163	0.060	0.561	0.00374
	5	Y	0.135	0.220	0.085	0.902	1.519	0.617	0.636	0.00424
	6	Y	-0.146	-0.244	0.098	0.766	1.290	0.524		
3+B/1-2	3	X	0.558	0.986	0.428	-0.042	-0.080	0.039		
[Q'/H x:0.667 y:0.667]	4	X	0.582	1.012	0.430	0.103	0.163	0.060	0.432	0.00288
	5	Y	0.019	0.026	0.007	0.902	1.519	0.617	0.636	0.00424
	6	Y	-0.004	0.001	0.005	0.766	1.290	0.524		
3+C/1-2	3	X	0.660	1.176	0.516	-0.042	-0.080	0.039	0.549	0.00366
[Q'/H x:0.667 y:0.667]	4	X	0.408	0.736	0.328	0.103	0.163	0.060		
	5	Y	-0.098	-0.168	0.070	0.902	1.519	0.617	0.636	0.00424
	6	Y	0.139	0.247	0.108	0.766	1.290	0.524		
4+A/1-2	3	X	0.456	0.795	0.339	-0.140	-0.265	0.125		
[Q'/H x:0.667 y:0.667]	4	X	0.756	1.288	0.532	0.272	0.431	0.159	0.561	0.00374
	5	Y	0.135	0.220	0.085	1.015	1.707	0.692	0.740	0.00493
	6	Y	-0.146	-0.244	0.098	0.628	1.052	0.424		
4+B/1-2	3	X	0.558	0.986	0.428	-0.140	-0.265	0.125		
[Q'/H x:0.667 y:0.667]	4	X	0.582	1.012	0.430	0.272	0.431	0.159	0.432	0.00288
	5	Y	0.019	0.026	0.007	1.015	1.707	0.692	0.740	0.00493
	6	Y	-0.004	0.001	0.005	0.628	1.052	0.424		
4+C/1-2	3	X	0.660	1.173	0.513	-0.140	-0.263	0.123	0.546	0.00364
[Q'/H x:0.667 y:0.667]	4	X	0.408	0.734	0.327	0.272	0.429	0.158		
	5	Y	-0.098	-0.167	0.069	1.015	1.700	0.686	0.733	0.00489
	6	Y	0.139	0.246	0.107	0.628	1.048	0.420		

PARAMETEROS DE DISEÑO

Reglamento: RDF96
 Deformación concreto: 0.0030
 Modulo de elasticidad del acero: 2000000 kg/m2
 Marco dúctil: No

Flexión

fy acero longitudinal: 4200 kg/cm2
 FR flexión: 0.900
 M resistente mínimo: 1.500 M agrietamiento
 Area máxima de acero en tensión: 0.750 A balanceada
 Acero máximo por lecho: 0.025 bd
 fy acero transversal: 4200 kg/cm2
 FR cortante: 0.800

Flexocompresión

fy acero longitudinal: 4200 kg/cm2
 FR falla en compresión (FRC): 0.700
 FR falla en tensión (FRt): 0.800
 Acero mínimo: 0.001 bd
 Acero máximo: 0.060 bd
 M resistente mínimo: 1.500 M agrietamiento
 Area máxima de acero en tensión: 0.750 A balanceada
 Acero máximo por lecho: 0.025 bd
 fy acero transversal: 4200 kg/cm2
 FR cortante: 0.800
 Var. lineal entre FRt y FRC: Si

DISEÑO A FLEXION

Miembro	X (m)	M3s (T*m)	DI	M3i (T*m)	DI	As (cm2)	Ai (cm2)	V2u (T)	DI	Vcr (T)	SAv (cm/cm2)	Sep (cm)	M1 (T*m)
1+A-B/1	0.000	36.72	31	-26.68	32	20.95	14.38	14.35	31	9.33	32.000	25	0.27
T01:30x60	0.225	33.51	31	-25.51	32	18.75	13.67	14.23	31	9.33	32.000	25	0.27
f'c:250	0.825	25.11	31	-22.21	32	13.43	11.71	13.73	31	8.29	32.000	25	0.27
E2r#3	1.375	17.74	31	-18.86	32	9.16	9.79	13.05	31	6.84	29.774	25	0.27
	2.525	3.84	31	-10.34	32	4.36	5.17	10.96	31	5.21	32.000	25	0.27
	3.000	0.00		-6.02	32	4.36	4.36	9.83	31	5.21	32.000	25	0.27
	3.100	0.00		-5.04	32	4.36	4.36	9.91	32	5.21	32.000	25	0.32
	3.200	0.00		-4.91	1	4.36	4.36	10.17	32	5.21	32.000	25	0.32
	3.675	1.06	32	-7.17	31	4.36	4.36	11.30	32	5.21	30.382	25	0.32
	4.825	15.34	32	-15.31	31	7.84	7.82	13.38	32	6.39	26.441	25	0.32
	5.375	22.90	32	-18.48	31	12.11	9.57	14.06	32	7.84	29.729	25	0.32
	5.975	31.50	32	-21.57	31	17.42	11.34	14.56	32	9.33	32.000	25	0.32
	6.200	34.79	32	-22.67	31	19.61	11.98	14.69	32	9.33	32.000	25	0.32
1+B-C/1	0.000	34.88	31	-22.62	32	19.67	11.95	14.72	31	9.33	32.000	25	0.31
T01:30x60	0.225	31.58	31	-21.53	32	17.48	11.31	14.60	31	9.33	32.000	25	0.31
f'c:250	0.825	22.96	31	-18.44	32	12.15	9.55	14.09	31	7.86	29.633	25	0.31
E2r#3	1.375	15.39	31	-15.28	32	7.86	7.81	13.42	31	6.40	26.349	25	0.31
	2.525	1.07	31	-7.16	32	4.36	4.36	11.33	31	5.21	30.220	25	0.31
	3.000	0.00		-4.91	1	4.36	4.36	10.20	31	5.21	32.000	25	0.31
	3.100	0.00		-5.05	31	4.36	4.36	9.95	31	5.21	32.000	25	0.31
	3.200	0.00		-6.04	31	4.36	4.36	9.82	32	5.21	32.000	25	0.26
	3.675	3.84	32	-10.37	31	4.36	5.19	10.95	32	5.21	32.000	25	0.26
	4.825	17.72	32	-18.93	31	9.15	9.83	13.04	32	6.84	29.823	25	0.26
	5.375	25.08	32	-22.29	31	13.41	11.76	13.71	32	8.29	32.000	25	0.26
	5.975	33.47	32	-25.61	31	18.73	13.73	14.21	32	9.33	32.000	25	0.26
	6.200	36.69	32	-26.79	31	20.92	14.45	14.34	32	9.33	32.000	25	0.26
2+A-B/1	0.000	33.19	31	-16.44	32	18.54	8.44	15.44	31	9.33	30.273	25	0.14
T01:30x60	0.250	29.35	31	-16.40	32	16.04	8.42	15.28	31	9.18	30.309	25	0.14
f'c:250	0.850	20.38	31	-16.08	32	10.65	8.24	14.54	31	7.35	25.708	25	0.14
E2r#3	1.395	12.74	31	-15.27	32	6.44	7.80	13.44	31	5.92	24.578	25	0.14
	2.540	0.00		-11.01	32	4.36	5.52	9.80	31	5.61	32.000	25	0.14
	3.000	0.00		-8.97	1	4.36	4.46	7.83	31	5.25	32.000	25	0.14
	3.100	0.00		-8.95	1	4.36	4.45	8.13	32	5.24	32.000	25	0.14
	3.112	0.00		-8.94	1	4.36	4.45	8.19	32	5.24	32.000	25	0.14
	3.200	0.00		-8.86	1	4.36	4.41	8.60	32	5.23	32.000	25	0.14
	3.685	0.00		-9.10	31	4.36	4.53	10.66	32	5.27	32.000	25	0.14
	4.830	12.81	32	-12.40	31	6.48	6.26	14.27	32	5.93	22.171	25	0.14
	5.375	20.90	32	-12.75	31	10.95	6.44	15.35	32	7.45	23.398	25	0.14
	5.975	30.35	32	-12.60	31	16.68	6.36	16.07	32	9.33	27.448	25	0.14
	6.200	33.98	32	-12.45	31	19.07	6.28	16.21	32	9.33	26.882	25	0.14
2+B-C/1	0.000	34.77	31	-13.48	32	19.60	6.84	16.57	31	9.33	25.546	25	0.25
T01:30x60	0.225	31.06	31	-13.52	32	17.14	6.85	16.43	31	9.33	26.057	25	0.25
f'c:250	0.825	21.39	31	-13.38	32	11.23	6.78	15.71	31	7.55	22.643	25	0.25
E2r#3	1.375	13.03	31	-12.75	32	6.59	6.45	14.61	31	5.97	21.382	25	0.25
	2.525	0.00		-8.86	32	4.36	4.41	10.98	31	5.23	32.000	25	0.25
	3.000	0.00		-8.76	1	4.36	4.36	8.95	31	5.21	32.000	25	0.25
	3.100	0.00		-8.84	1	4.36	4.40	8.49	31	5.23	32.000	25	0.25
	3.200	0.00		-8.86	1	4.36	4.41	8.31	32	5.23	32.000	25	0.23
	3.675	0.17	32	-11.63	31	4.36	5.85	10.34	32	5.21	32.000	25	0.23

DISEÑO A FLEXION

Miembro	X (m)	M3s (T*m)	DI	M3i (T*m)	DI	As (cm2)	Ai (cm2)	V2u (T)	DI	Vcr (T)	SAv (cm/cm2)	Sep (cm)	M1 (T*m)
	4.825	14.32	32	-16.26	31	7.28	8.34	13.97	32	6.21	23.801	25	0.23
	5.375	22.32	32	-17.24	31	11.77	8.89	15.06	32	7.73	25.199	25	0.23
	5.975	31.60	32	-17.77	31	17.49	9.18	15.78	32	9.33	28.660	25	0.23
	6.200	35.17	32	-17.88	31	19.87	9.24	15.92	32	9.33	28.044	25	0.23
3+A-B/1	0.000	32.90	25	-16.18	22	18.34	8.30	15.35	25	9.33	30.738	25	0.10
T01:30x60	0.250	29.08	25	-16.17	22	15.87	8.29	15.18	25	9.12	30.479	25	0.10
f'c:250	0.850	20.16	25	-15.88	22	10.53	8.13	14.45	25	7.31	25.889	25	0.10
E2r#3	1.395	12.57	25	-15.12	22	6.35	7.72	13.35	25	5.89	24.784	25	0.10
	2.540	0.00		-10.93	22	4.36	5.48	9.70	25	5.59	32.000	25	0.10
	3.000	0.00		-8.95	1	4.36	4.46	7.73	25	5.25	32.000	25	0.10
	3.100	0.00		-8.93	1	4.36	4.44	8.06	22	5.24	32.000	25	0.11
	3.112	0.00		-8.92	1	4.36	4.44	8.12	22	5.24	32.000	25	0.11
	3.200	0.00		-8.84	1	4.36	4.40	8.52	22	5.23	32.000	25	0.11
	3.685	0.00		-9.06	25	4.36	4.51	10.59	22	5.26	32.000	25	0.11
	4.830	12.72	22	-12.24	25	6.43	6.18	14.19	22	5.92	22.319	25	0.11
	5.375	20.77	22	-12.55	25	10.88	6.34	15.28	22	7.42	23.537	25	0.11
	5.975	30.18	22	-12.34	25	16.57	6.23	15.99	22	9.33	27.744	25	0.11
	6.200	33.79	22	-12.17	25	18.94	6.14	16.14	22	9.33	27.166	25	0.11
3+B-C/1	0.000	34.56	25	-13.30	22	19.46	6.74	16.51	25	9.33	25.761	25	0.21
T01:30x60	0.225	30.86	25	-13.35	22	17.01	6.77	16.37	25	9.33	26.280	25	0.21
f'c:250	0.825	21.23	25	-13.25	22	11.14	6.71	15.65	25	7.51	22.722	25	0.21
E2r#3	1.375	12.90	25	-12.66	22	6.53	6.40	14.55	25	5.95	21.474	25	0.21
	2.525	0.00		-8.84	22	4.36	4.40	10.92	25	5.23	32.000	25	0.21
	3.000	0.00		-8.79	1	4.36	4.37	8.89	25	5.22	32.000	25	0.21
	3.100	0.00		-8.87	1	4.36	4.41	8.43	25	5.23	32.000	25	0.21
	3.200	0.00		-8.89	1	4.36	4.42	8.24	22	5.23	32.000	25	0.20
	3.675	0.11	22	-11.62	25	4.36	5.84	10.27	22	5.21	32.000	25	0.20
	4.825	14.18	22	-16.18	25	7.21	8.30	13.90	22	6.18	23.927	25	0.20
	5.375	22.15	22	-17.13	25	11.68	8.82	15.00	22	7.70	25.309	25	0.20
	5.975	31.39	22	-17.62	25	17.35	9.09	15.72	22	9.33	28.955	25	0.20
	6.200	34.94	22	-17.72	25	19.72	9.15	15.86	22	9.33	28.326	25	0.20
4+A-B/1	0.000	35.51	25	-25.66	22	20.11	13.76	13.96	25	9.33	32.000	25	0.23
T01:30x60	0.225	32.38	25	-24.56	22	18.00	13.10	13.83	25	9.33	32.000	25	0.23
f'c:250	0.825	24.22	25	-21.43	22	12.89	11.26	13.33	25	8.11	32.000	25	0.23
E2r#3	1.375	17.06	25	-18.24	22	8.79	9.44	12.65	25	6.72	31.119	25	0.23
	2.525	3.63	25	-10.05	22	4.36	5.02	10.57	25	5.21	32.000	25	0.23
	3.000	0.00		-5.87	22	4.36	4.36	9.44	25	5.21	32.000	25	0.23
	3.100	0.00		-4.92	22	4.36	4.36	9.63	22	5.21	32.000	25	0.28
	3.200	0.00		-4.81	1	4.36	4.36	9.88	22	5.21	32.000	25	0.28
	3.675	1.03	22	-6.94	25	4.36	4.36	11.01	22	5.21	31.880	25	0.28
	4.825	14.98	22	-14.62	25	7.64	7.45	13.10	22	6.33	27.292	25	0.28
	5.375	22.38	22	-17.57	25	11.81	9.07	13.78	22	7.74	30.624	25	0.28
	5.975	30.80	22	-20.43	25	16.97	10.68	14.28	22	9.33	32.000	25	0.28
	6.200	34.03	22	-21.43	25	19.10	11.26	14.40	22	9.33	32.000	25	0.28
4+B-C/1	0.000	33.82	25	-21.68	22	18.96	11.40	14.40	25	9.33	32.000	25	0.26
T01:30x60	0.225	30.60	25	-20.67	22	16.84	10.82	14.28	25	9.33	32.000	25	0.26
f'c:250	0.825	22.17	25	-17.80	22	11.68	9.19	13.78	25	7.70	30.404	25	0.26
E2r#3	1.375	14.77	25	-14.84	22	7.53	7.57	13.10	25	6.29	27.128	25	0.26
	2.525	0.81	25	-7.14	22	4.36	4.36	11.01	25	5.21	31.867	25	0.26
	3.000	0.00		-5.09	1	4.36	4.36	9.88	25	5.21	32.000	25	0.26
	3.100	0.00		-5.13	1	4.36	4.36	9.63	25	5.21	32.000	25	0.26
	3.200	0.00		-6.08	25	4.36	4.36	9.46	22	5.21	32.000	25	0.21
	3.675	3.44	22	-10.26	25	4.36	5.13	10.58	22	5.21	32.000	25	0.21
	4.825	16.90	22	-18.46	25	8.70	9.56	12.67	22	6.68	30.870	25	0.21
	5.375	24.07	22	-21.65	25	12.80	11.38	13.35	22	8.08	32.000	25	0.21
	5.975	32.24	22	-24.78	25	17.91	13.23	13.85	22	9.33	32.000	25	0.21
	6.200	35.37	22	-25.88	25	20.01	13.90	13.97	22	9.33	32.000	25	0.21
A+1-2/1	0.000	30.95	16	-21.05	15	17.07	11.04	12.56	16	9.33	32.000	25	0.27
T01:30x60	0.300	27.20	16	-19.92	15	14.70	10.39	12.39	16	8.72	32.000	25	0.27
f'c:250	0.900	19.92	16	-17.45	15	10.39	9.00	11.86	16	7.26	32.000	25	0.27
E2r#3	1.380	14.37	16	-15.20	15	7.31	7.76	11.25	16	6.21	32.000	25	0.27
	2.460	3.19	16	-8.83	15	4.36	4.39	9.31	16	5.21	32.000	25	0.27
	3.000	0.00		-4.75	15	4.36	4.36	8.21	15	5.21	32.000	25	0.40
	3.540	0.04	15	-5.49	16	4.36	4.36	9.48	15	5.21	32.000	25	0.40
	4.620	11.39	15	-11.69	16	5.73	5.88	11.42	15	5.68	32.000	25	0.40
	5.100	17.03	15	-13.86	16	8.76	7.04	12.02	15	6.71	32.000	25	0.40
	5.700	24.41	15	-16.22	16	13.01	8.32	12.55	15	8.15	32.000	25	0.40
	6.000	28.20	15	-17.30	16	15.32	8.92	12.73	15	8.93	32.000	25	0.40
A+2-3/1	0.000	24.35	16	-11.43	15	12.97	5.74	10.66	16	8.14	32.000	25	0.26
T01:30x60	0.300	21.17	16	-11.30	15	11.11	5.68	10.49	16	7.50	32.000	25	0.26
f'c:250	0.900	15.02	16	-10.84	15	7.67	5.44	9.96	16	6.34	32.000	25	0.26
E2r#3	1.480	9.46	16	-10.03	15	4.71	5.01	9.21	16	5.33	32.000	25	0.26
	2.660	0.00		-6.68	15	4.36	4.36	6.97	16	5.21	32.000	25	0.26
	3.100	0.00		-5.35	1	4.36	4.36	5.89	16	5.21	32.000	25	0.26
	3.250	0.00		-5.39	1	4.36	4.36	5.51	15	5.21	32.000	25	0.26
	3.400	0.00		-5.34	1	4.36	4.36	5.90	15	5.21	32.000	25	0.26
	3.840	0.00		-6.67	16	4.36	4.36	6.98	15	5.21	32.000	25	0.26

DISEÑO A FLEXION

Miembro	X (m)	M3s (T*m)	DI	M3i (T*m)	DI	As (cm2)	Ai (cm2)	V2u (T)	DI	Vcr (T)	SAv (cm/cm2)	Sep (cm)	M1 (T*m)
	5.020	9.48	15	-10.00	16	4.73	5.00	9.22	15	5.34	32.000	25	0.26
	5.600	15.06	15	-10.81	16	7.68	5.42	9.97	15	6.34	32.000	25	0.26
	6.200	21.21	15	-11.26	16	11.13	5.66	10.50	15	7.51	32.000	25	0.26
	6.500	24.39	15	-11.38	16	13.00	5.72	10.68	15	8.14	32.000	25	0.26
A+3-4/1	0.000	28.18	16	-17.37	15	15.31	8.96	12.72	16	8.93	32.000	25	0.33
T01:30x60	0.300	24.39	16	-16.28	15	13.00	8.35	12.55	16	8.14	32.000	25	0.33
f.c:250	0.900	17.01	16	-13.90	15	8.76	7.06	12.02	16	6.71	32.000	25	0.33
E2r#3	1.380	11.38	16	-11.73	15	5.72	5.90	11.41	16	5.67	32.000	25	0.33
	2.460	0.03	16	-5.51	15	4.36	4.36	9.47	16	5.21	32.000	25	0.33
	3.000	0.00		-4.75	16	4.36	4.36	8.20	16	5.21	32.000	25	0.33
	3.540	3.20	15	-8.83	16	4.36	4.39	9.33	15	5.21	32.000	25	0.20
	4.620	14.40	15	-15.20	16	7.33	7.76	11.27	15	6.22	32.000	25	0.20
	5.100	19.96	15	-17.44	16	10.41	9.00	11.88	15	7.27	32.000	25	0.20
	5.700	27.26	15	-19.90	16	14.74	10.38	12.41	15	8.74	32.000	25	0.20
	6.000	31.01	15	-21.03	16	17.11	11.03	12.58	15	9.33	32.000	25	0.20
B+1-2/1	0.000	28.99	9	-12.19	6	15.82	6.15	14.10	9	9.10	32.000	25	0.20
T01:30x60	0.300	24.79	9	-12.39	6	13.24	6.25	13.89	9	8.23	32.000	25	0.20
f.c:250	0.900	16.66	9	-12.50	6	8.57	6.31	13.11	9	6.64	28.551	25	0.20
E2r#3	1.380	10.59	9	-12.16	6	5.31	6.13	12.13	9	5.53	28.008	25	0.20
	2.460	0.00		-9.17	6	4.36	4.57	8.77	9	5.28	32.000	25	0.20
	3.000	0.00		-7.78	1	4.36	4.36	6.87	6	5.21	32.000	25	0.20
	3.540	0.00		-7.84	9	4.36	4.36	9.15	6	5.21	32.000	25	0.20
	4.620	10.10	6	-10.42	9	5.05	5.21	12.52	6	5.45	26.132	25	0.20
	5.100	16.35	6	-10.57	9	8.39	5.29	13.50	6	6.58	26.719	25	0.20
	5.700	24.71	6	-10.23	9	13.19	5.11	14.28	6	8.21	30.449	25	0.20
	6.000	29.03	6	-9.91	9	15.84	4.95	14.48	6	9.11	32.000	25	0.20
B+2-3/1	0.000	28.26	9	-5.56	6	15.36	4.36	14.00	9	8.95	32.000	25	0.20
T01:30x60	0.300	24.09	9	-6.61	6	12.82	4.36	13.79	9	8.08	32.000	25	0.20
f.c:250	0.900	16.02	9	-8.43	6	8.21	4.36	13.01	9	6.52	28.473	25	0.20
E2r#3	1.480	8.81	9	-9.61	6	4.38	4.79	11.79	9	5.22	28.145	25	0.20
	2.660	0.00		-9.11	6	4.36	4.54	7.87	9	5.27	32.000	25	0.20
	3.100	0.00		-9.56	1	4.36	4.77	5.92	9	5.35	32.000	25	0.20
	3.250	0.00		-9.63	1	4.36	4.81	5.20	9	5.36	32.000	25	0.20
	3.400	0.00		-9.56	1	4.36	4.77	5.91	6	5.35	32.000	25	0.20
	3.840	0.00		-9.12	9	4.36	4.54	7.87	6	5.27	32.000	25	0.20
	5.020	8.81	6	-9.62	9	4.38	4.80	11.78	6	5.22	28.154	25	0.20
	5.600	16.03	6	-8.44	9	8.21	4.36	13.01	6	6.52	28.481	25	0.20
	6.200	24.09	6	-6.62	9	12.82	4.36	13.79	6	8.08	32.000	25	0.20
	6.500	28.26	6	-5.57	9	15.36	4.36	13.99	6	8.95	32.000	25	0.20
B+3-4/1	0.000	29.00	9	-9.95	6	15.82	4.97	14.47	9	9.10	32.000	25	0.18
T01:30x60	0.300	24.69	9	-10.26	6	13.17	5.13	14.27	9	8.20	30.493	25	0.18
f.c:250	0.900	16.34	9	-10.60	6	8.38	5.31	13.49	9	6.58	26.760	25	0.18
E2r#3	1.380	10.09	9	-10.44	6	5.04	5.22	12.50	9	5.44	26.177	25	0.18
	2.460	0.00		-7.85	6	4.36	4.36	9.14	9	5.21	32.000	25	0.18
	3.000	0.00		-7.78	1	4.36	4.36	6.86	9	5.21	32.000	25	0.18
	3.540	0.00		-9.15	9	4.36	4.56	8.78	6	5.28	32.000	25	0.21
	4.620	10.61	6	-12.13	9	5.32	6.11	12.15	6	5.54	27.970	25	0.21
	5.100	16.69	6	-12.46	9	8.58	6.29	13.13	6	6.65	28.518	25	0.21
	5.700	24.82	6	-12.34	9	13.26	6.22	13.91	6	8.23	32.000	25	0.21
	6.000	29.03	6	-12.14	9	15.84	6.12	14.11	6	9.11	32.000	25	0.21
C+1-2/1	0.000	30.08	13	-20.39	10	16.51	10.66	12.60	13	9.33	32.000	25	0.17
T01:30x60	0.300	26.33	13	-19.23	10	14.17	10.00	12.42	13	8.54	32.000	25	0.17
f.c:250	0.900	19.02	13	-16.71	10	9.88	8.59	11.89	13	7.09	32.000	25	0.17
E2r#3	1.380	13.45	13	-14.41	10	6.82	7.34	11.29	13	6.05	32.000	25	0.17
	2.460	2.24	13	-7.93	10	4.36	4.36	9.35	13	5.21	32.000	25	0.17
	3.000	0.00		-4.36	1	4.36	4.36	8.30	10	5.21	32.000	25	0.26
	3.540	1.03	10	-6.48	13	4.36	4.36	9.57	10	5.21	32.000	25	0.26
	4.620	12.49	10	-12.72	13	6.31	6.43	11.51	10	5.87	32.000	25	0.26
	5.100	18.17	10	-14.90	13	9.40	7.60	12.12	10	6.92	32.000	25	0.26
	5.700	25.62	10	-17.29	13	13.73	8.91	12.65	10	8.39	32.000	25	0.26
	6.000	29.44	10	-18.38	13	16.10	9.52	12.82	10	9.20	32.000	25	0.26
C+2-3/1	0.000	27.31	13	-14.30	10	14.77	7.27	11.57	13	8.75	32.000	25	0.21
T01:30x60	0.300	23.87	13	-13.90	10	12.69	7.06	11.40	13	8.04	32.000	25	0.21
f.c:250	0.900	17.18	13	-12.91	10	8.85	6.53	10.87	13	6.74	32.000	25	0.21
E2r#3	1.480	11.08	13	-11.58	10	5.56	5.83	10.12	13	5.62	32.000	25	0.21
	2.660	0.37	13	-7.18	10	4.36	4.36	7.88	13	5.21	32.000	25	0.21
	3.100	0.00		-5.32	1	4.36	4.36	6.79	13	5.21	32.000	25	0.21
	3.250	0.00		-5.36	1	4.36	4.36	6.40	13	5.21	32.000	25	0.21
	3.400	0.00		-5.32	1	4.36	4.36	6.79	10	5.21	32.000	25	0.22
	3.840	0.37	10	-7.18	13	4.36	4.36	7.87	10	5.21	32.000	25	0.22
	5.020	11.07	10	-11.59	13	5.56	5.83	10.11	10	5.62	32.000	25	0.22
	5.600	17.17	10	-12.92	13	8.84	6.54	10.86	10	6.73	32.000	25	0.22
	6.200	23.85	10	-13.92	13	12.68	7.07	11.39	10	8.04	32.000	25	0.22
	6.500	27.30	10	-14.31	13	14.76	7.28	11.57	10	8.74	32.000	25	0.22
C+3-4/1	0.000	29.41	13	-18.36	10	16.08	9.51	12.81	13	9.19	32.000	25	0.24
T01:30x60	0.300	25.59	13	-17.27	10	13.72	8.90	12.64	13	8.39	32.000	25	0.24
f.c:250	0.900	18.16	13	-14.89	10	9.39	7.60	12.11	13	6.92	32.000	25	0.24

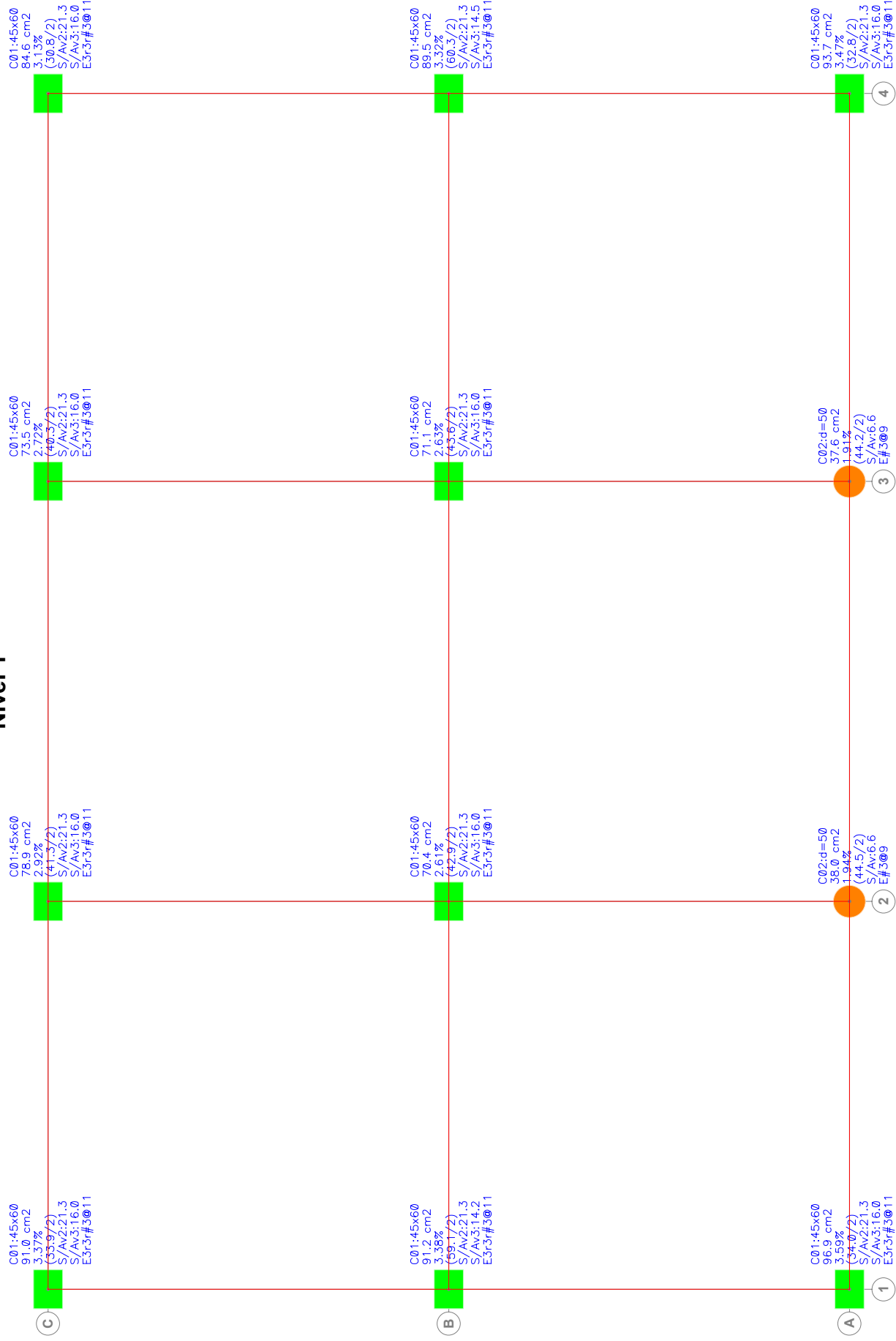
DISEÑO A FLEXION

Miembro	X (m)	M3s (T*m)	DI	M3i (T*m)	DI	As (cm2)	Ai (cm2)	V2u (T)	DI	Vcr (T)	SAv (cm/cm2)	Sep (cm)	M1 (T*m)
E2#3	1.380	12.48	13	-12.71	10	6.30	6.42	11.50	13	5.87	32.000	25	0.24
	2.460	1.04	13	-6.49	10	4.36	4.36	9.56	13	5.21	32.000	25	0.24
	3.000	0.00		-4.37	1	4.36	4.36	8.29	13	5.21	32.000	25	0.24
	3.540	2.22	10	-7.92	13	4.36	4.36	9.34	10	5.21	32.000	25	0.18
	4.620	13.43	10	-14.39	13	6.81	7.32	11.28	10	6.04	32.000	25	0.18
	5.100	18.99	10	-16.68	13	9.86	8.57	11.88	10	7.08	32.000	25	0.18
	5.700	26.29	10	-19.19	13	14.15	9.98	12.41	10	8.53	32.000	25	0.18
	6.000	30.05	10	-20.35	13	16.49	10.64	12.59	10	9.33	32.000	25	0.18

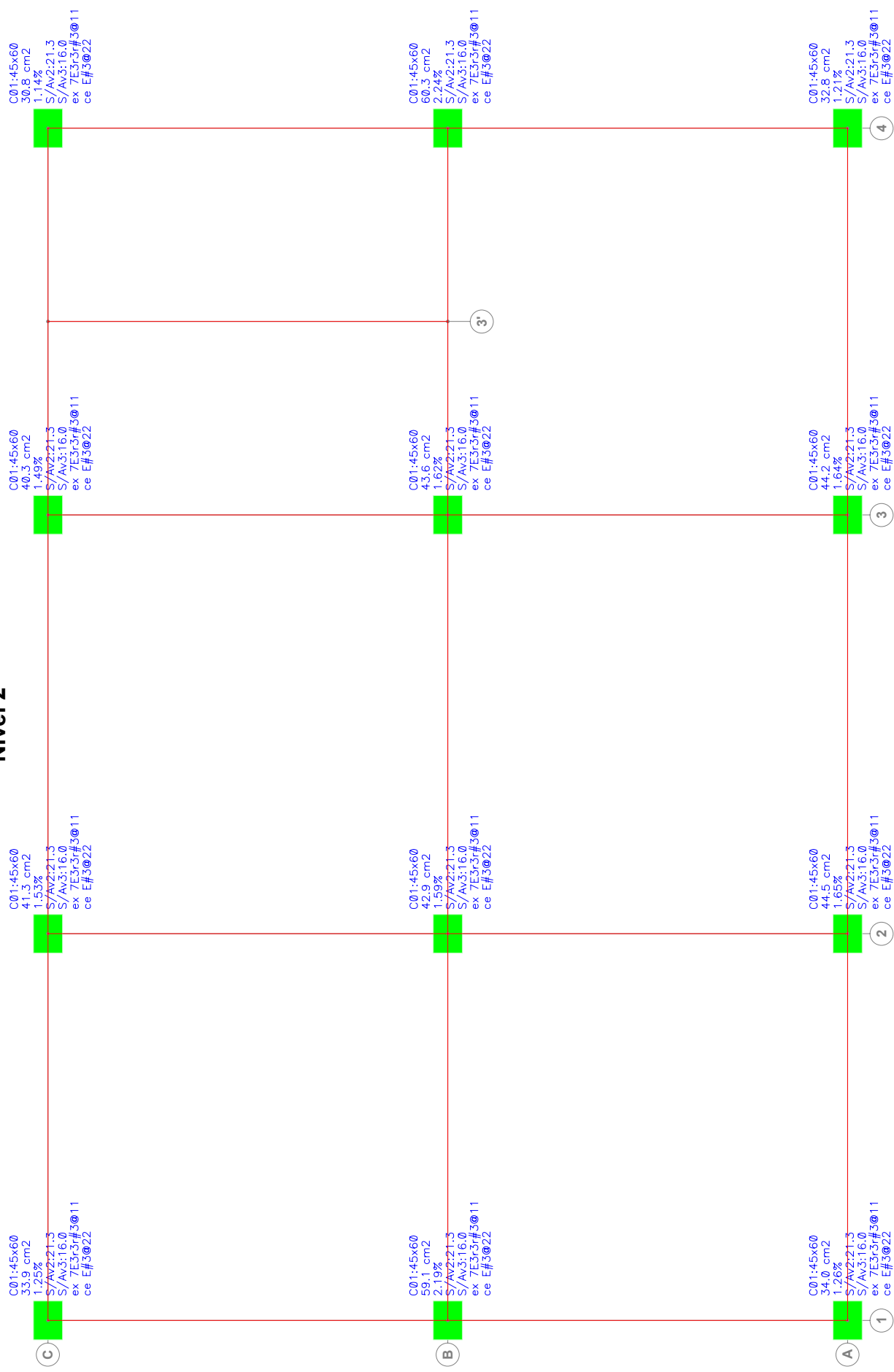
DISEÑO A FLEXOCOMPRESION

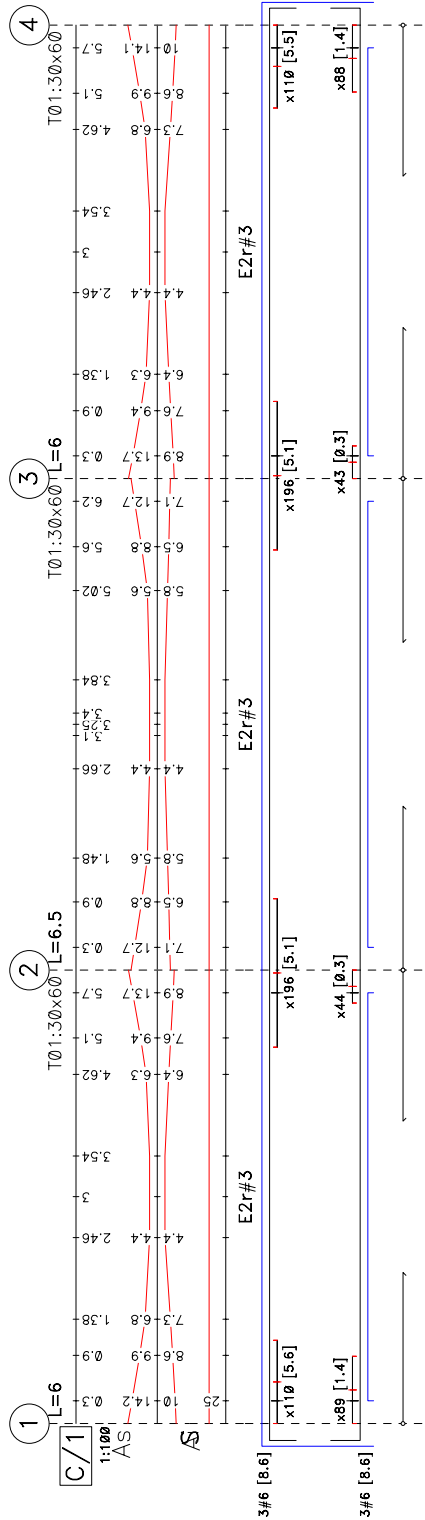
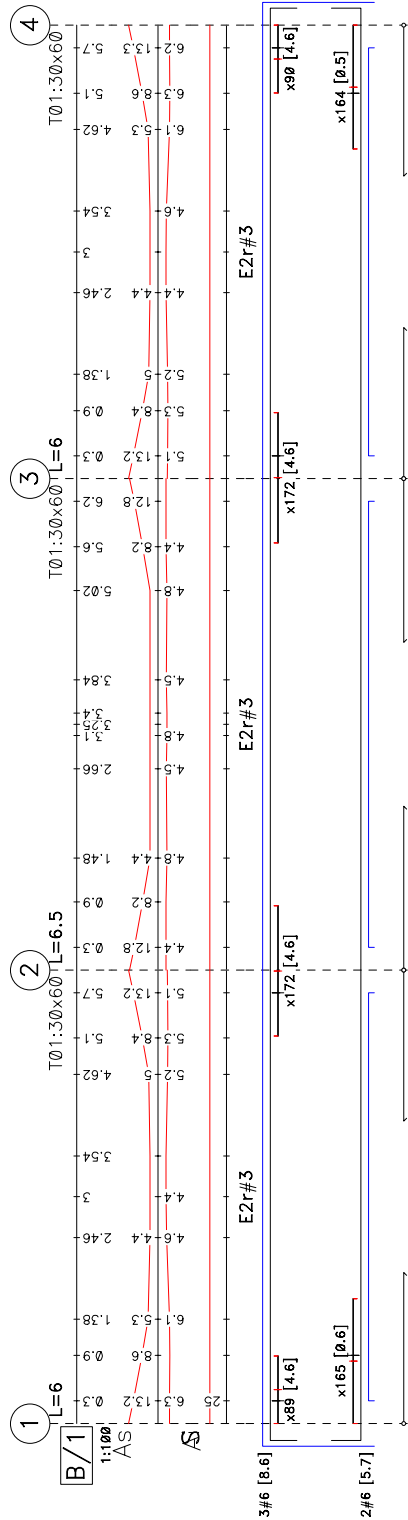
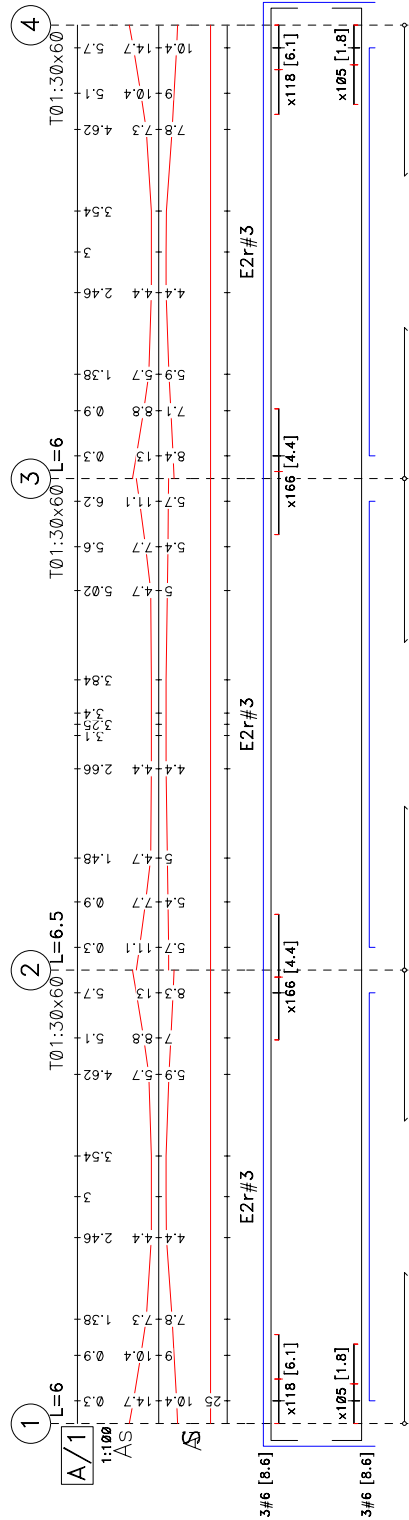
Miembro	Pu (T)	Mu (T*m)	DI	Acero (cm2)	Dir	Pu (T)	Vu (T)	DI	Vcr (T)	SAv (cm/cm2)	Estribos
1+A/0-1 C01:45x60 fc250	30.26	40.50 20.85	31	96.87 3.59%	2 3	27.44 30.26	21.10 19.38	16 31	14.07 13.74	21.333 16.000	E3r3r#3@11
1+B/0-1 C01:45x60 fc250	40.23	44.22 11.56	32	91.17 3.38%	2 3	47.59 34.21	16.02 22.85	9 31	14.26 13.40	21.333 14.214	E3r3r#3@11
1+C/0-1 C01:45x60 fc250	12.95	37.96 19.84	29	91.00 3.37%	2 3	27.67 35.92	18.03 19.24	13 32	13.59 13.44	21.333 16.000	E3r3r#3@11
2+A/0-1 C02:d=50 fc250	50.19	24.34 9.90	31	38.01 1.94%		50.19	13.28	31	10.26	6.637	E#3@9
2+B/0-1 C01:45x60 fc250	64.95	13.81 36.55	16	70.36 2.61%	2 3	65.07 68.25	17.73 18.85	9 31	12.94 12.64	21.333 16.000	E3r3r#3@11
2+C/0-1 C01:45x60 fc250	51.13	33.94 20.59	26	78.92 2.92%	2 3	30.00 49.80	20.57 16.57	13 32	12.65 12.85	21.333 16.000	E3r3r#3@11
3+A/0-1 C02:d=50 fc250	49.94	24.21 9.67	25	37.57 1.91%		49.94	13.20	25	10.19	6.637	E#3@9
3+B/0-1 C01:45x60 fc250	69.33	14.79 36.20	9	71.08 2.63%	2 3	64.26 68.07	17.73 18.77	6 25	12.98 12.70	21.333 16.000	E3r3r#3@11
3+C/0-1 C01:45x60 fc250	50.38	33.22 18.10	20	73.47 2.72%	2 3	36.46 49.23	20.59 16.49	10 22	12.38 12.37	21.333 16.000	E3r3r#3@11
4+A/0-1 C01:45x60 fc250	30.05	39.48 20.34	25	93.69 3.47%	2 3	27.43 30.05	21.00 18.93	6 25	13.80 13.47	21.333 16.000	E3r3r#3@11
4+B/0-1 C01:45x60 fc250	36.94	42.86 12.42	22	89.53 3.32%	2 3	44.11 30.66	16.02 22.44	6 25	14.00 13.15	21.333 14.478	E3r3r#3@11
4+C/0-1 C01:45x60 fc250	26.79	37.96 16.27	20	84.60 3.13%	2 3	31.29 33.04	18.11 19.03	10 22	13.17 12.82	21.333 16.000	E3r3r#3@11

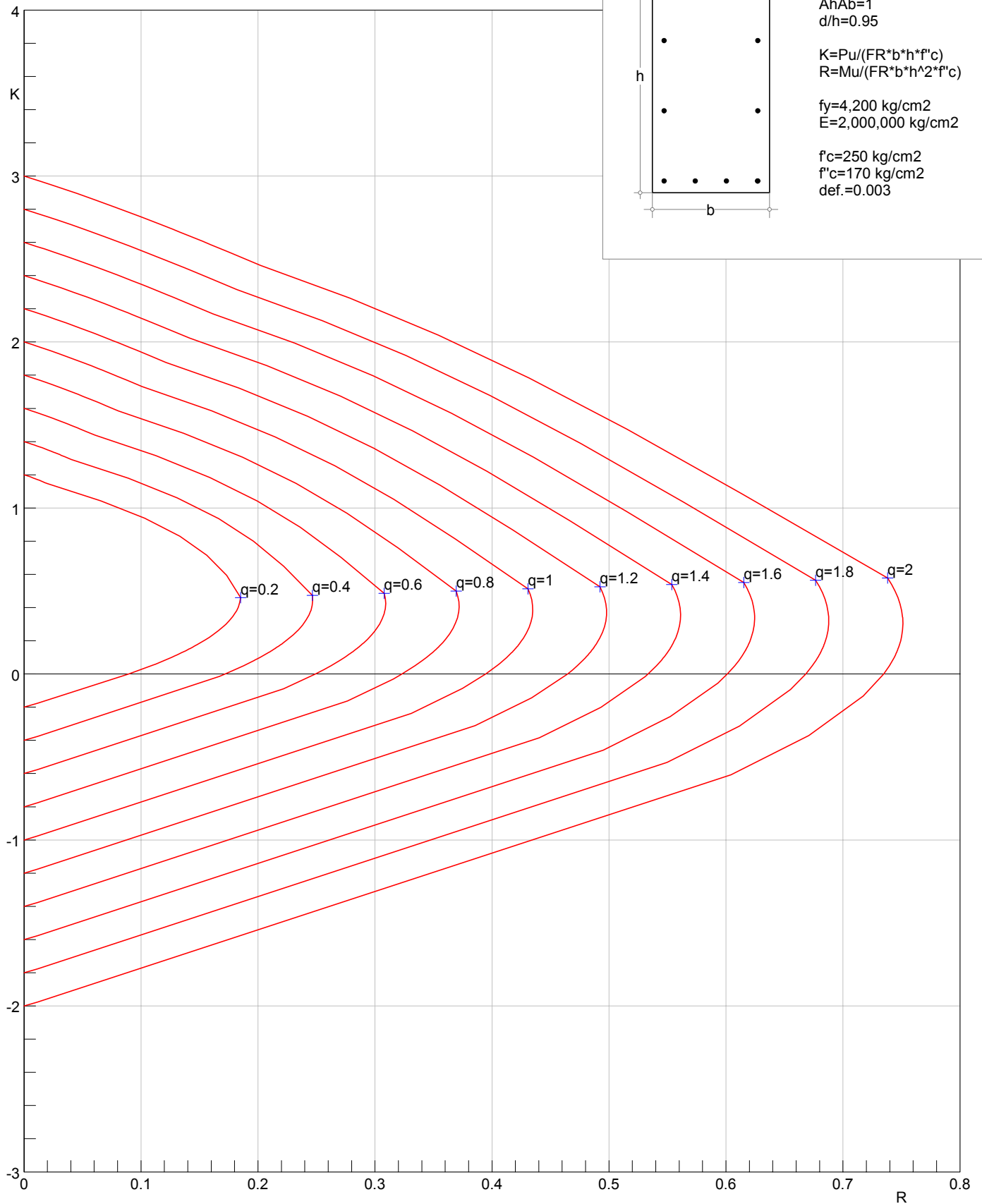
Nivel 1

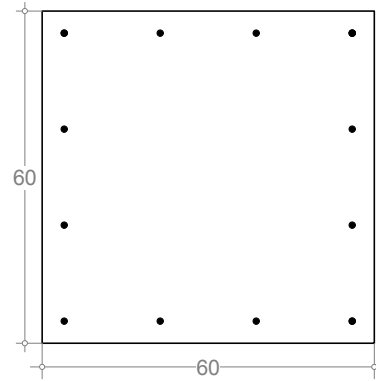


Nivel 2









RDF96

17

r=4 cm
 Armado 3%
 FRcomp=0.7
 FRtens=0.8
 FRc a FRt, var. lineal

$f_y=4,200 \text{ kg/cm}^2$
 $E=2,000,000 \text{ kg/cm}^2$

$f'_c=250 \text{ kg/cm}^2$
 $f'_c=170 \text{ kg/cm}^2$
 def.=0.003

