Cálculo de columnas

Obra :TPG [Trabajo Práctico General] σ´bk = 210 Kg/cm2 βs = 4200 Kg/cm2

Planta : PB [c/WT2] Altura = 3.25m

Pos.	Nsup t	Rv1 t	Rv2 t	Rv3 t	Rv4 t	P.p t	Ntot. t	M tm	Sup. cmý	Lados cm	Fe cmý	Fmin cmý	cant	í	í	sep	OBSERVACIONES
01	70.2	5.2	2.6	0.0	0.0	0.9	78.8	2.0 2.5	1100	a 55 b 20	21.0 0.8	21.0	10 0	16 0	6	19	=08 Cuantia 1.83%
02	78.0	5.2	1.6	0.0	0.0	0.9	85.6	0.0 0.0	1100	a 55 b 20	5.2 0.0	7.2	8 0	12 0	6	14	=07
03	91.6	2.6	1.1	0.4	3.0	3.1	101.7	0.0 8.5	3945	a 15 b 263	0.0 0.0	19.7	2 16	12 12	6	14	
04	115.1	0.6	5.0	1.0	1.5	3.1	126.3	0.0 0.0	3945	a 15 b 263	0.0 0.0	19.7	2 16	12 12	6	14	
05	62.2	5.2	0.5	0.0	0.0	3.1	71.0	0.0 1.8	3945	a 15 b 263	0.0 0.0	19.7	2 16	12 12	6	14	
06	169.9	3.4	2.0	3.0	5.5	3.1	186.9	0.0 20.3	3945	a 15 b 263	0.0 0.0	19.7	2 16	12 12	6	14	
09	69.6	3.0	3.0	3.0	0.0	1.1	79.7	2.0 4.7	1400	a 70 b 20	28.6 0.0	28.6	14 0	16 0	6	19	=16 Cuantia 2.01%
10	156.5	5.0	6.8	6.1	0.0	2.4	176.8	0.0 2.0	3025	a 55 b 55	0.0 0.0	15.1	8 6	12 12	6	14	=15
11	87.5	6.8	1.7	0.0	0.0	1.2	97.2	0.0 0.0	1560	a 20 b 78	0.0 0.0	8.2	2 6	12 12	6	14	=14
12	108.1	2.8	4.6	3.4	0.0	3.0	121.9	0.0 3.5	3900	a 100 b 39	0.0 0.0	19.5	12 6	12 12	6	14	=13
17	71.9	5.0	3.0	0.0	0.0	0.9	80.8	0.5 2.5	1100	a 55 b 20	22.1 0.0	22.1	12 0	16 0	6	19	=24 Cuantia 2.19%
18	124.0	3.2	4.8	6.1	0.0	1.5	139.6	0.5 2.0	1925	a 55 b 35	0.7 0.0	11.7	8 2	12 12	6	14	=23
19	56.5	3.2	2.5	0.0	0.0	0.9	63.0	0.0 0.0	1100	a 55 b 20	0.0 0.0	5.5	4 2	12 12	6	14	=22
20	49.2	1.5	3.4	0.0	0.0	0.9	54.9	0.5 3.0	1100	a 55 b 20	15.0 0.0	15.0	8 0	16 0	6	19	=21

Cálculo de columnas

Obra :TPG [Trabajo Práctico General] σ´bk = 210 Kg/cm2 βs = 4200 Kg/cm2

Planta : SS01º[c/WT2] Altura = 3.00m

Pos.	Nsup t	Rv1 t	Rv2 t	Rv3 t	Rv4 t	P.p t	Ntot. t	M tm	Sup. cmý	Lados cm	Fe cmý	Fmin cmý	cant	í	í	sep	OBSERVACIONES
01	78.8	0.0	0.0	0.0	0.0	0.8	79.6	2.0	1100	a 55	23.5	23.5	12	16	6	19	=08
								3.0		b 20	0.9		0	0			Cuantia 2.19%
02	85.6	0.0	1.6	0.0	0.0	0.8	88.0	0.0	1100	a 55	5.6	7.4	8	12	6	14	=07
								0.0		b 20	0.9		0	0			
03	101.7	2.6	1.1	0.4	3.0	2.8	111.7	0.0	3945	a 15	0.0	19.7	2	12	6	14	
								22.5		b 263	0.0		16	12			
04	126.3	0.6	5.0	1.0	1.5	2.8	137.2	0.0	3945	a 15	0.0	19.7	2	12	6	14	
								0.0		b 263	0.0		16	12			
05	71.0	5.2	0.5	0.0	0.0	2.8	79.5	0.0	3945	a 15	0.0	19.7	2	12	6	14	
								1.8		b 263	0.0		16	12			
06	186.9	3.4	2.0	3.0	5.5	2.8	203.6	0.0	3945	a 15	0.0	19.7	2	12	6	14	
								59.5		b 263	0.0		16	12			
09	79.7	0.0	0.0	3.0	0.0	1.0	83.7	2.0	1400	a 70	22.6	22.6	12	16	6	19	=16
								3.9		b 20	0.0		0	0			Cuantia 1.72%
10	176.8	5.0	6.8	6.1	0.0	2.2	196.9	0.0	3025	a 55	0.0	16.5	8	12	6	14	=15
								1.6		b 55	0.0		8	12			
11	97.2	6.8	1.7	0.0	0.0	1.1	106.8	0.0	1560	a 20	0.0	9.0	2	12	6	14	=14
								0.0		b 78	0.0		6	12			
12	121.9	2.8	4.6	3.4	0.0	2.8	135.5	0.0	3900	a 100	0.0	19.5	12	12	6	14	=13
								2.5		b 39	0.0		6	12			
17	80.8	0.0	0.0	0.0	0.0	0.8	81.6	0.5	1100	a 55	22.7	22.7	12	16	6	19	=24
								2.8		b 20	0.0		0	0			Cuantia 2.19%
18	139.6	0.0	0.0	6.1	0.0	1.4	147.1	0.5	1925	a 55	6.2	12.4	12	12	6	14	=23
								3.0		b 35	0.0		0	0			
19	63.0	0.0	2.5	0.0	0.0	0.8	66.3	0.0	1100	a 55	0.0	5.6	4	12	6	14	=22
								0.0		b 20	0.0		2	12			
20	54.9	0.0	3.4	0.0	0.0	0.8	59.1	0.5	1100	a 55	18.5	18.5	10	16	6	19	=21
								3.5		b 20	0.0		0	0			Cuantia 1.83%
99	0.0	7.5	5.0	5.0	0.0	2.2	19.7	50.0	3025	a 55	0.0	72.7	0	0	8	25	
								0.0		b 55	72.7		16	25			Cuantia 2.60%

Cálculo de columnas

Obra :TPG [Trabajo Práctico General] σ´bk = 210 Kg/cm2 βs = 4200 Kg/cm2

Planta : SS02º[c/WT2] Altura = 3.50m

Pos.	Nsup t	Rv1 t	Rv2 t	Rv3 t	Rv4 t	P.p t	Ntot. t	M tm	Sup. cmý	Lados cm	Fe cmý	Fmin cmý	cant	í	í	sep	OBSERVACIONES
01	79.6	0.0	0.0	0.0	0.0	0.9	80.5	2.0	1100	a 55	11.7	11.7	10	12	6	14	=08
								1.0		b 20	1.6		0	0			
02	88.0	0.0	1.6	0.0	0.0	0.9	90.5	0.0	1100	a 55	9.4	9.4	8	12	6	14	=07
								0.0		b 20	2.4		0	0			
03	111.7	2.6	1.1	0.4	3.0	3.3	122.1	0.0	3945	a 15	0.0	19.7	2	12	6	14	
								32.0		b 263	0.0		16	12			
04	137.2	0.6	5.0	1.0	1.5	3.3	148.6	0.0	3945	a 15	0.0	19.7	2	12	6	14	
								0.0		b 263	0.0		16	12			
05	79.5	5.2	0.5	0.0	0.0	3.3	88.5	0.0	3945	a 15	0.0	19.7	2	12	6	14	
								50.0		b 263	0.0		16	12			
06	203.6	3.4	2.0	3.0	5.5	3.3	220.8	0.0	3945	a 15	0.0	19.7	2	12	6	14	
								63.1		b 263	0.0		16	12			
09	83.7	0.0	0.0	3.0	0.0	1.2	87.9	2.0	1400	a 70	42.9	42.9	14	20	8	24	=16
								6.0		b 20	0.0		0	0			Cuantia 3.14%
10	196.9	5.0	6.8	6.1	0.0	2.5	217.3	0.0	3025	a 55	4.6	18.3	12	12	6	14	=15
								6.5		b 55	0.0		4	12			
11	106.8	6.8	1.7	0.0	0.0	1.3	116.6	0.0	1560	a 20	0.0	9.8	0	0	6	14	=14
								0.0		b 78	6.0		10	12			
12	135.5	2.8	4.6	3.4	0.0	3.3	149.6	0.0	3900	a 100	0.0	19.5	12	12	6	14	=13
								7.0		b 39	0.0		6	12			
17	81.6	0.0	0.0	0.0	0.0	0.9	82.5	0.5	1100	a 55	20.8	20.8	10	16	6	19	=24
								2.0		b 20	0.0		0	0			Cuantia 1.83%
18	147.1	0.0	0.0	6.1	0.0	1.6	154.8	0.5	1925	a 55	5.6	13.0	10	12	6	14	=23
								1.0		b 35	3.4		2	12			
19	66.3	0.0	2.5	0.0	0.0	2.5	71.3	0.0	3025	a 55	0.0	15.1	8	12	6	14	=22
								0.0		b 55	0.0		6	12			
20	59.1	0.0	3.4	0.0	0.0	0.9	63.4	0.5	1100	a 55	7.9	7.9	8	12	6	14	=21
								1.5		b 20	0.0		0	0			
99	19.7	7.5	5.0	5.0	0.0	2.5	39.7	50.0	3025	a 55	0.0	68.5	0	0	8	25	
								0.0		b 55	68.5		14	25			Cuantia 2.27%